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ABSTRACT

Prepared by a state educational planning committee, this report uses key indicators to describe the status of the Delaware school system. Sets of comparative data selected from various national studies and from state surveys appear throughout the report. The statistical material is supplemented with descriptions of trends and discussions of the implications of the data for the condition of state schooling. The 30 indicators are clustered in 4 broad categories, which are presented as document sections. An introduction sets forth the study's purpose and methodology. "Outcomes," the first section, defines state goals and compares Delaware students' academic performance and educational transition with those of other groups. The indicators of such outcomes include basic skills achievement, Scholastic Aptitude Test scores, and graduates' educational/occupational attainment. The second section, "Resources," focuses on the resources that the school system has at its disposal. Data pertaining to fiscal allocations and expenditures per pupil are interpreted. A discussion of human resources includes data on class size, quality of the teaching force, and quality of support services. Concerns about the status of instructional resources are expressed. "Context," the third section, compares state survey findings with national indicators that reflect the status of school environment, special need requirements, and public attitudes toward schools. The final section, "Program and Policy," provides comparative data and descriptive information about educational opportunities. Course offerings, dropout prevention, and provisions for academic diversity are examined. Appended materials offer 20 reference notes, names of committee members, and tables of comparative test scores. (CJH)

CONDITIONS OF EDUCATION IN DELAWARE

By: Alice L. Valdes, *State Supervisor, Educational Planning*

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April 1987

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Special appreciation is due those who served on the committee to consider and identify important educational indicators for Delaware's school system and to those staff members of the Planning, Research and Evaluation Division of the Delaware Department of Public Instruction whose annual reports contributed so richly to the statistical information presented here.

Wilmer E. Wise, *State Director*
Planning, Research and Evaluation Division

And

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TABLE OF CONTENTS

INTRODUCTION 1
Delaware Efforts 1
Educational Indicators 2

OUTCOMES 3
Academic Learning: Student Performance Trends 3
Basic Skills - Reading, Language, Mathematics 3
Writing 4
College-Bound Students - Scholastic Aptitude Test ... 5
College-Bound Minority Students 7
National Merit Scholarship Competition 7
Transition from School 8
Delaware Educational Attainment 9
Education and Employment 10
High School Program and Education/Employment Status . 11
Dropouts 12

RESOURCES 12
Fiscal Resources 12
Source of Funds 12
State Fiscal Commitment to Education 13
Expenditure Per Pupil 13
Total Current Expenditures 13
Per Pupil Expenditure by Type of Service 14
Relationship Between Units and Enrollments 15
Human Resources 16
Class Size 16
Delaware Unit System 16
Student Teacher Ratio 17
Quality of Teaching Force 17
Educational Level and Experience 17
Quality of Teachers in Critical Areas 17
Ability of the System to Secure Teachers 18
Ability of the System to Compete for Teachers 19
School Support Services 20
Support Services - A Special Case 21
Instructional Resources 22
Current Concerns 22

CONTEXT 22
Special Needs Students 22
Public Attitude Toward Schools in Delaware 24
Confidence in American Institutions 24
Rating of Public Schools 24

PROGRAM AND POLICY 26
Academic Opportunity - Course Offerings 26
Dropout Prevention Programs 28
Provisions for Academic Diversity 29

APPENDIX 30

INTRODUCTION

The Delaware school system has made significant progress in serving the educational needs of the State. If Delaware schools are to continue to progress, it is essential that interested citizens be informed about the condition and status of their schools.

The Council of Chief State School Officers is sensitive to the need for information on the part of the public. At their 1984 annual meeting in Wilmington, Delaware, the Council recommended that each state develop a:

> "systematic approach to monitoring the status of education . . . and publish a yearly report which contains displays and analyses of cross-sectional trend data showing the conditions of its educational system . . ."

DELAWARE EFFORTS - In Delaware, the Planning, Research and Evaluation Division of the Department of Public Instruction initiated an activity to identify educational indicators essential in a report on status and trends in education.

Ideally, the set of indicators selected to describe the status and condition of the state's school system would include all critical components having significant, established relationship to desired educational outcomes. Such a set has yet to be identified.

The set of indicators actually selected for this publication reflect important aspects of education considered essential to an understanding of the condition and status of the state's school system. Extensive sets of data that reflect the status of education are collected and analyzed annually at national and state levels. More emphasis has been given in this publication to the selection and condensation of these data and in describing trends than to the development of new measures or to the acquisition of new data. Statistical data alone cannot communicate the complexity of an educational system or the comprehensiveness of services offered. In the interest of improving communications, this publication supplements statistical data with explanatory and descriptive material.

Indicators for the Delaware School system are clustered in four broad areas.

- Outcomes - data pertaining to the performance of Delaware students in comparison with other groups
- Resources - data pertaining to some of the resources that the Delaware school system has at its disposal
- Context - data pertaining to the context in which education takes place in Delaware
- Program and Policy - data and descriptive information about the services and opportunities provided by the formal educational system.

A broadly representative group of 14 educators worked on a committee to identify a set of indicators for the state's educational system as a whole. A list of committee members is included in the Appendix. The committee has agreed on 30 indicators in 4 broad categories.

EDUCATIONAL INDICATORS

Category	Type	Indicator
Outcomes	Student Performance	Basic Skills Achievement, Grades 1-8 College Aptitude Academically Talented 7th Grade Students Merit Scholarship Program
	Transition from School	Students Qualifying for Diploma Educational/Occupational Status of Graduates
Resources	Fiscal Resources	Fiscal Effort Expenditures per Pupil Fiscal Allocations
	Human Resources	Class Size Quality of Teaching Force Quality of Support Services Quality of Teachers in Critical Areas Ability to Secure Staff for Schools Ability to Compete for Available Teachers * Attractiveness of Teaching as Career Choice
	Instructional Resources	Student Access to Computers Currency of Textbooks
Context	School Environment	* Safe and Orderly
	Public Attitudes Toward Schools	Confidence in Schools Rating of Schools
	State Population ** Characteristics	Total Population % Urban/Suburban/Rural # and Size Districts Median Education Level Per Capita Income
	Special Need Students	% ≤ Poverty Level or AFDC Limited English Handicapped
Program and Policy	Academic Opportunity	Breadth and Depth of Academic Offerings
	Vocational Training Opportunity	* Breadth and Depth of Vocational Offerings
	Student Program Selection	* Student Program and Course Selections
	Dropout Prevention	Graduation Rates; Programs to Retain in School
	Provisions for Academic Diversity	Special Education, Advanced Studies, Advanced Placement, Remedial, etc
	Provision for Diverse Student Interests/Talents	* Arts, Humanities, etc
	Equity Issues	* Bilingual, Migrant, Homebound, Minorities, Access for Sp. Ed

* No data available at this time ** No data reported at this time

OUTCOMES

Outcomes pertain to the mission, purpose or goals of the school system. Goals for the Delaware school system are:

Education in Delaware will provide the opportunity for each learner, to the extent of his individual ability. to:

* Acquire a mastery of basic skills required for obtaining and expressing ideas through the effective use of words, numbers, and symbols.

* Develop attitudes and competencies which facilitate learning.

* Develop vocational or professional competence.

* Acquire habits and attitudes necessary for responsible citizenship.

* Understand the elements necessary for his physical and emotional well being.

* Develop a concern for moral, ethical, and spiritual values.

* Appreciate his own worth as a member of society.

* Develop an understanding and appreciation for humanities and the arts.

* Develop an appreciation of the family.

The goals comprehensively address the need to provide opportunity for social, cultural, academic and vocational development.

STUDENT PERFORMANCE

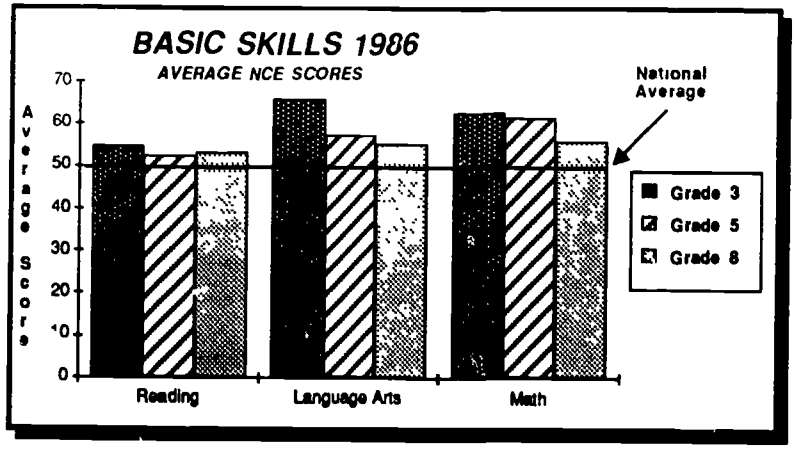
Student academic learning is the primary goal for the school system. Student performance on statewide tests provide a measure of student achievement. Test data are important to both public and private groups insofar as they indicate the educational development and readiness of Delaware students to pursue and profit from higher educational opportunities, job opportunities, and ultimately to contribute to the society at large.

It is important to remember that test data reflect the impact of a variety of influences on student learning. Those influences include societal, family, peer group, schooling, and the students' own developing individualities, talents, choices and goals. It is likely that no influence is stronger than that of the family.

BASIC SKILLS - READING, LANGUAGE, MATHEMATICS

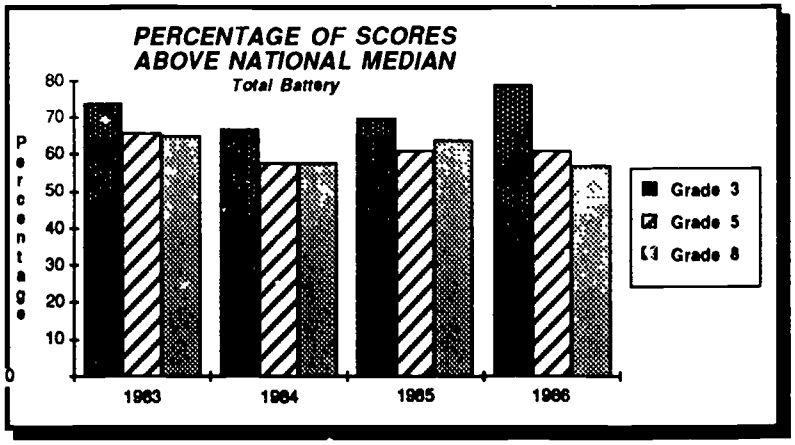
The acquisition of basic reading, language and mathematic skills by pre-high school students is one of the most important responsibilities the schools have. Basic skills are essential to continued success in school.

Results from the 1986 state testing program show that Delaware students on the average, including all but severely handicapped students, score well above the national average in all basic skill areas at all grade levels.

