Subgroup Achievement and Gap Trends — Arkansas

K-12 enrollment — 465,801

The raw data used to develop these state profiles, including data for additional grade levels and years before 2002, can be found on the CEP Web site at www.cep-dc.org. Click on the link on the left labeled State Testing Data. In the list of results that appears, look for the most recent report on student achievement since 2002. Below the name of the report, click on the link for State Profiles and Worksheets. Scroll down the page until you reach the list of states. Click on the Worksheet link for proficiency data or scale score data for a particular state.

Subgroup Achievement Trends and Gap Trends — Key Findings

Summary. In grade 8 (the only grade in which subgroup trends were analyzed by achievement level), Arkansas showed across-the-board gains—improvements in reading and math at the basic, proficient and advanced levels for all racial/ethnic subgroups, low income students, and boys and girls. The gains were quite large in most instances, especially at the proficient level. However, progress on narrowing of achievement gaps was mixed, because comparison groups (white and non-low income students) also improved their performance on state tests. Comparable data were available from 2005 through 2009 for grades 4 and 8, and from 2001 through 2009 for high school.

- ***Notable gains.*** Latino students made especially large gains in the percentage proficient at grade 8 in both reading and math.
- ***Mixed gap trends.*** All subgroups showed gaps narrowing at some grade levels but not others. There were a few exceptions: the Latino and low-income subgroups showed gaps narrowing at all three grade levels in math. Males made greater gains than females in reading at all three grade spans, thus narrowing the gender gap.
- ***Asian subgroup.*** The Asian subgroup started out with higher percentages proficient than the white subgroup in 2005. But by 2009, the Asian subgroup had lower percentages proficient because the white subgroup made larger gains. This was true in both reading and math at all three grade spans.

Data Limitations

Years of comparable percentage proficient data	2005–2009, grades 3–8 2001–2009, grade 11 / end-of-course
Years of comparable mean scale score data	2005–2009, grades 3–8 2001–2009, grade 11 / end-of-course
Disaggregated data for all subgroups and comparison groups	Scale score data and number of test-takers for Native American students not available in 2007 or 2009 Grade 11 percent proficient data for students who are *not* low-income not available until 2003, so 2003 used as baseline year for the low-income v. *not* low-income comparison for proficiency analyses Percentage proficient data not available for comparison groups of students who are *not* English language learners (ELLs), so the ELL subgroup is compared with all tested students in the state for proficiency analyses

Test Characteristics

The characteristics highlighted below are for the state reading and mathematics tests used for accountability under the No Child Left Behind Act (NCLB).

Test(s) used for NCLB accountability	Benchmark Exams (grades 3–8) End of Course (EOC) Exams in algebra I and geometry and grade 11 Literacy Exam Arkansas Alternate Portfolio Assessment System for Students with Disabilities (grades 3–8, grade 9 math, grade 11 literacy)
Grades tested for NCLB accountability	3–8 for Benchmark Exams, 11 for Literacy Exam Grades vary for EOC Exams Prior to 2005: grades 4, 6, 8
State labels for achievement levels	AR uses four achievement levels: Below Basic, Basic, Proficient, and Advanced.
High school NCLB test also used as an exit exam?	Yes
First year test used	2005 is baseline for vertical scale for grades 3–8 2001 is baseline for EOC Exams and grade 11 Literacy Exam
Time of test administration	Spring

	EOC Exams in algebra I and geometry are also administered at midyear.
Major changes in testing system (2002–present)	2005: Added testing in grades 3, 5, 7 in reading and math and grades 5 and 7 in science 2005: Reset standards for grades 3–8 Benchmark Exams and developed a vertical scale (scales for EOC and grade 11 Literacy Exams remained unchanged)

Achievement by Subgroup — Trends at the Middle School Level

Note: The tables in this profile of subgroup achievement and gap trends begin with table 7. Tables 1 through 6 can be found in the companion state profile of general achievement trends.

