Subgroup Achievement and Gap Trends — Utah

K-12 enrollment — 569,658

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 for State Testing Data. Below the name of the report, click on the link for View State Profiles and Worksheets. Scroll down the page, and click on the Worksheet links for any state.

Subgroup Achievement Trends and Gap Trends — Key Findings

Summary

This year the Center on Education Policy analyzed data on the achievement of different groups of students in two distinct ways. First, we looked at grade 4 test results to determine whether the performance of various groups improved at three achievement levels—basic and above, proficient and above, and advanced. Second, we looked at gaps between these groups at the proficient level across three grades (grade 4, grade 8 in most cases, and a high school grade). These two types of analyses show whether elementary school achievement has generally gone up for different groups of students and whether achievement gaps at different grade levels have narrowed, widened, or stayed the same.

Overall, there was a mixed picture of student achievement in Utah. Although student achievement overall increased, there were some declines in percentages proficient for some subgroups. There was also a mixed picture in terms of progress on achievement gaps.

Subgroup trends by achievement level at grade 4

- Main trend: Achievement across subgroups was mixed in reading and math at three achievement levels—basic-and-above, proficient-and-above, and advanced. Specifically, 9 of the 18 trend lines analyzed across the three achievement levels in reading showed gains, as did 9 of 18 trend lines in math.

- Notable exceptions: Performance for African American students declined at all three achievement levels in reading and at two achievement levels in math.

Gap trends at three grade levels

- Main trend: In most instances, gaps in the percentages of students scoring at the proficient level in reading narrowed between African American, Latino, or Native American students and white students, and between low-income and non-low-income students, at grades 4 and 8 and at the high school grade tested. Specifically, 7 of the 12 trend lines analyzed in reading showed evidence of gaps narrowing. In math, however, the percentages of students scoring at the proficient level were more mixed; 6 of the 12 trend lines analyzed in this subject showed evidence of gaps widening.

- Contradicting trends using two different measures: According to mean scales scores, gaps widened more often than they narrowed in both reading and math. None of the 12 trend lines in reading and one of the 12 trend lines in math showed average test score gaps narrowing.

Data notes

- Limited data: Trends are limited to 2004–2008.
- Subgroups analyzed: Trends were analyzed for white, African American, Latino, Asian American, Native American, and low-income students. The African American subgroup is too small for the high school grade tested for NCLB in Utah to yield reliable trend data. Trends for students with disabilities, English language learners, and male and female students have not been summarized because they will be discussed in separate reports.
- Grades analyzed: Analyses of subgroup trends by three achievement levels are limited to one elementary grade because of the massive amounts of data involved and because this is the pilot year of a process that CEP hopes to extend to the middle and high school levels in future years. Analyses of achievement gap trends cover three grade levels: grade 4, grade 8, and the high school grade tested for NCLB.

Data Limitations

Years of comparable percentage proficient data	2004 through 2008
Years of comparable mean scale score data	2004 through 2008

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	Utah Core CRTs (math, English language arts, science) Utah's Alternate Assessment (UAA) Utah's Academic Language Proficiency Assessment (UALPA) Utah Basic Skills Competency Test (UBSCT) Direct Writing Assessment (DWA)
Grades tested for NCLB accountability	English language arts: 3–8, 10 Math: 3–7, and end-of-course tests for grade 8 and high school, taken when students complete the appropriate courses
State labels for achievement levels	UT uses four achievement levels: Minimal, Partial, Sufficient, and Substantial. For our analyses we treated Partial as Basic, Sufficient

	as Proficient, and Substantial as Advanced.
High school NCLB test also used as an exit exam?	No
First year test used	2004
Time of test administration	Spring
Major changes in testing system (2002–present)	Spring 2003: Four new performance levels established (minimal, partial, sufficient, and substantial), replacing prior levels of mastery and non-mastery 2003–04: Standards reset for all assessments 2007: First administration of UALPA for English language learners 2008: Utah offered the assessment in both online and paper/pencil formats, and districts/schools were free to choose which format they wanted to use. Spring 2008: IOWA (NRT) reading test began and administered to all 3rd grade students. 2007/2008: 1st grade English Language Arts and Math CRT were not required and not administered.
Comments	Utah state education department staff identified pre-algebra for middle school and geometry for high school as the most appropriate CRT end-of-course exams to use to represent math achievement.

