

Subgroup Achievement and Gap Trends — Hawaii

K-12 enrollment — 177,871

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. Hawaii showed improvement in reading and math in grade 8 at the basic, proficient, and advanced levels for Asian and white students, low income students, and boys and girls. Gains in math tended to be larger than in reading. Trends in closing achievement gaps were mixed. Comparable data were available from 2007 through 2009.

- **Mixed gap trends.** Gaps tended to narrow in reading. In math, however, gaps widened between Asian and white students at the high school level (the white subgroup had a higher percentage proficient), and between low income and non-low income students at grades 4 and 8.
- **Gender gaps.** There were large differences in the percentages of girls and boys proficient in reading, in favor of girls, but these gaps narrowed at grades 8 and 10. Gaps in math are smaller but still in girls' favor, and these widened at all three grade levels.

Data Limitations

Years of comparable percentage proficient data	2007 through 2009
Years of comparable mean scale score data	2007 through 2009

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	Hawaii State Assessment Hawaii State Alternate Assessment Hawaiian Aligned Portfolio Assessment (HAPA); an annual assessment that measures student progress on Hawaii's Content Performance Standards (HCPS) III for students in the Hawaiian Language Immersion Program (HLIP) schools.
Grades tested for NCLB accountability	Grades 3-8, 10
State labels for achievement levels	HI uses four achievement levels: Well Below Proficiency, Approaches Proficiency, Meets Proficiency, and Exceeds Proficiency. For our analyses we treated Approaches Proficiency as Basic, Meets Proficiency as Proficient, and Exceeds Proficiency as Advanced.
High school NCLB test also used as an exit exam?	No
First year test used	2007
Time of test administration	Spring
Major changes in testing system (2002–present)	2005–06: Additional grades tested 2006–07: HCPS III (revised standards) implemented 2007: New HCPS III State Assessment proficiency levels set and approved

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 HI-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

Subgroup	Reporting year								Average yearly percentage point gain ¹
	2002	2003	2004	2005	2006	2007	2008	2009	
All tested students									
Advanced						18%	20%	23%	2.6
Proficient-and-above						60%	65%	68%	4.0
Basic-and-above						74%	79%	80%	3.0
White									
Advanced						27%	32%	31%	2.3
Proficient-and-above						73%	78%	78%	2.4
Basic-and-above						84%	88%	87%	1.5
African American ²									
Advanced						18%	22%	23%	2.7
Proficient-and-above						64%	65%	68%	1.8
Basic-and-above						78%	81%	82%	1.8
Latino ²									
Advanced						15%	17%	22%	3.2
Proficient-and-above						60%	63%	64%	2.4
Basic-and-above						74%	80%	76%	1.3
Asian									
Advanced						16%	18%	22%	2.7
Proficient-and-above						58%	63%	67%	4.4
Basic-and-above						73%	78%	79%	3.3
Native American ²									
Advanced						16%	20%	20%	1.8
Proficient-and-above						66%	73%	67%	0.5
Basic-and-above						78%	84%	77%	-0.5

Table reads: The percentage of white 8th graders who scored at the advanced level on the state reading test increased from 27% in 2007 to 31% in 2009. During this period, the average yearly gain in the percentage advanced in reading for white 8th graders was 2.3 percentage points per year.

¹Averages are subject to rounding error.

²The 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 HI-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						18%	20%	23%	2.6
Proficient-and-above						60%	65%	68%	4.0
Basic-and-above						74%	79%	80%	3.0
Low-income students									
Advanced						10%	11%	14%	1.9
Proficient-and-above						48%	53%	57%	4.6
Basic-and-above						64%	70%	72%	4.3
Students with disabilities ³									
Advanced						1%	1%	1%	0.3
Proficient-and-above						12%	16%	17%	2.5
Basic-and-above						24%	32%	33%	4.6
English language learners ³									
Advanced						1%	1%	2%	0.7
Proficient-and-above						15%	20%	29%	6.8
Basic-and-above						33%	40%	50%	8.0
Female									
Advanced						23%	24%	29%	2.9
Proficient-and-above						69%	72%	76%	3.3
Basic-and-above						82%	85%	86%	2.0
Male									
Advanced						13%	16%	18%	2.3
Proficient-and-above						52%	59%	61%	4.4
Basic-and-above						68%	74%	75%	3.6

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state reading test increased from 10% in 2007 to 14% in 2009. During this period, the average yearly gain in the percentage advanced in reading for low-income 8th graders was 1.9 percentage points per year.