Table AR-7. Percentages of grade 8 students by racial or ethnic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in reading

	Reporting year								Average yearly percentage point gain[1]
Subgroup	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				12%	18%	21%	23%	23%	2.8
Proficient-and-above				57%	65%	63%	67%	71%	3.5
Basic-and-above				87%	91%	88%	90%	93%	1.5
White									
Advanced				15%	22%	26%	29%	28%	3.3
Proficient-and-above				65%	73%	71%	75%	79%	3.5
Basic-and-above				91%	93%	92%	95%	95%	1.0
African American									
Advanced				4%	5%	8%	9%	9%	1.3
Proficient-and-above				34%	44%	44%	45%	51%	4.3
Basic-and-above				76%	81%	78%	81%	88%	3.0
Latino									
Advanced				6%	10%	10%	13%	17%	2.8
Proficient-and-above				46%	57%	50%	54%	65%	4.8
Basic-and-above				84%	88%	81%	84%	92%	2.0
Asian									
Advanced				18%	29%	31%	30%	35%	4.3
Proficient-and-above				67%	74%	56%	74%	75%	2.0
Basic-and-above				92%	93%	90%	92%	94%	0.5
Native American[2]									
Advanced				11%	15%	20%	26%	22%	2.8
Proficient-and-above				54%	66%	71%	71%	74%	5.0
Basic-and-above				84%	89%	92%	94%	96%	3.0

Table reads: The percentage of white 8th graders who scored at the advanced level on the state reading test increased from 15% in 2005 to 28% in 2009. During this period, the average yearly gain in the percentage advanced in reading for white 8th graders was 3.3 percentage points per year.

[1]Averages are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table AR-8. Percentage of grade 8 students by demographic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in reading

Subgroup	Reporting year								Average yearly percentage point gain[1]
	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				12%	18%	21%	23%	23%	2.8
Proficient-and-above				57%	65%	63%	67%	71%	3.5
Basic-and-above				87%	91%	88%	90%	93%	1.5
Low-income students									
Advanced				6%	9%	12%	13%	14%	2.0
Proficient-and-above				44%	53%	52%	55%	61%	4.3
Basic-and-above				81%	85%	83%	85%	91%	2.5
Students with disabilities[3]									
Advanced				0%	0%	1%	1%	1%	0.3
Proficient-and-above				7%	12%	11%	13%	18%	2.0
Basic-and-above				39%	50%	44%	50%	62%	4.0
English language learners[3]									
Advanced				2%	5%	4%	3%	7%	0.7
Proficient-and-above				26%	39%	32%	33%	50%	3.7
Basic-and-above				71%	80%	71%	73%	86%	2.0
Female									
Advanced				17%	23%	26%	29%	30%	3.3
Proficient-and-above				67%	73%	71%	74%	79%	3.0
Basic-and-above				93%	94%	92%	95%	96%	0.8
Male									
Advanced				8%	13%	16%	17%	16%	2.0
Proficient-and-above				48%	57%	56%	60%	64%	4.0
Basic-and-above				82%	87%	84%	86%	90%	2.0

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state reading test increased from 6% in 2005 to 14% in 2009. During this period, the average yearly gain in the percentage advanced in reading for low-income 8th graders was 2.0 percentage points per year.

[1]Averages are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups. Average yearly percentage point gains are based on 2006-2009 results.

Table AR-9. Percentages of grade 8 students by racial or ethnic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in mathematics

Subgroup	Reporting year								Average yearly percentage point gain[1]
	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				6%	10%	13%	21%	23%	4.3
Proficient-and-above				33%	44%	48%	56%	61%	7.0
Basic-and-above				52%	62%	65%	72%	77%	6.3
White									
Advanced				8%	13%	17%	27%	29%	5.3
Proficient-and-above				42%	53%	57%	65%	71%	7.3
Basic-and-above				62%	71%	75%	80%	85%	5.8
African American									
Advanced				1%	1%	3%	6%	7%	1.5
Proficient-and-above				10%	18%	22%	32%	36%	6.5
Basic-and-above				23%	33%	40%	49%	55%	8.0
Latino									
Advanced				2%	3%	7%	12%	14%	3.0
Proficient-and-above				22%	32%	39%	46%	54%	8.0
Basic-and-above				44%	54%	60%	67%	72%	7.0
Asian									
Advanced				15%	21%	28%	35%	36%	5.3
Proficient-and-above				49%	58%	66%	69%	70%	5.3
Basic-and-above				70%	76%	78%	82%	81%	2.8
Native American[2]									
Advanced				4%	6%	12%	27%	20%	4.0
Proficient-and-above				32%	40%	44%	61%	64%	8.0
Basic-and-above				49%	64%	68%	74%	80%	7.8

Table reads: The percentage of white 8th graders who scored at the advanced level on the state math test increased from 8% in 2005 to 29% in 2009. During this period, the average yearly gain in the percentage advanced in math for white 8th graders was 5.3 percentage points per year.