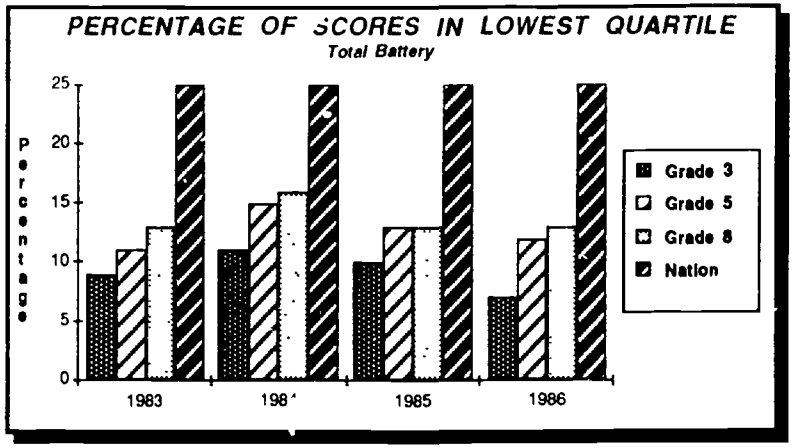


The figure shows national and Delaware averages for 1986 at Grades 3, 5, and 8 for the three major subtests. (Results for the years 1981-1985 are shown in Table A-1 in the Appendix). Over the last six years, Delaware students have scored well above the national average on two different test batteries.

Test averages alone provide an incomplete picture of the performance of Delaware students. A better understanding is gained by knowing how Delaware test score distributions compare to the distribution in the national sample. The figure shows that for pre-high school grades, the percentage of Delaware students scoring above the national median (middle) score was between 60% and 70% in all grades. (See also Table A-2 in the Appendix.)



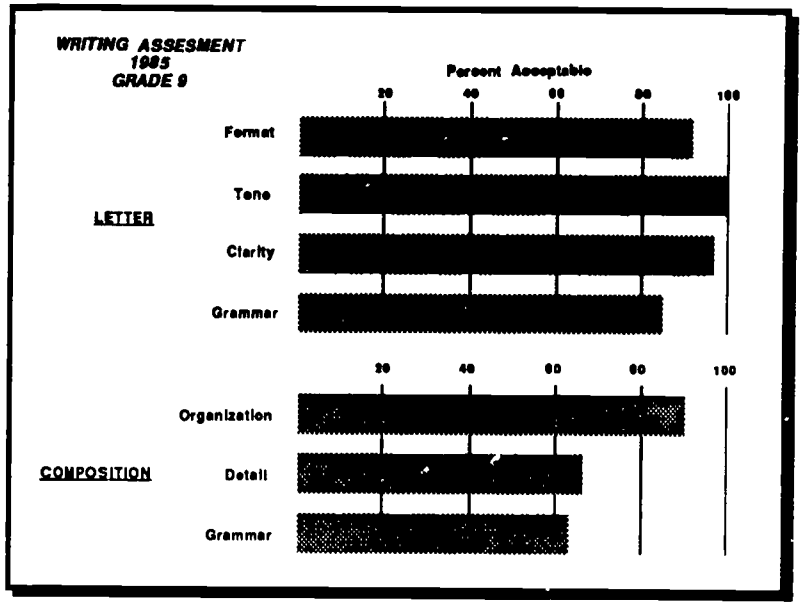
Also, in Delaware a much smaller proportion (10-15%) of students in pre-high school grades score in the very low score range in comparison with the national sample where, by definition, 25% of student scores fall. (See also Table A-3 in the Appendix).



WRITING

Because of high public interest in basic skills and the general perception that standardized multiple-choice tests are inadequate for assessing writing skills, the Delaware Educational Assessment Program conducted a special assessment of writing performance in 1984-85 that required 9th grade students to compose a letter and an essay. Various essential dimensions of each writing exercise were scored by specially trained scorers.

The large majority of letters composed by students were judged acceptable on all dimensions scored. On the composition exercise, 91% of the papers were judged acceptable in organization, and approximately two-thirds were acceptable in providing supporting detail and in mechanics and grammatical usage. (See also Tables A-4 and A-5 in the Appendix.)



COLLEGE-BOUND STUDENTS - SCHOLASTIC APTITUDE SCORE TRENDS

A second aspect of student achievement that is of broad public interest is the extent to which college-bound students are prepared for college.

Verbal and mathematics Scholastic Aptitude Tests administered by the College Entrance Examination Board are measures of student performance in reading comprehension, vocabulary, verbal reasoning and quantitative problem solving, all important to success in a broad range of academic programs.

National annual results from administration of the Scholastic Aptitude Tests (SAT) have shown that a steady decline in average scores for college-bound students electing to take the tests began in the mid-sixties and continued until the early eighties. A "blue ribbon" panel convened by the College Board to study the decline in average scores concluded that minor portions of the decline could be attributed to each of two categories, 1) school related factors and 2) technical and societal change while a major portion of the decline was clearly due to a change in the composition of the student group taking the test.[2]

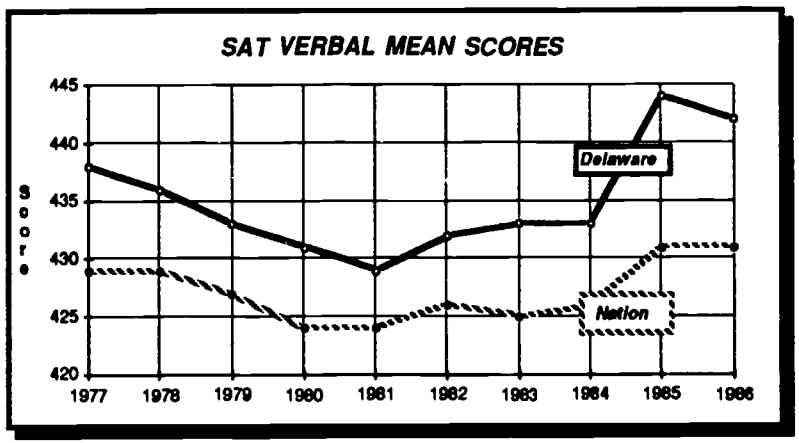
Some have interpreted the change in the composition of the student group taking the SAT as indicative of social and educational gains reflected in rising aspirations by student groups who in times past would not have aspired to attend college at all. Others have ignored the change in the composition of the student group taking the test and have attributed the decline solely to change in quality of educational services.

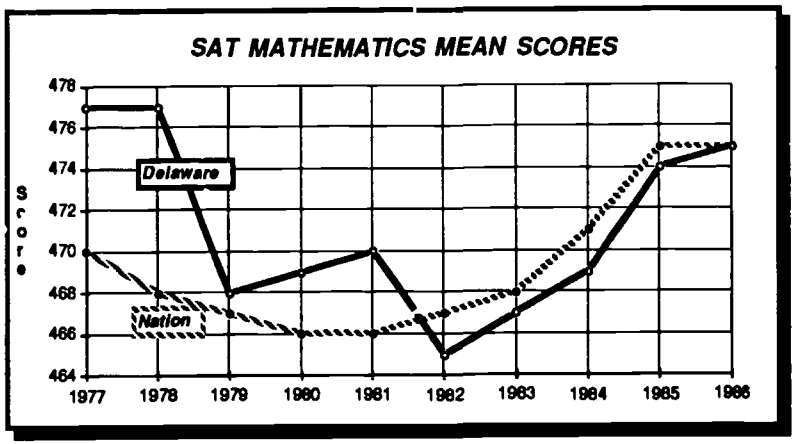
There has been a strong inclination to compare states, school districts and schools on the basis of SAT scores alone. The College Board has consistently recommended against this comparison and has pointed out that the SAT is inappropriate for comparative purposes "because the percentage of SAT-takers varies widely among the states, and because the test-takers are self-selected." The College Board goes on to say that the most significant factor to be

considered in attempting to compare SAT scores across states is the participation rate. Generally, the higher the percentage of students taking the test in a state, the lower the average for the state. In states where a small percentage of college-bound seniors take the SAT, those students typically have strong academic backgrounds and intend to apply for admission to the most selective colleges in the nation. A person attempting to use the SAT score should also understand other factors that are related to SAT performance. They include, according to CEEB, "academic courses studied, family background, sex of student and the education of the parents."[3]

Delaware and the Nation

In Delaware, about 50% of high school seniors currently take the SAT. The SAT performance of Delaware students on the verbal section has consistently been above the national average for 15 years and on the mathematics section has been equal to or above the national average in ten of the last 15 years. State data have only been available for that period of time. The charts below provide comparisons between Delaware and the Nation for the ten year period 1976-77 to 1985-86. Point differences between Delaware and the nation shown for mathematics since 1982 are on the order of 1 or 2 points.





When compared with other states with high (≥ 50%) participation rates, Delaware has ranked fourth or higher in each of the last three years.

TABLE 1

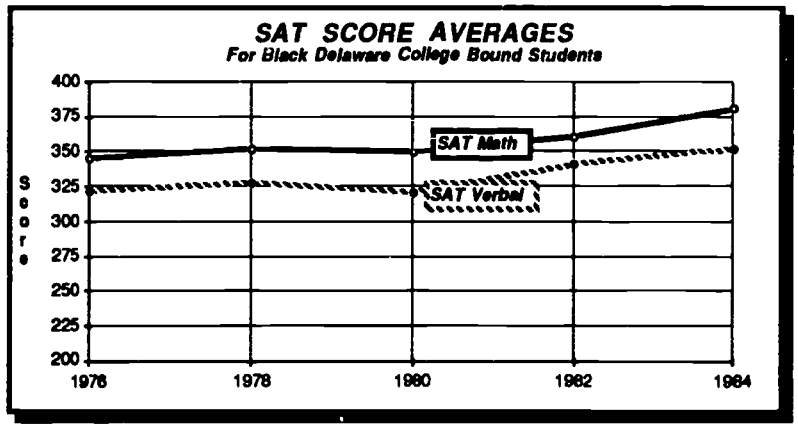
SAT SCORES 1984 & 1986
STATES WITH 50% OR ABOVE PARTICIPATION RATE

	1984				1986			
State	Verbal	Math	Total	Rank	Verbal	Math	Total	Rank
New Hampshire	448	483	931	1	450	485	935	1
Vermont	437	470	907	2	442	474	916	3
Delaware	433	469	902	4	442	475	917	2
Connecticut	436	468	904	3	440	474	914	4
Maryland	429	468	897	5	436	475	911	5
Massachusetts	429	467	896	6	436	473	909	6
Virginia	428	466	894	7.5	435	473	908	7
New York	424	470	894	7.5	427	471	898	8.5
Pennsylvania	425	462	887	9	429	465	894	10
Rhode Island	424	461	885	10	432	466	898	8.5
New Jersey	418	458	876	11	424	465	889	11

College-Bound Minority Students

A recent report issued by Educational Testing Service[4] (ETS) states that "The most ignored fact of many of the reform reports is that the academic performance of minority students is improving."

