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ABSTRACT

This fact book evaluates Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA) based on the Tabulated Indicators for Systemic Changes (TISC-2002). The CPMSA is a National Science Foundation (NSF) program designed to improve the mathematics and science education of urban students in medium-sized cities. Twenty-seven cities received competitively awarded, 5-year cooperative agreements to improve their educational infrastructure and student achievement by focusing on partnerships with colleges and universities and community organizations to design and implement both student and teacher enrichment activities. The primary goal of CPMSA is to increase the number of students enrolling in and successfully completing precollege courses which will prepare them to pursue undergraduate programs in science, engineering, and mathematics. TISC is an electronic data collection instrument designed to collect, compile, and report CPMSA annual progress based on common key indicator data. TISC consists of two parts: T-1 for quantitative and T-2 for qualitative data. Data from the baseline year (year prior to program implementation) up to SY 2000-01 was collected from 26 active CPMSA sites, Core Data Elements, Educational Testing Service, The College Board, and ACT, Inc. The qualitative data was also compiled/extracted from individual annual reports and other documents collected from sites during the project period. Quantitative Indicators include student demographics, mathematics and science gate-keeping course enrollment and completion, graduation rates, SEM proficiency rate, assessment test results, AP, SAT-I, ACT test results, teacher certification, and professional development participation. Qualitative data was collected for policies relevant to equal access to a high-quality mathematics and science education, curriculum and instruction, assessment, teacher qualifications, professional development leadership and partnership, and accountability. Results of the analysis are presented in three volumes: (1) Volume I: Cohort 1993, 1994, 1995; (2) Volume II: Cohort 1996; and (3) Volume III: Cohort 1997, Cohort 1998 School Districts. (Author/SOE)

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CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003

ED 478 907

Volume I

Cohort 1993
Brownsville, TX
Chattanooga/Hamilton, TN
Normandy, MO

Cohort 1994
Denver, CO
Jefferson County, KY
Newport News, VA

Cohort 1995
Birmingham, AL
Omaha, NE
Winston-Salem/Forsyth County, NC



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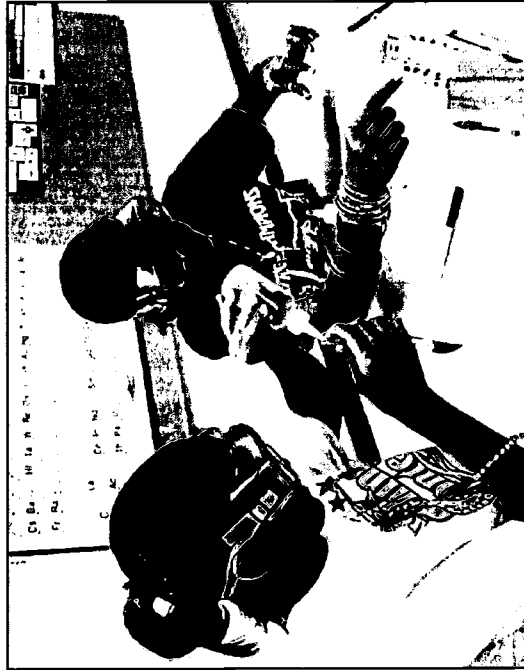
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CPMSA Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003

Evaluative Study of the Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)
Based on the Tabulated Indicators for Systemic Changes (TISC-2002)



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**Volume I: Cohort 93 School Districts
Cohort 94 School Districts
Cohort 95 School Districts**

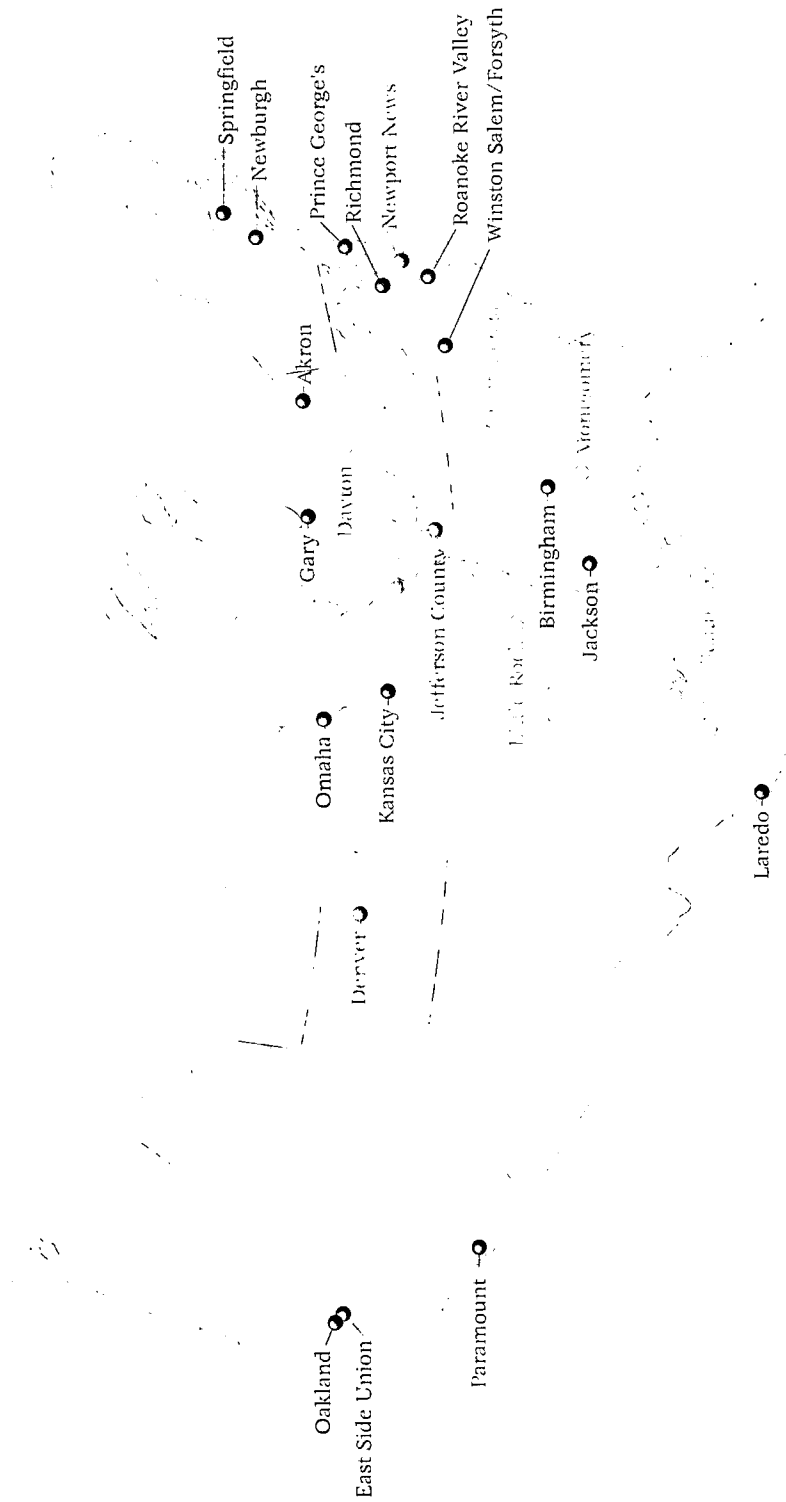
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Program
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Foundation

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26 CPMSA Sites



- | | | |
|--------------------------|-------------------------------------|-----------------|
| Brownsville, TX | Cohort 96 | Cohort 97 |
| Chattanooga/Hamilton, TN | East Side Union High School, CA | Akron, OH |
| Normandy, MO | Jackson, MS | Gary, IN |
| | Newburgh Enlarged, NY | Kansas City, KS |
| Cohort 94 | Paramount, CA | Laredo, TX |
| Denver, CO | Prince George's County, MD | Oakland, CA |
| Jefferson County, KY | Roanoke River Valley Consortium, VA | Richmond, VA |
| Newport News, VA | | Springfield, MA |
| | | Cohort 98 |
| | | Beaumont, TX |
| | | Dayton, OH |
| | | Little Rock, AR |
| | | Montgomery, AL |

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This report is also available on the World Wide Web: www.systemic.com/cpmsa



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Any opinions, findings, and conclusions or recommendations expressed in this report are those of the participants and do not necessarily represent the official views, opinions, or policy of the National Science Foundation.

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Table of Contents

About CPMSA TISCiv

26 CPMSA Sites.....v

Volume I: Cohort 93, 94 and 95 School Districts

Birmingham, ALI-1

Brownsville, TXI-20

Chattanooga/Hamilton County, TNI-39

Denver, COI-58

Jefferson County, KYI-77

Newport News, VAI-96

Normandy, MOI-115

Omaha, NEI-134

Winston-Salem/Forsyth County, NCI-153



About CPMSA and TISC

The Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA) is a National Science Foundation (NSF) program designed to improve the mathematics and science education of urban students in medium sized cities. Twenty seven cities received competitively awarded five-year cooperative agreements to improve their educational infrastructure and student achievement by focusing on partnerships with colleges and universities and community organizations to design and implement both student and teacher enrichment activities. The program was initially entitled The Comprehensive Partnerships for Minority Student Achievement. As the program matured, a more systemic approach was embraced, and the focus shifted to standards-based curriculum, instruction, and assessment, and professional development of teachers and administrators, in addition to partnerships with higher education institutions, business and industry, and community groups. The revised program name is a reflection of the changed emphasis. The primary goal of CPMSA is to "increase the number of students enrolling in and successfully completing precollege courses which will prepare them to pursue undergraduate programs in science, engineering and mathematics."¹

Systemic Research, Inc. received a three year

grant from NSF to conduct an evaluative study of the CPMSA program. This grant follows several contracts awarded to Systemic Research, the first in 1997, to develop and implement Tabulated Indicators for Systemic Changes (TISC). TISC is an electronic data collection instrument designed to collect, compile, and report CPMSA annual progress based on common key indicator data.

TISC consists of two parts: T-1 for quantitative and T-2 for qualitative data. Data from the baseline year (year prior to program implementation) up to SY 2000-01 was collected from 26 active CPMSA sites, Core Data Elements², Educational Testing Service, The College Board, and ACT, Inc. The qualitative data was also compiled/extracted from individual Annual Reports and other documents collected from sites during the project period.

Quantitative Indicators include student demographics, mathematics and science gate-keeping course enrollment and completion, graduation rates, SEM proficiency rate, assessment test results, AP, SATI, ACT test results, teacher certification and professional development participation.

Qualitative data was collected for policies relevant to equal access to a high quality mathematics and science education, curriculum and instruction,

assessment, teacher qualifications, professional development, leadership and partnership, and accountability.

Please refer to our evaluative study web site <http://www.systemic.com/cpmsa> for the CPMSA program overall progress report, details of study progress and electronic version of various study reports.

1 Source: *Human Resource Development for Science, Mathematics and Engineering Education and Research- Program Announcement and Guidelines* (NSF 96-144), National Science Foundation, Arlington, VA

2 *Core Data Elements 1997-2002*, Westat, Inc., Rockville, Md

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Birmingham Public Schools, AL
Birmingham, AL

Birmingham CPMSA

Project Information

CPMSA Project Title : Birmingham Comprehensive Partnership for Mathematics and Science Achievement

Cohort: 95

CPMSA Web Site: <http://www.bhm.k12.al.us/cpmsa.pdf>

◆ PI, CO-PI and PD

Principal Investigator
Wayman B. Shiver, T (205) 231-4200 F (205) 231-4315
Jr.

Project Summary

Project activities will have an impact on all 43, 000 Birmingham Public School students in grades K-12 and their 976 teachers of science and mathematics. However, most academic enhancement activities will serve teachers 6-12. These objectives will be implemented:

- ◆ Reform and enrich the K-12 science and mathematics curricula, using national standards in mathematics and science as guidelines.
- ◆ Promote K-12 school-based leadership.
- ◆ Enhance teachers' content knowledge and increase the use of effective instructional strategies in mathematics and science.
- ◆ Provide students with a range of integrated enrichment activities.
- ◆ Provide students with effective social support networks.
- ◆ Implement a plan for effective use of school resources.
- ◆ Infuse appropriate technology into K-12 instructional activities.

◆ CPMSA Data Manager/Evaluator

Data Manager/Evaluator
Beverly K. Kimes T (205) 231-4653 F (205) 231-4205
bkimes@aol.com

Project Goals

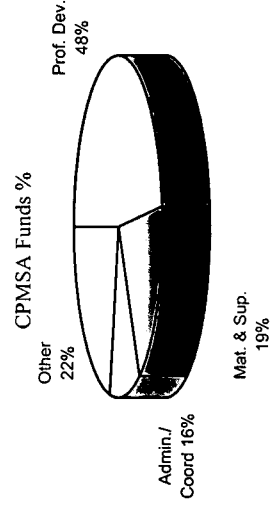
To double the number of underrepresented minority graduates of the Birmingham Public Schools who are prepared to enter college as science, mathematics, engineering, and technology majors.

Selected School Indicators (District Average)

	1997-98	2000-01	Change
% Special Ed.	3.0%	4.8%	+1.8 PP
% LEP	50.0%	50.0%	
% Free/Red. Lunch	71.0%	85.0%	+14.0 PP
% Daily Avg. Atten.	91.7%	92.7%	+1.0 PP
% Average Retained	17.0%	3.0%	-14.0 PP
% Drop-Out	3.7%	2.0%	-1.7 PP
% Mobility	3.3%	4.0%	+0.7 PP
Per Pupil Cost (\$)	\$5,309	\$7,071	+33.2%
# Students Per Computer	20		
% Classrooms Internet Access	4%	96%	+92.0 PP
Average Class Size			

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	15%	48%
Mat. & Sup.	20%	19%
Admin/Coord.	13%	11%
Other	52%	22%
Total	100%	100%



◆ Mailing Address

Birmingham City Schools
P.O. Box 10007
Birmingham, AL 35202

◆ District Schools, Math & Science Teachers, and Students

2000-01	Schools	Teachers	Students
K-5 (Elementary)	48	968	18,905
G6-8 (Middle)	19	152	8,654
G9-12 (High)	9	139	9,879
Total	76	1,259	37,438

Source: Core Data Elements (SY 2000-01)

PP: Percentage Points

(.) Data Missing

Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)

I-2

Fact Book 2002

Birmingham CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 37,438
 CPMSA Schools: 37,438
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	1995-96	2000-01	%	% Change
Ame. Ind./Ala. Nat.	4	0	0.0%	
Asian/P. Islander	128	124	0.3%	-3.1%
Black	38,897	37,155	95.9%	-4.5%
Hispanic	58	122	0.3%	+110.3%
White	2,186	1,334	3.4%	-39.0%
Other	0	0	0.0%	
Total	41,273	38,735	100.0%	-6.1%
URM Total	38,959	37,277	96.2%	-4.3%

URM: Underrepresented Minority students.

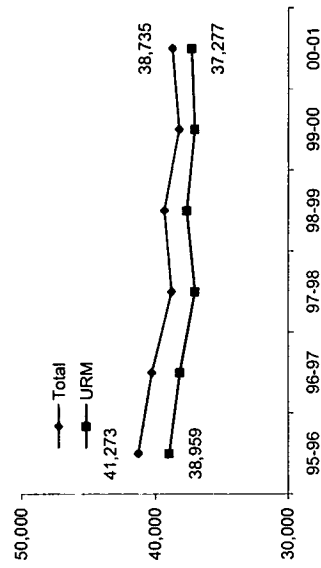
◆ Gender

Male	20,640	19,460	50.2%	-5.7%
Female	20,633	19,275	49.8%	-6.6%

◆ Grade

K-G5	20,778	19,652	50.7%	-5.4%
G6-8	9,375	8,779	22.7%	-6.4%
G9-12	11,120	10,304	26.6%	-7.3%
Ungraded	0	0	0.0%	

◆ District Student Demographic Trends



12th Grade Graduates

	1995-96	2000-01	Change
Total 12th Grade	1,745	1,824	+5%
Earned a Diploma	1,498	1,719	+15%
% Earned Diploma	86%	94%	+8 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	1995-96	2000-01	Change
# SEM Proficient ¹	593	929	+57%
% SEM Proficient/ Total 12th Grade	34%	51%	+17 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 3 years of mathematics including Algebra I.
 - Entering 9th grade students must pass an upgraded graduation exam.
 - ◆ Science
 - 2 years of science required including Biology.
 - Science graduation exam
- PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

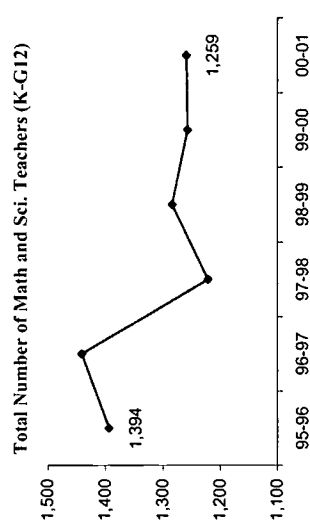
	1995-96	2000-01	Change
Teachers Certified	86	77	-10%
% Cert.			
G6-8			
Teachers Certified	72	72	+0%
% Cert.			
G9-12			
Teachers Certified	158	149	-6%
% Cert.			
Total			

◆ Science (G6-12)

	1995-96	2000-01	Change
Teachers Certified	86	75	-13%
% Cert.			
G6-8			
Teachers Certified	67	67	+0%
% Cert.			
G9-12			
Teachers Certified	153	142	-7%
% Cert.			
Total			

◆ Math and Science (K-G5)

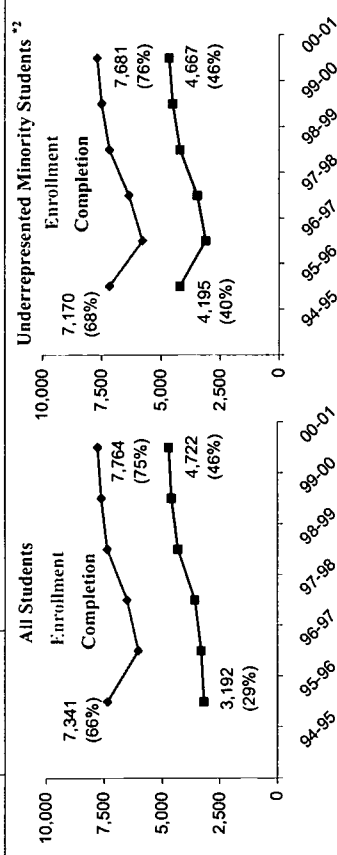
	1995-96	2000-01	Change
K-G5 Teachers	1,083	968	-11%



Mathematics and Science Enrollment & Completion Trends/All vs. URM

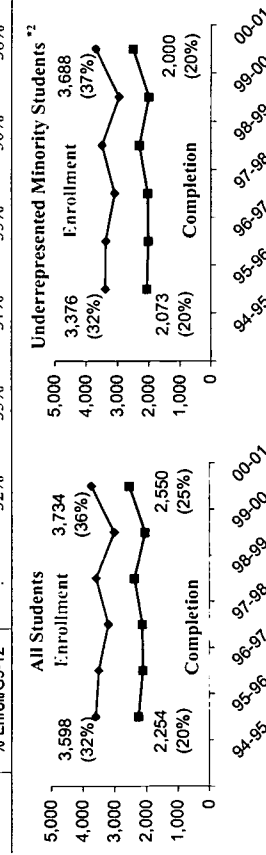
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,120	10,482	10,332	10,381	9,977	10,304	10,304
All Students	Enrollment 7,341 Completion ¹ 3,192 % Enroll/G9-12 66%	6,031 3,307 58%	6,507 3,576 63%	7,358 4,316 71%	7,619 4,605 76%	7,764 4,722 75%	7,764 4,722 75%
URM ²	Enrollment 7,170 Completion ¹ 4,195 % Enroll/G9-12 68%	5,772 3,109 57%	6,350 4,456 63%	7,171 4,195 71%	7,489 4,511 76%	7,681 4,667 76%	7,681 4,667 76%



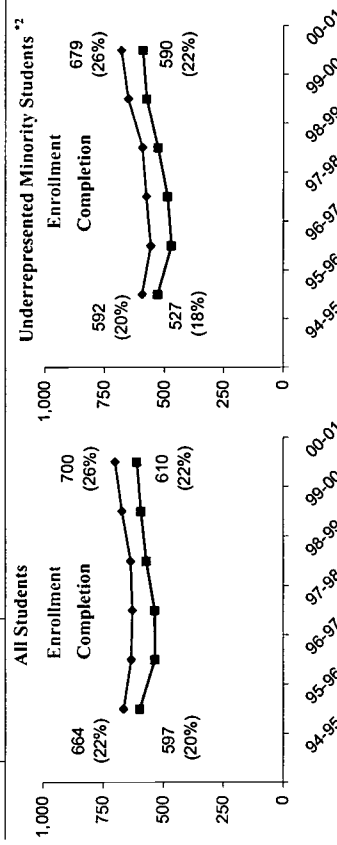
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,120	10,482	10,332	10,381	9,977	10,304	10,304
All Students	Enrollment 3,598 Completion ¹ 2,254 % Enroll/G9-12 32%	3,504 2,121 33%	3,194 2,140 31%	3,586 2,383 35%	3,007 2,050 30%	3,734 2,550 36%	3,734 2,550 36%
URM ²	Enrollment 3,376 Completion ¹ 2,073 % Enroll/G9-12 32%	3,367 2,019 33%	3,081 2,043 31%	3,482 2,309 35%	2,951 2,000 30%	3,688 2,514 38%	3,688 2,514 38%



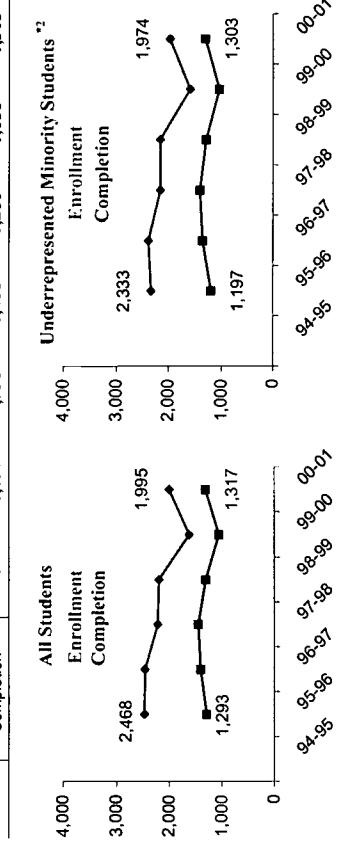
Algebra I in 8th Grade Enrollment & Completion Trends/All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	3,049	3,022	2,748	2,735	2,745	2,719	2,719
All Students	Enrollment 664 Completion ¹ 597 % Enroll/G8 22%	633 534 21%	629 536 23%	636 570 24%	671 593 24%	700 610 26%	700 610 26%
URM ²	Enrollment 592 Completion ¹ 527 % Enroll/G8 20%	556 470 19%	575 486 22%	591 526 24%	650 574 24%	679 590 26%	679 590 26%



Biology Enrollment & Completion Trends/All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
All Students	Enrollment 2,468 Completion ¹ 1,293	2,468 1,293	2,455 1,410	2,212 1,455	2,190 1,314	1,624 1,061	1,995 1,317
URM ²	Enrollment 2,333 Completion ¹ 1,197	2,333 1,197	2,379 1,356	2,156 1,408	2,154 1,288	1,597 1,038	1,974 1,303



¹ Successful completion: grade 'C' or above.

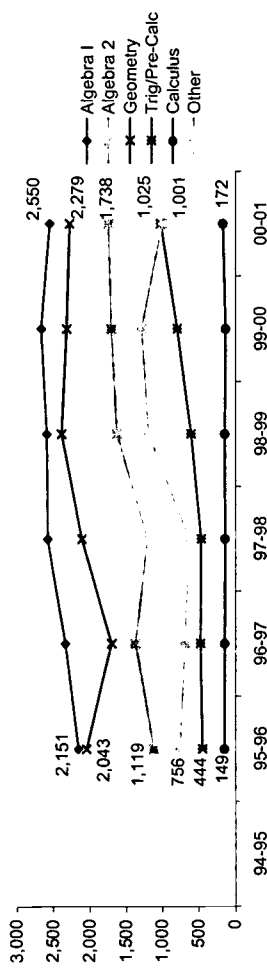
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

Birmingham CPMSA

SY 2000-01

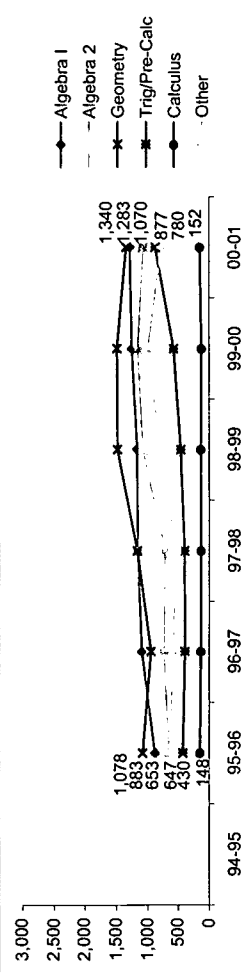
**Mathematics Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)**

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95							
95-96	2,151	1,119	2,043	444	149	756	6,662
96-97	2,336	1,376	1,699	474	146	691	6,722
97-98	2,579	1,214	2,107	467	140	629	7,136
98-99	2,590	1,630	2,387	605	146	1,197	8,555
99-00	2,668	1,703	2,318	796	134	1,292	8,911
00-01	2,550	1,738	2,279	1,025	172	1,001	8,765



G 9-12 Course Completion *1 (All Students)

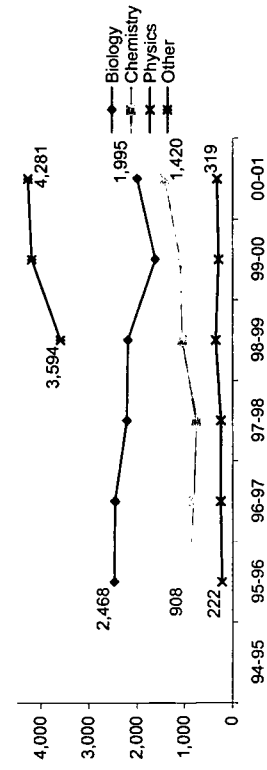
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95							
95-96	883	653	1,078	430	148	647	3,839
96-97	1,093	737	947	396	134	586	3,893
97-98	1,159	721	1,165	403	128	539	4,115
98-99	1,168	1,075	1,480	461	132	793	5,109
99-00	1,253	1,161	1,489	580	122	1,000	5,605
00-01	1,283	1,070	1,340	877	152	780	5,502



*1 Successful completion: grade 'C' or above.

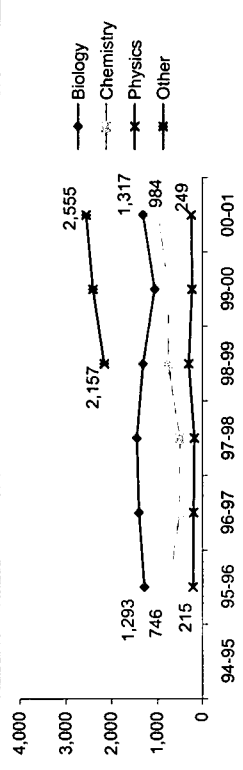
**Science Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)**

	Biology	Chemistry	Physics	Other	Science Total
94-95					
95-96	2,468	908	222	.	3,598
96-97	2,455	801	248	.	3,504
97-98	2,212	744	238	.	3,194
98-99	2,190	1,048	348	3,594	7,180
99-00	1,624	1,094	289	4,199	7,206
00-01	1,995	1,420	319	4,281	8,015



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
94-95					
95-96	1,293	746	215	.	2,254
96-97	1,410	510	201	.	2,121
97-98	1,455	500	185	.	2,140
98-99	1,314	763	306	2,157	4,540
99-00	1,061	757	232	2,403	4,453
00-01	1,317	984	249	2,555	5,105



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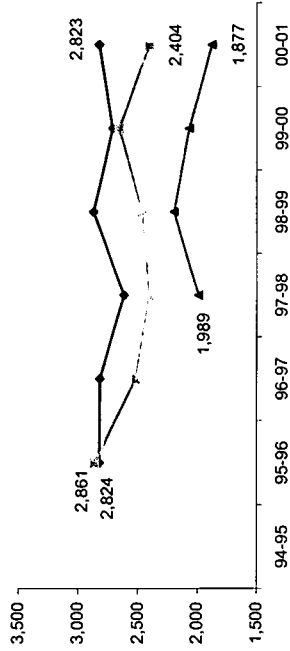
District Assessment Test Administered

State Assessment Test-Taker Trends SAT-9

◆ Mathematics	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name							
Scoring							
Grade							
Type							

◆ Mathematics	94-95	95-96	96-97	97-98	98-99	99-00	00-01
# of Test-takers							
Grade 4	2,824	2,820	2,619	2,872	2,713	2,823	2,823
Grade 8	2,861	2,520	2,410	2,465	2,658	2,404	2,404
Grade 10	.	.	1,989	2,196	2,067	1,877	1,877

Total number of students taking test

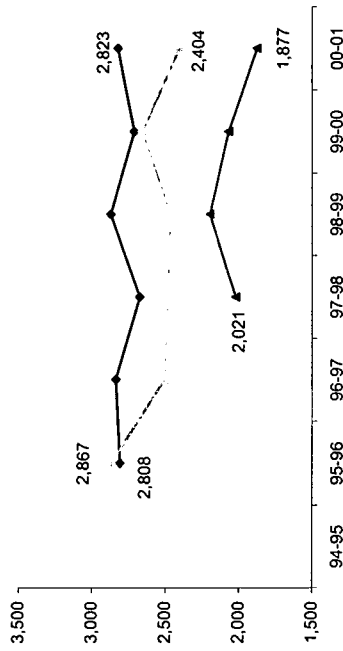


State Assessment Test Administered

◆ Science	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name							
Scoring							
Grade							
Type							

◆ Science	94-95	95-96	96-97	97-98	98-99	99-00	00-01
# of Test-takers							
Grade 4	2,808	2,837	2,675	2,872	2,713	2,823	2,823
Grade 8	2,867	2,508	2,482	2,465	2,658	2,404	2,404
Grade 10	.	.	2,021	2,196	2,067	1,877	1,877

Total number of students taking test



*SAT-9 - Stanford Achievement Test

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

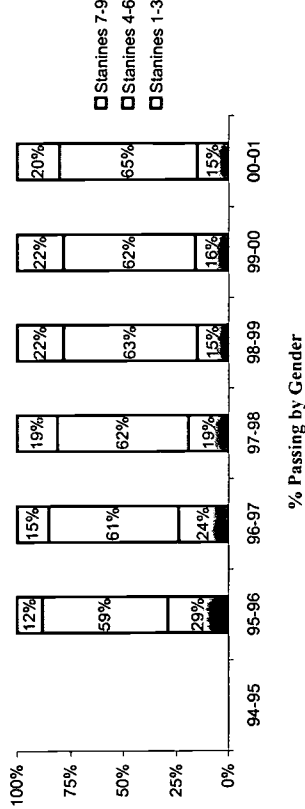
Birmingham CPMSA SY 2000-01

State Assessment Test Result Trends SAT-9 - Mathematics

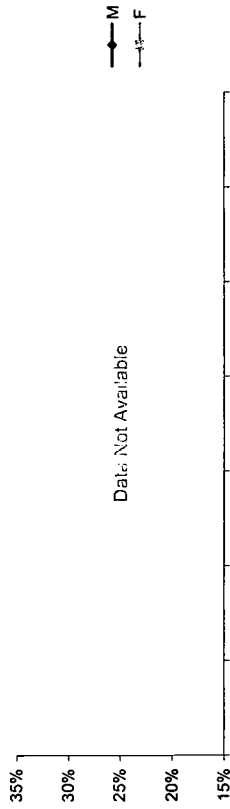
◆ Grade 4

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	12%	12%	15%	19%	22%	22%	20%
Stanines 4-6	59%	59%	61%	62%	63%	62%	65%
Stanines 1-3	29%	29%	24%	19%	15%	16%	15%

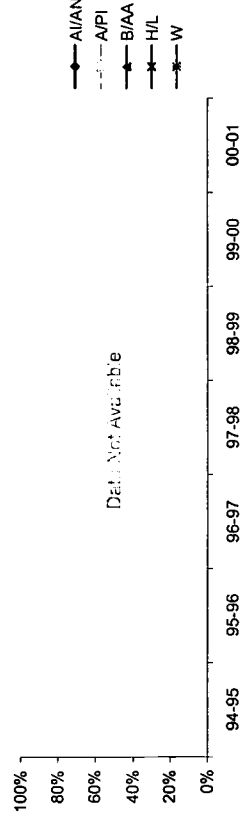
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



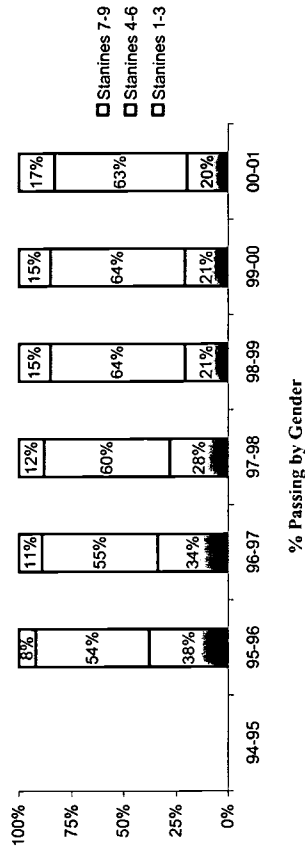
AIIAN: American Indian/Alaskan Native API: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Stanines 4-9

State Assessment Test Result Trends SAT-9 - Mathematics

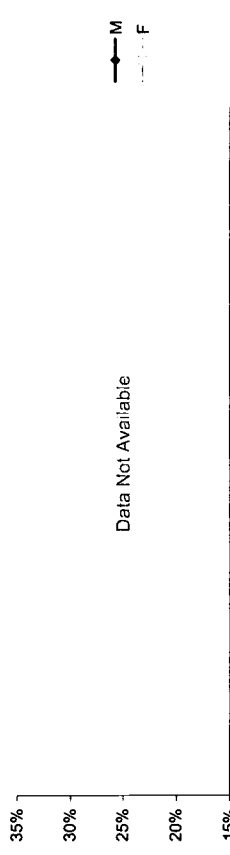
◆ Grade 8

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	8%	8%	11%	12%	15%	15%	17%
Stanines 4-6	54%	54%	55%	60%	64%	64%	63%
Stanines 1-3	38%	38%	34%	28%	21%	21%	20%

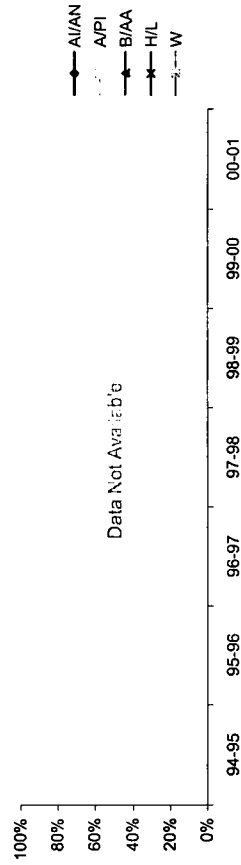
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



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SY 2000-01

State Assessment Test Result Trends SAT-9 - Mathematics

State Assessment Test Result Trends SAT-9 - Science

◆ Grade 10

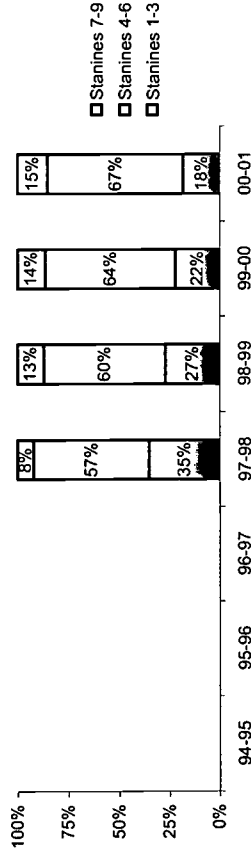
◆ Grade 4

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	8%	8%	8%	8%	7%	7%	7%
Stanines 4-6	57%	57%	57%	57%	59%	59%	59%
Stanines 1-3	35%	35%	35%	35%	34%	34%	31%

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	15%	15%	15%	15%	14%	14%	15%
Stanines 4-6	67%	67%	67%	67%	64%	64%	67%
Stanines 1-3	18%	18%	18%	18%	22%	22%	18%

Total # of students

Total # of students



% Passing by Gender

% Passing by Gender

Data Not Available

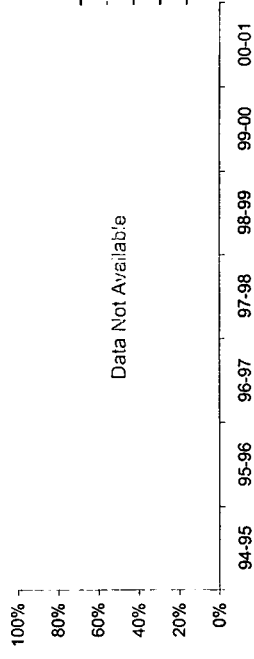
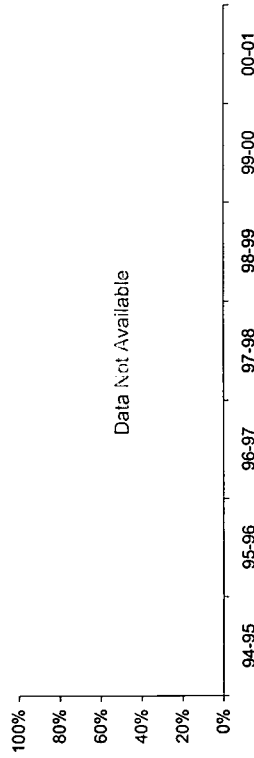
Data Not Available

◆ M
◆ F

◆ M
◆ F

% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Stanines 4-9

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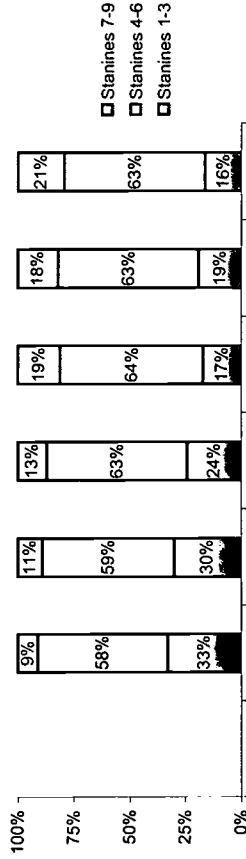
SY 2000-01

State Assessment Test Result Trends SAT-9 - Science

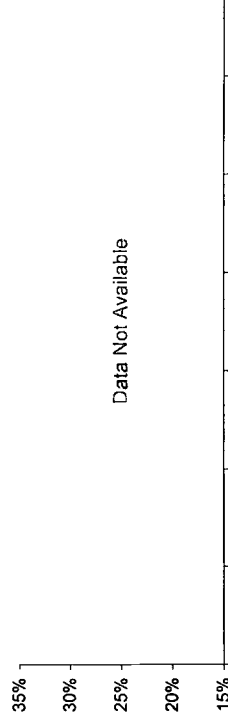
Grade 8

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	9%	11%	13%	18%	21%	18%	21%
Stanines 4-6	58%	59%	63%	64%	63%	63%	63%
Stanines 1-3	33%	30%	24%	17%	19%	19%	16%

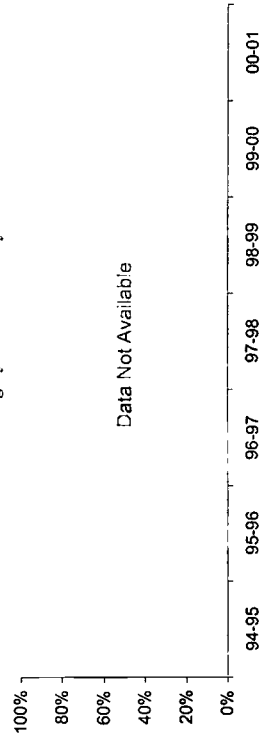
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



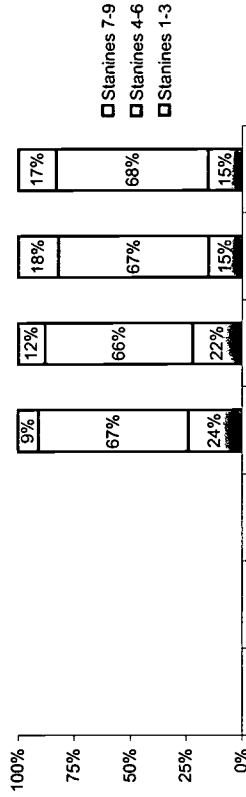
A/I/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Stanines 4-9

State Assessment Test Result Trends SAT-9 - Science

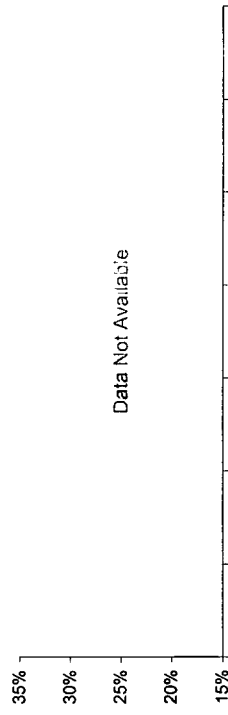
Grade 10

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Stanines 7-9	9%	12%	17%	18%	12%	18%	17%
Stanines 4-6	67%	67%	67%	66%	66%	67%	68%
Stanines 1-3	24%	22%	15%	15%	22%	15%	15%

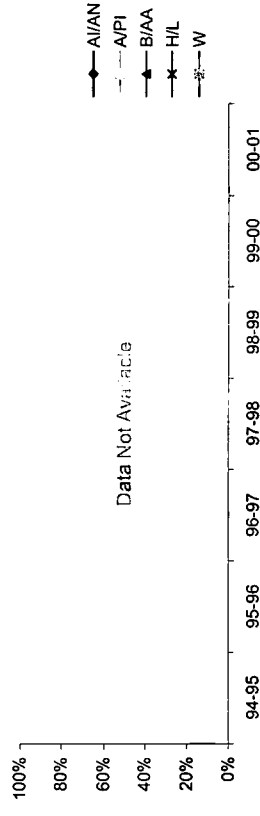
Total # of students



% Passing by Gender



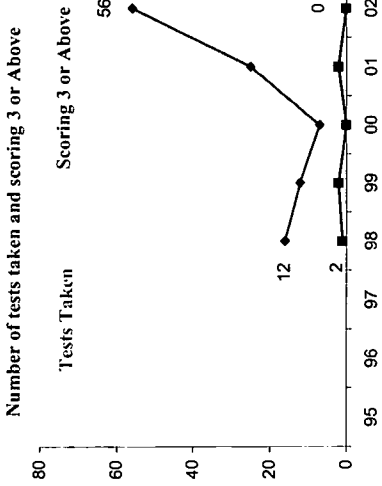
% Passing by Race/Ethnicity



AP Mathematics Test Result Trends | ♦ Calculus AB, Calculus BC, & Statistics

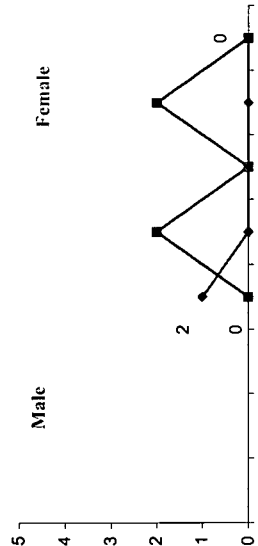
♦ AP Mathematics - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	5,178	3,751	3,819	4,122	3,995	4,083		
Calc. AB	16	12	7	25	56			
Calc. BC	0	0	0	0	0			
Statistics	0	0	0	0	0			
Total	16	12	7	25	56			
Tests taken per 1,000 students	4.2	2.9	1.8	6.1				
Scoring 3 or Above	1	2	0	2	0			
Above per 1000 students	0.3	0.5	0.0	0.5				



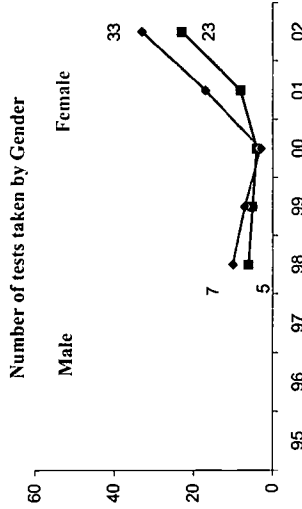
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	95	96	97	98	99	00	01	02
Male	Data Not Available			0	2	0	2	0
Female			1	0	0	0	0	0



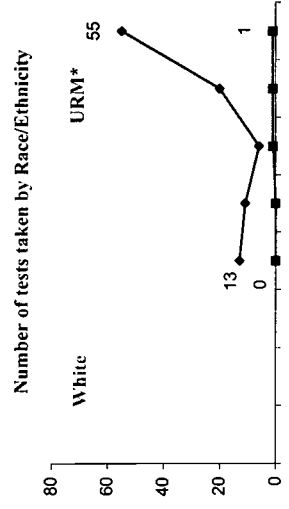
♦ AP Mathematics - Number of Tests Taken By Gender

	95	96	97	98	99	00	01	02
Male	Data Not Available			6	5	4	8	23
Female			10	7	3	17	33	



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

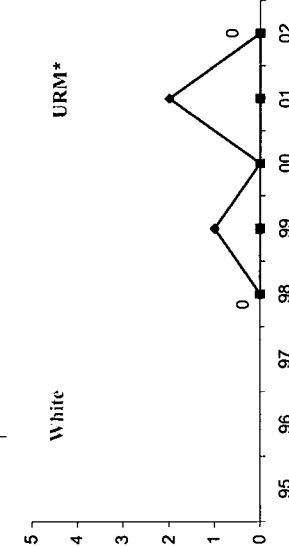
	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	1	0
A/PI	2	1	0	1	0	1	0	0
B/AA	12	11	6	20	54			
H/L	1	0	0	0	0	0	0	0
W	0	0	1	1	1	1	1	1



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0
A/PI	1	1	0	0	0	0	0	0
B/AA	0	1	0	2	0	0	0	0
H/L	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

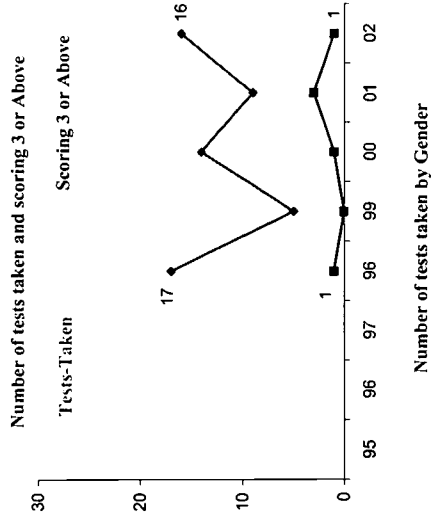
Birmingham CPMSA

SY 2000-01

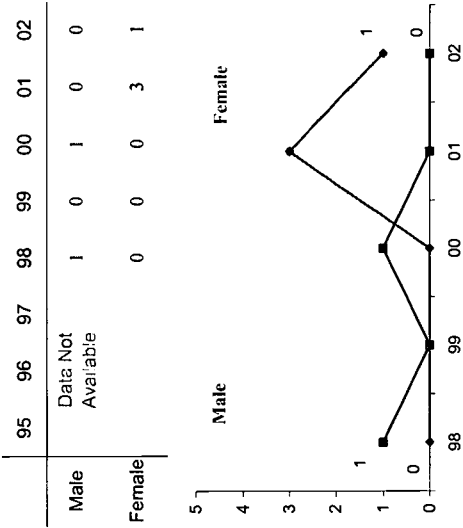
AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

♦ AP Science - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	5,178	3,751	3,819	4,122	3,995	4,083		
Biology	14	5	14	7	11			
Chemistry	3	0	0	2	5			
Env. Science	0	0	0	0	0			
Physics B	0	0	0	0	0			
Physics Mech.	0	0	0	0	0			
Physics Elec.	0	0	0	0	0			
Total	17	5	14	9	16			
Tests taken per 1,000 students	4.5	1.2	3.5	2.2				
Scoring 3 or Above	1	0	1	3	1			
Scoring 3 or Above per 1000 students	0.3	0.0	0.3	0.7				

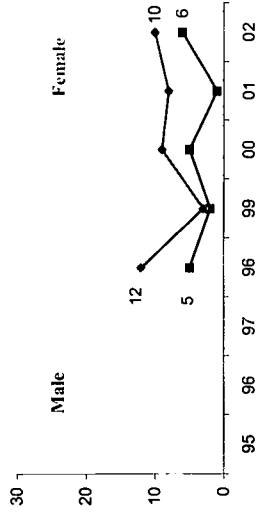


♦ AP Science - Number of Students Scoring 3 or Above By Gender



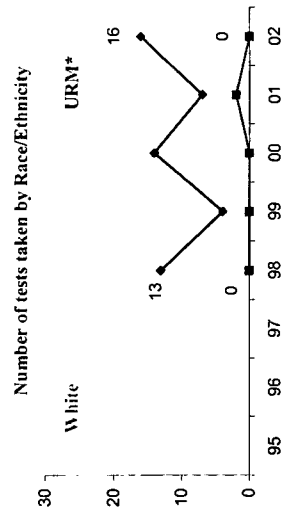
♦ AP Science - Number of Tests Taken By Gender

	95	96	97	98	99	00	01	02
Male	5	2	5	1	6			
Female	12	3	9	8	10			



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0			
A/PI	0	0	0	0	0			
B/AA	13	4	14	6	16			
H/L	0	0	0	1	0			
W	0	0	0	0	2			



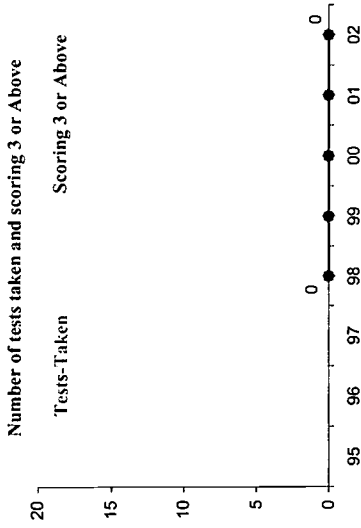
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

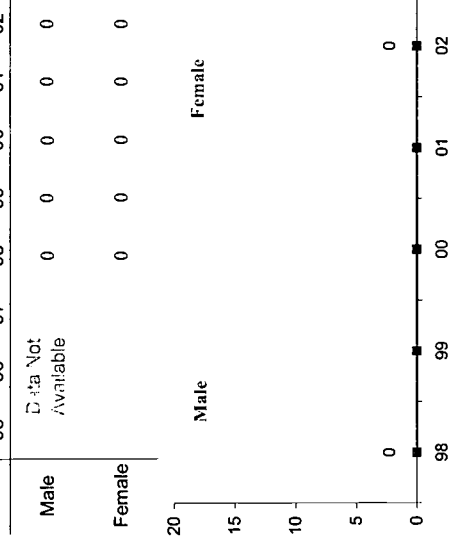
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ **Computer Science A & AB**

	95	96	97	98	99	00	01	02
♦ AP Computer Science - Total Number of Tests Taken	5,178	3,751	3,819	4,122	3,995	4,083		
Total # of 11th & 12th graders								
Comp. Sci A	Data Not Available							
Comp. Sci. AB								
Total	0	0	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	0.0	0.0		
Scoring 3 or Above	0	0	0	0	0	0		
Scoring 3 or Above per 1000 students	0.0	0.0	0.0	0.0	0.0	0.0		



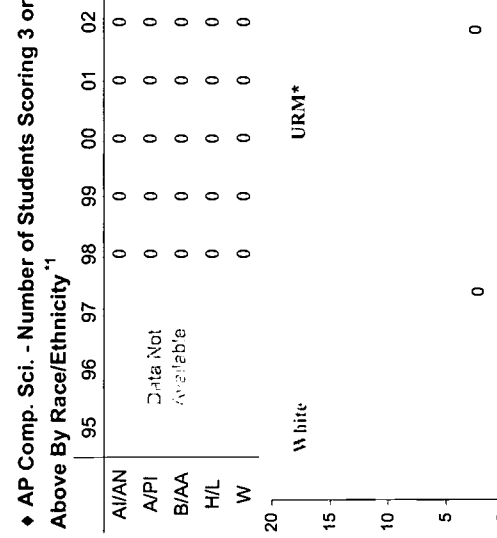
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender



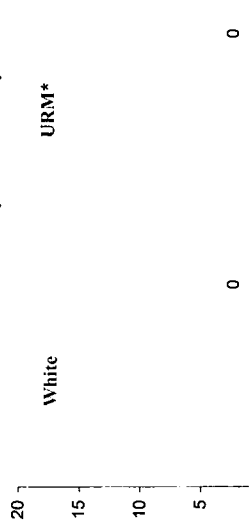
♦ AP Computer Science - Number of Tests Taken By Gender



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹



All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

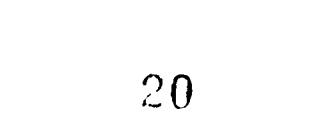
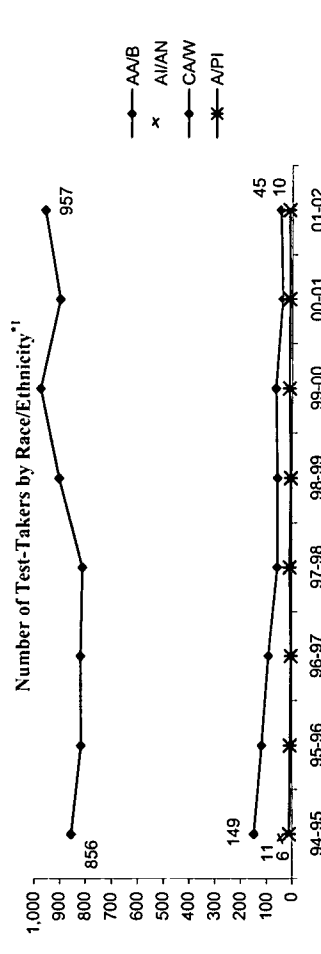
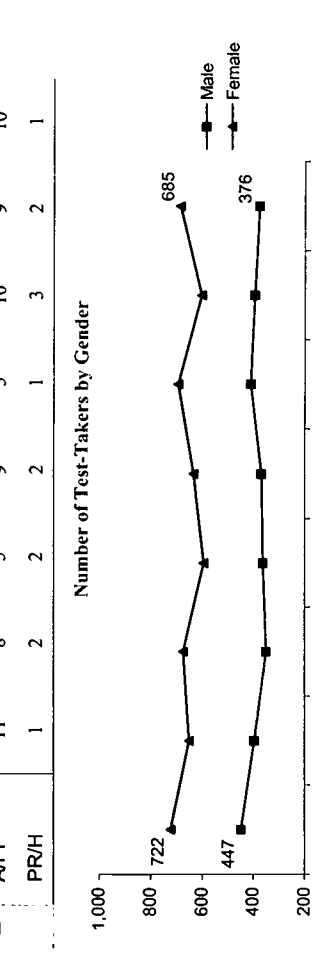
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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ACT Test-Takers		ACT Mathematics Scores									
◆ Number of Test-Takers		◆ Mathematics - Mean Score Trends									
		94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02		
Total Num of 12th Grade Students		0	2,486	1,612	1,676	1,839	1,926	1,824			
Test-Takers		1,169	1,046	1,023	957	1,002	1,102	996	1,061		
Num of Test-Takers/1,000 Stu.		421	635	571	545	572	546				
Gender											
Male		447	396	350	363	369	409	394	376		
Female		722	650	673	594	633	693	602	685		
Race/Ethnicity											
AA/B		856	817	819	811	902	975	898	957		
AI/AN		6	2	1	4	0	1	0	0		
CA/W		149	119	93	58	57	64	38	45		
MA/C		3	1	0	0	0	0	1	0		
A/PI		11	8	5	9	5	10	9	10		
PR/H		1	2	2	2	1	3	2	1		

ACT Test-Takers		ACT Mathematics Scores									
◆ Number of Test-Takers		◆ Mathematics - Mean Score Trends									
		94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02		
All Students		17.2	17.1	17.4	17.2	17.3	17.2	16.9	16.9		
Male		17.2	17.5	17.5	17.7	17.1	17.3	17.1	17.2		
Female		17.2	16.9	17.3	16.9	17.5	17.2	16.8	16.7		
AA/B		16.5	16.5	16.7	16.7	16.8	16.7	16.5	16.5		
AI/AN		19.8	-	-	-	-	-	-	-		
CA/W		20.5	21.1	22.7	22.1	24.4	23.4	25.2	24.3		
MA/C		-	-	-	-	-	-	-	-		
A/PI		19.9	23.3	26.2	24.6	27.4	22.3	21.1	23.2		
PR/H		-	-	-	-	-	-	-	-		



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
 *1 Number of Test-Takers less than 5 not presented in graph

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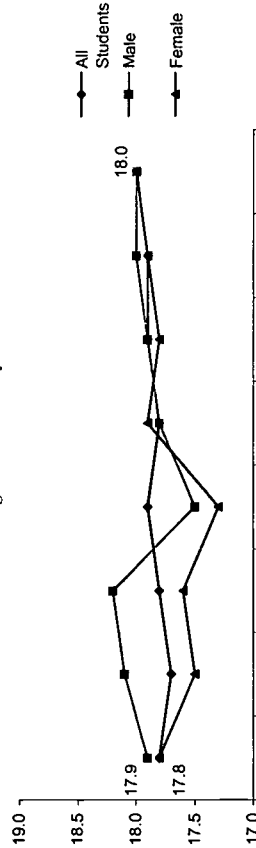
SY 2000-01

ACT Science Reasoning Scores

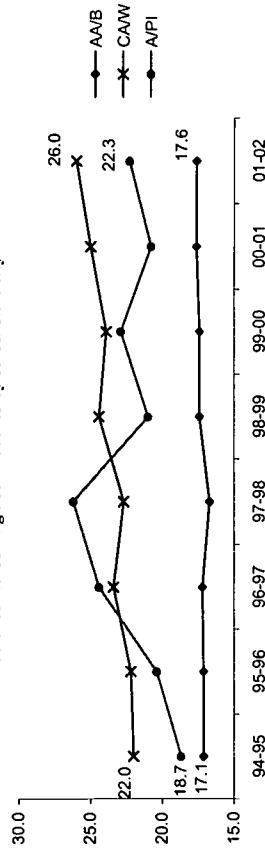
◆ Science Reasoning - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.8	17.7	17.8	17.9	17.8	17.9	17.9	18.0
Gender								
Male	17.9	18.1	18.2	17.5	17.8	17.9	18.0	18.0
Female	17.8	17.5	17.6	17.3	17.9	17.8	17.9	18.0
Race/Ethnicity								
AA/B	17.1	17.1	17.2	16.7	17.4	17.4	17.6	17.6
AI/AN	19.0	-	-	-	-	-	-	-
CA/W	22.0	22.2	23.4	22.7	24.4	23.9	25.0	26.0
MA/C	-	-	-	-	-	-	-	-
A/PI	18.7	20.4	24.4	26.2	21.0	22.9	20.8	22.3
PR/H	-	-	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H:
Puerto Rican/Hispanic.

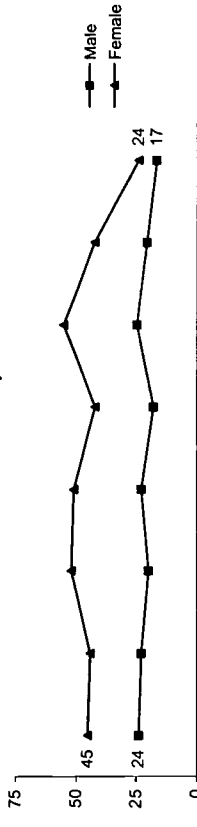
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

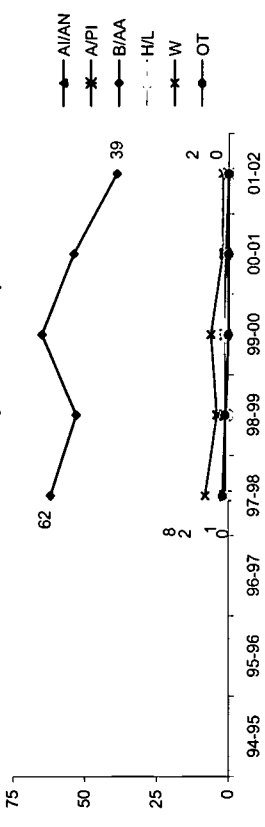
◆ Number of Test-Takers

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	0	2,486	1,612	1,676	1,839	1,926	1,824	-
Test-Takers	69	67	72	74	60	80	63	41
Num of Test-Takers/1,000 Stu.	-	27	45	44	33	42	35	-
Gender								
Male	24	23	20	23	18	25	21	17
Female	45	44	52	51	42	55	42	24
Race/Ethnicity								
AI/AN	0	0	0	0	1	0	0	0
A/PI	1	1	1	1	1	1	1	0
B/AA	Data Not Available	62	53	65	54	39	0	0
H/L	0	0	0	0	1	0	0	0
W	8	8	4	6	6	2	2	2
OT	2	2	1	0	0	0	0	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African
American H/L: Hispanic or Latino W: White OT: Others

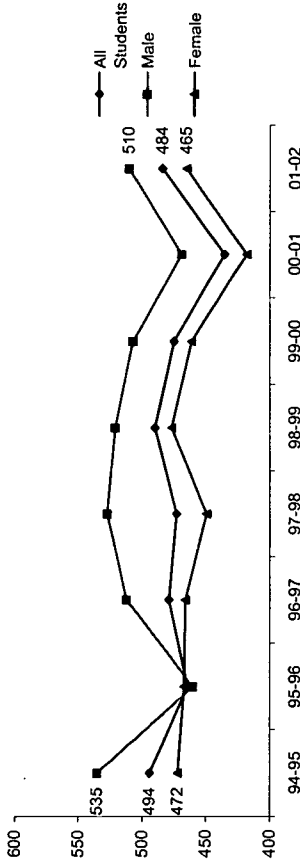
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SAT Mathematics Scores

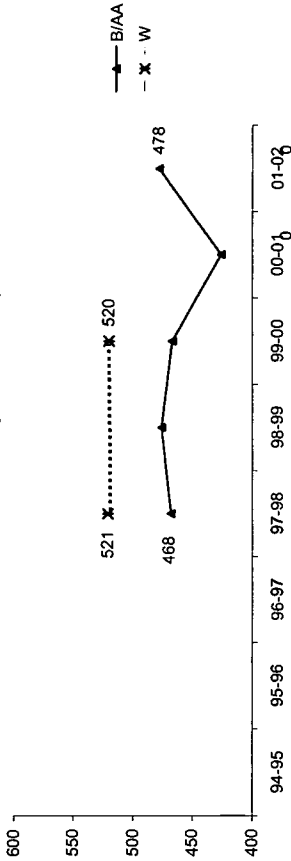
◆ Mathematics - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	494	464	479	473	490	475	435	484
Gender								
Male	535	460	512	527	521	507	469	510
Female	472	467	466	449	477	461	418	465
Race/Ethnicity								
A/IAN								
A/PI								
B/AA				468	476	467	426	478
H/L								
W				521		520		
OT								

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



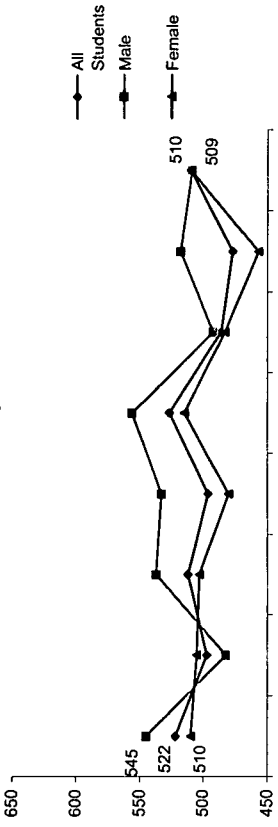
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

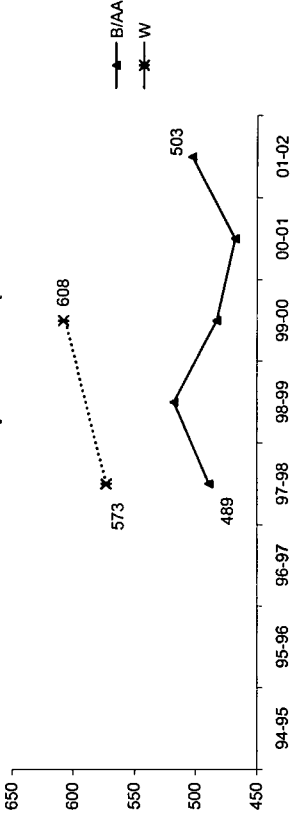
◆ Verbal - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	522	497	512	496	527	486	477	510
Gender								
Male	545	482	537	533	556	492	518	509
Female	510	505	503	480	515	483	457	510
Race/Ethnicity								
A/IAN								
A/PI								
B/AA				489	518	483	468	503
H/L								
W				573		608		
OT								

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Birmingham CPMSA

Cohort/Scale-Up Approach

Number of District Schools	80	77
CPMSA Schools:	80	77
% Schools:	100%	100%
Source:	CDE 2000, 2001	

Special Education and Bilingual Students:

- Use of Everyday Math curriculum
- Extra professional development for K-5 Special Education teachers

New Courses Added as a Result of CPMSA:

- The state mandates ___minutes of math per day
- Science: G1 - 3: 30 minutes/day
- G4 - 6: 45 minutes/day
- G7 - 12: 140 clock hours per year per unit

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum	State
Curriculum/TextBook Adoption	District
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Graduation Requirements

- State mandated 4 years of math and science
- Math requirements: Algebra I and Geometry
- Science requirements: Biology I

Student Support Systems:

- After school and Saturday tutoring for 8th grade math and science
- After school tutoring for graduation exam
- Extended Algebra course for 8th graders who need extra time to complete requirements
- Saturday Academy for AP Calculus students
- Homework Hotline

Summer programs:

- Summer Scholars Program for students interested in AP, but lack prerequisite courses

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: • N/A

Criteria for Entry into High Level Mathematics and Science Courses:

- Completion of prerequisite courses and/or teacher recommendation/approval

Availability of High Level Courses:

Standards-based Curriculum and Instruction

Standards Adopted:

- Math: Alabama course of study (NCTM)
- Science: Alabama course of study (National Education Science Standards)

% of Students Experiencing Standards-based Curricula:

E	100%
M	100%
H	100%

Policies Relevant to Teacher Qualifications

Certification:

- Must complete state approved teacher education program offered by a college or university for class B certification
- Class A certification requires a 5th year of preparation
- Class AA requires a 6th year of preparation, certification is good for 5 years; recertification requires 50 clock hours of professional development and 3 years of satisfactory educational experience

Requirement & Hiring Practices

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Policies Relevant to Curriculum

Framework:

- The Alabama State course of study

Curricula:

- State required curriculum
- Everyday Math--K-5
- Middle School Math--McDougal Littell
- Passport Series
- High School Math--McDougal Littell
- Algebra Series--Algebra 1 and 2

Curricula Materials:

- Geometry Glencoe
- Advanced Math--Merrill
- Calculus and Analytical Geometry-Houghton Mifflin



Birmingham CPMSA

Professional Development Policies and Practices

Time Required or Supported:
 ↳ 6 semester hours of college credit or the equivalent during the 5th year period

Financial Resources Provided:

Alignment to Standards:
 ↳ Yes

Teachers' Instructional Practice Change: Teachers are incorporating alternative teaching strategies and alternative assessment activities into daily lessons. Teachers are using more standards-based lessons and activities on a daily basis

Type and Amount Received by Average Math/Science Teacher:
 ↳ Follow-up with classroom visitation

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures:
 ↳ Aligned to state standards

Teacher's Instructional Practices Evaluation:
 ↳ Principals conduct classroom observations

Impact on Student Achievement:

↳ We offer courses and workshops based on annual needs assessments of our teachers. Content areas identified for the 2001-02 school year are reading, math, science, technology and middle level education. These areas were confirmed by the NCTAF survey

Partnerships

Other Key Initiatives:

Competing Initiatives: ↳ None

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:
 ↳ 100% aligned

Assessments Used:
 ↳ SAT-9

↳ The Alabama High School Graduation Exam for Math & Science

CPMSA Leadership, Governance, and Management

Superintendent:
 ↳ Wayman B. Shiver

Continuity of Leadership:
 ↳ Unknown

Project Directors position in district's organizational structure:
 ↳ Beverly Kimes

Teacher Leaders:

Community Stakeholders:

- ↳ Parents
- ↳ Jefferson County Schools provide workshops, speakers for middle school children
- ↳ Botanical Gardens
- ↳ Roulffier Mountain
- ↳ Soil and Conservation Society

Higher Education:

- ↳ UAB
- ↳ Miles College
- ↳ Birmingham Southern

- Business and Industry:**
- ↳ SECME
 - ↳ SLOSS Furnace
 - ↳ McWane Science Center

Birmingham CPMSA

Accountability

Program Effectiveness Monitoring:

- External and internal evaluator

Report Card System:

- State report card

Key Indicator Data Collection:

- Data is collected and analyzed by personnel working within the individual department

Key Indicator Data Use:

- Help us to reassess in order to come up with better programs to meet goals and objectives

Local On-Sight Evaluation:

- Each school looks at data and analyzes it to come up with district needs focusing on weak areas

Data Manager:

External Evaluator:

- Judy Guisen

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	Policy Implemented
1995-96	• Four years of mathematics and four years of science graduation requirement.
1996-97	
1997-98	
1998-99	
1999-00	
2000-01	

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	Policy Implemented
1995-96	
1996-97	
1997-98	
1998-99	
1999-00	
2000-01	

Birmingham CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

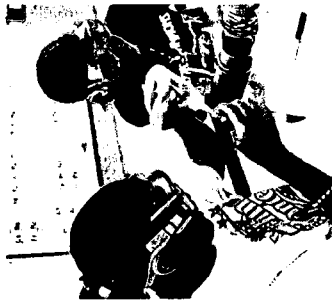
School Year	Policy Implemented
1994-95	
1995-96	
1996-97	• Changed to linked programs from discrete activities.
1997-98	
1998-99	
1999-00	
2000-01	

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented
1994-95	
1995-96	
1996-97	• Science Kits adopted for K-5.
1997-98	• New mathematics materials adopted
1998-99	
1999-00	
2000-01	

Accountability

School Year	Policy Implemented
1994-95	
1995-96	
1996-97	• Report card system established
1997-98	
1998-99	
1999-00	
2000-01	



Brownsville Independent School District, TX
Brownsville, TX

Project Information

CPMSA Project Title : Brownsville-Project BEAMS

Cohort: 93

CPMSA Web Site:

◆ PI, CO-PI and PD

PI/Superintendent
 G. Wallace Jackson T (956) 548-8012 F (956) 548-8019
 gwjack@tenet.edu
 Area Admin., Curriculum/Instruction
 Mary Jo Monfils T (956) 548-8101 F (956) 548-8441
 mjmonfils@adm.brownsville.isd.tenet.edu

Co-PI/Curriculum Professor
 Rey Ramirez T (956) 982-0201 F (956) 982-0293
 reyrc@tenet.edu

◆ CPMSA Data Manager/Evaluator

Area Admin., Curriculum/Instruction
 Mary Jo Monfils T (956) 548-8101 F (956) 548-8441
 mjmonfils@adm.brownsville.isd.tenet.edu

◆ Mailing Address

Brownsville Independent School District
 Office of the Superintendent,
 1900 Price Road, Suite 307,
 Brownsville, TX 78521

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
00-01	29	1,279	22,235
K-5 (Elementary)	9	186	8,776
G6-8 (Middle)	5	197	9,930
G9-12 (High)	43	1,662	40,941
Total			

Source: Core Data Elements (SY 2000-01)

Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)

Project Summary

Project BEAMS will serve as a means for impacting and addressing the need for career access opportunities in mathematics, science, and technology. It is an intervention model for preparing better schools for elementary/secondary Hispanic students, particularly those with a preponderance of culturally or socio-economically diverse students from traditionally disadvantaged populations.

Project Goals

- ◆ To systemically and comprehensively increase the number of precollege minority students in science, engineering, and mathematics (SEM) pipeline.
- ◆ To influence the quality of mathematics and science education in grade K-12
- ◆ To seek innovative science, mathematics, and technology approaches to strengthen student achievement and teacher proficiency in content and instruction.
- ◆ To help improve the quality of education through SEM career preparation and access.

Selected School Indicators (District Average)

	93-94	00-01	Change
% Special Ed.	10.4%	13.0%	+2.6 PP
% LEP	44.0%	49.0%	+5.0 PP
% Free/Red. Lunch	82.2%	92.0%	+9.8 PP
% Daily Avg. Alten.	95.0%	96.6%	+1.6 PP
% Average Retained	3.0%	3.0%	.
% Drop-Out	3.6%	1.0%	-2.6 PP
% Mobility	21.5%	22.0%	+0.5 PP
Per Pupil Cost (\$)		\$6,826	.
# Students Per Computer			.
% Classrooms Internet Access		90%	.
Average Class Size		22	.

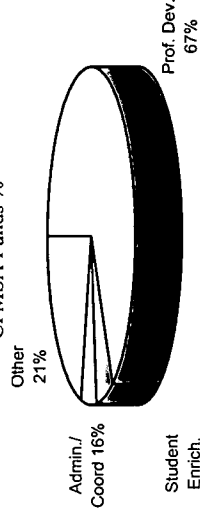
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	5%	67%
Student Enrich.	1%	6%
Admin/Coord.	10%	6%
Other	84%	21%
Total	100%	100%

CPMSA Funds %



Brownsville CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 41,057
 CPMSA Schools: 40,243
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	93-94	00-01	%	% Change
Ame. Ind./Ala. Nat.	9	15	0.0%	+66.7%
Asian/P. Islander	64	94	0.2%	+46.9%
Black	27	49	0.1%	+81.5%
Hispanic	38,230	37,097	97.3%	-3.0%
White	1,072	873	2.3%	-18.6%
Other	0	0	0.0%	
Total	39,402	38,128	100.0%	-3.2%
URM Total	38,266	37,161	97.5%	-2.9%

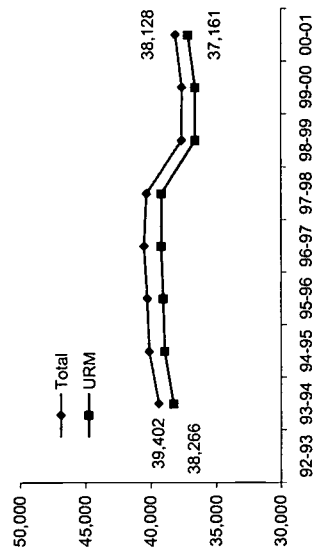
◆ Gender

Male	20,213	19,387	50.8%	-4.1%
Female	19,189	18,741	49.2%	-2.3%

◆ Grade

K-G5	17,265	19,255	50.5%	+11.5%
G6-8	9,305	8,768	23.0%	-5.8%
G9-12	10,709	10,105	26.5%	-5.6%
Ungraded	2,123	0	0.0%	

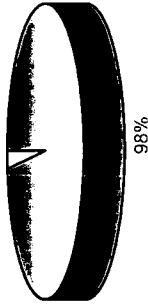
◆ District Student Demographic Trends



12th Grade Graduates

	95-96	00-01	Change
Total 12th Grade	1,639	1,903	+16%
Earned a Diploma	1,639	1,863	+14%
% Earned Diploma	100%	98%	-2 PP

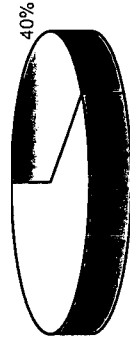
% Earned Diploma for SY 2000-01



SEM Proficiency

	95-96	00-01	Change
# SEM Proficient ¹⁾	236	762	+223%
% SEM Proficient/ Total 12th Grade	14%	40%	+26 PP

% SEM Proficient for SY 2000-01



¹⁾ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
- ◆ Science

PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

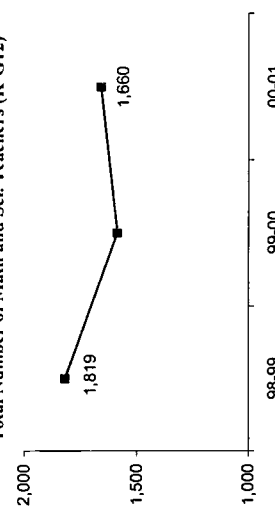
	96-97	00-01	Change
Teachers Certified	65	92	+42%
G6-8 % Cert.	56	84	+50%
G9-12 % Cert.	86%	91%	+5.2 PP
Teachers Certified	105	111	+6%
G9-12 % Cert.	101	103	+2%
Total % Cert.	96%	93%	-3.4 PP
Teachers Certified	170	203	+19%
Total % Cert.	157	187	+19%
Total % Cert.	92%	92%	-0.2 PP

◆ Science (G6-12)

	96-97	00-01	Change
Teachers Certified	58	61	+5%
G6-8 % Cert.	52	56	+8%
G9-12 % Cert.	90%	92%	+2.1 PP
Teachers Certified	92	86	-7%
G9-12 % Cert.	89	84	-6%
Total % Cert.	97%	98%	+0.9 PP
Teachers Certified	150	147	-2%
Total % Cert.	141	140	-1%
Total % Cert.	94%	95%	+1.2 PP

◆ Math and Science (K-G5)

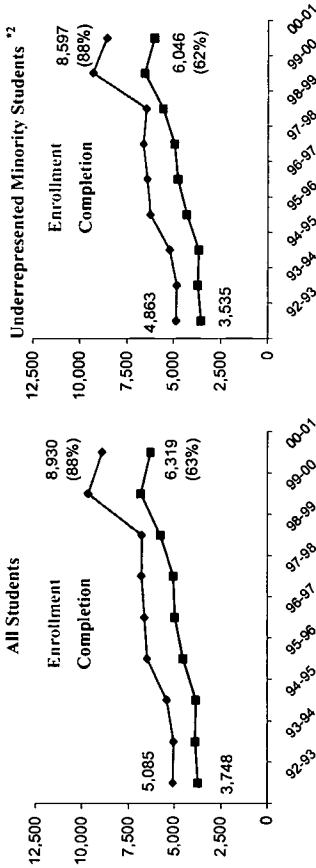
	98-99	00-01	Change
K-G5 Teachers	1,547	1,279	-17%



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

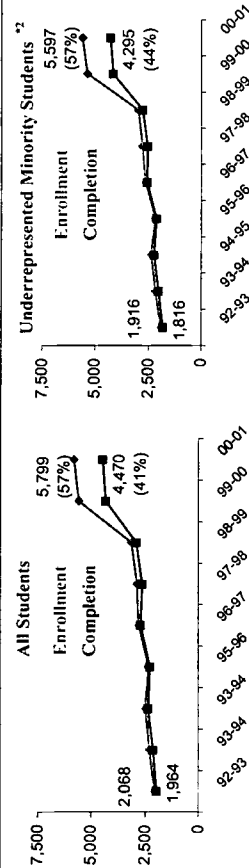
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	10,709	10,901	10,948	10,894	10,894	10,846	10,496	10,117	10,105
All Students	5,085	5,035	5,418	6,497	6,645	6,801	6,788	6,682	8,930
URM ²	3,748	3,889	3,859	4,521	4,973	5,072	5,777	6,851	6,319
Enrollment	4,863	4,838	5,210	6,247	6,423	6,650	6,464	9,334	8,597
Completion ¹	3,535	3,712	3,672	4,319	4,783	4,954	5,571	6,559	6,046
% Enroll/G9-12	47%	47%	49%	59%	61%	63%	64%	95%	88%
% Completion ¹	47%	47%	49%	59%	61%	63%	64%	95%	88%



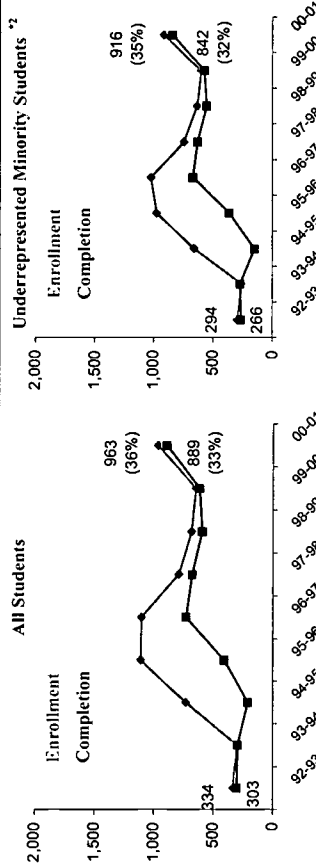
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	10,709	10,901	10,948	10,894	10,894	10,846	10,496	10,117	10,105
All Students	2,068	2,284	2,484	2,356	2,799	2,876	3,136	5,579	5,799
URM ²	1,964	2,133	2,357	2,267	2,710	2,634	2,919	4,340	4,470
Enrollment	1,916	2,176	2,368	2,219	2,657	2,786	2,992	5,366	5,597
Completion ¹	1,816	2,032	2,245	2,134	2,570	2,553	2,781	4,166	4,295
% Enroll/G9-12	21%	23%	22%	26%	27%	30%	55%	57%	57%
% Completion ¹	21%	22%	21%	25%	27%	29%	55%	57%	57%



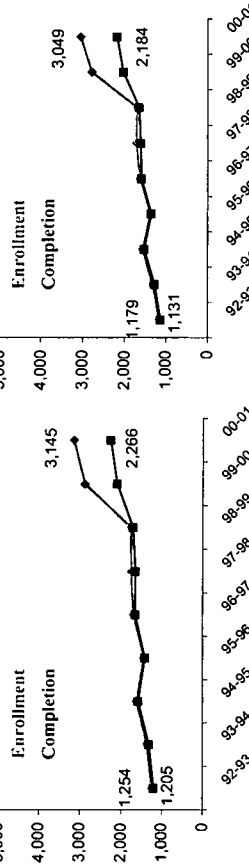
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	334	2,944	3,166	3,122	3,083	2,835	2,829	2,895	2,688
All Students	334	302	729	1,108	1,102	789	679	644	963
URM ²	303	296	209	410	726	674	592	615	889
Enrollment	294	259	659	974	1,026	746	636	603	916
Completion ¹	266	269	151	364	669	632	554	576	842
% Enroll/G8	27%	9%	21%	32%	34%	27%	23%	22%	35%
% Completion ¹	27%	9%	21%	32%	34%	27%	23%	22%	35%



Biology Enrollment & Completion Trends/ All vs. URM

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	10,709	10,901	10,948	10,894	10,894	10,846	10,496	10,117	10,105
All Students	1,254	1,381	1,634	1,456	1,706	1,754	1,764	2,881	3,145
URM ²	1,205	1,323	1,582	1,426	1,659	1,655	1,717	2,104	2,266
Enrollment	1,179	1,336	1,581	1,387	1,635	1,709	1,699	2,784	3,049
Completion ¹	1,131	1,279	1,529	1,358	1,589	1,613	1,653	2,029	2,184
% Enroll/G9-12	11%	12%	14%	13%	15%	16%	16%	27%	30%
% Completion ¹	10%	11%	14%	13%	15%	16%	16%	27%	30%



¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

(.) Data Missing

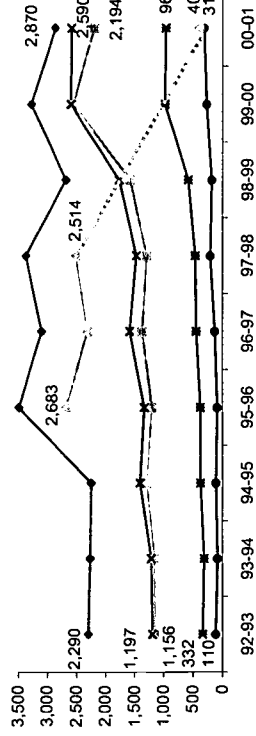
Brownsville CPMSA

SY 2000-01

Mathematics Course Enrollment & Completion Trends By Subject

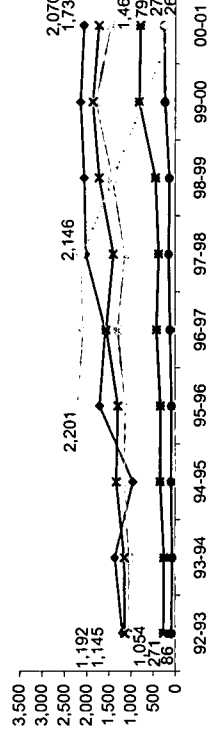
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
92-93	2,290	1,156	1,197	332	110	.	5,085
93-94	2,260	1,162	1,221	310	82	.	5,035
94-95	2,243	1,293	1,405	370	107	.	5,418
95-96	3,491	1,211	1,333	375	87	2,683	9,180
96-97	3,097	1,373	1,590	443	128	2,308	8,939
97-98	3,370	1,297	1,472	459	203	2,514	9,315
98-99	2,681	1,580	1,771	578	178	.	6,788
99-00	3,273	2,561	2,601	980	267	.	9,682
00-01	2,870	2,194	2,590	964	312	401	9,331



G 9-12 Course Completion¹ (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
92-93	1,192	1,054	1,145	271	86	.	3,748
93-94	1,362	1,046	1,149	262	70	.	3,889
94-95	952	1,150	1,327	339	91	.	3,859
95-96	1,702	1,120	1,289	333	77	2,201	6,722
96-97	1,573	1,294	1,554	424	114	2,077	7,036
97-98	2,018	1,136	1,399	372	147	2,146	7,218
98-99	2,056	1,426	1,717	445	133	.	5,777
99-00	2,138	1,796	1,864	821	232	.	6,851
00-01	2,070	1,460	1,731	797	261	276	6,595



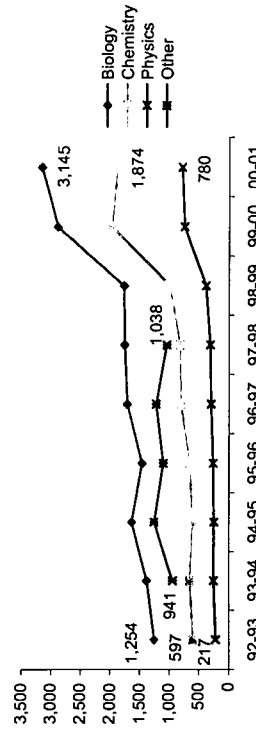
¹ Successful completion: grade 'C' or above.

² Data not presented on graph for sample size less than 5

Science Course Enrollment & Completion Trends By Subject

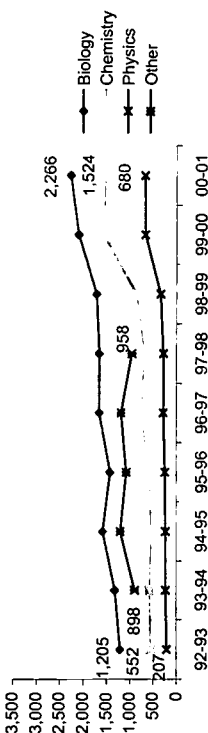
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
92-93	1,254	597	217	.	2,068
93-94	1,381	651	252	941	3,225
94-95	1,634	604	246	1,256	3,740
95-96	1,456	644	256	1,095	3,451
96-97	1,706	798	295	1,221	4,020
97-98	1,754	814	308	1,038	3,914
98-99	1,764	990	382	.	3,136
99-00	2,881	1,960	738	.	5,579
00-01	3,145	1,874	780	.	5,799



G 9-12 Course Completion¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
92-93	1,205	552	207	.	1,964
93-94	1,323	575	235	898	3,031
94-95	1,582	537	238	1,203	3,560
95-96	1,426	593	248	1,071	3,338
96-97	1,659	763	288	1,191	3,901
97-98	1,655	693	286	958	3,592
98-99	1,717	856	346	.	2,919
99-00	2,104	1,560	676	.	4,340
00-01	2,266	1,524	680	.	4,470



(.) Data Missing

District Assessment Test Administered

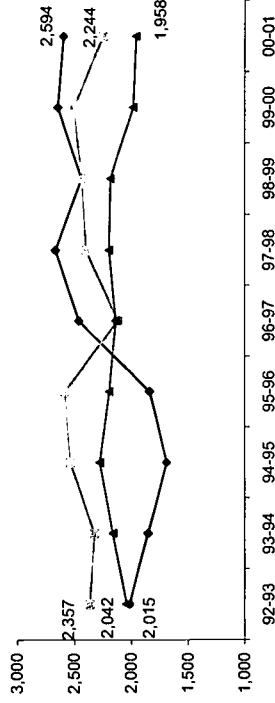
State Assessment Test-Taker Trends TAAS

◆ Mathematics		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	
Scoring	
Grade	
Type	

◆ Science		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	
Scoring	
Grade	
Type	

◆ Mathematics		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
# of Test-takers		2,015	1,854	1,690	1,840	2,459	2,667	2,435	2,644	2,594
Grade 4		2,357	2,319	2,535	2,583	2,116	2,394	2,437	2,504	2,244
Grade 8		2,042	2,158	2,275	2,190	2,134	2,194	2,181	1,985	1,958
Grade 10										

Total number of students taking test



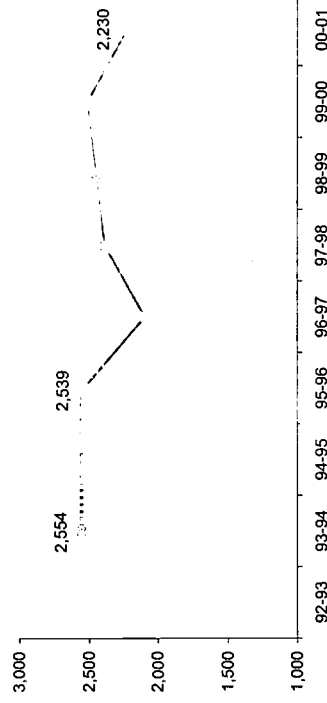
State Assessment Test Administered

◆ Mathematics		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name		TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS
Scoring		SS	SS	SS	SS	SS	SS	SS	SS	SS
Grade		3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10
Type		CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT

◆ Science		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name		TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS	TAAS
Scoring		SS	SS	SS	SS	SS	SS	SS	SS	SS
Grade		3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10
Type		CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT

◆ Science		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
# of Test-takers										
Grade 4										
Grade 8			2,554		2,539	2,094	2,387	2,450	2,514	2,230
Grade 10										

Total number of students taking test



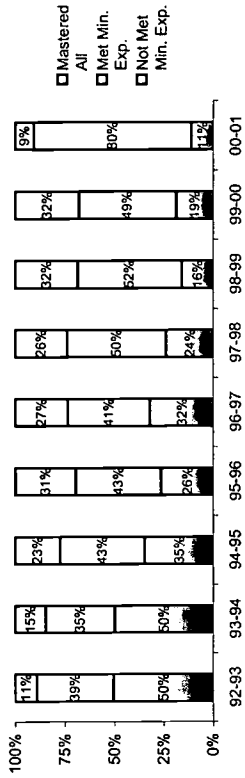
PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

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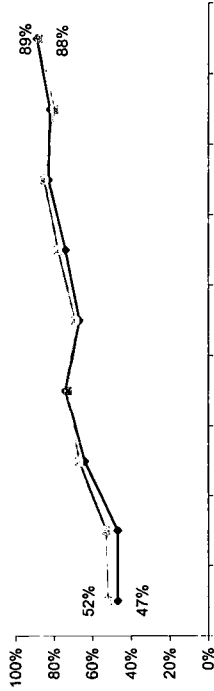
State Assessment Test Result Trends TAAS - Mathematics

◆ **Grade 4**

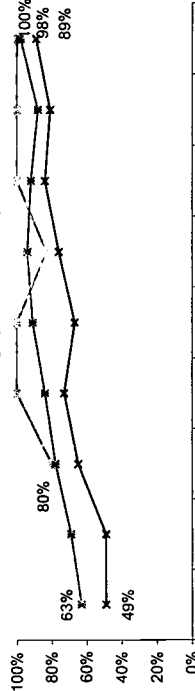
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Mastered All	11%	15%	23%	31%	27%	26%	32%	32%	9%
Met Min. Exp.	39%	35%	43%	43%	41%	50%	52%	49%	80%
Not Met Min. Exp.	50%	50%	35%	26%	32%	24%	16%	19%	11%
Total # of students	2,015	1,854	1,690	1,840	2,459	2,667	2,435	2,644	2,594



% Passing by Gender



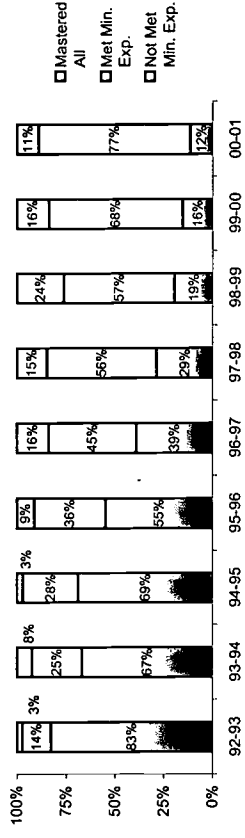
% Passing by Race/Ethnicity^{*1}



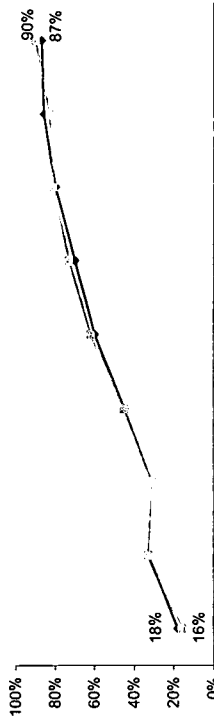
A/AN: American Indian/Alaskan Native A/P: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 *1 Number of Test-Takers less than 5 not presented in graph

◆ **Grade 8**

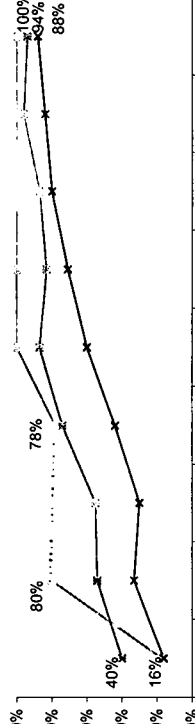
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Mastered All	3%	8%	3%	9%	16%	15%	16%	16%	11%
Met Min. Exp.	14%	25%	28%	36%	45%	56%	57%	68%	77%
Not Met Min. Exp.	83%	67%	69%	55%	39%	29%	19%	16%	12%
Total # of students	2,357	2,319	2,535	2,583	2,116	2,394	2,437	2,504	2,244



% Passing by Gender



% Passing by Race/Ethnicity^{*1}

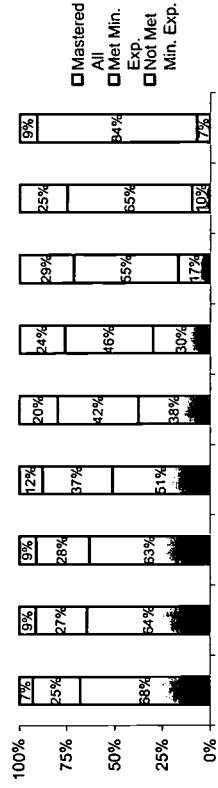


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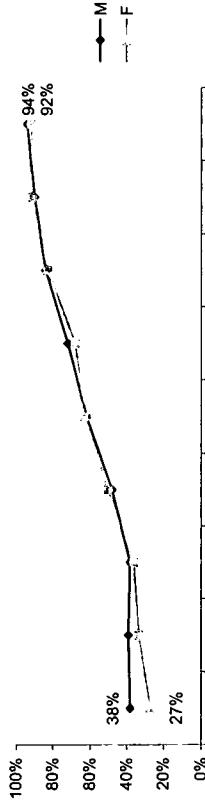
State Assessment Test Result Trends TAAS - Mathematics

Grade 10

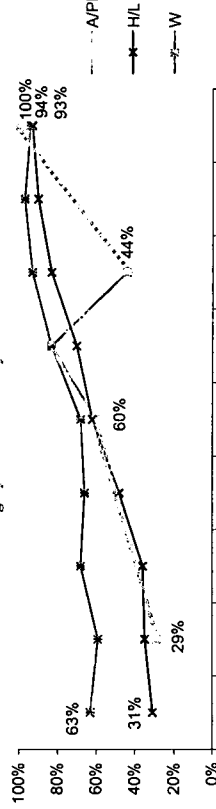
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Mastered All	7%	9%	9%	12%	20%	24%	29%	25%	9%
Met Min. Exp	25%	27%	28%	37%	42%	46%	55%	65%	84%
Not Met Min. Exp.	68%	64%	63%	51%	38%	30%	17%	10%	7%
Total # of students	2,042	2,158	2,275	2,190	2,134	2,194	2,181	1,985	1,958



% Passing by Gender



% Passing by Race/Ethnicity*



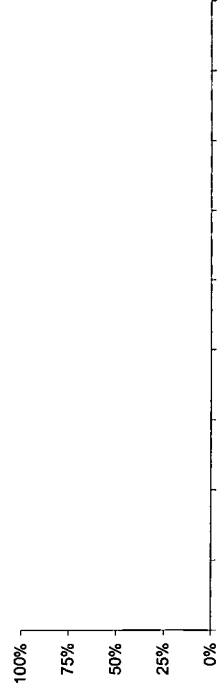
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 * Passing defined as Mastering All Objects and/or Meeting Minimum Expectations
 ** Number of Test-Takers less than 5 not presented in graph

State Assessment Test Result Trends TAAS - Science

Grade 4

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students									

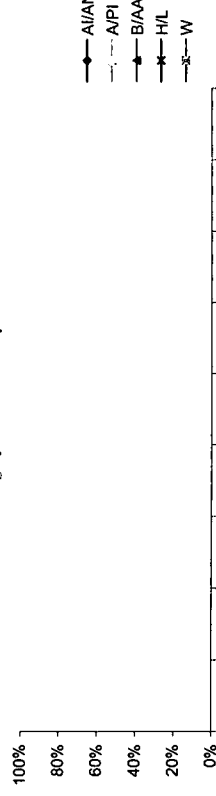
Date Not Available



% Passing by Gender



% Passing by Race/Ethnicity

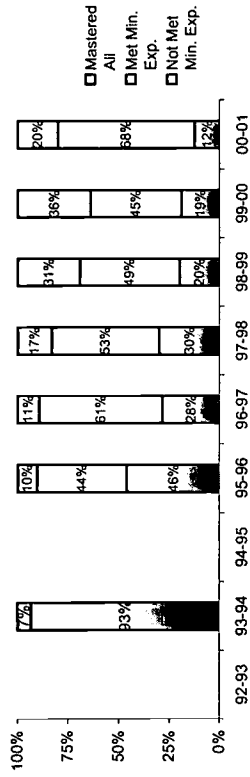


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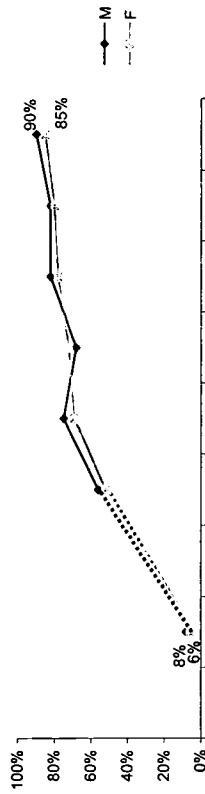
State Assessment Test Result Trends TAAS - Science

◆ Grade 8

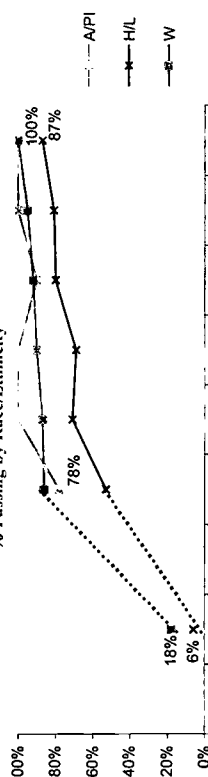
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Mastered All	7%	7%	10%	11%	11%	17%	31%	36%	20%
Met Min. Exp	0%	0%	44%	61%	53%	53%	49%	45%	68%
Not Met Min. Exp.	93%	93%	46%	28%	30%	20%	19%	19%	12%
Total # of students	2,554	2,554	2,539	2,094	2,387	2,450	2,514	2,230	2,230



% Passing by Gender



% Passing by Race/Ethnicity¹



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

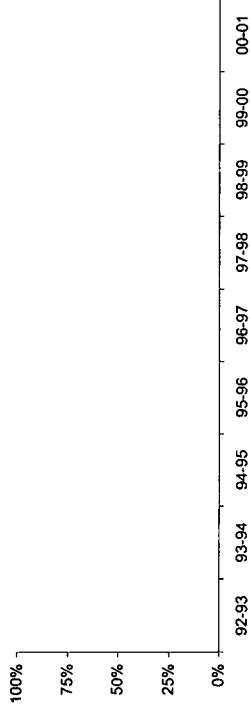
¹ Number of Test-Takers less than 5 not presented in graph

State Assessment Test Result Trends TAAS - Science

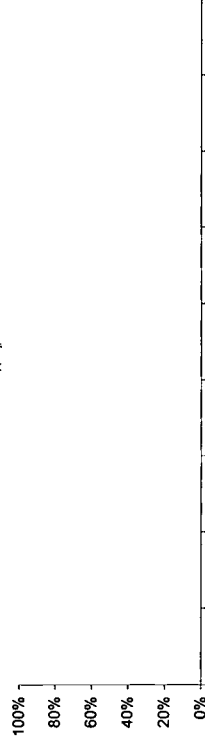
◆ Grade 10

Data Not Available

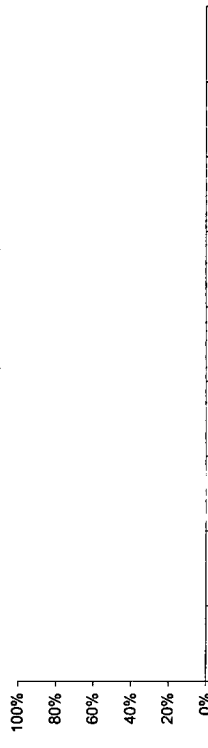
Total # of students



% Passing by Gender



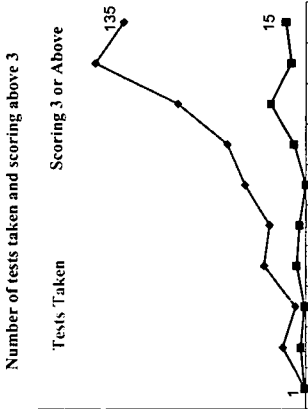
% Passing by Race/Ethnicity



AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

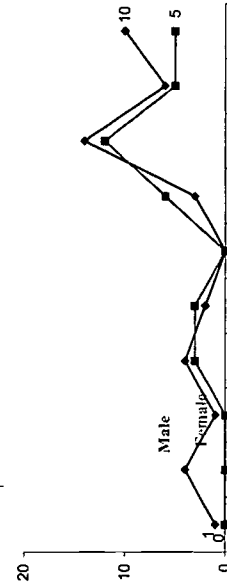
♦ AP Mathematics - Total Number of Tests Taken

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,129	3,964	3,863	3,738	3,775	3,902	4,017	4,045		
Calc. AB	16	8	31	27	45	58	95	156	135	
Calc. BC	0	1	0	0	0	0	0	0	0	
Statistics	0	0	0	0	0	0	0	0	0	
Total	17	8	31	27	45	58	95	156	135	
Tests taken per 1,000 students	4.1	2.0	8.0	7.2	11.9	14.9	23.6	38.6		
Scoring 3 or Above	1	4	1	7	5	0	9	26	11	15
Scoring 3 or Above per 1000	1.0	0.3	1.8	1.3	0.0	2.3	6.5	2.7		



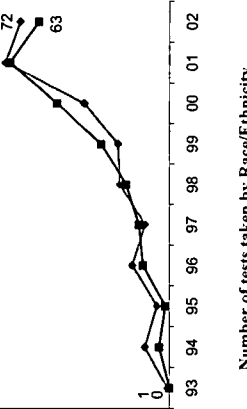
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	93	94	95	96	97	98	99	00	01	02
Male	1	4	1	4	2	0	3	14	6	10
Female	0	0	0	3	3	0	6	12	5	5



♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	1	0	0
A/PI	0	0	0	0	0	0	0	0	1	2
B/AA	0	0	0	0	0	0	0	8	1	0
H/L	1	3	1	5	5	4	0	18	7	10
W	0	1	0	1	0	0	1	5	1	1



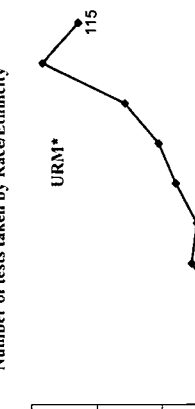
♦ AP Mathematics - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	1	12	6	18	12	24	25	41	79	72
Female	0	5	2	13	15	21	33	54	77	63



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	1	0	0
A/PI	0	0	0	0	0	0	0	3	2	3
B/AA	0	0	0	0	0	0	49	1	2	3
H/L	1	13	7	28	24	40	4	77	140	112
W	0	3	0	2	3	2	3	11	9	11



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

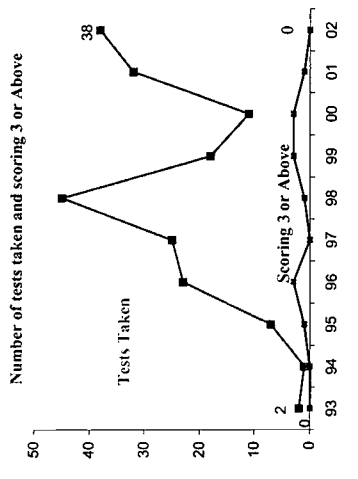
¹URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

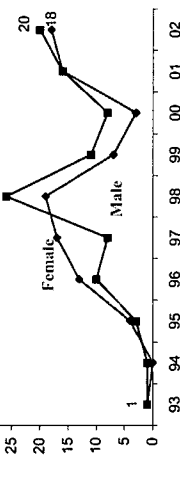
♦ **AP Science - Total Number of Tests Taken**

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,129	3,964	3,863	3,738	3,775	3,902	4,017	4,045	.	.
Biology	2	1	7	5	16	33	11	9	14	15
Chemistry	0	0	0	2	0	1	0	1	11	0
Environ. Science	0	0	0	0	0	1	1	0	0	0
Physics B	0	0	0	11	6	2	4	1	7	13
Physics Mech.	0	0	0	5	3	8	2	0	0	5
Physics Elec.	0	0	0	0	0	0	0	0	0	5
Total	2	1	7	23	25	45	18	11	32	38
Tests taken per 1,000 students	0.2	1.8	6.0	6.7	11.9	4.6	2.7	7.9	.	.
Scoring 3 or Above	0	0	1	3	0	1	3	3	1	0
Scoring 3 or Above per 1000	0.0	0.3	0.8	0.0	0.3	0.8	0.7	0.2	.	.



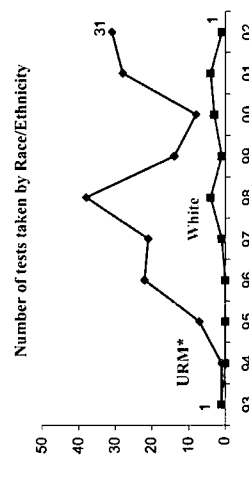
♦ **AP Science - Number of Tests Taken By Gender**

	93	94	95	96	97	98	99	00	01	02
Male	1	0	4	13	17	19	7	3	16	18
Female	1	1	3	10	8	26	11	8	16	20



♦ **AP Science - Number of Tests Taken By Race/Ethnicity¹¹**

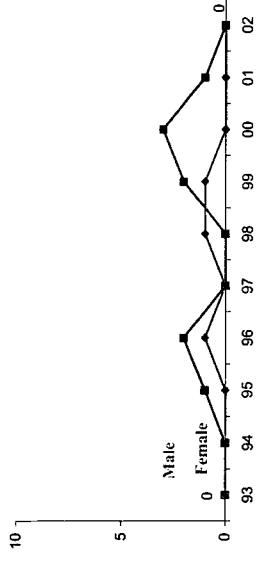
	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	4	0	0	0	0
A/PI	0	0	0	1	1	0	0	0	1	1
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	1	1	7	22	21	34	14	8	28	31
W	1	0	0	0	1	4	1	3	4	1



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹¹ "Other" category not presented

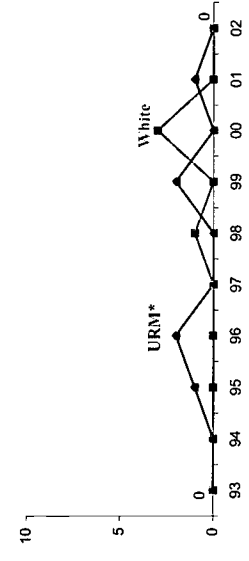
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	93	94	95	96	97	98	99	00	01	02
Male	0	0	1	2	0	0	2	3	1	0
Female	0	0	0	1	0	1	1	0	0	0



♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹¹**

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	1	2	0	0	2	0	1	0
W	0	0	0	0	0	1	0	3	0	0



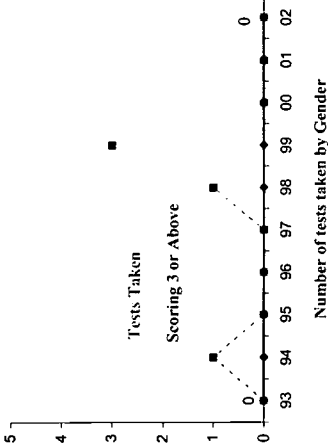
AP Computer Science Test Result Trends

Computer Science A & AB

AP Computer Science - Total Number of Tests Taken

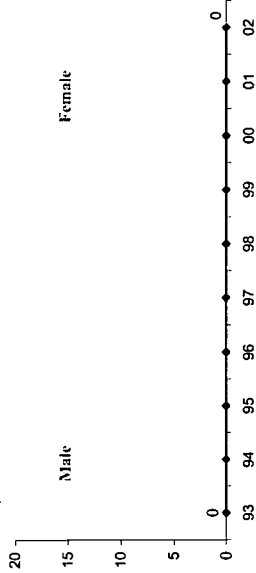
	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,129	3,964	3,863	3,738	3,775	3,902	4,017	4,045		
Comp. Sci A	0	1	0	0	1	3	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	0	1	3	0	0	0	0
Tests taken per 1,000 students	0.2	0.0	0.0	0.0	0.3	0.8	0.0	0.0		
Scoring 3 or Above	0	0	0	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Number of tests taken and scoring 3 or Above



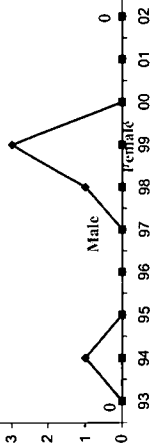
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Gender

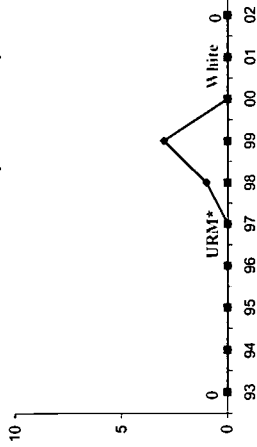
	93	94	95	96	97	98	99	00	01	02
Male	0	1	0	0	0	1	3	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Race/Ethnicity

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	1	3	0	0	0
W	0	0	0	0	0	0	0	0	0	0

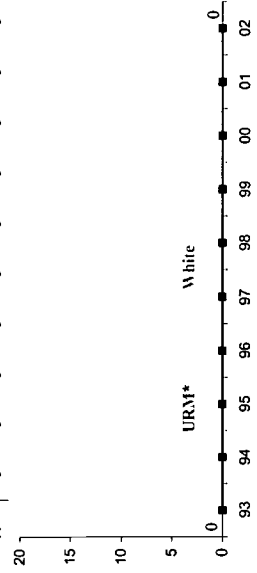
Number of tests taken by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

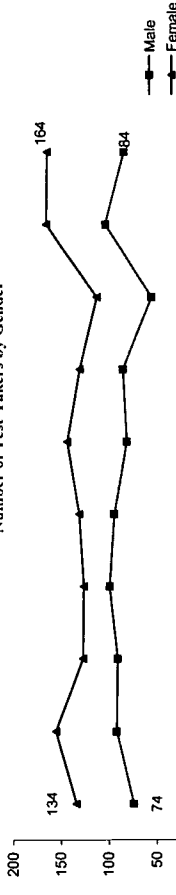
Brownsville CPMSA

ACT Test-Takers

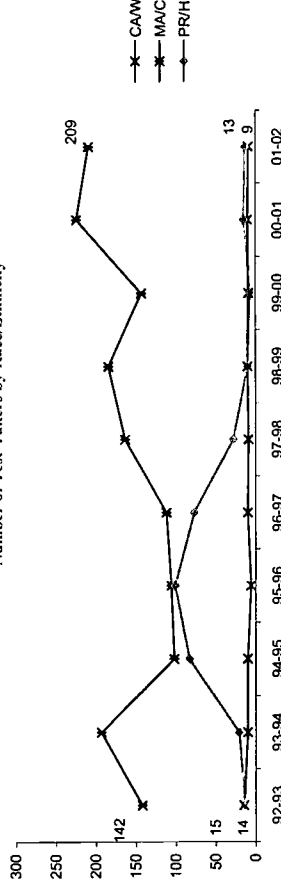
Number of Test-Takers

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	0	1,973	1,975	1,843	1,806	1,624	1,678	1,740	1,903	
Test-Takers	208	247	218	225	225	224	215	167	268	248
Num of Test-Takers/1,000 Stu.		125	110	122	125	138	128	96	141	
Gender										
Male	74	92	91	99	94	81	85	55	103	84
Female	134	155	127	126	131	143	130	112	165	164
Race/Ethnicity										
AA/B	0	2	0	1	0	0	0	0	4	2
AI/AN	0	0	2	0	1	0	0	1	0	0
CA/W	15	10	10	6	10	9	10	9	10	9
MA/C	142	193	102	106	112	163	184	143	224	209
A/PI	0	5	3	0	1	1	1	2	2	2
PR/H	14	21	83	101	77	28	10	7	15	13

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity*



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

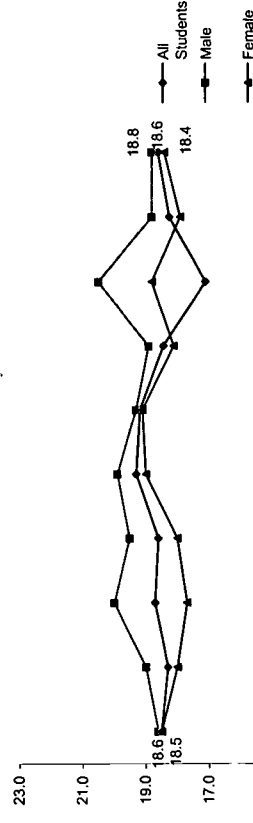
*Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

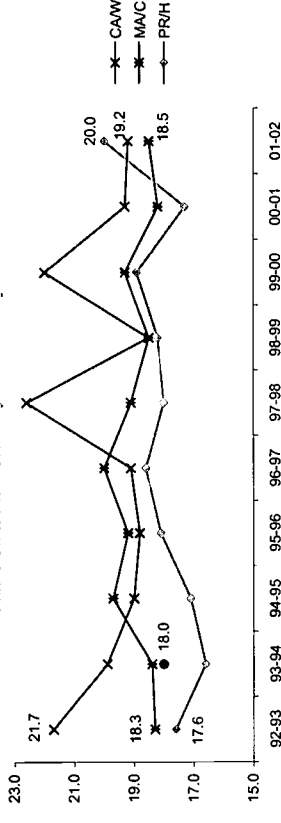
Mathematics - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.5	18.3	18.7	18.6	19.3	19.2	18.4	17.1	18.2	18.6
Gender										
Male	18.6	19.0	20.0	19.5	19.9	19.3	18.9	20.5	18.8	18.8
Female	18.5	18.0	17.7	18.0	19.0	19.1	18.1	18.8	17.9	18.4
Race/Ethnicity										
AA/B	-	-	-	-	-	-	-	-	-	-
AI/AN	-	-	-	-	-	-	-	-	-	-
CA/W	21.7	19.9	19.0	18.8	19.1	22.6	18.5	22.0	19.3	19.2
MA/C	18.3	18.4	19.7	19.2	20.0	19.1	18.5	19.3	18.2	18.5
A/PI	-	18.0	-	-	-	-	-	-	-	-
PR/H	17.6	16.6	17.1	18.1	18.6	18.0	18.2	18.9	17.3	20.0

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity*



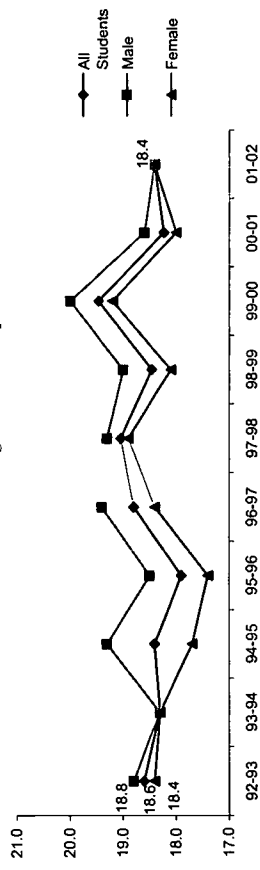
(-) Mean scores not presented for sample size less than 5

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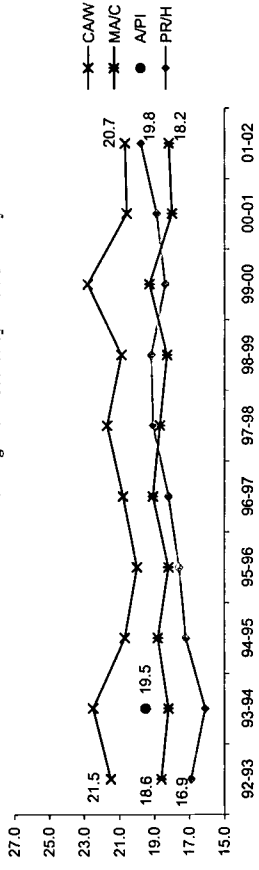
ACT Science Reasoning Scores
 Science Reasoning - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.6	18.3	18.4	17.9	18.8	19.0	18.5	19.5	18.2	18.4
Gender										
Male	18.8	18.3	19.3	18.5	19.4	19.3	19.0	20.0	18.6	18.4
Female	18.4	18.3	17.7	17.4	18.4	18.9	18.1	19.2	18.0	18.4
Race/Ethnicity										
AA/B	-	-	-	-	-	-	-	-	-	-
AI/AN	-	-	-	-	-	-	-	-	-	-
CA/W	21.5	22.5	20.7	20.0	20.8	21.7	20.9	22.8	20.6	20.7
MA/C	18.6	18.2	18.8	18.2	19.1	18.7	18.3	19.3	18.0	18.2
A/PI	-	19.5	-	-	-	-	-	-	-	-
PR/H	16.9	16.1	17.2	17.6	18.2	19.1	19.2	18.4	18.9	19.8

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



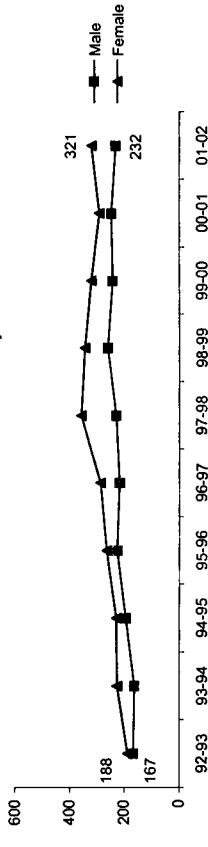
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

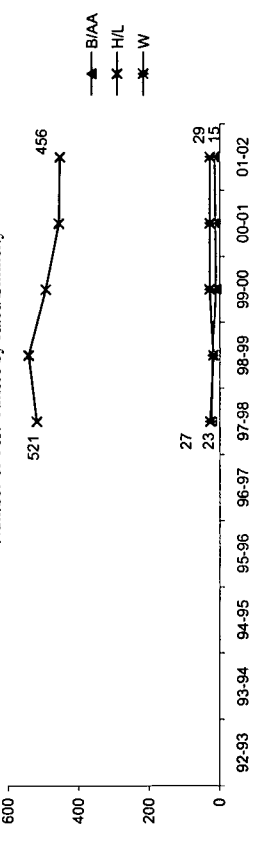
SAT Test-Takers
 Number of Test-Takers

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,973	1,975	1,843	1,806	1,624	1,678	1,740	1,903		
Test-Takers	355	389	423	489	504	586	605	563	540	553
Num of Test-Takers/1,000 Stu.	197	214	265	279	361	361	324	284		
Gender										
Male	167	163	195	225	217	229	260	242	248	232
Female	188	226	228	264	287	357	345	321	292	321
Race/Ethnicity										
AI/AN	-	-	-	-	-	0	2	1	2	0
A/PI	-	-	-	-	-	4	4	6	3	4
B/AA	-	-	-	-	-	23	21	11	13	15
H/L	-	-	-	-	-	521	544	496	458	456
W	-	-	-	-	-	27	19	29	29	29
OT	-	-	-	-	-	4	3	4	7	6

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

¹ Number of Test-Takers less than 5 not presented in graph

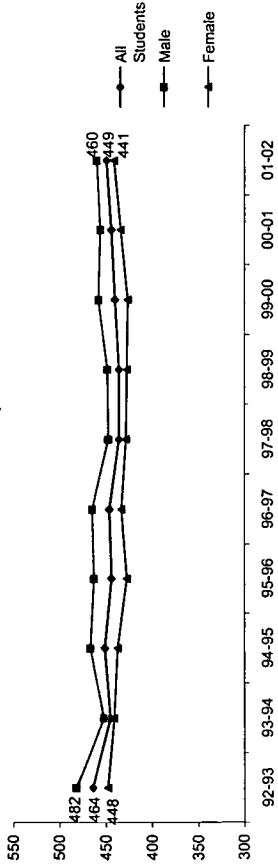
Brownsville CPMSA

SAT Mathematics Scores

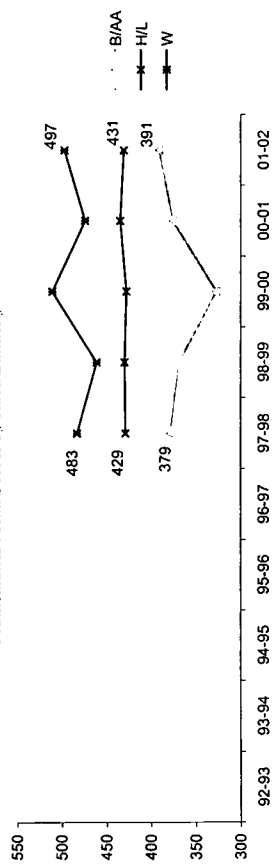
◆ Mathematics - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	464	445	451	444	446	436	436	440	444	449
Gender										
Male	482	452	467	463	465	447	448	458	456	460
Female	448	441	437	427	433	428	427	426	434	441
Race/Ethnicity										
All/IAN	Data Not Available									
A/PI	-	-	-	-	-	-	-	480	-	-
B/AA	-	-	-	-	-	397	386	380	377	425
H/L	-	-	-	-	-	435	436	436	443	446
W	-	-	-	-	-	480	462	508	475	510
OT	-	-	-	-	-	-	-	-	439	442

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



All/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

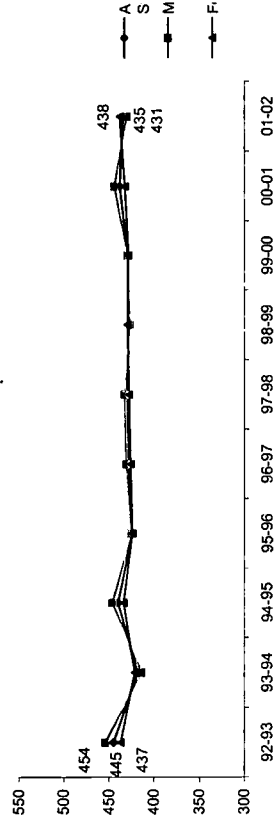
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

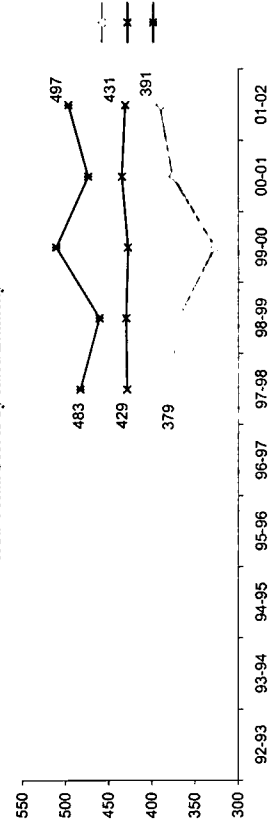
◆ Verbal - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	445	418	440	424	428	430	428	430	438	435
Gender										
Male	454	414	446	425	431	433	427	430	444	431
Female	437	421	434	424	426	428	430	429	433	438
Race/Ethnicity										
All/IAN	Data Not Available									
A/PI	-	-	-	-	-	-	-	398	-	-
B/AA	-	-	-	-	-	379	369	327	376	391
H/L	-	-	-	-	-	429	430	428	435	431
W	-	-	-	-	-	483	461	511	474	497
OT	-	-	-	-	-	-	-	-	476	445

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

Number of District Schools	98-99	99-00
CPMSA Schools:	45	46
% Schools:	45	46
Source: CDE 2000, 2001	100%	100%

Special Education and Bilingual Students:
 ↳ Limited English proficient and special needs students are mainstreamed or included into the content courses

Instructional Time:
 ↳ Elementary schools are required to teach math 60 minutes a day. It is recommended that science is taught 45 minutes a day

↳ Middle schools teach math and science 45 minutes a day

↳ High schools teach math and science on the block schedule, 90 minutes a day

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum	State
Curriculum/TextBook Adoption	State
Student Assessment	State
Professional Development	District
Resources	School
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Graduation Requirements
 ↳ 4 math courses
 ↳ 2 science courses

Student Support Systems:
 ↳ Migrant tutorial in math and science
 ↳ TAAS tutorial in math and science
 ↳ Family Learning Events - math and science for parents and students

Summer programs:
 ↳ Advanced Math and Science Summer Academy (AMSSA)
 ↳ Summer Migrants Accessing Resources through Technology (SMART)

Standards Adopted:
 ↳ State and National math and science standards

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Standards-based Curriculum and Instruction

Policies Relevant to Curriculum

Framework:
 ↳ The district has a curriculum framework for each math and science course
 ↳ The frameworks are limited to State and National math and science standards

Certification:
 ↳ Complete college course work, student teaching and take EXCET test. Recertification required of new teachers after 2000.

Requirement & Hiring Practices
 ↳ If positions are available after all certified teachers are in place. Uncertified teachers must be enrolled in university coursework, file a deficiency plan, and work towards certification.

Curricula:

Curricula Materials:
 ↳ Elementary: Scott-Foresman Addison Wesley, Sharon Wells, Math Their Way; Full Option Science Systems
 ↳ Middle School: Prentice-Hall; Science Plus-Scott-Foresman
 ↳ High School: Prentice-Hall; Biology-Holt, Chemistry-Heath, Physics-Glencoe-McGrawHill

Professional Advancement & Leadership Training:
 ↳ Elementary school mentors
 ↳ Each elementary campus has a facilitator who observes math and science lessons.
 ↳ 7 secondary school mentors visit middle and high schools.

Availability of High Level Courses:

New Courses Added as a Result of CPMSA:
 ↳ Precalculus, Calculus, Chemistry and Physics

E: Elementary School M: Middle School H: High School

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 ↳ Not allowed

Criteria for Entry into High Level Mathematics and Science Courses:
 ↳ All students who meet the course prerequisites may enroll in upper level math and science courses

Brownsville CPMSA

Professional Development Policies and Practices

- Time Required or Supported:**
- With a Bachelors Degree 30 hours
 - With a Masters Degree 18 hours
 - District Strategic Action Plan: 12 hours for math

Financial Resources Provided:

- Alignment to State Standards:**
- Yes. Professional development is planned to align to meet curriculum standards and teacher needs

Teachers' instructional practice change as a result of CPMSA influenced professional development:

- At the elementary, FOSS professional development has changed instruction from textbook science to standards-based, inquiry-centered, hands-on science. Middle school and high school science teachers are increasingly using technology to teach hands-on science. Math professional development has increased the use of math manipulatives K-12.

Type and Amount Received by Average Math/Science Teacher:

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures:

- Classroom teachers are evaluated by principal or assistant principals, and Deans on the Professional Development Appraisal System. Teachers receive documentation with a breakdown of their observation. Facilitators at the elementary and middle school and Deans at the high school observe and provide feedback to math and science teachers. 10 elementary and 7 secondary mentors provide non-evaluative observations and provide teachers feedback to improve instruction.

Impact on Student Achievement:

- Yes. professional development is linked to student achievement. Benchmark science tests are used to gauge the effectiveness of FOSS implementation at the elementary level. TAAS test data is used for math 3-8 and 10th to measure effectiveness of PD in math. TAAS grade 8 and End of Course Biology is used to measure effectiveness in those areas.

Policies Relevant to Standards-based Assessments

- Extent to Which Assessments are Aligned to District Standards and**
- District math benchmark tests are designed using teacher made scope and sequence curriculum guides
 - District middle school science benchmark tests are designed using teacher made scope and sequence curriculum guides. Elementary benchmarks are design using curriculum guide and module used during the six weeks

- Assessments Used:**
- TAAS Math G3-8, 10
 - TAAS End of Course Assessment for Algebra in G9
 - TAAS Science in grade 8
 - TAAS End of Course Biology used in G9

CPMSA Leadership, Governance, and Management

- Superintendent:**
- Dr. Noc Saucedo (as of 6/01)
 - Interim Superintendent
- Continuity of Leadership**
- Project Directors position in district's organizational structure:
- Teacher Leaders:**
- Project Director is located in the BISD curriculum department. Project Director reports to the area administrator in charge of curriculum who reports to the superintendent
 - 10 elementary school mentors
 - 3 secondary math mentors
 - 4 secondary science mentors

Partnerships

- Other Key Initiatives:**
- UT - Brownsville
 - ENLACE grant

- Compelling Initiatives:**
- UT - Brownsville Gear-Up Program

Community Stakeholders:

- Gladys Porter Zoo
- Brownsville Medical Center
- Valley Regional Hospital

Higher Education:

- UT - Brownsville provides funding for teachers graduate work in math and science
- UTB and UT San Antonio offer concurrent enrollment in math and science
- University of Houston - Clearlake is assisting with mentor teacher training

Business and Industry:

- Lockheed Martin
- Port of Brownsville
- Engineering mentor program with Public Utilities Board and Carling-Switch Manufacturing

Brownsville CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring: • Teacher mentors program is evaluated every 6 weeks through analysis of each mentors daily contact log.

• Enrollment and completion rates in math and science, TAAS test data, teacher surveys are used to monitor the program

Report Card System: • District report card (Academic Excellence Indicator System-AEIS) is shared with all stakeholders.

Key Indicator Data Collection: • Benchmark and TAAS data is collected and disseminated by

Assessment/Research/Evaluation office which works closely with the USP evaluator. USP evaluator also collects math and science completion rates

Key Indicator Data Use: • To design professional development by the math and science specialists

• To set goals for the CPMSA program
• To determine grade level of concentration for mentor teachers

Local On-Sight Evaluation: • Gregorio Garcia collects and maintains databases, surveys, benchmark results, TAAS data for key district personnel to support decision making

Data Manager: Mary Jo Monfils

External Evaluator: None

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1992-93	• Saturday academies to encourage all students to develop academic skills in math and science, especially at-risk Hispanic students
1993-94	• All entering 8th or 9th graders are required to take Algebra I
1994-95	• No changes reported
1995-96	• No changes reported
1996-97	• No changes reported
1997-98	• No changes reported
1998-99	• No changes reported
1999-00	• No changes reported
2000-01	• No changes reported

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1992-93	• Graduation requirements included 3 math and 2 science courses
1993-94	• No required time for math or science instruction at elementary level • No changes reported
1994-95	• No changes reported
1995-96	• No changes reported
1996-97	• No changes reported
1997-98	• No changes reported
1998-99	• No changes reported
1999-00	• No changes reported
2000-01	• Minimum graduation requirements include 4 math and 2 science courses • Math and science taught daily at elementary level

Brownsville CPMSA

Standards-based Assessment System Changes During CPMSA Implementation

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

Accountability

School Year	Policy Implemented
1992-93	• No changes reported
1993-94	• No changes reported
1994-95	• No changes reported
1995-96	• No changes reported
1996-97	• No changes reported
1997-98	• No changes reported
1998-99	• No changes reported
1999-00	• No changes reported
2000-01	• No changes reported

School Year	Policy Implemented
1992-93	• No changes reported
1993-94	• No changes reported
1994-95	• No changes reported
1995-96	• No changes reported
1996-97	• No changes reported
1997-98	• No changes reported
1998-99	• No changes reported
1999-00	• No changes reported
2000-01	• No changes reported

School Year	Policy Implemented
1992-93	• No changes reported
1993-94	• No changes reported
1994-95	• No changes reported
1995-96	• No changes reported
1996-97	• No changes reported
1997-98	• No changes reported
1998-99	• No changes reported
1999-00	• No changes reported
2000-01	• No changes reported



Chattanooga/Hamilton County Schools, TN
Chattanooga, TN

Project Information

CPMSA Project Title : Accessing Accelerated Achievement (AAA)
 Cohort: 93
 CPMSA Web Site:

◆ PI, CO-PI and PD

Jesse B. Register
 Principle Investigator
 T (423) 209-8600 F (423) 209-8601
 register_j@a1.cps.k12.tn.us
 Co-PI/PD
 Kenneth W. Shepherd
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 shepard_ken@a1.cps.k12.tn.us
 Co-PI/PD Assoc. Superintendent
 Sandra Black
 T (423) 209-8439 F (423) 209-8470
 black_s@a1.cps.k12.tn.us

◆ CPMSA Data Manager/Evaluator

Sandra Black
 Co-PI/PD Assoc. Superintendent
 T (423) 209-8439 F (423) 209-8470
 black_s@a1.cps.k12.tn.us

◆ Mailing Address

Hamilton County Department of Education
 6703 Bonny Oaks Drive, Building 200-1
 Chattanooga, TN 37421

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	49	1,235	20,302
G6-8 (Middle)	22	225	9,772
G9-12 (High)	17	189	10,484
Total	88	1,649	40,558

Source: Core Data Elements (SY 2000-01) (.) Data Missing (.) Data Missing

Project Summary

Accessing Accelerated Achievement in Science and Mathematics for Minority Students (AAA) is a teacher development and student support program. AAA aims to increase student participation in math and science by increasing the level of expectation for all students, while simultaneously redefining the teaching and learning equation in elementary, middle and high school classrooms.

Project Goals

To increase the number of minority students who pursue upper level secondary and college level studies in the areas of science, mathematics, engineering, and technology.

Selected School Indicators (District Average)

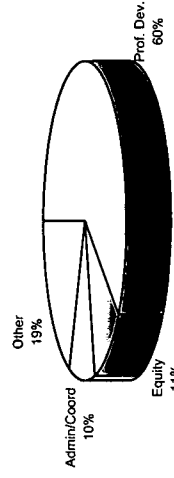
	98-99	00-01	Change
% Special Ed.	2.2%	2.4%	+0.2 PP
% LEP	0.6%	0.6%	+0.0 PP
% Free/Red. Lunch	34.6%	34.8%	+0.2 PP
% Daily Avg. Atten.	96.5%	96.4%	-0.1 PP
% Average Retained	8.1%	7.8%	-0.3 PP
% Drop-Out	1.4%	1.5%	+0.1 PP
% Mobility	3.6%	2.4%	-1.2 PP
Per Pupil Cost (\$)	\$5,565	\$6,440	+15.7%
# Students Per Computer	na	na	
% Classrooms Internet Access	na	na	
Average Class Size	na	na	

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	39%	60%
Equity	4%	11%
Admin/Coord	13%	10%
Other	44%	19%
Total	100%	100%

CPMSA Funds %



Chattanooga/Hamilton CPMSA

SY 2000-01

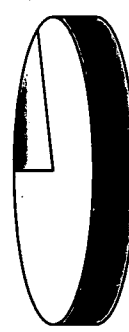
Student Demographics (SY 2000-01)

District Total:	40,558	District ³	
CPMSA Schools:	40,558	98-99	00-01
Source: Core Data Elements (SY 2000-01)		2,215	2,089
◆ Race/Ethnicity		1,779	1,765
		80%	84%
◆ Race/Ethnicity		CPMSA	
		95-96	97-98
Ame. Ind./Ala. Nat.	12	586	628
Asian/P. Islander	196	557	486
Black	11,307	95%	77%
Hispanic	51	26,519	26,519
White	4,492	0	0
Other	0	0	0
Total	16,058	42,113	41,551
URM Total	11,370	13,549	14,432
URM: Underrepresented Minority students.			
◆ Gender		District ³	
Male	8,050	21,539	21,304
Female	8,008	20,574	20,247



SEM Proficiency

CPMSA		District ³	
		98-99	00-01
# SEM Proficient ¹	146	155	387
% SEM Proficient/ Total 12th Grade	25%	25%	19%



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 3 math courses including Algebra and Geometry
- ◆ Science
 - 3 science courses including Physical Science, Biology, Chemistry or Physics

12th Grade Graduates

CPMSA		District ³	
		98-99	00-01
Total 12th Grade	586	2,215	2,089
Earned a Diploma	557	1,779	1,765
% Earned Diploma	95%	80%	84%

District Math and Science Teachers & Certification

◆ Mathematics (G6-12)

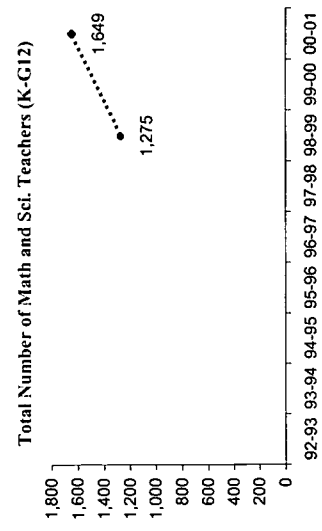
98-99		00-01		Change
Teachers	85	111	111	+31%
Certified				
% Cert.				
G6-8		G9-12		
Teachers	100	105	105	+5%
Certified				
% Cert.				
Total		Total		
Teachers	185	216	216	+17%
Certified				
% Cert.				

◆ Science (G6-12)

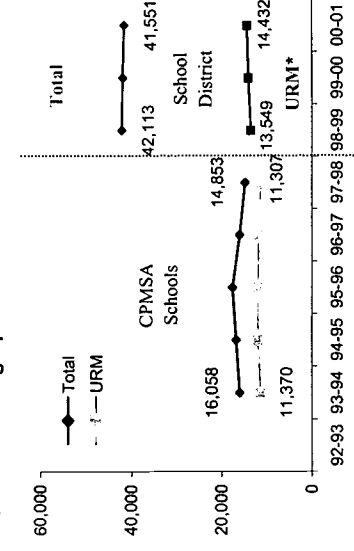
98-99		00-01		Change
Teachers	81	114	114	+41%
Certified				
% Cert.				
G6-8		G9-12		
Teachers	95	84	84	-12%
Certified				
% Cert.				
Total		Total		
Teachers	176	198	198	+13%
Certified				
% Cert.				

◆ Math and Science (K-G5)

98-99	00-01	Change	
Teachers	914	1,235	+35%



◆ Student Demographic Trends

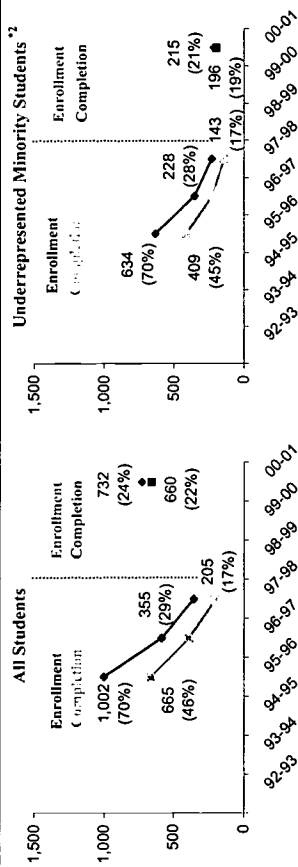


PP: Percentage Points
 (.) Data Missing
³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Chattanooga/Hamilton CPMSA

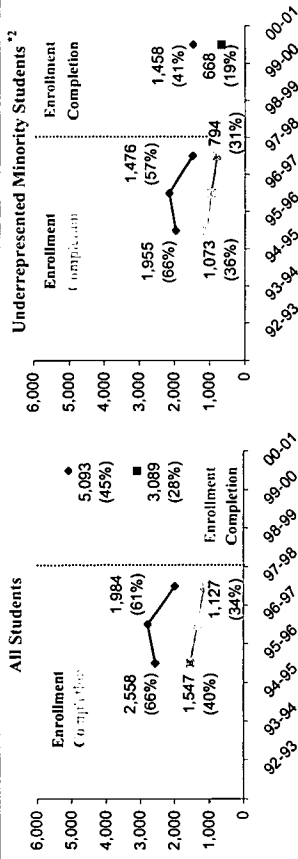
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

CPMSA				District ³					
Total G 8 Population	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	1,002	1,261	1,431	1,205	1,315	1,205	3,064	3,125	2,988
Completion ¹	665	707	665	387	585	205	355	355	732
% Enroll/GS-12	(46%)	(55%)	(48%)	(32%)	(44%)	(17%)	(11%)	(11%)	(24%)
URM ²	205	228	228	143	228	143	228	228	215
% Enroll/GS-12	(20%)	(18%)	(16%)	(12%)	(17%)	(12%)	(7%)	(7%)	(7%)



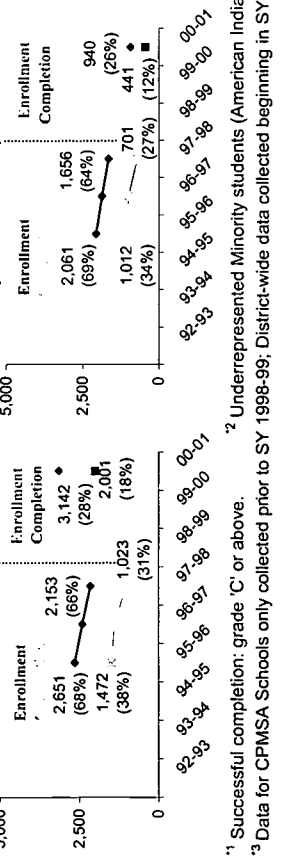
Mathematics and Science Enrollment & Completion Trends/ All vs. URM

CPMSA				District ³					
Total G 9-12 Population	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	2,558	1,984	2,558	1,984	2,778	1,984	3,089	3,089	5,093
Completion ¹	1,547	1,127	1,547	1,127	1,318	1,127	1,458	1,458	668
% Enroll/GS-12	(61%)	(57%)	(61%)	(57%)	(47%)	(57%)	(47%)	(47%)	(13%)
URM ²	1,472	1,023	1,472	1,023	994	701	441	441	267
% Enroll/GS-12	(57%)	(51%)	(57%)	(51%)	(36%)	(35%)	(14%)	(14%)	(5%)



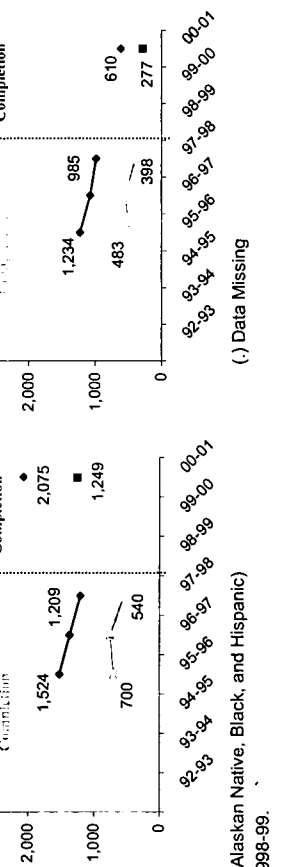
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

CPMSA				District ³					
Total G 9-12 Population	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	2,651	2,153	2,651	2,153	2,407	2,153	3,142	3,142	2,075
Completion ¹	1,472	1,023	1,472	1,023	1,397	1,023	2,001	2,001	610
% Enroll/GS-12	(68%)	(64%)	(68%)	(64%)	(57%)	(47%)	(64%)	(64%)	(29%)
URM ²	2,061	1,656	2,061	1,656	1,656	940	940	940	277
% Enroll/GS-12	(78%)	(77%)	(78%)	(77%)	(60%)	(43%)	(30%)	(30%)	(13%)



Biology Enrollment & Completion Trends/ All vs. URM

CPMSA				District ³					
Total G 8 Population	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	1,524	1,209	1,524	1,209	1,371	1,209	2,075	2,075	2,075
Completion ¹	700	747	700	747	540	540	1,249	1,249	610
% Enroll/GS-12	(46%)	(61%)	(46%)	(61%)	(39%)	(45%)	(39%)	(39%)	(29%)
URM ²	483	542	483	542	398	398	277	277	277
% Enroll/GS-12	(32%)	(42%)	(32%)	(42%)	(30%)	(33%)	(13%)	(13%)	(13%)



¹ Successful completion: grade 'C' or above. ² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99.

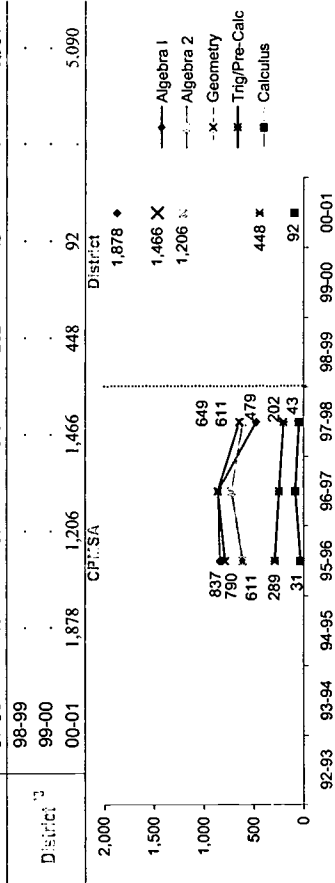
Chattanooga/Hamilton CPMSA

SY 2000-01

Mathematics Course Enrollment & Completion Trends By Subject

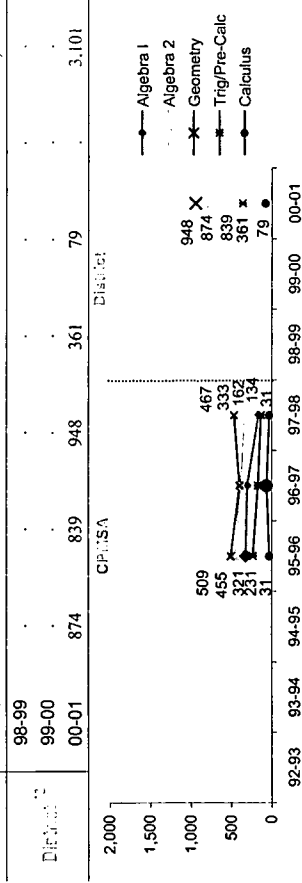
G 9-12 Course Enrollment (All Students)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
CPMSA				837	862	611	790	289	31	1,046	3,604					3,604
District ³				862	725	611	862	248	81	1,068	3,846					3,846
				479	611	649	202	43	43	1,984						1,984
				1,878	1,206	1,466	448	92	5,090							5,090



G 9-12 Course Completion¹ (All Students)

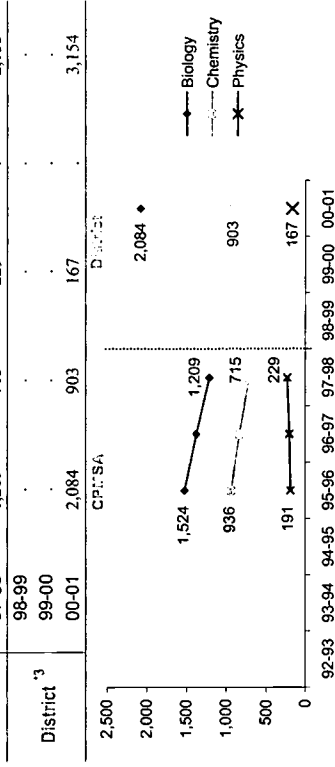
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
CPMSA				321	302	162	509	231	31	745	2,292					2,292
District ²				302	385	333	398	169	64	666	1,984					1,984
				162	333	467	134	31	31	1,127						1,127
				874	839	948	361	79	3,101							3,101



Science Course Enrollment & Completion Trends By Subject

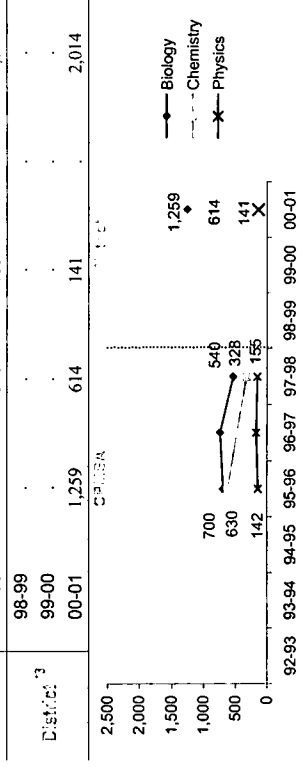
G 9-12 Course Enrollment (All Students)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Biology	Chemistry	Physics	Other	Science Total
CPMSA				1,524	936	1,209	191	1,209	2,084	2,084	903	167		3,154
District ³				1,524	936	1,209	191	1,209	2,084	2,084	903	167		3,154



G 9-12 Course Completion¹ (All Students)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Biology	Chemistry	Physics	Other	Science Total
CPMSA				700	630	540	142	614	1,259	614	141			2,014
District ²				700	630	540	142	614	1,259	614	141			2,014



¹ Successful completion: grade 'C' or above.

² Data not presented on graph for sample size less than 5

³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Chattanooga/Hamilton CPMSA

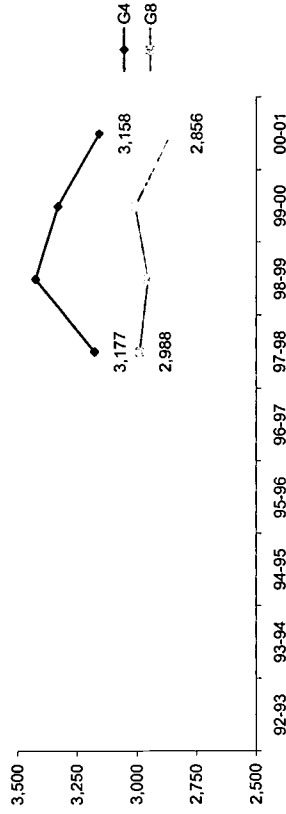
SY 2000-01

District Assessment Test Administered

Assessment Test-Taker Trends Terra Nova

◆ Mathematics	Assessment Test-Taker Trends Terra Nova									
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	
◆ Mathematics										
# of Test-takers										
Grade 4					3,177	3,423	3,331	3,158		
Grade 8					2,988	2,953	3,008	2,856		
Grade 10										
Type										

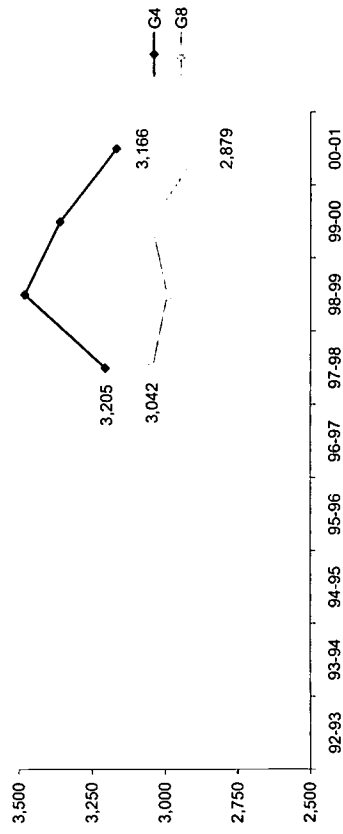
Total number of students taking test



State Assessment Test Administered

◆ Mathematics	Assessment Test-Taker Trends Terra Nova									
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	
◆ Science										
# of Test-takers										
Grade 4					3,205	3,480	3,359	3,166		
Grade 8					3,042	2,992	3,047	2,879		
Grade 10										
Type										

Total number of students taking test



PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

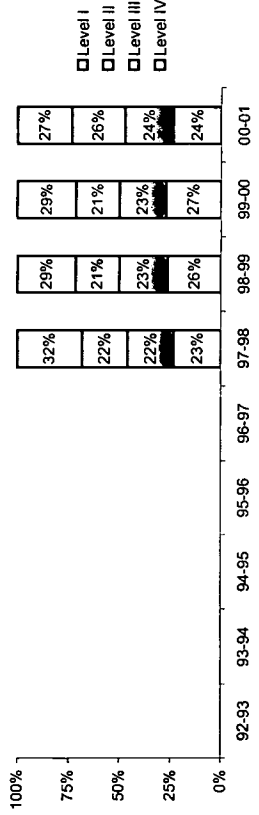
Chattanooga/Hamilton CPMSA

SY 2000-01

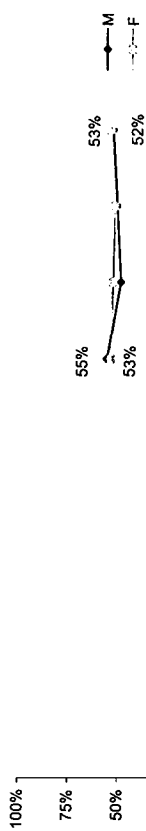
District Assessment Test Result Trends Terra Nova - Mathematics

Grade 4

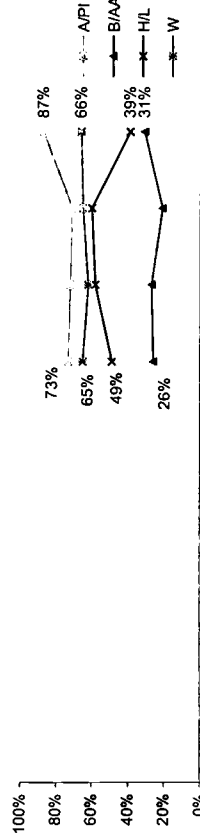
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level I						32%	29%	29%	27%
Level II					22%	22%	21%	21%	26%
Level III					22%	23%	23%	23%	24%
Level IV					23%	26%	27%	27%	24%
Total # of students				3,177	3,423	3,331	3,158		



% Passing by Gender



% Passing by Race/Ethnicity

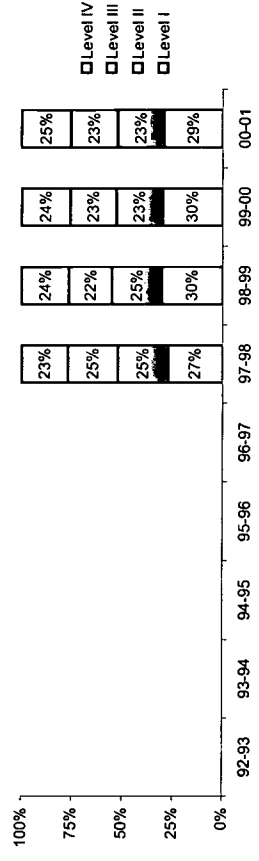


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Level I + Level II

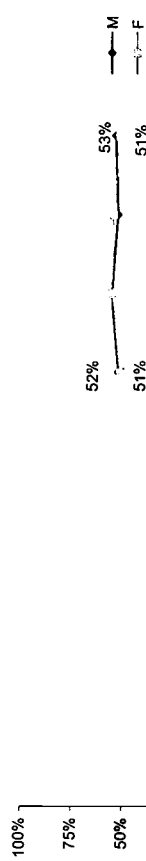
District Assessment Test Result Trends Terra Nova - Mathematics

Grade 8

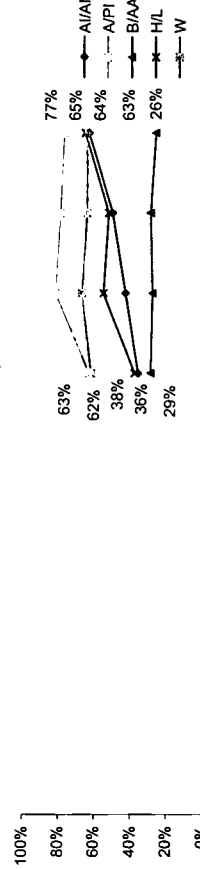
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level I						27%	30%	30%	29%
Level II					25%	25%	25%	23%	23%
Level III					23%	22%	22%	23%	23%
Level IV					25%	25%	24%	24%	25%
Total # of students				2,998	2,953	3,008	2,856		



% Passing by Gender



% Passing by Race/Ethnicity



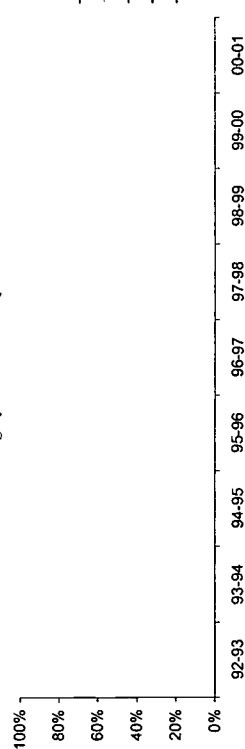
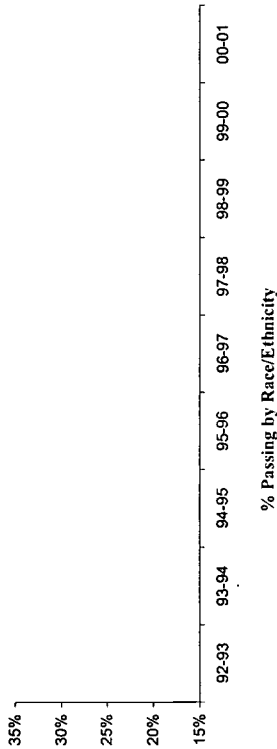
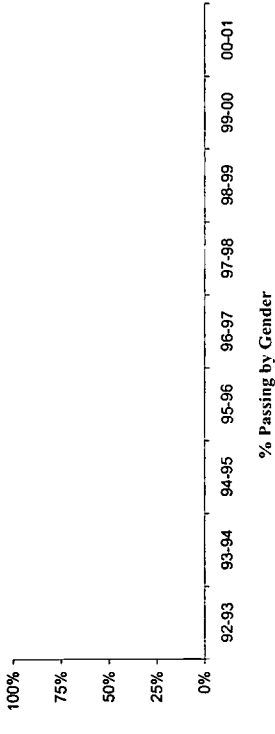
Chattanooga/Hamilton CPMSA

District Assessment Test Result Trends Terra Nova - Mathematics

◆ Grade 10

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students									

Data Not Available

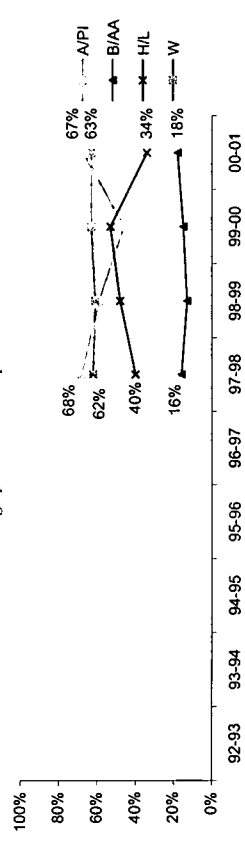
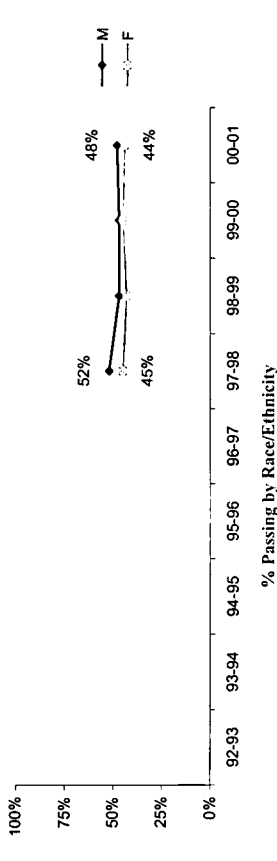
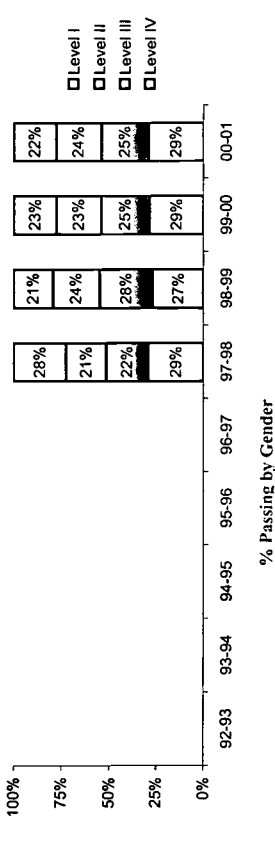


A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Level I + Level II
Test-Takers Less than 5 not Presented in Graph

District Assessment Test Result Trends Terra Nova - Science

◆ Grade 4

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level I	28%	21%	28%	21%	28%	21%	21%	23%	22%
Level II	21%	24%	22%	24%	22%	24%	23%	23%	24%
Level III	22%	28%	29%	27%	29%	28%	25%	25%	25%
Level IV	29%	27%	27%	27%	29%	27%	29%	29%	29%
Total # of students	3,205	3,480	3,480	3,359	3,166				



Chattanooga/Hamilton CPMSA

SY 2000-01

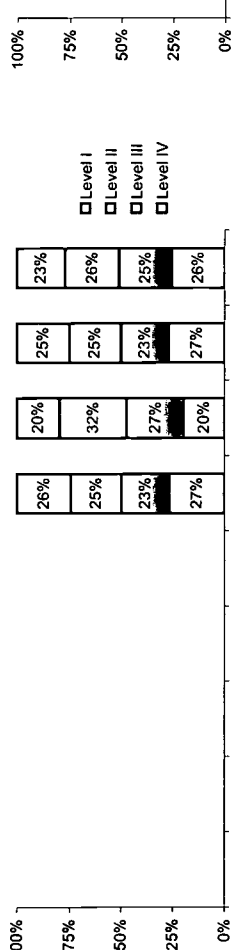
District Assessment Test Result Trends Terra Nova - Science

Grade	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level I	26%	25%	23%	27%	20%	26%	25%	25%	23%
Level II	25%	25%	23%	27%	32%	23%	32%	25%	26%
Level III	23%	23%	23%	27%	27%	27%	20%	27%	26%
Level IV	27%	27%	27%	27%	20%	27%	27%	27%	26%
Total # of students	3,042	3,042	2,992	3,047	2,879				

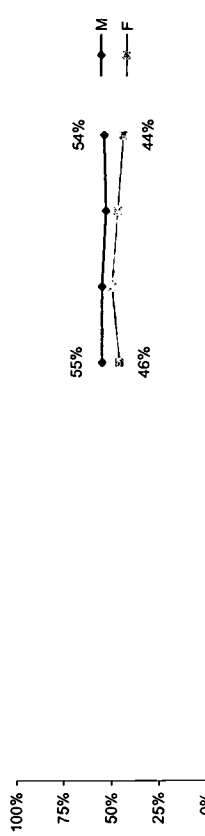
District Assessment Test Result Trends Terra Nova - Science

Grade	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level I	26%	25%	23%	27%	20%	26%	25%	25%	23%
Level II	25%	25%	23%	27%	32%	23%	32%	25%	26%
Level III	23%	23%	23%	27%	27%	27%	20%	27%	26%
Level IV	27%	27%	27%	27%	20%	27%	27%	27%	26%
Total # of students	3,042	3,042	2,992	3,047	2,879				

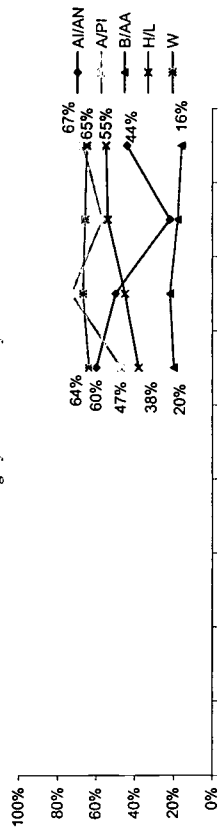
Data Not Available



% Passing by Gender

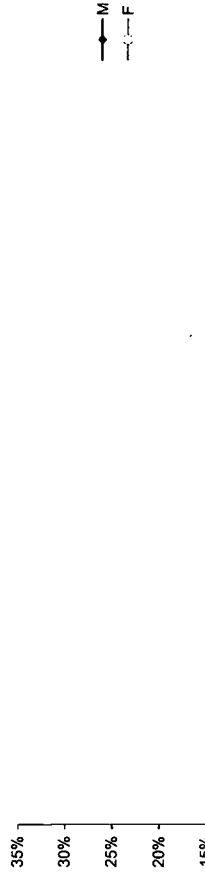


% Passing by Race/Ethnicity

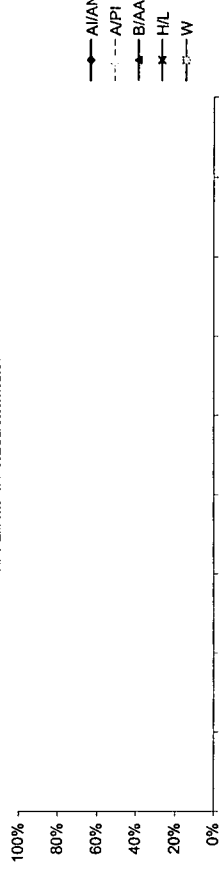


A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Level I + Level II

% Passing by Gender

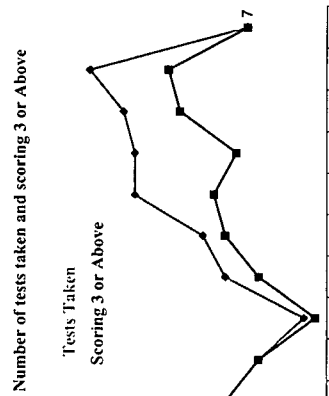


% Passing by Race/Ethnicity



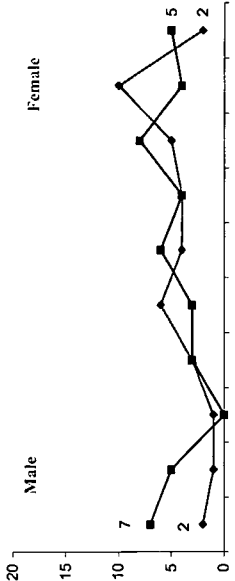
AP Mathematics Test Result Trends

	93	94	95	96	97	98	99	00	01	02
AP Mathematics - Total Number of Tests Taken	1,284	1,232	1,341	1,296	1,269	1,269	4,539	4,639	4,487	
Total # of 11th & 12th graders	9	6	2	9	11	17	16	18	20	5
Calc. AB	0	0	0	0	0	0	1	0	1	2
Calc. BC	0	0	0	0	0	0	0	0	0	0
Statistics	0	0	0	0	0	0	0	0	0	0
Total	9	6	2	9	11	17	17	18	21	7
Tests taken per 1,000 students	4.7	1.6	6.7	8.5	13.4	3.7	3.9	4.7		
Scoring 3 or Above	9	6	1	6	9	10	8	13	14	7
Above per 1000 students	4.7	0.8	4.5	6.9	7.9	1.8	2.8	3.1		



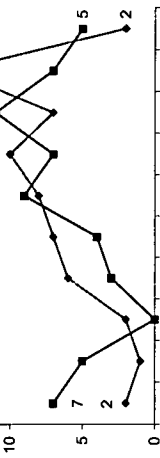
AP Mathematics - Number of Students Scoring 3 or Above By Gender

	93	94	95	96	97	98	99	00	01	02
Male	7	5	0	3	3	6	4	8	4	5
Female	2	1	1	3	6	4	4	5	10	2



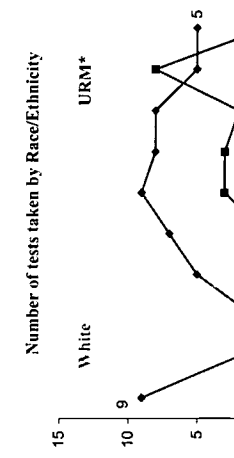
AP Mathematics - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	7	5	0	3	4	9	7	11	7	5
Female	2	1	2	6	7	8	10	7	14	2



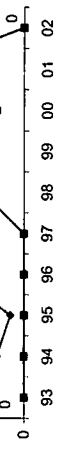
AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	4	1	1	2	1	2	6	6	2
B/AA	0	0	0	0	0	0	0	0	0	1
H/L	0	0	0	0	0	0	0	0	0	0
W	9	2	0	5	7	7	6	6	5	5



AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	4	1	1	2	1	2	6	6	2
B/AA	0	0	0	0	0	0	0	0	0	1
H/L	0	0	0	0	0	0	0	0	0	0
W	9	2	0	5	7	7	6	6	5	5



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Chattanooga/Hamilton CPMSA

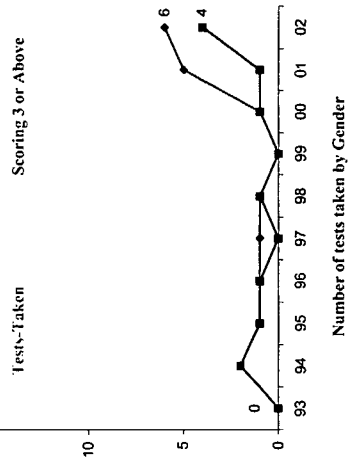
SY 2000-01

AP Science Test Result Trends | **♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

♦ AP Science - Total Number of Tests Taken

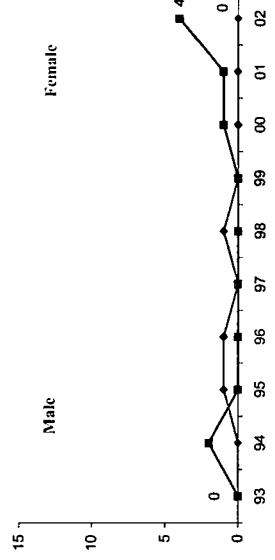
	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,284	1,232	1,341	1,296	1,269	1,269	4,539	4,639	4,487	.
Tests Taken	0	2	1	1	1	1	0	0	2	2
Biology	0	0	0	0	0	0	0	1	0	2
Chemistry	0	0	0	0	0	0	0	0	0	0
Env. Science	0	0	0	0	0	0	0	0	0	0
Physics B	0	0	0	0	0	0	0	0	2	0
Physics Mech.	0	0	0	0	0	0	0	0	1	1
Physics Elec.	0	0	0	0	0	0	0	0	0	1
Total	0	2	1	1	1	1	0	1	5	6
Tests taken per 1,000 students	1.6	0.8	0.7	0.8	0.8	0.8	0.0	0.2	1.1	.
Scoring 3 or Above	0	2	1	1	0	1	0	1	1	4
Scoring 3 or Above per 1000	1.6	0.8	0.7	0.0	0.8	0.0	0.0	0.2	0.2	.

Number of tests taken and scoring 3 or Above



♦ AP Science - Number of Students Scoring 3 or Above By Gender

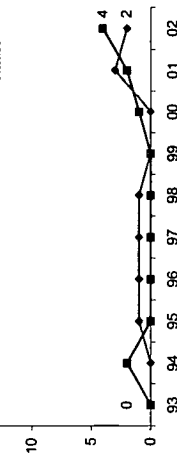
	93	94	95	96	97	98	99	00	01	02
Male	0	2	0	0	0	0	0	1	1	4
Female	0	0	0	1	0	1	0	0	0	0



♦ AP Science - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	2	0	0	0	0	0	1	2	4
Female	0	0	1	1	1	1	0	0	3	2

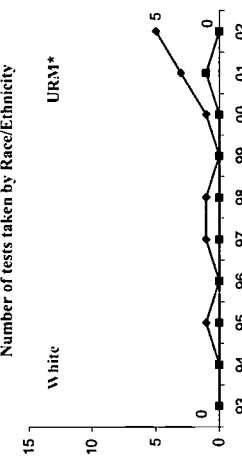
Number of tests taken by Gender



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

	93	94	95	96	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	2	0	1	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	1	0	0	1	0	1	3

Number of tests taken by Race/Ethnicity



♦ AP Science - Number of Tests Taken By Race/Ethnicity ¹

	93	94	95	96	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	2	0	1	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	1	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	1	0	1	1	0	1	3	5

AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

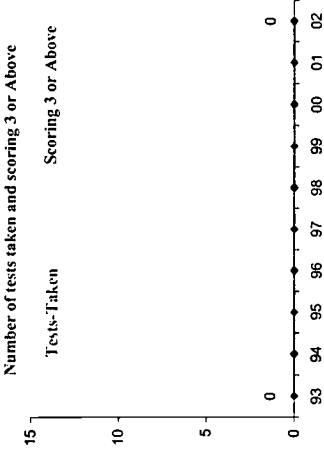
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

AP Computer Science - Total Number of Tests Taken

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,284	1,232	1,341	1,296	1,269	4,539	4,639	4,487		
Comp. Sci. A	0	0	0	0	0	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0	0	0	0	0
Total:	0	0	0	0	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Scoring 3 or Above	0	0	0	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



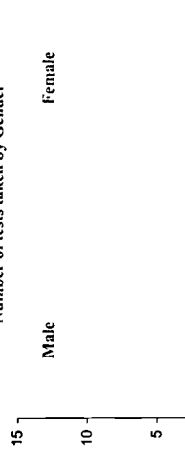
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



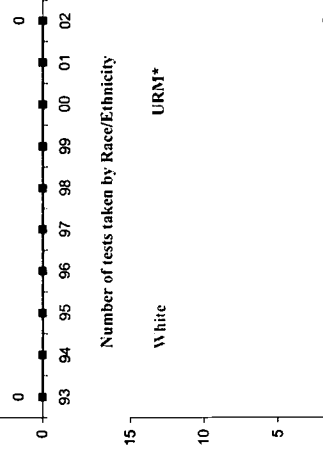
AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

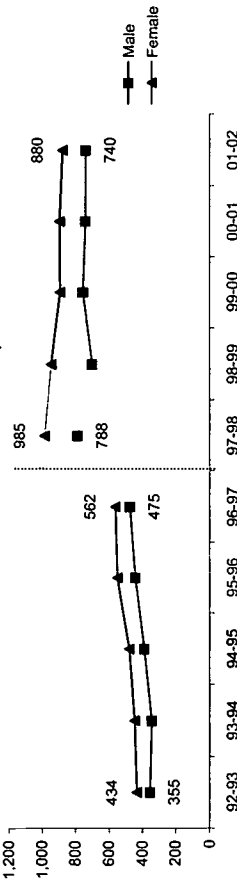
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Chattanooga/Hamilton CPMSA

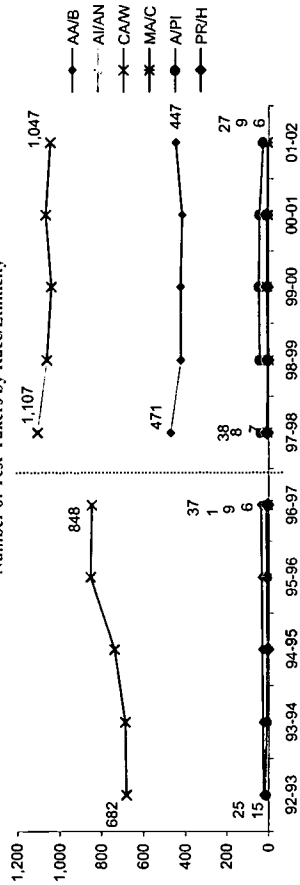
ACT Test-Takers

◆ Number of Test-Takers	CPMSA					District ¹				
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students							2,215	2,107	2,089	
Test-Takers	789	791	868	994	1,037	1,773	1,649	1,651	1,641	1,620
Num of Test-Takers/1,000 Stu.							744	784	786	
Gender										
Male	355	344	389	443	475	788	702	757	742	740
Female	434	447	479	551	562	985	947	894	899	880
Race/Ethnicity										
AA/B	25	27	32	35	37	471	423	424	417	447
AI/AN	4	2	3	6	9	4	7	8	7	9
CA/W	682	687	738	854	848	1,107	1,063	1,042	1,069	1,047
MA/C	4	4	2	3	6	7	3	8	5	6
A/PI	15	10	8	9	15	38	43	47	45	27
PR/H	4	2	5	4	6	8	5	7	10	4

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity²



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

¹ Data for CPMSA Schools only collected prior to SY 1997-98; District-wide data collected beginning in SY 1997-98

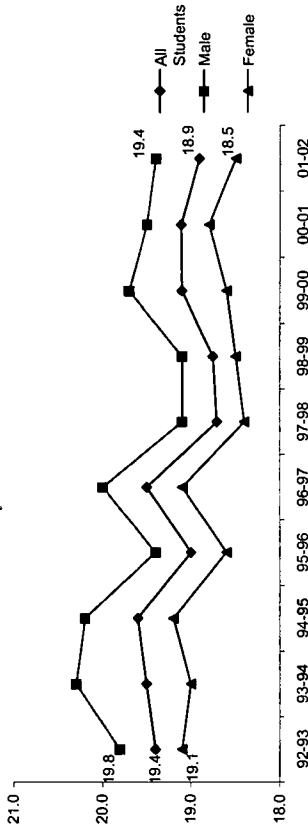
² Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

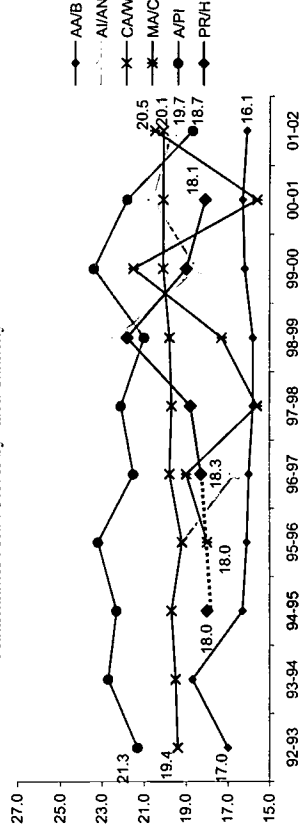
◆ Mathematics - Mean Score Trends

Gender	Mathematics - Mean Score Trends									
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.4	19.5	19.6	19.0	19.5	18.7	18.8	19.1	19.1	18.9
Male	19.8	20.3	20.2	19.4	20.0	19.1	19.1	19.7	19.5	19.4
Female	19.1	19.0	19.2	18.6	19.1	18.4	18.5	18.6	18.8	18.5
Race/Ethnicity										
AA/B	17.0	18.7	16.3	16.1	16.0	15.8	15.8	16.2	16.3	16.1
AI/AN	-	-	-	19.2	16.7	-	22.3	18.5	20.6	19.7
CA/W	19.4	19.5	19.7	19.2	19.8	19.7	19.8	20.1	20.1	20.1
MA/C	-	-	-	18.0	19.0	15.6	17.3	21.5	15.6	20.5
A/PI	21.3	22.7	22.3	23.2	21.5	22.1	21.0	23.4	21.8	18.7
PR/H	-	-	18.0	-	18.3	18.8	21.8	19.0	18.1	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



(-) Mean scores not presented for sample size less than 5

Chattanooga/Hamilton CPMSA

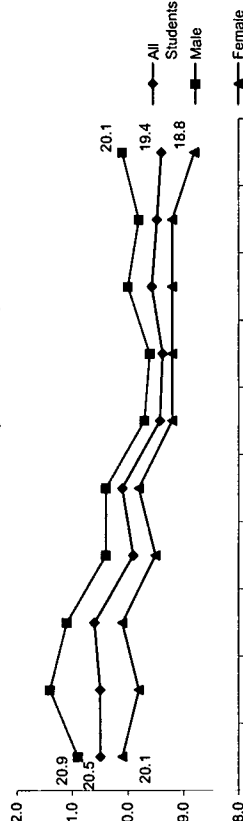
SY 2000-01

ACT Science Reasoning Scores

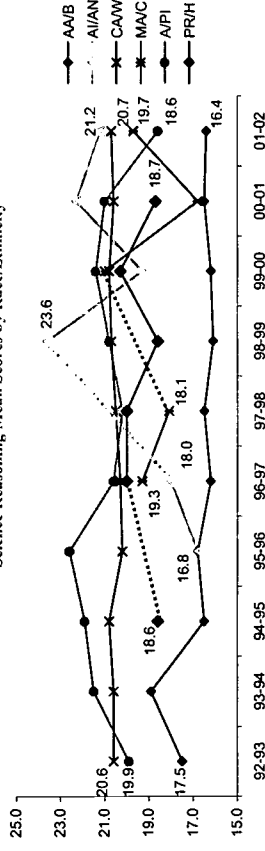
◆ Science Reasoning - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	20.5	20.5	20.6	19.9	20.1	19.4	19.4	19.6	19.5	19.4
Gender										
Male	20.9	21.4	21.1	20.4	20.4	19.7	19.6	20.0	19.8	20.1
Female	20.1	19.8	20.1	19.5	19.8	19.2	19.2	19.2	19.2	18.8
Race/Ethnicity										
AA/B	17.5	18.9	16.5	16.8	16.2	16.5	16.1	16.2	16.5	16.4
A/IAN	-	-	-	16.8	18.0	-	23.6	19.3	22.3	21.2
CA/W	20.6	20.6	20.8	20.2	20.3	20.5	20.7	20.8	20.6	20.7
MA/C	-	-	-	-	19.3	18.1	-	21.0	16.8	19.7
A/PI	19.9	21.5	21.9	22.6	20.6	20.2	20.8	21.4	21.0	18.6
PR/H	-	-	18.6	-	20.0	20.0	18.6	20.3	18.7	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black A/IAN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

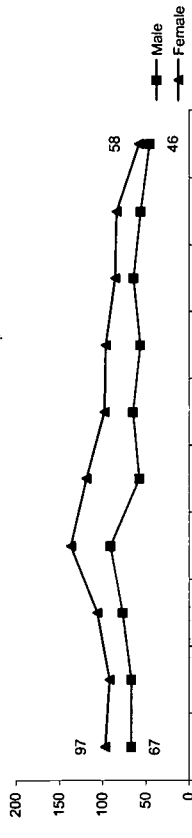
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

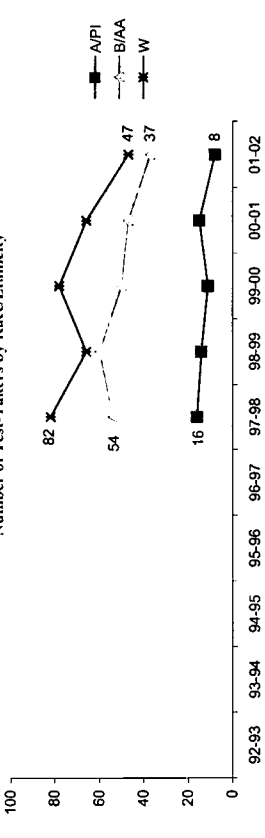
◆ Number of Test-Takers

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students							2,215	2,107	2,089	
Test-Takers	164	159	183	228	177	163	153	150	140	104
Num of Test-Takers/1,000 Stu.							69	71	67	
Gender										
Male	67	67	77	91	58	65	57	65	56	46
Female	97	92	106	137	119	98	96	86	84	58
Race/Ethnicity										
A/IAN							0	1	0	0
A/PI							16	14	11	15
B/AA							54	60	50	47
H/L							1	0	1	1
W							82	66	78	66
OT							4	5	2	4

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

¹Number of Test-Takers less than 5 not presented in graph

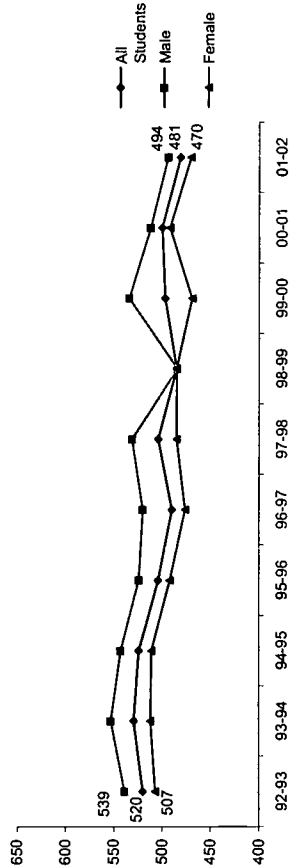
Chattanooga/Hamilton CPMSA

SAT Mathematics Scores

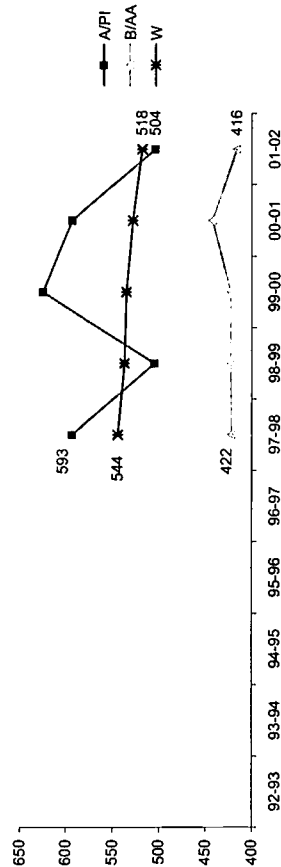
◆ Mathematics - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	520	529	524	504	490	504	485	497	500	481
Gender										
Male	539	553	543	524	520	531	484	534	512	494
Female	507	512	511	492	476	485	485	469	492	470
Race/Ethnicity										
A/AN	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	593	505	625	593	504	-
B/AA	-	-	-	-	422	423	423	442	416	-
H/L	-	-	-	-	-	-	-	-	-	-
W	-	-	-	-	544	537	535	528	518	-
OT	-	-	-	-	-	496	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



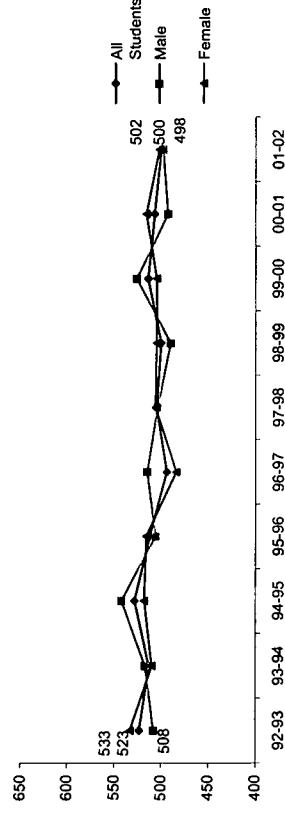
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

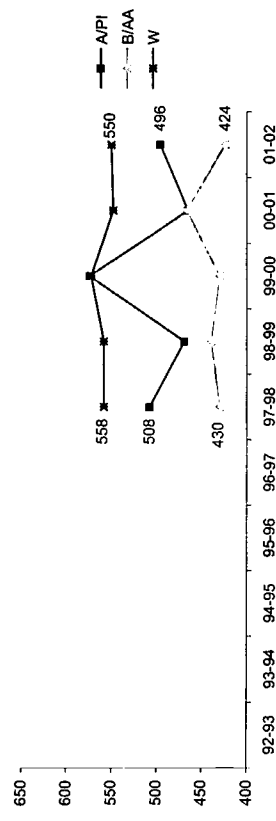
◆ Verbal - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	523	513	528	512	494	505	500	514	507	500
Gender										
Male	508	517	542	506	515	504	490	526	493	498
Female	533	510	518	516	484	506	505	505	516	502
Race/Ethnicity										
A/AN	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	508	469	574	465	496
B/AA	-	-	-	-	-	430	439	430	466	424
H/L	-	-	-	-	-	-	-	-	-	-
W	-	-	-	-	-	558	558	572	548	550
OT	-	-	-	-	-	-	516	-	-	-

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



(-) Mean scores not presented for sample size less than 5

Chattanooga/Hamilton CPMSA

Cohort/Scale-Up Approach

Number of District Schools	95-96 ¹	96-97 ¹	97-98 ¹	98-99 ²	00-01 ³
	41	41	81	81	88
CPMSA Schools:	34	34	34	32	88
% Schools:	83%	83%	42%	40%	100%

¹Source: TISC-98

²Source: CDE 1999

³Source: CDE 2001

Primary Decision Making Body

Standards Curriculum	District
Curriculum/TextBook Adoption	District
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District
School-Based Management?	Yes

Special Education and Bilingual Students:

- Special language classes for LEP students
- Increased number of Special Education students mainstreamed

New Courses Added as a Result of CPMSA: Chemistry

Biology II (Chemistry Prerequisite); Chemistry II; AP Calculus; AP Biology; AP Physics; AP Chemistry

Instructional Time:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

- Graduation Requirements
- 3 math courses including Algebra and Geometry
 - 3 science courses including Physical Science, Biology, Chemistry or Physics
- Student Support Systems:
- Extended day, week and year opportunities
 - Summer science/math specific activities average duration 2 weeks
 - Summer enrichment programs in math and science continue K-12

Standards Adopted:

- NCTM for math
- National Science Education Standards
- System-specific HCDE Standards
- Supplement National Standards

% of Students Experiencing Standards-based Curricula:

E	100%
M	100%
H	100%

Policies Relevant to Curriculum

Framework:

- Standards based curriculum for all subjects implemented in all schools

Curricula:

- Curricula Materials:
- In 1999, the district adopted Everyday Mathematics (K-5) and Connected Mathematics (6-8) and SIMMS was adopted by 1 high school. In 2001, Cognitive Tutor Algebra I has been implemented at 2 high schools and 1 middle school. The system adopted textbooks for high school are more traditional except for those noted
 - In addition to State/System adopted textbooks and supplemental materials the science curriculum includes GEMS, AIMS, SEPUP, FOSS, and STC

Policies Relevant to Teacher Qualifications

Certification:

- Teachers with a Bachelors Degree are required to complete 90 hours of professional development or 6 hours of graduate study over 10 years to maintain certification

Requirement & Hiring Practices

The system does not hire uncertified teachers for math or science at high school level unless an emergency requires the hiring of a teacher on permit in which case the teacher must obtain licensure in 2 years. Middle school teachers with elementary certification can teach math and science courses.

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Policies Promoting Equal Access by All Students in High Quality Education

- Student Tracking:
- Tracking eliminated 1994 with district merger, tracking is evident in some suburban schools
- Criteria for Entry into High Level Mathematics and Science Courses:
- Prerequisite courses in math
 - Physical Science pre- or co-requisite is Algebra I
 - Algebra I is prerequisite for Chemistry and Physics

Availability of High Level Courses:

Chattanooga/Hamilton CPMSA

Professional Development Policies and Practices

Time Required or Supported:

- HCDE requires 8 days of training during the school year. The state requires 90 units of training outside of the school calendar, 24 hours of content specific professional development is required

Financial Resources Provided:

Alignment to Student Standards:

Teachers' instructional practice change as a result of CPMSA influenced professional development:

- Primary focus of CPMSA sponsored professional development are to increase knowledge, develop effective classroom instruction techniques and utilized student performance data to guide instruction

Type and Amount Received by Average Math/Science Teacher:

Evaluation Instruments:

- State/System prescribed evaluations conducted by System and Building-level personnel. The new adopted framework reflects findings from recent brain research and inquiry as part of all instruction

Professional Development Alignment to Content Standards Measures:

- Yes. Project MaSS (USP) directors and staff monitor the content, quality, and alignment of PD curricula.

Teacher's Instructional Practices Evaluation:

- Teachers receive feedback from system content area supervisors and school principal

Impact on Student Achievement:

- We have developed instruments to gather observational data on the impact of professional development on classroom instruction. We plan to correlate this data, professional development hours and student

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

- For math and science, the Terra Nova standardized test was derived from standards as adopted at the time of publication, according to the publisher

Assessments Used:

- Terra Nova Achievement test at grades 4, 8 and 12 for math and science

Partnerships

Other Key Initiatives:

- Title I
- Title II

Competing Initiatives:

- None

Community Stakeholders:

- 100 Black Men
- 100 Black Women
- Lyndhurst Foundation
- Public Education Foundation

CPMSA Leadership, Governance, and Management

Superintendent:

- Dr. Jesse Register

Continuity of Leadership

- Ken Sheppard PD. There was continuity for the first 3 1/2 years of the project through 2 different superintendents. In 1997, the school district merged with Hamilton County School District. The current superintendent continues to support the efforts of mathematics and science reform

Project Directors position in district's organizational structure:

- Project Director reported to the Assistant Superintendent for Curriculum and Instruction. The project director also had access to the Superintendent and met with him on a regular basis

Teacher Leaders:

Business and Industry:

- Oak/Ridge National Lab
- Chattanooga Manufacturers

Higher Education:

- ORAU (Oak Ridge Associated Universities)
- UMMASS Amherst
- University of Tennessee-Chattanooga
- University of Tennessee-Knoxville
- Chattanooga State Technical Community College

Chattanooga/Hamilton CPMSA

Accountability

Program Effectiveness Monitoring:

- Through Data Collection and analysis of course enrollments. Curriculum implementation, teacher preparation standards development and student performance. Program effectiveness is then measured against standards established in Letter of Agreement
- State report card posted on DOE

Report Card System:

- By Division of Information and Support Services in HCSD

Key Indicator Data Use:

- Review Student performance and for instructional needs
- Follow-up from project staff throughout the school year

Local On-Sight Evaluation:

- Course enrollments, teacher preparation, standards development and student performance

Data Manager:

External Evaluator:

- No

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

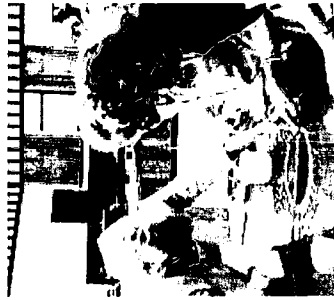
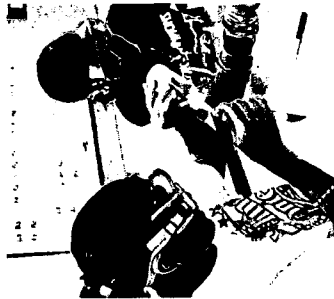
School Year	Policy Implemented
1994-95	<ul style="list-style-type: none"> • Tracking eliminated • Increased graduation requirements to 3 math and 3 science
1995-96	
1996-97	
1997-98	<ul style="list-style-type: none"> • Merger of district with Hamilton County Department of Education. Some evidence of tracking remains particularly in suburban schools
1998-99	
1999-00	

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	<ul style="list-style-type: none"> • AP courses and Biology II and Chemistry added • Daily math and science instruction is mandated for elementary schools • Secondary schools adopt laboratory sciences incorporating 40% of lab activities
1995-96	
1996-97	
1997-98	<ul style="list-style-type: none"> • GEMS, AIMS, SEPUP, FOSS and STC science curriculum materials piloted
1998-99	<ul style="list-style-type: none"> • Standards based curriculum for all subjects implemented in all schools
1999-00	<ul style="list-style-type: none"> • New math curriculum materials adopted

Chattanooga/Hamilton CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1994-95		1994-95		1994-95	
1995-96		1995-96		1995-96	
1996-97		1996-97		1996-97	• State report card developed
1997-98		1997-98	• The use of the Terra Nova Achievement tests at grades 3-8 is adopted	1997-98	
1998-99		1998-99		1998-99	
1999-00	• Prospective teachers from private industry with math and science degree can attend a 14-month program while they teach and receive certification	1999-00		1999-00	



Denver Public Schools, CO
Denver, CO

Project Information

CPMSA Project Title : Minority Initiative for Denver Schools (MINDS)

Cohort: 94

CPMSA Web Site:

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 Elizabeth Celva
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◆ CPMSA Data Manager/Evaluator

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Research Analyst

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 james_mcintosh@dpsk12.org

◆ Mailing Address

Denver Public Schools,
 Department of Assessment & Testing
 900 Grant
 Room 610
 Denver CO 80203

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
99-00			
K-G5 (Elementary)	82	2,655	37,629
G6-8 (Middle)	18	326	13,915
G9-12 (High)	12	274	15,453
Total	112	3,255	66,997

Source: Core Data Elements (SY 1999-00)

Project Summary

To significantly increase the number of Denver underrepresented minority students who are prepared to enter higher education and careers in science, engineering and mathematics.

Over the next 5 years, the MINDS project will directly affect approximately 17,000 students in 19 K-12 schools arranged in four feeder clusters (with an average underrepresented minority population of 74 percent). The goals of this project will be achieved through a four-component strategy:

1. Recruiting of minority students into the MINDS program beginning in the fourth grade & seventh grade, continuing through high school graduation.
2. The retention of students in the MINDS program through newly designed academic year and summer bridge programs based on the small-scale approach in science and the interactive approach in mathematics.
3. The expansion of existing district-wide and school-site motivational activities consisting of mentoring and other project-centered activities.
4. A concurrent staff development program to create MINDS science and mathematics teacher-leaders to deliver the above courses & activities and to explore the roles of minorities in science, engineering, and mathematics.