[1]Averages are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table AR-10. Percentage of grade 8 students by demographic subgroup scoring at the advanced, proficient-and-above, and basic-and-above levels in mathematics

Subgroup	Reporting year								Average yearly percentage point gain[1]
	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced				6%	10%	13%	21%	23%	4.3
Proficient-and-above				33%	44%	48%	56%	61%	7.0
Basic-and-above				52%	62%	65%	72%	77%	6.3
Low-income students									
Advanced				2%	4%	6%	12%	13%	2.8
Proficient-and-above				20%	30%	34%	44%	50%	7.5
Basic-and-above				37%	49%	54%	62%	68%	7.8
Students with disabilities[3]									
Advanced				0%	0%	1%	2%	2%	0.7
Proficient-and-above				3%	5%	8%	11%	15%	3.3
Basic-and-above				9%	13%	18%	22%	28%	5.0
English language learners[3]									
Advanced				2%	3%	4%	5%	7%	1.3
Proficient-and-above				15%	19%	27%	30%	40%	7.0
Basic-and-above				31%	38%	46%	52%	58%	6.7
Female									
Advanced				6%	9%	13%	20%	23%	4.3
Proficient-and-above				33%	44%	49%	57%	63%	7.5
Basic-and-above				53%	63%	68%	74%	78%	6.3
Male									
Advanced				7%	10%	14%	22%	22%	3.8
Proficient-and-above				35%	43%	46%	56%	60%	6.3
Basic-and-above				52%	60%	64%	70%	75%	5.8

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state math test increased from 2% in 2005 to 13% in 2009. During this period, the average yearly gain in the percentage advanced in math for low-income 8th graders was 2.8 percentage points per year.

[1]Averages are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups. Average yearly percentage point gains are based on 2006-2009 results.

Achievement by Subgroup — Gap Trends (Percentages Proficient)

Table AR-11. Subgroup achievement trends in reading by percentages proficient

NOTE: L = larger gain than comparison group. S = smaller gain than comparison group. E = equal gain to comparison group.
If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

	Grade 4					Grade 8					Grade 11				
Subgroup	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group
All tested students	05-09	51%	70%	4.8		05-09	57%	71%	3.5		02-09	37%	57%	2.9	
White	05-09	60%	78%	4.5		05-09	65%	79%	3.5		02-09	46%	66%	2.9	
African American	05-09	30%	52%	5.5	L	05-09	34%	51%	4.3	L	02-09	15%	29%	2.0	S
Latino	05-09	42%	59%	4.3	S	05-09	46%	65%	4.8	L	02-09	20%	41%	3.0	L
Asian	05-09	63%	73%	2.5	S	05-09	67%	75%	2.0	S	02-09	49%	63%	2.0	S
Native American	05-09	55%	68%	3.3[2]	S	05-09	54%	74%	5.0[2]	L	02-09	23%	60%	5.3[2]	L
Not low-income	05-09	68%	83%	3.8		05-09	71%	83%	3.0		03-09	50%	69%	3.2	
Low-income	05-09	40%	62%	5.5	L	05-09	44%	61%	4.3	L	03-09	23%	41%	3.0	S
Not disabled	06-09	67%	76%	3.0		06-09	72%	77%	1.7		06-09	50%	62%	4.0	
Students with disabilities[3]	06-09	15%	25%	3.3	L	06-09	12%	18%	2.0	L	06-09	2%	6%	1.3	S
All tested students	06-09	61%	70%	3.0		06-09	65%	71%	2.0		06-09	46%	57%	3.7	
English language learners[3]	06-09	47%	50%	1.0	S	06-09	39%	50%	3.7	L	06-09	13%	14%	0.3	S
Female	05-09	59%	76%	4.3		05-09	67%	79%	3.0		02-09	46%	64%	2.6	
Male	05-09	45%	64%	4.8	L	05-09	48%	64%	4.0	L	02-09	29%	49%	2.9	L

Table reads: In 2005, 60% of white 4th graders and 30% of African American 4th graders scored at the proficient level on the state reading test. In 2009, 78% of white 4th graders and 52% of African American 4th graders scored at the proficient level in reading. Between 2005 and 2009, the percentage proficient improved at an average rate of 4.5 percentage points per year for white students and 5.5 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4th graders.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table AR-12. Subgroup achievement trends in mathematics by percentages proficient