In Delaware, black students have made impressive progress, increasing their scores on the Scholastic Aptitude Tests at more than twice the national rate, according to data provided by ETS.[5] The data show that between 1976 and 1984, average combined SAT scores for black students nationally improved by 29 points, while average combined SAT scores for black students in Delaware increased 66 points. The increase was accompanied by a 30% increase in the number of black students who took the SATs (from 290 to 375).



NATIONAL MERIT SCHOLARSHIP COMPETITION

Annually, over a million students, mostly high school juniors, participate in the National Merit Scholarship program. In the fall of the following year about 15,000 high scoring students are recognized as semi-finalists. Of these, about 13,500 meet requirements for finalist standing. Only finalists are considered for Merit Scholarships.

Part of the process requires that participants take the Preliminary Scholastic Aptitude Test (PSAT) no later than the 11th grade. Semi-finalists represent the highest scores in each state. The nationwide group of 15,000 semi-finalists includes about half of one percent of the high school seniors in each state, and the number in a state is proportional to its percentage of the U.S. total of 12th graders.

To designate semi-finalists, the Selective Index scores of eligible students are arranged in descending order withina state, the lowest score for those included becomes the "cutoff" (qualifying) score for semi-finalists in the state.

Delaware's "cut-off" score on the PSAT, used to identify semi-finalists in the National Merit Scholarship competition, is consistently among the highest in the nation. Table 2 shows that few states match or exceed it.

TABLE 2

NATIONAL MERIT SCHOLARSHIP PROGRAM
SEMIFINALISTS "CUT OFF" SCORES

Year Report Published	States in U.S.A. With "Cut Off" Scores Higher Than Delaware	States in U.S.A. With "Cut Off" Scores Same As Delaware
1978	Connecticut	Maryland, New Jersey New York
1979	Connecticut	Massachusetts New Jersey, New York
1980	Connecticut, New Jersey Maryland, New York Massachusetts, Virginia	_____
1981	_____	Connecticut
1982	Connecticut Massachusetts	Maryland
1983	Connecticut Massachusetts, Maryland New Jersey, New York	Virginia
1984	_____	Connecticut Maryland
1985	Connecticut Maryland New Jersey	New York
1986	Connecticut Maryland New Jersey	Massachusetts New York

Source: Guides to the National Merit Scholarship Program.

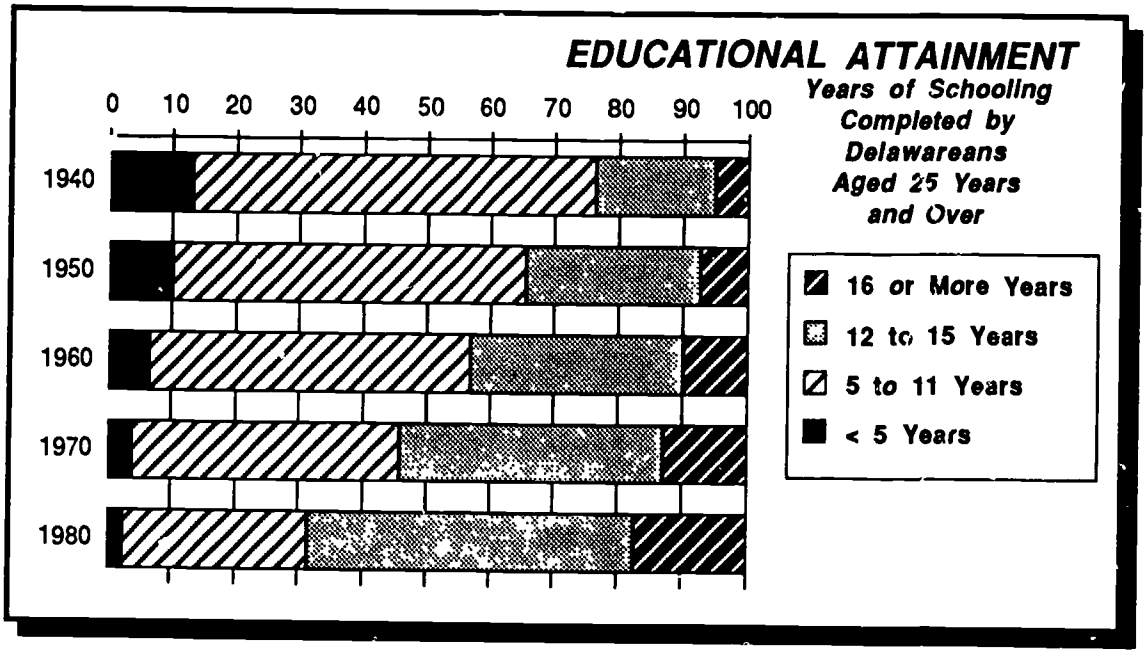
TRANSITION FROM SCHOOL

Schools today serve a broader segment of the population than at any time in the past. It is easy to lose sight of the real gains made in providing access to educational opportunities. Memory serves well that portion of the population who completed high school before 1940 in recalling that all of their high school classmates had attained high levels of literacy. What is not recalled is that high school graduates at that time represented a very select group.

According to a special study of education in the United States from 1940-83 conducted by the U.S. Census Bureau "It is perhaps surprising to find that less than 45 years ago only 38 percent of young adults (25 to 29 years old) had attained a high school diploma or more. Put differently, in 1940 a solid majority of young adults were either high school dropouts or had never gone beyond elementary school."[6]

DELAWARE EDUCATIONAL ATTAINMENT

In Delaware for the period 1940 - 1980, U.S. Census Bureau[7] figures show that for the entire group of adults age 25 years and over the percentage with a high school diploma or more increased from 23% in 1940 to 68% in 1980. The median number of years of school completed in each of those years respectively was 8.7 and 12.5. This accomplishment is all the more significant because the number of persons in the age group 25 years and over has more than doubled in the same period of time.



EDUCATION AND EMPLOYMENT

The relationship between education and work has also changed greatly over the last 35 years. As Willard Wirtz, former Secretary of Labor described the change -

> "Just a generation ago, at the half-way mark in the century, the passage from school to what came after it was virtually standardized and relatively routine. There were two courses: you went on to college or you didn't. There was almost always a precise point in time when education ended and work started . . . Twenty-five years ago three out of every four boys and girls completed their schooling, once and for all, between the ages of 16 and 18, then they went to work, either in paid employment in commerce or in unpaid employment in the home. Most of the other 25 percent went on through four years of liberal arts college, a few on through graduate school, and then they, too, closed the academic doors behind them for good . . . This picture is sharply different today in several important respects, all of them involving admixtures of education - or training - and work. . . .
>
> "The percentage going on to some form of postsecondary education has doubled in 25 years. A substantial part of this additional education has a strong technical or vocational orientation. Vocational education has developed significantly new forms at both the secondary and postsecondary levels. . . .
>
> "The short of it is that education and work are no longer separate and distinct chapters in people's lives. The passage from school to employment, once a matter of moving almost in a moment across a boundary line, has become in many cases a four to eight year transition marked by changing combinations of general education, specialized institutionalized training, short-term hiring out of various kinds, and then more permanent employment often including substantial training elements in its early stages."[8]

Delaware Graduates

Data obtained in annual follow up surveys of graduates[9] conducted by the Delaware Department of Public Instruction show the educational/employment status for the graduating classes of 1982-85.

TABLE 3

PERCENTAGE OF GRADUATING CLASS
BY EMPLOYMENT STATUS 1982-1985

Status	Class 1982	Class 1984	Class 1985
Employed	50.0%	55.7%	55.3%
Not continuing education	(28.9)	(33.1)	(32.4)
Also continuing education	(21.1)	(22.6)	(22.9)
Unemployed	36.7%	30.1%	29.7%
But continuing education	(26.3)	(23.2)	(23.4)
Not continuing education, seeking job	(8.1)	(4.1)	(4.4)
Not continuing education, not seeking job	(2.3)	(2.9)	(1.9)
Military Service	5.1%	5.4%	5.2%
No status	8.2%	8.7%	9.7%
Total Number of Respondents To Survey	4,720	3,964	3,647
Return Rate	66.1%	62.1%	64.8%

Source: Follow-up of Graduates Surveys, Delaware Department of Public Instruction, Planning, Research and Evaluation Division, 1981-1986.

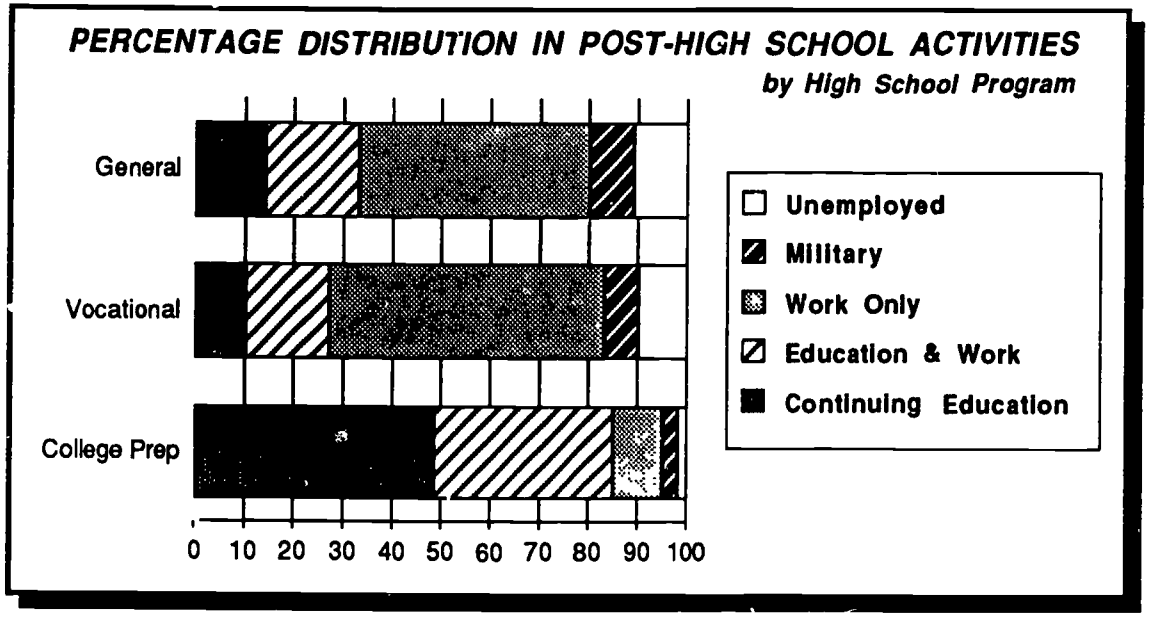
The data show that the transition students make today does indeed involve admixtures of education - or training - and work. For the class of 1985, approximately 46% are continuing some form of education, about 60% are in civilian or military segments of the work force. Only 2% report that they are neither continuing their education nor seeking employment.

HIGH SCHOOL PROGRAMS AND EDUCATION/EMPLOYMENT STATUS

The follow-up survey also supports examination of other important questions for the class of 1985.