¹Averages are subject to rounding error.

²The 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.

³Gap 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 HI-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						8%	12%	17%	4.3
Proficient-and-above						26%	35%	39%	6.5
Basic-and-above						50%	59%	61%	5.4
White									
Advanced						9%	15%	19%	4.9
Proficient-and-above						32%	43%	45%	6.2
Basic-and-above						58%	67%	68%	4.9
African American ²									
Advanced						2%	7%	11%	4.5
Proficient-and-above						18%	30%	34%	7.9
Basic-and-above						42%	54%	59%	8.8
Latino ²									
Advanced						4%	7%	12%	4.0
Proficient-and-above						18%	27%	31%	6.7
Basic-and-above						47%	56%	55%	3.8
Asian									
Advanced						8%	12%	17%	4.2
Proficient-and-above						25%	34%	38%	6.5
Basic-and-above						49%	58%	60%	5.3
Native American ²									
Advanced						3%	11%	10%	3.5
Proficient-and-above						12%	33%	35%	11.4
Basic-and-above						35%	56%	63%	14.2

Table reads: The percentage of white 8th graders who scored at the advanced level on the state math test increased from 9% in 2007 to 19% in 2009. During this period, the average yearly gain in the percentage advanced in math for white 8th graders was 4.9 percentage points per year.

¹Averages are subject to rounding error.

²The 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 HI-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						8%	12%	17%	4.3
Proficient-and-above						26%	35%	39%	6.5
Basic-and-above						50%	59%	61%	5.4
Low-income students									
Advanced						4%	7%	10%	3.3
Proficient-and-above						16%	24%	28%	6.1
Basic-and-above						39%	47%	50%	5.6
Students with disabilities ³									
Advanced						0%	1%	1%	0.4
Proficient-and-above						2%	4%	3%	0.7
Basic-and-above						8%	12%	12%	1.7
English language learners ³									
Advanced						2%	2%	4%	1.1
Proficient-and-above						7%	11%	12%	2.5
Basic-and-above						19%	27%	29%	4.8
Female									
Advanced						9%	13%	18%	4.7
Proficient-and-above						28%	38%	42%	6.9
Basic-and-above						53%	63%	64%	5.4
Male									
Advanced						7%	11%	15%	3.9
Proficient-and-above						24%	31%	36%	6.1
Basic-and-above						47%	55%	57%	5.2

Table reads: The percentage of low-income 8th graders who scored at the advanced level on the state math test increased from 4% in 2007 to 10% in 2009. During this period, the average yearly gain in the percentage advanced in math for low-income 8th graders was 3.3 percentage points per year.

¹Averages are subject to rounding error.

²The 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.

³Gap 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 HI-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.

Subgroup	Grade 4					Grade 8					Grade 10				
	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	07-09	54%	61%	3.9		07-09	60%	68%	4.0		07-09	65%	74%	4.2	
White	07-09	69%	76%	3.8		07-09	73%	78%	2.4		07-09	79%	82%	1.3	
African American	07-09	50%	61%	5.8 ²	L	07-09	64%	68%	1.8 ²	S	07-09	71%	80%	4.8 ²	L
Latino	07-09	42%	58%	7.8 ²	L	07-09	60%	64%	2.4 ²	E	07-09	57%	73%	8.0 ²	L
Asian	07-09	51%	59%	3.8	E	07-09	58%	67%	4.4	L	07-09	63%	72%	4.7	L
Native American	07-09	54%	62%	4.3 ²	L	07-09	66%	67%	0.5 ²	S	07-09	77%	66%	-5.5 ²	S
Not low-income	07-09	64%	72%	4.3		07-09	69%	77%	3.8		07-09	72%	80%	3.8	
Low-income	07-09	41%	49%	3.9	S	07-09	48%	57%	4.6	L	07-09	51%	63%	5.9	L
Not disabled	07-09	59%	67%	4.1		07-09	67%	74%	3.9		07-09	72%	80%	4.1	
Students with disabilities ³	07-09	9%	11%	1.1	S	07-09	12%	17%	2.5	S	07-09	17%	24%	3.9	S
Not ELLs	07-09	57%	66%	4.5		07-09	63%	72%	4.2		07-09	69%	77%	4.0	
English language learners ³	07-09	23%	28%	2.6	S	07-09	15%	29%	6.8	L	07-09	20%	34%	7.3	L
Female	07-09	60%	68%	4.1		07-09	69%	76%	3.3		07-09	72%	80%	4.0	
Male	07-09	47%	55%	3.7	S	07-09	52%	61%	4.4	L	07-09	59%	68%	4.3	L