Project Goals

The goals of the Denver Public Schools Comprehensive Partnerships for Mathematics and Science Achievement are to at least double the numbers of district students who successfully complete the college preparatory sequence of courses in science and mathematics to enable them to enroll in undergraduate programs in science, engineering, mathematics, and technology.

Selected School Indicators (District Average)

	98-99	00-01	Change
% Special Ed.	11.9%	10.7%	-1.2 PP
% LEP			
% Free/Red. Lunch	63.7%	61.9%	-1.8 PP
% Daily Avg. Atten.			
% Average Retained	2.5%	1.5%	-1.0 PP
% Drop-Out	7.4%	4.2%	-3.2 PP
% Mobility	81.7%		
Per Pupil Cost (\$)			
# Students Per Computer			
% Classrooms Internet Access			
Average Class Size			

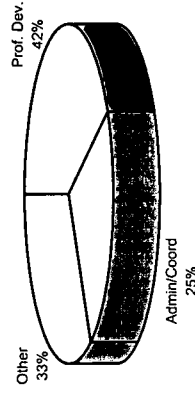
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 1999-00)

	District	CPMSA
Prof. Dev.	26%	42%
Student Enrich.	0%	0%
Admin/Coord	31%	25%
Other	43%	33%
Total	100%	100%

CPMSA Funds %



Student Demographics (SY 2000-01)

District Total: 67,940
 CPMSA Schools: 67,940
 Source: TISC-2001

Race/Ethnicity District-Wide

	93-94	00-01	%	% Change
Ame. Ind./Ala. Nat.	817	873	1.3%	+6.9%
Asian/P. Islander	2,377	2,213	3.3%	-6.9%
Black	12,961	13,921	20.5%	+7.4%
Hispanic	25,521	35,895	52.8%	+40.6%
White	18,590	15,038	22.1%	-19.1%
Other	0	0	0.0%	
Total	60,266	67,940	100.0%	+12.7%
URM Total	39,299	50,689	74.6%	+29.0%

URM: Underrepresented Minority students.

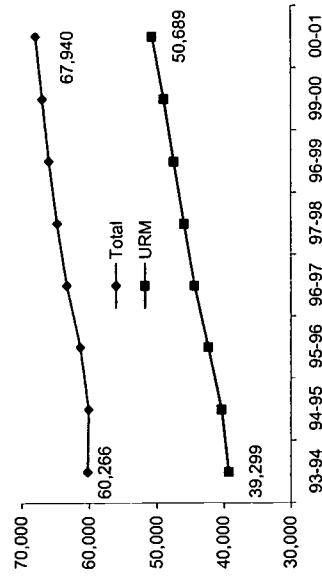
Gender

Male	30,808	34,692	51.1%	+12.6%
Female	29,458	33,248	48.9%	+12.9%

Grade

K-G5	32,134	35,801	52.7%	+11.4%
G6-8	13,412	15,187	22.4%	+13.2%
G9-12	14,346	16,952	25.0%	+18.2%
Ungraded	0	0	0.0%	

District Student Demographic Trends



12th Grade Graduates

	95-96	00-01	Change
Total 12th Grade	3,667	2,802	-24%
Earned a Diploma	2,220	2,585	+16%
% Earned Diploma	61%	92%	+32 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	95-96	97-98	Change
# SEM Proficient ¹	283	358	+27%
% SEM Proficient/ Total 12th Grade	8%	13%	+5 PP

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- Mathematics
 - 30 hours (3 units) including 10 hours of algebra and 10 hours of geometry
- Science
 - 30 hours (3 units) including 10 hours of Biology 1&2

PP: Percentage Points (.) Data Missing

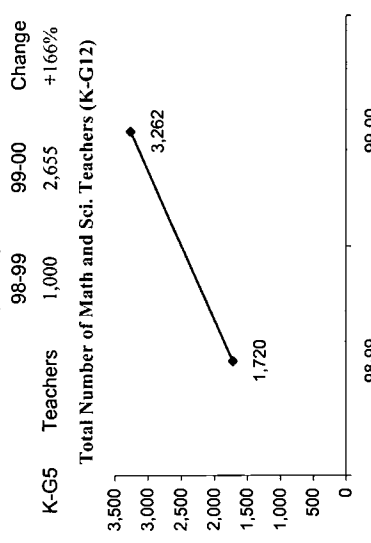
Math and Science Teachers & Certification

♦ Mathematics (G6-12)		98-99	99-00	Change
G6-8	Teachers Certified % Cert.	240	180	-25%
G9-12	Teachers Certified % Cert.	168	134	-20%
Total	Teachers Certified % Cert.	408	314	-23%

Science (G6-12)

♦ Science (G6-12)		98-99	99-00	Change
G6-8	Teachers Certified % Cert.	144	153	+6%
G9-12	Teachers Certified % Cert.	168	140	-17%
Total	Teachers Certified % Cert.	312	193	-38%

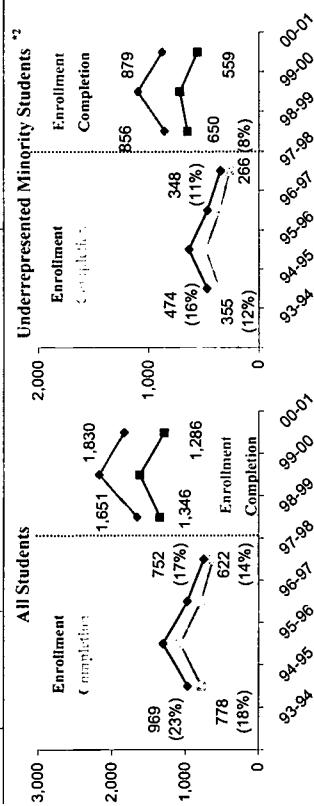
Math and Science (K-G5)



Denver CPMSA

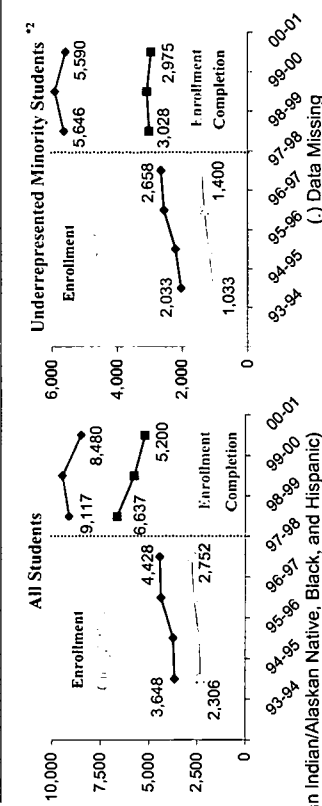
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population							
4,181	4,287	4,450	4,529	4,552			
Enrollment							
969	1,299	972	752	1,651	2,181	1,830	
Completion ¹							
778	1,070	789	622	1,346	1,614	1,286	
% Enroll/G8							
23%	29%	21%	17%				
URM ²							
474	638	470	348	856	1,096	879	
Completion ¹							
355	486	352	266	650	720	559	
% Enroll/G8							
16%	21%	15%	11%				



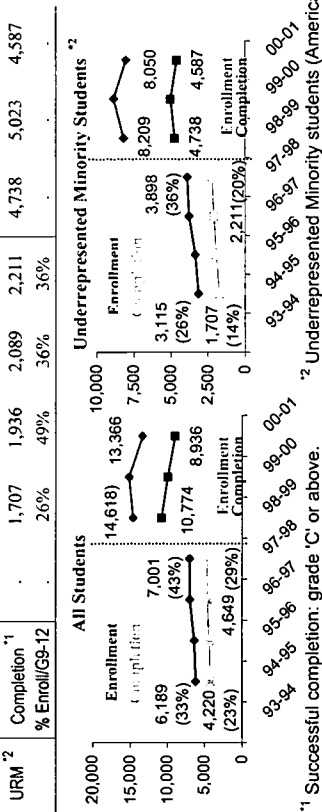
Biology Enrollment & Completion Trends/ All vs. URM

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
All Students							
3,648	3,735	4,370	4,428	9,117	9,463	8,480	
URM ²							
2,306	2,210	2,568	2,658	5,646	5,920	5,590	



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population							
14,346	18,793	14,757	15,746	16,319			
All Students							
6,189	6,367	6,970	7,001	14,618	15,152	13,366	
URM ²							
3,115	3,350	3,768	3,898	8,209	8,871	8,050	



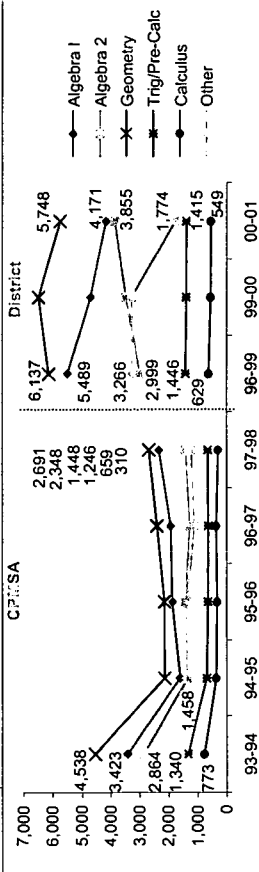
¹ Successful completion: grade 'C' or above.
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)
³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Denver CPMSA

Mathematics Course Enrollment & Completion Trends By Subject

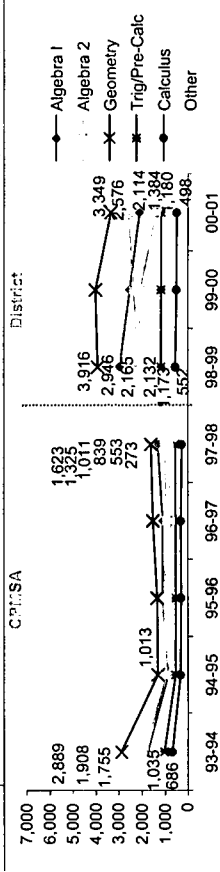
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
93-94	3,423	2,864	4,538	1,340	773		12,938
94-95	1,619	1,360	2,145	695	365	1,458	7,642
95-96	1,880	1,445	2,157	647	339	1,380	7,848
96-97	1,937	1,292	2,411	641	364	1,130	7,775
97-98	2,348	1,448	2,691	659	310	1,246	8,702
98-99	5,489	2,999	6,137	1,446	629	3,266	19,966
99-00	4,706	3,473	6,481	1,413	562	3,291	19,926
00-01	4,171	3,855	5,748	1,415	549	1,774	17,512



G 9-12 Course Completion ¹ (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
93-94	1,755	1,908	2,889	1,035	686		8,273
94-95	864	925	1,316	546	327	1,013	4,991
95-96	1,113	1,042	1,341	527	292	983	5,298
96-97	1,104	931	1,524	539	314	761	5,173
97-98	1,325	1,011	1,623	553	273	839	5,624
98-99	2,946	2,132	3,916	1,173	552	2,165	12,884
99-00	2,522	2,366	4,018	1,172	500	2,084	12,662
00-01	2,114	2,576	3,349	1,180	498	1,384	11,101



¹ Successful completion: grade 'C' or above.

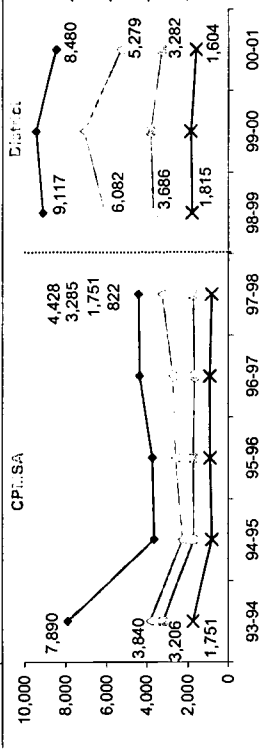
² Data not presented on graph for sample size less than 5

³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Science Course Enrollment & Completion Trends By Subject

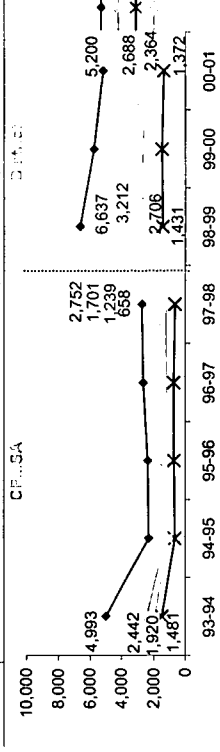
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other ²	Science Total
93-94	7,890	3,206	1,751	3,840	16,687
94-95	3,648	1,724	817	2,271	8,460
95-96	3,735	1,736	896	2,596	8,963
96-97	4,370	1,682	918	2,722	9,692
97-98	4,428	1,751	822	3,285	10,286
98-99	9,117	3,686	1,815	6,082	20,700
99-00	9,463	3,818	1,871	7,110	22,262
00-01	8,480	3,282	1,604	5,279	18,645



G 9-12 Course Completion ¹ (All Students)

	Biology	Chemistry	Physics	Other ²	Science Total
93-94	4,993	2,442	1,481	1,920	10,836
94-95	2,306	1,264	650	1,135	5,355
95-96	2,375	1,292	718	1,376	5,761
96-97	2,659	1,200	740	1,416	6,015
97-98	2,752	1,239	658	1,701	6,350
98-99	6,637	2,706	1,431	3,212	13,986
99-00	5,763	2,694	1,479	3,378	13,314
00-01	5,200	2,364	1,372	2,688	11,624



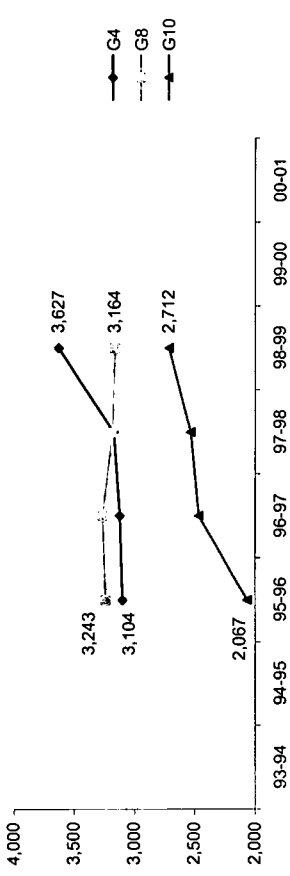
(.) Data Missing

Denver CPMSA

District Assessment Test Administered

ITBS/ITEI Assessment Test-Taker Trends

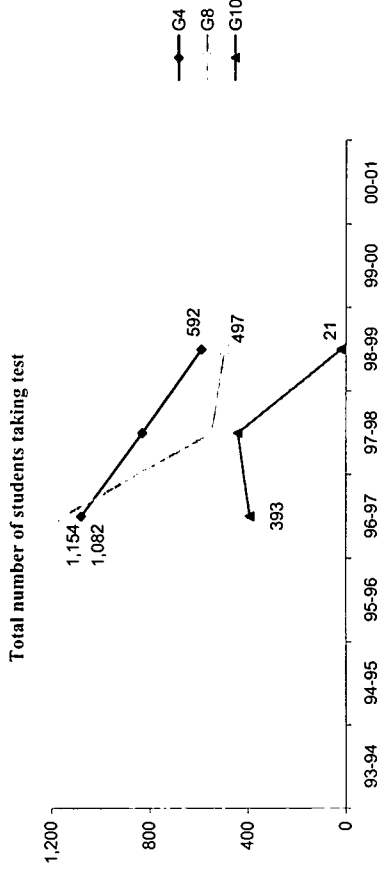
◆ Mathematics		93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI
Scoring	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	No Assessment	No
Grade	2-11	2-11	2-11	2-11	2-11	2-11	2-11	Test	Test
Type	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Administered	Administered



◆ Science		93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI	ITBS/ITEI
Scoring	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	PC/SS	No Assessment	No
Grade	2-11	2-11	2-11	2-11	2-11	2-11	2-11	Test	Test
Type	NRT	NRT	NRT	NRT	NRT	NRT	NRT	Administered	Administered

State Assessment Test Administered

◆ Mathematics		93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP
Scoring	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS
Grade	5,8,10	5,8,10	5,8,10	5,8,10	5,8,10	5,8,10	5,8,10	5,8,10	5,8,10
Type	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT



◆ Science		93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP	CSAP
Scoring	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS	PL,SS
Grade	8	8	8	8	8	8	8	8	8
Type	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT	CRT

PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 CSAP = Colorado State Assessment Program
 () Data Missing

Denver CPMSA

ITBS/ITEI Assessment Test Result Trends - Mathematics

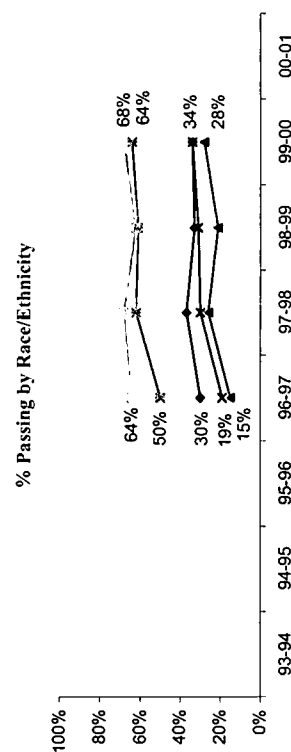
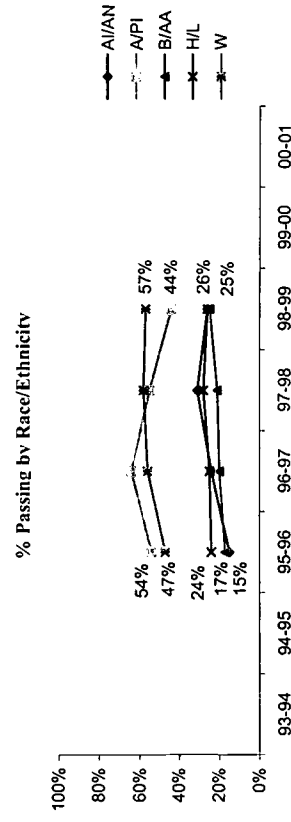
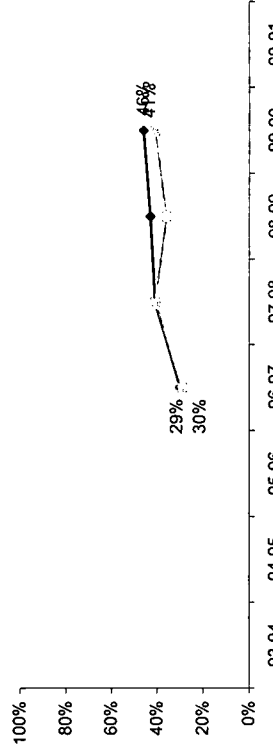
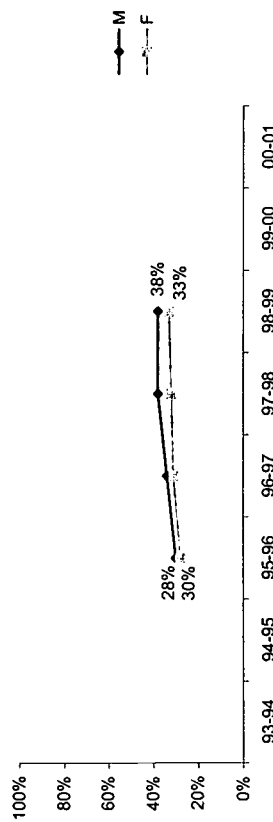
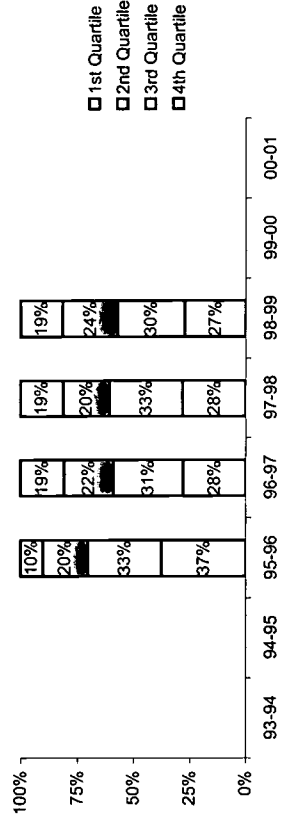
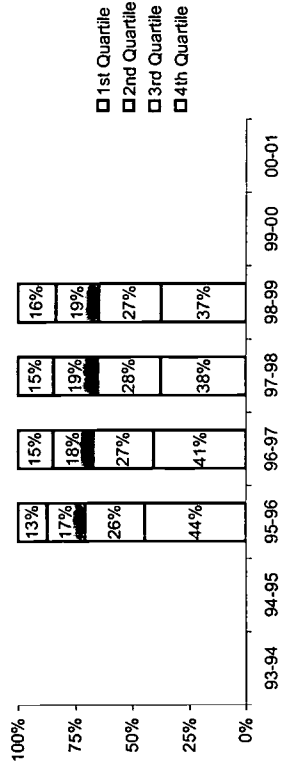
ITBS/ITEI Assessment Test Result Trends - Mathematics

Grade 4

Grade 8

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile		13%	17%	15%	15%	15%	16%	
2nd Quartile		17%	18%	18%	19%	19%	19%	
3rd Quartile		26%	27%	27%	28%	27%	27%	
4th Quartile		44%	41%	41%	38%	37%	37%	
Total # of students		3,104	3,126	3,177	3,177	3,627		

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile		10%	20%	19%	19%	19%	19%	
2nd Quartile		20%	22%	22%	20%	24%	24%	
3rd Quartile		33%	33%	31%	33%	30%	30%	
4th Quartile		37%	37%	28%	28%	27%	27%	
Total # of students		3,243	3,269	3,187	3,187	3,164		



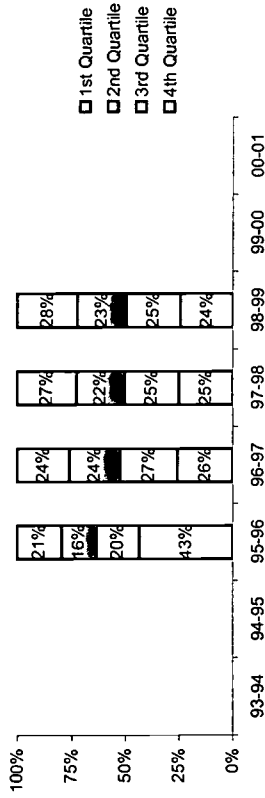
AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as 1st Quartile and 2nd Quartile

Denver CPMSA

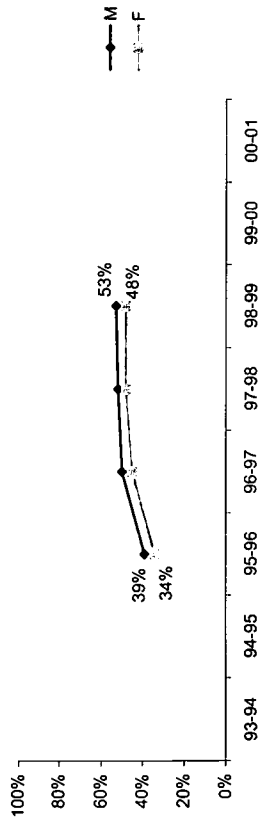
ITBS/ITEI Assessment Test Result Trends - Mathematics

◆ Grade 10

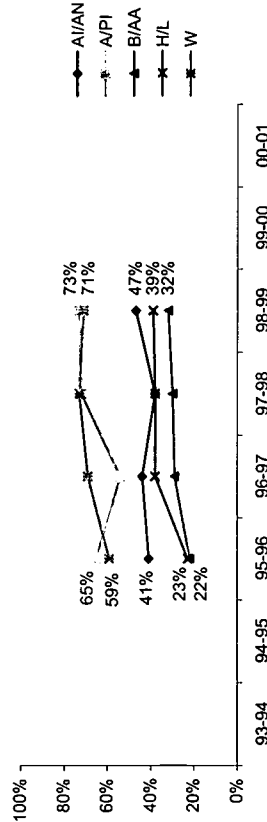
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile		21%	24%	24%	27%	28%		
2nd Quartile		16%	24%	24%	22%	23%		
3rd Quartile		20%	27%	25%	25%	25%		
4th Quartile		43%	26%	25%	24%			
Total # of students		2,067	2,466	2,531	2,712			



% Passing by Gender



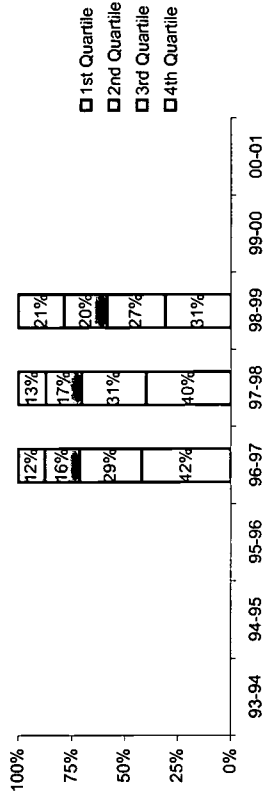
% Passing by Race/Ethnicity



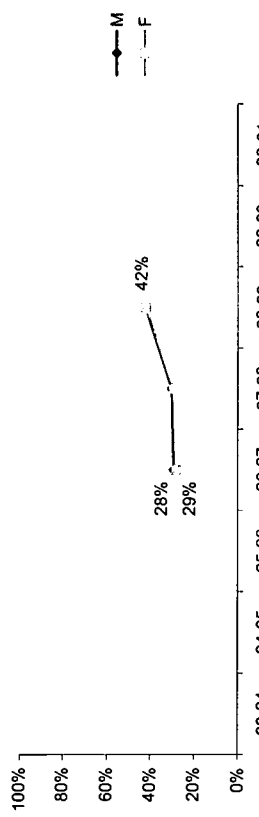
ITBS/ITEI Assessment Test Result Trends - Science

◆ Grade 4

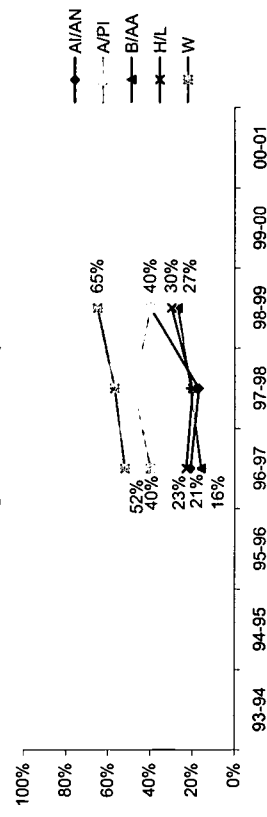
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile				12%	13%	21%		
2nd Quartile				16%	17%	20%		
3rd Quartile				29%	31%	27%		
4th Quartile				42%	40%	31%		
Total # of students			1,082	830	592			



% Passing by Gender



% Passing by Race/Ethnicity

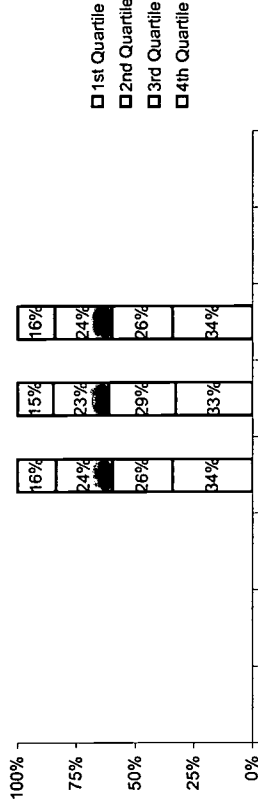


AII/AN: American Indian/Alaskan Native API: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as 1st Quartile and 2nd Quartile

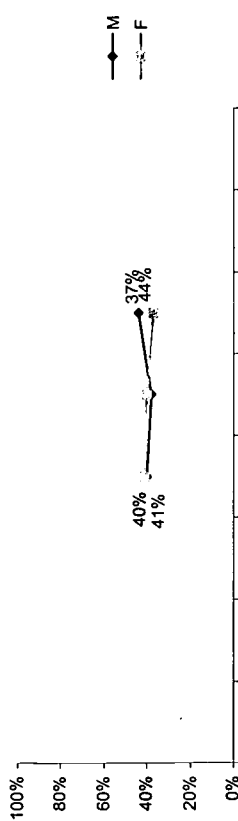
ITBS/ITEI Assessment Test Result Trends - Science

◆ Grade 8

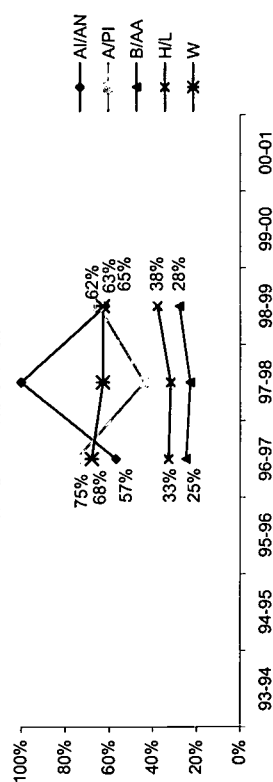
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile			16%	16%	15%	16%		
2nd Quartile			24%	24%	23%	24%		
3rd Quartile			26%	26%	29%	26%		
4th Quartile			34%	34%	33%	34%		
Total # of students			1,154	550	497			



% Passing by Gender



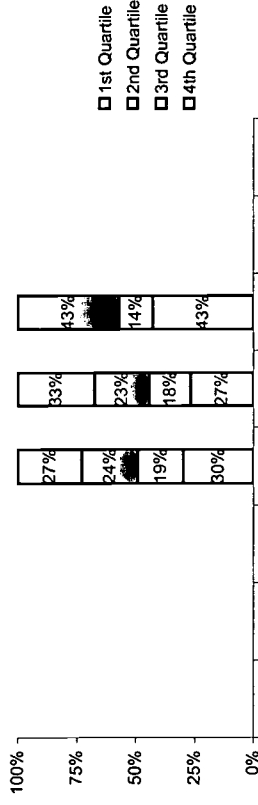
% Passing by Race/Ethnicity



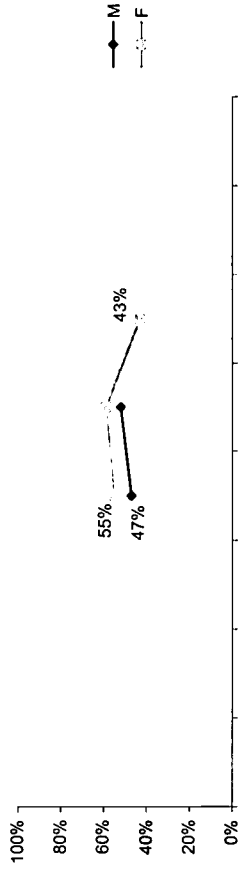
ITBS/ITEI Assessment Test Result Trends - Science

◆ Grade 10

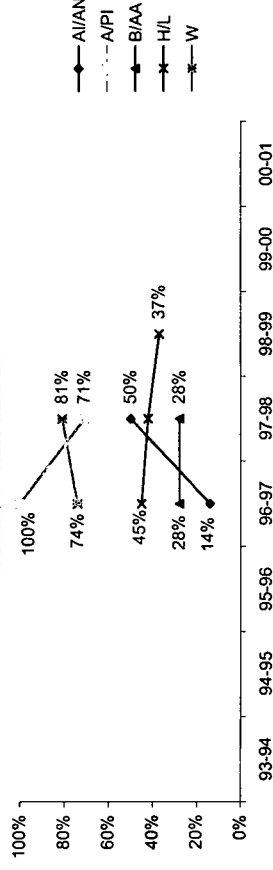
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile			27%	27%	33%			
2nd Quartile			24%	24%	23%	43%		
3rd Quartile			19%	19%	18%	14%		
4th Quartile			30%	30%	27%	43%		
Total # of students			393	442	21			



% Passing by Gender



% Passing by Race/Ethnicity

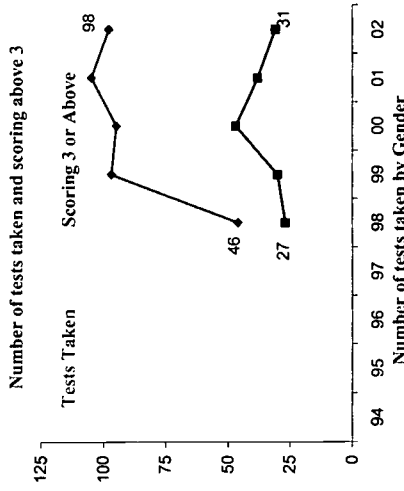


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 1st Quartile and 2nd Quartile

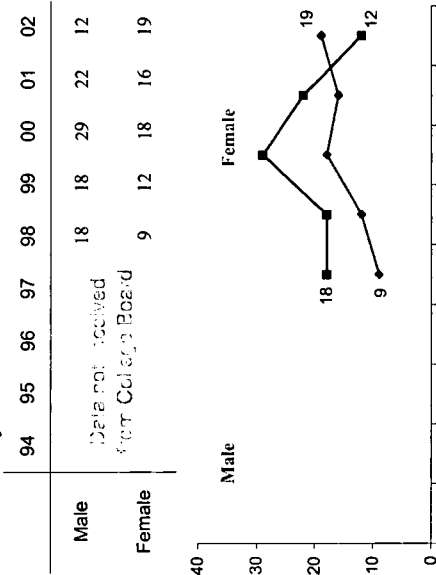
AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

♦ AP Mathematics - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	6,124	5,979	5,995	6,458	6,698	6,809	6,851		
Calc. AB	18	34	50	49	42				
Calc. BC	23	58	36	46	47				
Statistics	5	9	10	9	9				
Total	46	97	95	105	98				
Tests taken per 1,000 students	7.1	14.5	14.0	15.3					
Scoring 3 or Above	27	30	47	38	31				
Above per 1000 students	4.2	4.5	6.9	5.5					

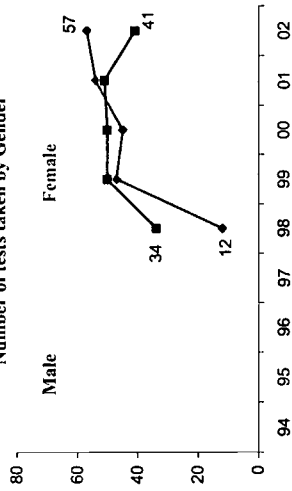


♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

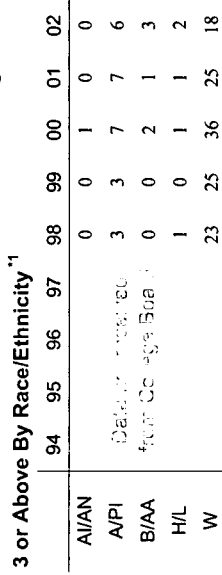


♦ AP Mathematics - Number of Tests Taken By Gender

Gender	94	95	96	97	98	99	00	01	02
Male	34	50	50	51	41				
Female	12	47	45	54	57				

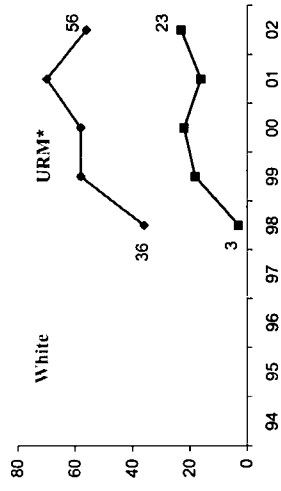


♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	94	95	96	97	98	99	00	01	02
A/AN	0	0	1	0	1				
A/PI	4	10	12	12	15				
B/AA	1	2	18	7	15				
H/L	2	16	3	9	7				
W	36	58	58	70	56				



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

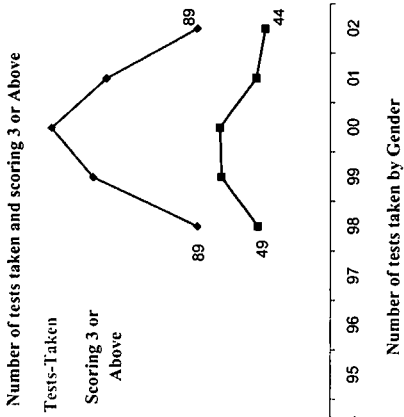
Denver CPMSA

SY 2000-01

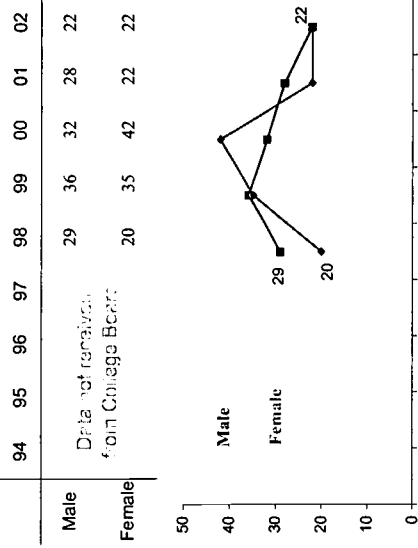
AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B., Physics Mech., & Physics Elec.

♦ AP Science - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	6,124	5,979	5,995	6,458	6,698	6,809	6,851		
Biology	53	83	109	105	33				
Chemistry	32	50	56	13	31				
Env. Science	0	0	0	0	0				
Physics B	4	26	22	32	25				
Physics Mech.	0	0	0	0	0				
Physics Elec.	0	0	0	0	0				
Total	89	159	187	150	89				
Tests taken per 1,000 students	13.8	23.7	27.5	21.9					
Scoring 3 or Above	49	73	74	50	44				
Scoring 3 or Above per 1000	7.6	10.9	10.9	7.3					

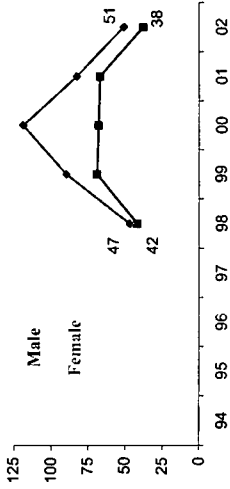


♦ AP Science - Number of Students Scoring 3 or Above By Gender



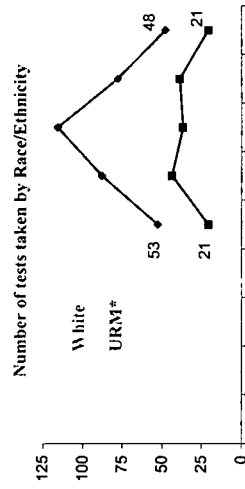
♦ AP Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	42	69	68	67	38				
Female	47	90	119	83	51				



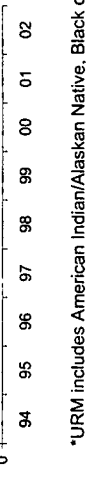
♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	0	2	0	1				
A/PI	3	4	8	13	7				
B/AA	2	4	1	1	2				
H/L	3	5	2	4	1				
W	38	52	57	28	33				



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	1	3	1	1				
A/PI	9	11	20	24	17				
B/AA	16	25	18	19	14				
H/L	5	18	16	19	6				
W	53	88	116	78	48				



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

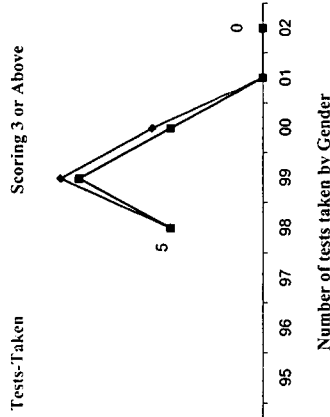
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

♦ AP Computer Science - Total Number of Tests Taken

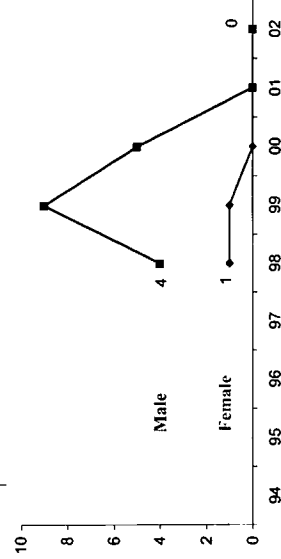
	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	6,124	5,979	5,995	6,458	6,698	6,809	6,851		
Comp. Sci. A				2	0	0	0	0	0
Comp. Sci. AB				3	11	6	0	0	0
Total				5	11	6	0	0	0
Tests taken per 1,000 students	0.8	1.6	0.9	0.0					
Scoring 3 or Above	5	10	5	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.8	1.5	0.7	0.0					

Number of tests taken and scoring 3 or Above



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

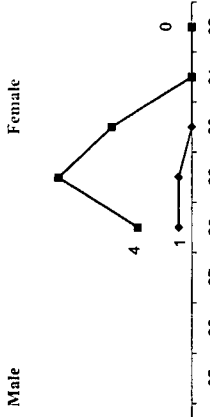
	94	95	96	97	98	99	00	01	02
Male				4	9	5	0	0	0
Female				1	1	0	0	0	0



♦ AP Computer Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male				4	10	6	0	0	0
Female				1	1	0	0	0	0

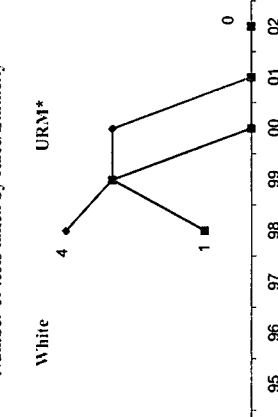
Number of tests taken by Gender



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/IAN				0	0	0	0	0	0
A/PI				0	2	1	0	0	0
B/AA				0	1	0	0	0	0
H/L				1	2	0	0	0	0
W				4	3	2	0	0	0

Number of tests taken by Race/Ethnicity



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/IAN				0	0	0	0	0	0
A/PI				0	2	1	0	0	0
B/AA				0	1	0	0	0	0
H/L				1	2	0	0	0	0
W				4	3	3	0	0	0

A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

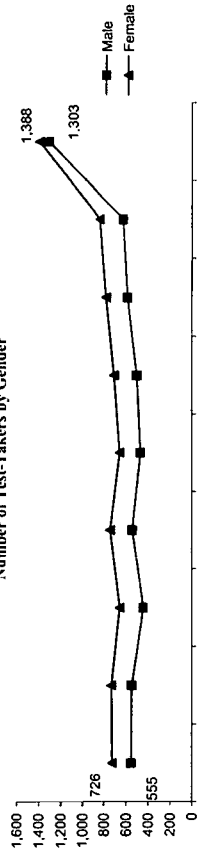
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

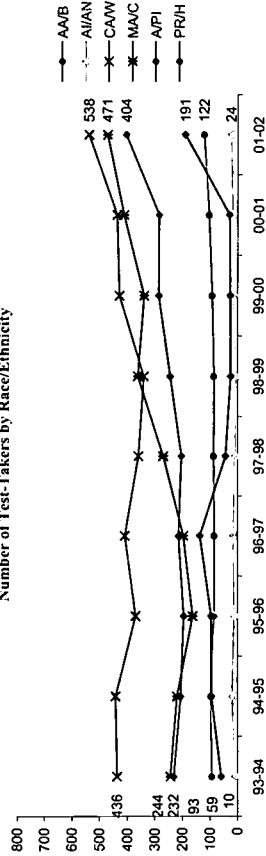
ACT Test-Takers
◆ Number of Test-Takers

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	2,769	2,437	2,480	2,701					
Test-Takers	1,281	1,101	1,287	1,128	1,210	1,363	1,463	2,691	
Number of Test-Takers/1,000 Stu.	463	452	519	418					
Gender									
Male	555	549	443	544	470	503	584	625	1,303
Female	726	732	658	743	658	707	779	838	1,388
Race/Ethnicity									
AA/B	232	207	196	214	204	244	285	284	404
A/AN	10	19	13	16	10	6	14	17	24
CA/W	436	442	369	408	358	339	428	436	538
MA/C	244	220	164	197	268	360	338	411	471
A/PI	93	98	85	84	87	86	92	104	122
PR/H	59	95	96	138	43	25	26	29	191

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

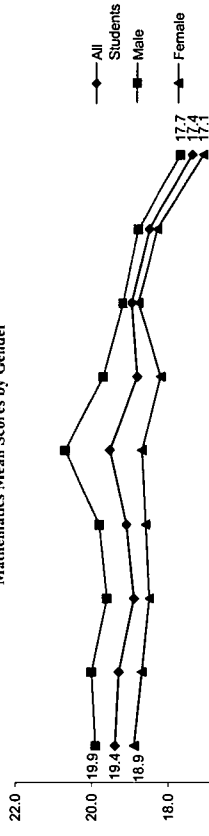


AA/B: African-American/Black A/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

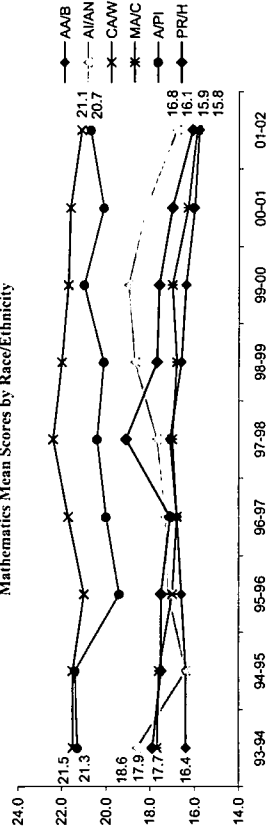
ACT Mathematics Scores
◆ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.4	19.3	18.9	19.1	19.5	18.8	19.0	18.5	17.4
Gender									
Male	19.9	20.0	19.6	19.8	20.7	19.7	19.2	18.8	17.7
Female	18.9	18.7	18.5	18.6	18.7	18.2	18.8	18.3	17.1
Race/Ethnicity									
AA/B	16.4	16.4	16.6	16.8	17.1	16.6	16.4	16.0	15.8
A/AN	18.6	16.4	17.2	17.3	17.7	18.7	19.0	18.2	16.8
CA/W	21.5	21.5	21.0	21.7	22.4	22.0	21.7	21.6	21.1
MA/C	17.7	17.6	17.0	16.8	17.0	16.8	17.0	16.3	15.9
A/PI	21.3	21.4	19.4	20.0	20.4	20.1	21.0	20.1	20.7
PR/H	17.9	17.5	17.5	17.1	19.1	17.7	17.6	17.0	16.1

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

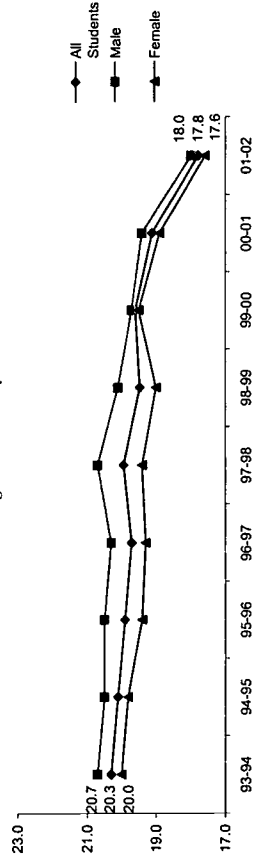


ACT Science Reasoning Scores

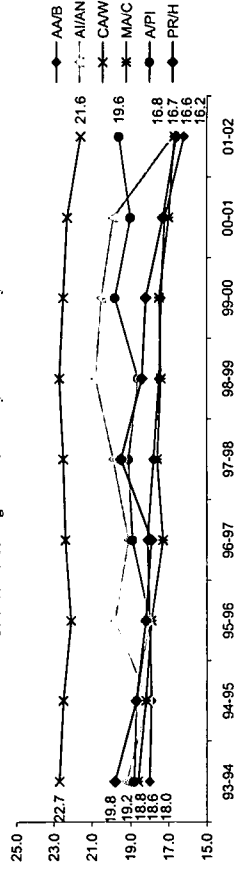
◆ Science Reasoning - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	20.3	20.1	19.9	20.3	20.7	20.1	19.7	19.4	18.0
Gender									
Male	20.7	20.5	20.5	20.3	20.7	20.1	19.7	19.4	18.0
Female	20.0	19.8	19.4	19.3	19.4	19.0	19.5	18.9	17.6
Race/Ethnicity									
AA/B	18.0	17.9	18.0	18.1	17.8	17.5	17.4	17.2	16.2
AI/AN	19.2	18.1	19.8	19.1	19.9	20.8	20.5	19.9	16.8
CA/W	22.7	22.5	22.1	22.4	22.5	22.7	22.5	22.3	21.6
MA/C	18.6	18.2	17.9	17.3	17.6	17.4	17.5	17.0	16.7
A/P	18.8	18.7	18.0	18.9	19.1	18.6	19.8	19.0	19.6
PR/H	19.8	18.7	18.2	17.9	19.5	18.4	18.2	17.3	16.6

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



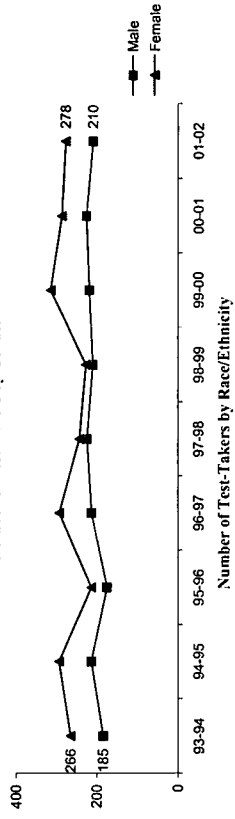
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/P: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

SAT Test-Takers

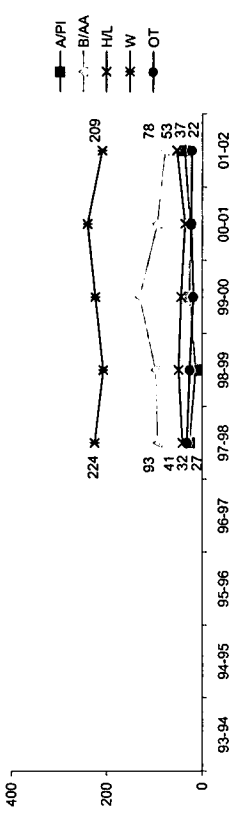
◆ Number of Test-Takers

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	2,769	2,437	2,480	2,701	2,701	2,701	2,701	2,701	2,701
Test-Takers Num of Test-Takers/1,000 Stu.	451	509	389	508	469	438	535	514	488
Gender									
Male	185	214	175	213	225	210	219	226	210
Female	266	295	214	295	244	228	316	288	278
Race/Ethnicity									
AI/AN	Data Not Available								
A/P	27	14	26	25	37	25	37	25	37
B/AA	93	98	131	94	78	131	94	94	78
H/L	41	49	44	36	53	44	36	36	53
W	224	206	223	239	209	223	239	209	209
OT	32	26	19	23	22	19	23	23	22

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/P: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

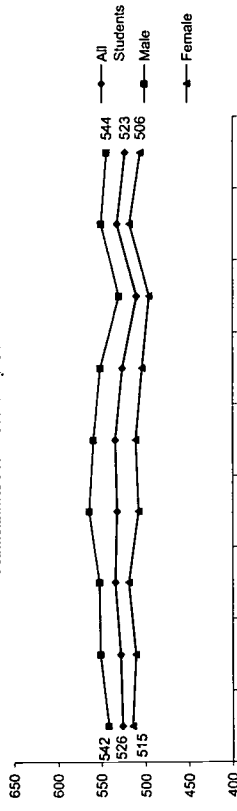
Denver CPMSA

SAT Mathematics Scores

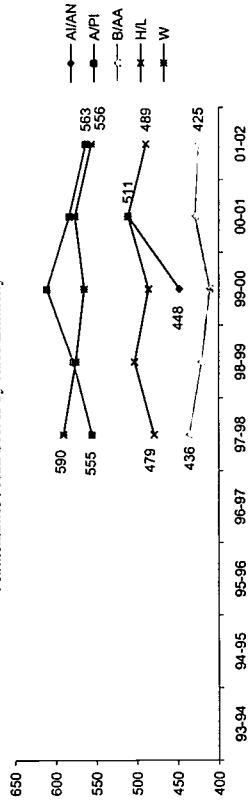
◆ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	526	528	534	532	534	526	510	532	523
Gender									
Male	542	551	552	564	559	551	550	550	544
Female	515	511	519	508	511	504	496	518	506
Race/Ethnicity									
A/IAN	Data Not Available								
A/PI	555	578	611	583	563	563	563	583	563
B/AA	436	421	411	429	425	425	425	429	425
H/L	479	503	486	511	489	511	489	511	489
W	590	575	565	576	556	576	556	576	556
OT	507	537	485	496	477	496	477	496	477

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



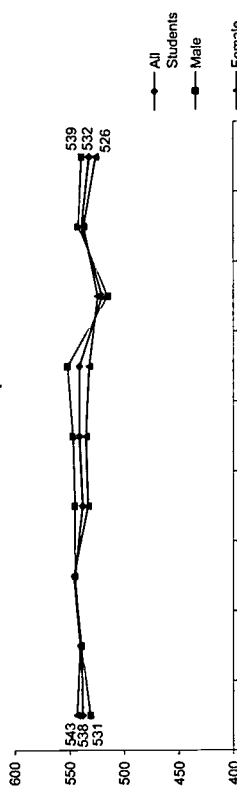
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

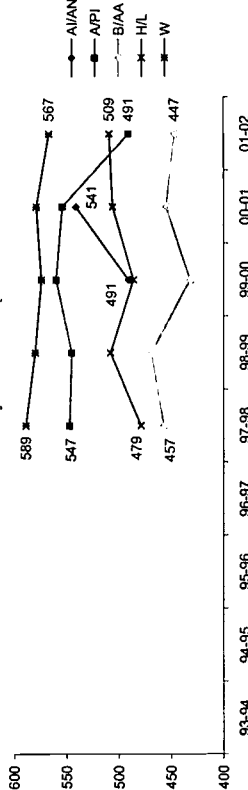
◆ Verbal - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	538	539	545	538	541	541	520	539	532
Gender									
Male	531	539	545	545	547	552	515	542	539
Female	543	540	546	533	535	532	524	537	526
Race/Ethnicity									
A/IAN	Data Not Available								
A/PI	547	545	547	547	545	545	560	554	491
B/AA	457	469	432	457	469	432	455	455	447
H/L	479	508	486	479	508	486	506	506	509
W	589	580	574	589	580	574	579	579	567
OT	550	563	520	550	563	520	498	498	533

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

Special Education and Bilingual Students:

Instructional Time:

Number of District Schools
 CPMSA Schools:
 % Schools:

Standards-based Curriculum and Instruction

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Standards Adopted:

Primary Decision Making Body

Graduation Requirements

Standards Curriculum
 Curriculum/TextBook Adoption
 Student Assessment
 Professional Development
 Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

% of Students Experiencing Standards-based Curricula:
 E
 M
 H

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 Criteria for Entry into High Level Mathematics and Science Courses:
 Availability of High Level Courses:

Policies Relevant to Teacher Qualifications

Summer programs:

Certification:
 Requirement & Hiring Practices

Policies Relevant to Curriculum

Framework:
 Curricula:
 Curricula Materials:
 New Courses Added as a Result of CPMSA:

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Denver CPMSA

SY 2000-01

Professional Development Policies and Practices	Partnerships
<p>Time Required or Supported:</p> <p>Financial Resources Provided:</p> <p>Alignment to Student Standards:</p> <p>Teachers' instructional practice change as a result of CPMSA influenced professional development:</p>	<p>Impact on Student Achievement:</p> <p>Other Key Initiatives:</p>
<p>Assessments Used:</p>	<p>Completing Initiatives:</p> <p>Community Stakeholders:</p>
<p>Type and Amount Received by Average Math/Science Teacher:</p> <p>Evaluation Instruments:</p> <p>Professional Development Alignment to Content Standards Measures:</p> <p>Teacher's Instructional Practices Evaluation:</p>	<p>Higher Education:</p> <p>Business and Industry:</p>
<p>Continuity of Leadership</p> <p>Project Directors position in district's organizational structure:</p> <p>Teacher Leaders:</p>	
<p>Policies Relevant to Standards-based Assessments</p> <p>Extent to Which Assessments are Aligned to District Standards and Curriculums:</p>	
<p>CPMSA Leadership, Governance, and Management</p> <p>Superintendent:</p>	

Denver CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Denver CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented

Accountability

School Year	Policy Implemented



Jefferson County Public Schools, KY
Jefferson County, KY

Jefferson County CPMSA

Project Information

CPMSA Project Title : Partnership for Minority Student Achievement

Cohort: 94

CPMSA Web Site:

◆ PI, CO-PI and PD

PI/Superintendent
 Dr. Stephen Daeschner T (502) 485-3251 F (502) 485-3991
 sdaesch1@jefferson.k12.ky.us
 Co-PI/Assistant Superintendent
 Mrs. Sandra Ledford T (502) 485-3673 F (502) 485-3991
 sledford1@vhc2.jefferson.k12.ky.us
 Co-PI/PD
 Dr. Allan Podbelssek T (502) 485-3053 F (502) 485-8976
 apodbell@jefferson.k12.ky.us

◆ CPMSA Data Manager/Evaluator

Dr. Robert J. Rodosky
 PD/Exec. Dir., Res. & Plan.
 T (502) 485-3036 F (502) 485-6225
 rrodosk1@jefferson.k12.ky.us

◆ Mailing Address

Jefferson County Public Schools
 PO Box 34020
 Louisville, KY 40232-4020

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
98-99			
K-G5 (Elementary)	87	2,434	41,424
G6-8 (Middle)	23	380	19,109
G9-12 (High)	20	445	24,893
Total	130	3,259	85,426

Source: Core Data Elements (SY 1998-99)

Project Summary

To prepare more minority students to enter college and pursue mathematics, science, and engineering courses.

The project will replicate the concepts and activities of the following successful models:

1. AVID - Advancement Via Individual Determination.
2. SECME - Science Engineering Communications and Mathematics Enrichment.
3. SUM - Success Understanding Mathematics.
4. TEAMS - Teaching Elementary Assessments in Math and Science.

The project will use staff development, classroom instruction, and student activity components to accomplish the following:

1. Prepare teachers to develop new teaching strategies.
2. Involve students in hands-on mathematics and science activities.
3. Encourage parents to take part in their children's education.
4. Improve study skills.
5. Stress the importance of science and mathematics education.
6. Expose minority students to minority role models in the professional community.

Project Goals

To significantly increase the numbers of students throughout the district who are prepared to enter college and pursue mathematics, science, and engineering undergraduate programs and careers.

Selected School Indicators (District Average)

	98-99	00-01	Change
% Special Ed.	.	.	.
% LEP	.	.	.
% Free/Red. Lunch	49.6%	49.5%	-0.1 PP
% Daily Avg. Atten.	92.7%	93.4%	+0.7 PP
% Average Retained	4.0%	.	.
% Drop-Out	5.4%	.	.
% Mobility	12.5%	.	.
Per Pupil Cost (\$)	.	\$5,982	.
# Students Per Computer	.	.	.
% Classrooms Internet Access	.	61%	.
Average Class Size	.	.	.

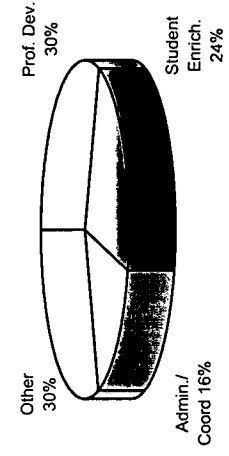
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 1998-99)

	District	CPMSA
Prof. Dev.	81%	30%
Student Enrich.	2%	24%
Admin/Coord.	1%	16%
Other	16%	30%
Total	100%	100%

CPMSA Funds %



Jefferson County CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total:	86,703
CPMSA Schools:	23,127

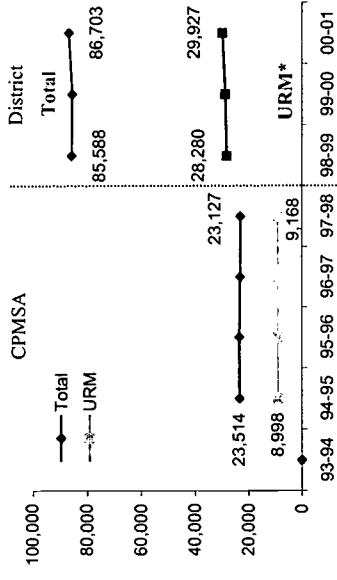
Race/Ethnicity	CPMSA		District ³	
	94-95	97-98	98-99	00-01
Ame. Ind./Ala. Nat.	27	21	72	92
Asian/P. Islander	319	358	1,008	1,138
Black	8,870	8,931	27,225	28,546
Hispanic	101	216	983	1,289
White	13,823	13,011	54,813	53,397
Other	374	590	1,487	2,241
Total	23,514	23,127	85,588	86,703
URM Total	8,998	9,168	28,280	29,927

URM: Underrepresented Minority students.

Gender	Male	Female
Male	11,680	11,445
Female	11,834	11,682
Total	43,006	43,768
Total	42,582	42,935

Grade	CPMSA	District
K-G5	9,116	42,100
G6-8	9,340	19,018
G9-12	5,058	24,470
Ungraded	0	0
Total	23,514	86,703

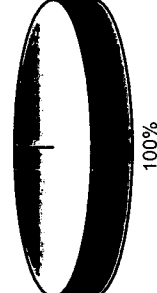
Student Demographic Trends



12th Grade Graduates

	CPMSA		District ³	
	95-96	97-98	98-99	00-01
Total 12th Grade	1,081	1,067	5,380	5,111
Earned a Diploma	1,015	1,063	5,619	5,423
% Earned Diploma	94%	100%	104%	106%

% Famed Diploma for SY 2000-01



SEM Proficiency

	CPMSA		District ³	
	95-96	97-98	98-99	00-01
# SEM Proficient ¹	247	256	1,324	385
% SEM Proficient/ Total 12th Grade	23%	24%	25%	8%

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
- ◆ Science

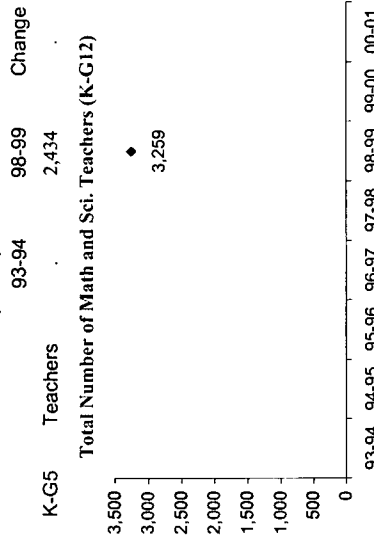
District Math and Science Teachers & Certification

◆ Mathematics (G6-12)	93-94		98-99		Change
	Teachers	Certified	Teachers	Certified	
G6-8	180	180	180	180	0
% Cert.	100%	100%	100%	100%	0
G9-12	225	225	225	225	0
% Cert.	100%	100%	100%	100%	0
Total	405	405	405	405	0
% Cert.	100%	100%	100%	100%	0

◆ Science (G6-12)

	93-94		98-99		Change
	Teachers	Certified	Teachers	Certified	
G6-8	200	200	200	200	0
% Cert.	100%	100%	100%	100%	0
G9-12	220	220	220	220	0
% Cert.	100%	100%	100%	100%	0
Total	420	420	420	420	0
% Cert.	100%	100%	100%	100%	0

◆ Math and Science (K-G5)



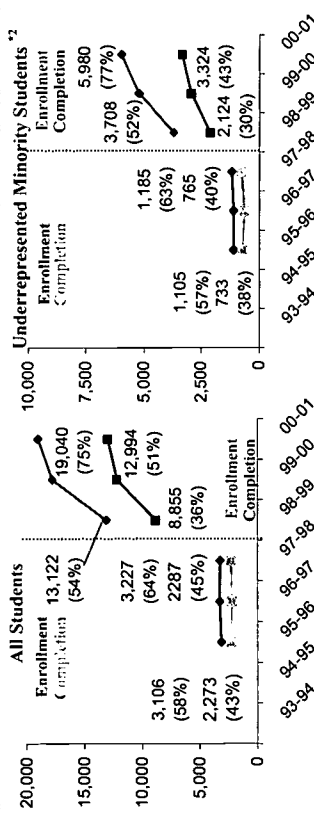
PP: Percentage Points

³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

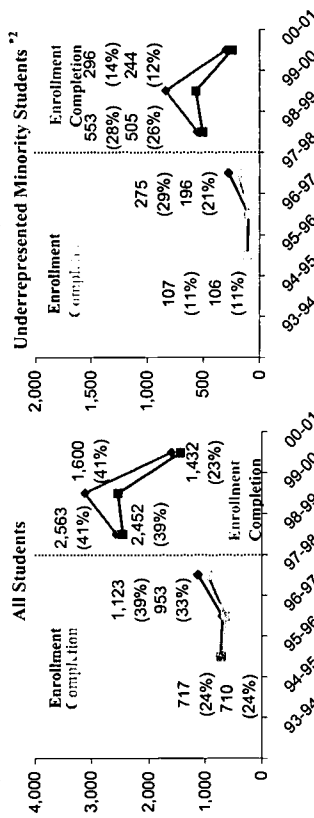
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population							
Enrollment	5,058	5,342	5,280	5,067	24,470	24,307	25,426
Completion ¹	3,106	3,259	3,227	3,227	13,122	17,813	19,040
% Enroll/G8-12	2,273	2,198	2,287	2,287	8,855	12,221	12,994
Enrollment	58%	62%	64%	64%	54%	73%	75%
Completion ¹	1,105	1,110	1,185	3,708	5,216	5,980	
% Enroll/G8-12	73%	73%	63%	52%	73%	77%	



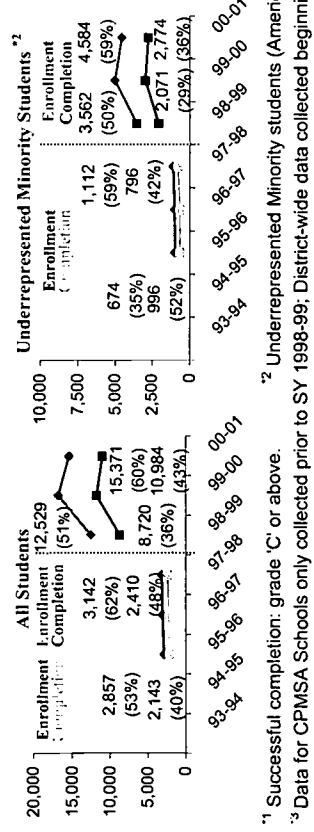
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population							
Enrollment	3,086	3,000	3,017	2,872	6,308	6,221	6,307
Completion ¹	717	710	640	953	2,452	2,535	1,432
% Enroll/G8	24%	23%	39%	41%	50%	25%	
Enrollment	107	96	275	553	840	296	
Completion ¹	106	90	196	505	565	244	
% Enroll/G8	11%	10%	29%	28%	41%	14%	



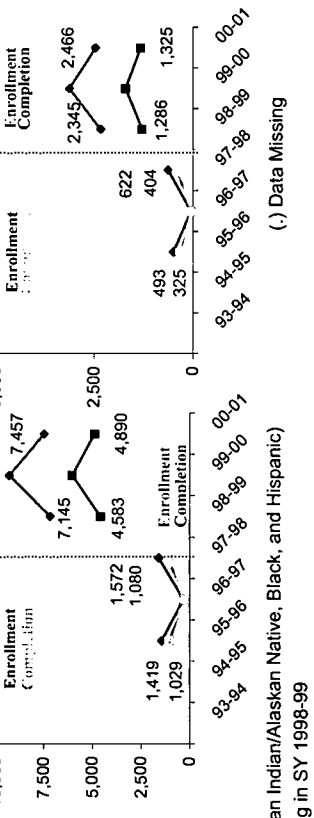
Biology Enrollment & Completion Trends/ All vs. URM

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population							
Enrollment	2,857	3,063	3,142	12,529	16,735	15,371	
Completion ¹	2,143	2,247	2,410	8,720	11,777	10,984	
% Enroll/G8	53%	58%	62%	51%	69%	60%	
Enrollment	996	1,018	1,112	3,562	5,034	4,584	
Completion ¹	674	661	796	2,071	2,975	2,774	
% Enroll/G8	52%	54%	59%	50%	70%	59%	



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

CPMSA		District ³					
93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population							
Enrollment	7,145	7,457	7,145	9,268	7,457	7,457	
Completion ¹	1,029	1,029	314	1,080	4,583	6,022	4,890
% Enroll/G8	493	52	46	404	1,286	1,712	1,325
Enrollment	325	46	404	1,286	1,712	1,325	
Completion ¹	325	46	404	1,286	1,712	1,325	



¹ Successful completion: grade 'C' or above.
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)
³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99
 (.) Data Missing

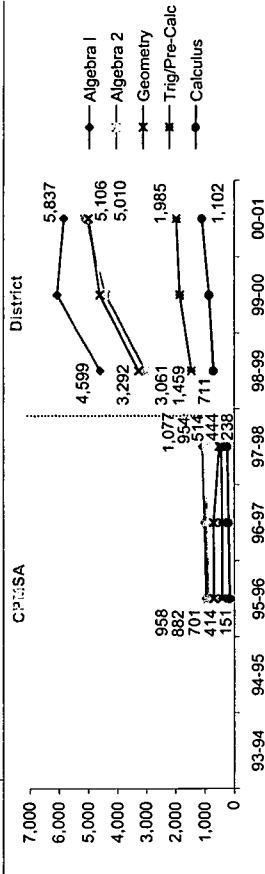
Jefferson County CPMSA

SY 2000-01

Mathematics Course Enrollment & Completion Trends By Subject

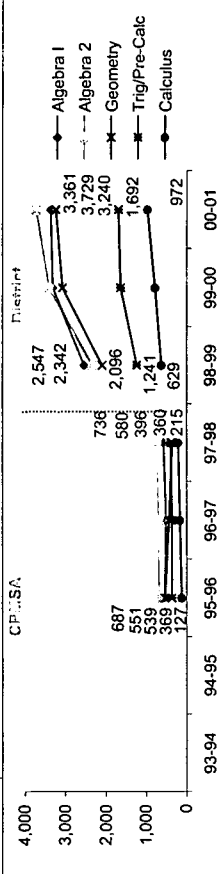
G 9-12 Course Enrollment (All Students)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other ²	Math Total
CPMSA			958	882	701	414	151								3,106
District ³			1,007	936	711	413	192								3,259
			1,077	954	514	444	238								3,227
			4,599	3,061	3,292	1,459	711								13,122
			6,068	4,413	4,611	1,864	857								17,813
			5,837	5,106	5,010	1,985	1,102								19,040



G 9-12 Course Completion¹ (All Students)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other ²	Math Total
CPMSA			551	687	539	369	127								2,273
District ³			519	705	440	367	167								2,198
			580	736	360	396	215								2,287
			2,547	2,342	2,096	1,241	629								8,855
			3,316	3,404	3,075	1,639	787								12,221
			3,361	3,729	3,240	1,692	972								12,994



¹ Successful completion; grade 'C' or above.

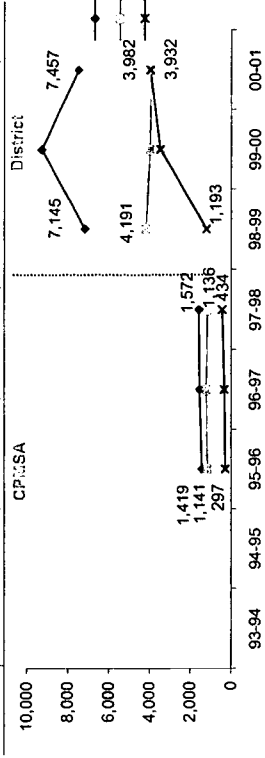
² Data not presented on graph for sample size less than 5

³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

Science Course Enrollment & Completion Trends By Subject

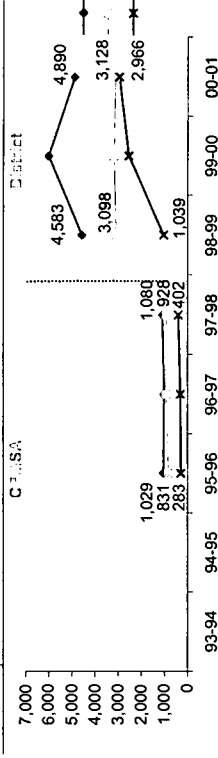
G 9-12 Course Enrollment (All Students)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Biology	Chemistry	Physics	Other ²	Science Total
CPMSA			1,419	1,141	1,141	297							2,857
District ³			1,539	1,197	1,136	327							3,063
			1,572	1,136	434								3,142
			7,145	4,191	1,193								12,529
			9,268	3,997	3,470								16,735
			7,457	3,932	3,982								15,371



G 9-12 Course Completion¹ (All Students)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	Biology	Chemistry	Physics	Other ²	Science Total
CPMSA			1,029	831	283								2,143
District ³			1,015	918	314								2,247
			1,080	928	402								2,410
			4,583	3,098	1,039								8,720
			6,022	3,198	2,557								11,777
			4,890	3,128	2,966								10,984



(.) Data Missing

Jefferson County CPMSA

SY 2000-01

District Assessment Test Administered

State Assessment Test-Taker Trends CATS

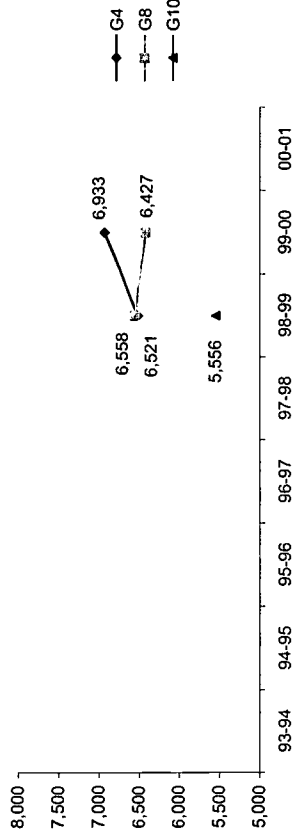
◆ Mathematics

Test Name	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring	.	.	PC	OT	OT	.	.	.
Grade	.	.	3,6,9	3,6,9	3,6,9	.	.	.
Type	.	.	NRT	NRT	NRT	.	.	.

◆ Mathematics

# of Test-takers	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	6,521	6,933	.
Grade 8	6,558	6,427	.
Grade 10	5,556	.	.

Total number of students taking test



◆ Science

Test Name	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring	.	.	PC	OT	OT	.	.	.
Grade	.	.	3,6,9	3,6,9	3,6,9	.	.	.
Type	.	.	NRT	NRT	NRT	.	.	.

State Assessment Test Administered

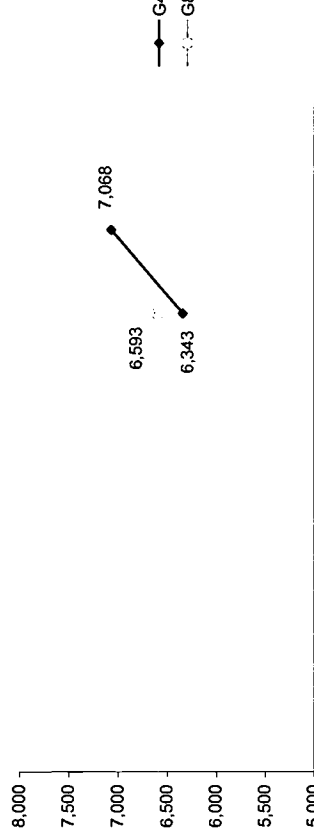
◆ Mathematics

Test Name	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring	.	.	KIRIS	KIRIS	KIRIS	CATS	CATS	CATS
Grade	.	.	4,8,11	4,5,7,8,11	4,5,7,8,11	5,8,11	5,8,11	5,8,11
Type	.	.	CRT	CRT	CRT	NRT	NRT	NRT

◆ Science

# of Test-takers	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	6,343	7,068	.
Grade 8	6,593	.	.
Grade 10

Total number of students taking test



◆ Science

Test Name	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring	.	.	KIRIS	KIRIS	KIRIS	CATS	CATS	CATS
Grade	.	.	4,8,11	4,5,7,8,11	4,5,7,8,11	4,7,11	4,7,11	4,7,11
Type	.	.	CRT	CRT	CRT	NRT	NRT	NRT

* CATS: Commonwealth Accountability Testing System, CAT 5: CA Achievement Tests 5

* KIRIS: Kentucky Instructional Results Info Sys., CTBS: Comprehensive Test of Basic Skills

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

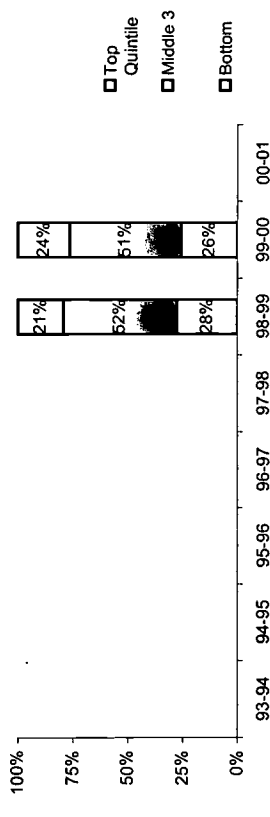
Jefferson County CPMSA

SY 2000-01

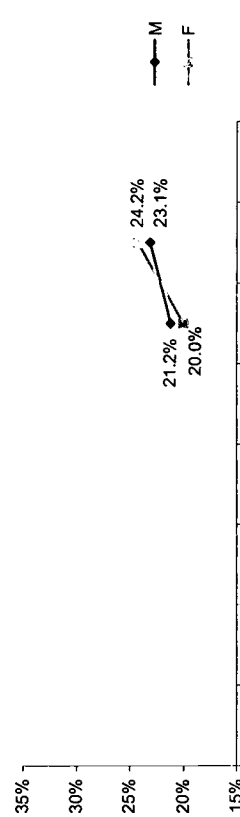
State Assessment Test Result Trends CATS - Mathematics

Grade 4

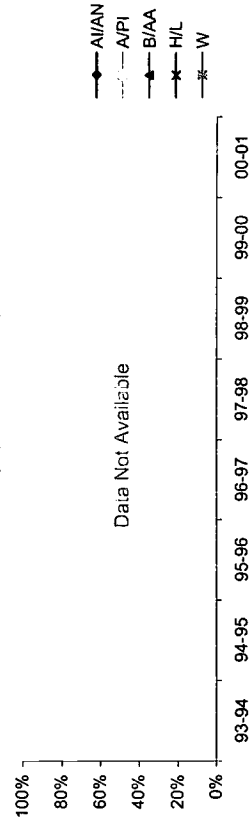
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Top Quintile					21%	21%	24%	24%
Middle 3					52%	52%	51%	51%
Bottom					28%	28%	26%	26%
Total # of students						6,521	6,933	6,933



% Passing by Gender



% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Top Quintile

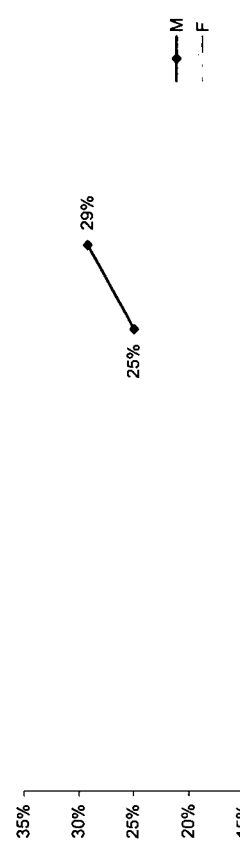
State Assessment Test Result Trends CATS - Mathematics

Grade 8

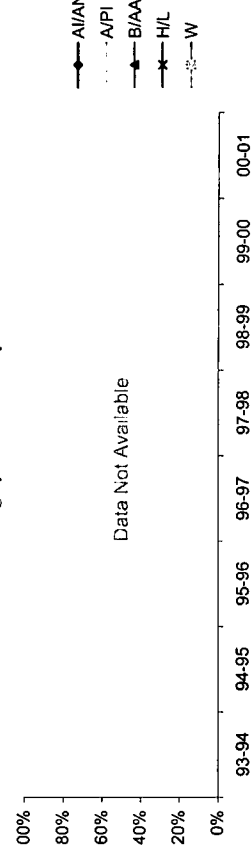
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Top Quintile					27%	27%	29%	29%
Middle 3					32%	32%	34%	34%
Bottom					40%	40%	37%	37%
Total # of students						6,558	6,427	6,427



% Passing by Gender



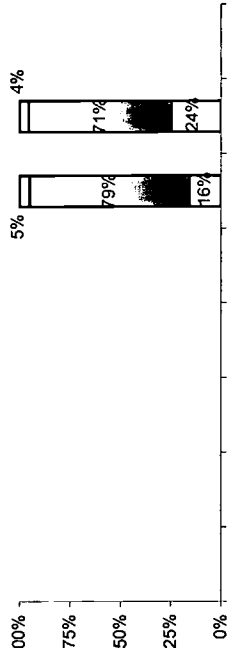
% Passing by Race/Ethnicity



State Assessment Test Result Trends CATS - Science

◆ Grade 4

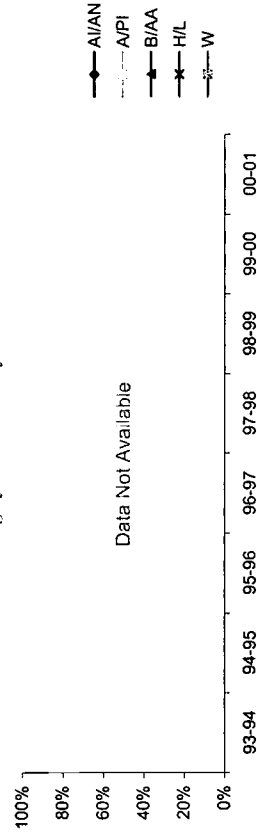
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Top Quintile						5%	4%	
Middle 3						79%	71%	
Bottom						16%	24%	
Total # of students						6,343	7,068	



% Passing by Gender



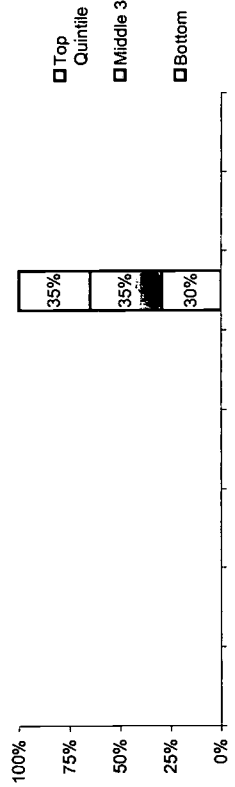
% Passing by Race/Ethnicity



State Assessment Test Result Trends CATS - Mathematics

◆ Grade 10

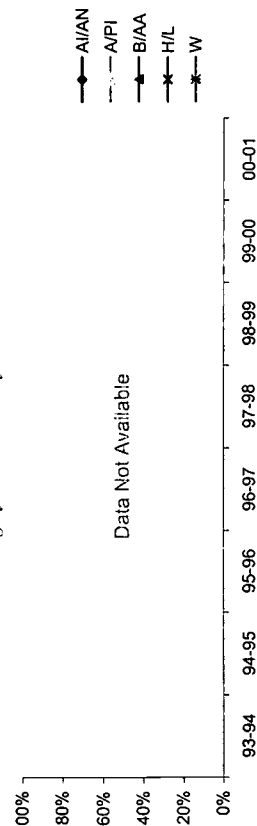
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Top Quintile						35%		
Middle 3						35%		
Bottom						30%		
Total # of students						5,556		



% Passing by Gender



% Passing by Race/Ethnicity



AII/AN: American Indian/Alaskan Native API: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Top Quintile

Jefferson County CPMSA

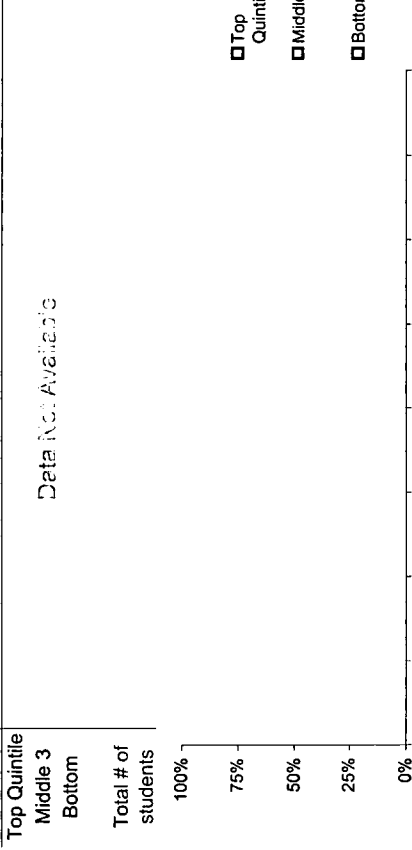
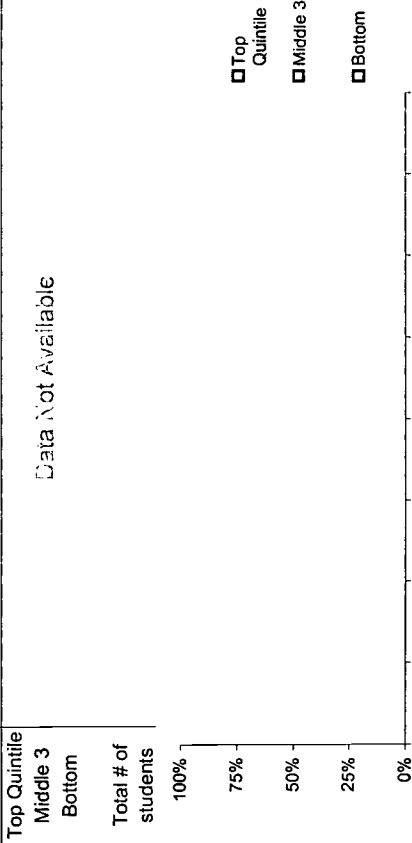
SY 2000-01

State Assessment Test Result Trends CATS - Science

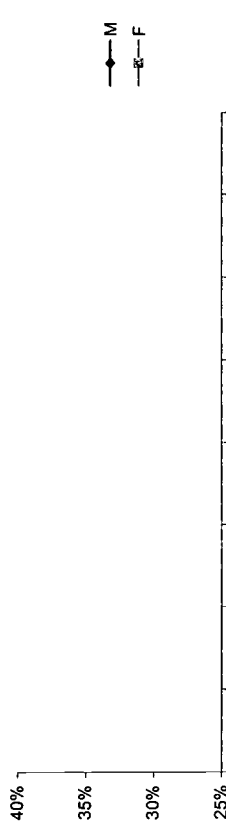
State Assessment Test Result Trends CATS - Science

◆ Grade 8

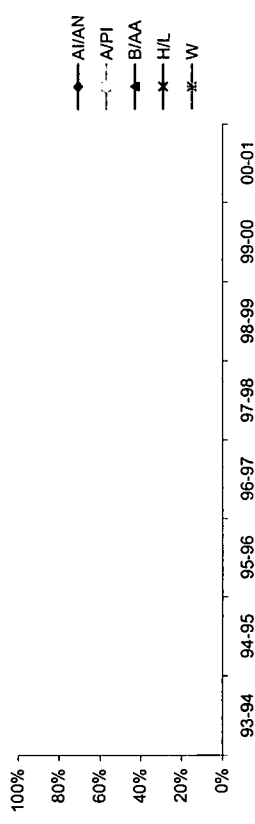
◆ Grade 10



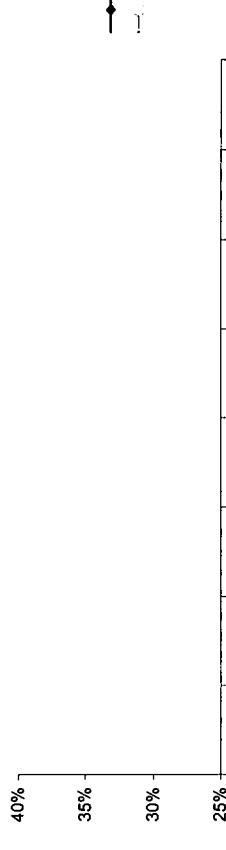
% Passing by Gender



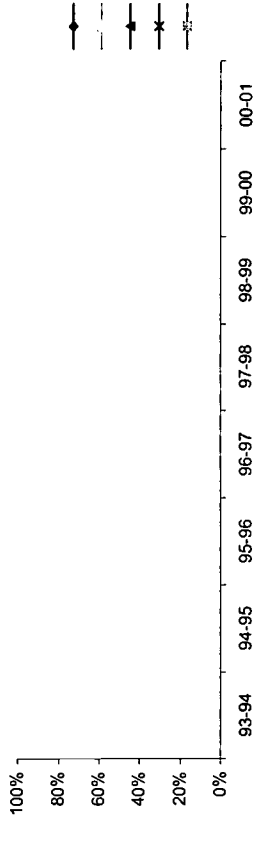
% Passing by Race/Ethnicity



% Passing by Gender



% Passing by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Top Quintile

Jefferson County CPMSA

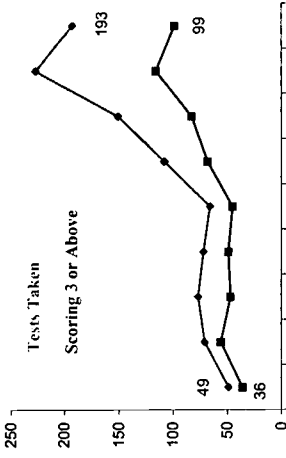
SY 2000-01

AP Mathematics Test Result Trends

AP Mathematics - Total Number of Tests Taken

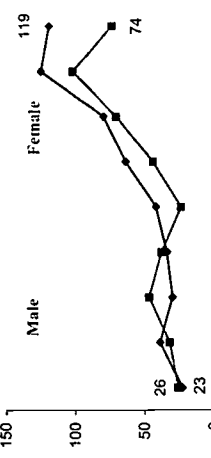
	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders						10,678	10,673	10,739	
Calc. AB	30	38	36	33	31	34	64	90	68
Calc. BC	19	33	41	38	34	74	82	89	69
Statistics	0	0	0	1	1	0	5	48	56
Total	49	71	77	72	66	108	151	227	193
Tests taken per 1,000 students						10.1	14.1	21.1	
Scoring 3 or Above	36	56	47	49	45	68	83	116	99
Scoring 3 or Above per 1000						6.4	7.8	10.8	

Number of tests taken and scoring 3 or Above



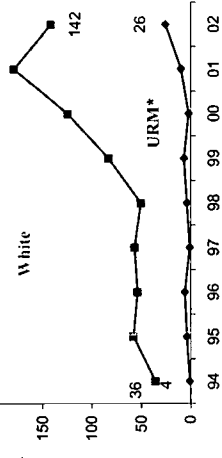
AP Mathematics - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	23	39	30	34	42	64	80	125	119
Female	26	32	47	38	24	44	71	102	74



AP Mathematics - Number of Tests Taken By Race/Ethnicity

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	1	0	1	0	0
A/PI	9	2	7	9	9	10	19	29	17
B/AA	1	2	4	0	3	5	1	6	24
H/L	0	2	2	1	0	2	0	4	2
W	36	58	54	57	51	83	125	179	142

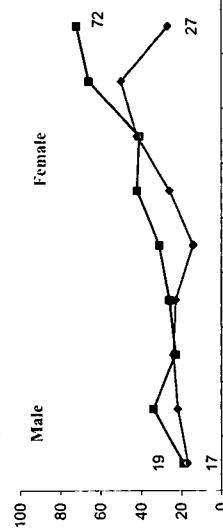


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

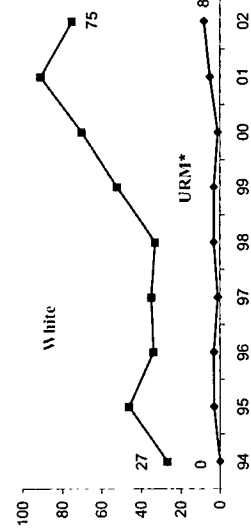
AP Mathematics - Number of Students Scoring 3 or Above By Gender

	94	95	96	97	98	99	00	01	02
Male	19	34	23	26	31	42	41	66	72
Female	17	22	24	23	14	26	42	50	27



AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity

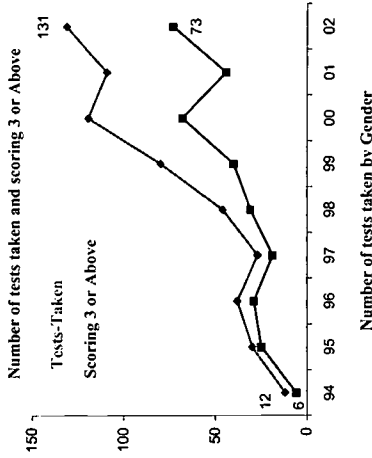
	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	1	0	0	0	0
A/PI	8	1	6	8	8	6	12	17	11
B/AA	0	1	2	0	1	2	1	2	8
H/L	0	2	1	1	1	1	1	0	3
W	27	46	34	35	33	52	70	91	75



AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

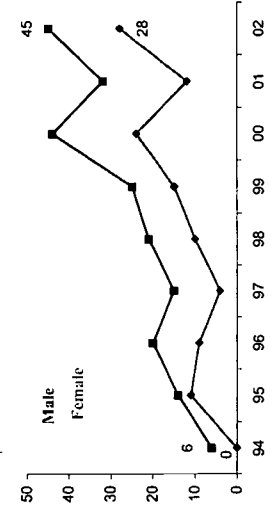
♦ AP Science - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	-	-	-	-	-	10,678	10,673	10,739	-
Biology	4	4	8	3	11	39	56	39	39
Chemistry	4	2	5	6	7	17	21	34	27
Env. Science	0	0	0	0	0	0	0	0	1
Physics B	2	24	19	16	24	17	26	30	60
Physics Mech.	1	0	3	1	3	7	8	4	3
Physics Elec.	1	0	3	1	1	0	8	2	1
Total	12	30	38	27	46	80	119	109	131
Tests taken per 1,000 students	-	-	-	-	-	7.5	11.1	10.1	-
Scoring 3 or Above	6	25	29	19	31	40	68	44	73
Above per 1000	-	-	-	-	-	3.7	6.4	4.1	-



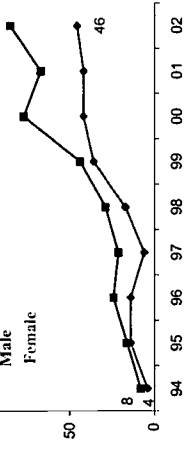
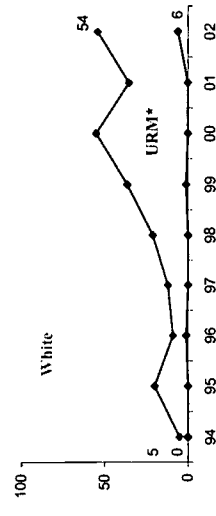
♦ AP Science - Number of Students Scoring 3 or Above By Gender²

	94	95	96	97	98	99	00	01	02
Male	6	14	20	15	21	25	44	32	45
Female	0	1	9	4	10	15	24	12	28



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity^{1,2}

	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0
A/PI	1	4	10	6	7	3	10	9	12
B/AA	0	0	1	0	0	1	0	0	3
H/L	0	0	0	0	0	0	0	0	3
W	5	20	9	12	21	36	55	35	54

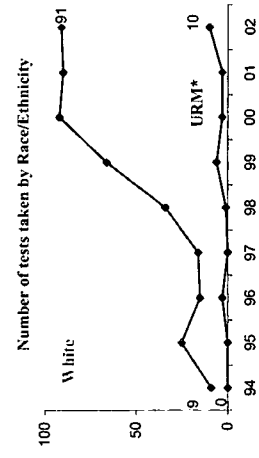


♦ AP Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	8	16	24	21	29	44	77	67	85
Female	4	14	14	6	17	36	42	42	46

♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0
A/PI	3	4	10	8	7	4	15	13	24
B/AA	0	0	3	0	0	5	3	2	7
H/L	0	0	0	0	1	1	0	1	3
W	9	25	15	16	34	66	92	90	91



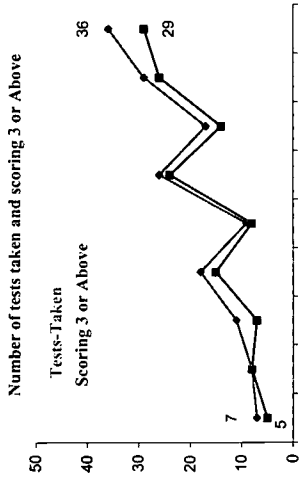
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

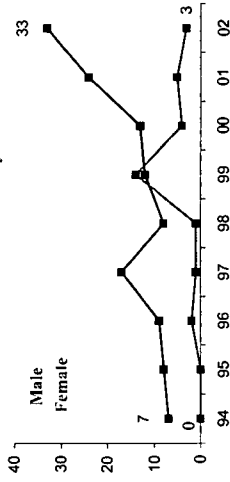
♦ AP Computer Science - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders						10,678	10,673	10,739	
Comp. Sci A	4	1	3	5	1	23	3	4	2
Comp. Sci. AB	3	7	8	13	8	3	14	25	34
Total	7	8	11	18	9	26	17	29	36
Tests taken per 1,000 students						2.4	1.6	2.7	
Scoring 3 or Above	5	8	7	15	8	24	14	26	29
Scoring 3 or Above per 1000						2.2	1.3	2.4	



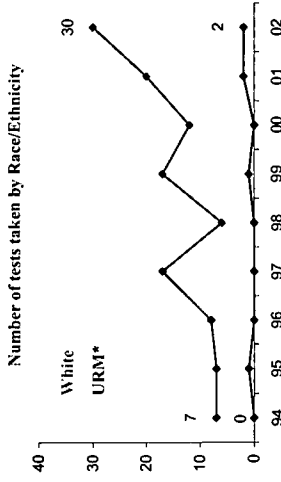
♦ AP Computer Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	7	8	9	17	8	12	13	24	33
Female	0	0	2	1	1	14	4	5	3



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity

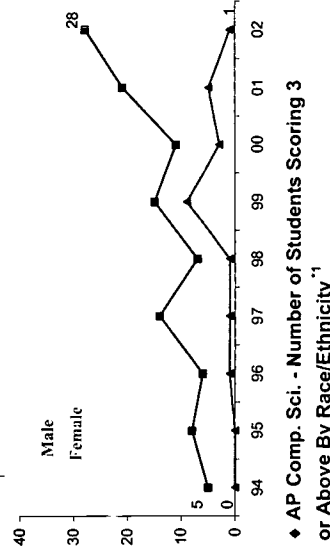
	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0
A/PI	0	0	3	1	1	1	3	5	3
B/AA	0	0	0	0	0	1	0	2	2
H/L	0	1	0	0	0	0	0	0	0
W	7	7	8	17	6	17	12	20	30



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
 *1 "Other" category not presented

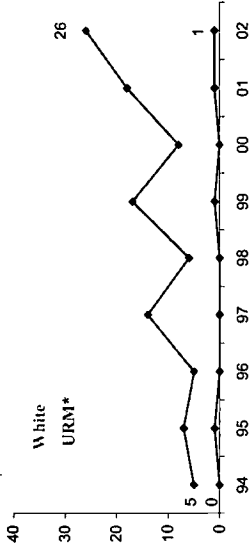
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	94	95	96	97	98	99	00	01	02
Male	5	8	6	14	7	15	11	21	28
Female	0	0	1	1	1	9	3	5	1



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0
A/PI	0	0	2	1	1	1	2	5	1
B/AA	0	0	0	0	0	1	0	1	1
H/L	0	1	0	0	0	0	0	0	0
W	5	7	5	14	6	17	8	18	26

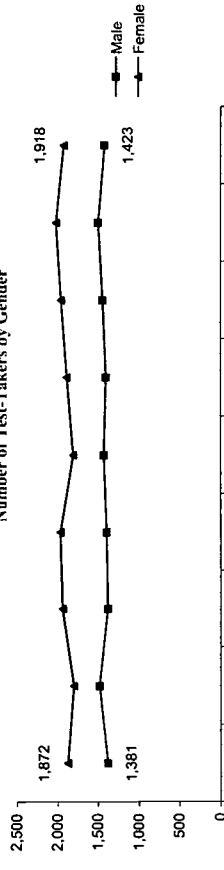


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

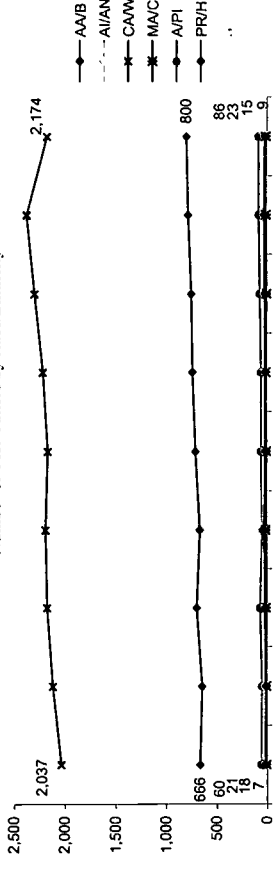
ACT Test-Takers
♦ Number of Test-Takers

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students						5,165	4,878	5,208	
Test-Takers	3,253	3,282	3,318	3,358	3,231	3,289	3,400	3,517	3,341
Num of Test-Takers/1,000 Stu.						637	697	675	
Gender									
Male	1,381	1,483	1,381	1,397	1,427	1,408	1,446	1,502	1,423
Female	1,872	1,799	1,937	1,961	1,804	1,881	1,954	2,015	1,918
Race/Ethnicity									
AA/B	666	647	699	666	709	738	749	781	800
AI/AN	21	19	27	17	11	14	6	6	9
CA/W	2,037	2,120	2,176	2,190	2,167	2,214	2,297	2,376	2,174
MA/C	7	10	13	16	4	11	4	15	15
A/PI	60	52	70	51	59	58	72	82	86
PR/H	18	14	21	30	18	17	22	30	23

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



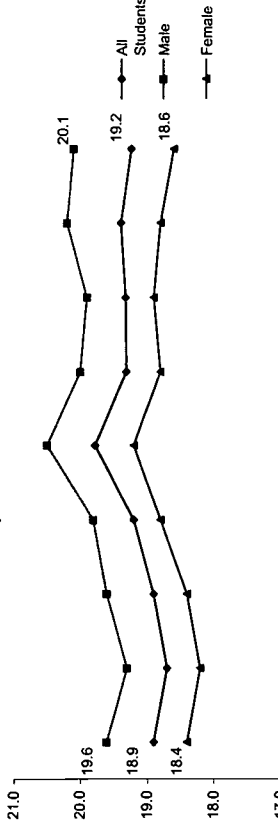
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

¹ Number of Test-Takers less than 5 not presented in graph

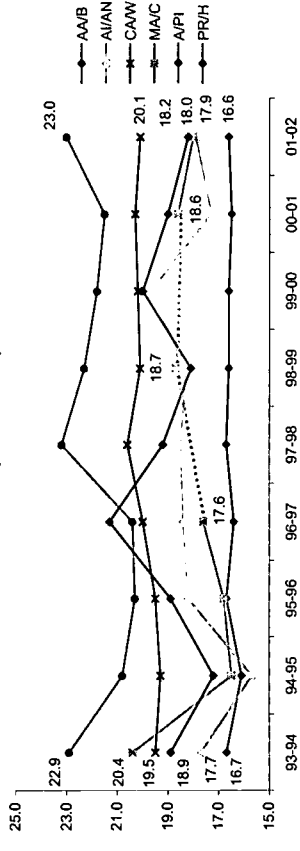
ACT Mathematics Scores
♦ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.9	18.7	18.9	19.2	19.8	19.3	19.3	19.4	19.2
Gender									
Male	19.6	19.3	19.6	19.8	20.5	20.0	19.9	20.2	20.1
Female	18.4	18.2	18.4	18.8	19.2	18.8	18.9	18.8	18.6
Race/Ethnicity									
AA/B	16.7	16.1	16.7	16.4	16.7	16.6	16.6	16.5	16.6
AI/AN	17.7	15.7	18.2	18.4	18.5	18	20	17	17.9
CA/W	19.5	19.3	19.5	20.0	20.6	20.1	20.2	20.3	20.1
MA/C	20.4	16.5	16.8	17.6	-	18.7	-	18.6	18.0
A/PI	22.9	20.8	20.3	20.4	23.2	22.3	21.8	21.5	23.0
PR/H	18.9	17.2	18.9	21.3	19.2	18.1	20.0	19.0	18.2

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



(-) Mean scores not presented for sample size less than 5

Jefferson County CPMSA

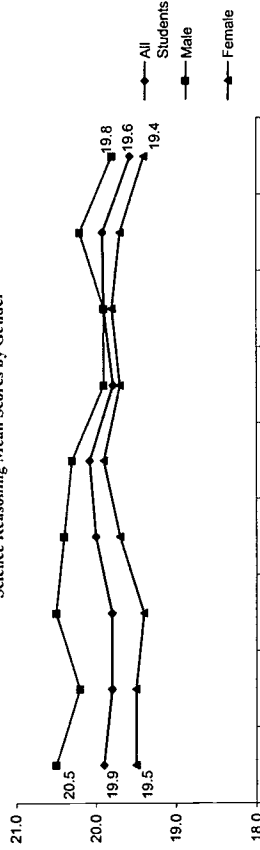
SY 2000-01

ACT Science Reasoning Scores

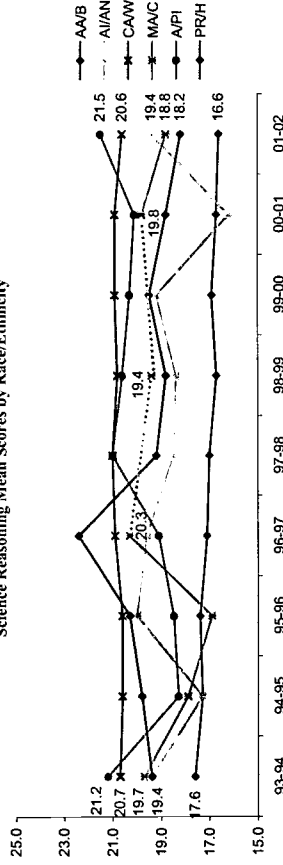
◆ Science Reasoning - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.9	19.8	19.8	20.0	20.1	19.8	19.9	19.9	19.6
Gender									
Male	20.5	20.2	20.5	20.4	20.3	19.9	19.9	20.2	19.8
Female	19.5	19.5	19.4	19.7	19.9	19.7	19.8	19.7	19.4
Race/Ethnicity									
AA/B	17.6	17.3	17.4	17.1	17.0	16.7	16.9	16.7	16.6
AI/AN	19.4	17.3	20.0	19.6	18.5	18.4	19.2	16.2	19.4
CA/W	20.7	20.6	20.6	20.9	21.0	20.8	20.9	20.9	20.6
MA/C	19.7	17.9	16.9	20.3	-	19.4	-	19.8	18.8
A/PI	21.2	18.3	18.5	19.1	21.0	20.6	20.3	20.1	21.5
PR/H	19.4	19.8	20.3	22.4	19.2	18.8	19.5	18.8	18.2

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

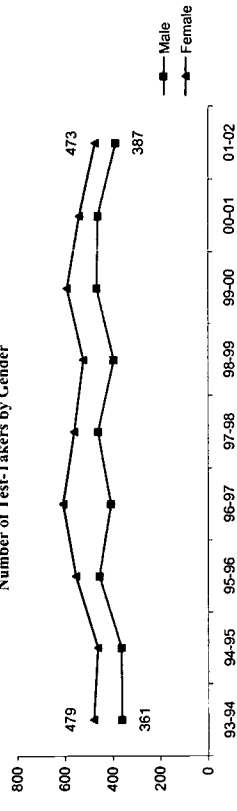
SAT Test-Takers

◆ Number of Test-Takers

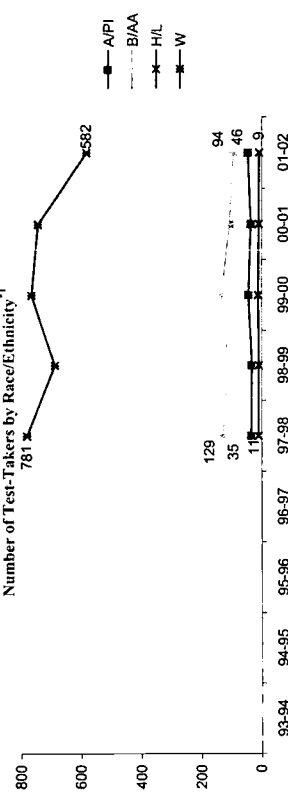
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students						5,165	4,878	5,208	
Test-Takers	840	824	1,009	1,014	1,020	917	1,057	999	860
Num of Test-Takers/1,000 Stu.						178	217	192	
Gender									
Male	361	363	454	406	459	394	465	460	387
Female	479	461	555	608	561	523	592	539	473
Race/Ethnicity									
AI/AN					3	4	1	4	3
A/PI					35	33	44	36	46
B/AA					129	110	133	106	94
H/L					11	10	12	10	9
W					781	689	766	744	582
OT					20	19	29	20	23

DATA NOT AVAILABLE

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or Mexican American H/L: Hispanic or Latino W: White OT: Others

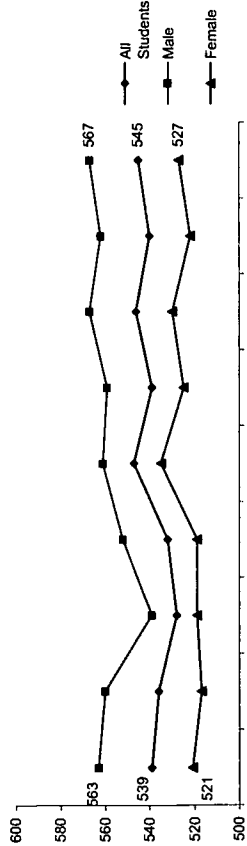
¹ Number of Test-Takers less than 5 not presented in graph

SAT Mathematics Scores

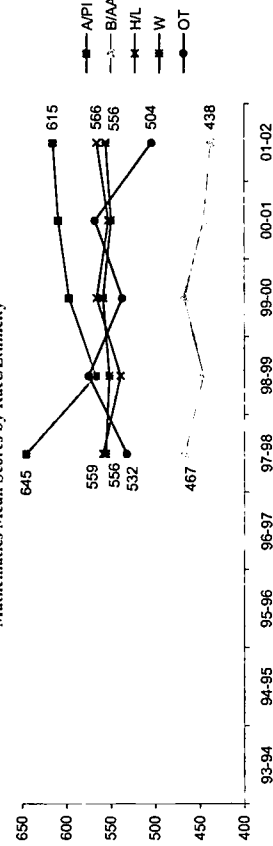
◆ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	539	536	528	532	547	539	546	540	545
Gender									
Male	563	560	539	552	561	559	567	562	567
Female	521	517	519	519	535	525	530	522	527
Race/Ethnicity									
All/AN									
A/PI					645	567	597	609	615
B/AA					467	446	468	446	438
H/L					559	539	566	553	566
W					556	552	559	550	556
OT					532	575	537	568	504

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity**



All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

(-) Mean scores not presented for sample size less than 5

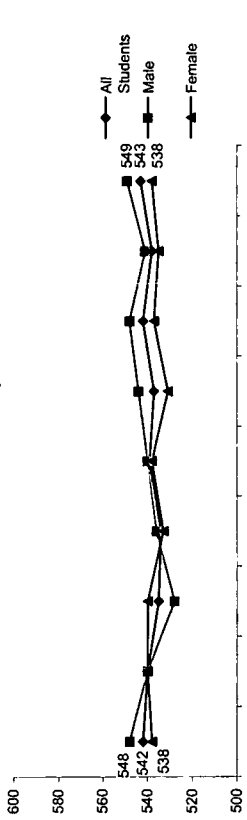
** Number of Test-Takers less than 5 not presented in graph

SAT Verbal Scores

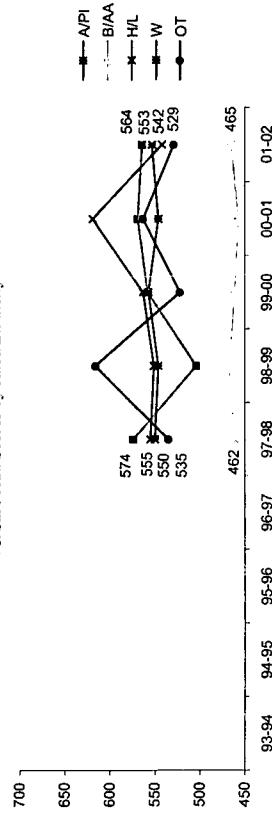
◆ Verbal - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	542	540	535	534	539	537	542	538	543
Gender									
Male	548	540	528	536	540	544	548	541	549
Female	538	540	540	533	538	531	537	535	538
Race/Ethnicity									
All/AN									
A/PI					574	504	558	569	564
B/AA					462	467	461	457	465
H/L					555	551	563	619	542
W					550	546	557	546	553
OT					535	616	522	563	529

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity**



Jefferson County CPMSA

SY 2000-01

Cohort/Scale-Up Approach

Number of District Schools: 98-99
130
CPMSA Schools: 35
% Schools: 27%

Source: CDE 1999

Primary Decision Making Body

Standards Curriculum: State
Curriculum/TextBook Adoption: School
Student Assessment: State
Professional Development: School
Resources: School
Teacher Hiring: District
Teacher Contracts: District
Certification & Re-certification: State
Graduation Requirements: District
School-Based Management?: Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: Board policy indicates heterogeneous classes with broad diversity.
Criteria for Entry into High Level Mathematics and Science Courses: Students must successfully complete the prerequisites for higher level mathematics and science courses. Students with a D in the previous mathematics/science course are admitted conditionally to higher courses.
Availability of High Level Courses: CPMSA (District) partnered with the Lincoln Foundation to upgrade curriculum and increase enrollment, especially of minority students. CPMSA developed Algebra Readiness program. District continues both programs. CERTL started science

Special Education and Bilingual Students:

The District has an IEP (Individual Education Plan) plan for students with special needs

A well-developed ESL program

New Courses Added as a Result of CPMSA: Instructional Time:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements and Algebra II: 3 math courses including Algebra, Geometry

A general science course must precede Biology. A new 10th grade integrated science course emphasizing KY's core content (earth, space, physical) is under development
L.I.N.K. (Linking Instruction with Neighborhood Kids) program provided students in economically disadvantaged areas with after-school instruction/tutoring at sites near their home neighborhoods.
"Extended School Services" (ESS) program funded by the State to help students needing additional instruction in order to be successful
CERTL Science Camps (1997-1999), District Algebra Readiness Camps (1997 - 2001), Partnership with Lincoln Foundation summer Math./Sci. program (1997 - 2001).

Policies Relevant to Curriculum

Framework: The State has developed Core Content guidelines by grade level. The District has developed performance standards.
Curricula: Kentucky's state standards, highly influenced by NCTM and National Science Standards.
Curricula Materials: In 1999, the district adopted Everyday Mathematics (K-5) and Connected Mathematics (6-8) and SIMMS was adopted by 1 high school. In 2001, Cognitive Tutor Algebra I has been implemented at 2 high schools and 1 middle school. The system adopted textbooks for high school are more traditional except for those noted
In addition to State/System adopted textbooks and supplemental materials the science curriculum includes GEMS, AIMS, SEPUP, FOSS, and STC

Standards-based Curriculum and Instruction

Standards Adopted: NCTM for math

% of Students Experiencing Standards-based Curricula: E 100%
M 100%
H 100%

Policies Relevant to Teacher Qualifications

Certification: Preservice teachers must complete a state approved program for elementary certification or content approved program for middle/high school levels of certification

Requirement & Hiring Practices: There is a provision for emergency certification. There are no teachers of mathematics or science who are teaching under emergency certifications. During the CPMSA grant, a special partnership with U. of Louisville allowed teachers of grades 5 - 8 to become certified to teach middle school mathematics

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Jefferson County CPMSA

SY 2000-01

Professional Development Policies and Practices

Time Required or Supported: 48 at middle/high schools; 42 at elementary schools.

Financial Resources Provided: During the CPMSA years, the mathematics/science specialists leveraged funds from Title II (Eisenhower) and other sources to provide content specific PD along with the NSF funding.

Alignment to Student Standards: Yes. PD design required alignment. The approval process included identifying the curriculum standards (State Core Content) each PD offering included.

Teachers' instructional practice change as a result of CPMSA influenced professional development: In the project schools, teachers were trained in the use of models to teach rational numbers, algebra tiles and graphing calculators. CPMSA provided each CPMSA middle school with graphing calculators for the students. Science teachers received training through the CERTL program and the District's Science PD program.

Type and Amount Received by Average Math/Science Teacher:

Evaluation Instruments: During the CPMSA years, the mathematics/science specialists leveraged funds from Title II (Eisenhower) and other sources to provide content specific PD along with the NSF funding. Teachers averaged over 40 hours. The additional hours were all content related.

Teacher's Instructional Practices Evaluation: Principals evaluate teachers and give them feedback. In cases where a teacher was viewed as having extreme difficulties, a content specialist was called to work with the teacher.

Impact on Student Achievement:

Schools get performance data for KY's Commonwealth Accountability Testing System (CATS). They must include how to address these results in their School Consolidated Plan.

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Assessments Used: CATS (Commonwealth Accountability Testing System) both Mathematics & Science

CPMSA Leadership, Governance, and Management

Superintendent: Stephen Daeschner

Continuity of Leadership: During the years of the CPMSA program, the Superintendent became the PI for the project. He appointed a CPMSA Steering Committee. Several Superintendent Cabinet level persons were on the committee. The Director of the CPMSA project coordinated all project activities with the Assistant Superintendent of Middle Schools and K-12 Instruction.

Project Directors position in districts' organizational structure:

Project director reported to the Assistant Superintendent for Curriculum and Instruction. The project director also had access to the Superintendent and met with him on a regular basis.

Teacher Leaders:

Partnerships

Other Key Initiatives: KY SSI
NASA

Competing Initiatives:

Community Stakeholders: Parents
CPMSA Advisory

Higher Education: U. of Louisville School of Education

Business and Industry: Lincoln Foundation
Rhom & Haas, Inc.

General Electric
Ford Motor Co.
UPS
National Weather Service
Louisville Science Center
Louisville Water Co.
Louisville Gas and Electric Co.

Housing Authority
Anderson Architect Designs
United Catalysts
Vencor
City of Louisville Alderman
100 Black Men/Women Organizations
National Society of Black Engineers

Accountability

Program Effectiveness Monitoring: Grant ended in 1999. District continues most programs developed/influenced by CPMSA (Course enrollment/completion in pipeline courses math/sci by gender/ethnicity, SEM proficiency of graduates by gender/ethnicity). Assessment of implementation of standards based curriculum.

Report Card System: The District sends a school report card to each parent in January of each school year. This report compares the school achievement data, staff and budget to District and State results.

Achievement comparisons are based on performance of the state assessment of the State's Core Content Guidelines.

Key Indicator Data Collection: The Department of A, R, and P has developed programs to identify student enrollment and completion of science/math pipeline courses by gender and ethnicity. There are 10 Systems of accountability which are the responsibility of several departments within several divisions of the District reporting to the Superintendent twice a year.

Key Indicator Data Use: Key indicator data was used in the CPMSA project (ended 1999) to identify gaps between minority and majority ethnic groups. This led to examining the policies and programs that could be changed to more directly address the problems of minority student achievement in the framework of the JCPS District relative to the CPMSA program.

Local On-Sight Evaluation: At present, there is a department of 20 staff members with 5 evaluators who look at specific programs in terms of student outcomes. Even though the District is not funded by NSF they continue to collect the data required by NSF during grant years.

Data Manager: Dr. Robert J. Rodosky
External Evaluator: As the CPMSA project progressed, NSF encouraged more "in-house" evaluation. The Department of Accountability, Research and Planning staff provided the evaluation.

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1993-94	No changes reported.
1994-95	No changes reported.
1996-97	Block scheduling to devote larger blocks of time to mathematics and science
1997-98	No changes reported.
1998-99	Link program provided students in economically disadvantaged areas after-school tutoring at sites near their home neighborhoods
1997-98	No changes reported.
1998-99	Link program provided students in economically disadvantaged areas after-school tutoring at sites near their home neighborhoods
1999-00	Math graduation requirements strengthened to include Algebra I and II, and Geometry.

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1993-94	No changes reported.
1994-95	No changes reported.
1995-96	No changes reported.
1996-97	Science and math summer camps and programs established to prepare students for middle school math and science
1997-98	Partnership with Lincoln Foundation to upgrade curriculum and increase minority enrollments in math and science
1998-99	All schools implement standards based curriculum in all classrooms
1999-00	New textbooks adopted which are standards based
	Connected Math in place in over 50% of middle schools

Jefferson County CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1993-94	• No changes reported.	1993-94	• No changes reported.	1993-94	• No changes reported.
1994-95	• No changes reported.	1994-95	• No changes reported.	1994-95	• No changes reported.
1995-96	• No changes reported.	1995-96	• No changes reported.	1995-96	• No changes reported.
1996-97	• No changes reported.	1996-97	• No changes reported.	1996-97	• Department of accountability, Research and Planning collects Key Indicator Data
1997-98	• Principals receive professional development regarding standards based, inquiry based instruction • Each student required to submit a consolidated plan to district which plans for professional development	1997-98	• No changes reported.	1997-98	• No changes reported.
1998-99	• Increase in required professional development: 24 to 48 hours for secondary teachers; 24 to 42 hours for elementary teachers • School support teachers established	1998-99	• No changes reported.	1998-99	• School report card distributed comparing school data to district and state data
1999-00	• No changes reported.	1999-00	• Assessment system completely aligned to standards	1999-00	• No changes reported.



Newport News Public Schools, VA
Newport News, VA

Project Information

CPMSA Project Title : STEP: Student and Teacher Excellence Program

Cohort: 94

CPMSA Web Site:

◆ PI, CO-PI and PD

Principle Investigator
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 Project Director
 Kathryn Strozak T (757) 591-4903 F (757) 595-7522
 kstrozak@mnadmin.sbo.nm.k12.va.us

◆ CPMSA Data Manager/Evaluator

TISC Data Manager
 Deborah Dyer T (757) 422-2802 F (757) 422-5421
 SuccessDeb@aol.com

◆ Mailing Address

Newport News Public Schools
 12465 Warwick Boulevard,
 Newport News, VA 23606

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
99-00			
K-G5 (Elementary)	37	896	16,985
G6-8 (Middle)	8	181	7,332
G9-12 (High)	5	164	8,858
Total	47	1,241	33,304

Source: Core Data Elements (SY 1999-00)

Project Summary

STEP (Student Teacher Excellence Program) brings an urban school district and a broad-based partnership of community organizations and federal labs to develop a model of comprehensive pre-K-12 science and mathematics education.

STEP will produce a model that incorporates the expertise and creativity of the unique concentration of resources in this area and that can be replicated by communities not so fortunate as to have such resources nearby.

STEP will address the issue that African American students, on average, score well below white students on standardized tests of mathematics and science achievement and are much less likely to take advanced mathematics and science courses.

STEP program is closely tied to the School Board's priorities of reducing racial disparities in achievement, channeling more minority students into advanced classes, and ensuring all graduates complete Algebra.

Project Goals

- ◆ To boost minority achievement.
- ◆ To significantly increase minority representation in the college-bound SEM pipeline.

Selected School Indicators (District Average)

	93-94	00-01	Change
% Special Ed.	.	.	.
% LEP	.	.	.
% Free/Red. Lunch	.	.	.
% Daily Avg. Atten.	.	.	.
% Average Retained	.	.	.
% Drop-Out	.	.	.
% Mobility	.	.	.
Per Pupil Cost (\$)	.	.	.
# Students Per Computer	.	.	.
% Classrooms Internet Access	.	.	.
Average Class Size	.	.	.

(-) Data Missing

PP: Percentage Points

Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)

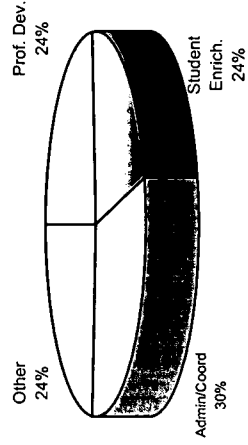
I-97

Fact Book 2002

District and CPMSA Fund Utilization (SY 1999-00)

	District	CPMSA
Prof. Dev.	13%	24%
Student Support	9%	22%
Admin/Coord	33%	30%
Other	45%	24%
Total	100%	100%

CPMSA Funds %



Newport News CPMSA

SY 2000-01

Student Demographics (SY 1999-00)

District Total: 32,830
 CPMSA Schools: 32,830
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	94-95	97-98	%	% Change
Ame. Ind./Ala. Nat.	186	233	0.8%	+25.3%
Asian/P. Islander	763	733	2.4%	-3.9%
Black	14,444	15,796	51.6%	+9.4%
Hispanic	960	1,043	3.4%	+8.6%
White	13,509	12,778	41.8%	-5.4%
Other	0	0	0.0%	.
Total	29,862	30,583	100.0%	+2.4%
URM Total	15,590	17,072	55.8%	+9.5%

URM: Underrepresented Minority students.

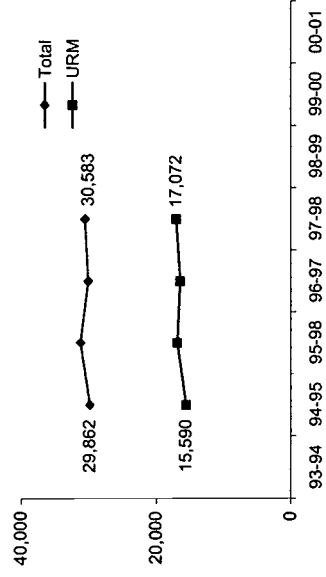
◆ Gender

	94-95	97-98	%	% Change
Male	15,157	15,324	50.1%	+1.1%
Female	14,705	15,259	49.9%	+3.8%

◆ Grade

	94-95	97-98	%	% Change
K-G5	15,356	15,463	50.6%	+0.7%
G6-8	6,753	6,983	22.8%	+3.4%
G9-12	7,753	8,137	26.6%	+5.0%
Ungraded	0	0	0.0%	.

◆ District Student Demographic Trends



12th Grade Graduates

	95-96	97-98	Change
Total 12th Grade	1,531	1,608	+5%
Earned a Diploma	1,398	1,449	+4%
% Earned Diploma	91%	90%	-1 PP

% Earned Diploma for SY 1997-98



SEM Proficiency

	96-97	97-98	Change
# SEM Proficient ¹	266	139	-48%
% SEM Proficient/ Total 12th Grade	17%	9%	-8 PP

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
- ◆ Science

PP: Percentage Points (.) Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	98-99	00-01	Change
Teachers Certified	96	97	+1%
% Cert.	.	.	.

	98-99	00-01	Change
G9-12 Teachers Certified	97	97	+0%
% Cert.	.	.	.
Total Teachers Certified	193	194	+1%
% Cert.	.	.	.

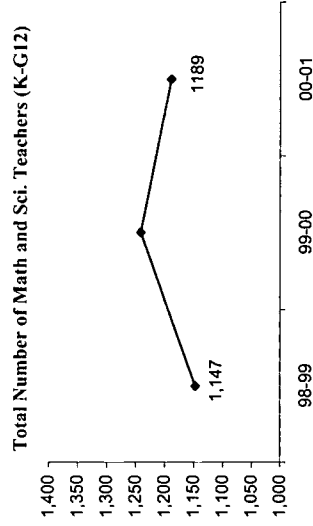
◆ Science (G6-12)

	98-99	00-01	Change
Teachers Certified	92	99	+8%
% Cert.	.	.	.

	98-99	00-01	Change
G6-8 Teachers Certified	69	79	+14%
% Cert.	.	.	.
G9-12 Teachers Certified	161	178	+11%
% Cert.	.	.	.
Total Teachers Certified	230	257	+12%

◆ Math and Science (K-G5)

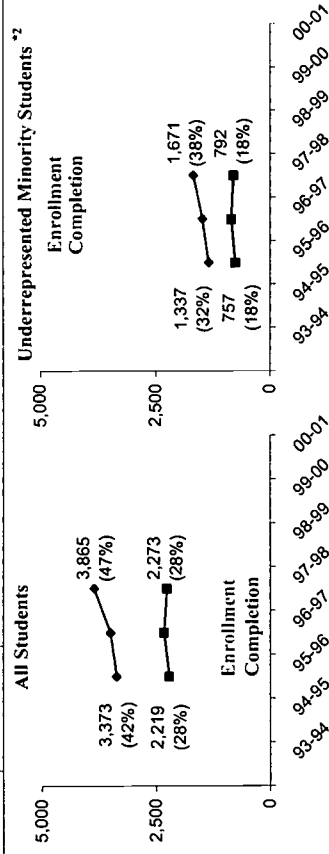
	98-99	00-01	Change
K-G5 Teachers	793	820	+3%



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

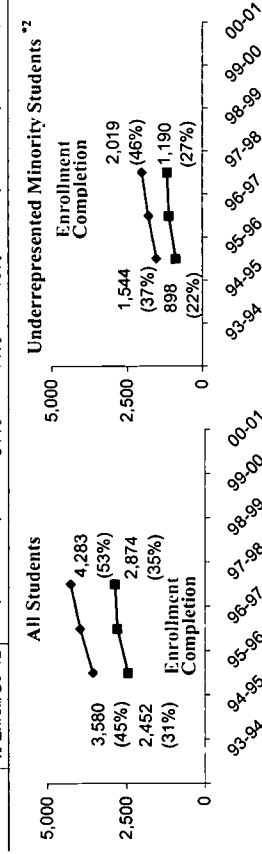
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population			7,938	7,794	8,137			
All Students			3,373	3,509	3,865			
Enrollment Completion ¹			2,219	2,337	2,273			
% Enroll/G9-12			42%	45%	47%			
URM ²			1,337	1,469	1,671			
Enrollment Completion ¹			757	836	792			
% Enroll/G9-12			32%	36%	38%			



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population			7,938	7,794	8,137			
All Students			3,580	3,975	4,283			
Enrollment Completion ¹			2,452	2,791	2,874			
% Enroll/G9-12			45%	51%	53%			
URM ²			1,544	1,805	2,019			
Enrollment Completion ¹			898	1,124	1,190			
% Enroll/G9-12			37%	44%	46%			

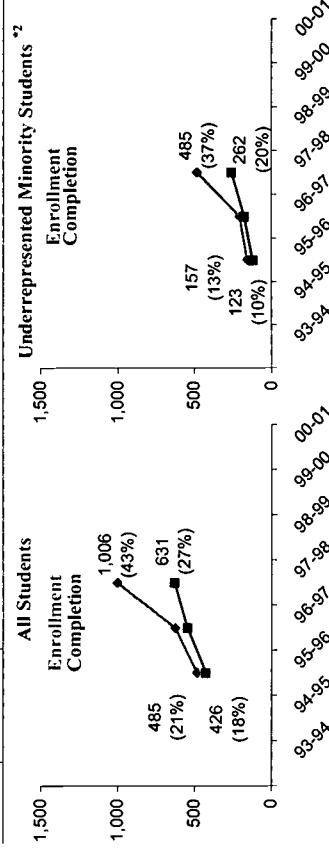


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

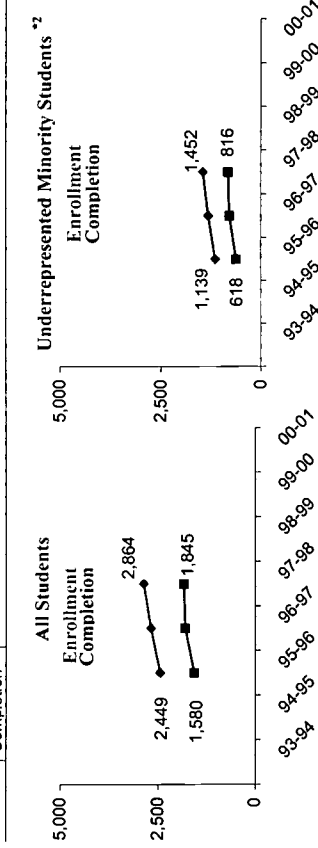
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population		2,171	2,319	2,241	2,315			
All Students			485	626	1,006			
Enrollment Completion ¹			426	547	631			
% Enroll/G8			21%	28%	43%			
URM ²			157	207	485			
Enrollment Completion ¹			123	176	262			
% Enroll/G8			13%	17%	37%			



Biology Enrollment & Completion Trends/ All vs. URM

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
All Students			2,449	2,686	2,864			
Enrollment Completion ¹			1,580	1,814	1,845			
URM ²			618	791	816			
Enrollment Completion ¹			1,139	1,315	1,452			

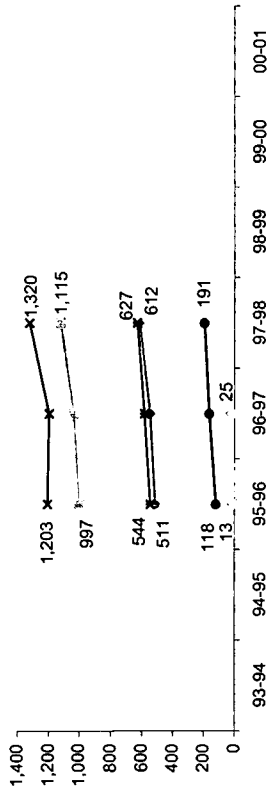


(.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

G 9-12 Course Enrollment (All Students)

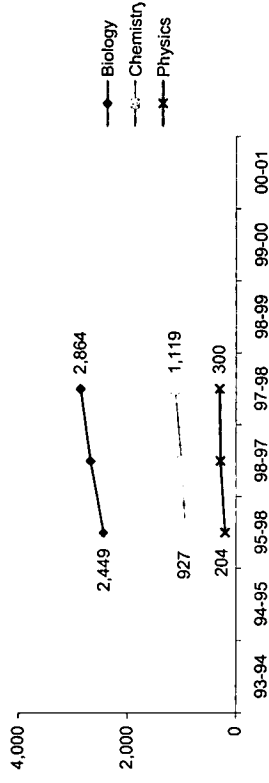
	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
93-94	.	.	.	.	.	.	.
94-95	.	.	.	.	.	.	.
95-96	511	997	1,203	544	118	13	3,386
96-97	543	1,031	1,193	582	160	25	3,534
97-98	612	1,115	1,320	627	191	.	3,865
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



Science Course Enrollment & Completion Trends By Subject

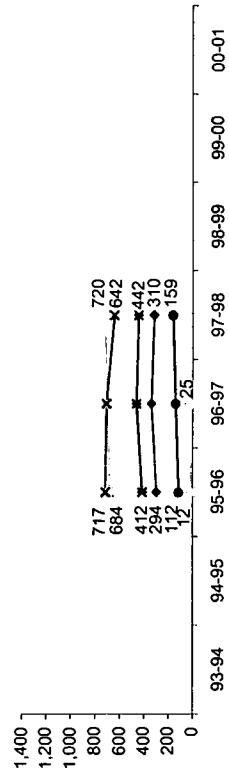
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other ²	Science Total
93-94	.	.	.	.	.
94-95	.	.	.	.	.
95-96	2,449	927	204	.	3,580
96-97	2,686	1,002	287	.	3,975
97-98	2,864	1,119	300	.	4,283
98-99	.	.	.	.	.
99-00	.	.	.	.	.
00-01	.	.	.	.	.



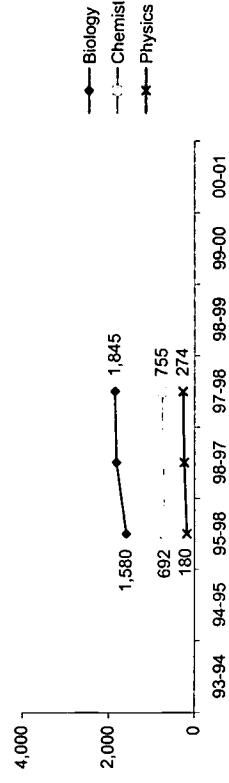
G 9-12 Course Completion¹ (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
93-94	.	.	.	.	.	.	.
94-95	.	.	.	.	.	.	.
95-96	294	684	717	412	112	12	2,231
96-97	335	698	708	459	137	25	2,362
97-98	310	720	642	442	159	.	2,273
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



G 9-12 Course Completion¹ (All Students)

	Biology	Chemistry	Physics	Other ²	Science Total
93-94	.	.	.	.	.
94-95	.	.	.	.	.
95-96	1,580	692	180	.	2,452
96-97	1,814	731	246	.	2,791
97-98	1,845	755	274	.	2,874
98-99	.	.	.	.	.
99-00	.	.	.	.	.
00-01	.	.	.	.	.



¹ Successful completion: grade 'C' or above.

² Data not presented on graph for sample size less than 5

(.) Data Missing

District Assessment Test Administered

Assessment Test-Taker Trends

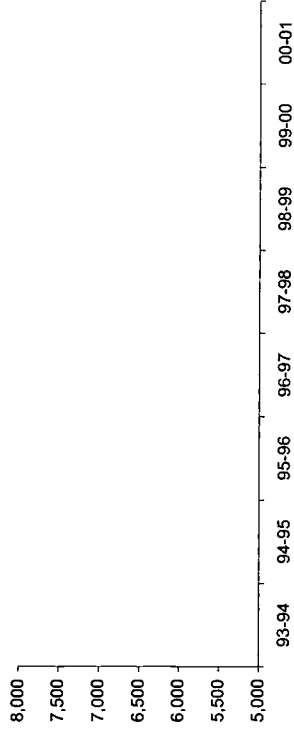
◆ Mathematics	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Mathematics

# of Test-takers	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4
Grade 8
Grade 10

Data Not Available

Total number of students taking test



◆ Science	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

State Assessment Test Administered

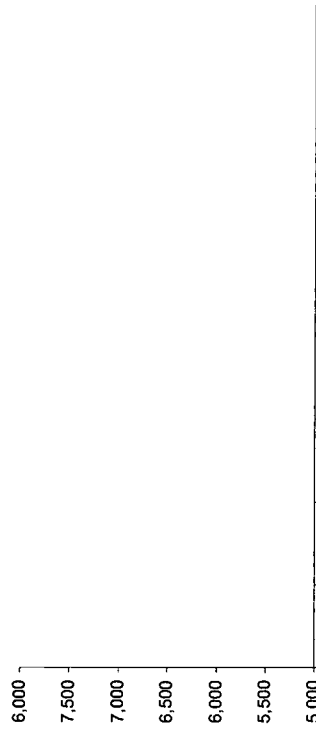
◆ Mathematics	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Science

# of Test-takers	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4
Grade 8
Grade 10

Data Not Available

Total number of students taking test



◆ Science	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

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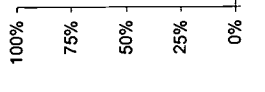
Assessment Test Result Trends - Mathematics

◆ Grade 4

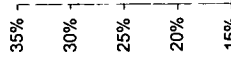
93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

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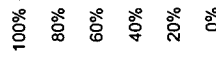
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



A/I/N: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

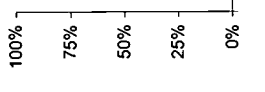
Assessment Test Result Trends - Mathematics

◆ Grade 8

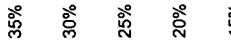
93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

Data Not Available

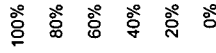
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



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Assessment Test Result Trends - Mathematics

Assessment Test Result Trends - Science

◆ Grade 10

◆ Grade 4

93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

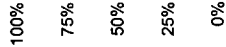
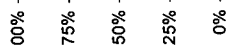
93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

Data Not Available

Data Not Available

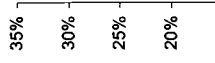
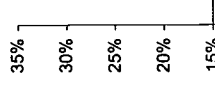
Total # of students

Total # of students



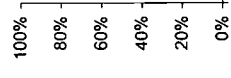
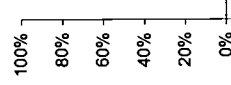
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

Newport News CPMSA

SY 2000-01

Assessment Test Result Trends - Science

Assessment Test Result Trends - Science

◆ Grade 8

◆ Grade 10

93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

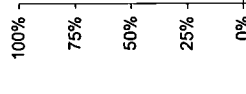
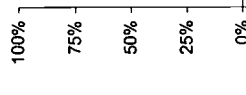
93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

Data Not Available

Data Not Available

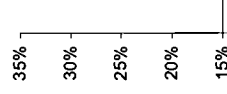
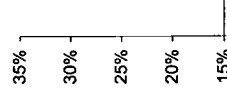
Total # of students

Total # of students



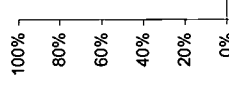
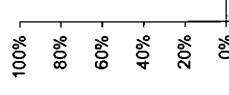
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity

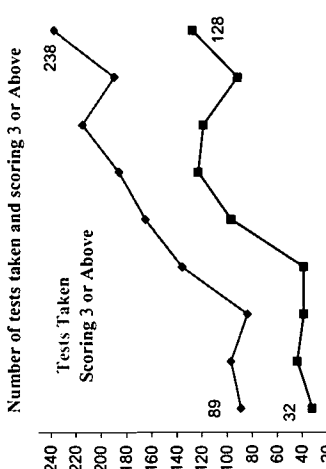


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American HI/L: Hispanic or Latino W: White
% Passing defined as ?

AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

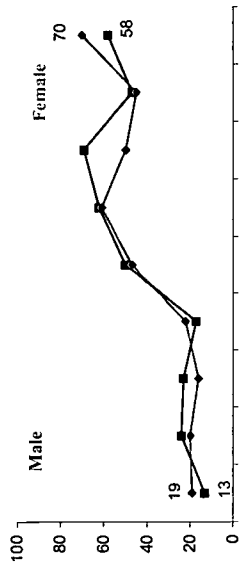
♦ AP Mathematics - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,271	3,224	3,189	3,411					
Calc. AB	0	42	50	75	90	55	43	70	48
Calc. BC	89	55	34	61	75	98	116	31	93
Statistics	0	0	0	0	0	33	56	89	97
Total	89	97	84	136	165	186	215	190	238
Tests taken per 1,000 students	29.7	26.1	42.6	48.4					
Scoring 3 or Above	32	44	39	39	97	123	119	92	128
Scoring 3 or Above per 1000	13.5	12.1	12.2	28.4					



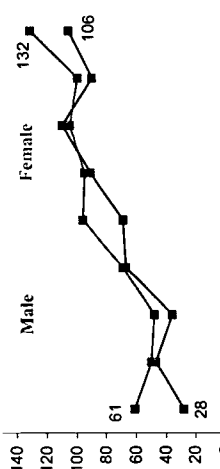
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	94	95	96	97	98	99	00	01	02
Male	13	24	23	17	50	62	69	47	58
Female	19	20	16	22	47	61	50	45	70



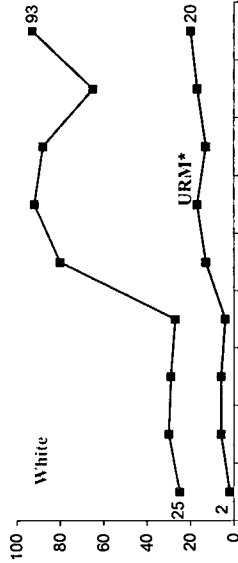
♦ AP Mathematics - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	28	47	36	67	69	91	110	90	106
Female	61	50	48	69	96	95	105	100	132



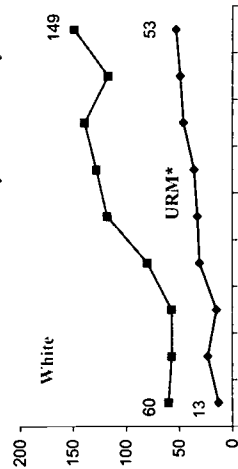
♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	1	0	1	1	0	0
A/PI	3	7	3	6	1	9	11	9	8
B/AA	2	4	4	3	11	14	9	16	17
H/L	0	2	2	0	2	2	3	1	3
W	25	30	29	27	80	92	88	65	93



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	1	0	1	1	0	2
A/PI	11	15	10	19	8	13	17	18	21
B/AA	12	17	12	27	31	32	39	37	47
H/L	1	6	3	3	2	3	6	12	4
W	60	57	57	80	118	128	139	117	149



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

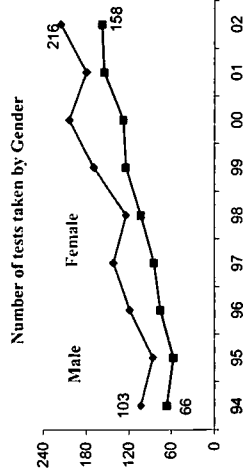
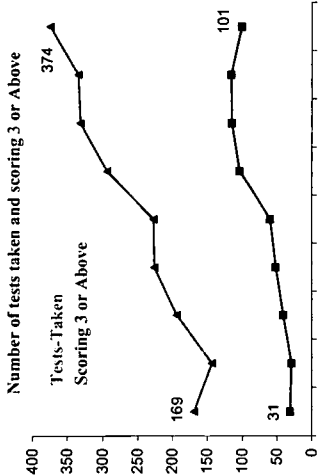
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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AP Science Test Result Trends | ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

♦ AP Science - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,271	3,224	3,189	3,411					
Biology	157	119	129	132	111	102	86	130	79
Chemistry	5	15	34	42	45	35	45	17	20
Env. Science	0	0	0	0	0	107	141	122	203
Physics B	1	0	0	0	0	8	29	57	30
Physics Mech.	6	9	17	52	71	42	31	8	42
Physics Elec.	0	0	14	0	0	0	0	1	0
Total	169	143	194	226	227	294	332	335	374
Tests taken per 1,000 students	43.7	60.2	70.9	66.5					
Scoring 3 or Above	31	29	41	52	60	104	115	116	101
Scoring 3 or Above per 1000	8.9	12.7	16.3	17.6					



♦ AP Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	66	57	75	84	103	124	128	155	158
Female	103	86	119	142	124	170	204	180	216

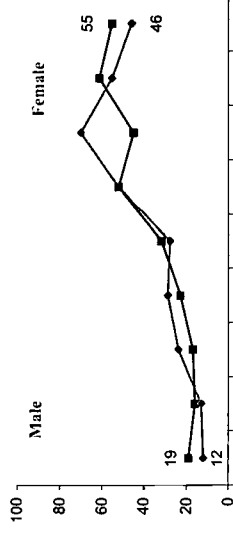
♦ AP Science - Number of Tests Taken By Race/Ethnicity^{*1}

	94	95	96	97	98	99	00	01	02
All/AN	0	1	1	1	1	2	3	0	1
A/PI	14	11	32	25	16	21	30	39	21
B/AA	30	33	40	47	56	59	50	79	93
H/L	2	6	4	5	4	7	8	12	7
W	119	86	106	138	142	186	221	186	229

All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
^{*1} "Other" category not presented

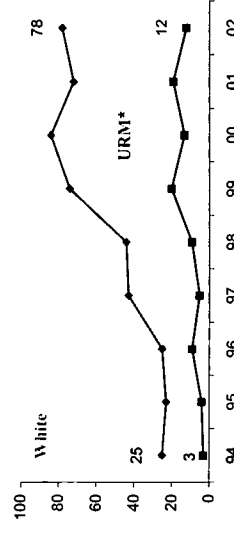
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	94	95	96	17	23	32	52	45	61	55
Male	19	16	17	23	32	52	45	61	55	
Female	12	13	24	29	28	52	70	55	46	



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity^{*1}

	94	95	96	97	98	99	00	01	02
All/AN	0	0	0	0	0	2	2	0	0
A/PI	3	1	6	4	6	2	10	16	6
B/AA	3	3	9	5	8	12	9	15	10
H/L	0	1	0	0	1	6	2	4	2
W	25	23	25	43	44	74	84	72	78



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino
 () Data Missing

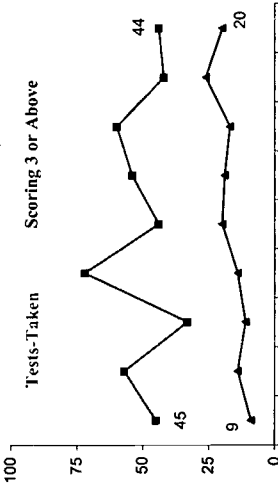
AP Computer Science Test Result Trends

Computer Science A & AB

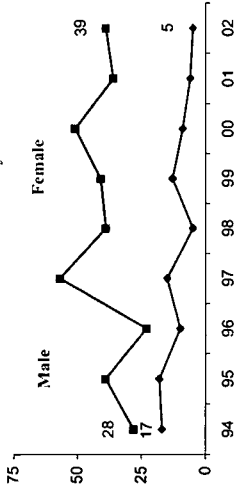
AP Computer Science - Total Number of Tests Taken

	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,271	3,224	3,189	3,411	.	.	.	.	.
Comp. Sci A	43	53	33	71	40	53	60	41	40
Comp. Sci. AB	2	4	0	1	4	1	0	1	4
Total	45	57	33	72	44	54	60	42	44
Tests taken per 1,000 students	17.4	10.2	22.6	12.9	.	.	.	.	.
Scoring 3 or Above	9	14	11	14	20	19	17	26	20
Above per 1000	4.3	3.4	4.4	5.9	.	.	.	.	.

Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



AP Computer Science - Number of Tests Taken By Gender

	94	95	96	97	98	99	00	01	02
Male	28	39	23	57	39	41	51	36	39
Female	17	18	10	15	5	13	9	6	5

AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	1	0	0	0	1
A/PI	7	9	3	12	2	4	6	8	2
B/AA	7	9	7	9	5	14	13	7	5
H/L	2	1	3	2	0	0	3	0	0
W	26	36	20	43	35	31	33	26	35

A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

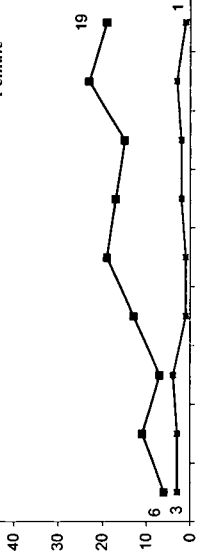
¹ "Other" category not presented

AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	94	95	96	97	98	99	00	01	02
Male	6	11	7	13	19	17	15	23	19
Female	3	3	4	1	1	2	2	3	1

Male

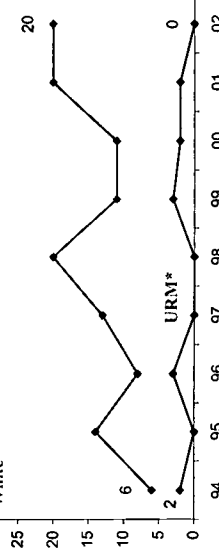
Female



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	1	0	1	2	3	0
B/AA	2	0	1	0	0	3	1	2	0
H/L	0	0	2	0	0	0	1	0	0
W	6	14	8	13	20	11	11	20	20

White



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino
 (:) Data Missing

Newport News CPMSA

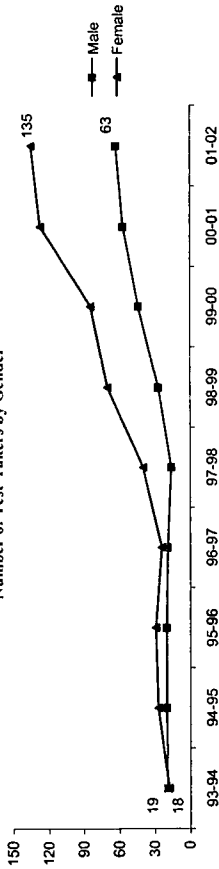
SY 2000-01

ACT Test-Takers

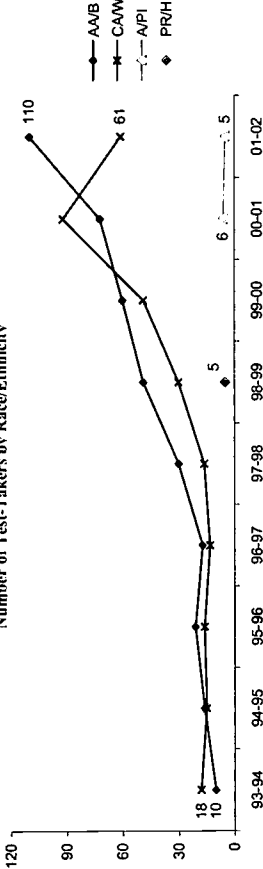
◆ Number of Test-Takers

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,398	1,430	1,431	1,425	1,608				
Test-Takers	37	47	49	43	56	97	128	184	198
Num of Test-Takers/1,000 Stu.	26	33	34	30	35				
Gender									
Male	19	20	20	19	16	27	44	57	63
Female	18	27	29	24	40	70	84	127	135
Race/Ethnicity									
AA/B	10	16	21	17	30	49	60	72	110
AI/AN	0	2	0	0	1	0	0	1	2
CA/W	18	15	16	13	16	30	49	92	61
MA/C	0	0	1	0	1	2	0	0	1
A/PI	2	4	3	2	3	2	1	6	5
PR/H	0	3	0	2	0	5	2	3	4

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



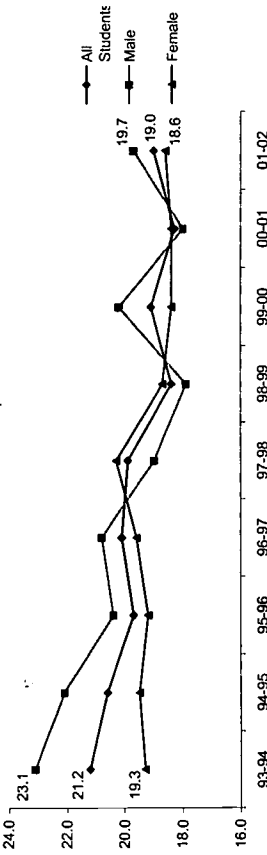
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
¹ Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

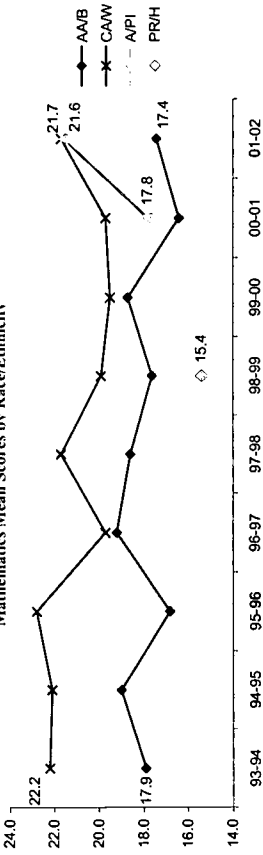
◆ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	21.2	20.6	19.7	20.1	19.9	18.4	19.1	18.3	19.0
Gender									
Male	23.1	22.1	20.4	20.8	19.0	17.9	20.2	18.0	19.7
Female	19.3	19.5	19.2	19.6	20.3	18.7	18.4	18.4	18.6
Race/Ethnicity									
AA/B	17.9	19.0	16.8	19.2	18.6	17.6	18.7	16.4	17.4
AI/AN	-	-	-	-	-	-	-	-	-
CA/W	22.2	22.1	22.8	19.7	21.7	19.9	19.5	19.7	21.7
MA/C	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	17.8	21.6
PR/H	-	-	-	-	-	15.4	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity¹

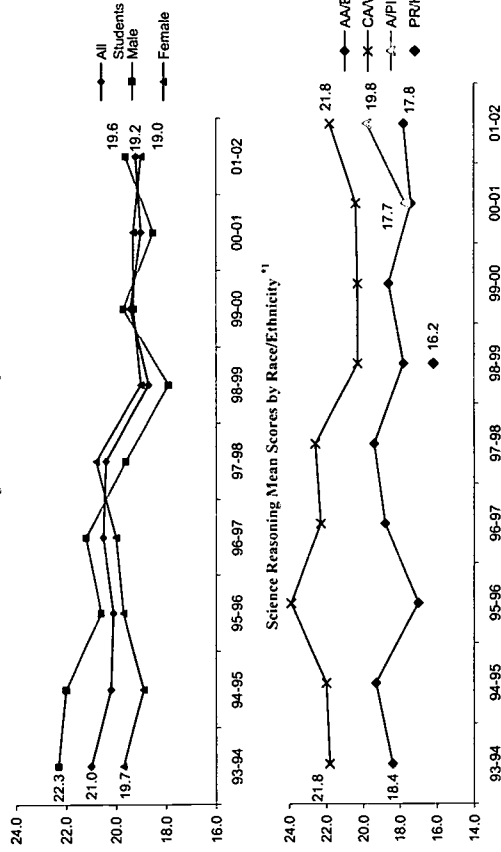


(-) Mean scores not presented for sample size less than 5

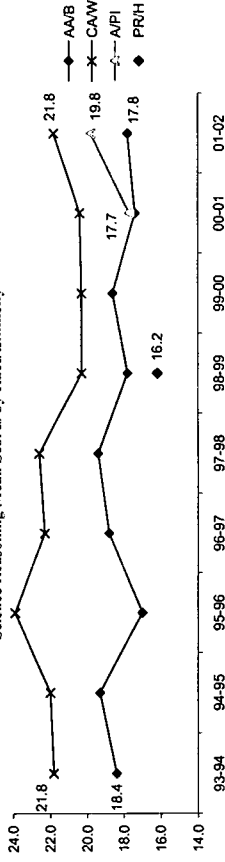
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ACT Science Reasoning Scores - Mean Score Trends		SAT Test-Takers									
◆ Science Reasoning - Mean Score Trends		◆ Number of Test-Takers									
	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02		
All Students	21.0	20.2	20.1	20.5	20.4	18.7	19.4	19.0	19.2	Total Num of 12th Grade Students	1,398
Male	22.3	22.0	20.6	21.2	19.6	17.9	19.7	18.5	19.6	Test-Takers Num of Test-Takers/1,000 Stu.	665
Female	19.7	18.9	19.7	20.0	20.8	19.0	19.3	19.3	19.0	Male	259
AA/B	18.4	19.3	17.0	18.8	19.4	17.8	18.6	17.4	17.8	Female	406
AI/AN	-	-	-	-	-	-	-	-	-	AI/AN	10
CA/W	21.8	22.0	23.9	22.3	22.6	20.3	20.3	20.4	21.8	A/PI	57
MA/C	-	-	-	-	-	-	-	-	-	B/A/A	330
A/PI	-	-	-	-	-	-	-	17.7	19.8	H/L	33
PR/H	-	-	-	-	-	16.2	-	-	-	W	403
										OT	29

Science Reasoning Mean Scores by Gender



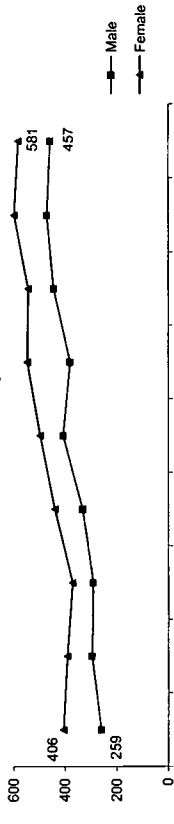
Science Reasoning Mean Scores by Race/Ethnicity *1



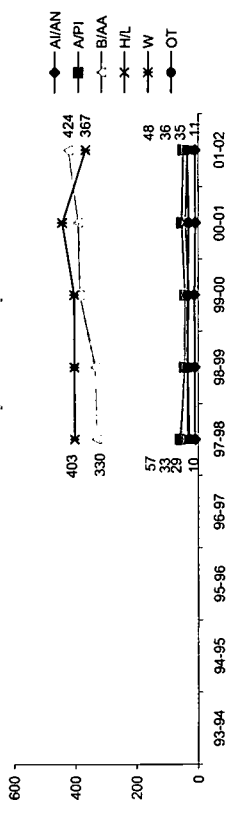
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

*1 Number of Test-Takers less than 5 not presented in graph
(-) Mean scores not presented for sample size less than 5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/A/A: Black or African American H/L: Hispanic or Latino W: White OT: Others

(-) Data Missing

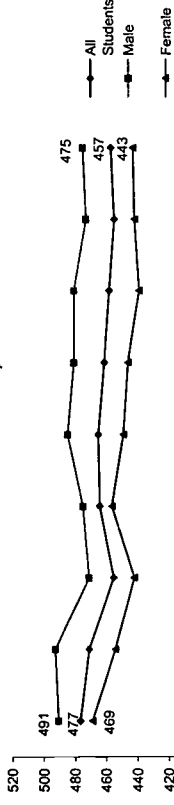
Newport News CPMSA

SAT Mathematics Scores

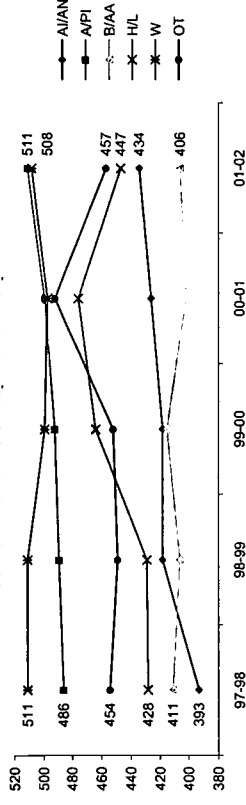
◆ Mathematics - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	477	471	455	464	465	461	458	455	457
Gender									
Male	491	493	471	475	485	481	481	473	475
Female	469	454	442	456	449	446	439	442	443
Race/Ethnicity									
A/AN					393	418	418	426	434
A/PI					486	489	492	499	511
B/AA					411	406	415	402	406
H/L					428	429	464	476	447
W					511	511	499	497	508
OT					454	449	452	492	457

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



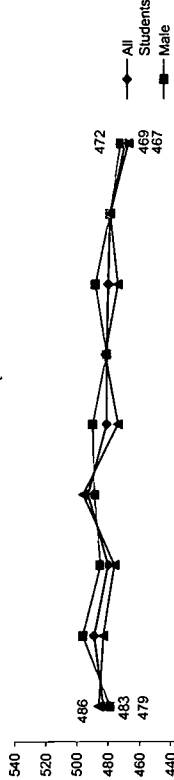
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

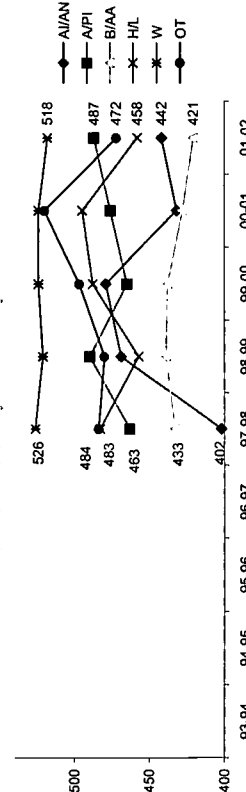
◆ Verbal - Mean Score Trends

	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	483	489	480	493	481	481	480	479	469
Gender									
Male	479	496	485	489	490	481	488	479	472
Female	486	483	476	496	474	482	474	479	467
Race/Ethnicity									
A/AN					402	469	479	432	442
A/PI					463	490	465	476	487
B/AA					433	439	438	428	421
H/L					483	457	488	495	458
W					526	521	524	524	518
OT					484	480	497	520	472

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

Special Education and Bilingual Students:

Instructional Time:

Number of District Schools
CPMSA Schools:
% Schools:

Standards-based Curriculum and Instruction

Standards Adopted:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum
Curriculum/Text/Book Adoption
Student Assessment
Professional Development
Resources
Teacher Hiring
Teacher Contracts
Certification & Re-certification
Graduation Requirements
School-Based Management

Graduation Requirements

Student Support Systems:

% of Students Experiencing Standards-based Curricula:
E M H

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
Criteria for Entry into High Level Mathematics and Science Courses:
Availability of High Level Courses:

Summer programs:

Policies Relevant to Teacher Qualifications

Certification:
Requirement & Hiring Practices

Policies Relevant to Curriculum

Framework:
Curricula:
Curricula Materials:
New Courses Added as a Result of CPMSA:

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

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SY 2000-01

Professional Development Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

Other Key Initiatives:

Financial Resources Provided:

Completing Initiatives:

Alignment to Student Standards:

Teachers' instructional practice change as a result of CPMSA influenced professional development:

Community Stakeholders:

Assessments Used:

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Higher Education:

Superintendent:

Evaluation Instruments:

Continuity of Leadership

Professional Development Alignment to Content Standards Measures:

Project Directors position in district's organizational structure:

Business and Industry:

Teacher's Instructional Practices Evaluation:

Teacher Leaders:

Accountability

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

School Year	Policy Implemented

School Year	Policy Implemented

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SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented

Accountability

School Year	Policy Implemented



Normandy School District, MO
Normandy, MO

Project Information

CPMSA Project Title : Environments for Excellence

Cohort: 93

CPMSA Web Site:

◆ PI, CO-PI and PD

Superintendent/Principle Investigator
 Raymond Armstrong T (314) 389-8005 F (314) 389-8607
 ebr014@mail.connect.more.net

Director, Elementary Education/Co-PI
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◆ CPMSA Data Manager/Evaluator

Grant Administrator
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 ebr019@mail.connect.more.net

◆ Mailing Address

Normandy School District
 7837 Natural Bridge Road,
 St. Louis, MO 63121

◆ District Schools, Math & Science Teachers, and Students

98-99	Schools	Teachers	Students
K-G5 (Elementary)	9	212	3,276
G6-8 (Middle)	1	20	853
G9-12 (High)	1	19	1,259
Total	11	251	5,388

Source: Core Data Elements (SY 1998-99)

Project Summary

Normandy School District is using Environments for Excellence as the platform for fundamental science and mathematics curricula and instructional changes that will result in substantially more students completing four years of high school science/mathematics to prepare for higher education and careers in science, engineering and mathematics. The project is a teacher-driven staff development model. Summer workshops and collaborative action research teams provide on-going development opportunities to Normandy Teachers with a focus on improved teaching strategies and methodologies.

Project Goals

- ◆ To provide extensive staff development for hands-on lessons and action research teams.
- ◆ To expand enrichment activities for students K-12.
- ◆ To implement a new middle school transition unit with science-based outdoor experiences.
- ◆ To establish a K-12 science/math partners program that links students at all levels including the university.
- ◆ To create a new independent study course for high school seniors which can be taken as a fifth unit of science or mathematics.
- ◆ To develop a volunteer corps of community and university guest teachers who can demonstrate practical applications of schooling.
- ◆ To have more than half of all students enter 9th grade having successfully completed algebra.
- ◆ To double the number of high school students enrolling in a 4-year science and/or mathematics sequence.
- ◆ To reduce significantly the dropout rate at the high school.
- ◆ To increase student achievement as measures by scores on the district's assessment tests.

Selected School Indicators (District Average)

	92-93	00-01	Change
% Special Ed.	.	.	.
% LEP	.	.	.
% Free/Red. Lunch	.	.	.
% Daily Avg. Atten.	.	.	.
% Average Retained	.	.	.
% Drop-Out	.	.	.
% Mobility	.	.	.
Per Pupil Cost (\$)	.	.	.
# Students Per Computer	.	.	.
% Classrooms Internet Access	.	.	.
Average Class Size	.	.	.

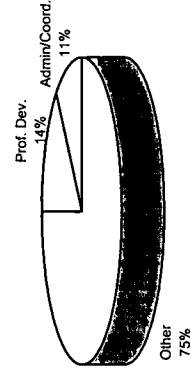
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 1998-99)

	District	CPMSA
Prof. Dev.	24%	14%
Student Enrich.	0%	0%
Admin/Coord.	15%	11%
Other	61%	75%
Total	100%	100%

CPMSA Funds %



Normandy CPMSA

SY 2000-01

Student Demographics (SY 1997-98)

District Total:	5,388	93-94	97-98	% Change
CPMSA Schools:	5,388	2	1	0.0%
Source: CDE 1998-1999		0	10	0.2%
◆ Race/Ethnicity District-Wide				
Ame. Ind./Ala. Nat.		5,100	5,320	+4.3%
Asian/P. Islander		3	8	+166.7%
Black		190	96	-49.5%
Hispanic		0	0	0.0%
White		5,295	5,435	+2.6%
Other		5,105	5,329	+4.4%
Total				
URM Total				

URM: Underrepresented Minority students.

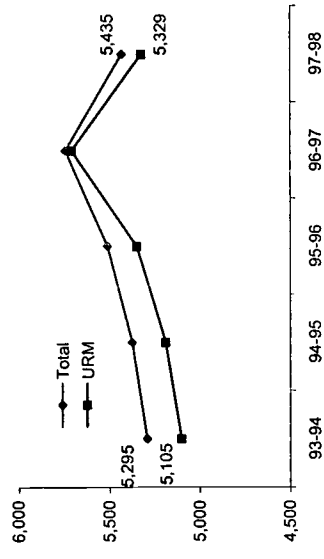
◆ Gender

Male	2,732	50.3%
Female	2,703	49.7%

◆ Grade

K-G5	2,666	2,877	52.9%	+7.9%
G6-8	1,296	1,260	23.2%	-2.8%
G9-12	1,333	1,298	23.9%	-2.6%
Ungraded	0	0	0.0%	

◆ District Student Demographic Trends



12th Grade Graduates

Total 12th Grade	95-96	97-98	Change
Earned a Diploma	247	179	-28%
% Earned Diploma	178	167	-6%
	72%	93%	+21 PP

% Earned Diploma for SY 1997-98



SEM Proficiency

# SEM Proficient ¹	95-96	97-98	Change
% SEM Proficient/ Total 12th Grade	47	69	+47%
	19%	39%	+20 PP

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
- ◆ Science

PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)				
Teachers	93-94	97-98	Change	
Certified	.	8	.	
% Cert.	.	.	.	
G6-8				
Teachers	.	12	.	
Certified	.	.	.	
% Cert.	.	.	.	
G9-12				
Teachers	.	20	.	
Certified	.	.	.	
% Cert.	.	.	.	
Total				
Teachers	.	11	.	
Certified	.	.	.	
% Cert.	.	.	.	
G6-8				
Teachers	93-94	97-98	Change	
Certified	.	8	.	
% Cert.	.	.	.	
G9-12				
Teachers	.	19	.	
Certified	.	.	.	
% Cert.	.	.	.	
Total				
Teachers	.	11	.	
Certified	.	.	.	
% Cert.	.	.	.	

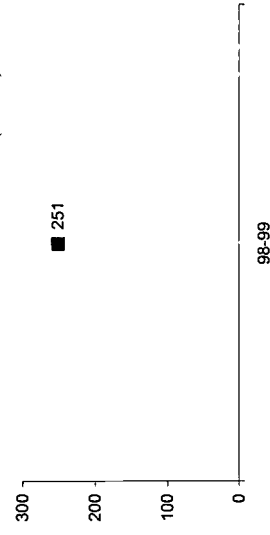
◆ Science (G6-12)

◆ Math and Science (K-G5)				
Teachers	97-98	98-99	Change	
Certified	212	251	23%	
% Cert.				

◆ Math and Science (K-G5)

Teachers	97-98	98-99
Certified	212	251
% Cert.		

Total Number of Math and Sci. Teachers (K-G12)

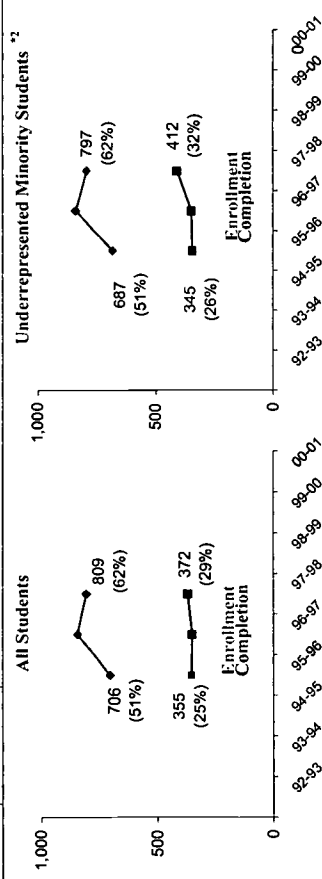


Normandy CPMSA

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

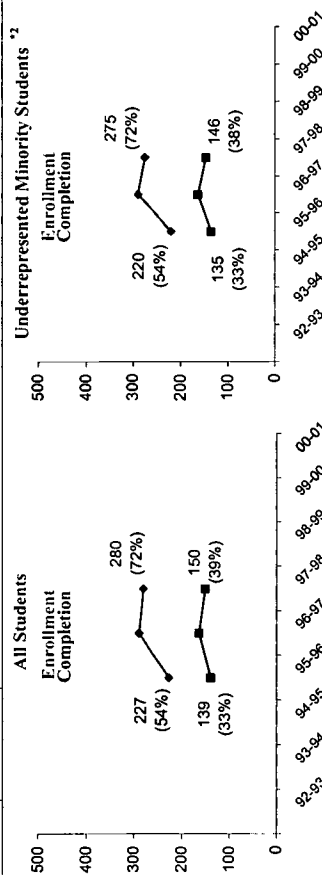
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	1,333	1,345	1,398	1,478	1,298	.	.	.	.
All Students									
Enrollment			706	845	809	.	.	.	.
Completion ¹			355	352	372	.	.	.	.
% Enroll/G9-12			51%	57%	62%	.	.	.	.
URM ²									
Enrollment			687	842	797	.	.	.	.
Completion ¹			345	349	412	.	.	.	.
% Enroll/G9-12			51%	57%	62%	.	.	.	.



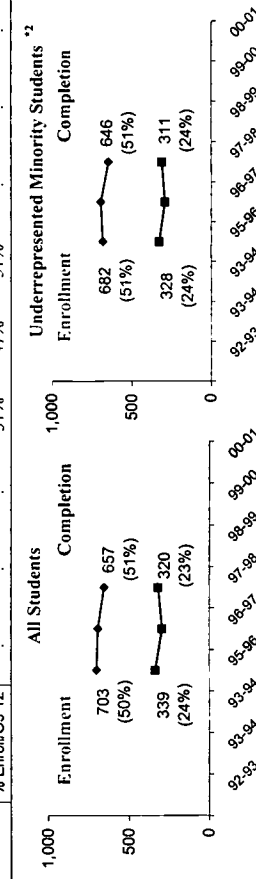
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	406	439	421	389	.	.	.	.	.
All Students									
Enrollment			227	289	280	.	.	.	.
Completion ¹			139	163	150	.	.	.	.
% Enroll/G8			54%	61%	72%	.	.	.	.
URM ²									
Enrollment			220	289	275	.	.	.	.
Completion ¹			135	163	146	.	.	.	.
% Enroll/G8			54%	61%	72%	.	.	.	.



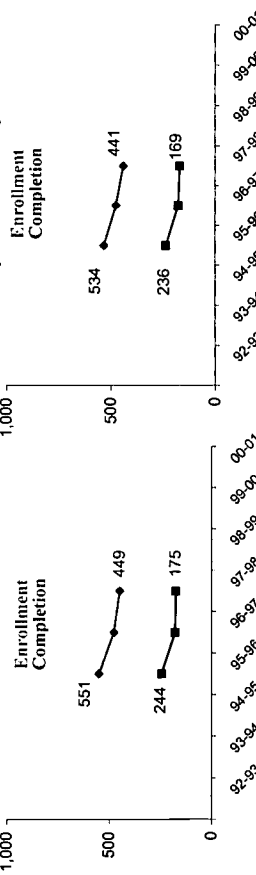
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	1,333	1,345	1,398	1,478	1,298	.	.	.	.
All Students									
Enrollment			703	696	657	.	.	.	.
Completion ¹			339	295	320	.	.	.	.
% Enroll/G9-12			50%	47%	51%	.	.	.	.
URM ²									
Enrollment			682	693	646	.	.	.	.
Completion ¹			328	292	311	.	.	.	.
% Enroll/G9-12			51%	47%	51%	.	.	.	.



Biology Enrollment & Completion Trends/ All vs. URM

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	1,333	1,345	1,398	1,478	1,298	.	.	.	.
All Students									
Enrollment			551	477	449	.	.	.	.
Completion ¹			244	178	175	.	.	.	.
% Enroll/G9-12			53%	46%	44%	.	.	.	.
URM ²									
Enrollment			534	476	441	.	.	.	.
Completion ¹			236	177	169	.	.	.	.



¹ Successful completion: grade 'C' or above.

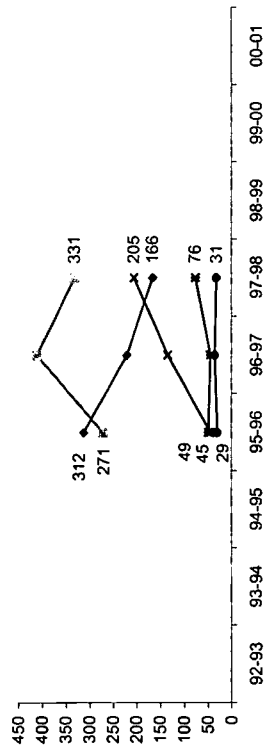
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

(.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

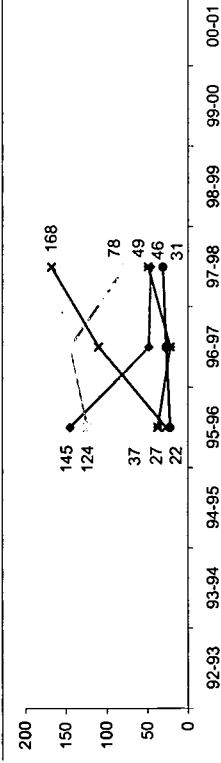
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
92-93	.	.	.	.	.	.	.
93-94	.	.	.	.	.	.	.
94-95	.	.	.	.	.	.	.
95-96	312	271	45	49	29	.	706
96-97	220	411	134	45	35	.	845
97-98	166	331	205	76	31	.	809
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



G 9-12 Course Completion¹ (All Students)

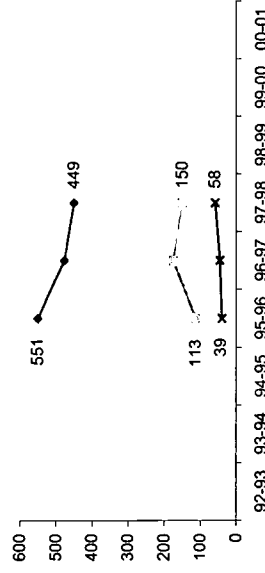
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
92-93	.	.	.	.	.	.	.
93-94	.	.	.	.	.	.	.
94-95	.	.	.	.	.	.	.
95-96	145	124	27	37	22	.	355
96-97	48	145	110	22	27	.	352
97-98	46	78	168	49	31	.	372
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



Science Course Enrollment & Completion Trends By Subject

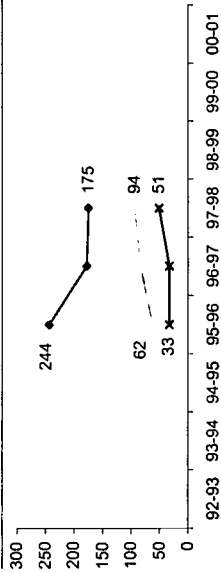
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
92-93	.	.	.	.	.
93-94	.	.	.	.	.
94-95	.	.	.	.	.
95-96	551	113	39	.	703
96-97	477	174	45	.	696
97-98	449	150	58	.	657
98-99	.	.	.	.	.
99-00	.	.	.	.	.
00-01	.	.	.	.	.



G 9-12 Course Completion¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
92-93	.	.	.	.	.
93-94	.	.	.	.	.
94-95	.	.	.	.	.
95-96	244	62	33	.	339
96-97	178	84	33	.	295
97-98	175	94	51	.	320
98-99
99-00
00-01



¹ Successful completion: grade 'C' or above.

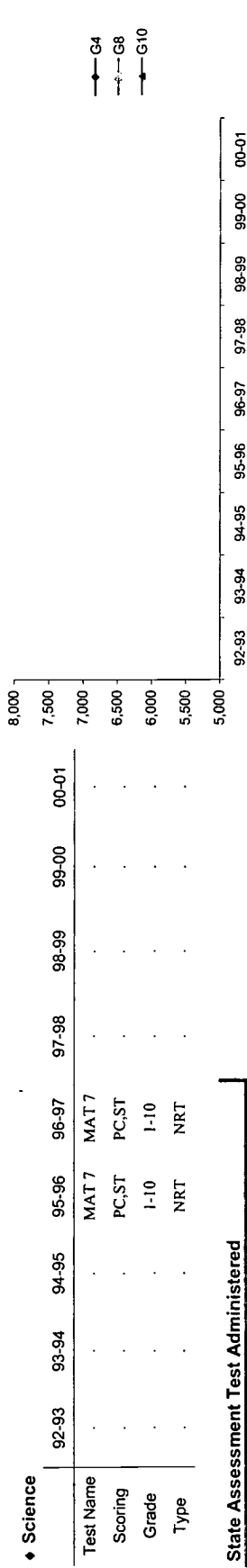
(.) Data Missing

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District Assessment Test Administered

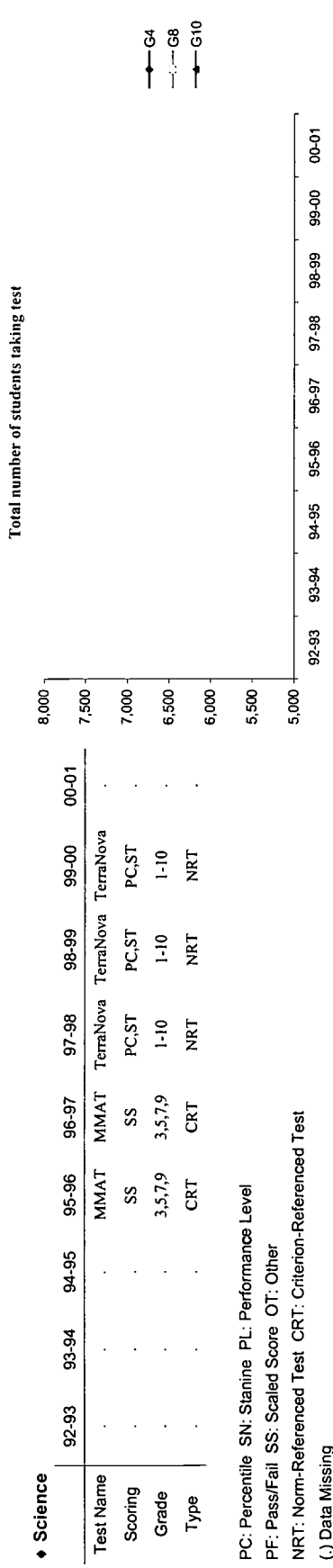
Assessment Test-Taker Trends

◆ Mathematics		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name		.	.	.	MAT 7	MAT 7	.	.	.	.
Scoring		.	.	.	PC,ST	PC,ST	.	.	.	.
Grade		.	.	.	1-10	1-10	.	.	.	.
Type		.	.	.	NRT	NRT	.	.	.	.



State Assessment Test Administered

◆ Mathematics		92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name		.	.	.	MMAT	MMAT	TerraNova	TerraNova	TerraNova	.
Scoring		.	.	.	SS	SS	PC,ST	PC,ST	PC,ST	.
Grade		.	.	.	3,5,7,9	3,5,7,9	1-10	1-10	1-10	.
Type		.	.	.	CRT	CRT	NRT	NRT	NRT	.



PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

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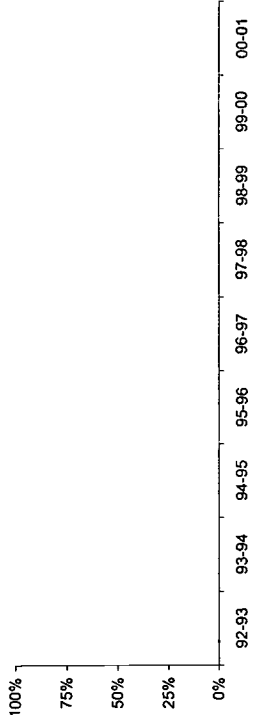
Assessment Test Result Trends - Mathematics

◆ Grade 4

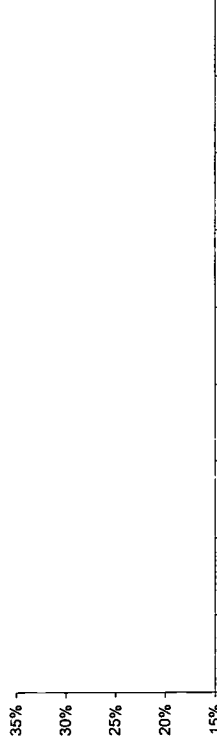
92-93 93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

Data Not Available

Total # of students



% Passing by Gender



◆ M
◆ F

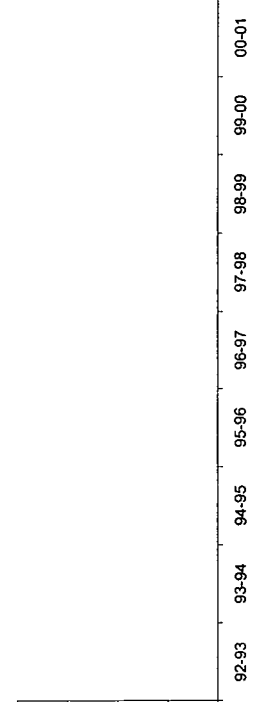
Assessment Test Result Trends - Mathematics

◆ Grade 8

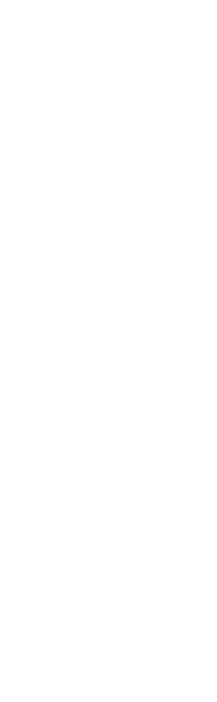
92-93 93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

Data Not Available

Total # of students

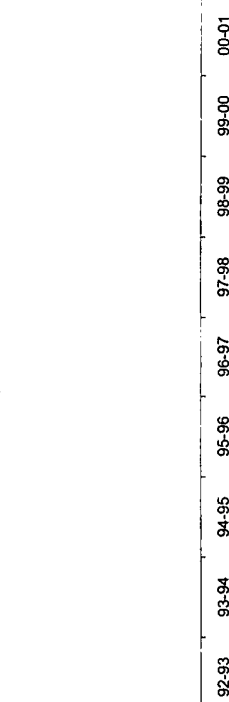


% Passing by Gender



◆ M
◆ F

% Passing by Race/Ethnicity



◆ A/IAN
◆ A/PI
◆ B/AA
◆ H/L
◆ W

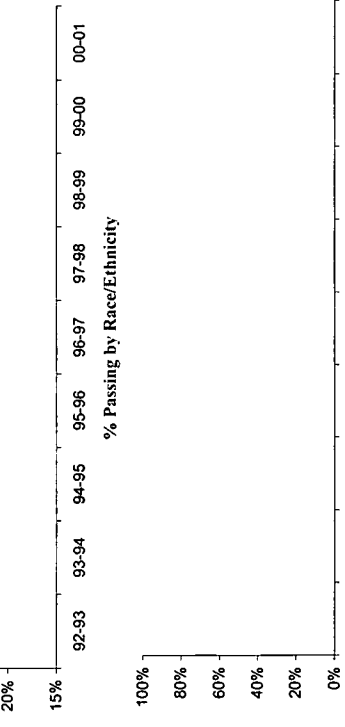
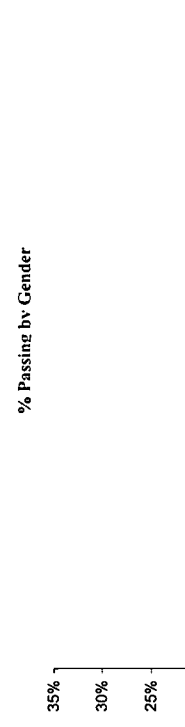
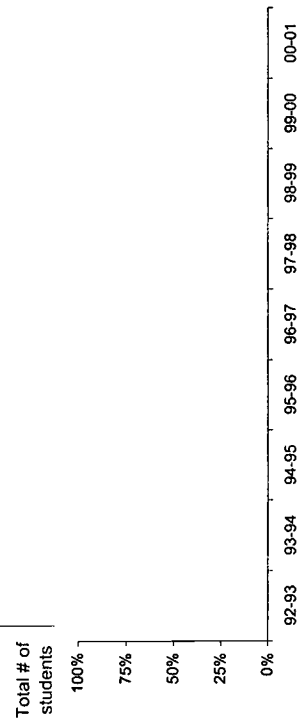
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

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Assessment Test Result Trends - Science

Year	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4									

Data Not Available

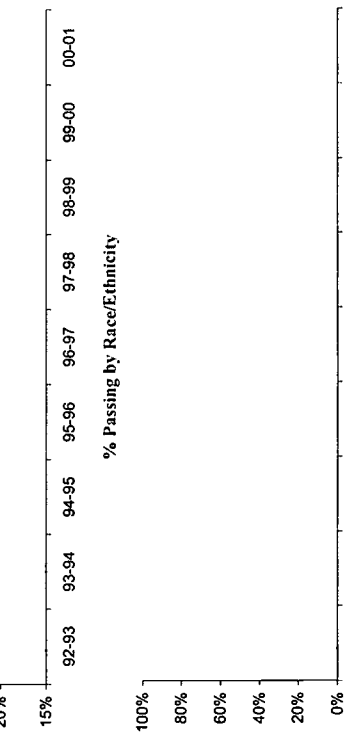
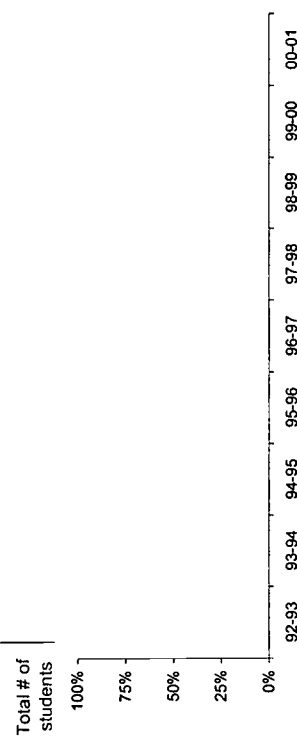


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

Assessment Test Result Trends - Mathematics

Year	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 10									

Data Not Available



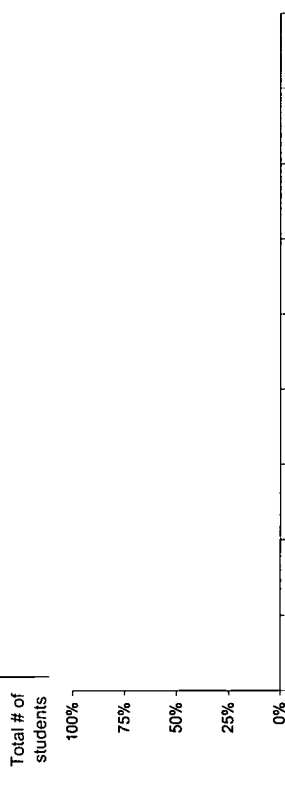
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Assessment Test Result Trends - Science

◆ Grade 10

92-93 93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

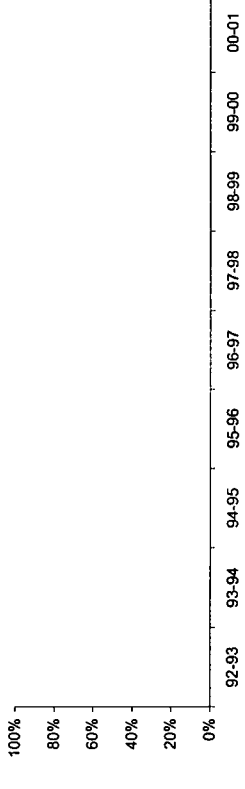
Data Not Available



% Passing by Gender



% Passing by Race/Ethnicity

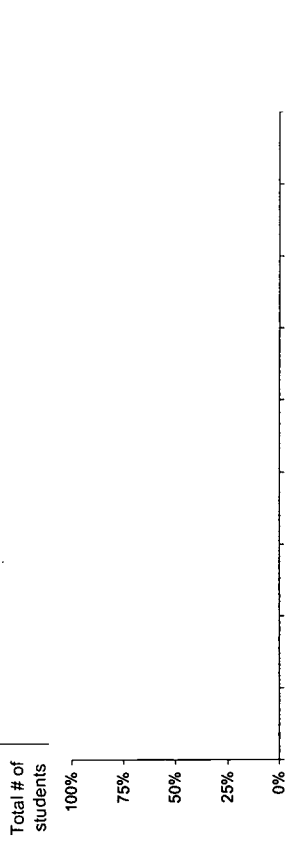


Assessment Test Result Trends - Science

◆ Grade 8

92-93 93-94 94-95 95-96 96-97 97-98 98-99 99-00 00-01

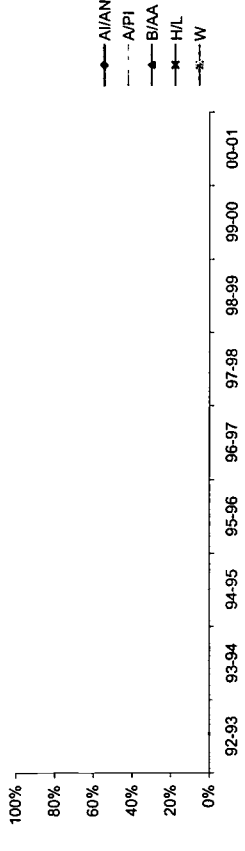
Data Not Available



% Passing by Gender



% Passing by Race/Ethnicity



A/I/A: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/A: Black or African American H/L: Hispanic or Latino W: White

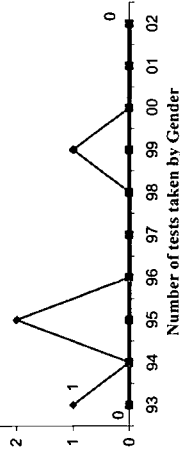
AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	496	590	538	516	414	.	.	.	.	.
Calc. AB	1	0	2	0	0	0	1	0	0	0
Calc. BC	0	0	0	0	0	0	0	0	0	0
Statistics	0	0	0	0	0	0	0	0	0	0
Total	1	0	2	0	0	0	1	0	0	0
Tests taken per 1,000 students	0.0	3.4	0.0	0.0	0.0	.	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0	0	0	0	0
Scoring 3 or Above per 1000 students	0.0	0.0	0.0	0.0	0.0	.	.	.	.	.

Number of tests taken and scoring 3 or Above

Tests-Taken Scoring 3 or Above



◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

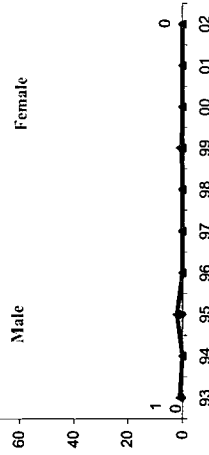
	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



◆ AP Mathematics - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	1	0	2	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	1	0	0	0

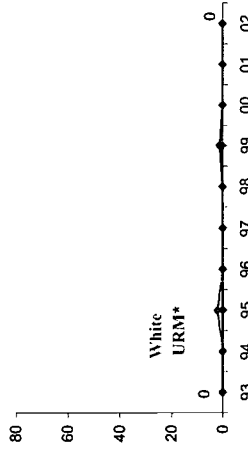
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	1	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	2	0	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity¹



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino
(.) Data Missing

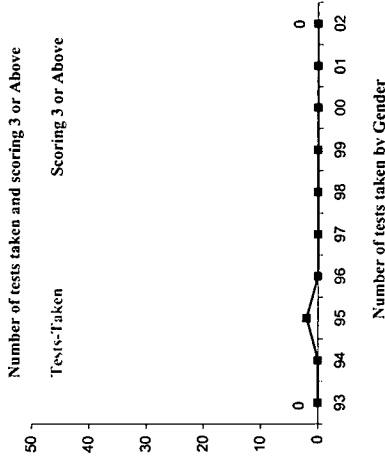
Normandy CPMSA

SY 2000-01

AP Science Test Result Trends | ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

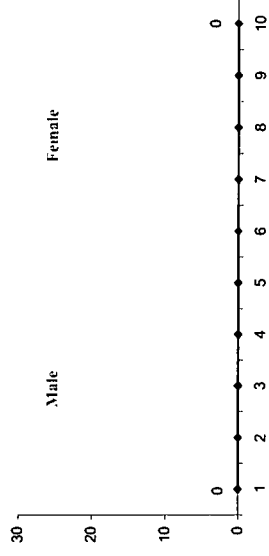
♦ **AP Science - Total Number of Tests Taken**

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	496	590	538	516	414	.	.	.	.	.
Biology	0	0	2	0	0	0	0	0	0	0
Chemistry	0	0	0	0	0	0	0	0	0	0
Env. Science	0	0	0	0	0	0	0	0	0	0
Physics B	0	0	0	0	0	0	0	0	0	0
Physics Mech.	0	0	0	0	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0	0	0	0	0
Total	0	0	2	0	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	3.4	0.0	0.0	0.0	.	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.0	.	.	.	.	.