- How does the high school experience relate to post high school activities?
- Are the majority of students who elected a high school vocational program entering the work force directly from high school?
- Are the majority of high school college preparatory students engaged in continuing education?
- Do high school program choices limit or hold open career opportunities?

The data show that the majority (approximately 84%) of students who elected a college preparatory program are continuing their education, while a majority of students electing either a vocational or general program are employed in either civilian or military jobs, approximately 63% and 56% respectively. The data also show that approximately 27% of vocational students and approximately 33% of general education students are continuing their education.

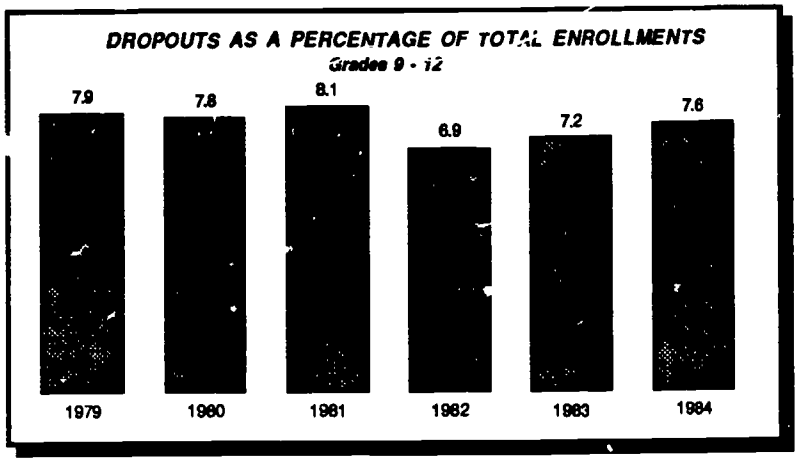


DROPOUTS

Of continued concern is the number of Delaware pupils who do not graduate. The job market for these students is bleak. Evidence has accumulated that the high school dropout will earn less than the high school graduate, experience more unemployment and generally be relegated to lower-skill jobs.

According to the annual dropout study conducted by the Planning, Research and Evaluation Division of the Department of Public Instruction:[10]

"Between 2,100 and 3,000 students in grades 9-12 dropped out of Delaware public schools during each of the past six years. Although an overall decline in dropout rate from 7.9 percent to 7.6 percent occurred between 1980 and 1985, the more significant finding of this study may be that the overall dropout rate has gone up each year for the past three consecutive years, from 6.9 percent in 1983 to 7.6 percent in 1985". The figure shows dropout rates for the period 1979-1984.



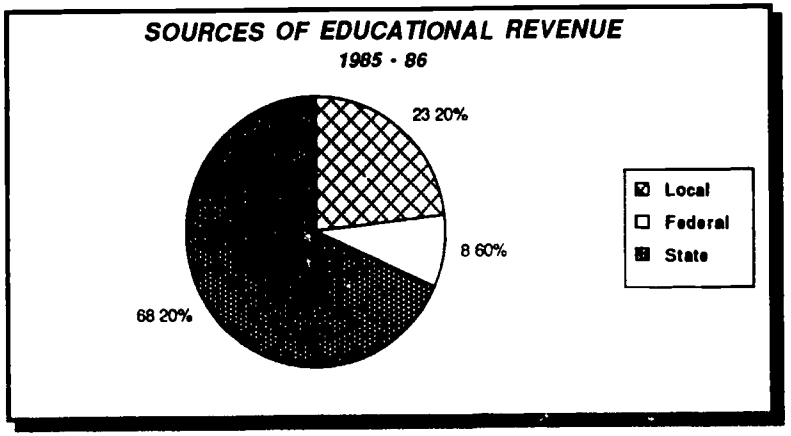
RESOURCES

FISCAL RESOURCES

Educational administrators have long recognized the relationship between the raising and distribution or fiscal resources and the quality of education. Two central issues are of foremost concern - equity in taxation and equality in educational opportunity. Both are complex issues. Both deal with the fundamental question of how best to match resources to needs.

SOURCE OF FUNDS

In 1985-86 Delaware ranked seventh* among states with regard to the percentage of funds provided by the state. This condition permits more equitable funding among school districts than is the case in states where a high percentage of funds are locally provided. The figure shows the percentage of funds from federal, state and local sources.



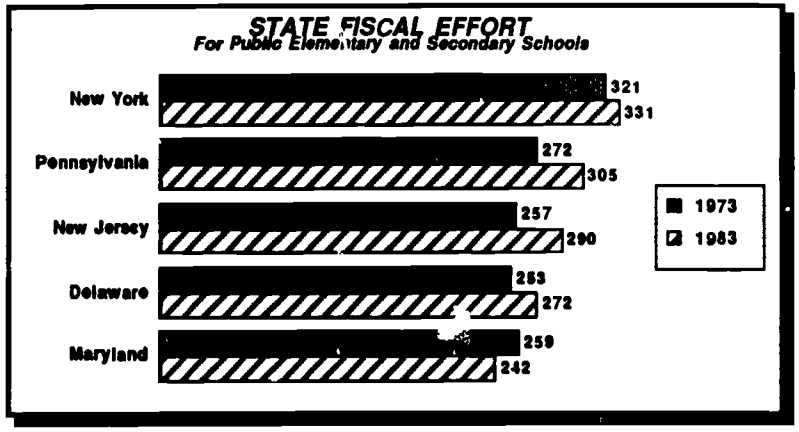
*Based on NEA estimates for 1985-86[11].

State fiscal policy also provides equalization funds to address persistent fiscal inequities among districts.

STATE FISCAL COMMITMENT TO EDUCATION

A composite index of fiscal commitment to education has been devised by the federal Department of Education. The index defines each state's effort to finance public schools in terms of total state and local revenues, state wealth (personal income), with wealth weighted by the portion of state population enrolled in public schools (to reflect a student "share" of public services).

The chart State Fiscal Effort for Public Elementary and Secondary Schools, State Effort by Rank, 1982-83, reproduced here in part, provides for a comparison of effort from 1973 to 1983 for states in the region.



While most states increased effort to finance public schools, a few decreased effort over the decade of 1973-1983.

When all states are included, Delaware dropped from a rank of 13 in 1972-73 in state effort to finance public schools to a rank of 17 in 1982-83.

EXPENDITURE PER PUPIL

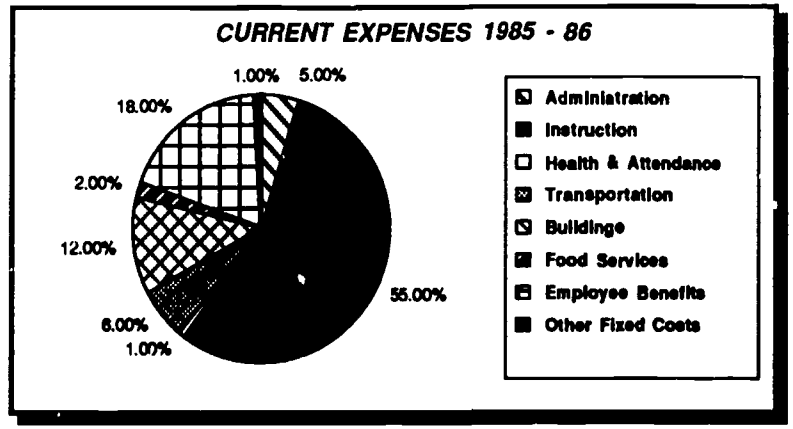
The statistic, expenditure per pupil, is frequently used in comparing educational systems state to state. The statistic is computed by dividing total current expenditures by enrollments. Enrollments are either average daily attendance or average daily membership. Membership is always higher than daily attendance, hence per pupil expenditures based on average daily attendance is higher than that based on membership.

Estimates assembled by the National Education Association[12] for 1985-86 show that Delaware ranked ninth among the states in estimated current expenditure per public school pupil in average daily attendance. The actual per pupil expenditure was $4615.

This statistic does little to communicate to the public how educational funds are spent, how the per pupil expenditure relates to types of services provided, how state funds are allocated to student groups on a need basis, or why decreases in enrollments between 1970 and 1983 affected educational funding so little. The remainder of the fiscal resources section will attempt to provide this information.

TOTAL CURRENT EXPENDITURES

Percentage allocations by budget categories are shown below for total current expenditures for school year 1985-86.



The chart shows that instruction accounts for 55% of total expenditures plus a major portion of the 18% for employee benefits. Administration accounts for 5% of total expenditure and a minor portion of the 18% for employee benefits. Other non-educational expenses (i.e. buildings, transportation, etc.) account for about 20% of educational funds.

Administrators are responsible for instructional and non-instructional services.

PER PUPIL EXPENDITURE BY TYPE OF SERVICE

Although allocations by budget categories help in understanding how funds are accounted for, they do not translate easily into services provided. For those whose only association with schools was as a student, it is easy to lose sight of the varieties of services, educational and non-educational, provided and the varieties of persons required to provide them.

Table 4 shows how the per pupil expenditure would be distributed across types of services if each student received an equal share of all services provided. Over 75% of the per pupil expenditure is spent on services to students and on buildings. Another 19.47% is expended for fixed costs.