Achievement by Subgroup — Trends at the Elementary 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 UT-7. Percentages of Grade 4 Students by Racial or Ethnic 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	
All tested students								
Advanced			45%	50%	53%	51%	46%	0.2
Proficient and Above			76%	78%	80%	77%	77%	0.2
Basic and Above			89%	91%	91%	92%	90%	0.4
White								
Advanced			50%	56%	58%	56%	52%	0.5
Proficient and Above			80%	83%	84%	82%	82%	0.4
Basic and Above			92%	94%	94%	94%	93%	0.4
African American								
Advanced			33%	34%	33%	33%	27%	-1.5
Proficient and Above			66%	61%	60%	59%	58%	-2.0
Basic and Above			82%	81%	78%	82%	77%	-1.1
Latino								
Advanced			22%	23%	27%	27%	21%	-0.2
Proficient and Above			52%	53%	57%	57%	54%	0.5
Basic and Above			73%	76%	77%	81%	78%	1.2
Asian								
Advanced			47%	55%	60%	59%	50%	0.7
Proficient and Above			78%	78%	83%	81%	77%	-0.1
Basic and Above			91%	92%	94%	92%	90%	-0.1
Native American								
Advanced			20%	26%	28%	27%	21%	0.2
Proficient and Above			53%	57%	59%	56%	51%	-0.4
Basic and Above			73%	83%	82%	80%	76%	0.6

Table reads: The percentage of white 4th graders who scored at the advanced level on the state reading test increased from 50% in 2004 to 52% in 2008. During this period, the average yearly gain in the percentage advanced in reading for white 4th graders was 0.5 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 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table UT-8. Percentage of Grade 4 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	
All tested students								
Advanced			45%	50%	53%	51%	46%	0.2
Proficient and Above			76%	78%	80%	77%	77%	0.2
Basic and Above			89%	91%	91%	92%	90%	0.4
Low-income students								
Advanced			32%	36%	39%	38%	31%	-0.2
Proficient and Above			64%	66%	68%	66%	64%	0.0
Basic and Above			82%	84%	85%	86%	83%	0.5
Students with disabilities[3]								
Advanced			17%	23%	25%	23%	23%	-0.9
Proficient and Above			42%	47%	50%	40%	51%	0.3
Basic and Above			64%	71%	73%	73%	76%	1.7
English language learners[3]								
Advanced			22%	23%	27%	26%	16%	-5.4
Proficient and Above			51%	52%	56%	55%	47%	-4.3
Basic and Above			73%	76%	76%	79%	74%	-1.2
Female								
Advanced			50%	54%	57%	56%	51%	0.2
Proficient and Above			80%	81%	83%	81%	80%	0.0
Basic and Above			91%	93%	93%	93%	92%	0.2
Male								
Advanced			41%	47%	49%	47%	42%	0.2
Proficient and Above			72%	75%	77%	74%	74%	0.3
Basic and Above			87%	89%	90%	90%	89%	0.5

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state reading test decreased from 32% in 2004 to 31% in 2008. During this period, the average yearly loss in the percentage advanced in reading for low-income 4th graders was 0.2 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 2008 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 2006-2008 results.