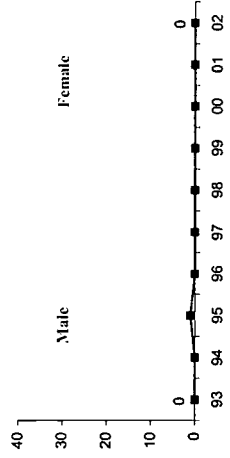
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



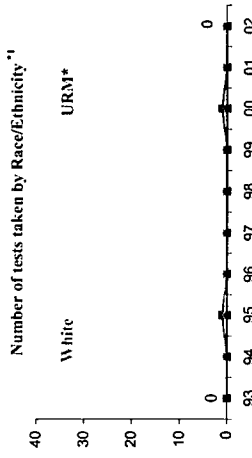
♦ **AP Science - Number of Tests Taken By Gender**

	93	94	95	96	97	98	99	00	01	02
Male	0	0	1	0	0	0	0	0	0	0
Female	0	0	1	0	0	0	0	0	0	0



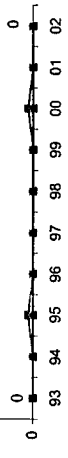
♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹**

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



♦ **AP Science - Number of Tests Taken By Race/Ethnicity¹**

	93	94	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino
 (.) Data Missing

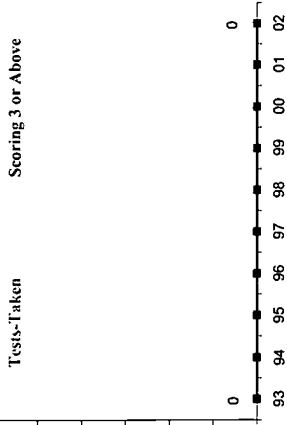
Normandy CPMSA

AP Computer Science Test Result Trends ♦ Computer Science A & AB

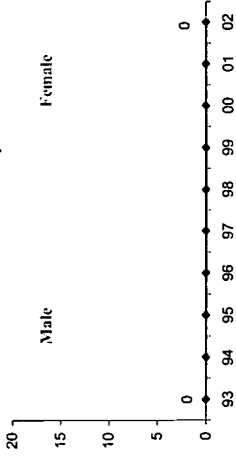
♦ AP Computer Science - Total Number of Tests Taken

	93	94	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	496	590	538	516	414	.	.	.	.	.
Comp. Sci A	0	0	0	0	0	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	0.0	.	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.0	.	.	.	.	.

Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



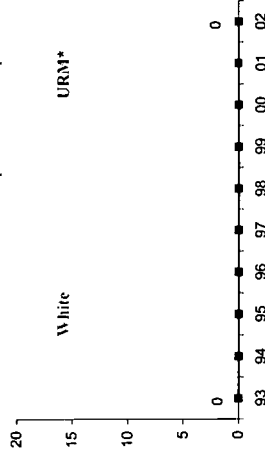
♦ AP Computer Science - Number of Tests Taken By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0

♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity

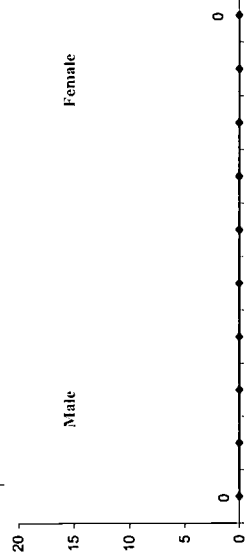


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

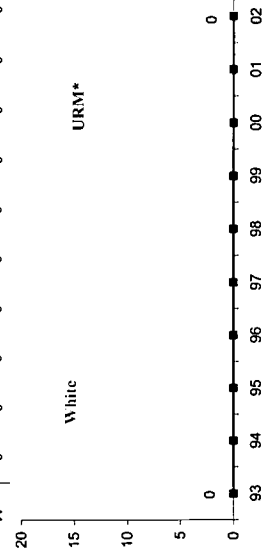
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	93	94	95	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0	0	0	0



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	93	94	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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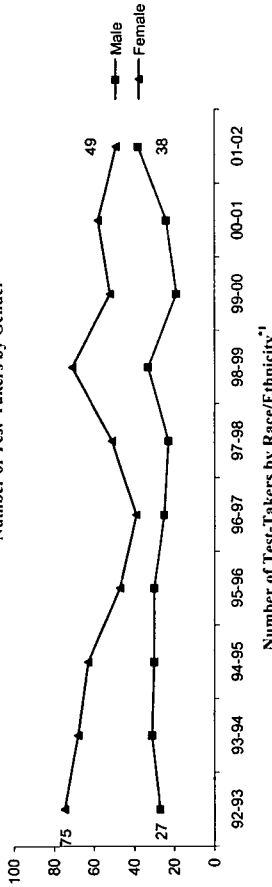
SY 2000-01

ACT Test-Takers

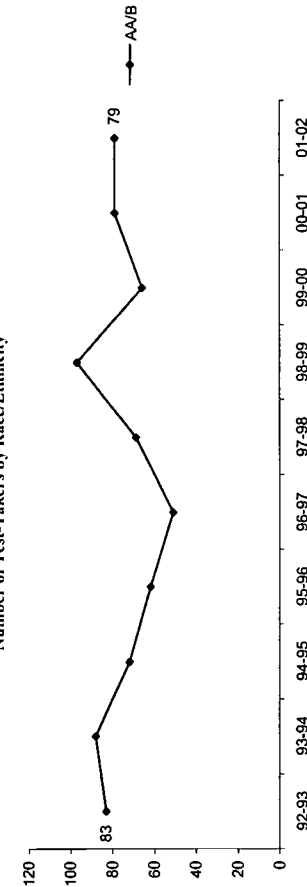
Number of Test-Takers

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	233	284	247	198	179	.	.	.	.	.
Test-Takers	102	99	93	77	64	74	104	71	82	87
Num of Test-Takers/1,000 Stu.	425	327	312	323	413	.	.	.	.	.
Gender										
Male	27	31	30	25	23	33	19	24	38	38
Female	75	68	63	47	39	51	71	52	58	49
Race/Ethnicity										
AA/B	83	88	72	62	51	69	97	66	79	79
AI/AN	0	0	0	0	1	0	0	0	0	0
CA/W	4	2	2	3	3	0	2	1	1	1
MA/C	0	0	0	0	0	0	0	0	0	0
A/PI	0	1	0	1	0	0	0	0	2	0
PR/H	0	0	0	1	0	0	0	0	0	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity*



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

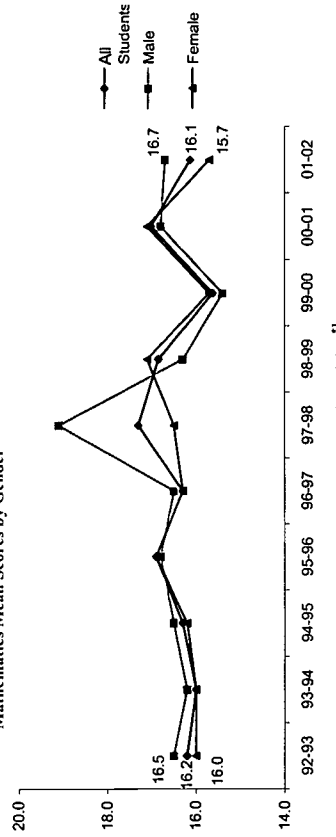
*Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

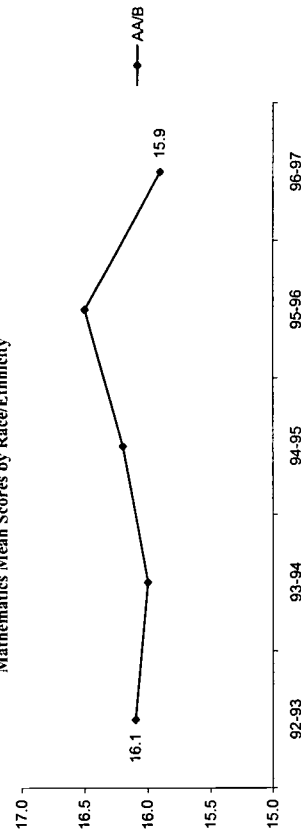
Mathematics - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	16.2	16.0	16.3	16.9	16.3	17.3	16.8	15.6	17.0	16.1
Gender										
Male	16.5	16.2	16.5	16.8	16.5	19.1	16.3	15.4	16.8	16.7
Female	16.0	16.0	16.2	16.9	16.3	16.5	17.1	15.7	17.1	15.7
Race/Ethnicity										
AA/B	16.1	16.0	16.2	16.5	15.9	17.1	16.8	15.3	16.8	16.1
AI/AN	-	-	-	-	-	-	-	-	-	-
CA/W	-	-	-	-	-	-	-	-	-	-
MA/C	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-	-	-
PR/H	-	-	-	-	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity*



(-) Mean scores not presented for sample size less than 5

Normandy CPMSA

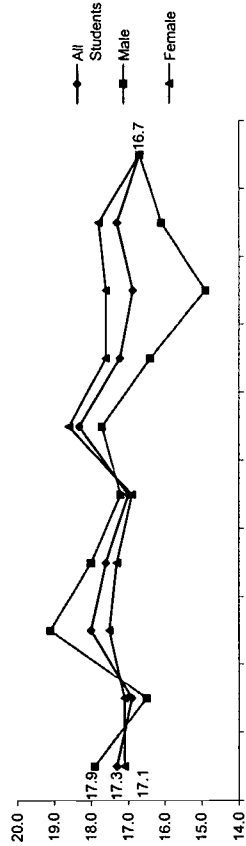
SY 2000-01

ACT Science Reasoning Scores

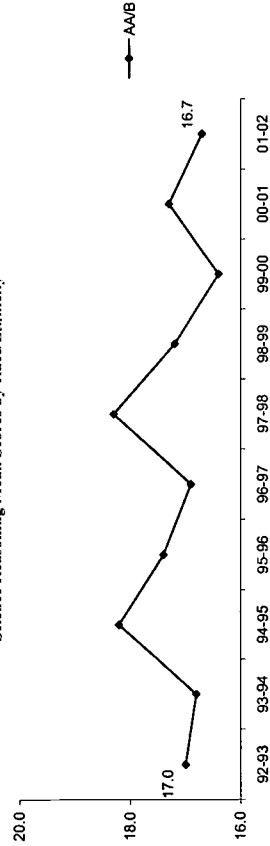
◆ Science Reasoning - Mean Score Trends

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.3	16.9	18.0	17.6	17.0	18.3	17.2	16.9	17.3	16.7
Gender										
Male	17.9	16.5	19.1	18.0	17.2	17.7	16.4	14.9	16.1	16.7
Female	17.1	17.1	17.5	17.3	16.9	18.6	17.6	17.6	17.8	16.7
Race/Ethnicity										
AA/B	17.0	16.8	18.2	17.4	16.9	18.3	17.2	16.4	17.3	16.7
A/AN	-	-	-	-	-	-	-	-	-	-
CA/W	-	-	-	-	-	-	-	-	-	-
MA/C	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-	-	-
PR/H	-	-	-	-	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black A/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

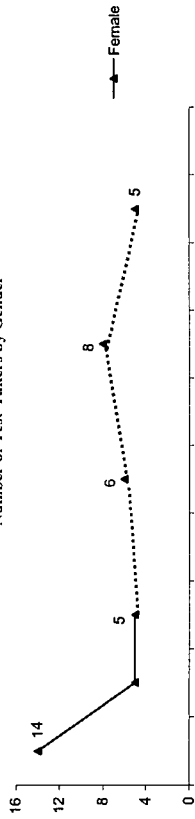
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

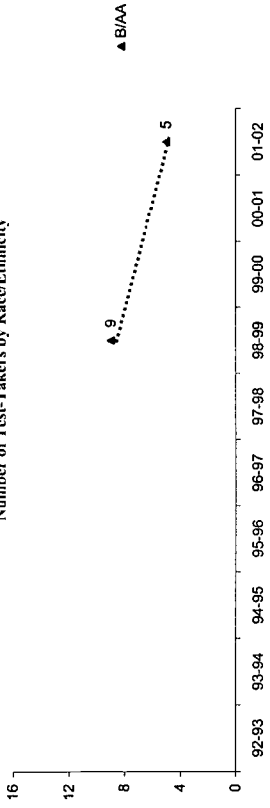
◆ Number of Test-Takers

	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students		233	284	247	198	179				
Test-Takers	14	8	9	8	6	4	9	4	5	5
Num of Test-Takers/1,000 Stu.		34	32	32	30	22				
Gender										
Male	0	3	4	4	0	2	1	0	0	4
Female	14	5	5	4	6	2	8	4	5	1
Race/Ethnicity										
A/AN							0	0	0	0
A/PI							0	0	0	1
B/AA							4	9	2	4
H/L							0	0	0	0
W							0	0	1	0
OT							0	0	0	0

Number of Test-Takers by Gender^{*1}



Number of Test-Takers by Race/Ethnicity^{*1}



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

*1 Number of Test-Takers less than 5 not presented in graph

Normandy CPMSA

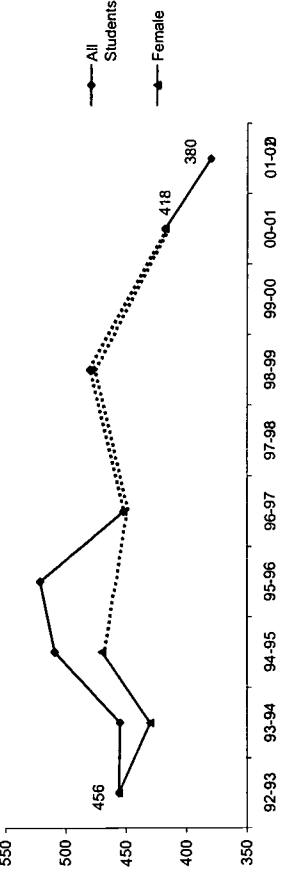
SAT Mathematics Scores

◆ Mathematics - Mean Score Trends

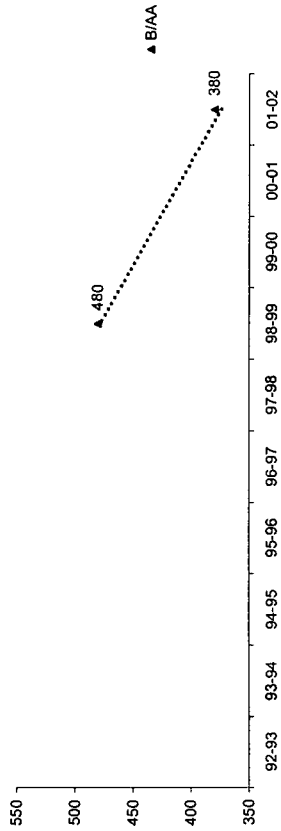
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	456	455	509	521	452	-	480	-	418	380
Gender										
Male	-	-	-	-	-	-	-	-	-	-
Female	456	430	470	-	452	-	479	-	418	-
Race/Ethnicity										
A/I/AN	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-	-	-
B/AA	-	-	-	-	-	480	-	-	380	-
H/L	-	-	-	-	-	-	-	-	-	-
W	-	-	-	-	-	-	-	-	-	-
OT	-	-	-	-	-	-	-	-	-	-

Data Not Available

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

(-) Mean scores not presented for sample size less than 5

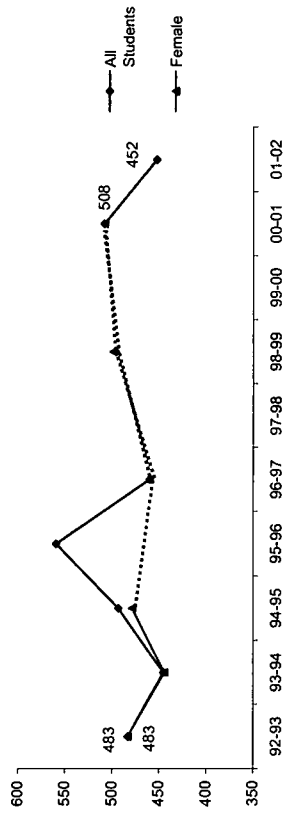
SAT Verbal Scores

◆ Verbal - Mean Score Trends

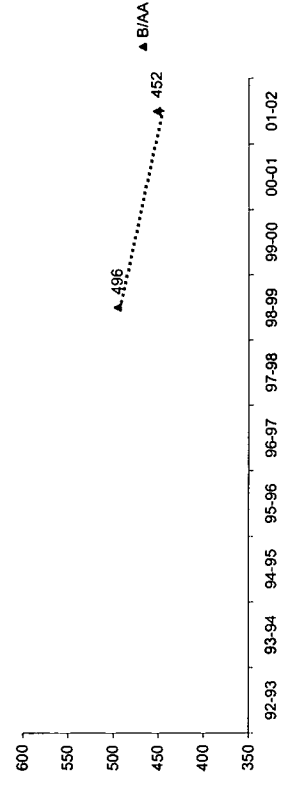
	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	483	445	493	559	460	-	496	-	508	452
Gender										
Male	-	-	-	-	-	-	-	-	-	-
Female	483	444	478	-	460	-	499	-	508	-
Race/Ethnicity										
A/I/AN	-	-	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-	-	-
B/AA	-	-	-	-	-	496	-	-	452	-
H/L	-	-	-	-	-	-	-	-	-	-
W	-	-	-	-	-	-	-	-	-	-
OT	-	-	-	-	-	-	-	-	-	-

Data Not Available

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

Special Education and Bilingual Students:

Instructional Time:

Number of District Schools
 CPMSA Schools:
 % Schools:

Standards-based Curriculum and Instruction

Standards Adopted:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Graduation Requirements

Standards Curriculum
 Curriculum/Textbook Adoption
 Student Assessment
 Professional Development
 Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

% of Students Experiencing Standards-based Curricula:
 E
 M
 H

Summer programs:

Policies Relevant to Teacher Qualifications

Certification:

Policies Promoting Equal Access by All Students in High Quality Education

Policies Relevant to Curriculum

Framework:
 Curricula:
 Curricula Materials:

Requirement & Hiring Practices
 Professional Advancement & Leadership Training:

Student Tracking:
 Criteria for Entry into High Level Mathematics and Science Courses:

New Courses Added as a Result of CPMSA:

Availability of High Level Courses:

E: Elementary School M: Middle School H: High School

Normandy CPMSA

SY 2000-01

Professional Development Policies and Practices	Impact on Student Achievement:	Partnerships
<p>Time Required or Supported:</p> <p>Financial Resources Provided:</p> <p>Alignment to Student Standards:</p> <p>Teachers' instructional practice change as a result of CPMSA influenced professional development:</p>	<p>Policies Relevant to Standards-based Assessments</p> <p>Extent to Which Assessments are Aligned to District Standards and Curriculums:</p> <p>Assessments Used:</p>	<p>Other Key Initiatives:</p> <p>Completing Initiatives:</p> <p>Community Stakeholders:</p>
<p>Type and Amount Received by Average Math/Science Teacher:</p> <p>Evaluation Instruments:</p> <p>Professional Development Alignment to Content Standards Measures:</p> <p>Teacher's Instructional Practices Evaluation:</p>	<p>CPMSA Leadership, Governance, and Management</p> <p>Superintendent:</p> <p>Continuity of Leadership</p> <p>Project Directors position in district's organizational structure:</p> <p>Teacher Leaders:</p>	<p>Higher Education:</p> <p>Business and Industry:</p>

Normandy CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

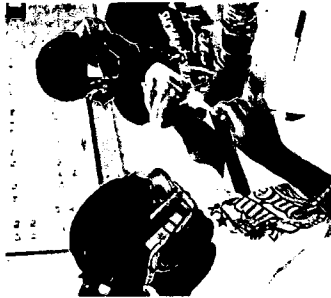
School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Normandy CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation	Standards-based Assessment System Changes During CPMSA Implementation	Accountability																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	School Year	Policy Implemented					<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	School Year	Policy Implemented					<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	School Year	Policy Implemented				
School Year	Policy Implemented																			
School Year	Policy Implemented																			
School Year	Policy Implemented																			



Omaha Public Schools, NE
Omaha, NE

Project Information

CPMSA Project Title : Project Banneker : Achieving Excellence in Math and Science
 Cohort: 95
 CPMSA Web Site: <http://www.ops.org/banneker/banneker.html>

◆ PI, CO-PI and PD

Principal Investigator
 John Mackiel T (402) 557-2001 F (402) 557-2019
 jmackiel@ops.org
 Co-Principal Investigator
 Carol T. Mitchell T (402) 557-2492 F (402) 557-2498
 cmitchell@ops.org
 Project Director
 Rebecca Nichol T (402) 457-5704

◆ CPMSA Data Manager/Evaluator

Data Manager
 Melinda Flowers T (402) 557-2494 F (402) 557-2498
 flowersm@ops.org

Project Summary

The project will be implemented with the guidance of a representative advisory council. School staff will use a total quality management approach to analyze the documented results of their work and to revise and implement strategies. Staff will participate in a professional development curriculum designed to change instruction and enrollment in advance science and mathematics. Teachers will learn to use appropriate adaptive instruction to meet the needs and interests of their students.

Articulation among schools will be improved by increasing personalized information about the success and needs of African American students. Students' interest and motivation will be supported by enrichment and community-support activities. Students will have a number of enrichment opportunities, including summer camps that demonstrate the use of science and mathematics in ecology, agriculture, health services, finance, engineering, and others. Students who need help to master science and mathematics curricula will receive school- and community-based tutoring. The project will serve as a collaboration point for a number of existing programs in the community and school system, clarifying objectives and coordinating services.

High standards of achievement consistent with state and national frameworks will be used to judge student success on standardized and performance-based assessments. School-based accountability is informed by periodic data base management, feedback system, quarterly & annual benchmarks and student achievement goals.

Project Goals

To substantially increase the enrollment, achievement, and preparation of African American students in the Omaha Public Schools for postsecondary studies in mathematics and science.

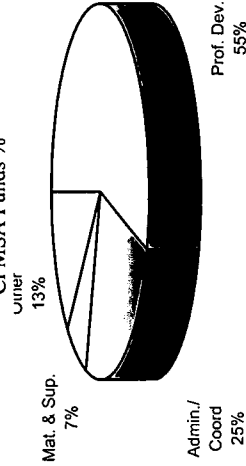
Selected School Indicators (District Average)

	1994-95	2000-01	Change
% Special Ed.			
% LEP			
% Free/Red. Lunch			
% Daily Avg. Aiten.			
% Average Retained			
% Drop-Out			
% Mobility			
Per Pupil Cost (\$)			
# Students Per Computer			
% Classrooms Internet Access			
Average Class Size			

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	41%	55%
Admin/Coord.	8%	25%
Mat. & Sup.	3%	7%
Other	48%	13%
Total	100%	100%

CPMSA Funds %



◆ Mailing Address

Omaha Public Schools
 3215 Cumming Street,
 Omaha, NE 68131-2024

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01			
K-5 (Elementary)	58	1,983	24,590
G6-8 (Middle)	9	102	6,541
G9-12 (High)	7	172	12,598
Total	79	2,257	44,197

Source: Core Data Elements (SY 2000-01)

PP: Percentage Points

(.) Data Missing

Student Demographics (SY 2000-01)

District Total: 43,997
 CPMSA Schools:
 Source: TISC-2002

◆ Race/Ethnicity District-Wide

	1995-96	2000-01	%	% Change
Ame. Ind./Ala. Nat.	644	675	1.5%	+4.8%
Asian/P. Islander	562	740	1.7%	+31.7%
Black	12,754	14,054	31.9%	+10.2%
Hispanic	2,844	5,624	12.8%	+97.7%
White	26,351	22,904	52.1%	-13.1%
Other	0	0	0.0%	.
Total	43,155	43,997	100.0%	+2.0%
URM Total	16,242	20,353	46.3%	+25.3%

URM: Underrepresented Minority students.

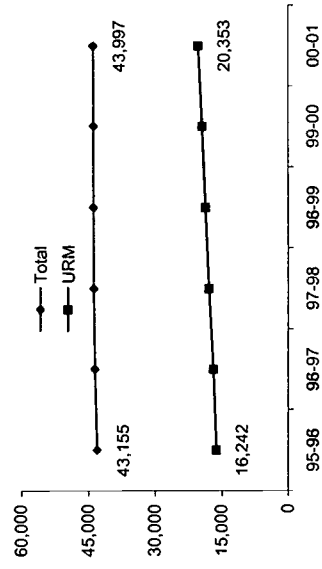
◆ Gender

Male	22,162	22,422	51.0%	+1.2%
Female	20,993	21,575	49.0%	+2.8%

◆ Grade

K-G5	20,998	20,999	47.7%	+0.0%
G6-8	10,061	9,932	22.6%	-1.3%
G9-12	11,677	12,598	28.6%	+7.9%
Ungraded	419	468	1.1%	+11.7%

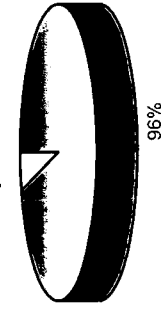
◆ District Student Demographic Trends



12th Grade Graduates

	1995-96	1999-00	Change
Total 12th Grade	1,753	2,094	+19%
Earned a Diploma	1,699	2,009	+18%
% Earned Diploma	97%	96%	-1 PP

% Earned Diploma for SY 1999-00



SEM Proficiency

	1995-96	1999-00	Change
# SEM Proficient ¹	418	548	+31%
% SEM Proficient/ Total 12th Grade	24%	26%	+2 PP

% SEM Proficient for SY 1999-00



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - ◆ Science
- PP: Percentage Points (.) Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

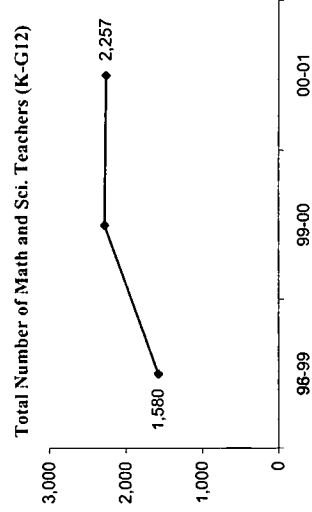
	1998-99	2000-01	Change
Teachers Certified	54	48	-11%
G6-8 % Cert.			
Teachers Certified	92	81	-12%
G9-12 % Cert.			
Teachers Certified	146	129	-12%
Total % Cert.			

◆ Science (G6-12)

	1998-99	2000-01	Change
Teachers Certified	53	54	+2%
G6-8 % Cert.			
Teachers Certified	81	91	+12%
G9-12 % Cert.			
Teachers Certified	134	145	+8%
Total % Cert.			

◆ Math and Science (K-G5)

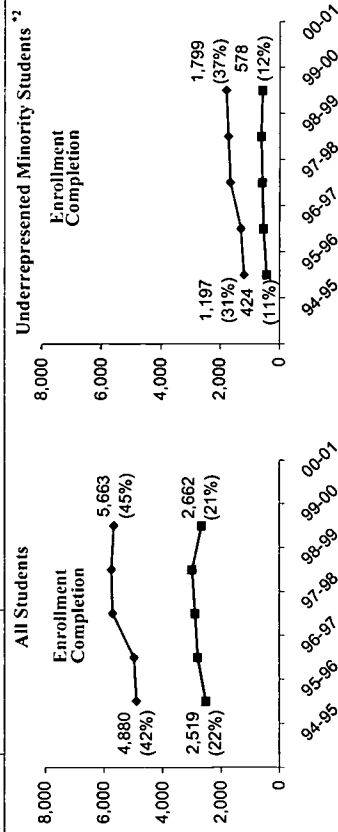
	1998-99	2000-01	Change
K-G5 Teachers	1,300	1,983	+53%



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

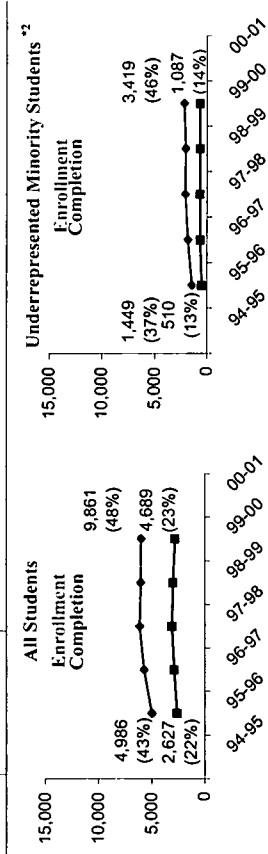
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,677	12,035	12,035	12,457	12,521	12,508	12,598
All Students	4,880	4,961	5,701	5,744	5,663		
Enrollment Completion ¹	2,519	2,800	2,888	2,993	2,662		
% Enroll/G9-12	42%	41%	46%	46%	45%		
URM ²	1,197	1,309	1,659	1,735	1,799		
Enrollment Completion ¹	424	535	576	617	578		
% Enroll/G9-12	31%	32%	37%	37%	37%		



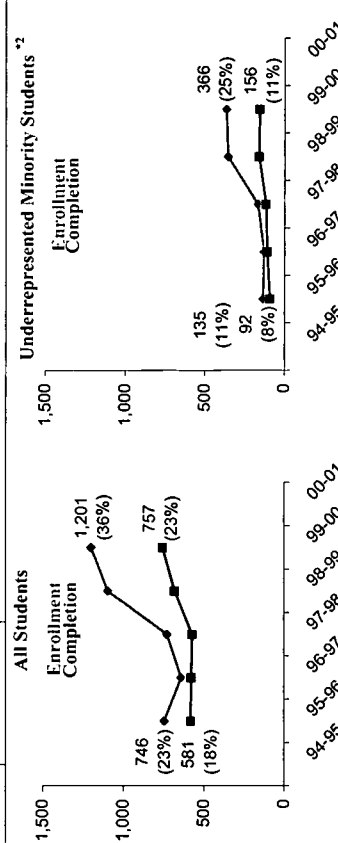
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,677	12,035	12,035	12,457	12,521	12,508	12,598
All Students	4,986	5,723	6,134	6,016	5,995		
Enrollment Completion ¹	2,627	2,910	3,116	3,033	2,840		
% Enroll/G9-12	43%	48%	49%	48%	48%		
URM ²	1,449	1,835	2,108	2,080	2,220		
Enrollment Completion ¹	510	640	686	679	677		
% Enroll/G9-12	37%	45%	47%	44%	46%		



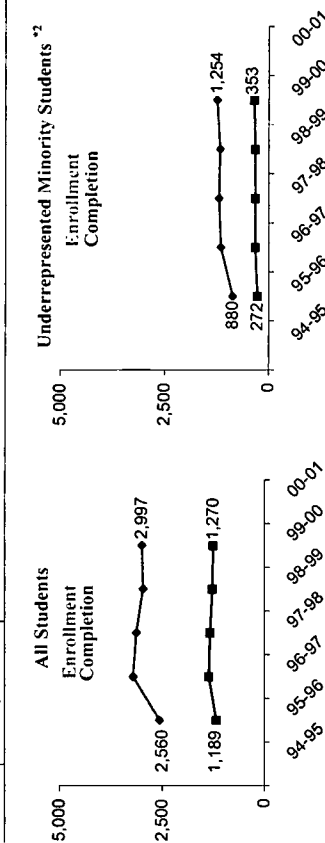
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	3,253	3,308	3,340	3,263	3,317	3,179	
All Students	746	643	728	1,097	1,201		
Enrollment Completion ¹	581	577	573	682	757		
% Enroll/G8	23%	19%	22%	34%	36%		
URM ²	135	130	167	355	366		
Enrollment Completion ¹	92	109	116	159	156		
% Enroll/G8	11%	10%	12%	26%	25%		



Biology Enrollment & Completion Trends/ All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
All Students	2,560	3,207	3,126	2,970	2,997		
Enrollment Completion ¹	1,189	1,368	1,344	1,282	1,270		
URM ²	880	1,171	1,211	1,184	1,254		
Enrollment Completion ¹	272	330	319	320	353		



¹ Successful completion: grade 'C' or above.

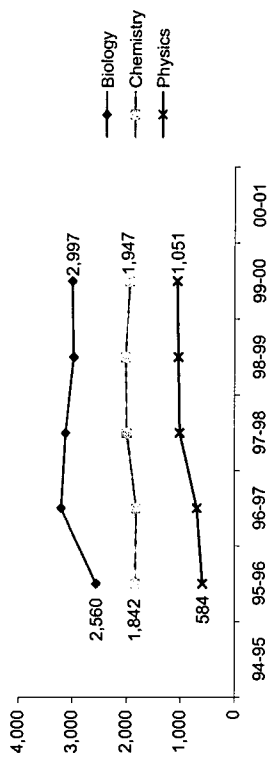
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

(.) Data Missing

Science Course Enrollment & Completion Trends By Subject

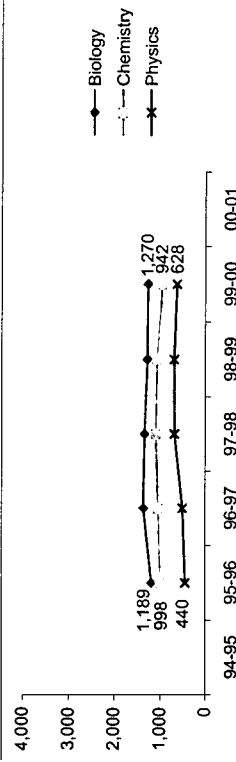
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
94-95					
95-96	2,560	1,842	584	.	4,986
96-97	3,207	1,824	692	.	5,723
97-98	3,126	1,998	1,010	.	6,134
98-99	2,970	2,014	1,032	.	6,016
99-00	2,997	1,947	1,051	.	5,995
00-01					



G 9-12 Course Completion *1 (All Students)

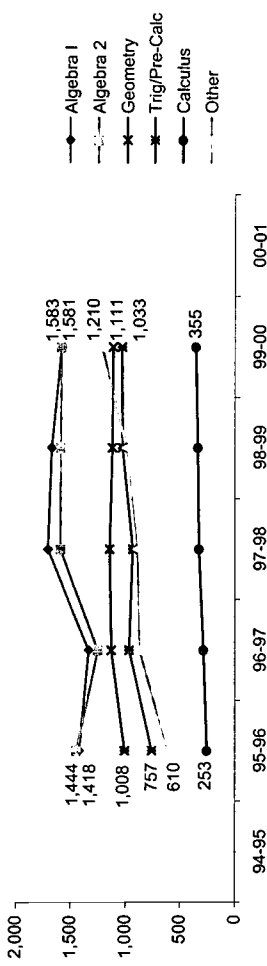
	Biology	Chemistry	Physics	Other	Science Total
94-95					
95-96	1,189	998	440	.	2,627
96-97	1,368	1,043	499	.	2,910
97-98	1,344	1,092	680	.	3,116
98-99	1,282	1,068	683	.	3,033
99-00	1,270	942	628	.	2,840
00-01					



Mathematics Course Enrollment & Completion Trends By Subject

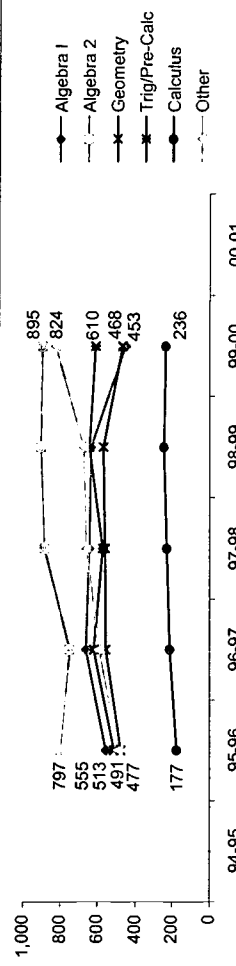
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95							
95-96	1,418	1,444	1,008	757	253	610	5,490
96-97	1,333	1,248	1,128	968	284	870	5,831
97-98	1,709	1,592	1,142	935	323	892	6,593
98-99	1,673	1,590	1,119	1,028	334	992	6,736
99-00	1,581	1,583	1,111	1,033	355	1,210	6,873
00-01							



G 9-12 Course Completion *1 (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95							
95-96	555	797	477	513	177	491	3,010
96-97	662	749	556	620	213	590	3,390
97-98	643	883	561	571	230	659	3,547
98-99	633	903	568	644	245	675	3,668
99-00	453	895	468	610	236	824	3,486
00-01							



*1 Successful completion: grade 'C' or above.

(.) Data Missing



District Assessment Test Administered

Assessment Test-Taker Trends

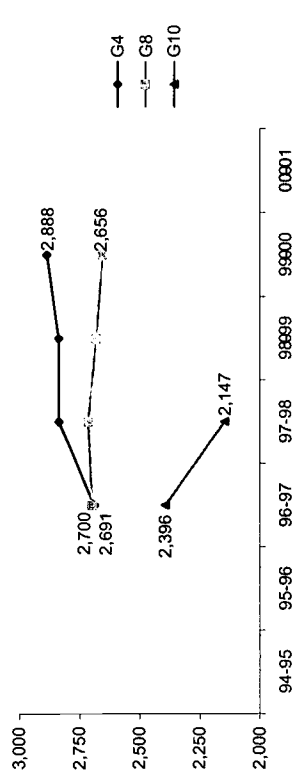
◆ **Mathematics**

94-95	95-96	96-97	97-98	98-99	99-00	00-01
CAT-5	CAT-5	CAT-5	CAT-5	CAT-5	CAT-5	CAT-5
2,4,6,8,10	2,4,6,8,10	2,4,6,8,10	2,4,6,8,10	2,4,6,8,10	2,4,6,8,10	2,4,6,8,10
NRT	NRT	NRT	NRT	NRT	NRT	NRT

◆ **Science**

94-95	95-96	96-97	97-98	98-99	99-00	00-01
BA	BA	BA	BA	BA	BA	BA
PC	PC	PC	PC	PC	PC	PC
1-12	1-12	1-12	1-12	1-12	1-12	1-12
CRT	CRT	CRT	CRT	CRT	CRT	CRT

Total number of students taking test



State Assessment Test Administered

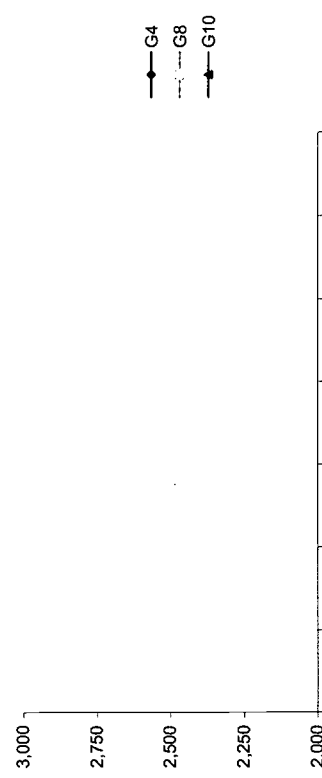
◆ **Mathematics**

94-95	95-96	96-97	97-98	98-99	99-00	00-01
Not Administered	Not Administered	Not Administered	Not Administered	Not Administered	Not Administered	Not Administered

◆ **Science**

94-95	95-96	96-97	97-98	98-99	99-00	00-01
Not Administered	Not Administered	Not Administered	Not Administered	Not Administered	Not Administered	Not Administered

Total number of students taking test



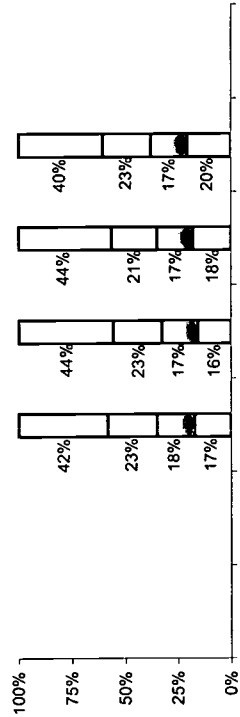
*CAT-5: California Achievement Test BA: Benchmark Assessment
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

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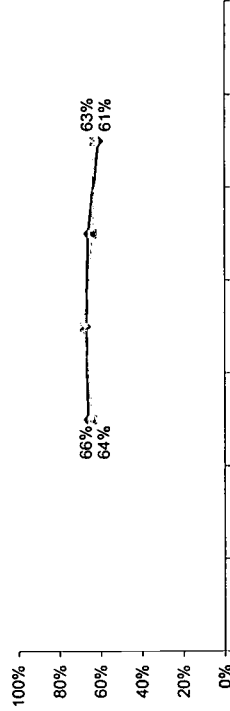
Assessment Test Result Trends CAT-5 - Mathematics

◆ Grade 4

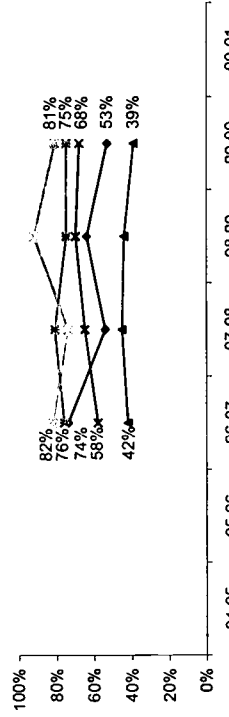
Percentile	94-95	95-96	96-97	97-98	98-99	99-00	00-01
76-99		42%	44%	44%	44%	40%	
51-75		23%	23%	23%	21%	23%	
26-50		18%	17%	17%	17%	17%	
1-25		17%	16%	18%	18%	20%	
Total # of students		2,691	2,837	2,838	2,838	2,888	



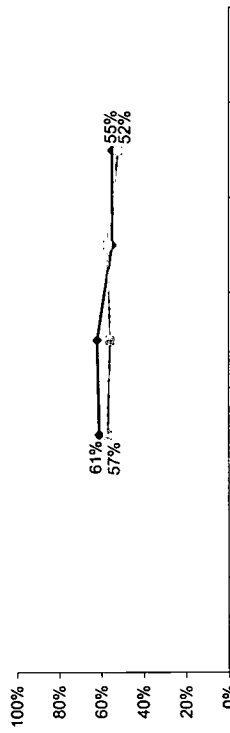
% Passing by Gender



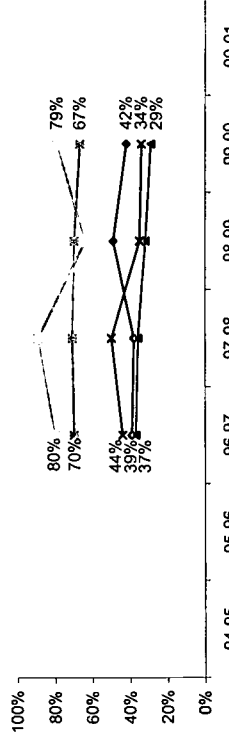
% Passing by Race/Ethnicity



% Passing by Gender



% Passing by Race/Ethnicity



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 51st percentile or better

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Assessment Test Result Trends CAT-5 - Mathematics

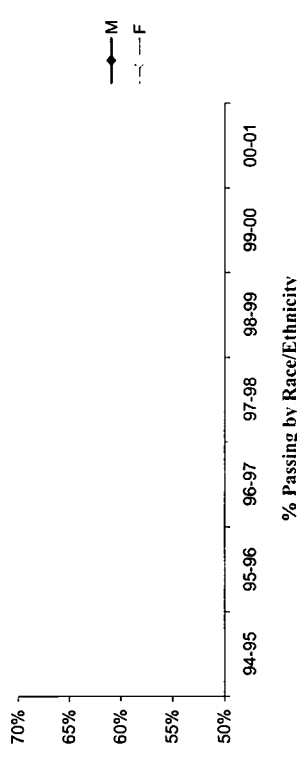
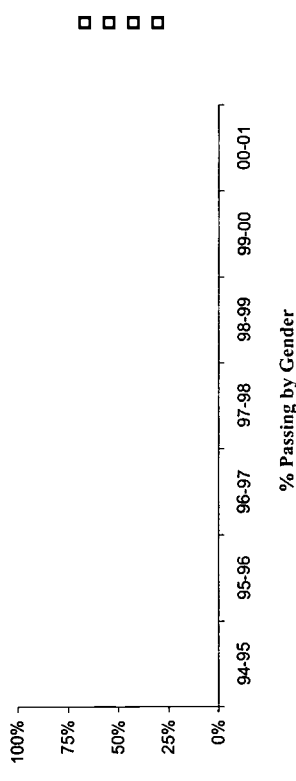
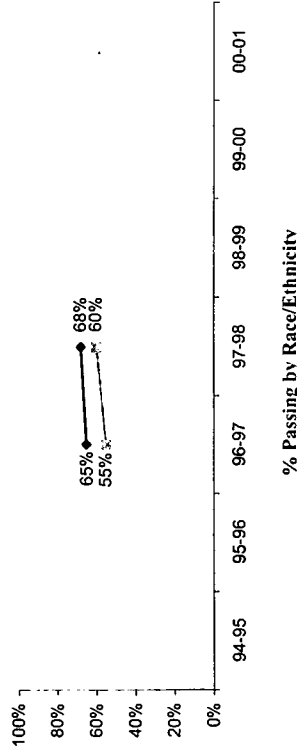
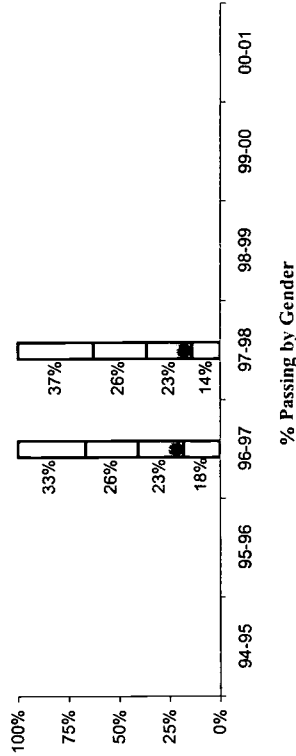
Assessment Test Result Trends - Science

◆ Grade 10

◆ Grade 4

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Percentile							
76-99		33%	33%	37%			
51-75		26%	26%	26%			
26-50		23%	23%	23%			
1-25		18%	18%	14%			
Total # of students		2,396	2,396	2,147			

Date Not Available



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 51st percentile or better

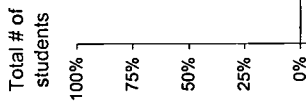
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Assessment Test Result Trends - Science

◆ **Grade 8**

94-95 95-96 96-97 97-98 98-99 99-00 00-01

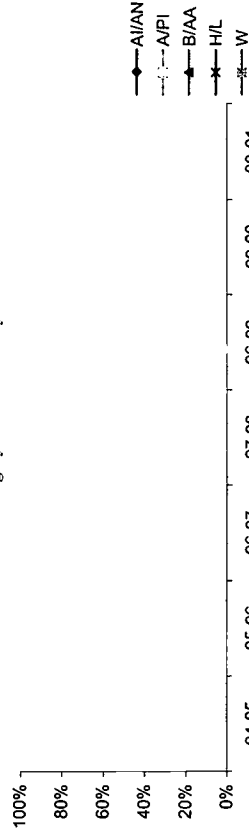
Data Not Available



% Passing by Gender



% Passing by Race/Ethnicity

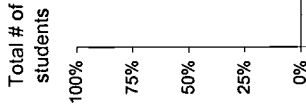


State Assessment Test Result Trends - Science

◆ **Grade 10**

94-95 95-96 96-97 97-98 98-99 99-00 00-01

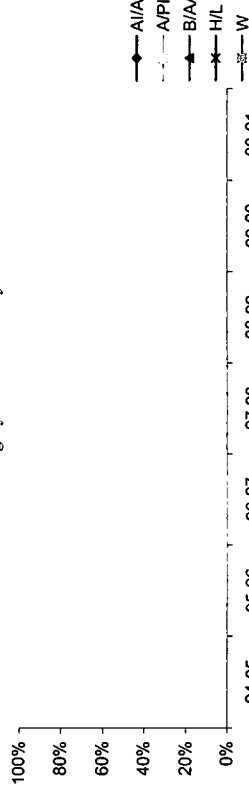
Data Not Available



% Passing by Gender



% Passing by Race/Ethnicity

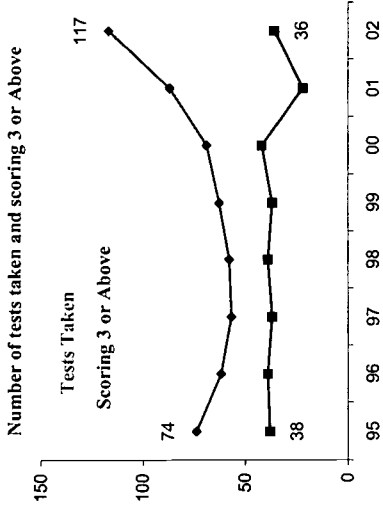


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

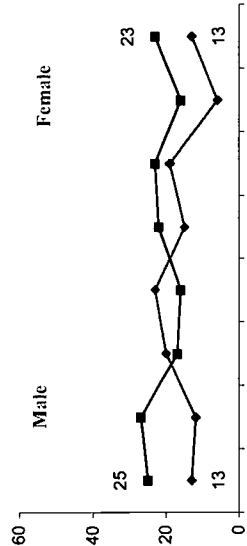
♦ AP Mathematics - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,570	4,779	5,047	5,116	5,132	5,074		
Calc. AB	56	47	37	38	29	30	43	75
Calc. BC	18	15	19	20	34	39	44	42
Statistics	0	0	1	0	0	0	0	0
Total	74	62	57	58	63	69	87	117
Tests taken per 1,000 students	13.6	11.9	11.5	12.3	13.4	17.1		
Scoring 3 or Above	38	39	37	39	37	42	22	36
Scoring 3 or Above per 1000 students	8.5	7.7	7.7	7.2	8.2	4.3		



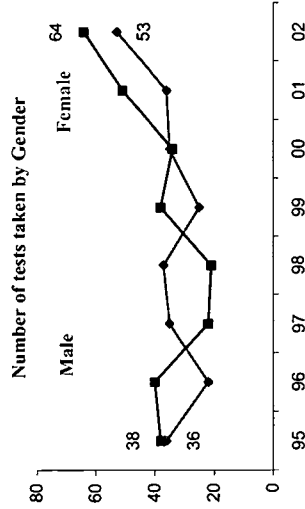
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	95	96	97	98	99	00	01	02
Male	25	27	17	16	22	23	16	23
Female	13	12	20	23	15	19	6	13



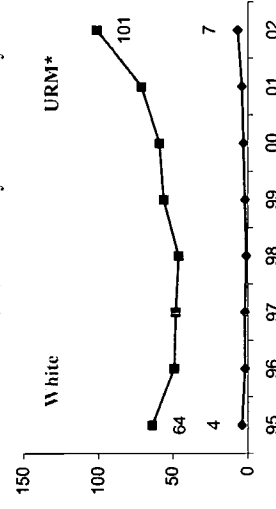
♦ AP Mathematics - Number of Tests Taken By Gender

	95	96	97	98	99	00	01	02
Male	38	40	22	21	38	34	51	64
Female	36	22	35	37	25	35	36	53



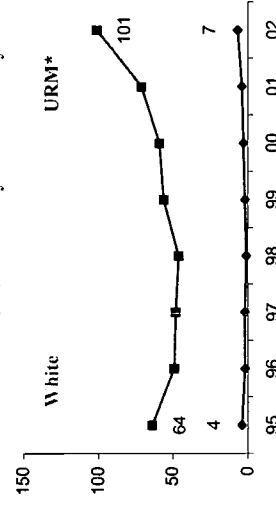
♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity^{*1}

	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0
A/PI	0	4	0	1	0	4	2	3
B/AA	0	1	0	1	0	0	0	1
H/L	1	0	0	0	2	1	0	0
W	34	30	33	33	34	36	20	32



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity^{*1}

	95	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0	0
A/PI	1	6	2	4	1	6	8	6
B/AA	1	2	2	1	0	2	2	6
H/L	3	0	0	0	2	1	2	1
W	64	49	48	46	56	59	71	101



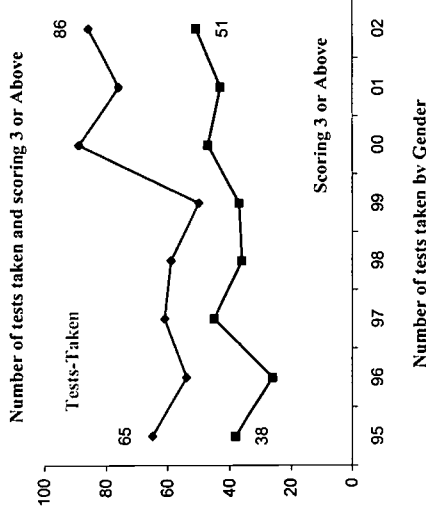
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
^{*1} "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

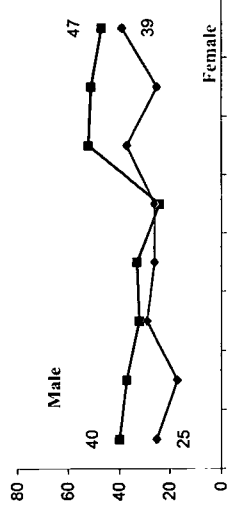
♦ **AP Science - Total Number of Tests Taken**

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,570	4,779	5,047	5,116	5,132	5,074		
Biology	30	16	35	20	15	23	19	27
Chemistry	15	20	15	15	15	29	25	20
Env. Science	0	0	0	0	0	0	3	0
Physics B	0	2	3	16	16	29	19	23
Physics Mech.	10	8	4	0	2	4	5	8
Physics Elec.	10	8	4	8	2	4	5	8
Total	65	54	61	59	50	89	76	86
Tests taken per 1,000 students	11.8	12.8	11.7	9.8	17.3	15.0		
Scoring 3 or Above	38	26	45	36	37	47	43	51
Above per 1000 students	5.7	9.4	7.1	7.2	9.2	8.5		



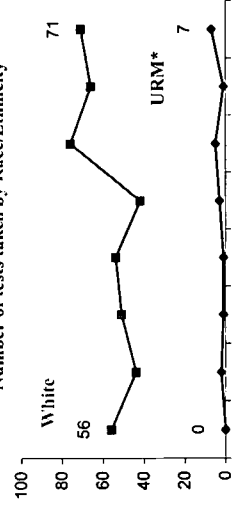
♦ **AP Science - Number of Tests Taken By Gender**

	95	96	97	98	99	00	01	02
Male	40	37	32	33	24	52	51	47
Female	25	17	29	26	26	37	25	39



♦ **AP Science - Number of Tests Taken By Race/Ethnicity**¹

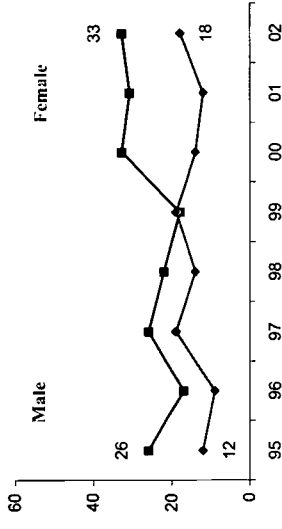
	95	96	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0	0	0
A/PI	4	3	4	3	2	7	7	6
B/AA	0	2	0	1	1	3	0	3
H/L	0	0	1	0	2	2	1	4
W	56	44	51	54	42	76	66	71



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

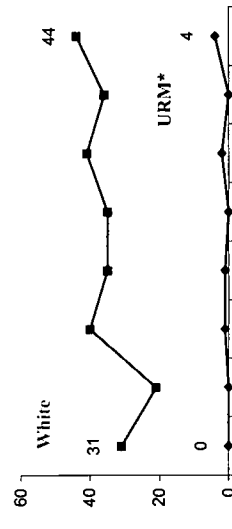
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	95	96	97	98	99	00	01	02
Male	26	17	26	22	18	33	31	33
Female	12	9	19	14	19	14	12	18



♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity**¹

	95	96	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0	0	0
A/PI	3	0	2	0	0	4	5	3
B/AA	0	0	0	1	0	1	0	2
H/L	0	0	1	0	0	1	0	2
W	31	21	40	35	35	41	36	44



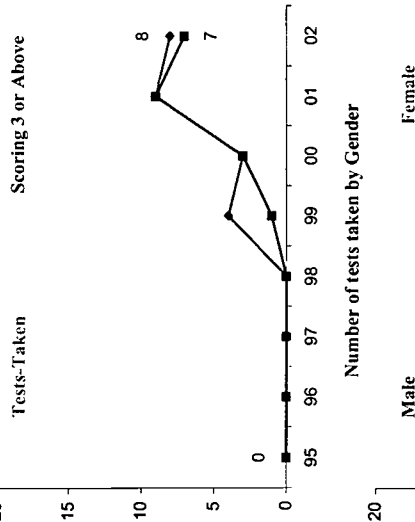
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

♦ AP Computer Science - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,570	4,779	5,047	5,116	5,132	5,074	.	.
Comp. Sci A	0	0	0	2	2	4	4	.
Comp. Sci. AB	0	0	0	2	1	5	4	.
Total	0	0	0	4	3	9	8	.
Tests taken per 1,000 students	0.0	0.0	0.0	0.8	0.6	1.8	.	.
Scoring 3 or Above	0	0	0	1	3	9	7	.
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.2	0.6	1.8	.	.

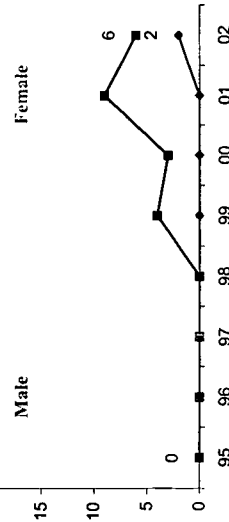
Number of tests taken and scoring 3 or Above



♦ AP Computer Science - Number of Tests Taken By Gender

Gender	95	96	97	98	99	00	01	02
Male	0	0	0	0	4	3	9	6
Female	0	0	0	0	0	0	0	2

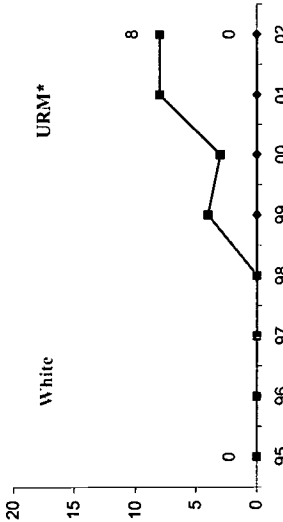
Number of tests taken by Gender



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	1	0
B/AA	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0
W	0	0	0	0	4	3	8	8

Number of tests taken by Race/Ethnicity



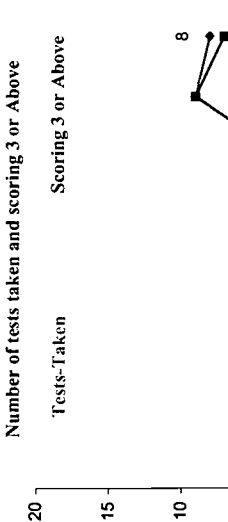
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	95	96	97	98	99	00	01	02
Male	0	0	0	0	1	3	9	5
Female	0	0	0	0	0	0	0	2

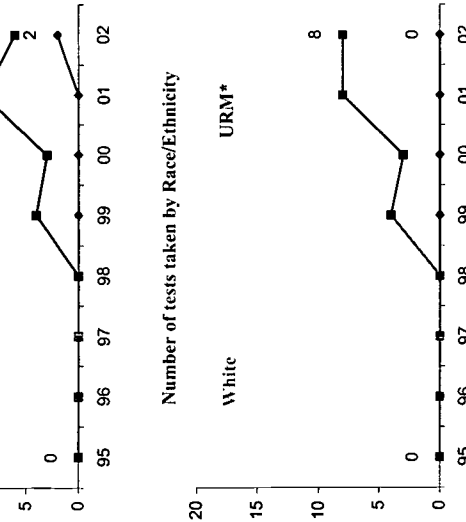
Number of Students Scoring 3 or Above By Gender



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	1	0
B/AA	0	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0	0
W	0	0	0	0	1	3	8	7

Number of Students Scoring 3 or Above By Race/Ethnicity

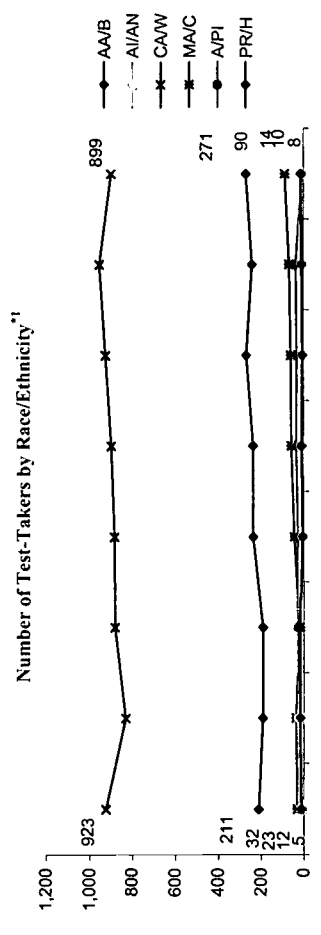
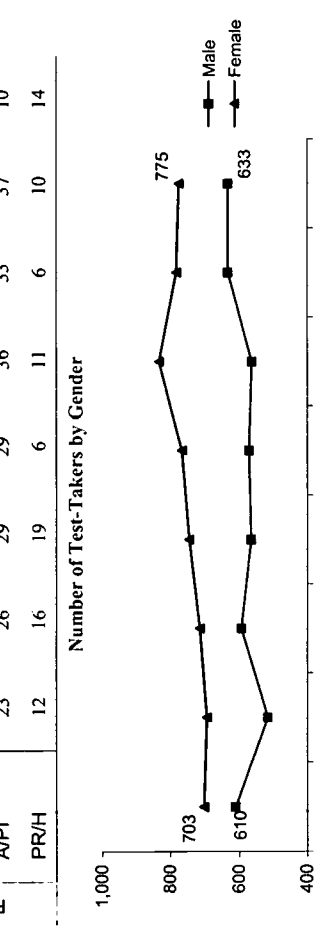
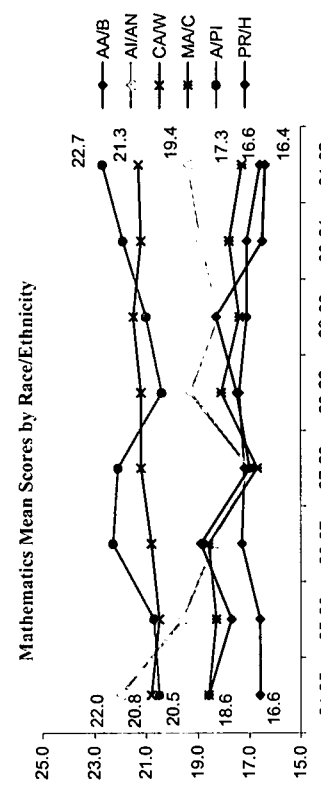
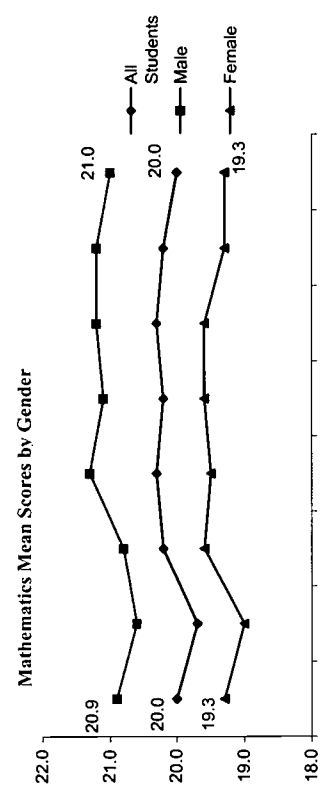


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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ACT Test-Takers		ACT Mathematics Scores									
◆ Number of Test-Takers		◆ Mathematics - Mean Score Trends									
		94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02		
Total Num of 12th Grade Students		0	2,083	2,176	2,339	2,466	2,423	2,394			
Test-Takers		1,313	1,210	1,309	1,310	1,336	1,395	1,415	1,408		
Num of Test-Takers/1,000 Stu.		581	602	560	542	576	591				
Gender											
Male		610	515	594	564	570	562	633	633		
Female		703	695	715	746	766	833	782	775		
Race/Ethnicity											
AA/B		211	191	191	238	237	269	242	271		
AI/AN		5	10	11	7	6	16	8	8		
CA/W		923	831	880	883	899	925	953	899		
MA/C		32	38	20	46	60	62	69	90		
A/PI		23	26	29	29	36	33	37	10		
PR/H		12	16	19	6	11	6	10	14		



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
 *1 Number of Test-Takers less than 5 not presented in graph

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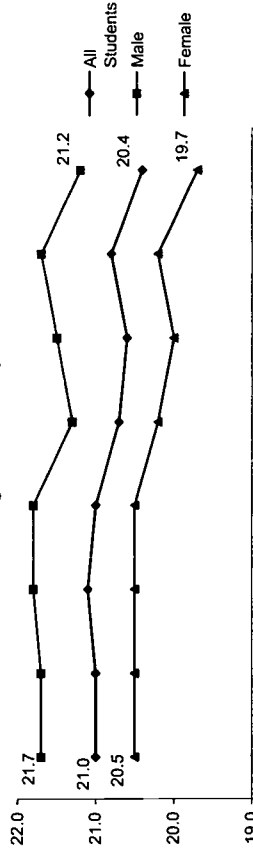
SY 2000-01

ACT Science Reasoning Scores

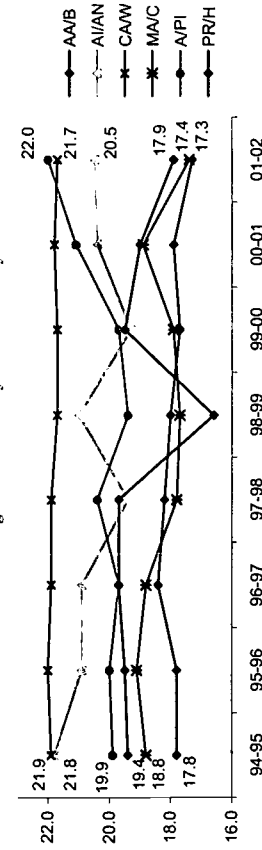
◆ Science Reasoning - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	21.0	21.0	21.1	21.0	20.7	20.6	20.8	20.4
Gender								
Male	21.7	21.7	21.8	21.8	21.3	21.5	21.7	21.2
Female	20.5	20.5	20.5	20.5	20.2	20.0	20.2	19.7
Race/Ethnicity								
AA/B	17.8	17.8	18.4	18.2	18.0	17.7	17.9	17.3
AI/AN	21.8	20.9	20.9	19.4	21.0	19.3	20.4	20.5
CA/W	21.9	22.0	21.9	21.9	21.7	21.7	21.8	21.7
MA/C	18.8	19.1	18.8	17.8	17.7	17.9	18.9	17.4
A/P/I	19.9	20.0	19.7	20.4	19.4	19.7	21.1	22.0
PR/H	19.4	19.5	19.7	19.7	16.6	19.5	19.0	17.9

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/P/I: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

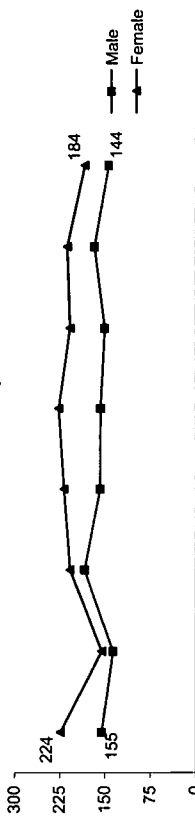
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

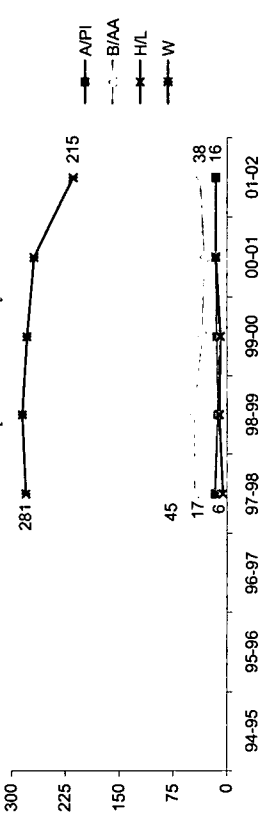
◆ Number of Test-Takers

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	0	2,083	2,176	2,339	2,466	2,423	2,394	-
Test-Takers Num of Test-Takers/1,000 Stu.	379	292	392	377	385	359	380	328
Gender								
Male	155	137	184	158	158	151	167	144
Female	224	155	208	219	227	208	213	184
Race/Ethnicity								
AI/AN	-	-	-	-	-	-	-	-
A/P/I	-	17	13	14	14	16	16	16
B/AA	-	45	46	35	32	38	38	38
H/L	-	6	11	9	16	16	16	-
W	281	281	286	279	269	215	215	215
OT	11	7	5	11	10	10	10	10

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity*



AI/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

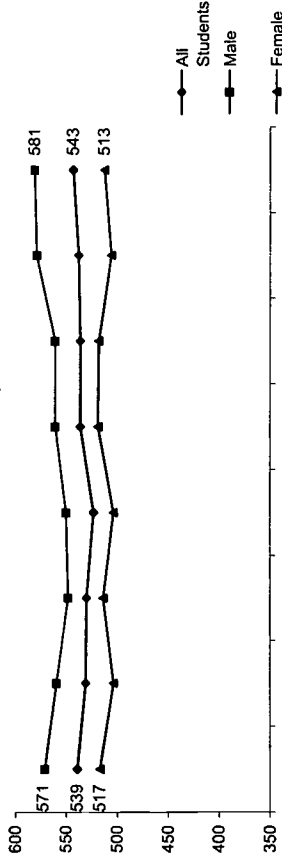
* Number of Test-Takers less than 5 not presented in graph

SAT Mathematics Scores

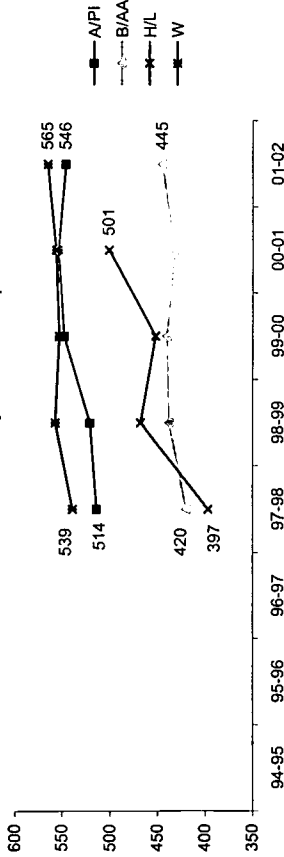
◆ **Mathematics - Mean Score Trends**

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	539	531	530	523	536	536	538	543
Gender								
Male	571	560	548	550	561	561	579	581
Female	517	504	514	504	519	518	506	513
Race/Ethnicity								
All/AN	-	-	-	-	-	-	-	-
A/PI	-	-	514	514	521	548	554	546
B/AA	Data Not Available	-	420	438	440	432	445	445
H/L	-	-	397	468	452	501	-	-
W	-	-	539	557	553	556	565	565
OT	-	-	524	517	460	535	495	495

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



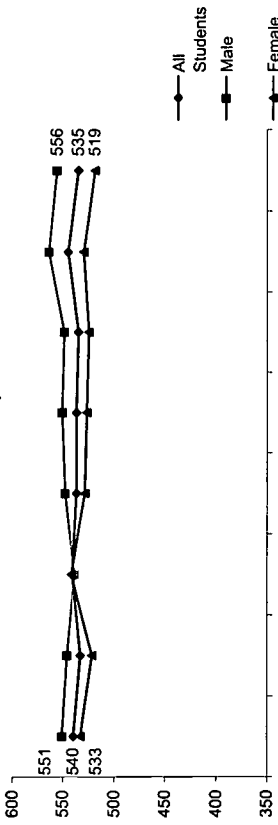
All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

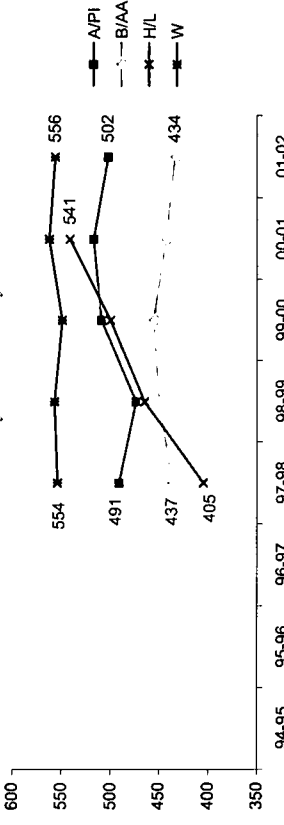
◆ **Verbal - Mean Score Trends**

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	540	533	541	537	537	535	545	535
Gender								
Male	551	546	539	548	551	549	564	556
Female	533	522	542	529	527	525	530	519
Race/Ethnicity								
All/AN	-	-	-	-	-	-	-	-
A/PI	-	-	491	491	474	509	517	502
B/AA	Data Not Available	-	437	437	450	456	443	434
H/L	-	-	405	405	465	500	541	-
W	-	-	554	554	557	549	562	556
OT	-	-	568	568	537	406	511	485

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

Number of District Schools	98-99	99-00
CPMSA Schools:	75	76
% Schools:	27	34
Source: CDE 1999, 2000	36%	45%

Special Education and Bilingual Students:

• Greater inclusion of Special Education students in regular math and science courses

Instructional Time:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum	District
Curriculum/Text/Book Adoption	District
Student Assessment	District
Professional Development	District
Resources	School
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District
School-Based Management	Yes

Graduation Requirements
 • 3 years math (including Algebra I and II)
 • 3 years science (Biology-Physics)

Student Support Systems:
 • MESA encourages minority students to pursue math/science in high school and college.
 Programs include: Physics Jump Start; Algebra Preview; Success Unlimited in math and science

• Tutoring provided by Faith Based sites, community agencies, Girls and Boys Clubs, Urban League

Summer programs:
 • Literacy and Math Camp
 • Advanced Math summer classes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 • Tracking is no longer practiced and is monitored.
 • Low level math and science classes have been eliminated

Criteria for Entry into High Level Mathematics and Science Courses:
 • Prerequisites. Non-honors Physics has less restrictive prerequisites
 Availability of High Level Courses:

Standards-based Curriculum and Instruction

Standards Adopted:
 • NSTA and NCTM Standards
 • Nebraska State Standards
 • National Science Research Standards

% of Students Experiencing Standards-based Curricula:
 E 100%
 M 100%
 H 100%

Policies Relevant to Teacher Qualifications

Certification:

Requirement & Hiring Practices
 • Must complete approved education program, pass the PPST and complete a Human Relations and Special Education course

Professional Advancement & Leadership Training:

Policies Relevant to Curriculum

Framework:
 • Omaha Instructional Process
 Curricula:
 • Math: Addison Wesley
 • Science: Silver Burdette Science Kits

New Courses Added as a Result of CPMSA:
 • Increased enrollments required increases in number of course sections offered, especially in physics

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices		Partnerships	
<p>Time Required or Supported:</p> <ul style="list-style-type: none"> 168 hours every 6 years average is 28 hours a year; 1/2 is content specific (84 hours) <p>Financial Resources Provided:</p> <ul style="list-style-type: none"> Professional development designed to address district and school priorities/content standards <p>Teachers' instructional practice change as a result of CPMSA influenced professional development:</p> <ul style="list-style-type: none"> Follow-up and support of professional development is effective Teachers have been more likely to implement what is learned 	<p>Impact on Student Achievement:</p> <p>Policies Relevant to Standards-based Assessments</p> <ul style="list-style-type: none"> 100% alignment. CRTS aligned with new district standards and state assessment plan for math and science <p>Extent to Which Assessments are Aligned to District Standards and Curriculums:</p> <p>Assessments Used:</p>	<p>Other Key Initiatives:</p> <ul style="list-style-type: none"> Title I African American Advancement Plan UROG GEAR UP <p>Competing Initiatives:</p> <ul style="list-style-type: none"> None <p>Community Stakeholders:</p> <ul style="list-style-type: none"> Parents sign agreement letter affirming support of math and science education Community Tutoring Sites 	
<p>Type and Amount Received by Average Math/Science Teacher:</p> <p>Evaluation Instruments:</p> <ul style="list-style-type: none"> Teacher comments "input." CPMSA required teachers to report on the results of new methods learned through professional development activities <p>Professional Development Alignment to Content Standards Measures:</p> <p>Teacher's Instructional Practices Evaluation:</p>	<p>CPMSA Leadership, Governance, and Management</p> <p>Superintendent:</p> <ul style="list-style-type: none"> New Superintendent (1997-98) became the CPMSA PI <p>Continuity of Leadership</p> <ul style="list-style-type: none"> CPMSA staff did not change <p>Project Directors position in district's organizational structure:</p> <ul style="list-style-type: none"> Superintendent meets monthly with Co-PI and Project Director. Project Director is a member of Curriculum and Learning Department <p>Teacher Leaders:</p> <ul style="list-style-type: none"> 2 Math - Science facilitator assist teachers with instruction, conduct workshops and provide follow-up support 	<p>Higher Education:</p> <ul style="list-style-type: none"> UNO/CERTL University of Nebraska, Omaha /CERTL program <p>Business and Industry:</p> <ul style="list-style-type: none"> US West funds summer camps AIM Institute funded technology labs at Girls Inc. and Central High School 	

Accountability

Program Effectiveness Monitoring: •Evaluation Specialist monitors progress towards goals. Schools progress is reported quarterly. Progress monitored by a Governance Board

Report Card System: •Annual assessment of progress
•Nebraska Department of Education issues assessments of achievement of standards for all districts

Key Indicator Data Collection: •Evaluation Specialist requests data from district offices to specifically assess progress on key indicators

Key Indicator Data Use: •Reported to Governance Board who provides direction

Local On-Sight Evaluation: •Collects qualitative data from schools and quantitative data from district offices to determine successes and possible strategies for success

Data Manager:

External Evaluator: •No

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	•Tracking was unspoken practice
1995-96	•No changes reported
1996-97	•Minorities encouraged to enroll in upper level courses
1997-98	•More sections of upper level courses are offered
1998-99	•Tracking no longer practiced and is monitored. •Low level courses in science and math have been eliminated
1999-00	•Graduation requirements strengthened to 3 years of math (Algebra I & II) and 3 years of science (Biology through Physics)

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	
1995-96	
1996-97	•Science kits adopted
1997-98	
1998-99	
1999-00	
2000-01	•Standards adopted

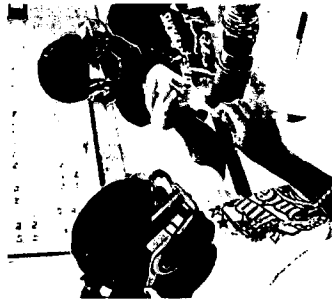
Omaha CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1994-95	No changes reported	1994-95	No changes reported	1994-95	No changes reported
1995-96		1995-96		1995-96	
1996-97		1996-97		1996-97	Report card system established
1997-98		1997-98		1997-98	
1998-99		1998-99		1998-99	
1999-00		1999-00		1999-00	
2000-01		2000-01		2000-01	

Fact Book 2002

May 2003



Winston-Salem/Forsyth County Schools, NC
Winston-Salem, NC

Winston-Salem CPMSA

Project Information

CPMSA Project Title : Comprehensive Partnerships for Minority Student Achievement

Cohort: 95

CPMSA Web Site:

◆ PI, CO-PI and PD

Principal Investigator
 Donald Martin T (336) 727-2297 F (336) 727-2291
 dlmartin@wsfcs.k12.nc.us

Co-PI
 Elva Jones T (336) 750-2480 F (336) 750-2499

Project Director
 Stanford Hill T (336) 727-2284 F (336) 727-2791
 shill@admin.wsfcs.k12.nc.us

◆ CPMSA Data Manager/Evaluator

Executive Director
 Matthew Sullivan T (336) 727-2964 F (336) 727-2791

Project Summary

The purpose of the project is to develop, provide, and make systemic a high-quality mathematics/science education program that expands participation, and achievement of K-12 minority students who are underrepresented in the science, engineering, and mathematics pipeline.

Project Goals

- ◆ To significantly increase K-12 student participation in high interest mathematics and science activities
- ◆ To significantly increase K-12 minority students' participation in gatekeeper college preparatory courses for mathematics, science, engineering, and technology.
- ◆ To significantly increase minority college students majoring in SMET fields.
- ◆ To put in place a systemic reform of curriculum, instruction, and community involvement that facilitates ongoing realization of the first three goals

Selected School Indicators (District Average)

	1998-99	2000-01	Change
% Special Ed.	7.1%	13.7%	+6.6 PP
% LEP	3.6%		
% Free/Red. Lunch	36.5%	37.5%	+1.0 PP
% Daily Avg. Atten.	94.1%	95.0%	+0.9 PP
% Average Retained	3.9%	4.1%	+0.2 PP
% Drop-Out	1.3%	1.9%	+0.6 PP
% Mobility	28.3%	26.8%	-1.5 PP
Per Pupil Cost (\$)	\$6,348	\$6,800	+7.1%
# Students Per Computer	10		
% Classrooms Internet Access	80%	90%	+10.0 PP
Average Class Size	19	19	No Change

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01	40	1,858	22,047
K-G5 (Elementary)	16	255	10,384
G6-8 (Middle)	11	211	11,587
G9-12 (High)	67	2,324	44,018
Total			

Source: Core Data Elements (SY 2000-01)

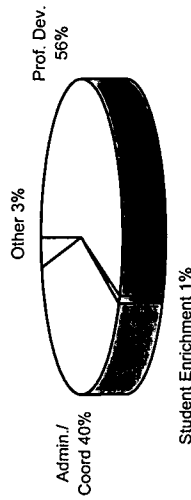
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

District	CPMSA
Prof. Dev.	60%
Student Enrich.	1%
Admin/Coord.	40%
Other	3%
Total	100%

CPMSA Funds %

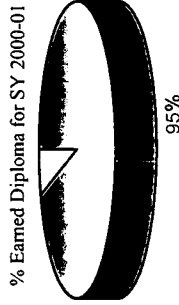


Student Demographics (SY 2000-01)

District Total:	44,018	District ¹	00-01
CPMSA Schools:	16,939	98-99	2,229
Source: Core Data Elements 2001		00-01	2,319
◆ Race/Ethnicity		98-99	2,051
		00-01	2,196
			95%
			92%
			95%
			+3 PP
			+7%
			+4%
			+70%
			+16%
			+38%
			+10%
			+24%
			+15 PP
			73%
			95%

12th Grade Graduates

Total 12th Grade	2,229	00-01	2,319	Change	+4%
Earned a Diploma	2,051	00-01	2,196	Change	+7%
% Earned Diploma	92%	00-01	95%	Change	+3 PP



SEM Proficiency

# SEM Proficient ¹	1,295	99-00	1,606	Change	+24%
% SEM Proficient/ Total 12th Grade	58%	99-00	73%	Change	+15 PP



District Math and Science Teachers & Certification Mathematics (G6-12)

Teachers Certified	60	98-99	102	Change	+70%
% Cert.		98-99	101	Change	+16%
Teachers Certified	147	98-99	203	Change	+38%
% Cert.		98-99	203	Change	+38%

Science (G6-12)

Teachers Certified	132	98-99	153	Change	+16%
% Cert.		98-99	110	Change	+3%
Teachers Certified	239	98-99	263	Change	+10%
% Cert.		98-99	263	Change	+10%

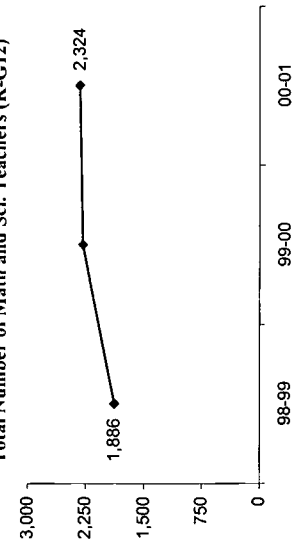
¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 4 units (must include Algebra I)
- ◆ Science
 - 4 units (Biology, a physical science, plus two others)

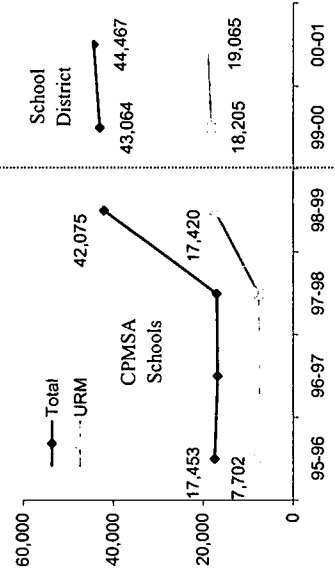
Math and Science (K-G5)

Teachers Certified	1,500	98-99	1,858	Change	+24%
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Student Demographic Trends

CPMSA Schools	16,939	98-99	2,229	00-01	2,319
Total	44,018	98-99	43,064	00-01	44,467
CPMSA Schools	16,939	98-99	18,205	00-01	19,065
Total	44,018	98-99	43,064	00-01	44,467



(-) Data Missing

¹ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99

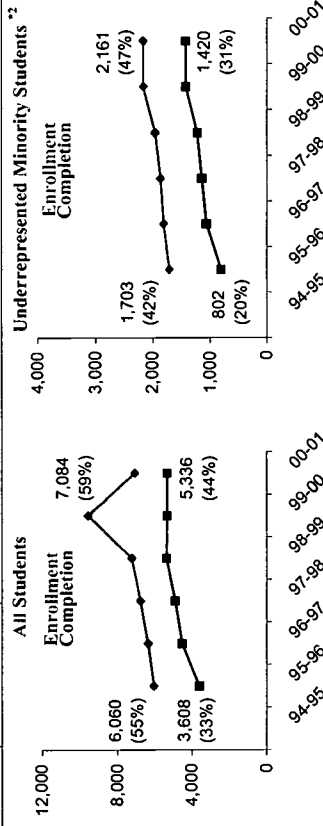
PP: Percentage Points

Winston-Salem CPMSA

SY 2000-01

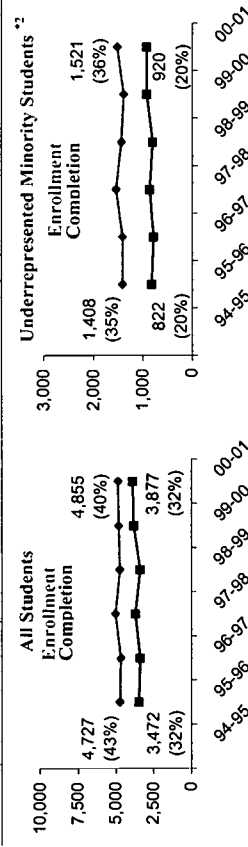
Mathematics and Science Enrollment & Completion Trends/All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	10,924	10,143	10,349	11,098	11,543	12,049	
All Students	6,060	6,357	6,760	7,233	7,573	7,084	
Completion ¹	3,608	4,536	4,913	5,367	6,631	5,336	
% Enroll/G9-12	55%	63%	65%	65%	83%	59%	
URM ²	1,703	1,811	1,865	1,957	3,201	2,161	
Completion ¹	802	1,058	1,136	1,215	1,906	1,420	
% Enroll/G9-12	42%	50%	50%	49%	75%	47%	



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	10,924	10,143	10,349	11,098	11,543	12,049	
All Students	4,727	4,684	5,036	4,733	4,819	4,855	
Completion ¹	3,472	3,397	3,716	3,383	3,809	3,877	
% Enroll/G9-12	43%	46%	49%	43%	42%	40%	
URM ²	1,408	1,411	1,544	1,435	1,383	1,521	
Completion ¹	822	782	861	803	920	920	
% Enroll/G9-12	35%	39%	41%	36%	32%	36%	

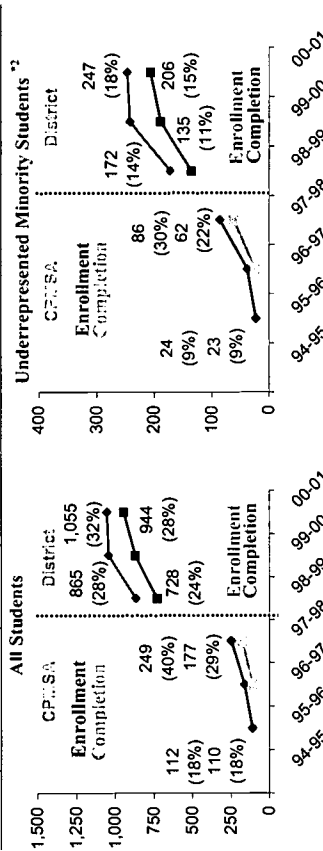


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

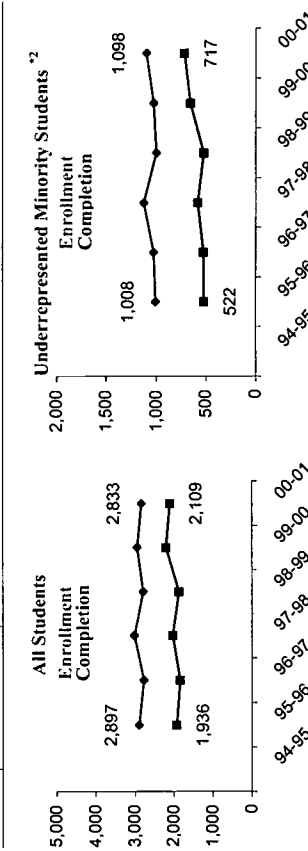
Algebra I in 8th Grade Enrollment & Completion Trends/All vs. URM

	CPMSA						District	
	94-95	95-96	96-97	97-98	98-99	99-00	00-01	
Total G 8 Population	636	620	619	3,042	3,030	3,343		
All Students	112	162	249	865	1,045	1,055		
Completion ¹	110	110	177	728	870	944		
% Enroll/G8	18%	26%	40%	28%	34%	32%		
URM ²	23	38	86	172	242	247		
Completion ¹	24	24	62	135	189	206		
% Enroll/G8	9%	14%	30%	14%	20%	18%		



Biology Enrollment & Completion Trends/All vs. URM

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
All Students	2,897	2,833	2,778	3,014	2,794	2,941	2,833
Completion ¹	1,936	1,936	1,840	2,035	1,874	2,208	2,109
URM ²	1,008	1,008	1,027	1,126	1,000	1,028	1,098
Completion ¹	522	522	524	581	520	657	717

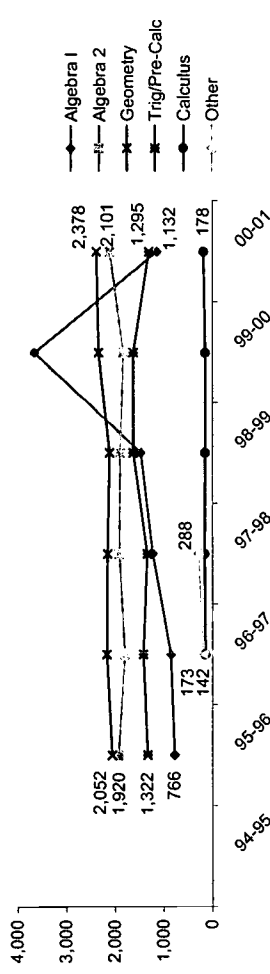


³ Data for CPMSA Schools only collected prior to SY 1998-99; District-wide data collected beginning in SY 1998-99. (.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

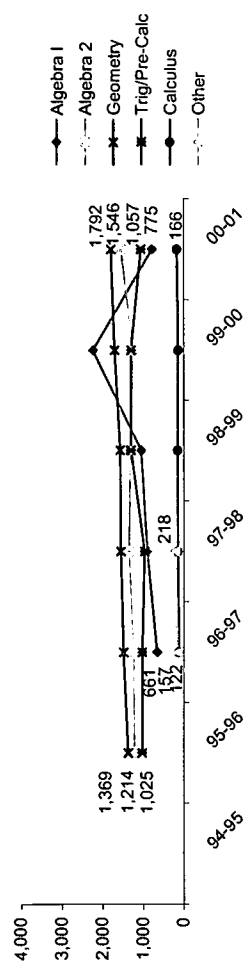
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95	1,132	2,101	2,378	1,295	178	.	7,084
95-96	766	1,920	2,052	1,322	.	.	6,060
96-97	845	1,794	2,165	1,411	142	173	6,530
97-98	1,214	1,905	2,151	1,329	161	288	7,048
98-99	1,468	1,889	2,109	1,621	146	.	7,233
99-00	3,647	1,825	2,333	1,621	147	.	9,573
00-01	1,132	2,101	2,378	1,295	178	.	7,084



G 9-12 Course Completion *1 (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
94-95	775	1,546	1,792	1,057	166	.	5,336
95-96	.	1,214	1,369	1,025	.	.	3,608
96-97	661	1,238	1,490	1,025	122	157	4,693
97-98	904	1,346	1,551	964	148	218	5,131
98-99	1,049	1,312	1,566	1,295	145	.	5,367
99-00	2,241	1,247	1,710	1,295	138	.	6,631
00-01	775	1,546	1,792	1,057	166	.	5,336



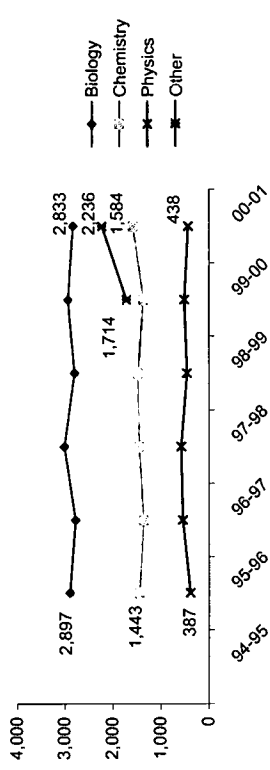
*1 Successful completion: grade 'C' or above.

*2 Data not presented for sample size less than 5

Science Course Enrollment & Completion Trends By Subject

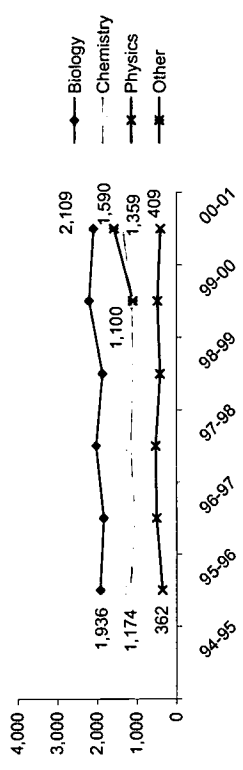
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
94-95	2,897	1,443	387	.	4,727
95-96	2,778	1,360	546	.	4,684
96-97	3,014	1,448	574	.	5,036
97-98	2,794	1,480	459	.	4,733
98-99	2,941	1,365	513	1,714	6,533
99-00	2,833	1,584	438	2,236	7,091



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
94-95	1,936	1,174	362	.	3,472
95-96	1,840	1,051	506	.	3,397
96-97	2,035	1,155	526	.	3,716
97-98	1,874	1,095	414	.	3,383
98-99	2,208	1,117	484	1,100	4,909
99-00	2,109	1,359	409	1,590	5,467



(.) Data Missing

District Assessment Test Administered

State Assessment Test-Taker Trends - NCEGT, ECT¹

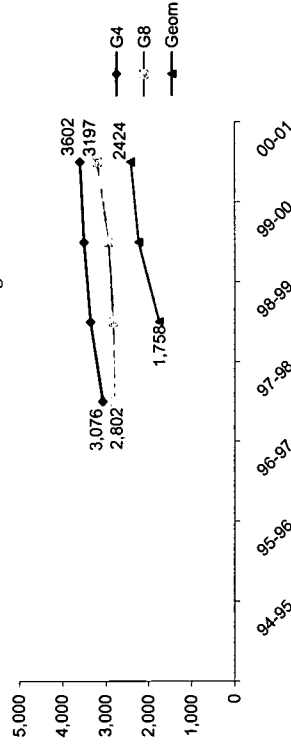
◆ Mathematics

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Test Name							
Scoring							
Grade							
Type							

◆ Mathematics

# of Test-takers	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4			3,076	3,076	3,359	3,513	3,602
Grade 8			2,802	2,802	2,827	2,937	3,197
Geometry				1,758	2,237	2,424	

Total number of students taking test



◆ Science

Test Name	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring							
Grade							
Type							

State Assessment Test Administered

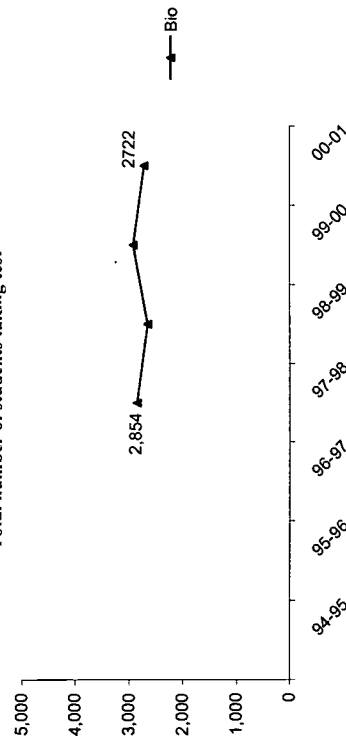
◆ Mathematics

Test Name	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring							
Grade							
Type							

◆ Science

# of Test-takers	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4							
Grade 8							
Biology				2,854	2,661	2,926	2,722

Total number of students taking test



◆ Science

Test Name	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Scoring							
Grade							
Type							

*NCEGT: North Carolina End of Grade Test; ECT: End of Course Test

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

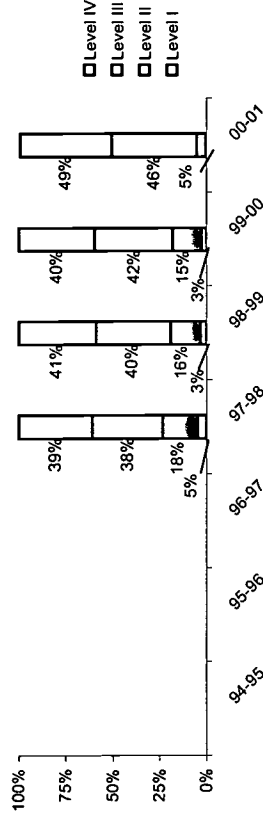
(.) Data Missing

¹NCEGT given in grades 4 and 8, ECT given in Geometry and Biology classes.

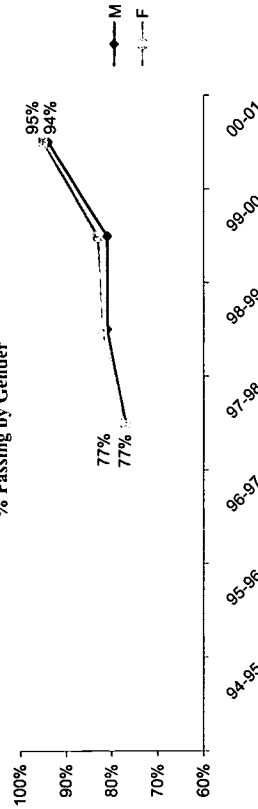
State Assessment Test Result Trends NCEGT - Mathematics

◆ Grade 4

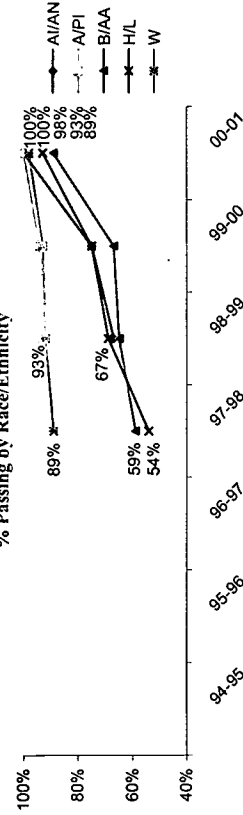
	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level IV			39%	41%	40%	40%	49%
Level III			38%	40%	42%	42%	46%
Level II			18%	16%	15%	15%	5%
Level I			5%	3%	3%	3%	
Total # of students		3,076	3,359	3,513	3,602		



% Passing by Gender



% Passing by Race/Ethnicity

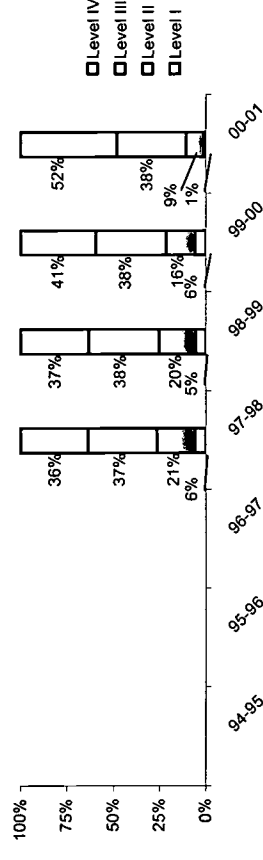


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Level IV and Level III

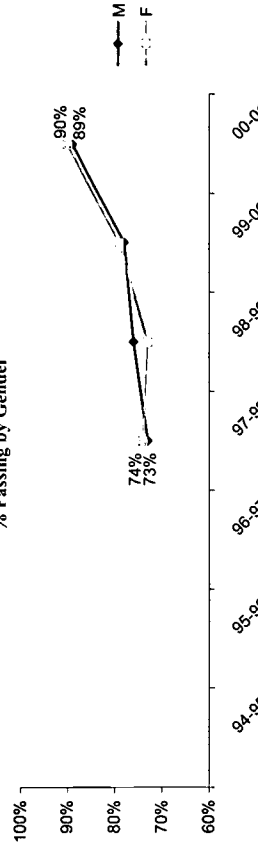
State Assessment Test Result Trends NCEGT - Mathematics

◆ Grade 8

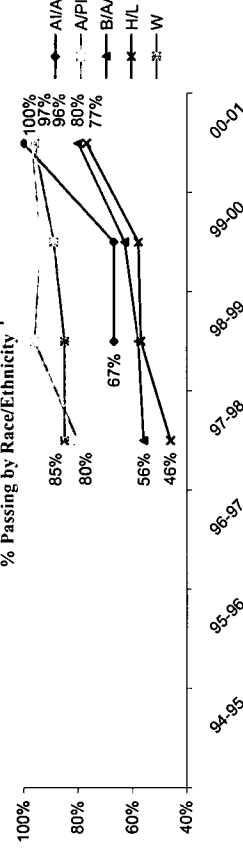
	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level IV			36%	37%	37%	41%	52%
Level III			37%	38%	38%	38%	38%
Level II			21%	21%	20%	16%	9%
Level I			6%	6%	5%	6%	1%
Total # of students		2,802	2,827	2,937	2,937	3,197	



% Passing by Gender



% Passing by Race/Ethnicity¹



¹Data not presented for sample size less than 5

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State Assessment Test Result Trends ECT - Mathematics

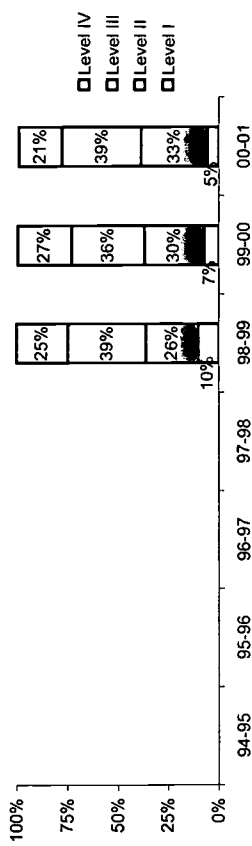
State Assessment Test Result Trends - Science

◆ Geometry

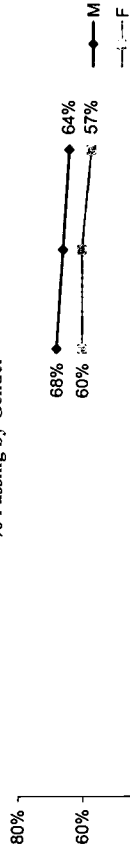
◆ Grade 4

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level IV			25%	25%	27%	27%	21%
Level III			39%	39%	36%	36%	39%
Level II			26%	26%	30%	30%	33%
Level I			10%	10%	7%	7%	5%
Total # of students		1,758	2,237	2,424			

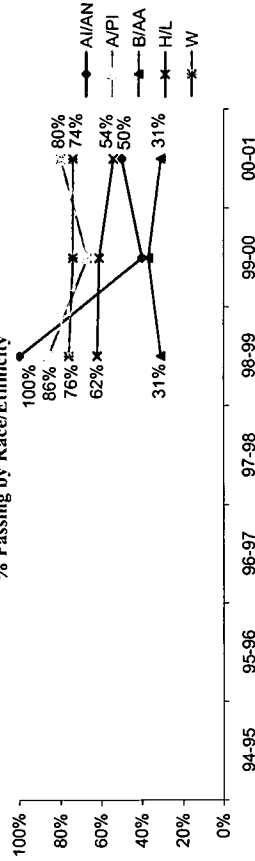
Data Not Available



% Passing by Gender



% Passing by Race/Ethnicity

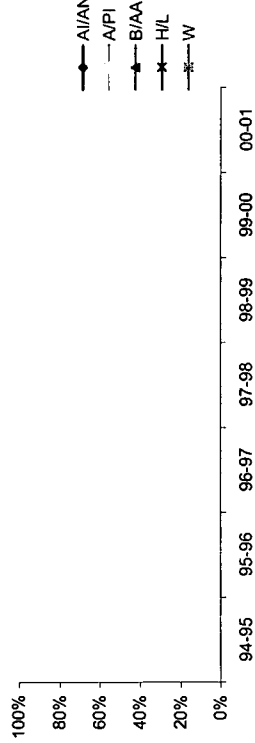


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Level IV and Level III

% Passing by Gender



% Passing by Race/Ethnicity



Winston-Salem CPMSA

SY 2000-01

State Assessment Test Result Trends - Science

State Assessment Test Result Trends ECT - Science

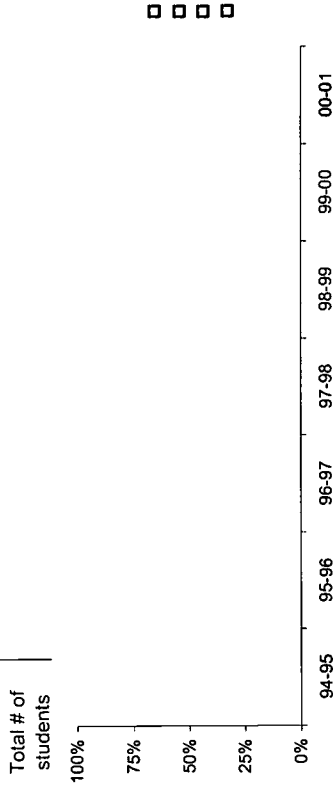
Grade 8

Biology

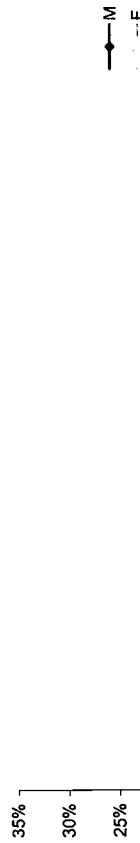
	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students					2,854	2,661	2,722

	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Level IV			19%	17%	19%	19%	15%
Level III			41%	41%	41%	41%	42%
Level II			25%	28%	28%	26%	28%
Level I			15%	14%	13%	13%	14%

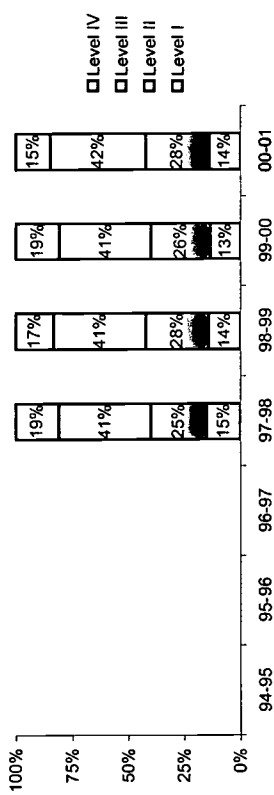
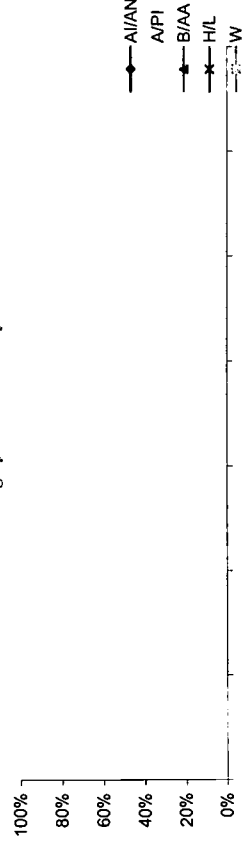
Data Not Available



% Passing by Gender



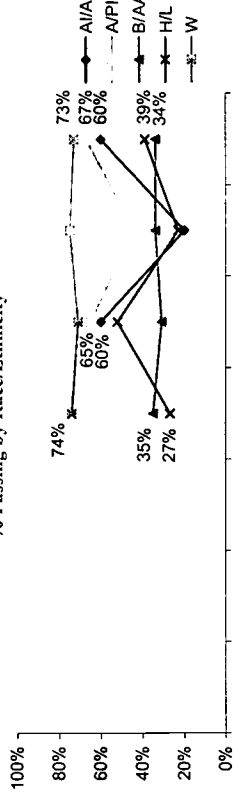
% Passing by Race/Ethnicity



% Passing by Gender



% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Level IV and Level III

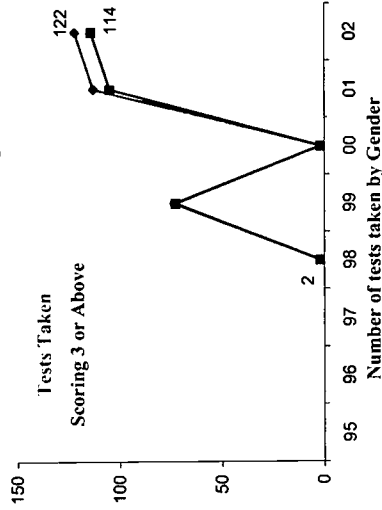
◆ Calculus AB, Calculus BC, & Statistics

AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,581	4,366	4,499	4,812	5,059	5,279		
Calc. AB		2	47	0	55	48		
Calc. BC		0	15	2	26	25		
Statistics		0	12	0	32	49		
Total		2	74	2	113	122		
Tests taken per 1,000 students		0.4	15.4	0.4	21.4			
Scoring 3 or Above		2	73	2	105	114		
Scoring 3 or Above per 1000 students		0.4	15.2	0.4	19.9			

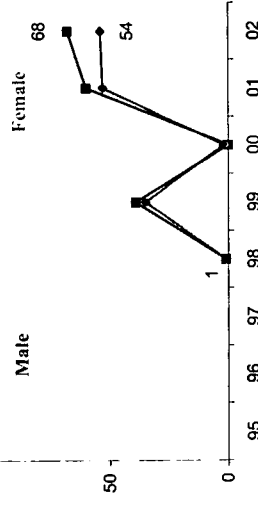
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

Gender	95	96	97	98	99	00	01	02
Male			1	39	0	60	68	
Female			1	35	2	53	54	

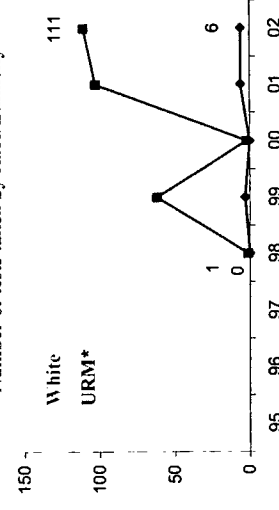
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
AI/AN			0	0	0	0	1	
A/PI			0	4	0	2	3	
B/AA			0	0	0	5	2	
H/L			0	3	0	1	3	
W			1	62	2	103	111	

Number of tests taken by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander

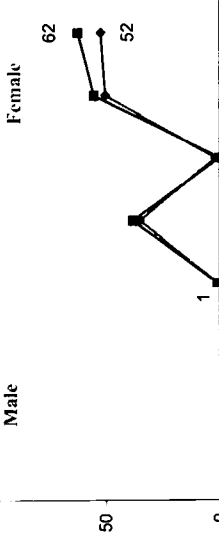
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

Gender	95	96	97	98	99	00	01	02
Male			1	38	0	55	62	
Female			1	35	2	50	52	

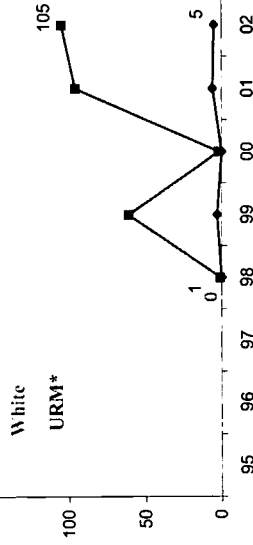
Number of students scoring 3 or above by Gender



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
AI/AN			0	0	0	0	1	
A/PI			0	4	0	2	2	
B/AA			0	0	0	5	2	
H/L			0	3	0	1	2	
W			1	61	2	96	105	

Number of students scoring 3 or above by Race/Ethnicity

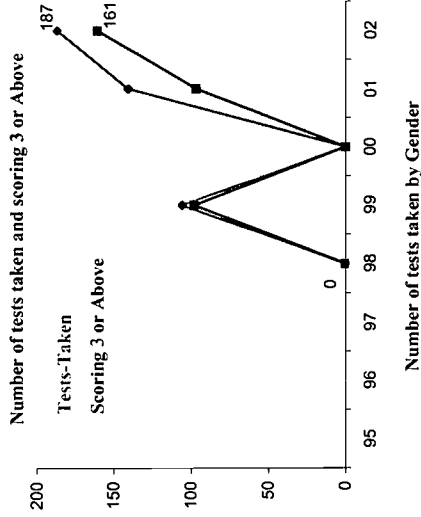


¹ URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

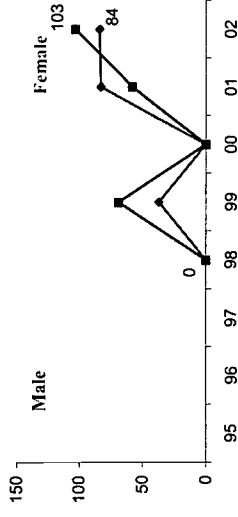
♦ AP Science - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,581	4,366	4,499	4,812	5,059	5,279		
Biology			0	20	0	28	52	
Chemistry			0	20	0	30	61	
Env. Science			0	38	0	46	25	
Physics B			0	12	0	22	25	
Physics Mech.			0	8	0	8	12	
Physics Elec.			0	8	0	7	12	
Total	0	0	106	0	141	187		
Tests taken per 1,000 students	0.0	22.0	0.0	26.7				
Scoring 3 or Above	0	98	0	97	161			
Scoring 3 or Above per 1000	0.0	20.4	0.0	18.4				



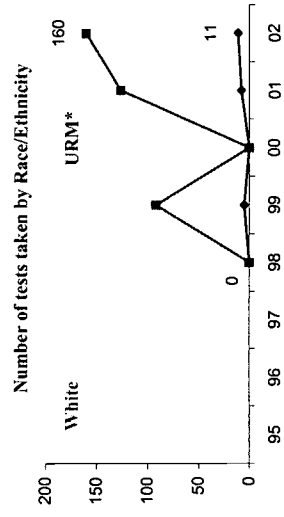
♦ AP Science - Number of Tests Taken By Gender

	95	96	97	98	99	00	01	02
Male	Data Not Available			0	69	0	58	103
Female				0	37	0	83	84



♦ AP Science - Number of Tests Taken By Race/Ethnicity^{*1}

	95	96	97	98	99	00	01	02
AI/AN				0	0	0	0	0
A/PI				0	3	0	3	12
B/AA				0	3	0	5	5
H/L				0	2	0	3	6
W				0	92	0	126	160



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

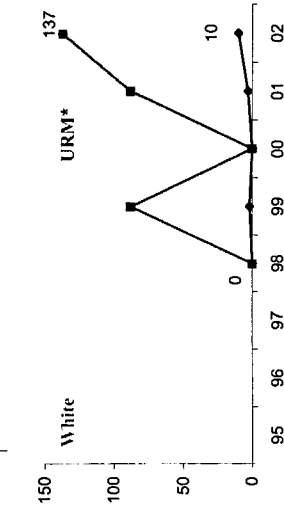
*1 "Other" category not presented

♦ AP Science - Number of Students Scoring 3 or Above By Gender

	95	96	97	98	99	00	01	02
Male	Data Not Available			0	63	0	44	88
Female				0	35	0	53	73

♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity^{*1}

	95	96	97	98	99	00	01	02
AI/AN				0	0	0	0	0
A/PI				0	3	0	3	10
B/AA				0	0	0	0	4
H/L				0	2	0	3	6
W				0	88	0	88	137

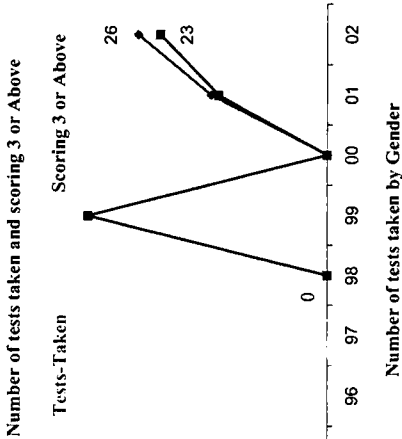


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

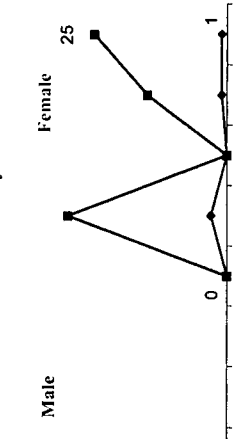
♦ AP Computer Science - Total Number of Tests Taken

	95	96	97	98	99	00	01	02
Total # of 11th & 12th graders	4,581	4,366	4,499	4,812	5,059	5,279		
Comp. Sci A	Data Not Available		0	3	0	0	0	0
Comp. Sci. AB			0	30	0	16	26	
Total			0	33	0	16	26	
Tests taken per 1,000 students		0.0	6.9	0.0	3.0			
Scoring 3 or Above		0	33	0	15	23		
Above per 1000		0.0	6.9	0.0	2.8			



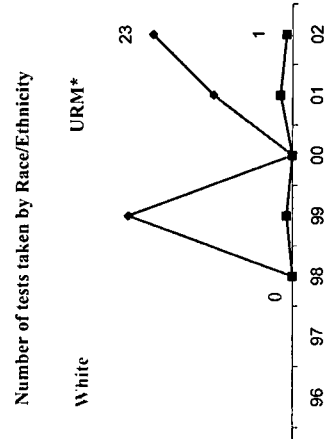
♦ AP Computer Science - Number of Tests Taken By Gender

Gender	95	96	97	98	99	00	01	02
Male	Data Not Available		0	30	0	15	25	
Female			0	3	0	1	1	



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
A/I/AN			0	1	0	0	0	0
A/PI	Data Not Available		0	2	0	0	2	
B/AA			0	0	0	1	0	
H/L			0	0	0	1	1	
W			0	27	0	13	23	

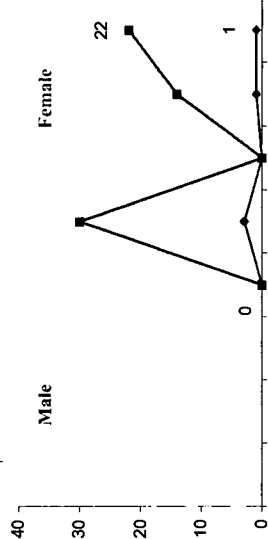


A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

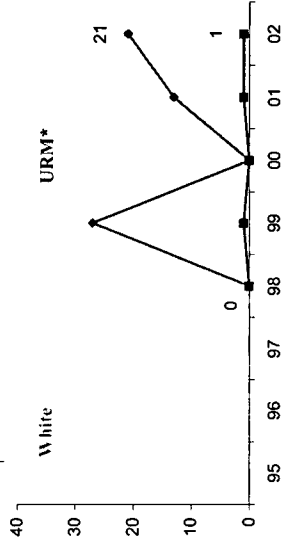
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	95	96	97	98	99	00	01	02
Male	Data Not Available		0	30	0	14	22	
Female			0	3	0	1	1	



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	95	96	97	98	99	00	01	02
A/I/AN			0	1	0	0	0	0
A/PI	Data Not Available		0	2	0	0	1	
B/AA			0	0	0	1	0	
H/L			0	0	0	0	1	
W			0	27	0	13	21	



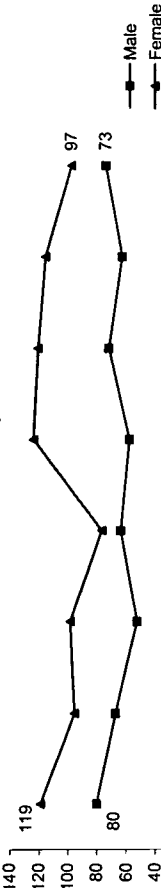
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

ACT Test-Takers

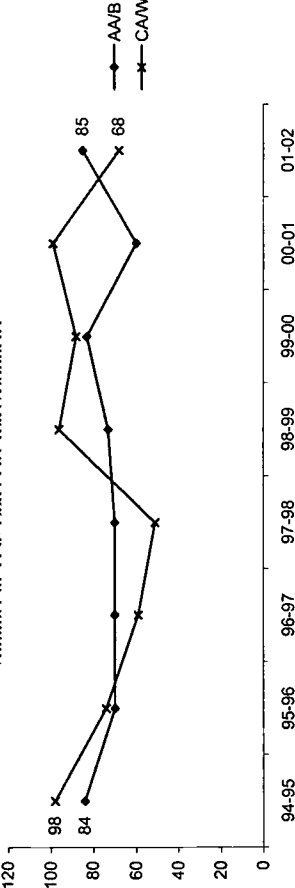
◆ Number of Test-Takers

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	0	2,152	2,069	2,110	2,157	2,230	2,405	.
Test-Takers	199	162	150	139	180	191	177	170
Num of Test-Takers/1,000 Stu.	.	75	72	66	83	86	74	.
Gender								
Male	80	67	52	63	57	71	62	73
Female	119	95	98	76	123	120	115	97
Race/Ethnicity								
AA/B	84	70	70	70	73	83	60	85
AI/AN	1	1	1	0	0	1	1	1
CA/W	98	74	59	51	96	88	99	68
MA/C	0	0	0	0	0	1	2	1
A/PI	2	1	0	1	3	2	2	3
PR/H	0	1	0	0	1	2	3	1

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

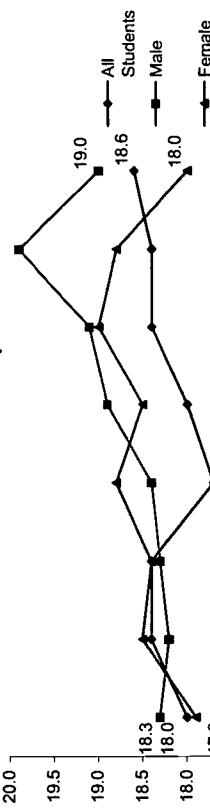
*1 Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

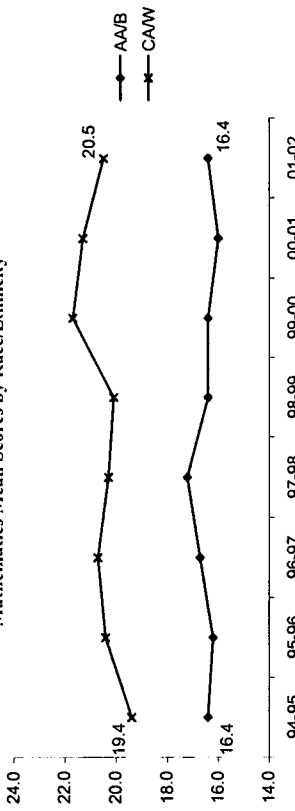
◆ Mathematics - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.0	18.4	18.4	17.7	18.0	18.4	18.4	18.6
Gender								
Male	18.3	18.2	18.3	18.4	18.9	19.1	19.9	19.0
Female	17.9	18.5	18.4	18.8	18.5	19.0	18.8	18.0
Race/Ethnicity								
AA/B	16.4	16.2	16.7	17.2	16.4	16.4	16.0	16.4
AI/AN	-	-	-	-	-	-	-	-
CA/W	19.4	20.4	20.7	20.3	20.1	21.7	21.3	20.5
MA/C	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-
PR/H	-	-	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



(-) Mean scores not presented for sample size less than 5

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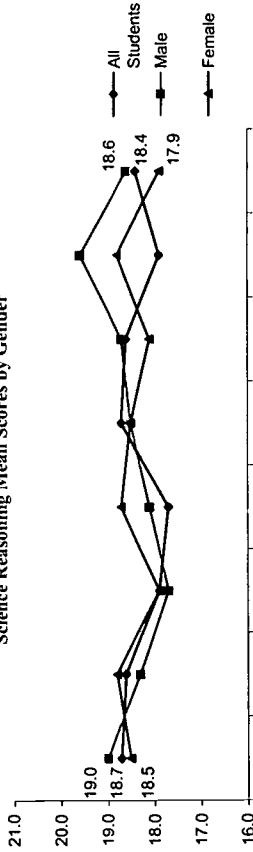
SY 2000-01

ACT Science Reasoning Scores

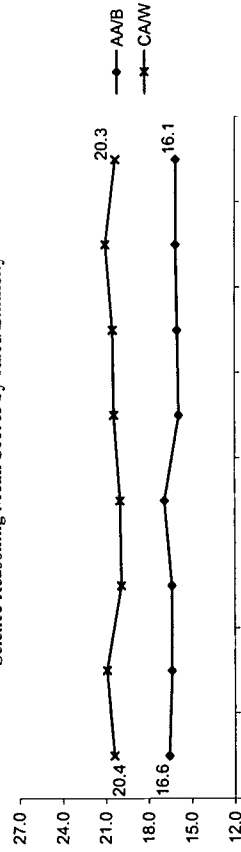
Science Reasoning - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.7	18.6	17.9	17.7	18.7	18.6	17.9	18.4
Gender								
Male	19.0	18.3	17.7	18.1	18.5	18.7	19.6	18.6
Female	18.5	18.8	17.9	18.7	18.5	18.1	18.8	17.9
Race/Ethnicity								
AA/B	16.6	16.4	16.4	16.9	15.9	16.0	16.1	16.1
AI/AN	-	-	-	-	-	-	-	-
CA/W	20.4	20.9	19.9	20.0	20.4	20.5	21.0	20.3
MA/C	-	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-	-
PR/H	-	-	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
 American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H:
 Puerto Rican/Hispanic.

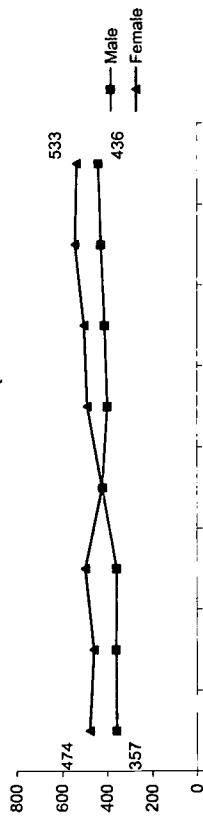
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

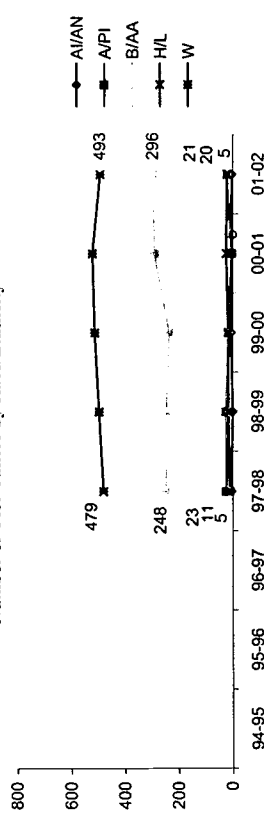
Number of Test-Takers

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	0	2,152	2,069	2,110	2,157	2,230	2,405	.
Test-Takers Num of Test-Takers/1,000 Stu.								
Male	831	815	851	839	882	908	965	969
Female	379	411	398	409	407	401	401	.
Gender								
Male	357	359	357	420	397	409	425	436
Female	474	456	494	420	485	499	540	533
Race/Ethnicity								
AI/AN	5	-	-	5	7	5	5	5
A/PI	23	24	24	24	16	5	5	20
B/AA	248	246	248	246	236	290	296	296
H/L	11	16	11	16	17	24	24	21
W	479	496	479	496	513	522	493	493
OT	15	22	15	22	20	15	15	16

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African
 American H/L: Hispanic or Latino W: White

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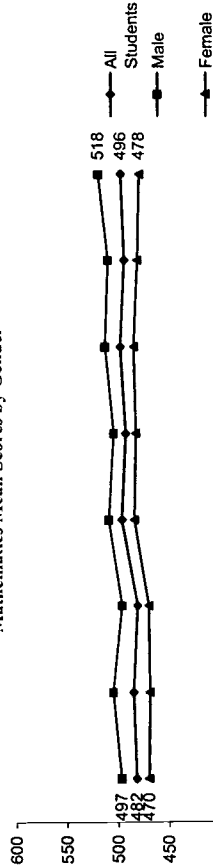
SY 2000-01

SAT Mathematics Scores

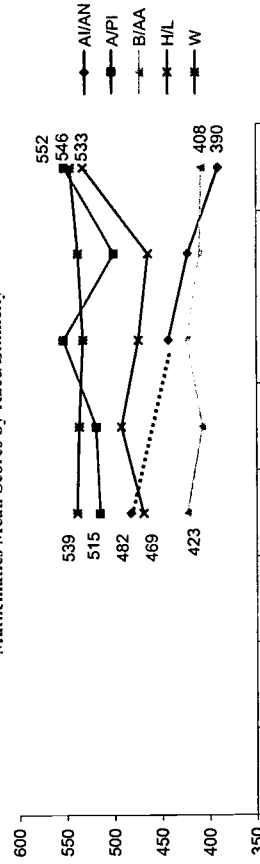
◆ Mathematics - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	482	485	481	496	492	497	493	496
Gender								
Male	497	505	496	509	504	512	509	518
Female	470	469	470	484	482	484	480	478
Race/Ethnicity								
A/IAN	482		482	482	443	422	422	390
A/PI	515	519	519	553	500	552	552	552
B/AA	423	407	423	410	408	410	408	408
H/L	469	492	474	464	533	546	546	546
W	539	537	533	538	546	546	546	546
OT	529	495	479	441	524	524	524	524

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



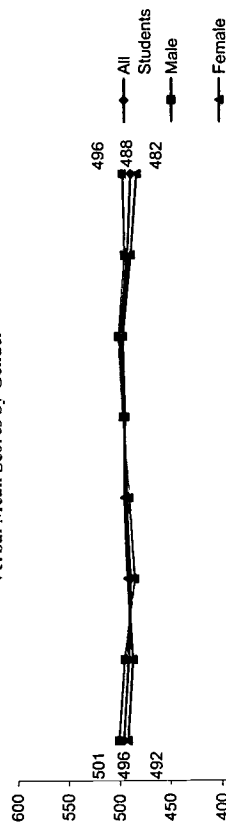
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

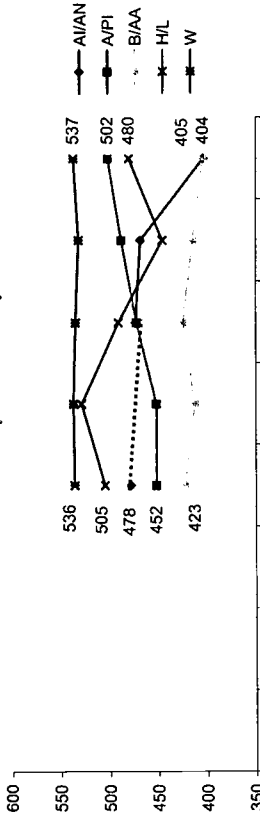
◆ Verbal - Mean Score Trends

	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	496	491	489	493	495	498	491	488
Gender								
Male	501	495	485	490	496	500	494	496
Female	492	487	492	495	494	496	488	482
Race/Ethnicity								
A/IAN	478		478	478	473	468	468	404
A/PI	452	452	452	472	488	502	502	502
B/AA	423	413	423	413	425	415	405	405
H/L	505	529	491	446	480	480	480	480
W	536	537	535	532	537	537	537	537
OT	533	506	490	456	516	516	516	516

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Winston-Salem CPMSA

SY 2000-01

Cohort/Scale-Up Approach

Number of District Schools	96-97 59 ²	97-98 59 ²	98-99 65 ¹	99-00 66 ¹
CPMSA Schools:	21 ²	22 ²	21 ¹	22 ¹
% Schools:	36%	37%	32%	33%

¹ Source: CDE

² Source: TISC-2001

Primary Decision Making Body

Standards Curriculum	State
Curriculum/TextBook Adoption	State
Student Assessment	State
Professional Development	District
Resources	State
Teacher Hiring	School
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Policies Promoting Equal Access by All Students in High Quality Education

- Student Tracking:
 - No remedial courses exist, just standard and honor courses
- Criteria for Entry into High Level Mathematics and Science Courses:
 - Course: Physics; Prerequisite: Algebra II
 - Course: AP Calculus & BC; Prereq.: Pre-Calculus
 - Course: AP Chemistry; Prereq.: Chemistry and Pre-Calculus enrolled
 - Course: AP Physics B; Prereq.: Algebra II
 - Course: AP Physics C; Prereq.: Enrolled in AP Calculus BC
 - Course: Biology; Prerequisite: Chemistry

Course: Chemistry; Prerequisite: Alg. II or enrolled in Algebra II

Course: Pre-Calculus; Prerequisite: Alg. II or enrolled in Algebra II

Availability of High Level Courses: Special Education and Bilingual Students:

- Pre-calculus, AP Math AB, AP Math BC, AP Biology, AP Chemistry, AP Physics
- Special Education students have individualized educational plans that address individual learning needs
- English as a second language programs are available as needed

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements

- 4 units math including Algebra I
- 4 units science including Biology and Physical Science

Student Support Systems:

- AVID (enrichment program)
- CERTL Internships
- Individual School Tutoring
- Afterschool Tutoring
- During School Tutoring
- Saturday Parent Meetings

Summer programs:

- Math and science camps
- CERTL summer camps
- WFU and WSSU summer camps

Policies Relevant to Curriculum Framework:

- State Math Framework
- State Science Framework (draft)

Curricula:

- State Mathematics and Science Frameworks
- Math: K-5 SDPI Math Strategies
- Math: K-5 Text-Based Program
- Math: 6-12 Text-Based Program
- Science: K-5 SCIS
- Science: 4-5 CHEM
- Science: K-5 Text-Based Program

- Science: 6-8 SEPUP
- Science: 6-8 Text-Based Program
- Science: 9-12 IPS
- Science: 9-12 Science and Sustainability
- Science: K-5 Text-Based Program
- New college level fast forward courses.

New Courses Added as a Result of CPMSA:

- Community college course access
- Math and science instructional time is mandated by North Carolina Standard Course of Study

Standards-based Curriculum and Instruction

- Standards Adopted:
- State Math Course of Study
 - National Math Standards
 - State Science Course of Study
 - State Science Standards

% of Students Experiencing Standards-based Curricula:

Science	Math
100%	100%
100%	100%
100%	100%

Policies Relevant to Teacher Qualifications

Certification:

- State certification requirements specific to subject taught and grade level

Requirement & Hiring Practices

- "Lateral Entry" allows uncertified teachers to be hired with the proviso that they initiate the process and make continuous progress.

Professional Advancement & Leadership Training:

- Teachers are expected to attend Staff Development offered by their content specialists, but with no specific number of hours.

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices

Time Required or Supported: 14.5 days for school and central office staff development

Financial Resources Provided:

- Yes, professional development must be approved centrally and alignment is required

Teachers' instructional practice change as a result of CPMSA influenced professional development: Professional development is extensive and forward. It includes specific objectives linked to changed instructional practices

Impact on Student Achievement: Beginning to design staff development activities with specific student achievement outcomes as an expected result

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums: District assessments are the State Assessments. In North Carolina, there is complete alignment between assessment, standards and curriculum

Assessments Used: Stanford-9
State Assessments at end of grade and end of course

Partnerships

Other Key Initiatives: Title I
Eisenhower
Local school initiatives

Competing Initiatives: None

Community Stakeholders:

Type and Amount Received by Average Math/Science Teacher: Activities linked to system goals and local school improvement plans

CPMSA Leadership, Governance, and Management

Superintendent and Project Director: Donald Martin, PI
Stanford Hill, PD

Continuity of Leadership: Same superintendent for 6 years of CPMSA initiative

Higher Education: WFU Student Enrichment, Teacher Training
WSSU Student Enrichment, Teacher Training
UC Berkeley, Teacher Training

Evaluation Instruments:

Project Directors position in district's organizational structure: Project Director also serves as system's K-12 science supervisor. Reports directly to the superintendent. Project Director is the overall coordinator

Administrative assistant does grant logistics and paperwork

Business and Industry: Carolina Biological
Chamber of Commerce Technology Support, Leadership Training
Dudley Product's Student Enrichment
NOVANT Health Student Enrichment

Professional Development Alignment to Content Standards Measures: Professional development activities are linked to system goals and local school improvement plans. Initially licenced personnel go through a formal staff development program.

Teacher Leaders: 3 Half-time facilitators who provide assistance to individual schools

Teacher's Instructional Practices Evaluation: School-based administration and central office instructional staff observations

Winston-Salem CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring: Extensive monitoring at central office and at each school

- Extensive data disaggregation

Report Card System: Student performance at each school is published at the state and local level

Key Indicator Data Collection: Reported by schools to Research and Testing

Key Indicator Data Use: Student achievement data is used to identify curriculum focus and to plan specific staff development activities.

- Used to develop annual school improvement plans

Local On-Sight Evaluation: Conducted by project staff, steering committees, and advisory committees

Data Manager: Matthew Sullivan

External Evaluator: None

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	<ul style="list-style-type: none"> Graduation requirements included 2 units of Mathematics and 2 units of Physical Science
1995-96	<ul style="list-style-type: none"> Students must complete 4 units of math and science for graduation starting with the class of 1998
1996-97	
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> Graduation requirements included 4 units of Mathematics (including Algebra I) and 4 units of science (including Biology I and a Physical Science) Summer enrichment programs include CERTL internships and camps WFU summer camp G9-12 (technology) WSSU summer camp G6-8 (content enrichment) Individual School Tutoring Program

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1994-95	<ul style="list-style-type: none"> Local math and science framework
1995-96	
1996-97	
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> State mathematics framework State science framework (draft)

Winston-Salem CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1994-95		1994-95	<ul style="list-style-type: none"> ↪ State mandated end of grade and end of course testing ↪ K-2 assessment in math ↪ Stanford -9 assessment in science 	1994-95	<ul style="list-style-type: none"> ↪ Limited accountability monitoring
1999-00	<ul style="list-style-type: none"> ↪ Our Center of Excellence in Research Teaching and Learning (CERTL) has the ability to prescribe programs for 6-12 math and science teachers, and to request certificates from the state just as an IHE. ↪ Professional development required for 14.5 days ↪ School improvement plans linked to professional development activities. 			1999-00	<ul style="list-style-type: none"> ↪ Monitoring done at central office and at school levels. Data is disaggregated ↪ Report card system initiated and published at state and local levels

CPMSA *Comprehensive Partnerships for Mathematics and Science Achievement*

Fact Book 2002

May 2003

Volume II

Cohort 1996

East Side Union High School, CA
Jackson, MS
Newburgh Enlarged, NY
Paramount, CA
Prince George's County, MD
Roanoke River Valley Consortium, VA



CPMSA
EVALUATIVE
STUDY

Program
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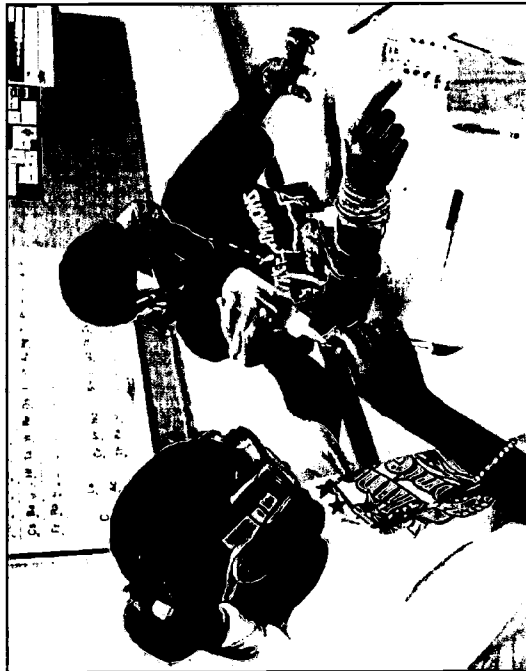
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CPMSA Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003

Evaluative Study of the Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)
Based on the Tabulated Indicators for Systemic Changes (TISC-2002)



Volume II: Cohort 96 School Districts

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Program
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of 26 CPMSA sites.

For the
National Science Foundation

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Any opinions, findings, and conclusions or recommendations expressed in this report are those of the participants and do not necessarily represent the official views, opinions, or policy of the National Science Foundation.

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Table of Contents

About CPMSA TISCiv

26 CPMSA Sitesv

Volume II: Cohort 96 School Districts

East Side Union High School, CAII-1

Jackson, MSII-20

Newburgh Enlarged, NYII-39

Paramount, CAII-58

Prince George's County, MDII-77

Roanoke River Valley Consortium, VAII-96



About CPMSA and TISC

The Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA) is a National Science Foundation (NSF) program designed to improve the mathematics and science education of urban students in medium sized cities. Twenty seven cities received competitively awarded five-year cooperative agreements to improve their educational infrastructure and student achievement by focusing on partnerships with colleges and universities and community organizations to design and implement both student and teacher enrichment activities. The program was initially entitled The Comprehensive Partnerships for Minority Student Achievement. As the program matured, a more systemic approach was embraced, and the focus shifted to standards-based curriculum, instruction, and assessment, and professional development of teachers and administrators, in addition to partnerships with higher education institutions, business and industry, and community groups. The revised program name is a reflection of the changed emphasis. The primary goal of CPMSA is to "increase the number of students enrolling in and successfully completing precollege courses which will prepare them to pursue undergraduate programs in science, engineering and mathematics."¹

Systemic Research, Inc. received a three year

grant from NSF to conduct an evaluative study of the CPMSA program. This grant follows several contracts awarded to Systemic Research, the first in 1997, to develop and implement Tabulated Indicators for Systemic Changes (TISC). TISC is an electronic data collection instrument designed to collect, compile, and report CPMSA annual progress based on common key indicator data.

TISC consists of two parts: T-1 for quantitative and T-2 for qualitative data. Data from the baseline year (year prior to program implementation) up to SY 2000-01 was collected from 26 active CPMSA sites, Core Data Elements², Educational Testing Service, The College Board, and ACT, Inc. The qualitative data was also compiled/extracted from individual Annual Reports and other documents collected from sites during the project period.

Quantitative Indicators include student demographics, mathematics and science gate-keeping course enrollment and completion, graduation rates, SEM proficiency rate, assessment test results, AP, SATI, ACT test results, teacher certification and professional development participation.

Qualitative data was collected for policies relevant to equal access to a high quality mathematics and science education, curriculum and instruction,

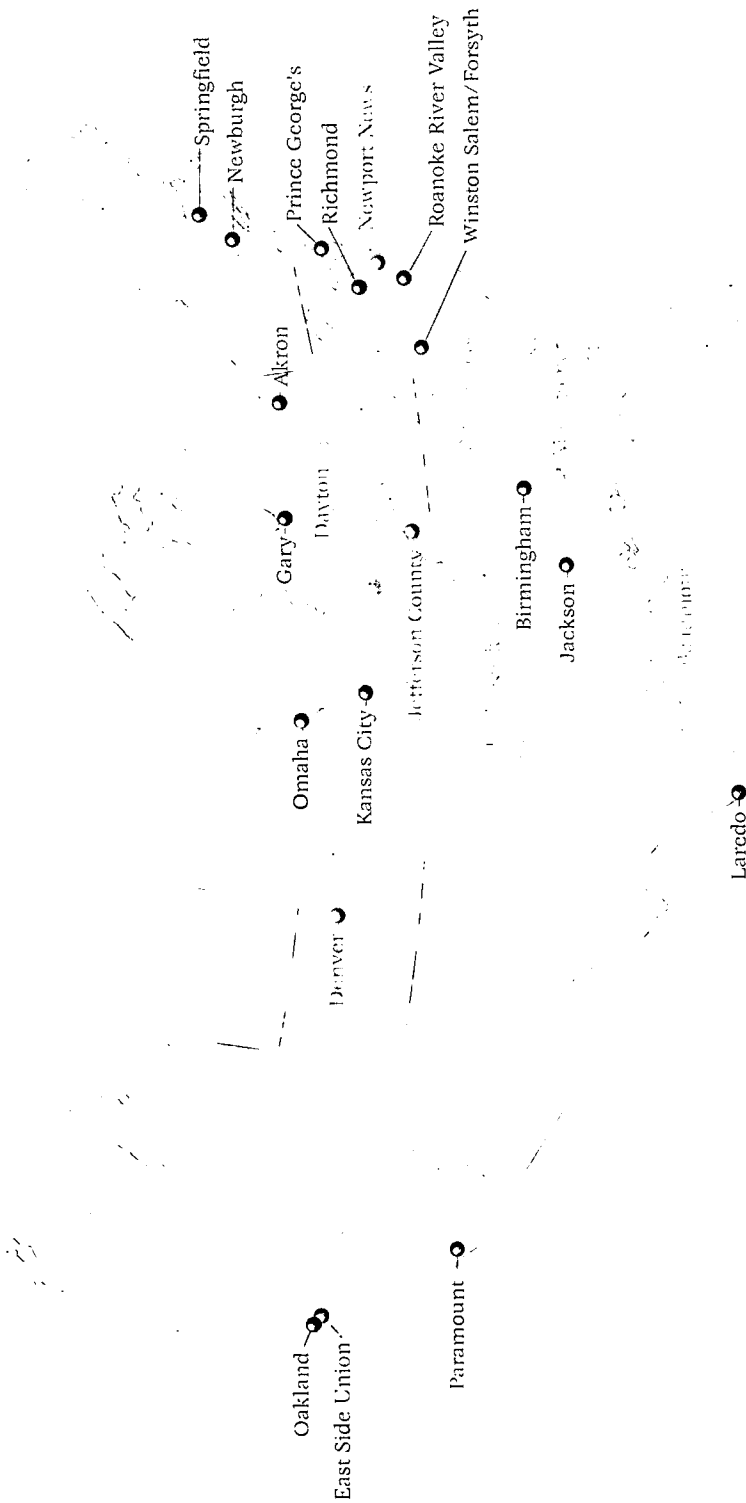
assessment, teacher qualifications, professional development, leadership and partnership, and accountability.

Please refer to our evaluative study web site <http://www.systemic.com/cpmsa> for the CPMSA program overall progress report, details of study progress and electronic version of various study reports.

1 Source: *Human Resource Development for Science, Mathematics and Engineering Education and Research- Program Announcement and Guidelines* (NSF 96-144), National Science Foundation, Arlington, VA

2 *Core Data Elements 1997-2002*, Westat, Inc., Rockville, Md

26 CPMSA Sites



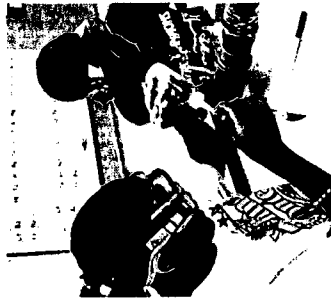
- Cohort 94**
Brownsville, TX
Chattanooga/Hamilton, TN
Normandy, MO
- Cohort 95**
Birmingham, AL
Omaha, NE
Winston-Salem/Forsyth County, NC
- Cohort 96**
East Side Union High School, CA
Jackson, MS
Newburgh Enlarged, NY
Paramount, CA
Prince George's County, MD
Roanoke River Valley Consortium, VA
- Cohort 97**
Akron, OH
Gary, IN
Kansas City, KS
Laredo, TX
Oakland, CA
Richmond, VA
Springfield, MA
- Cohort 98**
Beaumont, TX
Dayton, OH
Little Rock, AR
Montgomery, AL

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CPMSA Comprehensive Partnerships for Mathematics and Science Achievement

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May 2003



East Side Union High School District, CA
San Jose, CA

East Side Union High School District CPMSA

SY 2000-01

Project Information

CPMSA Project Title : Step 2000

Cohort: 96
 CPMSA Web Site: <http://www.esuhdsd.org/>

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Project Summary

The Comprehensive Partnership between the East Side Union High School District (ESUHSD) and San Jose State University (SJSU) will build the capacity of ESUHSD to ensure that all of its students will take high level math and science courses. By the year 2000, all minority students graduating from high school will have completed the math and science components of the California A-F (history, English, foreign language, visual and performing arts, math, and science) college entrance requirements at a level of 80 percent (the average A-F completion rate for students in Santa Clara County is 40 percent). The project will continue the reform begun by the Equity 2000 project and build upon the enlarged base of students in the ESUHSD who are completing algebra by the 9th grade and who are now eligible to take higher level college preparatory math and science courses. New math and science curricula adopted in some schools to accomplish reform will be provided at all schools, including the acquisition of new resources and the necessary teacher training. Student support activities in the form of tutoring groups, Saturday Academies, Summer Institutes, Career/Resource Centers, and Homework Assistance Centers will be expanded during the project period to provide increased support for math and science learning and to increase student literacy and knowledge about math, science, engineering, and technology.

Project Goals

The goal of STEP 2000 project is to at least triple the number of students in the district who are prepared to enter college as a science, engineering, mathematics, and technology majors. STEP 2000 will train all of the East Side Union High School District's 120 science teachers and, at this point, at least 1 science teacher each year from each of the district's 22 feeder middle schools. STEP 2000 will affect all the district's grades 9-12 students, which will reach 24,000 during the project period. The underrepresented students in math, science, and engineering from which to recruit.

Selected School Indicators (District Average)

	1995-96	2000-01	Change
% Special Ed.			
% LEP			
% Free/Red. Lunch			
% Daily Avg. Atten.			
% Average Retained			
% Drop-Out			
% Mobility			
Per Pupil Cost (\$)			
# Students Per Computer			
% Classrooms Internet Access			
Average Class Size			

◆ Mailing Address

East Side Union High School District
 830 North Capitol Avenue
 San Jose, CA 95133

◆ District Schools, Math & Science Teachers, and Students

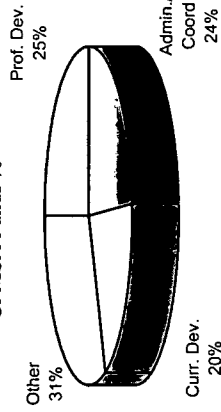
	Schools	Teachers	Students
2000-01			
K-5 (Elementary)	0	0	0
G6-8 (Middle)	0	0	0
G9-12 (High)	11	314	24,282
Total	11	314	24,282

Source: Core Data Elements (SY 2000-01)

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	12%	25%
Admin/Coord.	14%	24%
Curr. Dev.	5%	20%
Other	69%	31%
Total	100%	100%

CPMSA Funds %



East Side Union High School District CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 24,282
 CPMSA Schools: 23,673
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	1995-96	2000-01	%	% Change
Ame. Ind./Ala. Nat.	233	125	0.5%	-46.4%
Asian/P. Islander	5,453	6,735	27.7%	+23.5%
Black	1,394	1,131	4.7%	-18.9%
Hispanic	8,489	9,836	40.5%	+15.9%
White	4,489	4,005	16.5%	-10.8%
Other	2,104	2,450	10.1%	+16.4%
Total	22,108	24,282	100.0%	+9.8%
URM Total	10,116	11,092	45.7%	+9.6%

URM: Underrepresented Minority students.

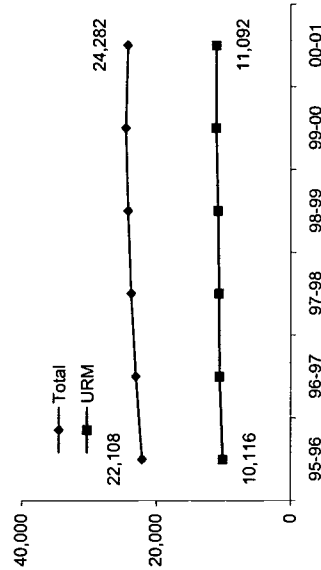
◆ Gender

Male	11,316	12,681	52.2%	+12.1%
Female	10,792	11,841	48.8%	+9.7%

◆ Grade

K-G5	0	0	0.0%	.
G6-8	0	0	0.0%	.
G9-12	22,108	24,216	99.7%	+9.5%
Ungraded	0	66	0.3%	.

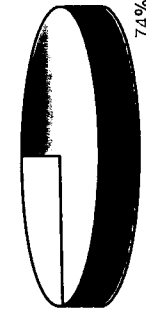
◆ District Student Demographic Trends



12th Grade Graduates

	1996-97	1997-98	Change
Total 12th Grade	4,886	4,990	+2%
Earned a Diploma	4,090	3,673	-10%
% Earned Diploma	84%	74%	-10 PP

% Earned Diploma for SY 1997-98



SEM Proficiency

	1996-97	1997-98	Change
# SEM Proficient ¹	1,591	1,350	-15%
% SEM Proficient/ Total 12th Grade	33%	27%	-6 PP

% SEM Proficient for SY 1997-98



Math and Science Teachers & Certification

◆ Mathematics (G6-12)

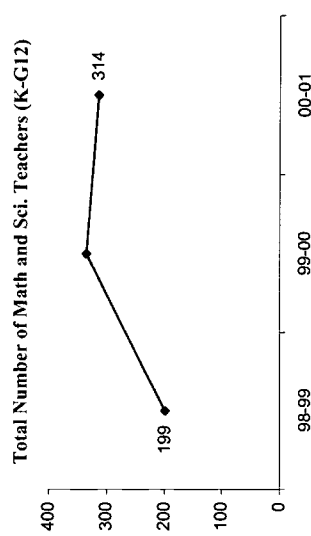
	1998-99	2000-01	Change
Teachers Certified	12	0	.
% Cert.	.	.	.
G6-8	.	.	.
G9-12	45	168	+273%
% Cert.	.	.	.
Total	57	168	+195%
% Cert.	.	.	.

◆ Science (G6-12)

	1998-99	2000-01	Change
Teachers Certified	0	0	.
% Cert.	.	.	.
G6-8	.	.	.
G9-12	142	146	+3%
% Cert.	.	.	.
Total	142	146	+3%
% Cert.	.	.	.

◆ Math and Science (K-G5)

	1998-99	2000-01	Change
K-G5 Teachers	0	0	.



High School Graduation Requirements SY 00-01

◆ Mathematics	.	.	.
◆ Science	.	.	.

PP: Percentage Points (.) Data Missing

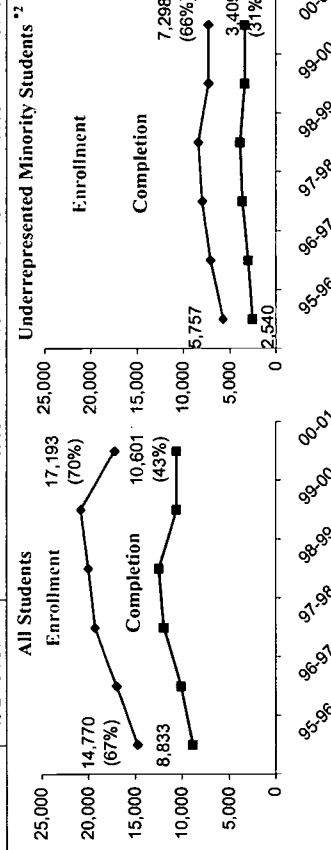
East Side Union High School District CPMSA

SY 2000-01

Mathematics and Science Enrollment & Completion Trends/ All vs URM

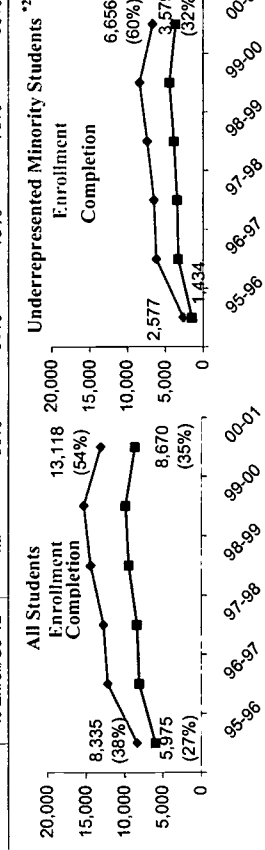
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

Total G 9-12 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	14,770	16,954	19,268	19,985	20,813	17,193
Completion ¹	8,833	10,087	11,970	12,503	12,818	10,601
% Enroll/G9-12	67%	75%	81%	86%	85%	70%
Enrollment	5,757	7,080	7,949	8,359	8,853	7,298
Completion ¹	2,540	3,018	3,647	3,921	4,222	3,409
% Enroll/G9-12	na	69%	74%	82%	80%	66%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chemistry 1, and Physics 1)

Total G 9-12 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	8,335	12,179	12,733	14,412	15,288	13,118
Completion ¹	5,975	8,083	8,343	9,440	9,856	8,670
% Enroll/G9-12	38%	54%	54%	62%	62%	54%
Enrollment	2,577	6,155	6,476	7,395	8,374	6,656
Completion ¹	1,434	3,232	3,395	3,831	4,443	3,579
% Enroll/G9-12	na	60%	61%	73%	76%	60%

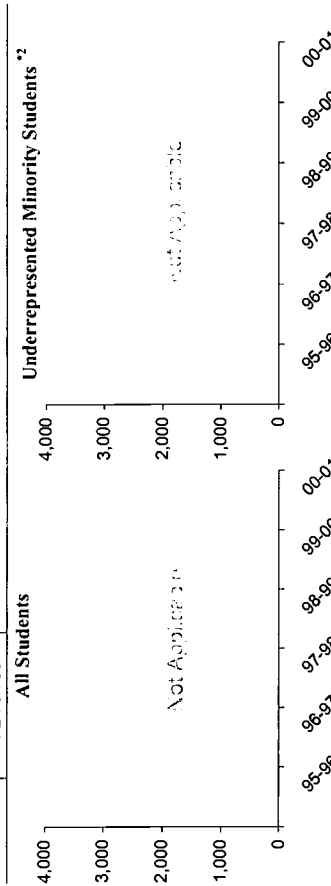


¹ Successful completion; grade C or above

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

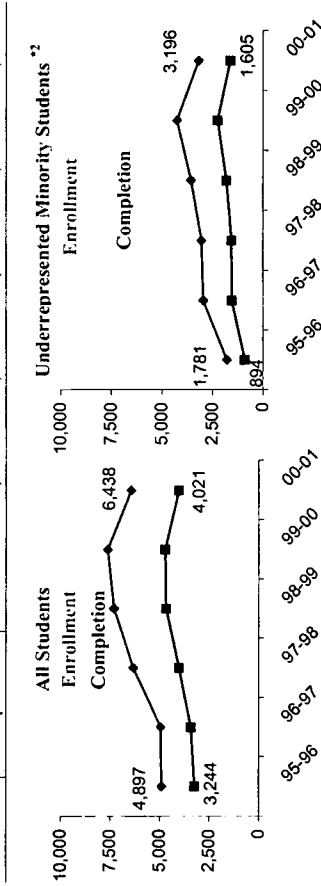
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs URM

Total G 8 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Completion ¹	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
% Enroll/G8	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Enrollment	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Completion ¹	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
% Enroll/G8	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable



Biology Enrollment & Completion Trends/ All vs URM

All Students	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	4,897	4,943	6,332	7,304	7,616	6,438
Completion ¹	3,244	3,430	4,032	4,676	4,722	4,021
Enrollment	1,781	2,956	3,050	3,561	4,251	3,196
Completion ¹	894	1,538	1,544	1,801	2,245	1,605

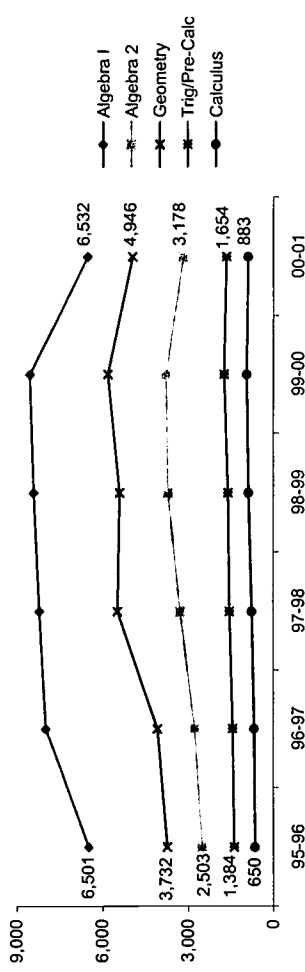


(na) Not Applicable

East Side Union High School District CPMSA

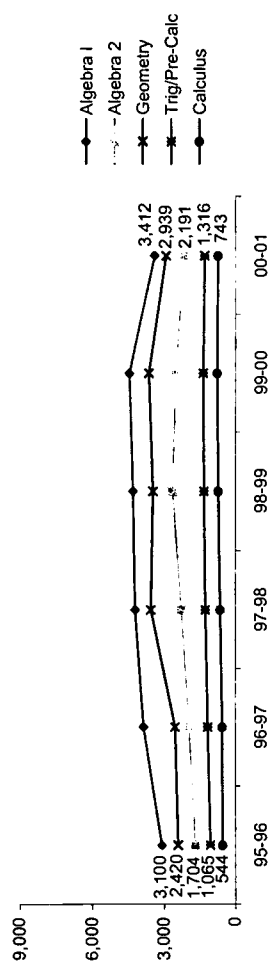
Mathematics Course Enrollment & Completion Trends By Subject

G 9-12 Course Enrollment (All Students)						
Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	6,501	2,503	3,732	1,384	650	14,770
96-97	7,990	2,767	4,083	1,438	676	16,954
97-98	8,206	3,288	5,471	1,546	757	19,364
98-99	8,407	3,711	5,398	1,600	869	19,985
99-00	8,546	3,774	5,816	1,736	941	20,813
00-01	6,532	3,178	4,946	1,654	883	17,193



G 9-12 Course Completion ¹(All Students)

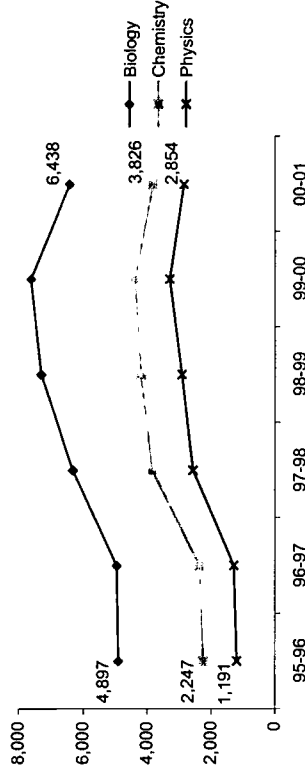
G 9-12 Course Completion ¹ (All Students)						
Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	3,100	1,704	2,420	1,065	544	8,833
96-97	3,851	1,959	2,547	1,175	555	10,087
97-98	4,213	2,282	3,544	1,284	647	12,054
98-99	4,305	2,659	3,464	1,342	733	12,503
99-00	4,460	2,542	3,648	1,386	782	12,818
00-01	3,412	2,191	2,939	1,316	743	10,601



¹ Successful completion: grade 'C' or above.

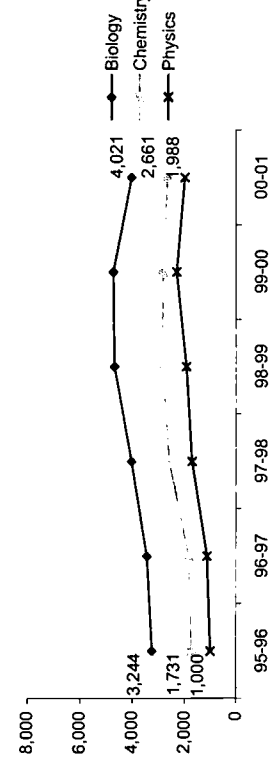
Science Course Enrollment & Completion Trends By Subject

G 9-12 Course Enrollment (All Students)					
Biology	Chemistry	Physics	Other	Science Total	
95-96	4,897	2,247	1,191	5,861	14,196
96-97	4,943	2,364	1,288	7,287	15,882
97-98	6,332	3,839	2,562	3,955	16,688
98-99	7,304	4,192	2,916	.	14,412
99-00	7,616	4,366	3,306	.	15,288
00-01	6,438	3,826	2,854	.	13,118



G 9-12 Course Completion ¹(All Students)

G 9-12 Course Completion ¹ (All Students)					
Biology	Chemistry	Physics	Other	Science Total	
95-96	3,244	1,731	1,000	3,457	9,432
96-97	3,430	1,835	1,125	4,480	10,870
97-98	4,032	2,594	1,717	2,893	11,236
98-99	4,676	2,838	1,926	.	9,440
99-00	4,722	2,828	2,306	.	9,856
00-01	4,021	2,661	1,988	.	8,670



(.) Data Missing

East Side Union High School District CPMSA

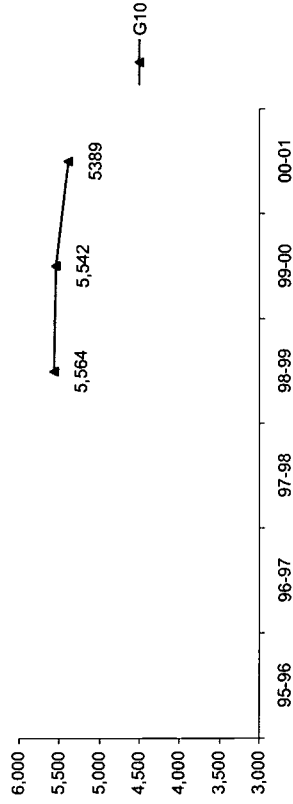
District Assessment Test Administered

State Assessment Test-Taker Trends

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Science	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

Total number of students taking test

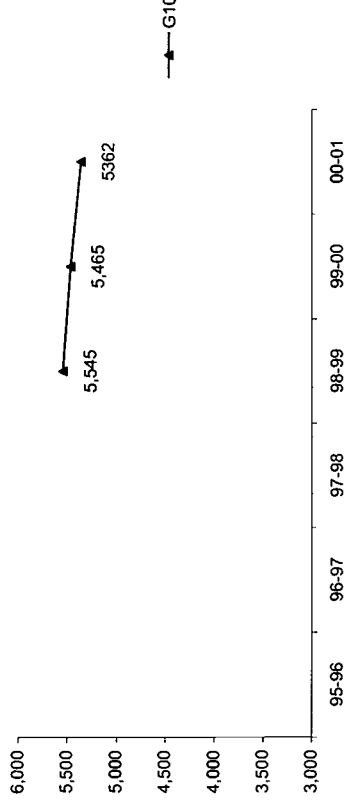


State Assessment Test Administered

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	.	.	.	SAT 9	SAT 9	SAT 9
Scoring	.	.	.	PC	PC	PC
Grade	.	.	.	9-11	9-11	9-11
Type	.	.	.	NRT	NRT	NRT

◆ Science	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	.	.	.	SAT 9	SAT 9	SAT 9
Scoring	.	.	.	PC	PC	PC
Grade	.	.	.	9-11	9-11	9-11
Type	.	.	.	NRT	NRT	NRT

Total number of students taking test



PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

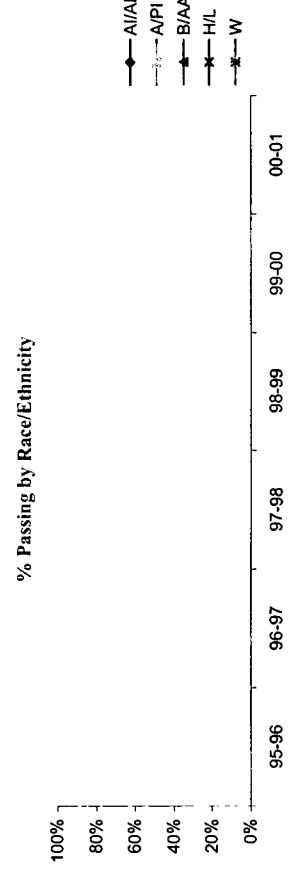
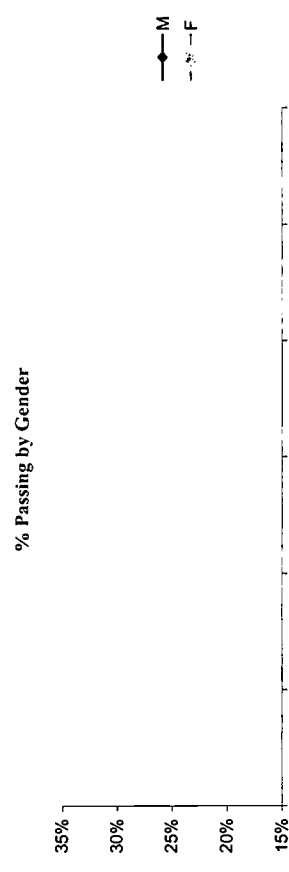
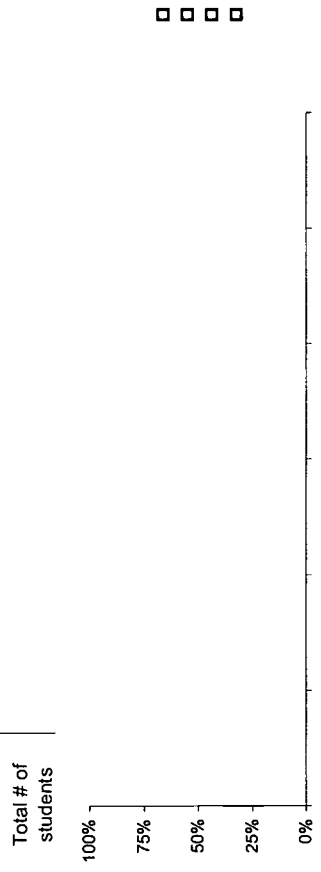
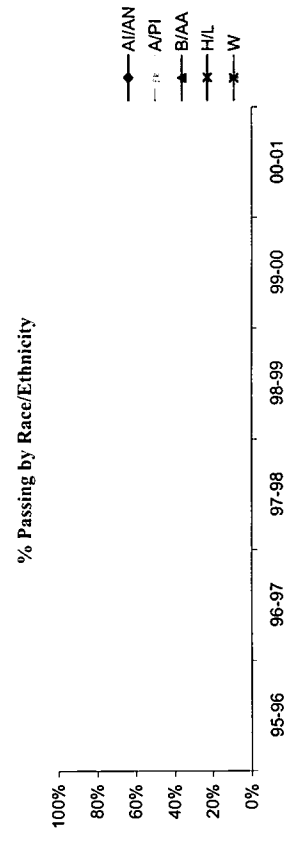
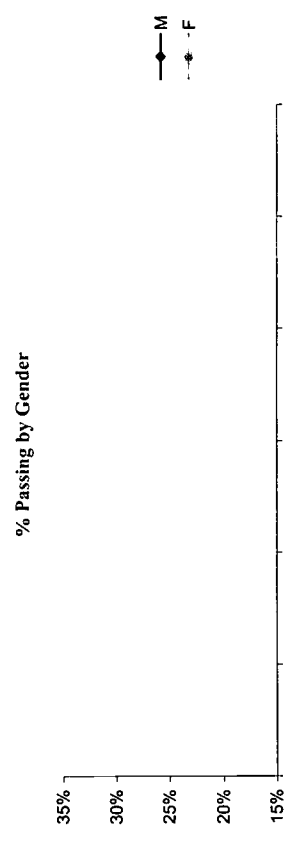
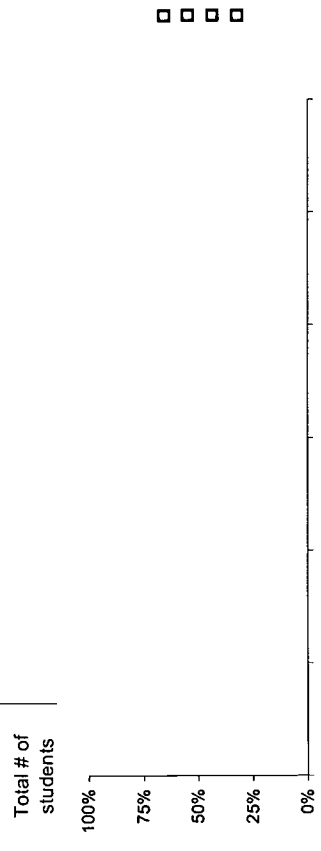
NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

(na) Not Applicable

East Side Union High School District CPMSA

State Assessment Test Result Trends - Mathematics						
Grade	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	Not Applicable					
Grade 8	Not Applicable					



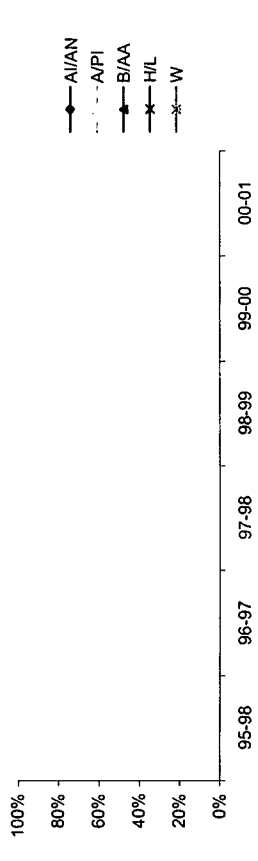
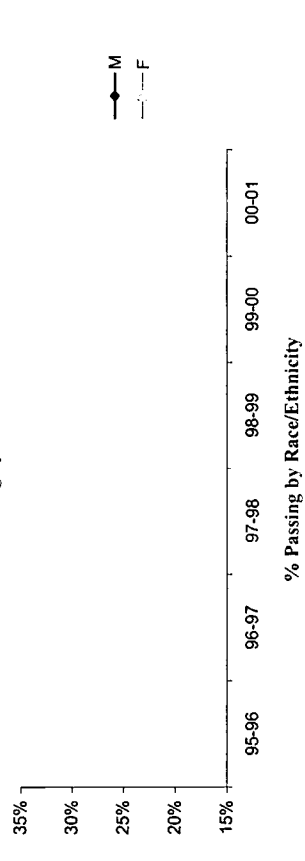
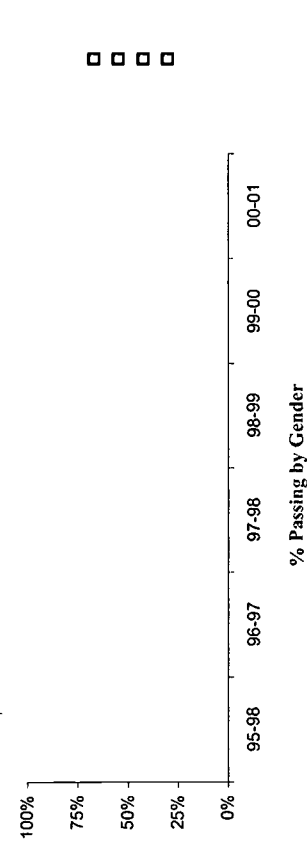
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

East Side Union High School District CPMSA

State Assessment Test Result Trends - Science

Grade 4

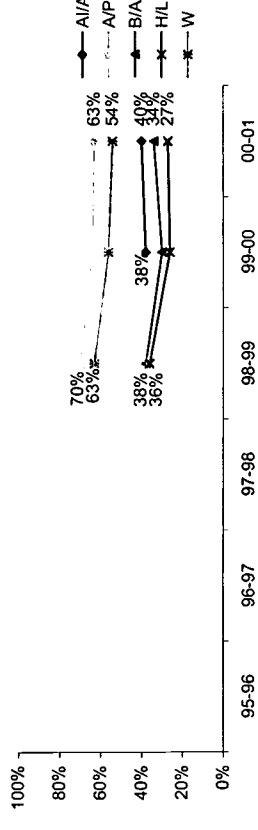
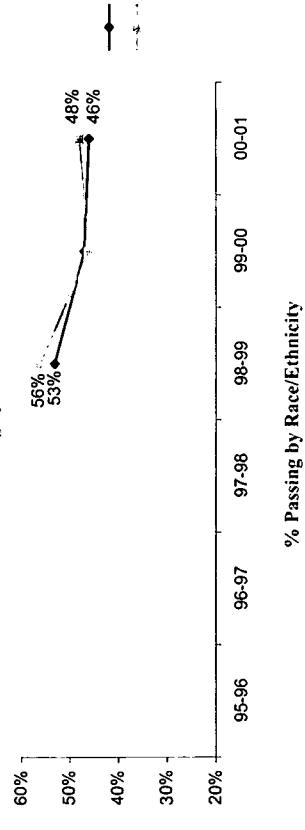
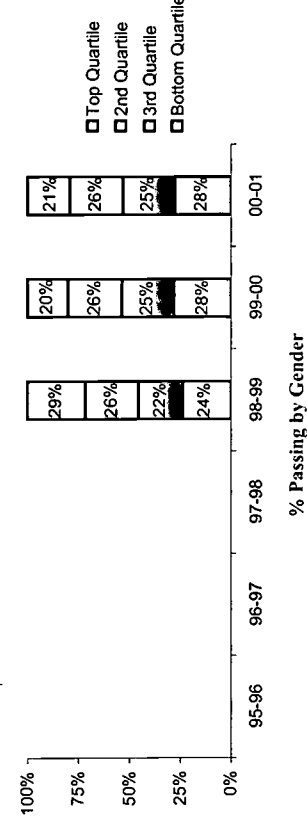
	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile	21%	20%	21%	20%	21%	21%
2nd Quartile	26%	26%	26%	26%	26%	26%
3rd Quartile	25%	25%	25%	25%	25%	25%
Bottom Quartile	28%	28%	28%	28%	28%	28%
Total # of students	5,389	5,542	5,542	5,542	5,542	5,389



State Assessment Test Result Trends SAT-9 - Mathematics

Grade 10

	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile	21%	20%	21%	20%	21%	21%
2nd Quartile	26%	26%	26%	26%	26%	26%
3rd Quartile	25%	25%	25%	25%	25%	25%
Bottom Quartile	28%	28%	28%	28%	28%	28%
Total # of students	5,389	5,542	5,542	5,542	5,542	5,389



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Top and 2nd Quartiles

East Side Union High School District CPMSA

SY 2000-01

State Assessment Test Result Trends - Science

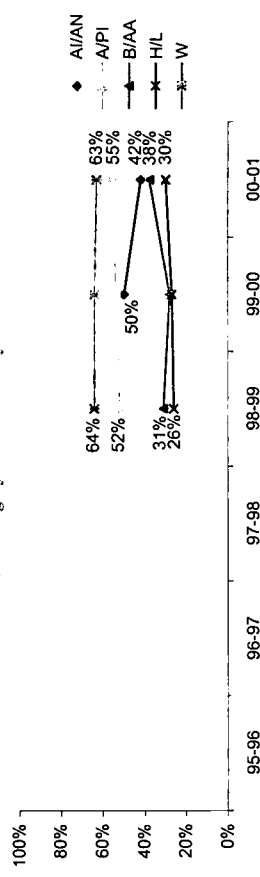
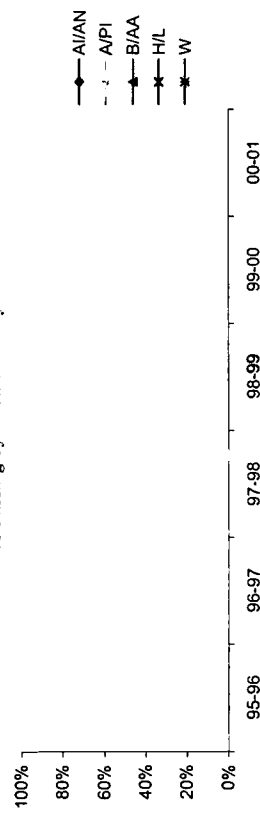
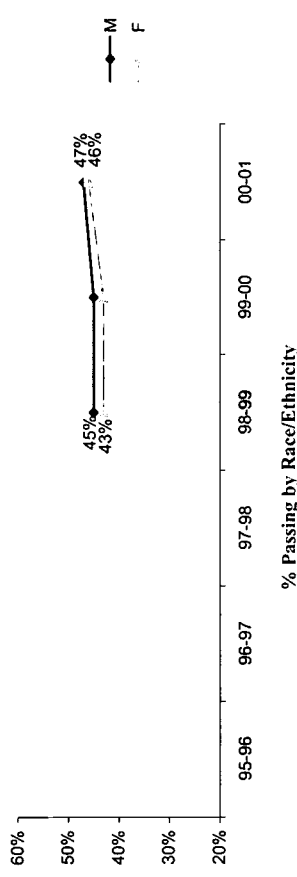
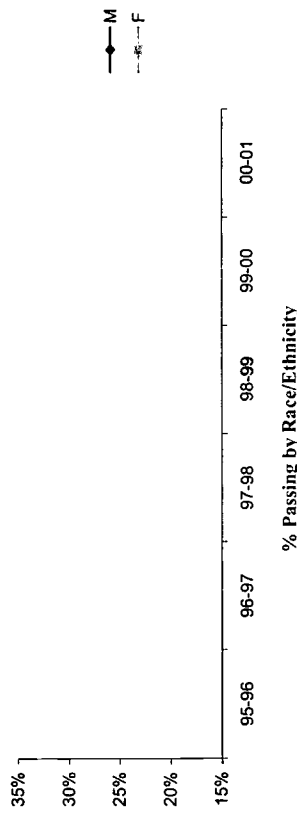
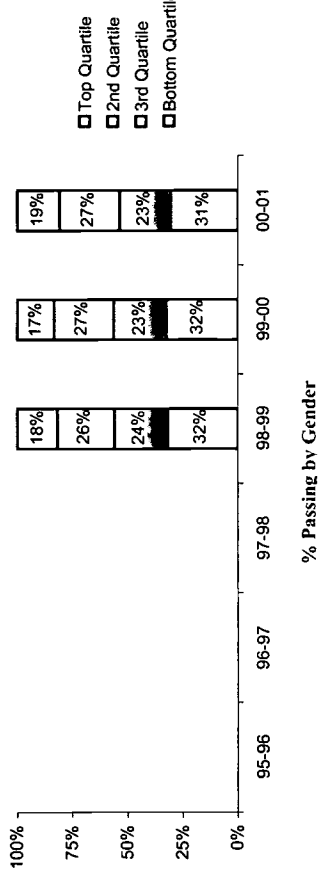
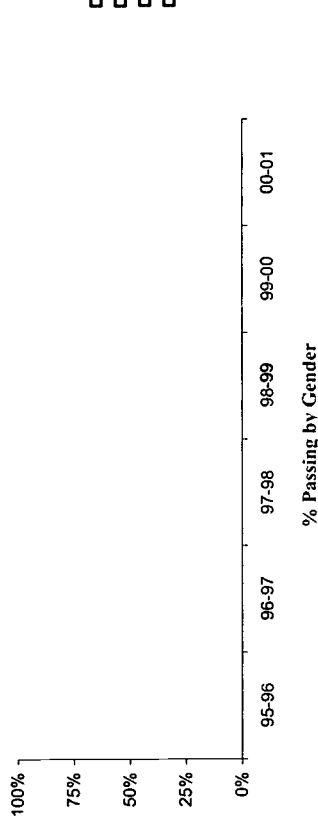
State Assessment Test Result Trends SAT-9 - Science

◆ Grade 8

◆ Grade 10

	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students						

	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile				18%	17%	19%
2nd Quartile				26%	27%	27%
3rd Quartile				24%	23%	23%
Bottom Quartile				32%	32%	31%
Total # of students				5,545	5,465	5,362



AII/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Top and 2nd Quartiles

East Side Union High School District CPMSA

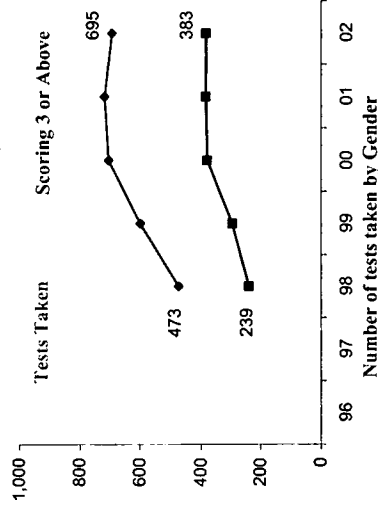
◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

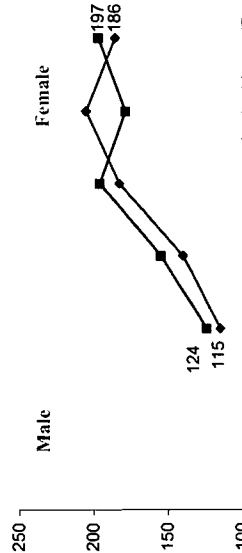
	96	97	98	99	00	01	02
Total # of 11th & 12th graders	10,301	10,309	11,001	10,999	11,764	11,993	.
Calculus AB	.	363	434	507	486	532	532
Calculus BC	.	81	134	116	153	117	117
Statistics	.	29	31	82	80	46	46
Total	.	473	599	705	719	695	.
Tests taken per 1,000 students	.	43.0	54.5	59.9	60.0	.	.
Scoring 3 or Above	.	239	295	379	384	383	383
Scoring 3 or Above per 1000	.	21.7	26.8	32.2	32.0	.	.

Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

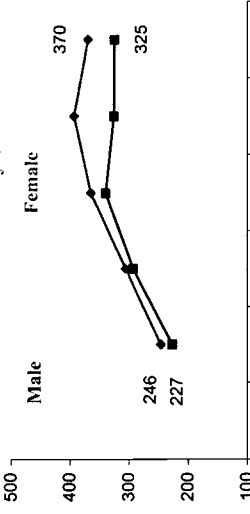
	96	97	98	99	00	01	02
Male	.	124	155	196	179	197	197
Female	.	115	140	183	205	186	186



◆ AP Mathematics - Number of Tests Taken By Gender

Gender	96	97	98	99	00	01	02
Male	.	227	293	340	326	325	370
Female	.	246	306	365	393	370	325

Number of tests taken by Gender



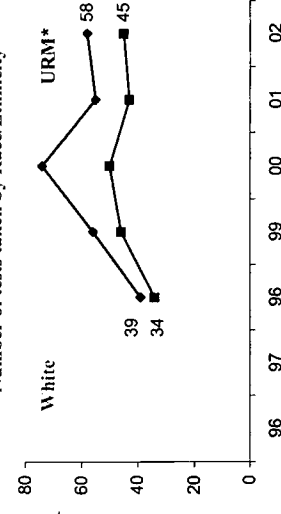
◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
AI/AN	.	.	0	2	0	0	0
A/PI	.	170	211	290	310	306	306
B/AA	.	.	4	2	8	11	5
H/L	.	.	10	19	20	14	18
W	.	.	24	28	40	31	34

◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	96	97	98	99	00	01	02
AI/AN	.	.	0	3	1	0	0
A/PI	.	349	445	541	576	553	553
B/AA	.	.	4	9	13	15	14
H/L	.	.	35	44	60	40	44
W	.	.	34	46	50	43	45

Number of tests taken by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander

B/AA: Black or African American H/L: Hispanic or Latino W: White

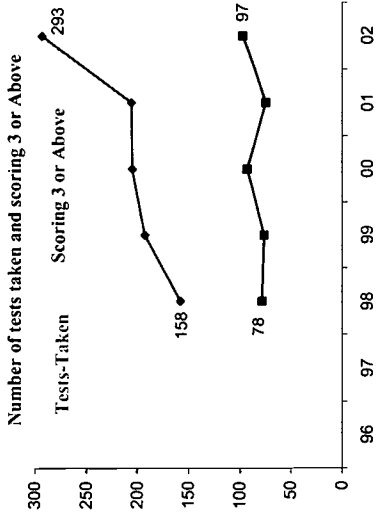
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

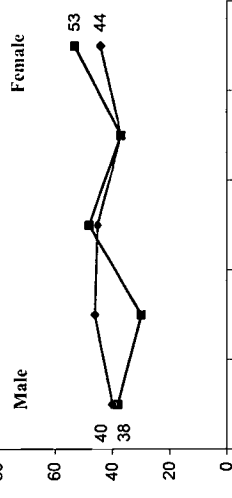
♦ AP Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	10,301	10,309	11,001	10,999	11,764	11,993	.
Biology	.	.	31	41	67	61	73
Chemistry	.	.	54	74	43	55	65
Env. Science	.	.	0	0	0	0	38
Physics B	.	.	72	78	95	86	113
Physics Mech.	.	.	1	0	0	2	2
Physics Elec.	.	.	0	0	0	2	2
Total	.	.	158	193	205	206	293
Tests taken per 1,000 students	.	.	14.4	17.5	17.4	17.2	.
Scoring 3 or Above	.	.	78	76	93	74	97
Scoring 3 or Above per 1000	.	.	7.1	6.9	7.9	6.2	.



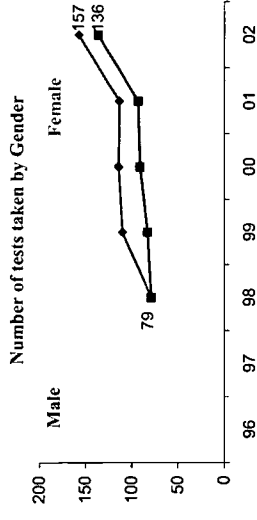
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	.	.	38	30	48	37	53
Female	.	.	40	46	45	37	44



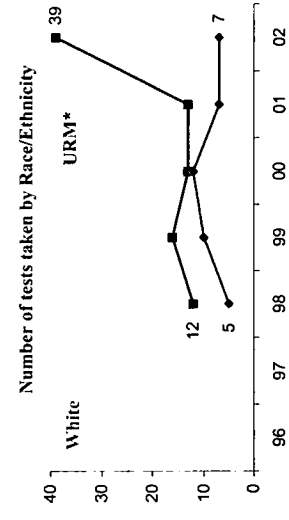
♦ AP Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	.	.	79	83	91	93	136
Female	.	.	79	110	114	113	157



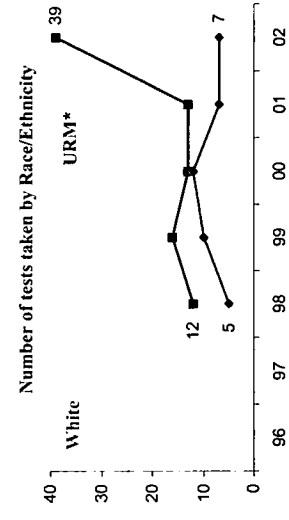
♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

	96	97	98	99	00	01	02
AI/AN	.	.	1	0	0	0	0
A/PI	.	.	57	54	76	63	81
B/AA	.	.	1	1	1	0	0
H/L	.	.	3	7	1	2	8
W	.	.	3	4	7	7	5



♦ AP Science - Number of Tests Taken By Race/Ethnicity ¹

	96	97	98	99	00	01	02
AI/AN	.	.	1	1	0	0	0
A/PI	.	.	121	145	168	173	227
B/AA	.	.	3	1	4	3	2
H/L	.	.	8	14	9	10	37
W	.	.	5	10	12	7	7



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

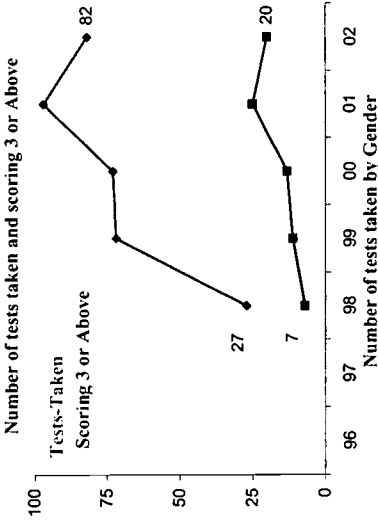
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

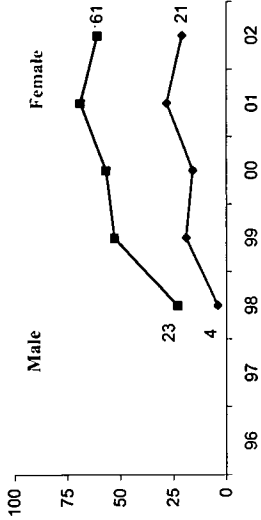
AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	10,301	10,309	11,001	10,999	11,764	11,993	.
Comp. Sci A	.	.	21	69	68	88	77
Comp. Sci. AB	.	.	6	3	5	9	5
Total	.	.	27	72	73	97	82
Tests taken per 1,000 students	.	.	2.5	6.5	6.2	8.1	.
Scoring 3 or Above per 1000 students	100	.	7	11	13	25	20
	.	.	0.6	1.0	1.1	2.1	.



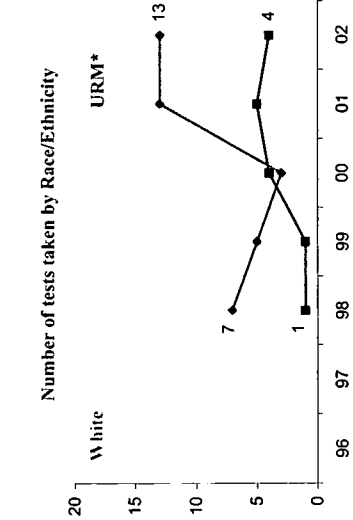
AP Computer Science - Number of Tests Taken By Gender

Gender	96	97	98	99	00	01	02
Male	.	.	23	53	57	69	61
Female	.	.	4	19	16	28	21



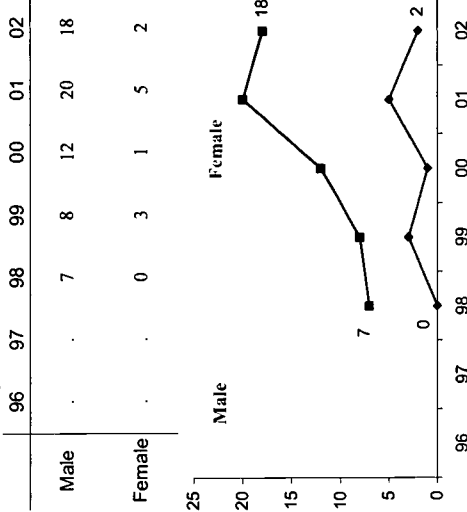
AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity	96	97	98	99	00	01	02
A/IAN	.	.	0	0	0	0	0
A/PI	.	.	14	58	60	75	61
B/AA	.	.	0	0	1	1	0
H/L	.	.	1	1	3	4	4
W	.	.	7	5	3	13	13

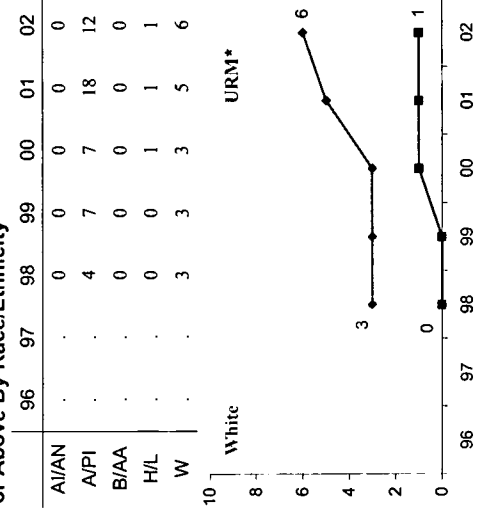


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹"Other" category not presented

AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

East Side Union High School District CPMSA

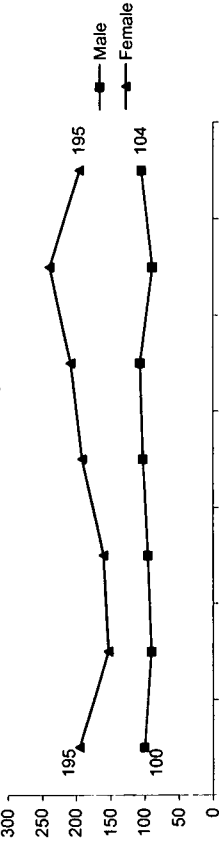
SY 2000-01

ACT Test-Takers

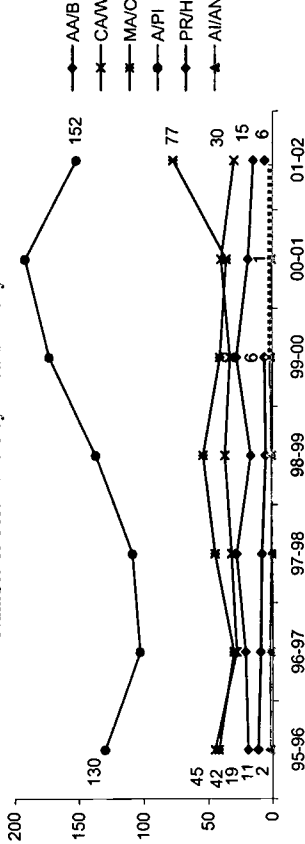
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	5,032	4,888	5,150	5,199	5,632	5,693	-
Test-Takers	295	243	255	293	314	327	299
Num of Test-Takers/1,000 Stu.	59	50	50	56	56	57	-
Gender							
Male	100	90	95	102	106	88	104
Female	195	153	160	191	208	239	195
Race/Ethnicity							
AA/B	19	21	28	17	28	19	15
AI/AN	2	2	1	1	2	1	0
CA/W	45	28	32	37	33	40	30
MA/C	42	30	45	54	41	36	77
A/PI	130	103	109	137	173	192	152
PR/H	11	9	8	5	6	4	6

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

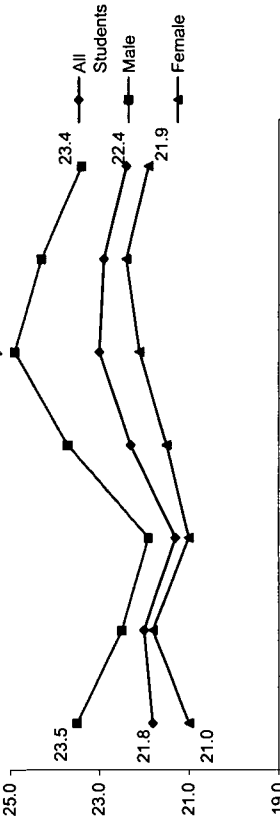


ACT Mathematics Scores

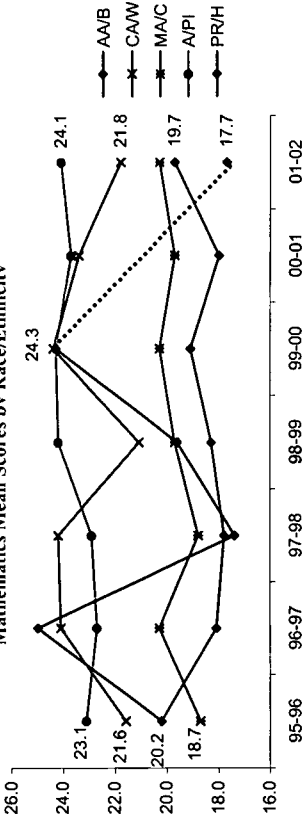
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	21.8	22.0	21.3	22.3	23.0	22.9	22.4
Gender							
Male	23.5	22.5	21.9	23.7	24.9	24.3	23.4
Female	21.0	21.8	21.0	21.5	22.1	22.4	21.9
Race/Ethnicity							
AA/B	20.2	18.1	17.8	18.3	19.1	18.0	19.7
AI/AN	-	-	-	-	-	-	-
CA/W	21.6	24.1	24.2	21.1	24.4	23.4	21.8
MA/C	18.7	20.3	18.8	19.7	20.3	19.7	20.3
A/PI	23.1	22.7	22.9	24.2	24.3	23.7	24.1
PR/H	20.2	25.0	17.4	19.6	24.3	-	17.7

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity *1



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

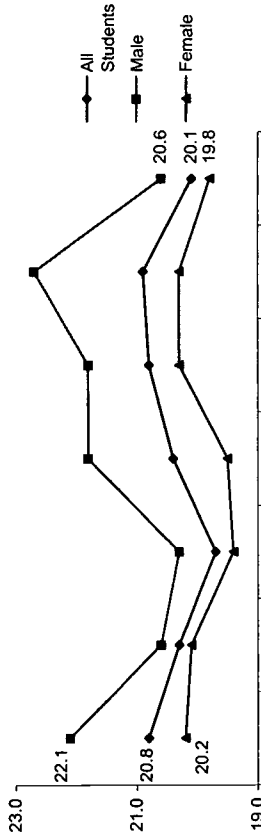
*1 Data not presented for sample size less than 5

ACT Science Reasoning Scores

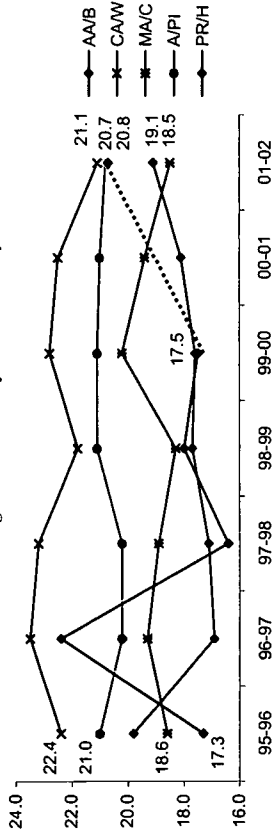
◆ Science Reasoning - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	20.8	20.3	19.7	20.4	20.8	20.9	20.1
Gender							
Male	22.1	20.6	20.3	21.8	21.8	22.7	20.6
Female	20.2	20.1	19.4	19.5	20.3	20.3	19.8
Race/Ethnicity							
AA/B	19.8	16.9	17.1	17.7	17.6	18.1	19.1
AI/AN	-	-	-	-	-	-	-
CA/W	22.4	23.5	23.2	21.8	22.8	22.5	21.1
MA/C	18.6	19.3	18.9	18.3	20.2	19.4	18.5
A/P/I	21.0	20.2	20.2	21.1	21.1	21.0	20.8
PR/H	17.3	22.4	16.4	18.0	17.5	-	20.7

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
 American/White MA/C: Mexican American/Chicano A/P/I: Asian/Pacific Islander PR/H:
 Puerto Rican/Hispanic.