TABLE 4

PER PUPIL EXPENDITURE BY TYPE OF SERVICE
1985-86

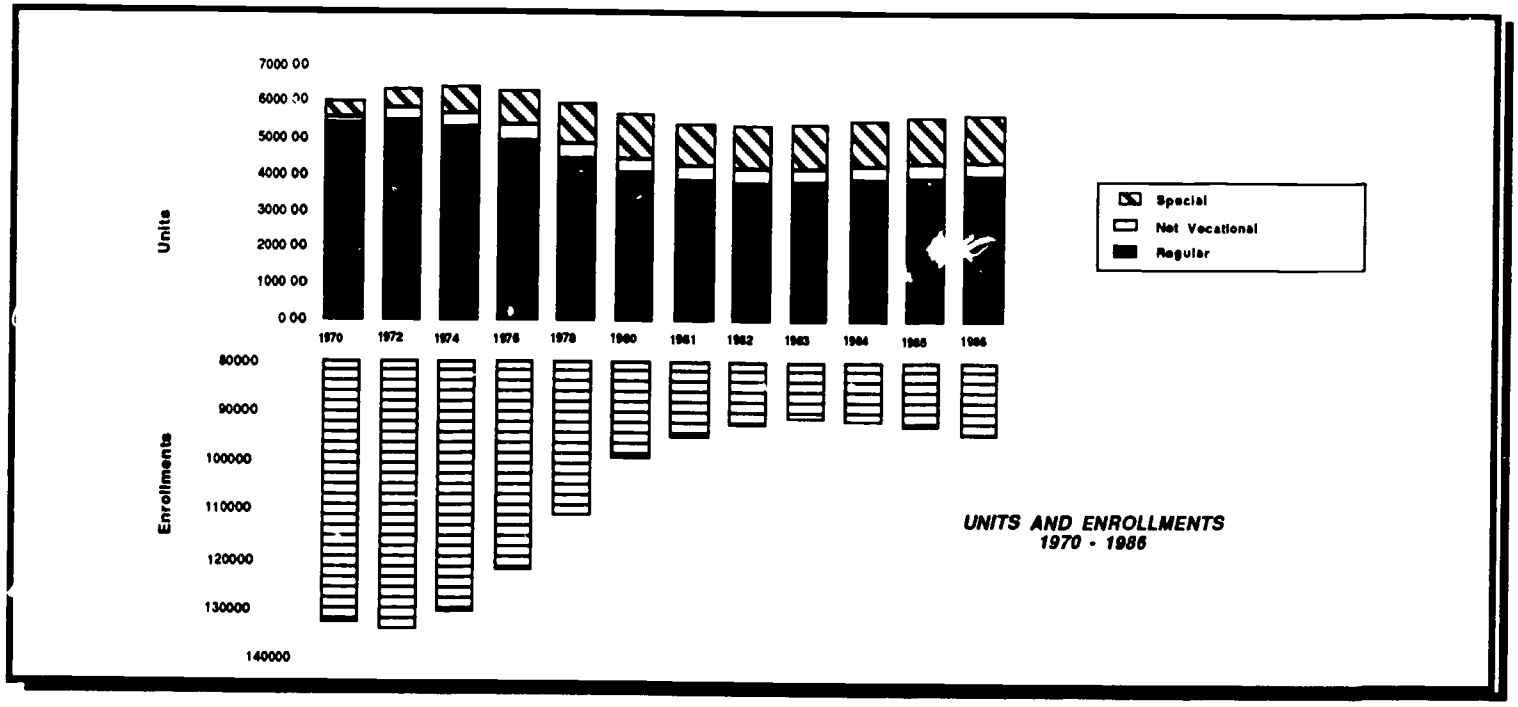
Category	1985-86 Per Pupil Expenditure $	Percent of Current per Pupil Expenditure	Description
Total expenditure	4615	100%	Includes all budget categories under current operating expenses
Administration			
Salaries	167	3.61	Included Salaries of state and district administrators
Other	73	1.58	Included: Contracted services and other expenses paid for at the state or school district level
Instructional Services			
Salaries	2291	49.64	Included: Salaries of principals, instructional supervisors, teachers, librarians, guidance counselors, psychologists, speech and hearing therapists, social workers, aides, other instructional personnel, and clerks
Other	208	4 50	Included: Textbooks, library books, teaching supplies, contracted services and other expenses.
Attendance & Health Services			
Salaries	45	0 98	Included Salaries of nurses, visiting teachers, human relations specialists
Other	3	0.07	Included Supplies and equipment
Transportation Services			
Salaries	52	1.13	Included Drivers, mechanics, dispatchers, etc.
Contracted Services & other expenses	245	5 32	Included: Services provided under contract with independent bus operators
Building (Maintenance & Operations)			
Salaries	218	4.72	Included: Custodians, crafts and trades personnel
Other Expenses	320	6 93	Included: Building and grounds maintenance, equipment repair, contracted services, heat, water & sewerage, electricity, gas, telephone, other utilities, supplies, other contracted services and costs.
Food Services			
Salaries	94	2.04	Included: Salaries of supervisors and managers
Fi osts			
Employee Benefits	850	18 41	Included: Employee retirement, Social Security, health insurance, Unemployment, Workmen Compensation
Other Expenses	49	1 07	Included: Insurance other than property and motor vehicles, rentals of land, buildings and equipment

The previous table shows how the per pupil expenditure would be distributed among salaries and other costs for services to students, if costs were distributed equally among students. Of course they are not. For example, while the overall average per pupil expenditure was $4615, the average per pupil expenditure for autistic pupils is about $36,000.

RELATIONSHIP BETWEEN UNITS AND ENROLLMENTS

In Delaware, State funds are allocated on a unit basis. The number of students required for a unit for high need students is much smaller than for regular students. Unit size for primary and elementary students is smaller than for secondary students. The relationship between units and enrollments for regular , vocational and special education for the period 1970-1986 is shown in the figure below.

The chart shows that although enrollments decreased by a large number between 1970 and 1983, the number of units did not. This was due to a reduction in unit size for regular and special education students and to an increase in the number of units for special education students, all categories of which require fewer students per unit than for regular students.



HUMAN RESOURCES

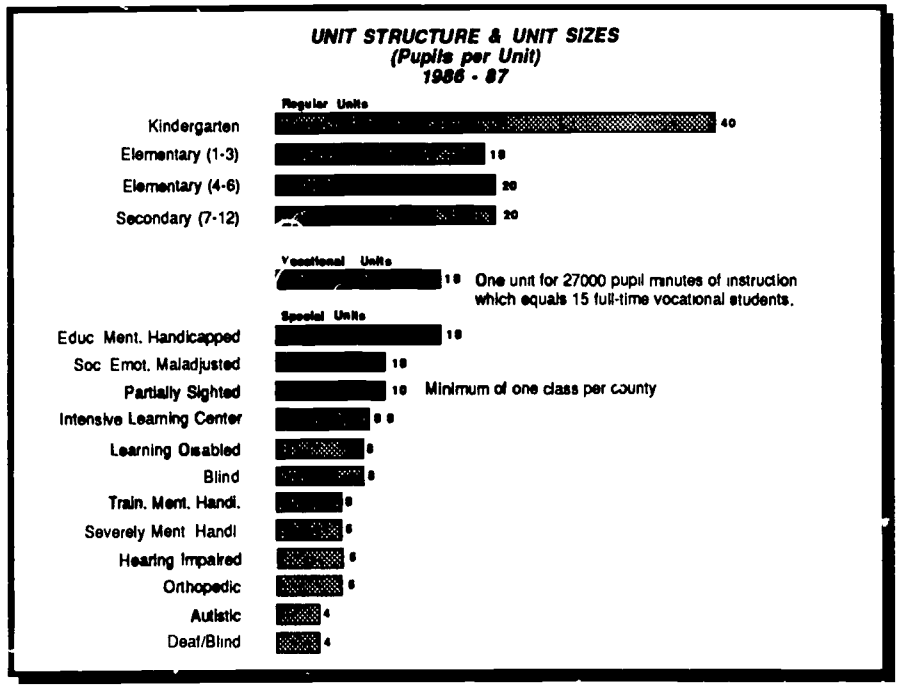
The quality of a state's school system ultimately depends on the quality and comprehensiveness of services provided to children. Teachers are central to the primary service provided by schools, instruction. They are the schools single most valuable resource.

CLASS SIZE

Small class size in and of itself is frequently perceived as indicative of quality. Presumably, the personal attention provided students in small classes is highly valued. However, research indicates that student achievement gains attributable to class size are associated with drastic reductions in class size, on the order of 15 students per teacher. Research also points out that smaller classes, in and of themselves, do not insure increased achievement. That, it appears, is a function of quality of instruction, classroom management and several other variables.

Delaware Unit System

Unfortunately, even small reductions in class size for large numbers of students is extraordinarily expensive. Delaware administrators responsible for fiscal matters have advocated a unit system for allocation of funds by which severity of need is considered in establishing the number of students needed for a unit for funding purposes. The structure of the unit system for 1986-87 is shown in the figure below. The chart shows, for example, that 4 deaf/blind students or 20 secondary students are counted as 1 unit.



Student Teacher Ratio

The student teacher ratio is the only approximation of actual class size currently available. According to a recent study completed by the Delaware Department of Public Instruction, the overall pupil/teacher ratio in Delaware has declined from 25.3 in 1966-67 to 16.6 during the 1984-85 school year. "The average pupil/teacher ratio in regular classrooms in 1984-85 was 18.3 while in special classrooms the average ratio was 9.4."[13]

QUALITY OF TEACHING FORCE

The quality of the teaching force is of critical importance to Delaware schools. New teacher applicants for certification are administered an examination to screen out those lacking essential skills. The state prescribes the academic preparation teachers and others must have to be eligible for certification. Maintenance or improvement of the quality of the Delaware teaching force in the future will require a ready source of new, well-qualified teachers and an ability to compete for the dwindling number of persons preparing to teach.

Educational Level and Experience

Nationwide, according to Patricia Graham, Professor of History and Education, Teachers College, Columbia University, "As late as 1940, some 40 percent of city school teachers and 62 percent of rural teachers taught without a bachelor's degree. By 1971, over 97% of all teachers had a bachelor's degree, and 27% had a master's degree."[14]

Although there is no guarantee that advanced degrees make for better teaching, it is assumed that for teachers as for students, additional years of schooling are desirable. In the absence of better indicators of the quality of the Delaware teaching force, the degree status and years of teaching experience are shown for Delaware teachers in Table 5.

TABLE 5

EDUCATIONAL LEVEL AND AVERAGE EXPERIENCE
DELAWARE TEACHERS 1985-86

	Educational Level							
	Full Time	LTB	Bach	B+15 B+30	Master	M+15 M+30 M+45	Doctor	Average Experience
Elementary Regular	2016	-	775	656	208	374	3	15.0
Secondary Regular	2572	18	716	747	296	771	24	16.3
Elementary Special	649	-	220	202	82	144	1	10.5
Secondary Special	455	-	149	133	57	113	3	10.0
TOTAL	5692	18	1860	1738	643	1402	31	14.7

Source: Report of Educational Statistics 1985-86. Delaware Department of Public Instruction, Dover, DE.

The data show that better than 99.5% of Delaware teachers have bachelor's degrees and 36% have master's degrees or more. In the interest of encouraging teachers to continue their education, the state assumes the bulk of costs for advanced educational courses in State institutions.