Table UT-9. Percentages of Grade 4 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	
All tested students								
Advanced			53%	57%	62%	61%	59%	1.6
Proficient and Above			74%	75%	76%	76%	75%	0.3
Basic and Above			90%	90%	91%	89%	89%	-0.3
White								
Advanced			57%	61%	67%	66%	65%	1.9
Proficient and Above			78%	79%	81%	78%	80%	0.5
Basic and Above			92%	92%	93%	92%	92%	-0.1
African American								
Advanced			34%	36%	37%	36%	34%	0.0
Proficient and Above			57%	56%	53%	52%	51%	-1.5
Basic and Above			78%	77%	75%	74%	72%	-1.6
Latino								
Advanced			30%	34%	38%	38%	35%	1.2
Proficient and Above			53%	54%	55%	54%	53%	0.2
Basic and Above			79%	79%	80%	78%	77%	-0.7
Asian								
Advanced			62%	70%	69%	72%	68%	1.4
Proficient and Above			81%	83%	81%	83%	81%	-0.1
Basic and Above			92%	93%	95%	92%	92%	0.0
Native American								
Advanced			29%	35%	39%	38%	31%	0.5
Proficient and Above			52%	54%	57%	52%	53%	0.3
Basic and Above			77%	81%	82%	77%	75%	-0.5

Table reads: The percentage of white 4th graders who scored at the advanced level on the state math test increased from 57% in 2004 to 65% in 2008. During this period, the average yearly gain in the percentage advanced in math for white 4th graders was 1.9 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 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

Table UT-10. Percentage of Grade 4 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	
All tested students								
Advanced			53%	57%	62%	61%	59%	1.6
Proficient and Above			74%	75%	76%	76%	75%	0.3
Basic and Above			90%	90%	91%	89%	89%	-0.3
Low-income students								
Advanced			40%	44%	49%	48%	45%	1.2
Proficient and Above			62%	64%	66%	63%	63%	0.1
Basic and Above			84%	84%	85%	83%	82%	-0.5
Students with disabilities[3]								
Advanced			24%	30%	35%	33%	34%	-0.5
Proficient and Above			43%	48%	50%	40%	49%	-0.6
Basic and Above			69%	72%	74%	70%	71%	-1.4
English language learners[3]								
Advanced			31%	34%	39%	38%	31%	-4.2
Proficient and Above			53%	55%	56%	54%	49%	-3.4
Basic and Above			79%	79%	80%	78%	74%	-3.1
Female								
Advanced			53%	57%	62%	61%	59%	1.4
Proficient and Above			74%	75%	77%	74%	75%	0.2
Basic and Above			90%	91%	91%	90%	89%	-0.3
Male								
Advanced			53%	57%	62%	61%	60%	1.8
Proficient and Above			73%	75%	76%	73%	75%	0.4
Basic and Above			90%	90%	91%	89%	89%	-0.2

Table reads: The percentage of low-income 4th graders who scored at the advanced level on the state math test increased from 40% in 2004 to 45% in 2008. During this period, the average yearly gain in the percentage advanced in math for low-income 4th graders was 1.2 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 2008 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 2006-2008 results.

Achievement by Subgroup — Gap Trends (Percentages Proficient)

Table UT-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 10				
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	04-08	76%	77%	0.2		04-08	77%	82%	1.3		04-08	77%	81%	1.0	
White	04-08	80%	82%	0.4		04-08	82%	87%	1.3		04-08	81%	86%	1.2	
African American	04-08	66%	58%	-2.0	S	04-08	55%	64%	2.4	L	04-08	60%	63%	0.8[2]	S
Latino	04-08	52%	54%	0.5	L	04-08	51%	61%	2.6	L	04-08	47%	57%	2.5	L
Asian	04-08	78%	77%	-0.1	S	04-08	78%	87%	2.2	L	04-08	79%	84%	1.2	E
Native American	04-08	53%	51%	-0.4	S	04-08	52%	57%	1.2	S	04-08	49%	59%	2.3	L
Not low-income	04-08	84%	84%	0.2		04-08	85%	88%	0.9		04-08	83%	87%	0.9	
Low-income	04-08	64%	64%	0.0	S	04-08	62%	69%	1.7	L	04-08	61%	66%	1.3	L
Not disabled	06-08	85%	81%	-1.9		06-08	84%	87%	1.8		06-08	82%	86%	2.0	
Students with disabilities[3]	06-08	50%	51%	0.3	L	06-08	35%	44%	4.2	L	06-08	32%	41%	4.4	L
Not ELL	06-08	83%	80%	-1.4		06-08	82%	85%	1.8		06-08	80%	84%	1.8	
English language learners[3]	06-08	56%	47%	-4.3	S	06-08	52%	51%	-0.6	S	06-08	47%	45%	-1.2	S
Female	04-08	80%	80%	0.0		04-08	81%	86%	1.3		04-08	82%	85%	0.8	
Male	04-08	72%	74%	0.3	L	04-08	74%	78%	1.1	S	04-08	73%	78%	1.3	L