Table reads: In 2007, 69% of white 4th graders and 50% of African American 4th graders scored at the proficient level on the state reading test. In 2009, 76% of white 4th graders and 61% of African American 4th graders scored at the proficient level in reading. Between 2007 and 2009, the percentage proficient improved at an average rate of 3.8 percentage points per year for white students and 5.8 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.

¹Numbers in these columns are subject to rounding error.

²The 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.

³Gap 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 HI-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.

Subgroup	Grade 4					Grade 8					Grade 10				
	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	07-09	48%	50%	1.2		07-09	26%	39%	6.5		07-09	29%	34%	2.3	
White	07-09	60%	62%	1.1		07-09	32%	45%	6.2		07-09	37%	43%	2.9	
African American	07-09	38%	43%	2.4 ²	L	07-09	18%	34%	7.9 ²	L	07-09	22%	27%	2.8 ²	S
Latino	07-09	33%	43%	5.1 ²	L	07-09	18%	31%	6.7 ²	L	07-09	20%	25%	2.3 ²	S
Asian	07-09	46%	49%	1.1	E	07-09	25%	38%	6.5	L	07-09	28%	33%	2.2	S
Native American	07-09	46%	40%	-3.3 ²	S	07-09	12%	35%	11.4 ²	L	07-09	16%	25%	4.5 ²	L
Not low-income	07-09	57%	61%	1.8		07-09	32%	46%	7.0		07-09	36%	40%	2.5	
Low-income	07-09	36%	38%	1.0	S	07-09	16%	28%	6.1	S	07-09	17%	23%	2.8	L
Not disabled	07-09	52%	55%	1.3		07-09	29%	43%	7.1		07-09	33%	38%	2.4	
Students with disabilities ³	07-09	9%	7%	-0.8	S	07-09	2%	3%	0.7	S	07-09	2%	2%	0.2	S
Not ELLS	07-09	51%	53%	1.4		07-09	27%	41%	7.0		07-09	30%	35%	2.5	
English language learners ³	07-09	19%	25%	2.8	L	07-09	7%	12%	2.5	S	07-09	13%	12%	-0.5	S
Female	07-09	50%	54%	1.6		07-09	28%	42%	6.9		07-09	30%	35%	2.7	
Male	07-09	45%	47%	0.8	S	07-09	24%	36%	6.1	S	07-09	29%	33%	1.8	S

Table reads: In 2007, 60% of white 4th graders and 38% of African American 4th graders scored at the proficient level on the state math test. In 2009, 62% of white 4th graders and 43% of African American 4th graders scored at the proficient level in math. Between 2007 and 2009, the percentage proficient improved at an average rate of 1.1 percentage points per year for white students and 2.4 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.

¹Numbers in these columns are subject to rounding error.

²The 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.

³Gap 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 HI-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.