NOTE: L = larger gain than comparison group. S = smaller gain than comparison group. E = equal gain to comparison group.
If the average annual gain for the subgroup of interest, such as African American students, is larger than the average annual gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

	Grade 4					Grade 8					EOC Algebra I				
Subgroup	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain[1]	Gain larger or smaller than comparison group
All tested students	05-09	50%	78%	7.0		05-09	33%	61%	7.0		02-09	35%	70%	5.1	
White	05-09	58%	84%	6.5		05-09	42%	71%	7.3		02-09	43%	79%	5.1	
African American	05-09	28%	60%	8.0	L	05-09	10%	36%	6.5	S	02-09	11%	47%	5.2	L
Latino	05-09	42%	74%	8.0	L	05-09	22%	54%	8.0	L	02-09	22%	62%	5.7	L
Asian	05-09	65%	80%	3.8	S	05-09	49%	70%	5.3	S	02-09	52%	76%	3.5	S
Native American	05-09	55%	76%	5.3[2]	S	05-09	32%	64%	8.0[2]	L	02-09	25%	71%	6.6[2]	L
Not low-income	05-09	64%	88%	6.0		05-09	46%	75%	7.3		03-09	51%	80%	4.9	
Low-income	05-09	39%	71%	8.0	L	05-09	20%	50%	7.5	L	03-09	29%	61%	5.3	L
Not disabled	06-09	65%	82%	5.7		06-09	49%	67%	6.0		06-09	67%	73%	2.1	
Students with disabilities[3]	06-09	22%	41%	6.3	L	06-09	5%	15%	3.3	S	06-09	19%	29%	3.5	L
All tested students	06-09	60%	78%	6.0		06-09	44%	61%	5.7		06-09	64%	70%	2.2	
English language learners[3]	06-09	51%	69%	6.0	E	06-09	19%	40%	7.0	L	06-09	39%	48%	3.0	L
Female	05-09	52%	79%	6.8		05-09	33%	63%	7.5		02-09	37%	73%	5.1	
Male	05-09	49%	76%	6.8	E	05-09	35%	60%	6.3	S	02-09	34%	68%	4.9	S

Table reads: In 2005, 58% of white 4th graders and 28% of African American 4th graders scored at the proficient level on the state math test. In 2009, 84% of white 4th graders and 60% of African American 4th graders scored at the proficient level in math. Between 2005 and 2009, the percentage proficient improved at an average rate of 6.5 percentage points per year for white students and 8.0 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4th graders.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Achievement by Subgroup — Gap Trends (Mean Scale Scores)

Table AR-13. Achievement gap trends in reading by mean scale scores

NOTE: L = larger gain than comparison group. S = smaller gain than comparison group. E = equal gain to comparison group. MSS = mean scale score. SD = standard deviation. If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