Table reads: In 2004, 80% of white 4th graders and 66% of African American 4th graders scored at the proficient level on the state reading test. In 2008, 82% of white 4th graders and 58% of African American 4th graders scored at the proficient level in reading. Between 2004 and 2008, the percentage proficient improved at an average rate of 0.4 percentage points per year for white students and declined at an average rate of 2.0 percentage points per year for African American

students, indicating a smaller rate of gain and a widening 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 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]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 UT-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					Pre-Algebra					Geometry				
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	04-08	74%	75%	0.3		04-08	63%	73%	2.3		04-08	63%	68%	1.3	
White	04-08	78%	80%	0.5		04-08	68%	78%	2.4		04-08	66%	73%	1.5	
African American	04-08	57%	51%	-1.5	S	04-08	41%	53%	3.0	L	04-08	34%	48%	3.4[2]	L
Latino	04-08	53%	53%	0.2	S	04-08	40%	51%	2.9	L	04-08	36%	41%	1.3	S
Asian	04-08	81%	81%	-0.1	S	04-08	70%	79%	2.2	S	04-08	67%	74%	1.8	L
Native American	04-08	52%	53%	0.3	S	04-08	37%	47%	2.4	E	04-08	33%	41%	2.1	L
Not low-income	04-08	81%	82%	0.3		04-08	72%	79%	1.9		04-08	67%	72%	1.4	
Low-income	04-08	62%	63%	0.1	S	04-08	50%	59%	2.4	L	04-08	50%	55%	1.0	S
Not disabled	06-08	81%	79%	-0.9		06-08	77%	76%	-0.1		06-08	69%	71%	1.2	
Students with disabilities[3]	06-08	50%	49%	-0.6	L	06-08	21%	28%	3.5	L	06-08	56%	59%	1.4	L
Not ELL	06-08	79%	78%	-0.6		06-08	72%	75%	1.8		06-08	71%	70%	-0.2	
English language learners[3]	06-08	56%	49%	-3.4	S	06-08	48%	46%	-1.0	L	06-08	41%	35%	-3.2	S
Female	04-08	74%	75%	0.2		04-08	66%	75%	2.3		04-08	60%	66%	1.6	
Male	04-08	73%	75%	0.4	L	04-08	61%	71%	2.3	E	04-08	66%	70%	0.9	S

Table reads: In 2004, 78% of white 4th graders and 57% of African American 4th graders scored at the proficient level on the state math test. In 2008, 80% of white 4th graders and 51% of African American 4th graders scored at the proficient level in math. Between 2004 and 2008, the percentage proficient improved at an average rate of 0.5 percentage point per year for white students and declined at an average rate of 1.5 percentage points per year for African American students, indicating a smaller rate of gain and a widening 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 2008 or the most recent year with available data, so changes for this subgroup should be interpreted with caution.