Quality of Teachers in Critical Areas

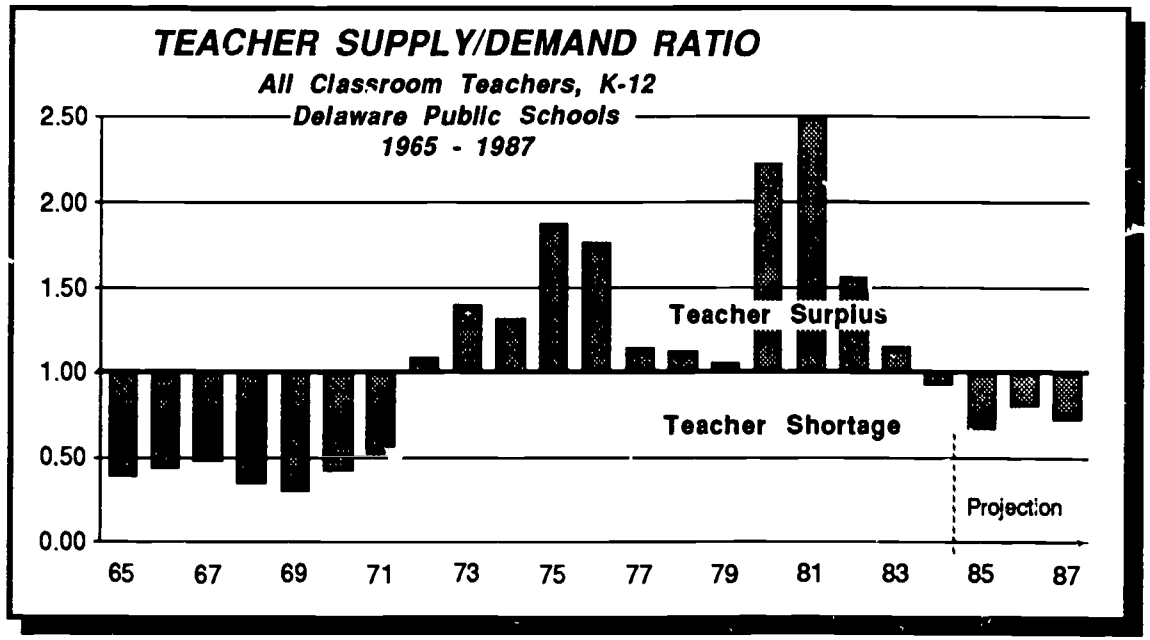
Many are aware that a nationwide shortage of qualified science and mathematics teachers is developing. A recent study completed by the Delaware Department of Public Instruction states, "the most severe shortage [in Delaware] occurs in the subject areas of mathematics and science."[15] At the same time that a shortage is developing, groups such as the National Science Board on Pre-college Education in Mathematics, Science and Technology are suggesting upgrading the requirements for mathematics and science teachers.

Delaware educational leaders are cognizant of the importance of the quality of instruction in these areas. To this end, the state legislature has allocated funds and the State Board of Education has established programs to provide incentives and support to undergraduate students and teachers to prepare for teaching in these areas. Delaware will also administer some $450,000 in new federal funds for the training of science and mathematics teachers.

Ability of the System to Secure Teachers

The ability of the system to secure teachers is constrained by the availability of education graduates. A study of teacher supply and demand[16] shows that in 1984-85 Delaware public schools employed 169 new regular elementary and special education teachers while Delaware institutions graduated only 136. The study projects a continuing decline in available Delaware graduates and increased demands through the next decade as "1) pupil enrollments continue to increase, 2) greater opportunities develop for Delaware public school teachers to transfer, with salary advantages, to other school systems in neighboring states, 3) greater opportunities develop to make career changes, especially in fields requiring skills in mathematics, science and computers and 4) greater numbers of replacements for retirees are required." Eight hundred classroom teachers are estimated to be eligible for full retirement benefits within 3 years.

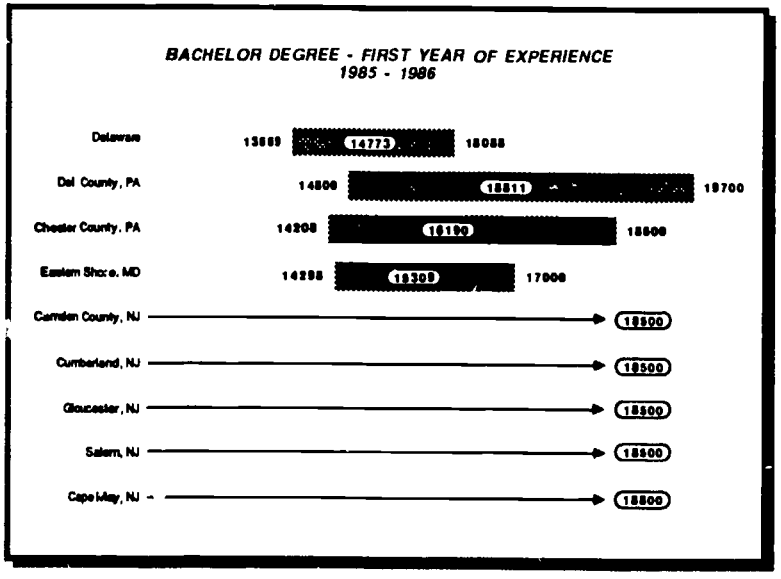
The figure below shows that a teacher shortage existed between 1965 and 1971, a teacher surplus existed between 1972 and 1983 and another teacher shortage began in 1984 and is projected to continue, more than likely beyond 1987.



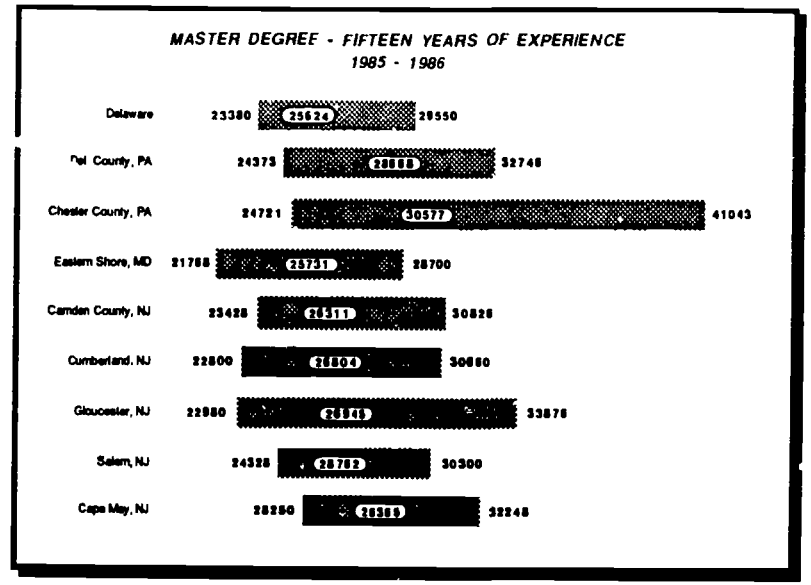
Ability of the System to Compete for Available Teachers

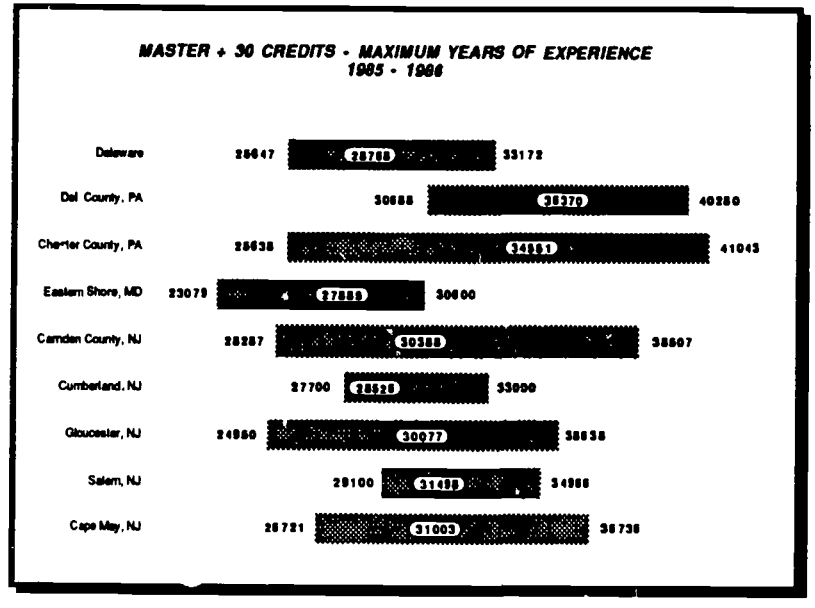
The ability of the school system to secure teachers for its classrooms is also constrained by its ability to compete with other localities for available teachers.

The first figure shows the average salary offered in 1985-86 for a beginning Delaware teacher with a bachelor's degree was $14,773, the lowest beginning salary offered in any school district was $13,659 while the highest was $16,085. Salaries paid for beginning teachers are shown for K-12 districts in contiguous areas in Pennsylvania, Maryland and New Jersey.



The second and third figures show similar data for teachers at mid career (master's degree and fifteen years experience) and for maximum years experience.





The figures show that Delaware salary schedules do not support Delaware school districts as they compete with surrounding areas for teachers.

SCHOOL SUPPORT SERVICES

To reiterate, the quality of Delaware schools is evidenced, in part, by the range of support services provided to students and teachers. These include teacher and clerical aides, librarians, guidance counselors, psychologists, speech and hearing clinicians, nurses, social workers, home visitors and administrators.

The number of persons, by function, per 1000 Delaware students is shown in Table 6.

TABLE 6

NUMBER OF PERSONS (FTE) BY FUNCTION IN
DELAWARE EDUCATIONAL WORKFORCE
PER 1000 PUPILS ENROLLED
1985-86

	FTE	% Workforce	#/1000 Pupils Enrolled
Supts. and Assistants, Directors, Adm.Ass'ts, Supervisors and Specialists, other Gen'l Support,	206.7	(2.0)	2.2
Principals & Ass't Principals	265.0	(2.6)	2.9
Classroom Teachers:			
Regular	4630.5	(44.7)	49.8
Special	1115.1	(10.8)	12.0
Teaching and Clerical Aides	675.1	(6.5)	7.3
Instructional Supervisors, Librarians Guidance Counselors, Other Instr. Support	432.7	(4.2)	4.7
Psychologists, Psychometrists, Speech and Hearing Clinicians, Supervisors, Other Pupil Support	236.7	(2.3)	2.5
Nurses	145.5	(1.4)	1.6
Social Workers, Home Visitors	21.5	(0.2)	0.2
Secretarial Staff	620.3	(6.0)	6.7
Cafeteria Workers	522.2	(5.0)	5.6
Custodians	920.6	(8.9)	9.9
Technical, Crafts and Trades, Managerial, Aides, Operatives and Laborers	577.6	(5.6)	6.2
Totals	10,369.5	100.2	111.6

Support Services - A Special Case

Listing persons by service function does not convey in any way the important contribution made by any single group. To illustrate the variety of services provided by a single group we present data on services provided by school nurses as a case in point. Major services include screening, physical examinations, care of sick and injured, and special health procedures. The total number of major services provided by school nurses, the percentage that resulted in referral for medical attention, and the percent of referrals receiving medical attention are shown in Table 7.