		Grade 4					Grade 8					Grade 11				
Subgroup	Statistic	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group
All tested students	Mean SS	05-09	553.5	640.8	21.8		05-09	666.0	767.8	25.5		02-09	188.2	201.8	1.9	
	SD	05-09	183.6	185.8			05-09	150.1	161.2			02-09	32.2	23.8		
White	Mean SS	05-09	585.9	677.1	22.8		05-09	691.3	797.6	26.6		02-09	195.0	206.8	1.7	
	SD	05-09	176.9	176.3			05-09	145.1	148.0			02-09	29.2	22.1		
African American	Mean SS	05-09	463.9	554.9	22.8	E	05-09	607.6	684.4	19.2	S	02-09	170.5	187.8	2.5	L
	SD	05-09	172.6	180.0			05-09	145.2	166.6			02-09	31.6	22.7		
Latino	Mean SS	05-09	505.4	582.2	19.2	S	05-09	632.9	739.2	26.6	E	02-09	171.3	192.9	3.1	L
	SD	05-09	178.1	180.0			05-09	148.7	166.2			02-09	33.7	22.9		
Asian	Mean SS	05-09	619.8	650.3	7.6	S	05-09	678.8	795.2	29.1	L	02-09	194.8	203.3	1.2	S
	SD	05-09	175.8	198.7			05-09	144.4	167.6			02-09	34.4	25.1		
Native American	Mean SS	05-08	552.8	624.9	NA	NA	05-08	661.4	774.7	NA	NA	02-08	174.7	198.1	NA	NA
	SD	05-08	176.8	181.6			05-08	157.8	165.7			02-08	35.0	22.4		
Not Low-income	Mean SS	05-09	622.8	717.4	23.7		05-09	710.4	826.0	28.9		02-09	194.0	209.0	2.2	
	SD	05-09	168.3	163.3			05-09	139.0	134.6			02-09	30.1	21.7		
Low-income	Mean SS	05-09	501.2	593.6	23.1	S	05-09	630.2	721.8	22.9	S	02-09	174.1	193.1	2.7	L
	SD	05-09	177.3	183.0			05-09	149.2	165.6			02-09	32.6	23.2		
Not disabled	Mean SS	06-09	627.8	666.2	12.8		06-09	777.7	792.9	5.1		06-09	199.4	205.4	2.0	
	SD	06-09	168.8	166.3			06-09	140.2	140.6			06-09	19.5	21.1		
Students with disabilities[3]	Mean SS	06-09	365.0	421.6	18.9	L	06-09	512.2	544.7	10.8	L	06-09	163.4	168.3	1.7	S
	SD	06-09	189.2	200.6			06-09	156.1	161.2			06-09	19.6	20.4		
Not ELLs	Mean SS	06-09	599.9	647.2	15.8		06-09	747.2	772.2	8.3		06-09	195.9	202.5	2.2	
	SD	06-09	190.7	184.5			06-09	166.1	159.4			06-09	22.4	23.5		
English language learners[3]	Mean SS	06-09	533.0	544.2	3.7	S	06-09	639.1	675.4	12.1	L	06-09	179.1	178.7	-0.1	S
	SD	06-09	178.1	176.2			06-09	170.6	170.6			06-09	20.2	19.9		
Female	Mean SS	05-09	587.6	674.0	21.6		05-09	697.6	803.9	26.6		02-09	195.2	205.8	1.5	
	SD	05-09	175.6	175.9			05-09	140.4	145.6			02-09	28.9	22.6		
Male	Mean SS	05-09	520.9	608.8	22.0	L	05-09	640.3	733.4	23.3	S	02-09	181.2	197.6	2.3	L
	SD	05-09	185.2	189.4			05-09	152.9	167.5			02-09	33.5	24.1		

Table reads: In 2005, the mean scale score on the state 4th grade reading test was 585.9 for white students and 463.9 for African American students. In 2009, the mean scale score in 4th grade reading was 677.1 for white students and 554.9 for African American students. Between 2005 and 2009, the mean scale score improved at an average yearly rate of 22.8 points for white students and for African American students, indicating no change in the achievement gap for African Americans.

Note: The Augmented Benchmark Exams (Grades 3-8) are scored on a vertical scale of 0-999, and the Grade 11 Literacy Exam is scored on a scale of 0-315.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table AR-14. Achievement gap trends in mathematics by mean scale scores

NOTE: L = larger gain than comparison group. S = smaller gain than comparison group. E = equal gain to comparison group. MSS = mean scale score. SD = standard deviation. If the average gain for the subgroup of interest, such as African American students, is larger than the average gain for the comparison group, such as white students, this indicates that the achievement gap has narrowed. If the average gain for the subgroup of interest is smaller, this means the gap has widened.