Subgroup	Statistic	Grade 4					Grade 8					Grade 10				
		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	MSS	07-09	300.1	306.3	3.1		07-09	306.4	314.1	3.8		07-09	308.5	317.0	4.3	
	SD	07-09	39.0	39.7			07-09	37.3	34.1			07-09	40.4	37.1		
White	MSS	07-09	313.5	321.0	3.7		07-09	317.5	322.0	2.2		07-09	321.3	327.1	2.9	
	SD	07-09	39.5	37.6			07-09	37.5	34.5			07-09	39.1	35.2		
African American	MSS	07-09	295.5	303.9	4.2 ²	L	07-09	308.1	315.0	3.5 ²	L	07-09	314.1	320.2	3.1 ²	L
	SD	07-09	37.4	35.6			07-09	36.3	30.8			07-09	36.9	33.6		
Latino	MSS	07-09	289.9	302.4	6.2 ²	L	07-09	304.2	311.7	3.8 ²	L	07-09	302.0	313.9	6.0 ²	L
	SD	07-09	40.8	40.7			07-09	35.2	35.0			07-09	39.7	40.2		
Asian	MSS	07-09	298.6	303.9	2.6	S	07-09	305.1	312.8	3.8	L	07-09	307.4	315.4	4.0	L
	SD	07-09	38.0	39.5			07-09	36.8	33.9			07-09	39.7	37.2		
Native American	MSS	07-09	303.1	301.8	-0.7 ²	S	07-09	307.9	313.0	2.6 ²	L	07-09	312.9	314.2	0.6 ²	S
	SD	07-09	35.6	42.6			07-09	29.3	30.6			07-09	45.4	35.0		
Not low-income	MSS	07-09	308.2	316.9	4.4		07-09	313.8	321.5	3.8		07-09	319.0	323.4	4.8	
	SD	07-09	37.6	36.6			07-09	36.6	33.0			07-09	38.2	35.0		
Low-income	MSS	07-09	289.3	294.3	2.5	S	07-09	295.8	304.5	4.4	L	07-09	296.1	306.7	5.3	L
	SD	07-09	38.3	39.6			07-09	35.8	33.1			07-09	40.0	38.1		
Not disabled	MSS	07-09	305.3	311.9	3.3		07-09	311.9	318.9	3.5		07-09	313.9	322.5	4.3	
	SD	07-09	35.6	36.3			07-09	34.5	31.4			07-09	37.7	33.8		
Students with disabilities ³	MSS	07-09	251.7	256.7	2.5	S	07-09	263.7	274.5	5.4	L	07-09	267.0	274.9	3.9	S
	SD	07-09	36.0	33.9			07-09	30.3	28.7			07-09	36.6	34.3		
Not ELLs	MSS	07-09	302.8	310.1	3.7		07-09	308.7	316.7	4.0		07-09	310.9	319.6	4.4	
	SD	07-09	38.2	38.5			07-09	36.8	33.3			07-09	40.0	36.2		
English language learners ³	MSS	07-09	272.6	277.5	2.4	S	07-09	272.2	284.9	6.4	L	07-09	274.8	285.0	5.1	L
	SD	07-09	36.6	36.6			07-09	27.9	28.1			07-09	29.7	33.2		
Female	MSS	07-09	307.0	313.2	3.1		07-09	314.6	320.7	3.0		07-09	315.1	323.1	4.0	
	SD	07-09	37.3	38.3			07-09	35.6	32.9			07-09	38.5	35.4		
Male	MSS	07-09	293.8	300.0	3.1	E	07-09	299.1	307.8	4.3	L	07-09	303.0	311.5	4.2	L
	SD	07-09	39.4	39.8			07-09	37.1	33.9			07-09	41.0	37.8		

Table reads: In 2007, the mean scale score on the state 4th grade reading test was 313.5 for white students and 295.5 for African American students. In 2009, the mean scale score in 4th grade reading was 321.0 for white students and 303.9 for African American students. Between 2007 and 2009, the mean scale score improved at an average yearly rate of 3.7 points for white students and 4.2 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Hawaii State Assessment is scored on a scale of 0-500.

¹Numbers in these columns are subject to rounding error.

²The 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.

³Gap 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 HI-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.