[3]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 UT-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.
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 10				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	04-08	166	165	-0.3		04-08	167	168	0.3		04-08	166	166	0.0	
	SD	04-08	11.2	11.1			04-08	11.1	11.8			04-08	11.7	12.4		
White	Mean SS	04-08	167	167	0.0		04-08	168	170	0.5		04-08	167	168	0.3	
	SD	04-08	10.8	10.5			04-08	10.7	11.1			04-08	11.2	11.6		
African American	Mean SS	04-08	162	159	-0.8	S	04-08	161	161	0.0	S	04-08	159	160	0.3[2]	E
	SD	04-08	11.0	12.4			04-08	10.5	13.0			04-08	12.0	13.4		
Latino	Mean SS	04-08	159	159	0.0	E	04-08	159	161	0.5	E	04-08	157	158	0.3	E
	SD	04-08	11.0	10.5			04-08	10.6	12.1			04-08	11.9	13.4		
Asian	Mean SS	04-08	167	166	-0.3	S	04-08	168	170	0.5	E	04-08	167	167	0.0	S
	SD	04-08	11.3	12.5			04-08	11.7	12.6			04-08	11.7	13.9		
Native American	Mean SS	04-08	160	158	-0.5	S	04-08	160	160	0.0	S	04-08	158	159	0.3	E
	SD	04-08	11.0	10.6			04-08	10.9	11.8			04-08	11.8	12.0		
Not Low-income	Mean SS	04-08	168	168	0.0		04-08	169	170	0.3		04-08	168	168	0.0	
	SD	04-08	10.5	10.4			04-08	10.4	10.9			04-08	10.9	11.5		
Low-income	Mean SS	04-08	162	161	-0.3	S	04-08	162	163	0.3	E	04-08	161	161	0.0	E
	SD	04-08	11.3	10.9			04-08	11.1	12.3			04-08	10.3	13.3		
Not disabled	Mean SS	06-08	169	167	-1.0		06-08	169	169	0.0		06-08	169	168	-0.5	
	SD	06-08	9.6	10.7			06-08	9.7	11.1			06-08	9.8	11.9		
Students with disabilities[3]	Mean SS	06-08	159	158	-0.5	L	06-08	155	156	0.5	L	06-08	155	154	-0.5	E
	SD	06-08	10.8	10.6			06-08	9.5	10.6			06-08	9.1	11.1		
Not ELLs	Mean SS	06-08	168	166	-1.0		06-08	168	169	0.5		06-08	169	167	-1.0	
	SD	06-08	10.0	10.7			06-08	10.0	11.3			06-08	10.2	12.0		
English language learners[3]	Mean SS	06-08	161	156	-2.5	S	06-08	160.0	156	-2.0	S	06-08	160	154	-3.0	S
	SD	06-08	10.5	10.3			06-08	10.6	11.9			06-08	10.6	12.3		
Female	Mean SS	04-08	167	167	0.0		04-08	168	170	0.5		04-08	168	168	0.0	
	SD	04-08	11.1	11.1			04-08	10.7	11.5			04-08	11.4	12.2		

		Grade 4					Grade 8					Grade 10				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
Male	Mean SS	04-08	165	164	-0.3	S	04-08	166	167	0.3	S	04-08	165	165	0.0	E
	SD	04-08	11.2	10.9			04-08	11.4	11.9			04-08	11.9	12.4		

Table reads: In 2004, the mean scale score on the state 4th grade reading test was 167 for white students and 162 for African American students. In 2008, the mean scale score in 4th grade reading was 167 for white students and 159 for African American students. Between 2004 and 2008, the mean scale score remained the same for white students and declined at an average yearly rate of 0.8 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The Utah Core CRTs are scored on a scale of 100-200.