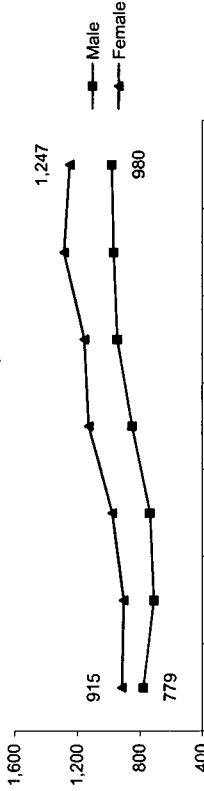
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

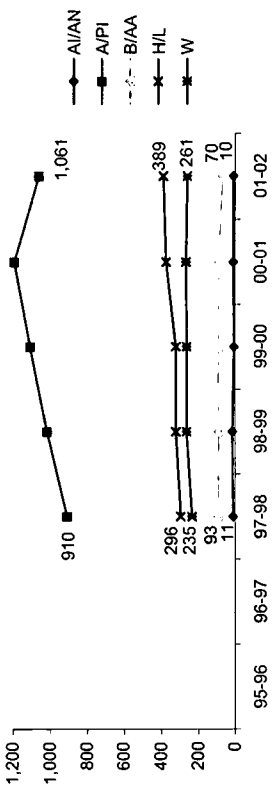
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	5,032	4,888	5,150	5,199	5,632	5,693	-
Test-Takers	1,694	1,615	1,712	1,974	2,098	2,250	2,227
Num of Test-Takers/1,000 Stu.	337	330	332	380	373	395	-
Gender							
Male	779	711	736	849	944	968	980
Female	915	904	976	1,125	1,154	1,283	1,247
Race/Ethnicity							
AI/AN	-	11	15	7	9	10	-
A/P/I	-	910	1,017	1,108	1,194	1,061	-
B/AA	-	93	90	94	91	70	-
H/L	-	296	323	323	374	389	-
W	-	235	265	265	267	261	-
OT	-	97	107	88	95	74	-

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or
 African American H/L: Hispanic or Latino W: White OT: Others

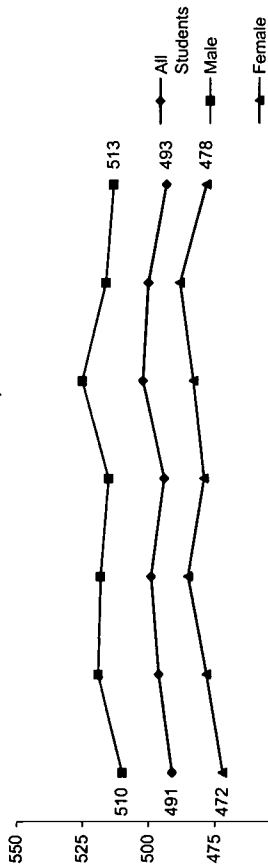
East Side Union High School District CPMSA

SAT Mathematics Scores

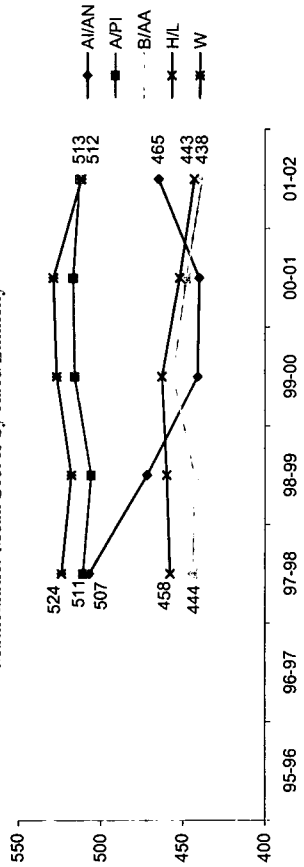
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	491	496	499	494	502	500	493
Gender							
Male	510	519	518	515	525	516	513
Female	472	478	485	479	483	488	478
Race/Ethnicity							
AI/AN		507	472	441	440	440	465
A/PI		511	506	516	517	513	513
B/AA		444	443	456	448	438	438
H/L		458	460	463	452	443	443
W		524	518	527	529	512	512
OT		519	502	492	496	476	476

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

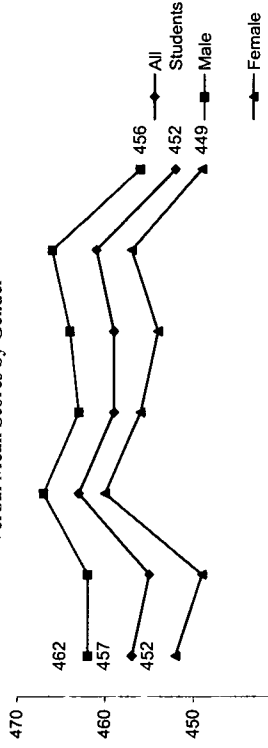


SAT Verbal Scores

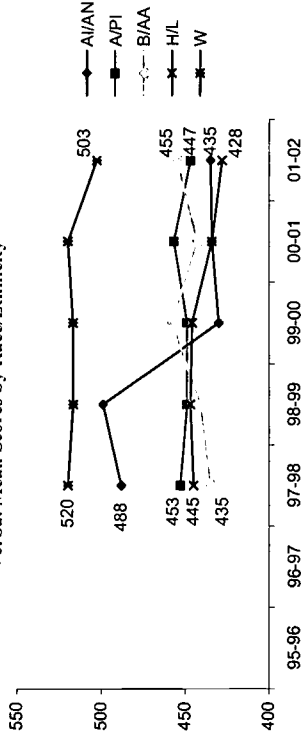
◆ Verbal - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	457	455	463	459	459	461	452
Gender							
Male	462	462	467	463	464	466	456
Female	452	449	460	456	454	457	449
Race/Ethnicity							
AI/AN		488	499	430	434	434	435
A/PI		453	449	449	457	447	447
B/AA		435	441	458	443	455	455
H/L		445	447	446	434	428	428
W		520	517	517	520	503	503
OT		504	479	478	475	467	467

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

<p>Cohort/Scale-Up Approach</p> <p>Number of District Schools CPMSA Schools: % Schools:</p>	<p>Special Education and Bilingual Students:</p> <p>Instructional Time:</p>
--	---

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum
 Curriculum/TextBook Adoption
 Student Assessment
 Professional Development
 Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 Criteria for Entry into High Level Mathematics and Science Courses:
 Availability of High Level Courses:

Standards-based Curriculum and Instruction

Standards Adopted:
 % of Students Experiencing Standards-based Curricula:
 E
 M
 H

Policies Relevant to Teacher Qualifications

Certification:
 Requirement & Hiring Practices:
 Professional Advancement & Leadership Training:

Policies Relevant to Curriculum

Framework:
 Curricula:
 Curricula Materials:
 New Courses Added as a Result of CPMSA:

E: Elementary School M: Middle School H: High School

East Side Union High School District CPMSA

Professional Development Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

Other Key Initiatives:

Financial Resources Provided:

Completing Initiatives:

Alignment to Student Standards:

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Has CPMSA influenced professional development changed teachers' instructional practices:

Community Stakeholders:

Assessments Used:

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Higher Education:

Superintendent:

Evaluation Instruments:

Continuity of Leadership

Professional Development Alignment to Content Standards Measures:

Project Directors position in district's organizational structure:

Business and Industry:

Teacher's Instructional Practices Evaluation:

Teacher Leaders:

East Side Union High School District CPMSA

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

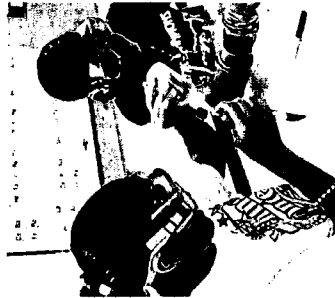
East Side Union High School District CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation	Standards-based Assessment System Changes During CPMSA Implementation	Accountability												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> </tr> </tbody> </table>	School Year	Policy Implemented			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> </tr> </tbody> </table>	School Year	Policy Implemented			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;">School Year</th> <th style="width: 80%;">Policy Implemented</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> </tr> </tbody> </table>	School Year	Policy Implemented		
School Year	Policy Implemented													
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CPMSA Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003



Jackson Public Schools, MS
Jackson, MS

Project Information

CPMSA Project Title : CPMSA
 Cohort: 96
 CPMSA Web Site: jackson.k12.ms.us

◆ **PI, CO-PI and PD**
 Dr. Jayne Sargent PI/Superintendent
 T (601) 960-8725 F (601) 960-8713
 jsargent@jackson.k12.ms.us
 Mr. Ron Sellers Co-PI/Deputy Superintendent
 T (601) 960-8733 F (601) 973-8528
 rsellers@jackson.k12.ms.us
 Mrs. Martha Roberts PD/Exec. Dir. of Instruction
 T (601) 960-8762 F (601) 973-8551
 mroberts@jackson.k12.ms.us
 Mrs. Dee Chambliss Co-PD/Science Specialist
 T (601) 960-8882 F (601) 973-8551
 dchambliss@jackson.k12.ms.us

◆ **CPMSA Data Manager/Evaluator**
 Dr. Willie C. Johnson Data Mgr./Exec. Dir. Plan & Eval.
 T (601) 960-8850 F (601) 960-8849
 wjohnson@jackson.k12.ms.us

◆ **Mailing Address**
 * Jackson Public School District
 PO Box 2338
 Jackson, MS 39225

Project Summary

The Jackson Public School District proposes to provide a program that addresses the need to increase the number of minority students enrolled in science and mathematics courses while decreasing the disparity between the academic performance of minority and majority students nationally. Middle school students will be targeted initially, and the project will insure full participation of all who come in contact with students, including principals, teachers, counselors, and parents. Plans and strategies include restructuring the science and mathematics curriculum to align with the national standards and eliminate general courses; moving toward more hands-on, student-centered, discovery-based learning; requiring content certification for teachers of science and mathematics; providing enrichment experiences for students; enhancing skills of teachers and counselors; increasing mathematics and science awareness and expectations of parents.

Project Goals

- ◆ To increase the number of minority students enrolling in and successfully completing precollege courses that will prepare them to pursue undergraduate programs in the sciences, engineering, and mathematics.
- ◆ To ensure that every JPSD student will be at or above grade level, score at or above the national average on the ACT, and graduate or pursue continuing education and/or military services

◆ **CPMSA Data Manager/Evaluator**

Dr. Willie C. Johnson Data Mgr./Exec. Dir. Plan & Eval.
 T (601) 960-8850 F (601) 960-8849
 wjohnson@jackson.k12.ms.us

◆ **Mailing Address**

* Jackson Public School District
 PO Box 2338
 Jackson, MS 39225

◆ **District Schools Math & Sci. Teachers and Students**

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	37	680	15,698
G6-8 (Middle)	11	128	7,476
G9-12 (High)	8	118	8,061
Total	56	926	31,235

Source: Core Data Elements (SY 2000-01)

Selected School Indicators (District Average)

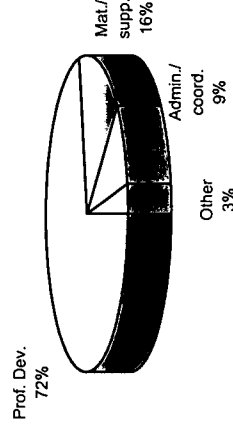
	98-99	00-01	Change
% Special Ed.	8.4%	9.4%	+1.0 PP
% LEP	0.3%	.	.
% Free/Red. Lunch	76.8%	.	.
% Daily Avg. Atten.	92.9%	93.4%	+0.5 PP
% Average Retained	10.1%	14.7%	+4.6 PP
% Drop-Out	3.6%	3.2%	-0.4 PP
% Mobility	.	22.1%	.
Per Pupil Cost (\$)	\$5,971	.	.
# Students Per Computer	13	.	.
% Classrooms Internet Access	7.5%	.	.
Average Class Size	16	.	.

PP: Percentage Points
 (.) Data Missing

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	20%	72%
Materials/supplies	18%	16%
Admin./coord.	35%	9%
Other	27%	3%
Total	100%	100%

CPMSA Funds %



Student Demographics (SY 2000-01)

District Total:	31,235	00-01	%	% Change
CPMSA Schools:	31,039	17	0.1%	-32.0%
Source: CDE 2000-01		97	0.3%	+3.2%
◆ Race/Ethnicity		29,362	94.0%	+3.6%
Ame. Ind./Ala. Nat.	25	48	0.2%	-4.0%
Asian/P. Islander	94	1,711	5.5%	-59.3%
Black	28,343	0	0.0%	.
Hispanic	50	31,235	100.0%	-4.5%
White	4,207	29,427	94.2%	+3.6%
Other	0			
Total	32,719			
URM Total	28,418			
URM: Underrepresented Minority students.				
◆ Gender				
Male	16,449	15,636	50.1%	-4.9%
Female	16,270	15,599	49.9%	-4.1%

12th Grade Graduates

Total 12th Grade	1,493	99-00	1,549	Change
Earned a Diploma	1,362	1,387	+2%	
% Earned Diploma	91%	90%	-2 PP	

% Earned Diploma



SEM Proficiency

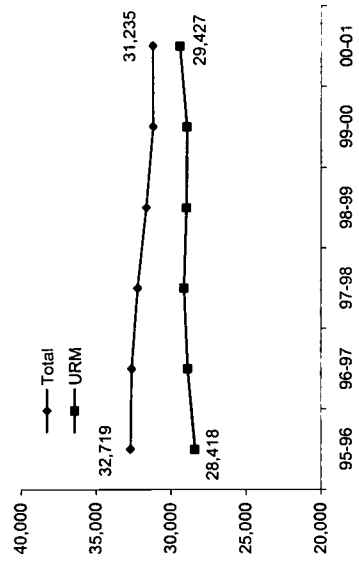
# SEM Proficient ¹	183	99-00	91	Change
% SEM Proficient/ Total 12th Grade	12%	6%	-6 PP	

% SEM Proficient



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

◆ CPMSA Student Demographic Trends



Math and Science Teachers & Certification

◆ Mathematics (G6-12)

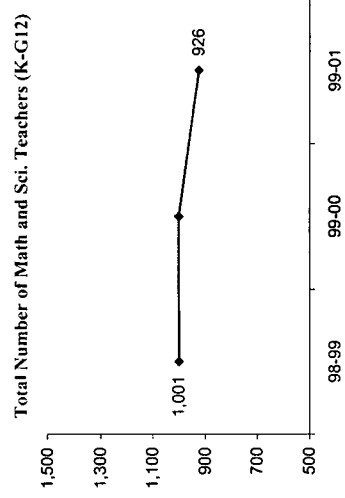
G6-8	Teachers Certified	83	00-01	64	Change
	% Cert.	.	.	-23%	
G9-12	Teachers Certified	68	58	-15%	
	% Cert.	.	.	.	
Total	Teachers Certified	151	122	-19%	
	% Cert.	.	.	.	

◆ Science (G6-12)

G6-8	Teachers Certified	74	00-01	64	Change
	% Cert.	.	.	-14%	
G9-12	Teachers Certified	66	60	-9%	
	% Cert.	.	.	.	
Total	Teachers Certified	140	124	-11%	
	% Cert.	.	.	.	

◆ Math and Science (K-G5)

K-G5	Teachers	710	00-01	680	Change
	% Cert.	.	.	-4%	



High School Graduation Requirements SY 00-01

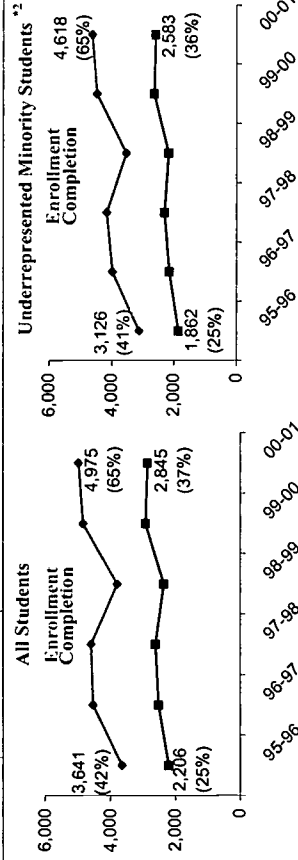
- ◆ Mathematics
 - 3 math including Algebra I, II and Geometry
- ◆ Science
 - 3 science courses including Biology

() Data Missing PP: Percentage Points

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

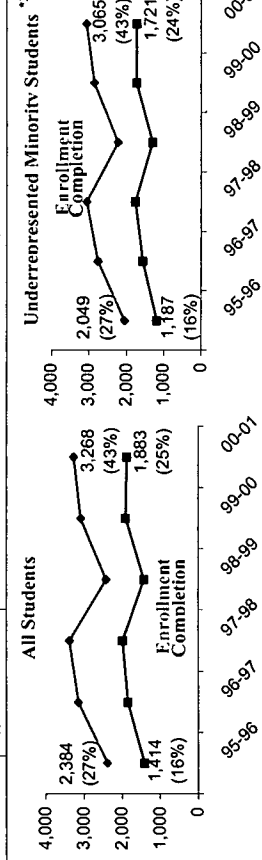
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	8,752	8,774	8,483	7,920	7,619	7,624
All Students						
Enrollment	3,641	4,535	4,582	3,787	4,837	4,975
Completion ¹	2,206	2,515	2,597	2,344	2,905	2,845
% Enroll/G9-12	42%	52%	54%	48%	63%	65%
URM²						
Enrollment	3,126	3,982	4,159	3,530	4,469	4,618
Completion ¹	1,862	2,144	2,297	2,161	2,626	2,583
% Enroll/G9-12	41%	51%	54%	49%	64%	65%



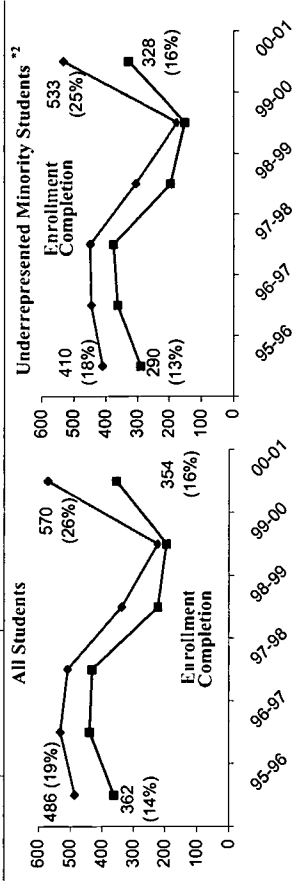
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	8,752	8,774	8,483	7,920	7,619	7,624
All Students						
Enrollment	2,384	3,146	3,384	2,427	3,090	3,268
Completion ¹	1,414	1,852	1,995	1,426	1,912	1,883
% Enroll/G9-12	27%	36%	40%	31%	41%	43%
URM²						
Enrollment	2,049	2,759	3,054	2,230	2,861	3,065
Completion ¹	1,187	1,563	1,766	1,298	1,731	1,721
% Enroll/G9-12	27%	35%	40%	31%	41%	43%



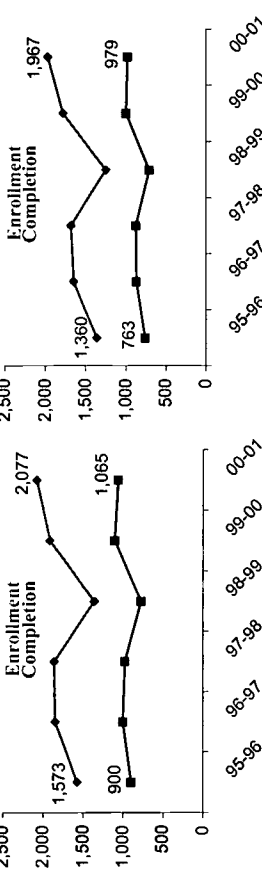
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	2,579	2,377	2,313	2,209	2,211	2,228
All Students						
Enrollment	486	532	508	337	223	570
Completion ¹	362	439	431	222	194	354
% Enroll/G8	19%	22%	22%	15%	10%	26%
URM²						
Enrollment	410	445	449	306	175	533
Completion ¹	290	363	376	196	150	328
% Enroll/G8	18%	21%	22%	15%	9%	25%



Biology Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	8,752	8,774	8,483	7,920	7,619	7,624
All Students						
Enrollment	1,573	1,848	1,861	1,360	1,915	2,077
Completion ¹	900	1,007	978	779	1,105	1,065
% Enroll/G9-12	18%	21%	22%	17%	25%	27%
URM²						
Enrollment	1,360	1,650	1,684	1,248	1,781	1,967
Completion ¹	763	869	875	708	1,000	979
% Enroll/G9-12	15%	19%	20%	16%	23%	26%



¹ Successful completion: grade 'C' or above.

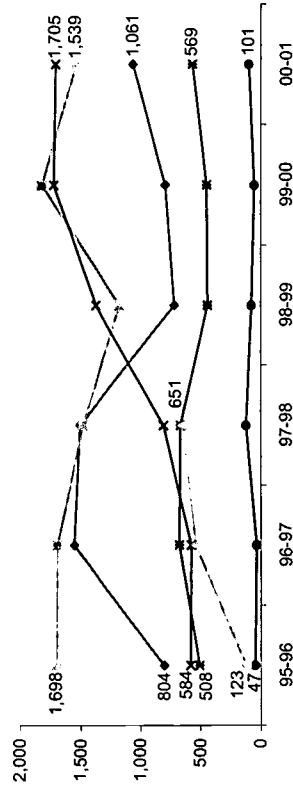
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

Jackson CPMSA

Mathematics Course Enrollment & Completion Trends By Subject

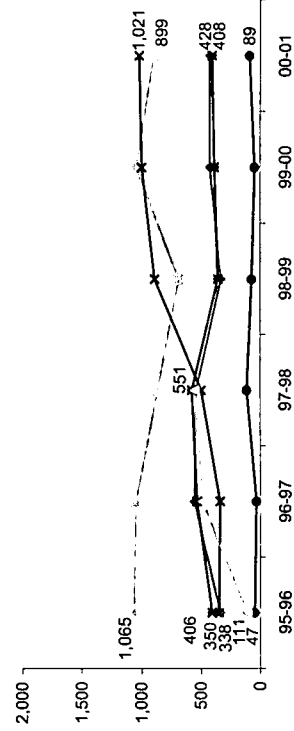
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	804	1,698	584	508	47	123	3,764
96-97	1,554	1,691	578	678	34	540	5,075
97-98	1,504	1,479	809	667	123	651	5,233
98-99	722	1,173	1,372	441	79		3,787
99-00	794	1,819	1,721	448	55		4,837
00-01	1,061	1,539	1,705	569	101		4,975



G 9-12 Course Completion ¹ (All Students)

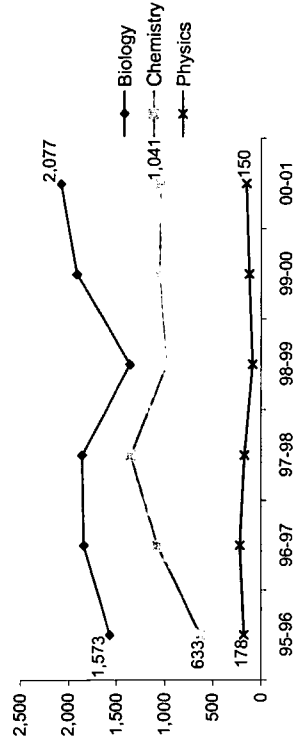
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	338	1,065	350	406	47	111	2,317
96-97	558	1,049	340	535	33	488	3,003
97-98	542	866	499	576	114	551	3,148
98-99	333	689	891	358	73		2,344
99-00	425	1,044	1,000	388	48		2,905
00-01	428	899	1,021	408	89		2,845



Science Course Enrollment & Completion Trends By Subject

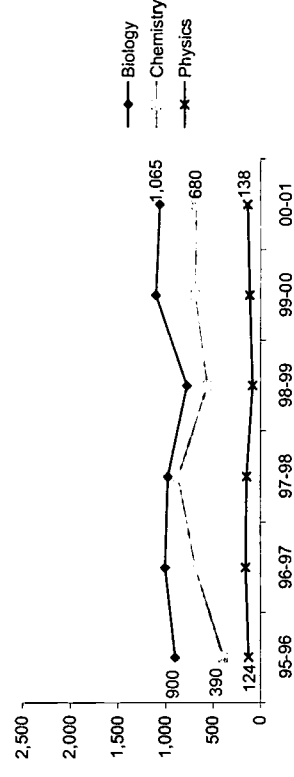
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	1,573	633	178		2,384
96-97	1,848	1,077	221		3,146
97-98	1,861	1,350	173		3,384
98-99	1,360	979	88		2,427
99-00	1,915	1,053	122		3,090
00-01	2,077	1,041	150		3,268



G 9-12 Course Completion ¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	900	390	124		1,414
96-97	1,007	689	156		1,852
97-98	978	870	147		1,995
98-99	779	563	84		1,426
99-00	1,105	691	116		1,912
00-01	1,065	680	138		1,883



¹ Successful completion: grade 'C' or above.

(.) Data Missing

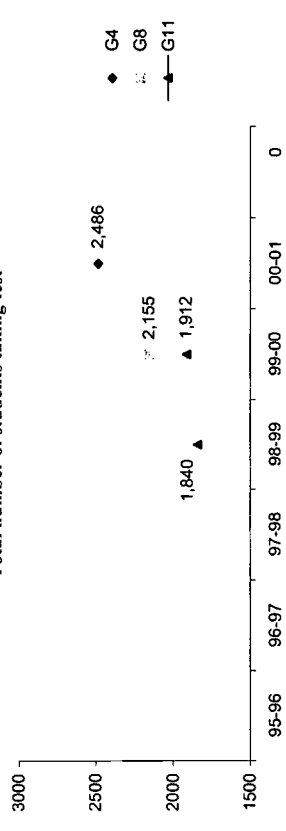
District Assessment Test Administered

District Assessment Test-Taker Trends TerraNova and FLE (G11)

	95-96	96-97	97-98	98-99	99-00	00-01
◆ Mathematics						
Test Name		ITBS	ITBS	ITBS	TerraNova	
Scoring		OT	OT	OT	OT	
Grade		4-8	4-8	4-8	4-8	
Type		NRT	NRT	NRT	NRT	

	95-96	96-97	97-98	98-99	99-00	00-01
◆ Mathematics						
# of Test-Takers						
Grade 4					2,486	
Grade 8					2,155	
Grade 11				1,840	1,912	

Total number of students taking test

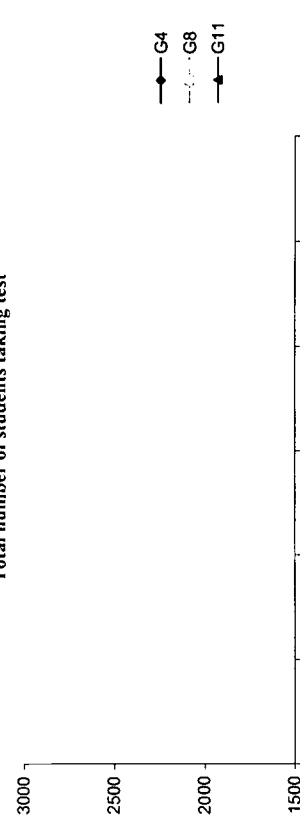


State Assessment Test Administered

	95-96	96-97	97-98	98-99	99-00	00-01
◆ Mathematics						
Test Name		Algebra I	Algebra I	FLE	FLE	
Scoring		SS	SS			
Grade		8-12	8-12	9-12	9-12	
Type		CRT	CRT			

	95-96	96-97	97-98	98-99	99-00	00-01
◆ Science						
# of Test-Takers						
Grade 4						
Grade 8						
Grade 11						

Total number of students taking test



* FLE: Functional Literacy Exam, ITBS: Iowa Test of Basic Skills

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

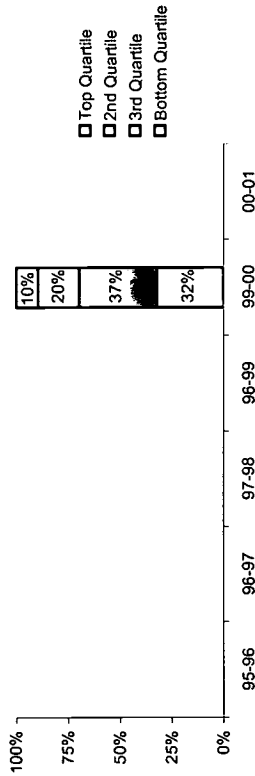
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Jackson CPMSA

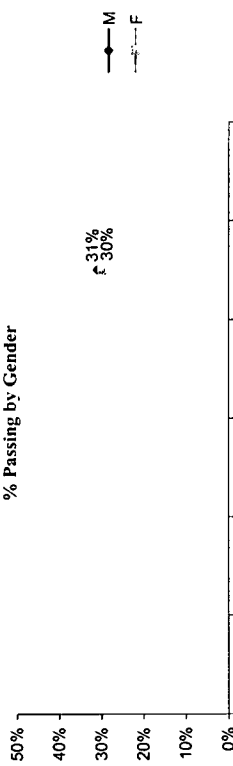
District Assessment Test Result Trends TerraNova - Mathematics

◆ Grade 4

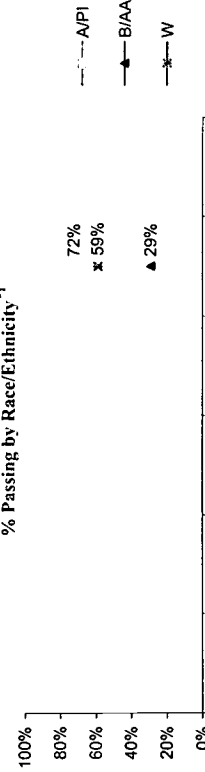
Quartiles	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile				10%		
2nd Quartile				20%		
3rd Quartile				37%		
Bottom Quartile				32%		
Total # of students				2,486		



% Passing by Gender



% Passing by Race/Ethnicity^{*1}

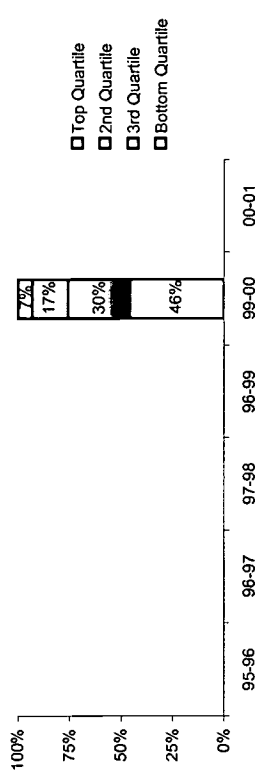


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American
 *1 % Passing not presented in graph for sample size less than 5

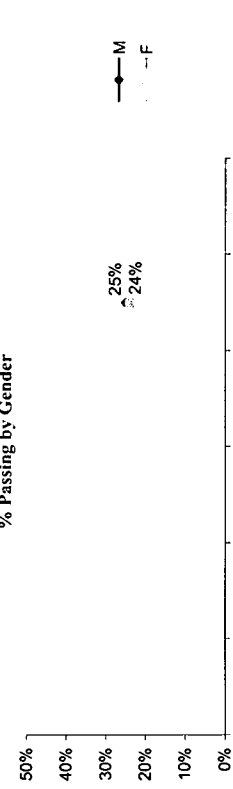
District Assessment Test Result Trends TerraNova - Mathematics

◆ Grade 8

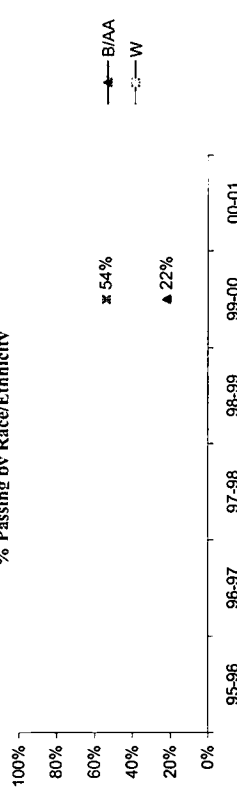
Quartiles	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile				7%		
2nd Quartile				17%		
3rd Quartile				30%		
Bottom Quartile				46%		
Total # of students				2,155		



% Passing by Gender



% Passing by Race/Ethnicity^{*1}



Jackson CPMSA

State Assessment Test Result Trends FLE - Mathematics

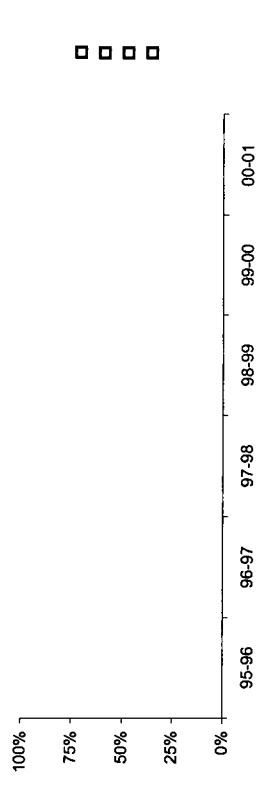
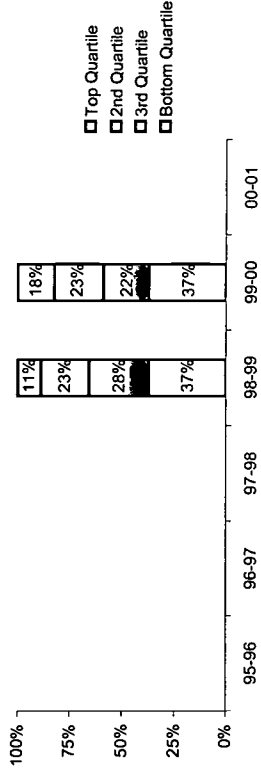
◆ Grade 11

Quantiles	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile				11%	18%	
2nd Quartile				23%	23%	
3rd Quartile				28%	22%	
Bottom Quartile				37%	37%	
Total # of students				1,840	1,912	

Assessment Test Result Trends - Science

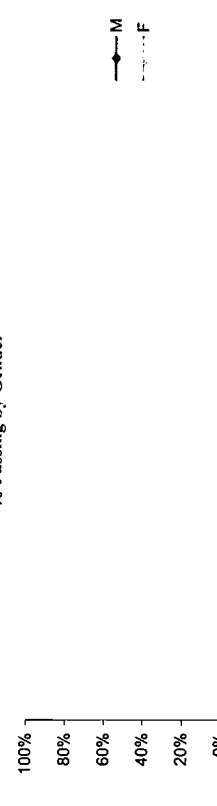
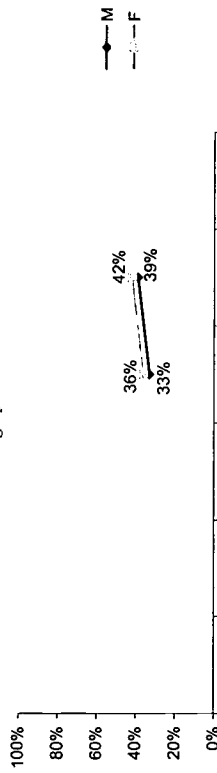
◆ Grade 4

Quantiles	95-96	96-97	97-98	98-99	99-00	00-01
Top Quartile						
2nd Quartile						
3rd Quartile						
Bottom Quartile						
Total # of students						



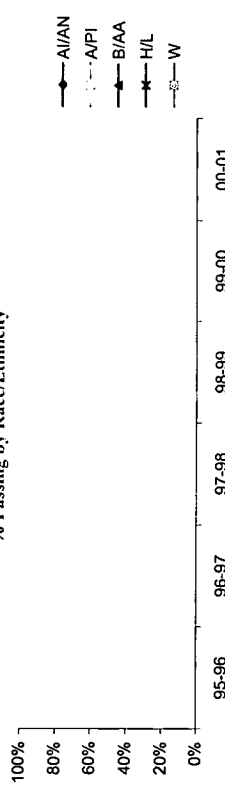
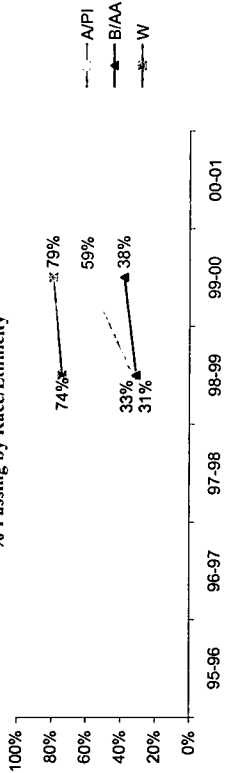
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity¹

% Passing by Race/Ethnicity



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ % Passing defined as Top Quartile + 2nd Quartile

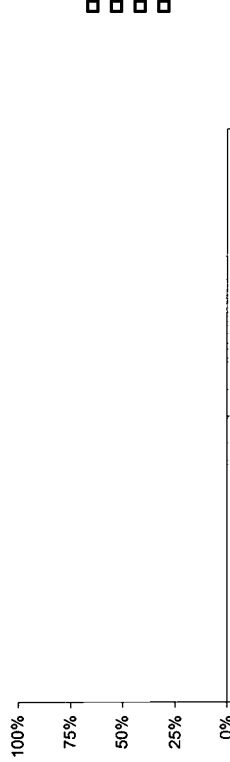
¹ % Passing not presented in graph for sample size less than 5

Assessment Test Result Trends - Science

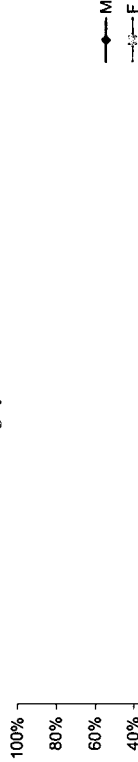
◆ Grade 8

Quartiles 95-96 96-97 97-98 98-99 99-00 00-01

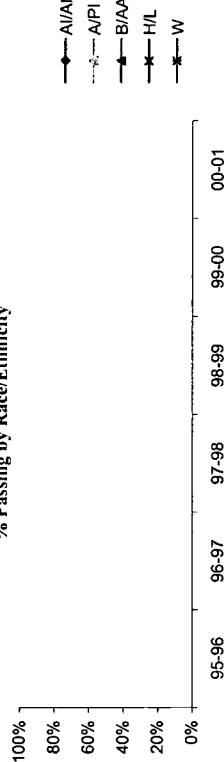
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity*1

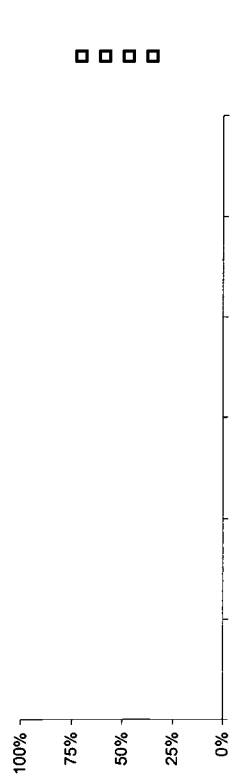


Assessment Test Result Trends - Science

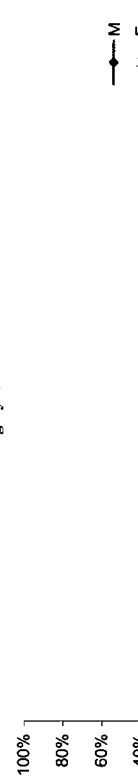
◆ Grade 11

Quartiles 95-96 96-97 97-98 98-99 99-00 00-01

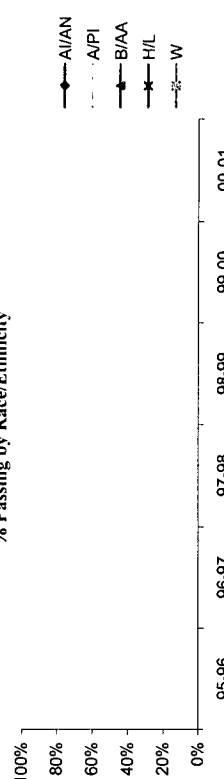
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

*1 Passing defined as Top Quartile + 2nd Quartile

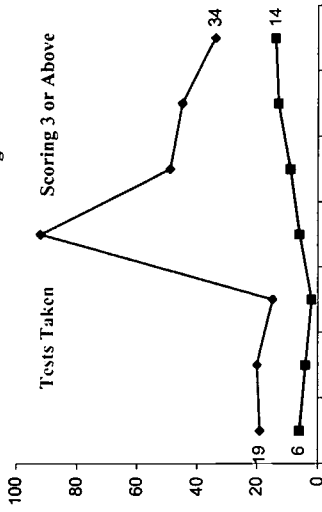
*1 Passing not presented in graph for sample size less than 5

AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

♦ AP Mathematics - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,230	3,247	3,248	3,150	3,148	3,034	.
Calc. AB	15	20	15	91	48	45	34
Calc. BC	4	0	0	1	1	0	0
Statistics	0	0	0	0	0	0	0
Total	19	20	15	92	49	45	34
Tests taken per 1,000 students	5.9	6.2	4.6	29.2	15.6	14.8	.
Scoring 3 or Above	6	4	2	6	9	13	14
Scoring 3 or Above per 1000	1.9	1.2	0.6	1.9	2.9	4.3	.

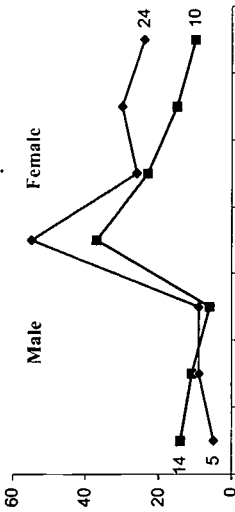
Number of tests taken and scoring 3 or Above



♦ AP Mathematics - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	14	11	6	37	23	15	10
Female	5	9	9	55	26	30	24

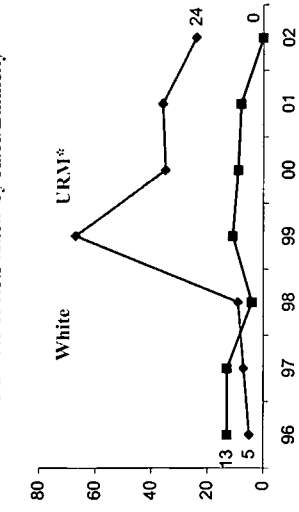
Number of tests taken by Gender



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	1	1	0	1	0
B/AA	5	7	9	67	35	35	24
H/L	0	0	0	0	0	1	0
W	13	13	4	11	9	7	8

Number of tests taken by Race/Ethnicity

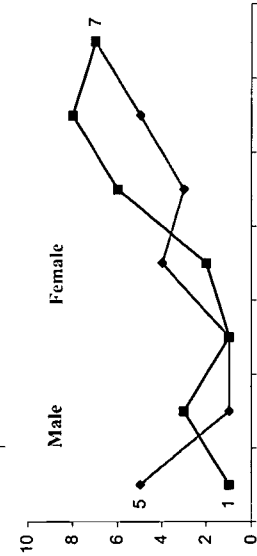


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	5	1	1	4	3	5	7
Female	1	3	1	2	6	8	7

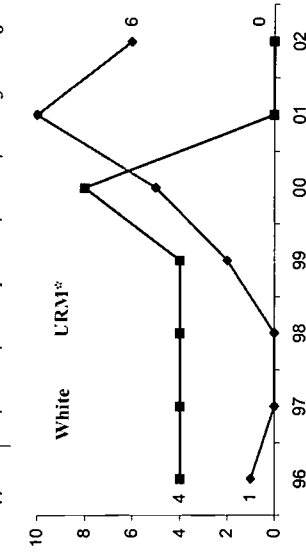
Number of students scoring 3 or above by Gender



♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	1	0	0	0	0
B/AA	1	0	0	2	5	9	6
H/L	0	0	0	0	0	1	0
W	4	4	1	4	4	3	8

Number of students scoring 3 or above by Race/Ethnicity

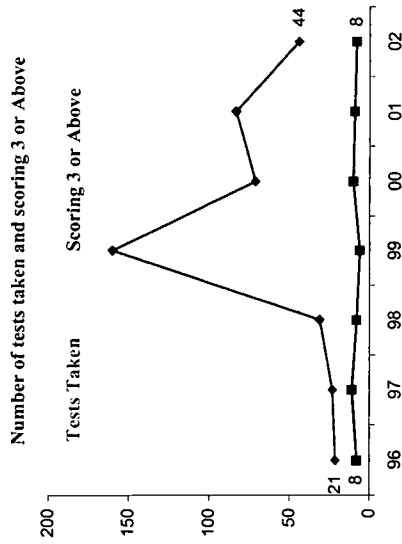


¹URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

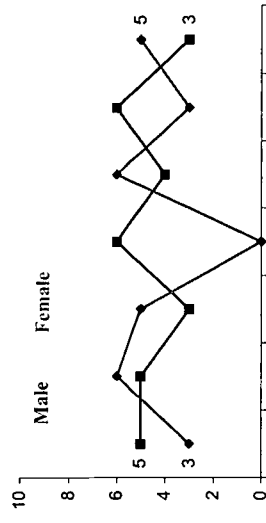
♦ AP Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,230	3,247	3,248	3,150	3,148	3,034	.
Biology	9	14	22	93	34	56	27
Chemistry	2	2	8	40	32	26	15
Env. Science	0	0	0	0	0	0	0
Physics B	7	7	1	27	5	1	2
Physics Mech.	2	0	0	0	0	0	0
Physics Elec.	1	0	0	0	0	0	0
Total	21	23	31	160	71	83	44
Tests taken per 1,000 students	6.5	7.1	9.5	50.8	22.6	27.4	.
Scoring 3 or Above	8	11	8	6	10	9	8
Scoring 3 or Above per 1000	2.5	3.4	2.5	1.9	3.2	3.0	.



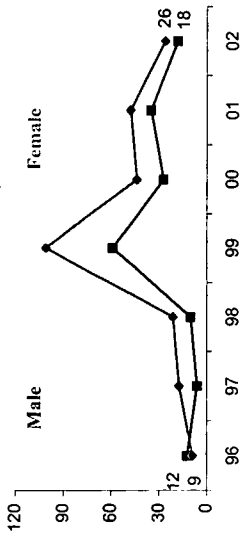
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	5	5	3	6	4	6	3
Female	3	6	5	0	6	3	5



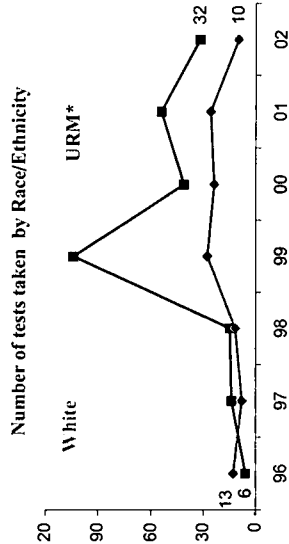
♦ AP Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	12	6	10	59	27	35	18
Female	9	17	21	101	44	48	26



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	1	1	1	0	2	1
B/AA	6	14	15	104	40	54	32
H/L	0	0	0	0	1	0	0
W	13	8	12	28	24	26	10



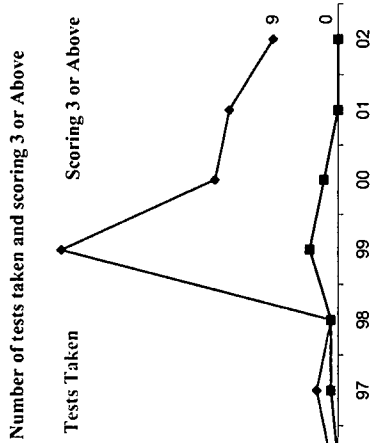
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

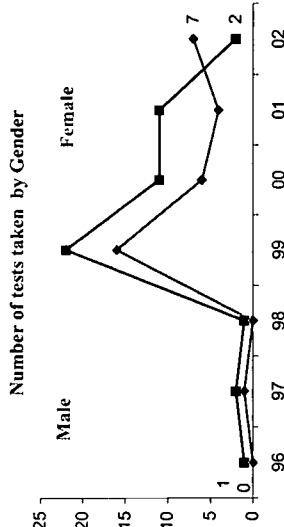
♦ AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	3,230	3,247	3,248	3,150	3,148	3,034	
Comp. Sci A	1	3	0	38	17	15	9
Comp. Sci. AB	0	0	1	0	0	0	0
Total	1	3	1	38	17	15	9
Tests taken per 1,000 students	0.3	0.9	0.3	12.1	5.4	4.9	
Scoring 3 or Above	0	1	1	4	2	0	0
Scoring 3 or Above per 1000	0.0	0.3	0.3	1.3	0.6	0.0	



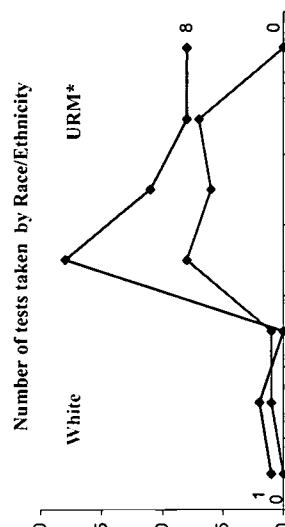
♦ AP Computer Science - Number of Tests Taken By Gender

Gender	96	97	98	99	00	01	02
Male	1	2	1	22	11	11	2
Female	0	1	0	16	6	4	7



♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

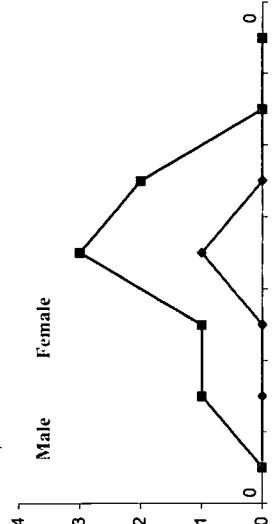
Race/Ethnicity ¹	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0
A/PI	0	0	0	1	0	0	0
B/AA	1	2	0	18	11	8	8
H/L	0	0	0	0	0	0	0
W	0	1	1	8	6	7	0



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

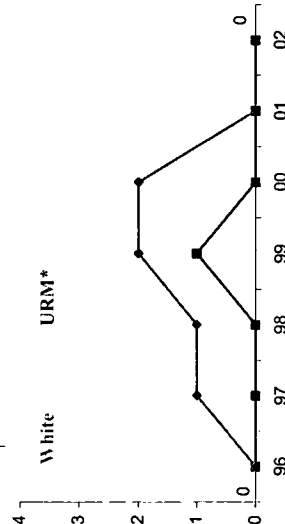
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	96	97	98	99	00	01	02
Male	0	1	1	3	2	0	0
Female	0	0	0	1	0	0	0



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	96	97	98	99	00	01	02
A/IAN	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0
B/AA	0	0	0	1	0	0	0
H/L	0	0	0	0	0	0	0
W	0	1	1	2	2	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Jackson CPMSA

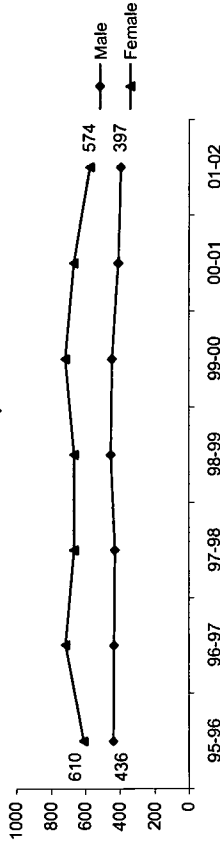
SY 2000-01

ACT Test-Takers

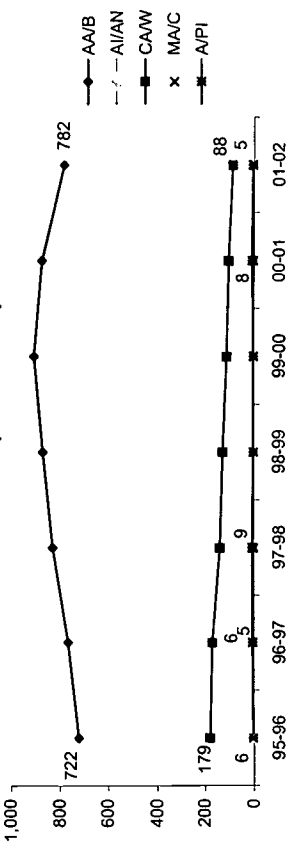
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,491	1,531	1,583	1,557	1,549	1,497	-
Test-Takers	1,046	1,149	1,095	1,119	1,164	1,079	971
Num of Test-Takers/1,000 Stu.	702	750	692	719	751	721	-
Gender							
Male	436	433	428	452	445	410	397
Female	610	716	667	667	719	669	574
Race/Ethnicity							
AA/B	722	766	830	871	906	874	782
AI/AN	6	5	0	2	0	0	3
CAW	179	171	140	129	113	106	88
MA/C	3	6	0	0	0	1	0
A/PI	3	7	9	4	4	8	5
PR/H ¹	2	4	1	1	2	2	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

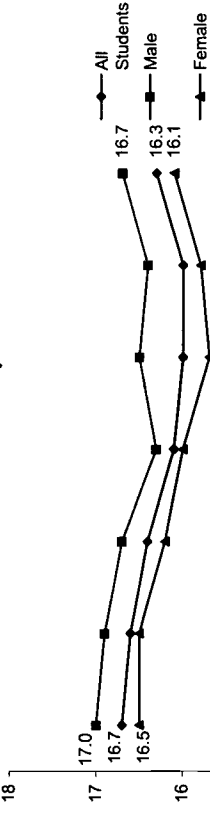


ACT Mathematics Scores

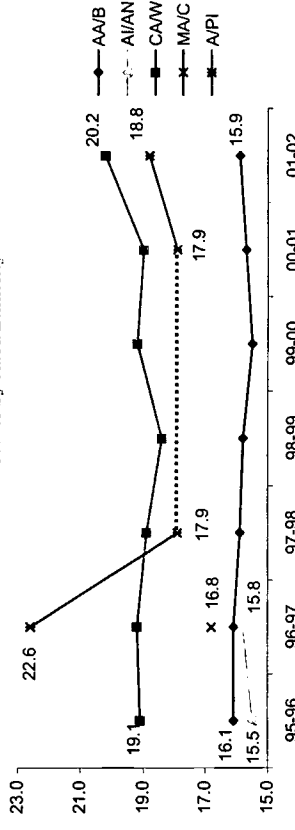
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	16.7	16.6	16.4	16.1	16.0	16.0	16.3
Gender							
Male	17.0	16.9	16.7	16.3	16.5	16.4	16.7
Female	16.5	16.5	16.2	16.0	15.7	15.8	16.1
Race/Ethnicity							
AA/B	16.1	16.1	15.9	15.8	15.5	15.7	15.9
AI/AN	15.5	15.8	-	-	-	-	-
CAW	19.1	19.2	18.9	18.4	19.2	19.0	20.2
MA/C	-	16.8	-	-	-	-	-
A/PI	-	22.6	17.9	-	-	17.9	18.8
PR/H	-	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

¹ Number of Test-Takers less than 5 not presented in graph

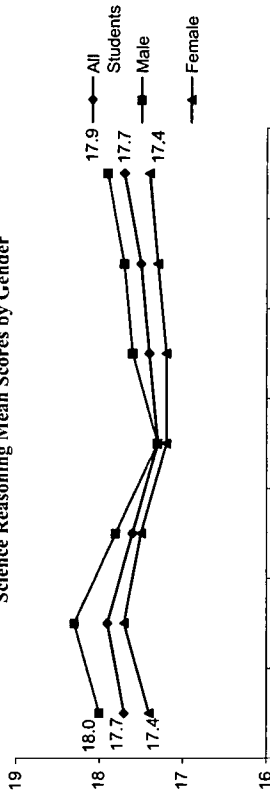
(-) Mean Scores Not Presented for Sample Size less than 5

ACT Science Reasoning Scores

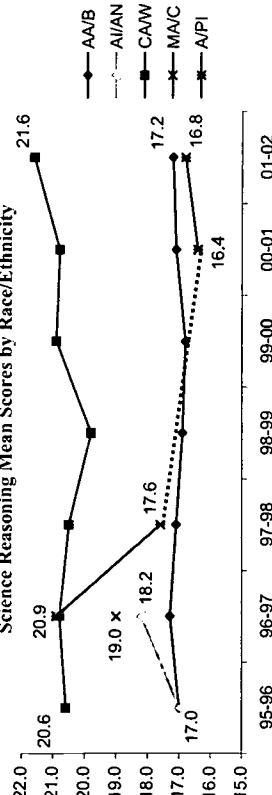
◆ Science Reasoning - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.7	17.9	17.6	17.3	17.4	17.5	17.7
Gender							
Male	18.0	18.3	17.8	17.3	17.6	17.7	17.9
Female	17.4	17.7	17.5	17.2	17.2	17.3	17.4
Race/Ethnicity							
AA/B	17.0	17.3	17.1	16.9	16.8	17.1	17.2
AI/AN	17.0	18.2	-	-	-	-	-
CA/W	20.6	20.8	20.5	19.8	20.9	20.8	21.6
MA/C	-	19.0	-	-	-	-	-
A/PI	-	20.9	17.6	-	-	16.4	16.8
PR/H	-	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H:
Puerto Rican/Hispanic.

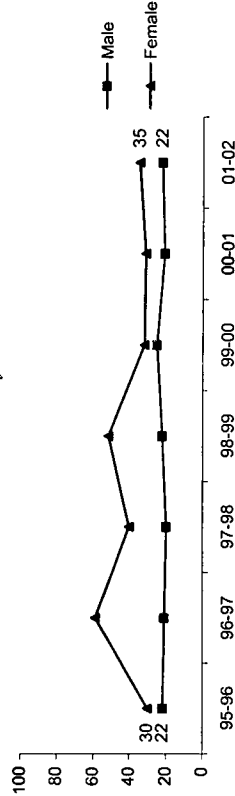
(-) Mean Scores Not Presented for Sample Size less than 5

SAT Test-Takers

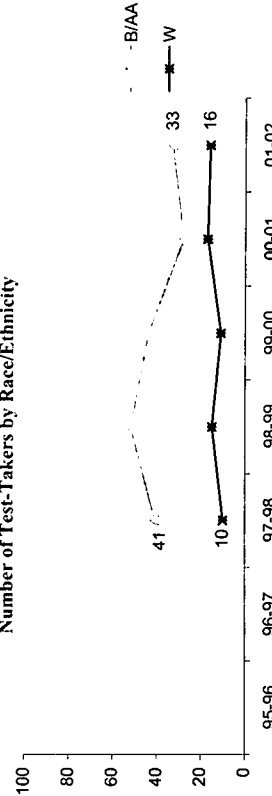
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,491	1,531	1,583	1,557	1,549	1,497	-
Test-Takers	52	80	60	74	57	52	57
Num of Test-Takers/1,000 Stu.	3.5	5.2	3.8	4.8	3.7	3.5	-
Gender							
Male	22	21	20	22	25	21	22
Female	30	59	40	52	32	31	35
Race/Ethnicity							
AI/AN	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-
B/AA	-	-	41	52	44	28	33
H/L	-	-	-	-	-	-	-
W	-	-	10	15	11	17	16
OT	-	-	-	-	-	-	-

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

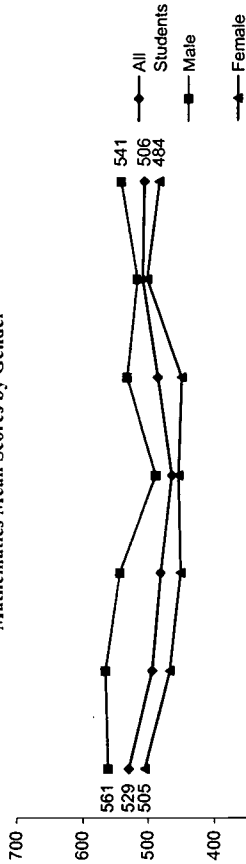
Jackson CPMSA

SAT Mathematics Scores

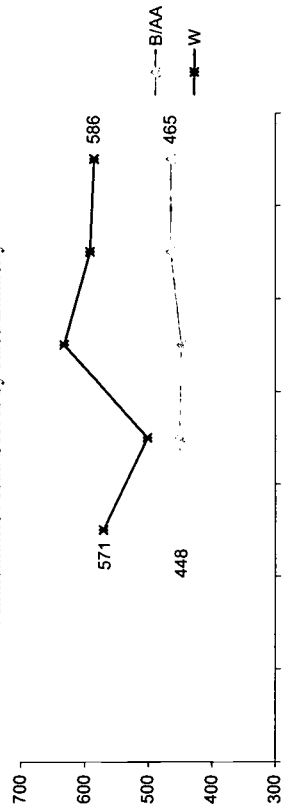
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	529	494	482	465	486	508	506
Gender							
Male	561	565	543	489	532	516	541
Female	505	468	452	455	450	502	484
Race/Ethnicity							
All/AN	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-
B/AA	448	451	449	449	465	465	465
H/L	-	-	-	-	-	-	-
W	571	501	632	592	586	586	586
OT	-	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

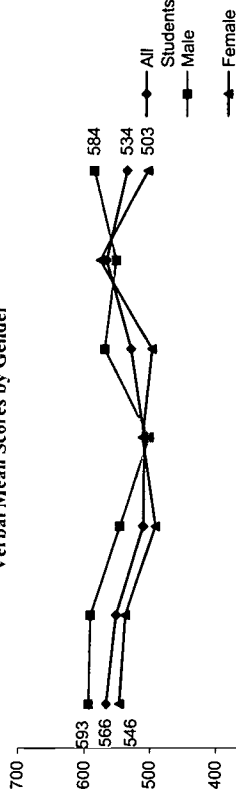


SAT Verbal Scores

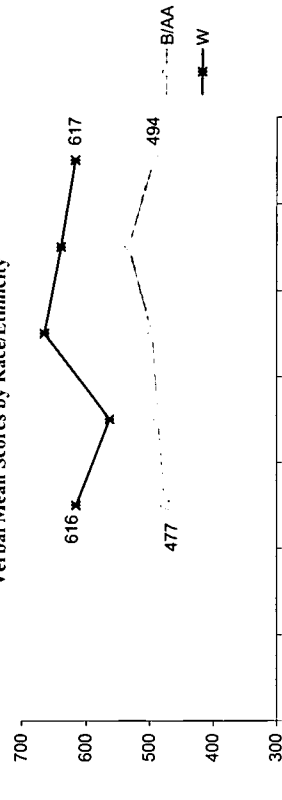
◆ Verbal - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	566	551	510	508	528	565	534
Gender							
Male	593	590	545	501	568	551	584
Female	546	537	492	511	497	575	503
Race/Ethnicity							
All/AN	-	-	-	-	-	-	-
A/PI	-	-	-	-	-	-	-
B/AA	477	487	477	487	496	533	494
H/L	-	-	-	-	-	-	-
W	616	563	616	665	639	617	617
OT	-	-	-	-	-	-	-

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

Cohort/Scale-Up Approach

Number of District Schools: 98-99 99-00 56 56
 CPMSA Schools: 56 56
 % Schools: 100% 100%
 Source: CDE 2000, 2001

Availability of High Level Courses:
 Special Education and Bilingual Students:

- Hands-on, kit-based science instruction K-5 allows participation by all. All students are enrolled in TECH PREP (G7-9) courses
- The Career Development Center has added new math and science related courses: Diversified Technology and Introduction to Agriculture and Aquaculture

• Math: Silver Burdett Ginn (K-5)
 Prentice Hall Mathematics (G6-12)

New Courses Added as a Result of CPMSA:
 Instructional Time:
 • Biomedical research courses, field studies in science, microbiology, Molecular Biology, Health related courses, CISCO academy, reorganized middle school math sequence to encourage Algebra I by the end of the 8th grade
 • State mandates 140 hours per year per course. Block scheduling is used to create more instructional time.

Primary Decision Making Body

Standards Curriculum: State
 Curriculum/TextBook Adoption: District
 Student Assessment: State
 Professional Development Resources: District
 Teacher Hiring: School
 Teacher Contracts: School
 Certification & Re-certification: District
 Graduation Requirements: State
 School-Based Management?: State
 Yes

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements: • 3 math including Algebra I, II and Geometry
 • 3 science courses including Biology
 Student Support Systems: • SECME
 • Upward Bound
 • Algebra Project
 • Young Peoples Project
 • CERTL
 • Saturday Tutoring
 Summer programs: • Middle school science/math programs
 • Jackson State University Programs: STEP, KIDS college
 • Upward Bound at Tougaloo College
 • CERTL
 • University Medical Center Health Related Programs
 • Millsaps Middle School math and science summer camp
 • KHEP Summer Camp (G6-8)

Standards-based Curriculum and Instruction

Standards Adopted: • State standards asked to NCTM
 % of Students Experiencing Standards-based Curricula:
 E 100%
 M 100%
 H 100%

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 • No tracking
 • District-wide choice cards are used to ensure that all students have the same opportunity to take all courses
 Criteria for Entry into High Level Mathematics and Science Courses:
 • Completion of prerequisite courses. Teacher recommendation based on previous accomplishment and demonstrated willingness to do more difficult and advanced work. Grades no lower than a B in accelerated or APAC courses taken in the subject area or a 90 in regular classes in the subject area. Letter of commitment to take the AP test signed by the students and his/her parents

Policies Relevant to Teacher Qualifications

Certification:
 • Degree from NCATE approved college, of education, and a passing score on Praxis II or NTE Specialty or Professional Knowledge Test. Renewal based on acceptable CEOs in a content related area, semester long hours in a content related area or completion of the National Board of Professional Teaching Standards Process.
 Requirement & Hiring Practices
 Professional Advancement & Leadership Training:

Policies Relevant to Curriculum

Framework:
 • District benchmarks and standards are correlated with Mississippi State framework
 • Science: FOSS Insights
 Science and Technology for Children

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices	Impact on Student Achievement:	Partnerships
<p>Time Required or Supported:</p> <p>Financial Resources Provided:</p> <p>Alignment to Student Standards:</p> <p>Yes, professional development is based on needs documented by student achievement data and by teacher surveys.</p> <p>Yes standards based instruction is district wide. Quality resources are used that match standards. Standards are aligned with assessments and teachers' instructional practices:</p>	<p>Instructional site teams in each content area meet and review test data to evaluate programs and professional development. Data used to evaluate and plan professional development.</p>	<p>Other Key Initiatives:</p> <ul style="list-style-type: none"> Comprehensive school reform Modern Red School House Co-Nect Delta RSI <p>Competing Initiatives:</p> <ul style="list-style-type: none"> No
<p>Has CPMSA influenced professional development changed teachers' instructional practices:</p>	<p>Policies Relevant to Standards-based Assessments</p> <ul style="list-style-type: none"> Benchmark testing at grades 3 and 6, Algebra I and Biology I every nine weeks and at end of the year Tests are aligned with standards based curriculum 	<p>Parents (serve on advisory committees)</p> <ul style="list-style-type: none"> Junior League (grants to teacher) Davis Planetarium 100 Black Men (math tutoring) Mississippi 2020 (environmental education) Adopt a School (tutoring and mentoring)
<p>Type and Amount Received by Average Math/Science Teacher:</p>	<p>Assessments Used:</p> <ul style="list-style-type: none"> Terra Nova G3-8 Mississippi subject area test- Algebra I and Biology I 	<p>Community Stakeholders:</p> <ul style="list-style-type: none"> Jackson State University University Medical Center Tougaloo College Mississippi College (inquiry based learning)
<p>Evaluation Instruments:</p>	<p>CPMSA Leadership, Governance, and Management</p> <ul style="list-style-type: none"> Jayne B. Sargent has provided extensive support There has been a continuity of leadership for the past four years 	<p>Higher Education:</p> <ul style="list-style-type: none"> Local Hospitals Bell South Entergy Delphi Electric
<p>Professional Development Alignment to Content Standards Measures:</p>	<p>Project Directors position in district's organizational structure:</p> <p>Willie Johnson, Executive Director, is an Administrative Assistant to the Superintendent and reports directly to him</p>	<p>Business and Industry:</p>
<p>Teacher's Instructional Practices Evaluation:</p> <ul style="list-style-type: none"> By building level administrators Teachers receive feedback in post conference 	<p>Teacher Leaders:</p>	

Accountability

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

	School Year	Policy Implemented	School Year	Policy Implemented
<p>Program Effectiveness Monitoring:</p> <ul style="list-style-type: none"> Direct review committees meet four times yearly to examine NSF sponsored initiatives 	1996-97	No changes reported	1996-97	No changes reported
<p>Report Card System:</p> <ul style="list-style-type: none"> State Department of Education published District Report Card 	1997-98	<ul style="list-style-type: none"> Kit based science instruction for K-5 introduced. 	1997-98	<ul style="list-style-type: none"> District committee of exemplary teachers review text books and make selections
<p>Key Indicator Data Collection:</p> <ul style="list-style-type: none"> The Office of Planning and evaluation and CPMSA Data Manager collect, maintain and disseminate all key indicator data. 	1998-99	<ul style="list-style-type: none"> All Special Education students are enrolled in Tech Prep courses G7-9 	1998-99	<ul style="list-style-type: none"> District benchmarks and standards are correlated to state standards
<p>Key Indicator Data Use:</p> <ul style="list-style-type: none"> District professional development protocol involves identifying a need, based on student achievement and course enrollment data Reviews are done at the school, feeder pattern and district levels. 	1999-00	<ul style="list-style-type: none"> Minorities in science curriculum supplement is introduced SECME, CERTL, Algebra Project and 21 Century programs are also introduced to reduce achievement gaps. 	1999-00	<ul style="list-style-type: none"> Graduation requirements increase for science from 2 to 3 years Promotion : must pass math with a K-5 grade of 70 Grade 4 and 5 must pass science with a grade of 70 or above
<p>Local On-Sight Evaluation:</p> <ul style="list-style-type: none"> Benchmark and indicators are reviews annually by CPMSA standing committees 				
<p>Data Manager:</p>				
<p>External Evaluator:</p>				

Jackson CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	
1996-97	<ul style="list-style-type: none"> District initiatives based on needs demonstrated by achievement data 	1996-97	<ul style="list-style-type: none"> No changes reported 	1996-97	<ul style="list-style-type: none"> Key Indicator Data is maintained and disseminated by district
1997-98	<ul style="list-style-type: none"> No changes reported 	1997-98	<ul style="list-style-type: none"> No changes reported 	1997-98	<ul style="list-style-type: none"> No changes reported
1998-99	<ul style="list-style-type: none"> Teachers must pass Praxis II or NTE Professional Knowledge Test for certification 	1998-99	<ul style="list-style-type: none"> Instructional site teams in each content area meet and review test data to evaluate programs and professional development. 	1998-99	<ul style="list-style-type: none"> District Report Card published by State DOE
1999-00	<ul style="list-style-type: none"> Professional development is school based and designed to meet individual school needs 	1999-00	<ul style="list-style-type: none"> Benchmark testing at grades 3, 6 and Algebra I tests, are aligned with standards based curriculum 	1999-00	<ul style="list-style-type: none"> Direct review committees meet four times yearly to examine NSF sponsored initiatives

CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003



Newburgh Enlarged City School District, NY
Newburgh, NY

Newburgh, NY

Project Information

CPMSA Project Title : Project PASS: Partnerships for Access and Student Success
Cohort: 96
CPMSA Web Site: <http://www.newburgh.k12.ny.us>

◆ PI, CO-PI and PD

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◆ CPMSA Data Manager/Evaluator

Data Processing
 Sol Resnikov T (845) 563-7268 F (845) 563-7423
 sresniko@newburgh.k12.ny.us

Project Summary

The framework for the school district's model for systemic reform consists of four essential characteristics: core elements, supporting mechanism, connecting activities, and transitional experiences for students, teachers, and parents. These will be delivered through three coordinated and integrated systems, which function year round: The SMET Student Academy; The Teacher Institute; and The Parent Community Center. These entities will provide multiple pathways to attain the goal orientation needed for success in school, at work, and in life. To excite, encourage, enlist and meet the needs of students, a series of core math and science Readiness and Preparedness Courses, as well as a variety of enrichment opportunities, will permeate the system. Transitional experiences will be provided for students at three levels: SMET Summer Camps, modeled after our 1995 NSF-funded Summer Science Camp, will provide transitional experiences at two levels, from elementary to middle and from middle to high school; a College Bridge program will help extend the pipeline from high school to college. A critical component of each transitional experience is the connection it will make to the SMET industries through field trips, shadowing, mentoring, and internship opportunities.

The primary goal of the Teacher Institute is to develop and strengthen the capacity of all teachers for teaching SMET courses in a multicultural setting and to alter the way that teaching, learning, and educational research, will be taught under the leadership of the faculty of New York University.

A unique aspect of the Teacher Institute will be the SMET Fellows Program, a 4-6 week summer internship. Parents will be actively engaged in the Parent Community Center. Satellite locations, strategically located throughout the city, will welcome parents. The program will empower parents to become more active partners in the education of their children. By putting educational research and theory into practice, this proposed CPMSA will reduce and ultimately resolve the problem of underrepresentation of minority students in higher level SMET courses in our district, and potentially in other districts that are also experiencing similar underrepresentation.

Project Goals

- ◆ To improve the quality and quantity of science and mathematics education received by minority students.
- ◆ To increase the number of minority students enrolling in and successfully completing higher level precollege science, engineering, and math courses.

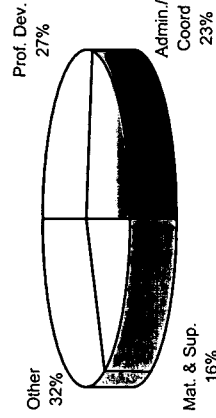
Selected School Indicators (District Average)

	1998-99	2000-01	Change
% Special Ed.	10.0%	11.4%	+1.4 PP
% LEP	9.0%	9.5%	+0.5 PP
% Free/Red. Lunch	54.0%	58.0%	+4.0 PP
% Daily Avg. Atten.	94.0%	94.5%	+0.5 PP
% Average Retained	5.0%	5.0%	+0.0 PP
% Drop-Out	1.4%	2.0%	+0.6 PP
% Mobility	13.2%	9.9%	-3.3 PP
Per Pupil Cost (\$)	\$8,734	\$9,533	+9.1%
# Students Per Computer	4	4	+0.0%
% Classrooms Internet Access	5%	73%	+68.0 PP
Average Class Size	23	24	+2.2%

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	10%	27%
Admin/Coord.	10%	23%
Mat. & Sup	11%	18%
Other	69%	32%
Total	100%	100%

CPMSA Funds %



◆ Mailing Address

Newburgh Enlarged City School District
 124 Grand Street
 Newburgh, NY 12550

◆ District Schools, Math & Science Teachers, and Students

2000-01	Schools	Teachers	Students
K-G5 (Elementary)	10	463	6,993
G6-8 (Middle)	3	109	2,756
G9-12 (High)	1	105	2,506
Total	14	677	12,255

Source: Core Data Elements (SY 2000-01)

PP: Percentage Points

Newburgh Enlarged CPMSA

SY 2000-01

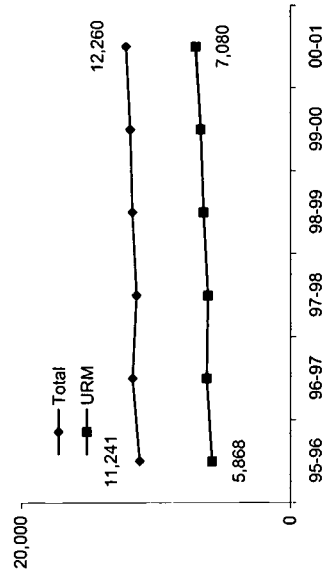
Student Demographics (SY 2000-01)

District Total:	12,260	% Change	
CPMSA Schools:			
Source: TISC-2002			
◆ Race/Ethnicity District-Wide			
	1995-96	2000-01	% Change
Ame. Ind./Ala. Nat.	0	0	0.0%
Asian/P. Islander	201	231	+14.9%
Black	3,239	3,745	+15.6%
Hispanic	2,629	3,335	+26.9%
White	5,172	4,949	-4.3%
Other	0	0	0.0%
Total	11,241	12,260	+9.1%
URM Total	5,868	7,080	+20.7%

URM: Underrepresented Minority students.

◆ Gender			
Male	5,720	6,232	+9.0%
Female	5,521	6,028	+9.2%
◆ Grade			
K-G5	5,577	5,846	+4.8%
G6-8	2,405	2,640	+9.8%
G9-12	2,691	3,146	+16.9%
Ungraded	568	628	+10.6%

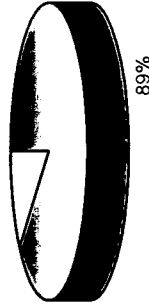
◆ District Student Demographic Trends



12th Grade Graduates

Total 12th Grade	1996-97	2000-01	Change
Earned a Diploma	579	700	+21%
% Earned Diploma	461	623	+35%
	80%	89%	+9 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

# SEM Proficient ¹	1996-97	2000-01	Change
% SEM Proficient/ Total 12th Grade	79	196	+148%
	14%	28%	+14 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

Math and Science Teachers & Certification

◆ Mathematics (G6-12)				
Teachers Certified	1998-99	2000-01	Change	
G6-8	34	55	+62%	
% Cert.				
G9-12	22	38	+73%	
% Cert.				
Total	56	93	+66%	
% Cert.				

◆ Science (G6-12)

Teachers Certified	1998-99	2000-01	Change
G6-8	38	54	+42%
% Cert.			
G9-12	32	67	+109%
% Cert.			
Total	70	121	+73%
% Cert.			

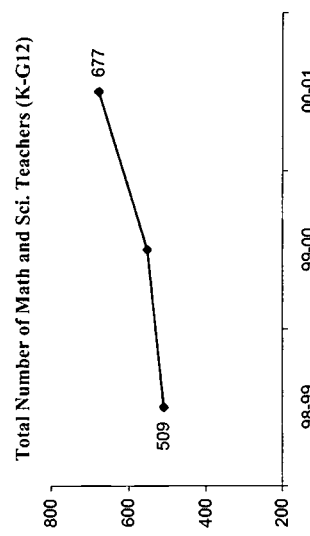
◆ Math and Science (K-G5)

Teachers	1998-99	2000-01	Change
K-G5	383	463	+21%

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 3 credits in mathematics
- ◆ Science
 - 3 credits in science

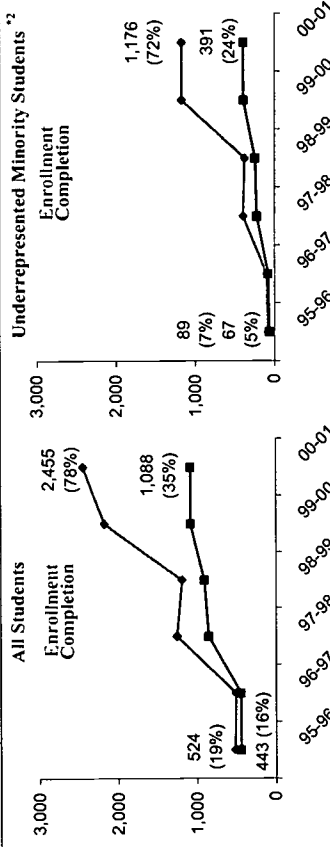
PP: Percentage Points () Data Missing



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

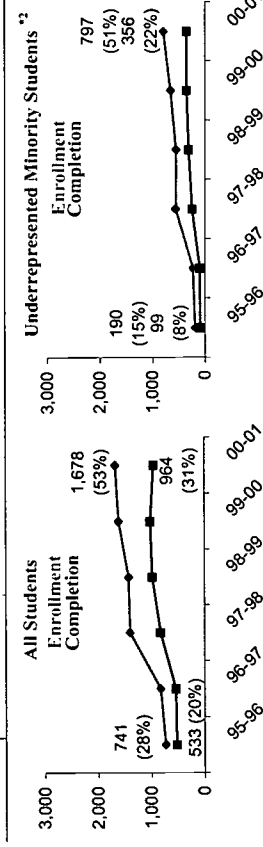
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	2,691	2,746	2,754	3,007	3,075	3,146
All Students						
Enrollment	524	513	1,261	1,194	2,180	2,455
Completion ¹	443	448	858	908	1,117	1,088
% Enroll/G9-12	19%	19%	46%	40%	71%	78%
URM²						
Enrollment	89	103	395	379	969	1,176
Completion ¹	67	82	227	245	379	391
% Enroll/G9-12	7%	8%	30%	25%	62%	72%



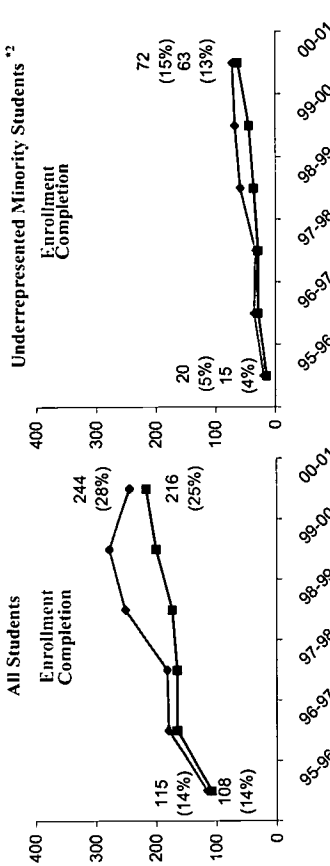
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	2,691	2,746	2,754	3,007	3,075	3,146
All Students						
Enrollment	741	836	1,407	1,431	1,616	1,678
Completion ¹	533	548	835	991	1,024	964
% Enroll/G9-12	28%	30%	51%	48%	53%	53%
URM²						
Enrollment	190	233	568	558	662	797
Completion ¹	99	104	248	317	358	356
% Enroll/G9-12	15%	18%	43%	37%	43%	51%



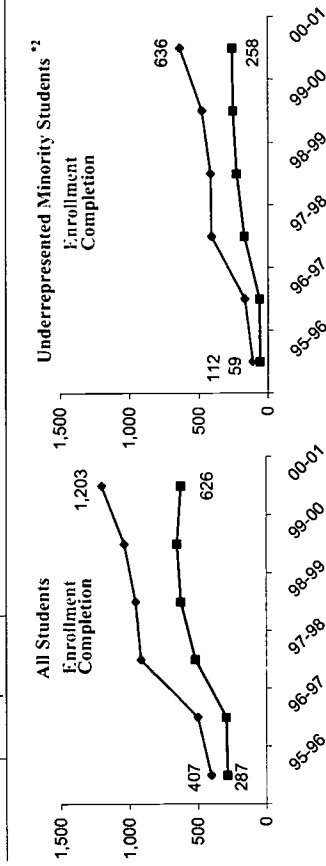
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	794	831	800	813	826	880
All Students						
Enrollment	115	179	181	251	278	244
Completion ¹	108	165	165	173	200	216
% Enroll/G8	14%	22%	23%	31%	34%	28%
URM²						
Enrollment	20	35	33	59	68	72
Completion ¹	15	29	29	36	44	63
% Enroll/G8	5%	8%	8%	14%	15%	15%



Biology Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
All Students						
Enrollment	407	503	917	956	1,039	1,203
Completion ¹	287	296	520	628	655	626
URM²						
Enrollment	112	170	411	417	478	636
Completion ¹	59	62	175	228	255	258



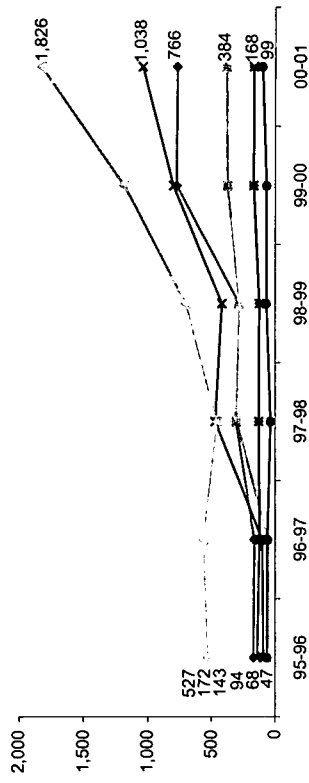
¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

Mathematics Course Enrollment & Completion Trends By Subject

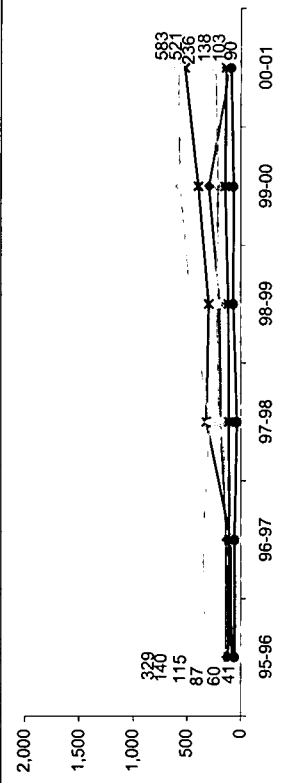
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	172	47	94	143	68	527	1,051
96-97	167	55	105	124	62	563	1,076
97-98	311	308	473	131	38	459	1,720
98-99	287	290	421	127	69	699	1,893
99-00	771	377	795	170	67	1,183	3,363
00-01	766	384	1,038	168	99	1,826	4,281



G 9-12 Course Completion¹ (All Students)

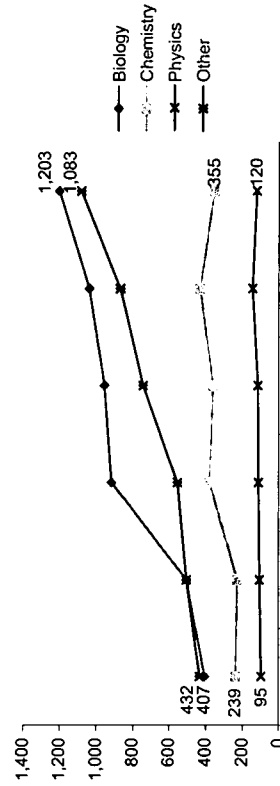
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	140	41	87	115	60	329	772
96-97	136	54	93	107	58	352	800
97-98	188	203	321	110	36	291	1,149
98-99	200	225	299	115	69	460	1,368
99-00	297	212	396	147	65	567	1,684
00-01	103	236	521	138	90	583	1,671



Science Course Enrollment & Completion Trends By Subject

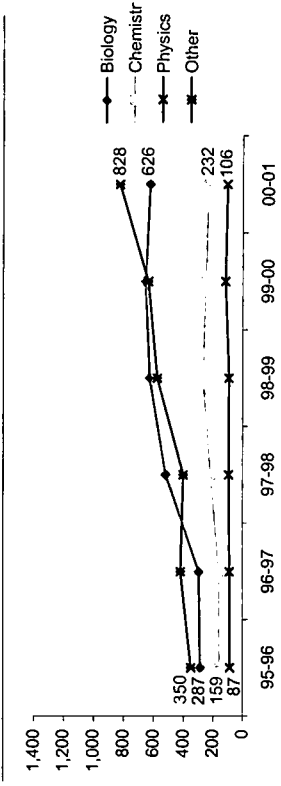
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	407	239	95	432	1,173
96-97	503	229	104	504	1,340
97-98	917	380	110	554	1,961
98-99	956	362	113	744	2,175
99-00	1,039	433	144	870	2,486
00-01	1,203	355	120	1,083	2,761



G 9-12 Course Completion¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	287	159	87	350	883
96-97	296	162	90	419	967
97-98	520	220	95	401	1,236
98-99	628	270	93	575	1,566
99-00	655	251	118	638	1,662
00-01	626	232	106	828	1,792



¹ Successful completion: grade 'C' or above.

(.) Data Missing

Newburgh Enlarged CPMSA

SY 2000-01

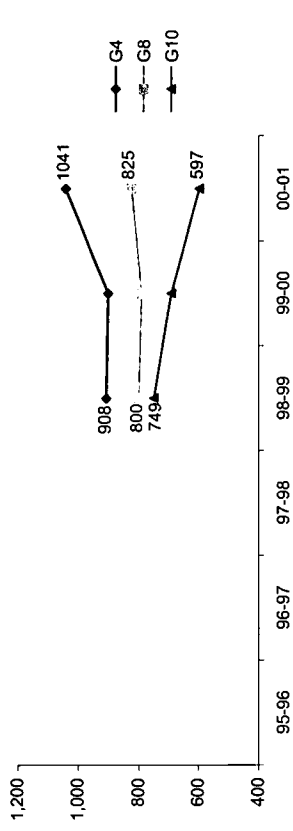
District Assessment Test Administered

State Assessment Test-Taker Trends Terra Nova

◆ Mathematics		95-96	96-97	97-98	98-99	99-00	00-01
Test Name							
Scoring							
Grade							
Type							

◆ Mathematics		95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	# of Test-takers	.	.	908	902	1,041	
Grade 8		.	.	800	790	825	
Grade 10		.	.	749	691	597	

Total number of students taking test



◆ Science

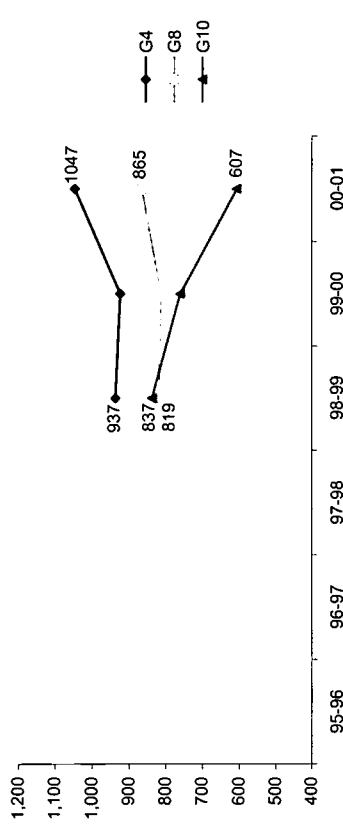
Test Name	95-96	96-97	97-98	98-99	99-00	00-01
Scoring						
Grade						
Type						

State Assessment Test Administered

◆ Mathematics		95-96	96-97	97-98	98-99	99-00	00-01
Test Name							
Scoring							
Grade							
Type							

◆ Science		95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	# of Test-takers	.	.	937	924	1,047	
Grade 8		.	.	819	813	865	
Grade 10		.	.	837	761	607	

Total number of students taking test



PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 () Data Missing

Newburgh Enlarged CPMSA

SY 2000-01

State Assessment Test Result Trends Terra Nova - Mathematics

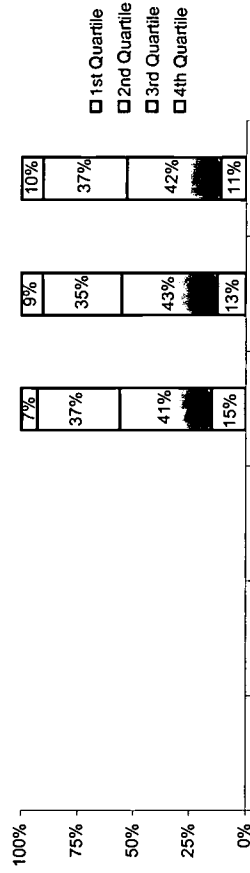
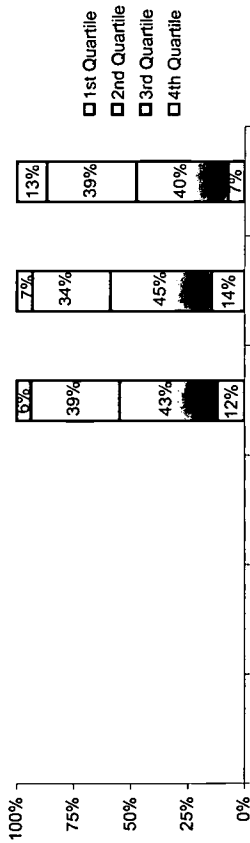
State Assessment Test Result Trends Terra Nova - Mathematics

◆ Grade 4

◆ Grade 8

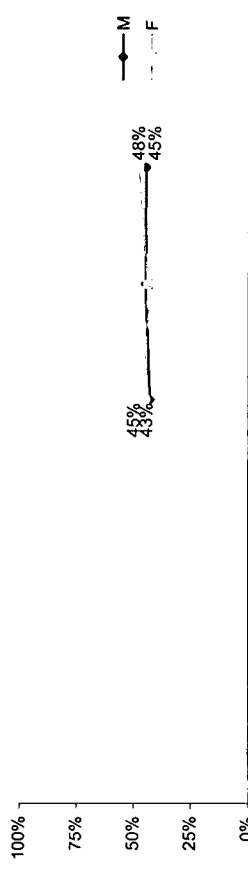
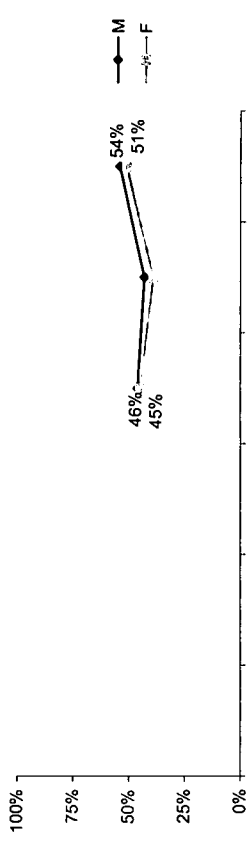
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile			6%	7%	13%	13%
2nd Quartile			39%	34%	39%	39%
3rd Quartile			43%	45%	40%	40%
4th Quartile			12%	14%	7%	7%
Total # of students			908	902	1041	1041

	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile			7%	9%	10%	10%
2nd Quartile			37%	35%	37%	37%
3rd Quartile			41%	41%	43%	42%
4th Quartile			15%	13%	11%	11%
Total # of students			800	790	825	825



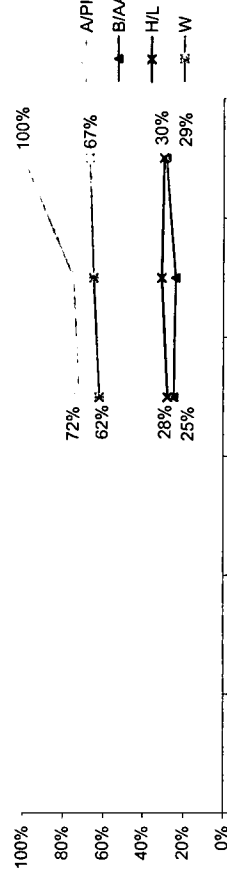
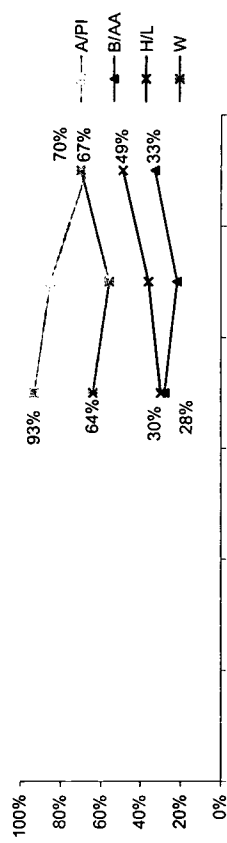
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 1st and 2nd quartiles

Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)

II-45

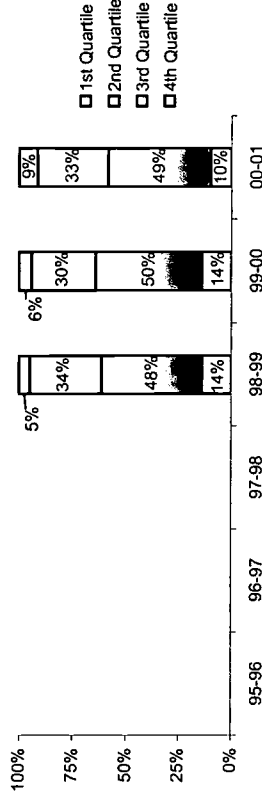
Fact Book 2002

Newburgh Enlarged CPMSA

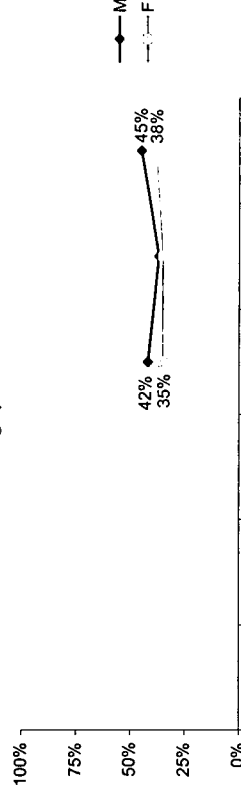
State Assessment Test Result Trends Terra Nova - Science

◆ Grade 4

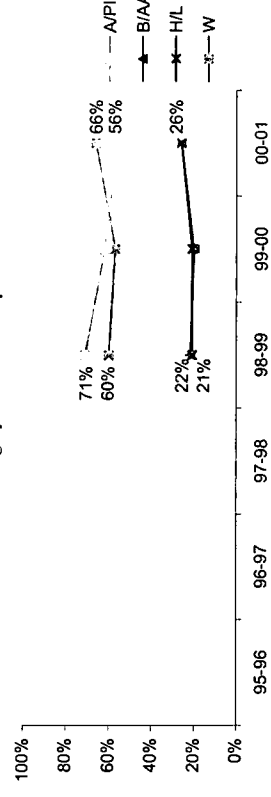
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile					6%	9%
2nd Quartile				5%	30%	33%
3rd Quartile			34%	48%	50%	49%
4th Quartile			14%	14%	14%	10%
Total # of students			937	924	924	1,047



% Passing by Gender



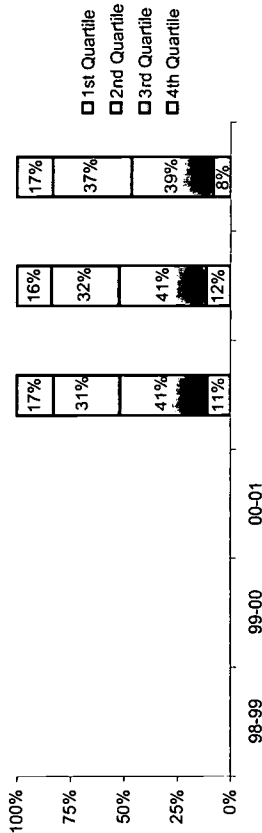
% Passing by Race/Ethnicity



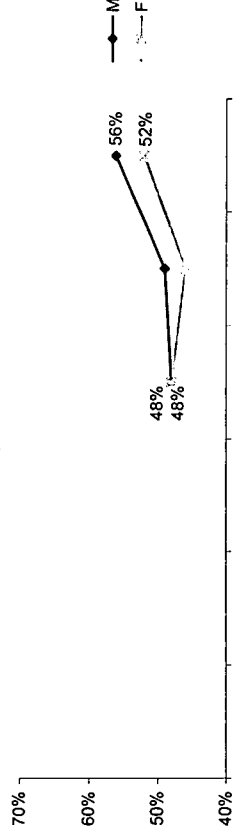
State Assessment Test Result Trends Terra Nova - Mathematics

◆ Grade 10

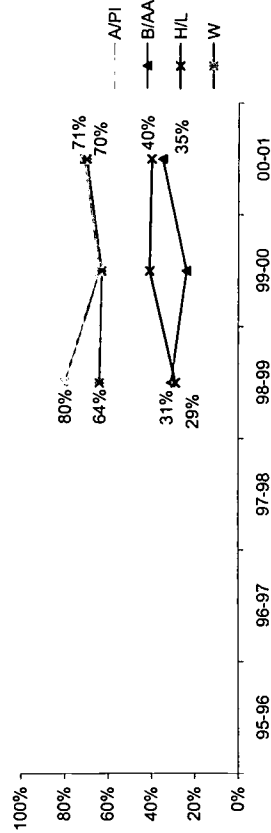
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile				17%	16%	17%
2nd Quartile			17%	31%	32%	37%
3rd Quartile			41%	41%	41%	39%
4th Quartile			11%	11%	12%	8%
Total # of students			749	691	691	597



% Passing by Gender



% Passing by Race/Ethnicity



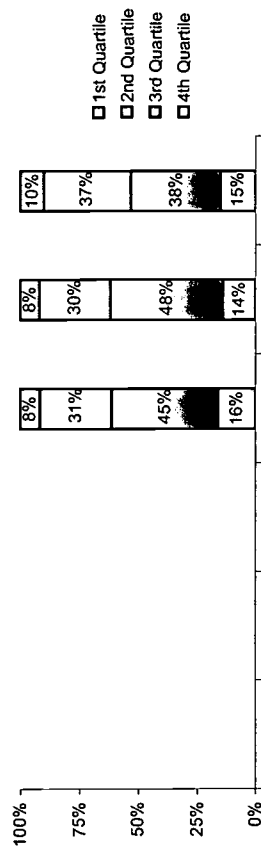
A/I/N: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as 1st and 2nd quartiles

Newburgh Enlarged CPMSA

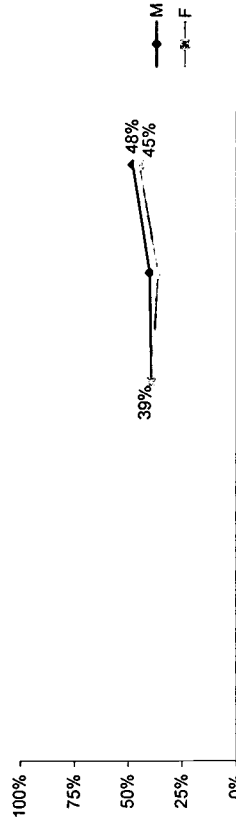
State Assessment Test Result Trends Terra Nova - Science

◆ Grade 8

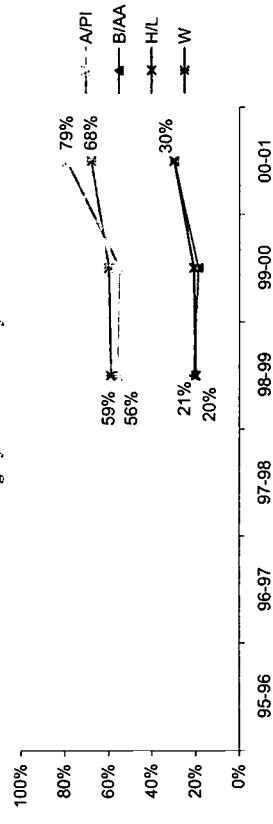
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile			8%	8%	8%	10%
2nd Quartile			31%	31%	30%	37%
3rd Quartile			45%	45%	48%	38%
4th Quartile			16%	16%	14%	15%
Total # of students			819	819	813	865



% Passing by Gender



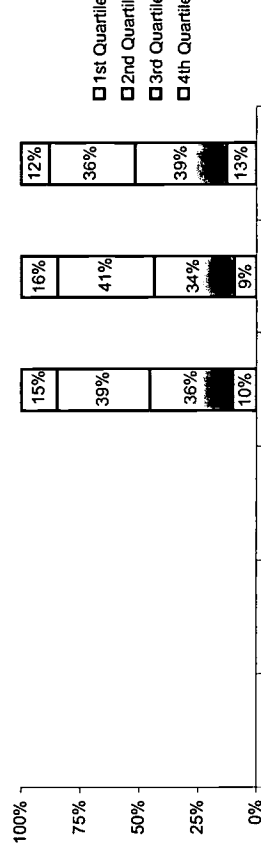
% Passing by Race/Ethnicity



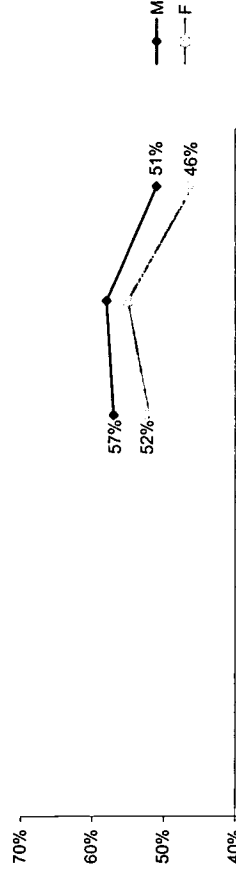
State Assessment Test Result Trends Terra Nova - Science

◆ Grade 10

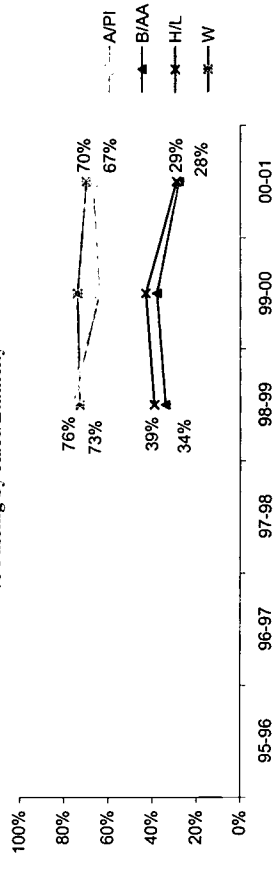
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile						12%
2nd Quartile				15%	16%	36%
3rd Quartile				39%	41%	39%
4th Quartile				36%	34%	13%
Total # of students				837	761	607



% Passing by Gender



% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 1st and 2nd quartiles

Newburgh Enlarged CPMSA

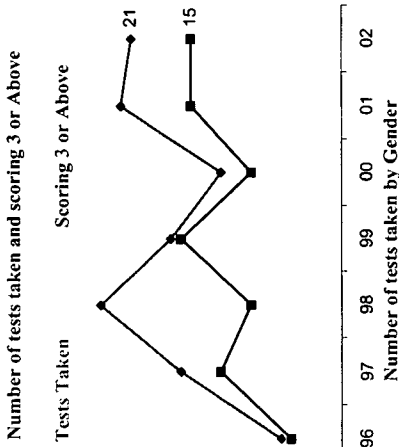
SY 2000-01

AP Mathematics Test Result Trends

◆ Calculus AB, Calculus BC, & Statistics

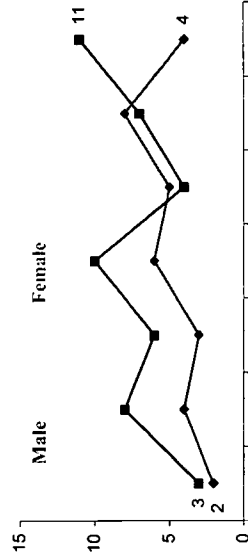
◆ AP Mathematics - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,115	1,092	1,109	1,229	1,378	1,399	
Calculus AB	3	5	10	8	11	13	8
Calculus BC	3	8	13	9	1	9	13
Statistics	0	3	1	0	0	0	0
Total	6	16	24	17	12	22	21
Tests taken per 1,000 students	5.4	14.7	21.6	13.8	8.7	15.7	
Above Scoring 3 or Above per 1000	4.5	11.0	8.1	13.0	6.5	10.7	



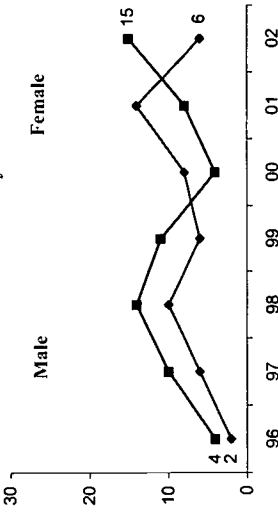
◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	3	8	6	10	4	7	11
Female	2	4	3	6	5	8	4



◆ AP Mathematics - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	4	10	14	11	4	8	15
Female	2	6	10	6	8	14	6

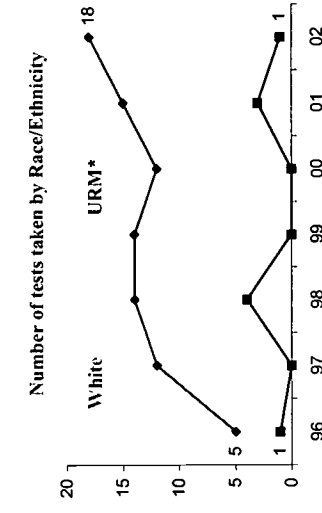


◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	1	2	3	0	1	2
B/AA	0	0	0	0	0	1	0
H/L	1	0	0	0	0	2	1
W	4	8	7	13	9	10	12

◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	1	6	3	0	3	2
B/AA	0	0	1	0	0	1	0
H/L	1	0	3	0	0	2	1
W	5	12	14	14	12	15	18



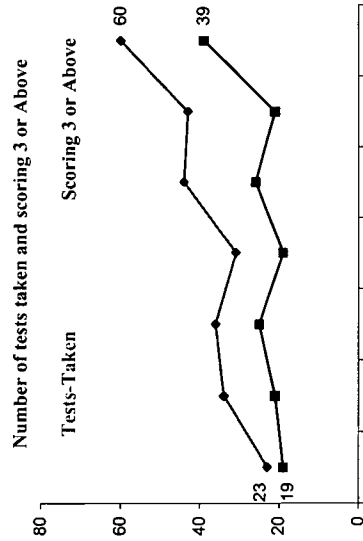
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

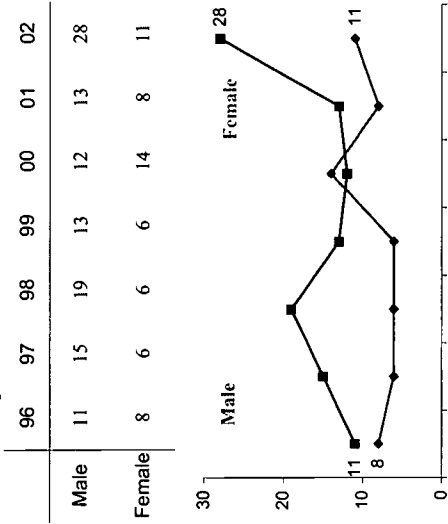
AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

♦ **AP Science - Total Number of Tests Taken**

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,115	1,092	1,109	1,229	1,378	1,399	
Biology	4	6	12	13	15	12	13
Chemistry	1	2	0	0	0	7	11
Env. Science	0	0	0	0	0	0	0
Physics B	18	22	24	13	29	19	29
Physics Mech.	0	3	0	5	0	3	4
Physics Elec.	0	1	0	0	0	2	3
Total	23	34	36	31	44	43	60
Tests taken per 1,000 students	20.6	31.1	32.5	25.2	31.9	30.7	
Scoring 3 or Above	19	21	25	19	26	21	39
Scoring 3 or Above per 1000	17.0	19.2	22.5	15.5	18.9	15.0	

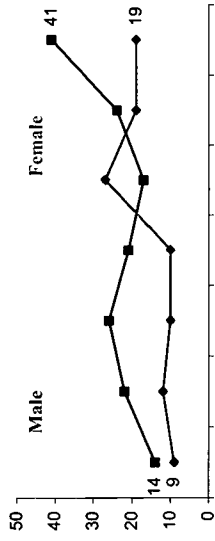


♦ **AP Science - Number of Students Scoring 3 or Above By Gender**



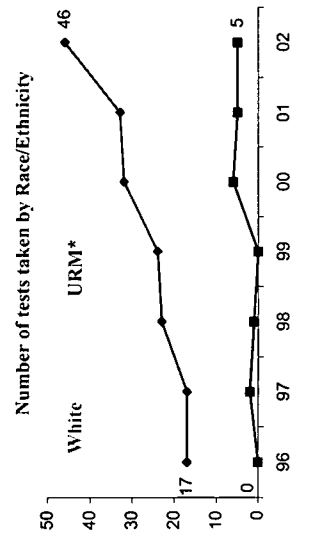
♦ **AP Science - Number of Tests Taken By Gender**

	96	97	98	99	00	01	02
Male	14	22	26	21	17	24	41
Female	9	12	10	10	27	19	19



♦ **AP Science - Number of Tests Taken By Race/Ethnicity**¹

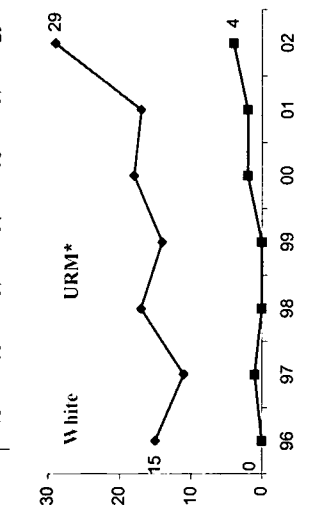
	96	97	98	99	00	01	02
A/AN	0	1	0	0	1	0	0
A/PI	3	6	7	6	5	4	6
B/AA	0	1	1	0	3	2	3
H/L	0	0	0	0	2	3	2
W	17	17	23	24	32	33	46



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity**¹

	96	97	98	99	00	01	02
A/AN	0	1	0	0	0	0	0
A/PI	3	4	3	5	5	2	5
B/AA	0	0	0	0	2	1	2
H/L	0	0	0	0	0	1	2
W	15	11	17	14	18	17	29



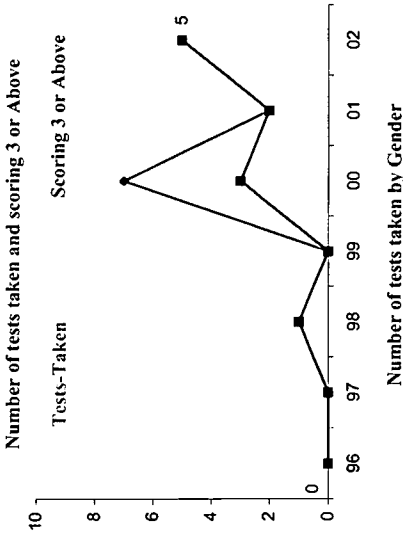
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

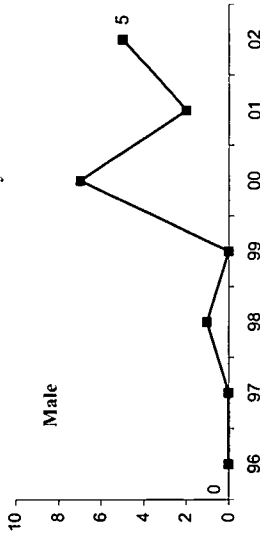
AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,115	1,092	1,109	1,229	1,378	1,399	
Comp. Sci A	0	0	1	0	7	2	5
Comp. Sci. AB	0	0	0	0	0	0	0
Total	0	0	1	0	7	2	5
Tests taken per 1,000 students	0.0	0.0	0.9	0.0	5.1	1.4	
Above Scoring 3 or Above per 1000	0	0	1	0	3	2	5
	0.0	0.0	0.9	0.0	2.2	1.4	



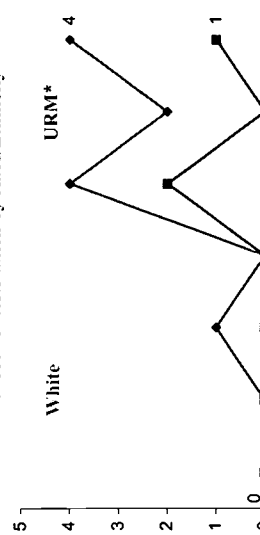
AP Computer Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	0	0	1	0	7	2	5
Female	0	0	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	0	0	1	0	0
B/AA	0	0	0	0	1	0	0
H/L	0	0	0	0	1	0	1
W	0	0	1	0	4	2	4

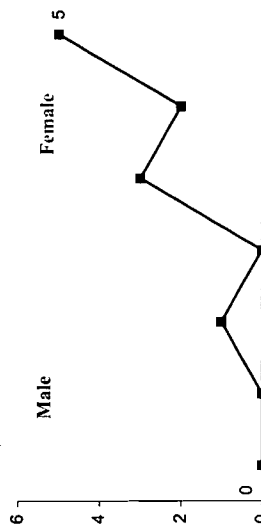


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

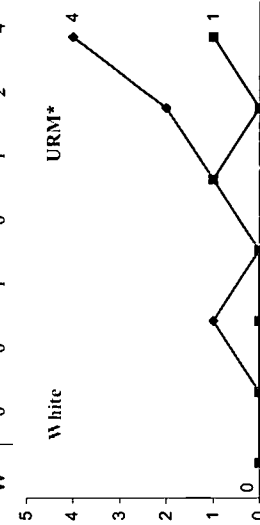
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	0	0	1	0	3	2	5
Female	0	0	0	0	0	0	0



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	0	0	1	0	0
B/AA	0	0	0	0	0	0	0
H/L	0	0	0	0	1	0	1
W	0	0	1	0	1	2	4



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Newburgh Enlarged CPMSA

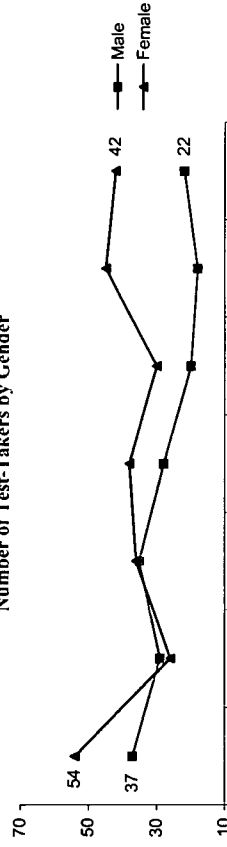
SY 2000-01

ACT Test-Takers

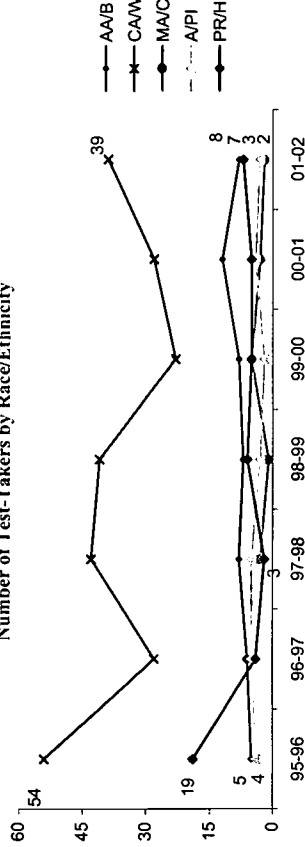
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	553	578	523	600	647	700	-
Test-Takers	91	55	71	66	50	63	64
Num of Test-Takers/1,000 Stu.	165	95	136	110	77	90	-
Gender							
Male	37	29	35	28	20	18	22
Female	54	26	36	38	30	45	42
Race/Ethnicity							
AA/B	5	6	8	7	8	12	8
AI/AN	0	0	0	0	0	0	0
CA/W	54	28	43	41	23	28	39
MA/C	0	0	3	1	5	3	2
A/PI	4	5	5	3	2	4	3
PR/H	19	4	2	6	5	5	7

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

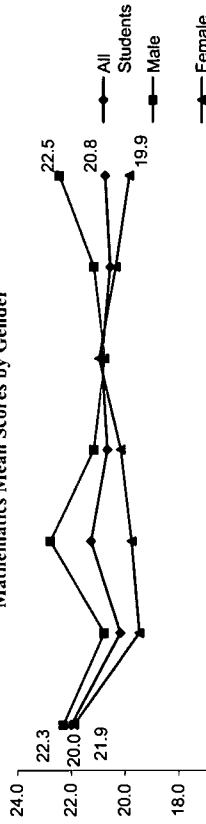


ACT Mathematics Scores

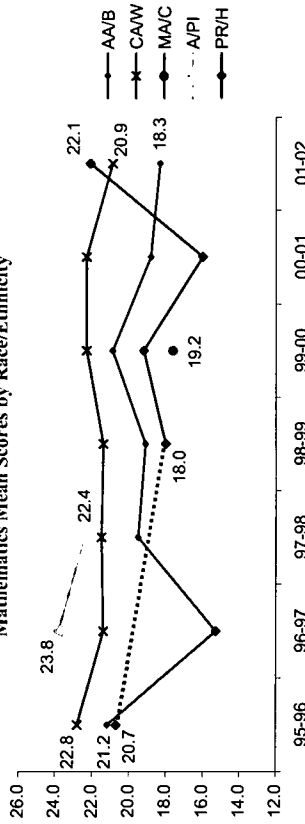
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	22.0	20.2	21.3	20.7	20.9	20.6	20.8
Gender							
Male	22.3	20.8	22.8	21.2	20.8	21.2	22.5
Female	21.9	19.5	19.8	20.2	21.0	20.4	19.9
Race/Ethnicity							
AA/B	21.2	15.3	19.5	19.1	20.9	18.8	18.3
AI/AN	-	-	-	-	-	-	-
CA/W	22.8	21.4	21.5	21.4	22.3	22.3	20.9
MA/C	-	-	-	-	17.6	-	-
A/PI	-	23.8	22.4	-	-	-	-
PR/H	20.7	-	-	18.0	19.2	16.0	22.1

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
 (-) Mean scores not presented for sample size less than 5

Newburgh Enlarged CPMSA

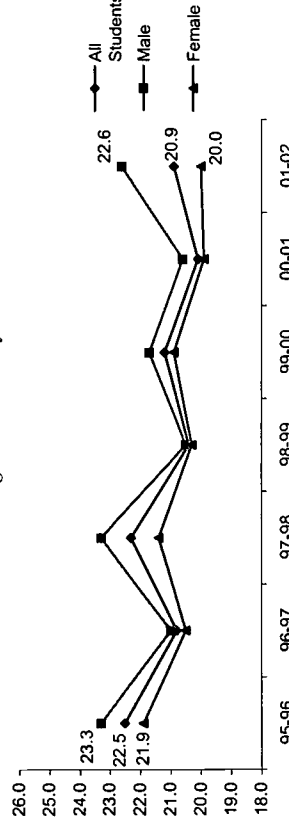
SY 2000-01

ACT Science Reasoning Scores

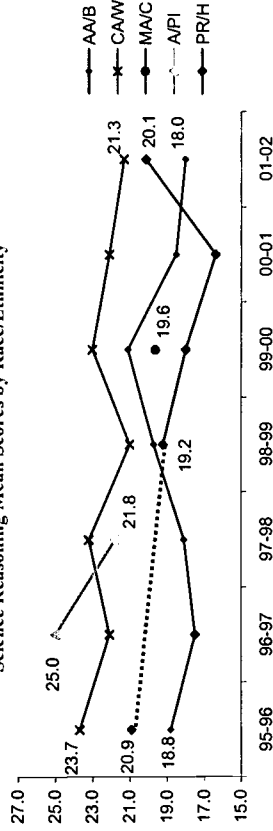
Science Reasoning - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	22.5	20.8	22.3	20.4	21.2	20.1	20.9
Gender							
Male	23.3	21.0	23.3	20.5	21.7	20.6	22.6
Female	21.9	20.5	21.4	20.3	20.9	19.9	20.0
Race/Ethnicity							
AA/B	18.8	17.5	18.1	19.7	21.1	18.5	18.0
AI/AN	-	-	-	-	-	-	-
CA/W	23.7	22.1	23.2	21.0	23.0	22.1	21.3
MA/C	-	-	-	-	19.6	-	-
A/P/I	-	25.0	21.8	-	-	-	-
PR/H	20.9	-	-	19.2	18.0	16.4	20.1

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity*



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
American/White MA/C: Mexican American/Chicano A/P/I: Asian/Pacific Islander PR/H:
Puerto Rican/Hispanic.

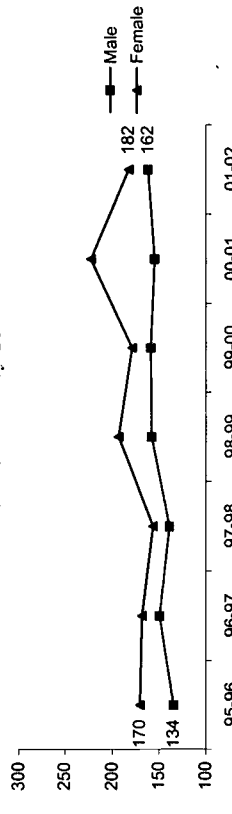
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

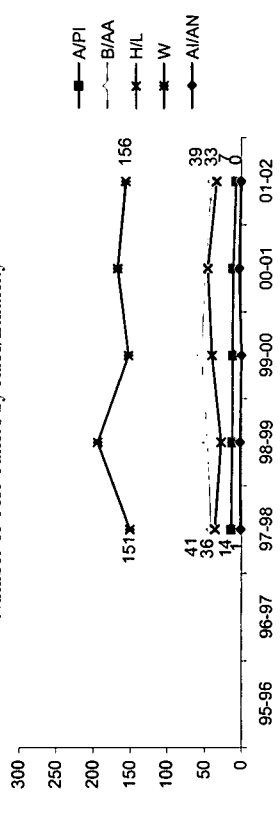
Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	553	578	523	600	647	700	-
Test-Takers	304	317	295	351	338	377	344
Num of Test-Takers/1,000 Stu.	550	548	564	585	522	539	-
Gender							
Male	134	149	139	158	159	155	162
Female	170	168	156	193	179	222	182
Race/Ethnicity							
AI/AN	-	1	2	0	0	3	0
A/P/I	-	14	13	12	11	11	7
B/AA	-	41	46	54	48	48	39
H/L	-	36	28	40	45	45	33
W	-	151	194	153	167	167	156
OT	-	12	14	13	17	17	12

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

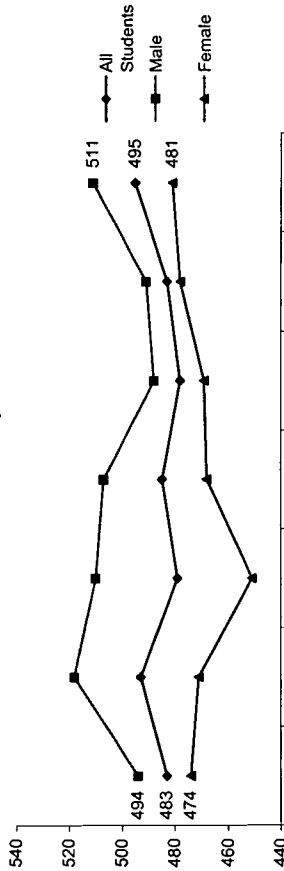
Newburgh Enlarged CPMSA

SAT Mathematics Scores

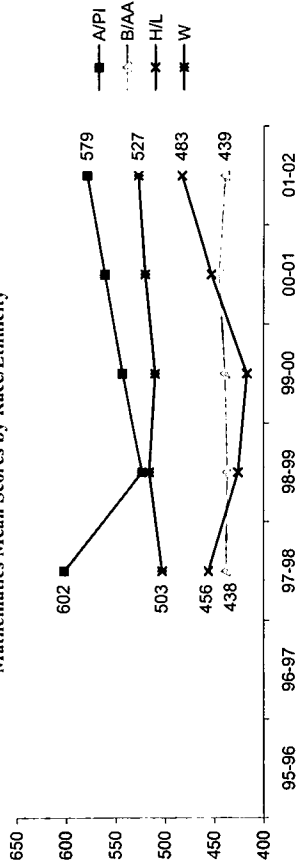
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	483	493	479	485	478	483	495
Male	494	518	510	507	488	491	511
Female	474	471	451	468	469	478	481
Race/Ethnicity							
A/I/AN							
A/PI		602	523	543	561	579	
B/AA	Data Not Available	438	437	439	445	439	
H/L		456	426	417	453	483	
W		503	516	510	520	527	
OT		456	448	494	498	474	

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity*1



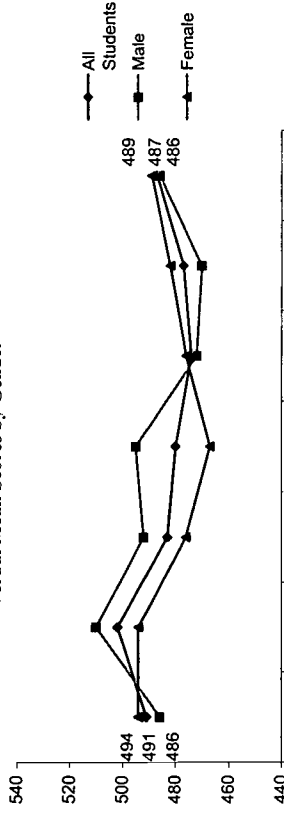
A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

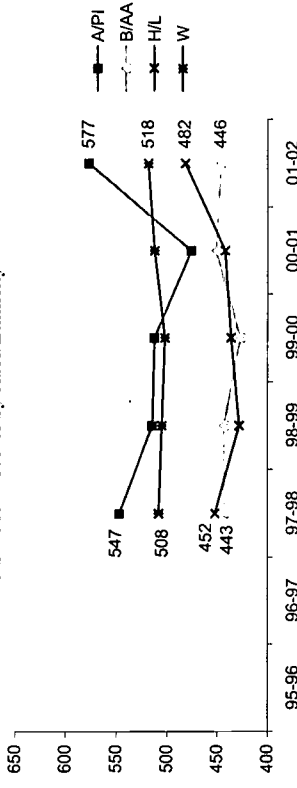
◆ Verbal - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	491	502	483	480	474	477	487
Male	486	510	492	495	472	470	486
Female	494	494	476	467	476	482	489
Race/Ethnicity							
A/I/AN							
A/PI			547	514	512	476	577
B/AA	Data Not Available		443	443	427	451	446
H/L			452	428	436	442	482
W			508	505	502	512	518
OT			463	466	515	536	492

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Newburgh Enlarged CPMSA

Cohort/Scale-Up Approach

Number of District Schools	96-97 ¹	97-98 ²	98-99 ²	99-00 ²
CPMSA Schools:	15	15	14	14
% Schools:	100%	100%	100%	100%

¹ Source: TISC 1998

² Source: CDE 98-99, 99-00, 00-01

Primary Decision Making Body

Standards Curriculum	State
Curriculum/Text/Book Adoption	District
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management	Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 No policy, but in practice there are two tracks: honors and regents

Criteria for Entry into High Level Mathematics and Science Courses:
 Science AP courses: Pass regents Chemistry and Biology. May take Physics concurrently.
 Access to upper level courses has increased for all students.

Special Education and Bilingual Students:
 Math and Science courses taught by Teachers certified in Math, Science and Bilingual Education. Co-teaching for Special Education at High School level with both a Special Education teacher and certified math

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements:
 For the class of 2004, must pass regents exams with a score of 55%
 New requirements: 3 credits in mathematics and 3 credits in science

Student Support Systems:
 Afterschool tutoring
 Tutoring for: Elementary and Junior High 1.5 hours/week; High School Twilight Program 3 hours/ 4 days a week; Saturday Tutoring for Regents.
 Smaller learning communities (Houses for middle schools and Academies for high school)

Summer programs:
 JANUS Transition.
 Regents
 METS summer program for rising 4th -7th graders.
 Elementary school math programs
 Upward Bound residential program for rising 8th and 9th grade students in math, science, and computer technology.

Policies Relevant to Curriculum Framework:

New York State Learning Standards for Math, Science and Technology is the basis for the District Framework
 Investigations in Numbers, Data, and Space (GK-5)

Connected Math (G6-8). Integrated Math Program (G9-12)

- TERC (K-5)
- FOSS (K-6)
- Bottle Biology
- Event-based science
- No

New Courses Added as a Result of CPMSA:

Instructional Time:
 G7-12 math and science students receive 294 minutes of instruction per week

Standards-based Curriculum and Instruction

Standards Adopted: New York State and National Standards

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Relevant to Teacher Qualifications

Certification:
 Requirement & Hiring Practices
 Within two years must submit a video lesson to State Education Department. Within five years must have a Masters degree and a permanent certification license.
 Guidance counselors receive staff development.

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School HI: High School

Newburgh Enlarged CPMSA

SY 2000-01

Professional Development Policies and Practices	Partnerships
<p>Impact on Student Achievement:</p> <p>Time Required or Supported: , None</p> <p>Financial Resources Provided:</p> <ul style="list-style-type: none"> • Standards-based professional development plan developed in 1999-00 for implementation in SY 2000-01 <p>Alignment to Student Standards:</p> <ul style="list-style-type: none"> • Yes, Equity 2000 • Counselors Guide • Safety Net Brochure • Inquiry Instruction • Constructivism <p>Type and Amount Received by Average Math/Science Teacher:</p> <ul style="list-style-type: none"> • None required by policy. <p>Evaluation Instruments:</p> <ul style="list-style-type: none"> • Effectiveness of professional development is measured through action research <p>Professional Development Alignment to Content Standards Measures:</p> <p>Teacher's Instructional Practices Evaluation: , Teachers are observed by principals and curriculum directors. Pre and post-observation, conferences are held and written observations and evaluations are given to teachers.</p>	<p>Other Key Initiatives:</p> <ul style="list-style-type: none"> • Title I, II • GOALS 2000 • 21st Century CLC and EQUITY 2000 <p>Completing Initiatives: , None</p> <p>Community Stakeholders:</p> <ul style="list-style-type: none"> • Compact Committee • SDPT • Family Liaison • CBOs • NSF Leadership Team • Museum of Hudson Highlands • Center for Resource Management • Black Rock Forest <p>Higher Education:</p> <ul style="list-style-type: none"> • Mt. St. Mary College • New York University • Yale University Collaborative Research • USMA at West Point • Marist College • Massachusetts Inst. of Technology <p>Business and Industry: , Texaco Corporation</p> <ul style="list-style-type: none"> • IBM • International Paper • Liberty Partnership
<p>Policies Relevant to Standards-based Assessments</p> <p>Extent to Which Aligned to District Standards and Curriculums:</p> <ul style="list-style-type: none"> • 100% <p>Assessments Used:</p> <ul style="list-style-type: none"> • Terra Nova • Complete Battery Plan • Aligned Curriculum for Math and Science contains Embedded Content and Format Assessments 	
<p>CPMSA Leadership, Governance, and Management</p> <p>Superintendent: , Lavel S. Wilson</p> <p>Continuity of Leadership:</p> <ul style="list-style-type: none"> • District Science Director is no longer the Project Director <p>Project Directors position in district's organizational structure:</p> <ul style="list-style-type: none"> • Active participation by Superintendent in District NSF Project Leadership Team. Project Director reports to the Superintendent <p>Teacher Leaders:</p>	

Newburgh Enlarged CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring:

- Terra Nova Tests (97-98)
- New York State Assessments (98-99)

Report Card System:

- Yes. State Report Card for District and school scores

Key Indicator Data Collection:

- District's Central Data Base

Key Indicator Data Use:

- Shared information
- Item Analysis
- Data is provided for and distributed to all principals and teachers

Local On-Sight Evaluation:

- Central

Data Manager:

- James Formato

External Evaluator:

- METIS Associates

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1995-96	<ul style="list-style-type: none"> • Three tracks: Honors, Regents, and Non-Regents • Regents Chemistry, Biology and Physics necessary for AP science courses
1996-97	<ul style="list-style-type: none"> • Only two science courses required for science AP enrollment. Physics may be taken concurrently
1997-98	
1998-99	<ul style="list-style-type: none"> • Now only 2 tracks: Honors and Regents • Summer Support Programs initiated • Student tutoring programs introduced
1999-00	<ul style="list-style-type: none"> • Special Education Teachers co-teach at high school level

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1995-96	
1996-97	<ul style="list-style-type: none"> • FOSS for grades K-6
1997-98	
1998-99	<ul style="list-style-type: none"> • Bottle Biology and Events-based science introduced
1999-00	<ul style="list-style-type: none"> • Amount of time for science instruction (G7-12) increased from 210 to 294 minutes per week • All curriculum documents are 100% aligned with National Standards

Newburgh Enlarged CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented
1995-96	
1996-97	<ul style="list-style-type: none"> Professional development followed up with observations by principals and curriculum directors
1997-98	
1998-99	<ul style="list-style-type: none"> Action Research Projects for teachers
1999-00	<ul style="list-style-type: none"> Standards-based professional development planned for implementation in SY 2000-01

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> Teachers are informed of Terra Nova math and science results by student, and class reports include growth figures
1999-00	<ul style="list-style-type: none"> New aligned testing introduced Teachers required to contribute to Comprehensive District Plan based on assessment results

Accountability

School Year	Policy Implemented
1996-97	<ul style="list-style-type: none"> Outside Evaluators hired District creates Central Data Base
1997-98	<ul style="list-style-type: none"> Terra Nova Standardized tests introduced
1998-99	<ul style="list-style-type: none"> State report card issued

CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003



Paramount Unified School District, CA
Paramount, CA

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Project Information

CPMSA Project Title : Paths Toward Significant Achievement

Cohort: 96

CPMSA Web Site:

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◆ CPMSA Data Manager/Evaluator

Data Manager
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◆ Mailing Address

Paramount Unified School District
 15110 California Avenue
 Paramount, CA 90723

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01			
K-G5 (Elementary)	14	423	8,902
G6-8 (Middle)	0	62	3,886
G9-12 (High)	3	58	4,074
Total	17	543	16,862

Source: Core Data Elements (SY 2000-01)

Project Summary

The Paramount Unified School District is a demographic microcosm of the population of Los Angeles County, with a 90 percent non-Asian minority population. Fewer than 60 students out of a graduating class of 400 go on to a 4 year college and even fewer major in mathematics or science. The high-minority, low achieving population and energetic, collaborative staff members make the district fertile ground for implementing systemically improved science and mathematics programs. Because partnerships with other organizations (governments, business, industry, and colleges) have already been established, implementation can proceed at a more rapid pace. The scientific experiences in the NSF-funded Teachers Plus Occidental equals Partnership in Science.

(TOPS) program, which brings in sophisticated science equipment for high school students, has been quite successful, albeit limited. Similar situations exist at the elementary and intermediate schools.

Project Goals

By June 2001, at the end of the fifth year of implementation, Paramount High School will have had 1,450 of its seniors complete a college preparatory sequence (currently only 57 per year do so). All of these graduates will have successfully completed precollege courses through the Paths Toward Significant Achievement (PTSA).

Selected School Indicators (District Average)

	95-96	00-01	Change
% Special Ed.			
% LEP			
% Free/Red. Lunch			
% Daily Avg. Absen.			
% Average Retained			
% Drop-Out			
% Mobility			
Per Pupil Cost (\$)			
# Students Per Computer			
% Classrooms Internet Access			
Average Class Size			

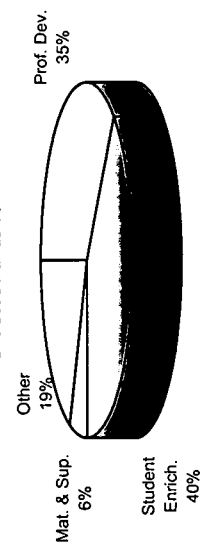
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PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	36%	35%
Student Enrich.	29%	40%
Mat. & Sup.	11%	6%
Other	24%	19%
Total	100%	100%

CPMSA Funds %



Paramount CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 16,862
 CPMSA Schools: 15,949
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	1995-96	1997-98	%	% Change
Ame. Ind./Ala. Nat.	48	53	0.3%	+10.4%
Asian/P. Islander	627	647	4.0%	+3.2%
Black	2,211	2,368	14.6%	+7.1%
Hispanic	11,280	12,267	75.7%	+8.8%
White	916	868	5.4%	-5.2%
Other	0	0	0.0%	.
Total	15,082	16,203	100.0%	+7.4%
URM Total	13,539	14,688	90.6%	+8.5%

URM: Underrepresented Minority students.

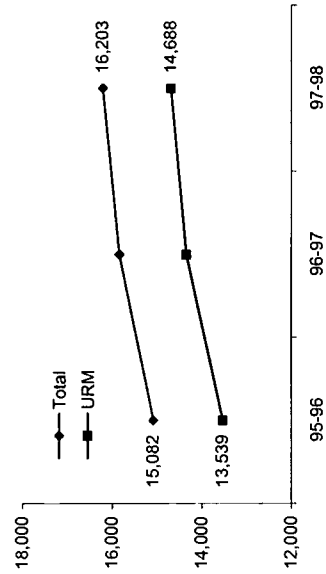
◆ Gender

Male	7,686	8,216	50.7%	+6.9%
Female	7,396	7,987	49.3%	+8.0%

◆ Grade

K-G5	8,198	8,853	54.6%	+8.0%
G6-8	3,276	3,686	22.7%	+12.5%
G9-12	3,375	3,551	21.9%	+5.2%
Ungraded	233	113	0.7%	-51.5%

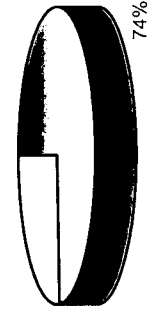
◆ District Student Demographic Trends



12th Grade Graduates

	1996-97	1997-98	Change
Total 12th Grade	623	661	+6%
Earned a Diploma	455	489	+7%
% Earned Diploma	73%	74%	+1 PP

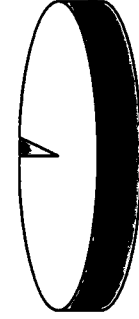
% Earned Diploma for SY 1997-98



SEM Proficiency

	1996-97	1997-98	Change
# SEM Proficient ¹	13	13	+0%
% SEM Proficient/ Total 12th Grade	2%	2%	+0 PP

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - ◆ Science
- PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	1998-99	2000-01	Change
Teachers	31	31	+0%
Certified	.	.	.
% Cert.	.	.	.
G6-8	.	.	.
G9-12	.	.	.
Total	36	32	-11%

	1998-99	2000-01	Change
Teachers	67	63	-6%
Certified	.	.	.
% Cert.	.	.	.

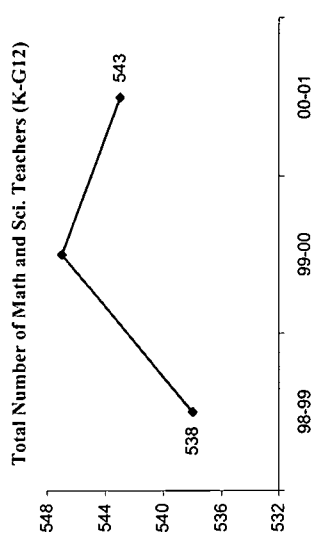
◆ Science (G6-12)

	1998-99	2000-01	Change
Teachers	30	31	+3%
Certified	.	.	.
% Cert.	.	.	.
G6-8	.	.	.
G9-12	.	.	.
Total	16	26	+63%

	1998-99	2000-01	Change
Teachers	46	57	+24%
Certified	.	.	.
% Cert.	.	.	.

◆ Math and Science (K-G5)

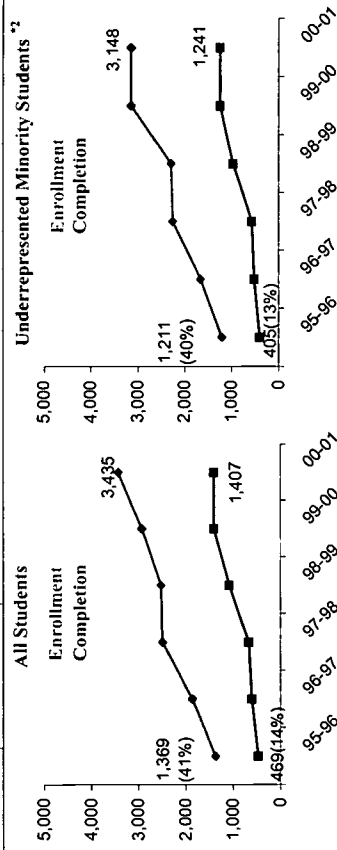
	1998-99	2000-01	Change
Teachers	425	423	-0.5%



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

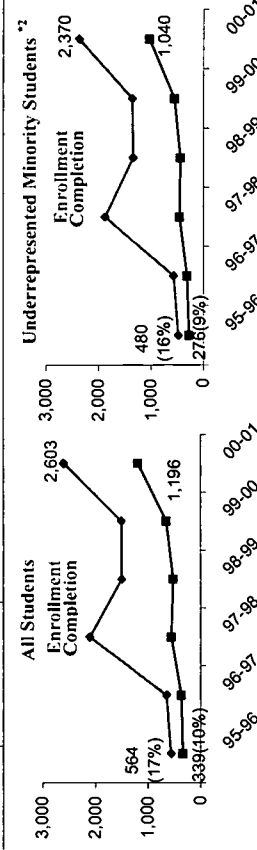
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

Total G 9-12 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	3,375	3,354	3,551			
Enrollment Completion ¹	1,369	1,861	2,503	2,532	2,933	3,435
% Enroll/G9-12	41%	55%	70%			
Enrollment	1,211	1,659	2,257	2,300	2,689	3,148
Enrollment Completion ¹	405	524	573	963	1,242	1,241
% Enroll/G9-12	40%	55%	70%			



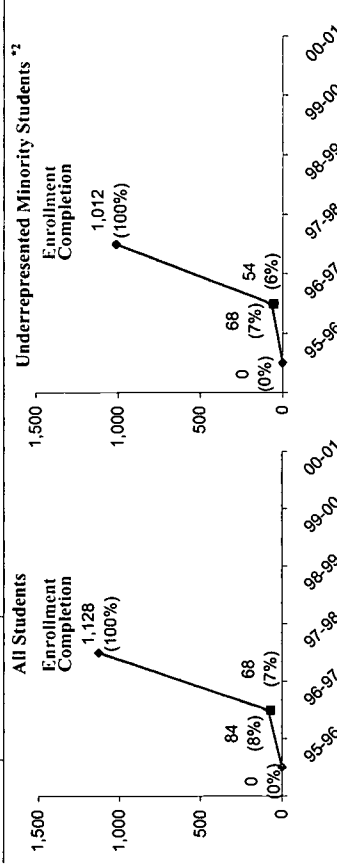
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

Total G 9-12 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	3,375	3,354	3,551			
Enrollment Completion ¹	564	650	2,108	1,508	1,514	2,603
% Enroll/G9-12	17%	19%	59%			
Enrollment	480	570	1,884	1,346	1,363	2,370
Enrollment Completion ¹	276	317	461	443	558	1,040
% Enroll/G9-12	16%	19%	59%			



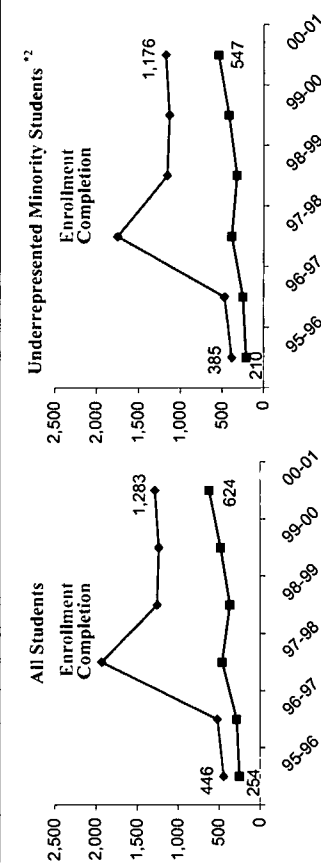
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

Total G 8 Population	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	1,022	1,029	1,128			
Enrollment Completion ¹	0	84	1,128			
% Enroll/G8	0%	8%	100%			
Enrollment	0	68	1,012			
Enrollment Completion ¹	0	54				
% Enroll/G8	0%	7%	100%			



Biology Enrollment & Completion Trends/ All vs. URM

All Students	95-96	96-97	97-98	98-99	99-00	00-01
Enrollment	446	521	1,932	1,260	1,238	1,283
Enrollment Completion ¹	254	286	465	369	483	624
Enrollment	385	469	1,750	1,158	1,135	1,176
Enrollment Completion ¹	210	251	386	325	421	547



¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

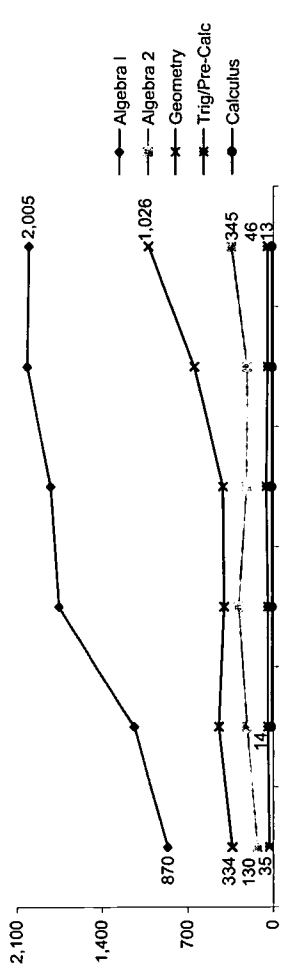
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Paramount CPMSA

Mathematics Course Enrollment & Completion Trends By Subject

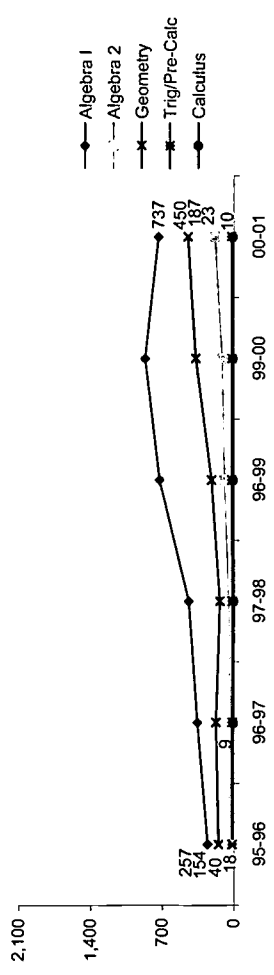
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	870	130	334	35	.	.	1,369
96-97	1,140	216	444	47	14	.	1,861
97-98	1,759	286	402	47	9	.	2,503
98-99	1,827	222	412	58	13	.	2,532
99-00	2,020	215	643	46	9	.	2,933
00-01	2,005	345	1,026	46	13	.	3,435



G 9-12 Course Completion *1 (All Students)

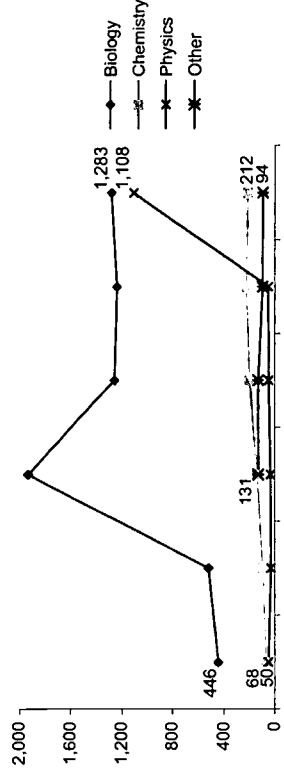
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	257	40	154	18	.	.	469
96-97	361	36	179	17	9	.	602
97-98	444	53	141	18	7	.	663
98-99	727	96	224	24	9	.	1,080
99-00	868	115	375	21	8	.	1,387
00-01	737	187	450	23	10	.	1,407



Science Course Enrollment & Completion Trends By Subject

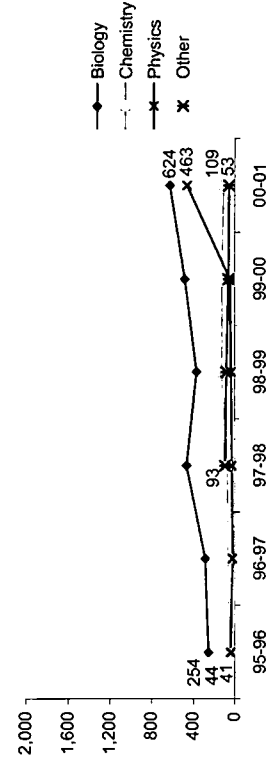
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	446	68	50	.	564
96-97	521	98	31	.	650
97-98	1,932	141	35	131	2,239
98-99	1,260	200	48	133	1,641
99-00	1,238	224	52	98	1,612
00-01	1,283	212	1,108	94	2,697



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	254	44	41	.	339
96-97	286	63	21	.	370
97-98	465	70	25	93	653
98-99	369	122	35	79	605
99-00	483	124	47	60	714
00-01	624	109	463	53	1,249



*1 Successful completion: grade 'C' or above. (.) Data Missing

Paramount CPMSA

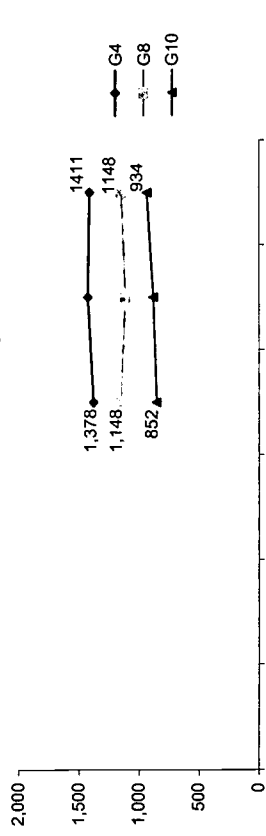
District Assessment Test Administered

Assessment Test-Taker Trends

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	.	.	.	1,378	1,427	1,411
Grade 8	.	.	.	1,148	1,113	1,148
Grade 10	.	.	.	852	883	934

Total number of students taking test

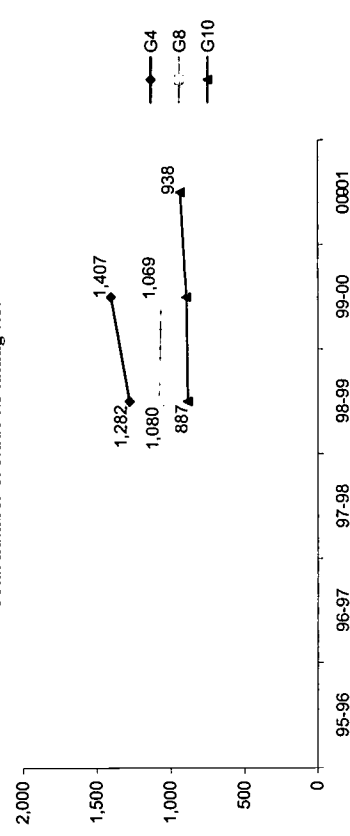


State Assessment Test Administered

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Science	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	1,282	1,407
Grade 8	1,080	1,069
Grade 10	887	938

Total number of students taking test



*CTBS: Comprehensive Test of Basic Skills
 PC: Percentile SN; Stanine PL; Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

Paramount CPMSA

Assessment Test Result Trends SAT-9 - Mathematics

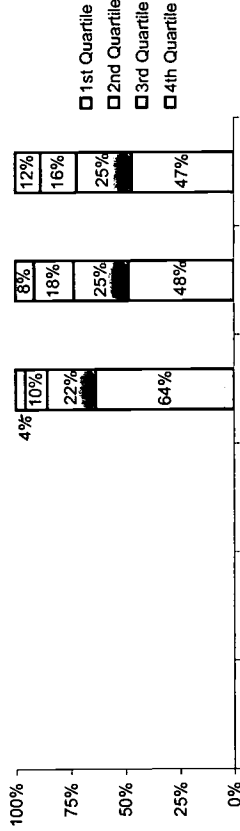
Assessment Test Result Trends SAT-9 - Mathematics

Grade 4

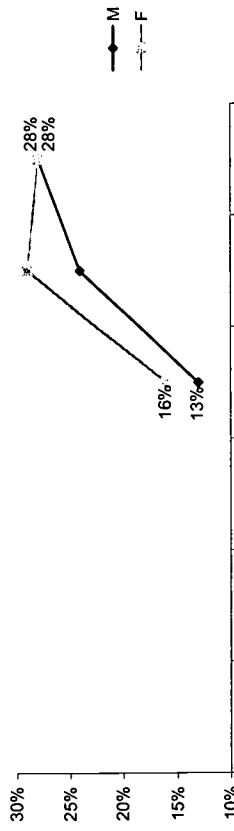
Grade 8

	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile	.	.	4%	8%	12%	12%
2nd Quartile	.	.	10%	18%	16%	16%
3rd Quartile	.	.	22%	25%	25%	25%
4th Quartile	.	.	64%	48%	47%	47%
Total # of students	.	.	1,378	1,427	1,411	1,411

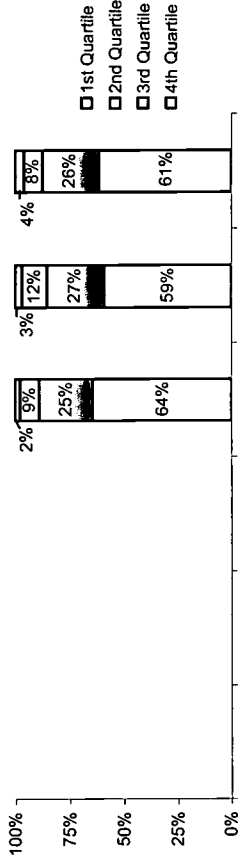
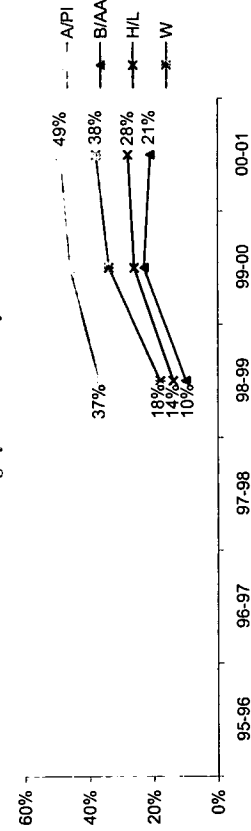
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile	.	.	2%	3%	4%	4%
2nd Quartile	.	.	9%	12%	8%	8%
3rd Quartile	.	.	25%	27%	26%	26%
4th Quartile	.	.	64%	59%	61%	61%
Total # of students	.	.	1,148	1,113	1,148	1,148



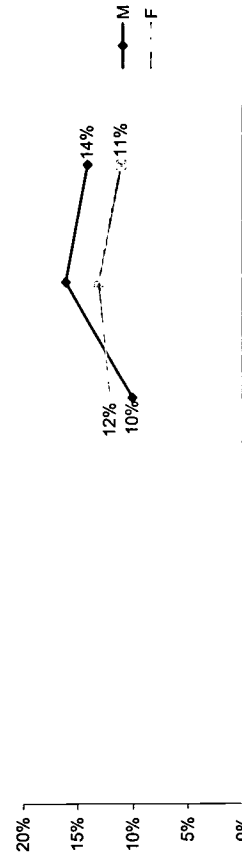
% Passing by Gender



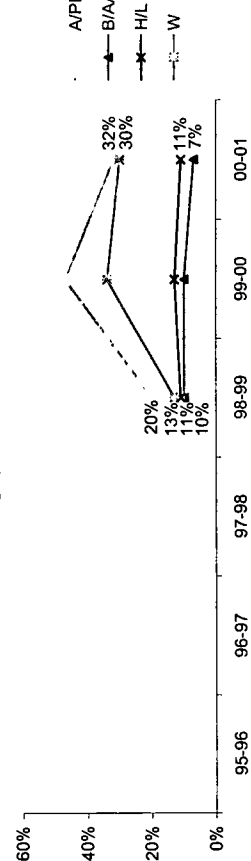
% Passing by Race/Ethnicity



% Passing by Gender



% Passing by Race/Ethnicity



A/I/A/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 (.) Data Missing

Paramount CPMSA

Assessment Test Result Trends SAT-9 - Mathematics

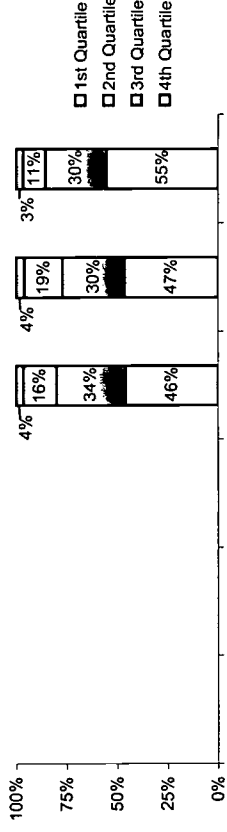
Assessment Test Result Trends - Science

◆ Grade 10

◆ Grade 4

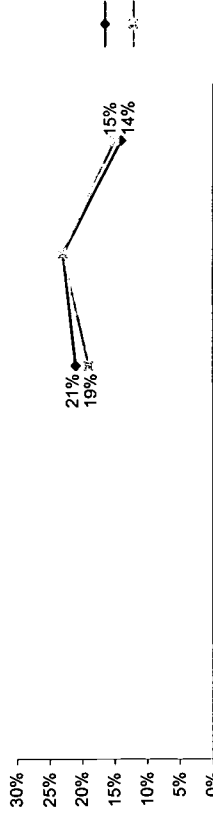
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile		4%	4%	4%	4%	3%
2nd Quartile		16%	16%	19%	19%	11%
3rd Quartile		34%	34%	30%	30%	30%
4th Quartile		46%	46%	47%	47%	55%
Total # of students		852	852	883	883	934

	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile		3%	3%	3%	2%	2%
2nd Quartile		26%	26%	9%	14%	14%
3rd Quartile		62%	62%	26%	26%	26%
4th Quartile		14%	14%	62%	57%	57%
Total # of students		1,282	1,282	1,282	1,407	1,407



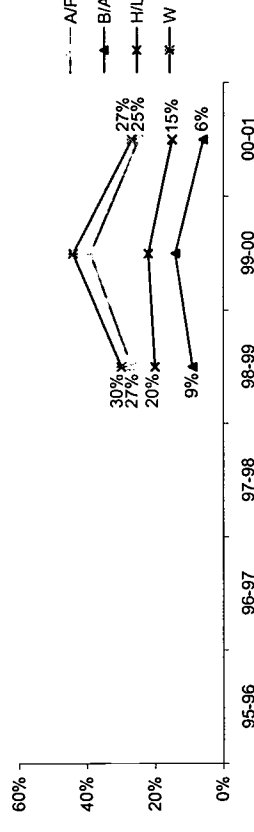
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



(.) Data Missing

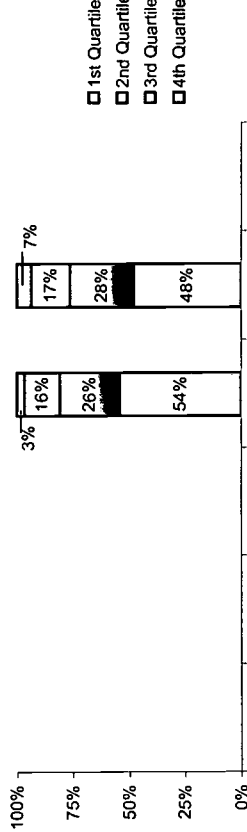
A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 Filipino not included in G10 A/PI because there were less than 10 test takers and the percentiles were not available.
 % Passing defined as 1st and 2nd Quartiles

Paramount CPMSA

Assessment Test Result Trends - Science

Grade 8

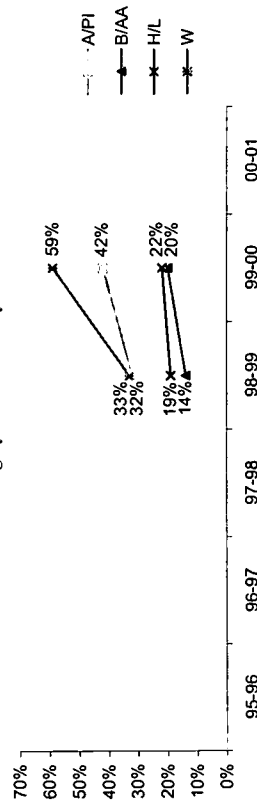
	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile	.	.	.	3%	7%	.
2nd Quartile	.	.	.	16%	17%	.
3rd Quartile	.	.	.	26%	28%	.
4th Quartile	.	.	.	54%	48%	.
Total # of students	.	.	.	1,080	1,069	.



% Passing by Gender



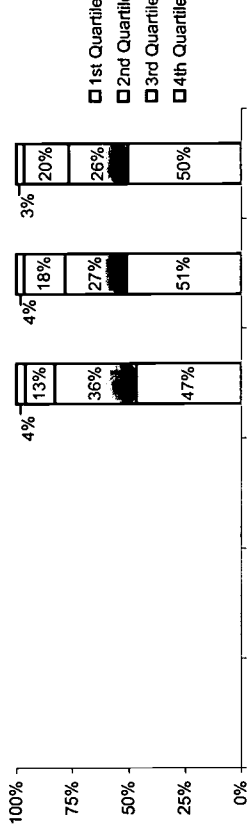
% Passing by Race/Ethnicity



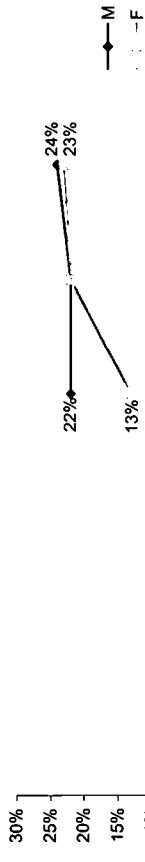
Assessment Test Result Trends SAT-9 - Science

Grade 10

	95-96	96-97	97-98	98-99	99-00	00-01
1st Quartile	.	.	.	4%	4%	3%
2nd Quartile	.	.	.	13%	18%	20%
3rd Quartile	.	.	.	36%	27%	26%
4th Quartile	.	.	.	47%	51%	50%
Total # of students	.	.	.	887	897	938



% Passing by Gender



% Passing by Race/Ethnicity



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White () Data Missing

Filipino not included in G10 A/PI because there were less than 10 test takers and the percentiles were not available.

% Passing defined as 1st and 2nd Quartiles

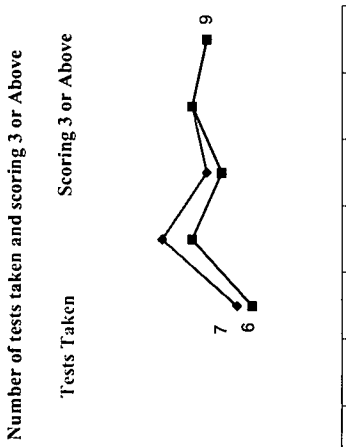
Paramount CPMSA

SY 2000-01

AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

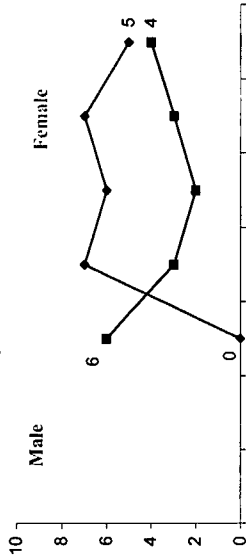
♦ AP Mathematics - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,373	1,395	1,454	.	.	.	.
Calculus AB	Data not received	7	12	9	10	9	9
Calculus BC	0	0	0	0	0	0	0
Statistics	0	0	0	0	0	0	0
Total	7	12	9	10	10	9	9
Tests taken per 1,000 students	4.8	.	.	.	.	.	.
Scoring 3 or Above	6	10	8	10	9	9	9
Scoring 3 or Above per 1000	4.1	.	.	.	.	.	.



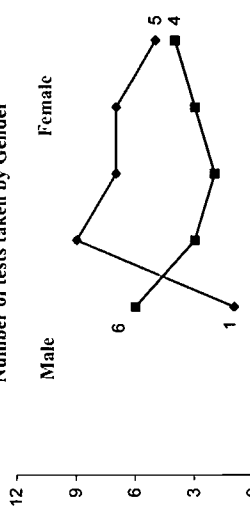
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	Data not received	6	3	2	3	4	4
Female	0	0	7	6	7	5	5



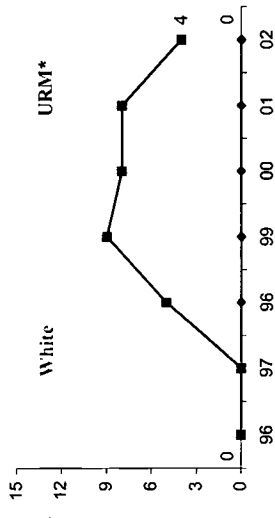
♦ AP Mathematics - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	Data not received	6	3	2	3	4	4
Female	1	9	7	7	5	5	4



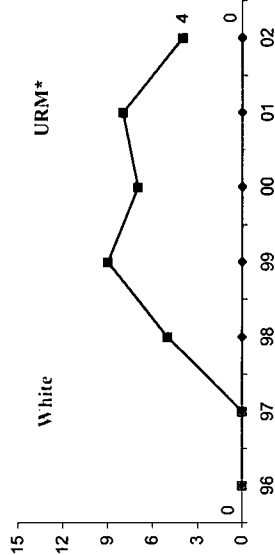
♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/IAN	Data not received	0	0	0	0	0	0
A/PI	1	1	1	1	2	3	3
B/AA	0	0	0	2	0	0	0
H/L	5	9	5	8	4	4	4
W	0	0	0	0	0	0	0



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/IAN	Data not received	0	0	0	0	0	0
A/PI	2	2	1	2	3	3	3
B/AA	0	0	0	2	0	0	0
H/L	5	9	6	8	4	4	4
W	0	0	0	0	0	0	0



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander

B/AA: Black or African American H/L: Hispanic or Latino W: White

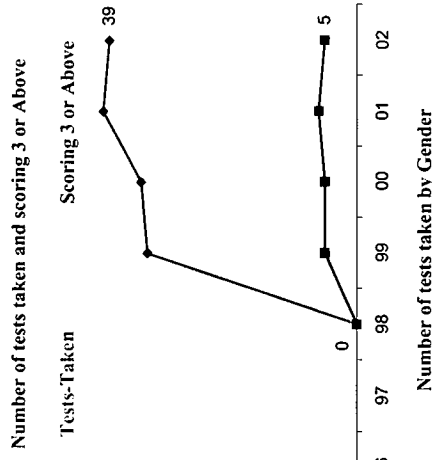
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

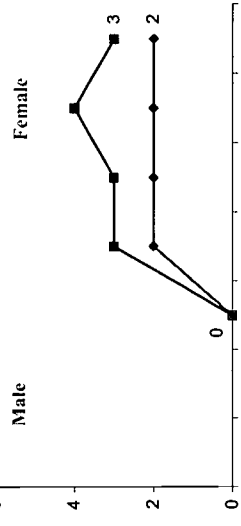
♦ AP Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,373	1,395	1,454	.	.	.	.
Biology	0	33	31	38	35	.	.
Chemistry	0	0	3	2	4	.	.
Env. Science	0	0	0	0	0	0	0
Physics B	0	0	0	0	0	0	0
Physics Mech.	0	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0	0
Total	0	33	34	40	39		
Tests taken per 1,000 students	0.0	.	.	.	.	.	.
Scoring 3 or Above	0	5	5	6	5	.	.
Above per 1000	0.0	.	.	.	.	.	.



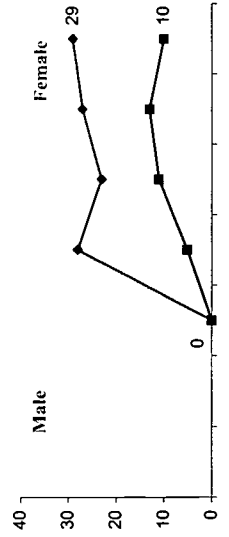
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	0	0	3	3	3	4	3
Female	0	0	0	2	2	2	2



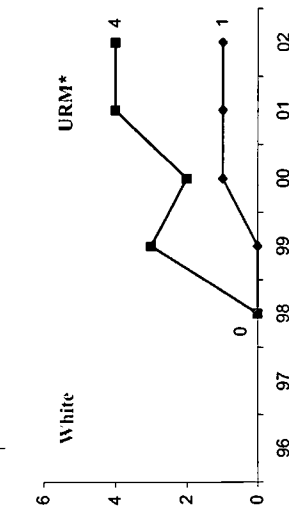
♦ AP Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	0	5	11	13	10	.	.
Female	0	28	23	27	29	.	.



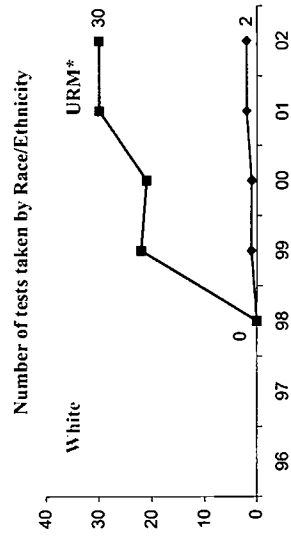
♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity^{*1}

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	1	1	1	1	1	0
B/AA	0	1	0	0	0	0	0
H/L	0	2	2	2	4	4	4
W	0	0	0	0	1	1	1



♦ AP Science - Number of Tests Taken By Race/Ethnicity^{*1}

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	5	9	8	5	.	.
B/AA	0	3	1	2	2	.	.
H/L	0	19	20	28	28	.	.
W	0	1	1	2	2	.	.



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

*1 "Other" category not presented

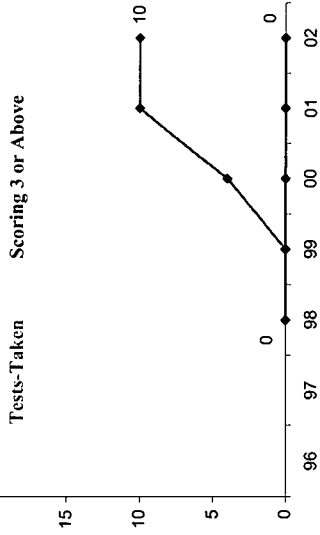
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

♦ AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,373	1,395	1,454	.	.	.	.
Comp. Sci A	Data not received	0	0	4	10	10	10
Comp. Sci. AB	Data not received	0	0	0	0	0	0
Total	0	0	4	10	10	10	10
Tests taken per 1,000 students	0.0	0.0	0.0	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	.	.	.	.

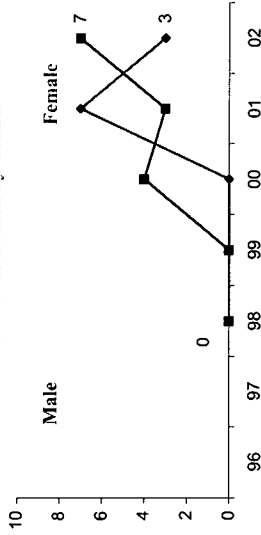
Number of tests taken and scoring 3 or Above



♦ AP Computer Science - Number of Tests Taken

By Gender	96	97	98	99	00	01	02
Male	Data not received	0	0	4	3	7	7
Female	0	0	0	0	7	3	3

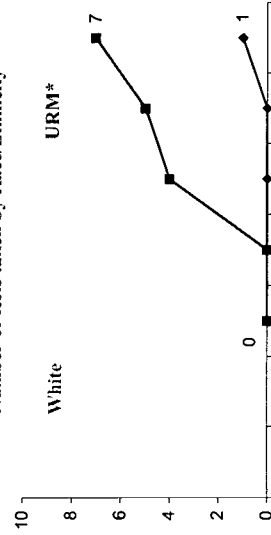
Number of tests taken by Gender



♦ AP Computer Science - Number of Tests Taken

By Race/Ethnicity ¹	96	97	98	99	00	01	02
A/I/A/N	Data not received	0	0	0	0	0	0
A/PI	Data not received	0	0	0	4	2	2
B/AA	0	0	0	0	0	0	0
H/L	0	0	0	4	5	7	7
W	0	0	0	0	0	1	1

Number of tests taken by Race/Ethnicity



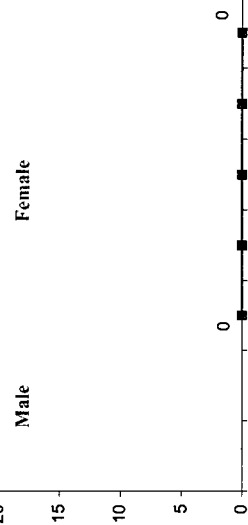
A/I/A/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	Data not received	0	0	0	0	0	0
Female	0	0	0	0	0	0	0

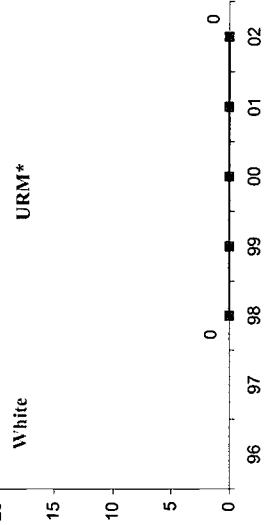
Number of students scoring 3 or above by gender



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/I/A/N	Data not received	0	0	0	0	0	0
A/PI	Data not received	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0

Number of students scoring 3 or above by race/ethnicity



¹URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Paramount CPMSA

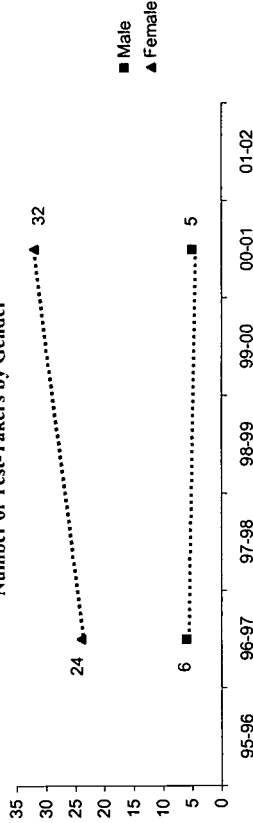
SY 2000-01

ACT Test-Takers

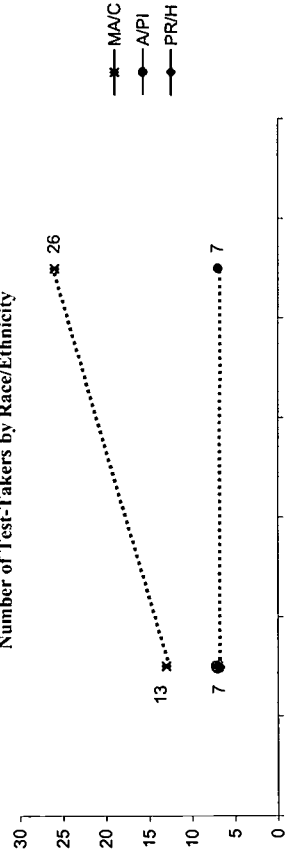
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	607	623	661				
Test-Takers	30	30	37				
Num of Test-Takers/1,000 Stu.	48	48					
Gender							
Male	6	6	5				
Female	24	24	32				
Race/Ethnicity							
AA/B	-	-	-				
AI/AN	-	-	Data Not Received from ACT, Inc.				
CAW	-	-	-				
MA/C	13	13	26				
A/PI	7	7	7				
PR/H	7	7					

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

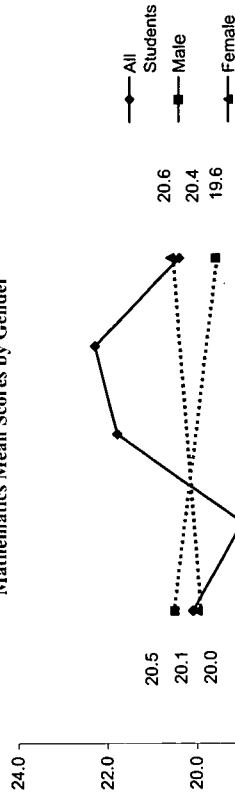


ACT Mathematics Scores

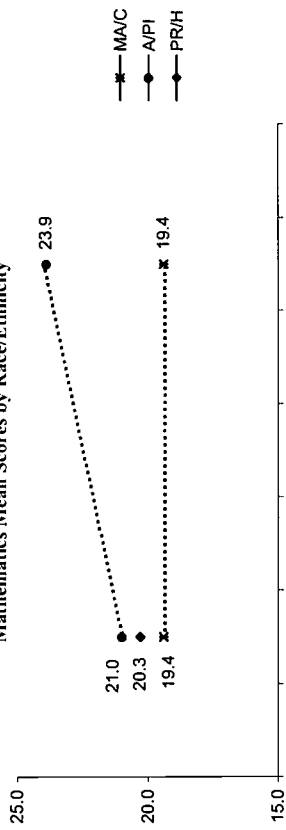
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students		20.1	19.0	21.8	22.3	20.4	20.4
Gender							
Male		20.5				19.6	
Female		20.0				20.6	
Race/Ethnicity							
AA/B	-	-	-	-	-	-	-
AI/AN	-	-	Data Not Received from ACT, Inc.				
CAW	-	-	-				
MA/C	19.4	19.4				19.4	
A/PI	21.0	21.0				23.9	
PR/H	20.3	20.3				-	

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
 (-) Mean scores not presented for sample size less than 5

Paramount CPMSA

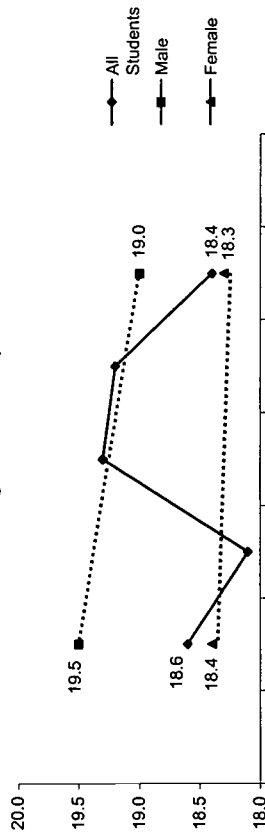
SY 2000-01

ACT Science Reasoning Scores

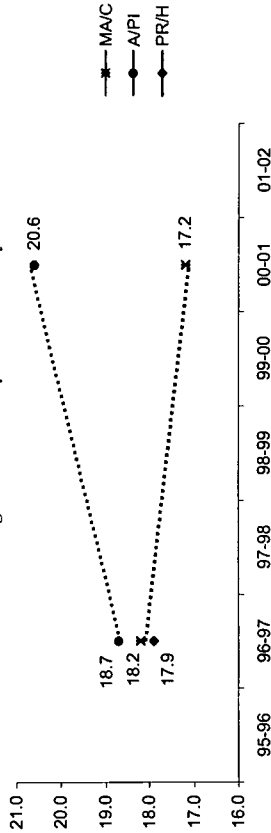
◆ Science Reasoning - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.6	18.1	19.3	19.2	18.4		
Gender							
Male	19.5				19.0		
Female	18.4				18.3		
Race/Ethnicity							
AA/B	-				-		
AI/AN	-		Data Not Received from ACT, Inc.		-		
CA/W	-				-		
MA/C	18.2				17.2		
A/PI	18.7				20.6		
PR/H	17.9				-		

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
 American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H:
 Puerto Rican/Hispanic.

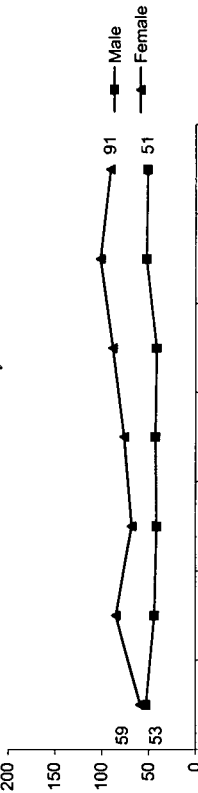
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

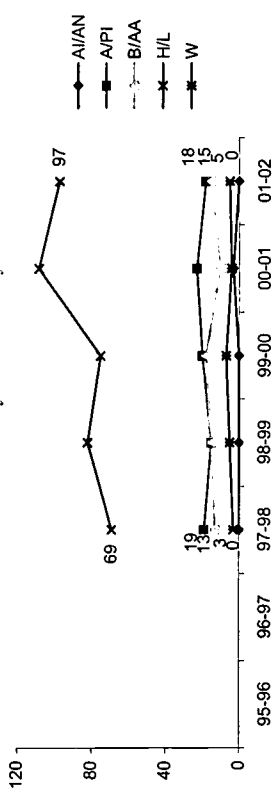
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	607	623	661	661			
Test-Takers	112	129	110	119	130	154	142
Num of Test-Takers/1,000 Stu.	185	207	166	180			
Gender							
Male	53	44	42	43	42	52	51
Female	59	85	68	76	88	102	91
Race/Ethnicity							
AI/AN			0	0	0	3	0
A/PI	Data Not Available		19	15	20	23	18
B/AA			13	15	18	10	15
H/L			69	82	75	108	97
W			3	5	7	4	5
OT			5	1	6	2	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or
 African American H/L: Hispanic or Latino W: White

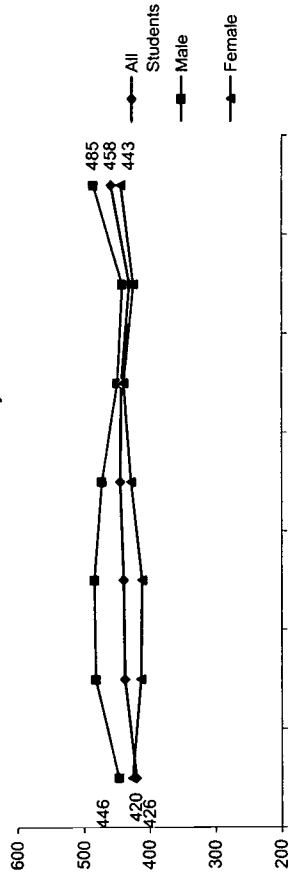
Paramount CPMSA

SAT Mathematics Scores

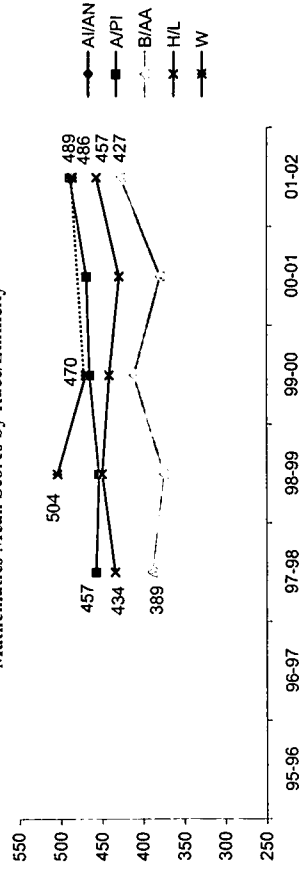
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	420	437	439	444	442	430	458
Gender							
Male	446	482	484	472	448	441	485
Female	426	413	411	428	439	424	443
Race/Ethnicity							
All/AN							
A/PI	Data Not Available	457	454	465	469	489	489
B/AA		389	375	411	380	427	427
H/L		434	450	441	429	457	457
W		-	504	470	-	486	486
OT		534	-	477	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



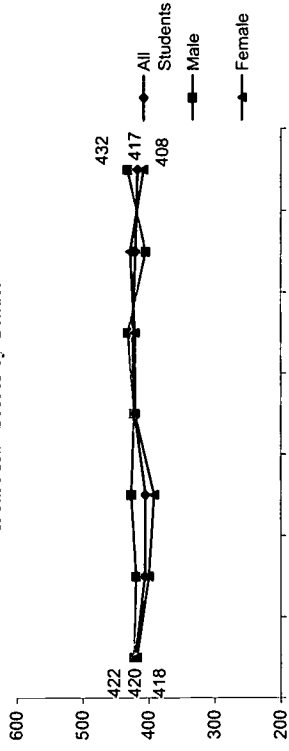
All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 (-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

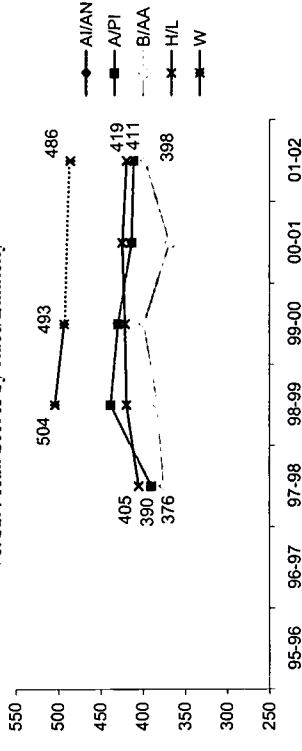
◆ Verbal - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	420	406	405	421	424	420	417
Gender							
Male	422	419	426	422	431	405	432
Female	418	400	392	421	421	428	408
Race/Ethnicity							
All/AN							
A/PI	Data Not Available	390	438	429	413	413	411
B/AA		376	383	399	369	398	398
H/L		405	419	421	424	424	419
W		-	504	493	-	486	486
OT		518	-	468	-	-	-

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



Cohort/Scale-Up Approach

	98-99	99-00	00-01
Number of District Schools	15	15	17
CPMSA Schools:	15	15	17
% Schools:	100%	100%	100%

Source: CDE 1999-2001

Special Education and Bilingual Students:

Instructional Time:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Standards-based Curriculum and Instruction

Standards Adopted:

Primary Decision Making Body

Standards Curriculum
 Curriculum/TextBook Adoption
 Student Assessment
 Professional Development
 Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

Graduation Requirements

Student Support Systems:

% of Students Experiencing Standards-based Curricula:
 E
 M
 H

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 Criteria for Entry into High Level Mathematics and Science Courses:
 Availability of High Level Courses:

Policies Relevant to Curriculum

Framework:
 Curricula:
 Curricula Materials:
 New Courses Added as a Result of CPMSA:

Policies Relevant to Teacher Qualifications

Certification:
 Requirement & Hiring Practices

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Paramount CPMSA

SY 2000-01

Professional Development Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

Other Key Initiatives:

Financial Resources Provided:

Completing Initiatives:

Alignment to Student Standards:

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Has CPMSA influenced professional development changed teachers' instructional practices:

Community Stakeholders:

Assessments Used:

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Higher Education:

Superintendent:

Evaluation Instruments:

Continuity of Leadership

Professional Development Alignment to Content Standards Measures:

Project Directors position in district's organizational structure:

Business and Industry:

Teacher's Instructional Practices Evaluation:

Teacher Leaders:

Paramount CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Paramount CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented

Accountability

School Year	Policy Implemented

CPMSA *Comprehensive Partnerships for Mathematics and Science Achievement*

Fact Book 2002

May 2003



Prince George's County Public Schools, MD
Prince George, MD

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Project Information

CPMSA Project Title : Prince George's Comprehensive Partnerships for Minority Student Achievement
 Cohort: 96
 CPMSA Web Site: <http://www.pgcps.org>

PI, CO-PI and PD

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District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01			
K-G5 (Elementary)	125	3,100	73,200
G6-8 (Middle)	27	370	21,519
G9-12 (High)	25	391	37,059
Total	186	3,861	133,667

Source: Core Data Elements (SY 2000-01)

Project Summary

This systemic reform project operates within all the 121 elementary and 26 middle schools of the Prince George's County Public Schools. Although the focus has been on elementary and middle schools, much reform also has been accomplished within the county's 20 high schools. Each of the high schools forms a natural cluster arrangement, with an elementary and middle school feeder pattern, and partnership teams of K-12 schools, principals, teachers, and community members have been formed within them. Each elementary and middle school has created a Math/Science Leadership Team responsible for the improvement of science and mathematics instruction and student achievement within that school. Exemplary models of curriculum reform based upon constructivism and performance-based instruction and assessment have been developed and correlated to national standards. Included among the curriculum reform elements are a revised framework for science, a K-12 spiraling scope and sequence, K-8 interdisciplinary correlations to instructional materials, and completed sets of performance-based lesson plans for grades K-8. Staff development activities run the gamut from 3-year programs leading to master's degree in elementary and middle school science teaching to single-day workshops. Student enrichment programs consist of Saturday Academies, bridge programs, summer programs, afterschool programs, and mentorships.

Student achievement is evident through many sources of data, including student test scores on criteria-referred tests and performance-based state assessments, grades, attitudinal surveys, student projects, and courses completed.

Project Goals

To increase the number of students from underrepresented populations who leave the school district prepared to pursue careers or advanced studies in SMET courses.

Selected School Indicators (District Average)

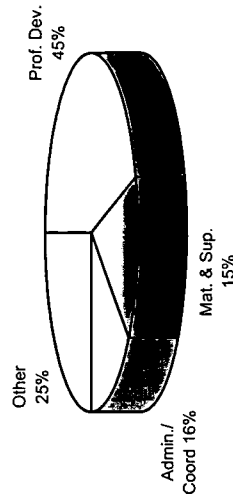
	1998-99	2000-01	Change
% Special Ed.	9.9%	10.5%	+0.6 PP
% LEP	3.8%	4.8%	+1.0 PP
% Free/Red. Lunch	39.2%	41.5%	+2.3 PP
% Daily Avg. Atten.	92.4%	94.4%	+2.0 PP
% Average Retained	.	.	.
% Drop-Out	2.6%	2.9%	+0.3 PP
% Mobility	16.2%	16.8%	+0.6 PP
Per Pupil Cost (\$)	\$6,853	\$7,035	+2.7%
# Students Per Computer	7	6	-14.3%
% Classrooms Internet Access	46%	78%	+32.0 PP
Average Class Size	26	26	+0.0%

(.) Data Missing PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	67%	45%
Mat. & Sup.	8%	15%
Admin./Coord.	5%	15%
Other	20%	25%
Total	100%	100%

CPMSA Funds %



Prince George's County CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 133,667
 CPMSA Schools: 126,377
 Source: Core Data Elements 2000-01

◆ Race/Ethnicity District-Wide

	1995-96	2000-01	%	% Change
Ame. Ind./Ala. Nat.	462	691	0.5%	+49.6%
Asian/P. Islander	4,583	4,356	3.3%	-5.0%
Black	84,807	101,145	77.3%	+19.3%
Hispanic	6,320	9,655	7.4%	+52.8%
White	21,218	14,926	11.4%	-29.7%
Other	0	0	0.0%	.
Total	117,390	130,773	100.0%	+11.4%
URM Total	91,589	111,491	85.3%	+21.7%

URM: Underrepresented Minority students.