		Grade 4					Grade 8					EOC Algebra 1				
Subgroup	Statistic	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS[1]	Gain larger or smaller than comp. group
All tested students	Mean SS	05-09	553.1	629.5	19.1		05-09	633.6	724.0	22.6		02-09	183.4	221.4	5.4	
	SD	05-09	91.8	100.2			05-09	72.0	102.1			02-09	43.3	45.7		
White	Mean SS	05-09	570.5	648.8	19.6		05-09	649.4	745.7	24.1		02-09	194.1	231.6	5.4	
	SD	05-09	87.0	97.2			05-09	68.6	97.1			02-09	40.5	42.3		
African American	Mean SS	05-09	501.9	579.4	19.4	S	05-09	595.0	662.4	16.9	S	02-09	154.5	194.1	5.7	L
	SD	05-09	88.2	92.0			05-09	65.5	91.4			02-09	37.6	43.8		
Latino	Mean SS	05-09	537.8	608.6	17.7	S	05-09	625.9	701.1	18.8	S	02-09	167.9	208.8	5.8	L
	SD	05-09	83.4	92.2			05-09	68.1	93.5			02-09	40.7	43.5		
Asian	Mean SS	05-09	593.4	636.8	10.8	S	05-09	651.5	752.4	25.2	L	02-09	202.7	231.8	4.2	S
	SD	05-09	92.9	113.5			05-09	73.8	120.5			02-09	49.7	54.0		
Native American	Mean SS	05-08	562.6	612.6	NA	NA	05-08	632.2	726.1	NA	NA	02-08	171.4	220.9	NA	NA
	SD	05-08	90.4	92.5			05-08	71.2	104.2			02-08	41.4	40.4		
Not Low-income	Mean SS	05-09	585.1	670.0	21.2		05-09	656.0	763.4	26.9		02-09	190.5	235.5	6.4	
	SD	05-09	85.7	94.4			05-09	67.6	96.5			02-09	42.4	43.3		
Low-income	Mean SS	05-09	529.0	604.5	18.9	S	05-09	615.6	692.4	19.2	S	02-09	168.6	208.6	5.7	S
	SD	05-09	88.9	95.5			05-09	70.3	95.3			02-09	41.3	44.1		
Not disabled	Mean SS	06-09	588.3	639.9	17.2		06-09	695.8	736.5	13.6		06-09	218.0	224.5	2.2	
	SD	06-09	87.8	94.4			06-09	84.8	96.2			06-09	48.7	44.4		
Students with disabilities[3]	Mean SS	06-09	484.3	539.2	18.3	L	06-09	578.8	609.8	10.4	S	06-09	158.7	176.0	5.8	L
	SD	06-09	99.5	104.0			06-09	75.6	80.6			06-09	45.1	41.0		
Not ELLs	Mean SS	06-09	577.0	632.2	18.4		06-09	682.3	726.5	14.7		06-09	214.7	222.8	2.7	
	SD	06-09	95.4	100.3			06-09	92.2	101.9			06-09	50.4	45.5		
English language learners[3]	Mean SS	06-09	558.0	593.6	11.9	S	06-09	634.9	667.1	10.7	S	06-09	185.6	192.9	2.4	S
	SD	06-09	86.3	92.0			06-09	79.0	88.6			06-09	51.5	42.0		
Female	Mean SS	05-09	557.3	632.3	18.8		05-09	636.3	726.9	22.6		02-09	185.7	223.5	5.4	
	SD	05-09	90.0	97.8			05-09	69.8	99.4			02-09	41.8	43.7		
Male	Mean SS	05-09	549.2	626.7	19.4	L	05-09	631.1	720.8	22.4	S	02-09	181.2	219.4	5.5	L
	SD	05-09	93.5	102.4			05-09	73.8	104.4			02-09	44.6	47.5		

Table reads: In 2005, the mean scale score on the state 4th grade math test was 570.5 for white students and 501.9 for African American students. In 2009, the mean scale score in 4th grade math was 648.8 for white students and 579.4 for African American students. Between 2005 and 2009, the mean scale score

improved at an average yearly rate of 19.6 points for white students and 19.4 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The Augmented Benchmark Exams (Grades 3-8) are scored on a vertical scale of 0-999, and the End-of-Course Algebra I Exam is scored on a scale of 0-499.

[1]Numbers in these columns are subject to rounding error.

[2]The number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]Gap trends for students with disabilities and English language learners should be interpreted with caution because state and federal policy changes may have affected the year-to-year comparability of test results for these subgroups.