[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 2008 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 UT-14. Subgroup Achievement 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.
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					Pre-Alg					Geom				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
All tested students	Mean SS	04-08	165	166	0.3		04-08	163	166	0.8		04-08	162	163	0.3	
	SD	04-08	11.3	12.9			04-08	11.6	12.6			04-08	11.7	13.4		
White	Mean SS	04-08	167	168	0.3		04-08	164	167	0.8		04-08	163	164	0.3	
	SD	04-08	11.0	12.3			04-08	11.3	12.2			04-08	11.3	12.8		
African American	Mean SS	04-08	160	157	-0.8	S	04-08	156	159	0.8	E	04-08	153	155	0.5[2]	L
	SD	04-08	11.0	14.0			04-08	11.2	13.0			04-08	11.9	12.6		
Latino	Mean SS	04-08	159	159	0.0	S	04-08	157	159	0.5	S	04-08	154	154	0.0	S
	SD	04-08	10.8	12.5			04-08	11.1	11.9			04-08	11.9	13.4		
Asian	Mean SS	04-08	168	169	0.3	E	04-08	164	167	0.8	E	04-08	164	165	0.3	E
	SD	04-08	11.4	13.6			04-08	11.1	11.5			04-08	12.6	14.4		
Native American	Mean SS	04-08	160	158	-0.5	S	04-08	157	158	0.3	S	04-08	156	154	-0.5	S
	SD	04-08	11.4	12.6			04-08	11.7	12.4			04-08	12.2	12.5		
Not Low-income	Mean SS	04-08	167	168	0.3		04-08	165	168	0.8		04-08	163	164	0.3	
	SD	04-08	10.8	12.1			04-08	10.9	11.9			04-08	11.2	12.9		
Low-income	Mean SS	04-08	162	162	0.0	S	04-08	159	161	0.5	S	04-08	158	158	0.0	S
	SD	04-08	11.4	13.0			04-08	11.7	12.8			04-08	12.7	13.7		
Not disabled	Mean SS	06-08	169	167	-1.0		06-08	167	167	0.0		06-08	165	163	-1.0	
	SD	06-08	11.1	12.2			06-08	9.5	11.6			06-08	10.7	13.2		
Students with disabilities[3]	Mean SS	06-08	160	157	-1.5	S	06-08	156	154	-1.0	S	06-08	156	153	-1.5	S
	SD	06-08	12.0	13.6			06-08	9.3	12.6			06-08	10.5	13.0		
Not ELLs	Mean SS	06-08	169	167	-1.0		06-08	166	166	0.0		06-08	165	163	-1.0	
	SD	06-08	11.5	12.5			06-08	10.0	12.4			06-08	10.5	13.1		
English language learners[3]	Mean SS	06-08	162	157	-2.5	S	06-08	160	157	-1.5	S	06-08	158	152	-3.0	S
	SD	06-08	11.3	12.2			06-08	10.0	11.3			06-08	11.6	13.3		
Female	Mean SS	04-08	165	166	0.3		04-08	163	166	0.8		04-08	161	162	0.3	

		Grade 4					Pre-Alg					Geom				
Subgroup	Statistic	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group	Year Span	Starting Year	Ending Year	Average Gain (Mean Scale Score) [1]	Gain Larger or Smaller than Comparison Group
	SD	04-08	11.2	12.5			04-08	11.0	12.0			04-08	11.4	13.1		
Male	Mean SS	04-08	165	166	0.3	E	04-08	163	165	0.5	S	04-08	163	163	0.0	S
	SD	04-08	11.5	13.1			04-08	12.1	13.1			04-08	12.0	13.6		

Table reads: In 2004, the mean scale score on the state 4th grade math test was 167 for white students and 160 for African American students. In 2008, the mean scale score in 4th grade math was 168 for white students and 157 for African American students. Between 2004 and 2008, the mean scale score improved at an average yearly rate of 0.3 points for white students and declined at an average yearly rate of 0.8 points for African American students, indicating a widening of the achievement gap for African Americans.

Note: The Utah Core CRTs are scored on a scale of 100-200.