TABLE 7

SUMMARY OF HEALTH AND OTHER SERVICES PROVIDED BY SCHOOL NURSES
1985-86

	Total State		
	Total Number Services	[a] Percent Referred	[b] Percent Receiving
SCREENING			
Blood Pressure.....	21,433	2.2	94.4
Dental.....	27,778	25.3	80.3
Hearing.....	49,642	2.5	85.0
Orthopedic.....	41,116	3.8	94.6
Strep.....	2,914	39.3	88.4
Vision.....	64,492	7.1	72.2
Pediculosis/Scabies.....	74,962	2.6	96.5
Other.....	13,650	12.0	80.0
Total.....	295,987	6.6	82.2
PHYSICAL EXAMINATIONS			
In School.....	8,085	13.4	58.8
Private Physician/Clinic	14,508	13.6	65.0
Total.....	22,593	13.5	62.8
CARE OF SICK AND INJURED			
Illnesses.....	322,639	11.8	70.6
Injuries.....	136,796	5.8	73.5
Miscellaneous.....	200,741	2.6	48.7
Total.....	660,176	7.7	68.8
SPECIAL HEALTH PROCEDURES[c]			
Total.....	190,618	2.8	88.3

[a]Referred for medical attention.
[b]Received medical attention.
[c]Includes giving medications, ostomy care, catheterizations, tube feedings.
Source: Instruction Division

In addition, school nurses reviewed approximately 131,000 records and reports, made approximately 5,000 presentations to various groups and participated in some 350,000 conferences. The total contribution of this group to the health and well-being of Delaware students is difficult to estimate.

INSTRUCTIONAL RESOURCES

In a very real sense, education is an information industry. It is difficult to imagine a quality educational system that is out-of-date. A major concern of administrators and teachers is keeping current with new knowledge and technologies.

Current Concerns

Textbooks, particularly in Science and Social Studies, present special problems because new knowledge and information is produced at such a rapid rate. This was a matter of concern to Delaware educators. State educational policy now requires school districts to review textbooks at least every five years.

A second current concern emerges from the impact computers have made in the place. Many share the view that student familiarity with the computer as a learning and working tool is an important aspect of preparing students for the future.

Delaware has made significant progress in the last few years in ensuring the availability of computers for student use. According to data provided by the Delaware Office of Information Systems and the State Supervisor of Educati Computing, the ratio of students to computers statewide is approximately 24 to 1. None of the 19 regular and vocational school districts has a higher pupil to computer ratio than 51 to 1. That is, in all school districts there is at least 1 computer for every 51 students.

CONTEXT

SPECIAL NEEDS

The federal report Indicators of Education Status and Trends 1985 states that:

> Whatever school decisions are made on staffing and spending, ultimately the services to be offered must address the needs of the student who will attend. Some students' educational needs differ in character and often in cumulative quantity, from those of others. A measure of needs for "extra" services is a key indicator of services schools must provide.
>
> The table presents a composite index of relative requirements among States for special educational services. The index reflects the proportion of children who have some characteristics associated with special educational services and is weighted to account for the relative cost of providing these services.
>
> The weights used in this instance are rough approximations of the actual costs experienced by school districts across the country. In the future, better data and further analyses should lead to weights that are more reflective of actual costs.

- Studies have shown that many of the language minority children who are counted as limited English proficient (LEP) use English as their only or usual language. Based on these studies, the number of children who require special English language services because of their inability to

function in English is estimated to be substantially less than the 3.6 million LEP population (aged 5-17) estimate that served as the basis for the percentage distribution shown above. These data are, however, the latest available State-by-State estimates of the LEP student population.

Data included in the table below are for states in the Mideast section of the country.

STUDENT CHARACTERISTICS
Composite Index of Educational Service Requirements

State and Region	Percent Children 5-17 in Poverty 1980	Percent Handicapped Children 1984	Percent Limited English Proficient Children 1980	Index Educational Services Requirements	Classification on Index
United States	18.3	10.9	9.6		
Mideast					
Delaware	14.6	16.4	2.4	11.0	Moderate
Dist. of Columbia	36.3	8.1	2.3	12.0	High
Maryland	11.9	13.3	2.2	8.0	Low
New Jersey	13.3	14.4	6.3	11.5	Moderate
New York	17.9	10.5	14.3	14.0	High
Pennsylvania	13.2	11.3	3.1	10.0	Moderate

Source: Indicators of Education Status and Trends 1985, Department of Education, Washington, D.C.

PUBLIC ATTITUDES

Two annual surveys (1984 and 1985) on education have been conducted for the Planning, Research and Evaluation Division of the Department of Public Instruction by the University of Delaware, College of Urban Affairs and Public Policy. Many questions are duplicates of those asked in the same year in the National Gallup Poll.

Confidence in American Institutions

In 1985, the Delaware public had more confidence in the public schools than in the courts, local governments, state governments, the national government, labor unions or big business. Eighty-six percent of the respondents said they had a great deal or a fair amount of confidence in the public schools. Only 79% had indicated that level of confidence in the previous year.

Question: How much confidence do you, yourself, have in these American institutions to serve the public's needs - a great deal of confidence, a fair amount, or very little?

DELAWARE RESPONDENTS

	A Great Deal %		Fair Amount %		Very Little %		Refused/ Don't Know %	
	1984	1985	1984	1985	1984	1985	1984	1985
The Church	48	48	42	38	8	10	2	4
The Public Schools	27	25	52	61	18	10	3	5
The Courts	14	12	50	58	30	24	6	6
Local Governments	12	21	60	60	21	15	6	3
State Governments	14	23	62	61	19	12	4	4
National Government	10	17	55	62	29	18	6	4
Labor Unions	9	10	33	34	47	42	11	13
Big Business	7	12	47	53	36	26	10	9

Rating of Public Schools

The Delaware public gave the public schools in their communities higher grades in 1985 than in 1984 and higher grades than those given by the national sample for their own community schools.

In Delaware, 49% of the persons interviewed in 1985 gave the schools in their communities a grade of A or B; the previous year 45% did so. In the nation, 43% of the persons interviewed in 1985 year gave the schools in their communities a grade of A or B. Sixty-two percent of persons who have children attending public schools in Delaware gave grades of or B.

Question: Students are often given the grades A, B, C, D and FAIL to denote the quality of their work. Suppose the public schools, themselves, in this community were graded in the same way. What grade would you give the public schools here?

Ratings	Delaware		Nation	
	1984	1985	1984	1985
A Rating	10	9	6	9
B Rating	35	40	25	34
C Rating	32	36	32	30
D Rating	8	5	13	10
Fail	4	2	7	4
Don't Know	11	9	17	13

Delawareans gave lower grades to the nation's schools than to their own, but assigned higher grades than did the national sample.

Question: How about the public schools in the nation as a whole? What grade would you give the public schools nationally - A, B, C, D or FAIL?

Ratings	Delaware		Nation	
	1984	1985	1984	1985
A Rating	3	3	2	3
B Rating	25	31	17	24
C Rating	43	46	38	43
D Rating	10	5	16	12
Fail	2	2	6	3
Don't Know	16	13	21	15

When Delawareans were asked to grade various aspects of schools in their communities, highest grades went to school physical plants, the curriculum and the handling of extra curricular activities. Those aspects receiving the smallest percentages of high grades in 1985 were the behavior of students, the way discipline is handled and preparing for jobs those students not planning to go to college.

Question: Using the A,B,C,D or FAIL scale again, please grade the public schools in this community for each of the following:

	Delaware - 1985					
	A %	B %	C %	D %	Fail %	Don't Know %
The physical plants (building) and facilities	23	36	22	3	1	15
The curriculum, that is, the subjects offered	18	36	25	3	1	18
The handling of extra-curricular activities sports, theater, etc.	22	38	19	4	1	17
Books and instructional materials	11	32	26	7	1	23
Quality of teaching	11	36	31	7	2	14
Education students get	8	32	39	8	2	12
The way schools are administered	10	28	35	10	3	14
Preparing students for college	13	28	28	13	2	16
The way discipline is handled	6	20	28	25	8	14
Preparing for jobs those students not planning to go to college	7	27	36	13	2	16
Behavior of students	2	19	34	25	8	12

The Delaware survey was conducted in August 1985. The number of representative households sampled was 331. Respondents were age 18 and over. The level of accuracy for the statewide sample is plus or minus 7%. Cross tabulations are available for respondents by county of residence, sex, race, age group, educational level, income, occupational group and for groups with (1) no children in school, (2) children in public schools, (3) children in nonpublic school, and (4) children in both public and nonpublic schools. Allowance must be made for a decrease in the level of accuracy where small groups are involved, e.g., parents with children in both public and nonpublic schools.

PROGRAM & POLICY

It is at program and policy levels that resources and services are translated into coherent educational efforts. Delaware chool administrators and policy groups strive to:

- maintain balance in programs among educational goals
- maintain balance in programs to serve career aspirations (vocational and college preparation)
- maintain balance in programs among disciplines (e.g. science, mathematics, art)
- maintain balance in programs to serve the academic diversity existent in the student population
- support innovative approaches to solving long-standing educational problems (e.g. dropouts)
- respond programmatically to equity issues (e.g. women's equity, access of handicapped to schools)
- respond programmatically to social problems that impact on education (e.g. drugs and alcohol)

Questions of effectiveness and impact are better addressed at program and service delivery levels.

COURSE OFFERINGS

A recent study by the National Center of Education Statistics (NCES)[17] examined trends in high school course offerings and enrollments between 1972-73 and 1981-82. A brief recounting of the findings for Mathematics and Foreign Languages course offerings provides an historical context for considering the academic opportunity provided in Delaware schools. The NCES study findings for the nation state that:

Mathematics - Nationwide nearly 88% of public schools in 1972-73 offered one or more courses in mathematics compared with more than 99% in 1981-82. A majority of secondary schools in both years offered courses in general mathematics for grades 9-12, elementary and intermediate algebra, and geometry (plane and solid). During 1972-73, a majority of schools offered courses in algebra and trigonometry but in 1981-82 only a minority of schools did so. A slight majority of schools offered a course in applied mathematics in 1981-82.

Foreign Language - Nationwide the percentage of high schools offering foreign language instruction was relatively stable between 1972-73 and 1981-82. Approximately 83% of schools in the earlier year offered one or more courses in foreign language compared with 84% in latter years. Most frequently offered were 1st and 2nd year Spanish followed by 1st and 2nd year French. These were the only foreign language courses to be offered by a majority of schools in both years. Moreover, French and Spanish were the only foreign languages which the majority of students had the option of studying in 1982 for 4 full years.

In Delaware in 1985-86:

Mathematics in High Schools *

All regular Delaware high schools offered:

- both algebra 1 and 2
- at least one course classified as advanced & pure mathematics (e.g. solid geometry, trigonometry, calculus).
- About half of Delaware's regular high schools offered Advanced Placement Calculus.

* No data available for 1 high school.

Foreign Languages in High Schools *

- All regular Delaware high schools offered 2 or more years of both French and Spanish.
- 88% of regular Delaware high schools (serving 89% of the State's students in Grades 9-12) offered 4 or more years of Spanish.
- 88% of regular Delaware high schools (serving 86% of the State's students in Grades 9-12) offered 4 or more years of French.
- 10 of the 24 regular high schools offer 7 or more years of instruction in 4 languages.

* No data available for 1 high school.

Two other recent studies by the National Center for Education Statistics [18] include national estimates that provide a means for comparing academic course offerings in Mathematics, Science, Foreign Language and Computer Science in Delaware high schools with the nation at large. National estimates are for the year 1981-82. Delaware statistics are for the year 1985-86. See Table 8.