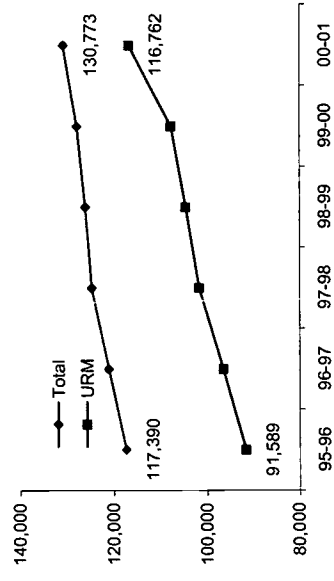
◆ Gender

Male	59,674	66,852	51.1%	+12.0%
Female	57,716	63,921	48.9%	+10.8%

◆ Grade

K-G5	55,647	61,326	46.9%	+10.2%
G6-8	26,164	29,862	22.8%	+14.1%
G9-12	31,343	36,199	27.7%	+15.5%
Ungraded	4,236	3,386	2.6%	-20.1%

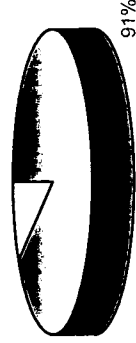
◆ District Student Demographic Trends



12th Grade Graduates

	1996-97	2000-01	Change
Total 12th Grade	6,792	7,913	+17%
Earned a Diploma	6,656	7,227	+9%
% Earned Diploma	98%	91%	-7 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	1996-97	1997-98	Change
# SEM Proficient ¹	2,752	2,943	+7%
% SEM Proficient/ Total 12th Grade	41%	37%	-4 PP

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
- ◆ Science

PP: Percentage Points (.) Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	1998-99	2000-01	Change
Teachers	104	210	+102%
Certified	.	.	.
% Cert.	249	150	-40%

G6-8

Teachers	353	360	+2%
Certified	.	.	.
% Cert.	.	.	.

Total

Teachers	104	160	+54%
Certified	.	.	.
% Cert.	.	.	.

◆ Science (G6-12)

	1998-99	2000-01	Change
Teachers	187	241	+29%
Certified	.	.	.
% Cert.	291	401	+38%

G6-8

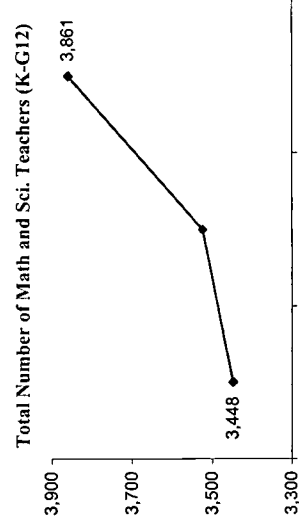
Teachers	291	401	+38%
Certified	.	.	.
% Cert.	.	.	.

Total

Teachers	104	160	+54%
Certified	.	.	.
% Cert.	.	.	.

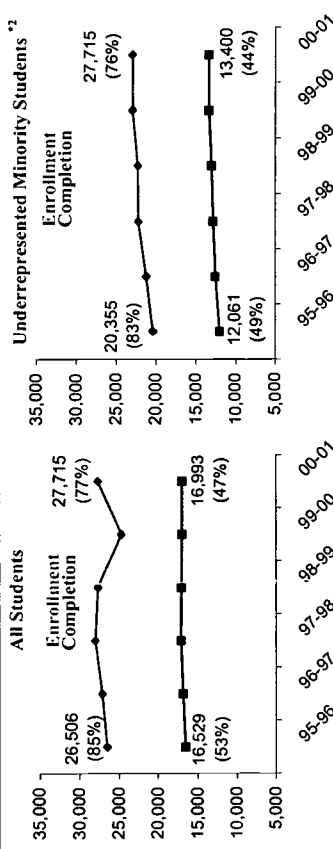
◆ Math and Science (K-G5)

	1998-99	2000-01	Change
K-G5 Teachers	2,804	3,100	+11%



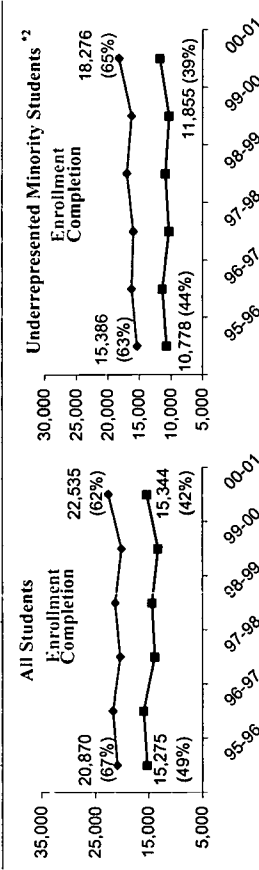
Mathematics and Science Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	31,343	32,057	33,521	33,407	34,328	36,199
All Students						
Enrollment	26,506	27,159	28,042	27,725	24,700	27,715
Completion ¹	16,529	16,856	17,106	17,079	15,320	16,993
% Enroll/G9-12	85%	85%	84%	83%	72%	77%
URM²						
Enrollment	20,355	21,198	22,208	22,268	19,945	22,920
Completion ¹	12,061	12,577	12,854	13,047	11,780	13,400
% Enroll/G9-12	83%	83%	82%	82%	70%	76%



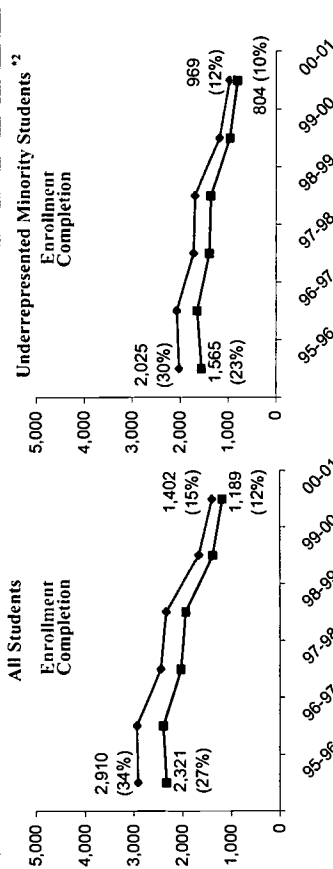
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	31,343	32,057	33,521	33,407	34,328	36,199
All Students						
Enrollment	20,870	21,716	20,333	21,269	20,044	22,535
Completion ¹	15,275	15,960	13,896	14,384	13,282	15,344
% Enroll/G9-12	67%	68%	61%	64%	58%	62%
URM²						
Enrollment	15,386	16,206	15,934	16,971	16,290	18,276
Completion ¹	10,778	11,418	10,398	10,953	10,362	11,855
% Enroll/G9-12	63%	64%	59%	62%	58%	65%



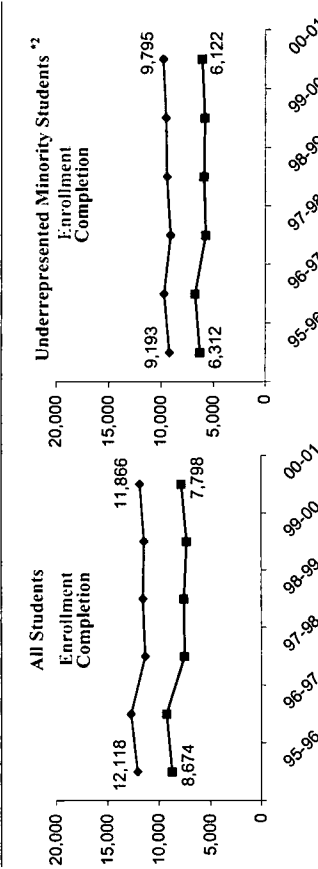
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	8,672	8,842	8,828	9,159	9,148	9,518
All Students						
Enrollment	2,910	2,932	2,443	2,335	1,673	1,402
Completion ¹	2,321	2,391	2,030	1,932	1,383	1,189
% Enroll/G8	34%	33%	28%	25%	18%	15%
URM²						
Enrollment	2,025	2,079	1,733	1,704	1,186	969
Completion ¹	1,565	1,654	1,394	1,366	965	804
% Enroll/G8	30%	29%	24%	23%	15%	12%



Biology Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	31,343	32,057	33,521	33,407	34,328	36,199
All Students						
Enrollment	12,118	12,750	11,342	11,573	11,465	11,866
Completion ¹	8,674	9,227	7,479	7,548	7,277	7,798
URM²						
Enrollment	9,193	9,711	9,089	9,451	9,521	9,795
Completion ¹	6,312	6,777	5,772	5,932	5,850	6,122



¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

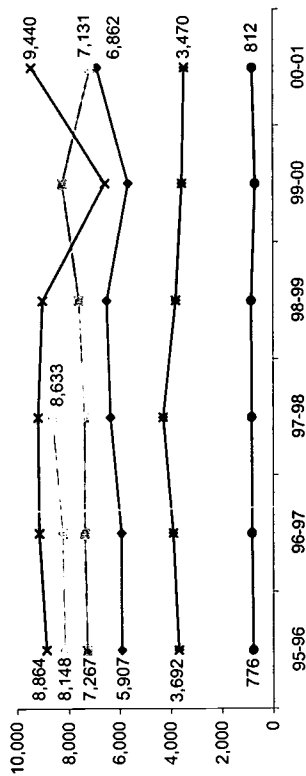
(.) Data Missing

Prince George's County CPMSA

SY 2000-01

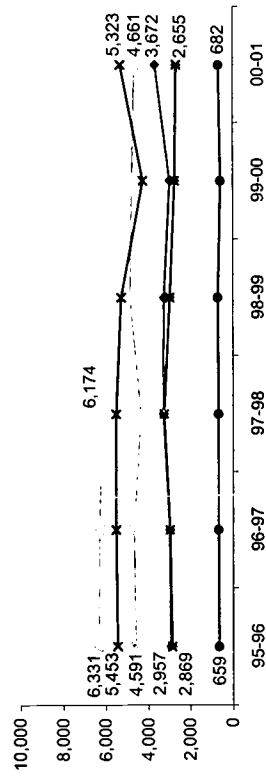
Mathematics Course Enrollment & Completion Trends By Subject

G 9-12 Course Enrollment (All Students)	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	5,907	7,267	8,864	3,692	776	8,148	34,654
96-97	5,918	7,363	9,148	3,904	826	8,235	35,394
97-98	6,348	7,378	9,191	4,296	829	8,633	36,675
98-99	6,486	7,581	9,015	3,798	845	.	27,725
99-00	5,653	8,238	6,560	3,559	690	.	24,700
00-01	6,862	7,131	9,440	3,470	812	.	27,715



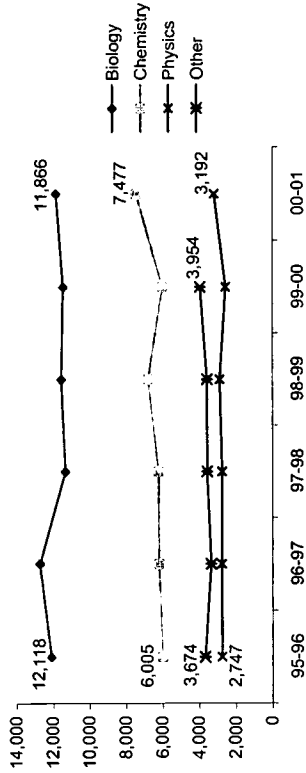
G 9-12 Course Completion ¹ (All Students)

G 9-12 Course Completion ¹ (All Students)	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	2,957	4,591	5,453	2,869	659	6,331	22,860
96-97	2,989	4,692	5,525	2,967	683	6,291	23,147
97-98	3,298	4,353	5,515	3,247	693	6,174	23,280
98-99	3,247	4,873	5,275	2,966	718	.	17,079
99-00	2,965	4,779	4,260	2,733	583	.	15,320
00-01	3,672	4,661	5,323	2,655	682	.	16,993



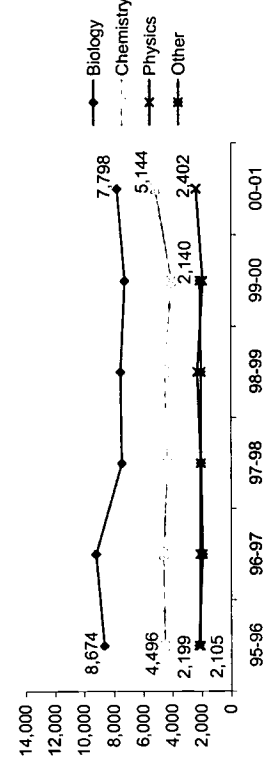
Science Course Enrollment & Completion Trends By Subject

G 9-12 Course Enrollment (All Students)	Biology	Chemistry	Physics	Other	Science Total
95-96	12,118	6,005	2,747	3,674	24,544
96-97	12,750	6,201	2,765	3,335	25,051
97-98	11,342	6,233	2,758	3,560	23,893
98-99	11,573	6,807	2,889	3,560	24,829
99-00	11,465	6,023	2,556	3,954	23,998
00-01	11,866	7,477	3,192	.	22,535



G 9-12 Course Completion ¹ (All Students)

G 9-12 Course Completion ¹ (All Students)	Biology	Chemistry	Physics	Other	Science Total
95-96	8,674	4,496	2,105	2,199	17,474
96-97	9,227	4,605	2,128	1,958	17,918
97-98	7,479	4,336	2,081	2,076	15,972
98-99	7,548	4,522	2,314	2,076	16,460
99-00	7,277	4,050	1,955	2,140	15,422
00-01	7,798	5,144	2,402	.	15,344



¹ Successful completion: grade 'C' or above.

(.) Data Missing

Prince George's County CPMSA

SY 2000-01

District Assessment Test Administered

State Assessment Test-Taker Trends MSPAP

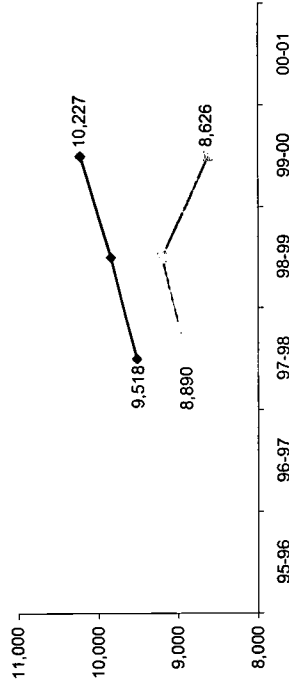
◆ Mathematics

	95-96	96-97	97-98	98-99	99-00	00-01
Test Name						
Scoring Grade						
Type						

◆ Mathematics

# of Test-takers	95-96	96-97	97-98	98-99	99-00	00-01
Grade 5			9,518	9,844	10,227	
Grade 8			8,890	9,203	8,626	
Grade 10						

Total number of students taking test



◆ Science

	95-96	96-97	97-98	98-99	99-00	00-01
Test Name						
Scoring Grade						
Type						

State Assessment Test Administered

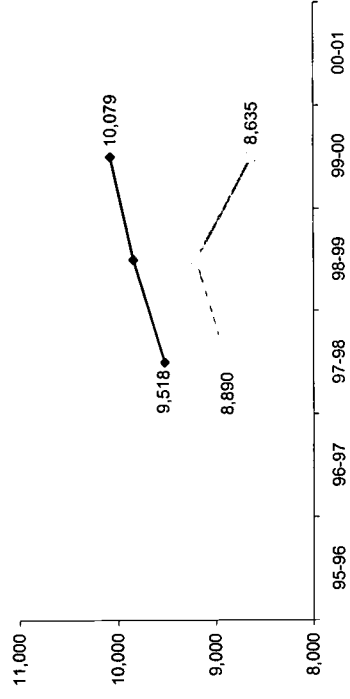
◆ Mathematics

Test Name	95-96	96-97	97-98	98-99	99-00	00-01
Scoring Grade						
Type						

◆ Science

# of Test-takers	95-96	96-97	97-98	98-99	99-00	00-01
Grade 5			9,518	9,844	10,079	
Grade 8			8,890	9,203	8,635	
Grade 10						

Total number of students taking test



◆ Science

Test Name	95-96	96-97	97-98	98-99	99-00	00-01
Scoring Grade						
Type						

*MSPAP: Maryland School Performance Assessment Program
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

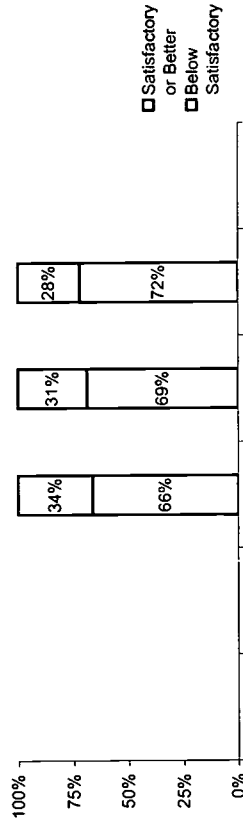
Prince George's County CPMSA

SY 2000-01

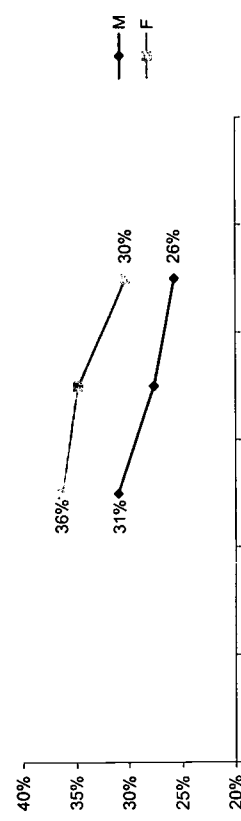
State Assessment Test Result Trends MSPAP - Mathematics

Grade 5

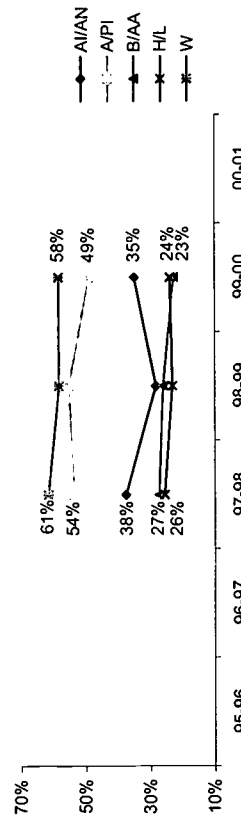
	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better		34%	31%	31%	28%	
Below Satisfactory		66%	69%	69%	72%	
Total # of students		9,518	9,844	10,227		



% Passing by Gender



% Passing by Race/Ethnicity

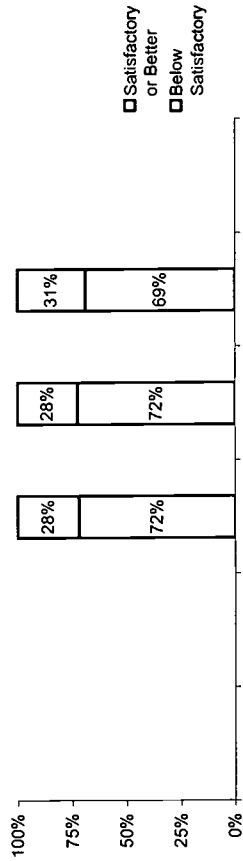


A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Satisfactory or Better

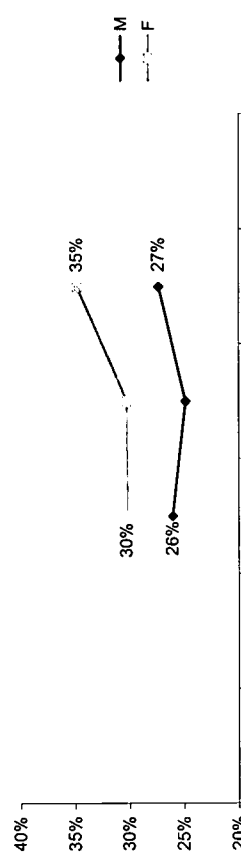
State Assessment Test Result Trends MSPAP - Mathematics

Grade 8

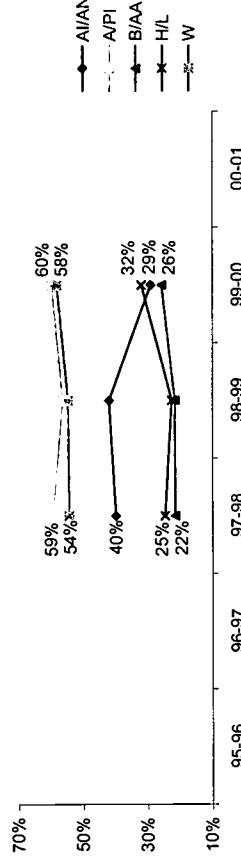
	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better		28%	28%	28%	31%	
Below Satisfactory		72%	72%	72%	69%	
Total # of students		8,890	9,203	8,626		



% Passing by Gender



% Passing by Race/Ethnicity



Prince George's County CPMSA

SY 2000-01

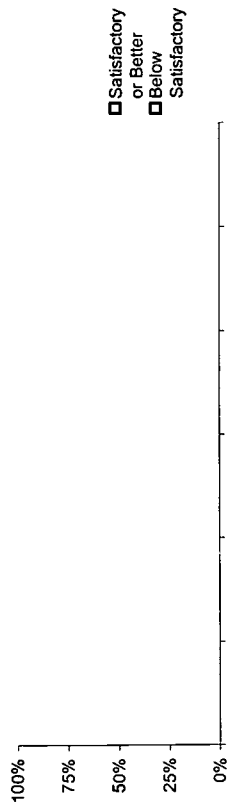
State Assessment Test Result Trends MSPAP - Mathematics

◆ Grade 10

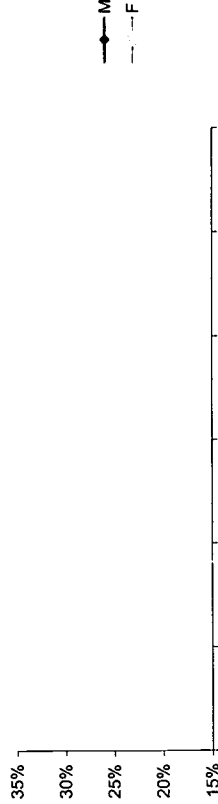
	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better						
Below Satisfactory						

Data Not Available

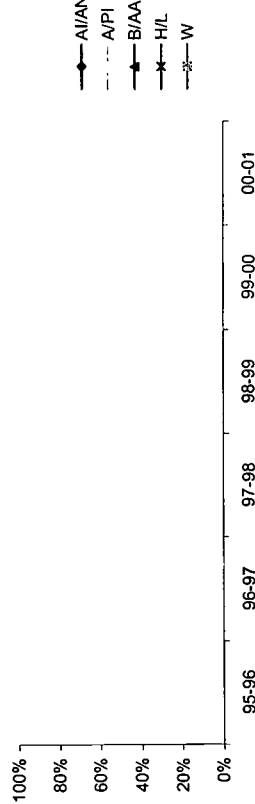
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



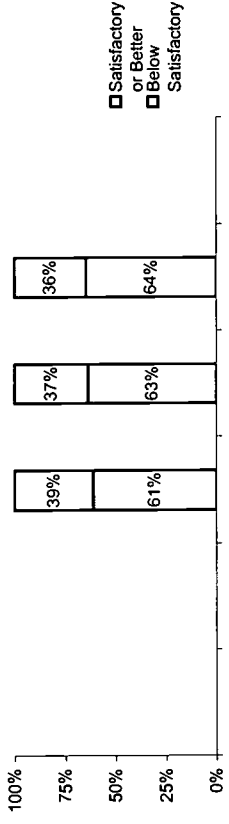
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Satisfactory or Better

State Assessment Test Result Trends MSPAP - Science

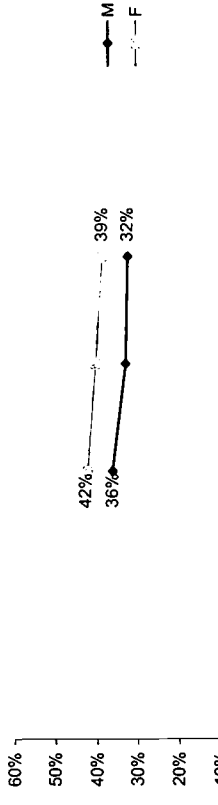
◆ Grade 4

	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better						
Below Satisfactory						

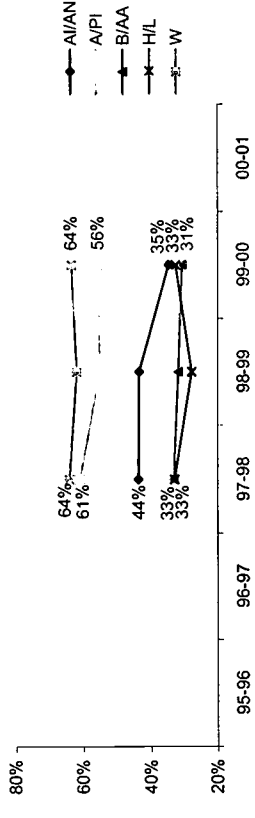
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



Prince George's County CPMSA

SY 2000-01

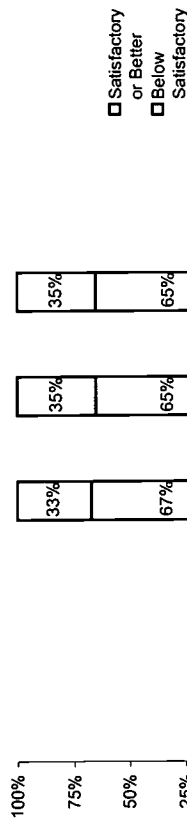
State Assessment Test Result Trends MSPAP - Science

◆ Grade 8

	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better		33%	33%	35%	35%	35%
Below Satisfactory		67%	67%	65%	65%	65%

Total # of students

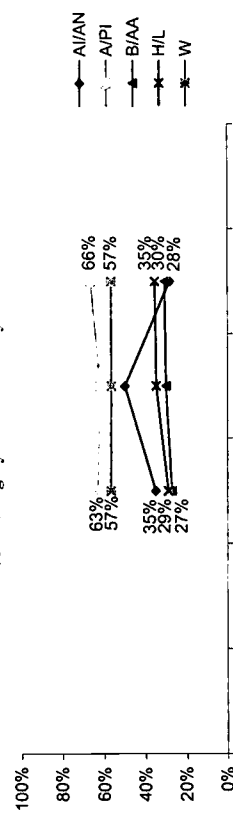
8,890 9,203 8,635



% Passing by Gender



% Passing by Race/Ethnicity



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Satisfactory or Better

State Assessment Test Result Trends MSPAP - Science

◆ Grade 10

	95-96	96-97	97-98	98-99	99-00	00-01
Satisfactory or Better						
Below Satisfactory						

Total # of students

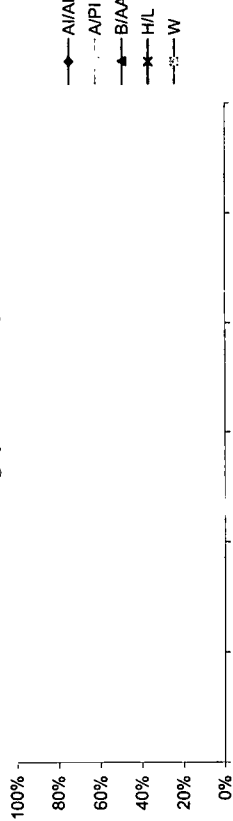
Data Not Available



% Passing by Gender



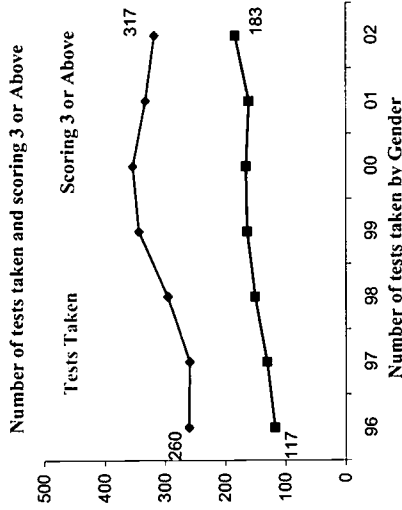
% Passing by Race/Ethnicity



AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

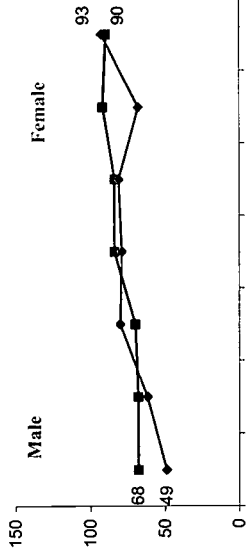
♦ AP Mathematics - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	13,660	14,230	15,372	15,322	15,432	15,596	
Calculus AB	182	175	191	218	277	247	186
Calculus BC	78	52	69	92	44	63	90
Statistics	0	32	35	33	32	22	41
Total	260	259	295	343	353	332	317
Tests taken per 1,000 students	19.0	18.2	19.2	22.4	22.9	21.3	
Scoring 3 or Above	117	130	150	163	165	160	183
Scoring 3 or Above per 1000	8.6	9.1	9.8	10.6	10.7	10.3	



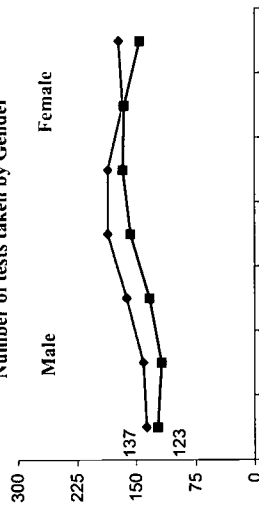
♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	68	68	70	84	84	92	90
Female	49	62	80	79	81	68	93



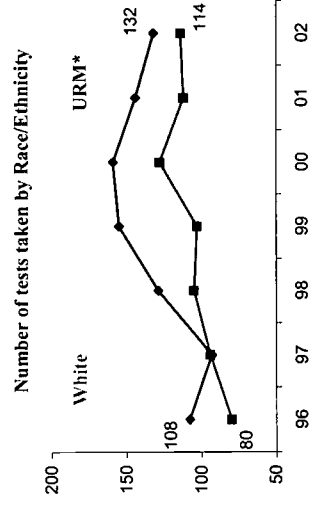
♦ AP Mathematics - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	123	118	133	157	167	165	145
Female	137	141	162	186	186	167	172



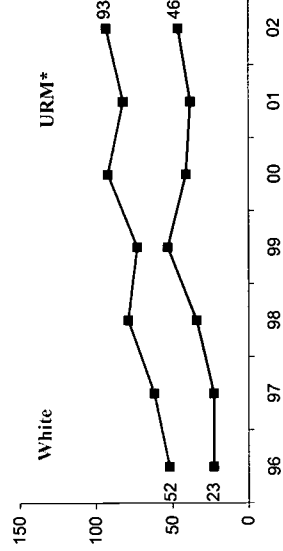
♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	1	1	1	0	2	0	0
A/PI	58	53	52	59	56	60	54
B/AA	101	85	120	146	148	136	121
H/L	6	7	8	9	9	8	11
W	80	94	105	103	128	112	114



♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	1	0	1	0	0	0	0
A/PI	36	33	30	26	28	31	38
B/AA	21	21	29	48	39	34	41
H/L	1	2	4	5	2	4	5
W	52	62	79	73	92	82	93



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander

B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

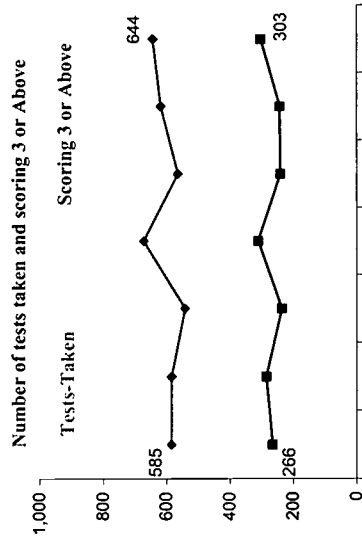
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AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

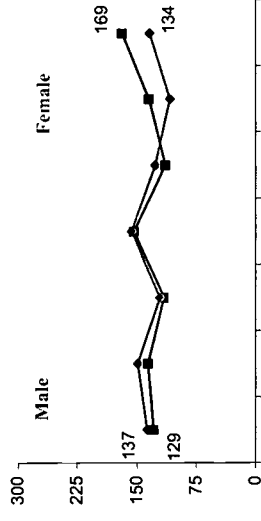
♦ AP Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	13,660	14,230	15,372	15,322	15,432	15,596	
Biology	266	271	282	313	275	325	296
Chemistry	205	175	139	181	169	181	175
Env. Science	0	0	1	3	13	0	4
Physics B	17	14	13	37	27	39	45
Physics Mech.	52	69	64	72	46	37	73
Physics Elec.	45	56	44	66	35	36	51
Total	585	505	543	672	565	618	644
Tests taken per 1,000 students	42.8	41.1	35.3	43.9	36.6	39.6	
Scoring 3 or Above	266	285	237	311	241	243	303
Scoring 3 or Above per 1000	19.5	20.0	15.4	20.3	15.6	15.6	



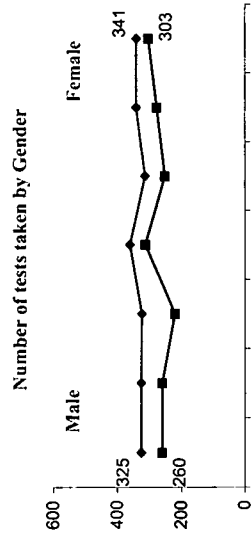
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	129	136	116	154	114	135	169
Female	137	149	121	157	127	108	134



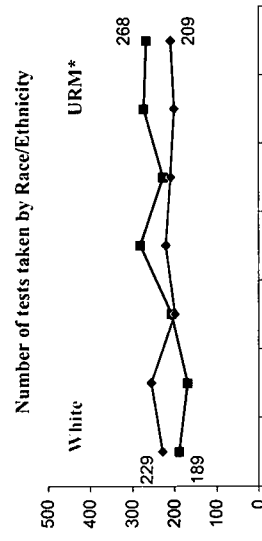
♦ AP Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	260	260	220	312	252	277	303
Female	325	325	323	360	313	341	341



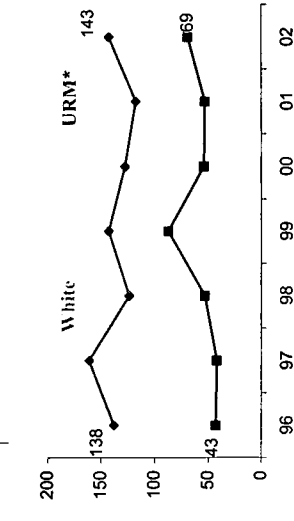
♦ AP Science - Number of Tests Taken By Race/Ethnicity **1

	96	97	98	99	00	01	02
A/IAN	3	2	6	5	4	2	3
A/PI	128	101	104	116	92	112	120
B/AA	172	152	189	246	205	252	238
H/L	14	15	12	31	19	20	27
W	229	256	199	221	210	201	209



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity **1

	96	97	98	99	00	01	02
A/IAN	1	0	3	3	1	1	2
A/PI	64	51	46	60	45	58	71
B/AA	35	36	45	72	45	44	55
H/L	7	6	5	12	8	8	12
W	138	161	124	143	128	118	143



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

**1 "Other" category not presented

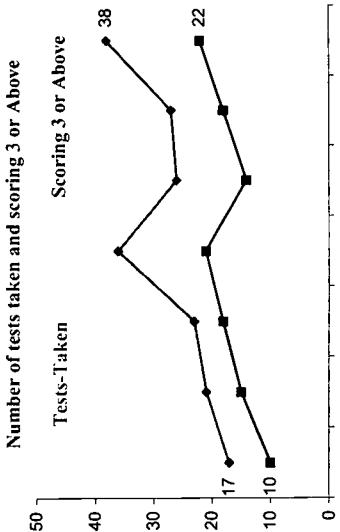
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

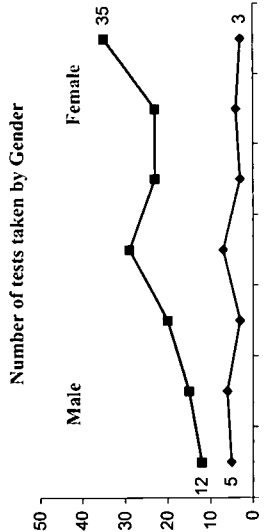
AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	13,660	14,230	15,372	15,322	15,432	15,596	
Comp. Sci. A	8	3	2	13	7	8	14
Comp. Sci. AB	9	18	21	23	19	19	24
Total	17	21	23	36	26	27	38
Tests taken per 1,000 students	1.2	1.5	1.5	2.3	1.7	1.7	
Scoring 3 or Above	10	15	18	21	14	18	22
Scoring 3 or Above per 1000	0.7	1.1	1.2	1.4	0.9	1.2	



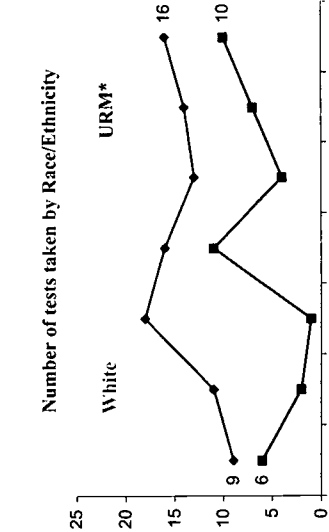
AP Computer Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	12	15	20	29	23	23	35
Female	5	6	3	7	3	4	3



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	1	0	0	1
A/PI	1	7	4	7	8	6	4
B/AA	6	2	1	8	4	7	8
H/L	0	0	0	2	0	0	1
W	9	11	18	16	13	14	16

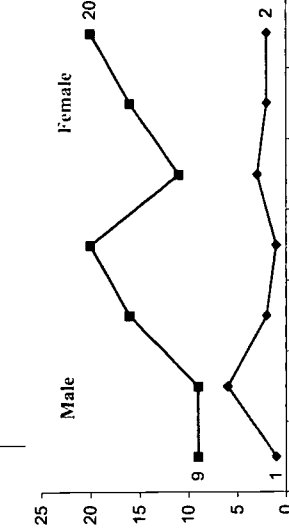


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

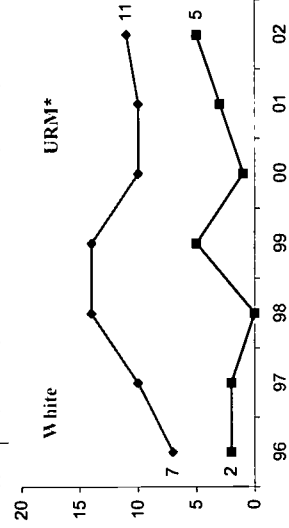
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	9	9	16	20	11	16	20
Female	1	6	2	1	3	2	2



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	96	97	98	99	00	01	02
A/AN	0	0	0	1	0	0	0
A/PI	0	3	4	2	3	5	2
B/AA	2	2	0	4	1	3	4
H/L	0	0	0	0	0	0	1
W	7	10	14	14	10	10	11



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

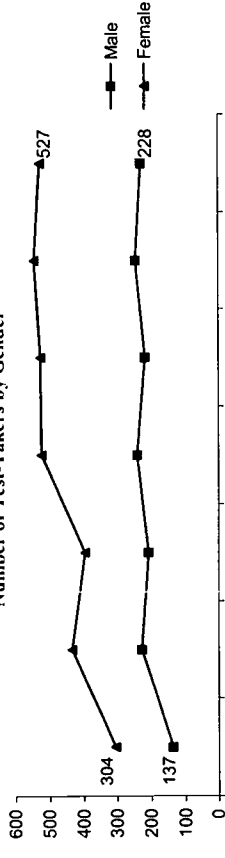
Prince George's County CPMSA

ACT Test-Takers

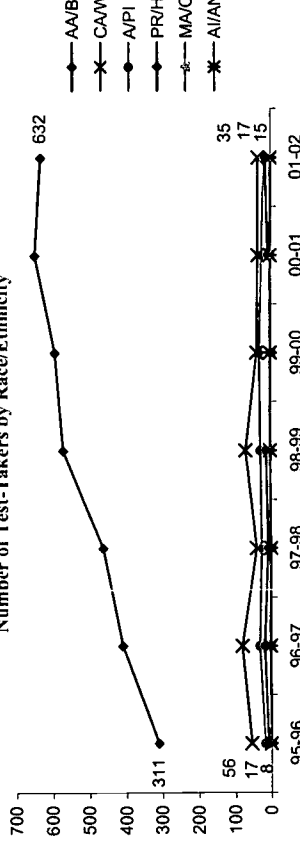
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	6,702	6,792	7,502	7,547	7,538	7,429	-
Test-Takers	441	662	603	770	748	792	757
Num of Test-Takers/1,000 Stu.	66	97	80	102	99	107	-
Gender							
Male	137	227	208	240	217	244	228
Female	304	435	395	523	526	544	527
Race/Ethnicity							
AA/B	311	410	463	572	594	648	632
AI/AN	1	3	2	4	3	2	0
CAW	56	82	42	73	41	37	35
MA/C	0	1	0	4	1	3	1
A/PI	17	33	28	31	34	27	17
PR/H	8	19	9	15	4	8	15

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

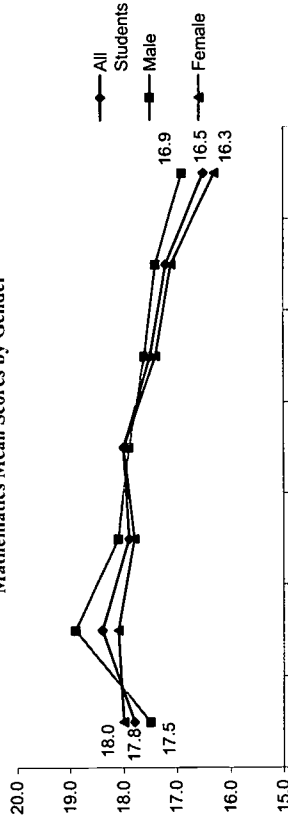


ACT Mathematics Scores

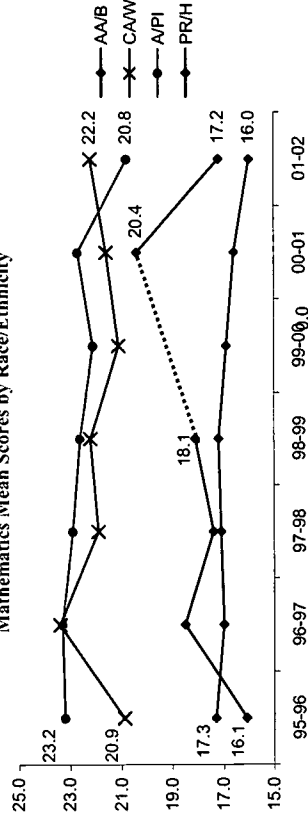
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.8	18.4	17.9	18.0	17.5	17.2	16.5
Gender							
Male	17.5	18.9	18.1	17.9	17.6	17.4	16.9
Female	18.0	18.1	17.8	18.0	17.4	17.1	16.3
Race/Ethnicity							
AA/B	17.3	17.0	17.1	17.2	16.9	16.6	16.0
AI/AN	-	-	-	-	-	-	-
CAW	20.9	23.4	21.9	22.2	21.1	21.6	22.2
MA/C	-	-	-	-	-	-	-
A/PI	23.2	23.3	22.9	22.6	22.1	22.7	20.8
PR/H	16.1	18.5	17.4	18.1	-	20.4	17.2

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



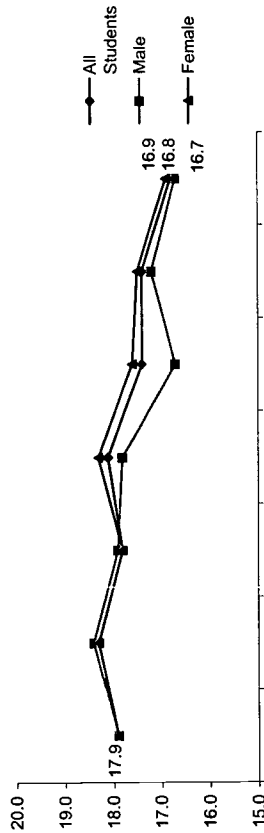
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic. (-) Mean scores not presented for sample size less than 5

Prince George's County CPMSA

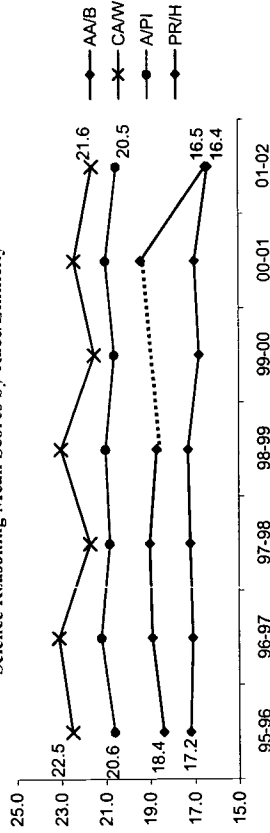
SY 2000-01

ACT Science Reasoning Scores						SAT Test-Takers								
◆ Science Reasoning - Mean Score Trends						◆ Number of Test-Takers								
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.9	18.3	17.8	18.1	17.4	17.4	16.8	6,702	6,792	7,502	7,547	7,538	7,429	.
Gender														
Male	17.9	18.4	17.9	17.8	16.7	17.2	16.7	3,316	3,764	4,017	4,197	4,115	4,259	4,089
Female	17.9	18.3	17.8	18.3	17.6	17.5	16.9	495	554	535	556	546	573	.
Race/Ethnicity														
AA/B	17.2	17.1	17.2	17.3	16.8	17.0	16.4	1,459	1,619	1,727	1,763	1,687	1,874	1,758
AI/AN	-	-	-	-	-	-	-	1,857	2,145	2,290	2,434	2,428	2,385	2,331
CAW	22.5	23.1	21.7	23.0	21.5	22.4	21.6	33	28	25	29	21		
MA/C	-	-	-	-	-	-	-	279	279	230	263	245	233	
A/PI	20.6	21.2	20.8	21.0	20.6	21.0	20.5	2,516	2,516	2,630	2,550	2,706	2,550	
PR/H	18.4	18.9	19.0	18.7	-	19.4	16.5	128	128	138	127	129	128	
								591	591	578	519	519	478	
								117	117	132	149	127	125	

Science Reasoning Mean Scores by Gender



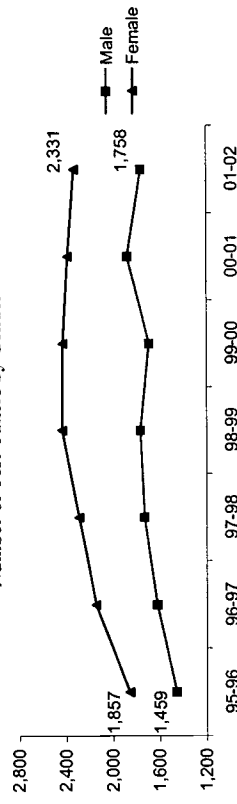
Science Reasoning Mean Scores by Race/Ethnicity**



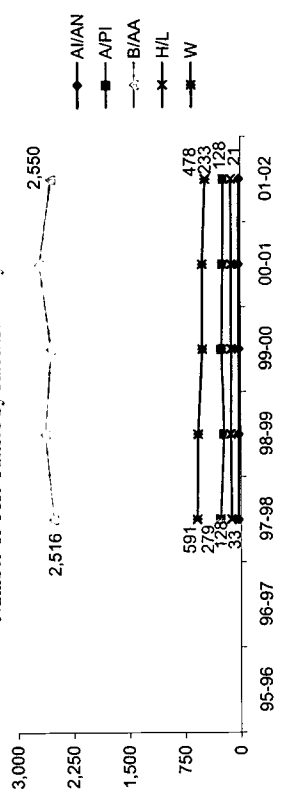
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc.
 American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H:
 Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or
 African American H/L: Hispanic or Latino W: White OT: Others

SAT Mathematics Scores

SAT Verbal Scores

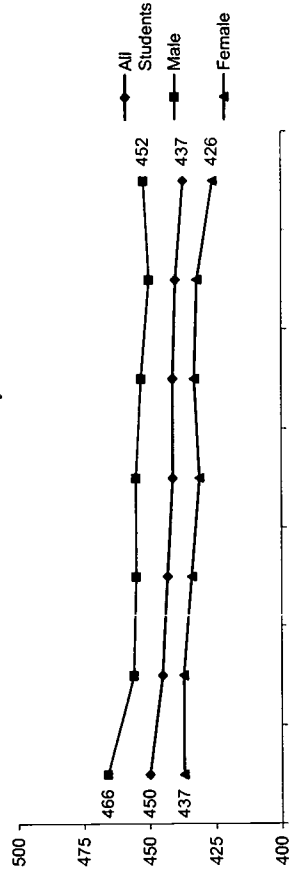
◆ Mathematics - Mean Score Trends

◆ Verbal - Mean Score Trends

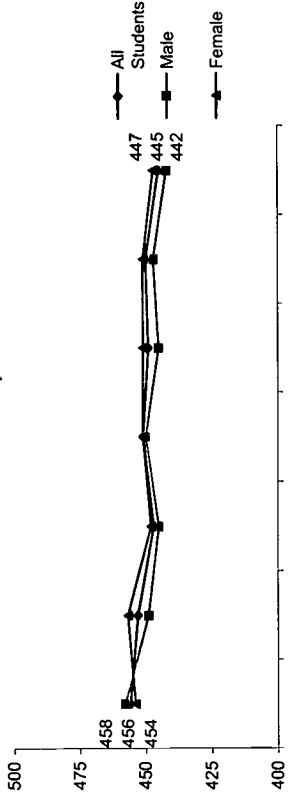
	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	450	445	443	441	441	440	437
Gender							
Male	466	456	455	455	453	450	452
Female	437	437	434	431	433	432	426
Race/Ethnicity							
All/AN		421	421	421	447	436	399
A/PI		517	526	526	520	512	507
B/AA	Data Not Available	420	420	418	420	420	414
H/L		421	447	437	440	440	452
W		534	538	533	533	536	542
OT		452	468	458	448	448	449

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	456	453	447	451	449	450	445
Gender							
Male	458	449	445	450	445	447	442
Female	454	457	448	451	451	451	447
Race/Ethnicity							
All/AN		424	424	435	452	450	415
A/PI		474	474	493	484	478	472
B/AA	Data Not Available	428	432	430	430	433	425
H/L		431	447	439	450	450	453
W		542	546	540	543	543	546
OT		462	487	471	473	473	466

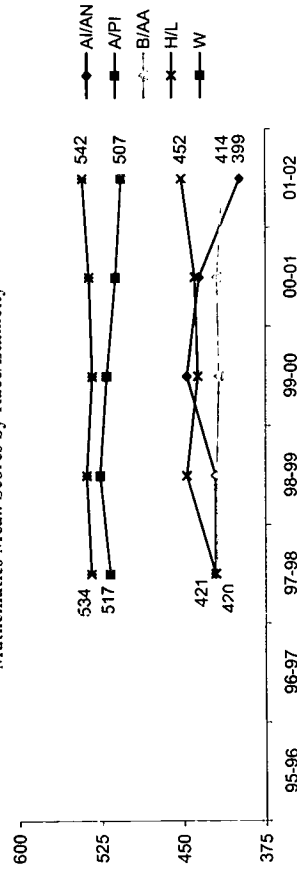
Mathematics Mean Scores by Gender



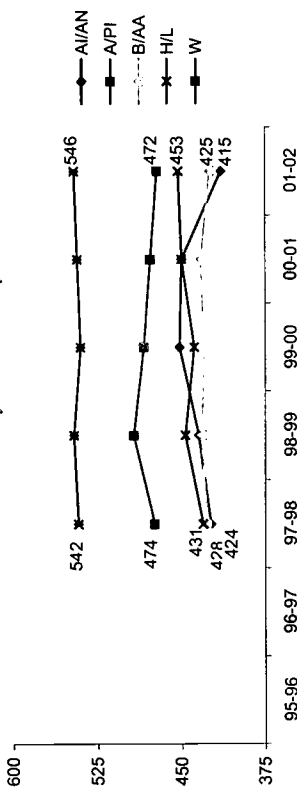
Verbal Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



Verbal Mean Scores by Race/Ethnicity



All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

Cohort/Scale-Up Approach

Special Education and Bilingual Students:

Instructional Time:

Number of District Schools
CPMSA Schools:
% Schools:

Standards-based Curriculum and Instruction

Standards Adopted:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum
Curriculum/TextBook Adoption
Student Assessment
Professional Development
Resources
Teacher Hiring
Teacher Contracts
Certification & Re-certification
Graduation Requirements
School-Based Management?

Graduation Requirements

Student Support Systems:

% of Students Experiencing Standards-based Curricula:
E
M
H

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
Criteria for Entry into High Level Mathematics and Science Courses:
Availability of High Level Courses:

Policies Relevant to Teacher Qualifications

Summer programs:

Certification:

Requirement & Hiring Practices

Policies Relevant to Curriculum

Framework:
Curricula:
Curricula Materials:

Professional Advancement & Leadership Training:

New Courses Added as a Result of CPMSA:

Availability of High Level Courses:

E: Elementary School M: Middle School H: High School

Prince George's County CPMSA

SY 2000-01

Professional Development: Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

Other Key Initiatives:

Financial Resources Provided:

Completing Initiatives:

Alignment to Student Standards:

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Has CPMSA influenced professional development changed teachers' instructional practices:

Community Stakeholders:

Assessments Used:

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Higher Education:

Evaluation Instruments:

Superintendent:

Continuity of Leadership

Professional Development Alignment to Content Standards Measures:

Project Directors position in district's organizational structure:

Business and Industry:

Teacher's Instructional Practices Evaluation:

Teacher Leaders:

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Prince George's County CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented

CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003



Roanoke River Valley Consortium, VA
Roanoke, VA

Roanoke, VA

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Roanoke River Valley CPMSA

SY 2000-01

Project Information

CPMSA Project Title : Partnerships to Enhance Student Achievement

Cohort: 96

CPMSA Web Site:

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◆ Mailing Address

Partnerships to Enhance Student Achievement
 c/o Bertie County School Administration Offices
 222 County Farm Road
 Windsor, NC 27983
 ◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	22	460	7,354
G6-8 (Middle)	7	95	3,675
G9-12 (High)	6	72	4,404
Total	35	627	15,613

Source: Core Data Elements (SY 2000-01)

Project Summary

Partnerships to Enhance Student Achievement (PESA) has four major components: (1) staff development (i.e., teachers, counselors, administrators); (2) student enrichment opportunities including field-trips, Saturday Seminars, Leadership Conference, career counseling, mentorship, Summer Enrichment Institute, and a challenging high school course of study (Ronald McNair Academy); (3) parental partnership; and (4) business/industry partnerships.

This project will influence each entire school system in the areas of curriculum reform, curriculum enhancement, teacher enhancement, strategic uses of resources, student enrichment activities, and summer enrichment activities. The curriculum shall be enhanced through such activities as Family Math, Family Science, Science and Technology for Children (K-5), Science and Technology Program (6-8), the Bob Moses Algebra Project (6-8), EQUALS, and the Ronald McNair Academy (9-12). Teachers shall upgrade their skills through the training in the aforementioned areas, as well as Gender/Equity Expectations for Student Achievement. In addition, teachers will be encouraged to accept summer internships in business/industry, higher education, and federal agencies such as NASA and EPA. The students will be provided expanded opportunities in science and math. These activities consist of the following: Super Stars (K-5); Math Counts (6-8); Bob Moses Algebra Project (6-8); Student Challenge (9); Math Science Education Network Seminars (10); Math/Science Leadership conference(11); Mentorships (12) and Ronald McNair Academy course of study (9-12). Parents will be encouraged and supported in the establishment of a Parent Partnership Program to function as a resource to the school systems and to enhance their involvement in their children's education.

Project Goals

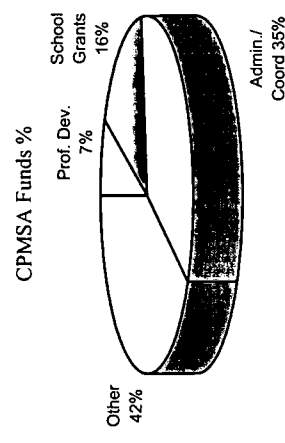
- ◆ To deliver quality instruction and to sustain interventions in school science and mathematics education for minority students that will result in a significant increase in those who graduate and who are academically prepared to enter college and major in sciences, mathematics and engineering.
- ◆ To substantially decrease tracking and improve academic counseling to facilitate the successful transition of minority students from elementary to middle, and from middle to high school into undergraduate programs in SMET.
- ◆ To stimulate efforts among secondary schools and colleges and universities, as well as relevant informal science organizations (e.g. museums, aquaria, etc.)
- ◆ To develop summer enrichment activities.
- ◆ To stimulate efforts to establish mentorship programs among professional organizations, business, industry and network with programs supported by the federal and private sector to avoid duplication.
- ◆ To share resources, and to maximize available funding.
- ◆ To stimulate the involvement of parents and guardians and the business community through partnerships in all aspects of the students' education.
- ◆ To function in a complementary and collaborative manner with other funded educational activities (i.e., NSF, EPA, NIH, UDOE, etc.) through continuous

Selected School Indicators (District Average)

	98-99	00-01	Change
% Special Ed.	10.1%	11.8%	+1.8 PP
% LEP	0.3%	2.0%	+1.6 PP
% Free/Red. Lunch	79.8%	79.9%	+0.1 PP
% Daily Avg. Atten.	95.0%	92.0%	-3.0 PP
% Average Retained	18.5%	8.6%	-10.0 PP
% Drop-Out	4.0%	2.8%	-1.2 PP
% Mobility			
Per Pupil Cost (\$)	\$6,697	\$6,695	-0.0%
# Students Per Computer	11	13	+18.2%
% Classrooms Internet Access	37%	51%	+14.0 PP
Average Class Size	23	22	-4.3%
(-) Data Missing			PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	10%	7%
School Grants	4%	16%
Admin/Coord.	14%	35%
Other	72%	42%
Total	100%	100%



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Roanoke River Valley CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total:	15,405	00-01	Change
CPMSA Schools:	15,405	848	-3%
Source: TISC 2002		775	-6%
		91%	-3 PP

◆ Race/Ethnicity District-Wide			
	95-96	00-01	% Change
Ame. Ind./Ala. Nat.	205	214	+4.4%
Asian/P. Islander	4	17	+325.0%
Black	12,717	12,399	-2.5%
Hispanic	59	93	+57.6%
White	3,394	2,644	-22.1%
Other	0	38	0.2%
Total	16,379	15,405	-5.9%
URM Total	12,981	12,706	-2.1%

URM: Underrepresented Minority students.

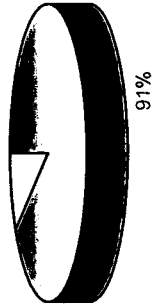
◆ Gender			
Male	8,307	7,854	-5.5%
Female	8,072	7,551	-6.5%

◆ Grade			
K-G5	8,891	7,271	-18.2%
G6-8	3,919	3,673	-6.8%
G9-12	4,644	4,461	-3.9%
Ungraded	179	0	+0.0%

12th Grade Graduates

Total 12th Grade	871	848	-3%
Earned a Diploma	825	775	-6%
% Earned Diploma	95%	91%	-3 PP

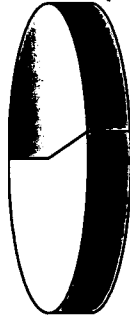
% Earned Diploma for SY 2000-01



SEM Proficiency

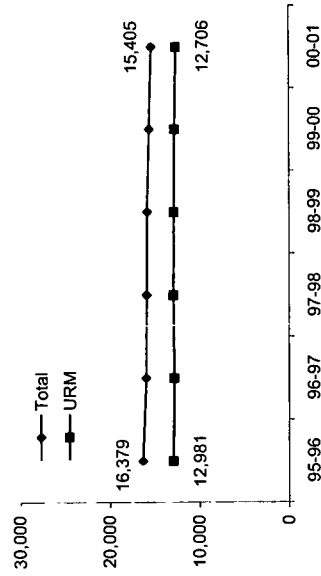
# SEM Proficient ¹	325	400	+23%
% SEM Proficient/ Total 12th Grade	37%	47%	+10 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

◆ District Student Demographic Trends



◆ Math and Science Teachers & Certification

◆ Mathematics (G6-12)

Teachers	47	48	+2%
Certified	47	48	+2%
% Cert.	100%	100%	+0.0 PP

Teachers	34	38	+12%
Certified	33	38	+15%
% Cert.	97%	100%	+2.9 PP

Teachers	81	86	+6%
Certified	80	86	+8%
% Cert.	99%	100%	+1.2 PP

◆ Science (G6-12)

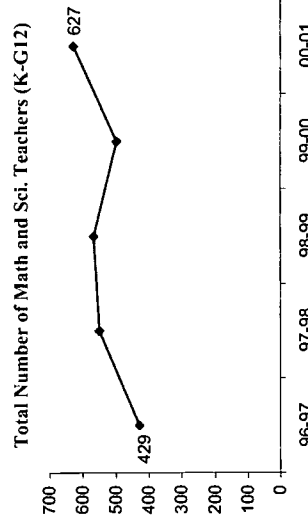
Teachers	44	47	+7%
Certified	44	47	+7%
% Cert.	100%	100%	+0.0 PP

Teachers	26	34	+31%
Certified	24	34	+42%
% Cert.	92%	100%	+7.7 PP

Teachers	70	81	+16%
Certified	68	81	+19%
% Cert.	97%	100%	+2.9 PP

◆ Math and Science (K-G5)

Teachers	278	460	+65%
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◆ High School Graduation Requirements SY 00-01

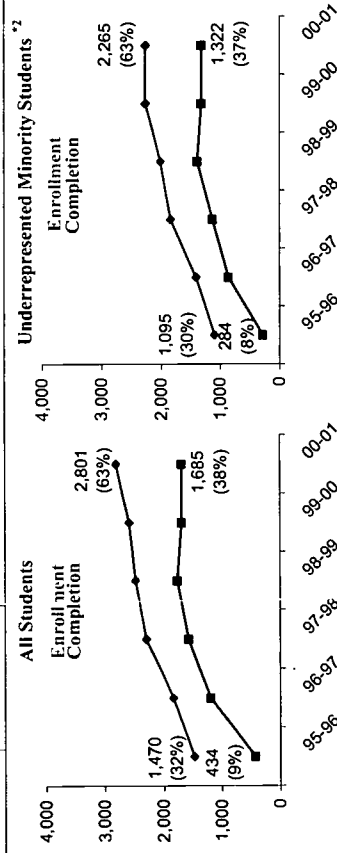
- ◆ Mathematics
 - 3 units including Algebra I
- ◆ Science
 - 3 units to include Biology, a Physical Science and Earth or Environmental Science

PP: Percentage Points

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

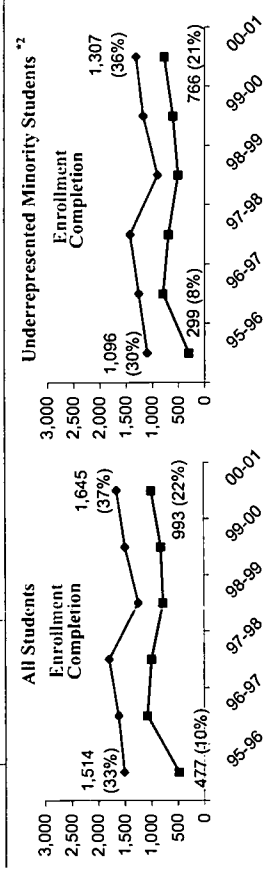
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	4,644	4,459	4,482	4,465	4,517	4,461
Enrollment	1,470	1,830	2,292	2,480	2,584	2,801
Completion ¹	434	1,195	1,566	1,762	1,415	1,685
% Enroll/G9-12	32%	41%	51%	56%	57%	63%
URM ²	1,095	1,411	1,837	2,011	2,015	2,265
Completion ¹	284	865	1,133	1,391	1,046	1,322
% Enroll/G9-12	30%	40%	50%	56%	55%	63%



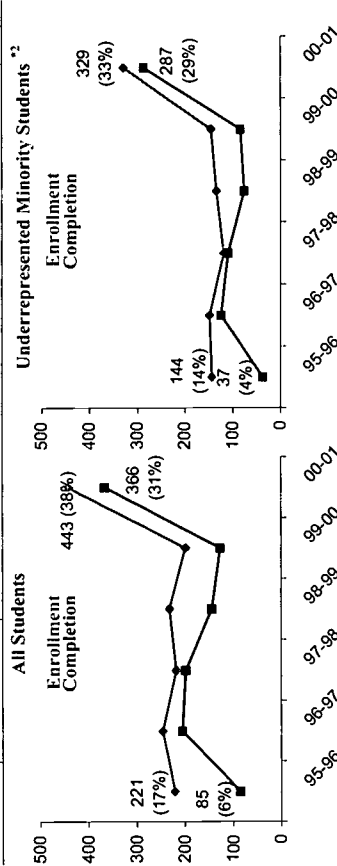
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	4,644	4,459	4,482	4,465	4,517	4,461
Enrollment	1,514	1,617	1,794	1,244	1,486	1,645
Completion ¹	477	1,075	995	777	813	993
% Enroll/G9-12	33%	36%	40%	28%	33%	37%
URM ²	1,096	1,253	1,420	899	1,171	1,307
Completion ¹	299	792	689	503	603	766
% Enroll/G9-12	30%	35%	39%	25%	32%	36%



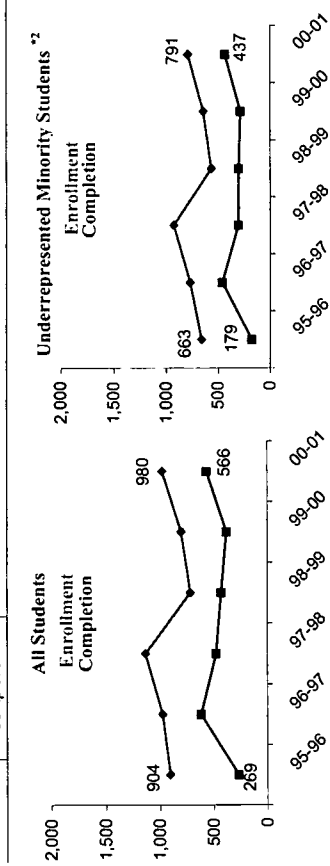
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	1,338	1,309	1,262	1,273	1,188	1,178
Enrollment	221	246	218	232	199	443
Completion ¹	85	205	198	144	127	366
% Enroll/G8	17%	19%	17%	18%	17%	38%
URM ²	144	149	119	135	146	329
Completion ¹	37	125	110	76	84	287
% Enroll/G8	14%	14%	12%	14%	15%	33%



Biology Enrollment & Completion Trends/ All vs. URM

	95-96	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	4,644	4,459	4,482	4,465	4,517	4,461
Enrollment	904	977	1,133	717	802	980
Completion ¹	269	621	478	431	382	566
% Enroll/G9-12	19%	22%	25%	16%	18%	22%
URM ²	663	770	927	569	646	791
Completion ¹	179	463	307	288	288	437



¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

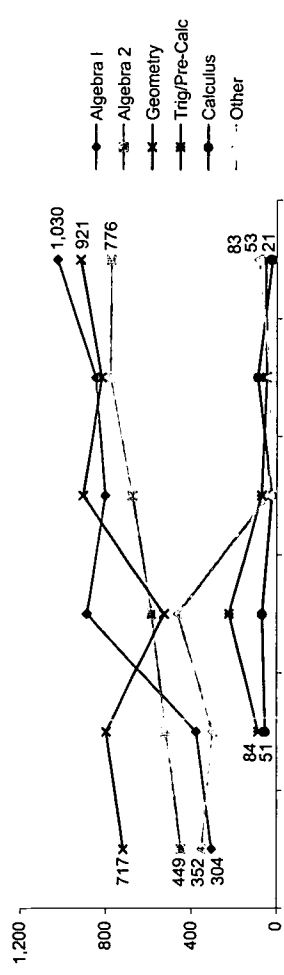
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Roanoke River Valley CPMSA

SY 2000-01

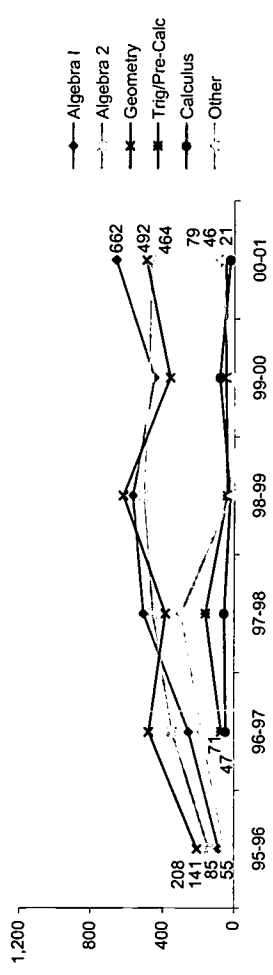
**Mathematics Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)**

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	304	449	717	.	.	352	.
96-97	378	519	798	84	51	298	2,128
97-98	890	586	528	221	67	465	2,757
98-99	803	674	909	70	24	35	2,515
99-00	850	779	821	47	87	30	2,614
00-01	1,030	776	921	53	21	83	2,884



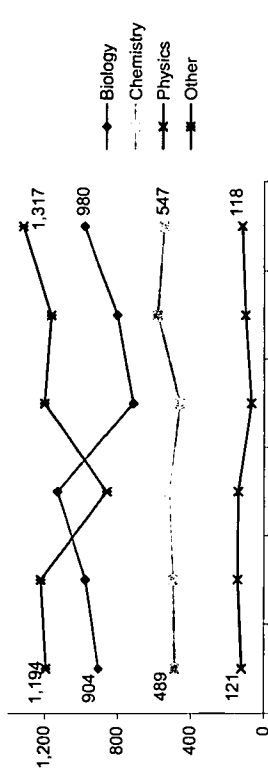
G 9-12 Course Completion ¹ (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
95-96	85	141	208	.	.	55	.
96-97	253	346	478	71	47	181	1,376
97-98	509	456	384	161	56	298	1,864
98-99	568	508	622	40	24	19	1,781
99-00	450	477	359	47	82	15	1,430
00-01	662	464	492	46	21	79	1,764



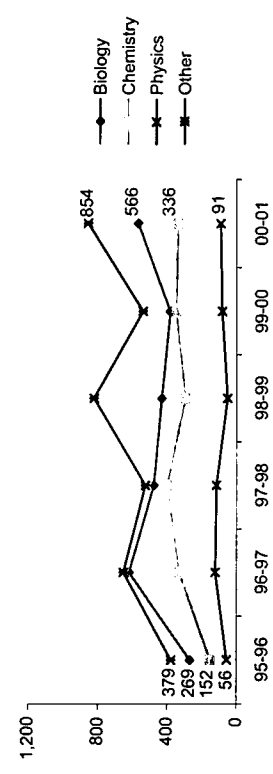
**Science Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)**

	Biology	Chemistry	Physics	Other	Science Total
95-96	904	489	121	1,194	2,708
96-97	977	498	142	1,223	2,840
97-98	1,133	520	141	858	2,652
98-99	717	459	68	1,202	2,446
99-00	802	584	100	1,165	2,651
00-01	980	547	118	1,317	2,962



G 9-12 Course Completion ¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
95-96	269	152	56	379	856
96-97	621	330	124	654	1,729
97-98	478	400	117	528	1,523
98-99	431	294	52	822	1,599
99-00	382	348	83	539	1,352
00-01	566	336	91	854	1,847



¹ Successful completion: grade 'C' or above.

(.) Data Missing

Roanoke River Valley CPMSA

SY 2000-01

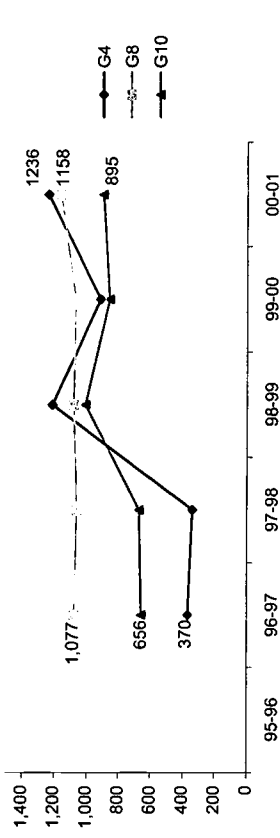
District Assessment Test Administered

State Assessment Test-Taker Trends EOG/EOC

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Grade 4	.	370	338	1,211	912	1,236
Grade 8	.	1,077	1,062	1,081	1,070	1,158
Grade 10	.	656	669	1,007	856	895

Total number of students taking test



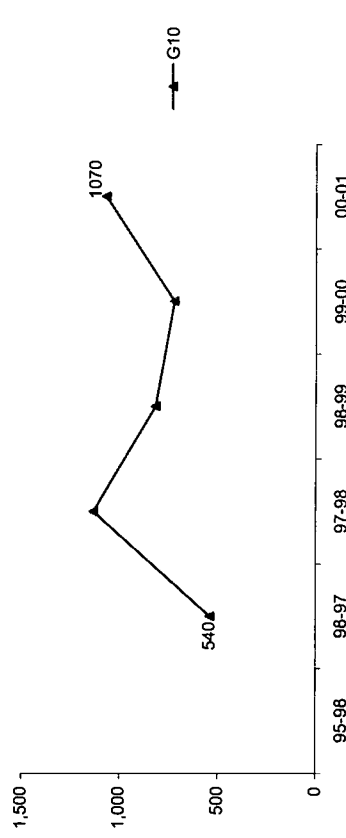
◆ Science	95-96	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

State Assessment Test Administered

◆ Mathematics	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	.	*EOG, EOC	*EOG, EOC	*EOG, EOC	*EOG, EOC	*EOG, EOC
Scoring	.	PC, SS	PC, SS	PC, SS	PC, SS	PC, SS
Grade	.	*3-8, 9-12	*3-8, 9-12	*3-8, 9-12	*3-8, 9-12	*3-8, 9-12
Type	.	NRT	NRT	NRT	NRT	NRT

◆ Science	95-96	96-97	97-98	98-99	99-00	00-01
Test Name	.	EOC	EOC	EOC	EOC	EOC
Scoring	.	PC, SS	PC, SS	PC, SS	PC, SS	PC, SS
Grade	.	9-12	9-12	9-12	9-12	9-12
Type	.	NRT	NRT	NRT	NRT	NRT

Total number of students taking test



* EOG/EOC: North Carolina State End of Grade/End of Course Tests

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

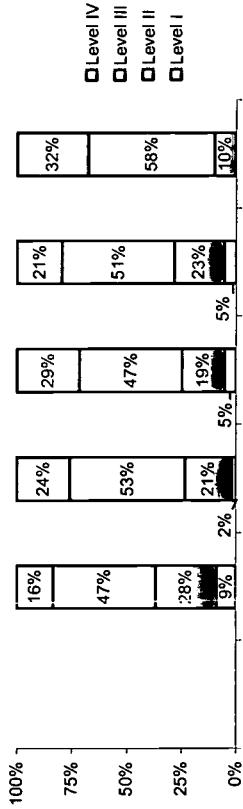
Roanoke River Valley CPMSA

SY 2000-01

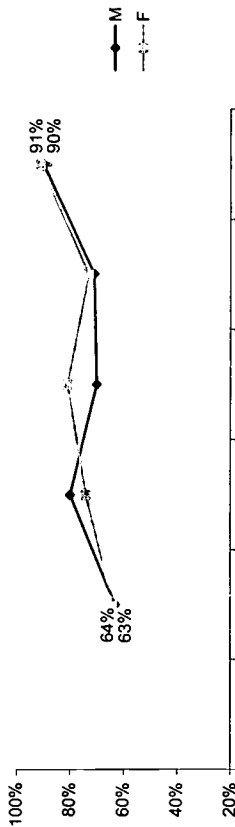
State Assessment Test Result Trends EOG/EOC - Mathematics

Grade 4

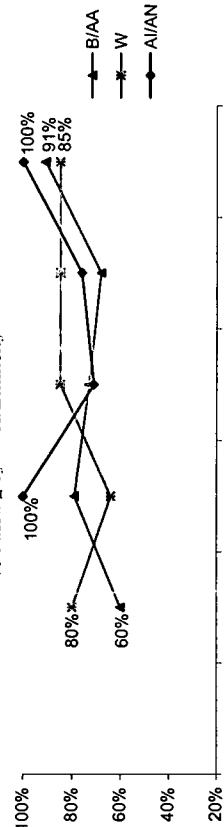
	95-96	96-97	97-98	98-99	99-00	00-01
Level IV	16%	24%	29%	21%	32%	32%
Level III	47%	53%	47%	51%	58%	58%
Level II	28%	21%	19%	23%	10%	10%
Level I	9%	2%	5%	5%	0%	0%
Total # of students	370	338	1,211	912	1236	1236



% Passing by Gender



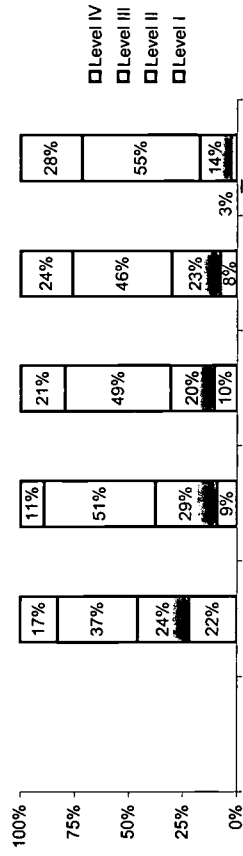
% Passing by Race/Ethnicity*1



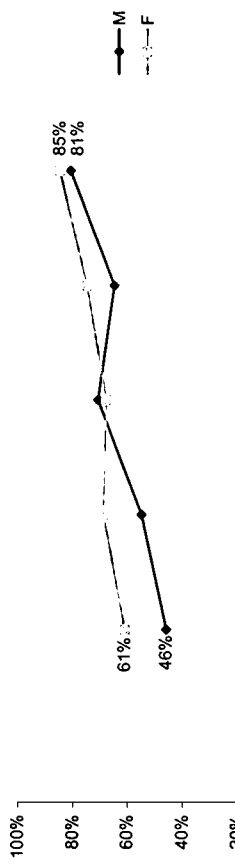
State Assessment Test Result Trends EOG/EOC - Mathematics

Grade 8

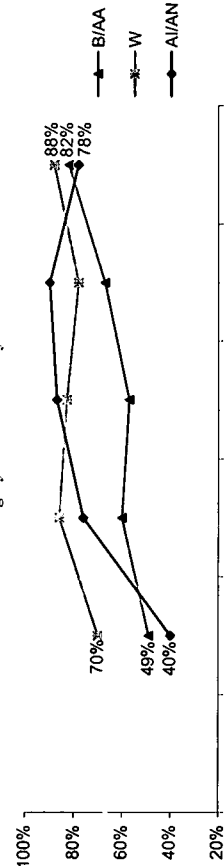
	95-96	96-97	97-98	98-99	99-00	00-01
Level IV	17%	17%	11%	21%	24%	28%
Level III	37%	37%	51%	49%	46%	55%
Level II	24%	24%	29%	20%	23%	14%
Level I	22%	22%	9%	10%	8%	3%
Total # of students	1,077	1,062	1,081	1,070	1,158	1,158



% Passing by Gender



% Passing by Race/Ethnicity*1



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

*1 Passing defined as Level III + Level IV

*1 Number of Test-Takers less than 5 not presented in graph

Roanoke River Valley CPMSA

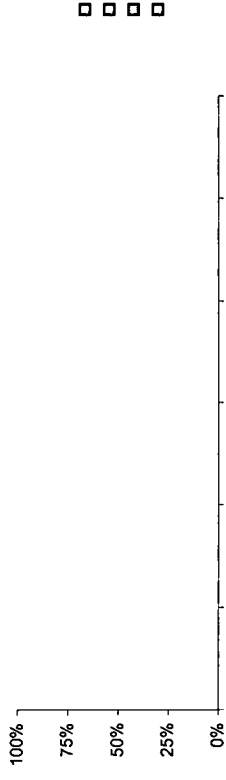
State Assessment Test Result Trends EOC - Science

Grade 4

	95-96	96-97	97-98	98-99	99-00	00-01
Level IV	3%	4%	4%	2%	5%	7%
Level III	16%	16%	33%	19%	32%	32%
Level II	34%	34%	46%	49%	39%	45%
Level I	46%	46%	17%	30%	23%	16%
Total # of students	656	669	669	1,007	856	895

Data Not Available

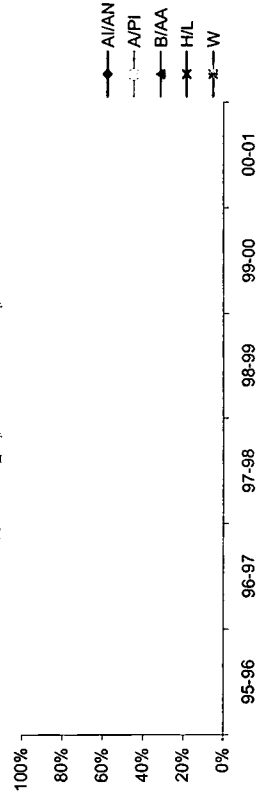
Total # of students



% Passing by Gender



% Passing by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

% Passing defined as Level III + Level IV *1 Number of Test-Takers less than 5 not presented in graph

State Assessment Test Result Trends EOC - Science

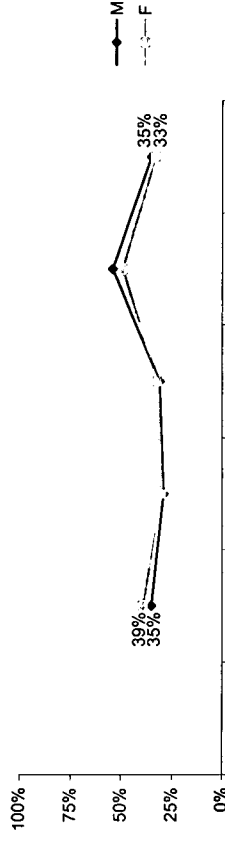
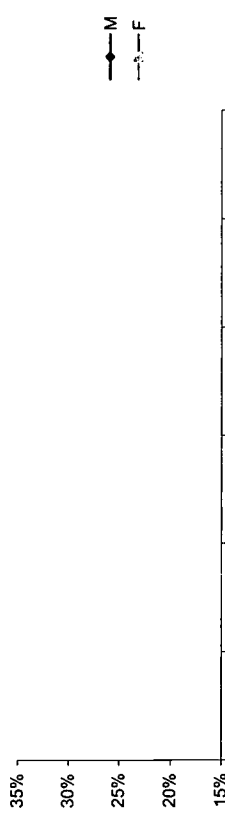
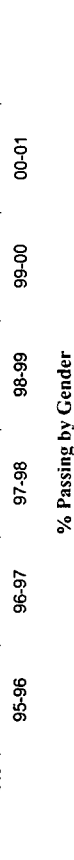
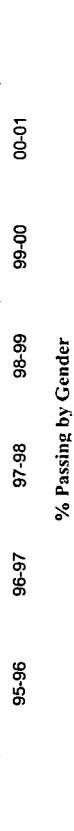
State Assessment Test Result Trends EOC - Science

◆ Grade 8

◆ Grade 10

	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students						
Level IV						
Level III						
Level II						
Level I						
Total # of students						

	95-96	96-97	97-98	98-99	99-00	00-01
Total # of students	540	1,133	818	724	1,070	
Level IV	9%	4%	7%	14%	4%	4%
Level III	28%	26%	25%	38%	30%	30%
Level II	34%	37%	34%	33%	33%	33%
Level I	29%	33%	34%	15%	34%	34%



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Level III + Level IV *1 Data not presented on graph for sample size less than 5

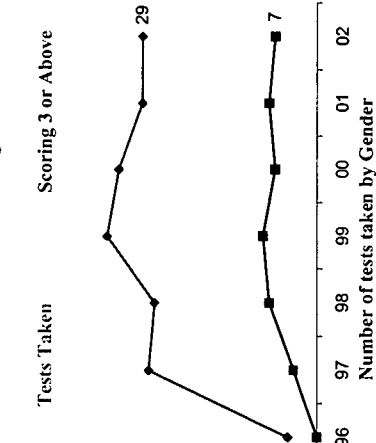
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Level III + Level IV *1 Data not presented on graph for sample size less than 5

◆ AP Mathematics Test Result Trends ◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,840	1,782	1,677	1,724	1,783	1,787	
Calculus AB	5	28	27	35	33	29	29
Calculus BC	0	0	0	0	0	0	0
Statistics	0	0	0	0	0	0	0
Total	5	28	27	35	33	29	29
Tests taken per 1,000 students	2.7	15.7	16.1	20.3	18.5	16.2	
Scoring 3 or Above	0	4	8	9	7	8	7
Scoring 3 or Above per 1000	0.0	2.2	4.8	5.2	3.9	4.5	

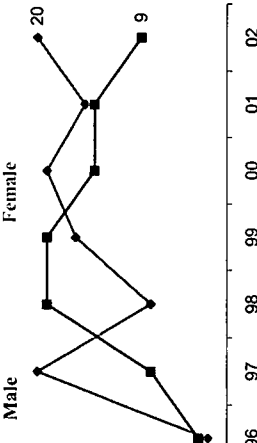
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken

By Gender	96	97	98	99	00	01	02
Male	3	8	19	19	14	14	9
Female	2	20	8	16	19	15	20

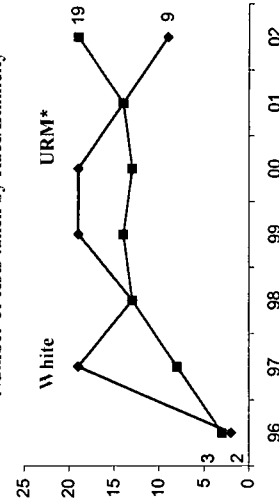
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken

By Race/Ethnicity	96	97	98	99	00	01	02
A/AN	0	0	0	1	0	0	1
A/PI	0	0	0	0	1	0	0
B/AA	2	19	13	18	19	14	8
H/L	0	0	0	0	0	0	0
W	3	8	13	14	13	14	19

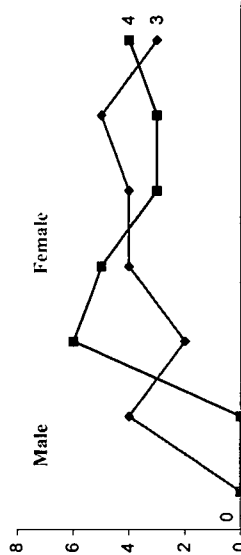
Number of tests taken by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

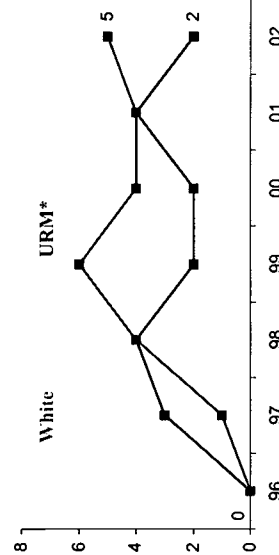
◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	0	0	0	6	5	3	4
Female	0	4	2	4	4	5	3



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity

	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	0	0	1	0	0
B/AA	0	3	4	2	2	4	2
H/L	0	0	0	0	0	0	0
W	0	1	4	6	4	4	5



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

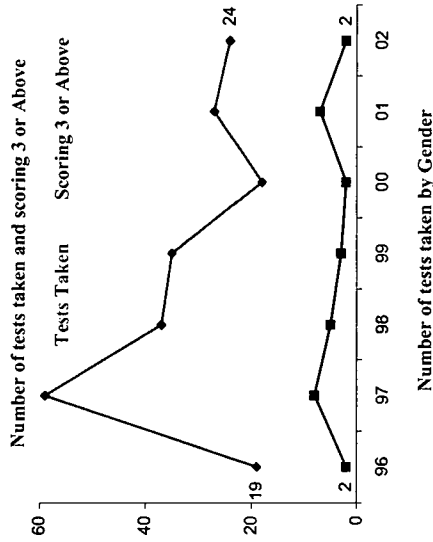
Roanoke River Valley CPMSA

SY 2000-01

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

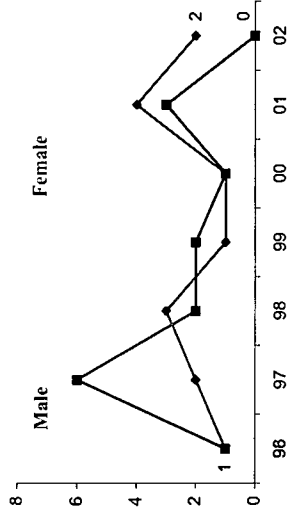
♦ AP Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,840	1,782	1,677	1,724	1,783	1,787	.
Biology	19	59	37	35	18	19	12
Chemistry	0	0	0	0	0	8	0
Env. Science	0	0	0	0	0	0	0
Physics B	0	0	0	0	0	0	12
Physics Mech.	0	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0	0
Total	19	59	37	35	18	27	24
Tests taken per 1,000 students	10.3	33.1	22.1	20.3	10.1	15.1	.
Scoring 3 or Above	2	8	5	3	2	7	2
Scoring 3 or Above per 1000	1.1	4.5	3.0	1.7	1.1	3.9	.



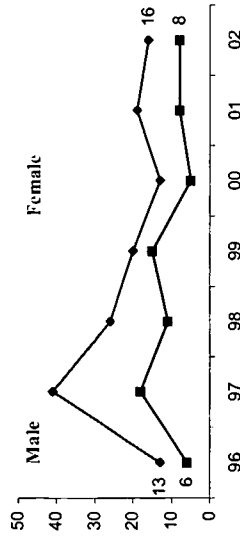
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	1	6	2	2	1	3	0
Female	1	2	3	1	1	4	2



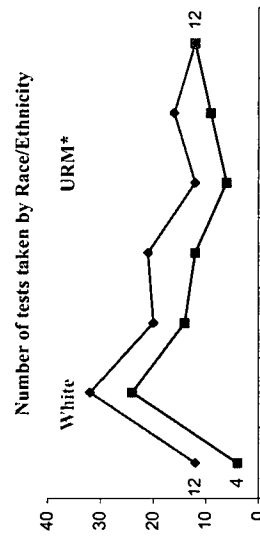
♦ AP Science - Number of Tests Taken By Gender

	96	97	98	99	00	01	02
Male	6	18	11	15	5	8	8
Female	13	41	26	20	13	19	16



♦ AP Science - Number of Tests Taken By Race/Ethnicity

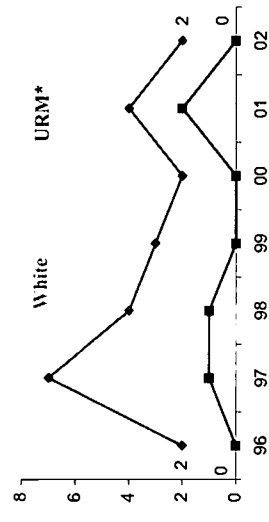
	96	97	98	99	00	01	02
A/AN	0	0	1	1	0	0	0
A/PI	1	0	0	0	0	0	0
B/AA	4	24	13	11	6	9	12
H/L	0	0	0	0	0	0	0
W	12	32	20	21	12	16	12



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity

	96	97	98	99	00	01	02
A/AN	0	0	1	0	0	0	0
A/PI	0	0	0	0	0	0	0
B/AA	0	1	0	0	0	2	0
H/L	0	0	0	0	0	0	0
W	2	7	4	3	2	4	2



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

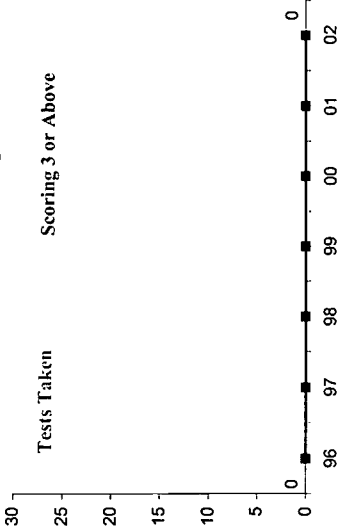
AP Computer Science Test Result Trends

Computer Science A & AB

AP Computer Science - Total Number of Tests Taken

	96	97	98	99	00	01	02
Total # of 11th & 12th graders	1,840	1,782	1,677	1,724	1,783	1,787	
Comp. Sci. A	0	0	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	0.0	0.0	
Scoring 3 or Above	0	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.0	0.0	

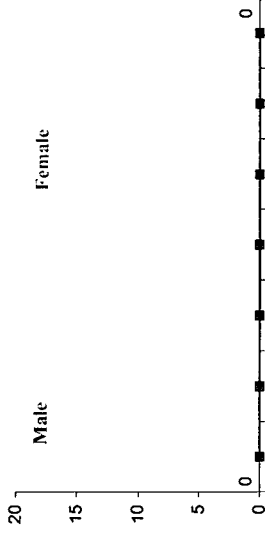
Number of tests taken and scoring 3 or Above



AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0

Number of tests taken by Gender



AP Computer Science - Number of Tests Taken

By Gender	96	97	98	99	00	01	02
Male	0	0	0	0	0	0	0
Female	0	0	0	0	0	0	0

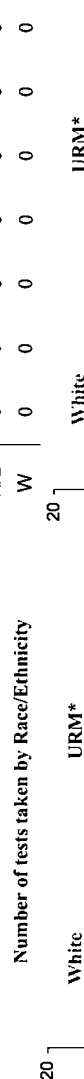
Number of tests taken by Gender



AP Computer Science - Number of Tests Taken

By Race/Ethnicity	96	97	98	99	00	01	02
A/AN	0	0	0	0	0	0	0
A/PI	0	0	0	0	0	0	0
B/AA	0	0	0	0	0	0	0
H/L	0	0	0	0	0	0	0
W	0	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

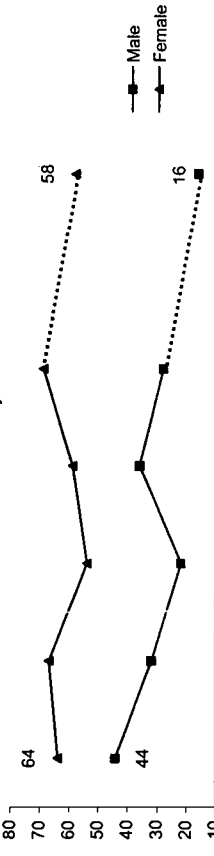
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Roanoke River Valley CPMSA

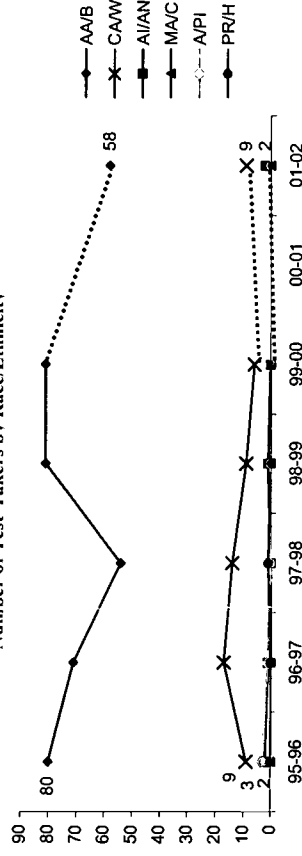
ACT Test-Takers
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	869	868	817	776	852	850	.
Test-Takers	108	99	76	97	97	.	75
Num of Test-Takers/1,000 Stu.	124	114	93	125	114	.	.
Gender							
Male	44	32	22	36	28	.	16
Female	64	67	54	59	69	.	58
Race/Ethnicity							
AA/B	80	71	54	81	81	.	58
AI/AN	2	1	0	1	0	.	2
CA/W	9	17	14	9	6	.	9
MA/C	0	0	0	0	0	.	0
A/PI	3	1	0	0	0	.	0
PR/H	0	0	1	0	0	.	0

Number of Test-Takers by Gender



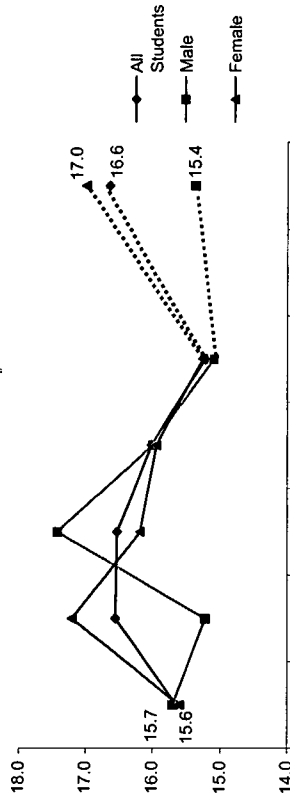
Number of Test-Takers by Race/Ethnicity



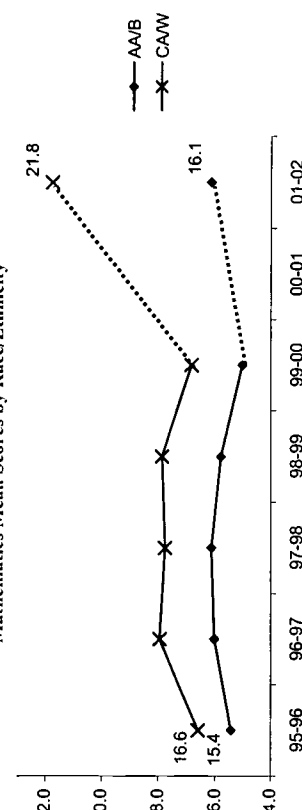
ACT Mathematics Scores
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	15.6	16.6	16.5	16.0	15.2	.	16.6
Gender							
Male	15.7	15.2	17.4	16.0	15.1	.	15.4
Female	15.6	17.2	16.2	15.9	15.3	.	17.0
Race/Ethnicity							
AA/B	15.4	16.0	16.1	15.8	15.0	.	16.1
AI/AN	13.5	19.0	0.0	17.0	0.0	.	15.5
CA/W	16.6	18.0	17.8	17.9	16.8	.	21.8
MA/C	0.0	0.0	0.0	0.0	0.0	.	0.0
A/PI	21.3	18.0	0.0	0.0	0.0	.	0.0
PR/H	0.0	0.0	19.0	0.0	0.0	.	0.0

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
(.) Data not available.

Roanoke River Valley CPMSA

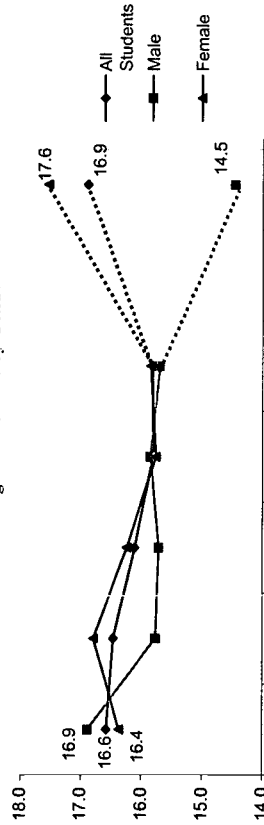
SY 2000-01

ACT Science Reasoning Scores

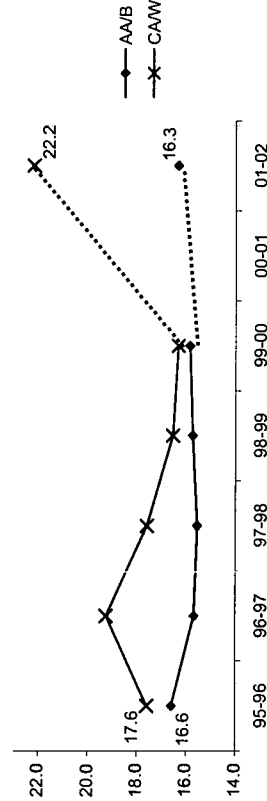
◆ Science Reasoning - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	16.6	16.5	16.1	15.8	15.8	16.9	16.9
Gender							
Male	16.9	15.8	15.7	15.9	15.7	14.5	14.5
Female	16.4	16.8	16.2	15.8	15.8	17.6	17.6
Race/Ethnicity							
AA/B	16.6	15.7	15.6	15.7	15.9	16.3	16.3
AI/AN	17.0	19.0	0.0	19.0	0.0	14.0	14.0
CA/W	17.6	19.2	17.6	16.6	16.3	22.2	22.2
MA/C	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/P/I	17.7	17.0	0.0	0.0	0.0	0.0	0.0
PR/H	0.0	0.0	19.0	0.0	0.0	0.0	0.0

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauca
American/White MA/C: Mexican American/Chicano A/P/I: Asian/Pacific Islander PR/H:
Puerto Rican/Hispanic.

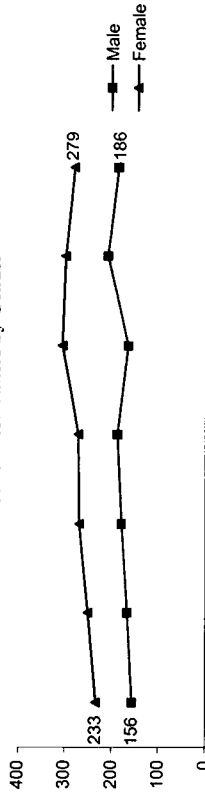
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

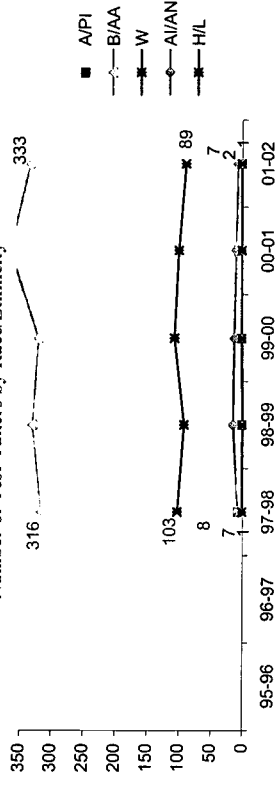
◆ Number of Test-Takers

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	869	868	814	776	852	850	850
Test-Takers	389	417	449	459	471	507	465
Num of Test-Takers/1,000 Stu.	448	480	552	591	553	596	547
Gender							
Male	156	167	180	188	165	208	186
Female	233	250	269	271	306	299	279
Race/Ethnicity							
AI/AN	8	15	13	10	10	7	7
A/P/I	7	7	1	4	6	2	2
B/AA	316	316	330	320	365	333	333
H/L	1	0	1	1	1	1	1
W	103	92	92	107	100	89	89
OT	5	9	9	10	11	7	7

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or
African American H/L: Hispanic or Latino W: White OT: Others

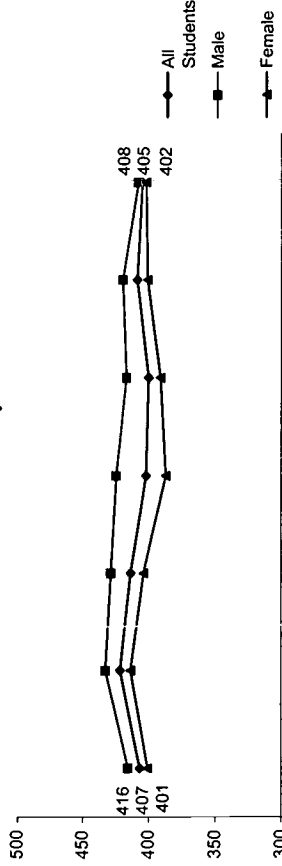
Roanoke River Valley CPMSA

SAT Mathematics Scores

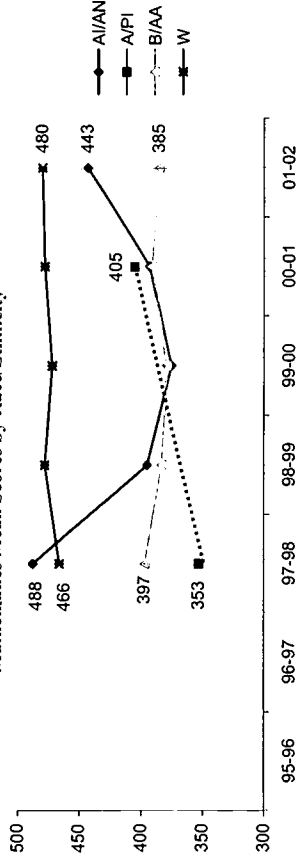
◆ Mathematics - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	407	422	414	402	400	409	405
Gender							
Male	416	433	429	425	417	420	408
Female	401	414	404	387	391	401	402
Race/Ethnicity							
A/IAN	488	488	488	395	375	393	443
A/PI	Data Not Available	353	-	-	-	405	-
B/AA	397	397	383	379	391	385	385
H/L	-	-	-	-	-	-	-
W	466	466	478	472	478	478	480
OT	376	376	394	405	458	458	420

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



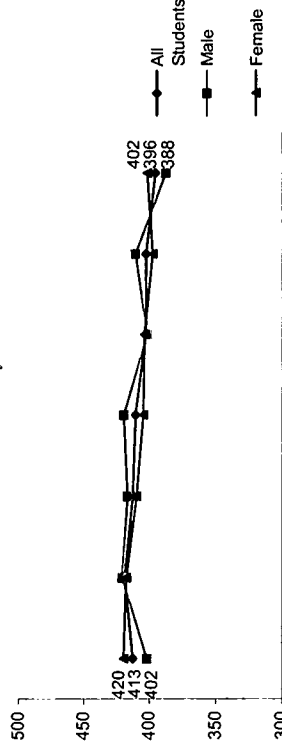
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5
 *1 Data not presented on graph for sample size less than 5

SAT Verbal Scores

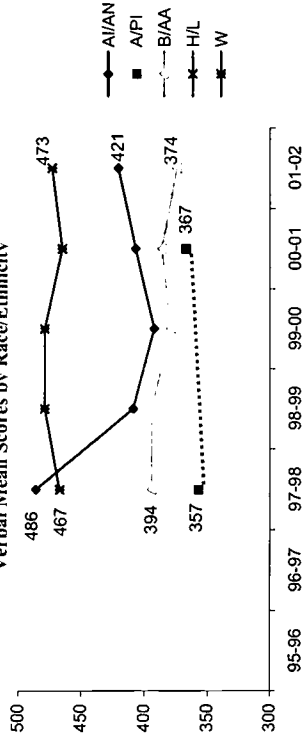
◆ Verbal - Mean Score Trends

	95-96	96-97	97-98	98-99	99-00	00-01	01-02
All Students	413	419	413	411	403	403	396
Gender							
Male	402	421	417	420	402	411	388
Female	420	418	410	405	404	398	402
Race/Ethnicity							
A/IAN	486	486	486	409	392	407	421
A/PI	Data Not Available	357	-	-	-	367	-
B/AA	394	394	394	394	379	386	374
H/L	-	-	-	-	-	-	-
W	467	467	479	479	479	465	473
OT	396	396	406	406	432	455	484

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity*1



Cohort/Scale-Up Approach

Number of District Schools	98-99 ¹	99-00 ¹	00-01 ¹
CPMSA Schools:	36	35	36
% Schools:	36	35	36
	100%	100%	100%

Source: CDE 1999-01

Primary Decision Making Body

Standards Curriculum	State
Curriculum/Text/Book Adoption	District
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 • There is no policy on student tracking.

Criteria for Entry into High Level Mathematics and Science Courses:
 • There is no written district policy. In some districts an Honors Graduate Program in math and science has been implemented which requires a grade no lower than 85.

Availability of High Level Courses:

Special Education and Bilingual Students:

• IEP's and Career Plans address the needs of LEP, SPED and vocational students in math and science. The state has implemented Career Tech Prep Pathways for students in the vocational program and an Occupation Pathway for low functioning exceptional students.

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements:
 • Weldon: Algebra I, 1 math elective, Bio., Phys. Sci., and 1 Sci. Elective.
 • Warren/Hertford/Bertie: 3 units of math, and 3 units of sci. (Bio., Phys. Sci. and 1 lab course).
 • Northampton: 4 units of math, 4 units of sci.
 • After-school tutorials and Saturday academies are provided in science and mathematics for students in grades 9-12 at risk of failing state and local standards.

Student Support Systems:
 • Summer Acceleration programs and Young Scholars Programs. Partnerships to Enhance Student Achievement sponsored program: SET-M (Sci., Eng., Tech.- Math) for 9-12.

Summer programs:
 • The North Carolina Standard Course of Study is the foundation for local curriculum development.

Policies Relevant to Curriculum

Framework:
 • The North Carolina Standard Course of Study is the foundation for local curriculum development.

Curricula:
 • The North Carolina State Board of Education mandated minimal curriculum requirements.

Curricula Materials:
 • No district policy exists. Materials are used that follow the state Standard Course of Study. Textbooks were the only materials adopted.

New Courses Added as a Result of CPMSA:
 • The CPMSA has provided staff training and various programs that have better prepared teachers to prepare students for high level courses. Students have also enrolled in community college courses and on-line courses through Virtual High School.

Instructional Time:

• The state sets the time to allocations for each course/subject. Principals set up a schedule to reflect student and/or school need. Mini-grants from the CPMSA provide for extended time and tutorials in math and science.

Standards-based Curriculum and Instruction

Standards Adopted:
 • The North Carolina State Board of Education mandated minimal curriculum requirements. The local requirements have not exceeded these and the National Science Standards.

% of Students Experiencing Standards-based Curricula:
 E = 100%
 M = 100%
 H = 100%

Policies Relevant to Teacher Qualifications

Certification:
 • Beginning teachers must meet the NC requirement for the PRAXIS and complete the Performance-Based Licensure Program. Re-performance requires 15 credits with a minimum of 3 in the area of technology. No classes are taught by non-certified personnel.

Requirement & Hiring Practices:
 • The district hires lateral entry and persons under the alternative entry licensure plan. The alternative plan is a one year provisional license and the individual is expected to satisfy state requirements.

Professional Advancement & Leadership Training:
 E: Elementary School M: Middle School H: High School

Roanoke River Valley CPMMSA

SY 2000-01

Professional Development Policies and Practices

Time Required or Supported: → The state requires 15 CEUs every 5 years for re-certification, which must include at least 3 CEU's in technology

Financial Resources Provided:

Alignment to Student Standards:

→ Best teaching practices are a priority. The focus of instruction is on pedagogy at all instructional levels. More labs and technology are incorporated in science and mathematics.

Type and Amount Received by Average Math/Science Teacher: → Each 5 year renewal cycle requires 15 credits to renew a teaching/administration certificate. Professional development is continet specific in the areas of math and science.

Evaluation Instruments: → Math and science professional development is data driven. Data is collected from standards-based assessment from the EOG/EOC state tests and the North Carolina Standard Course of Study.

Professional Development Alignment to Content Standards Measures: → All professional development is linked to the school improvement plan and the district five-year strategic plan. A concerted effort is being made to integrate and coordinate all services and course offerings.

Teacher's Instructional Practices Evaluation: → Classroom observations are conducted by the principal or designee, and central office personnel. Post observation conferences are conducted to provide feedback.

Impact on Student Achievement:

→ Professional development on test data disaggregation and application to a student's profile is provided to all teachers. All instructional decisions are data driven.

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums: → The district strategic plan mandated that all schools increase the number of students at or above grade level. All school improvement plans are to address relevant academic standards and measurable assessment strategies.

Assessments Used: → The New North Carolina 8th grade Mathematics EOG test and EOC exams were developed by the State. The exams given reflect National Math and Science Standards.

CPMSA Leadership, Governance, and Management

Superintendent: → John F. Smith

- Steve Stone
- Mary McDuffy
- Carlinda Purcell

Continuity of Leadership

- Emmett Kimbrough
- There is some continuity in the positions of superintendent, all of whom have emphasized math and science at all levels. They continue to support the ABC's of Accountability and the North Carolina Standard Course of Study .
- The Project Director is an instructional services person and data manager who reports directly to the Superintendents of the Consortium or through the Assistant Superintendents of Instruction.

Project Directors position in district's organizational structure:

Teacher Leaders:

Partnerships

Other Key Initiatives: → CPMMSA collaborated with the Algebra Project, SET-M, SEMAA, Z. Smith Reynolds--Young Scholars, 21st Century Learning Centers

Competing Initiatives: None

Community Stakeholders:

- Mini-grants by various community and business partnerships are awarded to support programs. Parents are used as volunteers, tutors, and observers. Parents conduct fundraisers for the support of students.

Higher Education:

- Partnerships were formed with Elizabeth City State University, North Carolina Central University, Shaw University, East Carolina University, UNC-CH, Fayetteville State, Halifax Community College, and Roanoke Chowan to enhance student learning and activities and for summer residential programs.

Business and Industry:

- Businesses provide:
 - videotapes on math, science and technology skills and topics
 - resources and advisory committee members
 - sponsorships and financial support

Roanoke River Valley CPMSA

SY 2000-01

Accountability

Program Effectiveness Monitoring: Superintendent evaluates each principal and school based on test results and other criteria designated by the state.

Report Card System: Yes, the report card included all major aspects of the schools, including performance on state mandated tests.

Key Indicator Data Collection: Key indicator data is maintained through our Student Information Management System (SIMS) and through the Testing Coordinator of each system.

Key Indicator Data Use: Data is used to determine strengths and weaknesses. Based on the data, strategies are created to meet the needs of the students.

Local On-Sight Evaluation: Progress reports and project status is reported to the superintendents of the consortium at regular meeting and decisions are made based on reports.

Data Manager: Yvonne B. Sims

External Evaluator: None

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1995-96	<ul style="list-style-type: none"> The state of NC required two math and two science credits (Algebra I, math elective, Biology and a physical science). Warren County required 3 units of math, and 3 units of science (Biology, Physical Science and 1 laboratory course). One math and science to move to the 10th grade; two maths and two sciences to move to the 11th grade.
2000-01	<ul style="list-style-type: none"> Weldon: Algebra I, 1 math elective, Biology, Physical Science, and 1 Science elective Warren/Hertford/Bertie: 3 units of math, and 3 units of science (Biology, Physical Science and 1 laboratory course). Northampton: 4 units of math, 4 units of science. Hertford County: Algebra I, 2 math electives, Biology, Physical Science, and Earth/Environmental Science
Effective 2002	<ul style="list-style-type: none"> New change: Students in grades 3-8 must obtain a Level III or above on the End-of-Grade Test in Mathematics to move to the next grade. Students in grades 9-12 must score Level III or above on the End-of Grade Test to pass a course.

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1995-96	<ul style="list-style-type: none"> Curriculum is developed to meet State and local board of education requirements. Local curriculum development is based on the North Carolina Standard Course of Study. Beginning teachers must meet the NC requirement for the PRAXIS and complete the Initial Licensure Program. Re-certification requires 10 credits.
1996-97	<ul style="list-style-type: none"> Re-certification now requires 15 credits with a minimum of three in the area of technology. Alternative and Emergency programs were added on a one year provisional license.
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> The district strategic plan mandated that all schools increase the number of students at or above grade level. All school improvement plans are to address relevant academic standards and measurable assessment strategies.

Roanoke River Valley CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation	Standards-based Assessment System Changes During CPMSA Implementation	Accountability
--	--	-----------------------

School Year	Policy Implemented
1996-97	<ul style="list-style-type: none"> 15 CEU's were required for 5-year re-certification; 5 CEU's were allowed for experience. Each 5 year renewal cycle requires 15 credits to renew a teaching/administration certificate.
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> All professional development is linked to the school improvement plan and the district five-year strategic plan, i.e., integration and coordination of all services and course offerings.
2000-01	

School Year	Policy Implemented
1996-97	<ul style="list-style-type: none"> End-of-Course exams are developed by the State. The exam given reflect the National Math and Science Standards.
1997-98	
1998-99	
1999-00	
2000-01	<ul style="list-style-type: none"> New North Carolina 8th grade Mathematics EOG test.

School Year	Policy Implemented
1996-97	
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> A report card system was instituted to report on all major aspects of the schools, including performance on state mandated tests.
2000-01	<ul style="list-style-type: none"> Superintendent evaluates each principal and school based on test results and other criteria designated by the state.

CPMSA *Comprehensive Partnerships for Mathematics and Science Achievement*

Fact Book 2002

May 2003

Volume III

Cohort 1997

Akron, OH
Gary, IN
Kansas City, KS
Laredo, TX
Oakland, CA
Richmond, VA
Springfield, MA

Cohort 1998

Beaumont, TX
Dayton, OH
Little Rock, AR
Montgomery, AL



CPMSA
EVALUATIVE
STUDY

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CPMSA Comprehensive Partnerships for Mathematics and Science Achievement

Fact Book 2002

May 2003

Evaluative Study of the Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)
Based on the Tabulated Indicators for Systemic Changes (TISC-2002)



Volume III: Cohort 97 School Districts Cohort 98 School Districts

The preparation of this report was sponsored by the National Science Foundation, Directorate for Education and Human Resources, Division of Research, Evaluation and Communication, under Grant No. REC-0080724.



Program
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This report is also available on the World Wide Web: www.systemic.com/cpmsa



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For the
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Any opinions, findings, and conclusions or recommendations expressed in this report are those of the participants and do not necessarily represent the official views, opinions, or policy of the National Science Foundation.

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Table of Contents

About CPMSA TISC	iv
26 CPMSA Sites	v
 Volume III: Cohort 97 and 98 School Districts	
Akron, OH	III-1
Beaumont, TX	III-20
Dayton, OH	III-39
Gary, IN	III-58
Kansas City, KS	III-77
Laredo, TX	III-96
Little Rock, AR	III-115
Montgomery, AL	III-134
Oakland, CA	III-153
Richmond, VA	III-172
Springfield, MA	III-191



About CPMSA and TISC

The Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA) is a National Science Foundation (NSF) program designed to improve the mathematics and science education of urban students in medium sized cities. Twenty seven cities received competitively awarded five-year cooperative agreements to improve their educational infrastructure and student achievement by focusing on partnerships with colleges and universities and community organizations to design and implement both student and teacher enrichment activities. The program was initially entitled The Comprehensive Partnerships for Minority Student Achievement. As the program matured, a more systemic approach was embraced, and the focus shifted to standards-based curriculum, instruction, and assessment, and professional development of teachers and administrators, in addition to partnerships with higher education institutions, business and industry, and community groups. The revised program name is a reflection of the changed emphasis. The primary goal of CPMSA is to “increase the number of students enrolling in and successfully completing precollege courses which will prepare them to pursue undergraduate programs in science, engineering and mathematics.”¹

Systemic Research, Inc. received a three year

grant from NSF to conduct an evaluative study of the CPMSA program. This grant follows several contracts awarded to Systemic Research, the first in 1997, to develop and implement Tabulated Indicators for Systemic Changes (TISC). TISC is an electronic data collection instrument designed to collect, compile, and report CPMSA annual progress based on common key indicator data. TISC consists of two parts: T-1 for quantitative and T-2 for qualitative data. Data from the baseline year (year prior to program implementation) up to SY 2000-01 was collected from 26 active CPMSA sites, Core Data Elements², Educational Testing Service, The College Board, and ACT, Inc. The qualitative data was also compiled/extracted from individual Annual Reports and other documents collected from sites during the project period.

Quantitative Indicators include student demographics, mathematics and science gate-keeping course enrollment and completion, graduation rates, SEM proficiency rate, assessment test results, AP, SATI, ACT test results, teacher certification and professional development participation.

Qualitative data was collected for policies relevant to equal access to a high quality mathematics and science education, curriculum and instruction,

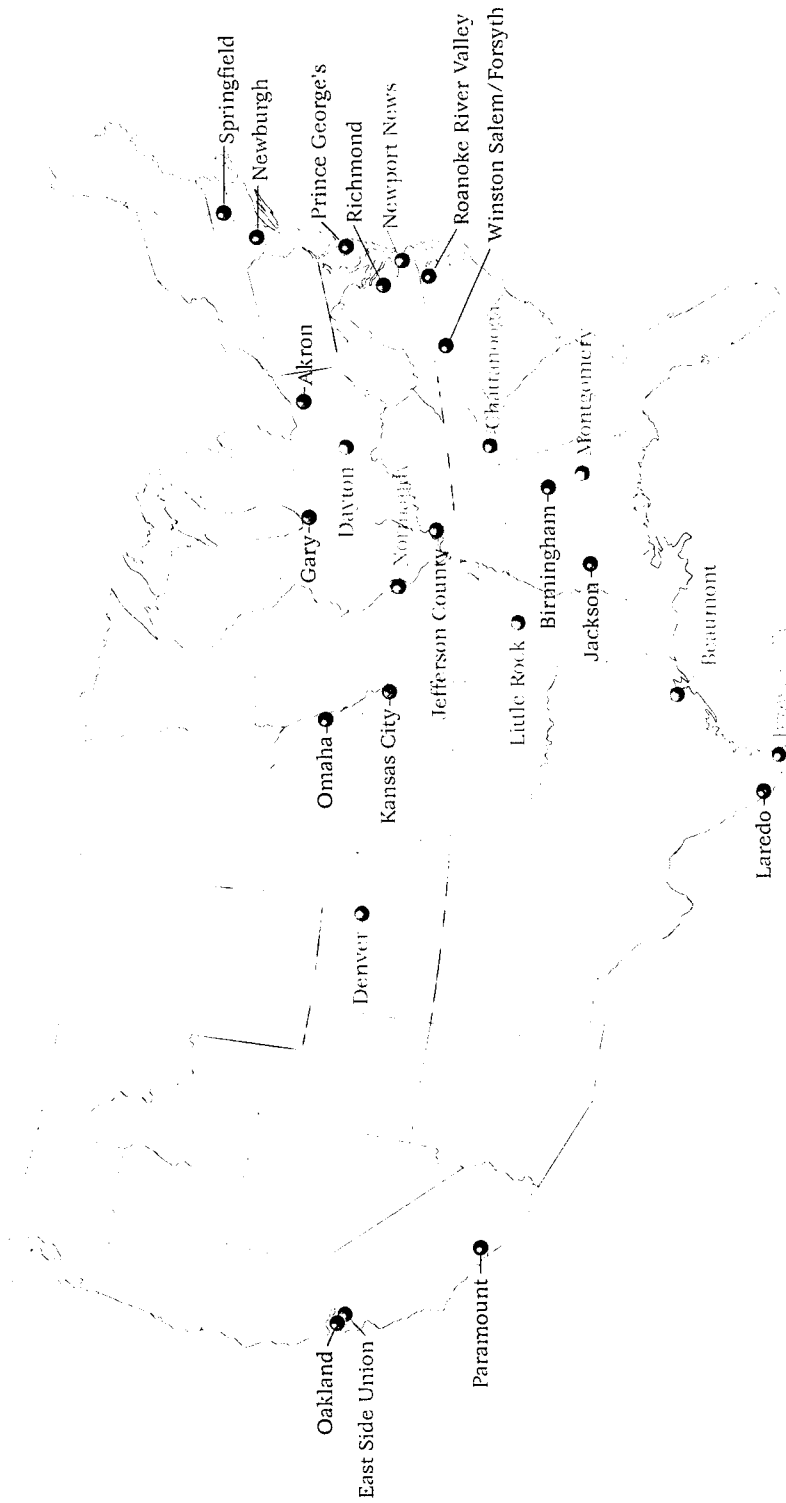
assessment, teacher qualifications, professional development, leadership and partnership, and accountability.

Please refer to our evaluative study web site <http://www.systemic.com/cpmsa> for the CPMSA program overall progress report, details of study progress and electronic version of various study reports.

1 Source: *Human Resource Development for Science, Mathematics and Engineering Education and Research- Program Announcement and Guidelines* (NSF 96-144), National Science Foundation, Arlington, VA

2 *Core Data Elements 1997-2002*, Westat, Inc., Rockville, Md

26 CPMSA Sites



- | | | |
|---|---|--|
| Cohort 93
Brownsville, TX
Chattanooga/Hamilton, TN
Normandy, MO | Cohort 96
East Side Union High School, CA
Jackson, MS
Newburgh Enlarged, NY
Paramount, CA
Prince George's County, MD
Roanoke River Valley Consortium, VA | Cohort 97
Akron, OH
Gary, IN
Kansas City, KS
Laredo, TX
Oakland, CA
Richmond, VA
Springfield, MA |
| Cohort 94
Denver, CO
Jefferson County, KY
Newport News, VA | Cohort 98
Beaumont, TX
Dayton, OH
Little Rock, AR
Montgomery, AL | |
| Cohort 95
Birmingham, AL
Omaha, NE
Winston-Salem/Forsyth County, NC | | |

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Akron CPMSA

Project Information

CPMSA Project Title : Mac Jemison Project

Cohort: 97

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◆ District Schools, Math & Science Teachers, and Students

2000-01	Schools	Teachers	Students
K-G5 (Elementary)	41	984	15,090
G6-8 (Middle)	10	130	6,594
G9-12 (High)	8	146	7,769
Total	59	1,260	29,453

Source: Core Data Elements (SY 2000-01)

Project Summary

The Akron Public Schools will meet the project goals by incorporating several fronts:

- ◆ Improving the quality of instruction for ALL students K-12 by enhancing teacher knowledge in the mathematics and science content areas.
- ◆ Improving articulation among elementary, middle and high school teachers in the eight cluster schools with professional development opportunities in mathematics, science, learning styles, equity, and cultural awareness.
- ◆ Providing outstanding enrichment and pre-college opportunities for students designed to encourage interest in mathematics, science, engineering, technology.
- ◆ Supporting individual students in achieving academic success in mathematics and science by mentorships, tutoring, enrichment programs, and parental involvement.
- ◆ Increase the number of minority students passing the Ohio Proficiency Test (OPT) by the end of the eighth grade.
- ◆ Recruit and maintain students in higher level mathematics and science courses.

Project Goals

To double the number of underrepresented minority students in the Akron Public Schools who enroll in higher level mathematics and science courses.

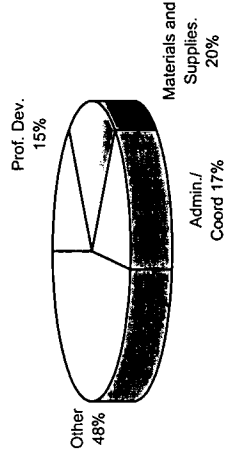
Selected School Indicators (District Average)

	96-97	97-98	Change
% Special Ed.	.	.	.
% LEP	.	.	.
% Free/Red. Lunch	.	.	.
% Daily Avg. Atten.	.	.	.
% Average Retained	.	.	.
% Drop-Out	.	.	.
% Mobility	.	.	.
Per Pupil Cost (\$)	.	.	.
# Students Per Computer	.	.	.
% Classrooms Internet Access	.	.	.
Average Class Size	.	.	.

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	2%	15%
Materials and Supp	5%	20%
Admin/Coord.	68%	17%
Other	25%	48%
Total	100%	100%

CPMSA Funds %



Student Demographics (SY 1997-98)

District Total: 29,701
 CPMSA Schools: 29,701
 Source: Core Data Elements 2000-01

Race/Ethnicity District-Wide

	96-97	97-98	%	% Change
<i>Ame. Ind./Ala. Nat.</i>	32	39	0.1%	+21.9%
<i>Asian/P. Islander</i>	619	643	2.1%	+3.9%
<i>Black</i>	14,447	14,645	47.1%	+1.4%
<i>Hispanic</i>	198	199	0.6%	+0.5%
<i>White</i>	15,615	15,542	50.0%	-0.5%
<i>Other</i>	0	0	0.0%	.
Total	30,911	31,068	100.0%	+0.5%
<i>URM Total</i>	<i>14,677</i>	<i>14,883</i>	<i>47.9%</i>	<i>+1.4%</i>

URM: Underrepresented Minority students.

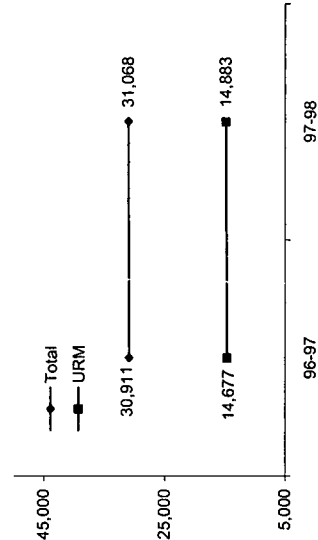
Gender

Male	15,791	15,867	51.1%	+0.5%
Female	15,120	15,201	48.9%	+0.5%

Grade

K-G5	15,187	15,124	48.7%	-0.4%
G6-8	6,913	6,900	22.2%	-0.2%
G9-12	8,811	9,044	29.1%	+2.6%
Ungraded	0	0	0.0%	.

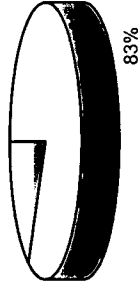
District Student Demographic Trends



12th Grade Graduates

	97-98	Change
Total 12th Grade	1,836	.
Earned a Diploma	1,521	.
% Earned Diploma	83%	.

% Earned Diploma for SY 1997-98



SEM Proficiency

SEM Proficient¹
 % SEM Proficient/
 Total 12th Grade

Change

Math and Science Teachers & Certification Mathematics (G6-12)

	1998-99	2000-01	Change
Teachers Certified	29	65	+124%
% Cert.	.	.	.
G6-8 Teachers Certified	59	90	+53%
% Cert.	.	.	.
G9-12 Teachers Certified	88	155	+76%
% Cert.	.	.	.
Total Teachers Certified	147	245	+66%

Science (G6-12)

	1998-99	2000-01	Change
Teachers Certified	47	65	+38%
% Cert.	.	.	.
G6-8 Teachers Certified	59	56	-5%
% Cert.	.	.	.
G9-12 Teachers Certified	106	121	+14%
% Cert.	.	.	.
Total Teachers Certified	165	177	+7%

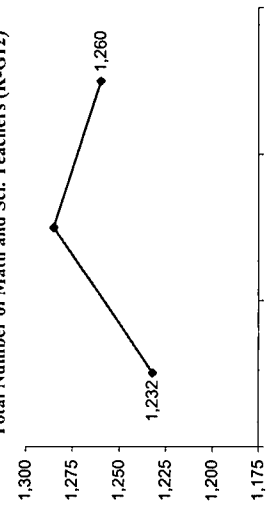
¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

Math and Science (K-G5)

	98-99	00-01	Change
K-G5 Teachers	1,038	984	-5%

High School Graduation Requirements SY 00-01

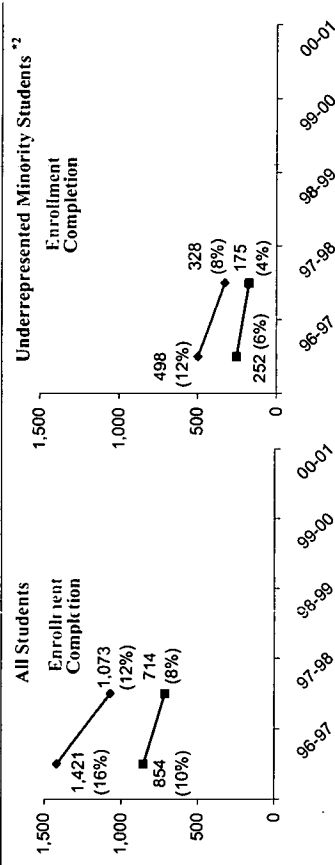
- ♦ Mathematics
- ♦ Science



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

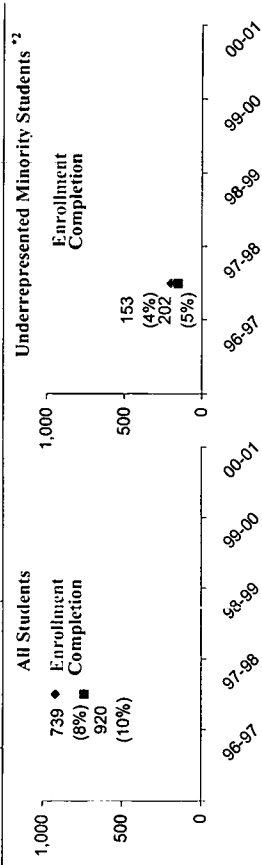
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	8,811	9,044	.	.	.
All Students					
Completion ¹	1,421	1,073	.	.	.
% Enroll/G9-12	854	714	.	.	.
	16%	12%	.	.	.
URM ²					
Enrollment	498	328	.	.	.
Completion ¹	252	175	.	.	.
% Enroll/G9-12	12%	8%	.	.	.



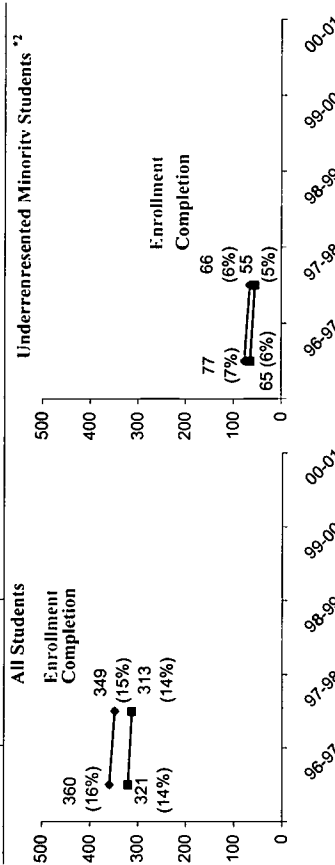
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	8,811	9,044	.	.	.
All Students					
Completion ¹	920	739	.	.	.
% Enroll/G9-12	10%	10%	.	.	.
URM ²					
Enrollment	202	153	.	.	.
Completion ¹	153	5%	.	.	.
% Enroll/G9-12	5%	5%	.	.	.



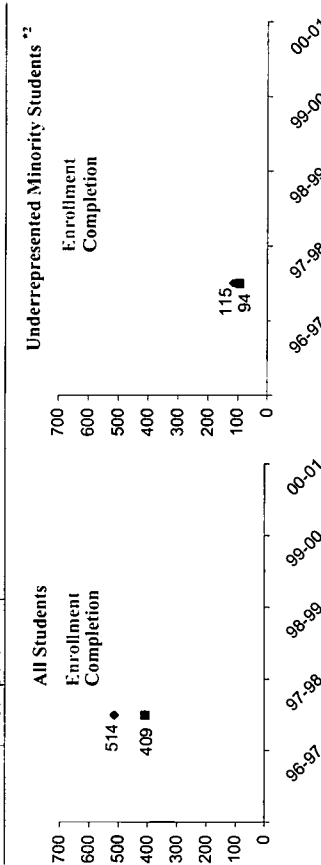
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population					
Enrollment	2,230	2,291	.	.	.
All Students					
Completion ¹	360	349	.	.	.
% Enroll/G8	321	313	.	.	.
	16%	15%	.	.	.
URM ²					
Enrollment	77	66	.	.	.
Completion ¹	65	55	.	.	.
% Enroll/G8	7%	6%	.	.	.



Biology Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	514	409	.	.	.
All Students					
Completion ¹	409	115	.	.	.
URM ²					
Enrollment	94	94	.	.	.
Completion ¹	94	94	.	.	.



¹ Successful completion: grade 'C' or above.

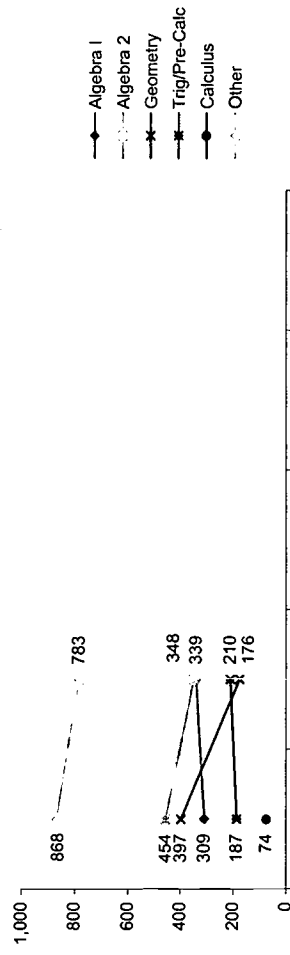
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

(.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

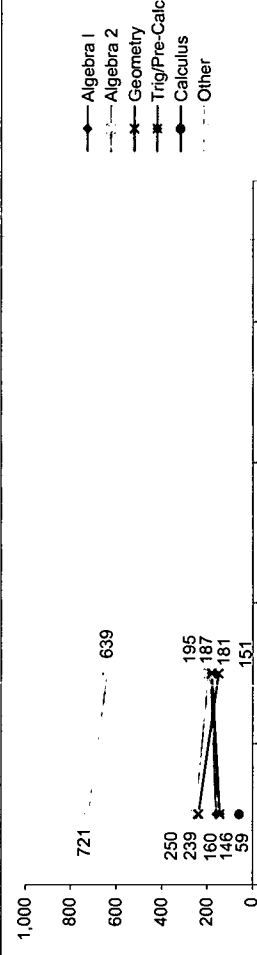
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	309	454	397	187	74	868	2,289
97-98	339	348	176	210	.	783	1,856
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



G 9-12 Course Completion *1 (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	160	250	239	146	59	721	1,575
97-98	187	195	151	181	.	639	1,353
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.

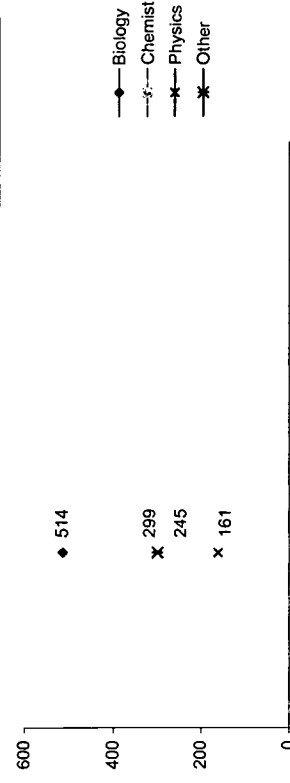


*1 Successful completion: grade 'C' or above.

Science Course Enrollment & Completion Trends By Subject

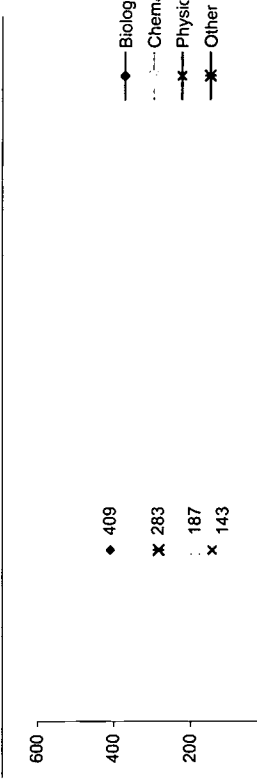
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97
97-98	514	245	161	299	1,219
98-99
99-00
00-01



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97
97-98	409	187	143	283	1,022
98-99
99-00
00-01



(.) Data Missing

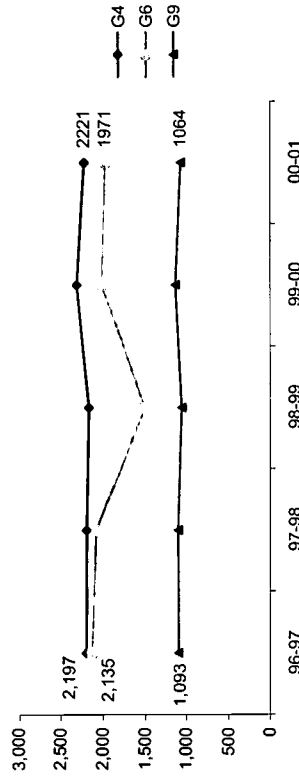
District Assessment Test Administered

State Assessment Test (OPT) -Taker Trends

◆ Mathematics	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Mathematics	96-97	97-98	98-99	99-00	00-01
# of Test-takers	2,197	2,192	2,169	2,310	2,221
Grade 4	2,135	2,085	1,503	2,018	1,971
Grade 6	1,093	1,099	1,054	1,133	1,064
Grade 9					

Total number of students taking test



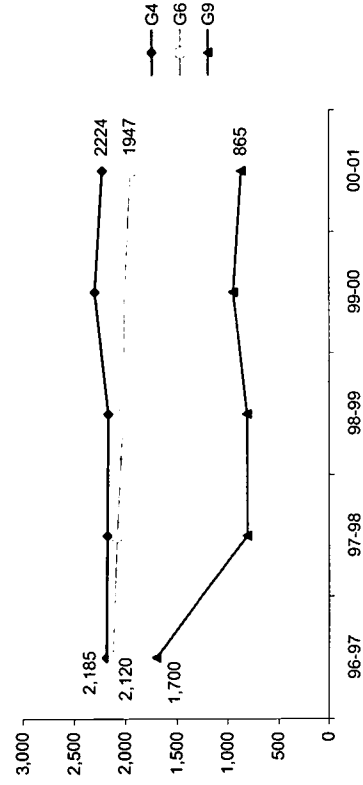
◆ Science	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

State Assessment Test Administered

◆ Mathematics	96-97	97-98	98-99	99-00	00-01
Test Name	OPT	OPT	OPT	OPT	OPT
Scoring	OT	OT	OT	OT	OT
Grade	4,6,9,12	4,6,9,12	4,6,9,12	4,6,9,12	4,6,9,12
Type	CRT	CRT	CRT	CRT	CRT

◆ Science	96-97	97-98	98-99	99-00	00-01
# of Test-takers	2,185	2,175	2,168	2,300	2,224
Grade 4	2,120	2,083	2,021	2,011	1,947
Grade 6	1,700	810	813	943	865
Grade 9					

Total number of students taking test



◆ Science	96-97	97-98	98-99	99-00	00-01
Test Name	OPT	OPT	OPT	OPT	OPT
Scoring	OT	OT	OT	OT	OT
Grade	4,6,9,12	4,6,9,12	4,6,9,12	4,6,9,12	4,6,9,12
Type	CRT	CRT	CRT	CRT	CRT

OPT: Ohio Proficiency Test
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

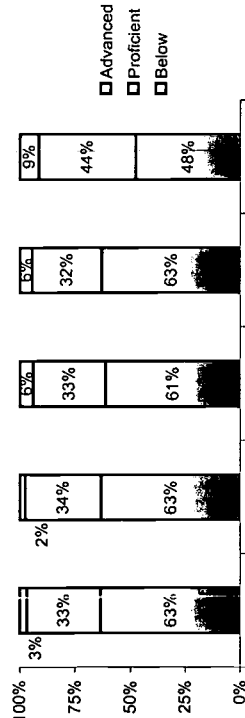
Akron CPMSA

SY 2000-01

State Assessment Test Result Trends OPT - Mathematics

◆ Grade 4

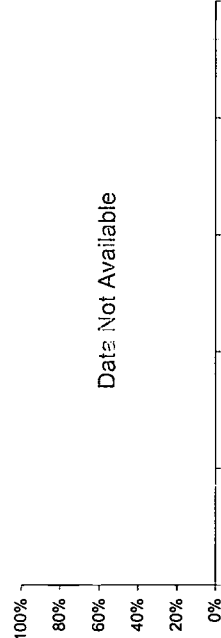
	96-97	97-98	98-99	99-00	00-01
Advanced	3%	2%	6%	6%	9%
Proficient	33%	34%	33%	32%	44%
Below	63%	63%	61%	63%	48%
Total # of students	2,197	2,192	2,169	2,310	2,221



% Passing by Gender



% Passing by Race/Ethnicity

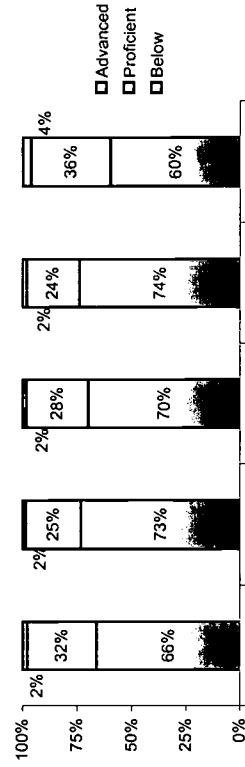


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as proficient or better

State Assessment Test Result Trends OPT - Mathematics

◆ Grade 6

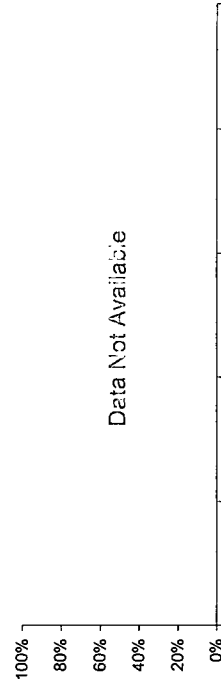
	96-97	97-98	98-99	99-00	00-01
Advanced	2%	2%	2%	2%	4%
Proficient	32%	25%	28%	24%	36%
Below	66%	73%	70%	74%	60%
Total # of students	2,135	2,085	1,503	2,018	1,971



% Passing by Gender



% Passing by Race/Ethnicity



Akron CPMSA

SY 2000-01

State Assessment Test Result Trends OPT - Mathematics

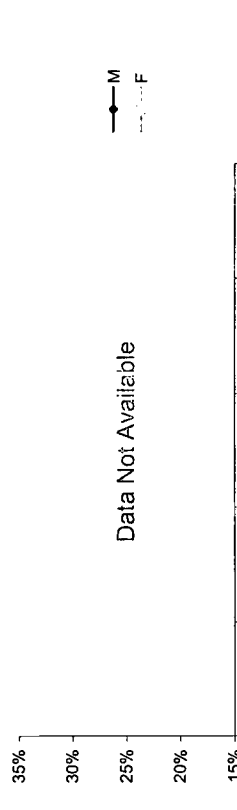
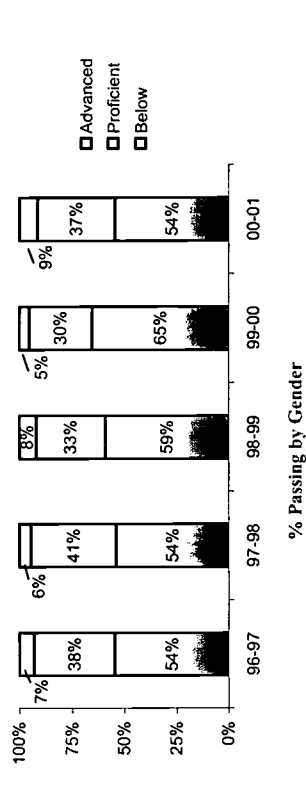
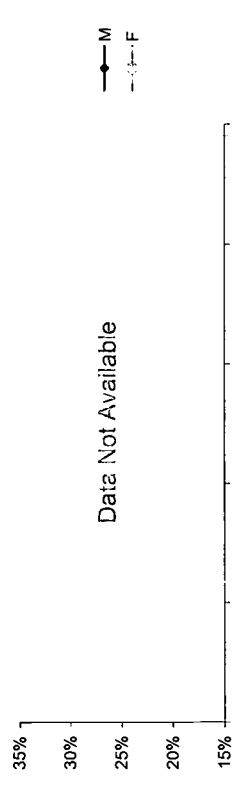
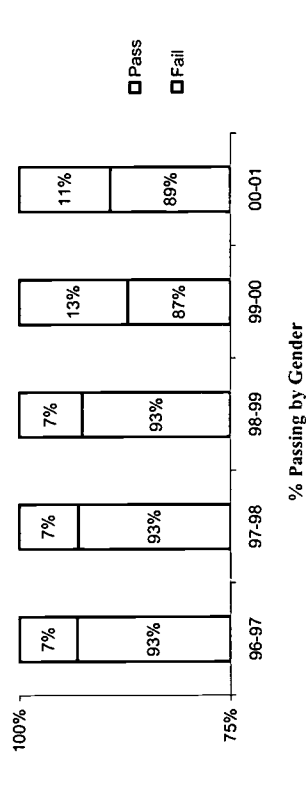
State Assessment Test Result Trends OPT - Science

◆ **Grade 9**

◆ **Grade 4**

	96-97	97-98	98-99	99-00	00-01
Pass	7%	7%	7%	13%	11%
Fail	93%	93%	93%	87%	89%
Total # of students	1,093	1,099	1,054	1,133	1,064

	96-97	97-98	98-99	99-00	00-01
Advanced	7%	6%	8%	5%	9%
Proficient	38%	41%	33%	30%	37%
Below	54%	54%	59%	65%	54%
Total # of students	2,185	2,175	2,168	2,300	2,224

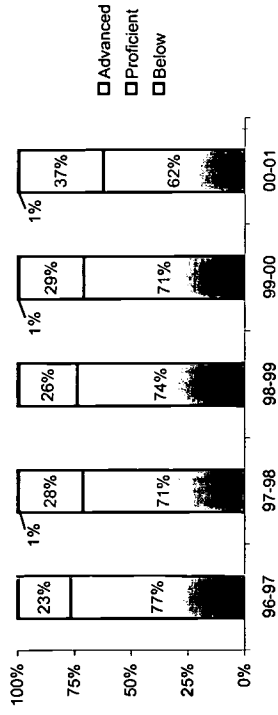


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as "Pass"

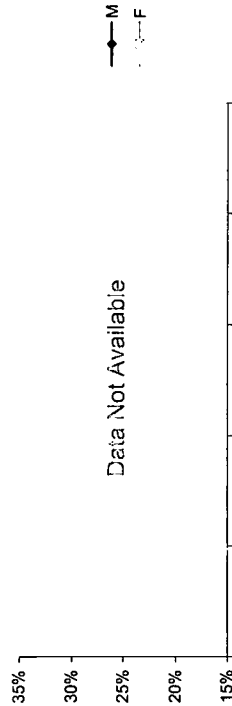
State Assessment Test Result Trends OPT - Science

Grade 6

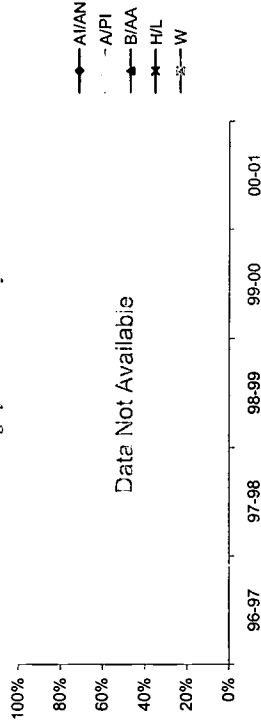
	96-97	97-98	98-99	99-00	00-01
Advanced	0%	1%	0%	1%	1%
Proficient	23%	28%	26%	29%	37%
Below	77%	71%	74%	71%	62%
Total # of students	2,120	2,083	2,021	2,011	1,947



% Passing by Gender



% Passing by Race/Ethnicity

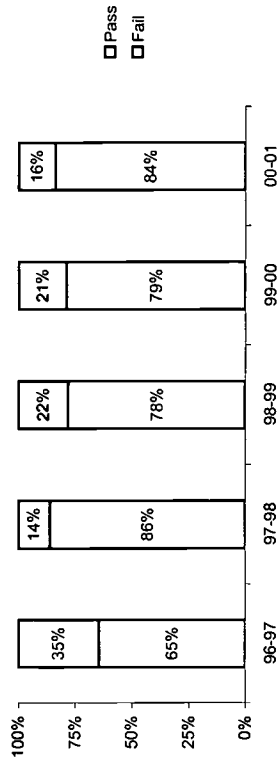


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as proficient or better

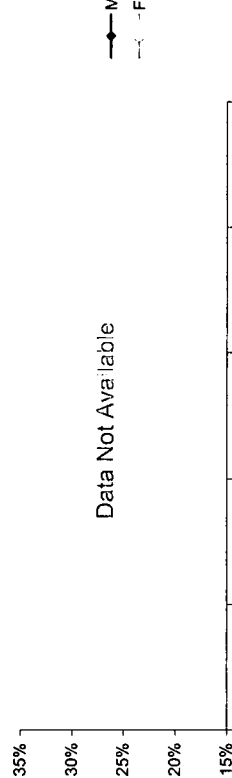
State Assessment Test Result Trends OPT - Science

Grade 9

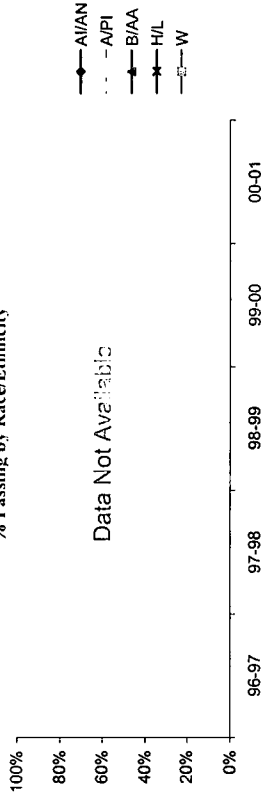
	96-97	97-98	98-99	99-00	00-01
Pass	35%	14%	22%	21%	16%
Fail	65%	86%	78%	79%	84%
Total # of students	1,700	810	813	943	865



% Passing by Gender



% Passing by Race/Ethnicity

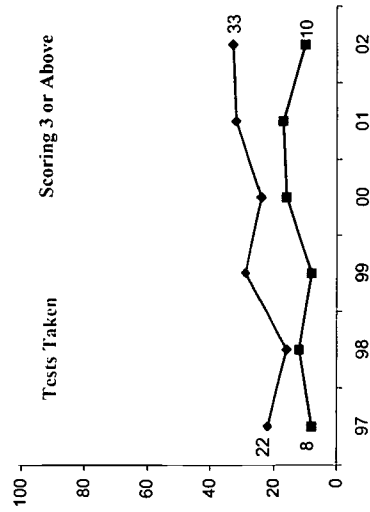


AP Mathematics Test Result Trends ♦ Calculus AB, Calculus BC, & Statistics

♦ AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	3,730	3,888	.	.	.	.
Calc. AB	22	12	22	18	29	30
Calc. BC	0	0	0	0	1	1
Statistics	0	4	7	6	2	2
Total	22	16	29	24	32	33
Tests taken per 1,000 students	5.9	4.1	.	.	.	.
Scoring 3 or Above	8	12	8	16	17	10
Scoring 3 or Above per 1000	2.1	3.1	.	.	.	.

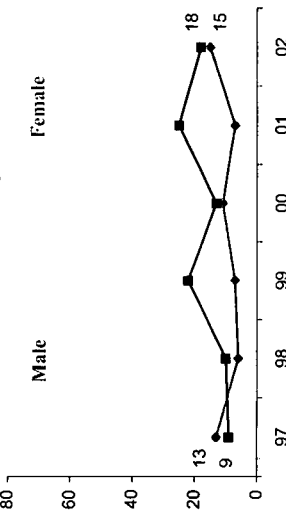
Number of tests taken and scoring 3 or Above



♦ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	9	10	22	13	25	18
Female	13	6	7	11	7	15

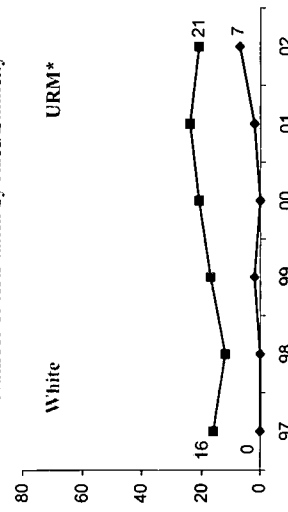
Number of tests taken by Gender



♦ AP Mathematics - Number of Tests Taken By Race/Ethnicity ¹

	97	98	99	00	01	02
A/I/AN	0	0	0	0	0	0
A/PI	4	0	2	3	6	5
B/AA	0	0	1	0	2	7
H/L	0	0	1	0	0	0
W	16	12	17	21	24	21

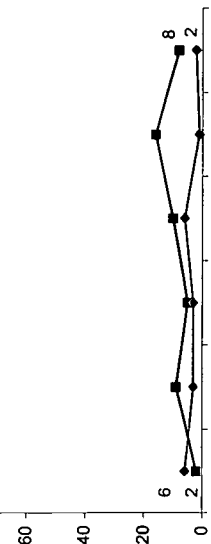
Number of tests taken by Race/Ethnicity



♦ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	2	9	5	10	16	8
Female	6	3	3	6	1	2

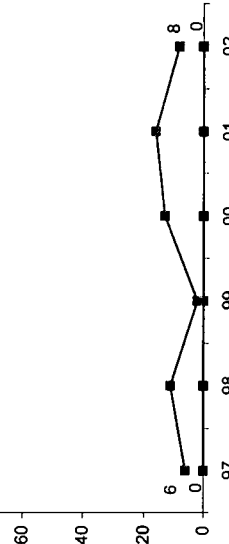
Number of students scoring 3 or above by Gender



♦ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

	97	98	99	00	01	02
A/I/AN	0	0	0	0	0	0
A/PI	1	0	2	4	1	2
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	6	11	2	13	16	8

Number of students scoring 3 or above by Race/Ethnicity



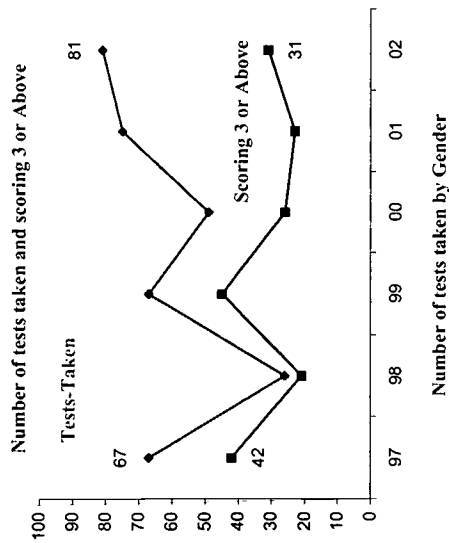
A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

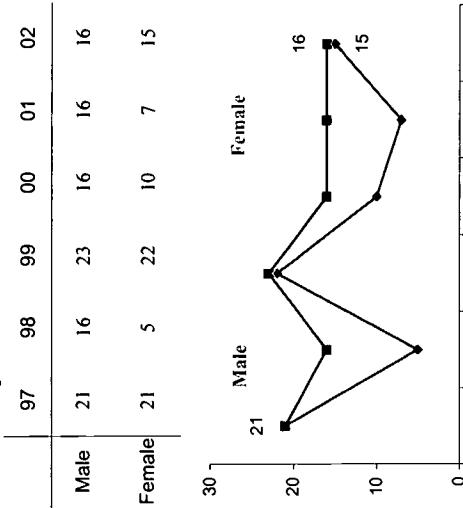
AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

♦ **AP Science - Total Number of Tests Taken**

	97	98	99	00	01	02
Total # of 11th & 12th graders	3,730	3,888	.	.	.	.
Biology	29	12	47	19	40	49
Chemistry	32	0	15	21	25	24
Env. Science	0	4	0	0	0	0
Physics B	6	10	5	9	10	8
Physics Mech.	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0
Total	67	26	67	49	75	81
Tests taken per 1,000 students	18.0	6.7	.	.	.	.
Scoring 3 or Above	42	21	45	26	23	31
Scoring 3 or Above per 1000	11.3	5.4	.	.	.	.

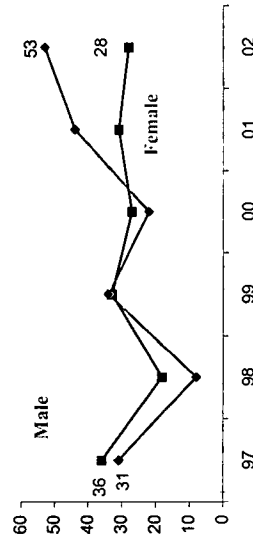


♦ **AP Science - Number of Students Scoring 3 or Above By Gender**



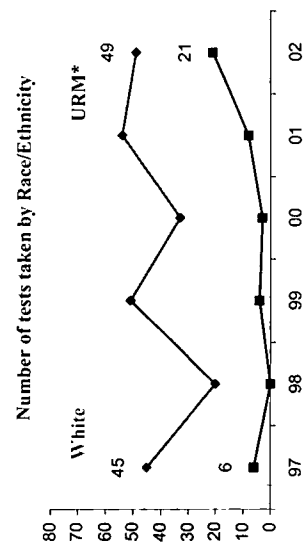
♦ **AP Science - Number of Tests Taken By Gender**

	97	98	99	00	01	02
Male	36	18	33	27	31	28
Female	31	8	34	22	44	53



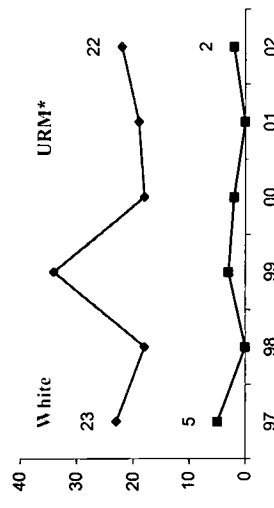
♦ **AP Science - Number of Tests Taken By Race/Ethnicity ¹**

	97	98	99	00	01	02
A/I/AN	0	0	0	0	0	0
A/PI	5	0	5	10	5	8
B/AA	6	0	3	3	8	21
H/L	0	0	1	0	0	0
W	45	20	51	33	54	49



♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity ¹**

	97	98	99	00	01	02
A/I/AN	0	0	0	0	0	0
A/PI	3	0	3	4	2	5
B/AA	5	0	2	2	0	2
H/L	0	0	1	0	0	0
W	23	18	34	18	19	22



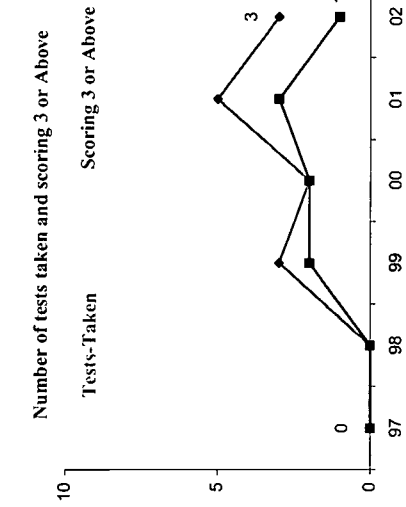
A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

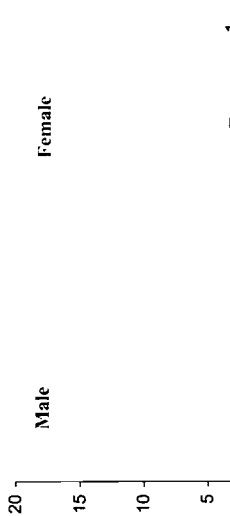
Computer Science A & AB

	97	98	99	00	01	02
Total # of 11th & 12th graders	3,730	3,888	.	.	.	.
Comp. Sci A	0	0	2	2	3	3
Comp. Sci. AB	0	0	1	0	2	0
Total	0	0	3	2	5	3
Tests taken per 1,000 students	0.0	0.0	.	.	.	.
Scoring 3 or Above	0	0	2	2	3	1
Scoring 3 or Above per 1000	0.0	0.0	.	.	.	.



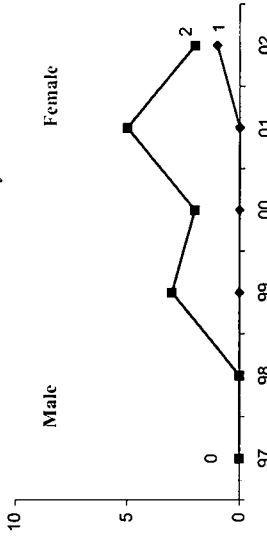
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	0	0	2	2	3	0
Female	0	0	0	0	0	1



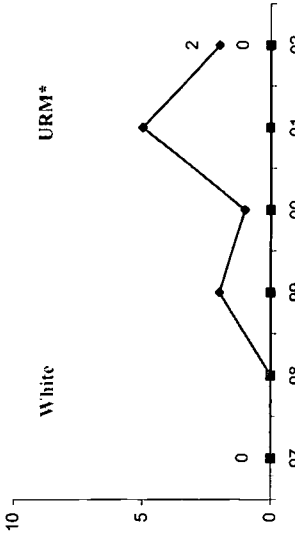
AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	0	3	2	5	2
Female	0	0	0	0	0	1



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	1	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	2	1	5	2



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

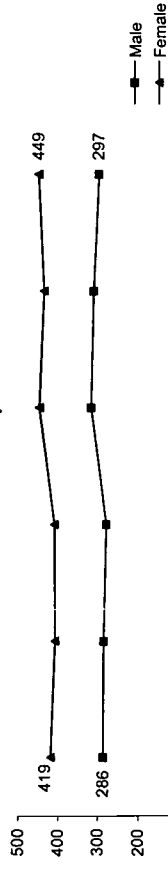
Akron CPMSA

ACT Test-Takers

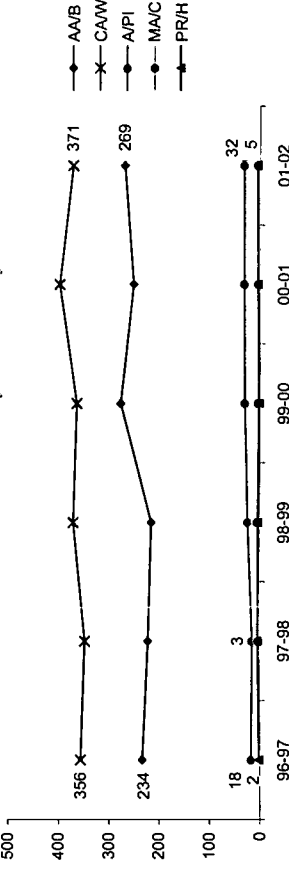
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,868	1,836				
Test-Takers	705	691	687	769	748	751
Num of Test-Takers/1,000 Stu.	377	376				
Gender						
Male	286	284	277	316	310	297
Female	419	407	408	447	436	449
Race/Ethnicity						
AA/B	234	223	216	277	252	269
AI/AN	3	3	0	3	0	2
CA/W	356	348	371	364	398	371
MA/C	0	3	6	4	4	5
A/PI	18	16	25	31	32	32
PR/H	2	5	4	2	4	5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

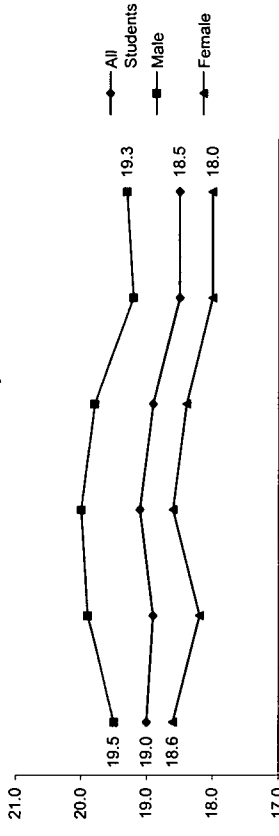


ACT Mathematics Scores

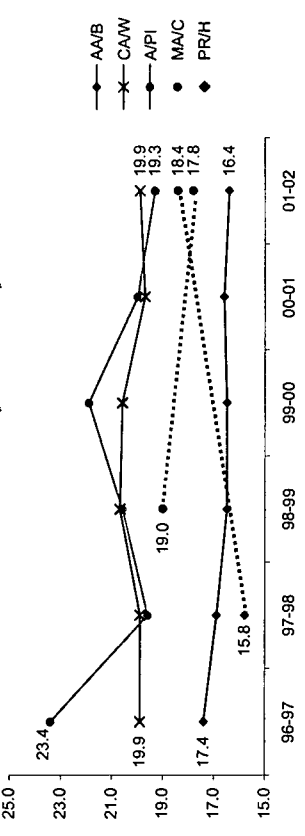
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.0	18.9	19.1	18.9	18.5	18.5
Gender						
Male	19.5	19.9	20.0	19.8	19.2	19.3
Female	18.6	18.2	18.6	18.4	18.0	18.0
Race/Ethnicity						
AA/B	17.4	16.9	16.5	16.5	16.6	16.4
AI/AN	-	-	-	-	-	-
CA/W	19.9	19.9	20.7	20.6	19.7	19.9
MA/C	-	-	19.0	-	-	17.8
A/PI	23.4	19.6	20.6	21.9	20.0	19.3
PR/H	-	15.8	-	-	-	18.4

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

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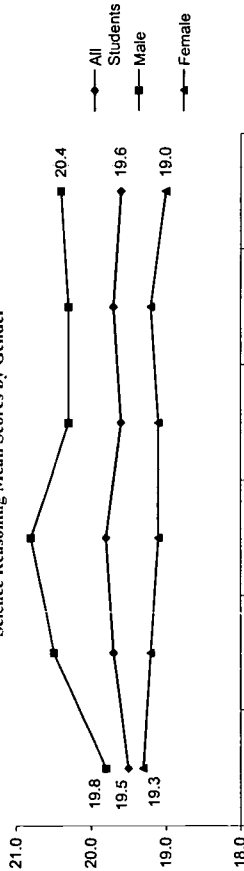
SY 2000-01

ACT Science Reasoning Scores

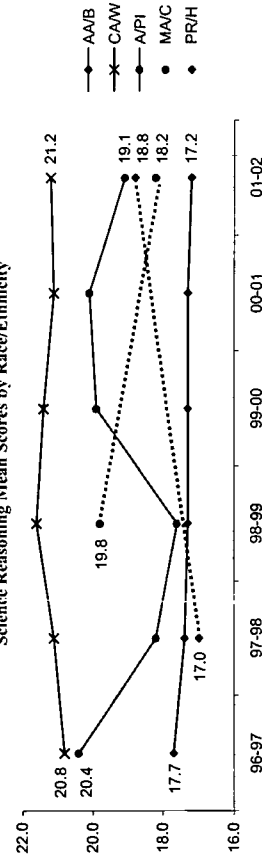
◆ Science Reasoning - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.5	19.7	19.8	19.6	19.7	19.6
Gender						
Male	19.8	20.5	20.8	20.3	20.3	20.4
Female	19.3	19.2	19.1	19.1	19.2	19.0
Race/Ethnicity						
A/A/B	17.7	17.4	17.3	17.3	17.3	17.2
A/I/A/N	-	-	-	-	-	-
C/A/W	20.8	21.1	21.6	21.4	21.1	21.2
M/A/C	-	-	19.8	-	-	18.2
A/P/I	20.4	18.2	17.6	19.9	20.1	19.1
P/R/H	-	17.0	-	-	-	18.8

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



A/A/B: African-American/Black A/I/A/N: American Indian/Alaskan Native C/A/W: Cauc. American/White M/A/C: Mexican American/Chicano A/P: Asian/Pacific Islander P/R/H: Puerto Rican/Hispanic.

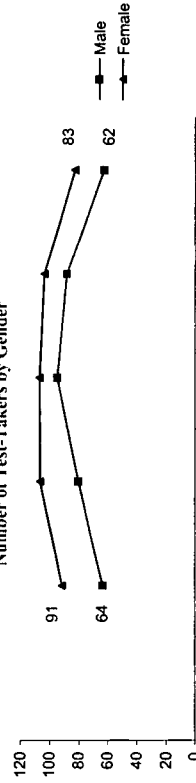
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

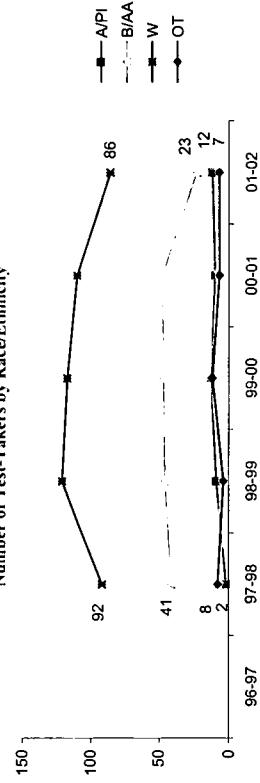
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,868	1,836				
Test-Takers	155	187	202	192	145	145
Num of Test-Takers/1,000 Stu.	84					
Gender						
Male	64	80	95	88	62	62
Female	91	107	107	104	83	83
Race/Ethnicity						
A/I/A/N	0	1	0	1	0	0
A/P/I	2	9	13	10	12	12
B/A/A	41	46	47	48	23	23
H/L	2	3	2	1	1	1
W	92	121	117	110	86	86
O/T	8	4	12	7	7	7

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



A/I/A/N: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/A/A: Black or African American H/L: Hispanic or Latino W: White O/T: Others

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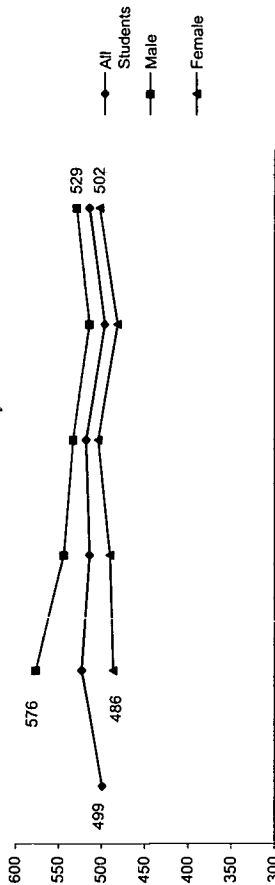
SY 2000-01

SAT Mathematics Scores

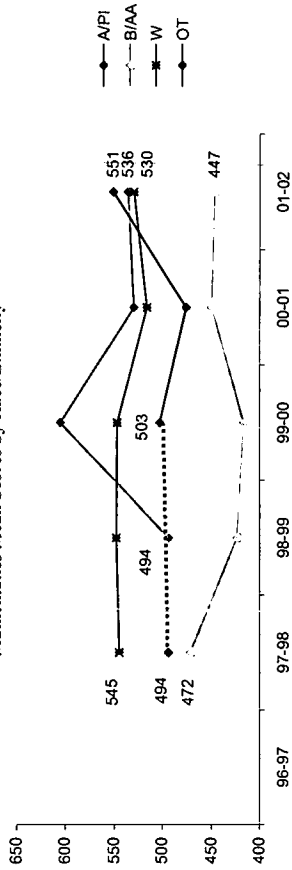
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	499	523	514	518	496	514
Gender						
Male	576	544	544	533	514	529
Female	486	486	490	504	481	502
Race/Ethnicity						
A/I/AN	-	-	-	-	-	-
A/PI	494	494	494	605	530	536
B/AA	472	472	424	417	450	447
H/L	-	-	-	-	-	-
W	545	545	548	547	516	530
OT	494	494	-	503	476	551

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

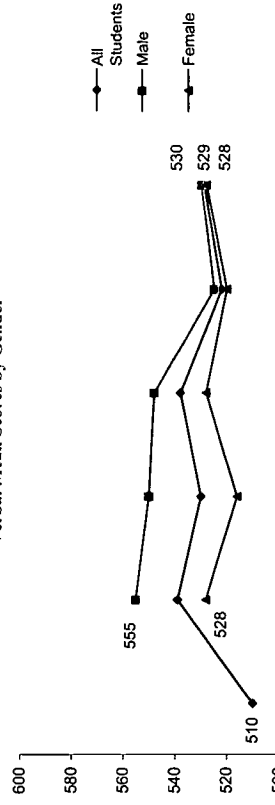


SAT Verbal Scores

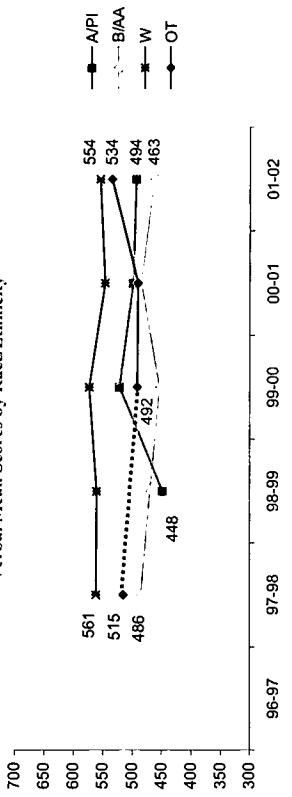
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	510	539	530	538	522	529
Gender						
Male	555	555	550	548	525	530
Female	528	528	516	528	520	528
Race/Ethnicity						
A/I/AN	-	-	-	-	-	-
A/PI	510	510	448	522	499	494
B/AA	486	486	470	453	485	463
H/L	-	-	-	-	-	-
W	561	561	560	573	546	554
OT	515	515	-	492	491	534

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

Cohort/Scale-Up Approach

Special Education and Bilingual Students:

Instructional Time:

Number of District Schools
 CPMSA Schools:
 % Schools:

Standards-based Curriculum and Instruction

Standards Adopted:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Graduation Requirements

Standards Curriculum
 Curriculum/TextBook Adoption
 Student Assessment
 Professional Development
 Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

% of Students Experiencing Standards-based Curricula:
 E
 M
 H

Summer programs:

Policies Relevant to Teacher Qualifications

Certification:

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:

Criteria for Entry into High Level Mathematics and Science Courses:

Policies Relevant to Curriculum

Framework:
 Curricula:
 Curricula Materials:

Requirement & Hiring Practices
 Professional Advancement & Leadership Training:

Availability of High Level Courses:

New Courses Added as a Result of CPMSA:

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

Other Key Initiatives:

Financial Resources Provided:

Completing Initiatives:

Alignment to Student Standards:

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Has CPMSA influenced professional development changed teachers' instructional practices:

Community Stakeholders:

Assessments Used:

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Higher Education:

Superintendent:

Evaluation Instruments:

Continuity of Leadership

Professional Development Alignment to Content Standards Measures:

Project Directors position in district's organizational structure:

Business and Industry:

Teacher's Instructional Practices Evaluation:

Teacher Leaders:

Policies Relevant to Standards-based Assessments

Accountability

Program Effectiveness Monitoring:

Report Card System:

Key Indicator Data Collection:

Key Indicator Data Use:

Local On-Sight Evaluation:

Data Manager:

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Akron CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented

Accountability

School Year	Policy Implemented



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Project Information

CPMSA Project Title : Enterprise 2002
 Cohort: 98
 CPMSA Web Site: www.beaumont.k12.tx.us/enterprise2002

◆ PI, CO-PI and PD

Principal Investigator
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◆ Mailing Address

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◆ District Schools Math & Sci. Teachers and Students

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	20	738	10,201
G6-8 (Middle)	7	101	4,576
G9-12 (High)	3	164	5,553
Total	30	1,003	20,330

Project Summary

Minority students graduating from Beaumont Independent School District (BISD) will be prepared for university studies in science, mathematics, engineering and technology (SMET) fields. The project targets all BISD students, pre-kindergarten through twelfth grade in thirty schools and assimilates all partners in contact with students: principals, teachers, counselors, business partners, community volunteers, parents, professionals, university experts in mathematics and science and minority scholars. The nucleus of Enterprise 2002 encompasses professional development, minority student support, activities beyond the school day and standard based curriculum enhancements. PD incorporates innovative instructional strategies, such as cooperative learning, diversity awareness, inquiry learning, problem based learning, and assessment. Student support includes tutorials involving community volunteers, business partners, guidance and career awareness seminars, clergy in schools, and parental support groups. Activities beyond the school day include: summer programs, Saturday Academies, and after school. The standards based curriculum and classroom materials will be augmented with National Science and Technology Week Projects, Future Math and Science Teacher Clubs, Create Southeast Texas, Math 24 Challenge Tournaments, Insights, Voyager, Science Sleuths, Lego Dacta Math, Science and technology programs, SAT and PSAT preparation courses, University Interscholastic League (UIL) competitions, Future Problem Solving, Odyssey of the Mind, Young Astronauts, Minorities in Science, Family Math and Family Science.

Project Goals

- To double the number of minority students enrolled in and successfully completing science, engineering, and mathematics pre-college courses.
- To improve teacher expectations and diversify instructional methods through staff development and content proficiency in science, mathematics, engineering and technology (SMET) pipeline courses.
- To improve student achievement in mathematics and science education in grades Pre K-12.

Selected School Indicators (District Average)

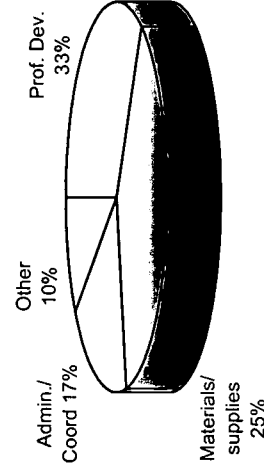
	97-98	00-01	Change
% Special Ed.	13.7%	0%	
% LEP	4.1%	4.8%	+0.7 PP
% Free/Red. Lunch	60.6%	61.2%	+0.6 PP
% Daily Avg. Atten.	92.1%	92.7%	+0.6 PP
% Average Retained	4.4%	NA	
% Drop-Out	2.2%	NA	
% Mobility	3.3%	NA	
Per Pupil Cost (\$)	\$5,691	\$6,281	+10.4%
# Students Per Computer	6	5	-16.7%
% Classrooms Internet Access	88%	99%	+12.5%
Average Class Size	20	NA	

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	13%	33%
Materials/supplies	16%	39%
Admin/coord	13%	18%
Other	58%	10%
Total	100%	100%

CPMSA Funds %



Beaumont CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 20,733
 CPMSA Schools: 20,330 98%
 Source: TISC 2002

◆ Race/Ethnicity District-Wide

	97-98	00-01	%	% Change
Ame. Ind./Ala. Nat.	27	34	0.2%	+25.9%
Asian/P. Islander	473	521	2.5%	+10.1%
Black	13,303	13,383	64.5%	+0.6%
Hispanic	1,420	1,837	8.9%	+29.4%
White	5,170	4,958	23.9%	-4.1%
Other	1	0	0.0%	
Total	20,394	20,733	100.0%	+1.7%
URM Total	14,750	15,254	73.6%	+3.4%

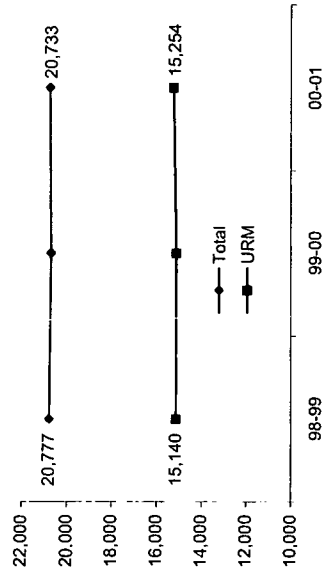
◆ Gender

	97-98	00-01	%	% Change
Male	10,388	10,510	50.7%	+1.2%
Female	10,006	10,223	49.3%	+2.2%

◆ Grade

	97-98	00-01	%	% Change
K-G5	9,298	9,463	45.6%	+1.8%
G6-8	4,749	4,661	22.5%	-1.9%
G9-12	5,556	5,760	27.8%	+3.7%
Ungraded	791	849	4.1%	+7.3%

◆ District Student Demographic Trends



12th Grade Graduates

	97-98	00-01	Change
Total 12th Grade	931	1,145	+23%
Earned a Diploma	925	997	+8%
% Earned Diploma	99%	87%	-12 PP

% Earned Diploma



SEM Proficiency

	97-98	00-01	Change
# SEM Proficient ¹	131		
% SEM Proficient/ Total 12th Grade	14%		

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	98-99	00-01	Change
Teachers Certified	57	39	-32%
% Cert.			

	98-99	00-01	Change
Teachers Certified	87	62	-29%
% Cert.			

	98-99	00-01	Change
Teachers Certified	144	101	-30%
% Cert.			

◆ Science (G6-12)

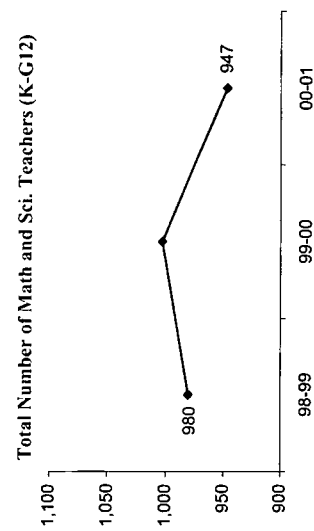
	98-99	00-01	Change
Teachers Certified	45	33	-27%
% Cert.			

	98-99	00-01	Change
Teachers Certified	71	53	-25%
% Cert.			

	98-99	00-01	Change
Teachers Certified	116	86	-26%
% Cert.			

◆ Math and Science (K-G5)

	98-99	00-01	Change
Teachers	720	760	+6%



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - Three years of mathematics: Algebra I, Geometry, & Algebra II
 - ◆ Science
 - Three years of science: Integrated Physics/Chemistry, Biology I, & Chemistry I
- PP: Percentage Points () Data Missing

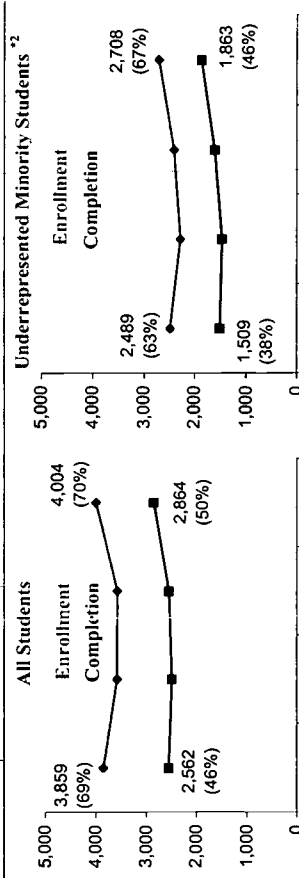
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SY 2000-01

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

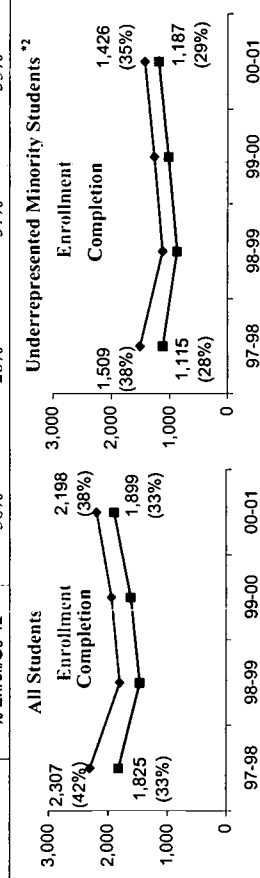
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,556	5,736	5,822	5,760
All Students	3,859 Completion ¹ % Enroll/G9-12 69%	3,582 2,496 62%	3,577 2,556 61%	4,004 2,864 70%
URM ²	2,489 1,509 63%	2,281 1,465 56%	2,408 1,609 59%	2,708 1,863 67%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,556	5,736	5,822	5,760
All Students	2,307 Completion ¹ % Enroll/G9-12 42%	1,804 1,467 31%	1,946 1,621 33%	2,198 1,899 38%
URM ²	1,509 1,115 38%	1,121 869 28%	1,263 1,017 31%	1,426 1,187 35%

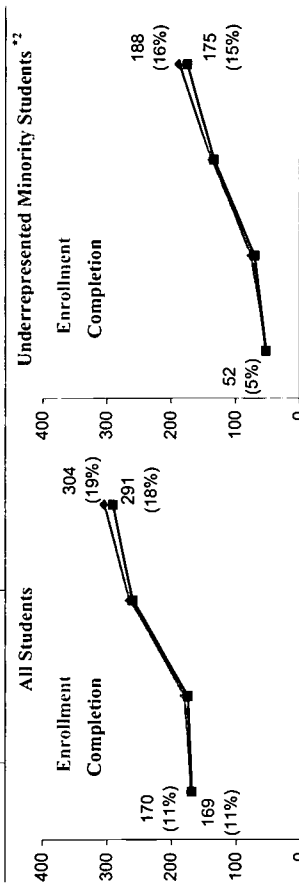


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

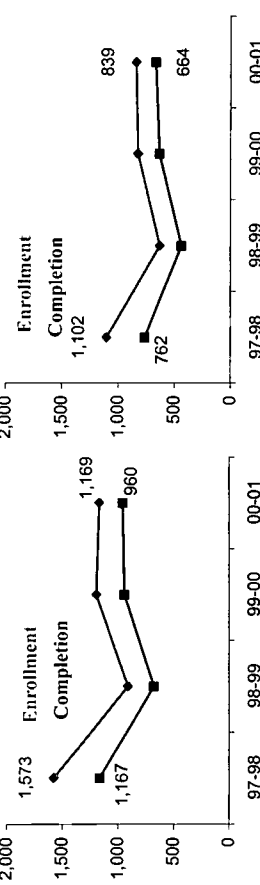
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	97-98	98-99	99-00	00-01
Total G 8 Population	1,572	1,550	1,546	1,577
All Students	170 Completion ¹ % Enroll/G8 11%	180 175 12%	265 261 17%	304 291 19%
URM ²	52 52 5%	75 70 7%	138 134 13%	188 175 16%



Biology Enrollment & Completion Trends/ All vs. URM

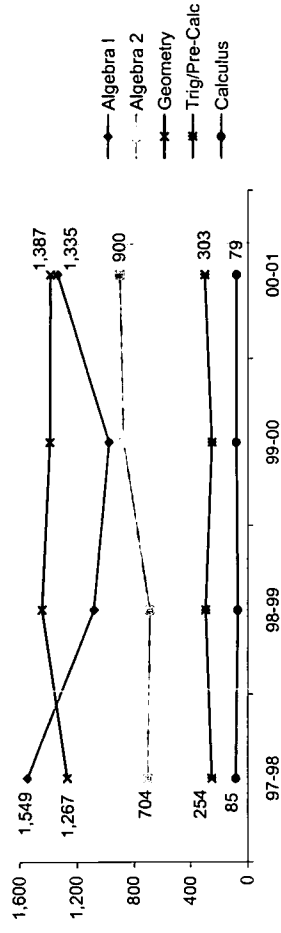
	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,556	5,736	5,822	5,760
All Students	1,573 Completion ¹ Enrollment	1,167 678	1,102 823	1,169 960
URM ²	762 664	438 634	629 839	629 664



(.) Data Missing

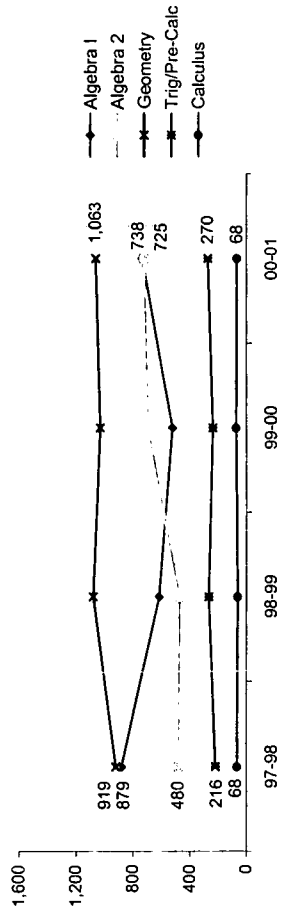
Mathematics Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98	1,549	704	1,267	254	85	0	3,859
98-99	1,082	688	1,444	297	71	0	3,582
99-00	977	874	1,391	254	81	6	3,583
00-01	1,335	900	1,387	303	79	14	4,018



G 9-12 Course Completion^{††} (All Students)

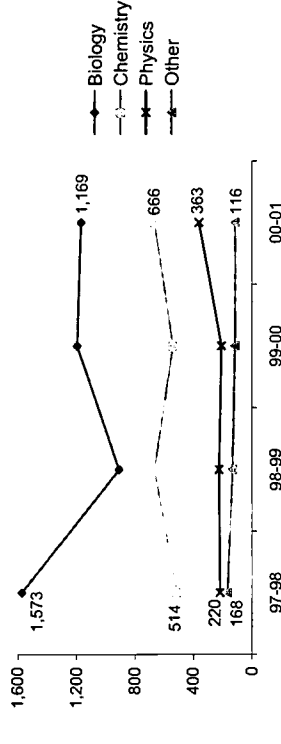
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98	879	480	919	216	68	0	2,562
98-99	617	473	1,079	265	62	0	2,496
99-00	522	694	1,031	235	74	6	2,562
00-01	738	725	1,063	270	68	14	2,878



^{††} Successful completion: grade 'C' or above.
 (.) Data Missing

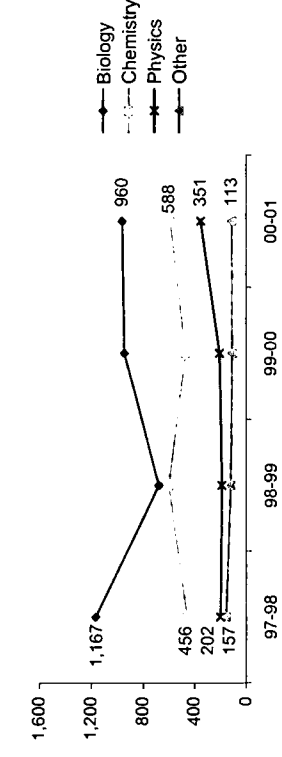
Science Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	1,573	514	220	168	2,475
98-99	911	667	226	133	1,937
99-00	1,195	540	211	117	2,063
00-01	1,169	666	363	116	2,314



G 9-12 Course Completion^{††} (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	1,167	456	202	157	1,982
98-99	678	600	189	121	1,588
99-00	945	469	207	109	1,730
00-01	960	588	351	113	2,012



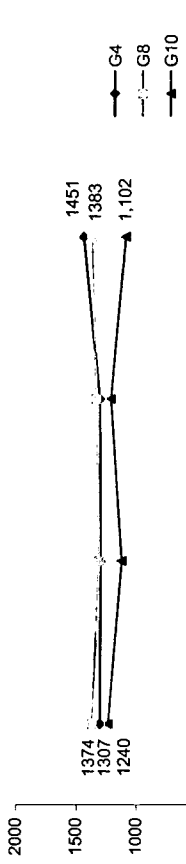
Beaumont CPMSA

District Assessment Test Administered

State Assessment Test-Taker Trends - (TAAS)

◆ Mathematics		97-98	98-99	99-00	00-01
Test Name	Scoring Grade Type	Six Weeks Assess	Six Weeks Assess	Six Weeks Assess	Six Weeks Assess
		PL	PL	PL	PL
		All	All	All	All
◆ Mathematics		97-98	98-99	99-00	00-01
		1,374	1,307	1,308	1,451
		1,307	1,374	1,318	1,383
		1,240	1,240	1,128	1,102

Total number of students taking test

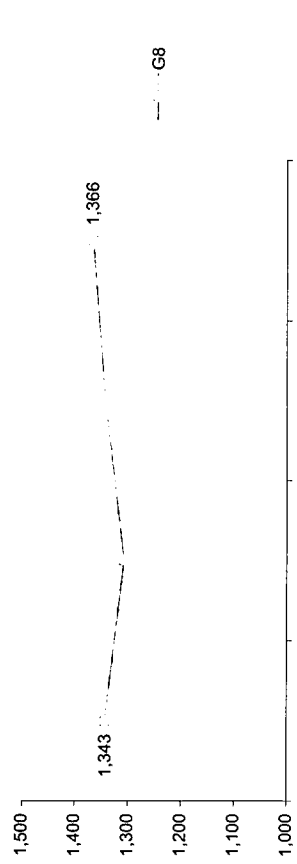


State Assessment Test Administered

State Assessment Test-Taker Trends - (TAAS)

◆ Mathematics		97-98	98-99	99-00	00-01
Test Name	Scoring Grade Type	TAAS	TAAS	TAAS	TAAS
		SS/PL/PF	SS/PL/PF	SS/PL/PF	SS/PL/PF
		3-8 & 10	3-8 & 11	3-8 & 12	3-8 & 13
		CRT	CRT	CRT	CRT
◆ Science <td>97-98</td> <td>98-99</td> <td>99-00</td> <td>00-01</td>		97-98	98-99	99-00	00-01
		1,343	1,308	1,343	1,366

Total number of students taking test



* TAAS: Texas Assessment of Academic Skills
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

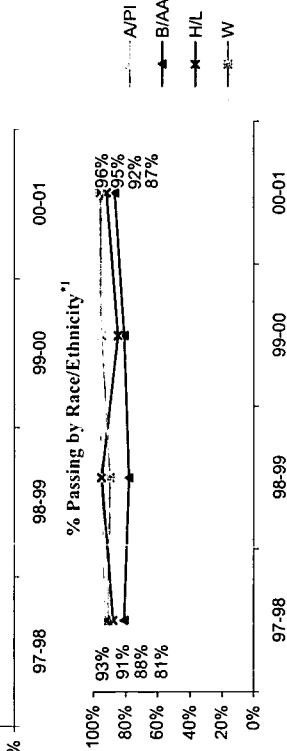
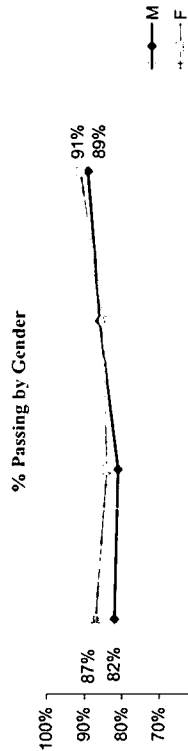
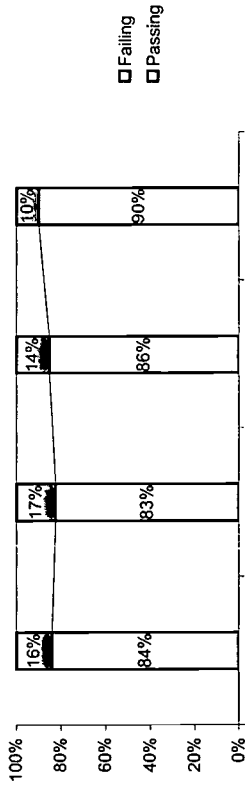
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SY 2000-01

State Assessment Test Result Trends TAAS - Mathematics

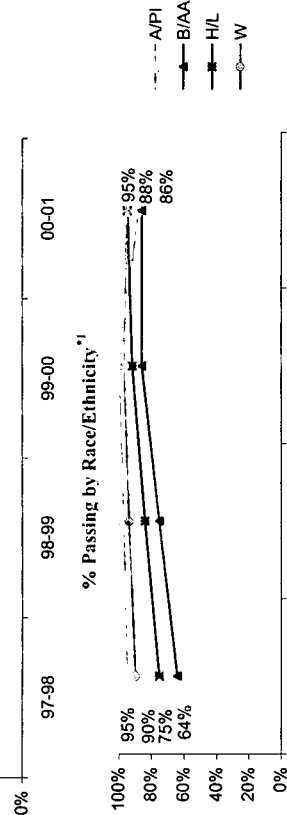
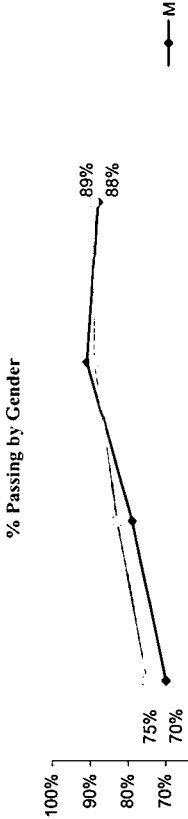
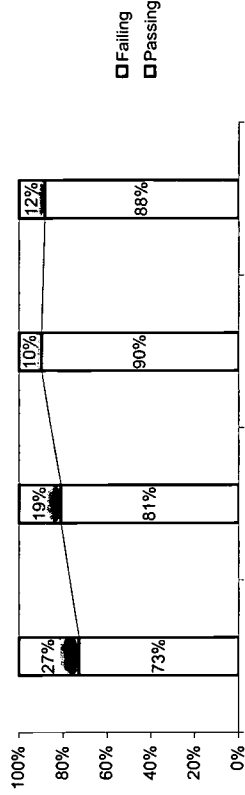
◆ Grade 4

	97-98	98-99	99-00	00-01
Passing	84%	83%	86%	90%
Failing	16%	17%	14%	10%
Total # of students	1,307	1,308	1,315	1,451



◆ Grade 8

	97-98	98-99	99-00	00-01
Passing	73%	81%	90%	88%
Failing	27%	19%	10%	12%
Total # of students	1,374	1,318	1,345	1,383



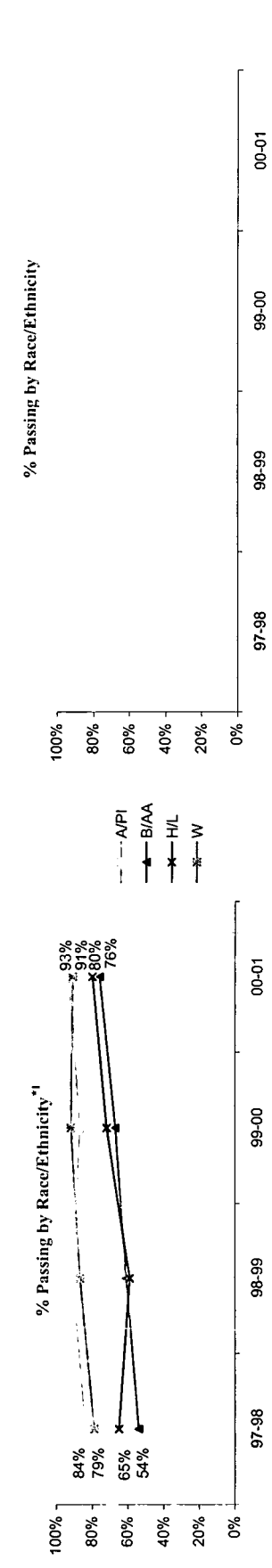
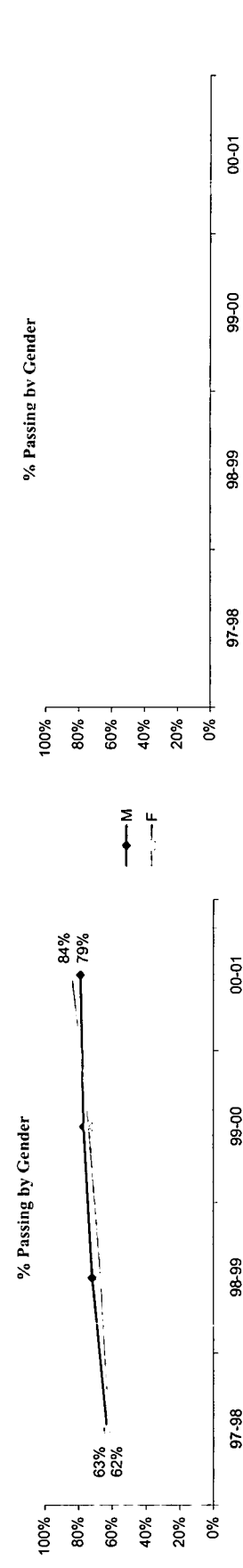
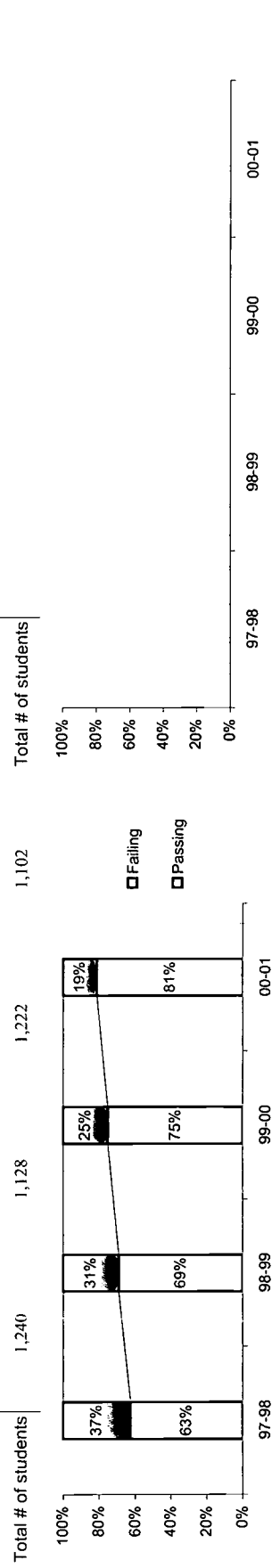
*1 Data not presented on graph for sample size less than 5
% Passing defined as Advanced + Proficient

Beaumont CPMSA

State Assessment Test Result Trends - Science

	97-98	98-99	99-00	00-01
Passing	63%	69%	75%	81%
Failing	37%	31%	25%	19%

Not Applicable



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

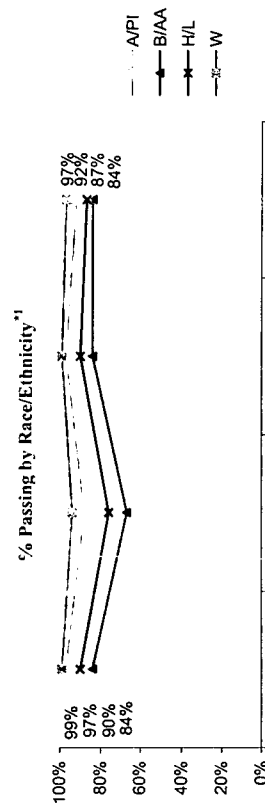
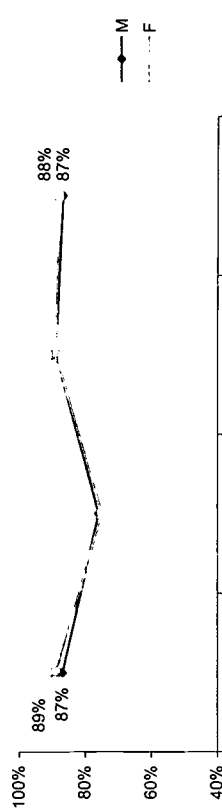
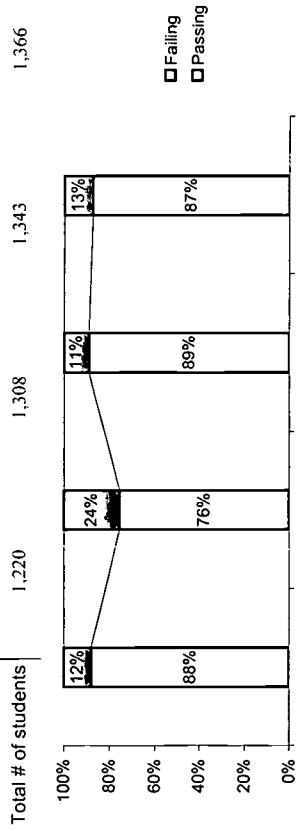
% Passing defined as Advanced + Proficient

*1 Data not presented on graph for sample size less than 5

Beaumont CPMSA

State Assessment Test Result Trends - Science

Grade	97-98	98-99	99-00	00-01
Grade 8	88% 12%	76% 24%	89% 11%	87% 13%
Grade 10	Not Applicable			



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 *1 Data not presented on graph for sample size less than 5

Beaumont CPMSA

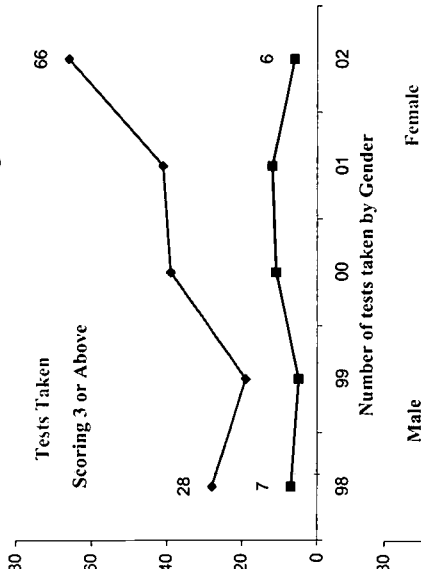
SY 2000-01

AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

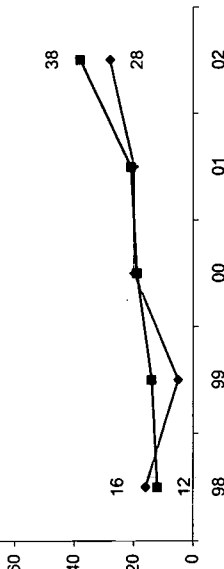
	98	99	00	01	02
Total # of 11th & 12th graders	2,210	2,341	2,352	2,315	.
Calc. AB	16	16	35	36	46
Calc. BC	12	3	4	3	7
Statistics	0	0	0	2	13
Total	28	19	39	41	66
Tests taken per 1,000 students	12.7	8.1	16.6	17.7	.
Scoring 3 or Above	7	5	11	12	6
Scoring 3 or Above per 1,000	3.2	2.1	4.7	5.2	.

Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

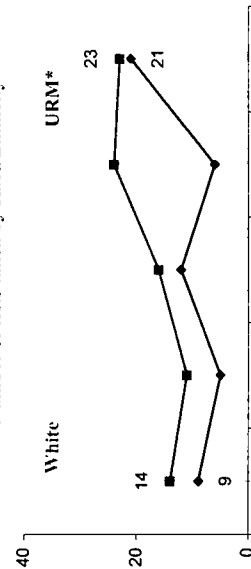
	98	99	00	01	02
Male	12	14	19	21	38
Female	16	5	20	20	28



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	1	0	0
A/PI	4	1	11	9	17
B/AA	8	3	8	5	18
H/L	1	2	3	1	3
W	14	11	16	24	23

Number of tests taken by Race/Ethnicity



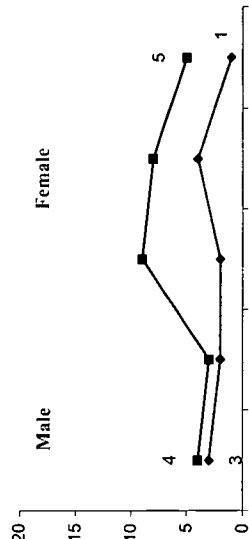
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander

B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

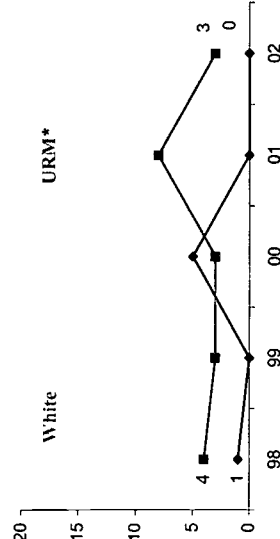
◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	4	3	9	8	5
Female	3	2	2	4	1



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	2	1	3	3	3
B/AA	1	0	5	0	0
H/L	0	0	0	0	0
W	4	3	3	8	3



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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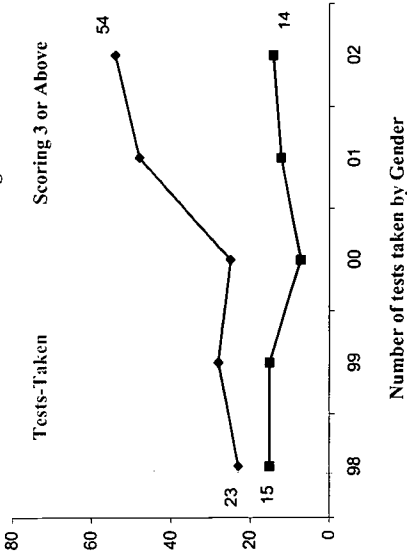
SY 2000-01

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

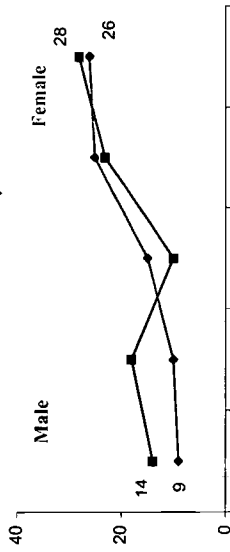
♦ AP Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	2,210	2,341	2,352	2,315	.
Biology	4	10	11	21	23
Chemistry	15	15	8	21	21
Env. Science	0	0	0	0	0
Physics B	0	0	0	0	0
Physics Mech.	4	3	6	6	10
Physics Elec.	0	0	0	0	0
Total	23	28	25	48	54
Tests taken per 1,000 students	10.4	12.0	10.6	20.7	.
Scoring 3 or Above	15	15	7	12	14
Scoring 3 or Above per 1,000	6.8	6.4	3.0	5.2	.

Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



♦ AP Science - Number of Tests Taken By Gender

	98	99	00	01	02
Male	14	18	10	23	28
Female	9	10	15	25	26

♦ AP Science - Number of Tests Taken By

Race/Ethnicity¹

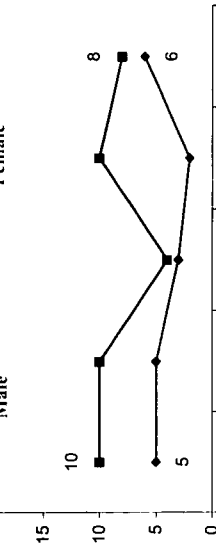
	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	7	5	3	15	14
B/AA	1	6	9	15	14
H/L	1	1	3	1	1
W	13	15	10	15	22

A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

♦ AP Science - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	10	10	4	10	8
Female	5	5	3	2	6

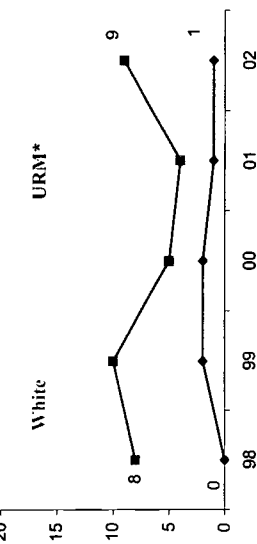
Number of Students Scoring 3 or Above By Gender



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	6	2	0	5	3
B/AA	0	2	1	1	0
H/L	0	0	1	0	1
W	8	10	5	4	9

Number of Students Scoring 3 or Above By Race/Ethnicity



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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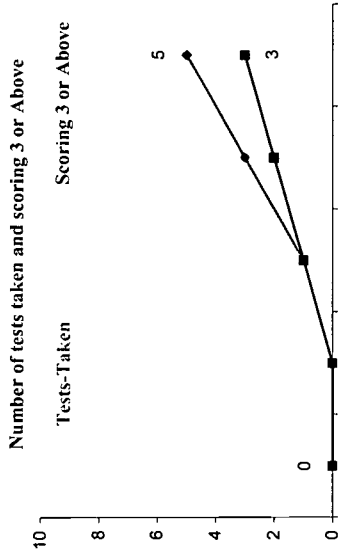
SY 2000-01

AP Computer Science Test Result Trends

◆ Computer Science A & AB

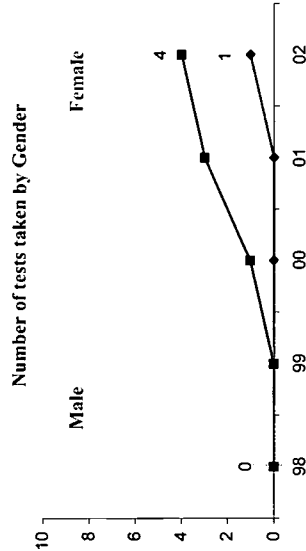
◆ AP Computer Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	2,210	2,341	2,352	2,315	.
Comp. Sci A	0	0	1	0	0
Comp. Sci. AB	0	0	0	3	5
Total	0	0	1	3	5
Tests taken per 1,000 students	0.0	0.0	0.4	1.3	.
Scoring 3 or Above	0	0	1	2	3
Scoring 3 or Above per 1,000	0.0	0.0	0.4	0.9	.



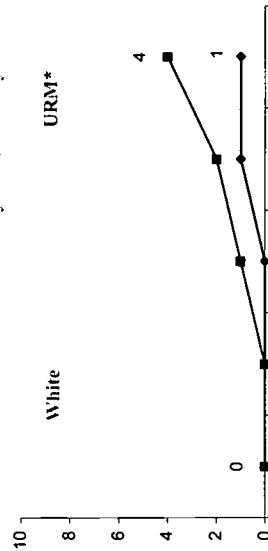
◆ AP Computer Science - Number of Tests Taken By Gender

Gender	98	99	00	01	02
Male	0	0	1	3	4
Female	0	0	0	0	1



◆ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	1	1
H/L	0	0	0	0	0
W	0	0	1	2	4

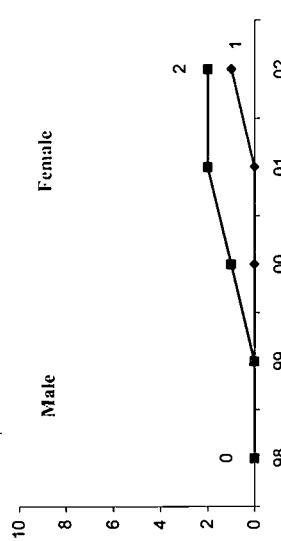


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

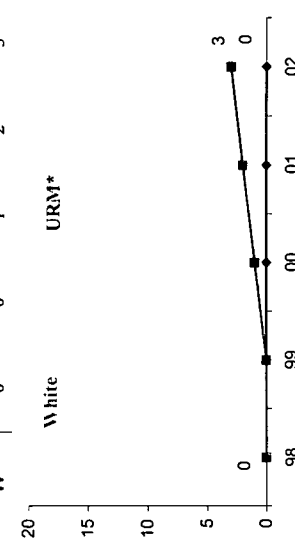
◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	98	99	00	01	02
Male	0	0	1	2	2
Female	0	0	0	0	1



◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	1	2	3



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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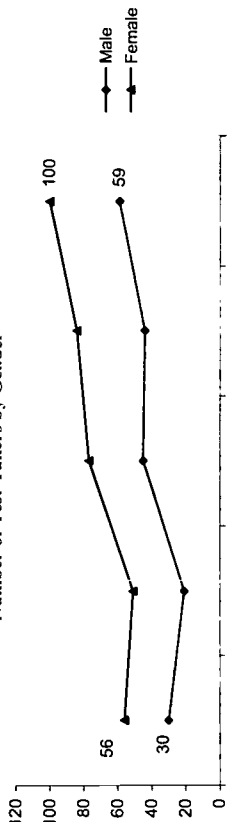
SY 2000-01

ACT Test-Takers

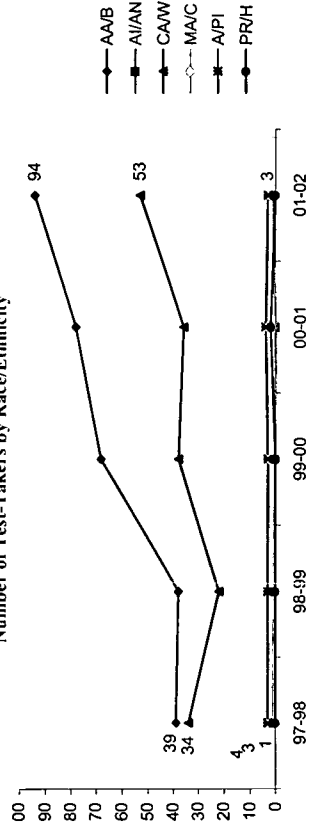
◆ Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	931	970	1,149	1,062	-
Test-Takers	86	72	122	128	159
Num of Test-Takers/1,000 Stu.	92	74	106	121	-
Gender					
Male	30	21	45	44	59
Female	56	51	77	84	100
Race/Ethnicity					
AA/B	39	38	68	78	94
AI/AN	1	1	0	0	1
CA/W	34	22	38	36	53
MA/C	4	1	3	3	3
A/PI	3	3	3	4	3
PR/H	0	0	0	2	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

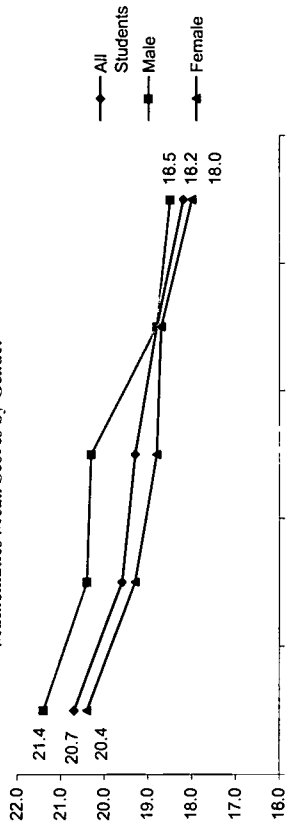


ACT Mathematics Scores

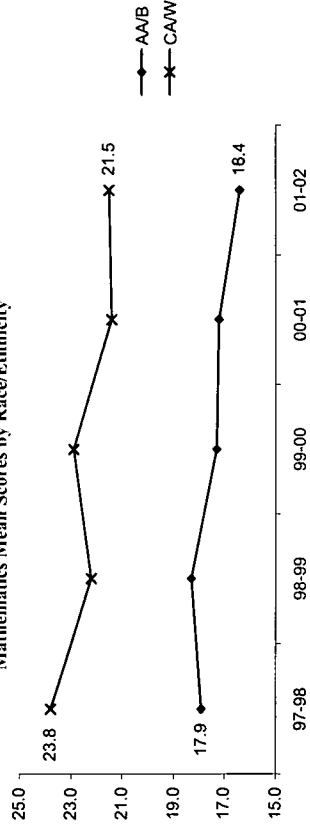
◆ Mathematics - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	20.7	19.6	19.3	18.8	18.2
Gender					
Male	21.4	20.4	20.3	18.8	18.5
Female	20.4	19.3	18.8	18.7	18.0
Race/Ethnicity					
AA/B	17.9	18.3	17.3	17.2	16.4
AI/AN	-	-	-	-	-
CA/W	23.8	22.2	22.9	21.4	21.5
MA/C	-	-	-	-	-
A/PI	-	-	-	-	-
PR/H	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

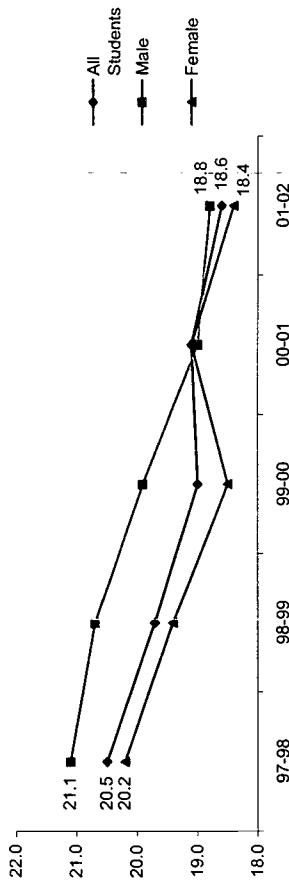
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ACT Science Reasoning Scores

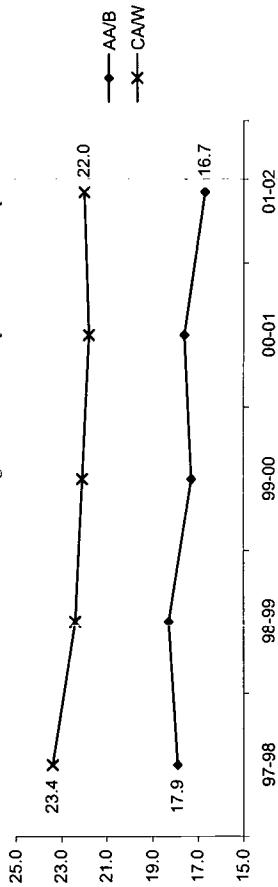
Science Reasoning - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	20.5	19.7	19.0	19.1	18.6
Male	21.1	20.7	19.9	19.0	18.8
Female	20.2	19.4	18.5	19.1	18.4
AA/B	17.9	18.3	17.3	17.6	16.7
AI/AN	-	-	-	-	-
CA/W	23.4	22.4	22.1	21.8	22.0
MA/C	-	-	-	-	-
A/PI	-	-	-	-	-
PR/H	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau.
American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto
Rican/Hispanic.

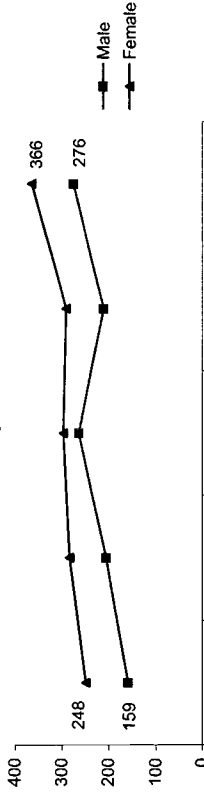
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

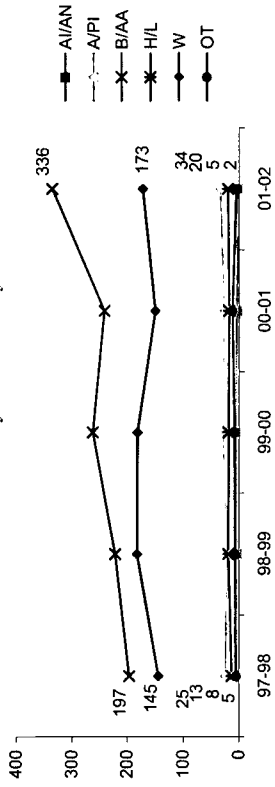
Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	931	970	1,149	1,062	-
Test-Takers	407	489	562	503	642
Num of Test-Takers/1,000 Stu.	437	504	489	474	-
Gender					
Male	159	205	264	211	276
Female	248	284	298	292	366
Race/Ethnicity					
AI/AN	8	4	6	4	2
A/PI	25	20	29	27	34
B/AA	197	222	263	242	336
H/L	13	19	19	18	20
W	145	183	182	151	173
OT	5	7	8	12	5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or
African American H/L: Hispanic or Latino W: White OT: Others

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SY 2000-01

SAT Mathematics Scores

SAT Verbal Scores

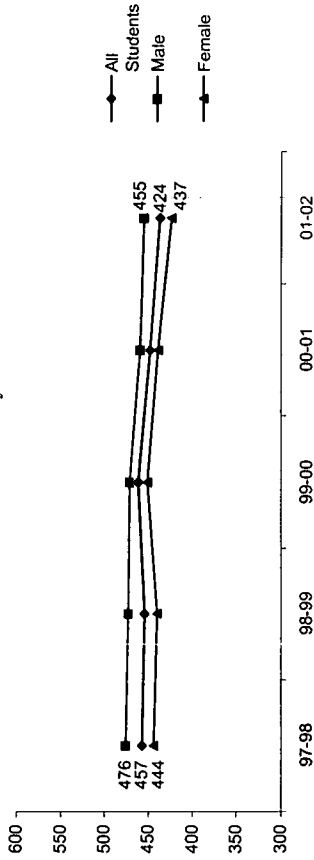
◆ Mathematics - Mean Score Trends

◆ Verbal - Mean Score Trends

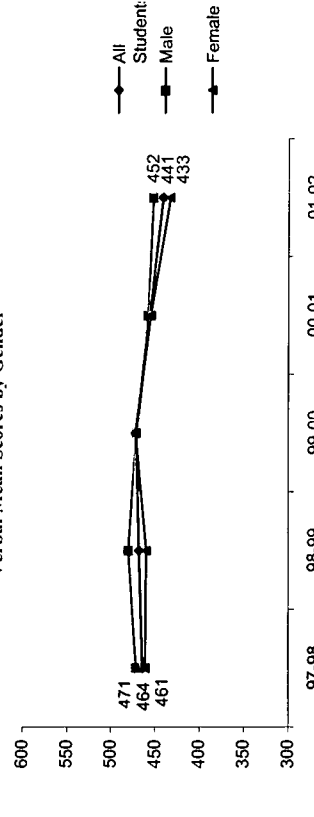
	97-98	98-99	99-00	00-01	01-02
All Students	457	454	461	448	437
Gender					
Male	476	473	471	459	455
Female	444	440	451	439	424
Race/Ethnicity					
A/IAN	468	-	467	-	-
A/PI	533	513	560	513	564
B/AA	417	414	415	400	387
H/L	423	469	434	452	430
W	500	504	515	514	509
OT	516	489	450	426	398

	97-98	98-99	99-00	00-01	01-02
All Students	464	468	471	456	441
Gender					
Male	471	480	471	458	452
Female	461	460	472	455	433
Race/Ethnicity					
A/IAN	483	-	507	-	-
A/PI	481	438	519	493	518
B/AA	426	429	424	415	391
H/L	430	486	450	438	457
W	514	523	537	519	520
OT	492	494	455	447	436

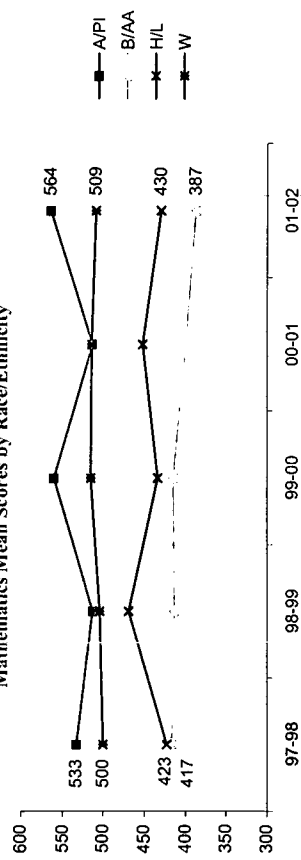
Mathematics Mean Scores by Gender



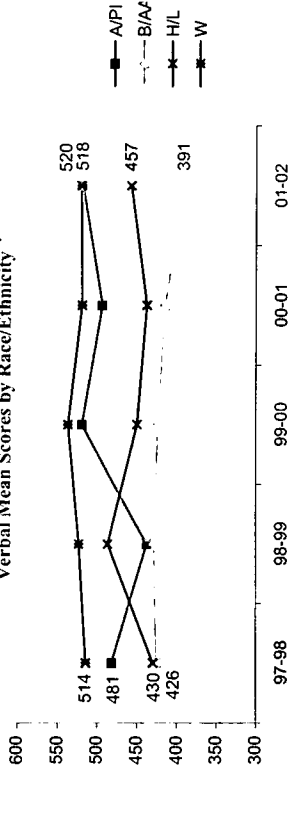
Verbal Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity^{*1}



Verbal Mean Scores by Race/Ethnicity^{*1}



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

*1 Data not presented on graph for sample size less than 5

(-) Mean scores not presented for sample size less than 5

Beaumont CPMSA

SY 2000-01

Cohort/Scale-Up Approach

Number of District Schools	99-00	00-01	01-02
CPMSA Schools:	30	30	30
% Schools:	15	30	30
Source: CDE 2002; CDE 2001; CDE 2000	50%	100%	100%

Special Education and Bilingual Students: The district now has a policy of "inclusion", with more students from these populations included in regular classroom settings. Also, more of these students are being tested with the general populace.

New Courses Added as a Result of CPMSA: Instructional Time:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum	State
Curriculum/TextBook Adoption	State
Student Assessment	State
Professional Development	District
Resources	School
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Graduation Requirements: 3 credits minimum in Mathematics, including: Algebra I, Geometry, Algebra II

Student Support Systems: Summer programs: 3 credits minimum in Science, including: Integrated Physics and Chemistry (IPC), Biology I, and Chemistry I or Physics I

Algebra I Camp, Ninth Grade Initiative program for both Math and Science

Summer School, Algebra I Camp, Ninth Grade Initiative program for both Math and Science

Standards-based Curriculum and Instruction

Standards Adopted: NCTM for math
National Science Education Standards
Texas Essential Knowledge and Skills (TEKS)

% of Students Experiencing Standards-based Curricula: E 100%
M 100%
H 100%

Policies Relevant to Curriculum

Framework: Curriculum is aligned with state and national standards.

Curricula: Texas Essential Knowledge and Skills (TEKS) which were developed to NSES and NCTM standards

Curricula Materials: Mathematics: Riverdeep, Edmark Math Series, Geometry Sketch Pad, Tangible Math, Math Connections

Science: Insights, Active Physics, AIMS, Private Eye, Invention Convention, Logal Science

Policies Relevant to Teacher Qualifications

Certification: Except pedagogy and content testing. This is state mandated.

Requirement & Hiring Practices: The district hires uncertified teachers when absolutely necessary. Teachers are allowed under "emergency certification" standards set forth by the state. The teachers must complete certification within a timeframe set forth by the state board guidelines, based on their deficiencies.

Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: All courses are "open enrollment" courses - all students are eligible to enroll in any course offered provided course prerequisites are met, i.e., Bio I is prerequisite for Bio II, etc.)

Criteria for Entry into High Level Mathematics and Science Courses: Upper level courses are available to all students per "open enrollment." The only requirement is commitment to the course work involved

Availability of High Level Courses: All students are eligible to enroll in Alg. I in the 8th grade. All Students required to take Integrated Physics and Chemistry in conjunction with Alg. I opening door to upper level sciences

Professional Development Policies and Practices

Impact on Student Achievement:

Partnerships

Time Required or Supported:

- Other Key Initiatives:
 - Eisenhower Title II-B (90% of funds
 - Ninth Grade Initiative (State Grant)

Financial Resources Provided:

Competing Initiatives:

- None

Alignment to Student Standards:

- Voluntary PD programs are all aligned to curriculum.
- Yes. Subjects are being taught per the curriculum. Inquiry has spread beyond the confines of mathematics and science to other subject areas.

Extent to Which Assessments are Aligned to District Standards and Curriculums:

- 100% Mathematics
- 100% Science
- Assessments Used:
 - Mathematics: Texas Assessment of Academic Skills (TAAS) Grades 3-8, 10, and District Six Weeks Exams
 - Science: TAAS Grades 8, and District Six Weeks Exams

Has CPMSA influenced professional development changed teachers' instructional practices:

- Volunteer Program contributes approximately \$3 million annually in time and effort.
- Lamar University Technology
- Lamar University Biology Institute
- Lamar University Chemistry Institute
- Prairie View A & M Algebra
- University of Houston Chemicals in the Environment Workshop

Type and Amount Received by Average Math/Science Teacher:

CPMSA Leadership, Governance, and Management

Superintendent:
Continuity of Leadership

- Dr. Carol A. Thomas
- The CPMSA has been supported by the current Superintendent through policies generated at the Superintendent level. The Superintendent participates in reporting to NSF and all follow-up activities.

Evaluation Instruments:

- TAAS and Six Week Exams

Professional Development Alignment to Content Standards Measures:

- AP and Pre – AP Training for teachers
- Universities of Houston, Baylor, Rice, Texas A & M, Texas at San Antonio

Teacher's Instructional Practices Evaluation:
Professional Development Appraisal System (PDAS). Observations and walkthroughs by CPMSA support team members, observations; walkthroughs, and formal observations by campus administration.

Project Directors position in district's organizational structure:

- Reports directly to Deputy Superintendent with easy access to Superintendent.

Teacher Leaders:

- Business and Industry:
 - All activities are coordinated through the Volunteer program. Local business and industry support in excess of \$2.0 M per year

Accountability

Program Effectiveness Monitoring:

- The CPMSA staff continually monitors and evaluates the program through data analysis and observation.

Report Card System:

- The state report card system, AEIS, shows effectiveness by campus and district. This is distributed to all stakeholders.

Key Indicator Data Collection:

- Key indicator data is housed in a centralized computer system within the district. Data collection is a two-way process between the state and district.

Key Indicator Data Use:

- Disaggregation of data by ethnicity and gender is used to make policy and administrative decisions.

Local On-Sight Evaluation:

- Evaluator reviews/collects data from the field - Management team meets every 6 weeks for feedback and data analysis

Data Manager: • T. Nelson Ikegulu

External Evaluator: • No

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

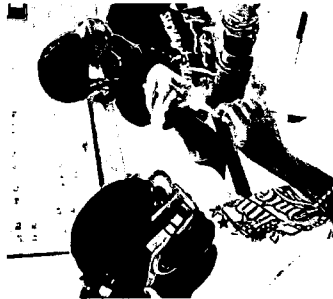
School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Established incentive programs to reward campuses with successful student achievement.
1998-99	<ul style="list-style-type: none"> • LEP students included in regular classroom settings and tested with the general populace.
1999-00	<ul style="list-style-type: none"> • All students eligible to enroll in Algebra I in the 8th grade. • Upper level courses are available to all students per "open enrollment"

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Curriculum aligned with state and national standards
1998-99	<ul style="list-style-type: none"> • Texas Essential Knowledge and Skills (TEKS) initiated
1999-00	<ul style="list-style-type: none"> • No changes reported.

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Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98	• No changes reported	1997-98	• No changes reported	1997-98	• No changes reported
1998-99	• No changes reported	1998-99	• No changes reported	1998-99	• No changes reported
1999-00	• No changes reported	1999-00	• No changes reported	1999-00	• No changes reported



Dayton CPMSA

Project Information

Comprehensive Partnership for Math and Science Achievement

Cohort: 98

CPMSA Web Site:

◆ PI, CO-PI and PD

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◆ CPMSA Data Manager/Evaluator

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◆ Mailing Address

Dayton Public Schools
368 W. First St.
Dayton, Ohio 45402

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01	29	512	11,610
K-G5 (Elementary)	6	53	3,218
G6-8 (Middle)	7	77	4,959
G9-12 (High)	42	642	19,787
Total			

Source: Core Data Elements (SY 2000-01)

Project Summary

Dayton Public Schools is a midsize urban school district in Ohio which serves a student population that is nearly 68% African American. In spite of focused attention to science and mathematics achievement over the past six years, the district's African American students continue to underperform relative to their peers on state tests of science and mathematics proficiency. In addition, they have low rates of participation in advanced courses in science and mathematics and their failure rates are higher than those of other district students. In this application the district proposes a Science and Mathematics Systemic Reform Program which will bring together the resources of diverse school and community partners to carry out an innovative plan that will result in measurable improvements in the science and mathematics performance of minority students, increasing their potential for successful participation in postsecondary study in science, engineering, and mathematical fields.

Project Goals

- Comprehensive staff development for all elementary faculty and all secondary science and mathematics teachers
- Administrative leadership development to support the assessment, supervision, and instructional delivery of science and mathematics education o implementation of a coaching system utilizing specially trained science and mathematics specialists as on-site resource support for the achievement of teaching excellence
- Development of videotape models of exemplary science and mathematics instruction for use as professional development tools o establishment of improved methods of evaluating student achievement in science and mathematics and accessing this data more frequently for closer monitoring of educational outcomes
- Restructuring of middle and high schools into collaborative learning communities which operate as teams and promote the use of research as a base for improving science and mathematics teaching
- Infusion of technology to enhance both the instruction and the instructional management of science and mathematics education
- Enhanced student academic support and enrichment programs in science and mathematics and efforts to increase parental involvement in science and mathematics learning support systematic attention to policy issues that will promote equity and excellence. in science and mathematics for all students in the district.

Selected School Indicators (District Average)

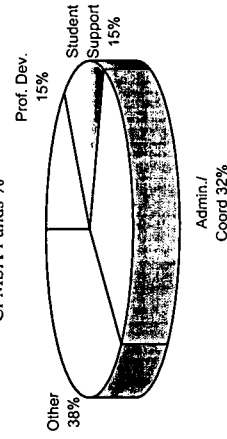
	1998-99	1999-00	Change
% Special Ed.	13.4%	15.9%	+2.5 PP
% LEP	1.2%	1.4%	+0.2 PP
% Free/Red. Lunch	85.0%	85.0%	+0.0 PP
% Daily Avg. Atten.	85.9%	85.9%	+0.0 PP
% Average Retained	11.0%	11.0%	+0.0 PP
% Drop-Out	4.3%	12.9%	+8.6 PP
% Mobility	0.1%	10.0%	+9.9 PP
Per Pupil Cost (\$)	\$9,199	\$9,216	+0.2%
# Students Per Computer	11	8	-27.3%
% Classrooms Internet Access	3%	15%	+12.0 PP
Average Class Size	16	17	+6.3%

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	5%	15%
Materials and Suppl	10%	15%
Admin/Coord.	11%	32%
Other	74%	38%
Total	100%	100%

CPMSA Funds %



Dayton CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 21,208
 CPMSA Schools: 21,208
 Source: TISC 2002

◆ Race/Ethnicity District-Wide

	1998-99	2000-2001	%	% Change
Ame. Ind./Ala. Nat.	18	11	0.1%	-38.9%
Asian/P. Islander	129	73	0.3%	-43.4%
Black	17,040	14,952	70.5%	-12.3%
Hispanic	159	211	1.0%	+32.7%
White	7,095	5,567	26.2%	-21.5%
Other	298	393	1.9%	+31.9%
Total	24,739	21,208	100.0%	-14.3%
URM Total	17,217	15,174	71.5%	-11.9%

URM: Underrepresented Minority students.

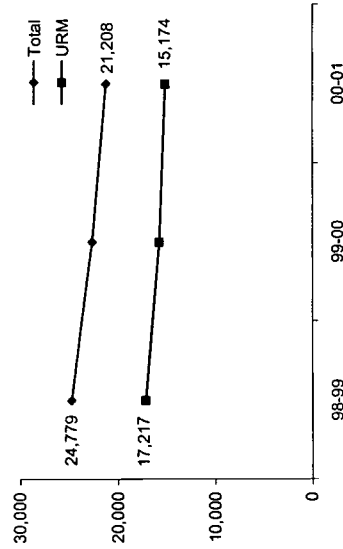
◆ Gender

Male	12,594	10,747	50.7%	-14.7%
Female	12,185	10,461	49.3%	-14.1%

◆ Grade

K-G5	13,201	12,219	57.6%	-7.4%
G6-8	5,566	3,566	16.8%	-35.9%
G9-12	5,991	5,423	25.6%	-9.5%
Ungraded	21	0	0.0%	

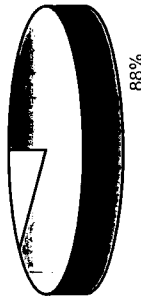
◆ District Student Demographic Trends



12th Grade Graduates

	1998-99	2000-01	Change
Total 12th Grade	955	999	+5%
Earned a Diploma	614	878	+43%
% Earned Diploma	64%	88%	+24 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	1999-00	2000-01	Change
# SEM Proficient ¹			

Math and Science Teachers & Certification Mathematics (G7-12)

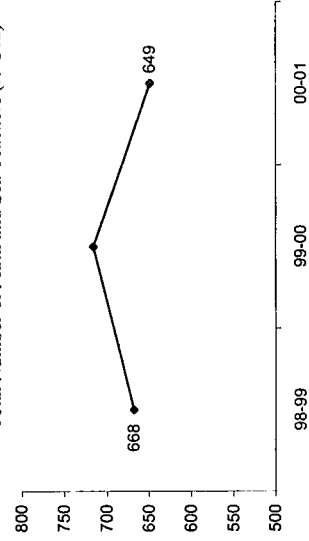
	1998-99	2000-01	Change
Teachers	38	30	-21%
Certified	0	0	
% Cert.			
Teachers	41	44	+7%
Certified	41	44	+7%
% Cert.	100%	100%	+0.0 PP
Teachers	79	74	-6%
Certified	41	44	+7%
% Cert.	52%	59%	+7.6 PP

◆ Science (G7-12)

	1998-99	2000-01	Change
Teachers	21	22	+5%
Certified	0%	0%	
% Cert.			
Teachers	25	33	+32%
Certified	25	33	+32%
% Cert.	100%	100%	+0.0 PP
Teachers	46	55	+20%
Certified	25	33	+32%
% Cert.	54%	60%	+5.7 PP

◆ Math and Science (K-G6)

	98-99	00-01	Change
Teachers	526	512	-3%



High School Graduation Requirements SY 00-01

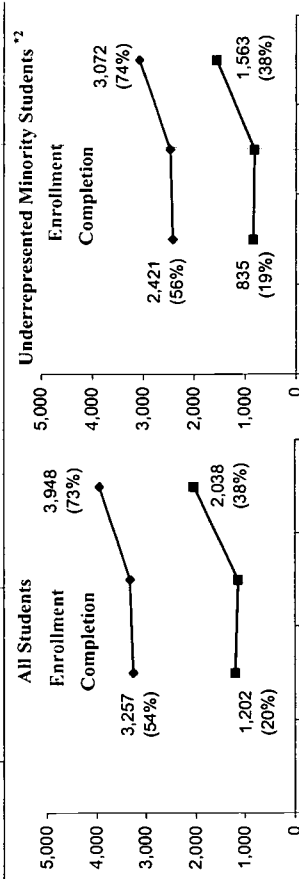
- ◆ Mathematics
 - 3 units of Mathematics
- ◆ Science
 - 1 unit biological science and 1 unit physical science

¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

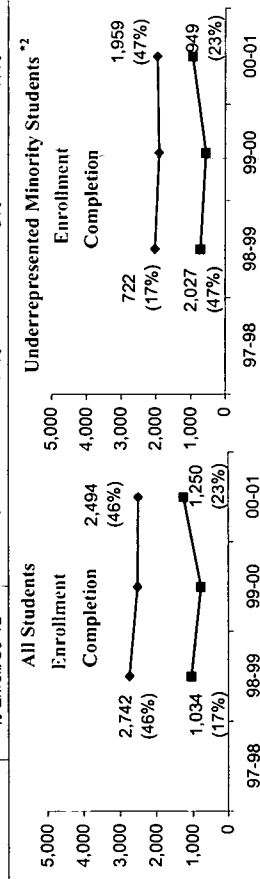
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	3,257	5,991	5,759	5,423
Completion ¹	3,948	3,322	3,322	3,948
% Enroll/G9-12	1,202 (54%)	1,202 (54%)	1,140 (58%)	2,038 (73%)
URM ²	1,202 (20%)	2,421 (56%)	814 (58%)	1,563 (74%)



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	2,742	5,991	5,759	5,423
Completion ¹	2,494	2,742	2,519	2,494
% Enroll/G9-12	1,034 (46%)	1,034 (46%)	775 (44%)	1,250 (46%)
URM ²	1,034 (17%)	2,027 (47%)	565 (45%)	949 (47%)

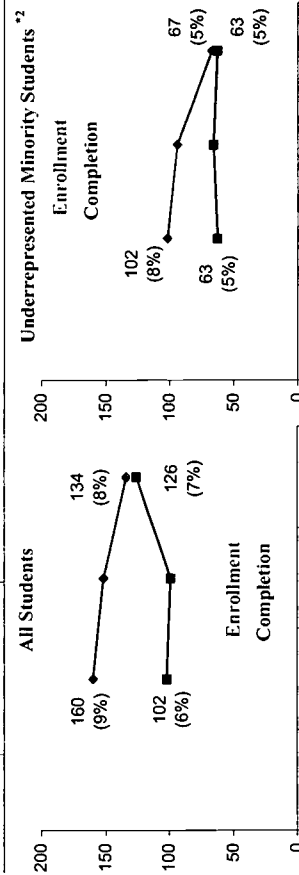


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

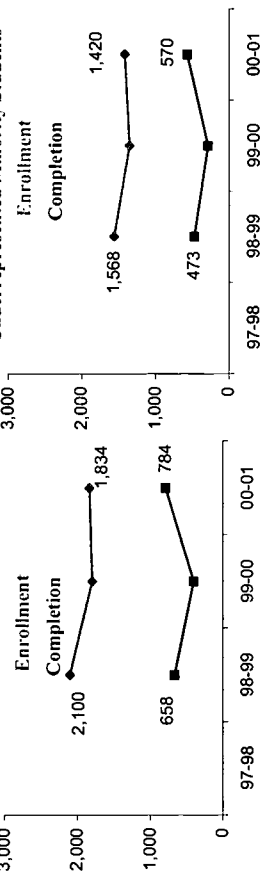
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

Total G 8 Population	97-98	98-99	99-00	00-01
Enrollment	160	160	152	134
Completion ¹	134 (8%)	102 (9%)	99 (10%)	126 (8%)
URM ²	102 (6%)	102 (8%)	66 (8%)	63 (5%)



Biology Enrollment & Completion Trends/ All vs. URM

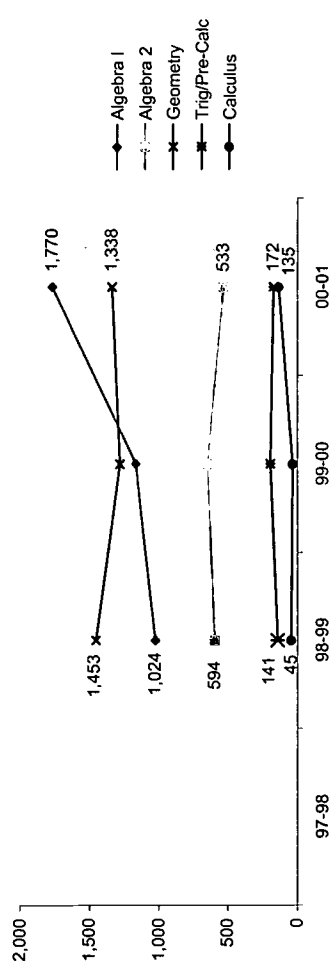
Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	2,100	2,100	1,794	1,834
Completion ¹	1,834 (8%)	658 (7%)	403 (8%)	784 (8%)
URM ²	658 (10%)	1,568 (10%)	1,357 (10%)	1,420 (10%)



(.) Data Missing

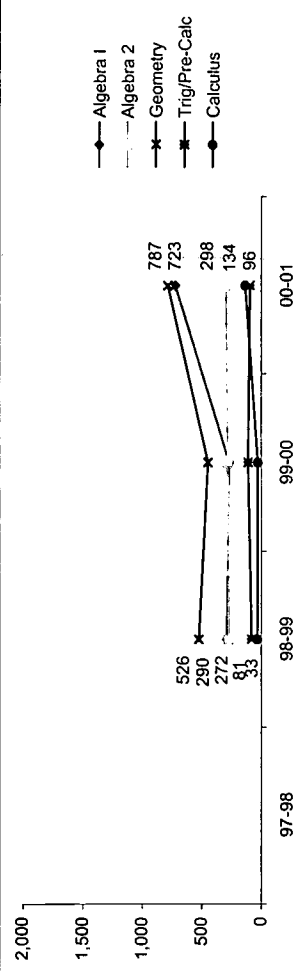
Mathematics Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98							
98-99	1,024	594	1,453	141	45		3,257
99-00	1,166	648	1,282	192	34		3,322
00-01	1,770	533	1,338	172	135		3,948



G 9-12 Course Completion ^{*1} (All Students)

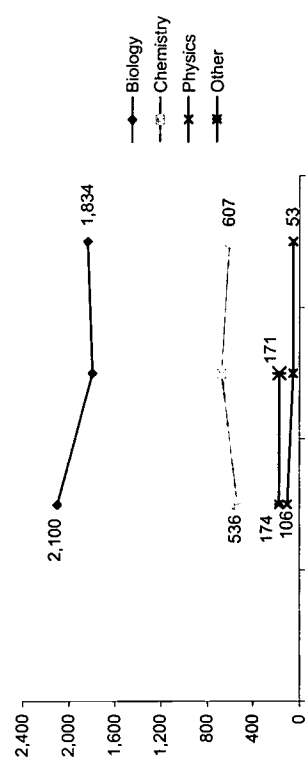
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98							
98-99	290	272	526	81	33		1,202
99-00	270	282	449	111	28		1,140
00-01	723	298	787	96	134		2,038



*1 Successful completion: grade 'C' or above.

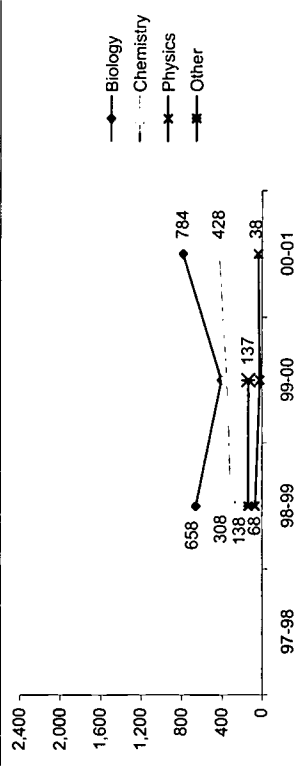
Science Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	800	1,000	600		2,400
98-99	2,100	536	106	174	2,916
99-00	1,794	672	53	171	2,690
00-01	1,834	607	53		2,494



G 9-12 Course Completion ^{*1} (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	800	1,000	600		2,400
98-99	658	308	68	138	1,172
99-00	403	351	21	137	912
00-01	784	428	38		1,250



(.) Data Missing

Dayton CPMSA

District Assessment Test Administered

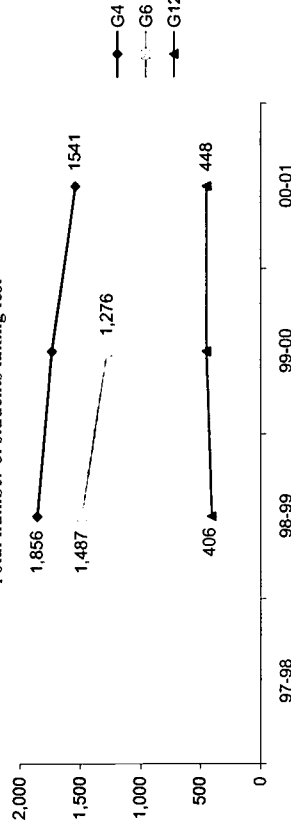
State Assessment Test-Taker Trends OPT

◆ Mathematics

◆ Mathematics

Test Name	97-98	98-99	99-00	00-01	97-98	98-99	99-00	00-01
Scoring	1,856	1,737	1,541
Grade	1,487	1,276	
Type	406	449	448

Total number of students taking test



◆ Science

Test Name	97-98	98-99	99-00	00-01
Scoring
Grade
Type

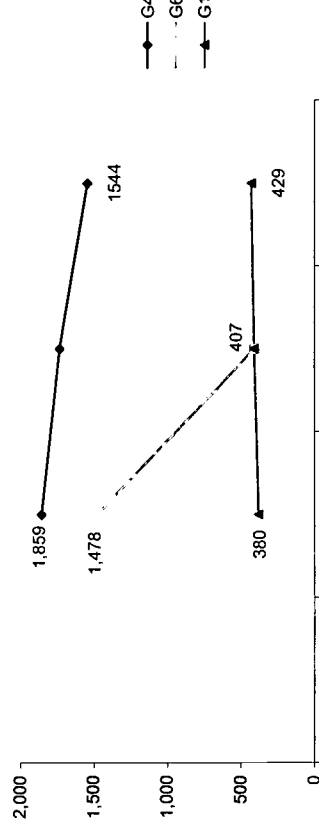
State Assessment Test Administered

◆ Mathematics

◆ Science

Test Name	97-98	98-99	99-00	00-01	97-98	98-99	99-00	00-01
Scoring	.	OPT	OPT	OPT	.	1,859	1,733	1,544
Grade	.	SS	SS	SS	.	1,478	407	
Type	.	4, 6, 9, 12	4, 6, 9, 12	4, 6, 12	.	380	408	429

Total number of students taking test



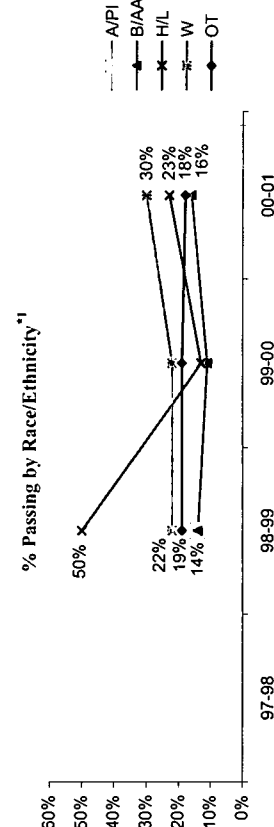
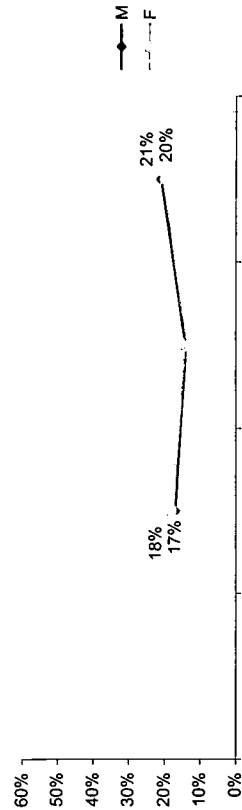
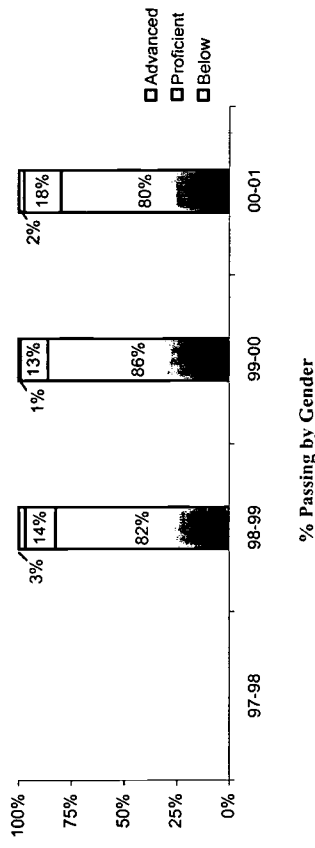
*OPT: Ohio Proficiency Test
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

Dayton CPMSA

State Assessment Test Result Trends OPT - Mathematics

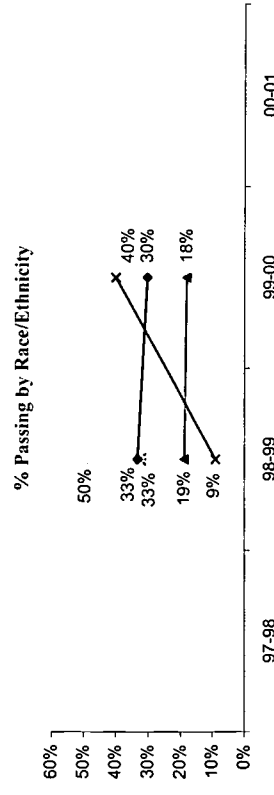
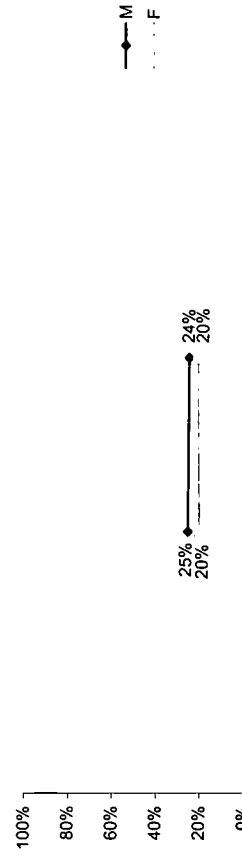
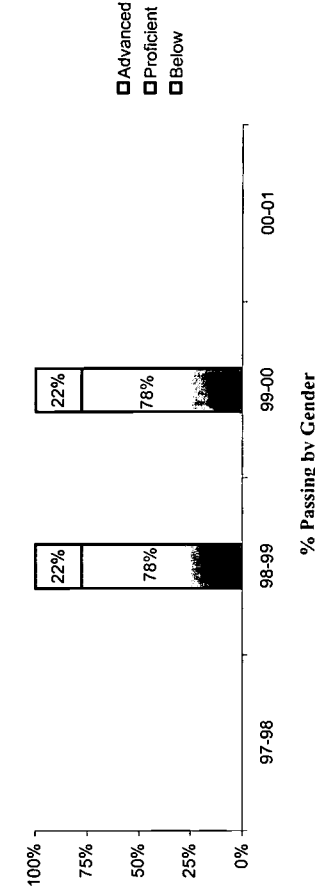
◆ Grade 4

	97-98	98-99	99-00	00-01
Advanced	3%	1%	2%	2%
Proficient	14%	13%	18%	18%
Below	82%	86%	80%	80%
Total # of students	1,856	1,737	1,541	1,276



◆ Grade 6

	97-98	98-99	99-00	00-01
Advanced	0%	0%	0%	0%
Proficient	22%	22%	22%	22%
Below	78%	78%	78%	78%
Total # of students	1,487	1,487	1,276	1,276



A/I/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 % Passing defined as Advanced or Proficient
 (*) Data not presented on graph for sample size less than 5
 (.) Data Missing

Dayton CPMSA

State Assessment Test Result Trends OPT - Science

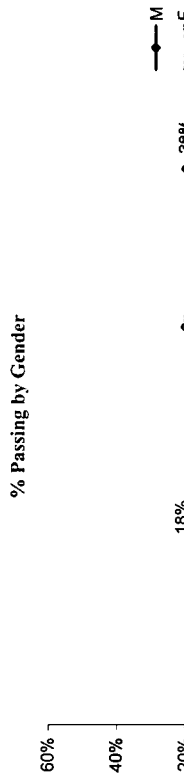
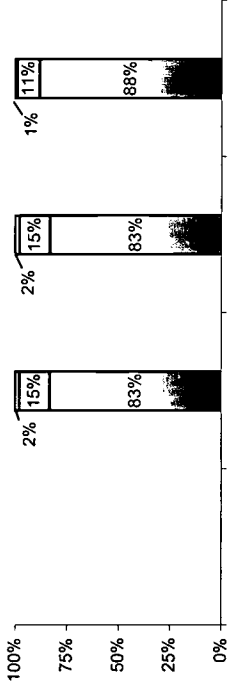
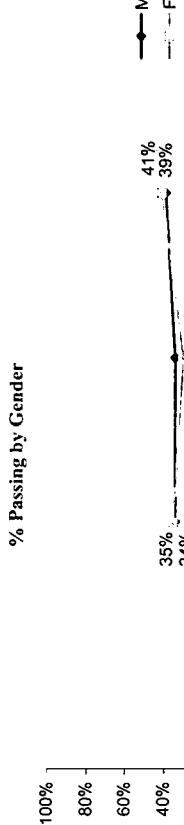
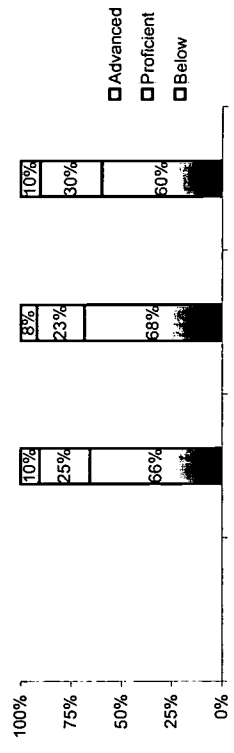
State Assessment Test Result Trends OPT - Mathematics

◆ Grade 12

◆ Grade 4

	97-98	98-99	99-00	00-01
Advanced		10%	8%	10%
Proficient		25%	23%	30%
Below		66%	68%	60%
Total # of students		406	449	448

	97-98	98-99	99-00	00-01
Advanced		2%	2%	1%
Proficient		15%	15%	11%
Below		83%	83%	88%
Total # of students		1,859	1,859	1,733



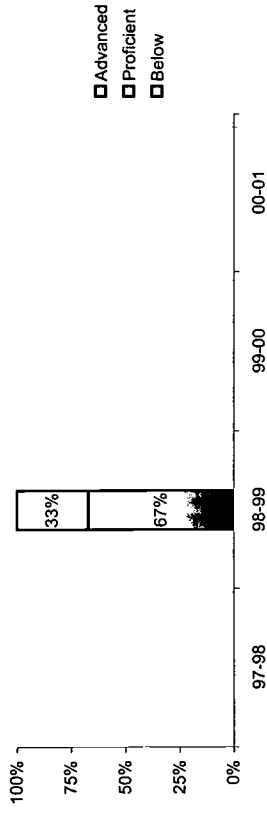
A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 % Passing defined as Advanced or Proficient
 *1 Data not presented on graph for sample size less than 5
 (.) Data Missing

Dayton CPMSA

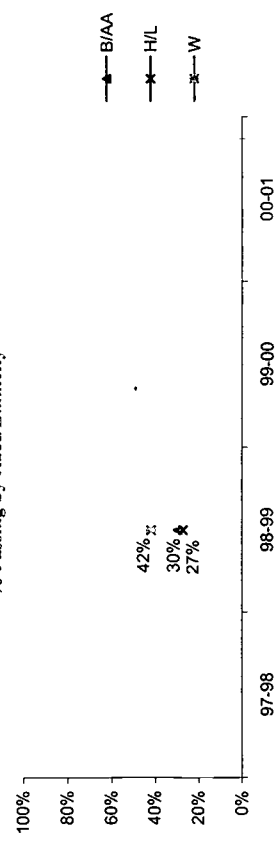
State Assessment Test Result Trends OPT - Science

◆ Grade 6

	97-98	98-99	99-00	00-01
Advanced	.	0%	.	.
Proficient	.	33%	.	.
Below	.	67%	.	.
Total # of students	.	1,478	.	.



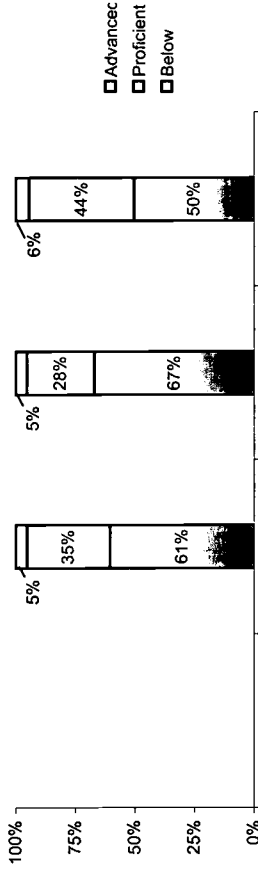
% Passing by Race/Ethnicity*



State Assessment Test Result Trends OPT - Science

◆ Grade 12

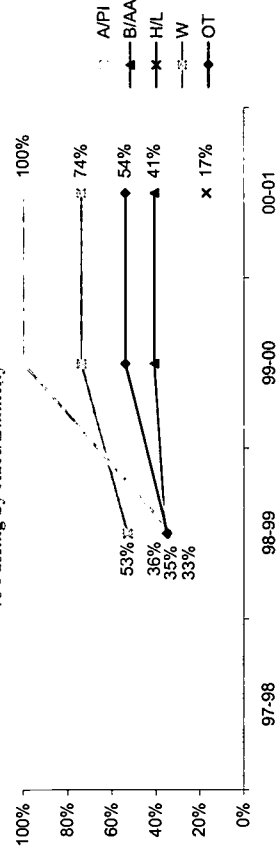
	97-98	98-99	99-00	00-01
Advanced	.	5%	5%	6%
Proficient	.	35%	28%	44%
Below	.	61%	67%	50%
Total # of students	.	380	408	429



% Passing by Gender



% Passing by Race/Ethnicity*



A/I/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 * Passing defined as Advanced or Proficient
 *1 Data not presented on graph for sample size less than 5
 (.) Data Missing

Dayton CPMSA

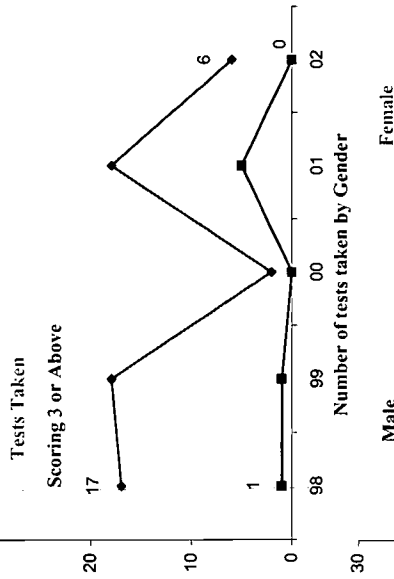
SY 2000-01

AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

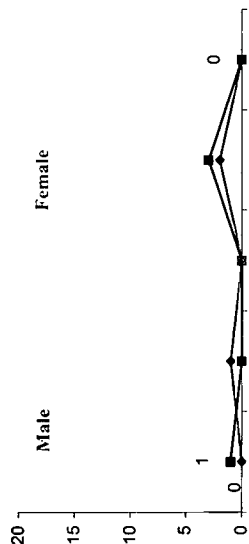
	98	99	00	01	02
Total # of 11th & 12th graders		2,057	2,130	2,031	
Calc. AB	17	18	2	18	6
Calc. BC	0	0	0	0	0
Statistics	0	0	0	0	0
Total	17	18	2	18	6
Tests taken per 1,000 students		8.8	0.9	8.9	
Scoring 3 or Above	1	1	0	5	0
Scoring 3 or Above per 1,000		0.5	0.0	2.5	

Number of tests taken and scoring 3 or Above



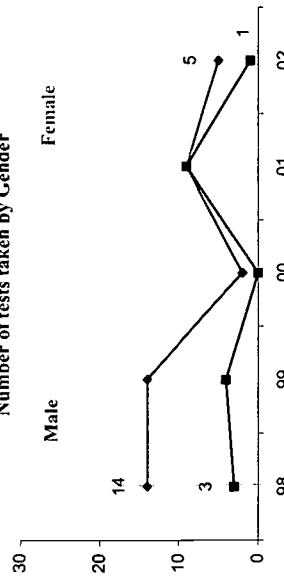
◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	1	0	0	3	0
Female	0	1	0	2	0



◆ AP Mathematics - Number of Tests Taken By Gender

	98	99	00	01	02
Male	3	4	0	9	1
Female	14	14	2	9	5



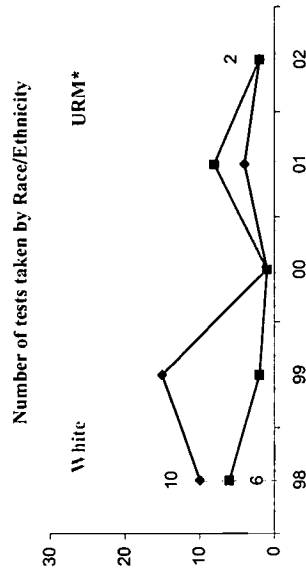
◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	1	0	0	0	0
B/AA	0	1	0	0	0
H/L	0	0	0	0	0
W	0	0	0	3	0



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	1	0	0	2	1
B/AA	10	1.5	1	4	2
H/L	0	0	0	0	0
W	6	2	1	8	2



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

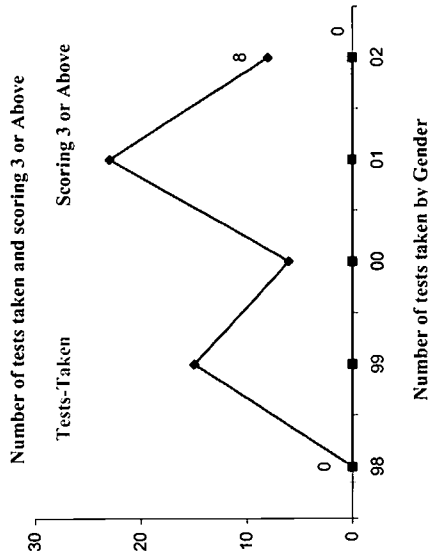
Dayton CPMSA

SY 2000-01

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

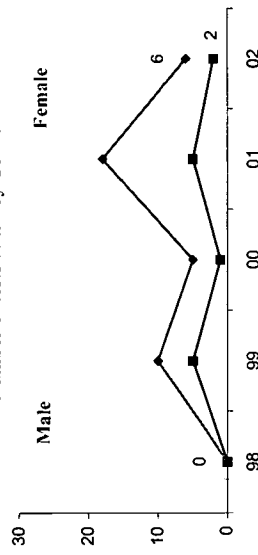
♦ AP Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	2,057	2,130	2,031		
Biology	0	7	1	17	5
Chemistry	0	4	4	4	3
Env. Science	0	0	0	0	0
Physics B	0	4	1	2	0
Physics Mech.	0	0	0	0	0
Physics Elec.	0	0	0	0	0
Total	0	15	6	23	8
Tests taken per 1,000 students	0	7.3	2.8	11.3	0
Scoring 3 or Above	0	0	0	0	0
Above per 1,000	0	0.0	0.0	0.0	0



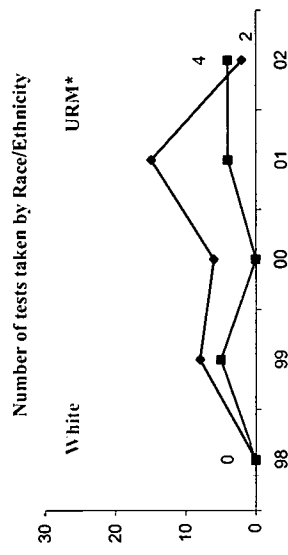
♦ AP Science - Number of Tests Taken By Gender

	98	99	00	01	02
Male	0	5	1	5	2
Female	0	10	5	18	6



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	1	0	3	0
B/AA	0	8	6	14	2
H/L	0	0	0	1	0
W	0	5	0	4	4

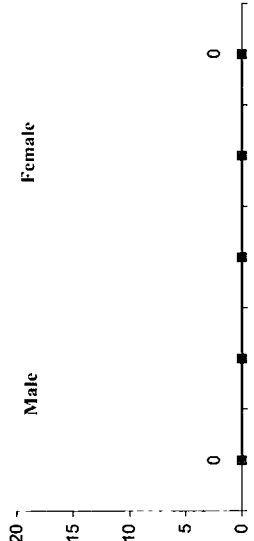


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

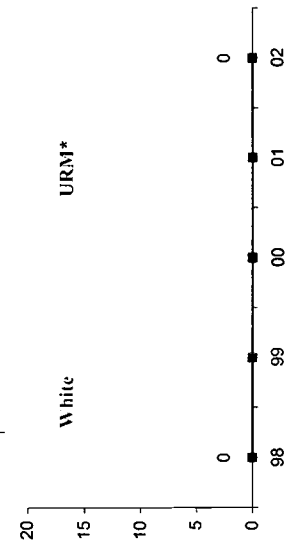
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0

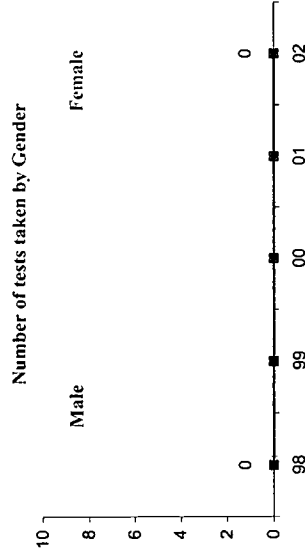
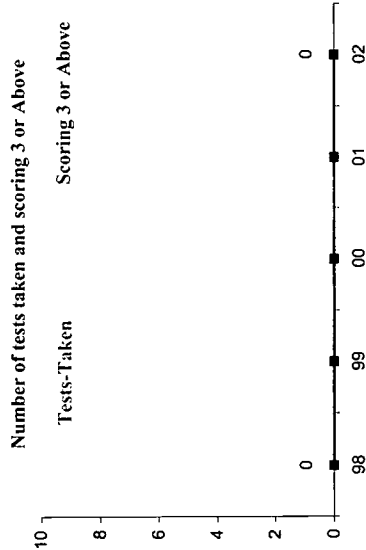


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends ♦ Computer Science A & AB

♦ AP Computer Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	2,057	2,130	2,031		
Comp. Sci A Tests Taken	0	0	0	0	0
Comp. Sci. AB Tests Taken	0	0	0	0	0
Total	0	0	0	0	0
Tests taken per 1,000 students Scoring 3 or Above	0.0	0.0	0.0	0.0	0.0
Scoring 3 or Above per 1,000	0.0	0.0	0.0	0.0	0.0



♦ AP Computer Science - Number of Tests Taken By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0

♦ AP Computer Science - Number of Tests Taken By Race/Ethnicity ¹

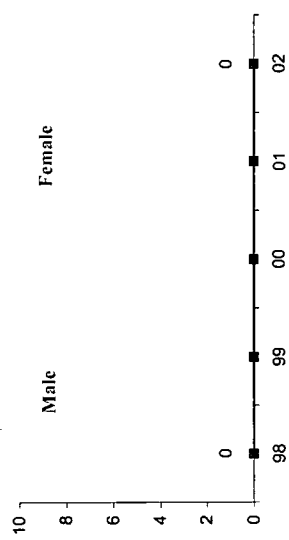
Race/Ethnicity	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0

A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

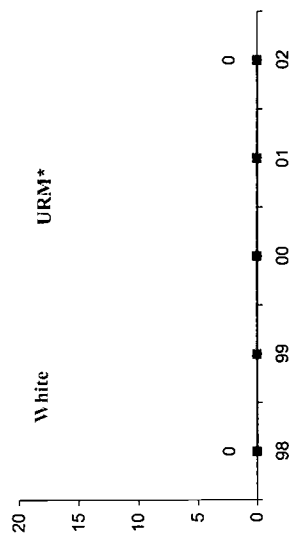
♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



♦ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

Race/Ethnicity	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0



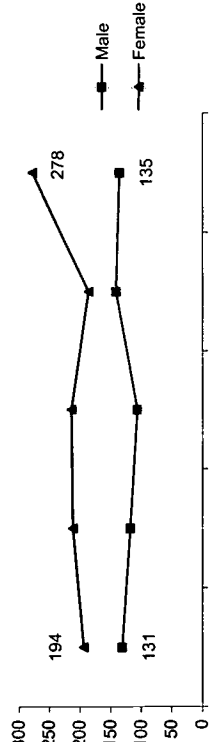
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

ACT Test-Takers

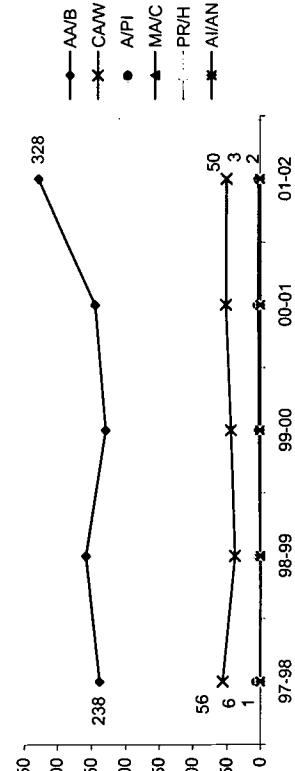
◆ **Number of Test-Takers**

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	932	955	1,036		
Test-Takers	325	323	331	415	
Num of Test-Takers/1,000 Stu.					
Gender					
Male	131	106	141	135	
Female	194	212	186	278	
Race/Ethnicity					
AA/B	238	258	229	244	328
AI/AN	0	0	1	0	0
CA/W	56	38	44	51	50
MA/C	1	0	2	3	2
A/PI	6	3	3	5	3
PR/H	1	0	1	1	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity

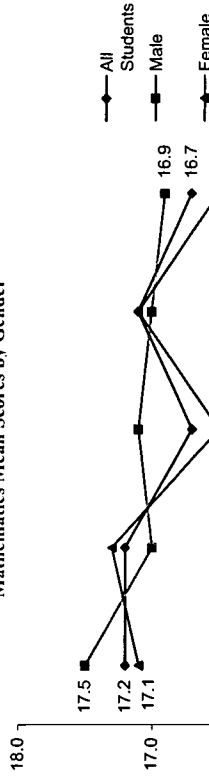


ACT Mathematics Scores

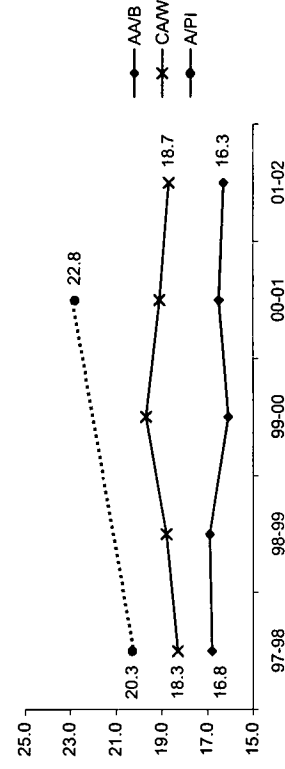
◆ **Mathematics - Mean Score Trends**

	97-98	98-99	99-00	00-01	01-02
All Students	17.2	17.2	16.7	17.1	16.7
Gender					
Male	17.5	17.0	17.1	17.0	16.9
Female	17.1	17.3	16.5	17.1	16.5
Race/Ethnicity					
AA/B	16.8	16.9	16.1	16.5	16.3
AI/AN	-	-	-	-	-
CA/W	18.3	18.8	19.7	19.1	18.7
MA/C	-	-	-	-	-
A/PI	20.3	-	-	22.8	-
PR/H	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic (-) Mean scores not presented for sample size less than 5

Dayton CPMSA

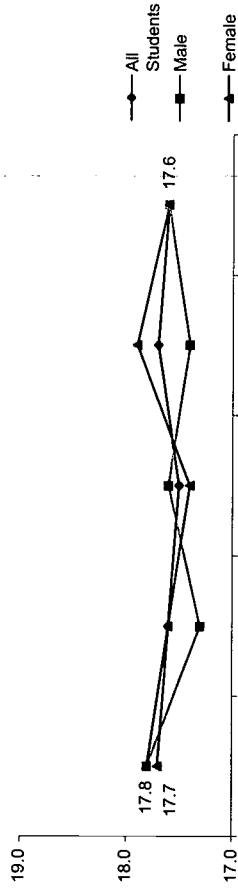
SY 2000-01

ACT Science Reasoning Scores

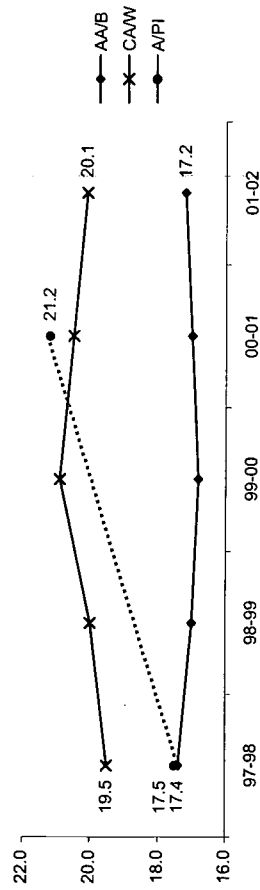
◆ Science Reasoning - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	17.8	17.6	17.5	17.7	17.6
Gender					
Male	17.8	17.3	17.6	17.4	17.6
Female	17.7	17.6	17.4	17.9	17.6
Race/Ethnicity					
AA/B	17.4	17.0	16.8	17.0	17.2
AI/AN	-	-	-	-	-
CA/W	19.5	20.0	20.9	20.5	20.1
MA/C	-	-	-	-	-
A/PI	17.5	-	-	21.2	-
PR/H	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauca
 American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto
 Rican/Hispanic.

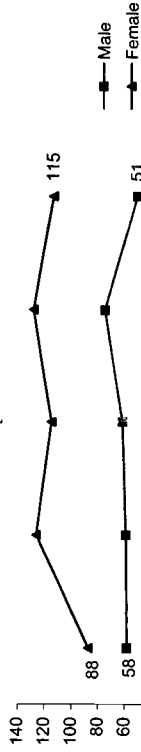
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

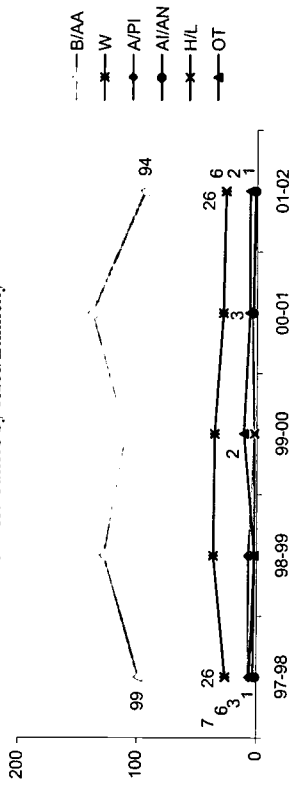
◆ Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students		932	955	1,036	
Test-Takers	146	186	178	205	166
Num of Test-Takers/1,000 Stu.		200	186	198	
Gender					
Male	58	60	62	76	51
Female	88	126	116	129	115
Race/Ethnicity					
AI/AN	1	0	0	3	1
A/PI	7	7	2	4	2
B/AA	99	128	110	138	94
H/L	3	2	2	0	0
W	26	36	35	28	26
OT	6	2	11	6	6

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or
 African American H/L: Hispanic or Latino W: White OT: Others

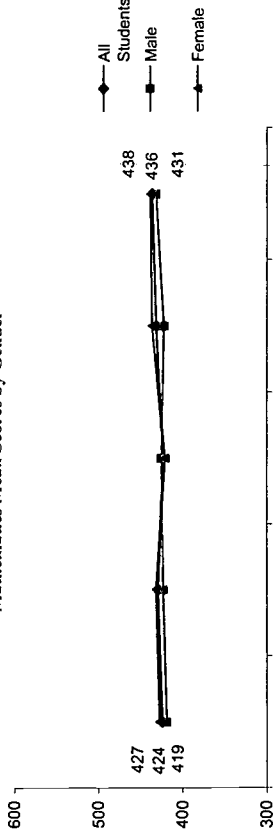
Dayton CPMSA

SAT Mathematics Scores

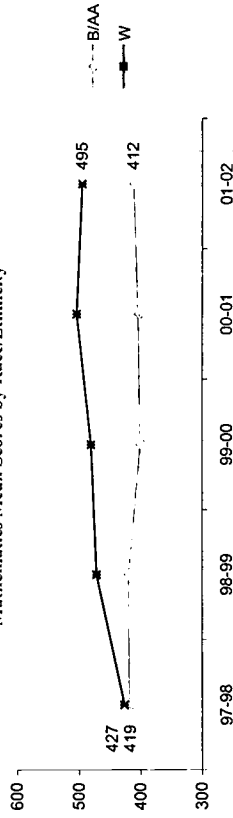
◆ Mathematics - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	424	429	423	431	436
Gender					
Male	419	423	425	422	431
Female	427	431	421	436	438
Race/Ethnicity					
AI/AN	-	-	-	-	-
A/PI	410	416	-	-	-
B/AA	419	420	401	405	412
H/L	-	-	-	-	-
W	427	471	480	504	495
OT	448	-	501	528	438

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity¹



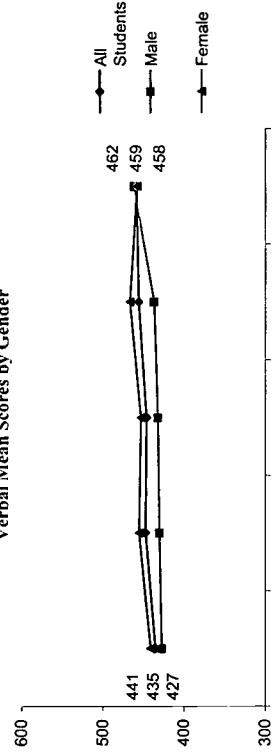
AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

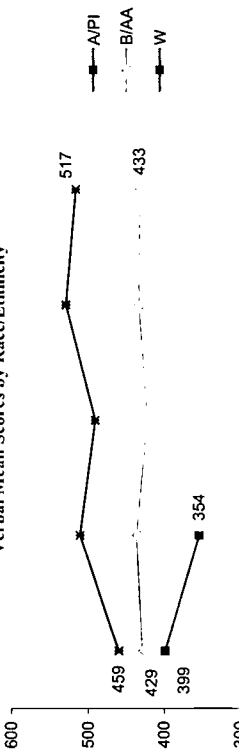
◆ Verbal - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	435	447	446	456	459
Gender					
Male	427	430	432	437	462
Female	441	455	453	467	458
Race/Ethnicity					
AI/AN	-	-	-	-	-
A/PI	399	354	-	-	-
B/AA	429	437	423	434	433
H/L	-	-	-	-	-
W	459	511	491	530	517
OT	497	-	555	547	492

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity¹



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Data not presented on graph for sample size less than 5

Cohort/Scale-Up Approach

	98-99	99-00	00-01
Number of District Schools	49	47	42
CPMSA Schools:	8	12	38
% Schools:	16%	26%	90%

Source: CDE 1999 - 2001

Availability of High Level Courses:

Special Education and Bilingual Students: • ESL classes are offered for K-12 students; Intervention School Committees are required in each school; Career education classes are offered dealing with STEM careers.

Instructional Time: • None

Standards-based Curriculum and Instruction

Standards Adopted: • The mathematics and science curricula are aligned with both the NCTM and NSTA standards, respectively.

Primary Decision Making Body

Standards Curriculum Curriculum/TextBook Adoption
 Student Assessment
 Professional Development Resources
 Teacher Hiring
 Teacher Contracts
 Certification & Re-certification
 Graduation Requirements
 School-Based Management?

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements: • Must pass 9th grade Ohio State Proficiency test in mathematics and science
 • Must pass 2 units of math and 1 of science.
 Student Support Systems: • Individual school buildings planned for after school tutoring programs
 Summer programs: • Math/ Science Summer Enrichment for grades 1-6 and for middle and high school programs, e.g., Project Sharp, Wright STEP math/ science program and Young Scholars.

% of Students Experiencing Standards-based Curricula:	E	M	H
	60%	50%	50%

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: • None
 Criteria for Entry into High Level Mathematics and Science Courses: • Any student taking advanced classes must have completed the required core courses, e.g., the prerequisite for chemistry is algebra.

Policies Relevant to Curriculum

Framework: • Ohio Department of Education Curriculum Framework
 Curricula: • Not reported
 Curricula Materials: • Math: Investigation K-4 and Connected Math (5-8)
 • Science: FOSS, Delta, and STC kits for use with G3-6. Scholastic-literature-based kits are used with K-2 students. The SEPUP kits were adopted for middle schools.

Policies Relevant to Teacher Qualifications

Certification: • The new standards require a Provisional License (2yrs) for entry year teachers, and may be used for substitute teaching. Candidates need 3 semester hours to renew (6-9 hrs if lapsed). A professional License (5yrs) will be granted if candidate receives a Provisional License plus successful completion of Entry year program and performance assessment.

Requirement & Hiring Practices: • Three semester hours necessary for 5 year renewal of licensure.

New Courses Added as a Result of CPMSA: • No, basically the state requirements drive what is offered.

Professional Advancement & Leadership Training: • Leadership Academies for Administrators & Math (2) and Science (1) coaches hired to support classroom teachers

Professional Development Policies and Practices

Impact on Student Achievement:

• Yes. Student Achievement levels were used to develop action plans for following year.

Partnerships

Other Key Initiatives: • Eisenhower

• Title I

Time Required or Supported: • 20 hours up to 48 hours.

Financial Resources Provided: • Not reported

Alignment to Student Standards: • Yes

Has CPMSA influenced professional development? • Teachers are more aware of standards in math and science
 teachers' instructional practices changed? • Teachers are better able to make connections between curriculum instruction and assessment

Type and Amount Received by Average Math/Science Teacher: • Professional development sessions were on-going. Teachers had an opportunity to participate in up to 48 hours of hands on activities, lesson demonstrations, reflection time, and discussion group activities based on grade level proficiency outcomes.
 • Teacher survey

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures: • District and school building decisions are made based on assessment data to improve instructional practices through staff development sessions and curriculum revisions.
 • Observation by building principal

Teacher's Instructional Practices Evaluation:

• Math and Science Coaches visit classrooms and conduct Professional Development

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums: • Math assessments are fully aligned with local and state proficiency standards, while science assessments are somewhat aligned with the local and state proficiency outcomes.

Assessments Used: • Middle school performance assessments and End of Year Course Exams in Math have been developed
 • End of Year Course Exams for high school Science

• Temporary assessments at elementary and middle school levels. Performance assessments are being developed

CPMSA Leadership, Governance, and Management

Superintendent: • Dr. Percy A. Mack

Continuity of Leadership: • There has been continuity of leadership

Project Directors position in district's organizational structure: • During the initial organizational structure, the Project Director reported directly to the Superintendent, but was supervised by the Executive Director Academic Services.

Teacher Leaders:

• Math and Science Coaches visit classrooms and conduct Professional Development

Competing Initiatives: • There are a multitude of planned initiatives, especially additional in-classroom teacher support, which require additional personnel.

Community Stakeholders:

• Many community groups conducted isolated after-school tutoring programs in preparation for State Proficiency tests. Elementary parents are actively involved in 2 annual initiatives (Math-Olympics and Science Fair). In baseline year, a Business Advisory Board was actively involved in math and science decisions, and made financial contributions toward the math/science resource center.

Higher Education:

• Wright State University
 • University of Dayton
 • Central State University
 • Ohio State University

Business and Industry:

• During the 1997-98 school year a strong relationship existed with the business community. A Business Advisory Board was actively involved in math and science decisions. Corporations made financial contributions toward the new Math/Science Resource Center.

Accountability

Program Effectiveness Monitoring:

- Logs of activities are kept
- Workshop attendance is kept
- Records of classroom visitation
- Field trip schedule
- Professional Development activity descriptions

Report Card System:

- From State Dept. of Education
- 27 Performance Standards
- Student Management System

Key Indicator Data Collection:

Key Indicator Data Use:

- Organizing Professional Development intervention strategies for students
- Monitoring class enrollments
- Developing and supporting community based programs

Local On-Sight Evaluation:

- Attainment of project outcomes by disaggregation of text data for changes over time and progress of participants

Data Manager:

- Not reported

External Evaluator:

- Dr. Richard Stock, University of Dayton

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
98-99	The legislative adoption of New Teacher Education and Licensure Standards was established effective January 1, 1998.

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
98-99	It is state mandated that districts develop and implement a Competency Based Education assessment program. These assessments, developed for K-8 students, assess students' levels of knowledge/skill, concept, and problem solving/application.

Dayton CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98		1997-98	It was state mandated that districts develop and implement a Competency Based Education assessment program. District assessments were developed for K-8 students. These assessments assess students at the knowledge/skill level, concept level, and problem solving/application level.	1997-98	
1998-99		1998-99		1998-99	
1999-00		1999-00		1999-00	

CPMSA *Comprehensive Partnerships for Mathematics and Science Achievement*



Gary CPMSA

Project Information

CPMSA Project Title : Gary Initiative Cohort: 97
 CPMSA Web Site: www.garyinitiative.org

Project Summary

The Gary initiative is a plan to improve the quality and quantity of science and mathematics education received by all students in Gary. It brings together the Gary Community School Corporation, five higher education institutions, the business community, parents and the Gary Accord.

◆ PI, CO-PI and PD

PI/Superintendent
 Mrs. Mary E. Guinn T (219) 881-5401 F (219) 881-4102
 meguinn@surfnetc.com
 Co-PI/Science Supervisor
 Mrs. Shirley S. Moorehead T (219) 977-2401 F (219) 977-4245
 badpenny321@aol.com
 PD
 Mr. Lee E. Moss T (219) 944-4105 F (219) 977-2414
 lmoss316@aol.com

◆ CPMSA Data Manager/Evaluator

Dr. John Jackson PLAN/RES/ACCT T(219)881-5475 (F)219-886-6432
 johnone42@yahoo.com
 External Eval
 Larry Cross (T)708-534-6362 (F)219-977-2414
 lmoss316@aol.com

◆ Mailing Address

602 East 10TH Place
 Gary, Indiana 46402

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
2000-01			
K-5 (Elementary)	22	452	8,698
G6-8 (Middle)	6	88	4,002
G9-12 (High)	6	91	5,315
Total	34	631	18,015

Source: Core Data Elements (SY 2000-01)

Project Goals

To increase the number of minority students enrolling in and successfully completing precollege courses, which will lead them to pursue undergraduate programs in the Sciences, Technology, Engineering, and Mathematics (STEM).

Selected School Indicators (District Average)

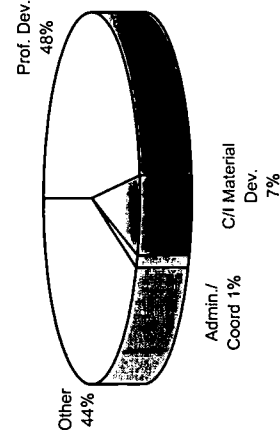
	97-98	00-01	Change
% Special Ed.	36.8%	33.3%	-3.5 PP
% LEP	4.2%	13.1%	+8.9 PP
% Free/Red. Lunch	57.5%	69.8%	+12.3 PP
% Daily Avg. Atten.	96.9%	75.0%	-21.9 PP
% Average Retained	12.3%	7.3%	-5.0 PP
% Drop-Out	4.1%	2.4%	-1.7 PP
% Mobility	9.0%	13.0%	+4.0 PP
Per Pupil Cost (\$)	\$7,513		
# Students Per Computer	25		
% Classrooms Internet Access	5%	94%	+89.0 PP
Average Class Size	35		

(.) Data Missing PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	45%	48%
C/I Material Dev.	7%	7%
Admin/Coord.	2%	1%
Other	46%	44%
Total	100%	100%

CPMSA Funds %



Student Demographics (SY 2000-01)

District Total: 18,015
 CPMSA Schools: 18,015
 Source: Core Data Elements (SY 2000-01)

◆ Race/Ethnicity District-Wide

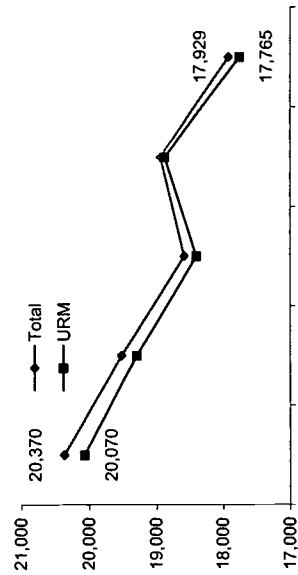
	96-97	00-01	%	% Change
Ame. Ind./Ala. Nat.	12	22	0.1%	+83%
Asian/P. Islander	18	19	0.1%	+6%
Black	19,600	17,501	97.6%	-11%
Hispanic	458	242	1.3%	-47%
White	282	86	0.5%	-70%
Other	0	59	0.3%	.
Total	20,370	17,929	100.0%	-12%
URM Total	20,070	17,765	99.1%	-11%

URM: Underrepresented Minority students.

◆ Gender

Male	10,227	8,961	50.0%	-12%
Female	10,143	8,967	50.0%	-12%
◆ Grade				
K-G5	9,436	8,963	50.0%	-5%
G6-8	4,499	3,824	21.3%	-15%
G9-12	6,413	4,648	25.9%	-28%
Ungraded	13	494	2.8%	+3700%

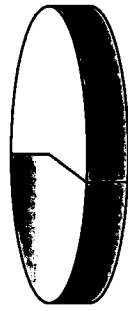
◆ District Student Demographic Trends



12th Grade Graduates

	96-97	00-01	Change
Total 12th Grade	1,299	975	-25%
Earned a Diploma	516	53%	.
% Earned Diploma	53%	.	.

% Earned Diploma for SY 2000-01



SEM Proficiency

	96-97	00-01	Change
# SEM Proficient ¹	340	35%	.
% SEM Proficient/ Total 12th Grade	35%	.	.
% SEM Proficient for SY 2000-01	.	35%	.



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 6 Carnegie units for Math
 - The State and District's requirement of the GQE (Graduation Equivalency Exam) in addition to State ISTEP Exam
 - ◆ Science
 - 4 Carnegie units for Science
 - The State and District's requirement of the GQE (Graduation Equivalency Exam)
- PP: Percentage Points (.) Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

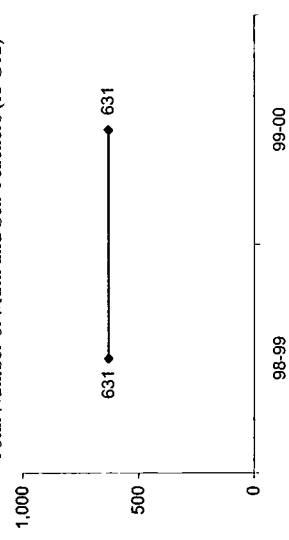
	98-99	00-01	Change
Teachers Certified	43	45	+5%
G6-8 Teachers Certified % Cert.	.	.	.
G9-12 Teachers Certified % Cert.	47	45	-4%
Total Teachers Certified % Cert.	90	90	+0%

◆ Science (G6-12)

	98-99	00-01	Change
Teachers Certified	43	43	+0%
G6-8 Teachers Certified % Cert.	.	.	.
G9-12 Teachers Certified % Cert.	46	46	+0%
Total Teachers Certified % Cert.	89	89	+0%

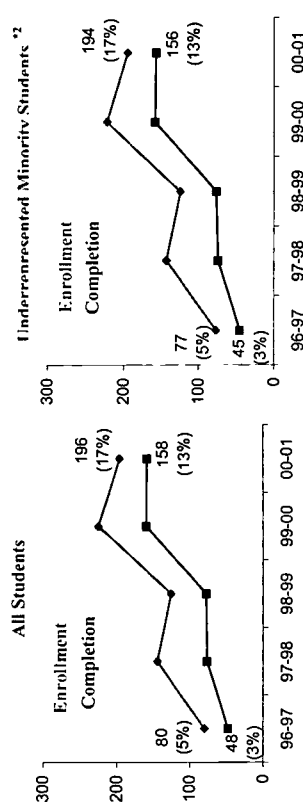
◆ Math and Science (K-G5)

	98-99	99-00	Change
K-G5 Teachers	452	452	+0%



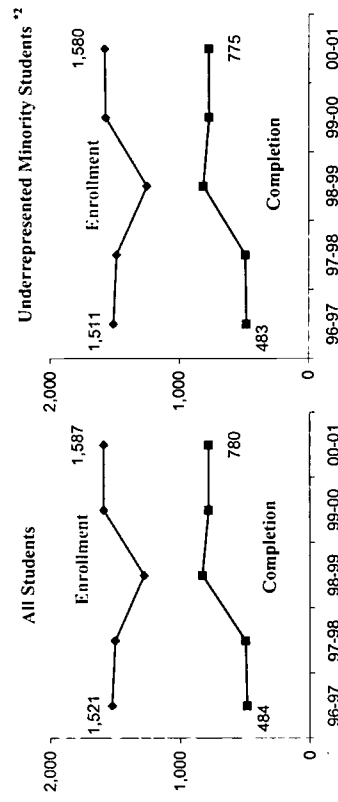
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population					
Enrollment	1,494	1,425	1,326	1,337	1,177
Completion ¹	80	144	125	224	196
% Enroll/G8	5%	10%	9%	17%	17%
All Students					
Enrollment	77	142	124	222	194
Completion ¹	45	74	76	157	156
% Enroll/G8	5%	10%	9%	17%	17%
URM ²					
Enrollment	45	74	76	157	156
Completion ¹	45	74	76	157	156
% Enroll/G8	5%	10%	9%	17%	17%



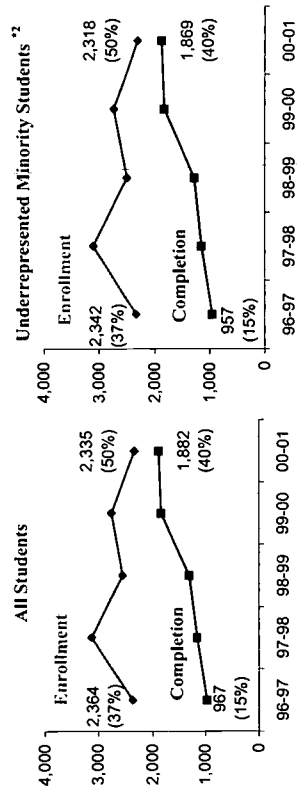
Biology Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	1,521	1,498	1,279	1,587	1,587
Completion ¹	484	497	827	780	780
All Students					
Enrollment	1,511	1,487	1,253	1,572	1,580
Completion ¹	483	493	816	771	775
URM ²					
Enrollment	483	493	816	771	775
Completion ¹	483	493	816	771	775



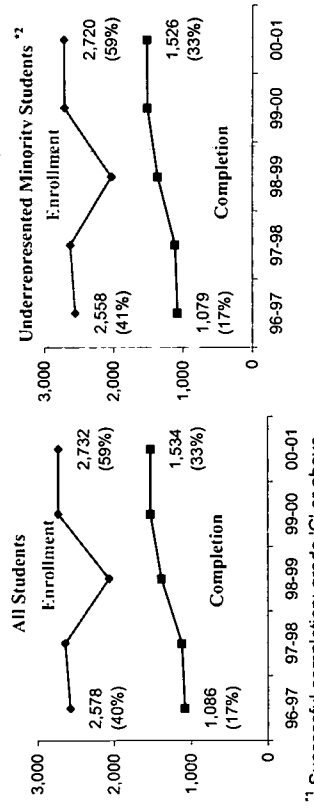
Mathematics and Science Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	6,413	6,079	5,537	5,385	4,649
Completion ¹	2,364	3,127	2,553	2,756	2,335
% Enroll/G9-12	37%	51%	46%	51%	50%
All Students					
Enrollment	2,342	3,103	2,511	2,738	2,318
Completion ¹	957	1,147	1,277	1,824	1,869
% Enroll/G9-12	37%	52%	46%	51%	50%
URM ²					
Enrollment	2,342	3,103	2,511	2,738	2,318
Completion ¹	957	1,147	1,277	1,824	1,869
% Enroll/G9-12	37%	52%	46%	51%	50%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population					
Enrollment	2,578	2,644	2,069	2,732	2,732
Completion ¹	1,086	1,122	1,392	1,534	1,534
% Enroll/G9-12	40%	43%	37%	51%	59%
All Students					
Enrollment	2,558	2,627	2,035	2,710	2,720
Completion ¹	1,079	1,116	1,370	1,519	1,526
% Enroll/G9-12	41%	44%	37%	51%	59%
URM ²					
Enrollment	2,558	2,627	2,035	2,710	2,720
Completion ¹	1,079	1,116	1,370	1,519	1,526
% Enroll/G9-12	41%	44%	37%	51%	59%

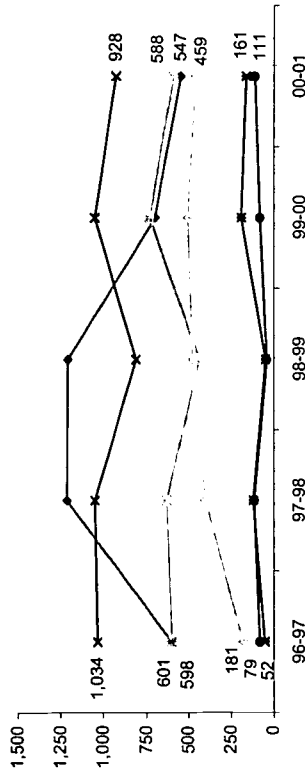


¹ Successful completion: grade 'C' or above.
² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

Mathematics Course Enrollment & Completion Trends By Subject

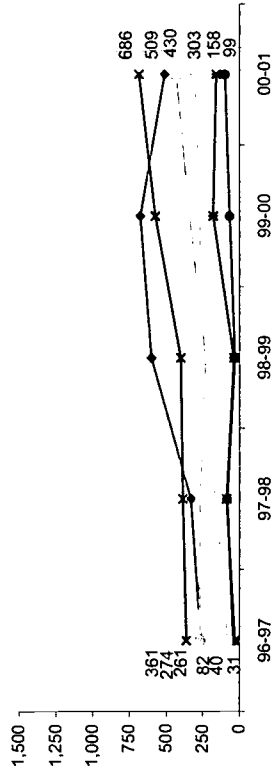
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	601	598	1,034	52	79	181	2,545
97-98	1,214	629	1,049	120	115	404	3,531
98-99	1,208	439	813	50	43	477	3,030
99-00	699	730	1,053	191	83	506	3,262
00-01	547	588	928	161	111	459	2,794



G 9-12 Course Completion ** (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	261	274	361	31	40	82	1,049
97-98	331	268	386	88	84	162	1,319
98-99	602	230	400	39	33	276	1,580
99-00	676	341	574	180	68	268	2,107
00-01	509	430	686	158	99	303	2,185

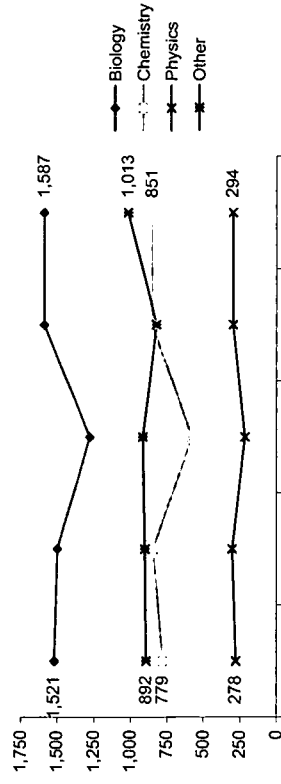


** Successful completion: grade 'C' or above.

Science Course Enrollment & Completion Trends By Subject

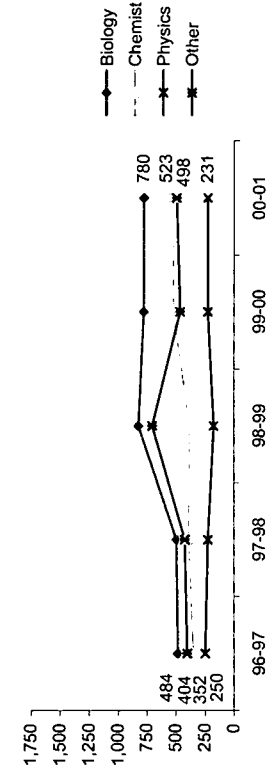
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,521	779	278	892	3,470
97-98	1,498	845	301	900	3,544
98-99	1,279	578	212	914	2,983
99-00	1,587	851	294	820	3,552
00-01	1,587	851	294	1,013	3,745



G 9-12 Course Completion ** (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	484	352	250	404	1,490
97-98	497	395	230	427	1,549
98-99	827	386	179	707	2,099
99-00	780	523	231	468	2,002
00-01	780	523	231	498	2,032

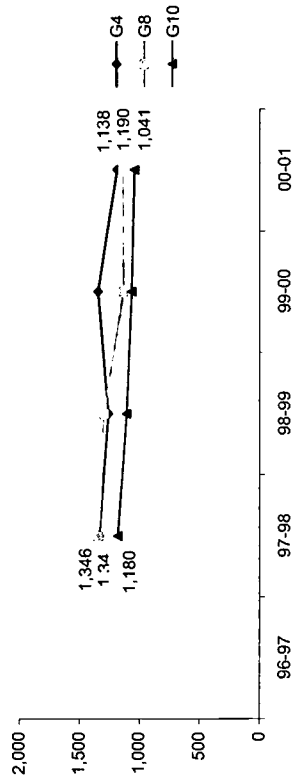


(.) Data Missing

District Assessment Test Administered

◆ Mathematics		96-97	97-98	98-99	99-00	00-01
Test Name		Terra Nova	Terra Nova	Terra Nova	Terra Nova	Terra Nova
Scoring		PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF
Grade		4,6,10	4,6,10	4,6,10	4,6,10	4,6,10
Type		NRT,CRT	NRT,CRT	NRT,CRT	NRT,CRT	NRT,CRT

Total number of students taking test



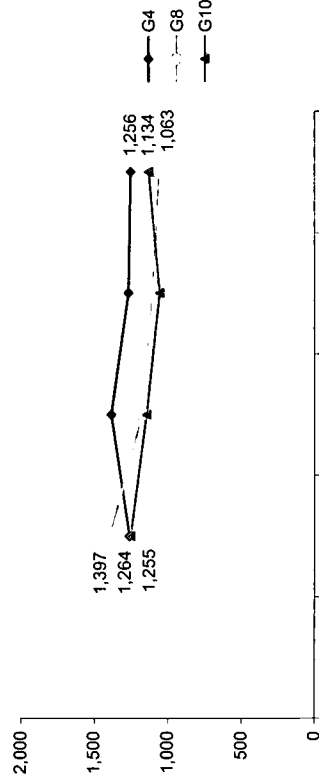
◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring		Terra Nova	Terra Nova	Terra Nova	Terra Nova
Grade		PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF
Type		4,6,10	4,6,10	4,6,10	4,6,10
		NRT,CRT	NRT,CRT	NRT,CRT	NRT,CRT

State Assessment Test Administered

◆ Mathematics		96-97	97-98	98-99	99-00	00-01
Test Name		ISTEP	ISTEP	ISTEP	ISTEP	ISTEP
Scoring		PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF
Grade		3,6,8,10	3,6,8,10	3,6,8,10	3,6,8,10	3,6,8,10
Type		NRT	NRT	NRT	NRT	NRT

Total number of students taking test



◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring		ISTEP	ISTEP	ISTEP	ISTEP
Grade		PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF	PC,SN,PL,PF
Type		3,6,8,10	3,6,8,10	3,6,8,10	3,6,8,10
		NRT,CRT	NRT,CRT	NRT,CRT	NRT,CRT

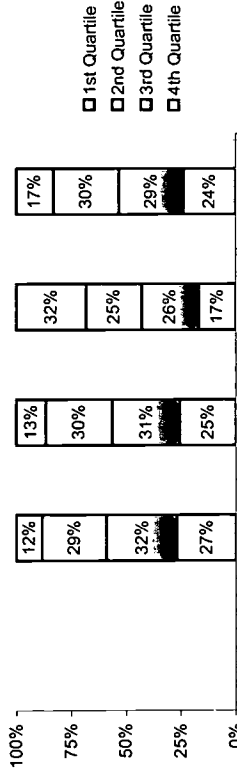
* ISTEP: Indiana State Testing for Educational Progress
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

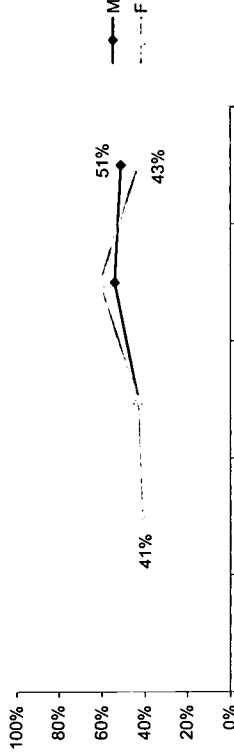
District Assessment Test Result Trends TerraNova - Mathematics

◆ Grade 4

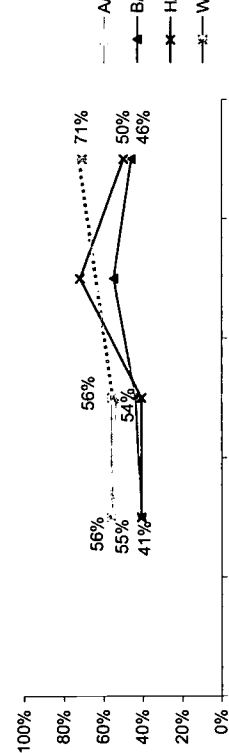
	96-97	97-98	98-99	99-00	00-01
1st Quartile	12%	13%	32%	17%	17%
2nd Quartile	29%	30%	25%	30%	30%
3rd Quartile	32%	31%	26%	29%	29%
4th Quartile	27%	25%	17%	24%	24%
Total # of students	1,341	1,261	1,350	1,190	



% Passing by Gender



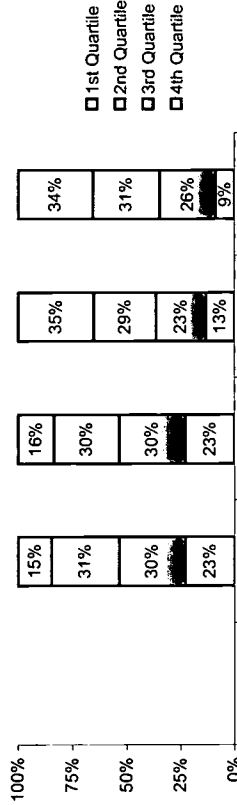
% Passing by Race/Ethnicity*1



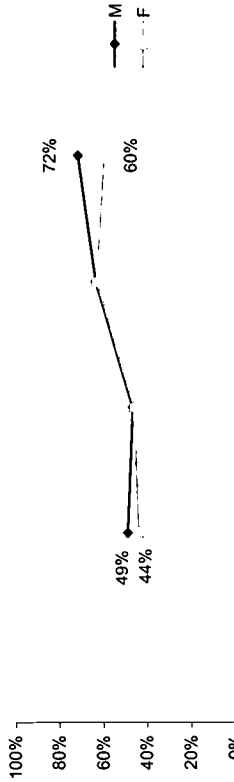
District Assessment Test Result Trends TerraNova - Mathematics

◆ Grade 8

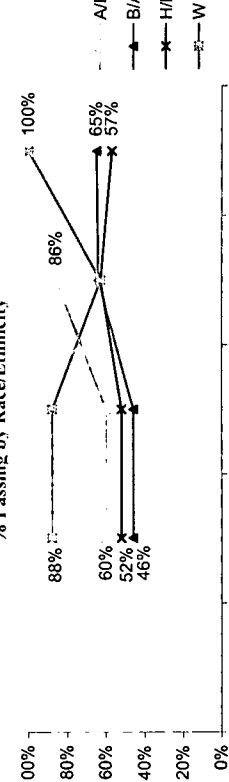
	96-97	97-98	98-99	99-00	00-01
1st Quartile	15%	15%	16%	35%	34%
2nd Quartile	31%	31%	30%	29%	31%
3rd Quartile	30%	30%	30%	23%	26%
4th Quartile	23%	23%	23%	13%	9%
Total # of students	1,346	1,298	1,135	1,138	



% Passing by Gender



% Passing by Race/Ethnicity*1



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

*1 % Passing not presented in graph for sample size less than 5

Gary CPMSA

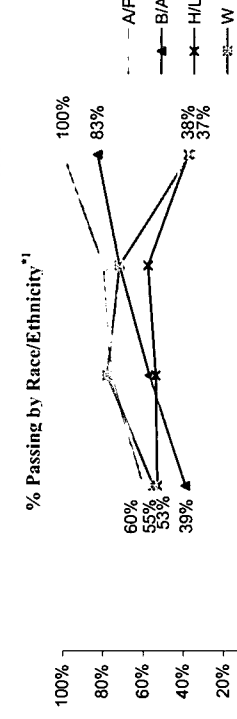
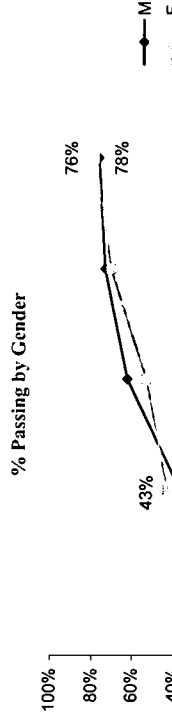
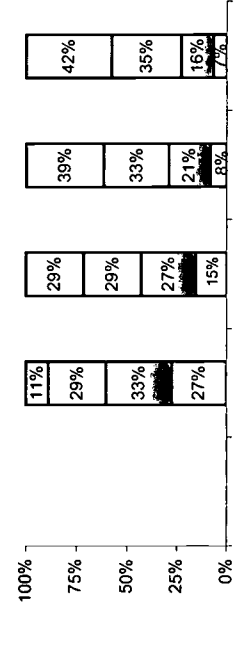
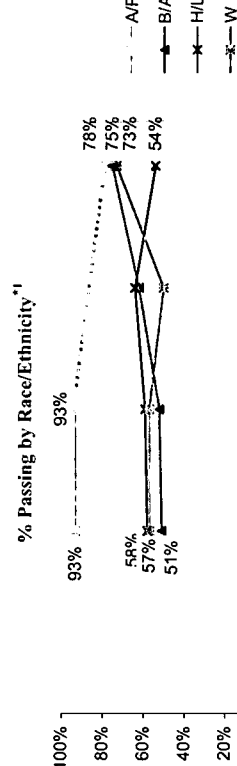
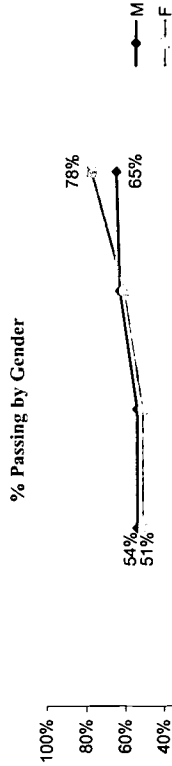
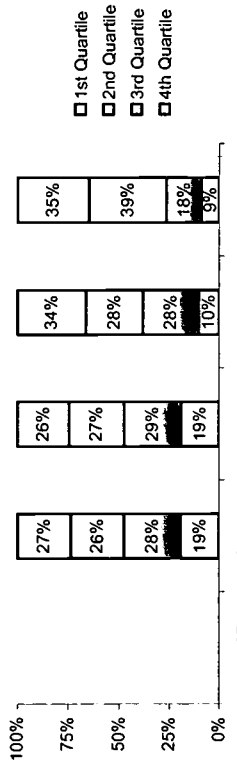
District Assessment Test Result Trends TerraNova - Science

District Assessment Test Result Trends ISTEP - Mathematics

◆ Grade 4

◆ Grade 10

	96-97	97-98	98-99	99-00	00-01
1st Quartile	11%	29%	29%	39%	42%
2nd Quartile	29%	29%	29%	33%	35%
3rd Quartile	33%	27%	27%	21%	16%
4th Quartile	27%	15%	8%	7%	7%
Total # of students	1,264	1,388	1,271		1,256



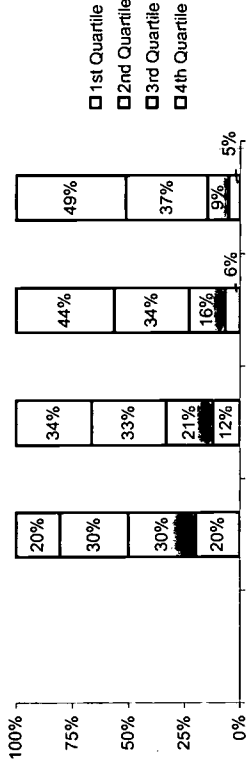
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as 1st and 2nd quartile
 *1 % Passing not presented in graph for sample size less than 5

Gary CPMSA

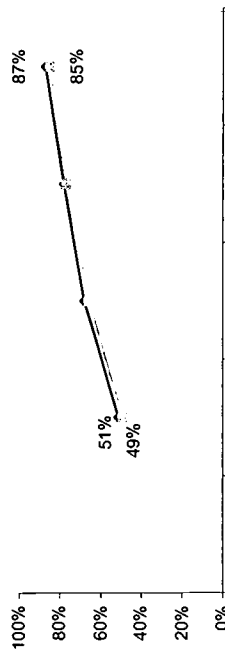
District Assessment Test Result Trends TerraNova - Science

Grade 8

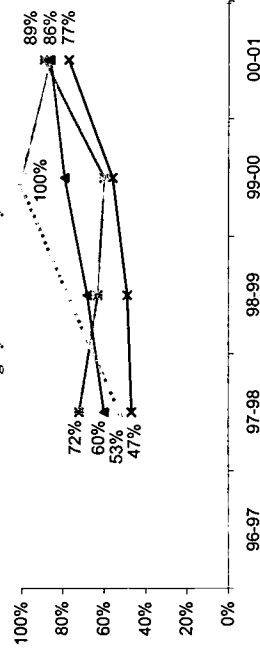
	96-97	97-98	98-99	99-00	00-01
1st Quartile	20%	20%	34%	44%	49%
2nd Quartile	30%	30%	33%	34%	37%
3rd Quartile	30%	20%	21%	16%	9%
4th Quartile	20%	20%	12%	6%	5%
Total # of students	1,397	1,176	1,110	1,063	



% Passing by Gender



% Passing by Race/Ethnicity¹



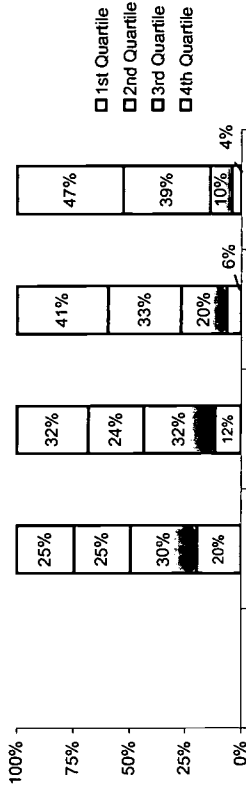
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ % Passing defined as 1st and 2nd quartile

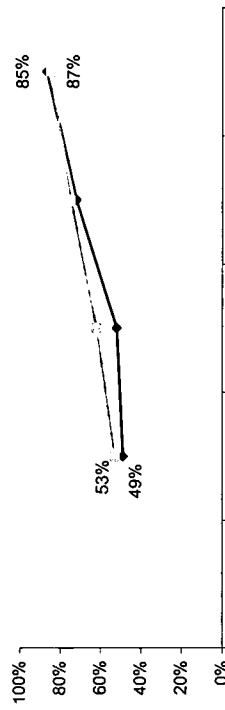
District Assessment Test Result Trends ISTEP - Science

Grade 10

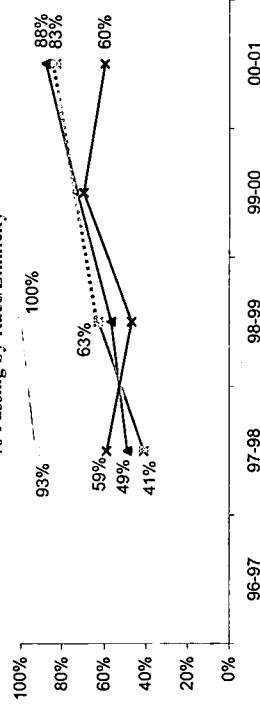
	96-97	97-98	98-99	99-00	00-01
1st Quartile	25%	25%	32%	41%	47%
2nd Quartile	25%	25%	24%	33%	39%
3rd Quartile	30%	30%	32%	20%	10%
4th Quartile	20%	20%	12%	6%	4%
Total # of students	1,255	1,147	1,059	1,134	



% Passing by Gender



% Passing by Race/Ethnicity¹



¹ % Passing not presented in graph for sample size less than 5

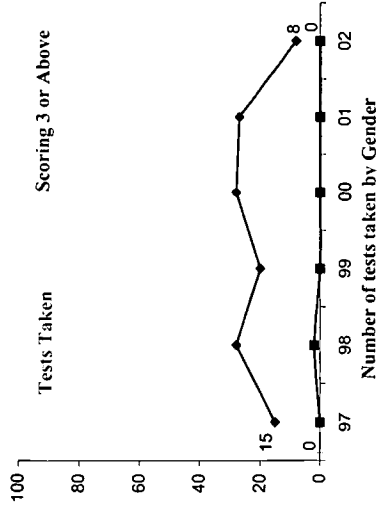
Gary CPMSA

AP Mathematics Test Result Trends | **Calculus AB, Calculus BC, & Statistics**

AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,774	2,768	2,196	2,436	2,103	-
Calc. AB	15	28	20	28	27	8
Calc. BC	0	0	0	0	0	0
Statistics	0	0	0	0	0	0
Total	15	28	20	28	27	8
Tests taken per 1,000 students	5.4	10.1	9.1	11.5	12.8	-
Scoring 3 or Above	0	2	0	0	0	0
Above per 1,000	0.0	0.7	0.0	0.0	0.0	-

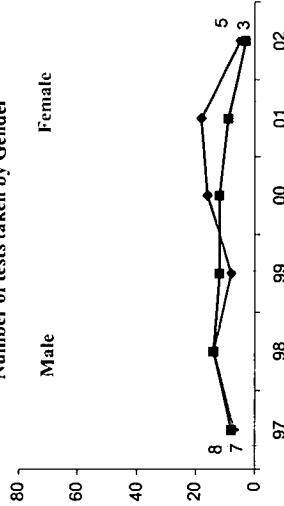
Number of tests taken and scoring 3 or Above



AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	8	14	12	12	9	3
Female	7	14	8	16	18	5

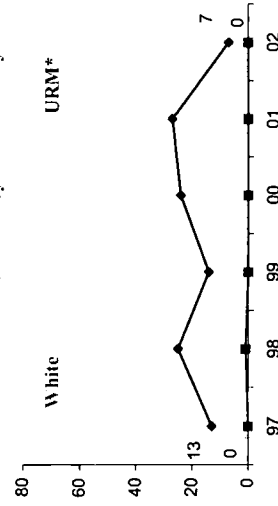
Number of tests taken by Gender



AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	0	1	0	0	0
A/PI	0	0	0	0	0	0
B/AA	12	25	13	23	26	7
H/L	1	0	0	1	1	0
W	0	1	0	0	0	0

Number of tests taken by Race/Ethnicity



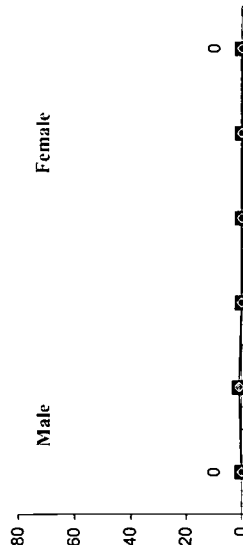
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	0	1	0	0	0	0
Female	0	1	0	0	0	0

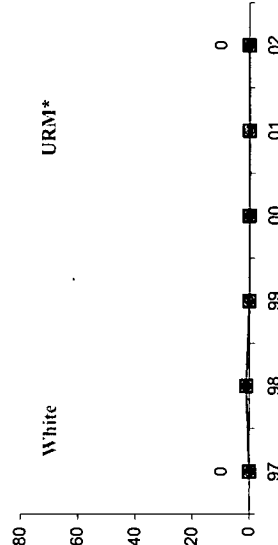
Male Female



AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	1	0	0	0	0
H/L	0	0	0	0	0	0
W	0	1	0	0	0	0

White URM*



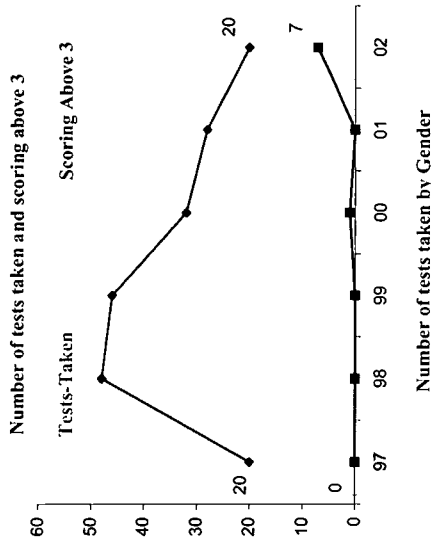
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Gary CPMSA

AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

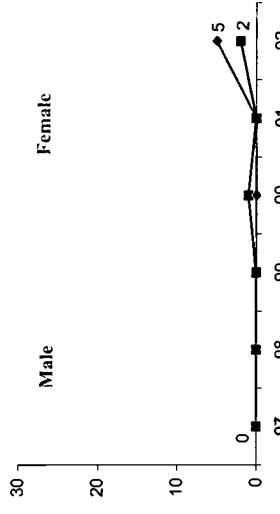
♦ **AP Science - Total Number of Tests Taken**

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,774	2,768	2,196	2,436	2,103	
Biology	10	20	20	13	16	11
Chemistry	10	12	14	10	4	4
Env. Science	0	0	0	0	0	0
Physics B	0	16	12	9	8	5
Physics Mech.	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0
Total	20	48	46	32	28	20
Tests taken per 1,000 students	7.2	17.3	20.9	13.1	13.3	
Scoring 3 or Above	0	0	0	1	0	7
Scoring 3 or Above per 1,000	0.0	0.0	0.0	0.4	0.0	



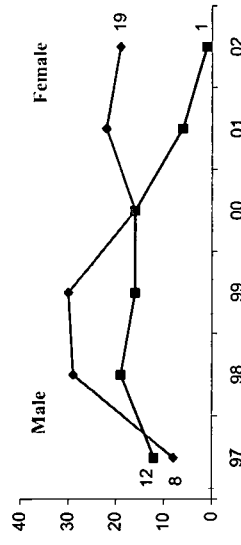
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	97	98	99	00	01	02
Male	0	0	0	1	0	2
Female	0	0	0	0	0	5



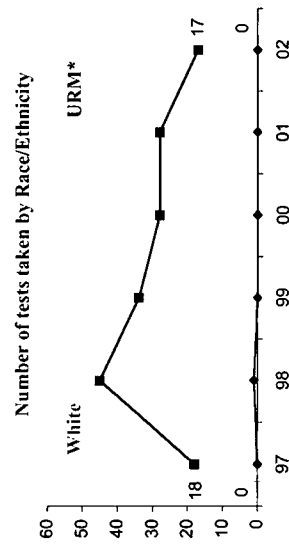
♦ **AP Science - Number of Tests Taken By Gender**

	97	98	99	00	01	02
Male	12	19	16	16	6	1
Female	8	29	30	16	22	19



♦ **AP Science - Number of Tests Taken By Race/Ethnicity¹**

	97	98	99	00	01	02
A/AN	0	0	1	0	0	0
A/PI	0	0	0	0	0	0
B/AA	17	44	33	19	26	17
H/L	1	1	0	9	2	0
W	0	1	0	0	0	0



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹**

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	1	0	0
B/AA	0	0	0	1	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

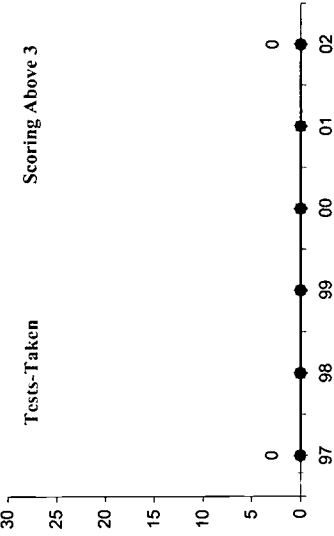


◆ Computer Science A & AB

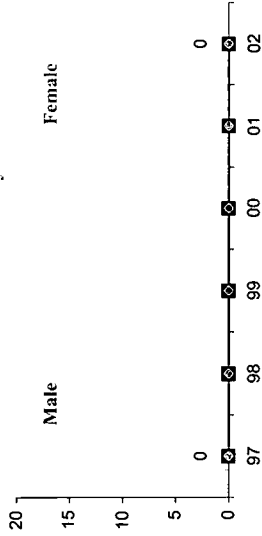
AP Computer Science Test Result Trends

	97	98	99	00	01	02
◆ AP Computer Science - Total Number of Tests Taken	2,774	2,768	2,196	2,436	2,103	
Total # of 11th & 12th graders						
Comp. Sci A	0	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0
Total	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	0.0	0.0
Scoring 3 or Above	0	0	0	0	0	0
Scoring 3 or Above per 1,000	0.0	0.0	0.0	0.0	0.0	0.0

Number of tests taken and scoring above 3



Number of tests taken by Gender



◆ AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0

◆ AP Computer Science - Number of Tests Taken By Race/Ethnicity**1

Race/Ethnicity	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

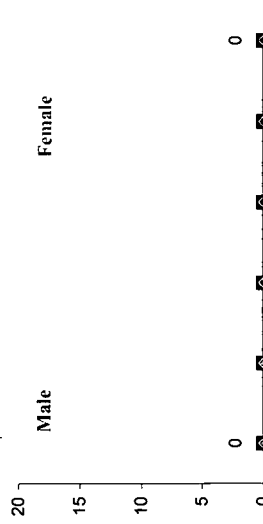
AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

**1 "Other" category not presented

◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0

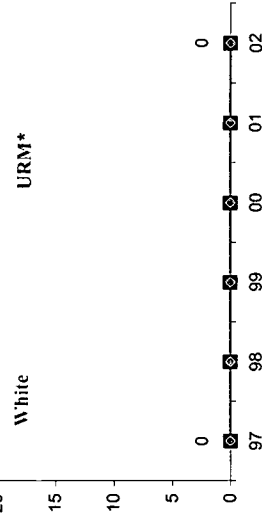
Number of students scoring 3 or above by gender



◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity**1

Race/Ethnicity	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

Number of students scoring 3 or above by Race/Ethnicity



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

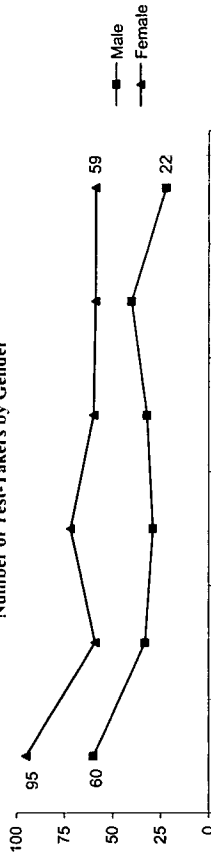
Gary CPMSA

ACT Test-Takers

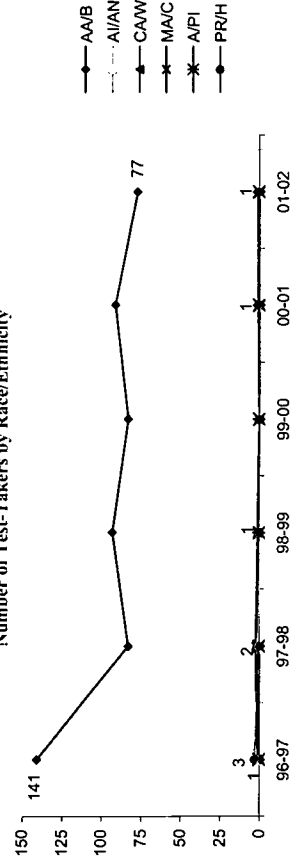
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,299	1,400	1,166	1,037	975	-
Test-Takers	155	92	101	92	100	81
Num of Test-Takers/1,000 Stu.	119	66	87	89	103	-
Gender						
Male	60	33	29	32	40	22
Female	95	59	72	60	59	59
Race/Ethnicity						
AA/B	141	83	93	83	91	77
AI/AN	0	0	0	0	0	0
CA/W	0	0	1	0	0	0
MA/C	1	2	1	0	0	0
A/PI	0	0	0	0	0	0
PR/H	3	0	0	0	1	1

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



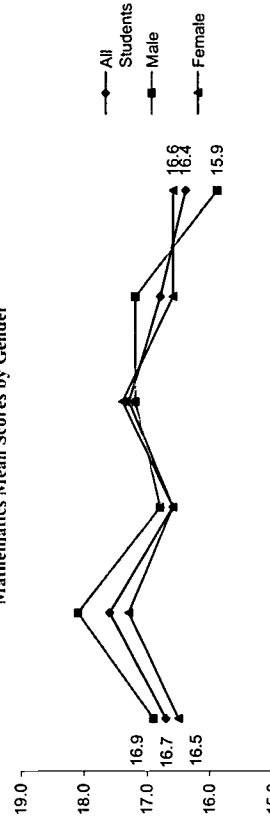
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic. (-) Mean scores not presented for sample size less than 5

ACT Mathematics Scores

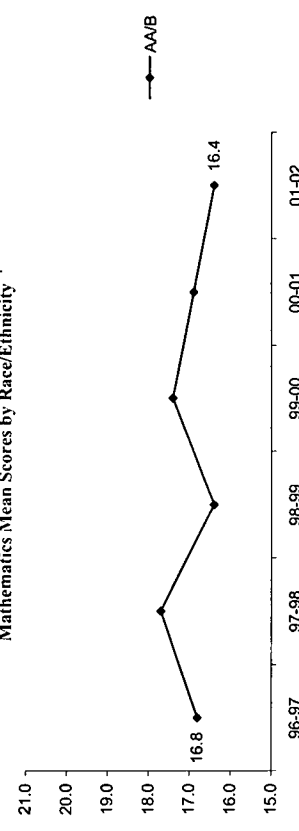
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	16.7	17.6	16.6	17.3	16.8	16.4
Gender						
Male	16.9	18.1	16.8	17.2	17.2	15.9
Female	16.5	17.3	16.6	17.4	16.6	16.6
Race/Ethnicity						
AA/B	16.8	17.7	16.4	17.4	16.9	16.4
AI/AN	-	-	-	-	-	-
CA/W	-	-	-	-	-	-
MA/C	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
PR/H	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity¹



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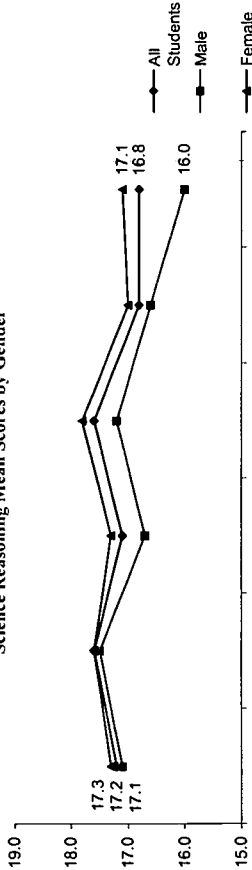
SY 2000-01

ACT Science Reasoning Scores

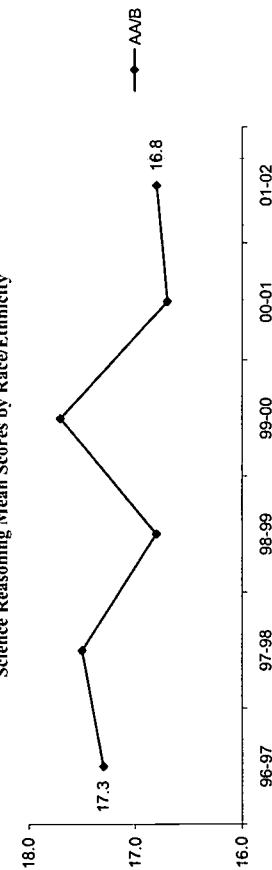
◆ Science Reasoning - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.2	17.6	17.1	17.6	16.8	16.8
Gender						
Male	17.1	17.5	16.7	17.2	16.6	16.0
Female	17.3	17.6	17.3	17.8	17.0	17.1
Race/Ethnicity						
AA/B	17.3	17.5	16.8	17.7	16.7	16.8
AI/AN	-	-	-	-	-	-
CA/W	-	-	-	-	-	-
MA/C	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
PR/H	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White
MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

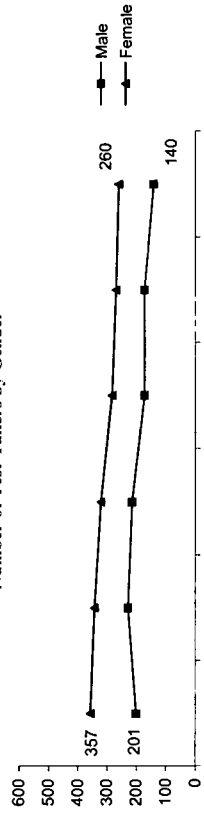
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

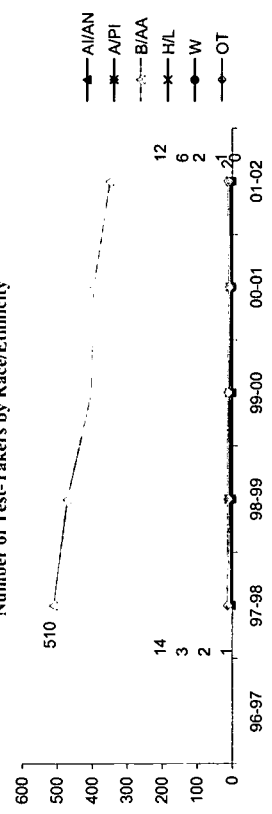
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,299	1,400	1,166	1,117	975	.
Test-Takers	558	571	534	455	442	400
Num of Test-Takers/1,000 Stu.	430	408	458	407	453	.
Gender						
Male	201	228	214	173	172	140
Female	357	343	320	282	270	260
Race/Ethnicity						
AI/AN	2	2	1	2	3	1
A/PI	3	3	4	1	1	0
B/AA	510	510	472	403	397	350
H/L	14	14	10	9	7	6
W	1	1	1	2	0	2
OT	14	14	14	14	9	12

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

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SAT Mathematics Scores

◆ Mathematics - Mean Score Trends

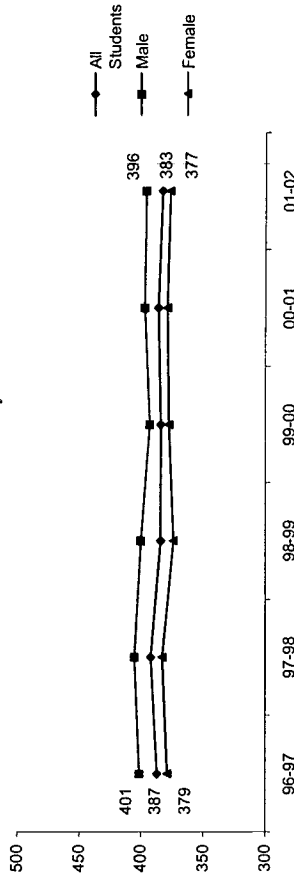
	96-97	97-98	98-99	99-00	00-01	01-02
All Students	387	392	384	384	386	383
Gender						
Male	401	405	400	393	397	396
Female	379	383	374	378	379	377
Race/Ethnicity						
A/AN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	-	393	382	386	386	380
H/L	-	385	418	417	406	382
W	-	-	-	-	-	-
OT	-	419	453	349	352	439

SAT Verbal Scores

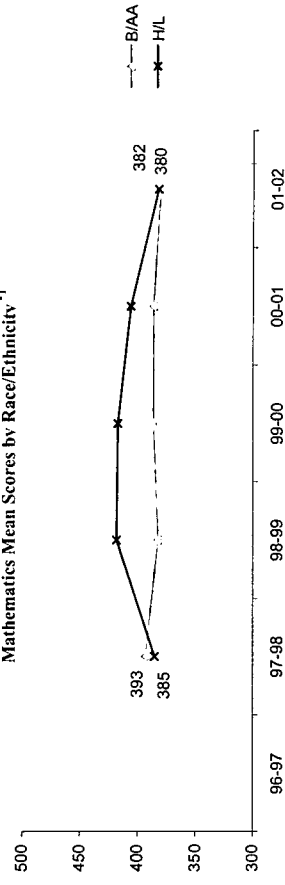
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	406	410	403	401	400	393
Gender						
Male	415	411	404	405	400	392
Female	400	410	401	398	401	394
Race/Ethnicity						
A/AN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	-	410	401	400	401	391
H/L	-	444	420	436	400	398
W	-	-	-	-	-	-
OT	-	467	489	424	394	424

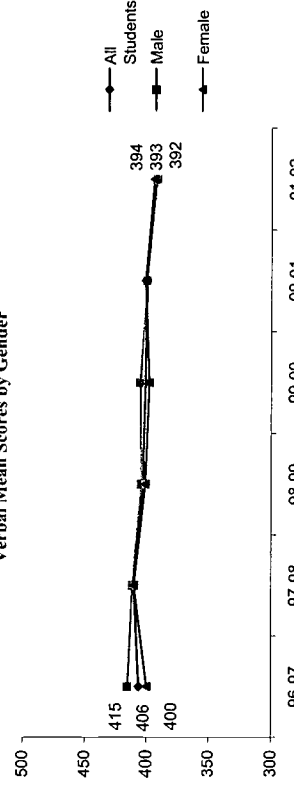
Mathematics Mean Scores by Gender



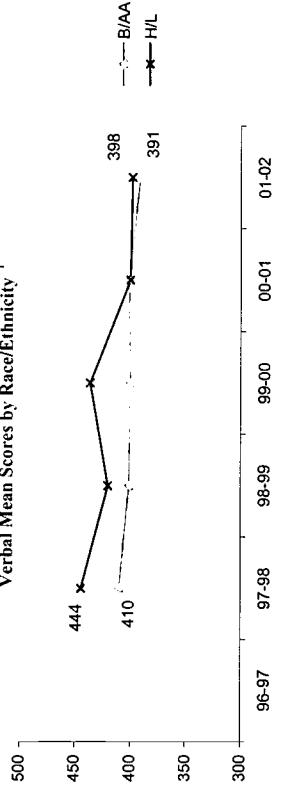
Mathematics Mean Scores by Race/Ethnicity *1



Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity *1



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

Cohort/Scale-Up Approach

Number of District Schools	97-98 ¹	98-99 ²	99-00 ²	00-01 ²
CPMSA Schools:	35	35	35	34
% Schools:	100%	100%	100%	100%

¹ Source: TISC 1997-98

² Source: CDE 1999 -2001

Primary Decision Making Body

- Standards Curriculum
- Curriculum/TextBook Adoption
- Student Assessment
- Professional Development
- Resources
- Teacher Hiring
- Teacher Contracts
- Certification & Re-certification
- Graduation Requirements
- School-Based Management?

Special Education and Bilingual Students: Strategies such as staff development were in place, but were not universally employed due to limited resources.

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

- Graduation Requirements:
 - 6 Carnegie units for Math
 - The State and District's requirement of the GQE (Graduation Equivalency Exam) in addition to State ISTEP Exam
 - 4 Carnegie units for Science
 - The State and District's requirement of the GQE (Graduation Equivalency Exam)
 - Title I tutoring was available after school.

- Student Support Systems:
- Summer programs:
 - The district provided mathematics tutorials, summer school, Competitive Edge (Mathematics/ Science and Technology)
 - Summer Health Science (pursuing health professions).

Policies Promoting Equal Access by All Students in High Quality Education

- Student Tracking:
 - To some degree
- Criteria for Entry into High Level Mathematics and Science Courses:
 - Pre-requisites such as Algebra I and Biology I are required for entry into upper level Math/Science courses.
 - Upper level courses were not offered at every high school.

Instructional Time:

Standards-based Curriculum and Instruction

Standards Adopted: State Standards

% of Students Experiencing Standards-based Curricula:	E	5%
	M	16%
	H	18%

% Students given for baseline year 1996-97 only

Policies Relevant to Teacher Qualifications

Certification:

- Teacher certification requires a B.S. degree, evidence of passing the NTE and PFPST, 3.0 cumulative GPA on 4.0 scale and 3.0 GPA in the major of study.

Requirement & Hiring Practices

- Limited licensed teachers (15 hrs in content area) are hires if they had a 2.5 GPA on a 4.0 scale and a 3.0 GPA in subject area. Teachers cannot teach subject for which they are not certified.

Professional Advancement & Leadership Training:

- No specific amount of professional development was required. Content specific programs were more discrete specializing in content areas in mathematics and science.

E: Elementary School M: Middle School H: High School

Policies Relevant to Curriculum

- Framework: State Standards
- Curricula:
 - The curriculum uses a textbook driven approach.

New Courses Added as a Result of CPMSA:

- Upper level courses were not offered at every high school.

Professional Development Policies and Practices

Impact on Student Achievement: Professional development is used to guide teaching focus.

Time Required or Supported: No specific number required

Financial Resources Provided: CPMSA funds

Alignment to Student Standards: To some degree; science/ mathematics supervisors recommended topics for professional development based on teachers' instructional practices:

Type and Amount Received by Average Math/Science Teacher: No specific amounts or types were required.

Evaluation Instruments: No evaluation instruments were reported. Follow-up was the responsibility of the principals who were to ensure that instructional practices reflected professional development.

Professional Development Alignment to Content Standards Measures: Yes, based on the results of ISTEP, the focus of Professional Development was on mathematics and language arts content.

Teacher's Instructional Practices Evaluation: Observation by the Principal or Assistant Principal

Teachers receive feedback during one-to-one conference and a written report.

Partnerships

Other Key Initiatives: D.A.D.S. (Dads Are Doing Something)

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums: CTBS was somewhat aligned to district curriculum standards.

Assessments Used: Math: ISTEP (State) Indiana State Tests of Educational Progress for Grades 3, 6, 8 and 10

Science: CTBS

CPMSA Leadership, Governance, and Management

Superintendent: Mary E. Guinn

Continuity of Leadership

Project Directors position in district's organizational structure: Reports directly to superintendent; directly oversees the implementation of CPMSA program.

Teacher Leaders: Science/ Mathematics specialists assist teachers in the classroom.

Science and Math Coordinators

Competing Initiatives: None

Community Stakeholders: Parents

Higher Education: Purdue University, Indiana University, Valparaiso University

Business and Industry: Gary Accord Consortium, United States Navy

Accountability

Program Effectiveness Monitoring: CPMSA effectiveness was monitored by the external evaluator.

Report Card System: No

Key Indicator Data Collection: Technician collects and maintains records in addition to planning. Key Indicator Data was collected and maintained by the Data Processing Department.

Key Indicator Data Use: To review the curriculum, mainly mathematics and language arts. Student test data is used to establish strategies for student achievement such as staff development programs.

Local On-Sight Evaluation: Internal Evaluator designed an assessment instrument to evaluate design, methodology, presentation of data summary, conclusions and recommendations

Data Manager: Dr. John Jackson

External Evaluator: Dr. Larry Cross

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

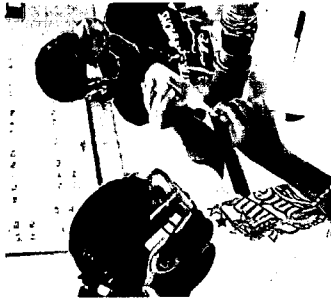
School Year	Policy Implemented

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Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented

CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement



Jackson Public Schools, MS
Jackson, MS

Project Information

CPMSA Project Title : Comprehensive Partnership for Math and Science Achievement

Cohort: 97

CPMSA Web Site:

◆ **PI, CO-PI and PD**

- Co-Principle Investigator
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- Co-Principle Investigator
Dr. Gene Fite 913-551-3645 913-551-3647
gefite@gw.kckps.k12.ks.us

◆ **CPMSA Data Manager/Evaluator**

Director of Education Research/Eval
William Moore 913-551-3400 913-551-3647
wmoore@gw.kckps.k12.ks.us

◆ **Mailing Address**

* 625 Minnesota Avenue
Kansas City, KS 66101

◆ **District Schools, Math & Science Teachers, and Students**

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	28	646	10,219
G6-8 (Middle)	8	88	4,783
G9-12 (High)	5	87	5,761
Total	41	821	21,584

Source: Core Data Elements (SY 2000-01)

Project Summary

This five-year project will build on the changes already taken place in Kansas City, KS school district. It is designed to have an impact on all 22,000 students in the district through focusing on enrichment, tutoring, increasing the rigor of the curriculum, extensive staff development afforded all science and math teachers. Every child in the district, as a result of this initiative, now has access to activities through after school enrichment, tutoring, OTT activities, mentors, partnerships, enrollment in college math and science courses, and summer enrichment science camps. The project is expected to have lasting impact on Kansas City students well beyond the initial five years due to system wide policy and curriculum changes made along with the capacity built into our staff through professional development.

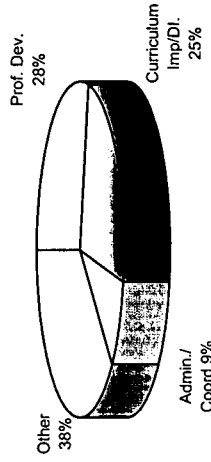
Project Goals

- ◆ To double the enrollment of students in advanced math and science classes including AP and IB courses.
- ◆ To increase the number of students in Algebra I in G8 to 75%
- ◆ To prepare 100% of the graduates to successfully complete Algebra II with a grade of "C" or higher
- ◆ To prepare 100% of the graduates to successfully complete chemistry or another advanced science lab class
- ◆ To raise the average math and science achievement test scores of students to above the 50th percentile
- ◆ To raise the average math and science scores of students on state assessments by 50%
- ◆ To complete a revised math and science curriculum that reflects the NSES and NCTM standards
- ◆ To increase teacher knowledge and use of research based teaching tools
- ◆ To increase the interest level and achievement efficacy of science/math in students

Selected School Indicators (District Average)

	96-97	99-00	Change	District	CPMSA
% Special Ed.				38%	28%
% LEP				11%	25%
% Free/Red. Lunch				14%	9%
% Daily Avg. Atten.				37%	38%
% Average Retained				100%	100%
% Drop-Out					
% Mobility					
Per Pupil Cost (\$)					
# Students Per Computer					
% Classrooms Internet Access					
Average Class Size					

CPMSA Funds %



() Data Missing

PP: Percentage Points

Student Demographics (SY 2000-01)

District Total: 20,673
 CPMSA Schools: 20,673
 Source: Core Data Elements 2000-01

	96-97	98-99	%	% Change
<i>Ame. Ind./Ala. Nat.</i>	58	69	0.3%	+19.0%
<i>Asian/P. Islander</i>	608	688	3.3%	+13.2%
<i>Black</i>	11,454	11,288	53.8%	-1.4%
<i>Hispanic</i>	2,592	2,723	13.0%	+5.1%
<i>White</i>	6,519	6,220	29.6%	-4.6%
<i>Other</i>	0	0	0.0%	.
Total	21,231	20,988	100.0%	-1.1%
URM Total	14,104	14,080	67.1%	-0.2%

URM: Underrepresented Minority students.

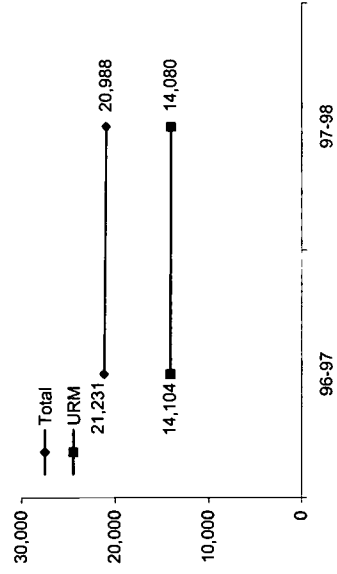
Gender

Male	10,978	10,885	51.9%	-0.8%
Female	10,253	10,103	48.1%	-1.5%

Grade

K-G5	10,318	10,218	48.7%	-1.0%
G6-8	4,873	4,782	22.8%	-1.9%
G9-12	5,737	5,760	27.4%	+0.4%
Ungraded	303	228	1.1%	-24.8%

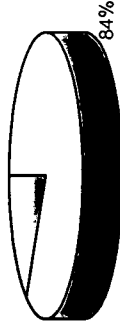
District Student Demographic Trends



12th Grade Graduates

	97-98	00-01	Change
Total 12th Grade	1,075	.	.
Earned a Diploma	903	.	.
% Earned Diploma	84%	.	.

% Earned Diploma for SY 1997-98



SEM Proficiency

	97-98	00-01	Change
# SEM Proficient ¹	128	.	.
% SEM Proficient/ Total 12th Grade	12%	.	.

% SEM Proficient for SY 1997-98



Math and Science Teachers & Certification

	98-99	00-01	Change
Mathematics (G6-12)			
Teachers Certified	46	51	+11%
% Cert.	.	.	.
G6-8			
Teachers Certified	47	51	+9%
% Cert.	.	.	.
G9-12			
Teachers Certified	93	102	+10%
% Cert.	.	.	.
Total			
Teachers Certified	140	153	+9%
% Cert.	.	.	.

Science (G6-12)

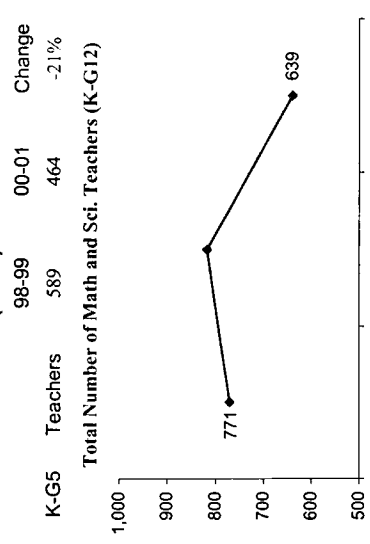
	98-99	00-01	Change
Science (G6-12)			
Teachers Certified	48	37	-23%
% Cert.	.	.	.
G6-8			
Teachers Certified	41	36	-12%
% Cert.	.	.	.
G9-12			
Teachers Certified	89	73	-18%
% Cert.	.	.	.
Total			
Teachers Certified	130	109	-15%
% Cert.	.	.	.

¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - Algebra I, Algebra II, and Geometry
 - ◆ Science
 - Physical Science, Biology and Chemistry Advanced Lab
- PP: Percentage Points (.) Data Missing

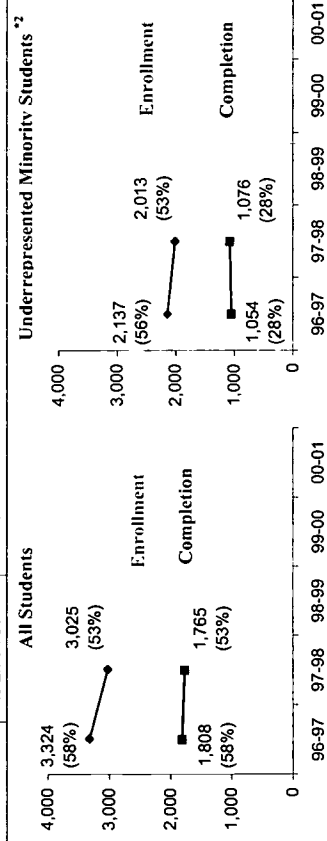
Math and Science (K-G5)



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

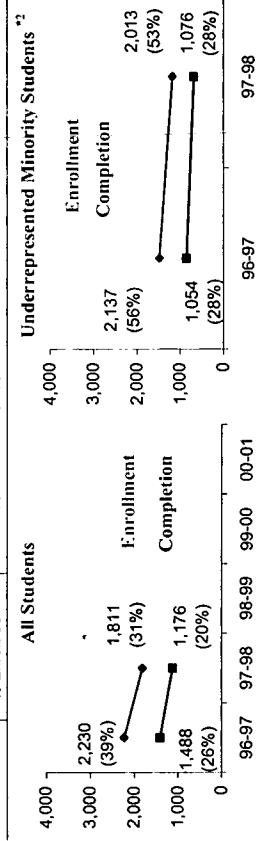
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,737	5,760			
All Students	Enrollment 3,324 Completion ¹ 1,808 % Enroll/G9-12 58%	3,025 1,765 53%			
URM ²	Enrollment 2,137 Completion ¹ 1,054 % Enroll/G9-12 56%	2,013 1,076 53%			



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,737	5,760			
All Students	Enrollment 2,230 Completion ¹ 1,415 % Enroll/G9-12 39%	1,811 1,125 31%			
URM ²	Enrollment 1,488 Completion ¹ 851 % Enroll/G9-12 39%	1,175 679 31%			

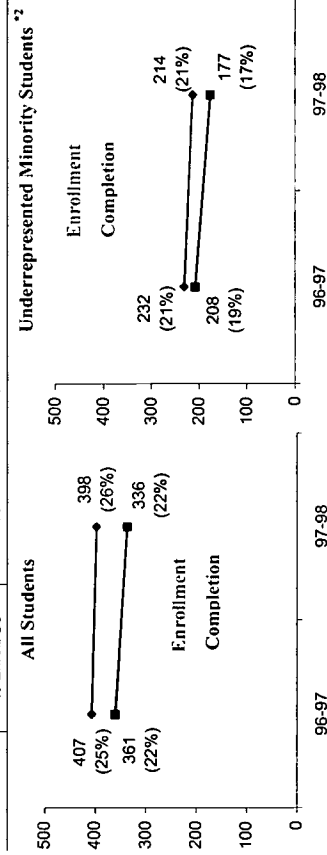


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

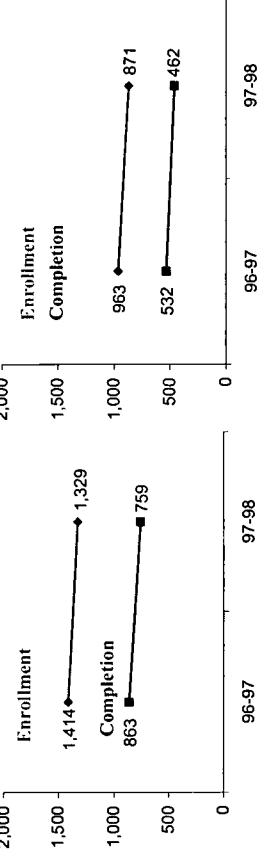
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	1,619	1,532			
All Students	Enrollment 407 Completion ¹ 361 % Enroll/G8 25%	398 336 26%			
URM ²	Enrollment 232 Completion ¹ 208 % Enroll/G8 21%	214 177 21%			



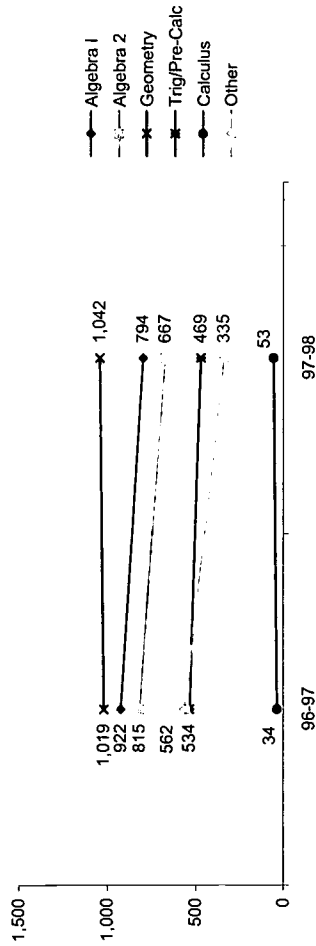
Biology Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,737	5,760			
All Students	Enrollment 1,414 Completion ¹ 863 % Enroll/G9-12 31%	1,329 759 26%			
URM ²	Enrollment 963 Completion ¹ 532 % Enroll/G9-12 26%	871 462 21%			



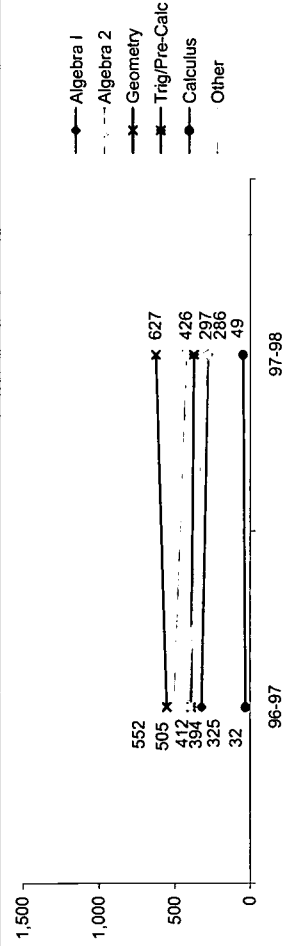
Mathematics Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	922	815	1,019	534	34	562	3,886
97-98	794	667	1,042	469	53	335	3,360
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



G 9-12 Course Completion ¹¹ (All Students)

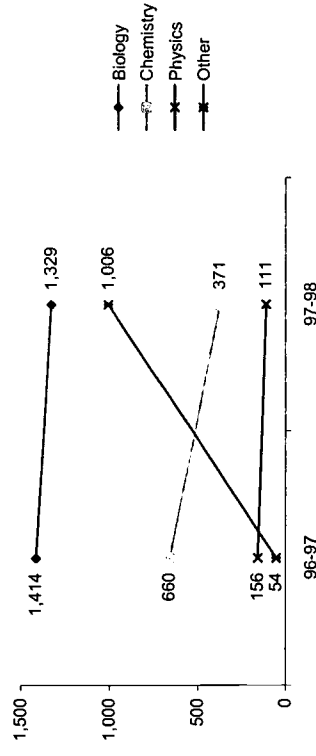
	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	325	505	552	394	32	412	2,220
97-98	286	426	627	377	49	297	2,062
98-99	.	.	.	.	.	.	.
99-00	.	.	.	.	.	.	.
00-01	.	.	.	.	.	.	.



¹¹ Successful completion: grade 'C' or above.

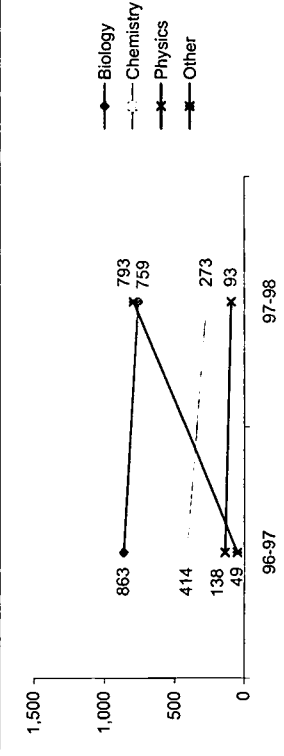
Science Course Enrollment & Completion Trends By Subject
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,414	660	156	54	2,284
97-98	1,329	371	111	1,006	2,817
98-99	.	.	.	.	.
99-00	.	.	.	.	.
00-01	.	.	.	.	.



G 9-12 Course Completion ¹¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	863	414	138	49	1,464
97-98	759	273	93	793	1,918
98-99	.	.	.	.	.
99-00	.	.	.	.	.
00-01	.	.	.	.	.



(.) Data Missing

Kansas City CPMSA

SY 2000-01

District Assessment Test Administered

Assessment Test-Taker Trends (KAM)

◆ Mathematics

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	MAT 7	MAT 7	MAT 7	MAT 7	.
Grade	3,5,6,8,9,11	3,5,6,8,9,11	3,5,6,8,9,11	3,5,6,8,9,11	.
Type	NRT	NRT	NRT	NRT	.

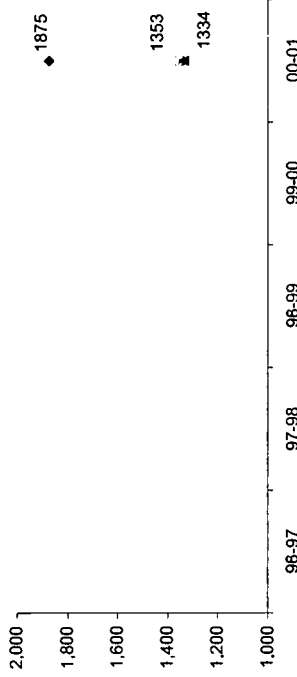
◆ Mathematics

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grade 4	1,875
Grade 7	.	Data Not Available	.	.	1,353
Grade 10	1,334

Total number of students taking test

◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	MAT 7	MAT 7	MAT 7	MAT 7	.
Grade	3,5,6,8,9,11	3,5,6,8,9,11	3,5,6,8,9,11	3,5,6,8,9,11	.
Type	NRT	NRT	NRT	NRT	.



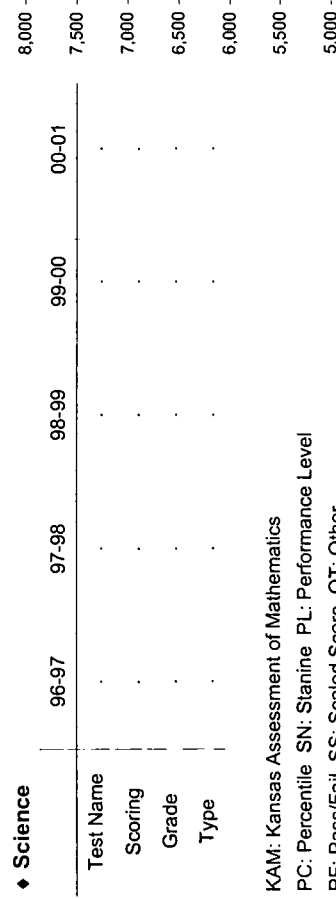
State Assessment Test Administered

◆ Mathematics

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	KAM	KAM	KAM	KAM	.
Grade	4,7,10	4,7,10	4,7,10	4,7,10	.
Type	CRT	CRT	CRT	CRT	.

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grade 4
Grade 7	.	Data Not Available	.	.	.
Grade 10

Total number of students taking test



KAM: Kansas Assessment of Mathematics
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

Kansas City CPMSA

SY 2000-01

Assessment Test Result Trends KAM - Mathematics

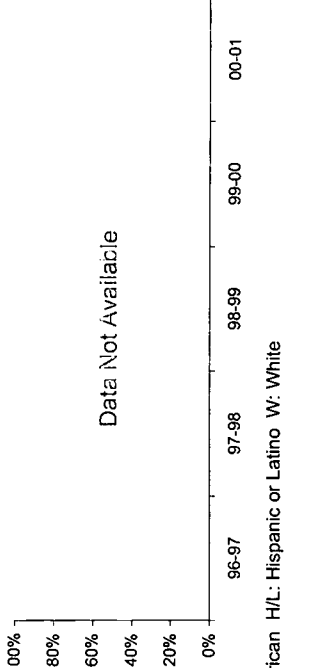
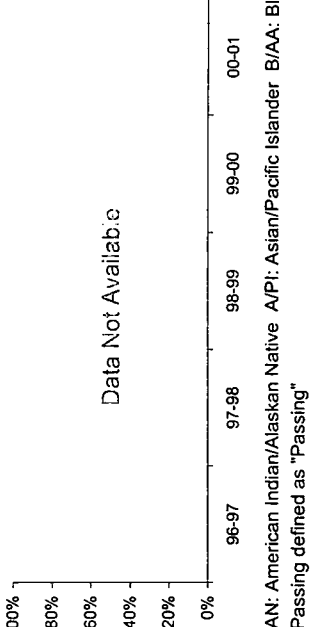
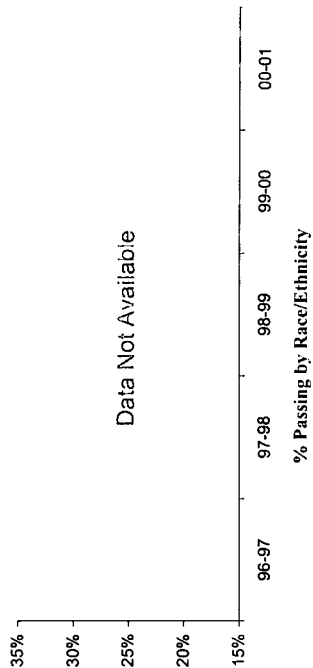
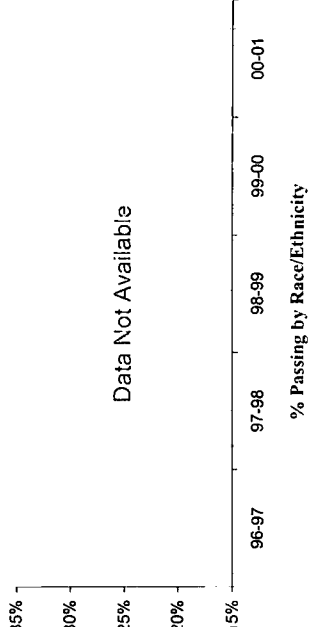
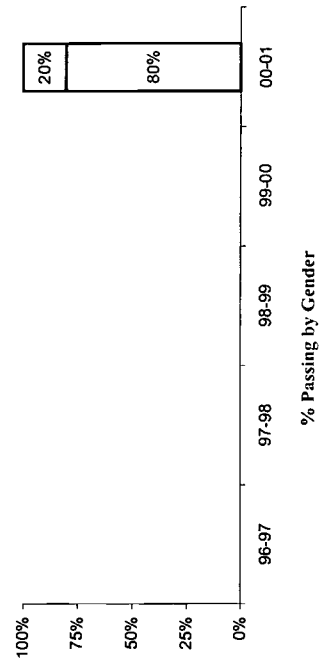
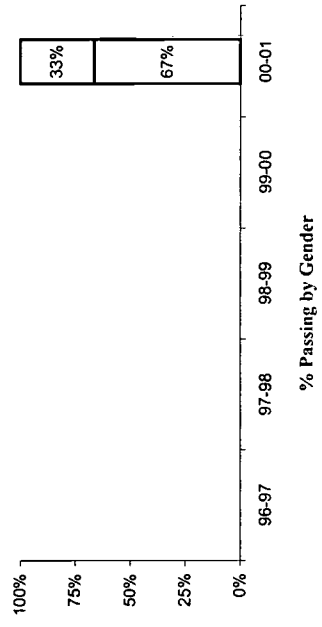
Assessment Test Result Trends KAM - Mathematics

◆ Grade 4

◆ Grade 7

Year	Passing	Failing	Total # of students
96-97			
97-98			
98-99			
99-00			
00-01	33%	67%	1,875

Year	Passing	Failing	Total # of students
96-97			
97-98			
98-99			
99-00			
00-01	20%	80%	1,353



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as "Passing"

Kansas City CPMSA

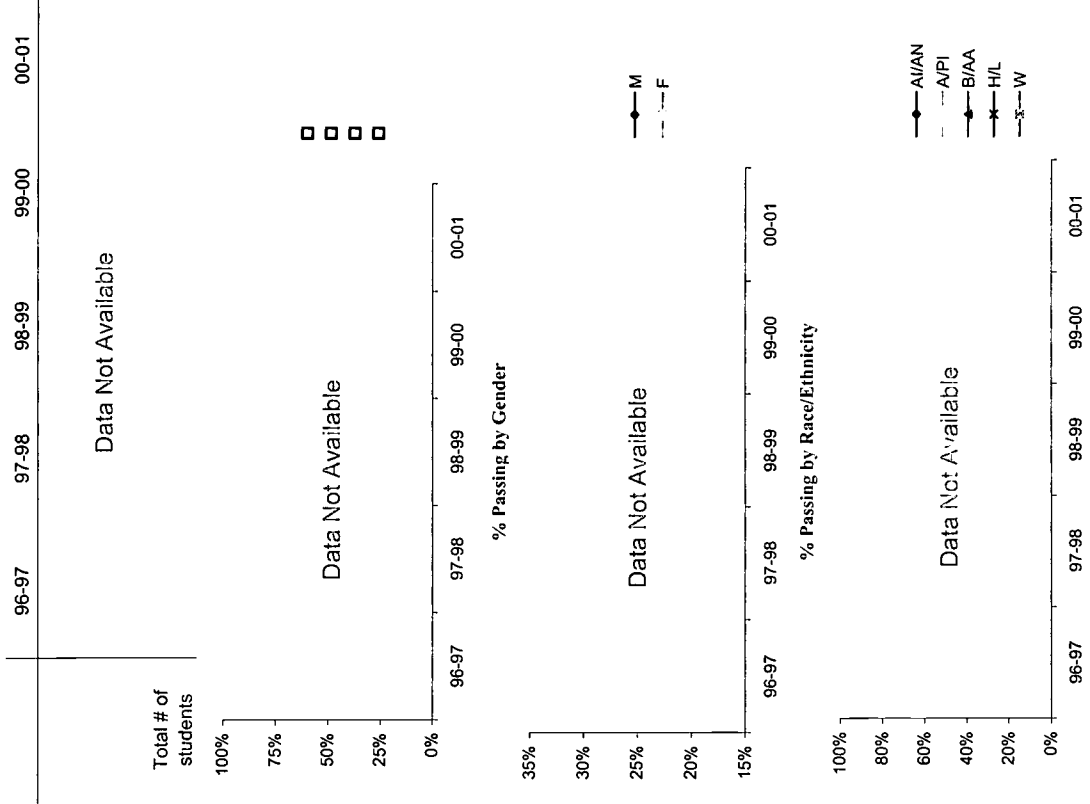
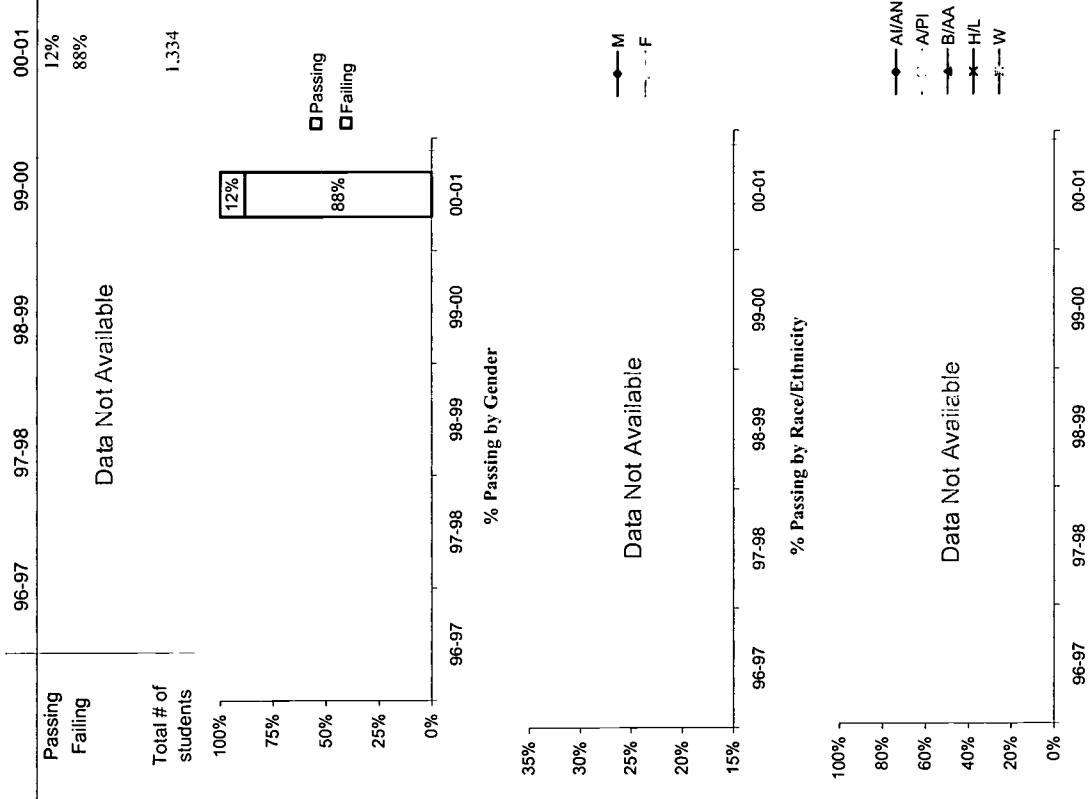
SY 2000-01

Assessment Test Result Trends KAM- Mathematics

Assessment Test Result Trends - Science

◆ Grade 10

◆ Grade 4



Legend for Race/Ethnicity charts:
 A/I/AN: American Indian/Alaskan Native
 A/PI: Asian/Pacific Islander
 B/AA: Black or African American
 H/L: Hispanic or Latino
 W: White
 % Passing defined as "Passing"

Kansas City CPMSA

SY 2000-01

Assessment Test Result Trends - Science

◆ Grade 8

Assessment Test Result Trends - Science

◆ Grade 10

96-97 97-98 98-99 99-00 00-01

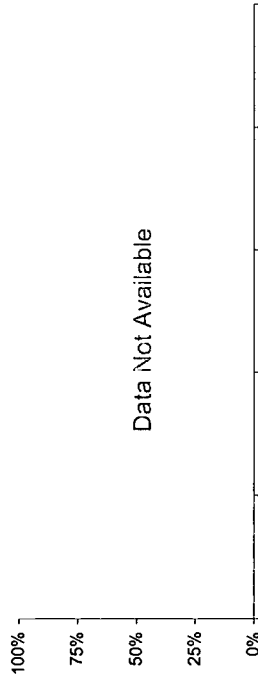
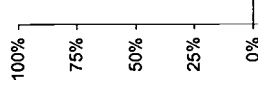
96-97 97-98 98-99 99-00 00-01

Data Not Available

Data Not Available

Total # of students

Total # of students

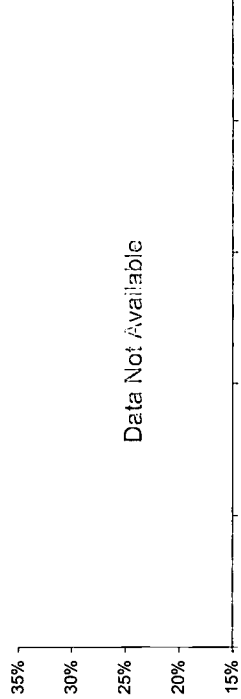
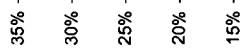


Data Not Available

Data Not Available

% Passing by Gender

% Passing by Gender

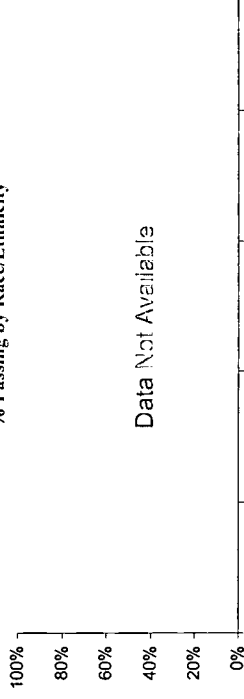
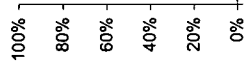


Data Not Available

Data Not Available

% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



Data Not Available

Data Not Available

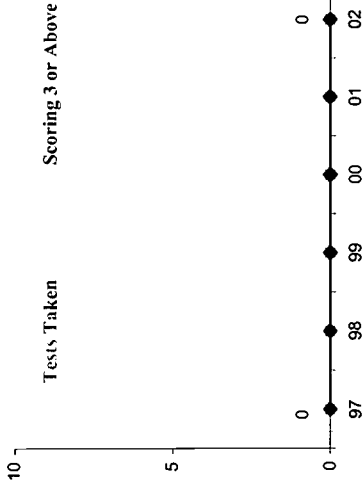
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

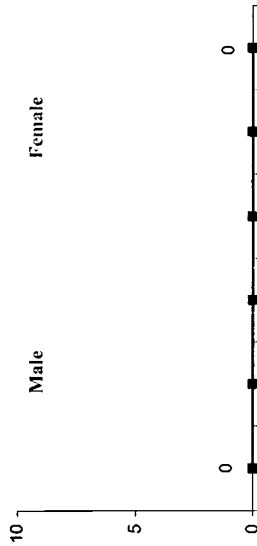
	97	98	99	00	01	02
Total # of 11th & 12th graders	1,195	2,427	.	.	.	.
Calc. AB	0	0	0	0	0	0
Calc. BC	0	0	0	0	0	0
Statistics	0	0	0	0	0	0
Total	0	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	.	.	.	.

Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

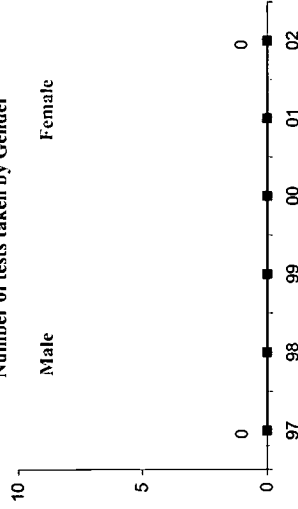
	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0



◆ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0

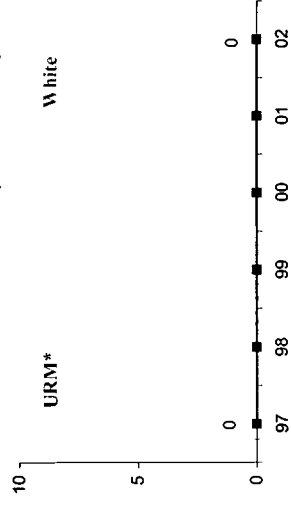
Number of tests taken by Gender



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

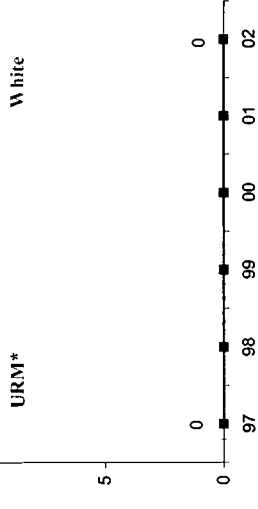
Number of tests taken by Race/Ethnicity



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Kansas City CPMSA

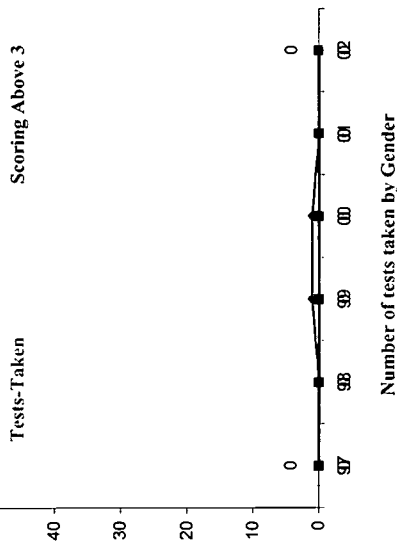
SY 2000-01

AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

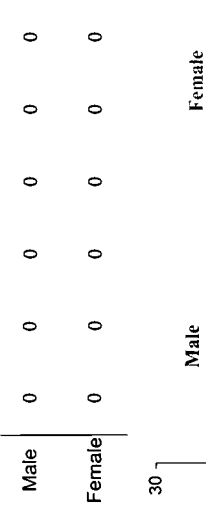
♦ **AP Science - Total Number of Tests Taken**

	97	98	99	00	01	02
Total # of 11th & 12th graders	1,195	2,427	.	.	.	.
Biology	0	0	0	0	0	0
Chemistry	0	0	1	1	0	0
Env. Science	0	0	0	0	0	0
Physics B	0	0	0	0	0	0
Physics Mech.	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0
Total	0	0	1	1	0	0
Tests taken per 1,000 students	0.0	0.0	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	.	.	.	.

Number of tests taken and scoring above 3



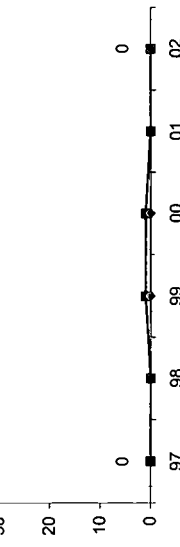
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**



♦ **AP Science - Number of Tests Taken By Gender**

	97	98	99	00	01	02
Male	0	0	1	1	0	0
Female	0	0	0	0	0	0

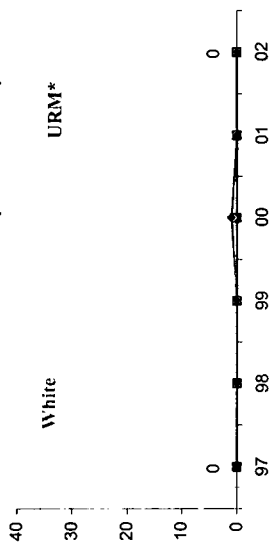
Number of tests taken by Gender



♦ **AP Science - Number of Tests Taken By Race/Ethnicity**^{*1}

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	1	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	1	0	0

Number of tests taken by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
^{*1} "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

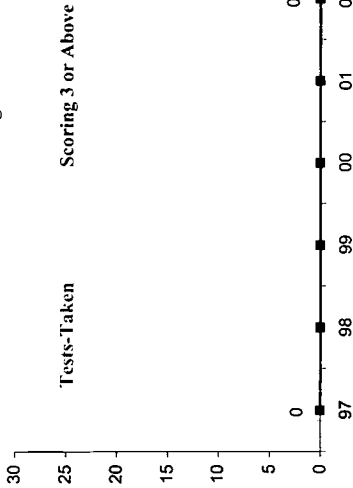
AP Computer Science Test Result Trends

Computer Science A & AB

AP Computer Science - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	.	.	.	.	.	.
Comp. Sci A	0	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0	0
Total	0	0	0	0	0	0
Tests taken per 1,000 students	.	.	.	.	.	.
Scoring 3 or Above	0	0	0	0	0	0
Scoring 3 or Above per 1000	.	.	.	.	.	.