[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 2008 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 UT-15. Numbers of Test-Takers

Subgroup	Subject	Grade 4					Grade 8 Reading/Pre-Algebra Math					Grade 10 Reading/Geometry Math				
		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	04-08	35,043	42,773	22.1%	100.0%	04-08	35,660	38,440	7.8%	100.0%	04-08	34,773	36,666	5.4%	100.0%
	Math	04-08	34,426	42,766	24.2%	100.0%	04-08	38,173	42,276	10.7%	100.0%	04-08	29,463	34,146	15.9%	100.0%
White	Reading	04-08	28,618	33,581	17.3%	78.5%	04-08	29,839	30,448	2.0%	79.2%	04-08	29,603	29,615	0.0%	80.8%
	Math	04-08	28,131	33,564	19.3%	78.5%	04-08	30,924	32,996	6.7%	78.0%	04-08	25,595	28,111	9.8%	82.3%
African American	Reading	04-08	498	605	21.5%	1.4%	04-08	373	576	54.4%	1.5%	04-08	347	477	37.5%	1.3%
	Math	04-08	490	605	23.5%	1.4%	04-08	509	627	23.2%	1.5%	04-08	262	412	57.3%	1.2%
Latino	Reading	04-08	4,392	6,362	44.9%	14.9%	04-08	3,798	5,481	44.3%	14.3%	04-08	3,147	4,574	45.3%	12.5%
	Math	04-08	4,301	6,376	48.2%	14.9%	04-08	4,916	6,528	32.8%	15.4%	04-08	2,236	3,789	69.5%	11.1%
Asian	Reading	04-08	551	744	35.0%	1.7%	04-08	609	621	2.0%	1.6%	04-08	648	677	4.5%	1.8%
	Math	04-08	535	741	38.5%	1.7%	04-08	548	582	6.2%	1.4%	04-08	557	673	20.8%	2.0%
Native American	Reading	04-08	427	598	40.0%	1.4%	04-08	460	607	32.0%	1.6%	04-08	468	636	35.9%	1.7%
	Math	04-08	422	596	41.2%	1.4%	04-08	595	735	23.5%	1.7%	04-08	276	531	92.4%	1.6%
Low-income	Reading	04-08	13,215	15,901	20.3%	37.2%	04-08	11,465	12,038	5.0%	31.3%	04-08	9,102	9,383	3.1%	25.6%
	Math	04-08	12,981	15,891	22.4%	37.2%	04-08	14,196	14,032	-1.2%	33.2%	04-08	6,666	8,062	20.9%	23.6%
Students w/ disabilities	Reading	06-08	5,324	5,761	8.2%	13.5%	06-08	3,535	3,909	10.6%	10.2%	06-08	2,819	3,069	8.9%	8.4%
	Math	06-08	5,269	5,770	9.5%	13.5%	06-08	5,208	5,568	6.9%	13.2%	06-08	901	1,397	55.0%	4.1%
English language learners	Reading	06-08	4,608	3,970	-13.8%	9.3%	06-08	3,888	2,605	-33.0%	6.8%	06-08	3,015	2,058	-31.7%	5.6%
	Math	06-08	4,644	3,972	-14.5%	9.3%	06-08	4,885	3,304	-32.4%	7.8%	06-08	2,446	1,543	-36.9%	4.5%
Female	Reading	04-08	17,115	20,945	22.4%	49.0%	04-08	17,232	18,766	8.9%	48.8%	04-08	17,004	17,823	4.8%	48.6%
	Math	04-08	16,834	20,940	24.4%	49.0%	04-08	18,400	20,393	10.8%	48.2%	04-08	14,641	16,829	14.9%	49.3%
Male	Reading	04-08	17,928	21,828	21.8%	51.0%	04-08	18,428	19,674	6.8%	51.2%	04-08	17,769	18,843	6.0%	51.4%
	Math	04-08	17,592	21,826	24.1%	51.0%	04-08	19,773	21,883	10.7%	51.8%	04-08	14,822	17,317	16.8%	50.7%

Table reads: In 2004, 28,618 students in the white subgroup took the state 4th grade reading test. By 2008, the number of white test-takers had risen to 33,581 students, an increase of 17.3%. In 2008, the white subgroup made up 78.5% of the 42,773 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 2008 or the most recent year with available data.

Key Terms

Percentage proficient (and above) — The percentage of students in a group who score at and 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 and 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 points 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 ends 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 above 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.