Table AR-15. Numbers of test-takers

Subgroup	Subject	Grade 4					Grade 8					Grade 11/EOC Algebra 1				
		Year span	# of test-takers start year	# of test-takers end year	Change in # of test-takers over time	% of test-takers in subgroup in end year	Year span	# of test-takers start year	# of test-takers end year	Change in # of test-takers over time	% of test-takers in subgroup in end year	Year span	# of test-takers start year	# of test-takers end year	Change in # of test-takers over time	% of test-takers in subgroup in end year
All tested students	Reading	05-09	33,145	35,548	7.2%	100.0%	05-09	27,343	34,193	25.1%	100.0%	02-09	28,854	30,981	7.4%	100.0%
	Math	05-09	33,101	35,625	7.6%	100.0%	05-09	29,930	34,259	14.5%	100.0%	02-09	30,500	35,084	15.0%	100.0%
White	Reading	05-09	22,971	23,654	3.0%	66.5%	05-09	18,222	23,198	27.3%	67.8%	02-09	20,063	21,570	7.5%	69.6%
	Math	05-09	22,962	23,655	3.0%	66.4%	05-09	19,903	23,201	16.6%	67.7%	02-09	20,502	23,699	15.6%	67.5%
African American	Reading	05-09	7,472	7,872	5.4%	22.1%	05-09	7,148	7,502	5.0%	21.9%	02-09	5,902	6,533	10.7%	21.1%
	Math	05-09	7,464	7,875	5.5%	22.1%	05-09	7,907	7,504	-5.1%	21.9%	02-09	6,476	7,666	18.4%	21.9%
Latino	Reading	05-09	1,962	3,149	60.5%	8.9%	05-09	1,368	2,709	98.0%	7.9%	02-09	860	2,000	132.6%	6.5%
	Math	05-09	1,938	3,200	65.1%	9.0%	05-09	1,477	2,757	86.7%	8.0%	02-09	1,121	2,871	156.1%	8.2%
Asian	Reading	05-09	361	571	58.2%	1.6%	05-09	252	501	98.8%	1.5%	02-09	361	562	55.7%	1.8%
	Math	05-09	360	589	63.6%	1.7%	05-09	267	512	91.8%	1.5%	02-09	336	546	62.5%	1.6%
Native American	Reading	05-08	230	**233**	1.3%	0.7%	05-08	196	**217**	10.7%	0.6%	02-08	436	**240**	-45.0%	0.8%
	Math	05-08	229	**233**	1.7%	0.7%	05-08	205	**217**	5.9%	0.6%	02-08	495	**252**	-49.1%	0.7%
Low-income	Reading	05-09	18,899	21,983	16.3%	61.8%	05-09	15,132	19,089	26.1%	55.8%	02-09	8,383	14,086	68.0%	45.5%
	Math	05-09	18,866	22,045	16.9%	61.9%	05-09	16,575	19,141	15.5%	55.9%	02-09	9,794	18,411	88.0%	52.5%
Students w/ disabilities[3]	Reading	06-09	3,863	3,684	-4.6%	10.4%	06-09	4,406	3,454	-21.6%	10.1%	06-09	3,208	3,058	-4.7%	9.9%
	Math	06-09	3,863	3,684	-4.6%	10.3%	06-09	4,406	3,454	-21.6%	10.1%	06-09	2,240	2,240	0.0%	6.4%
English language learners[3]	Reading	06-09	1,126	2,429	115.7%	6.8%	06-09	779	1,535	97.0%	4.5%	06-09	634	936	47.6%	3.0%
	Math	06-09	1,127	2,503	122.1%	7.0%	06-09	784	1,597	103.7%	4.7%	06-09	714	1,620	126.9%	4.6%
Female	Reading	05-09	16,222	17,448	7.6%	49.1%	05-09	12,279	16,727	36.2%	48.9%	02-09	14,483	15,722	8.6%	50.7%
	Math	05-09	16,202	17,484	7.9%	49.1%	05-09	14,539	16,753	15.2%	48.9%	02-09	15,284	17,491	14.4%	49.9%
Male	Reading	05-09	16,886	18,098	7.2%	50.9%	05-09	15,043	17,457	16.0%	51.1%	02-09	14,336	15,209	6.1%	49.1%
	Math	05-09	16,862	18,139	7.6%	50.9%	05-09	15,364	17,497	13.9%	51.1%	02-09	15,151	17,562	15.9%	50.1%

Table reads: In 2005, 22,971 students in the white subgroup took the state 4th grade reading test. By 2009, the number of white test-takers had risen to 23,654 students, an increase of 3.0%. In 2009, the white subgroup made up 66.5% of the 35,548 4th graders taking the reading test that year.

Note: **Bold** type indicates that the number of students tested in this subgroup at this grade level was fewer than 500 in 2009 or the most recent year with available data.

Key Terms

Percentage proficient (and above) — The percentage of students in a group who score at or above the cut score for "proficient" performance on the state test used to determine progress under NCLB. The Act requires states to report student test performance in terms of at least three achievement levels: basic, proficient, and advanced. Adequate yearly progress determinations are based on the percentage of students scoring at the proficient level and above.

Percentage basic (and above) — The percentage of students in a group who score at or above the cut score for "basic" performance on the state test used to determine progress under NCLB.