TABLE 8

COMPARISON OF AVERAGE NUMBER OF COURSES
IN MATHEMATICS, SCIENCE, FOREIGN LANGUAGE AND
COMPUTER SCIENCE IN SECONDARY SCHOOLS
DELAWARE AND THE NATION
1985-86

Instructional Program	Course Offerings: National Average Per School	Delaware * Average Per School	% Del. Schools Exceeding National Average
Mathematics	8.5	14.3	87.0
General Mathematics 1	1.5	2.3	82.6
General Mathematics 2	1.2	2.7	82.6
General Mathematics, Other	0.2	0.5	39.1
Algebra 1	1.1	1.4	34.8
Algebra 2	1.0	1.4	100.0
Algebra 3	0.7	0.9	61.0
Geometry	1.2	1.9	65.2
Advanced and Pure Mathematics	1.5	2.3	65.2
Calculus, Advanced Placement	0.1	0.6	47.8
Statistics, Applied Mathematics and Actuarial Science	0.1	0.3	30.4
Science	6.7	11.6	95.7
Biology, General	1.7	2.0	60.9
Biology, College Preparatory	0.8	1.4	87.0
Life Sciences, Other	0.3	0.7	39.1
Physical Sciences, General	0.7	2.3	100.0
Physical Sciences, Other	0.2	0.7	39.1
Chemistry	1.5	2.7	87.0
Geological Sciences	0.4	0.1	0.1
Physics	1.1	1.5	47.8
Computer Science	1.0	5.0	100.0
Computer Science Languages and Programming	0.7	4.6	95.7
Business Data Processing Applications	0.3	0.5	34.8
Foreign Language	7.3	14.0	95.6

*Delaware data reflect course offerings for 23 of 25 regular high schools from which data were obtained.

The data show that the breadth and depth of course offerings in Delaware high schools for the academic areas of Mathematics, Science, Computer Science and Foreign Language compare favorably with the nation at large. For example, in foreign languages, on the average, almost twice the number of foreign language courses are available in Delaware high schools than in high schools in the nation at large.

The Annual Dropout Study and Longitudinal Study of School Leavers - Delaware Secondary Schools 1984-85[19] reports that:

"In the past, the identification of potential dropouts and the implementation of dropout prevention programs have been mainly a local school district initiative in Delaware. Leadership in the area has been provided by the Office of the State Supervisor of Guidance and Pupil Personnel Services, Department of Public Instruction.

An Office of State Planning and Coordination report entitled Delaware High School Dropouts[20] summarizes the results of a statewide telephone survey conducted in April 1986 for the purpose of reviewing dropout prevention programs in operation within Delaware public school districts. The results of this survey indicated that most Delaware school districts rely to a greater or lesser extent on the office of the school guidance counselor in initiating informal dropout prevention efforts. However, nine of the nineteen school districts in Delaware had specific, formalized identification and prevention programs in operation during the 1985 86 school year consisting of one or more of the following elements:

- Dropouts are contacted by school personnel over the summer months to encourage them to return to school in the fall.
- Exploratory skills programs, targeted to potential dropouts in the 9th, 10th, and 11th grades, teach ways to improve social, survival, and motivational skills.
- Work Coop/Diversified Occupation Programs allow students to gain work experience while continuing their formal education.
- Potential dropouts are identified through a combination of a computer projection model and input from guidance counselors and teachers. Selected students are assigned to school personnel who volunteer to contact the student weekly, have talks with the parents on a monthly basis, and visit the student's home at some time during the year.
- In some cases administrative promotions are granted to students who have failed grades provided they agree to participate in a formalized prevention program within the school.
- Career education programs are offered in which students can learn interviewing skills, time management, and how to apply for jobs.
- Free day-care service is provided to encourage teenage mothers to return to school and complete their high school education."

ACADEMIC DIVERSITY

Public schools serve a remarkably diverse population. The question of how to provide opportunities for each learner commensurate with his individual abilities is subject to seemingly never ending debate by educators and non-educators alike. Some students of middle school age are ready to study some academic topics at a college level. Some children of college age are still struggling to attain basic, primary academic concepts. Some students by virtue of a handicapping condition, either environmental or personal, require special learning environments or special support services.

Academically Talented Students Some program and policy provisions for academically talented students include:

- state participation in the Johns Hopkins University Annual Talent Search for the Center for Advancement of Academically Talented Youth. The search centers primarily on seventh grade students who are identified by their schools and meet the required qualifications. For those students who qualify, an opportunity to participate in the accelerated program at Johns Hopkins is extended
- offering advanced placement courses for college-bound students in many of the State's high schools
- state policy that permits early college admission for advanced high school students
- programs for gifted and talented that offer enrichment opportunities in all public school districts.

Special Need Students

In Delaware, intensive effort is made to locate and place special need children in supportive environments. The number of special need students is shown in Table 9 for the years 1979-1985.

TABLE 9

ENROLLMENTS OF SPECIAL PUPILS
FALL 1979-1985

	Enrollments			
	1979	1981	1983	1985
Educable Mentally Handicapped	1,699	1,274	1,133	953
Severely or Emotionally Maladjusted	2,007	2,019	2,198	2,259
Learning Disabilities	5,334	5,466	5,613	6,338
Trainable Mentally Handicapped	451	378	377	349
Severely,Mentally Handicapped	264	258	229	224
Orthopedically Handicapped	237	191	202	215
Hard of Hearing or Partially Deaf	156	109	182	184
Blind	7	5	6	1
Partially Sighted	12	13	7	11
Autistic	35	37	51	72
Deaf/Blind	31	36	32	34
Total*	10,245	9,848	10,102	10,639

Totals shown may not correspond to actual sum because fractional parts were dropped.
Source: September Unit Allotment. Reports for 1979-1984. Delaware Department of Public Instruction, Planning, Research and Evaluation Division.

Examples of program provisions for these students include:

- preschool programs for some children from birth through age six
- several programs for mildly handicapped individuals ages 3 through 20
- provision of three specially equipped facilities for orthopedically handicapped students

- provision of special schools for moderately and severely mentally handicapped students from ages 3 through 20
- special services for hearing and visually impaired students
- a special statewide program for approximately 40 deaf/blind children in 5 sites across the State
- a special program for autistic students
- provision of private placement for pupils with complex or rare handicaps such that services cannot be provided by public schools.

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PR&E No. 87-16

APPENDIX

NOTES

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TABLE A-1

STATE RESULTS

DELAWARE EDUCATIONAL ASSESSMENT PROGRAM
(Regular and Special Education Combined)
AVERAGE SCORES

SPRING 1981

Grades									Content Areas
1	2	3	4	5	6	7	8	11	
58.6	58.1	55.2	54.2	54.9	54.2	54.4	53.6	53.2	Reading
*	59.9	58.9	58.7	56.4	55.2	55.4	53.9	51.0	Spelling
54.6	60.5	59.1	58.5	58.6	58.1	55.0	54.0	52.6	Language
61.2	59.5	58.3	57.3	56.3	56.6	56.4	55.2	53.7	Mathematics
58.9	59.9	58.1	57.3	56.9	56.5	55.6	54.7	53.2	Total Battery

SPRING 1982

Grades									Content Areas
1	2	3	4	5	6	7	8	11	
59.0	59.0	59.1	54.2	55.7	56.0	56.4	54.7	53 2	Reading
*	61.3	60.3	59.0	57 5	55.5	55 5	53.6	52 9	Spelling
54.7	62.0	60.9	58.2	59.3	59.2	56 2	56 8	54.0	Language
62.4	59.9	60.1	56.5	58.1	57.3	57.9	56.6	53.6	Mathematics
60.5	60.8	60.5	56.3	58.5	57.7	57.2	56.3	53.7	Total Battery

SPRING 1983

Grades									Content Areas
1	2	3	4	5	6	7	8	11	
60.2	60.5	61.1	55.5	56.2	57.4	56.9	56.2	53.5	Reading
-	62.4	62.5	60.4	58.7	57.5	56.9	55.7	53.6	Spelling
55.9	63.2	63.4	59.6	60.1	61.1	57.5	58.3	55.1	Language
62.4	61.6	61.9	57.6	59.2	59.1	58.2	57.4	54.2	Mathematics
61.3	62.6	62.7	57.8	59.4	59.6	57.9	57.7	54.5	Total Battery

SPRING 1984

Grades									Content Areas
1	2	3	4	5	6	7	8	11	
54.4	59.5	53.2	57.2	53.1	53.9	52.6	53.5	52.2	Total Reading
-	61 9	60.0	59.1	55.6	58.3	56.1	57.7	55.0	Total Language
57.7	64.7	59.2	61.4	57.6	58.3	55.5	55.2	53.3	Total Mathematics
-	61.1	59.1	59.1	54.5	57.4	54.8	55.2	54.5	Total Battery
-	-	-	-	-	-	-	-	52.5	Science
-	-	-	-	-	-	-	-	57.4	Social Studies

SPRING 1985

Grades									Content Areas
1	2	3	4	5	6	7	0	11	
55.2	60.3	54 1	57.3	54 6	57.0	53 5	56.6	54 5	Total Reading
-	62.9	61.1	59.6	57.6	61 0	57.8	60.3	57.4	Total Language
59.3	65.5	60 0	61.8	59.3	59 8	56.8	57.9	55.8	Total Mathematics
-	62.1	60.2	59.4	56.3	60.3	56.1	58.2	56.9	Total Battery
-	-	-	-	-	-	-	-	54.1	Science
-	-	-	-	-	-	-	-	58 8	Social Studies

NOTE: Score is the Normal Curve Equivalent which has a national average of 50.0.

TABLE A-2

PERCENTAGE OF STUDENTS SCORING ABOVE NATIONAL MEDIAN
TOTAL BATTERY TEST SCORES
(REGULAR AND SPECIAL EDUCATION STUDENTS COMBINED)

	California Achievement Test		Comprehensive Tests of Basic Skills		
Grades	1982 %	1983 %	1984 %	1985 %	1986 %
1	-	-	-	-	-
2	70	74	69	71	74
3	70	74	67	70	79
4	64	67	67	68	66
5	64	66	58	61	61
6	65	69	61	68	66
7	64	66	58	61	61
8	61	65	58	64	57

TABLE A-3

PERCENTAGE OF STUDENTS IN LOWEST QUARTILE (NATIONAL)
TOTAL BATTERY TEST SCORES
(REGULAR AND SPECIAL EDUCATION STUDENTS COMBINED)

	California Achievement Test		Comprehensive Tests of Basic Skills		
Grades	1982 %	1983 %	1984 %	1985 %	1986 %
1	-	-	-	-	-
2	9	9	12	11	9
3	10	9	11	10	7
4	14	11	12	12	11
5	13	11	15	13	12
6	13	11	15	11	10
7	14	12	16	15	10
8	14	13	16	13	13