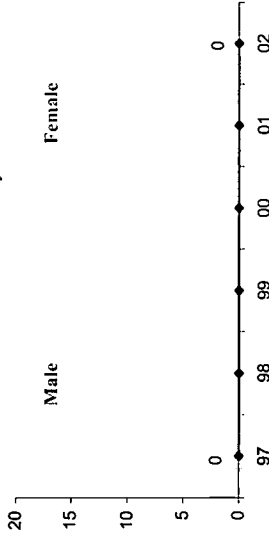
Number of tests taken and scoring 3 or Above



AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0

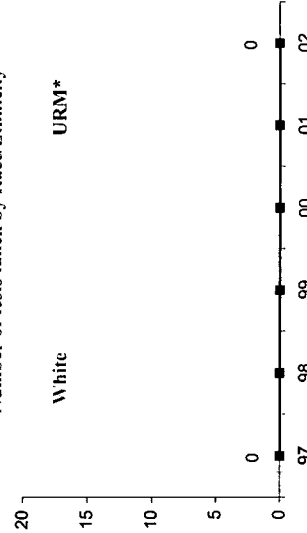
Number of tests taken by Gender



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity ¹	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity

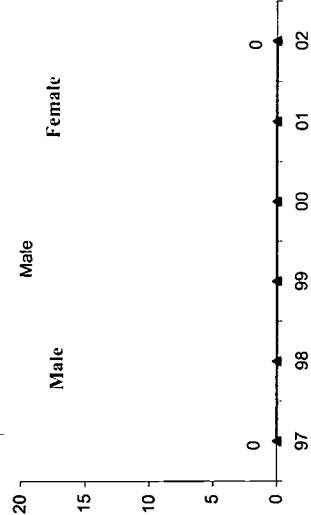


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0

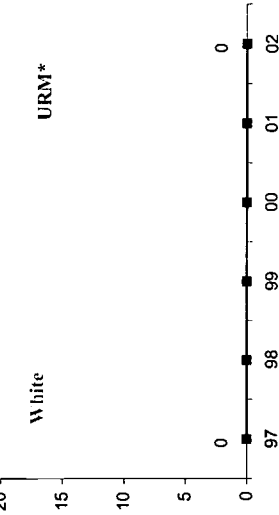
Number of students scoring 3 or above by gender



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

Number of students scoring 3 or above by Race/Ethnicity



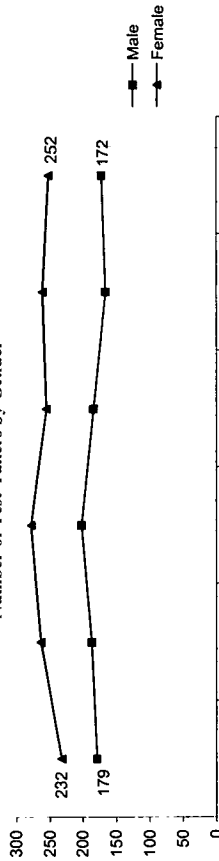
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

ACT Test-Takers

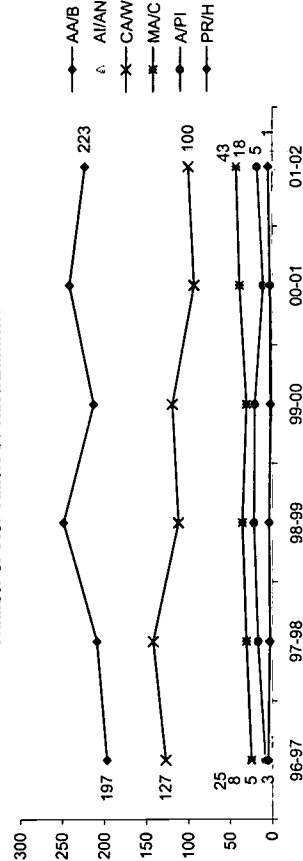
◆ **Number of Test-Takers**

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	944	1,122	.	.	.	.
Test-Takers	411	450	480	442	428	425
Num of Test-Takers/1,000 Stu.	435	401	.	.	.	.
Gender						
Male	179	187	202	184	166	172
Female	232	263	278	255	261	252
Race/Ethnicity						
AA/B	197	209	248	213	241	223
AI/AN	3	6	5	4	3	1
CA/W	127	142	112	119	93	100
MA/C	25	31	36	31	39	43
A/PI	8	17	22	21	11	18
PR/H	5	3	4	2	3	5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

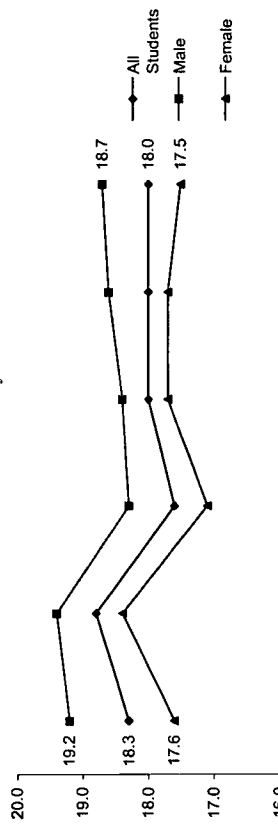
(-) Mean scores not presented for sample size less than 5

ACT Mathematics Scores

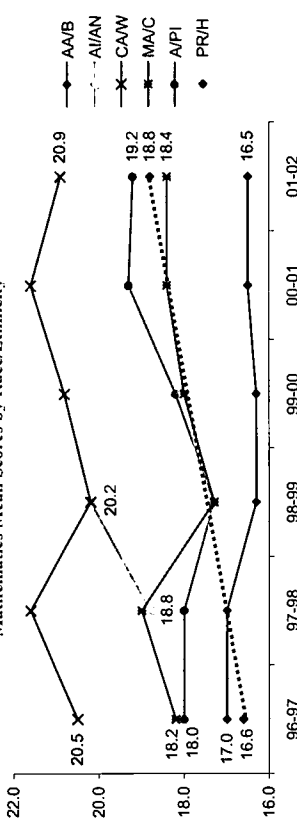
◆ **Mathematics - Mean Score Trends**

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.3	18.8	17.6	18.0	18.0	18.0
Gender						
Male	19.2	19.4	18.3	18.4	18.6	18.7
Female	17.6	18.4	17.1	17.7	17.7	17.5
Race/Ethnicity						
AA/B	17.0	17.0	16.3	16.3	16.5	16.5
AI/AN	-	18.8	20.2	-	-	-
CA/W	20.5	21.6	20.2	20.8	21.6	20.9
MA/C	18.2	19.0	17.3	18.0	18.4	18.4
A/PI	18.0	18.0	17.3	18.2	19.3	19.2
PR/H	16.6	-	-	-	-	18.8

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

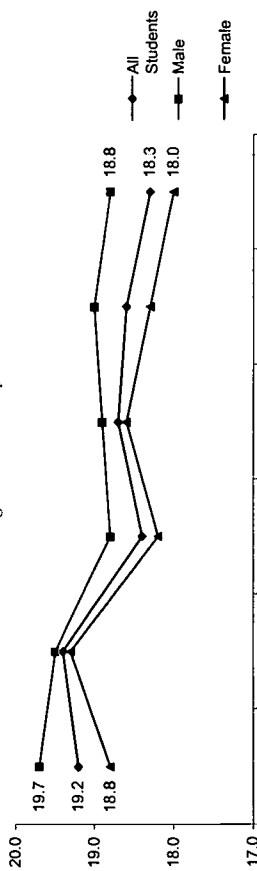


ACT Science Reasoning Scores

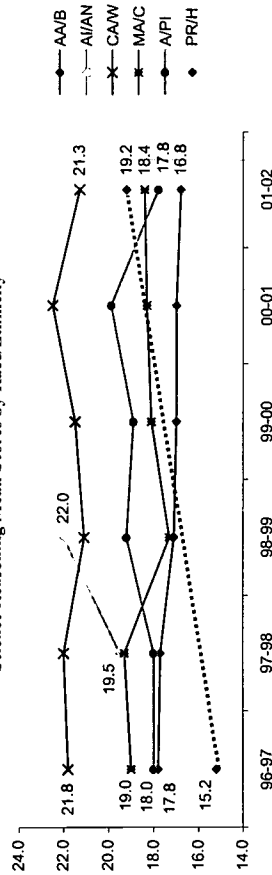
◆ **Science Reasoning - Mean Score Trends**

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.2	19.4	18.4	18.7	18.6	18.3
Gender						
Male	19.7	19.5	18.8	18.9	19.0	18.8
Female	18.8	19.3	18.2	18.6	18.3	18.0
Race/Ethnicity						
AA/B	17.8	17.7	17.1	17.0	17.0	16.8
AI/AN	-	19.5	22.0	-	-	-
CA/W	21.8	22.0	21.1	21.5	22.5	21.3
MA/C	19.0	19.3	17.3	18.1	18.3	18.4
A/PI	18.0	18.0	19.2	18.9	19.9	17.8
PR/H	15.2	-	-	-	-	19.2

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White
MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

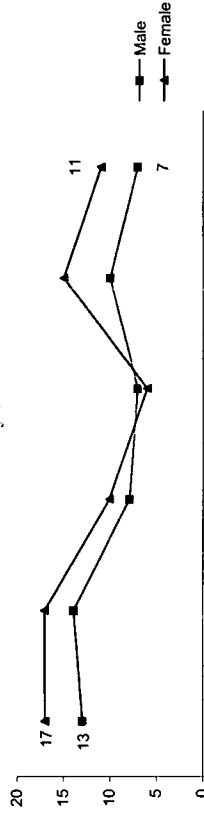
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

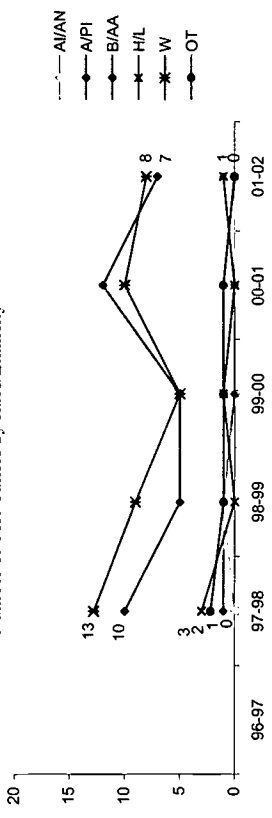
◆ **Number of Test-Takers**

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	944	1,122	.	.	.	.
Test-Takers	30	31	18	13	25	18
Num of Test-Takers/1,000 Stu.	32	29	.	.	.	.
Gender						
Male	13	14	8	7	10	7
Female	17	17	10	6	15	11
Race/Ethnicity						
AI/AN	0	0	1	0	0	0
A/PI	1	1	1	0	0	1
B/AA	10	10	5	5	12	7
H/L	3	3	0	1	0	1
W	13	13	9	5	10	8
OT	2	2	1	1	1	0

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹⁾



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American
H/L: Hispanic or Latino W: White OT: Others

(.) Data Missing

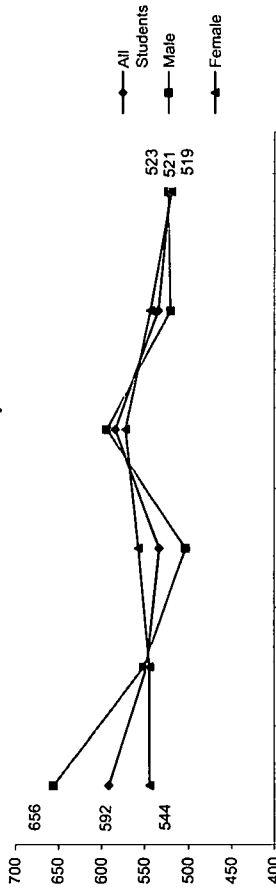
Kansas City CPMSA

SAT Mathematics Scores

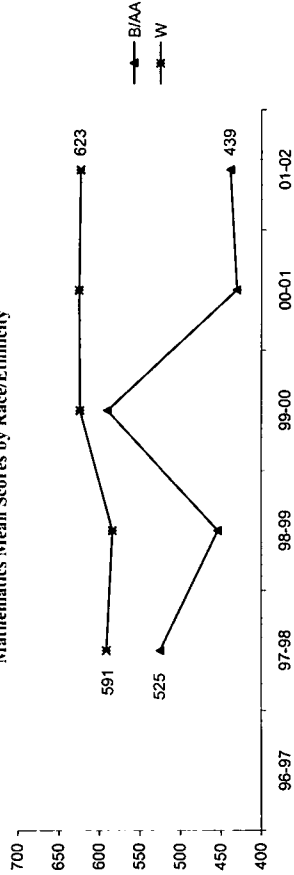
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	592	547	533	584	534	521
Gender						
Male	656	551	503	594	520	523
Female	544	544	557	572	543	519
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	525	454	454	590	431	439
H/L	-	-	-	-	-	-
W	-	591	584	624	625	623
OT	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity *1

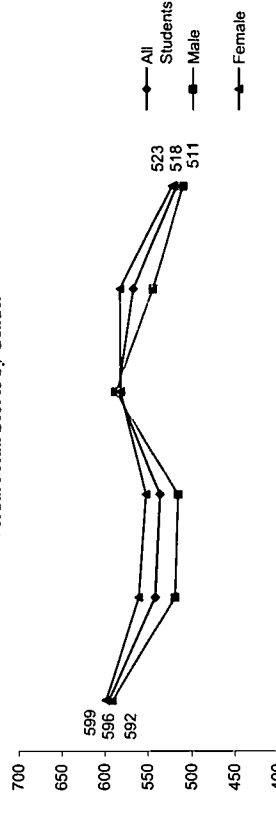


SAT Verbal Scores

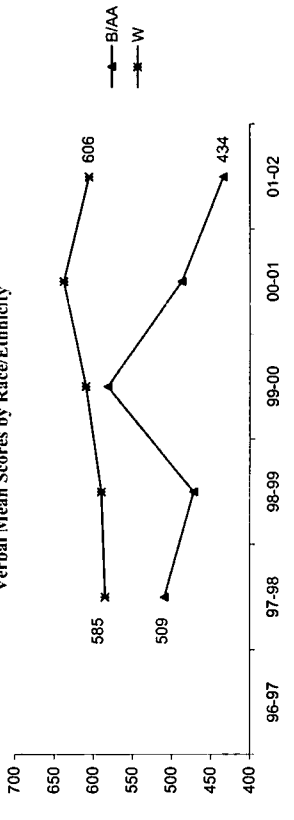
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	596	542	537	586	568	518
Gender						
Male	592	519	516	589	545	511
Female	599	561	553	583	584	523
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	509	509	472	582	487	434
H/L	-	-	-	-	-	-
W	-	585	590	610	638	606
OT	-	-	-	-	-	-

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity *1



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

Cohort/Scale-Up Approach

Number of District Schools	97-98	98-99	99-00
CPMSA Schools:	44	46	44
% Schools:	100%	100%	100%

¹ Source: TISC 1997-98

² Source: CDE 1998-00

Primary Decision Making Body

Standards Curriculum	District
Curriculum/TextBook Adoption	District
Student Assessment	District
Professional Development	School
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District
School-Based Management?	Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: All low track courses removed by SY 1999-00

Criteria for Entry into High Level Mathematics and Science Courses: Must complete graduation requirements as prerequisites for advanced math and science courses

Courses: Pre Algebra for all 7th grade students and Algebra I for all 8th grade students.

Availability of High Level Courses:

Special Education and Bilingual Students: District offers comprehensive Special Education and ESL programs

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements: Algebra I and II, Geometry, Physical Science, Biology and Chemistry Advanced Lab

Student Support Systems: Tutoring in most elementary school using CPMSA funding

Summer programs: Title I summer school in math

Science enrichment for a limited number of students

Policies Relevant to Curriculum

Framework: New Courses Added as a Result of CPMSA:

Curricula: Primary impetus for new and additional upper-level math and science course enrollment trends

Instructional Time:

Standards-based Curriculum and Instruction

Standards Adopted: Local District Standards

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Relevant to Teacher Qualifications

Certification: Appropriate endorsement from an accredited college

Requirement & Hiring Practices: Re-certification requires 8 semester hours of college credit or 80 additional in-service education points

Professional Advancement & Leadership Training: Math/science leaders from each school site meet monthly for networking, reporting and receiving additional training

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices

Time Required or Supported: 5 hours of credit or 100 inservice points over 5 year span

Financial Resources Provided:

Alignment to Student Standards:

Has CPMSA influenced professional development changed teachers' instructional practices: Yes. Use of FOSS doubled in one year. Professional development is comprehensive, results-based and unified

Connected Math will be piloted, 2000

Type and Amount Received by Average Math/Science Teacher: Program is focusing on computational fluency: Algebra and Geometry with embedded problem solving in math

Inquiry-driven instruction and learning in science

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures: Yes

Teacher's Instructional Practices Evaluation: Building principal or his/her designee do classroom observations. Feedback is provided

Impact on Student Achievement: Analyze disaggregated test and student enrollment and completion data in science and math

Partnerships

Other Key Initiatives: Technology Challenge Grant Title II

Competing Initiatives: None

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums: State and local assessments are fully aligned in mathematics and science Metropolitan Achievement Test is moderately aligned with local curricula

Assessments Used: State assessments Local curriculum assessments Metropolitan Achievement Test

Community Stakeholders: Science Pioneers (Science and Engineering Fair) Silicon Prairie Technologies Corporation Environmental Protection Agency Local Board of Public Utilities

CPMSA Leadership, Governance, and Management

Superintendent: Dr. Ray Daniels

Continuity of Leadership: Superintendent has been with the CPMSA since its beginnings and is totally supportive of the initiative

Project Directors position in districts organizational structure: Project Director is also the district's coordinator of math and science. He reports to the assistant superintendent of curriculum and standards who is also the Co-PI for the district. The Project Director also has direct access to the superintendent for

Teacher Leaders: Mentor teachers

Higher Education: The University of Kansas KU Medical School Emporia State University (program for teachers to become endorsed in math and science)

Business and Industry: Colgate Corporation

Accountability

Program Effectiveness Monitoring:

- Evaluate disaggregated student achievement data, test scores, enrollment and success rate data and teacher hours of professional development.
- State prepares building report cards
- Local building report cards are tailored to local interests. Report cards are distributed to parents, community members and stakeholders

Report Card System:

- State prepares building report cards
- Local building report cards are tailored to local interests. Report cards are distributed to parents, community members and stakeholders

Key Indicator Data Collection:

- Collected and maintained by Department of Educational Research and Assessment

Key Indicator Data Use:

- Results are reviewed by Principals and School Improvement Facilitators (SIF), interpreted and used to plan future interventions
- Results are also used to modify instruction in small learning communities.

Local On-Sight Evaluation:

- Department of Educational Research and Assessment
- Journals and time logs of all activities to compare to improvements (or lack of improvements in student performance) are kept

Data Manager:

- Dr. William Moore

External Evaluator:

- Dr. Phyllis Clay, Systheis International

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Course of study changed to require 3 science courses and 3 mathematics courses in high school • Removal of all low track courses
1998-99	
1999-00	<ul style="list-style-type: none"> • Graduation requirements include 3 years of science and 3 years of math

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Pre-Algebra required in 7th grade • Science enrichment summer school experience for limited number of students • Tutoring offered in science and math at most elementary schools
1998-99	
1999-00	<ul style="list-style-type: none"> • Students are required to take 3 math courses as prerequisite to higher-level math courses

Kansas City CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98		1997-98	-State and local assessment aligned with district standards	1997-98	
1998-99		1998-99	-State assessments are standards based for math and science -District assessments aligned with district standards and curricula for math and science	1998-99	
1999-00		1999-00		1999-00	

CPMSA Comprehensive Partnerships for Mathematics and Science Achievement



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Project Information

CPMSA Project Title : Project TEAMS

Cohort: 97

CPMSA Web Site: www.laredo.k12.tx.us

PI, CO-PI and PD

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PI Academic Team Leader
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- Ofilia Chapa
Interim PD
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CPMSA Data Manager/Evaluator

Project Summary

To design a systemic approach to reform curriculum in mathematics, science and communications, thus enabling LUSD students to enroll in and successfully complete precollege courses which will prepare them to pursue undergraduate programs in the sciences, engineering, and mathematics.

Project Goals

1. To increase the success on Advanced Placement exams
2. To increase the number of students taking Advanced Placement courses within the next five years
3. To increase the number of students taking college entrance exams and scoring at least 1000 on the SAT and/or 26 on the ACT
4. To double the number of students successfully completing Algebra I in the eighth grade
5. To set up programs that will allow students (G4-12) to interact with professionals in our community in the fields of mathematics and science
6. To provide awareness of how science and mathematics enhance opportunities for careers in engineering, health science, and education, and the relationship to improved economic conditions
7. To provide enrichment activities for elementary, middle and high school
8. To articulate the PK-12 standards-based science curriculum
9. To departmentalize mathematics and science at the elementary level for grades 4, 5, and 6 in order to ease transition from elementary to the middle school
10. To integrate PK-12 standards-based mathematics and science
11. To integrate reading, writing, and oral communications skills in the standards-based mathematics and science classes
12. To identify or develop appropriate activities to facilitate the integration of standards-based mathematics and science and communication
13. To provide staff development in standards-based mathematics and science for PK-12 teachers in an incremental manner
14. To provide Advanced Placement training for English, science and mathematics teachers

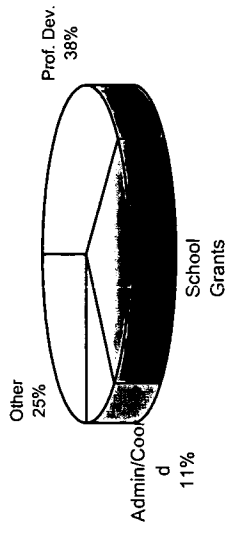
Selected School Indicators (District Average)

	96-97	00-01	Change
% Special Ed.	12.4%	13.6%	+1.2 PP
% LEP	53.0%	55.8%	+2.8 PP
% Free/Red. Lunch	89.2%	71.0%	-18.2 PP
% Daily Avg. Atten.	96.3%	96.7%	+0.4 PP
% Average Retained	1.9%	4.5%	+2.6 PP
% Drop-Out	3.3%	1.0%	-2.3 PP
% Mobility	2.8%	3.0%	+0.2 PP
Per Pupil Cost (\$)	\$5,073	\$5,111	+0.7%
# Students Per Computer	6	21	+250.0%
% Classrooms Internet Access	40%	100%	+60.0 PP
Average Class Size	16.4	18	+7.3%

District and CPMSA Fund Utilization (SY 1999-00)

	District	CPMSA
Prof. Dev.	25%	38%
School Grants	0%	26%
Admin/Coordinated	16%	11%
Other	59%	25%
Total	100%	100%

CPMSA Funds %



District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
99-00			
K-5 (Elementary)	21	587	12,771
G6-8 (Middle)	5	104	4,842
G9-12 (High)	4	97	5,810
Total	30	788	23,423

Source: Core Data Elements (SY 1999-00)

PP: Percentage Points

(.) Data Missing

Student Demographics (SY 1999-00)

District Total:	22,547
CPMSA Schools:	22,547
Source: CDE 2000-01	

Race/Ethnicity District-Wide

	96-97	00-01	%	% Change
Ame. Ind./Ala. Nat.	5	3	0.0%	-40.0%
Asian/P. Islander	20	24	0.1%	+20.0%
Black	12	22	0.1%	+83.3%
Hispanic	22,315	22,234	98.8%	-0.4%
White	340	225	1.0%	-33.8%
Other	0	0	0.0%	
Total	22,692	22,508	100.0%	-0.8%
URM Total	22,332	22,259	98.9%	-0.3%

URM: Underrepresented Minority students.

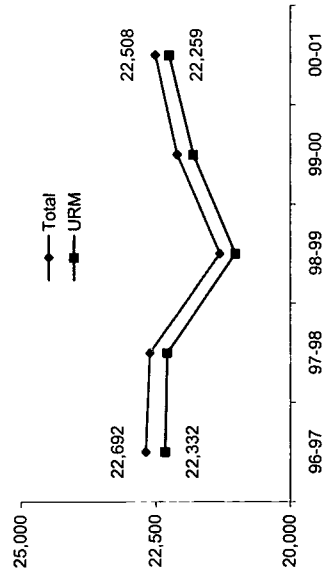
Gender

Male	11,587	11,467	50.9%	-1.0%
Female	11,105	11,041	49.1%	-0.6%

Grade

K-G5	11,316	11,003	48.9%	-2.8%
G6-8	4,850	5,083	22.6%	+4.8%
G9-12	6,526	6,422	28.5%	-1.6%
Ungraded	0	0	0.0%	

District Student Demographic Trends



12th Grade Graduates

	97-98	00-01	Change
Total 12th Grade	1,399	1,134	-19%
Earned a Diploma	1,143	965	-16%
% Earned Diploma	82%	85%	+3 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	97-98	00-01	Change
# SEM Proficient ¹	556	297	-47%
% SEM Proficient/ Total 12th Grade	40%	26%	-14 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - Minimum Grad. Plan: 3 credits to include Algebra I
 - Advanced Plan (Recommended Plan): 3 credits from Alg. I & II, Geometry, Pre-Cal., Elem. Analysis, Analytic Geometry, Comp. Math I & II or Calculus
- ◆ Science
 - Advanced Plan (Recommended Plan): 3 credits from Physical Science, Bio. I & II, Chemistry I & II, Physics I & II, Physiology, Anatomy & Genetics

PP: Percentage Points

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	97-98	00-01	Change
Teachers	68	67	-1%
Certified	46	44	-4%
% Cert.	68%	66%	-2.0 PP
Teachers	62	56	-10%
Certified	46	52	+13%
% Cert.	74%	93%	+18.7 PP
Teachers	130	123	-5%
Certified	92	96	+4%
% Cert.	71%	78%	+7.3 PP

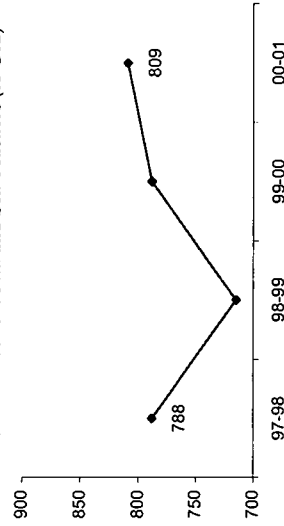
◆ Science (G6-12)

	97-98	00-01	Change
Teachers	30	32	+7%
Certified	18	22	+22%
% Cert.	60%	69%	+8.8 PP
Teachers	44	40	-9%
Certified	28	32	+14%
% Cert.	64%	80%	+16.4 PP
Teachers	74	72	-3%
Certified	46	54	+17%
% Cert.	62%	75%	+12.8 PP

◆ Math and Science (K-G5)

	97-98	00-01	Change
K-G5 Teachers	584	614	+5%

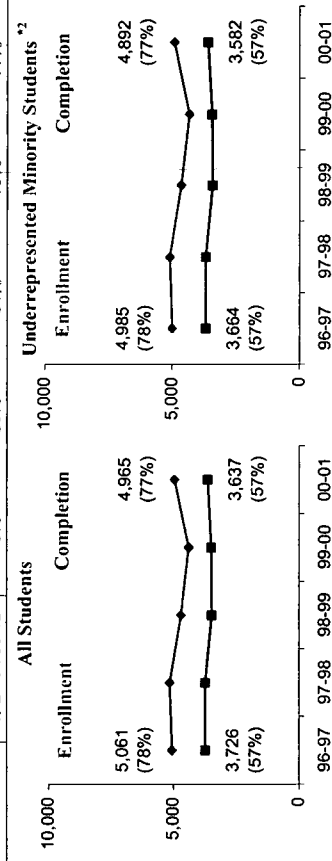
Total Number of Math and Sci. Teachers (K-G12)



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

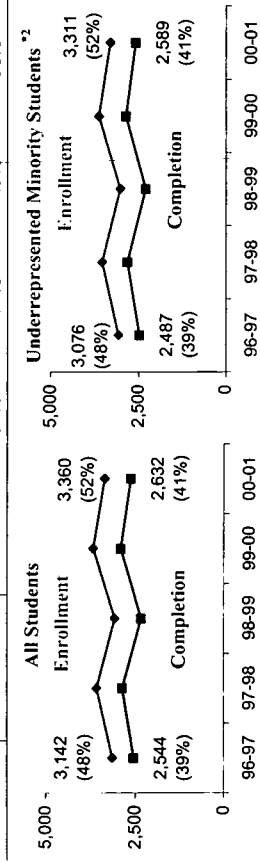
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	6,526	6,445	5,631	5,810	6,422
Enrollment	5,061	5,159	4,699	4,386	4,965
Completion ¹	3,726	3,721	3,470	3,490	3,637
% Enroll/G9-12	78%	80%	83%	75%	77%
URM ²	4,985	5,084	4,627	4,317	4,892
Completion ¹	3,664	3,662	3,414	3,432	3,582
% Enroll/G9-12	78%	80%	84%	75%	77%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	6,526	6,445	5,631	5,810	6,422
Enrollment	3,142	3,585	3,073	3,679	3,360
Completion ¹	2,544	2,866	2,334	2,908	2,632
% Enroll/G9-12	48%	56%	55%	63%	52%
URM ²	3,076	3,537	3,029	3,630	3,311
Completion ¹	2,487	2,824	2,298	2,869	2,589
% Enroll/G9-12	48%	56%	55%	63%	52%

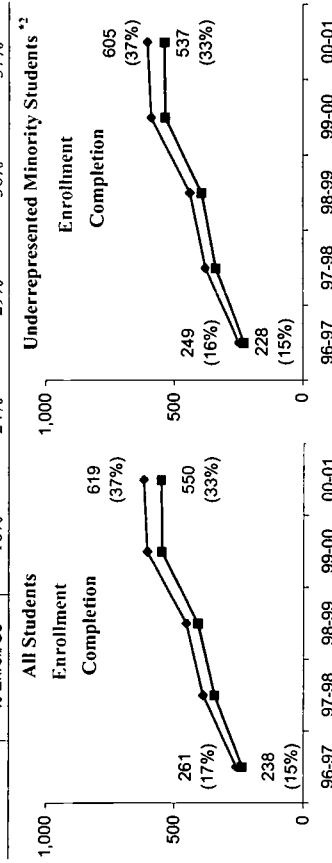


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

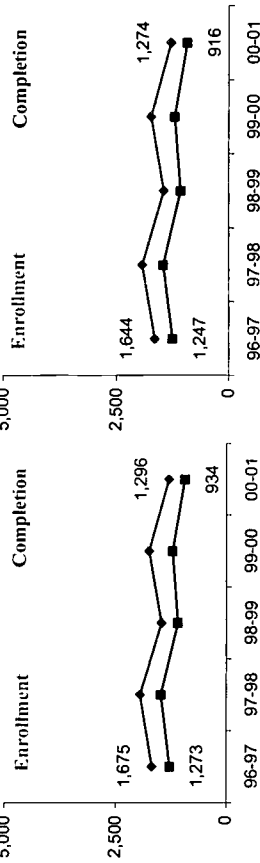
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	1,558	1,595	1,528	1,584	1,678
Enrollment	261	388	452	605	619
Completion ¹	238	344	408	548	550
% Enroll/G8	17%	24%	30%	38%	37%
URM ²	249	380	438	590	605
Completion ¹	228	339	395	535	537
% Enroll/G8	16%	24%	29%	38%	37%



Biology Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	6,526	6,445	5,631	5,810	6,422
Enrollment	1,675	1,949	1,466	1,742	1,296
Completion ¹	1,273	1,474	1,084	1,211	934
% Enroll/G9-12	26%	30%	26%	30%	20%
URM ²	1,644	1,924	1,441	1,722	1,274
Completion ¹	1,247	1,451	1,065	1,195	916

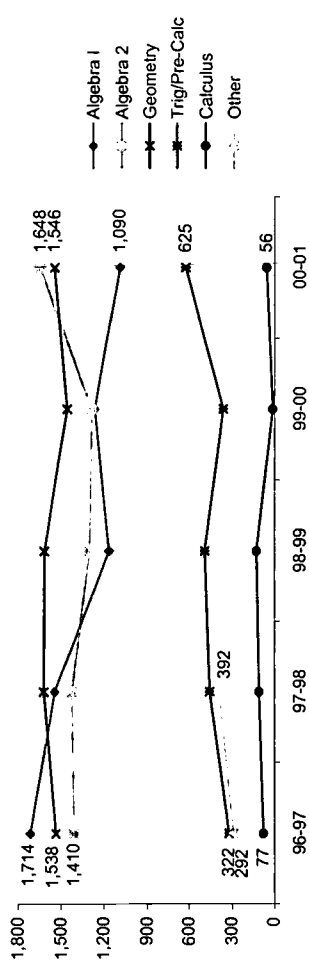


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Mathematics Course Enrollment & Completion Trends By Subject

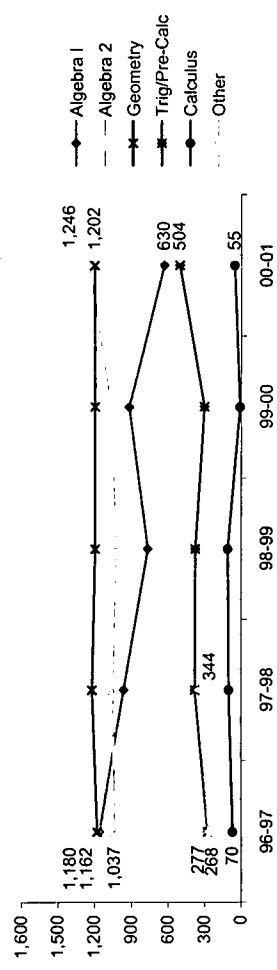
G 9-12 Course Enrollment (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	1,714	1,410	1,538	322	77	292	5,353
97-98	1,547	1,426	1,623	455	108	392	5,551
98-99	1,163	1,300	1,618	491	127		4,699
99-00	1,265	1,285	1,458	365	13		4,386
00-01	1,090	1,648	1,546	625	56		4,965



G 9-12 Course Completion *1 (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	1,162	1,037	1,180	277	70	268	3,994
97-98	964	1,052	1,221	381	103	344	4,065
98-99	765	1,023	1,195	377	110		3,470
99-00	916	1,064	1,195	304	11		3,490
00-01	630	1,246	1,202	504	55		3,637

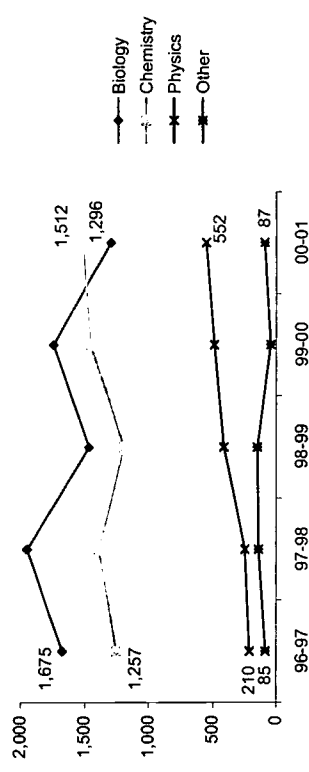


*1 Successful completion: grade 'C' or above.

Science Course Enrollment & Completion Trends By Subject

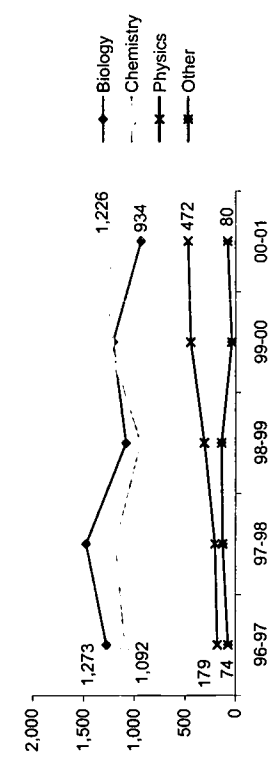
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,675	1,257	210	85	3,227
97-98	1,949	1,390	246	139	3,724
98-99	1,466	1,194	413	148	3,221
99-00	1,743	1,452	485	41	3,721
00-01	1,296	1,512	552	87	3,447



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,273	1,092	179	74	2,618
97-98	1,474	1,189	203	128	2,994
98-99	1,084	941	309	140	2,474
99-00	1,211	1,252	445	38	2,946
00-01	934	1,226	472	80	2,712



Laredo CPMSA

SY 2000-01

District Assessment Test Administered

State Assessment Test-Taker Trends TAAS

◆ Mathematics

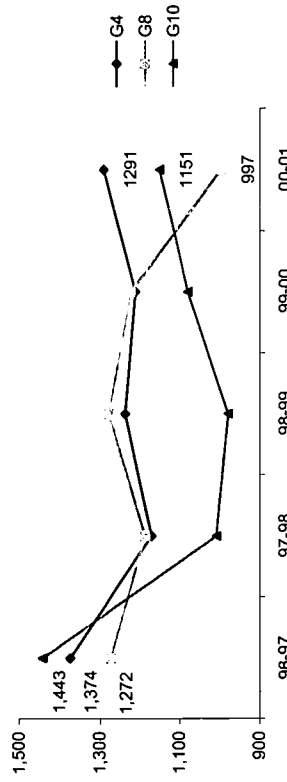
Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	LISD Benchmk Scaled	LISD Benchmk Scaled	LISD Benchmk Scaled	LISD Benchmk Scaled	LISD Benchmk Scaled
Grade	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10
Type	CRT	CRT	CRT	CRT	CRT

◆ Mathematics

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grade 4	1,374	1,171	1,236	1,211	1,291
Grade 8	1,272	1,187	1,277	1,222	997
Grade 10	1,443	1,008	979	1,080	1,151

◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	None	None	None	None	None
Grade					
Type					



State Assessment Test Administered

◆ Mathematics

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	TAAS Scaled	TAAS Scaled	TAAS Scaled	TAAS Scaled	TAAS Scaled
Grade	3-8, 10	3-8, 10	3-8, 10	3-8, 10	3-8, 10
Type	CRT	CRT	CRT	CRT	CRT

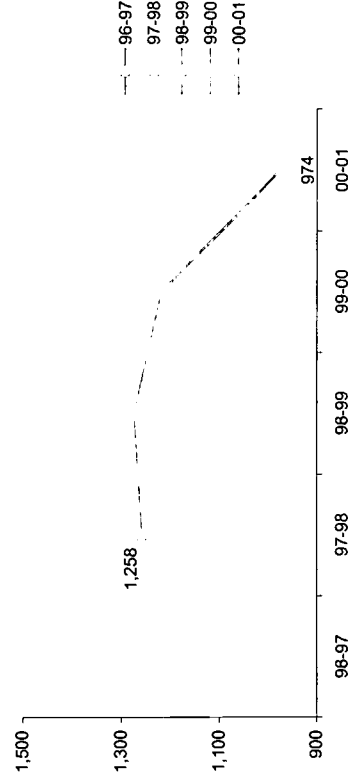
◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	None	None	None	None	None
Grade					
Type					

◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	TAAS Scaled	TAAS Scaled	TAAS Scaled	TAAS Scaled	TAAS Scaled
Grade	8	8	8	8	8
Type	CRT	CRT	CRT	CRT	CRT

Total number of students taking test



*LISD Benchmk: Laredo Independent School District Benchmark

* TAAS: Texas Assessment of Academic Skills

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

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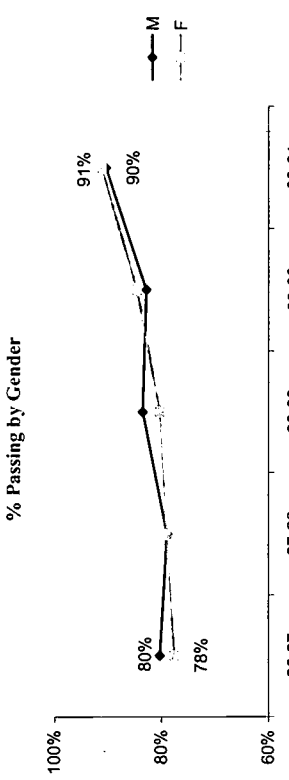
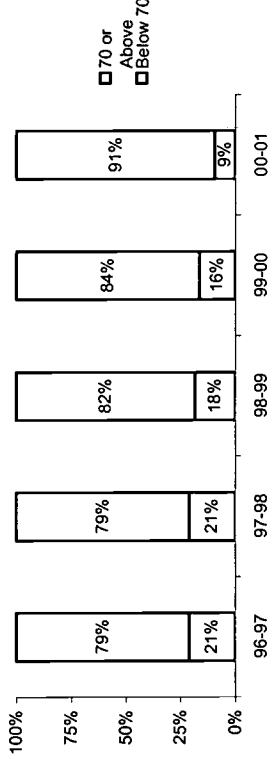
Laredo CPMSA

SY 2000-01

State Assessment Test Result Trends TAAS - Mathematics

◆ Grade 4

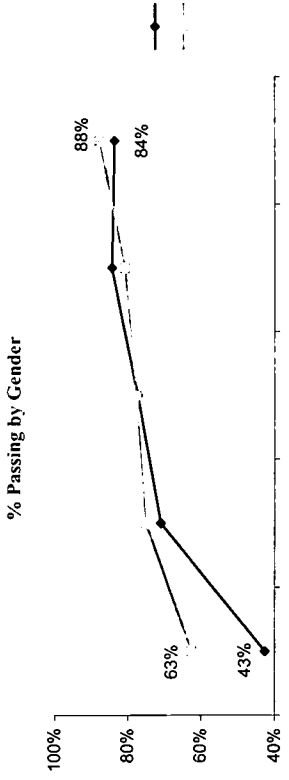
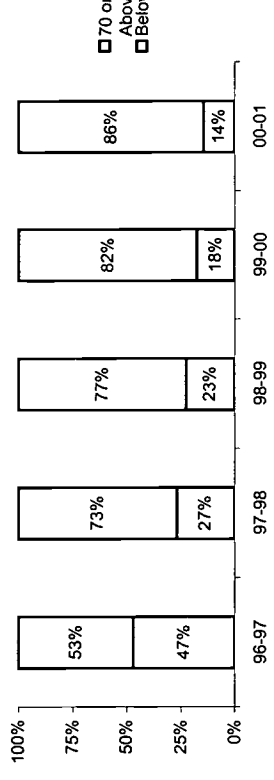
Cut Score	96-97	97-98	98-99	99-00	00-01
70 or Above	79%	79%	82%	84%	91%
Below 70	21%	21%	18%	16%	9%
Total # of students	1,374	1,171	1,236	1,211	1,291



State Assessment Test Result Trends TAAS - Mathematics

◆ Grade 8

Cut Score	96-97	97-98	98-99	99-00	00-01
70 or Above	53%	73%	77%	82%	86%
Below 70	47%	27%	23%	18%	14%
Total # of students	1,272	1,187	1,277	1,222	997



A/I/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

% Passing defined as scoring 70 or above

*1 Number of Test-Takers less than 5 not presented on graph

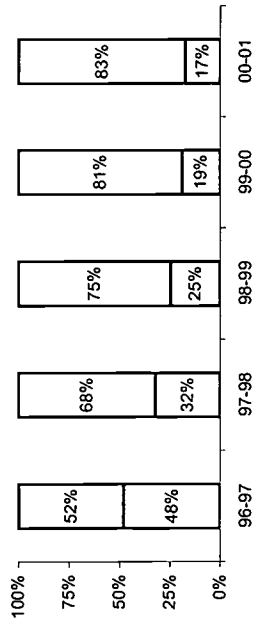
State Assessment Test Result Trends TAAS - Mathematics

◆ Grade 10

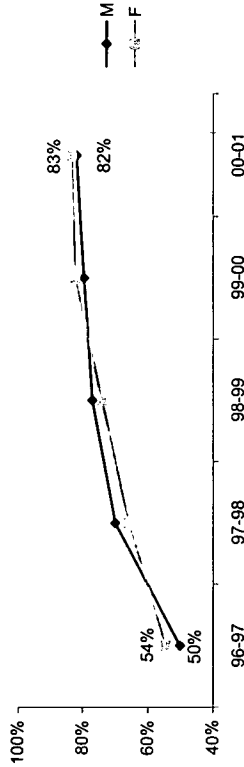
Cut Score	96-97	97-98	98-99	99-00	00-01
70 or Above	52%	68%	75%	81%	83%
Below 70	48%	32%	25%	19%	17%

Total # of students

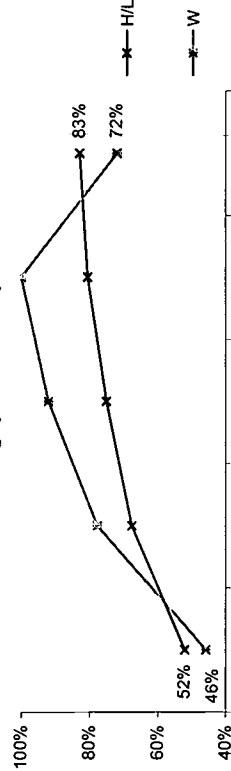
1,443 1,008 979 1,080 1,151



% Passing by Gender



% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 70 or above

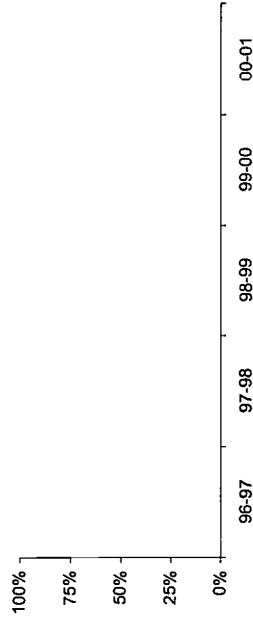
State Assessment Test Result Trends TAAS - Science

◆ Grade 4

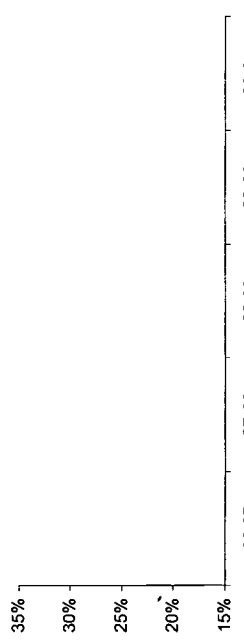
Cut Score	96-97	97-98	98-99	99-00	00-01
70 or Above	52%	68%	75%	81%	83%
Below 70	48%	32%	25%	19%	17%

Total # of students

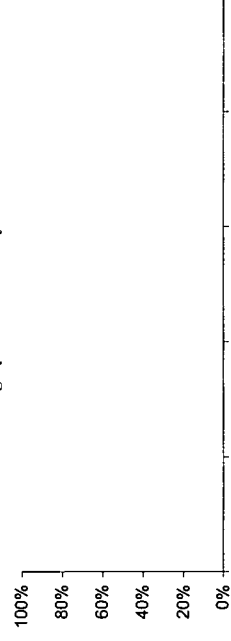
Not Applicable



% Passing by Gender



% Passing by Race/Ethnicity



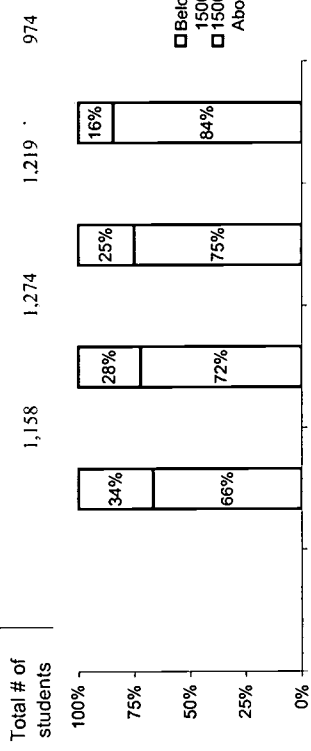
Laredo CPMSA

SY 2000-01

State Assessment Test Result Trends TAAS - Science

◆ Grade 8

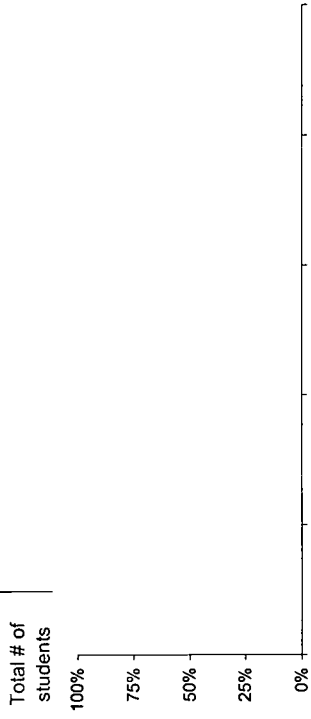
Cut Score	96-97	97-98	98-99	99-00	00-01
1500 or Above		66%	72%	75%	84%
Below 1500		34%	28%	25%	16%



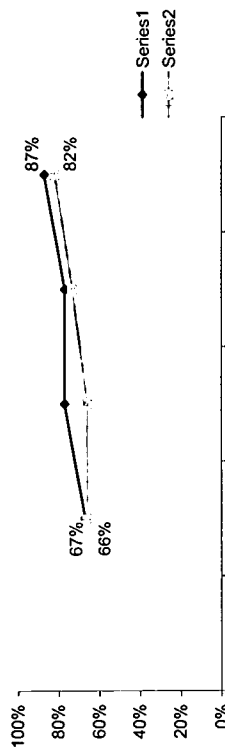
State Assessment Test Result Trends TAAS - Science

◆ Grade 10

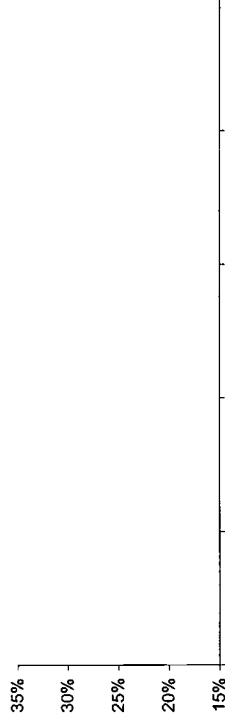
Cut Score	96-97	97-98	98-99	99-00	00-01
1500 or Above					
Below 1500					



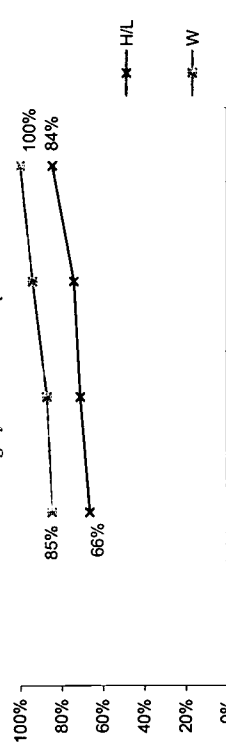
% Passing by Gender



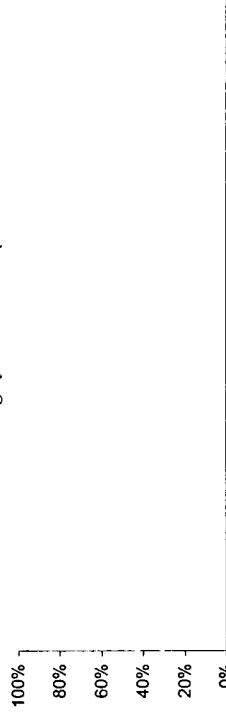
% Passing by Gender



% Passing by Race/Ethnicity



% Passing by Race/Ethnicity



A/PI: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Cut Score 1500 or Above

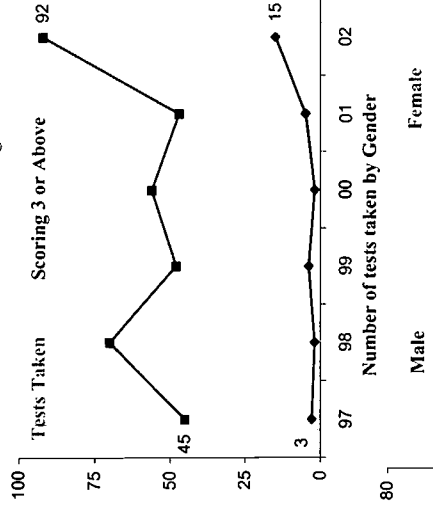
AP Mathematics Test Result Trends

◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,706	2,761	2,557	2,431	2,545	2,376
Calculus AB	45	70	43	52	45	92
Calculus BC	0	0	0	0	0	0
Statistics	0	0	5	4	2	0
Total	45	70	48	56	47	92
Tests taken per 1,000 students	16.6	25.4	18.8	23.0	18.5	38.7
Scoring 3 or Above	3	2	4	2	5	15
Scoring 3 or Above per 1000	1.1	0.7	1.6	0.8	2.0	6.3

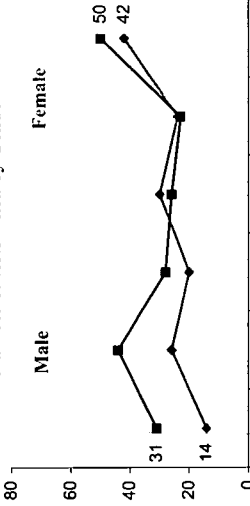
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	14	26	20	30	24	42
Female	31	44	28	26	23	50

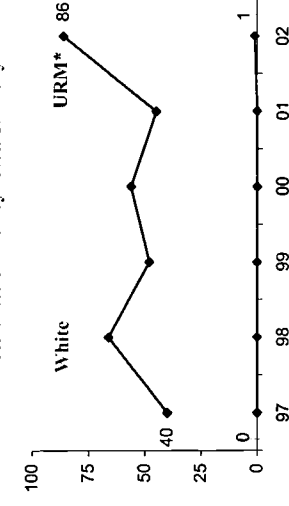
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity ¹

	97	98	99	00	01	02
A/AN	0	0	0	1	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	40	66	48	55	45	86
W	0	0	0	0	0	1

Number of tests taken by Race/Ethnicity



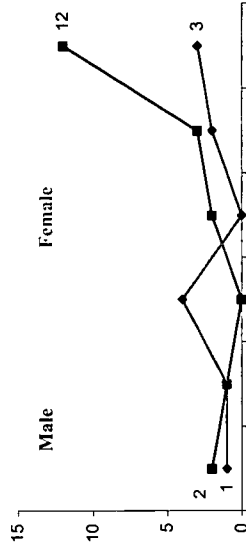
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	2	1	0	2	3	12
Female	1	1	4	0	2	3

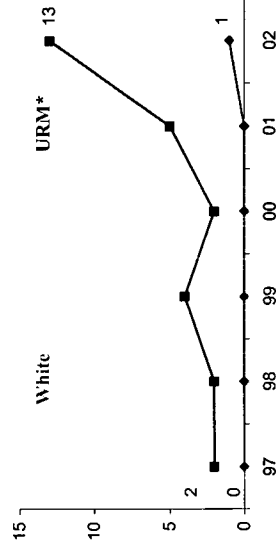
Number of students scoring 3 or above by Gender



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

	97	98	99	00	01	02
A/AN	0	0	0	1	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	2	2	4	1	5	13
W	0	0	0	0	0	1

Number of students scoring 3 or above by Race/Ethnicity



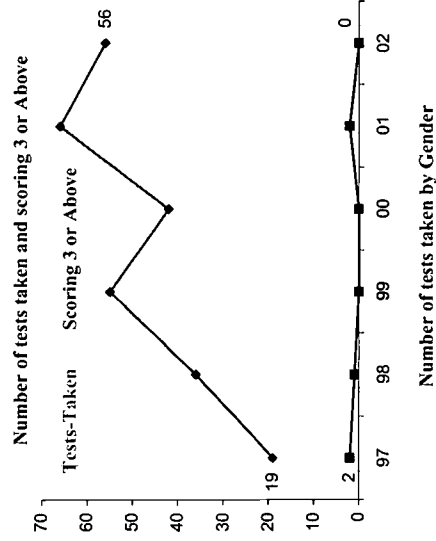
¹URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends

◆ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

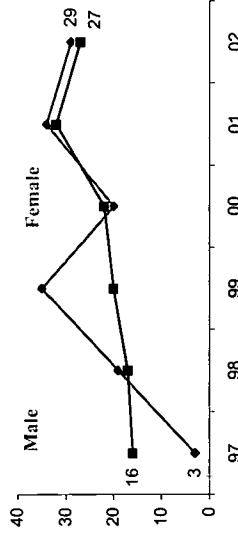
◆ AP Science - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,706	2,761	2,557	2,431	2,545	
Biology	15	24	28	12	38	22
Chemistry	0	6	16	13	17	24
Env. Science	0	1	0	0	0	0
Physics B	4	5	3	5	3	3
Physics Mech.	0	0	8	6	8	7
Physics Elec.	0	0	0	6	0	0
Total	19	36	55	42	66	56
Tests taken per 1,000 students	7.0	13.0	21.5	17.3	25.9	
Scoring 3 or Above	2	1	0	0	2	0
Scoring 3 or Above per 1000	0.7	0.4	0.0	0.0	0.8	



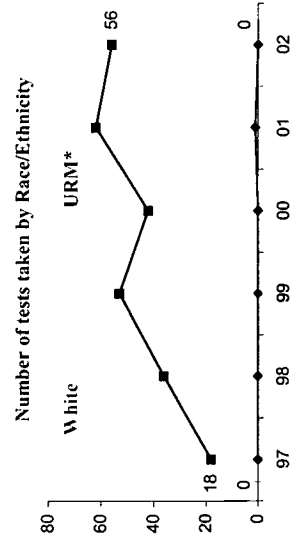
◆ AP Science - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	16	17	20	22	32	27
Female	3	19	35	20	34	29



◆ AP Science - Number of Tests Taken By Race/Ethnicity ^{1}**

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	18	36	53	42	62	56
W	0	0	0	0	1	0

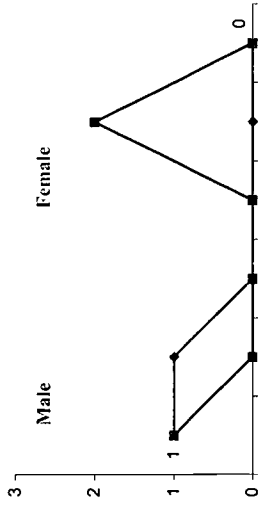


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

** "Other" category not presented

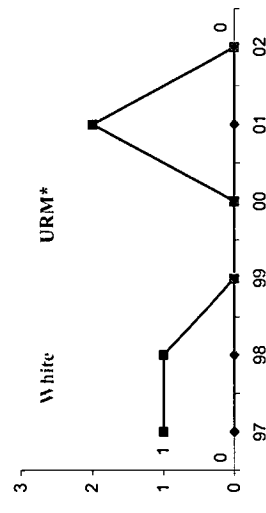
◆ AP Science - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	1	0	0	0	2	0
Female	1	1	0	0	0	0



◆ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity ^{1}**

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	1	1	0	0	2	0
W	0	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

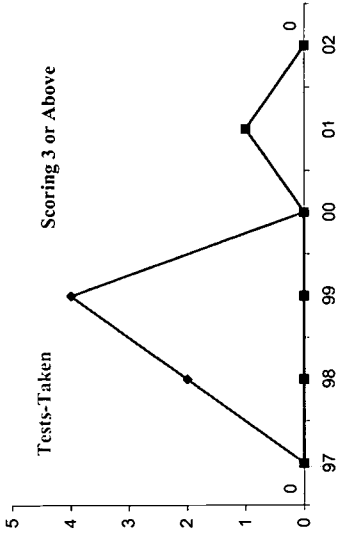
AP Computer Science Test Result Trends

Computer Science A & AB

AP Computer Science - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,706	2,761	2,557	2,431	2,545	
Comp. Sci. A	0	2	4	0	1	0
Comp. Sci. AB	0	0	0	0	0	0
Total	0	2	4	0	1	0
Tests taken per 1,000 students	0.0	0.7	1.6	0.0	0.4	
Scoring 3 or Above	0	0	0	0	1	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	0.4	

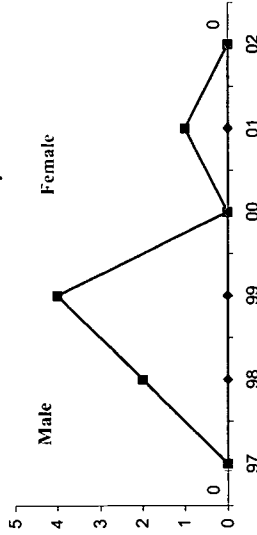
Number of tests taken and scoring 3 or Above



AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	2	4	0	1	0
Female	0	0	0	0	0	0

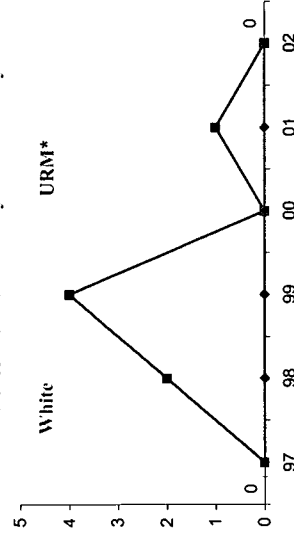
Number of tests taken by Gender



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	2	4	0	1	0
W	0	0	0	0	0	0

Number of tests taken by Race/Ethnicity



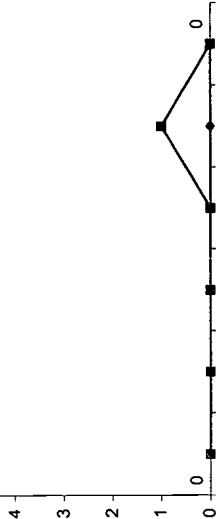
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	1	0
Female	0	0	0	0	0	0

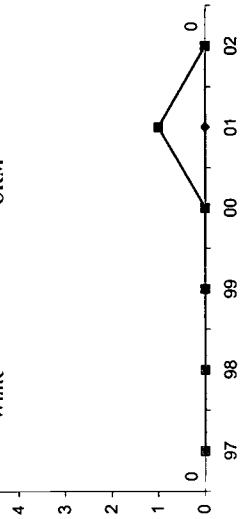
Number of students scoring 3 or above by gender



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	1	0
W	0	0	0	0	0	0

Number of students scoring 3 or above by Race/Ethnicity



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

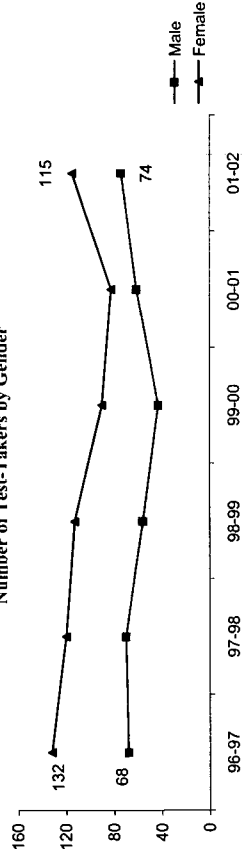
Laredo CPMSA

ACT Test-Takers

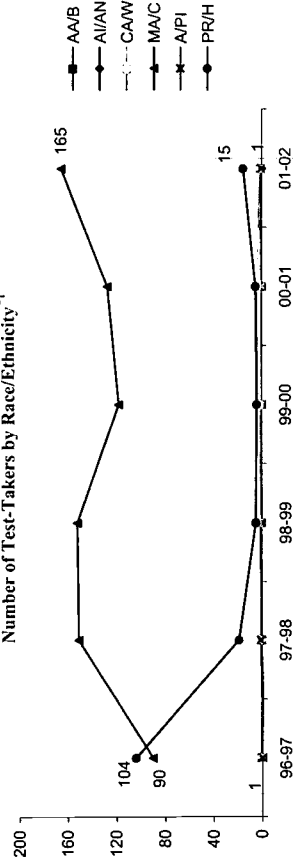
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,408	1,399	1,388	1,234	1,134	.
Test-Takers	200	190	169	133	143	189
Num of Test-Takers/1,000 Stu.	142	136	122	108	126	.
Gender						
Male	68	70	56	43	61	74
Female	132	120	113	90	82	115
Race/Ethnicity						
AA/B	0	0	0	0	0	1
AI/AN	0	0	1	0	0	0
CA/W	1	0	0	2	4	1
MA/C	90	151	152	118	127	165
A/PI	0	1	0	0	0	0
PR/H	104	19	5	4	5	15

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity *1



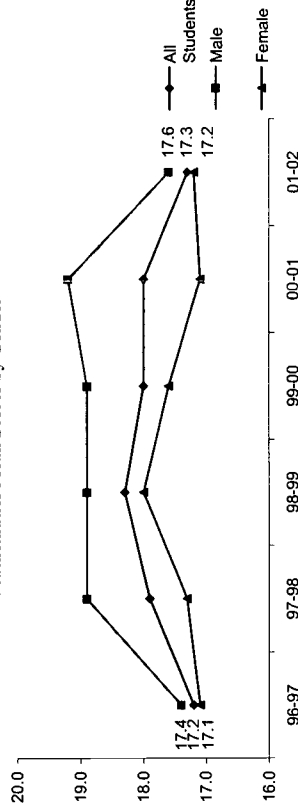
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
 *1 Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

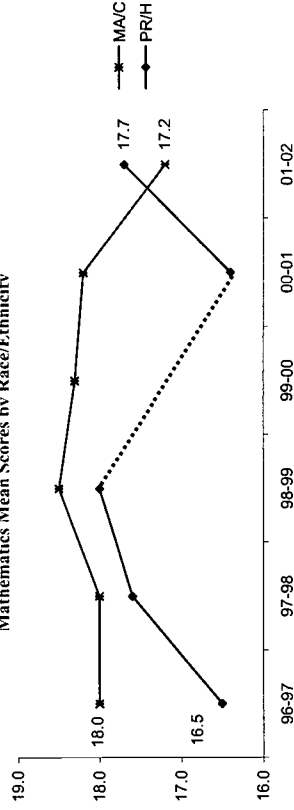
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.2	17.9	18.3	18.0	18.0	17.3
Gender						
Male	17.4	18.9	18.9	18.9	19.2	17.6
Female	17.1	17.3	18.0	17.6	17.1	17.2
Race/Ethnicity						
AA/B	-	-	-	-	-	-
AI/AN	-	-	-	-	-	-
CA/W	-	-	-	-	-	-
MA/C	18.0	18.0	18.5	18.3	18.2	17.2
A/PI	-	-	-	-	-	-
PR/H	16.5	17.6	18.0	-	16.4	17.7

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity *1



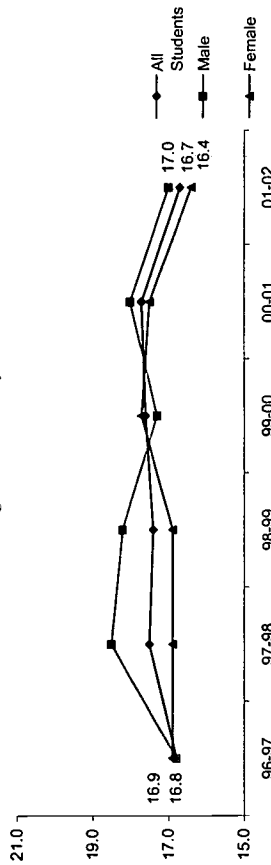
(-) Mean scores not presented for sample size less than 5

ACT Science Scores

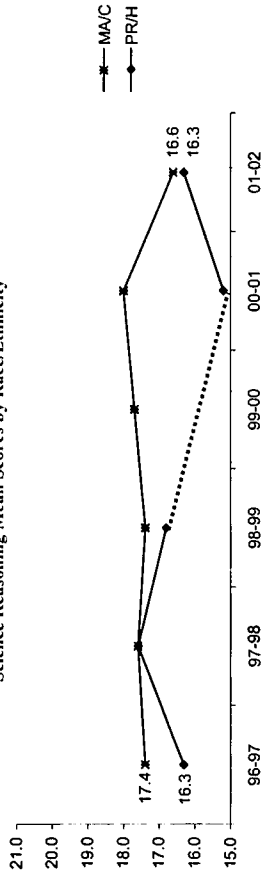
◆ **Science Reasoning - Mean Score Trends**

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	16.8	17.5	17.4	17.6	17.7	16.7
Gender						
Male	16.8	18.5	18.2	17.3	18.0	17.0
Female	16.9	16.9	16.9	17.7	17.5	16.4
Race/Ethnicity						
AA/B	-	-	-	-	-	-
AI/AN	-	-	-	-	-	-
CAW	-	-	-	-	-	-
MA/C	17.4	17.6	17.4	17.7	18.0	16.6
A/PI	-	-	-	-	-	-
PR/H	16.3	17.6	16.8	-	15.2	16.3

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity *1



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc. American/White
 MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

(-) Mean scores not presented for sample size less than 5

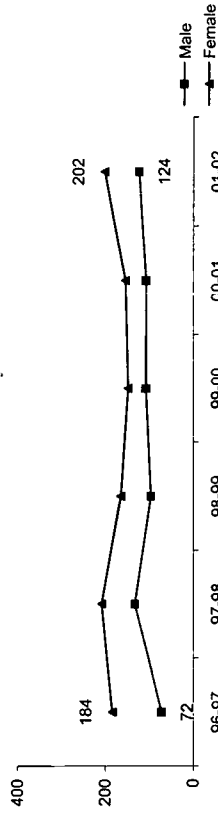
*1 Number of Test-Takers less than 5 not presented in graph

SAT Test-Takers

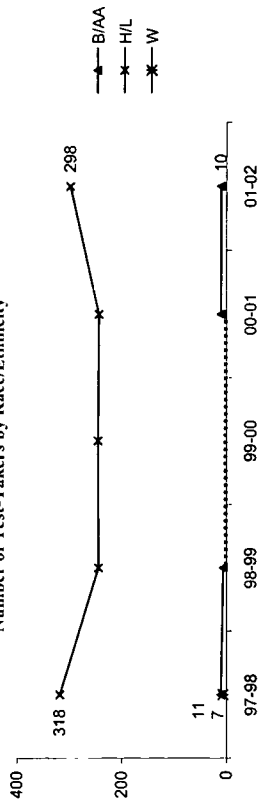
◆ **Number of Test-Takers**

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,408	1,399	1,388	1,234	1,134	-
Test-Takers Num of Test-Takers/1,000 Stu.	256	342	262	257	263	325
Gender						
Male	182	244	189	208	232	-
Female	72	133	97	108	108	124
Race/Ethnicity						
AI/AN	184	209	165	149	155	202
A/PI	0	2	3	0	1	1
B/AA	2	3	0	0	0	1
H/L	11	6	1	1	10	10
W	318	244	245	243	243	298
OT	7	1	1	1	0	1
	3	5	1	1	1	3

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity *1



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

Laredo CPMSA

SAT Mathematics Scores

◆ Mathematics - Mean Score Trends

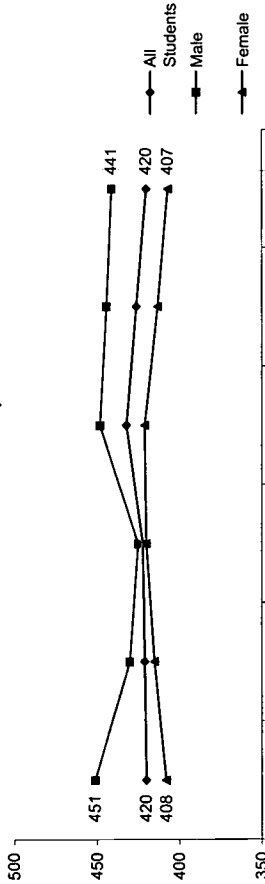
	96-97	97-98	98-99	99-00	00-01	01-02
All Students	420	421	422	432	426	420
Gender						
Male	451	430	425	448	444	441
Female	408	415	420	421	413	407
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	377	377	385	-	377	365
H/L	422	427	434	426	426	422
W	413	-	-	-	-	-
OT	-	-	358	-	-	-

SAT Verbal Scores

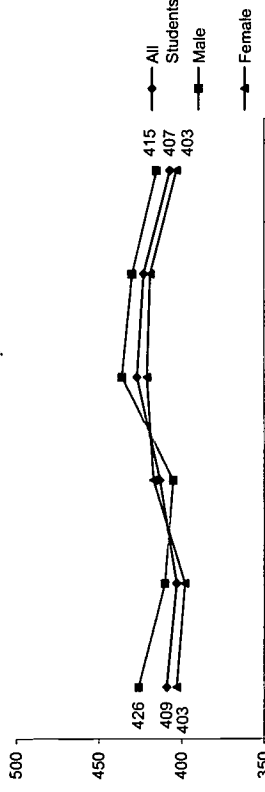
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	409	403	413	427	423	407
Gender						
Male	426	410	405	436	430	415
Female	403	398	417	421	419	403
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
B/AA	359	359	378	-	381	381
H/L	402	416	429	422	422	408
W	429	-	-	-	-	-
OT	-	-	372	-	-	-

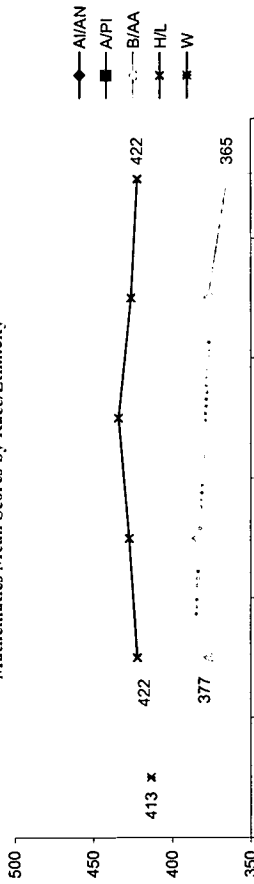
Mathematics Mean Scores by Gender



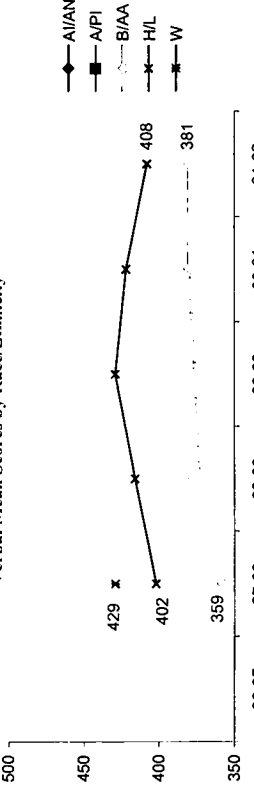
Verbal Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity *1



Verbal Mean Scores by Race/Ethnicity *1



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

(-) Mean scores not presented for sample size less than 5

*1 Number of Test-Takers less than 5 not presented in graph

Cohort/Scale-Up Approach

	97-98	98-99	99-00	00-01
Number of District Schools	30	30	30	30
CPMSA Schools:	30	30	30	30
% Schools:	100%	100%	100%	100%

Source: TISC 2002

Primary Decision Making Body

Standards Curriculum	State
Curriculum/Textbook Adoption	School
Student Assessment	State
Professional Development	School
Resources	School
Teacher Hiring	School
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District

School-Based Management

Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: No student tracking

Criteria for Entry into High Level Mathematics and Science Courses:
 Pre- AP and AP class enrollment open to all students

Availability of High Level Courses:
 AP course enrollment in upper level math and science courses is open to anyone wishing to enroll.

Special Education and Bilingual Students:
 All special population students are mainstreamed and have equal access to hands-on, learner-centered instruction

LEP students receive Bilingual and ESL services

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

4 math and 3 science courses

70% is passing mark to receive credit

Smith and Dewey Saturday SAT Prep Classes

Graduation Requirements:

AP enrichment for math and science

GEAR UP to increase the number of students successfully completing post-secondary education

Summer programs:

Summer enrichment camps in math and science approach is hands-on real world activities

Instructional Time:

Block scheduling for elementary students: 150 minutes for science and 300 minutes for math per week

Standards-based Curriculum and Instruction

Standards Adopted:
 NCTM
 NSES

Local standards for content, performance and achievement

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Relevant to Teacher Qualifications

Certification: Bachelors Degree

EXCET must be passed within 3 years of hiring

Teacher certification is controlled by the State Board of Education Certification (SBEC), university recommendation programs, and contingent on the successful completion of state required EXCET tests and attainment of a bachelor's degree in education. In addition continuing education hours are now required of all new teachers.

Requirement & Hiring Practices

Professional Advancement & Leadership Training:
 Policy reform requires 60 hrs of standards-based content PD per year for all teachers of mathematics and science. The CPMSA action plan requires 100 hrs of PD per year for all secondary math and science master teachers and elementary peer coaches.

E: Elementary School M: Middle School H: High School

Laredo CPMSA

Professional Development Policies and Practices

Time Required or Supported:

- 12 hours of standards-based professional development per year for all teaching personnel (K-12)
- 60 hours of standards-based content professional development per year for all math and science teachers
- 100 hours of professional development per year for all secondary math and science Master teachers and elementary peer coaches

Financial Resources Provided:

Alignment to Student Standards:

- All professional development must be standards-based and aligned to TEKS and district instructional model

Has CPMSA influenced professional development changed teachers' instructional practices:

- Classroom observations reveal that increased numbers of teachers are implementing standards-based practices, but full implementation is not at 100%. The locally developed instructional model started in SY 01-02. This research-based model specifies pedagogical practices for initial delivery of instruction, student practice, and assessment that are learner-centered and allow for deep conceptual understanding. All teachers are required by policy to implement these practices in their classrooms.

Type and Amount Received by Average Math/Science Teacher:

- Unified program
- Master teachers and peer coaches provide follow-up at the campus level
- Quarterly support sessions

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures:

- 2 annual walkthroughs using observ. form, by primary appraisers.
- 2 formal observs, post-observation conferences with administrator

Impact on Student Achievement:

- Student achievement data is monitored and correlated to professional development.
- A study of schools with high levels of participation revealed in professional development a correlation between increased student achievement and professional development

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

- The district has developed more specific academic standards that added specificity and rigor to the state mandated standards, TEKS. New curriculum and assessment timelines were developed as well as performance assessments in math and science
- Texas Assessment of Academic Skills (TAAS Math G 3-8)
 - Algebra End of Course exam
 - Locally developed benchmark assessments
 - Exit level TAAS in grade 11
 - For science, 8th grade TAAS test and Biology End of Course Test

CPMSA Leadership, Governance, and Management

Superintendent:

- Dr. R. Jerry Barber
- Superintendent, Project Director, Coordinator and Program Evaluation have all moved to their jobs.

Project Directors position in district's organizational structure:

- Project Director reports to Team Leader for Academics and Problem Solving
- Project Coordinator coordinates professional development and student activities
- Master teachers (Secondary level)
- Peer coaches (Elementary level)

Teacher Leaders:

Partnerships

Other Key Initiatives:

- GEAR UP: (Texas A&M International University)

Competing Initiatives:

- Occasionally GEAR UP and TEAMS professional development is offered at the same time. GEAR UP professional development is aligned to TEAMS goals

Community Stakeholders:

- Support summer enrichment camps: Mercy Hospital, Doctors Hospital, Laredo Firefighters, The Laredo Medical Group, Health Alliance of Laredo, and City of Laredo Health Department

Higher Education:

- Texas A&M International University (AP Math and Science Institutes for A.P. teachers)

- CAP Math and Science Institutes for Laredo Community College (distance learning and enrichment through Environment Science Center Program)
- University of Texas at San Antonio
- Health Science Center for professional development and student enrichment and masters program in Physiology.

Business and Industry:

- Laredo Chamber of Commerce Scholarships for Texas Business Education Coalition (TBEC)

Accountability

Program Effectiveness Monitoring:

- Keep fiscal records, professional development database, student progress records using local and state assessments. Also monitor progress and completion of strategic goals and tasks

Report Card System:

- State Report Card
- AEIS reports by district and school
- Student achievement on state and national tests
- Attendance and graduation rates
- Enrollment in AP courses for entire district

Key Indicator Data Use:

- As a check for fiscal efficiency, program effectiveness, planning for student needs, and professional development
- All decisions are data driven
- Also used to develop and gauge safety nets to support student success

Local On-Sight Evaluation:

- Collects and reports all data on professional development and student achievement
- Disseminates data to appropriate individuals
- Prepares reports for the district

Data Manager:

- Carla A. Perales

External Evaluator:

- No

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1996-97	
1997-98	• Summer enrichment programs established
1998-99	
1999-00	• All AP courses have open enrollment • Enroll 50% of 8th grade students in Algebra I • Graduation requirements include 4 years of math and 3 years of science • PSAT and SAT prep sessions provided

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1996-97	
1997-98	
1998-99	• Connected Mathematics program for middle schools is adopted for 6th grade • FOSS adopted K-5
1999-00	• TEKS standards followed. Local standards developed which clarify and detail TEKS by providing content (what a student should know), performance (what a student should be able to do), and achievement (evaluation criteria) to determine mastery

Laredo CPMSA

SY 2000-01

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented
1996-97	
1997-98	
1998-99	
1999-00	<ul style="list-style-type: none"> • 12 hours of professional development per year for all teaching personnel (K-12) • Administrators conduct 2 walkthrough and 2 formal observations a year per teacher • 60 hours of standards based content professional development per year for all teachers of math and science • All professional development is standards-based and aligned to the TEKS and district instructional model • Student data is monitored and correlated with professional development

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented

Accountability

School Year	Policy Implemented

CPMSA

Comprehensive Partnerships for Mathematics and Science Achievement



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Project Information

CPMSA Project Title : Comprehensive Partnership for Math and Science Achievement

Cohort: 98

CPMSA Web Site:

◆ PI, CO-PI and PD

- Co-Principle Investigator
Kenneth James 501-447-1002 501-447-1159
Ken.James@lrsd.org
- Co-Principle Investigator
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Bonnie.Leslie@lrsd.org
- Co-Principle Investigator
Dennis Glasgow 501-447-3362 501-447-7610
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- Project Director
Vanessa Cleaver 501-447-3376 501-447-7610
Vanessa.Cleaver@lrsd.org

Project Summary

The Little Rock Partnership for Mathematics and Science Achievement (LRPMSA) is a collaborative effort for systemic reform of public education that will impact all students. The program goals are to increase student enrollment and success in courses in mathematics and science and to encourage continued study through higher education toward careers in science, mathematics, and engineering. To accomplish these goals, the Little Rock School District has built a partnership effort among leading institutions in the central Arkansas area. Program partners include: higher education - the University of Arkansas at Little Rock, Philander Smith College and the University of Arkansas for Medical Sciences; the Arkansas Museum of Science and History; municipal agencies - the City of Little Rock and Little Rock Housing Authority; the Central Arkansas Library System; and the Little Rock Alliance for Our Public Schools, a business/community association dedicated to excellence in public education. The LRPMSA program focuses on curriculum revision and staff development programs to increase the capacity of educators to motivate students and provide more effective instruction.

Project Goals

- Program goals include:
 - Prepare 100% of graduates to successfully complete Algebra.
 - Increase the number of students who successfully complete upper-level mathematics and science courses.
 - Adopt a Board policy to require that students in AP courses take the AP examination.
 - Revise the mathematics curriculum to limit the number of topics for each grade level and subject and to increase the depth at which each topic is taught.
- Implement standards-based modules in each elementary/middle school mathematics and science classroom.
- Provide the support programs for students in upper level mathematics and science courses.
- Increase the knowledge and involvement of parents in the mathematics and science programs.
- Provide targeted staff development to assist staff in facilitating the above stated objectives.

◆ CPMSA Data Manager/Evaluator

Donald C. Wold, 501-447-3378 501-447-7610
Ph.D. Don.Wold@lrsd.org

◆ Mailing Address

Superintendent's Office
LRSD Administration Bldg.
810 West Markham Street
Little Rock, Arkansas 72201

◆ District Schools, Math & Science Teachers, and Students

2000-01	Schools	Teachers	Students
K-G5 (Elementary)	35	596	11,859
G6-8 (Middle)	8	116	5,447
G9-12 (High)	7	100	6,488
Total	50	812	23,794

Source: Core Data Elements (SY 2000-01)

Selected School Indicators (District Average)

	1997-98	2000-01	Change
% Special Ed.	9.7%	9.3%	-0.4 PP
% LEP	1.0%	2.4%	+1.4 PP
% Free/Red. Lunch	50.1%	54.0%	+3.9 PP
% Daily Avg. Atten.	99.9%	99.8%	-0.1 PP
% Average Retained	91.3%	91.2%	-0.1 PP
% Drop-Out	8.7%	7.5%	-1.2 PP
% Mobility	5.1%	5.4%	+0.3 PP
Per Pupil Cost (\$)	\$125	\$127	+1.6%
# Students Per Computer			
% Classrooms Internet Access	41%	92%	+51.0 PP
Average Class Size	24	22	-8.3%

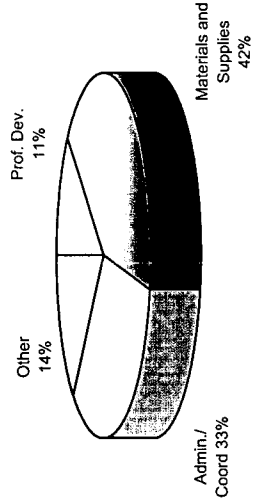
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	9%	11%
Materials and Suppl	31%	42%
Admin/Coord.	59%	33%
Other	1%	14%
Total	100%	100%

CPMSA Funds %



Student Demographics (SY 2000-01)

District Total: 25,525
 CPMSA Schools: 25,525
 Source: CDE 2000-01

Race/Ethnicity District-Wide

	1999-00	2000-01	%	% Change
Ame. Ind./Ala. Nat.	46	40	0.2%	-13.0%
Asiani/P. Islander	282	356	1.5%	+26.2%
Black	16,568	16,208	68.1%	-2.2%
Hispanic	412	716	3.0%	+73.8%
White	7,578	6,118	25.7%	-19.3%
Other	0	356	1.5%	
Total	24,886	23,794	100.0%	-4.4%
URM Total	17,026	16,964	71.3%	-0.4%

URM: Underrepresented Minority students.

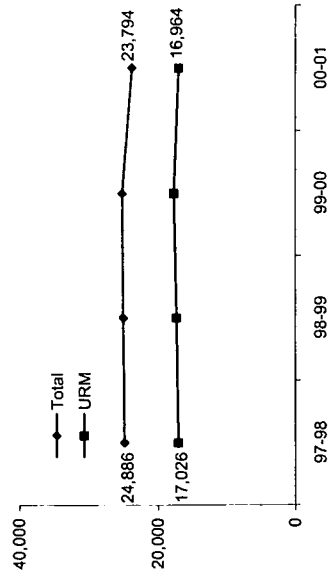
Gender

Male	12,579	11,851	49.8%	-5.8%
Female	12,307	11,943	50.2%	-3.0%

Grade

K-G5	12,503	11,859	49.8%	-5.2%
G6-8	5,345	5,447	22.9%	+1.9%
G9-12	6,897	6,488	27.3%	-5.9%
Ungraded	141	0	0.0%	

District Student Demographic Trends



12th Grade Graduates

	1997-98	2000-01	Change
Total 12th Grade	1,477	1,426	-3%
Earned a Diploma	1,427	1,365	-4%
% Earned Diploma	97%	96%	-1 PP

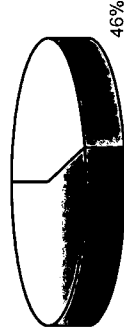
% Eamed Diploma for SY 2000-01



SEM Proficiency

	1997-98	2000-01	Change
# SEM Proficient ¹	317	659	+108%
% SEM Proficient/ Total 12th Grade	21%	46%	+25 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 3 units of math: Algebra I and Concepts of Geometry, or Geometry and Algebra II, or Statistics
- ◆ Science
 - 3 units of science: Active Physics, or Physics I, and Biology I and Chemistry I

Math and Science Teachers & Certification

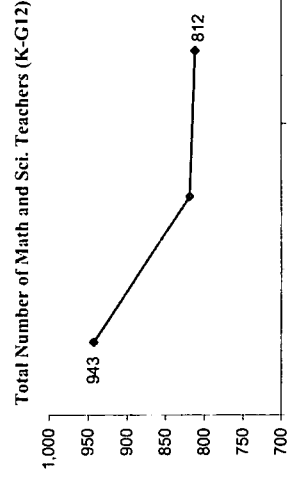
◆ Mathematics (G6-12)		1998-99	2000-01	Change
Teachers		66	58	-12%
G6-8 Certified		56	45	-20%
% Cert.		85%	78%	-7.3 PP
Teachers		45	53	+18%
G9-12 Certified		40	44	+10%
% Cert.		89%	83%	-5.9 PP
Teachers		111	111	+0%
Total Certified		96	89	-7%
% Cert.		86%	80%	-6.3 PP

Science (G6-12)

◆ Science (G6-12)		1998-99	2000-01	Change
Teachers		44	61	+39%
G6-8 Certified		36	48	+33%
% Cert.		82%	79%	-3.1 PP
Teachers		53	55	+4%
G9-12 Certified		47	47	+0%
% Cert.		89%	85%	-3.2 PP
Teachers		97	116	+20%
Total Certified		83	95	+14%
% Cert.		86%	82%	-3.7 PP

Math and Science (K-G5)

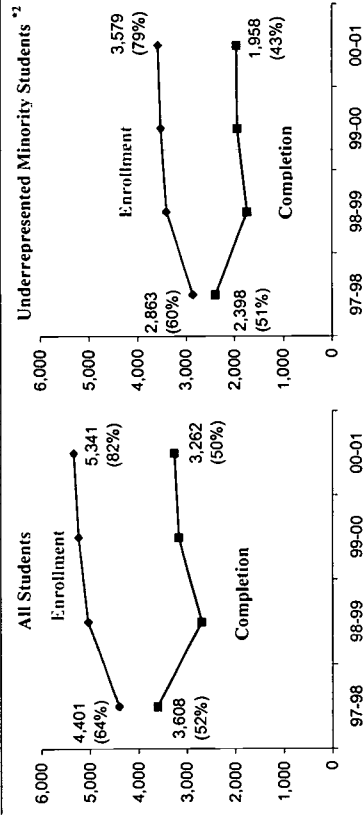
◆ Math and Science (K-G5)		1998-99	2000-01	Change
Teachers		735	596	-19%



Mathematics and Science Enrollment & Completion Trends/ All vs. URM

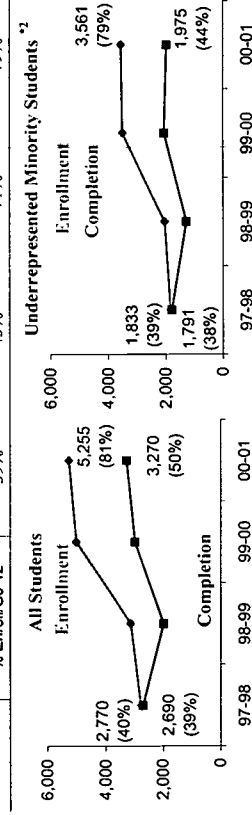
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	4,401	6,872	7,106	6,488
Completion ¹	3,608	5,037	5,239	5,341
% Enroll/G9-12	64%	73%	74%	82%
URM ²				
Enrollment	2,863	3,406	3,518	3,579
Completion ¹	2,398	1,744	1,940	1,958
% Enroll/G9-12	60%	72%	71%	79%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	2,770	6,872	7,106	6,488
Completion ¹	2,690	3,120	5,007	5,255
% Enroll/G9-12	40%	45%	70%	81%
URM ²				
Enrollment	1,833	2,043	3,508	3,561
Completion ¹	1,791	1,287	2,054	1,975
% Enroll/G9-12	39%	43%	71%	79%

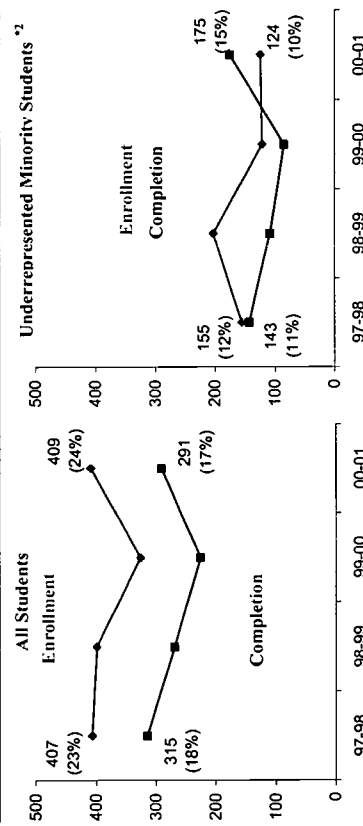


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

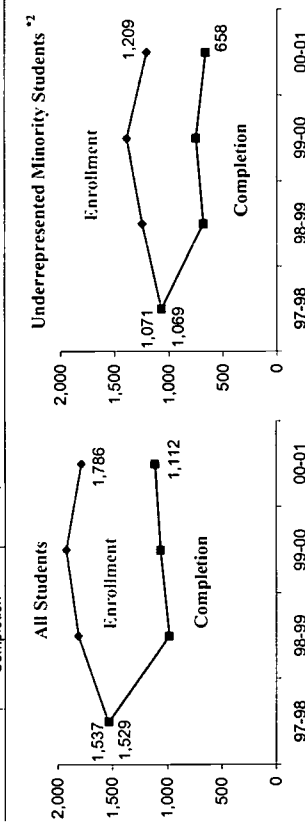
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

Total G 8 Population	97-98	98-99	99-00	00-01
Enrollment	1,786	1,761	1,772	1,723
Completion ¹	407	399	326	409
% Enroll/G8	23%	23%	18%	24%
URM ²				
Enrollment	155	203	121	124
Completion ¹	143	108	85	175
% Enroll/G8	12%	17%	9%	10%



Biology Enrollment & Completion Trends/ All vs. URM

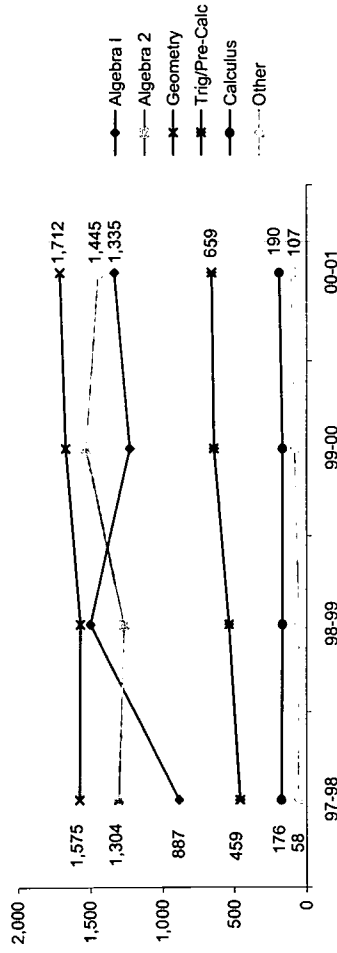
Total G 9-12 Population	97-98	98-99	99-00	00-01
Enrollment	1,537	1,812	1,924	1,786
Completion ¹	1,529	982	1,065	1,112
URM ²				
Enrollment	1,071	1,246	1,386	1,209
Completion ¹	1,069	678	747	658



Mathematics Course Enrollment & Completion Trends By Subject

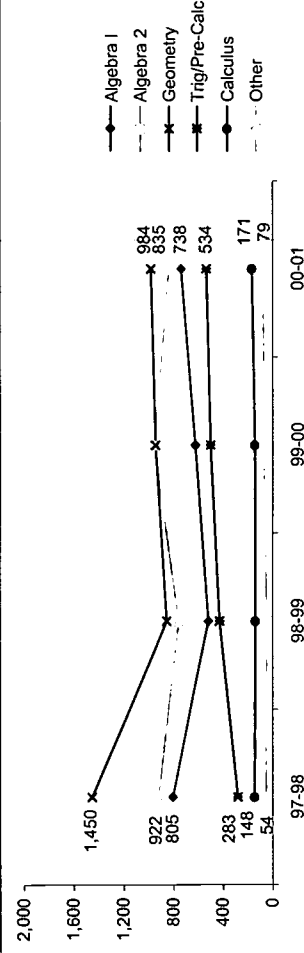
G 9-12 Course Enrollment (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98	887	1,304	1,575	459	176	58	4,459
98-99	1,499	1,266	1,569	535	168	54	5,091
99-00	1,228	1,530	1,671	642	168	85	5,324
00-01	1,335	1,445	1,712	659	190	107	5,448



G 9-12 Course Completion *1 (All Students)

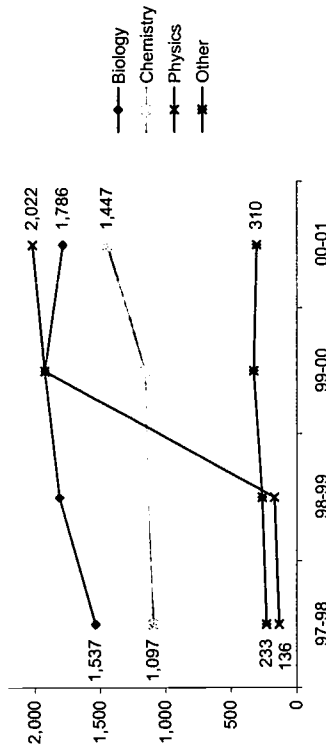
	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98	805	922	1,450	283	148	54	3,662
98-99	518	757	854	429	141	49	2,748
99-00	621	957	945	500	145	74	3,242
00-01	738	835	984	534	171	79	3,341



Science Course Enrollment & Completion Trends By Subject

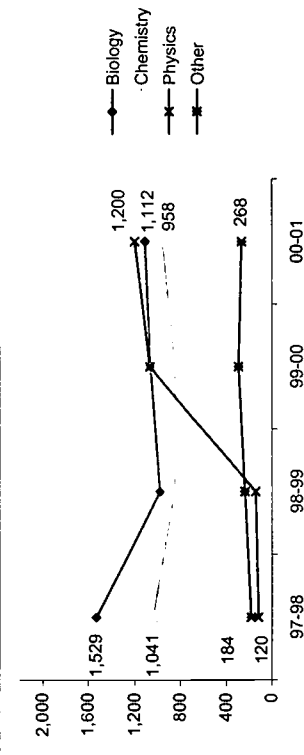
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	1,537	1,097	136	233	3,003
98-99	1,812	1,136	172	266	3,386
99-00	1,924	1,159	1,924	331	5,338
00-01	1,786	1,447	2,022	310	5,565



G 9-12 Course Completion *1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
97-98	1,529	1,041	120	184	2,874
98-99	982	853	146	240	2,221
99-00	1,065	848	1,071	294	3,278
00-01	1,112	958	1,200	268	3,538



*1 Successful completion: grade 'C' or above.

(.) Data Missing

District Assessment Test Administered

State Assessment Test-Taker Trends ACTAAP-Mathematics & SAT-9-Science

◆ **Mathematics**

Test Name	97-98	98-99	99-00	00-01
Scoring	Stanford 9- 8th Ed	Stanford 9- 8th Ed	Stanford 9- 8th Ed	Stanford 9- 8th Ed
Grade	5th, 7th, 10th	5th, 7th, 10th	5th, 7th, 10th	5th, 7th, 10th
Type	NRT	NRT	NRT	NRT

◆ **Science**

Test Name	97-98	98-99	99-00	00-01
Scoring	Stanford 9- 8th Ed	Stanford 9- 8th Ed	Stanford 9- 8th Ed	Stanford 9- 8th Ed
Grade	5th, 7th, 10th	5th, 7th, 10th	5th, 7th, 10th	5th, 7th, 10th
Type	NRT	NRT	NRT	NRT

State Assessment Test Administered

◆ **Mathematics**

Test Name	97-98	98-99	99-00	00-01
Scoring	ACTAAP	ACTAAP	ACTAAP	ACTAAP
Grade	4th, 8th	4th, 8th	4th, 8th	4th, 6th, 8th, Algebra I, and Geometry
Type				

◆ **Science**

Test Name	97-98	98-99	99-00	00-01
Scoring				
Grade				
Type				

ACTAAP = Arkansas Comprehensive Testing, Assessment and Accountability Program

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

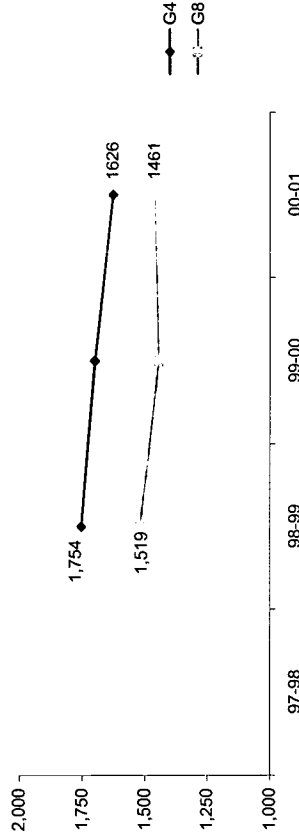
NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

◆ **Mathematics**

# of Test-takers	97-98	98-99	99-00	00-01
Grade 4	1,754	1,754	1,700	1,626
Grade 8	1,519	1,519	1,444	1,461

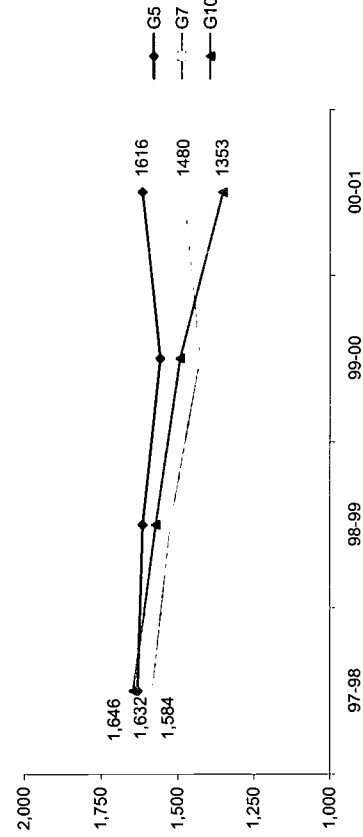
Total number of students taking test



◆ **Science**

# of Test-takers	97-98	98-99	99-00	00-01
Grade 5	1,632	1,615	1,558	1,616
Grade 7	1,584	1,525	1,427	1,480
Grade 10	1,646	1,573	1,493	1,353

Total number of students taking test

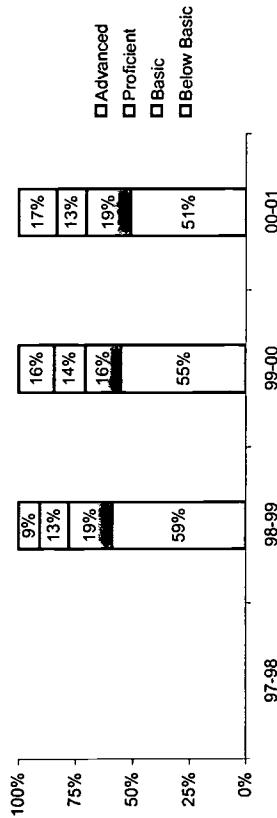


Little Rock CPMSA

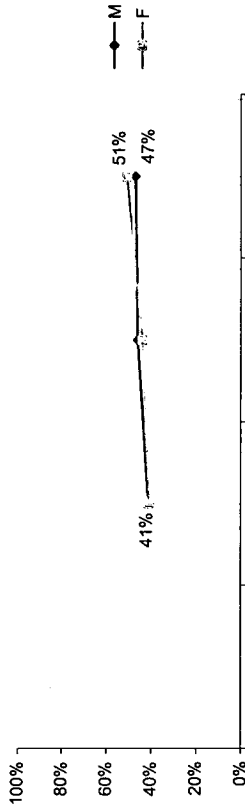
District Assessment Test Result Trends ACTAAP - Mathematics

Grade 4

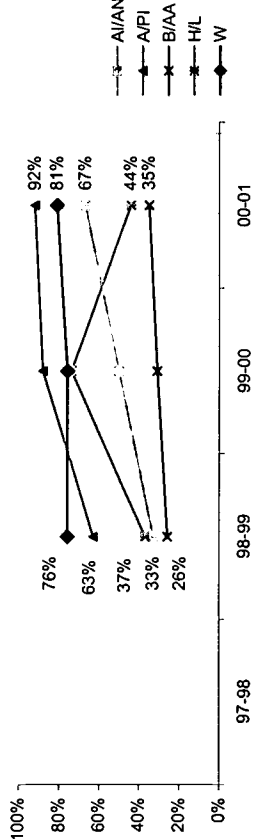
	97-98	98-99	99-00	00-01
Advanced	.	9%	16%	17%
Proficient	.	13%	14%	13%
Basic	.	19%	16%	19%
Below Basic	.	59%	55%	51%
Total # of students	.	1,754	1,700	1,626



% Passing by Gender

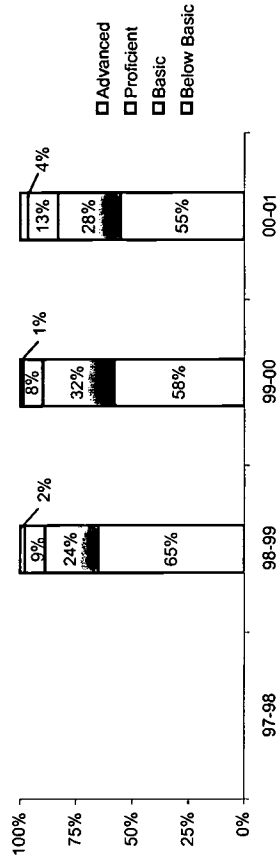


% Passing by Race/Ethnicity^{*1}

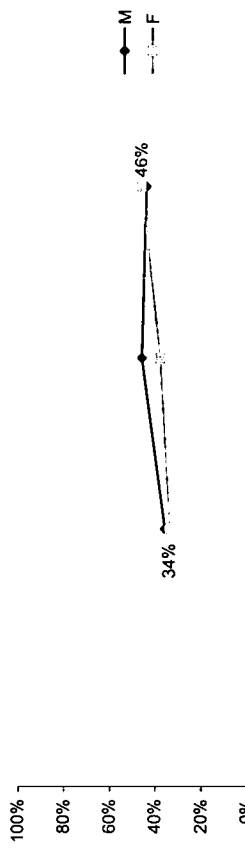


Grade 8

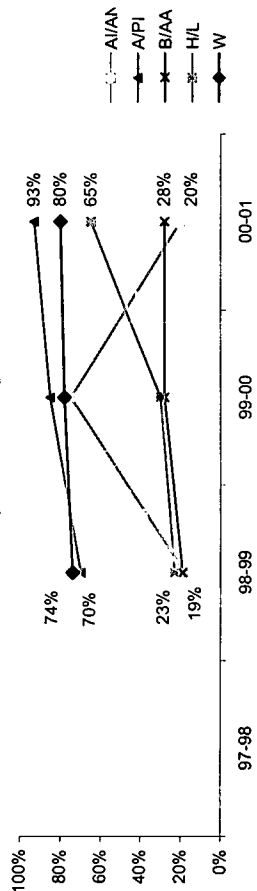
	97-98	98-99	99-00	00-01
Advanced	.	2%	1%	4%
Proficient	.	9%	8%	13%
Basic	.	24%	32%	28%
Below Basic	.	65%	58%	55%
Total # of students	.	1,519	1,444	1,461



% Passing by Gender



% Passing by Race/Ethnicity^{*1}



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 *1 Passing defined as basic or better
 (.) Data Missing

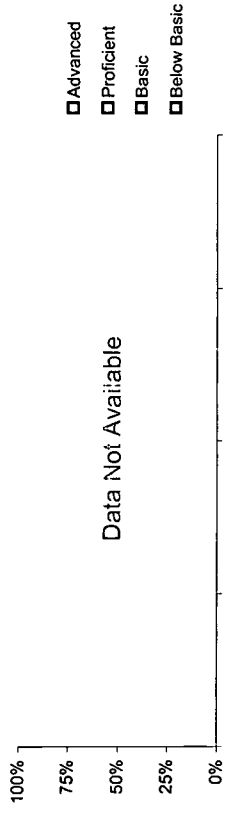
Little Rock CPMSA

District Assessment Test Result Trends ACTAAP - Mathematics

◆ Grade 10

	97-98	98-99	99-00	00-01
Advanced				
Proficient				
Basic				
Below Basic				
Total # of students				

Data Not Available



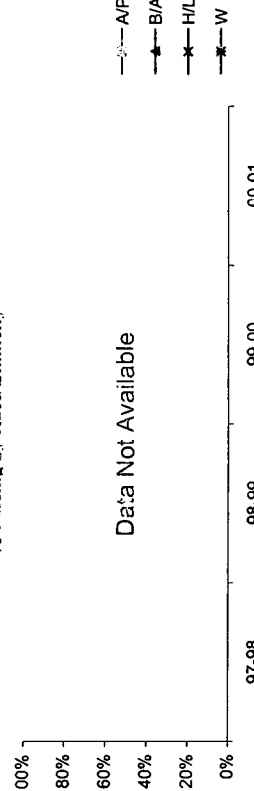
% Passing by Gender

Data Not Available



% Passing by Race/Ethnicity¹

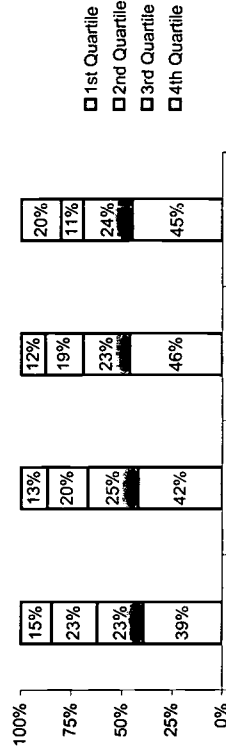
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District Assessment Test Result Trends SAT-9 - Science

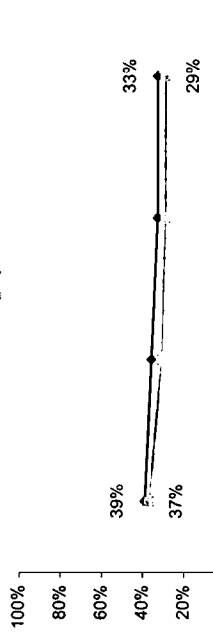
◆ Grade 5

	97-98	98-99	99-00	00-01
1st Quartile	15%	13%	12%	20%
2nd Quartile	23%	20%	19%	11%
3rd Quartile	23%	25%	23%	24%
4th Quartile	39%	42%	46%	45%
Total # of students	1,632	1,615	1,558	1,616

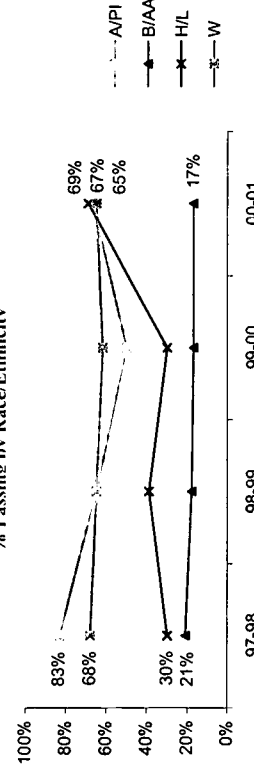


% Passing by Gender

◆ M
◆ F



% Passing by Race/Ethnicity¹



A/I/A/N: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

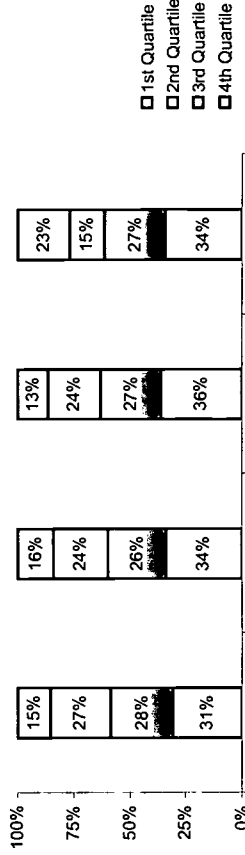
¹ Data not presented on graph for sample size less than 5

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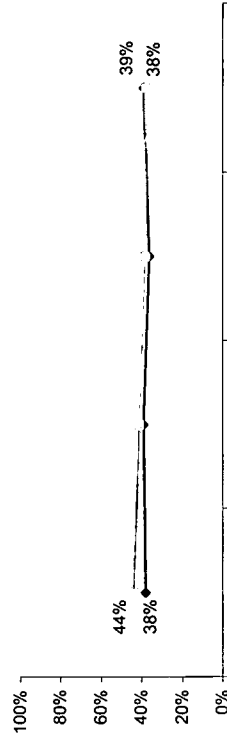
District Assessment Test Result Trends SAT-9 - Science

Grade 10

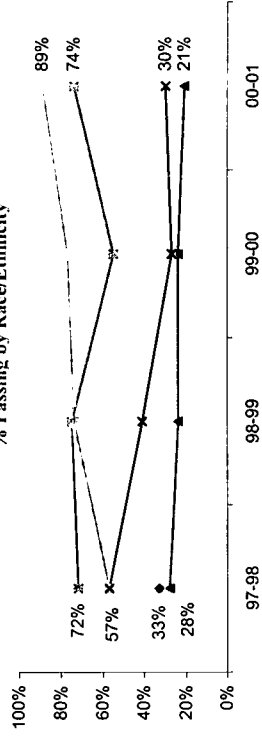
	97-98	98-99	99-00	00-01
1st Quartile	15%	16%	13%	23%
2nd Quartile	27%	24%	24%	15%
3rd Quartile	28%	26%	27%	27%
4th Quartile	31%	34%	36%	34%
Total # of students	1,646	1,573	1,493	1,353



% Passing by Gender



% Passing by Race/Ethnicity¹



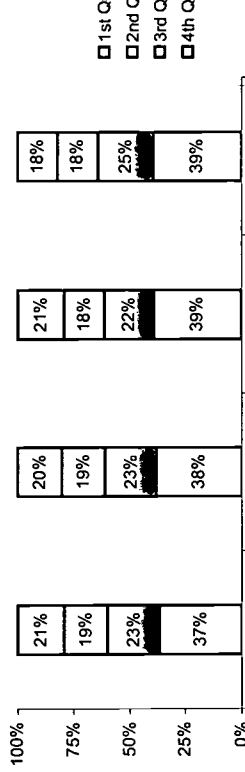
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

¹Data not presented on graph for sample size less than 5

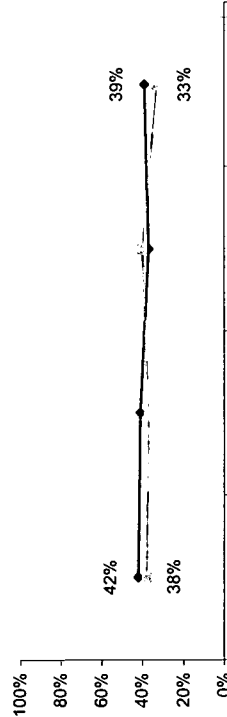
District Assessment Test Result Trends SAT-9 - Science

Grade 7

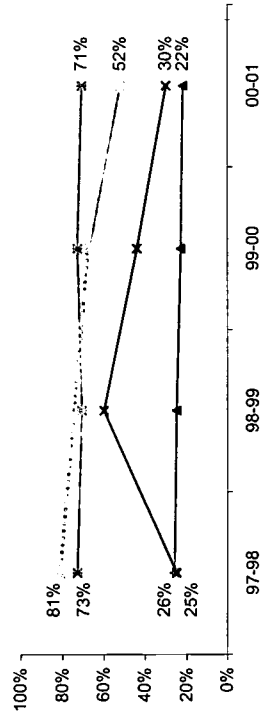
	97-98	98-99	99-00	00-01
1st Quartile	21%	20%	21%	18%
2nd Quartile	19%	19%	18%	18%
3rd Quartile	23%	23%	22%	25%
4th Quartile	37%	38%	39%	39%
Total # of students	1,584	1,525	1,427	1,480



% Passing by Gender



% Passing by Race/Ethnicity¹



AP Mathematics Test Result Trends

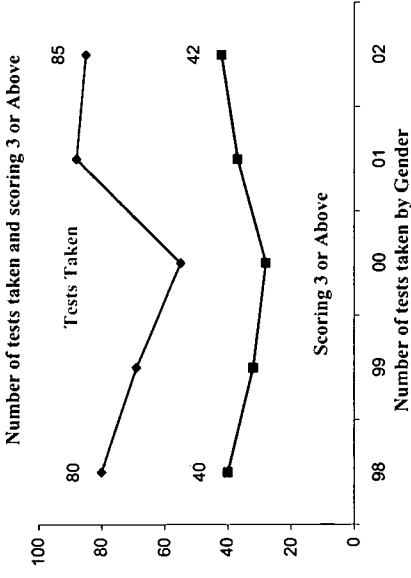
AP Mathematics - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,216	3,177	3,235	2,878	.
Calc. AB	48	46	32	51	55
Calc. BC	15	12	8	6	14
Statistics	17	11	15	31	16
Total	80	69	55	88	85
Tests taken per 1,000 students	24.9	21.7	17.0	30.6	.
Scoring 3 or Above	40	32	28	37	42
Scoring 3 or Above per 1000	12.4	10.1	8.7	12.9	.

AP Mathematics Test Result Trends

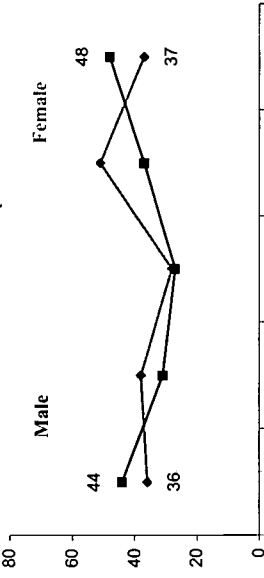
AP Mathematics - Number of Tests Taken By Gender

	98	99	00	01	02
Male	44	31	27	37	48
Female	36	38	28	51	37



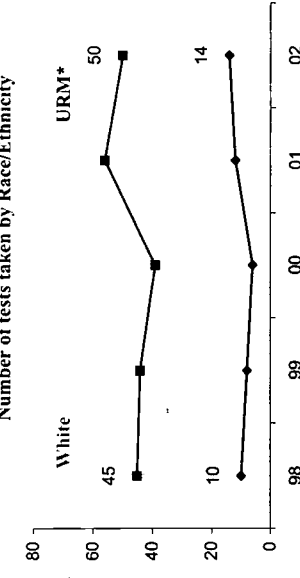
AP Mathematics - Number of Tests Taken By Gender

	98	99	00	01	02
Male	44	31	27	37	48
Female	36	38	28	51	37



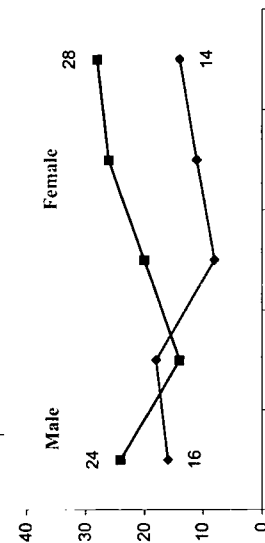
AP Mathematics - Number of Tests Taken By Race/Ethnicity

	98	99	00	01	02
AI/AN	0	0	0	0	1
A/PI	13	14	9	17	16
B/AA	9	7	6	11	13
H/L	1	1	0	1	0
W	45	44	39	56	50



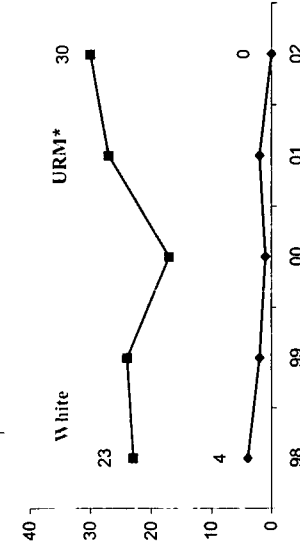
AP Mathematics - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	24	14	20	26	28
Female	16	18	8	11	14



AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity

	98	99	00	01	02
AI/AN	0	0	0	0	0
A/PI	5	5	9	6	9
B/AA	4	2	1	2	0
H/L	0	0	0	0	0
W	23	24	17	27	30



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
 *1 "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

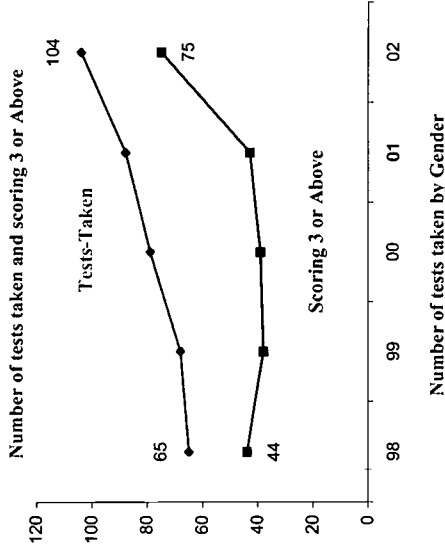
Little Rock CPMSA

SY 2000-01

AP Science Test Result Trends | ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

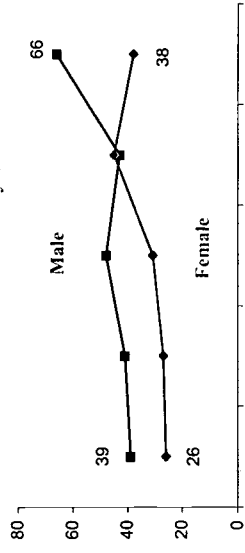
♦ AP Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,216	3,177	3,235	2,878	.
Biology	19	33	32	24	23
Chemistry	30	23	28	23	22
Env. Science	0	4	3	27	34
Physics B	10	8	15	14	10
Physics Mech.	3	0	1	0	10
Physics Elec.	3	0	0	0	5
Total	65	68	79	88	104
Tests taken per 1,000 students	20.2	21.4	24.4	30.6	.
Scoring 3 or Above	44	38	39	43	75
Scoring 3 or Above per 1000	13.7	12.0	12.1	14.9	.



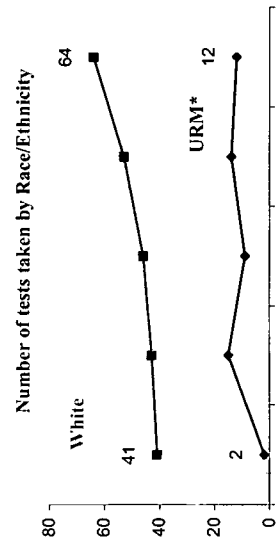
♦ AP Science - Number of Tests Taken By Gender

	98	99	00	01	02
Male	39	41	48	43	66
Female	26	27	31	45	38



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

	98	99	00	01	02
AI/AN	0	0	0	0	0
A/PI	9	6	19	15	22
B/AA	1	13	8	13	12
H/L	1	2	1	1	0
W	41	43	46	53	64

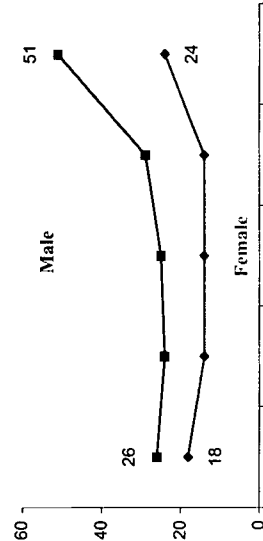


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

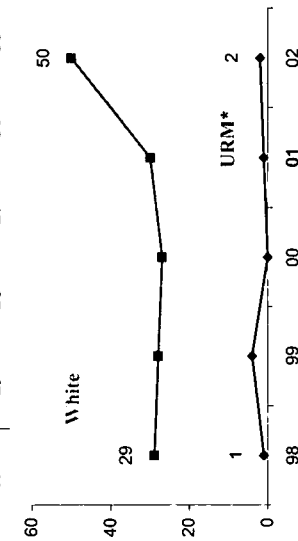
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	26	24	25	29	51
Female	18	14	14	14	24



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
AI/AN	0	0	0	0	0
A/PI	5	3	9	6	19
B/AA	1	3	0	1	2
H/L	0	1	0	0	0
W	29	28	27	30	50



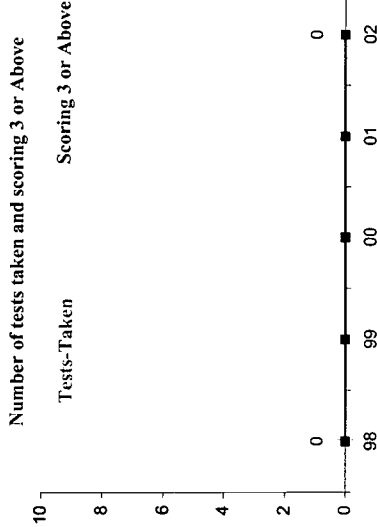
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

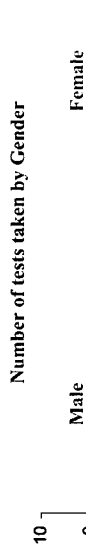
AP Computer Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,216	3,177	3,235	2,878	.
Comp. Sci A Tests Taken	0	0	0	0	0
Comp. Sci. AB Tests Taken	0	0	0	0	0
Total	0	0	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.0	0.0	.
Scoring 3 or Above	0	0	0	0	0
Scoring 3 or Above per 1000	0.0	0.0	0.0	0.0	.



AP Computer Science - Number of Tests Taken By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0

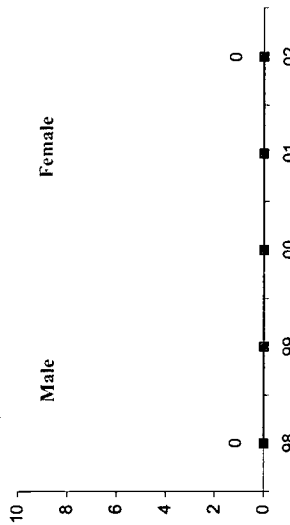


A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: Other

¹ "Other" category not presented

AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0



¹URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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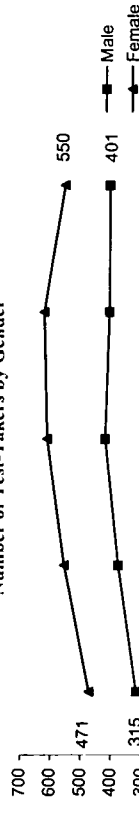
SY 2000-01

ACT Test-Takers

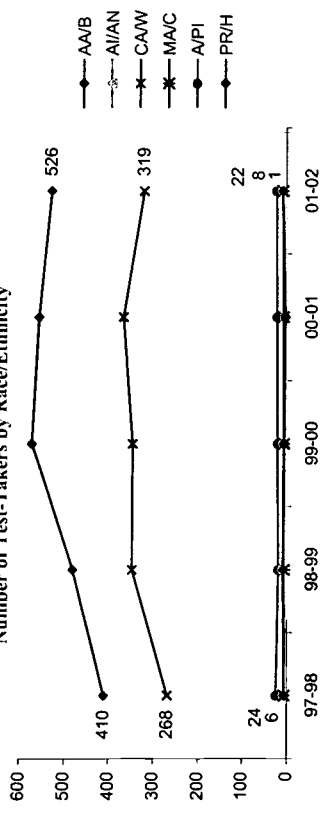
◆ Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,477	1,493	1,496	1,426	-
Test-Takers	786	933	1,031	1,022	952
Num of Test-Takers/1,000 Stu.	532	625	689	717	-
Gender					
Male	315	375	417	402	401
Female	471	554	609	618	550
Race/Ethnicity					
AA/B	410	480	570	554	526
AI/AN	6	1	3	2	1
CA/W	268	347	345	365	319
MA/C	6	6	6	7	8
A/PI	24	19	20	21	22
PR/H	6	8	6	3	8

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}

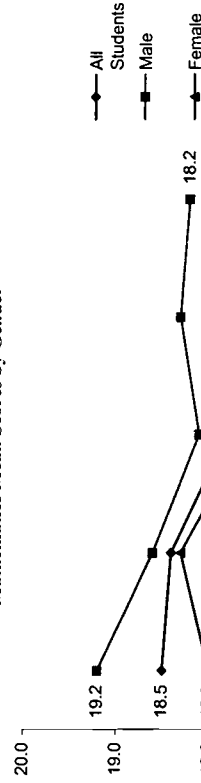


ACT Mathematics Scores

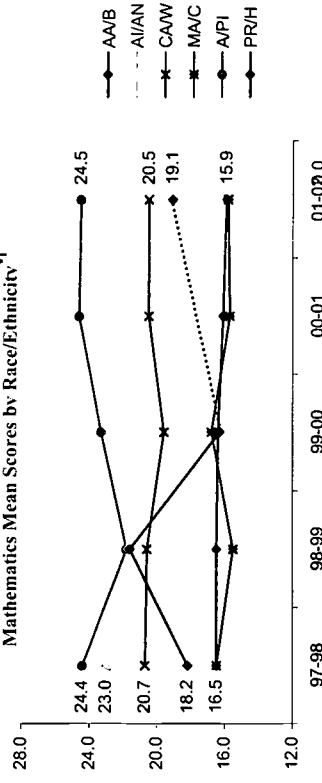
◆ Mathematics - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	18.5	18.4	17.8	18.0	17.8
Gender					
Male	19.2	18.6	18.1	18.3	18.2
Female	18.0	18.3	17.6	17.8	17.5
Race/Ethnicity					
AA/B	16.5	16.5	16.4	16.1	15.9
AI/AN	23.0	-	-	-	-
CA/W	20.7	20.6	19.6	20.5	20.5
MA/C	16.5	15.5	16.8	15.7	15.8
A/PI	24.4	21.8	23.3	24.6	24.5
PR/H	18.2	21.6	16.3	-	19.1

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity^{*1}



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic
^{*1} Number of Test-Takers less than 5 not presented in graph
 (-) Mean scores not presented for sample size less than 5

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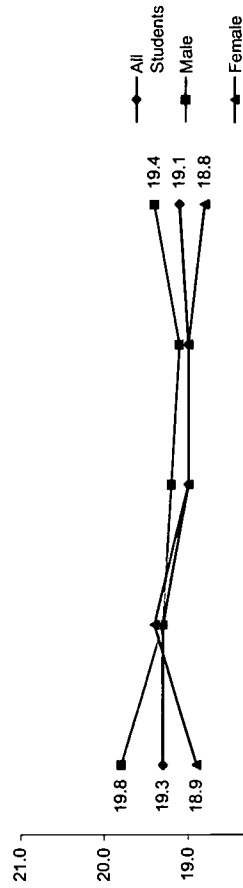
SY 2000-01

ACT Science Reasoning Scores

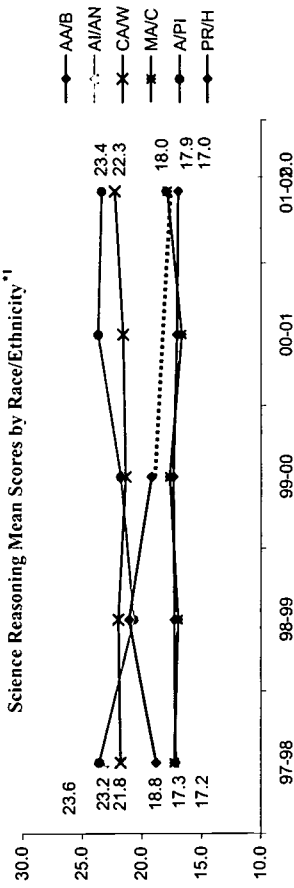
Science Reasoning - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	19.3	19.3	19.0	19.0	19.1
Gender					
Male	19.8	19.3	19.2	19.1	19.4
Female	18.9	19.4	19.0	19.0	18.8
Race/Ethnicity					
AA/B	17.2	17.3	17.4	17.1	17.0
AI/AN	23.2	-	-	-	-
CA/W	21.8	22.0	21.4	21.6	22.3
MA/C	17.3	17.0	17.7	16.7	17.9
A/PI	23.6	20.7	21.8	23.7	23.4
PR/H	18.8	21.1	19.2	-	18.0

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity^{*1}



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc.
 American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto
 Rican/Hispanic.

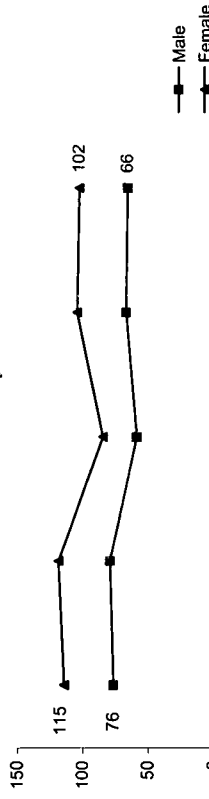
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

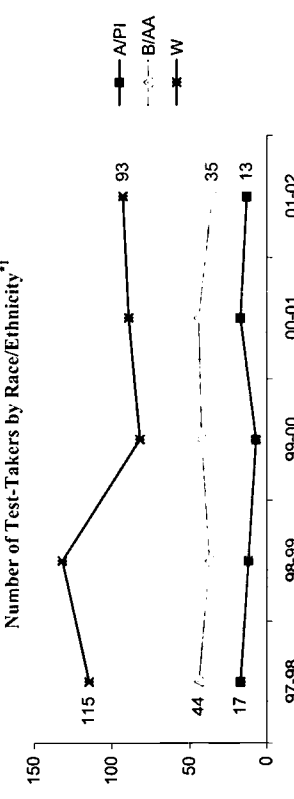
Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,477	1,493	1,496	1,426	-
Test-Takers	191	198	143	171	168
Num of Test-Takers/1,000 Stu.	129	133	96	120	-
Gender					
Male	76	79	59	67	66
Female	115	119	84	104	102
Race/Ethnicity					
AI/AN	1	0	0	0	0
A/PI	17	12	7	17	13
B/AA	44	37	42	44	35
H/L	0	2	1	1	3
W	115	132	82	89	93
OT	6	5	3	4	8

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or
 African American H/L: Hispanic or Latino W: White OT: Others
^{*1} Number of Test-Takers less than 5 not presented in graph

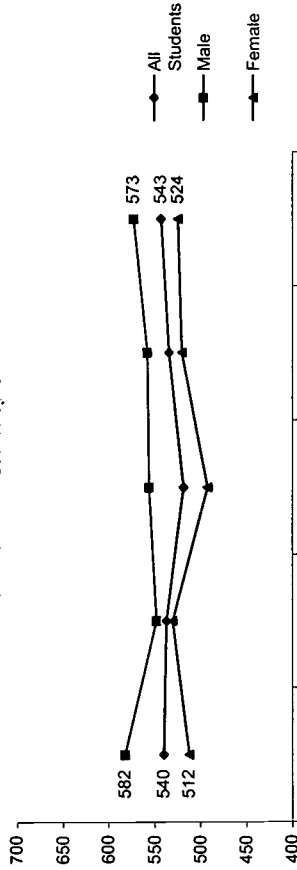
Little Rock CPMSA

SAT Mathematics Scores

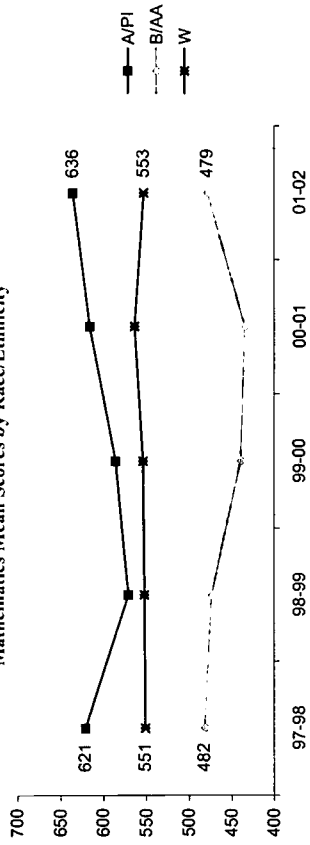
◆ Mathematics - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	540	537	518	534	543
Gender					
Male	582	548	556	558	573
Female	512	530	492	520	524
Race/Ethnicity					
A/IAN	-	-	-	-	-
A/PI	621	571	586	616	636
B/AA	482	474	440	435	479
H/L	-	-	-	-	-
W	551	552	554	564	553
OT	583	514	-	-	488

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity*1

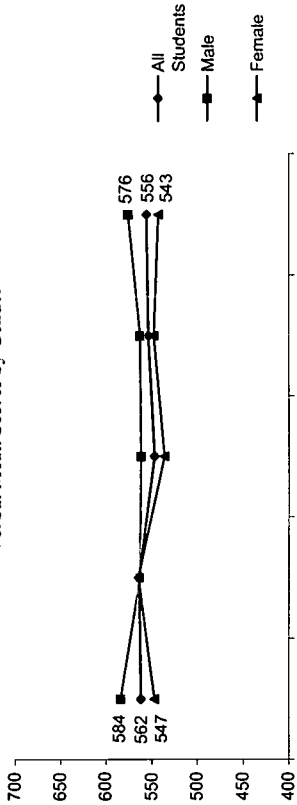


SAT Verbal Scores

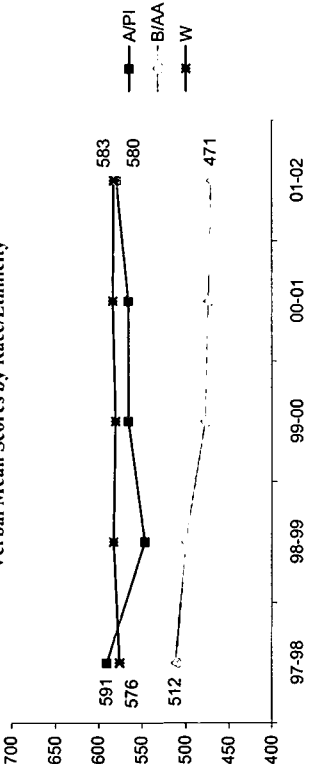
◆ Verbal - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	562	564	547	554	556
Gender					
Male	584	563	562	563	576
Female	547	565	536	548	543
Race/Ethnicity					
A/IAN	-	-	-	-	-
A/PI	591	547	566	566	580
B/AA	512	500	478	474	471
H/L	-	-	-	-	-
W	576	583	581	584	583
OT	592	518	-	-	504

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity*1



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

(* -) Mean scores not presented for sample size less than 5



Little Rock CPMSA

SY 2000-01

Cohort/Scale-Up Approach

Number of District Schools: 98-99 00-01 56 50
 CPMSA Schools: 56 50
 % Schools: 100% 100%
 Source: CDE 2000 and 2002

Special Education and Bilingual Students:

•ESL, Biology, Chemistry, Physics, Algebra I, Geometry and Algebra II
 •SPED and ESL teachers included in professional development activities

New Courses Added as a Result of CPMSA:

•Active Physics
 •AP Environmental Science
 •Pace-Setter Pre-Calculus
 •AP Physics 3C
 •Advanced Science/Theoretical Research 2
 •Range of University Studies for dual credit
 •Math 1 hour daily K-5
 •Math 55 minutes daily G6-8
 •Math 90 minutes every other day G9-12

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Primary Decision Making Body

Standards Curriculum: District
 Curriculum/TextBook Adoption: District
 Student Assessment: State
 Professional Development Resources: District
 Teacher Hiring: School
 Teacher Contracts: District
 Certification & Re-certification: State
 Graduation Requirements: District
 School-Based Management? Yes

Graduation Requirements:

•3 units of math: Algebra, Geometry and Algebra II or Statistics

•3 units of science: Physics, Biology, and Chemistry

Student Support Systems:
 •Afterschool tutoring at secondary level
 •Afterschool clubs
 •Project THRIVE
 Summer programs:
 •SMART Math (preparatory for Algebra)
 •JR-TEAMS enrichment

Policies Relevant to Curriculum

Framework: •Revised Arkansas Frameworks for math and science

Curricula: •Little Rock School Department Curricula Standards

Curricula Materials: •Elementary Math - Investigations in Number, Data and Space
 •Middle School Math - Connected Mathematics

Student Tracking: •Technology prep and low level courses effectively eliminated by new rigorous graduation requirements

Criteria for Entry into High Level Mathematics and Science Courses:
 Availability of High Level Courses: •Many available

Standards-based Curriculum and Instruction

Standards Adopted:
 • NCTM Math Standards
 • NRC National Science Education Standards
 • Revised State Frameworks

% of Students Experiencing Standards-based Curricula:
 E 100%
 M 100%
 H 100%

Policies Relevant to Teacher Qualifications

Certification: • State license required
 Requirement & Hiring Practices

Professional Advancement & Leadership Training:
 • Vertical teams articulate the curriculum and Professional Development across grade levels
 • Lead Teachers work with small groups of schools

E: Elementary School M: Middle School H: High School

Policies Promoting Equal Access by All Students in High Quality Education



Professional Development Policies and Practices

Time Required or Supported: State requires 30 hours annually, 6 must be in area of technology

Financial Resources Provided:

Alignment to Student Standards:

Has CPMSA influenced professional development changed teachers' instructional practices: Standards-based instruction implemented in satisfactory to good manner

Type and Amount Received by Average Math/Science Teacher: 35.6 hours

Evaluation Instruments: Lead teachers use an implementation rubric to rate level at which Professional Development is implemented

Student Achievement data drives future planning for Professional Dev.

Professional Development Alignment to Content Standards Measures:

Teacher's Instructional Practices Evaluation: Principals/Assistant Principals observe practices

Impact on Student Achievement:

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

Standards and benchmarks are closely aligned to the Benchmark Exams, the ALT and the CRTs

Assessments Used: Arkansas Benchmark Exams in Math for 4th and 8th grades

Achievement level tests, SAT-9, for G3-11 in Fall and Spring for Science

Explore (G8) and plan (G10) tests from ACT

Criterion referenced test used at end of each Investigation for CMP and STC unit

CPMSA Leadership, Governance, and Management

Superintendent: Dr. Les Carmine

Yes

Continuity of Leadership

Project Directors position in district's organizational structure: Reports directly to the superintendent

Teacher Leaders: Lead teachers (10)
E 6

M 1 Math and 1 Science
H 1 Math and 1 Science

Partnerships

Other Key Initiatives: 21st Century Grant
Title I

SAFE School/Healthy Children
Community Learning Centers Project
Arkansas Statewide Systemic Initiative

Competing Initiatives: None

Community Stakeholders: Arkansas Museum of Discovery
Re-build Arkansas
Parent/Community Involvement Committee

Higher Education: University of Arkansas at Little Rock

Philander Smith College
University of Arkansas for Medical Sciences

University of Central Arkansas

Business and Industry: Partners in Education

Accountability

- Program Effectiveness Monitoring:
 - CRT test scores monitored
 - Lead teachers monitor classroom instruction
- Report Card System:
 - From State and District (on website)
- Key Indicator Data Collection:
 - From Pupil Services
 - Information Services, Planning, and Research and Evaluation

- Key Indicator Data Use:
 - Student Support is adequate
 - Program adjustments: For example, increase number of lead teachers in middle school Math when student scores decreased

- Local On-Sight Evaluation:
 - Not formal
 - Monthly meetings with Co-PI, Project Director, Evaluator, and Director of Math and Science to discuss data and measure progress

Data Evaluator:

External Evaluator: • No

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
97-98	
98-99	• ESL teachers at Newcomer's Centers
99-00	• Graduation Requirements made more rigorous, 2-3 Math and Science courses required

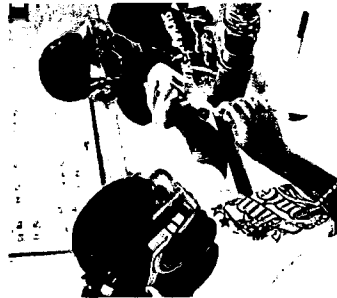
Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
97-98	
98-99	
99-00	• New curriculum materials adopted at all school levels

Little Rock CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98		1997-98		1997-98	
1998-99		1998-99	<ul style="list-style-type: none"> • Several Standards aligned assessments used (Arkansas Benchmark Exams in grades 4 and 8) for first time 	1998-99	
1999-00		1999-00	<ul style="list-style-type: none"> • Achievement Level Tests initiated Fall and Spring grades 3-11 in Science (SAT-9) 	1999-00	

CPMSA *Comprehensive Partnerships for Mathematics and Science Achievement*



Project Information

CPMSA Project Title : Project TEAMS (Teaching Easy Access to Math & Science)
 Cohort: 98
 CPMSA Web Site:

◆ **PI, CO-PI and PD**

Principal Investigator
 Clinton Carter T (334) 223-6710 F (334) 269-3076
 clinton.carter@mps.k12.al.us
 Co-Principal Investigator
 Robert Dewberry T (334) 223-6830 F (334) 269-6997
 robert.dewberry@mps.k12.al.us
 Project Director
 Tina Bowlin T (334) 223-6840 F (334) 223-6896
 tina.bowlin@mps.k12.al.us

◆ **CPMSA Data Manager/Evaluator**

Project Summary

Teaching Easy Access to Math and Science (TEAMS) links a largely urban unitary school to broad-based partnership of higher education, business and industry, and community organizations to boost achievement in college preparatory science and mathematics. TEAMS is a collaborative venture of the Montgomery Public Schools with Alabama State University, the University of Alabama in Birmingham, Auburn University, BellSouth, TCI Cable Television, and the Montgomery YMCA. Project TEAMS directly addresses the system-wide commitment to raising student expectations, improving teacher performance, and providing support for all students to succeed. The project, a system-wide initiative, will involve 30,651 students in 31 elementary schools and 14 secondary schools, with the exception of magnet and alternative schools and special education centers. MPS will implement Project TEAMS in order to reverse the current trend of low enrollment in and successful completion of upper-level mathematics and science courses.

Project Goals

- To double the number of students enrolling in and successfully completing, pre-college courses
- To double the enrollment of underrepresented minorities in advanced science and math courses
- To double the number of graduates who successfully complete Algebra I by the end of the ninth grade
- To double the number of MPS graduates who successfully complete Physical Science by the end of the ninth grade
- To improve teacher performance through enhanced professional development programs
- To increase parental involvement by 25% through improved access to schools and faculty
- To increase community involvement by 25% through linkages between schools, businesses, and other community orgs.
- To raise student performance in math and science achievement to national and state levels as measured by the Standard Achievement Test Series
- To revise the math curriculum to meet local, state, and National Council of Teachers of Mathematics Standards
- To revise the science curriculum to meet local, state, and National Science Education Standards (Benchmarks).

Selected School Indicators (District Average)

	98-99	00-01	Change
% Special Ed.	12.0%	12.4%	+0.4 PP
% LEP	2.0%	0.1%	-1.9 PP
% Free/Red. Lunch	65.0%	64.0%	-1.0 PP
% Daily Avg. Atten.	93.8%	94.0%	+0.2 PP
% Average Retained	4.9%	5.0%	+0.1 PP
% Drop-Out	1.3%	1.4%	+0.1 PP
% Mobility	4.5%		
Per Pupil Cost (\$)	\$5,020	\$5,398	+7.5%
# Students Per Computer	9	6	-33.3%
% Classrooms Internet Access	92.5%	100%	+7.5 PP
Average Class Size	25		

◆ **District Schools, Math & Science Teachers, and Students**

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	37	867	18,682
G6-8 (Middle)	12	160	7,507
G9-12 (High)	9	154	6,404
Total	58	1,181	32,593

Source: Core Data Elements (SY 2000-01)

(.) Data Missing

PP: Percentage Points

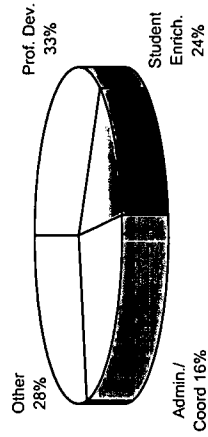
Comprehensive Partnerships for Mathematics and Science Achievement (CPMSA)

III-135

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.		33%
Student Enrich.		15%
Admin/Coord.		24%
Other		28%
Total		100%

CPMSA Funds %



Source: Core Data Elements (SY 2000-01)

Montgomery CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 32,642
 CPMSA Schools: 28,423
 Source: CDE 2001, TISC-2002

◆ Race/Ethnicity District-Wide

	98-99	00-01	%	% Change
Ame. Ind./Ala. Nat.	34	27	0.1%	-20.6%
Asian/P. Islander	248	258	0.9%	+4.0%
Black	21,689	21,649	76.2%	-0.2%
Hispanic	164	186	0.7%	+13.4%
White	7,326	6,248	22.0%	-14.7%
Other	5	55	0.2%	+1,000%
Total	29,466	28,423	100.0%	-3.5%
URM Total	21,887	21,862	76.9%	-0.1%

URM: Underrepresented Minority students.

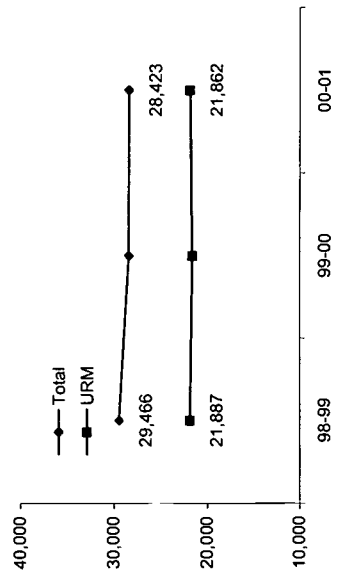
◆ Gender

	98-99	00-01	%	% Change
Male	15,074	14,744	51.9%	-2.2%
Female	14,392	13,679	48.1%	-5.0%

◆ Grade

	98-99	00-01	%	% Change
K-G5	15,314	14,857	52.3%	-3.0%
G6-8	6,214	6,857	24.1%	+10.3%
G9-12	7,938	6,709	23.6%	-15.5%
Ungraded	0	0	0.0%	

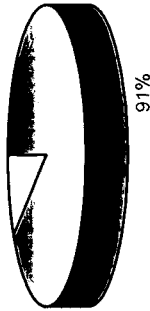
◆ CPMSA Schools Student Demographic Trends



12th Grade Graduates (CPMSA Schools)

	99-00	00-01	Change
Total 12th Grade	1,746	1,481	-15%
Earned a Diploma	1,554	1,348	-13%
% Earned Diploma	89%	91%	+2 PP

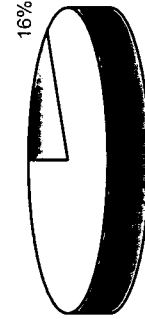
% Earned Diploma for SY 2000-01



SEM Proficiency

	99-00	00-01	Change
# SEM Proficient ¹	398	238	-40%
% SEM Proficient/ Total 12th Grade	23%	16%	-7 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have earned an *Advanced Diploma*.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - Four credits to include the equivalent of: Algebra I and Geometry and two electives
- ◆ Science
 - Four credits to include the equivalent of: Biology and A Physical Science and Additional Life and/or Physical Science

PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

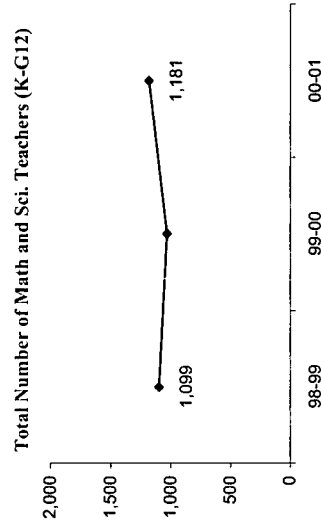
	98-99	00-01	Change
Teachers	97	82	-15%
G6-8 Certified			
% Cert.			
Teachers	80	79	-1%
G9-12 Certified			
% Cert.			
Teachers	177	161	-9%
Total Certified			
% Cert.			

◆ Science (G6-12)

	98-99	00-01	Change
Teachers	89	78	-12%
G6-8 Certified			
% Cert.			
Teachers	74	75	+1%
G9-12 Certified			
% Cert.			
Teachers	163	153	-6%
Total Certified			
% Cert.			

◆ Math and Science (K-G5)

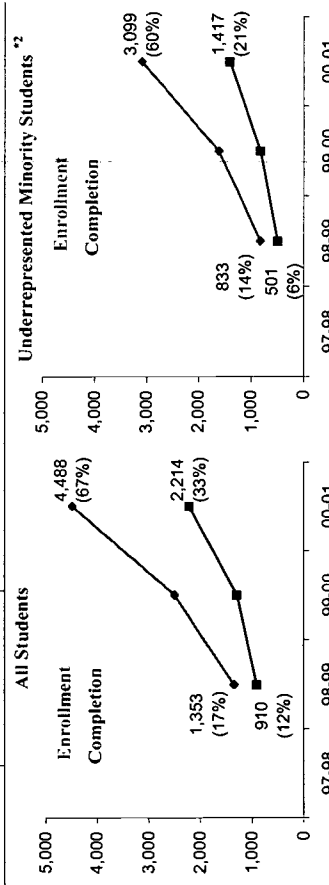
	98-99	00-01	Change
K-G5 Teachers	759	867	+14%



Montgomery CPMSA

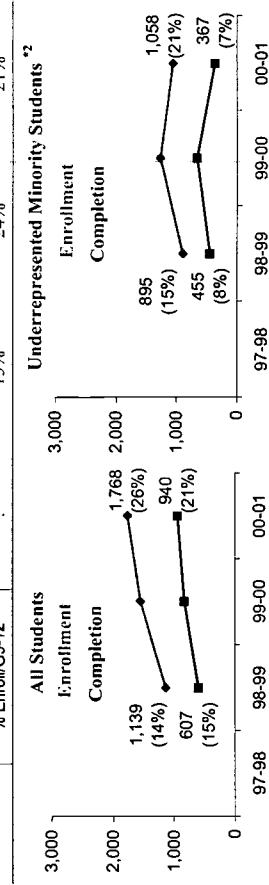
Mathematics and Science Enrollment & Completion Trends/ All vs. URM (CPMSA Schools)
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	97-98	98-99	99-00	00-01
Total G 9-12 Population (CPMSA Schools)	7,938	7,132	6,709	4,488
All Students	Enrollment Completion ¹ % Enroll/G9-12	1,353 910 17%	2,505 1,299 35%	4,488 2,214 67%
URM ²	Enrollment Completion ¹ % Enroll/G9-12	833 501 14%	3,099 831 31%	3,099 1,417 60%



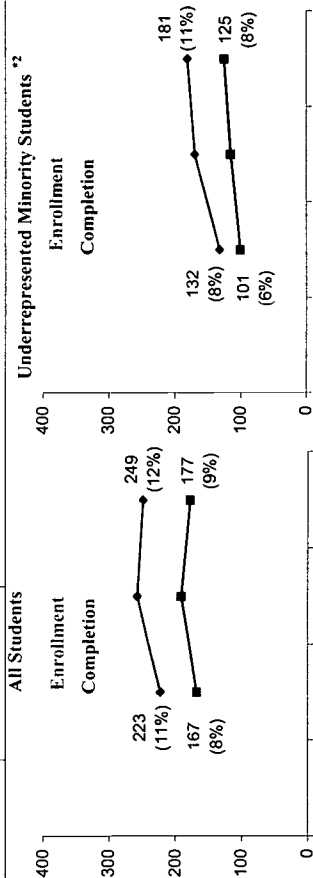
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	97-98	98-99	99-00	00-01
Total G 9-12 Population (CPMSA Schools)	7,938	7,132	6,709	1,768
All Students	Enrollment Completion ¹ % Enroll/G9-12	1,139 607 14%	1,552 828 22%	1,768 940 26%
URM ²	Enrollment Completion ¹ % Enroll/G9-12	895 455 15%	1,269 667 24%	1,058 367 21%



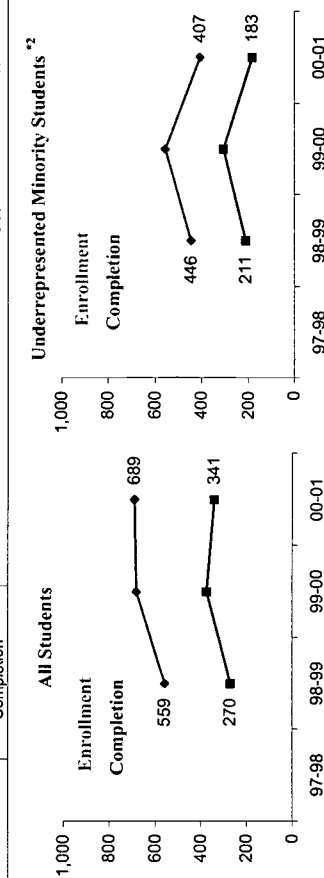
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM (CPMSA Schools)

	97-98	98-99	99-00	00-01
Total G 8 Population (CPMSA Schools)	2,037	2,233	1,871	2,080
All Students	Enrollment Completion ¹ % Enroll/G8	223 167 11%	258 191 14%	249 177 12%
URM ²	Enrollment Completion ¹ % Enroll/G8	132 101 8%	169 115 12%	181 125 11%



Biology Enrollment & Completion Trends/ All vs. URM (CPMSA Schools)

	97-98	98-99	99-00	00-01
Total G 9-12 Population (CPMSA Schools)	7,938	7,132	6,709	1,768
All Students	Enrollment Completion ¹	559 270	682 374	689 341
URM ²	Enrollment Completion ¹	446 211	557 305	407 183



¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

(.) Data Missing

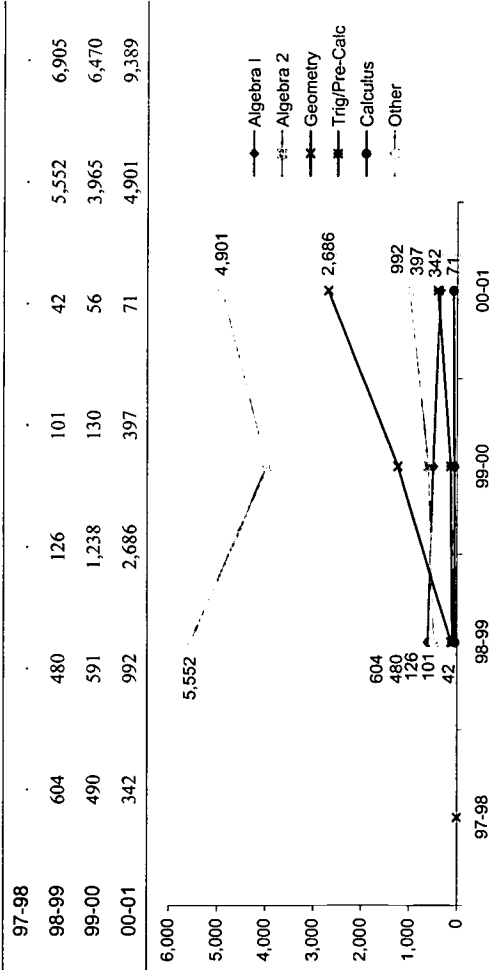
Montgomery CPMSA

SY 2000-01

Mathematics Course Enrollment & Completion Trends By Subject (CPMSA Schools)

G 9-12 Course Enrollment (CPMSA Schools)

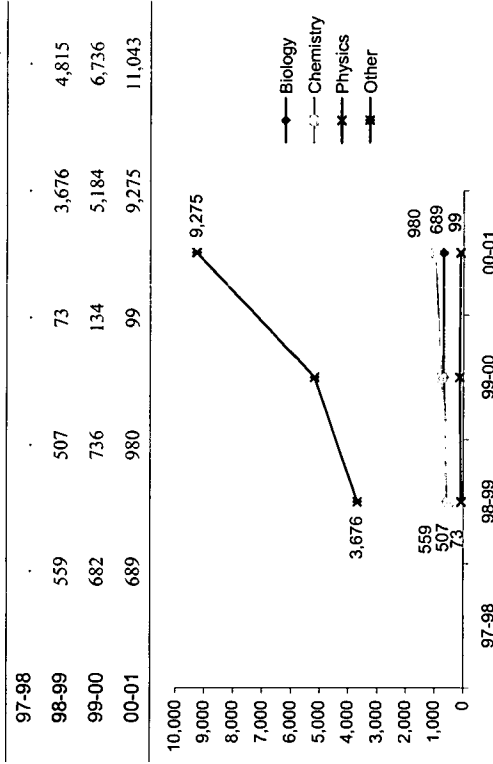
	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98							
98-99	604	480	126	101	42	5,552	6,905
99-00	490	591	1,238	130	56	3,965	6,470
00-01	342	992	2,686	397	71	4,901	9,389



Science Course Enrollment & Completion Trends By Subject (CPMSA Schools)

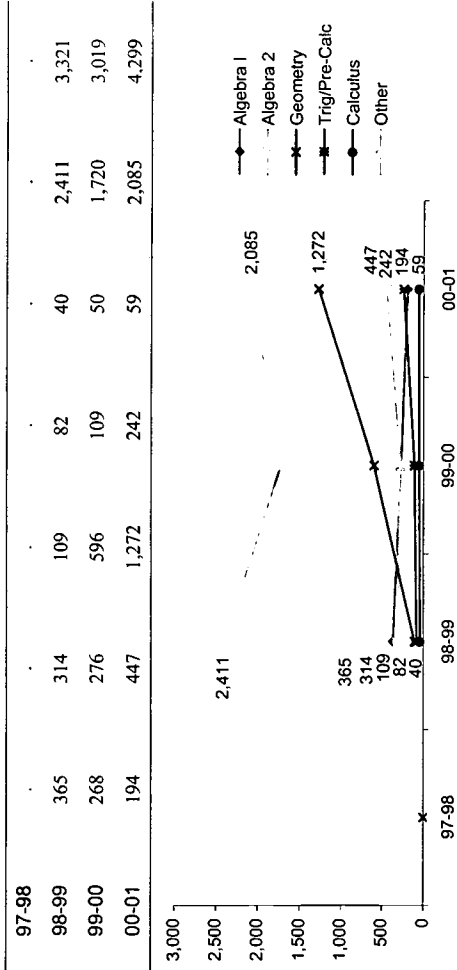
G 9-12 Course Enrollment (CPMSA Schools)

	Biology	Chemistry	Physics	Other	Science Total
97-98					
98-99	559	507	73	3,676	4,815
99-00	682	736	134	5,184	6,736
00-01	689	980	99	9,275	11,043



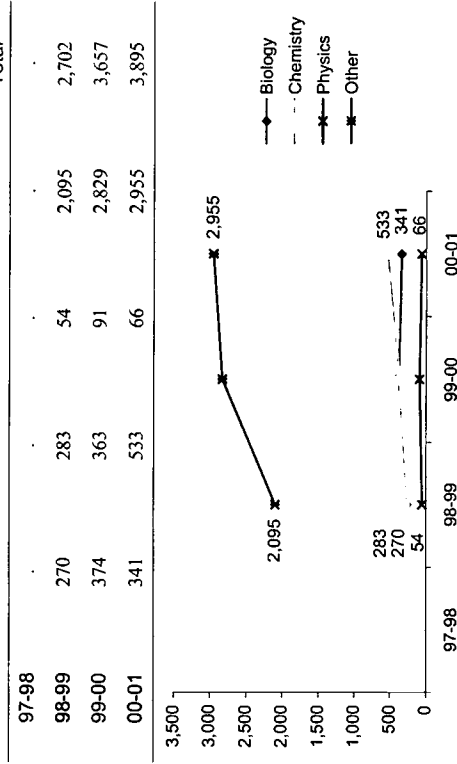
G 9-12 Course Completion ¹ (CPMSA Schools)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
97-98							
98-99	365	314	109	82	40	2,411	3,321
99-00	268	276	596	109	50	1,720	3,019
00-01	194	447	1,272	242	59	2,085	4,299



G 9-12 Course Completion ¹ (CPMSA Schools)

	Biology	Chemistry	Physics	Other	Science Total
97-98					
98-99	270	283	54	2,095	2,702
99-00	374	363	91	2,829	3,657
00-01	341	533	66	2,955	3,895



¹ Successful completion: grade 'C' or above.

² Data not presented on graph for sample size less than 5

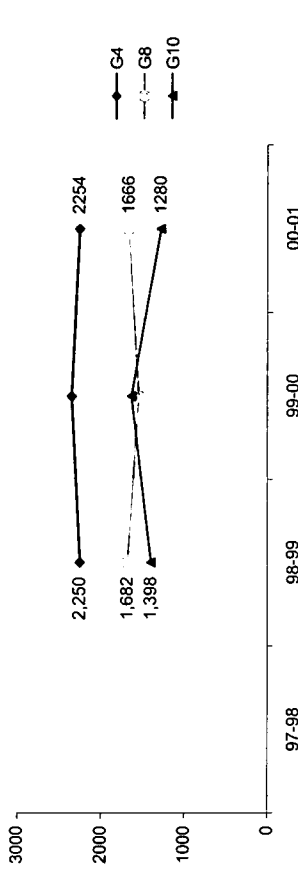
(.) Data Missing

Montgomery CPMSA

State Assessment Test-Taker Trends - SAT-9 (CPMSA Schools)

District Assessment Test Administered (CPMSA Schools)		97-98	98-99	99-00	00-01
◆ Mathematics					
# of Test-takers					
Test Name					
Scoring					
Grade					
Type					
		97-98	98-99	99-00	00-01
	Grade 4	.	2,250	2,347	2,254
	Grade 8	.	1,682	1,545	1,666
	Grade 10	.	1,398	1,634	1,280
	Type	.	.	.	.

Total number of students taking test

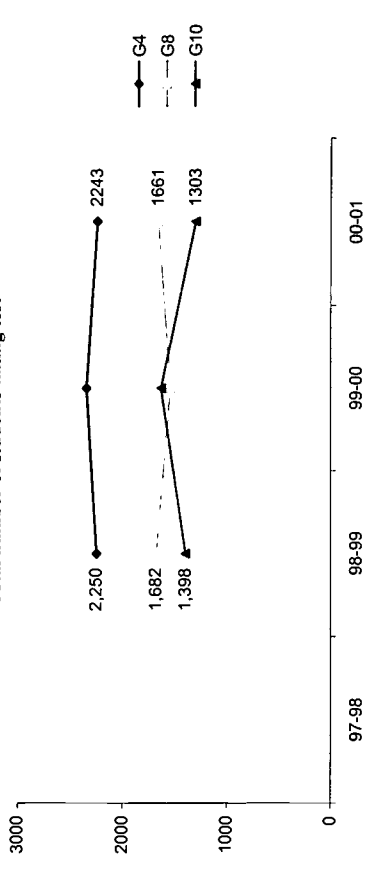


◆ Science		97-98	98-99	99-00	00-01
Test Name					
Scoring					
Grade					
Type					
		97-98	98-99	99-00	00-01
	

State Assessment Test Administered (CPMSA Schools)

District Assessment Test Administered (CPMSA Schools)		97-98	98-99	99-00	00-01
◆ Mathematics					
# of Test-takers					
Test Name					
Scoring					
Grade					
Type					
		97-98	98-99	99-00	00-01
	Grade 4	.	2,250	2,347	2,243
	Grade 8	.	1,682	1,545	1,661
	Grade 10	.	1,398	1,634	1,303
	Type	.	.	.	.

Total number of students taking test



◆ Science		97-98	98-99	99-00	00-01
Test Name					
Scoring					
Grade					
Type					
		97-98	98-99	99-00	00-01
	SAT-9	.	SAT-9	SAT-9	SAT-9
	PC,SN	.	PC,SN	PC,SN	PC,SN
	4,8,10	.	4,8,10	4,8,10	4,8,10
	NRT	.	NRT	NRT	NRT

*SAT-9: Stanford Achievement Test
 PC: Percentile SN: Stanine PL: Performance Level
 PF: Pass/Fail SS: Scaled Score OT: Other
 NRT: Norm-Referenced Test CRT: Criterion-Referenced Test
 (.) Data Missing

Montgomery CPMSA

SY 2000-01

State Assessment Test Result Trends SAT-9 - Mathematics (CPMSA Schools)

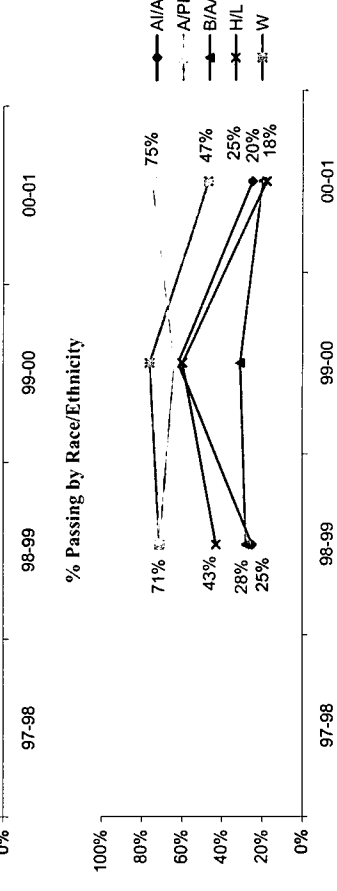
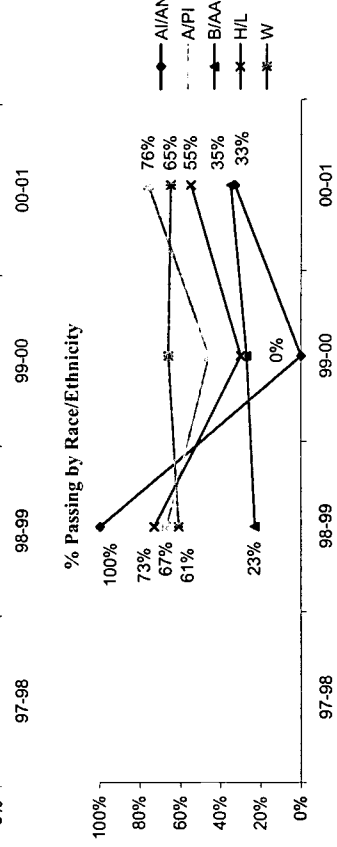
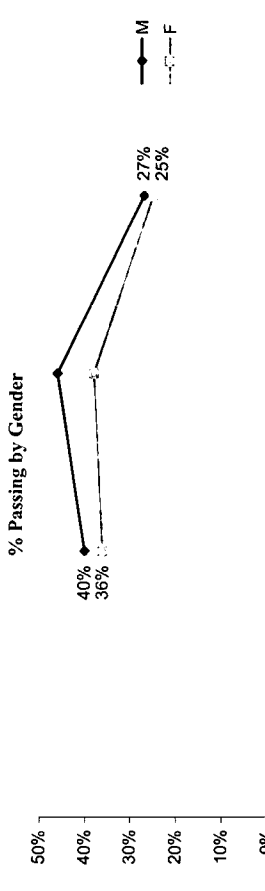
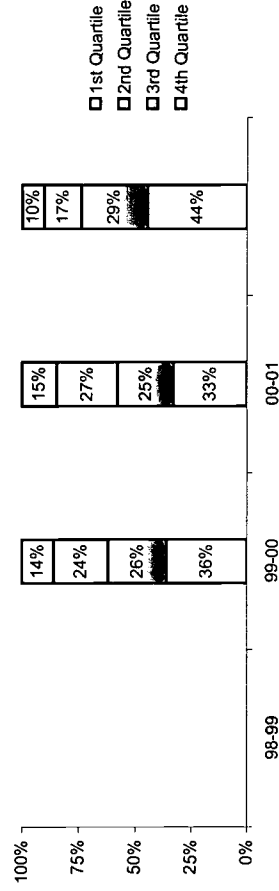
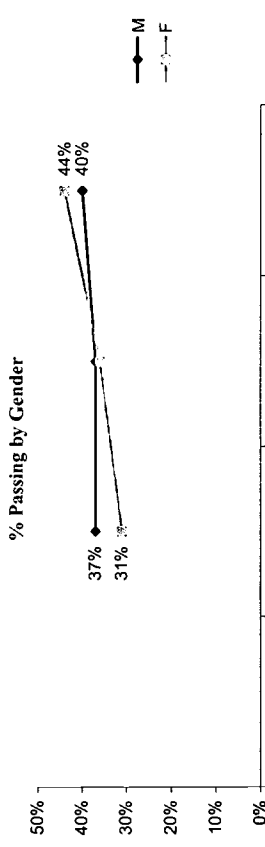
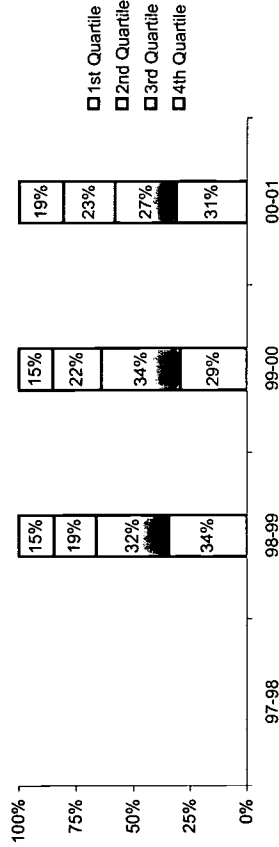
State Assessment Test Result Trends SAT-9 - Mathematics (CPMSA Schools)

◆ Grade 4

◆ Grade 8

	97-98	98-99	99-00	00-01
1st Quartile	15%	15%	15%	19%
2nd Quartile	19%	19%	22%	23%
3rd Quartile	32%	32%	34%	27%
4th Quartile	34%	34%	29%	31%
Total # of students		2,250	2,347	2,254

	97-98	98-99	99-00	00-01
1st Quartile	14%	14%	15%	10%
2nd Quartile	24%	24%	27%	17%
3rd Quartile	26%	26%	25%	29%
4th Quartile	36%	36%	33%	44%
Total # of students		1,682	1,545	1,666



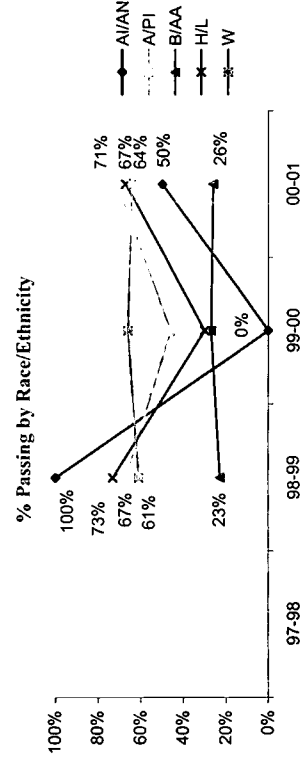
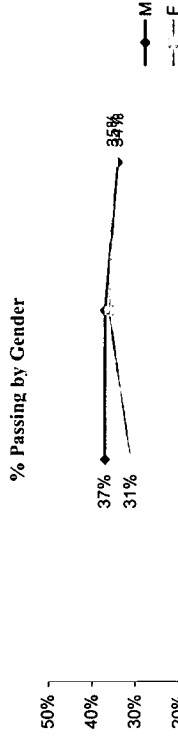
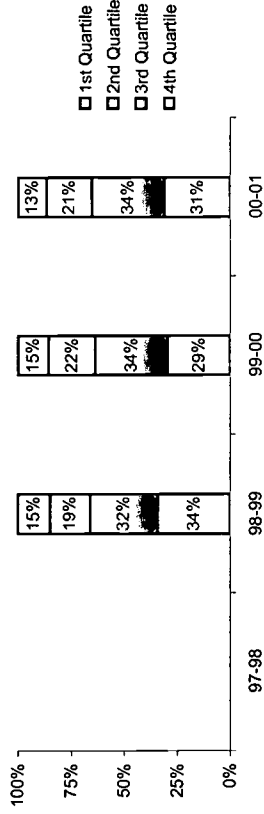
AIIAN: American Indian/Alaskan Native API: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as 1st and 2nd Quartiles

Montgomery CPMSA

State Assessment Test Result Trends SAT-9 - Science (CPMSA Schools)

◆ Grade 4

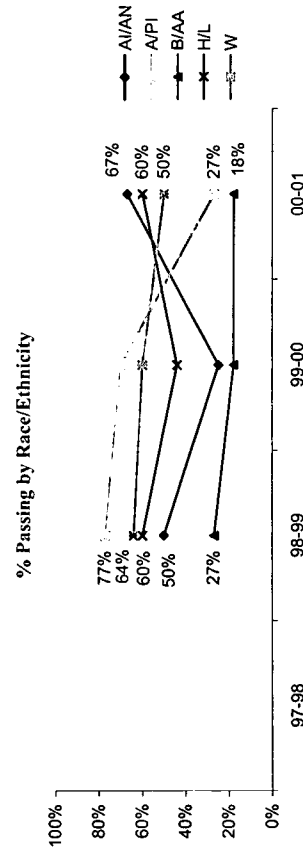
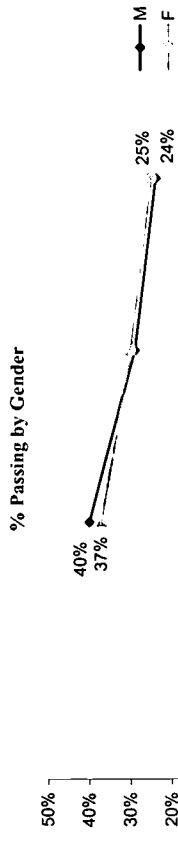
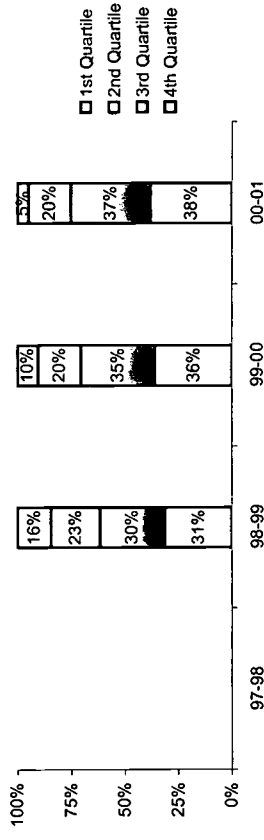
	97-98	98-99	99-00	00-01
1st Quartile	15%	15%	15%	13%
2nd Quartile	19%	19%	22%	21%
3rd Quartile	32%	32%	34%	34%
4th Quartile	34%	34%	29%	31%
Total # of students	2,250	2,250	2,347	2,243



State Assessment Test Result Trends SAT-9 - Mathematics (CPMSA Schools)

◆ Grade 10

	97-98	98-99	99-00	00-01
1st Quartile	16%	10%	10%	5%
2nd Quartile	23%	20%	20%	20%
3rd Quartile	30%	30%	35%	37%
4th Quartile	31%	31%	36%	38%
Total # of students	1,398	1,398	1,634	1,280



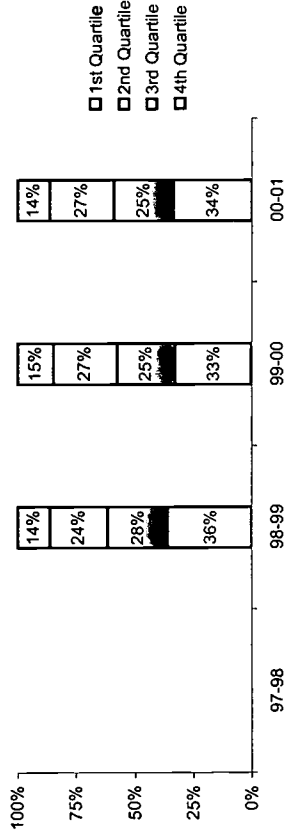
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 1st and 2nd Quartiles

Montgomery CPMSA

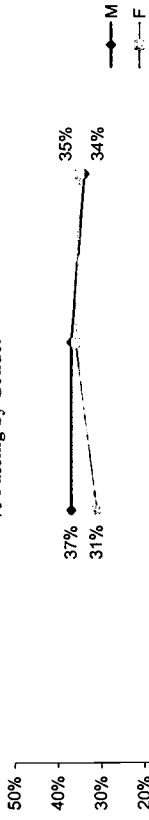
State Assessment Test Result Trends SAT-9 - Science (CPMSA Schools)

◆ Grade 8

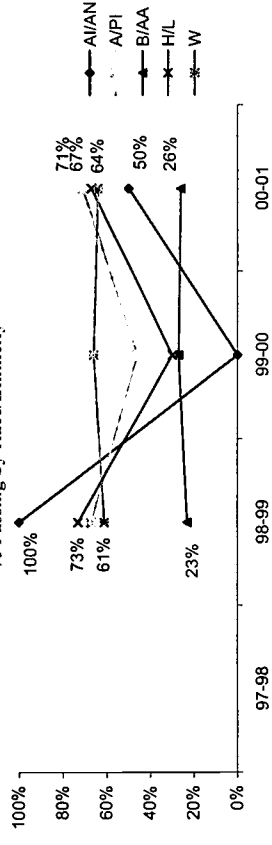
	97-98	98-99	99-00	00-01
1st Quartile	14%	14%	15%	14%
2nd Quartile	24%	24%	27%	27%
3rd Quartile	26%	26%	25%	25%
4th Quartile	36%	36%	33%	34%
Total # of students		1,682	1,545	1,661



% Passing by Gender

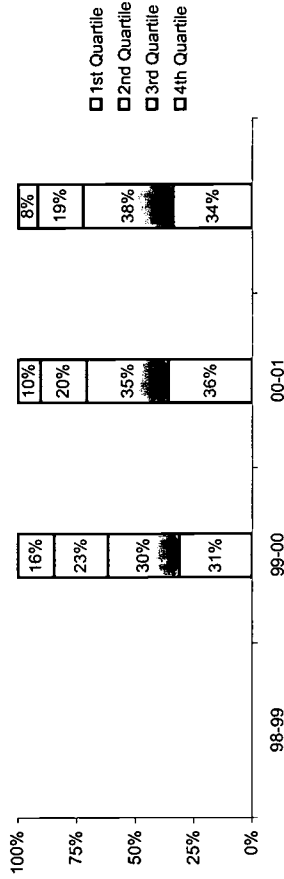


% Passing by Race/Ethnicity

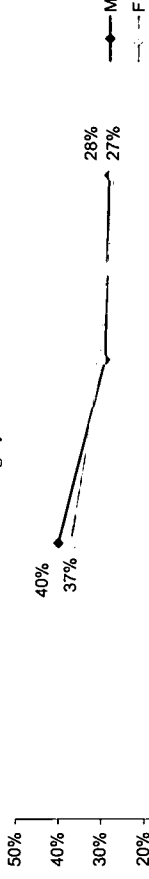


◆ Grade 10

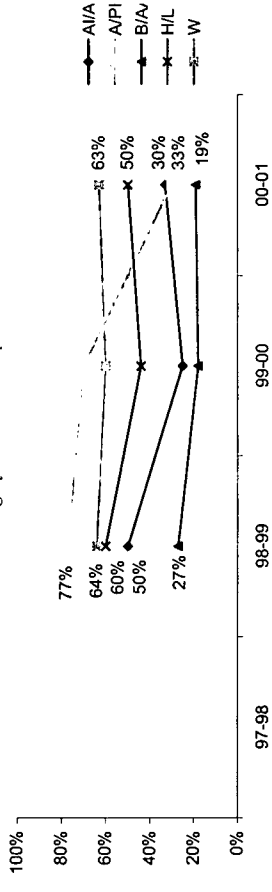
	97-98	98-99	99-00	00-01
1st Quartile	16%	16%	10%	8%
2nd Quartile	23%	23%	20%	19%
3rd Quartile	30%	30%	35%	38%
4th Quartile	31%	31%	36%	34%
Total # of students		1,398	1,634	1,303



% Passing by Gender



% Passing by Race/Ethnicity



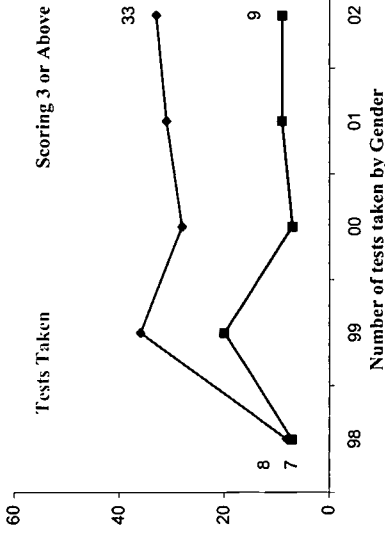
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as 1st and 2nd Quartiles

AP Mathematics Test Result Trends

◆ AP Mathematics - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,925	3,311	3,319		
Calc. AB	8	36	28	31	33
Calc. BC	0	0	0	0	0
Statistics	0	0	0	0	0
Total	8	36	28	31	33
Tests taken per 1,000 students	9.2	8.5	9.3		
Scoring 3 or Above	7	20	7	9	9
Scoring 3 or Above per 1000	5.1	2.1	2.7		

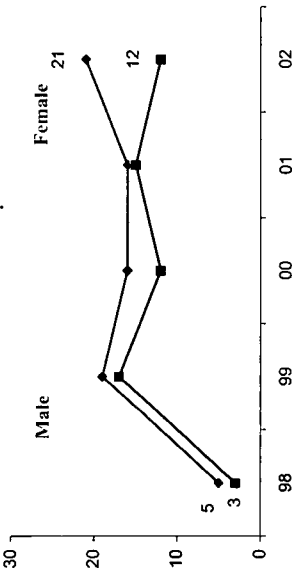
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

	98	99	00	01	02
Male	3	17	12	15	12
Female	5	19	16	16	21

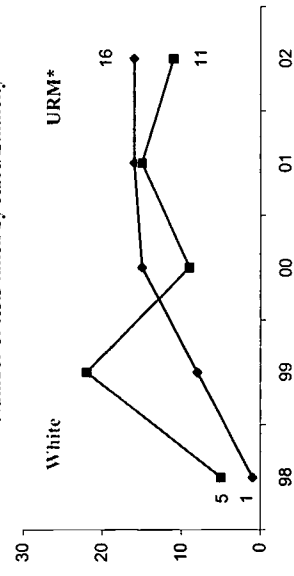
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	1	0
A/PI	1	5	1	0	5
B/AA	1	8	15	15	16
H/L	0	0	0	0	0
W	5	22	9	15	11

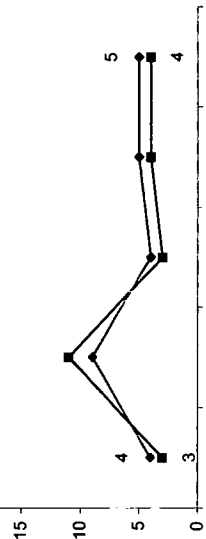
Number of tests taken by Race/Ethnicity



◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	3	11	3	4	4
Female	4	9	4	5	5

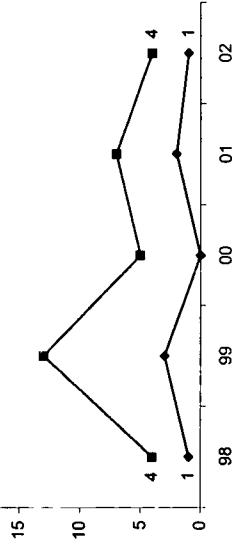
Male Female



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/AN	0	0	0	0	0
A/PI	1	3	0	0	4
B/AA	1	3	0	2	1
H/L	0	0	0	0	0
W	4	13	5	7	4

White URM*



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

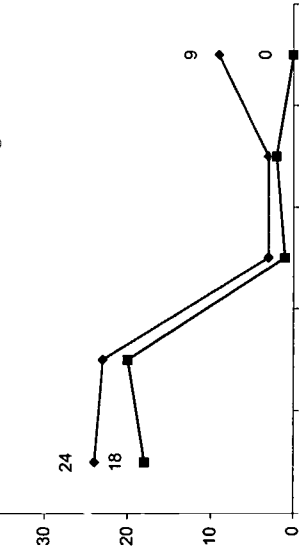
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

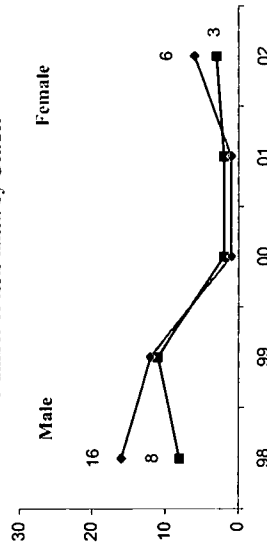
♦ AP Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,925	3,311	3,319		
Biology	13	4	3	1	6
Chemistry	5	8	0	0	0
Env. Science	5	5	0	2	3
Physics B	1	6	0	0	0
Physics Mech.	0	0	0	0	0
Physics Elec.	0	0	0	0	0
Total	24	23	3	3	9
Tests taken per 1,000 students	5.9	0.9	0.9		
Scoring 3 or Above	18	20	1	2	0
Scoring 3 or Above per 1000	5.1	0.3	0.6		

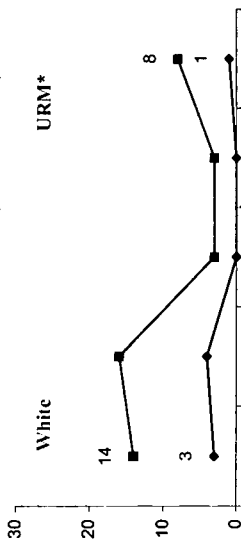
Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



Number of tests taken by Race/Ethnicity



♦ AP Science - Number of Tests Taken By Gender

	98	99	00	01	02
Male	8	11	2	2	3
Female	16	12	1	1	6

♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

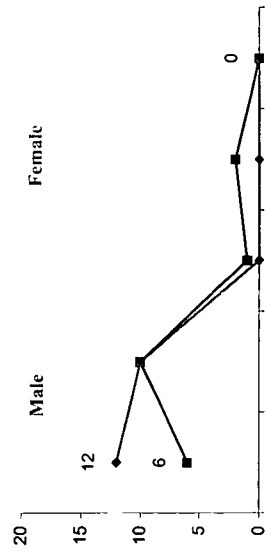
	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	2	2	0	0	0
B/AA	2	2	0	0	1
H/L	1	2	0	0	0
W	14	16	3	3	8

A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

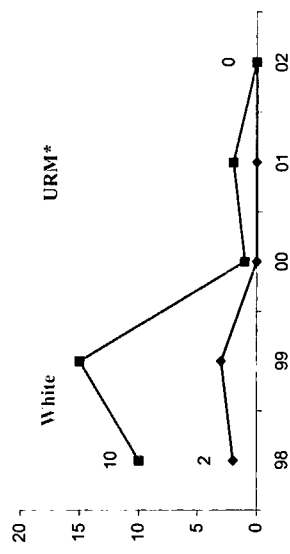
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	98	99	00	01	02
Male	6	10	1	2	0
Female	12	10	0	0	0



♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	2	1	0	0	0
B/AA	1	1	0	0	0
H/L	1	2	0	0	0
W	10	15	1	2	0



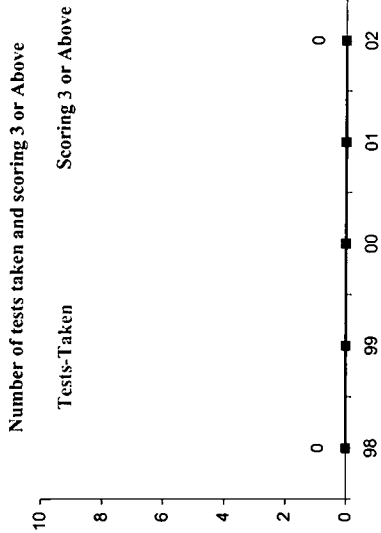
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

Computer Science A & AB

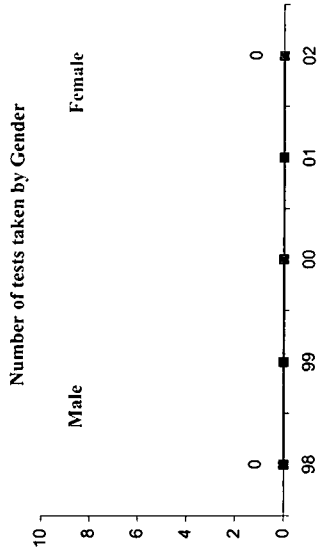
AP Computer Science - Total Number of Tests Taken

	98	99	00	01	02
Total # of 11th & 12th graders	3,925	3,311	3,319		
Comp. Sci A	0	0	0	0	0
Comp. Sci. AB	0	0	0	0	0
Total	0	0	0	0	0
Tests taken per 1,000 students Scoring 3 or Above	0.0	0.0	0.0	0.0	0.0
Tests taken per 1000	0.0	0.0	0.0	0.0	0.0



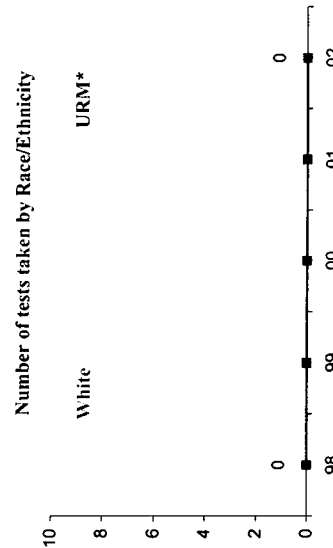
AP Computer Science - Number of Tests Taken By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

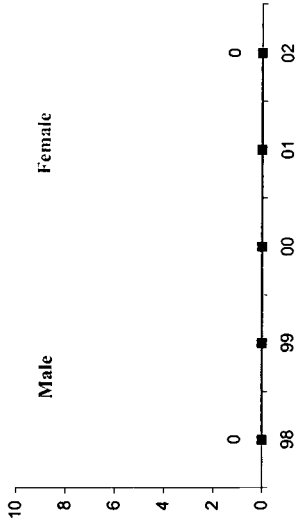
Race/Ethnicity ¹	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino
¹ "Other" category not presented

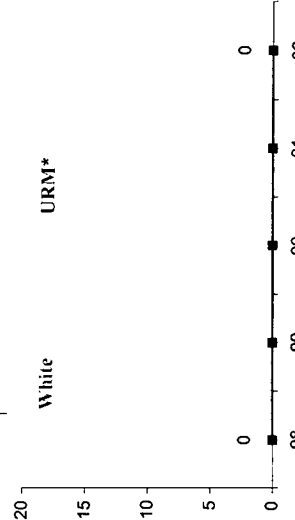
AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	98	99	00	01	02
Male	0	0	0	0	0
Female	0	0	0	0	0



AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity ¹	98	99	00	01	02
A/IAN	0	0	0	0	0
A/PI	0	0	0	0	0
B/AA	0	0	0	0	0
H/L	0	0	0	0	0
W	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

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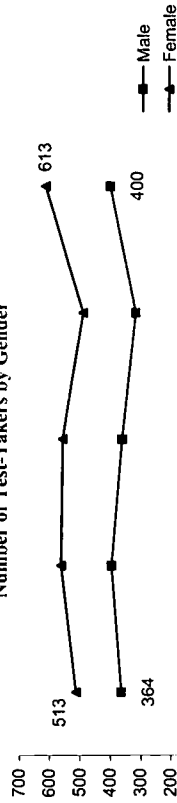
SY 2000-01

ACT Test-Takers

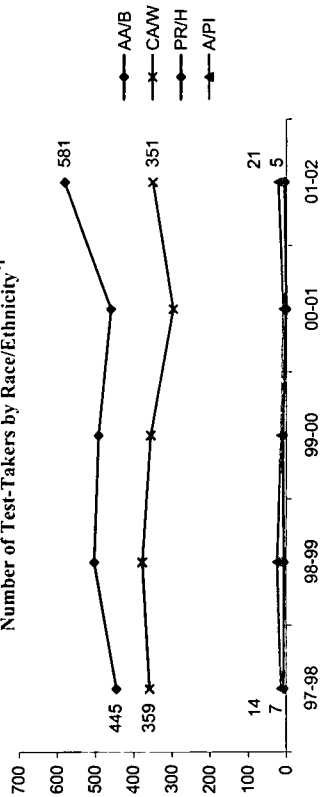
◆ Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,481	1,746	1,481	1,481	1,481
Test-Takers	877	962	920	810	1,017
Num of Test-Takers/1,000 Stu.	592	549	621	547	687
Gender					
Male	364	396	361	317	400
Female	513	562	557	490	613
Race/Ethnicity					
AA/B	445	503	492	460	581
AI/AN	0	2	3	2	1
CA/W	359	378	357	298	351
MA/C	0	2	2	3	7
A/PI	14	24	14	8	21
PR/H	7	6	9	1	5

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}

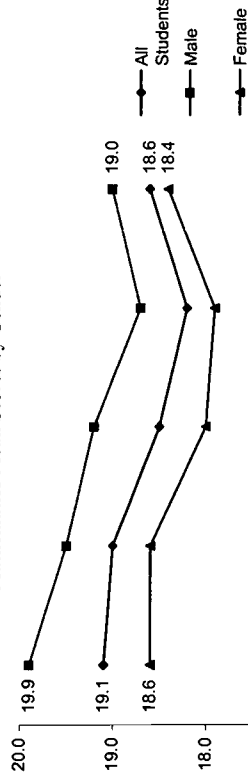


ACT Mathematics Scores

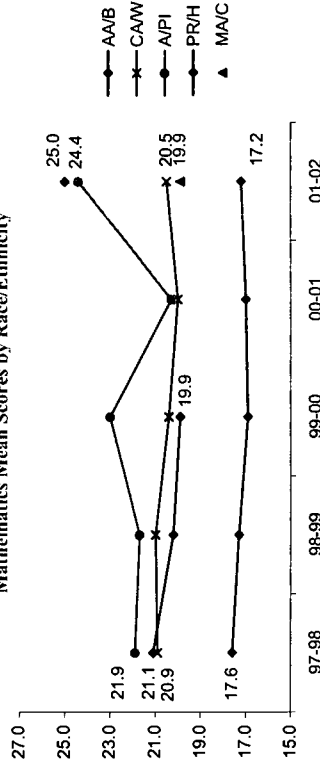
◆ Mathematics - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	19.1	19.0	18.5	18.2	18.6
Gender					
Male	19.9	19.5	19.2	18.7	19.0
Female	18.6	18.6	18.0	17.9	18.4
Race/Ethnicity					
AA/B	17.6	17.3	16.9	17.0	17.2
AI/AN	-	-	-	-	-
CA/W	20.9	21.0	20.4	20.0	20.5
MA/C	-	-	-	-	19.9
A/PI	21.9	21.7	23.0	20.3	24.4
PR/H	21.1	20.2	19.9	-	25.0

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic

*1 Number of Test-Takers less than 5 not presented in graph

(-) Mean scores not presented for sample size less than 5

Montgomery CPMSA

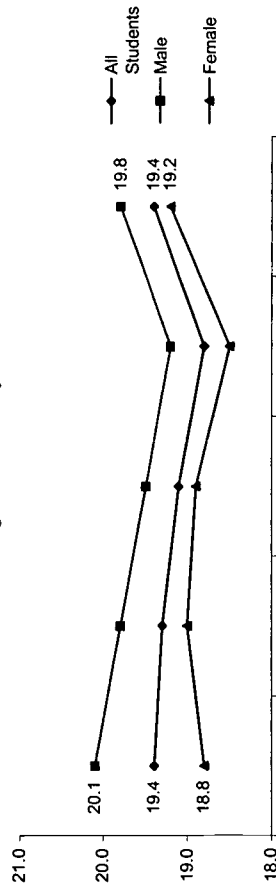
SY 2000-01

ACT Science Reasoning Scores

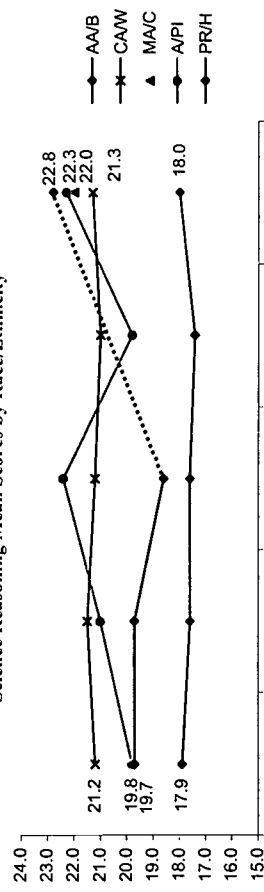
◆ Science Reasoning - Mean Score Trends

	97-98	98-99	99-00	00-01	01-02
All Students	19.4	19.3	19.1	18.8	19.4
Gender					
Male	20.1	19.8	19.5	19.2	19.8
Female	18.8	19.0	18.9	18.5	19.2
Race/Ethnicity					
AA/B	17.9	17.6	17.6	17.4	18.0
A/I/AN	-	-	-	-	-
CA/W	21.2	21.5	21.2	21.0	21.3
MA/C	-	-	-	-	22.0
A/P/I	19.8	21.0	22.4	19.8	22.3
PR/H	19.7	19.7	18.6	-	22.8

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black A/I/AN: American Indian/Alaskan Native CA/W: Cauca.
 American/White MA/C: Mexican American/Chicano A/P/I: Asian/Pacific Islander PR/H: Puerto
 Rican/Hispanic.