Percentage advanced — The percentage of students in a group who reach or exceed the cut score for "advanced" performance on the state test used to determine progress under NCLB.

Moderate-to-large gain — For the percentage basic, proficient, or advanced, an average gain of 1 or more percentage points per year. For effect size, an average gain of 0.02 or greater per year.

Slight gain — For the percentage basic, proficient, or advanced, an average gain of less than 1 percentage point per year. For effect size, an average gain of less than 0.02 per year.

Moderate-to-large decline — For the percentage basic, proficient, or advanced, an average decline of 1 or more percentage points per year. For effect size, an average decline of 0.02 or greater per year.

Slight decline — For the percentage basic, proficient, or advanced, an average decline of less than 1 percentage point per year. For effect size, an average decline of less than 0.02 per year.

Effect size — A statistical tool that conveys the amount of difference between test results using a common unit of measurement which does not depend on the scoring scale for a particular test.

Accumulated annual effect size — The cumulative gain in effect size over a range of years.

Mean scale score — The arithmetical average of a group of test scores, expressed on a common scale for a particular state's test. The mean is calculated by adding the scores and dividing the sum by the number of scores.

Standard deviation — A measure of how much test scores tend to deviate from the mean—in other words, how spread out or bunched together test scores are. If students' scores are bunched together, with many scores close to the mean, then the standard deviation will be small. If scores are spread out, with many students scoring at the high or low end of the scale, then the standard deviation will be large.

Cautions and Explanations

Different labels for achievement levels — For consistency, all of the state profiles developed for this report use a common set of labels (basic, proficient, and advanced) for the main achievement levels required by NCLB. In practice, however, some states may use different labels, such as "meets standard" instead of proficient, and some states have established additional achievement levels beyond those required by NCLB.

Different names for subgroups — For the sake of consistency and ease of data tabulation, all of the state profiles developed for this report use a common set of names for the major student subgroups. In practice, however, states use various names for subgroups that may differ from those used here (such as using "Hispanic" instead of "Latino," or "special education students" instead of "students with disabilities"). Moreover, a few states separately track the performance of subgroups not included in the analyses for this report.

Special caution for students with disabilities and English language learners — Trends for students with disabilities and English language learners should be interpreted with caution because changes in federal guidance and state accountability plans may have altered which students in these subgroups are tested for accountability purposes, how they are tested, and when their test scores are counted as proficient under NCLB. These factors could affect the year-to-year comparability of test results.

Inclusion of former English language learners — In many states, the subgroup of English language learners (also known as limited English proficient students) includes students who were formerly English language learners but who have achieved English language proficiency or fluency in the last two years. Federal NCLB regulations permit states to include these formerly ELL students (sometimes referred to as "redesignated fluent English proficient" students) in the ELL subgroup for up to two years for purposes of NCLB accountability.

Limitations of percentage proficient measure — The percentage proficient, the main gauge of student performance under NCLB, can be easily understood and gives a snapshot of how many students have met their state's performance expectations. But it also has several limitations as a measure of student achievement. Users of percentage proficient data should keep in mind these limitations, particularly the following:

* "Proficient" means different things across different states. States vary widely in curriculum, learning expectations, and tests, and state tests differ considerably in their difficulty and cut scores for proficient performance.
* Although this study has taken steps to avoid comparing test data where there have been "breaks" in comparability resulting from new tests, changes in content standards, revised cut scores, or other major changes in testing programs, the year-to-year comparability of test results in the same state may still be affected by less obvious policy and demographic changes.
* Changes in student performance may occur that are not reflected in percentage proficient data, such as an increase in the number of students reaching performance levels below and above proficient (such as the basic or advanced levels).
* The size of the achievement gaps between various subgroups depends in part on where a state sets its cut score for proficiency. For example, if a proficiency cut score is set so high that almost nobody reaches it or so low that almost everyone reaches it, there will be little apparent achievement gap. By contrast, if the cut score is closer to the mean test score, the gaps between subgroups will be more apparent.

Difficulty of attributing causes — Although the tables in this profile show trends in test scores since the enactment of NCLB, one cannot assume that these trends have occurred *because* of NCLB. It is always difficult to determine a cause-and-effect relationship between test score trends and any specific education policy or program due to the many federal, state, and local reforms undertaken in recent years and due to the lack of an appropriate "control" group of students not affected by NCLB.