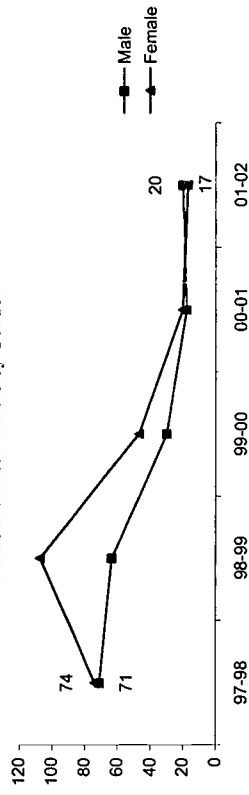
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

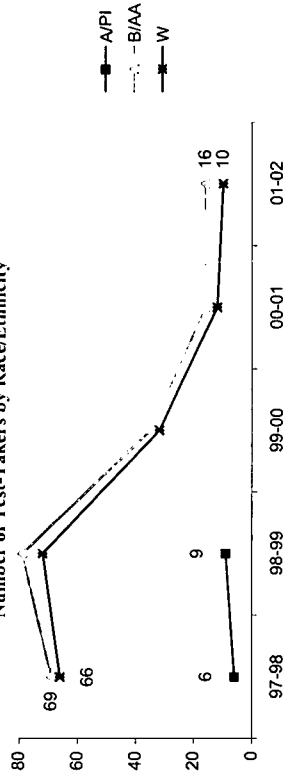
◆ Number of Test-Takers

	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	-	2,005	1,746	1,481	-
Test-Takers	145	171	77	38	37
Num of Test-Takers/1,000 Stu.	-	85	44	26	-
Gender					
Male	71	63	30	18	20
Female	74	108	47	20	17
Race/Ethnicity					
A/I/AN	0	0	0	0	0
A/P/I	6	9	4	1	4
B/AA	69	79	35	16	16
H/L	2	1	1	0	0
W	66	72	32	12	10
OT	1	2	1	0	2

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity*



A/I/AN: American Indian/Alaskan Native A/P/I: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

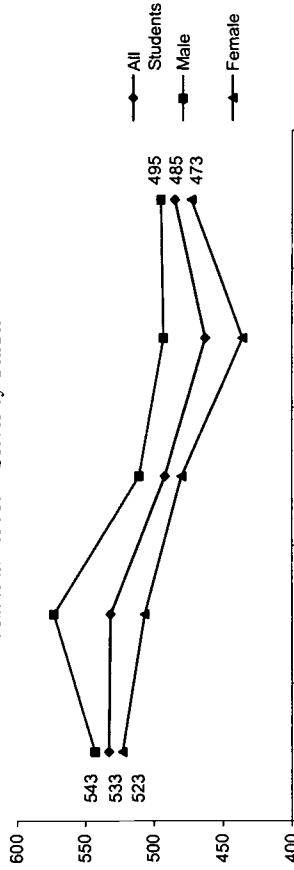
*Number of Test-Takers less than 5 not presented in graph

SAT Mathematics Scores

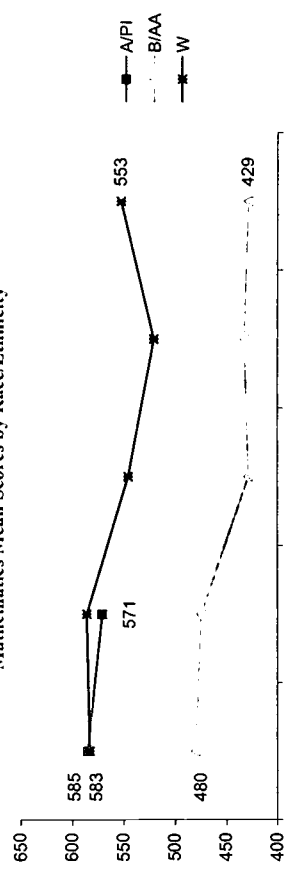
◆ **Mathematics - Mean Score Trends**

	97-98	98-99	99-00	00-01	01-02
All Students	533	532	492	463	485
Gender					
Male	543	573	511	493	495
Female	523	507	480	436	473
Race/Ethnicity					
A/IAN	-	-	-	-	-
A/PI	585	571	-	-	-
B/AA	480	475	429	433	429
H/L	-	-	-	-	-
W	583	586	546	521	533
OT	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

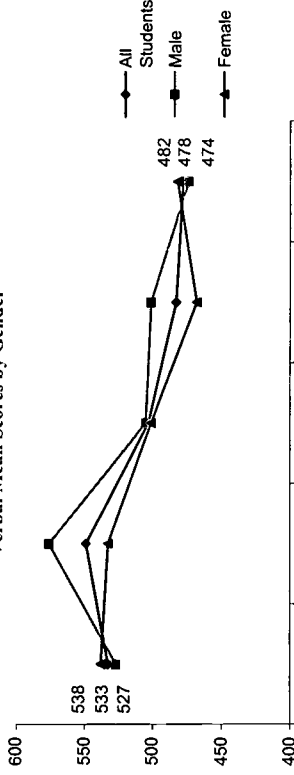


SAT Verbal Scores

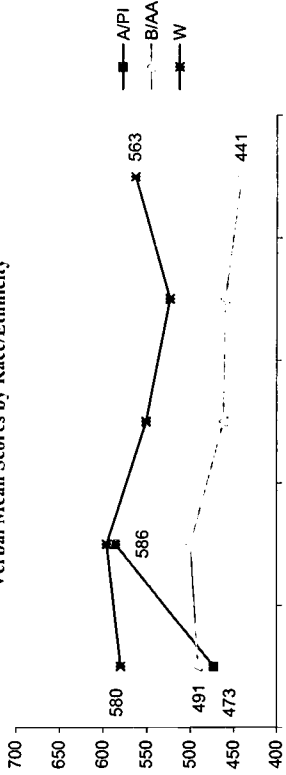
◆ **Verbal - Mean Score Trends**

	97-98	98-99	99-00	00-01	01-02
All Students	533	549	503	483	478
Gender					
Male	527	576	505	501	474
Female	538	533	501	468	482
Race/Ethnicity					
A/IAN	-	-	-	-	-
A/PI	473	586	-	-	-
B/AA	491	500	462	460	441
H/L	-	-	-	-	-
W	580	596	551	523	563
OT	-	-	-	-	-

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

Cohort/Scale-Up Approach

Availability of High Level Courses:

Instructional Time:

Number of District Schools ¹	98-99	99-00	00-01
CPMSA Schools:	54	57	61
% Schools:	9	42	44
	17%	94%	72%

¹ Source: CDE 1999 - 2001

Special Education and Bilingual Students:
 • The district has central office departments dedicated to the needs of special education and LEP students

Standards-based Curriculum and Instruction

Standards Adopted:

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Standards Curriculum	District
Curriculum/Text/Book Adoption	District
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Graduation Requirements:
 • 4 Math courses including Algebra I and Geometry
 • 4 Science courses including Physical Science and Biology
 • Extended day programs, including Saturday programs
 Student Support Systems:
 • One at elementary school, one at middle school

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking:
 • No policy
 Criteria for Entry into High Level Mathematics and Science Courses:
 • Successful completion of prerequisite courses

Policies Relevant to Curriculum

Framework:
 • MPS used specific frameworks for all courses including scope and sequence, timeframe state, course of study, and national standards for math

Curricula:
 Curricula Materials:
 • FOSS
 • Activities integrating math and science programs
 • Alabama Program hands on applied science
 New Courses Added as a Result of CPMSA:
 • AP Calculus for 2 highschools

Policies Relevant to Teacher Qualifications

Certification:
 • 5 year certificate
 Requirement & Hiring Practices:
 • Recertification: 96 hours of professional development or 3 semester hours of college course work and 3 years of teaching

Professional Advancement & Leadership Training:

Professional Development Policies and Practices

Impact on Student Achievement: Student achievement data drives all professional development activities to determine needs for professional review

Time Required or Supported:
 • Periodic inservice days
 • 96 hours required every 5 years

Financial Resources Provided:

Alignment to Student Standards: 95% alignment

Has CPMSA influenced professional development changed teachers' instructional practices:
 • Encourage revision of MPS frameworks to become standards based

Type and Amount Received by Average Math/Science Teacher:

Evaluation Instruments:
 • Teachers evaluate

Professional Development Alignment to Content Standards Measures:
 • Yes. Teachers develop individual professional development plans

Teacher's Instructional Practices Evaluation:
 • State observation
 • Evaluation instrument used and feedback given

Partnerships

Other Key Initiatives:
 • Title I
 • Title II
 • Title III
 • Title IV

Competing Initiatives:
 • Resource Leaders were classroom teachers. Now there is a shortage of "seasoned" classroom teachers

Community Stakeholders:

Assessments Used:
 • SAT-9 (State)

CPMSA Leadership, Governance, and Management

Superintendent:
 • Mr. Clinton Carter

Continuity of Leadership:
 • Superintendent changes in 1999-00

Project Directors position in district's organizational structure:
 • Project Director reports to Assistant Superintendent of curriculum and instruction

Teacher Leaders:
 • Project TEAMS Resource Leaders
 • TEAMS Instructional Assistants

Higher Education:
 • Alabama State University
 • University of Alabama at Birmingham
 • Auburn University

Business and Industry:
 • AIT Cable
 • Fathers Achieve in Children's Education
 • Camp Chandler

Accountability

Program Effectiveness Monitoring:
 • Using SAT and Graduation Exam Scores, student enrollment and passing rates, and teacher needs assessment

Report Card System:
 • Alabama State Department of Education using SAT-9 and Graduation Exam scores

Key Indicator Data Collection:
 • Some collected by system (demographics)
 • Most collected manually by CPMSA staff

Key Indicator Data Use:
 • To plan professional development decisions
 • To plan extended day programs
 • To plan other programs and operations

Local On-Sight Evaluation:

Data Manager:

External Evaluator:
 • Duvon Winborne

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	
1998-99	
1999-00	• 14 extended day programs instituted

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	
1998-99	• AP Calculus offered

Montgomery CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98		1997-98		1997-98	
1998-99		1998-99		1998-99	
		1999-00		1999-00	



Project Information

CPMSA Project Title : Comprehensive Partnership for Math and Science Achievement
 Cohort: 97
 CPMSA Web Site: <http://tlc.ousd.k12.ca.us/nsf/main.html>

◆ **PI, CO-PI and PD**

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◆ **Mailing Address**

Oakland Unified School District
 1025 2nd Ave.
 Oakland, CA 94606

◆ **District Schools, Math & Science Teachers, and Students**

	Schools	Teachers	Students
00-01	60	1,595	30,037
K-G5 (Elementary)	15	269	11,779
G6-8 (Middle)	11	151	11,692
G9-12 (High)	86	2,015	53,508
Total			

Source: Core Data Elements (SY 2000-01)

Project Summary

Emphasis is placed on all phases of the K-G12 academic program with major emphasis on math and science enrichment and a specific focus in G6-12. The CPMSA project agrees to develop strategies, in collaboration with the K-G8 schools and the high school in the Oakland Unified School District, and assist with policy institution with respect to gatekeeping courses, and to implement strategies for successful completion of these targeted classes. Curriculum improvements, related Professional Development offerings, and resource convergence are also used to improve student achievement.

The CPMSA shall maintain a database of projects and students and shall be capable of monitoring their progress through out their pre-college education to measure the impact on students.

Project Goals

The mission of this project is to develop educational systemic change approaches to produce significant increases in the numbers of students in the Oakland Unified School District who are literate and proficient in science, mathematics, and technology, such that they may be qualified to pursue undergraduate study in the science, engineering, mathematics, and/or technology.

Specific performance goals are as follows:

- Increase elementary student scores on the Terra Nova Achievement Test in G3 and 5 by 3% (SY 99-00), 4% (SY 00-01), and 5% (SY 01-02)
- Enroll all G 8 or 9 students in Algebra I by Year 2002
- Increase by 100% the number of students who enroll in Biology I, Chemistry I, Physics and/or AP Science by Year 2002
- Increase by 100% the number of students who enroll in Geometry or Integrated Mathematics 1 and Trigonometry/Pre-calculus by Year 2002
- Increase by 100% from SY 96-97 to SY 01-02 the number of project students who successfully complete (grade C or above) "gatekeeping courses".

Selected School Indicators (District Average)

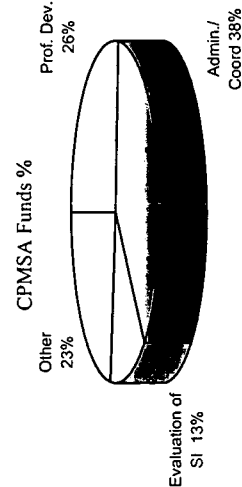
	97-98	00-01	Change
% Special Ed.	9.7%	8.5%	-1.2 PP
% LEP	33.0%	35.3%	+2.3 PP
% Free/Red. Lunch	.	55.0%	.
% Daily Avg. Atten.	84.8%	91.0%	+6.2 PP
% Average Retained	14.4%	6.8%	-7.6 PP
% Drop-Out	.	.	.
% Mobility	.	29.0%	.
Per Pupil Cost (\$)	.	.	.
# Students Per Computer	.	.	.
% Classrooms Internet Access	.	.	.
Average Class Size	.	.	.

(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	46%	26%
Admin/Coord.	0%	38%
Evaluation of SI	1%	13%
Other	53%	23%
Total	100%	100%



Student Demographics (SY 2000-01)

District Total: 53,702
 CPMSA Schools: 53,702 100%
 Source: CDE 00-01

Race/Ethnicity District-Wide

	96-97	00-01	% Change
Arme. Ind./Ala. Nat.	204	256	+25.5%
Asian/P. Islander	9,557	9,436	-1.3%
Black	24,585	25,585	+4.1%
Hispanic	10,371	15,746	+51.8%
White	2,888	3,060	+6.0%
Other	277	712	+157.0%
Total	47,882	54,795	+14.4%
URM Total	35,160	41,587	+18.3%

URM: Underrepresented Minority students.

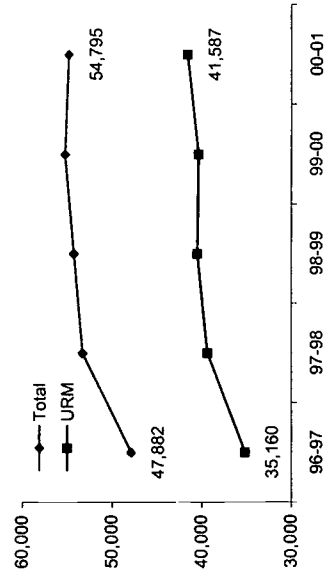
Gender

Male	24,138	27,850	50.8%	+15.4%
Female	23,744	26,945	49.2%	+13.5%

Grade

K-G5	28,397	29,962	54.7%	+5.5%
G6-8	7,947	12,512	22.8%	+57.4%
G9-12	11,538	12,320	22.5%	+6.8%
Ungraded	0	1	0.0%	

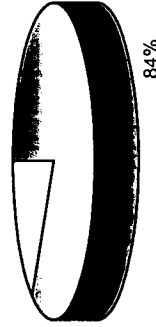
District Student Demographic Trends



12th Grade Graduates

	97-98	00-01	Change
Total 12th Grade	1,855	1,984	+7%
Earned a Diploma	1,573	1,660	+6%
% Earned Diploma	85%	84%	-1 PP

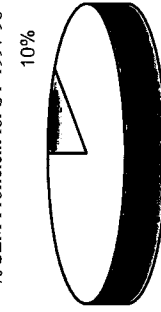
% Earned Diploma for SY 2000-01



SEM Proficiency

	97-98	00-01	Change
# SEM Proficient ¹	180		
% SEM Proficient/ Total 12th Grade	10%		

% SEM Proficient for SY 1997-98



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
 - 3 years
 - 9th grade Algebra I and 10th grade Geometry
 - Passing score on Math Proficiency Test (≥70%)
 - ◆ Science
 - 3 years
 - Life Science, Phys. Science, and Science Elective
- PP: Percentage Points
() Data Missing

Math and Science Teachers & Certification

◆ **Mathematics (G6-12)**

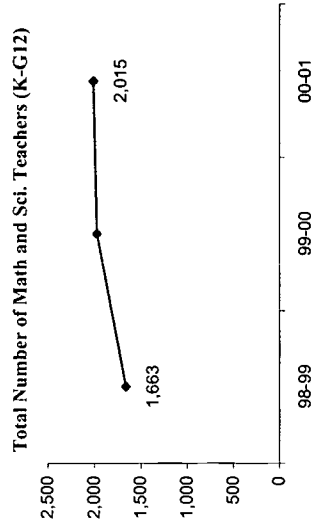
	98-99	00-01	Change
Teachers	112	134	+20%
Certified			
% Cert.			
G6-8			
Teachers	58	83	+43%
Certified			
% Cert.			
G9-12			
Teachers	170	217	+28%
Certified			
% Cert.			
Total			
Teachers			
Certified			
% Cert.			

◆ **Science (G6-12)**

	98-99	00-01	Change
Teachers	104	135	+30%
Certified			
% Cert.			
G6-8			
Teachers	58	68	+17%
Certified			
% Cert.			
G9-12			
Teachers	162	203	+25%
Certified			
% Cert.			
Total			
Teachers			
Certified			
% Cert.			

◆ **Math and Science (K-G5)**

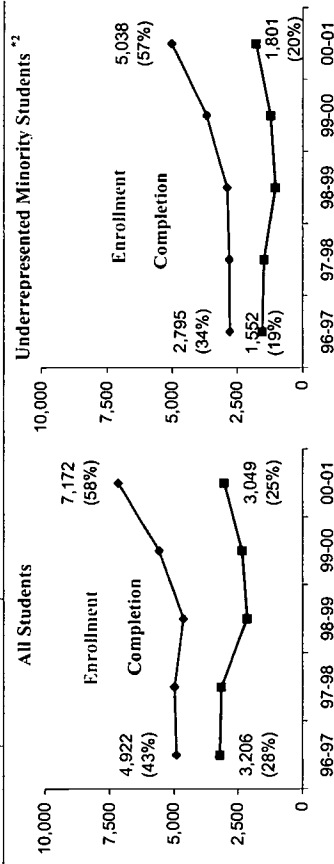
	98-99	00-01	Change
Teachers	1,331	1,595	+20%



Mathematics and Science Enrollment & Completion Trends/All vs. URM

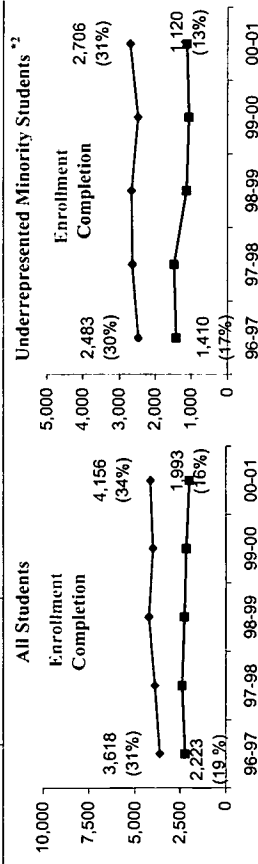
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,538	11,346	11,878	11,634	12,320
All Students	Enrollment 4,922 Completion ¹ 3,206 % Enroll/G8 43%	4,985 2,139 39% 44%	4,643 2,139 48% 48%	5,568 2,335 48% 48%	7,172 3,049 58% 58%
URM ²	Enrollment 2,795 Completion ¹ 1,552 % Enroll/G8 34%	2,813 1,480 35% 35%	2,897 1,047 45% 34%	3,693 1,232 45% 45%	5,038 1,801 57% 57%



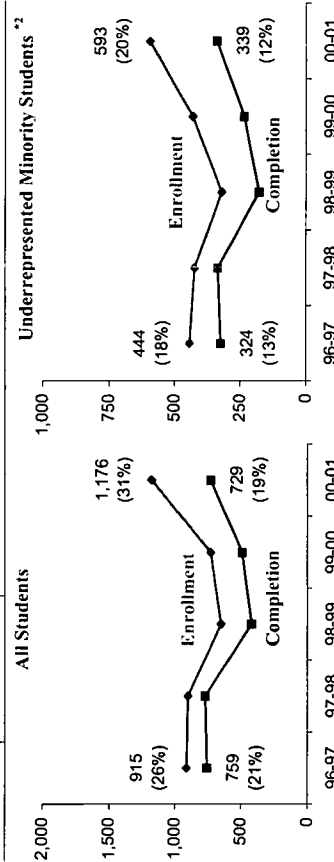
G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,538	11,346	11,878	11,634	12,320
All Students	Enrollment 3,618 Completion ¹ 2,223 % Enroll/G8 31%	3,893 2,384 34% 34%	4,232 2,260 36% 34%	4,002 2,156 34% 34%	4,156 1,993 34% 34%
URM ²	Enrollment 2,483 Completion ¹ 1,410 % Enroll/G8 30%	2,645 1,472 33% 33%	2,667 1,124 32% 30%	2,486 1,056 30% 31%	2,706 1,120 31% 31%



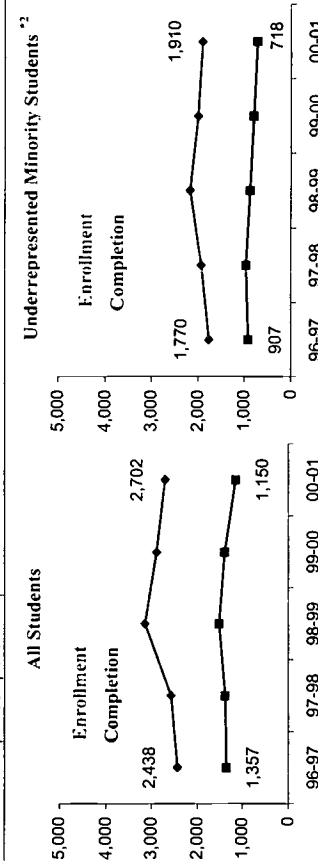
Algebra I in 8th Grade Enrollment & Completion Trends/All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	3,558	3,686	3,570	3,593	3,854
All Students	Enrollment 915 Completion ¹ 759 % Enroll/G8 26%	904 772 26% 25%	650 417 18% 18%	731 488 20% 20%	1,176 729 31% 31%
URM ²	Enrollment 444 Completion ¹ 324 % Enroll/G8 18%	425 335 16% 16%	320 178 13% 13%	432 234 16% 16%	593 339 20% 20%



Biology Enrollment & Completion Trends/All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	11,538	11,346	11,878	11,634	12,320
All Students	Enrollment 2,438 Completion ¹ 1,357 % Enroll/G8 26%	2,576 1,384 26% 25%	3,134 1,519 18% 18%	2,887 1,401 20% 20%	2,702 1,150 31% 31%
URM ²	Enrollment 1,770 Completion ¹ 907 % Enroll/G8 18%	1,937 958 16% 16%	2,179 871 13% 13%	2,009 791 16% 16%	1,910 718 20% 20%



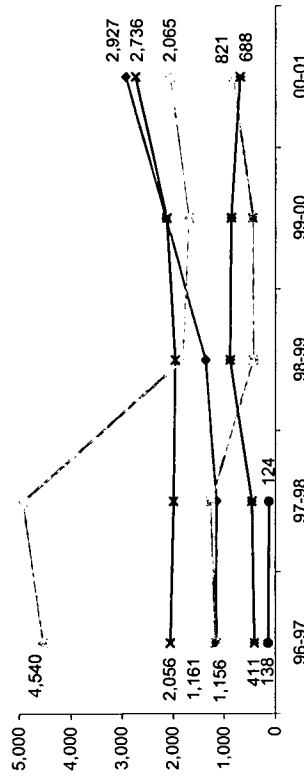
¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

Mathematics Course Enrollment & Completion Trends By Subject

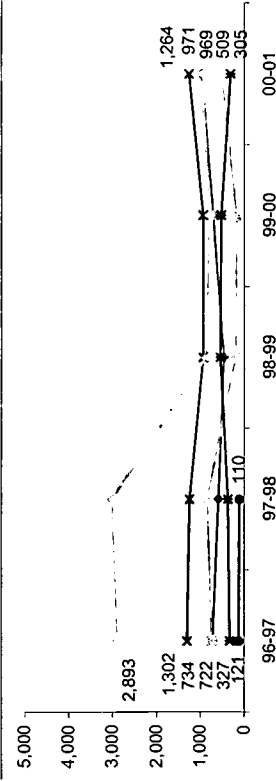
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	1,156	1,161	2,056	411	138	4,540	9,462
97-98	1,146	1,256	1,997	462	124	4,925	9,910
98-99	1,359	435	1,963	886	.	1,811	6,454
99-00	2,142	437	2,126	863	.	1,681	7,249
00-01	2,927	821	2,736	688	.	2,065	9,237



G 9-12 Course Completion **1 (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	722	734	1,302	327	121	2,893	6,099
97-98	586	839	1,251	366	110	3,021	6,173
98-99	463	195	939	542	.	868	3,007
99-00	706	171	938	520	.	797	3,132
00-01	971	509	1,264	305	.	969	4,018



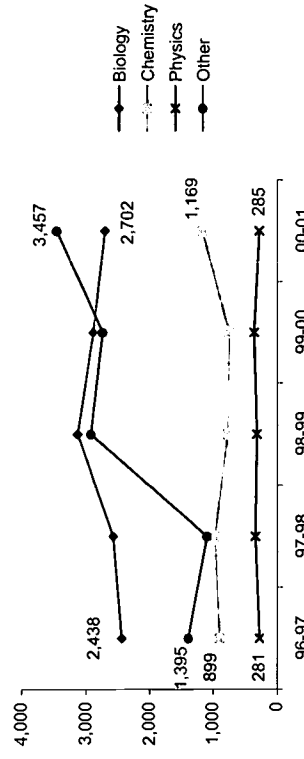
**1 Successful completion: grade 'C' or above.

(.) Data Missing

Science Course Enrollment & Completion Trends By Subject

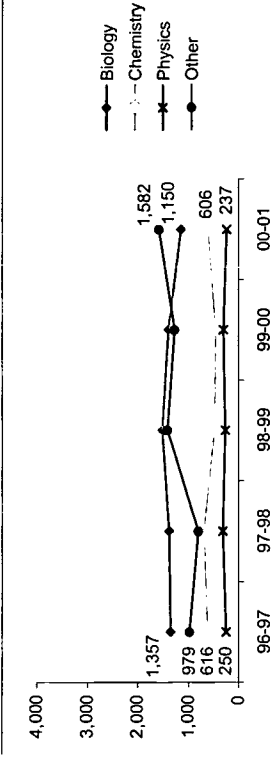
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	2,438	899	281	1,395	5,013
97-98	2,576	972	345	1,099	4,992
98-99	3,134	775	323	2,925	7,157
99-00	2,887	751	364	2,739	6,741
00-01	2,702	1,169	285	3,457	7,613



G 9-12 Course Completion **1 (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,357	616	250	979	3,202
97-98	1,384	690	310	801	3,185
98-99	1,519	476	265	1,413	3,673
99-00	1,401	456	299	1,276	3,432
00-01	1,150	606	237	1,582	3,575



District Assessment Test Administered

State Assessment Test-Taker Trends SAT9

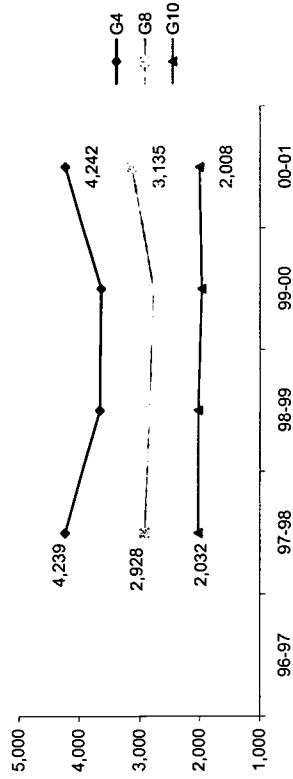
◆ **Mathematics**

◆ **Mathematics**

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	Terra Nova	SS, PL	Terra Nova	Terra Nova	Terra Nova
Grade	3, 5, 8	3, 5, 8	SS, PL	SS, PL	SS, PL
Type	NRT	NRT	NRT	NRT	NRT

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grade 4	4,239	4,239	3,665	3,640	4,242
Grade 8	2,928	2,928	2,842	2,778	3,135
Grade 10	2,032	2,032	2,029	1,972	2,008

Total number of students taking test



◆ **Science**

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring					
Grade					
Type					

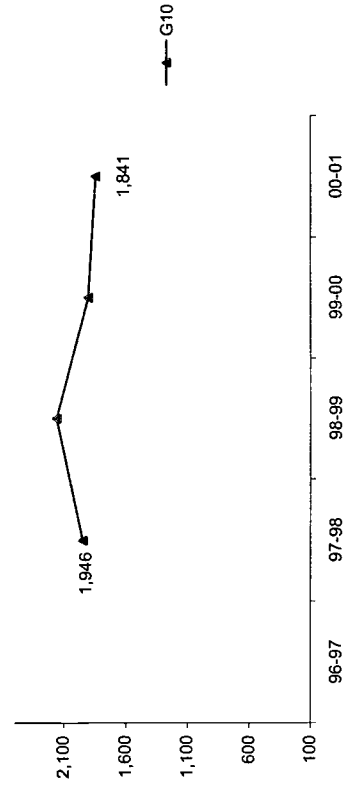
State Assessment Test Administered

◆ **Mathematics**

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	SAT 9	SAT 9	SAT 9	SAT 9	SAT 9
Grade	SS, SN	SS, SN	SS, SN	SS, SN	SS, SN
Type	2-11	2-11	2-11	2-11	2-11

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grade 4	1,946	1,946	2,164	1,902	1,841
Grade 8					
Grade 10					

Total number of students taking test



◆ **Science**

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	SAT 9	SAT 9	SAT 9	SAT 9	SAT 9
Grade	SS	SS	SS	SS	SS
Type	9-11	9-11	9-11	9-11	9-11

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

() Data Missing

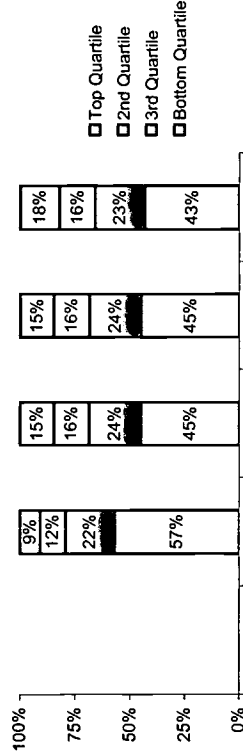
Oakland CPMSA

SY 2000-01

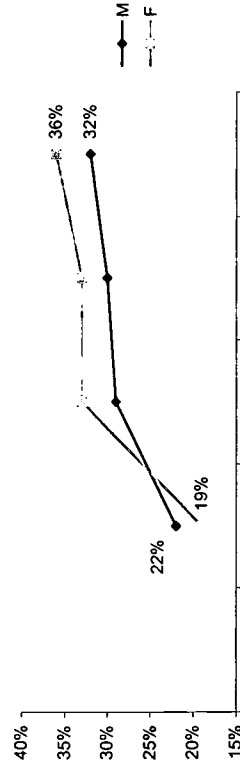
State Assessment Test Result Trends SAT9 - Mathematics

Grade 4

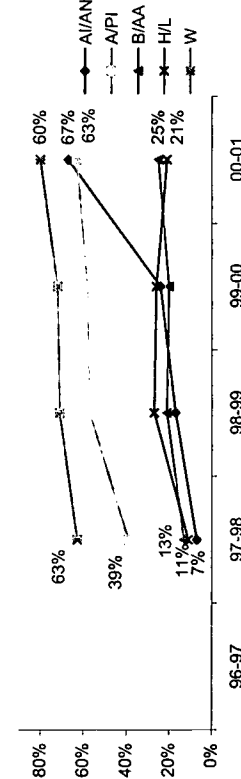
	96-97	97-98	98-99	99-00	00-01
Top Quartile	9%	15%	15%	15%	18%
2nd Quartile	12%	16%	16%	16%	16%
3rd Quartile	22%	24%	24%	24%	23%
Bottom Quartile	57%	45%	45%	45%	43%
Total # of students	4,239	3,665	3,640	4,242	



% Passing by Gender



% Passing by Race/Ethnicity

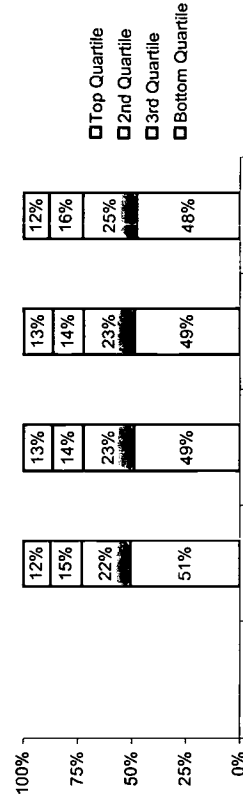


AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Top Quartile + 2nd Quartile

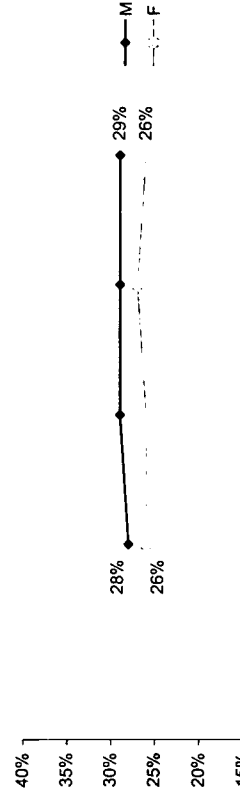
State Assessment Test Result Trends SAT9 - Mathematics

Grade 8

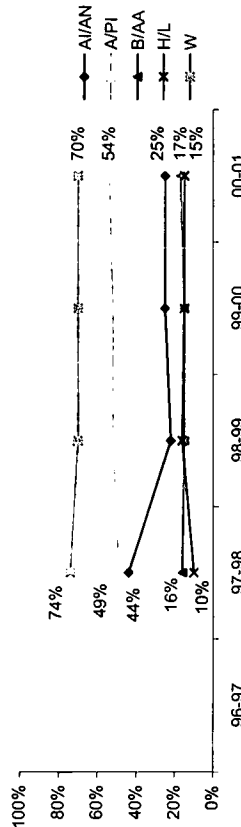
	96-97	97-98	98-99	99-00	00-01
Top Quartile	12%	12%	13%	13%	12%
2nd Quartile	15%	15%	14%	14%	16%
3rd Quartile	22%	22%	23%	23%	25%
Bottom Quartile	51%	49%	49%	49%	48%
Total # of students	2,928	2,842	2,778	3,135	



% Passing by Gender



% Passing by Race/Ethnicity

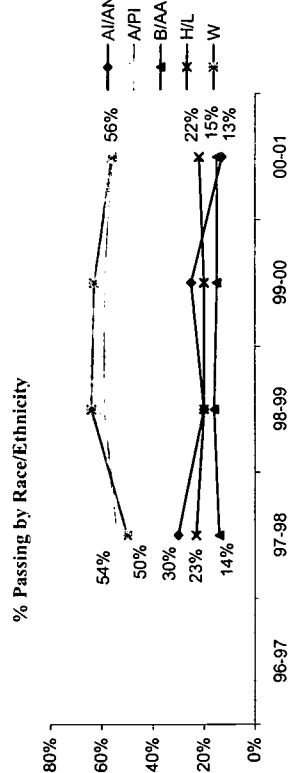
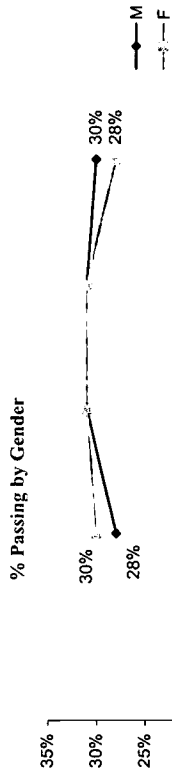
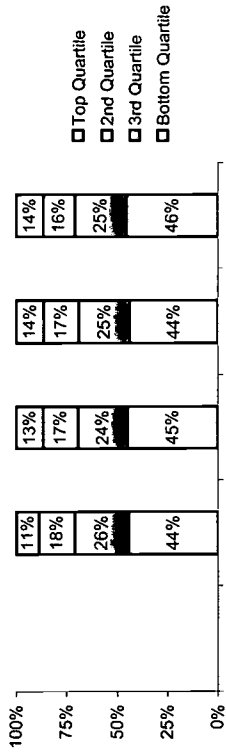


Oakland CPMSA

State Assessment Test Result Trends SAT9 - Science

◆ Grade 4

	96-97	97-98	98-99	99-00	00-01
Top Quartile	11%	13%	14%	14%	14%
2nd Quartile	18%	17%	17%	17%	16%
3rd Quartile	26%	24%	25%	25%	25%
Bottom Quartile	44%	45%	44%	44%	46%
Total # of students	2,032	2,029	1,972		2,008

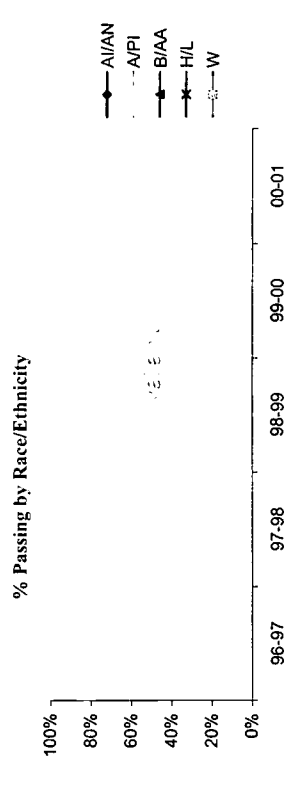
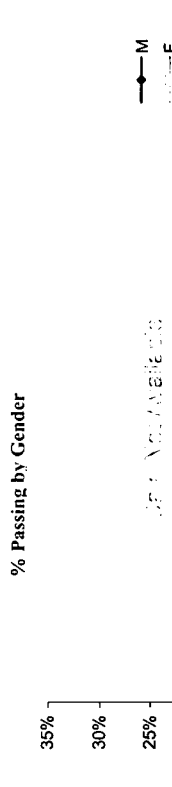
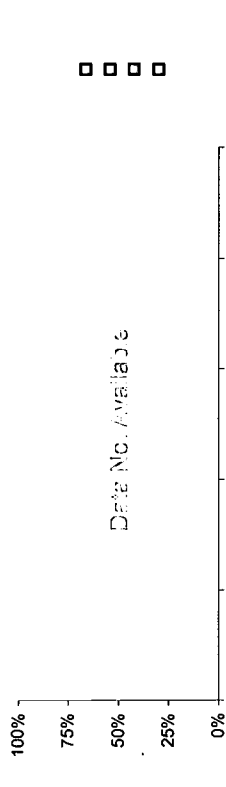


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Top Quartile + 2nd Quartile

State Assessment Test Result Trends SAT9 - Mathematics

◆ Grade 10

Data Not Available



State Assessment Test Result Trends SAT9 - Science

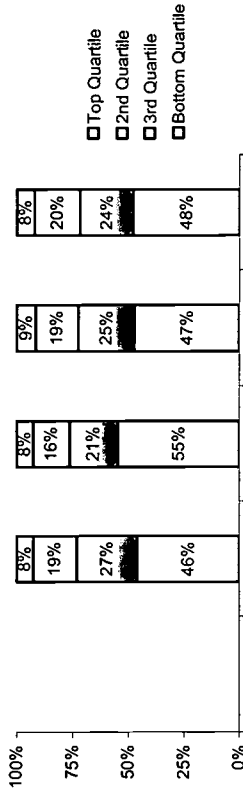
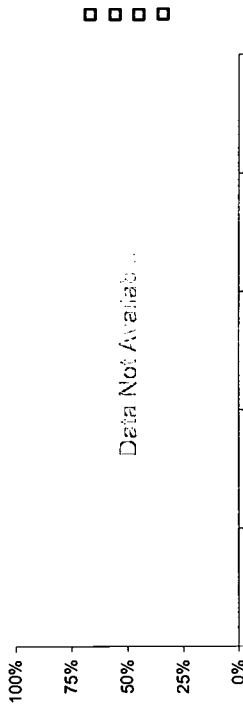
State Assessment Test Result Trends SAT9 - Science

Grade 8

Grade 10

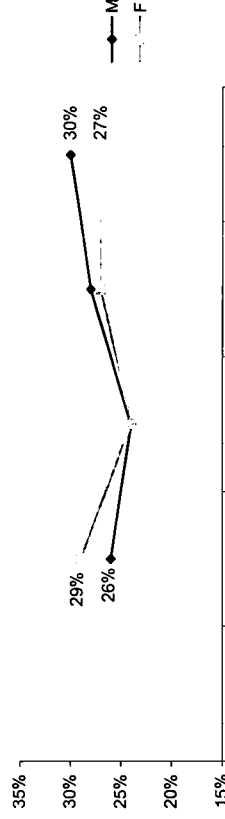
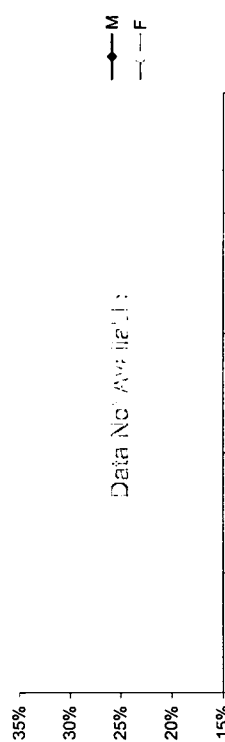
	96-97	97-98	98-99	99-00	00-01
Total # of students					
Top Quartile					
2nd Quartile					
3rd Quartile					
Bottom Quartile					
Total # of students					

	96-97	97-98	98-99	99-00	00-01
Total # of students		1,946	2,164	1,902	1,841
Top Quartile	8%	8%	8%	9%	8%
2nd Quartile	19%	19%	16%	19%	20%
3rd Quartile	27%	27%	21%	25%	24%
Bottom Quartile	46%	46%	55%	47%	48%



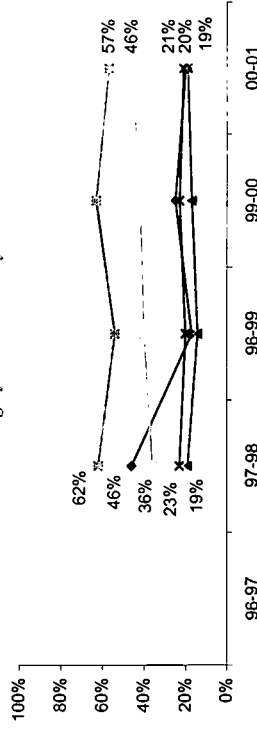
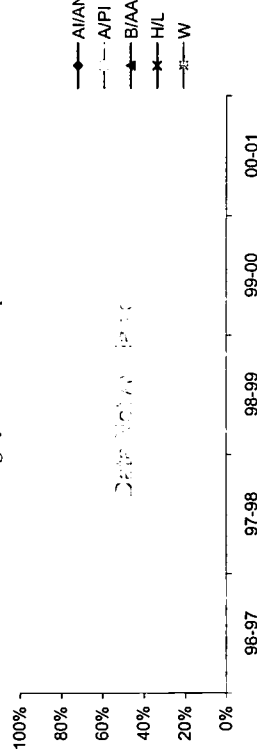
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



AIIAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Top Quartile + 2nd Quartile

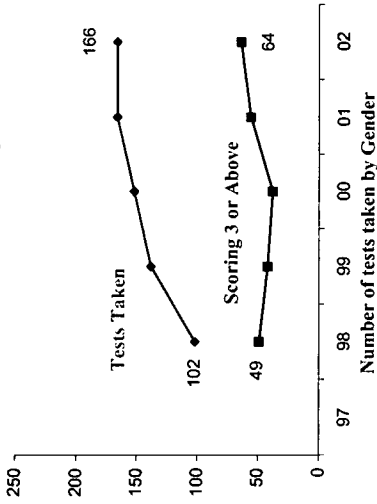
AP Mathematics Test Result Trends

◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	4,480	4,273	4,701	4,421	4,494	
Calculus AB	82	101	123	127	88	88
Calculus BC	20	37	28	38	40	40
Statistics	0	0	1	1	38	166
Total	102	138	152	166	166	166
Tests taken per 1,000 students	23.9	29.4	34.4	36.9		
Scoring 3 or Above	49	42	38	56	64	64
Scoring 3 or Above per 1,000	11.5	8.9	8.6	12.5		

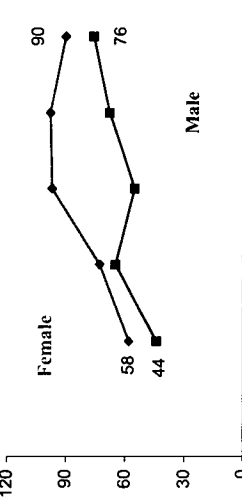
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	44	65	55	68	76	76
Female	58	73	97	98	90	90

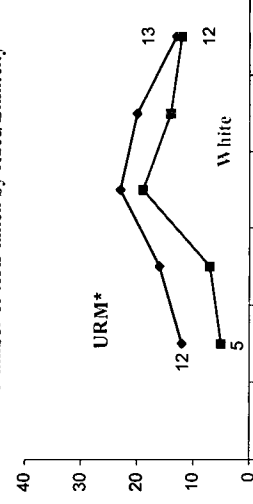
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹¹

	97	98	99	00	01	02
A/AN	0	0	1	0	0	0
A/PI	82	111	108	127	138	138
B/AA	5	8	9	7	7	7
H/L	7	8	13	13	6	6
W	5	7	19	14	12	12

Number of tests taken by Race/Ethnicity



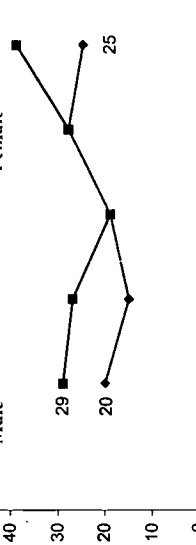
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹¹ "Other" category not presented

◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	29	27	19	28	39	39
Female	20	15	19	28	25	25

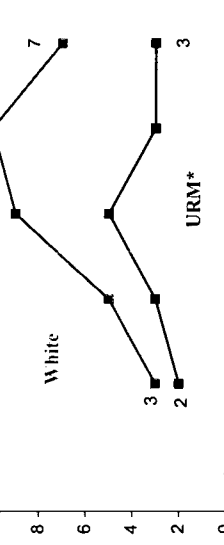
Male Female



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹¹

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	42	31	24	41	53	53
B/AA	2	1	1	0	3	3
H/L	0	2	4	3	0	0
W	3	5	9	10	7	7

Number of students scoring 3 or above by Race/Ethnicity

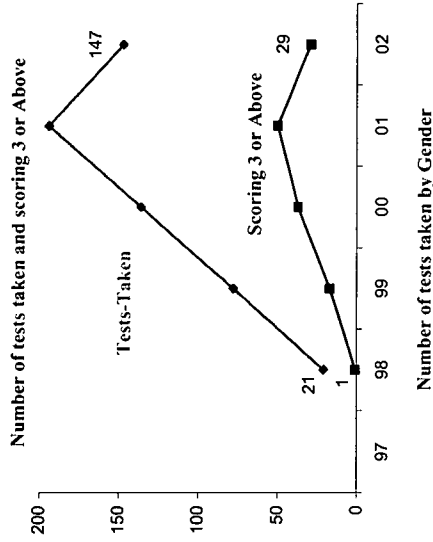


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

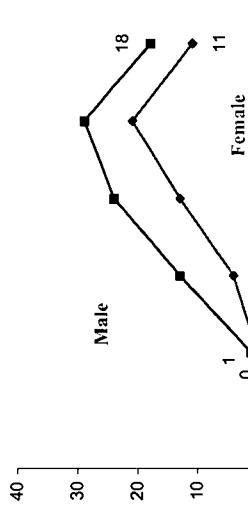
♦ **AP Science - Total Number of Tests Taken**

	97	98	99	00	01	02
Total # of 11th & 12th graders	4,480	4,273	4,701	4,421	4,494	.
Biology	.	4	13	22	48	23
Chemistry	.	12	35	48	38	46
Env. Science	.	0	0	29	34	44
Physics B	.	0	7	2	3	4
Physics Mech.	.	5	23	23	71	29
Physics Elec.	.	0	0	12	0	1
Total	.	21	78	136	194	147
Tests taken per 1,000 students	.	4.9	16.6	30.8	43.2	.
Scoring 3 or Above	.	1	17	37	50	29
Scoring 3 or Above per 1,000	.	0.2	3.6	8.4	11.1	.



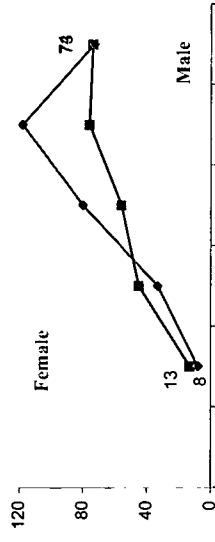
♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	97	98	99	00	01	02
Male	.	1	13	24	29	18
Female	.	0	4	13	21	11



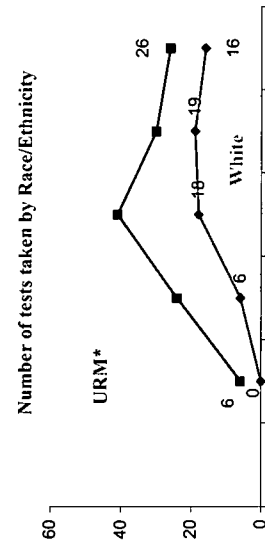
♦ **AP Science - Number of Tests Taken By Gender**

	97	98	99	00	01	02
Male	.	13	45	56	76	74
Female	.	8	33	80	118	73



♦ **AP Science - Number of Tests Taken By Race/Ethnicity¹**

	97	98	99	00	01	02
A/IAN	.	0	1	1	0	0
A/PI	.	15	46	70	135	97
B/AA	.	1	15	19	15	16
H/L	.	5	8	21	15	10
W	.	0	6	18	19	16



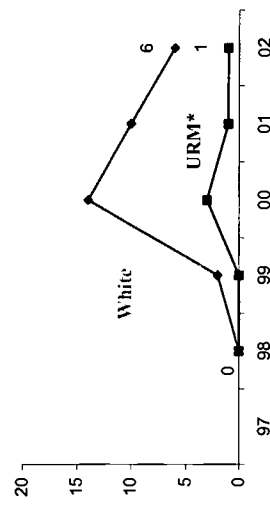
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹**

	97	98	99	00	01	02
A/IAN	.	0	0	0	0	0
A/PI	.	1	15	17	35	20
B/AA	.	0	0	0	0	1
H/L	.	0	0	3	1	0
W	.	0	2	14	10	6

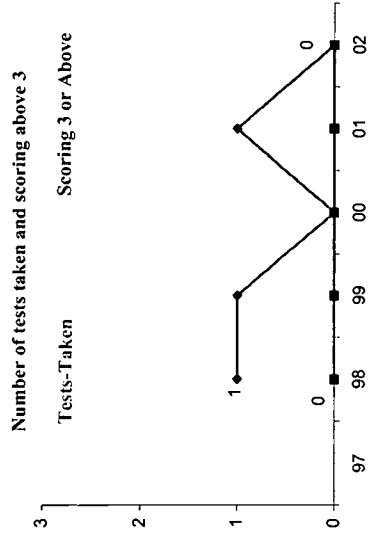


AP Computer Science Test Result Trends

Computer Science A & AB

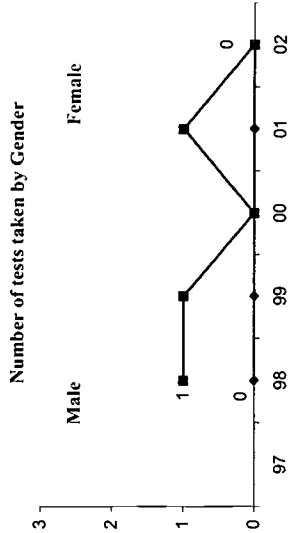
◆ AP Computer Science - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	4,480	4,273	4,701	4,421	4,494	
Comp. Sci. A	1	0	0	0	0	0
Comp. Sci. AB	0	1	0	1	0	0
Total	1	1	0	1	0	0
Tests taken per 1,000 students	0.2	0.2	0.0	0.2		
Scoring 3 or Above	0	0	0	0	0	0
Scoring 3 or Above per 1,000	0.0	0.0	0.0	0.0	0.0	



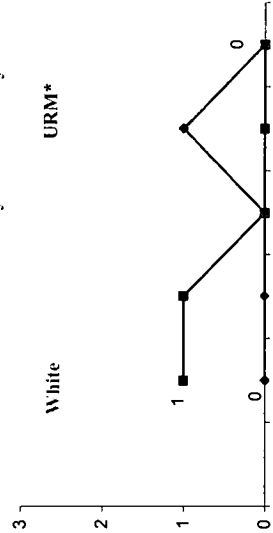
◆ AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	1	1	1	0	1	0
Female	0	0	0	0	0	0



◆ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

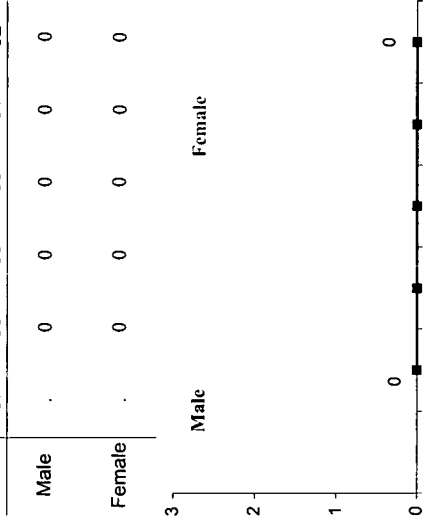
Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	1	1	0	0	0	0
W	0	0	0	1	0	0



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

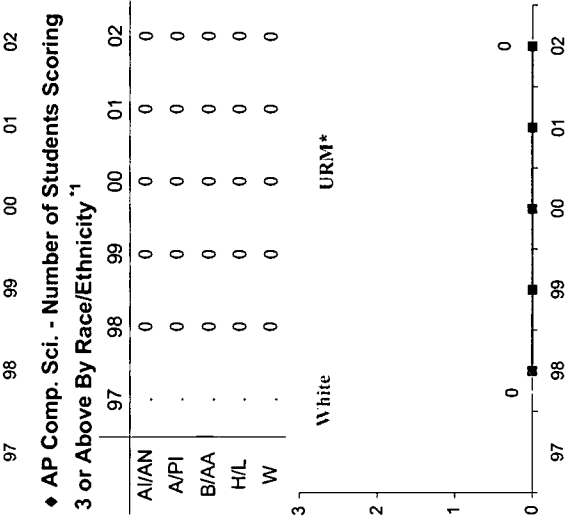
◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	97	98	99	00	01	02
Male	0	0	0	0	0	0
Female	0	0	0	0	0	0



◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	0	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0



*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

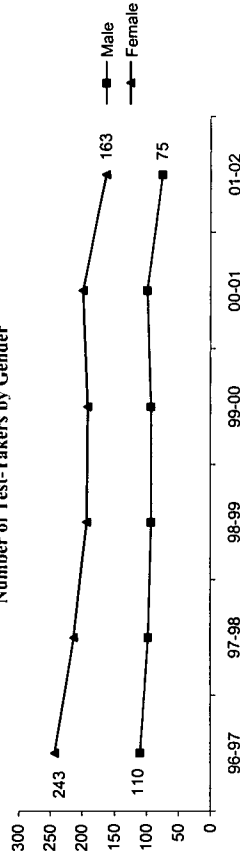
Oakland CPMSA

ACT Test-Takers

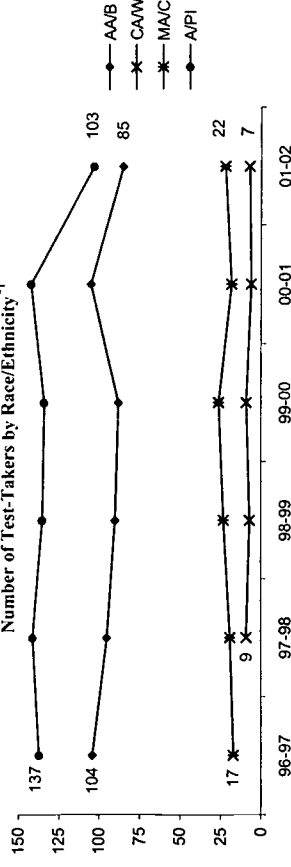
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,956	1,883	1,962	1,983	1,984	-
Test-Takers	353	310	286	288	299	239
Num of Test-Takers/1,000 Stu.	180	165	146	145	151	-
Gender						
Male	110	97	92	92	98	75
Female	243	213	193	192	199	163
Race/Ethnicity						
AA/B	104	95	90	88	105	85
AI/AN	2	2	1	2	0	0
CA/W	4	9	7	9	6	7
MA/C	17	19	23	26	18	22
A/PI	137	141	135	134	142	103
PR/H	3	1	3	0	2	2

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



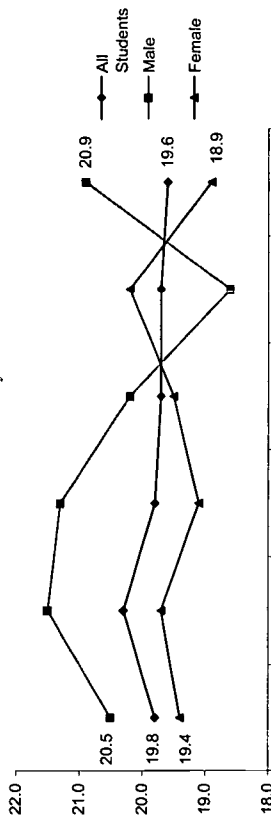
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
¹ Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

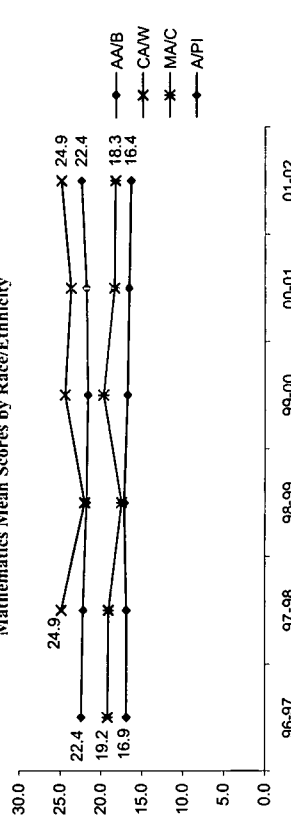
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	19.8	20.3	19.8	19.7	19.7	19.6
Gender						
Male	20.5	21.5	21.3	20.2	18.6	20.9
Female	19.4	19.7	19.1	19.5	20.2	18.9
Race/Ethnicity						
AA/B	16.9	16.9	17.2	16.8	16.6	16.4
AI/AN	-	-	-	-	-	-
CA/W	-	24.9	22.0	24.4	23.7	24.9
MA/C	19.2	19.1	17.5	19.7	18.4	18.3
A/PI	22.4	22.2	21.8	21.6	21.8	22.4
PR/H	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

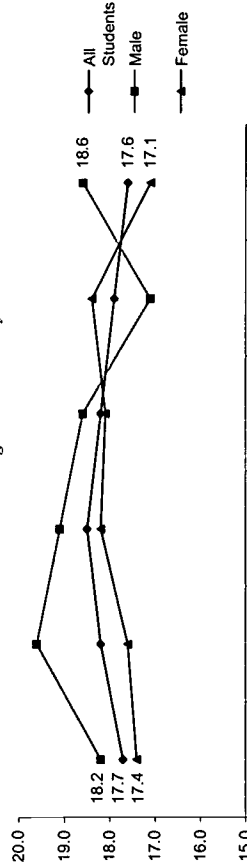


ACT Science Reasoning Scores

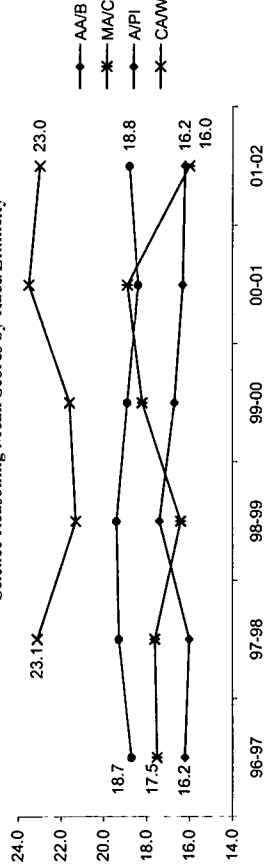
◆ Science Reasoning - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.7	18.2	18.5	18.2	17.9	17.6
Gender						
Male	18.2	19.6	19.1	18.6	17.1	18.6
Female	17.4	17.6	18.2	18.1	18.4	17.1
Race/Ethnicity						
AA/B	16.2	16.0	17.4	16.7	16.3	16.2
AI/AN	-	-	-	-	-	-
CA/W	-	23.1	21.3	21.6	23.5	23.0
MA/C	17.5	17.6	16.4	18.2	18.9	16.0
A/PI	18.7	19.3	19.4	18.9	18.4	18.8
PR/H	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender



Science Reasoning Mean Scores by Race/Ethnicity



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White
 MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

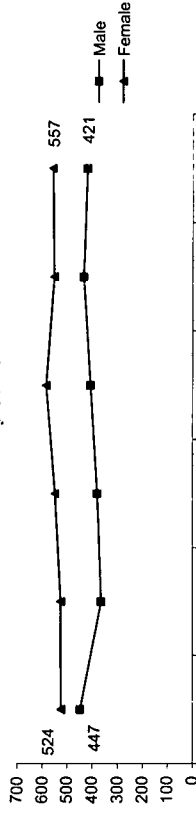
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

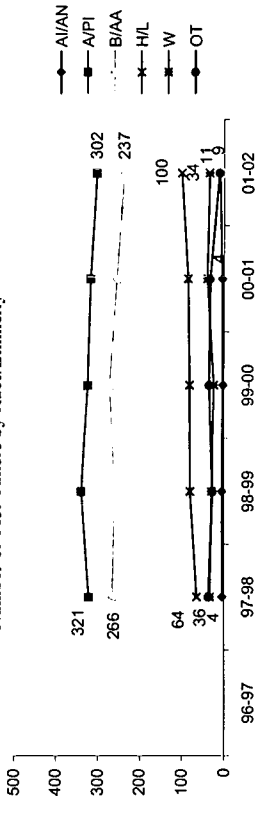
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,956	1,883	1,962	1,983	1,984	-
Test-Takers	971	889	930	992	986	978
Num of Test-Takers/1,000 Stu.	496	472	474	500	497	-
Gender						
Male	447	364	381	407	434	421
Female	524	525	549	585	552	557
Race/Ethnicity						
AI/AN	4	4	5	3	4	9
A/PI	321	321	339	324	317	302
B/AA	266	266	260	272	255	237
H/L	64	64	80	81	85	100
W	33	33	29	24	39	34
OT	36	36	27	35	33	11

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

¹Number of Test-Takers less than 5 not presented in graph

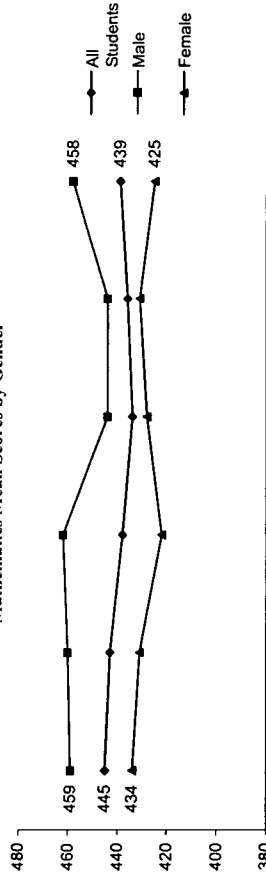
Oakland CPMSA

SAT Mathematics Scores

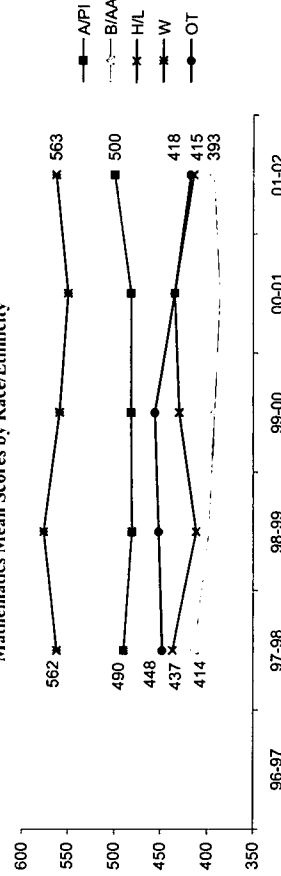
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	445	443	438	434	436	439
Gender						
Male	459	460	462	444	444	458
Female	434	431	422	428	431	425
Race/Ethnicity						
A/IAN ^{*1}	-	-	312	-	-	411
A/PI	490	490	481	482	482	500
B/AA	414	414	398	392	386	393
H/L	437	437	412	430	435	415
W	562	562	576	559	550	563
OT	448	448	452	456	435	418

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity



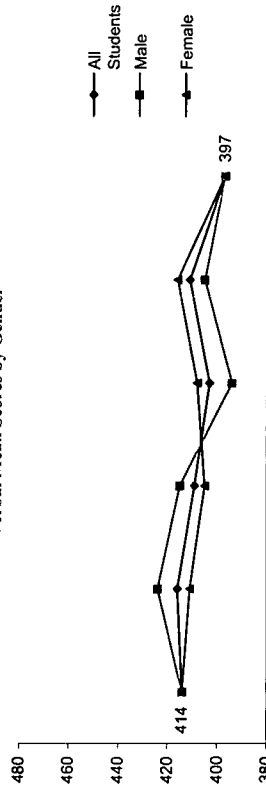
A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
(-) Mean scores not presented for sample size less than 5

SAT Verbal Scores

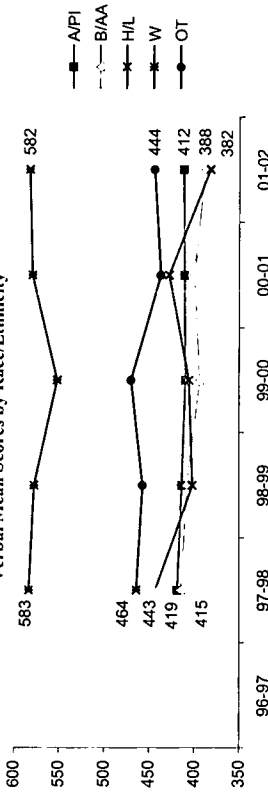
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	414	416	409	403	411	397
Gender						
Male	414	424	415	394	405	397
Female	414	411	405	408	416	397
Race/Ethnicity						
A/IAN ^{*1}	-	-	356	-	-	386
A/PI	419	419	414	410	411	412
B/AA	415	415	408	394	400	388
H/L	443	443	402	406	428	382
W	583	583	577	552	579	582
OT	464	464	457	470	437	444

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



*1 Mean score not presented on graph

Cohort/Scale-Up Approach

Number of District Schools	98-99	99-00	00-01
CPMSA Schools:	86	86	86
% Schools:	16	86	86
	19%	100%	100%

Source: CDE 1999-01

Special Education and Bilingual Students:

↪ The focus is on literacy.

New Courses Added as a Result of CPMSA: Instructional Time:

↪ Since 1999, at least 2 AP courses must be offered at each high school.
 ↪ The district mandates minimal hours of instruction for math and science. Elementary: 1 hr/day for math; minimum of 2 hours for science; Middle school and High school: 3 years of math and science.

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements ↪ Three years of math and science.

Primary Decision Making Body

Standards Curriculum	District
Curriculum/TextBook Adoption	District
Student Assessment	District
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District
School-Based Management?	Yes

Student Support Systems: ↪ School and community-based tutoring and enrichment programs.

↪ Saturday schools and after-school tutoring will be a part of the After-school Service Providers Consortium.

Summer programs: ↪ Pre-Collegiate Academy, MESA and other outreach programs with the University of California - Berkeley, Mills College, St. Mary's College and California State University - Hayward. District summer school for secondary math and science. Summer of Learning professional development in math and science plus the Governor's Initiative for professional development in math and district Summer Science Institute.

Standards-based Curriculum and Instruction

Standards Adopted: ↪ State Curriculum Standards.

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: ↪ Implementation of the district's no-tracking policy is monitored on an ongoing basis.

Criteria for Entry into High Level Mathematics and Science Courses: ↪ "C" or better in most prerequisite courses.

Availability of High Level Courses: ↪ At least 2 AP courses in each high school are offered.

Policies Relevant to Curriculum

Framework: ↪ State curriculum framework

Curricula: ↪ State curriculum standards
 Curricula Materials: ↪ New textbook adoption April 2001 and completing new math adoption June 2001
 ↪ Elementary: Mathland; Delta/FOSS; Harcourt
 ↪ Middle: Prentice Hall Middle Grades Math; Prentice Hall
 ↪ High: University of Chicago's School Math Project; Holt/physical science, biology and chemistry; Prentice Hall/physics

Policies Relevant to Teacher Qualifications

Certification: ↪ District adopted the state certification and recertification requirements.

Requirement & Hiring Practices: ↪ California Teaching Credential or enrollment in Internship or Pre-Internship at CSU Hayward.

Professional Advancement & Leadership Training: ↪ Coaches were hired with district funds to monitor classroom implementation of math programs.

↪ The district is implementing Standards in Practice (SIP) to monitor classroom practices and is deploying instructional facilitators.

E: Elementary School M: Middle School H: High School

Professional Development Policies and Practices

Time Required or Supported:

- All elementary teachers are to complete 80 hours of training in the Open Court Literacy Program. The Governors Initiative requires 120 hrs/yr in math and literacy.

Financial Resources Provided:

- Professional Development activities must identify which standards are being addressed.
- Teacher surveys indicate that teachers are implementing CPMSA sponsored PD activities. CPMSA is integral to the development of the SIP and teachers' instructional practices.

Type and Amount Received by Average Math/Science Teacher:

Evaluation Instruments:

- Teacher survey

Professional Development Alignment to Content Standards Measures:

- SIP is designed to link classroom practices to standards, identify PD needs and monitor changes in classroom practices associated with PD.

Teacher's Instructional Practices Evaluation:

- Principals are required to make classroom observations 2 hours per day, and meet with their Executive Director to discuss the observations and identify professional development needs.

Impact on Student Achievement:

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

- Stanford-9 is aligned to state standards.

Assessments Used:

- The State mandated the adoption of Stanford-9 math achievement test and augmented items for science. Adopting standards based on criterion referenced NWEA Levels Test for mathematics.

CPMSA Leadership, Governance, and Management

Superintendent:

- There have been 4 superintendents since the CPMSA grant was awarded in 1997.

Continuity of Leadership

- CPMSA leadership work closely with the Co-PIs and the superintendent's cabinet on an ongoing basis.

Project Directors position in the districts organizational structure

- Project Director reports to Assistant Superintendents of Teaching & Learning and Accountability. Reports monthly to the Superintendent and his cabinet.

Teacher Leaders:

Partnerships

Other Key Initiatives

- SOAR (Gear Up) for middle school reform
- 21st Century
- Safe Passages

Competing Initiatives:

- Literacy program has taken precedence in K-3 professional development

Community Stakeholders:

- Chabot Space and Science Center
- Lawrence Hall of Science
- After School Student Service Providers Consortium

Higher Education:

- UC Hayward
- UC Berkley
- Mills College
- St. Mary's College
- Peralta Community College District

Business and Industry:

- Oakland Technology Xchange

Accountability

Program Effectiveness Monitoring:

- Report Card System:
 - A comprehensive school report is published and available on district's web page.
- Key Indicator Data Collection:
 - The district maintains a centralized database of student achievement, school climate, teacher experience and other key indicators.
- Key Indicator Data Use:
 - Used for planning purposes through Quality Schools Program, a data driven, decision making software program developed at UCLA.
 - QSP training of site leadership to use student assessment data to develop and monitor the implementation of comprehensive site plans.
 - SIP: To train site teams to use student assessment data to examine instructional practices, align student assignments to standards and inform of professional development needs at the site.
 - Schools identified as low performing receive training and ready access to student assessments to determine school needs, develop a site plan and monitor implementation of reform programs.
- Data Manager:
- External Evaluator:
 - Dr. Patrick Lee, Department of Research and Planning is assisted by Gibson and Associates

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Policy to end tracking was adopted by the Board of Education.
1998-99	<ul style="list-style-type: none"> • No Changes reported.
1999-00	<ul style="list-style-type: none"> • Graduation requirements increased to 3 years of mathematics and 3 years of science. • District mandated minimal hours for math and science instruction. • School Board requires at least 2 AP courses offered at each high school.
2000-01	<ul style="list-style-type: none"> • After school tutoring and Saturday School coordinated through the newly formed After-School Service Providers Consortium.

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	
1998-99	
1999-00	
2000-01	<ul style="list-style-type: none"> • All schools in the district implement standards based curricula.

Oakland CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1997-98		1997-98	• SAT-9 is used mathematics assessment	1997-98	
1998-99	<ul style="list-style-type: none"> • Coaches hired to monitor classroom implementation of math programs for grades K-12 • Pre-Internship and Internship Program for uncertified teachers with CSU Hayward. Teachers who hold a BA degree can complete their credential while teaching in Oakland schools. • Professional Development for counselors to encourage enrollments in higher level math and science courses 	1998-99	• SAT-9 augmented items adopted to assess science and math	1998-99	
1999-00		1999-00		1999-00	
2000-01	• SIP implementation links classroom practices to standards and identifies Professional Development needs.				



Richmond CPMSA

Project Information

CPMSA Project Title : Gateway to the 21st Century

Cohort: 97

CPMSA Web Site:

◆ PI, CO-PI and PD

PI/Superintendent
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 Co-PI/Associate Superintendent
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◆ CPMSA Data Manager/Evaluator

Data Manager
 Vivian Crump T (804) 780-7770 F (804) 648-6075
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 Evaluator
 Janine Certo T F

Project Summary

Our five-year comprehensive program is system-wide and involves over 28,000 students (K-12) and over 16 teachers and administrators, representing 32 elementary, 10 middle, and 9 high schools.

As we move toward the goal of significantly increasing the number of students who are literate in science, mathematics, and technology, the "Gateway to the 21st Century" project focused its efforts on meeting project objectives within the following interrelated areas:

- ◆ Curriculum Revision
- ◆ Teacher Enhancement/Professional Development
- ◆ Direct Student Intervention

Project Goals

To develop a systemic educational change, and to produce significant increase in the number of students who are literate and proficient in science, mathematics, and technology, so that they may be qualified to pursue undergraduate and graduate studies for careers in science, engineering, mathematics, and/or technology.

Selected School Indicators (District Average)

	97-98	00-01	Change
% Special Ed.	15.0%	16.0%	+1.0 PP
% LEP	0.3%	1.2%	+0.9 PP
% Free/Red. Lunch	25.5%	60.0%	+34.5 PP
% Daily Avg. Atten.	91.5%	91.1%	-0.4 PP
% Average Retained	2.4%	6.0%	+3.6 PP
% Drop-Out	5.5%	2.8%	-2.7 PP
% Mobility	25.0%	25.0%	+0.0 PP
Per Pupil Cost (\$)	\$8,939	\$9,236	+3.3%
# Students Per Computer	10	.	.
% Classrooms Internet Access	75%	100%	+25.0 PP
Average Class Size	22	.	.

◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	31	1,355	13,206
G6-8 (Middle)	10	103	5,946
G9-12 (High)	9	116	6,162
Total	50	1,574	25,314

Source: Core Data Elements (SY 2000-01)

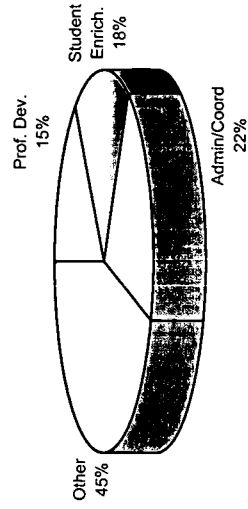
(.) Data Missing

PP: Percentage Points

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	12%	15%
Student Enrich.	5%	18%
Admin/Coord	21%	22%
Other	62%	45%
Total	100%	100%

CPMSA Funds %



Richmond CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total: 25,939
 CPMSA Schools: 25,314
 Source: CDE 2000-01

◆ Race/Ethnicity District-Wide

	97-98	00-01	%	% Change
<i>Arme. Ind./Ala. Nat.</i>	17	14	0.1%	-17.6%
<i>Asian/P. Islander</i>	174	148	0.6%	-14.9%
<i>Black</i>	22,316	24,115	90.8%	+8.1%
<i>Hispanic</i>	216	413	1.6%	+91.2%
<i>White</i>	1,868	1,880	7.1%	+0.6%
<i>Other</i>	0	0	0.0%	.
Total	24,591	26,570	100.0%	+8.0%
URM Total	22,549	24,542	92.4%	+8.8%

URM: Underrepresented Minority students.

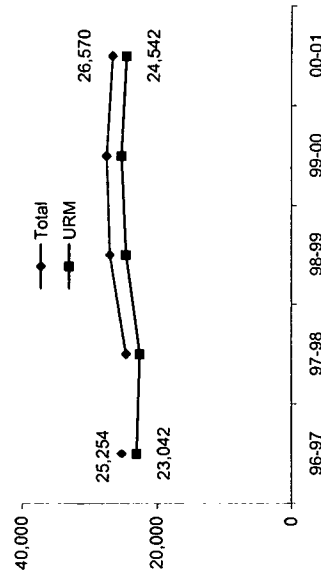
◆ Gender

Male	11,949	13,263	49.9%	+11.0%
Female	12,642	13,307	50.1%	+5.3%

◆ Grade

K-G5	13,340	15,042	56.6%	+12.8%
G6-8	5,360	5,738	21.6%	+7.1%
G9-12	5,891	5,555	20.9%	-5.7%
Ungraded	0	119	0.4%	.

◆ District Student Demographic Trends



12th Grade Graduates

	97-98	99-00	998	Change
Total 12th Grade	1,174	998	998	-15%
Earned a Diploma	1,046	1,010	1,010	-3%
% Earned Diploma	97%	101%	101%	+4 PP

% Earned Diploma for SY 1999-00



SEM Proficiency

	97-98	99-00	Change
# SEM Proficient ¹	559	283	-49%
% SEM Proficient/ Total 12th Grade	48%	28%	-20 PP

% SEM Proficient for SY 1999-00



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

High School Graduation Requirements SY 00-01

- ◆ Mathematics
22 units to qualify for a standard diploma with 3 years of mathematics; 24 units to qualify for an advance studies diploma with 4 years of math
 - ◆ Science
22 units to qualify for a standard diploma or 24 units to qualify for an advance studies diploma.
- PP: Percentage Points () Data Missing

Math and Science Teachers & Certification

◆ Mathematics (G6-12)

	97-98	00-01	Change
Teachers	51	66	+29%
Certified	51	.	.
% Cert.	100%	.	.

	97-98	00-01	Change
Teachers	41	55	+34%
Certified	41	.	.
% Cert.	100%	.	.

	97-98	00-01	Change
Teachers	92	121	+32%
Certified	92	.	.
% Cert.	100%	.	.

◆ Science (G6-12)

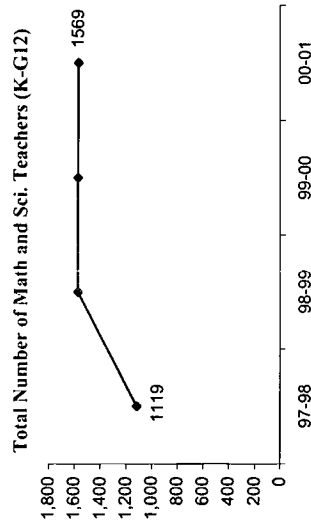
	97-98	00-01	Change
Teachers	40	45	+13%
Certified	40	.	.
% Cert.	100%	.	.

	97-98	00-01	Change
Teachers	37	48	+30%
Certified	37	.	.
% Cert.	100%	.	.

	97-98	00-01	Change
Teachers	77	93	+21%
Certified	77	.	.
% Cert.	100%	.	.

◆ Math and Science (K-G5)

	97-98	00-01	Change
Teachers	950	1,355	+43%



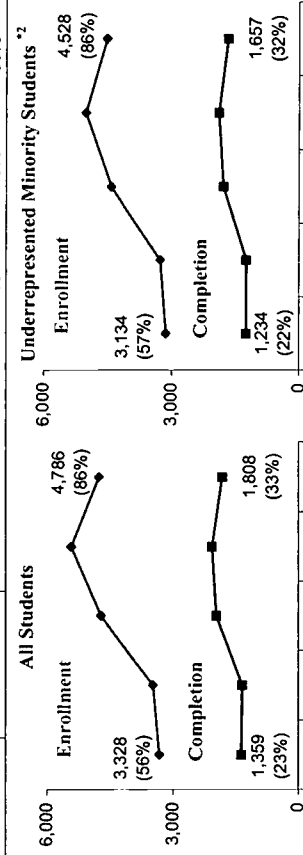
Richmond CPMSA

SY 2000-01

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

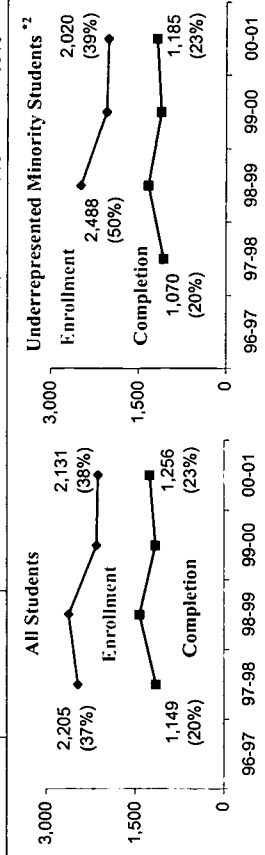
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,995	5,891	5,435	4,960	5,555
Enrollment	3,328	3,473	4,735	5,437	4,786
Completion ¹	1,359	1,340	1,950	2,059	1,808
% Enroll/G9-12	56%	59%	87%	110%	86%
URM ²	3,134	3,263	4,425	5,018	4,528
Enrollment	1,234	1,234	1,766	1,881	1,657
Completion ¹	57%	60%	90%	110%	86%
% Enroll/G9-12					



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,995	5,891	5,435	4,960	5,555
Enrollment	2,469	2,625	2,156	2,156	2,131
Completion ¹	1,149	1,425	1,161	1,161	1,256
% Enroll/G9-12	42%	48%	43%	43%	38%
URM ²	2,205	2,488	2,052	2,052	2,020
Enrollment	1,070	1,331	1,111	1,111	1,185
Completion ¹	45%	50%	45%	45%	39%
% Enroll/G9-12					

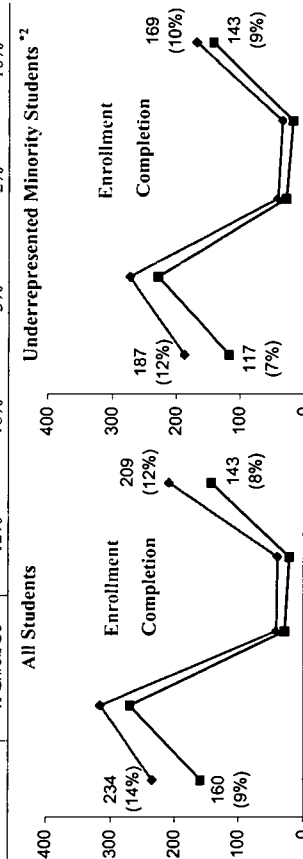


¹ Successful completion: grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

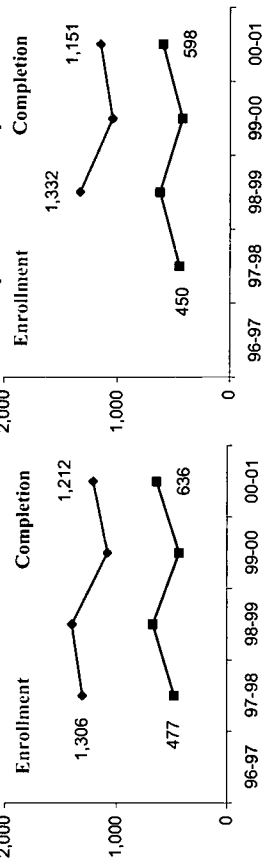
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 8 Population	1,698	1,633	1,496	1,621	1,748
Enrollment	234	316	42	40	209
Completion ¹	160	269	29	22	143
% Enroll/G8	14%	19%	3%	2%	12%
URM ²	187	273	42	35	169
Enrollment	117	228	29	19	143
Completion ¹	12%	18%	3%	2%	10%
% Enroll/G8					



Biology Enrollment & Completion Trends/ All vs. URM

	96-97	97-98	98-99	99-00	00-01
Total G 9-12 Population	5,995	5,891	5,435	4,960	5,555
Enrollment	1,306	1,306	1,399	1,078	1,212
Completion ¹	477	477	668	433	636
URM ²	1,306	1,306	1,332	1,047	1,151
Enrollment	450	450	624	423	598
Completion ¹					

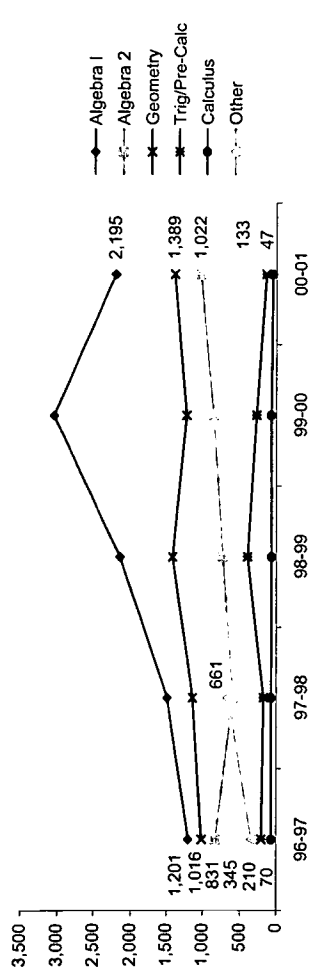


(.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

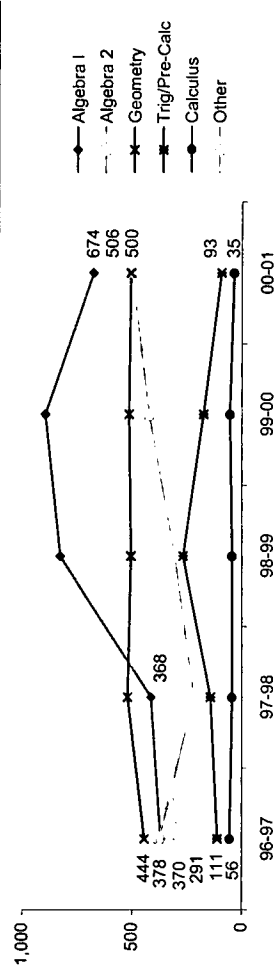
G 9-12 Course Enrollment (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	1,201	831	1,016	210	70	345	3,673
97-98	1,494	590	1,140	178	71	661	4,134
98-99	2,140	724	1,415	393	63	.	4,735
99-00	3,033	846	1,220	269	69	.	5,437
00-01	2,195	1,022	1,389	133	47	.	4,786



G 9-12 Course Completion¹ (All Students)

	Algebra 1	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	370	378	444	111	56	291	1,650
97-98	414	218	520	143	45	368	1,708
98-99	827	306	505	267	45	.	1,950
99-00	896	422	513	174	54	.	2,059
00-01	674	500	506	93	35	.	1,808



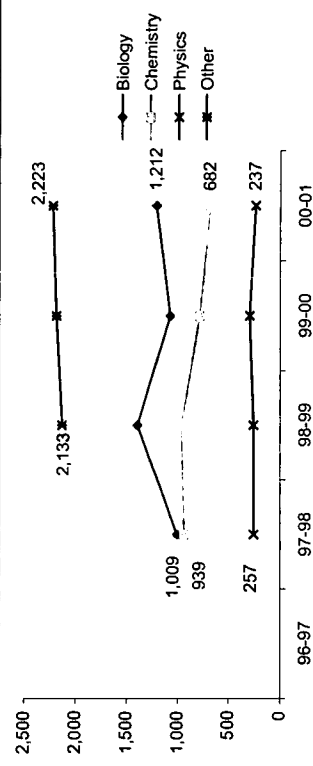
¹ Successful completion: grade 'C' or above.

(.) Data Missing

Science Course Enrollment & Completion Trends By Subject

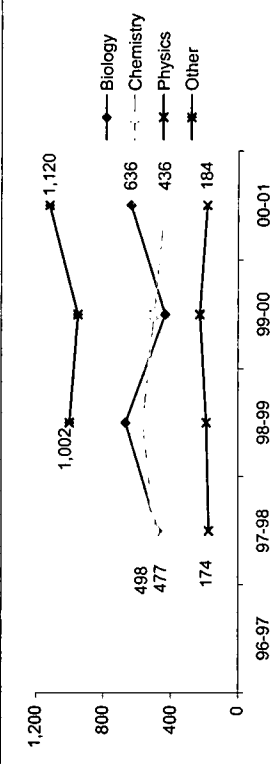
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	.	.	.	.	.
97-98	1,009	939	257	69	2,274
98-99	1,399	968	258	2,133	4,758
99-00	1,078	783	295	2,187	4,343
00-01	1,212	682	237	2,223	4,354



G 9-12 Course Completion¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	.	.	.	.	.
97-98	477	498	174	56	1,205
98-99	668	567	190	1,002	2,427
99-00	433	499	229	952	2,113
00-01	636	436	184	1,120	2,376



District Assessment Test Administered

State Assessment Test-Taker Trends Standards of Learning

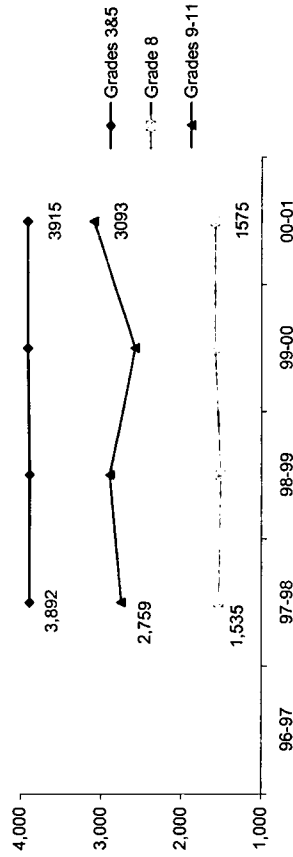
◆ Mathematics

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring
Grade
Type

◆ Mathematics

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grades 3 & 5	3,892	3,892	3,894	3,921	3,902
Grade 8	1,535	1,535	1,511	1,575	1,663
Grades 9-11	2,759	2,759	2,895	2,581	3,093

Total number of students taking test



◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring
Grade
Type

State Assessment Test Administered

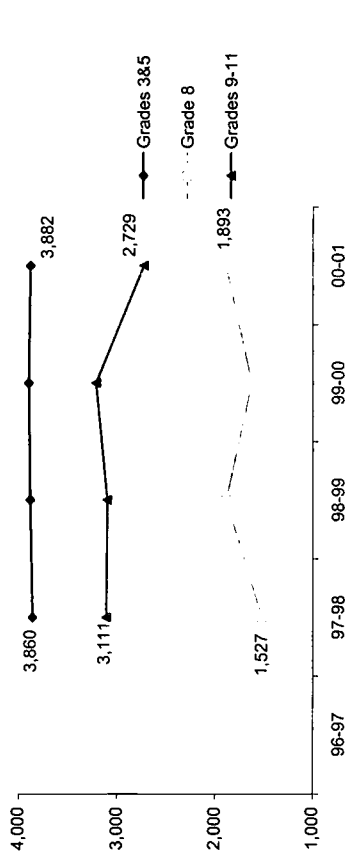
◆ Mathematics

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	.	PL	PL	PL	PL
Grade	.	3,5,8,9-11	3,5,8,9-11	3,5,8,9-11	3,5,8,9-11
Type	.	CRT	CRT	CRT	CRT

◆ Science

# of Test-takers	96-97	97-98	98-99	99-00	00-01
Grades 3 & 5	3,860	3,860	3,883	3,899	3,878
Grade 8	1,527	1,527	1,893	1,630	1,427
Grades 9-11	3,111	3,111	3,101	3,218	2,729

Total number of students taking test



◆ Science

Test Name	96-97	97-98	98-99	99-00	00-01
Scoring	.	Standford 9	Standford 9	Standford 9	Standford 9
Grade	.	PL	PL	PL	PL
Type	.	3,5,8,9-11	3,5,8,9-11	3,5,8,9-11	3,5,8,9-11

PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

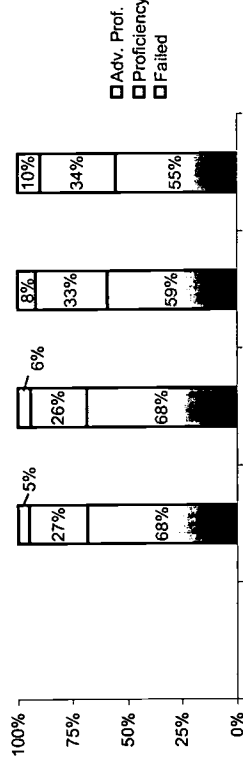
Richmond CPMSA

SY 2000-01

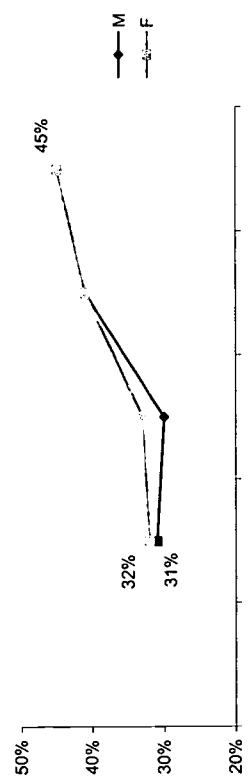
State Assessment Test Result Trends - Mathematics

◆ Grades 3 & 5

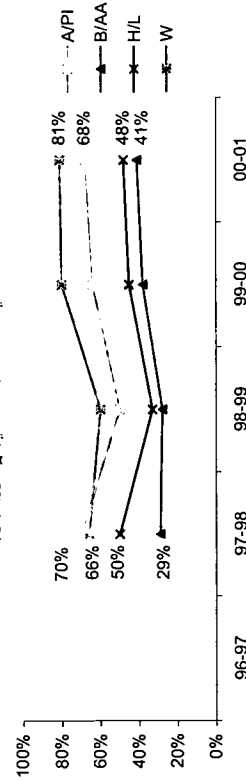
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	5%	27%	6%	8%	10%
Proficiency	27%	68%	26%	33%	34%
Failed	68%	5%	68%	59%	55%
Total # of students	3,892	3,892	3,894	3,921	3,902



% Passing by Gender



% Passing by Race/Ethnicity *1



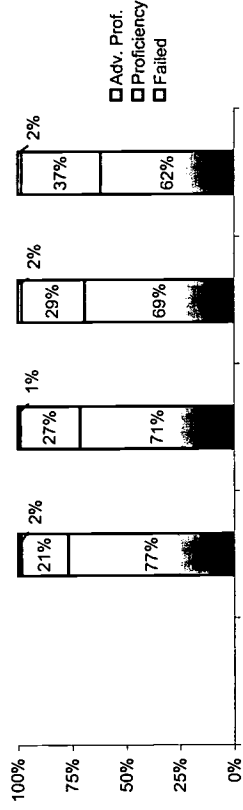
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

*1 Number of Test-Takers less than 5 not presented in graph

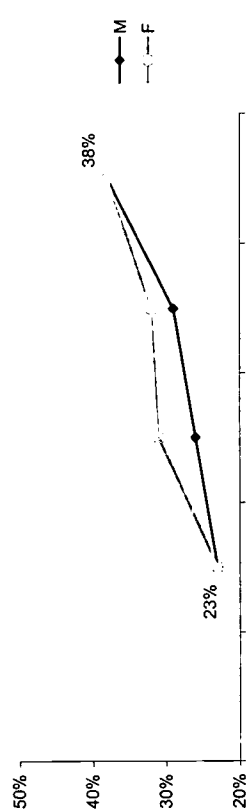
State Assessment Test Result Trends - Mathematics

◆ Grade 8

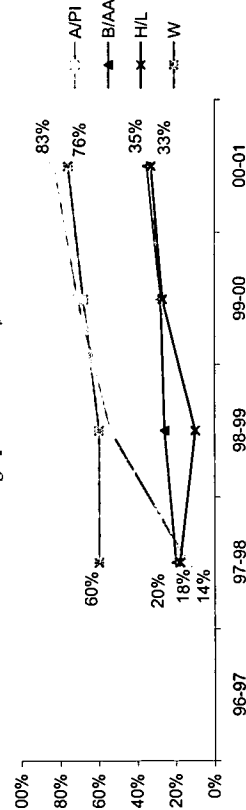
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	2%	21%	1%	2%	2%
Proficiency	21%	77%	27%	29%	37%
Failed	77%	2%	71%	69%	62%
Total # of students	1,535	1,535	1,511	1,575	1,663



% Passing by Gender



% Passing by Race/Ethnicity *1

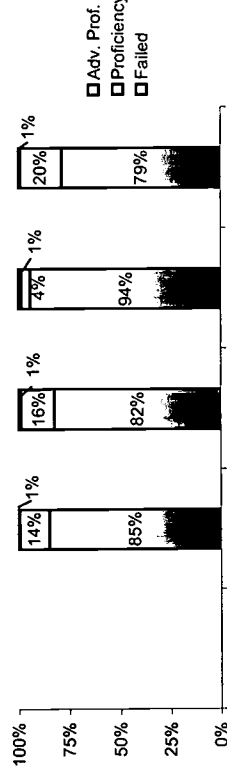


Richmond CPMSA

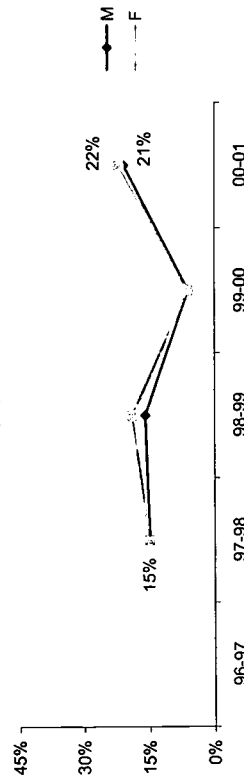
State Assessment Test Result Trends - Mathematics

◆ Grades 9-11

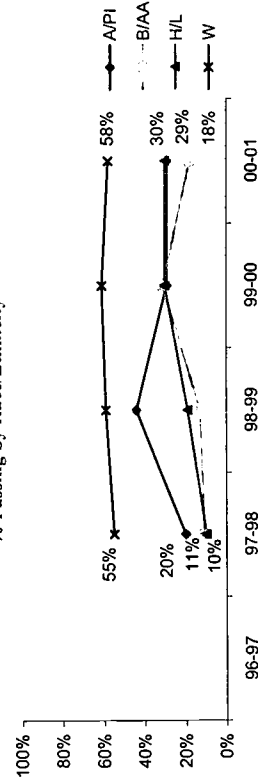
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	1%	1%	1%	1%	1%
Proficiency	14%	16%	16%	4%	20%
Failed	85%	82%	82%	94%	79%
Total # of students	2,759	2,895	2,581	3,093	



% Passing by Gender



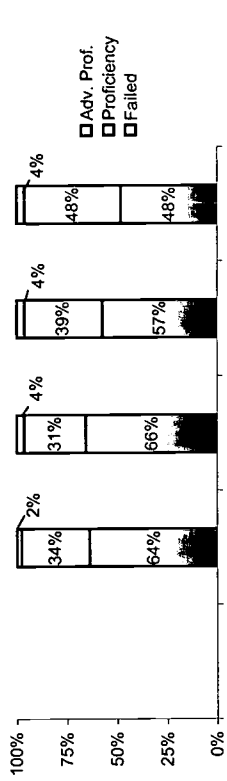
% Passing by Race/Ethnicity¹



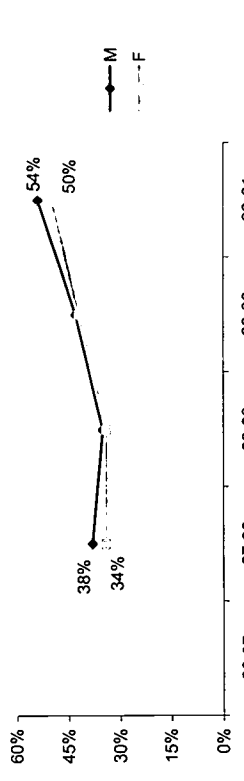
State Assessment Test Result Trends - Science

◆ Grades 3&5

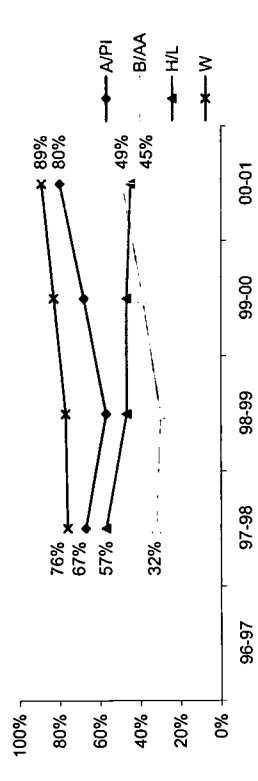
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	2%	2%	4%	4%	4%
Proficiency	34%	34%	31%	39%	48%
Failed	64%	64%	66%	57%	48%
Total # of students	3,860	3,860	3,883	3,899	3,878



% Passing by Gender



% Passing by Race/Ethnicity¹



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ Number of Test-Takers less than 5 not presented in graph

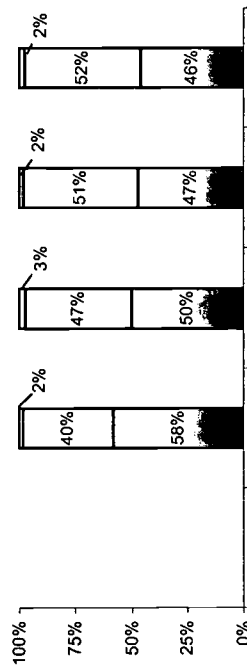
Richmond CPMSA

SY 2000-01

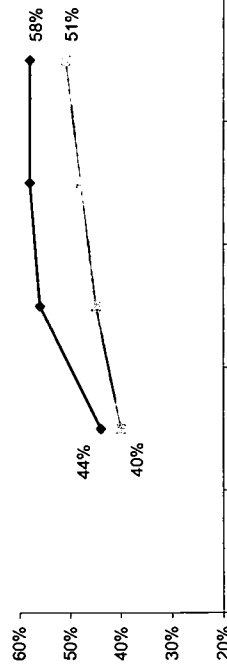
State Assessment Test Result Trends - Science

◆ Grade 8

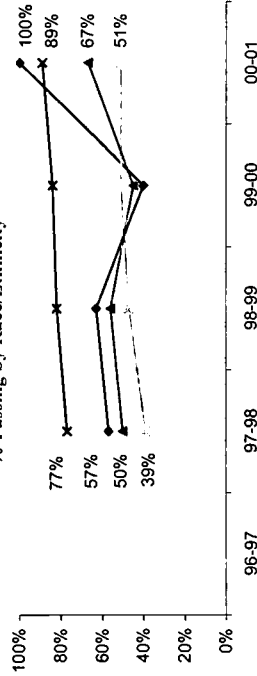
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	2%	3%	2%	2%	2%
Proficiency	40%	40%	47%	51%	52%
Failed	58%	50%	47%	46%	46%
Total # of students	1,527	1,893	1,630	1,427	



% Passing by Gender



% Passing by Race/Ethnicity*1



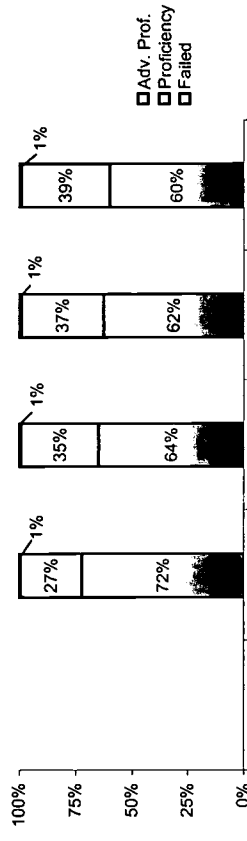
A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
 % Passing defined as Adv. Prof. or Proficiency

*1 Number of Test-Takers less than 5 not presented in graph

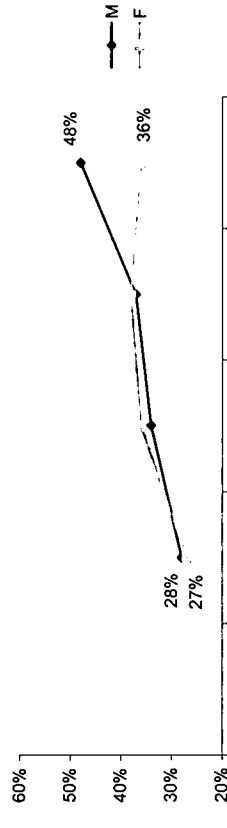
State Assessment Test Result Trends - Science

◆ Grade 10

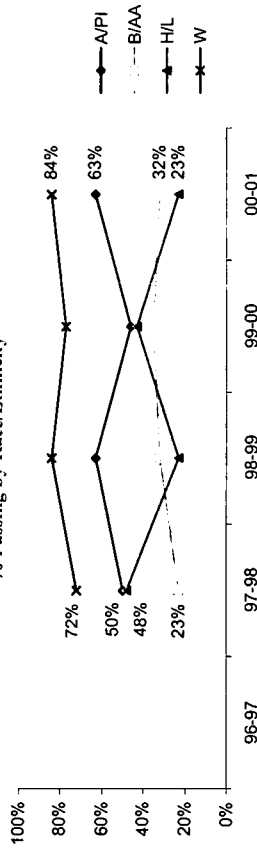
	96-97	97-98	98-99	99-00	00-01
Adv. Prof.	1%	1%	1%	1%	1%
Proficiency	27%	27%	35%	37%	39%
Failed	72%	72%	64%	62%	60%
Total # of students	3,111	3,101	3,218	2,729	



% Passing by Gender



% Passing by Race/Ethnicity*1



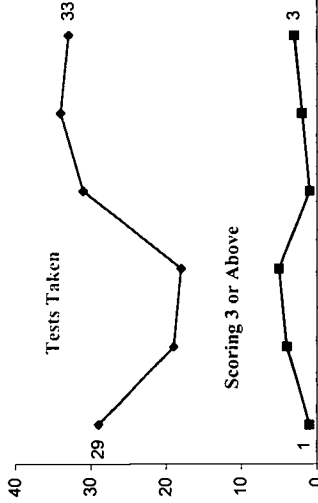
AP Mathematics Test Result Trends

◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,431	2,389	2,431	2,053	2,091	.
Calc. AB	29	19	18	31	27	33
Calc. BC	0	0	0	0	0	0
Statistics	0	0	0	0	7	0
Total	29	19	18	31	34	33
Tests taken per 1,000 students	11.9	8.0	7.4	15.1	16.3	.
Scoring 3 or Above	1	4	5	1	2	3
Scoring 3 or Above per 1,000	0.4	1.7	2.1	0.5	1.0	.

Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	1	2	2	0	2	1
Female	0	2	3	1	0	2

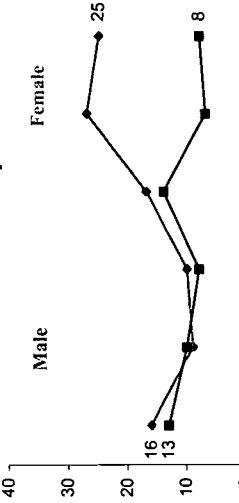
◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity ¹

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	1	0	0	0	0
B/AA	1	1	3	1	2	1
H/L	0	0	0	0	0	0
W	0	2	0	0	0	2

◆ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	13	10	8	14	7	8
Female	16	9	10	17	27	25

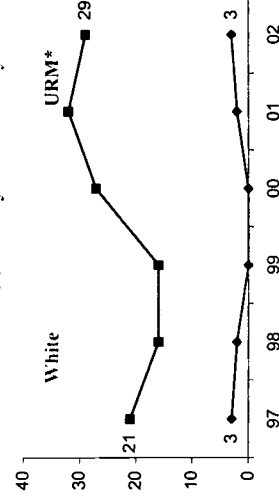
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity ¹

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	4	1	0	4	0	1
B/AA	21	16	16	27	31	29
H/L	0	0	0	0	1	0
W	3	2	0	0	2	3

Number of tests taken by Race/Ethnicity



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

Richmond CPMSA

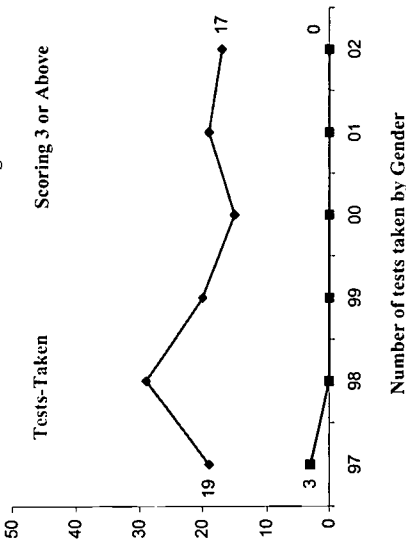
SY 2000-01

AP Science Test Result Trends ♦ **Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.**

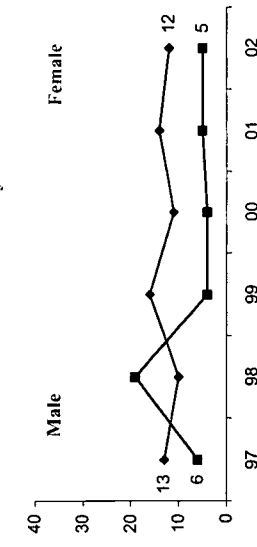
♦ **AP Science - Total Number of Tests Taken**

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,431	2,389	2,431	2,053	2,091	
Biology	13	0	0	7	10	0
Chemistry	1	27	17	5	8	6
Env. Science	0	0	0	0	0	0
Physics B	5	2	3	3	1	11
Physics Mech.	0	0	0	0	0	0
Physics Elec.	0	0	0	0	0	0
Total	19	29	20	15	19	17
Tests taken per 1,000 students	7.8	12.1	8.2	7.3	9.1	
Scoring 3 or Above	3	0	0	0	0	0
Scoring 3 or Above per 1,000	1.2	0.0	0.0	0.0	0.0	

Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



♦ **AP Science - Number of Tests Taken By Gender**

	97	98	99	00	01	02
Male	6	19	4	4	5	5
Female	13	10	16	11	14	12

♦ **AP Science - Number of Tests Taken By Race/Ethnicity¹**

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	1	3	0	1	0	0
B/AA	13	16	17	14	17	16
H/L	0	0	0	0	1	0
W	4	9	1	0	1	1

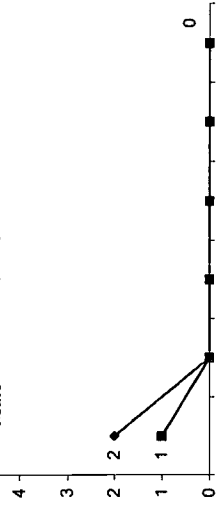
AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

♦ **AP Science - Number of Students Scoring 3 or Above By Gender**

	97	98	99	00	01	02
Male	1	0	0	0	0	0
Female	2	0	0	0	0	0

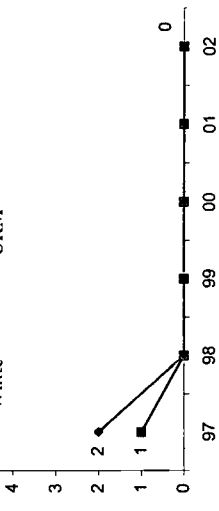
Male Female



♦ **AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹**

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	1	0	0	0	0	0
H/L	0	0	0	0	0	0
W	2	0	0	0	0	0

White URM*



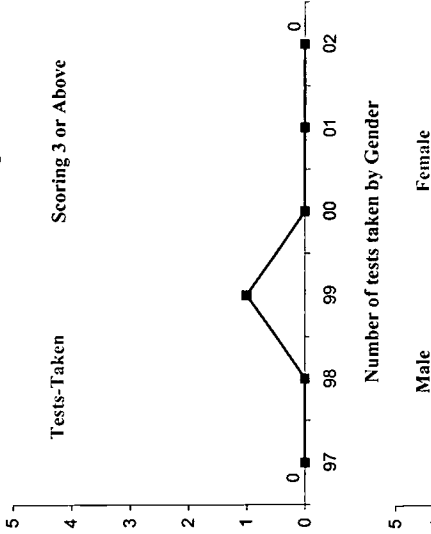
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

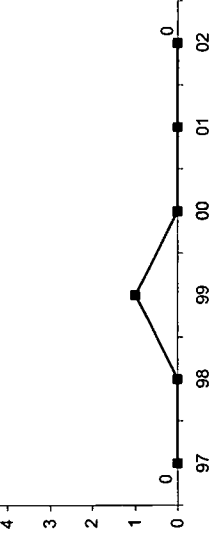
Computer Science A & AB

	97	98	99	00	01	02
◆ AP Computer Science - Total Number of Tests Taken	2,431	2,389	2,431	2,053	2,091	
Total # of 11th & 12th graders						
Comp. Sci. A	0	0	1	0	0	0
Comp. Sci. AB	0	0	0	0	0	0
Tests Taken	0	0	1	0	0	0
Tests taken per 1,000 students	0.0	0.0	0.4	0.0	0.0	
Scoring 3 or Above	0	0	1	0	0	0
Scoring 3 or Above per 1,000	0.0	0.0	0.4	0.0	0.0	

Number of tests taken and scoring 3 or Above



Number of tests taken by Gender



◆ AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	0	1	0	0	0
Female	0	0	0	0	0	0

◆ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	1	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

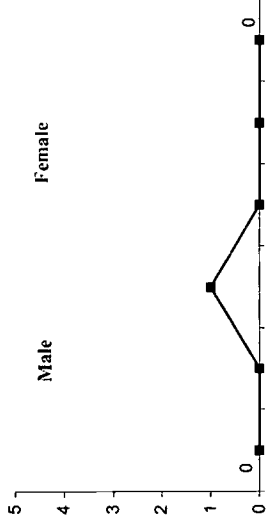
AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

¹ "Other" category not presented

◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	0	0	1	0	0	0
Female	0	0	0	0	0	0

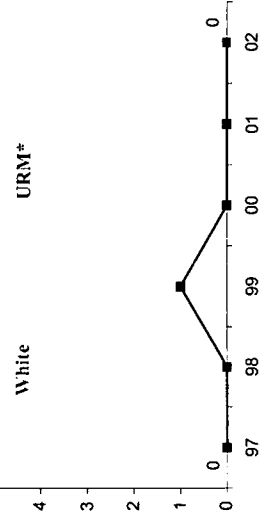
Number of students scoring 3 or above by gender



◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity

Race/Ethnicity	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	0	0	0	0	0	0
B/AA	0	0	1	0	0	0
H/L	0	0	0	0	0	0
W	0	0	0	0	0	0

Number of students scoring 3 or above by race/ethnicity



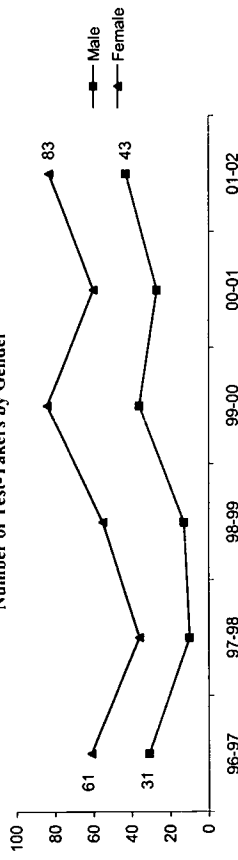
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

ACT Test-Takers

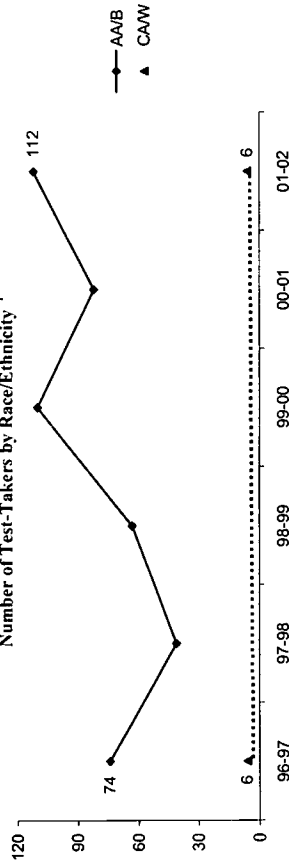
◆ **Number of Test-Takers**

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,207	1,174	1,290	998	988	-
Test-Takers	92	46	69	120	89	127
Num of Test-Takers/1,000 Stu.	76	39	53	120	90	-
Gender						
Male	31	10	13	36	27	43
Female	61	36	55	84	60	83
Race/Ethnicity						
AA/B	74	41	63	110	82	112
AI/AN	0	0	0	0	0	0
CA/W	6	1	1	1	1	6
MA/C	0	0	0	0	0	0
A/PI	0	0	1	2	0	1
PR/H	0	0	0	2	0	1

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity¹



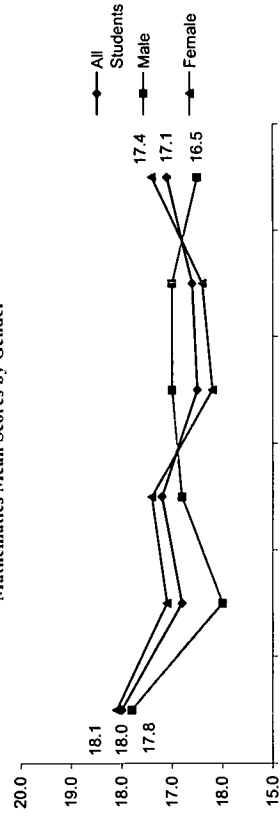
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
¹Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

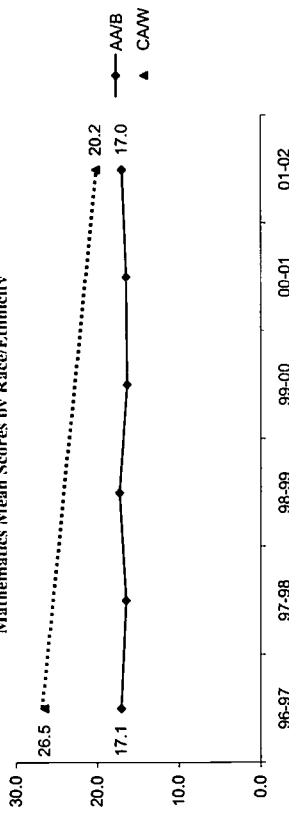
◆ **Mathematics - Mean Score Trends**

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	18.0	16.8	17.2	16.5	16.6	17.1
Gender						
Male	17.8	16.0	16.8	17.0	17.0	16.5
Female	18.1	17.1	17.4	16.2	16.4	17.4
Race/Ethnicity						
AA/B	17.1	16.5	17.3	16.4	16.5	17.0
AI/AN	-	-	-	-	-	-
CA/W	26.5	-	-	-	-	20.2
MA/C	-	-	-	-	-	-
A/PI	-	-	-	-	-	-
PR/H	-	-	-	-	-	-

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity¹



(-) Mean scores not presented for sample size less than 5

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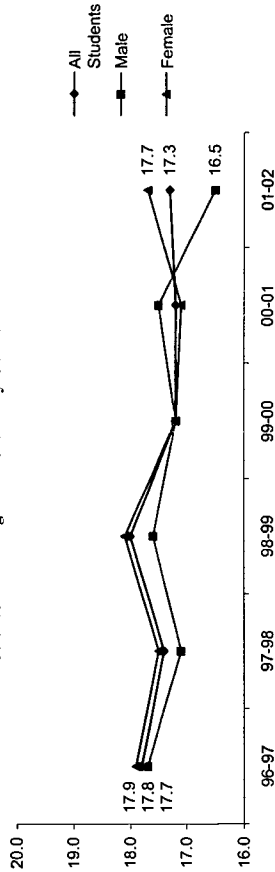
SY 2000-01

ACT Science Reasoning Scores

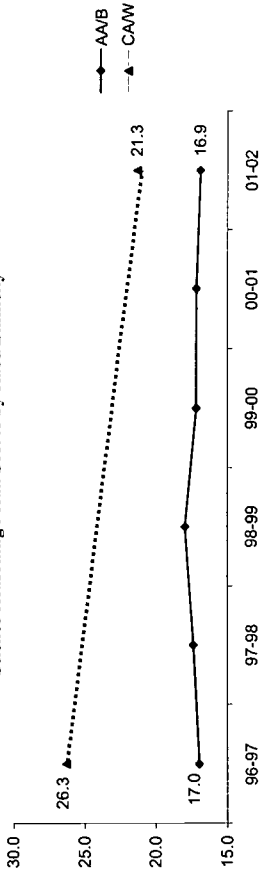
◆ Science Reasoning - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	17.8	17.4	18.0	17.2	17.2	17.3
Gender						
Male	17.7	17.1	17.6	17.2	17.5	16.5
Female	17.9	17.5	18.1	17.2	17.1	17.7
Race/Ethnicity						
AA/B	17.0	17.4	18.0	17.2	17.2	16.9
AI/AN	-	-	-	-	-	-
CA/W	26.3	-	-	-	-	21.3
MA/C	-	-	-	-	-	-
API	-	-	-	-	-	-
PR/H	-	-	-	-	-	-

Science Reasoning Mean Scores by Gender^{*1}



Science Reasoning Mean Scores by Race/Ethnicity^{*1}



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cauc. American/White
MA/C: Mexican American/Chicano API: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

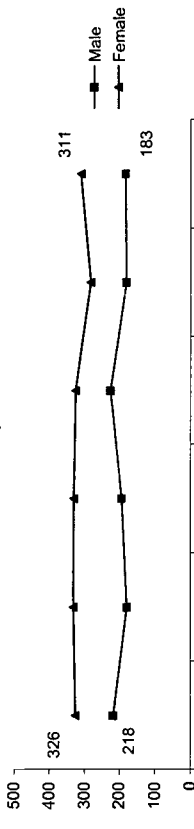
*1 Number of Test-Takers less than 5 not presented in graph
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

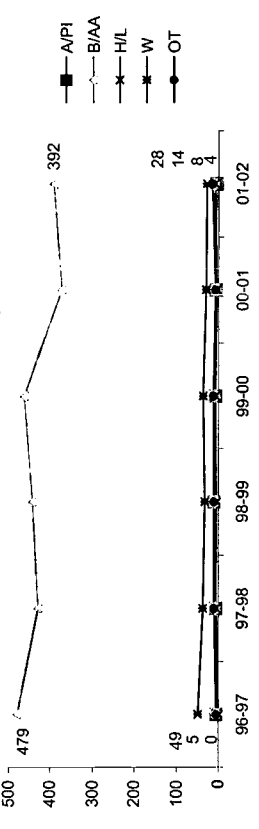
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	1,207	1,174	1,290	998	988	.
Test-Takers	544	511	525	552	464	494
Num of Test-Takers/1,000 Stu.	451	435	407	553	470	.
Gender						
Male	218	179	194	226	181	183
Female	326	332	331	326	283	311
Race/Ethnicity						
AI/AN	0	2	1	0	4	3
API	5	6	11	7	6	4
B/AA	479	429	442	463	373	392
H/L	0	6	5	7	4	8
W	49	37	33	37	30	28
OT	5	10	11	12	7	14

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}



AI/AN: American Indian/Alaskan Native API: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

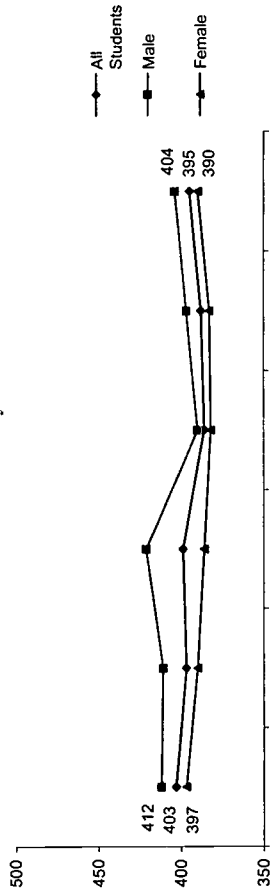
Richmond CPMSA SY 2000-01

SAT Mathematics Scores

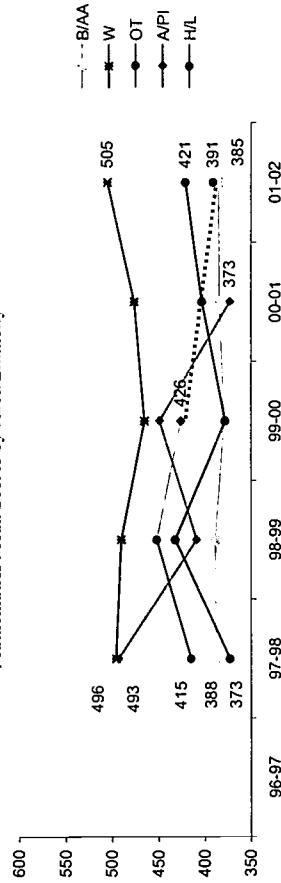
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	403	397	399	386	388	395
Gender						
Male	412	411	421	390	397	404
Female	397	390	386	382	383	390
Race/Ethnicity						
All/AN	-	-	-	-	-	-
A/PI	493	493	409	449	373	-
B/AA	388	388	389	379	384	385
H/L	415	415	452	426	-	391
W	496	496	490	465	476	505
OT	373	373	432	378	403	421

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity

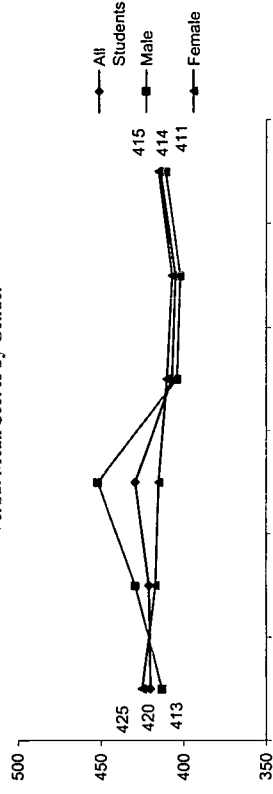


SAT Verbal Scores

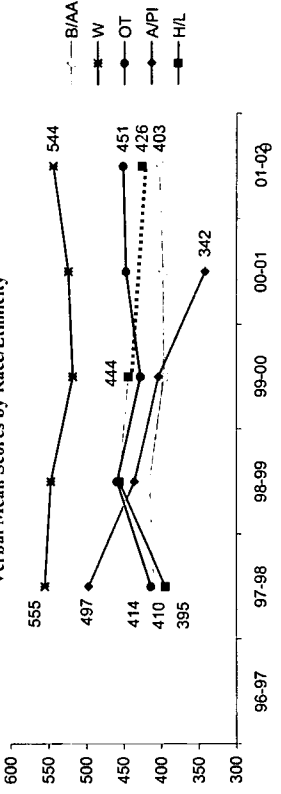
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	420	421	429	407	405	414
Gender						
Male	413	429	452	404	402	411
Female	425	417	415	410	407	415
Race/Ethnicity						
All/AN	-	-	-	-	-	-
A/PI	Data Not Available	497	436	404	342	-
B/AA	410	410	416	397	398	403
H/L	395	395	456	444	-	426
W	555	555	547	518	524	544
OT	414	414	459	428	447	451

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity



All/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

*1 Number of Test-Takers less than 5 not presented in graph

(-) Mean scores not presented for sample size less than 5

Cohort/Scale-Up Approach

Number of District Schools	98-99	99-00	00-01
	57	56	56
CPMSA Schools:	49	50	56
% Schools:	86%	89%	100%

Source: CDE 1999, 2000, 2001

Primary Decision Making Body

Standards Curriculum	State
Curriculum/TextBook Adoption	State
Student Assessment	State
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	State
School-Based Management?	Yes

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: None

Criteria for Entry into High Level Mathematics and Science Courses: A "C" or better in other math/science classes to enroll in upper level classes

Chemistry prerequisites include Algebra I and Biology and be enrolled in Algebra II and have 2.5 GPA

Availability of High Level Courses: Many available: Astronomy, Oceanography, Environmental Science

College Biology

College Chemistry

College Calculus

Integrated Science

Special Education and Bilingual Students: SPED and LEP students mainstreamed into math and science classes

Earth science I, II, and Biology I, II are offered to exceptional education students

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements: 3 years math and science for standard diploma; 4 years math and science for advanced diploma

Student Support Systems: Extended Day Activities; Saturday Math and Science Academy

Summer programs: Upward Bound; New Horizons; BioBlast

Various programs at colleges and The Science Museum of Virginia

Algebra Enhancement

G Files

Math Wiz

DuPont Pre-College Camp

Advanced Scholars

SMT Academy

Policies Relevant to Curriculum

Framework: Aligned with National and State Standards and Pacing Charts

Curricula: Algebra I - Glencoe/McGraw-Hill; Geometry - Glencoe/McGraw-Hill; Algebra II - Glencoe/McGraw-Hill; Algebra II/Trigonometry-Glencoe/McGraw-Hill; Algebra Trigonometry Advanced Math - Prentice Hall

Materials: Pre-Calculus: Graphing and Data Analysis - Prentice Hall; Calculus - Houghton - Mifflin; Middle Grade Mathematics-Prentice Hall; Math Exploration Application-Prentice Hall

- Math K-5- Silver Burdett/Ginn
- Earth Science - Prentice Hall
- Earth Science - Holt
- Earth Science -Merrill
- Biology Visualizing Life -Holt
- Biology Principles and Exploration -Holt
- Biology- Addison Wesley
- Chemistry- Addison Wesley
- Integrated Science Middle Grades - Glencoe
- Scholastic Elementary Science Kits
- Harcourt Brace Elementary Science Kits

- See "Availability of High Level Courses" above
- Science Museum of Virginia provides enrichment lessons in 11 elementary schools and in every middle school
- 90 minute science blocks for 6 weeks and 10 weeks respectively

New Courses Added as a Result of CPMSA: Instructional Time:

Standards-based Curriculum and Instruction

Standards Adopted: State and National standards

% of Students Experiencing Standards-based Curricula:	E	100%
	M	100%
	H	100%

Policies Relevant to Teacher Qualifications

Certification: Postgraduate, Collegiate, Vocational Education; and Pupil Personnel Services certificates may be renewed

Requirement & Hiring Practices: Renewal with 180 professional development points with 5 year validity period.

Professional Advancement & Leadership Training: Professional Advancement & Leadership Training:

E: Elementary School M: Middle School H: High School

Richmond CPMSA

SY 2000-011

Professional Development Policies and Practices

Time Required or Supported: • 180 hours over 5 years

Financial Resources Provided:

Alignment to Student Standards: • Aligned to curriculum standards and pacing standards

Has CPMSA influenced professional development changed teachers' instructional practices: • More activities are offered because of CPMSA funding

Impact on Student Achievement:

• Records of teacher attendance and student progress (SOL scores) are studied

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

- District assessments are fully aligned for math and science
- The district curriculum guide is developed from state standards

Assessments Used:

- Standards of Learning (SOL) for math and science.
- District assessments

Type and Amount Received by Average Math/Science Teacher:

- None required
- Teachers are encouraged to attend workshops during the summer and school year

Evaluation Instruments:

Professional Development Alignment to Content Standards Measures:

Teacher's Instructional Practices Evaluation: • Observed by instructional specialists, principals, department heads and central office administrators

Partnerships

Other Key Initiatives: • Eisenhower

Competing Initiatives: • None

Community Stakeholders:

- Area Health Education Center
- Science Museum of Virginia (SMV)

CPMSA Leadership, Governance, and Management

Superintendent: • Dr. Albert Williams

Continuity of Leadership

- Current Superintendent with district for 3 years

Project Directors position in district's organizational structure:

• Reports to Director of Instruction and the Associate Superintendent (Co-PI)

• Project Director manages fund distribution, oversees staff development, student intervention programs and development of partnerships

Business and Industry:

- Bell Atlantic
- General Electric
- El DuPont

Higher Education:

- Virginia State University
- Virginia Commonwealth University
- J. Sargent Reynolds College

Accountability

Program Effectiveness Monitoring:

- MERC analysis results and monitors project progress

Report Card System:

- State created report card provides testing status for district and school

Key Indicator Data Collection:

- Department of Information Technologies
- District Testing Department collects testing information

Key Indicator Data Use:

- Data analysis determines if programs are working . Decisions about programs are based on data

Local On-Sight Evaluation:

- Data Manager collects and uses data for program evaluation

- Student assessment test data is used to review curriculum and classroom instruction practices

Data Manager:

External Evaluator:

- MERC (Medical Educational Research Consortium), analyzes results and monitors project process

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Many summer enrichment courses • Afterschool and Saturday tutoring offered
1998-99	<ul style="list-style-type: none"> • Many student support programs implemented
1999-00	<ul style="list-style-type: none"> • Graduation requirements are increased • 3 years of science, 3 years of math is required for standard high school diploma, 4 years each is required for advanced diploma • Extended day activities at each school to reinforce regular school day standards • Students must receive a grade of 'C' or better to enroll in upper level science and math courses
2000-01	

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1997-98	
1998-99	<ul style="list-style-type: none"> • Curriculum guides aligned with standards • Pacing charts added • 100% schools implement standards based curriculum • SMV provides enrichment lessons for elementary and middle school students
1999-00	<ul style="list-style-type: none"> • High level Science courses implemented
2000-2001	
2001-02	<ul style="list-style-type: none"> • Earth Science part I and II, Biology I and II, are offered to exceptional education students

Richmond CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • More Professional Development activities offered
1998-99	
1999-00	<ul style="list-style-type: none"> • SOL scores used to determine if professional development benefited student achievement
2000-01	<ul style="list-style-type: none"> • SOL scores used to determine if professional development activities benefited student achievement
2001-02	<ul style="list-style-type: none"> • Professional development activities are being aligned with pacing charts • Records kept of names of teachers who attend professional development. Student progress on state assessment are studied

Standards-based Assessment System Changes During CPMSA Implementation

School Year	Policy Implemented
1996-97	<ul style="list-style-type: none"> • State mandated standards of learning assessment for science and math assessments
1997-98	
1998-99	
1999-00	

Accountability

School Year	Policy Implemented
1997-98	<ul style="list-style-type: none"> • Local evaluator monitors project programs
1998-99	<ul style="list-style-type: none"> • Report card used is created by the State Department of Education • District Testing Department collects and maintains testing information
1999-00	



BEST COPY AVAILABLE

Springfield CPMSA

Project Information

CPMSA Project Title : Teachers Emphasizing Achievement in Math and Science
 Cohort: 97
 CPMSA Web Site: www.sps.springfield.ma.us/grants/nsf/cpmsa-intro.html

◆ PI, CO-PI and PD

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 Dir. Student Info
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 robertsg@sps.springfield.ma.us

Project Summary

The Springfield public school system is engaged in systemic reform to create a safe environment for all students to achieve to high standards in every school in the district. CPMSA-supported initiatives will help increase the number of students enrolling in and succeeding in Science, Mathematics, Engineering, and Technology courses. These expanded enrollments will create a quantifiable long-term increase the number of students completing a challenging sequence of courses in secondary school, who then graduate and pursue undergraduate majors in mathematics, science, technology and engineering.

Project Goals

To implement standards-based curricula and assessments. To double the number of students who enroll and successfully complete gatekeeping courses (i.e., Algebra I, Physical Science) with grade C or better, triple the number of students enrolling and successfully completing Biology, Chemistry, Geometry Algebra II, and Pre-calculus courses and quadruple the number of students enrolling and successfully completing Physics and/or AP Science courses. To increase scores on district and state achievement tests and final exams.

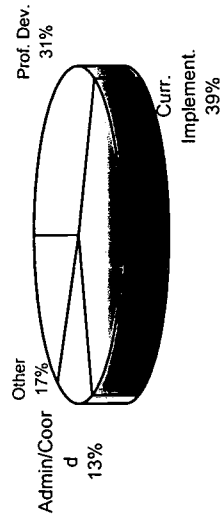
Selected School Indicators (District Average)

	98-99	00-01	Change
% Special Ed.	19.0%	19.0%	No Change
% LEP	12.0%	12.0%	No Change
% Free/Red. Lunch	71.0%	72.0%	+1.0 PP
% Daily Avg. Atten.	90.0%	91.1%	+1.1 PP
% Average Retained	6.0%	6.0%	No Change
% Drop-Out	5.0%	8.0%	+3.0 PP
% Mobility	17.0%	14.0%	-3.0 PP
Per Pupil Cost (\$)	\$6,779	\$7,546	+11.3%
# Students Per Computer	6	6	No Change
% Classrooms Internet Access		39%	
Average Class Size	25	24	-4.0%

District and CPMSA Fund Utilization (SY 2000-01)

	District	CPMSA
Prof. Dev.	2%	31%
Curr. Implement.	0%	39%
Admin/Coord	3%	13%
Other	95%	17%
Total	100%	100%

CPMSA Funds %



◆ District Schools, Math & Science Teachers, and Students

	Schools	Teachers	Students
00-01			
K-G5 (Elementary)	31	1,308	13,722
G6-8 (Middle)	5	107	6,003
G9-12 (High)	5	152	6,369
Total	46	1,567	26,503

Source: Core Data Elements (SY 2000-01)

(.) Data Missing

PP: Percentage Points

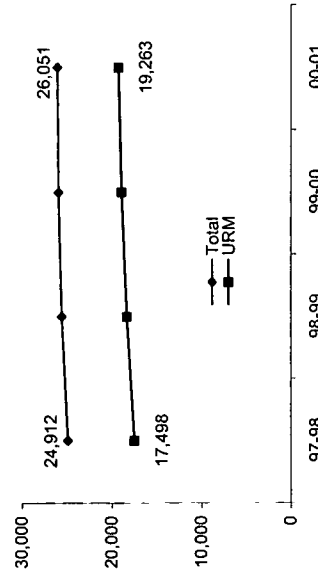
Springfield CPMSA

SY 2000-01

Student Demographics (SY 2000-01)

District Total:	26,503			
CPMSA Schools:	26,503			
Source: CDE 00-01				
◆ Race/Ethnicity District-Wide				
	97-98	00-01	%	% Change
Arme. Ind./Ala. Nat.	0	0	0.0%	
Asian/P. Islander	529	574	2.2%	+8.5%
Black	7,591	7,732	29.7%	+1.9%
Hispanic	9,907	11,531	44.3%	+16.4%
White	6,885	6,214	23.9%	-9.7%
Other	0	0	0.0%	
Total	24,912	26,051	100.0%	+4.6%
URM Total	17,498	19,263	73.9%	+10.1%
URM: Underrepresented Minority students.				
◆ Gender				
Male	12,913	13,436	51.6%	+4.1%
Female	11,999	12,615	48.4%	+5.1%
◆ Grade				
K-G5	12,539	13,095	50.3%	+4.4%
G6-8	5,485	5,963	22.9%	+8.7%
G9-12	6,200	6,045	23.2%	-2.5%
Ungraded	688	948	3.6%	+37.8%

◆ District Student Demographic Trends



12th Grade Graduates

	97-98	00-01	Change
Total 12th Grade	968	1,245	+29%
Earned a Diploma	893	1,172	+31%
% Earned Diploma	92%	94%	+2 PP

% Earned Diploma for SY 2000-01



SEM Proficiency

	97-98	00-01	Change
# SEM Proficient ¹	50	166	+232%
% SEM Proficient/ Total 12th Grade	5%	13%	+8 PP

% SEM Proficient for SY 2000-01



¹ Defined as the number of High School graduates who have completed a minimum of Pre-calculus, Biology, and Chemistry and/or Physics courses.

Math and Science Teachers & Certification

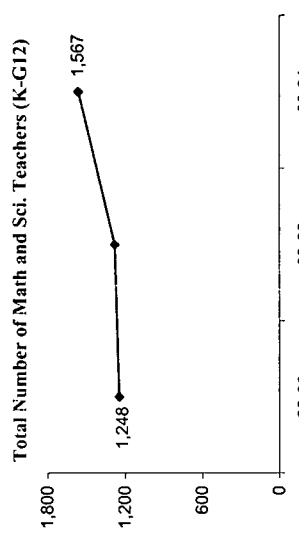
◆ Mathematics (G6-12)				
	98-99	00-01	Change	
Teachers	85	90	+6%	
Certified	33	60	+82%	
% Cert.	39%	67%	+27.8 PP	
◆ Science (G6-12)				
Teachers	118	110	-7%	
Certified	106	97	-8%	
% Cert.	90%	88%	-1.6 PP	
Teachers	203	200	-1%	
Certified	139	157	+13%	
% Cert.	68%	79%	+10.0 PP	

◆ Science (G6-12)

	98-99	00-01	Change
Teachers	80	72	-10%
Certified	44	44	+0%
% Cert.	55%	61%	+6.1 PP
Teachers	114	121	+6%
Certified	99	108	+9%
% Cert.	87%	89%	+2.4 PP
Teachers	194	193	-1%
Certified	143	152	+6%
% Cert.	74%	79%	+5.0 PP

◆ Math and Science (K-G5)

	98-99	00-01	Change
K-G5 Teachers	851	1,308	+54%



High School Graduation Requirements SY 00-01

- ◆ Mathematics
3 Years of Mathematics
- ◆ Science
3 Years of Science

PP: Percentage Points (.) Data Missing

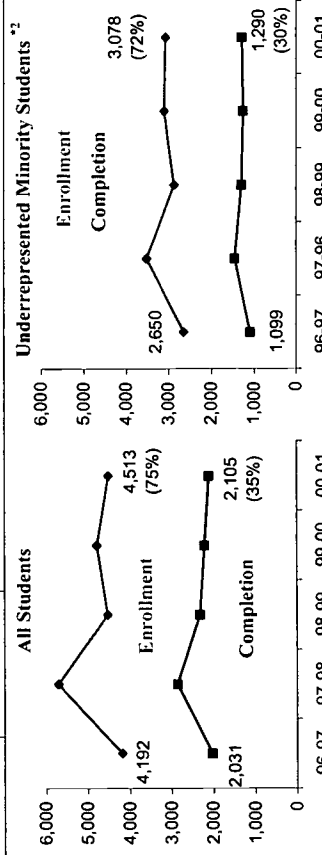
Springfield CPMSA

SY 2000-01

Mathematics and Science Enrollment & Completion Trends/ All vs. URM

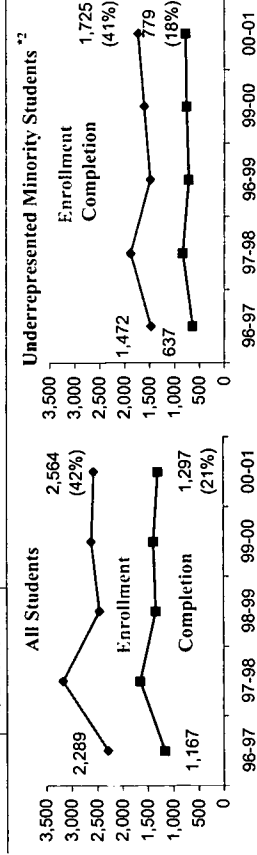
G 9-12 Mathematics Gate-Keeping Courses (Alg I & II, Geo, Trig/Pre-Calc, & Cal)

Total G 9-12 Population	96-97	97-98	98-99	99-00	00-01
Enrollment	4,192	5,710	4,530	4,792	4,513
Completion ¹	2,031	2,857	2,324	2,216	2,105
% Enroll/G9-12		92%	69%	71%	75%
URM ²					
Enrollment	2,650	3,531	2,872	3,113	3,078
Completion ¹	1,099	1,461	1,300	1,260	1,290
% Enroll/G9-12		82%	64%	66%	72%



G 9-12 Science Gate-Keeping Courses (Biology 1, Chem. 1, and Physics 1)

Total G 9-12 Population	96-97	97-98	98-99	99-00	00-01
Enrollment	2,289	3,173	2,459	2,609	2,564
Completion ¹	1,167	1,648	1,340	1,381	1,297
% Enroll/G9-12		51%	37%	39%	42%
URM ²					
Enrollment	1,472	1,880	1,480	1,606	1,725
Completion ¹	637	836	715	760	779
% Enroll/G9-12		44%	33%	34%	41%

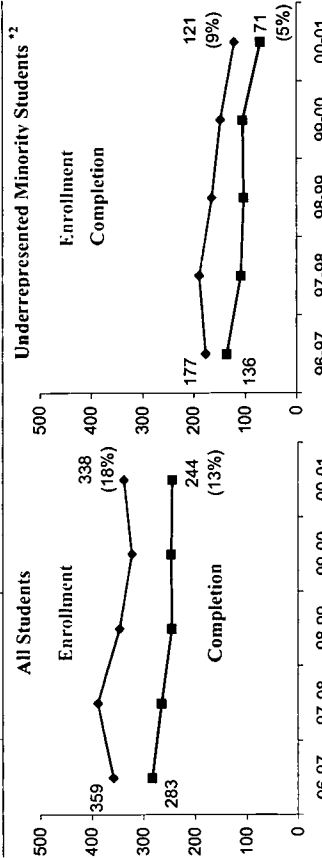


¹ Successful completion; grade 'C' or above.

² Underrepresented Minority students (American Indian/Alaskan Native, Black, and Hispanic)

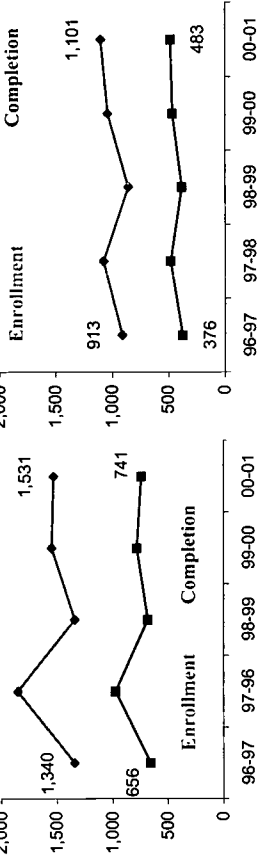
Algebra I in 8th Grade Enrollment & Completion Trends/ All vs. URM

Total G 8 Population	96-97	97-98	98-99	99-00	00-01
Enrollment	359	388	347	322	338
Completion ¹	283	265	245	246	244
% Enroll/G8		21%	18%	19%	18%
URM ²					
Enrollment	177	190	165	148	121
Completion ¹	136	109	103	105	71
% Enroll/G8		15%	12%	12%	9%



Biology Enrollment & Completion Trends/ All vs. URM

Total G 9-12 Population	96-97	97-98	98-99	99-00	00-01
Enrollment	1,340	1,851	1,339	1,545	1,531
Completion ¹	656	974	681	780	741
% Enroll/G9-12		51%	37%	39%	42%
URM ²					
Enrollment	913	1,078	861	1,040	1,101
Completion ¹	376	481	384	466	483

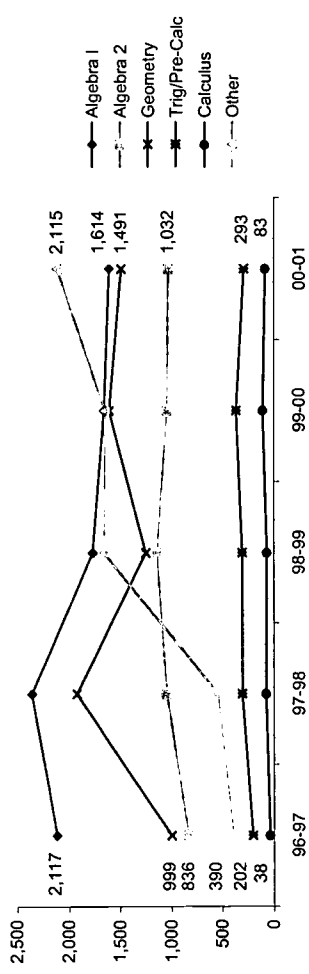


(.) Data Missing

Mathematics Course Enrollment & Completion Trends By Subject

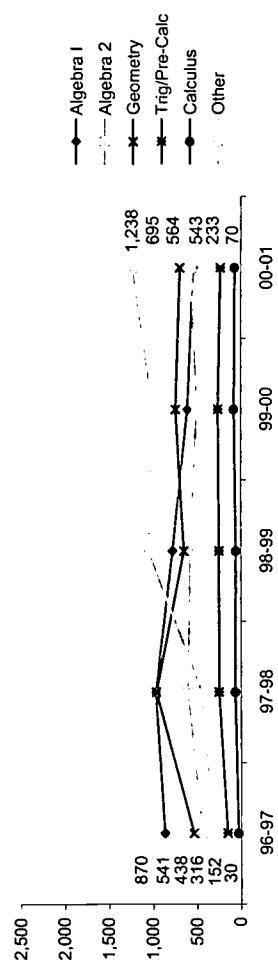
G 9-12 Course Enrollment (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	2,117	836	999	202	38	390	4,582
97-98	2,359	1,047	1,924	306	74	544	6,254
98-99	1,771	1,138	1,248	306	67	1,659	6,189
99-00	1,663	1,044	1,611	368	106	1,654	6,446
00-01	1,614	1,032	1,491	293	83	2,115	6,628



G 9-12 Course Completion ¹ (All Students)

	Algebra I	Algebra 2	Geometry	Trig/Pre-Calc	Calculus	Other	Math Total
96-97	870	438	541	152	30	316	2,347
97-98	970	609	963	252	63	448	3,305
98-99	781	582	653	251	57	1,052	3,376
99-00	613	511	746	265	81	1,008	3,224
00-01	543	564	695	233	70	1,238	3,343



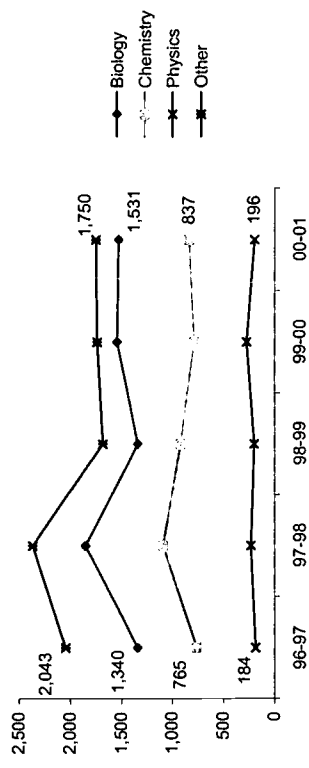
¹ Successful completion: grade 'C' or above.

² Data not presented on graph for sample size less than 5

Science Course Enrollment & Completion Trends By Subject

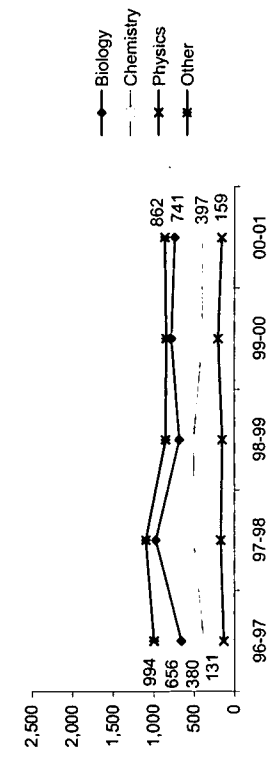
G 9-12 Course Enrollment (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	1,340	765	184	2,043	4,332
97-98	1,851	1,090	232	2,363	5,536
98-99	1,339	921	199	1,685	4,144
99-00	1,545	790	274	1,739	4,348
00-01	1,531	837	196	1,750	4,314



G 9-12 Course Completion ¹ (All Students)

	Biology	Chemistry	Physics	Other	Science Total
96-97	656	380	131	994	2,161
97-98	974	504	170	1,094	2,742
98-99	681	506	153	850	2,190
99-00	780	399	202	845	2,226
00-01	741	397	159	862	2,159



Springfield CPMSA

SY 2000-01

District Assessment Test Administered

State Assessment Test-Taker Trends MCAS

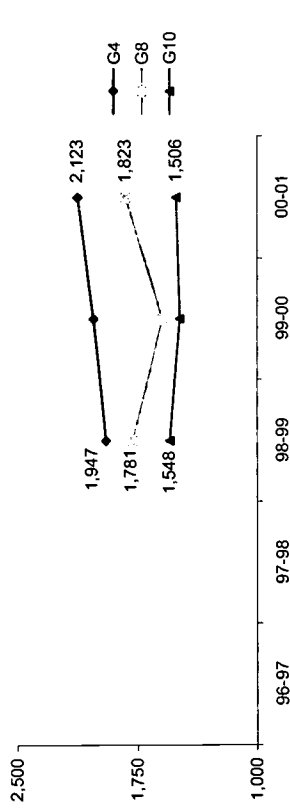
◆ Mathematics

	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

◆ Science

	96-97	97-98	98-99	99-00	00-01
Test Name
Scoring
Grade
Type

Total number of students taking test



State Assessment Test Administered

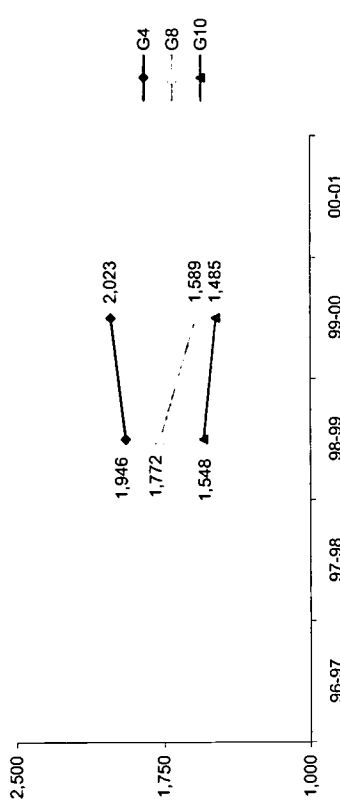
◆ Mathematics

	96-97	97-98	98-99	99-00	00-01
Test Name	.	MCAS	MCAS	MCAS	MCAS
Scoring	.	PL	PL	PL	PL
Grade	.	4, 8, 10	4, 8, 10	4, 8, 10	4, 8, 10
Type	.	CRT	CRT	CRT	CRT

◆ Science

	96-97	97-98	98-99	99-00	00-01
Test Name	.	MCAS	MCAS	MCAS	MCAS
Scoring	.	PL	PL	PL	PL
Grade	.	4, 8, 10	4, 8, 10	5, 8, 10	5, 8, 10
Type	.	CRT	CRT	CRT	CRT

Total number of students taking test



PC: Percentile SN: Stanine PL: Performance Level

PF: Pass/Fail SS: Scaled Score OT: Other

NRT: Norm-Referenced Test CRT: Criterion-Referenced Test

(.) Data Missing

Springfield CPMSA

SY 2000-01

State Assessment Test Result Trends - Mathematics

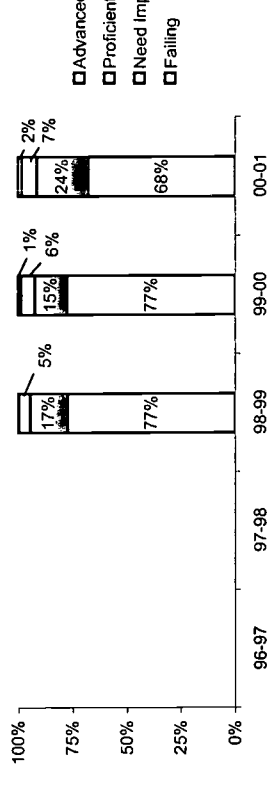
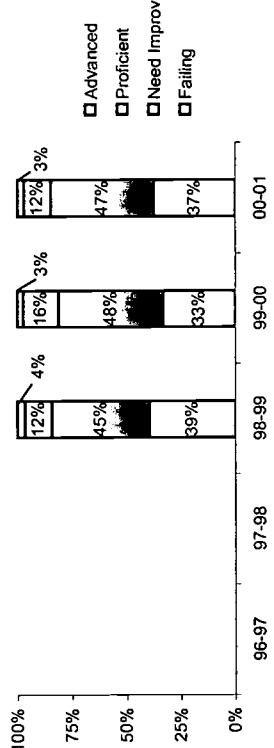
State Assessment Test Result Trends - Mathematics

Grade 4

Grade 8

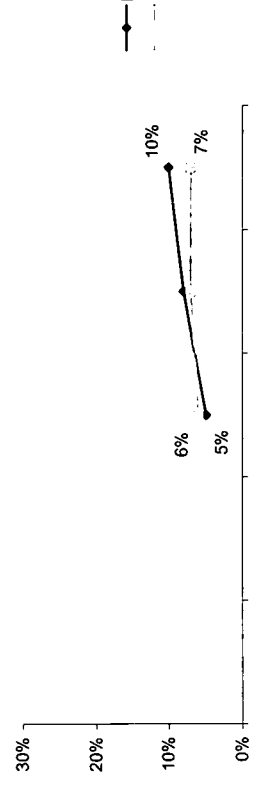
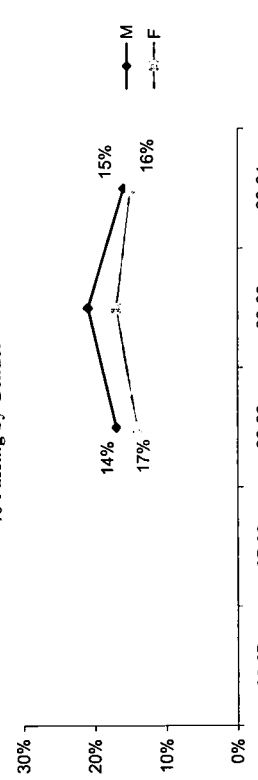
	96-97	97-98	98-99	99-00	00-01
Advanced		4%	3%	3%	3%
Proficient		12%	12%	16%	12%
Need Improv.		45%	48%	48%	47%
Failing		39%	33%	33%	37%
Total # of students		1,947	2,026		2,123

	96-97	97-98	98-99	99-00	00-01
Advanced		5%	0%	1%	2%
Proficient		17%	5%	6%	7%
Need Improv.		77%	17%	15%	24%
Failing		77%	77%	77%	68%
Total # of students		1,781	1,593		1,823



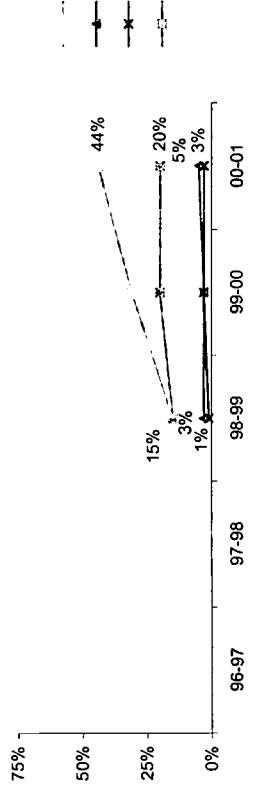
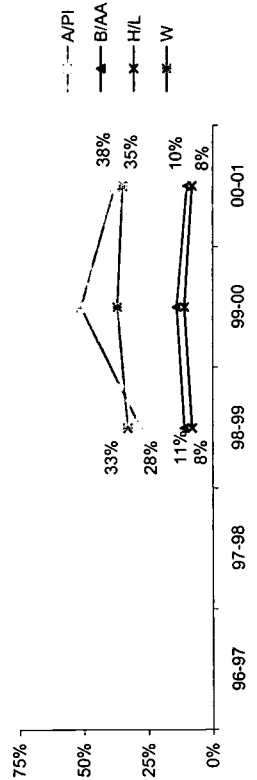
% Passing by Gender

% Passing by Gender



% Passing by Race/Ethnicity

% Passing by Race/Ethnicity



A/I/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Advanced, Proficient, Needs Improv. or Better

Springfield CPMSA

SY 2000-01

State Assessment Test Result Trends - Mathematics

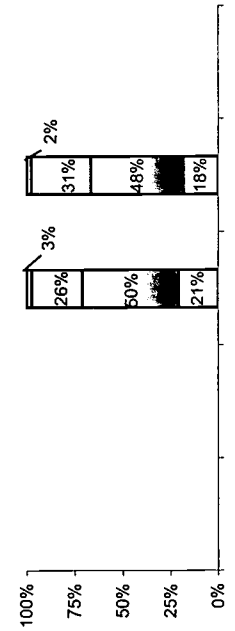
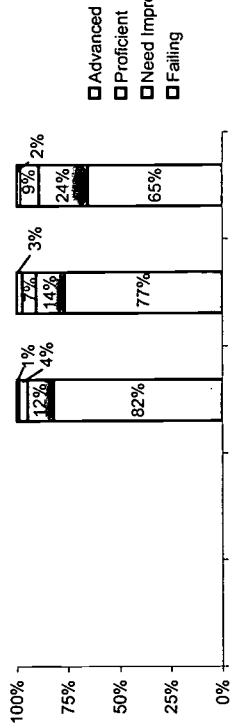
State Assessment Test Result Trends - Science

◆ Grade 10

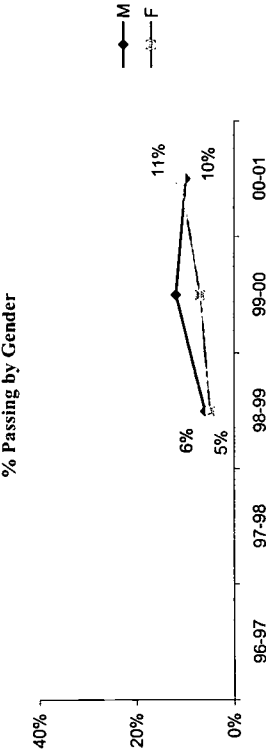
◆ Grade 4

	96-97	97-98	98-99	99-00	00-01
Advanced		1%	3%	2%	
Proficient		4%	7%	9%	
Need Improv.		12%	14%	24%	
Failing		82%	77%	65%	
Total # of students		1,548	1,485	1,506	

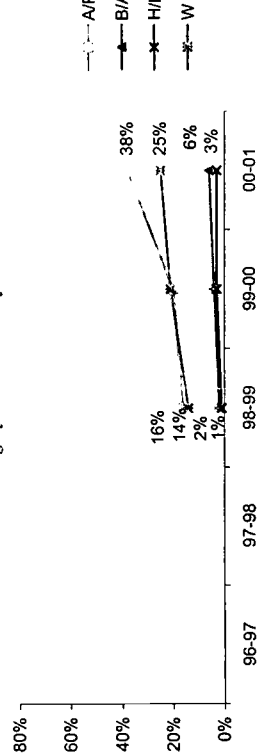
	96-97	97-98	98-99	99-00	00-01
Advanced			3%	2%	
Proficient			26%	31%	
Need Improv.			50%	48%	
Failing			21%	18%	
Total # of students			1,946	2,023	



% Passing by Gender



% Passing by Race/Ethnicity



% Passing by Race/Ethnicity

A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Advanced, Proficient, Needs Improv. or Better

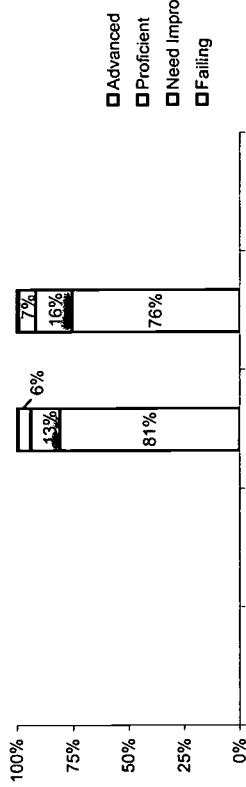
Springfield CPMSA

SY 2000-01

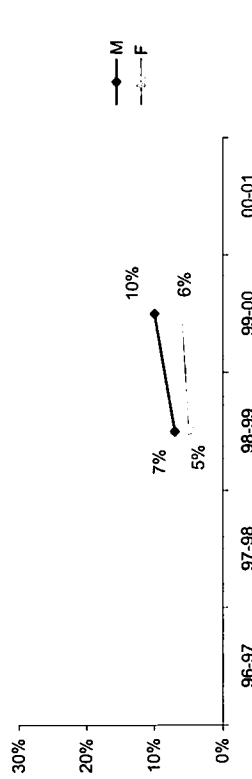
State Assessment Test Result Trends - Science

Grade 8

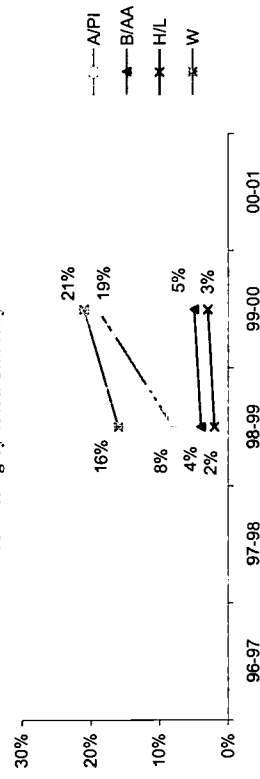
	96-97	97-98	98-99	99-00	00-01
Advanced		13%	6%	1%	1%
Proficient		1%	6%	7%	7%
Need Improv.		81%	13%	16%	16%
Failing			76%		
Total # of students		1,772	1,589		



% Passing by Gender



% Passing by Race/Ethnicity

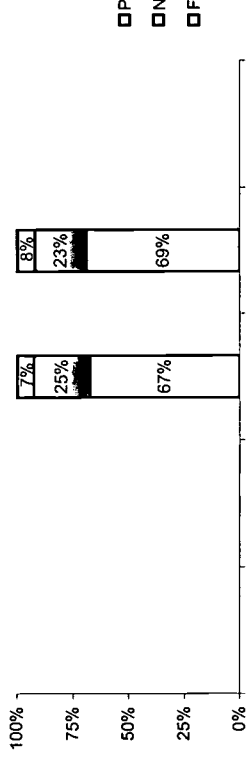


A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Advanced, Proficient, Needs Improv. or Better

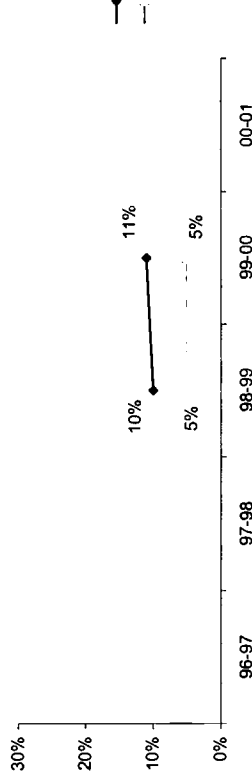
State Assessment Test Result Trends - Science

Grade 10

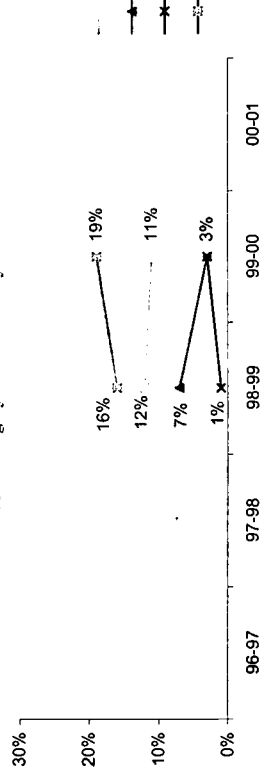
	96-97	97-98	98-99	99-00	00-01
Advanced		7%	0%	0%	0%
Proficient		25%	7%	8%	8%
Need Improv.		67%	25%	23%	23%
Failing			67%	69%	69%
Total # of students		1,548	1,485		



% Passing by Gender



% Passing by Race/Ethnicity



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White
% Passing defined as Advanced, Proficient, Needs Improv. or Better

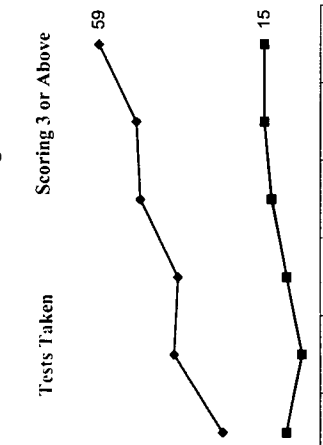
AP Mathematics Test Result Trends

◆ Calculus AB, Calculus BC, & Statistics

◆ AP Mathematics - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,205	2,442	2,572	2,502		
Calc. AB	26	39	38	47	41	42
Calc. BC	0	0	0	0	0	0
Statistics	0	0	0	1	8	17
Total	26	39	38	48	49	59
Tests taken per 1,000 students	17.7	15.6	18.7	19.6		
Scoring 3 or Above	9	5	9	13	15	15
Scoring 3 or Above per 1000	2.3	3.7	5.1	6.0		

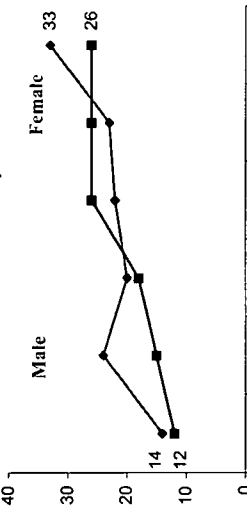
Number of tests taken and scoring 3 or Above



◆ AP Mathematics - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	12	15	18	26	26	26
Female	14	24	20	22	23	33

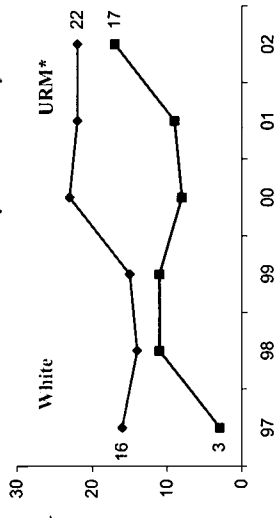
Number of tests taken by Gender



◆ AP Mathematics - Number of Tests Taken By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	1	1	0	0	0
A/PI	3	4	7	10	12	10
B/AA	3	7	6	6	9	11
H/L	0	3	4	2	0	6
W	16	14	15	23	22	22

Number of tests taken by Race/Ethnicity²



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White

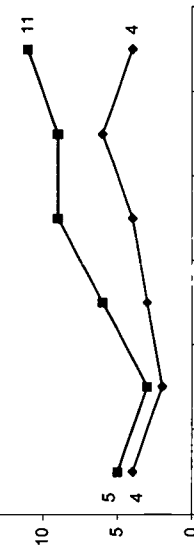
¹ "Other" category not presented

² URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

◆ AP Mathematics - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	5	3	6	9	9	11
Female	4	2	3	4	6	4

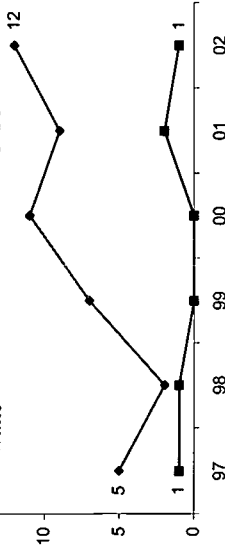
Number of students scoring 3 or above by Gender



◆ AP Mathematics - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	2	0	1	1	4	2
B/AA	1	1	0	0	2	1
H/L	0	0	0	0	0	0
W	5	2	7	11	9	12

Number of students scoring 3 or above by Race/Ethnicity²

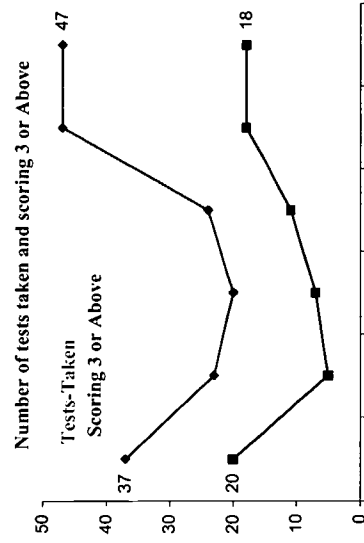


Springfield CPMSA

AP Science Test Result Trends ♦ Biology, Chemistry, Environ. Science, Physics B, Physics Mech., & Physics Elec.

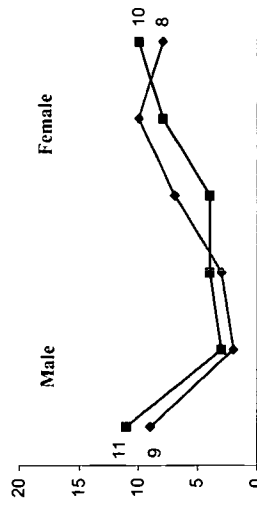
♦ AP Science - Total Number of Tests Taken

	97	98	99	00	01	02
Total # of 11th & 12th graders	2,205	2,442	2,572	2,502		
Tests Taken						
Biology	10	13	8	10	33	28
Chemistry	17	5	7	10	5	4
Env. Science	0	0	0	0	0	0
Physics B	0	5	2	3	5	9
Physics Mech.	10	0	3	1	4	6
Physics Elec.	0	0	0	0	0	0
Total	37	23	20	24	47	47
Tests taken per 1,000 students	10.4	8.2	9.3	18.8		
Scoring 3 or Above	20	5	7	11	18	18
Scoring 3 or Above per 1000	2.3	2.9	4.3	7.2		



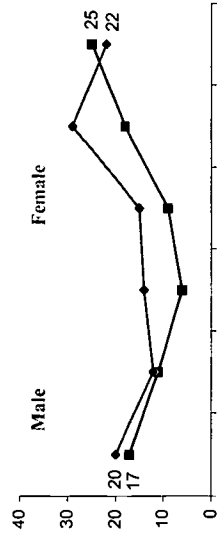
♦ AP Science - Number of Students Scoring 3 or Above By Gender

	97	98	99	00	01	02
Male	11	3	4	4	8	10
Female	9	2	3	7	10	8



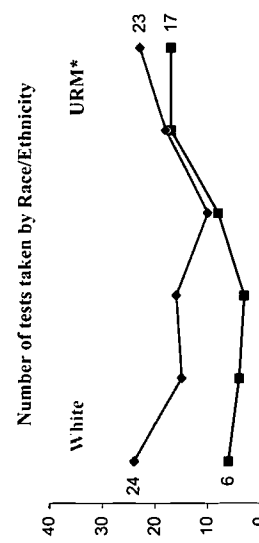
♦ AP Science - Number of Tests Taken By Gender

	97	98	99	00	01	02
Male	17	11	6	9	18	25
Female	20	12	14	15	29	22



♦ AP Science - Number of Tests Taken By Race/Ethnicity¹

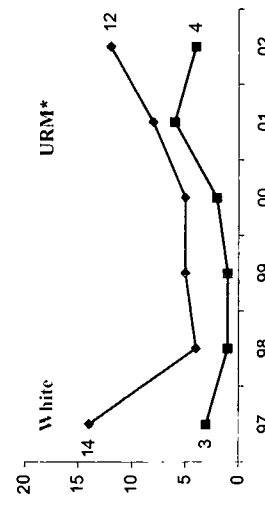
	97	98	99	00	01	02
AI/AN	0	0	0	1	0	0
A/PI	4	2	0	4	12	3
B/AA	4	3	1	4	13	12
H/L	2	1	2	3	4	5
W	24	15	16	10	18	23



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

♦ AP Science - Number of Students Scoring 3 or Above By Race/Ethnicity¹

	97	98	99	00	01	02
AI/AN	0	0	0	0	0	0
A/PI	1	0	0	3	4	1
B/AA	2	1	0	1	5	3
H/L	1	0	1	1	1	1
W	14	4	5	5	8	12

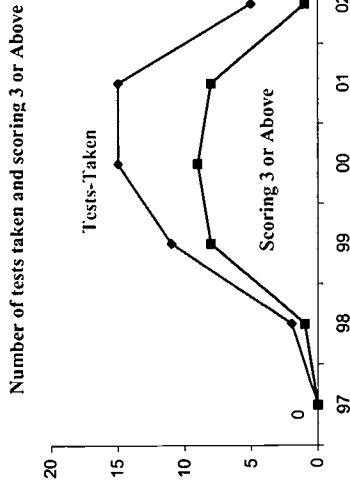


*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

AP Computer Science Test Result Trends

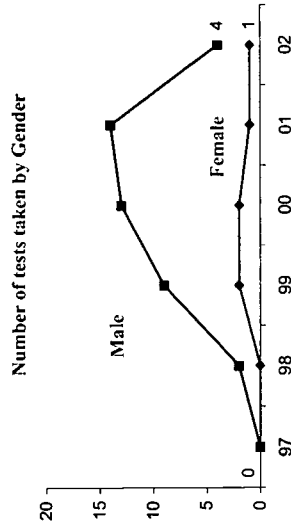
Computer Science A & AB

	97	98	99	00	01	02
◆ AP Computer Science - Total Number of Tests Taken						
Total # of 11th & 12th graders	2,205	2,442	2,572	2,502		
Comp. Sci A	0	8	15	12	3	
Comp. Sci. AB	0	2	3	0	3	2
Total	0	2	11	15	15	5
Tests taken per 1,000 students	0.9	4.5	5.8	6.0		
Scoring 3 or Above	0	1	8	9	8	1
Scoring 3 or Above per 1000	0.5	3.3	3.5	3.2		



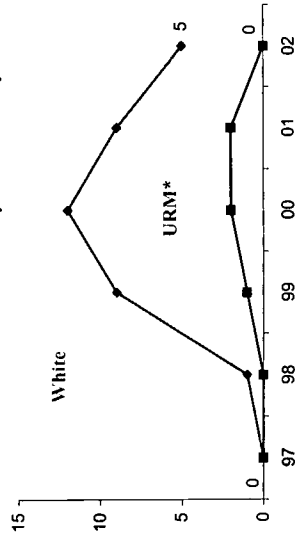
◆ AP Computer Science - Number of Tests Taken By Gender

Gender	97	98	99	00	01	02
Male	0	2	9	13	14	4
Female	0	0	2	2	1	1



◆ AP Computer Science - Number of Tests Taken By Race/Ethnicity¹

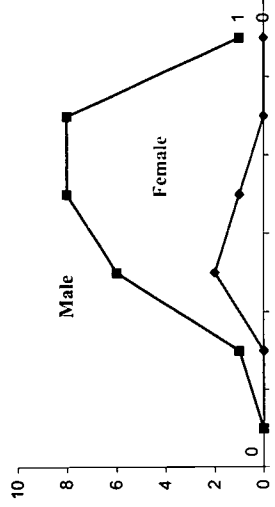
Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	1	0	1	4	0
B/AA	0	0	1	2	2	0
H/L	0	0	0	0	0	0
W	0	1	9	12	9	5



A/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander
 B/AA: Black or African American H/L: Hispanic or Latino W: White
¹ "Other" category not presented

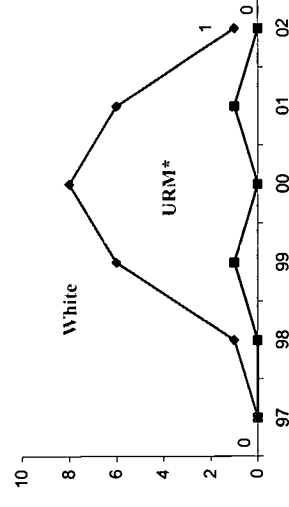
◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Gender

Gender	97	98	99	00	01	02
Male	0	1	6	8	8	1
Female	0	0	2	1	0	0



◆ AP Comp. Sci. - Number of Students Scoring 3 or Above By Race/Ethnicity¹

Race/Ethnicity	97	98	99	00	01	02
A/AN	0	0	0	0	0	0
A/PI	0	0	0	1	1	0
B/AA	0	0	1	0	1	0
H/L	0	0	0	0	0	0
W	0	1	6	8	6	1



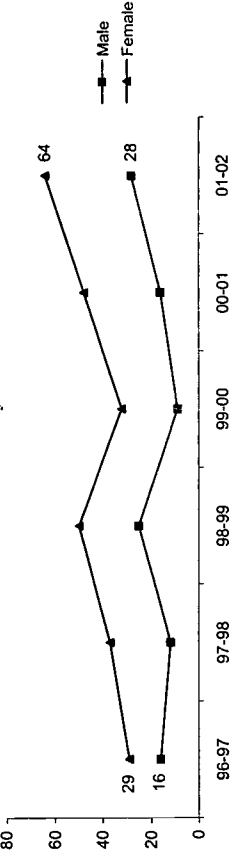
*URM includes American Indian/Alaskan Native, Black or African American, and Hispanic or Latino

ACT Test-Takers

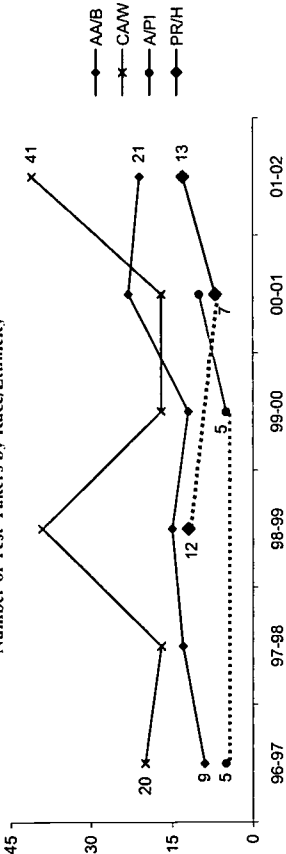
◆ **Number of Test-Takers**

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students	968	1,042	1,119	1,245		
Test-Takers	45	75	41	65	93	
Num of Test-Takers/1,000 Stu.	4.7	7.2	3.7	5.2		
Gender						
Male	16	12	25	9	16	28
Female	29	37	50	32	48	64
Race/Ethnicity						
AA/B	9	13	15	12	23	21
AI/AN	0	0	0	0	0	1
CA/W	20	17	39	17	17	41
MA/C	0	0	0	0	0	1
A/PI	5	3	1	5	10	4
PR/H	1	4	12	1	7	13

Number of Test-Takers by Gender^{*1}



Number of Test-Takers by Race/Ethnicity^{*1}



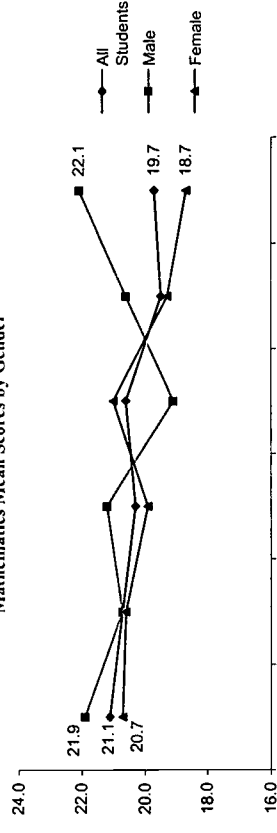
AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CA/W: Cau. American/White MA/C: Mexican American/Chicano A/PI: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.
^{*1} Number of Test-Takers less than 5 not presented in graph

ACT Mathematics Scores

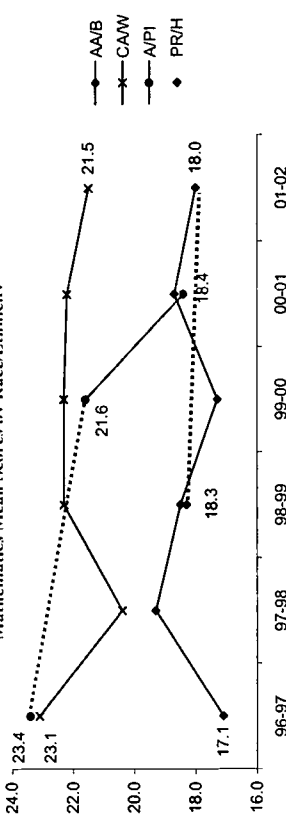
◆ **Mathematics - Mean Score Trends**

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	21.1	20.7	20.3	20.6	19.5	19.7
Gender						
Male	21.9	20.7	21.2	19.1	20.6	22.1
Female	20.7	20.6	19.9	21.0	19.3	18.7
Race/Ethnicity						
AA/B	17.1	19.3	18.5	17.3	18.7	18.0
AI/AN	-	-	-	-	-	-
CA/W	23.1	20.4	22.3	22.3	22.2	21.5
MA/C	-	-	-	-	-	-
A/PI	23.4	-	-	21.6	18.4	-
PR/H	-	-	18.3	-	-	18.0

Mathematics Mean Scores by Gender^{*1}



Mathematics Mean Scores by Race/Ethnicity^{*1}



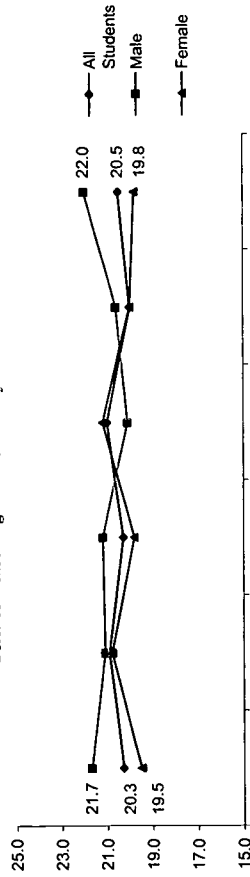
(-) Mean scores not presented for sample size less than 5

ACT Science Reasoning Scores

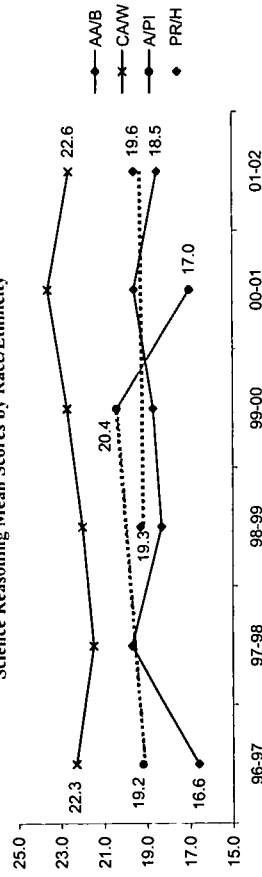
◆ Science Reasoning - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	20.3	20.9	20.3	21.0	20.0	20.5
Gender						
Male	21.7	21.1	21.2	20.1	20.6	22.0
Female	19.5	20.8	19.8	21.2	20.0	19.8
Race/Ethnicity						
AA/B	16.6	19.7	18.3	18.7	19.6	18.5
AI/AN	-	-	-	-	-	-
CAW	22.3	21.5	22.0	22.7	23.6	22.6
MA/C	-	-	-	-	-	-
API	19.2	-	-	20.4	17.0	-
PR/H	-	-	19.3	-	-	19.6

Science Reasoning Mean Scores by Gender^{*1}



Science Reasoning Mean Scores by Race/Ethnicity^{*1}



AA/B: African-American/Black AI/AN: American Indian/Alaskan Native CAW: Cauc. American/White
MA/C: Mexican American/Chicano API: Asian/Pacific Islander PR/H: Puerto Rican/Hispanic.

*1 Number of Test-Takers less than 5 not presented in graph

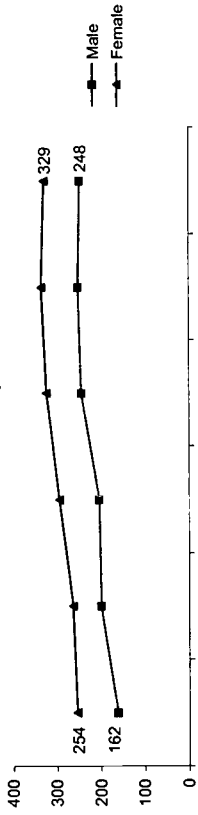
(-) Mean scores not presented for sample size less than 5

SAT Test-Takers

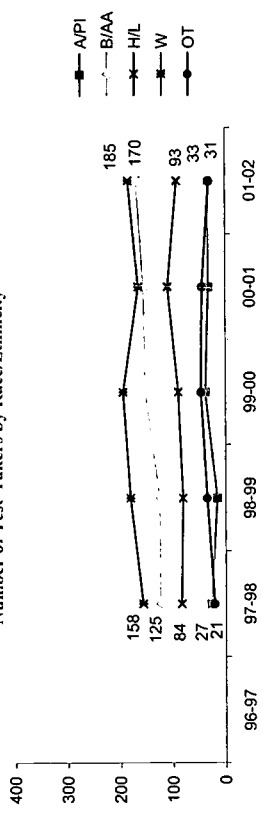
◆ Number of Test-Takers

	96-97	97-98	98-99	99-00	00-01	01-02
Total Num of 12th Grade Students		968	1,042	1,119	1,245	
Test-Takers	416	464	499	569	587	577
Num of Test-Takers/1,000 Stu.		479	479	508	471	
Gender						
Male	162	200	205	245	252	248
Female	254	264	294	324	335	329
Race/Ethnicity						
AI/AN	2	3	4	4	4	2
A/PI	27	16	16	38	32	33
B/AA	125	126	153	156	156	170
H/L	84	81	90	90	110	93
W	158	181	195	195	166	185
OT	21	35	46	46	44	31

Number of Test-Takers by Gender



Number of Test-Takers by Race/Ethnicity^{*1}



AI/AN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others

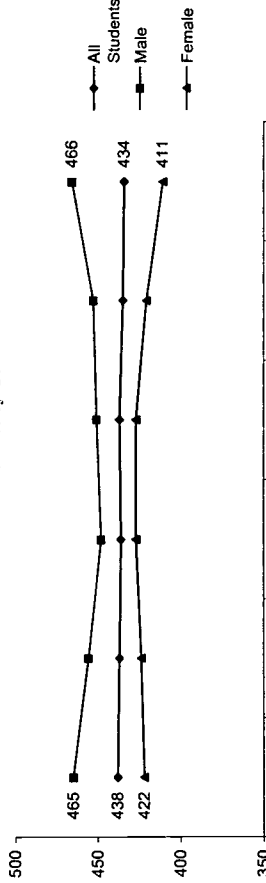
Springfield CPMSA

SAT Mathematics Scores

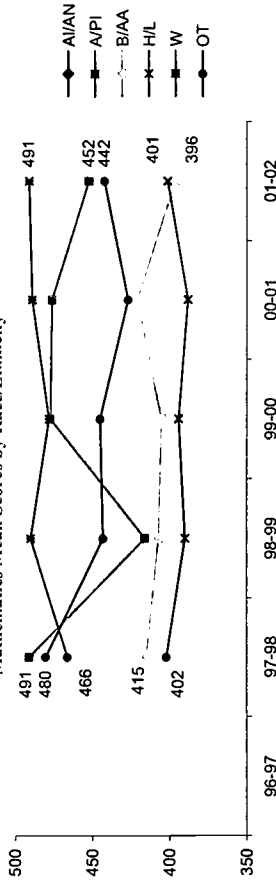
◆ Mathematics - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	438	437	436	437	435	434
Gender						
Male	465	456	448	451	453	466
Female	422	424	427	427	421	411
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	491	491	416	477	476	452
B/AA	415	415	407	405	421	396
H/L	402	402	390	394	388	401
W	466	466	490	478	489	491
OT	480	480	443	445	427	442

Mathematics Mean Scores by Gender



Mathematics Mean Scores by Race/Ethnicity^{*1}



A/IAN: American Indian/Alaskan Native A/PI: Asian/Pacific Islander B/AA: Black or African American H/L: Hispanic or Latino W: White OT: Others
 (-) Mean scores not presented for sample size less than 5

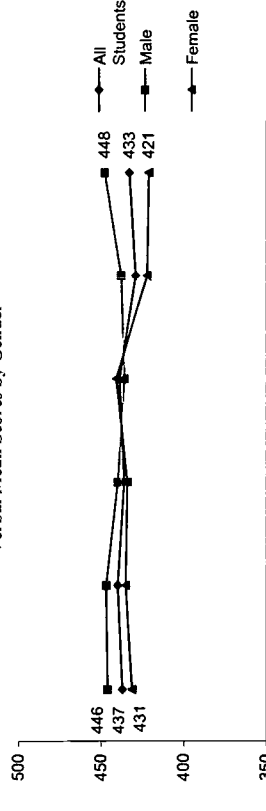
*1 Number of Test-Takers less than 5 not presented in graph

SAT Verbal Scores

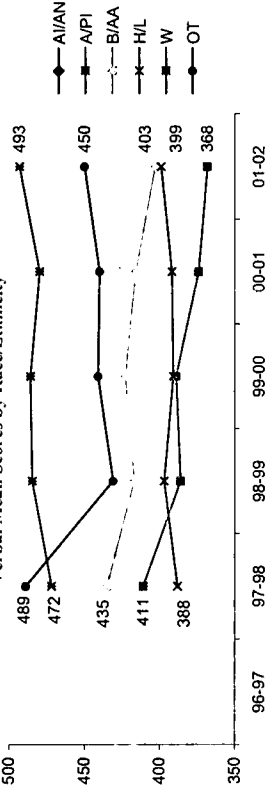
◆ Verbal - Mean Score Trends

	96-97	97-98	98-99	99-00	00-01	01-02
All Students	437	440	436	439	429	433
Gender						
Male	446	447	440	436	438	448
Female	431	435	434	441	422	421
Race/Ethnicity						
A/IAN	-	-	-	-	-	-
A/PI	411	411	386	389	374	368
B/AA	435	435	417	423	416	403
H/L	388	388	397	391	392	399
W	472	472	485	486	480	493
OT	489	489	431	441	440	450

Verbal Mean Scores by Gender



Verbal Mean Scores by Race/Ethnicity^{*1}



Cohort/Scale-Up Approach

Number of District Schools	97-98	98-99	99-00	00-01
CPMSA Schools:	45	45	46	46
% Schools:	41	41	46	46
Source: CDE 1999 - 2001	91%	91%	100%	100%

Availability of High Level Courses: All students have access to college preparatory courses. Curriculum is based upon state frameworks and district learning outcomes.

Special Education and Bilingual All SPED, vocational and bilingual students are receiving the Massachusetts curriculum framework standards in math and science

New Courses Added as a Result of CPMSA: No
Instructional Time: Varies by school

Primary Decision Making Body

Standards Curriculum	State
Curriculum/Text/Book Adoption	District
Student Assessment	District
Professional Development	District
Resources	District
Teacher Hiring	District
Teacher Contracts	District
Certification & Re-certification	State
Graduation Requirements	District
School-Based Management?	Yes

Policies Impacting the Enrollment of Students in Challenging Math and Science Courses

Graduation Requirements: 3 Years of Mathematics, 3 Years of Science

Student Support Systems: Before/After school tutorial program in reading, math and science; Saturday school tutorial in reading, math and science

Summer programs: Intensive program for students who do not meet promotion standards in math in grades 3, 5, 7; A grade 8-9 transition program; Secondary summer school students may make-up credits in math or science; A summer science/math enrichment program.

Policies Promoting Equal Access by All Students in High Quality Education

Student Tracking: All students have access to college preparatory courses

Criteria for Entry into High Level Mathematics and Science Courses: Grades of B or A; Recommendation of previous teacher; Approval of department chairperson

Standards-based Curriculum and Instruction

Standards Adopted: National Council of Teachers of Mathematics Curriculum and Instructional Standards; National Science Teacher Association Curriculum Standards

% of Students Experiencing Standards-based Curricula: E 100%, M 100%, H 100%

Policies Relevant to Teacher Qualifications

Certification: Renewal required every 5 years.

Requirement & Hiring Practices: 120 Professional Development points in first area of certification; 30 Professional Development points in each additional certification area.

Professional Advancement & Leadership Training: Math and science specialists model instruction for teachers.

Policies Relevant to Curriculum

Framework: Massachusetts Curriculum Frameworks in Mathematics and in Science and Technology.

Curricula: K-5 Math: Scott Foreman, Addison Wesley, Investigations; 6-8 Math: Addison Wesley CMP 6-8; Science: Insights; FOSS; STC

Springfield CPMSA

SY 2000-01

Professional Development Policies and Practices

Time Required or Supported: • 35 hours

Financial Resources Provided:

Alignment to Student Standards:

• Professional Development carefully defined the science and mathematics curriculum to be implemented at each teachers' instructional grade level.

Has CPMSA influenced professional development changed teachers' instructional practices:

Type and Amount Received by Average Math/Science Teacher:

• All teachers of all subjects receive the same professional development: scope and sequence, standards-based lesson planning, appropriate assessment and use of data to improve instruction.

Evaluation Instruments:

• Non-certified teachers are required to report progress to the Personnel Department every semester. Progress for the district-based teachers is done through assigned mentors and the Director of Personnel.

Professional Development Alignment to Content Standards Measures:

• Yes. Developed in alignment.

Teacher's Instructional Practices Evaluation:

• Principals/administrators do learning walks and give feedback/formative evaluation through letters and/or informal meetings.

Impact on Student Achievement:

• Indirect: Schools and principals negotiate teacher contracts. Student achievement is a factor in re-hiring and raises.

Partnerships

Other Key Initiatives: • Special Education
 • Transitional Bilingual Education
 • Federal/State Magnet State Program

Policies Relevant to Standards-based Assessments

Extent to Which Assessments are Aligned to District Standards and Curriculums:

• Aligned to Massachusetts Science and Technology Curriculum Frameworks.

Assessments Used:

- District exams
- MCAS (state exam)
- Stanford - 9 Test

CPMSA Leadership, Governance, and Management

Superintendent: • Teresa Regima, 2000

Continuity of Leadership

- New Superintendent
- Same Co-PIs (Directors of math and science) and Data Manager

Project Directors position in district's organizational structure:

- Project Director reports to Co-PIs.
- Project Director manages math and science instructional support.

Teacher Leaders: • Math and Science specialists.

Competing Initiatives: • None

Community Stakeholders:

Higher Education:

- Hampshire College
- Mount Holyoke College
- UMASS

Business and Industry:

- Bayer
- Solutia
- Monsanto
- Massachusetts Mutual Insurance Co.
- Baystate Medical Center

Springfield CPMSA

SY 2000-01

Accountability

Program
Effectiveness Monitoring:

- Student achievement gains student enrollment in high level math and science

Report Card System:

- State performance ratings of each school based on MCAS data

Key Indicator Data Collection:

- Teacher records
- District Data
- SASI student database

Key Indicator Data Use:

- Presentations made to principals, administrators and teachers with recommendations for action

Local On-Sight Evaluation:

- Yes. Presentations to professional development meetings

Data Manager:

- Elaine Rosales (new in 97-98)

External Evaluator:

Policy Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1996-97	<ul style="list-style-type: none"> • Middle school students (G6-8) who fail mathematics must make-up the deficiency before being promoted to the next grade
1997-98	
1998-99	<ul style="list-style-type: none"> • Student support through after-school programs, Saturday programs and summer school programs
1999-00	

Curriculum and Instruction Changes to Support Student Success in Math and Science During CPMSA Implementation

School Year	Policy Implemented
1996-97	
1997-98	
1998-99	<ul style="list-style-type: none"> • New math curriculum materials (Investigations and CMP 6-8) added • New science curriculum materials: Insights, FOSS, and STC introduced • MCAS Test introduced. • Science District exams introduced • Stanford-9
1999-00	

Springfield CPMSA

Professional Development Policy and Program Changes to Support Teachers During CPMSA Implementation		Standards-based Assessment System Changes During CPMSA Implementation		Accountability	
School Year	Policy Implemented	School Year	Policy Implemented	School Year	Policy Implemented
1996-97		1996-97		1996-97	
1997-98		1997-98	<ul style="list-style-type: none"> • District exams and Massachusetts Comprehensive Assessment Test are designed to align with curricula 	1997-98	<ul style="list-style-type: none"> • Parent Involvement Project (with the state) • Family math/science nights • Summer math/science activity booklets • Parent MCAS meetings • Hampshire College • Middle school summer enrichment program • Mount Holyoke College Summer Math Program for teachers • UMASS Master Science Program Technology with STCC.
1998-99	<ul style="list-style-type: none"> • New requirements for certification • New requirements for non-certified teachers; mentors assigned and Director of Personnel supervises progress every semester. 	1998-99		1998-99	
1999-00	<ul style="list-style-type: none"> • Professional Development is standardized across the district 	1999-00		1999-00	<ul style="list-style-type: none"> • Reports to principals and teachers at end of every marking term and following district-wide testing. • State performance ratings of each school-bases on MCAS data.



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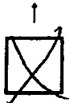
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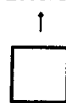
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