Subgroup	Statistic	Grade 4					Grade 8					Grade 10				
		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	MSS	07-09	293.8	300.2	3.2		07-09	275.7	289.5	6.9		07-09	277.3	286.0	4.4	
	SD	07-09	37.5	39.2			07-09	38.0	42.5			07-09	43.4	39.4		
White	MSS	07-09	304.4	310.7	3.2		07-09	282.7	295.7	6.5		07-09	286.3	293.2	3.5	
	SD	07-09	36.8	38.9			07-09	37.3	41.1			07-09	42.1	38.6		
African American	MSS	07-09	285.3	293.0	3.9 ²	L	07-09	266.9	284.2	8.6 ²	L	07-09	272.1	281.3	4.6 ²	L
	SD	07-09	35.9	34.9			07-09	34.9	37.7			07-09	40.4	32.4		
Latino	MSS	07-09	282.0	294.3	6.2 ²	L	07-09	270.0	282.6	6.3 ²	S	07-09	267.8	278.4	5.3 ²	L
	SD	07-09	34.8	37.9			07-09	33.2	40.4			07-09	37.7	36.9		
Asian	MSS	07-09	293.2	298.9	2.9	S	07-09	275.6	288.9	6.7	L	07-09	277.4	285.2	3.9	L
	SD	07-09	37.2	39.2			07-09	38.1	42.9			07-09	43.5	39.6		
Native American	MSS	07-09	293.7	291.7	-1.0 ²	S	07-09	265.7	285.2	9.7 ²	L	07-09	265.1	282.1	8.5 ²	L
	SD	07-09	37.3	33.0			07-09	26.6	33.8			07-09	36.9	33.9		
Not low-income	MSS	07-09	301.5	310.5	4.5		07-09	282.1	298.0	7.9		07-09	283.3	292.7	4.7	
	SD	07-09	36.6	37.1			07-09	38.6	42.4			07-09	43.7	39.0		
Low-income	MSS	07-09	283.6	288.6	2.5	S	07-09	266.4	278.4	6.0	S	07-09	264.9	275.1	5.1	L
	SD	07-09	36.2	38.3			07-09	35.0	39.9			07-09	40.0	37.5		
Not disabled	MSS	07-09	298.3	305.4	3.6		07-09	280.6	294.9	7.2		07-09	282.4	290.9	4.2	
	SD	07-09	35.2	36.4			07-09	36.3	40.7			07-09	42.1	37.9		
Students with disabilities ³	MSS	07-09	252.2	253.5	0.6	S	07-09	237.8	245.1	3.7	S	07-09	237.6	248.5	5.5	L
	SD	07-09	32.5	32.3			07-09	27.6	28.5			07-09	31.2	28.5		
Not ELLs	MSS	07-09	296.2	303.4	3.6		07-09	277.3	292.2	7.5		07-09	278.6	287.9	4.6	
	SD	07-09	37.0	38.5			07-09	37.8	41.9			07-09	43.5	39.0		
English language learners ³	MSS	07-09	269.6	276.0	3.2	S	07-09	251.3	258.9	3.8	S	07-09	258.4	262.3	2.0	S
	SD	07-09	33.8	36.4			07-09	31.3	36.9			07-09	37.5	36.4		
Female	MSS	07-09	296.5	303.7	3.6		07-09	278.8	292.6	6.9		07-09	279.0	288.1	4.6	
	SD	07-09	36.4	37.7			07-09	37.6	41.8			07-09	40.9	38.4		
Male	MSS	07-09	291.5	297.0	2.8	S	07-09	272.9	286.6	6.8	S	07-09	276.2	284.0	3.9	S
	SD	07-09	38.3	40.3			07-09	38.1	42.9			07-09	45.5	40.1		

Table reads: In 2007, the mean scale score on the state 4th grade math test was 304.4 for white students and 285.3 for African American students. In 2009, the mean scale score in 4th grade math was 310.7 for white students and 293.0 for African American students. Between 2007 and 2009, the mean scale score

improved at an average yearly rate of 3.2 points for white students and 3.9 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Hawaii State Assessment is scored on a scale of 0-500.

¹Numbers in these columns are subject to rounding error.

²The 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.

³Gap 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 HI-15. Numbers of test-takers

Subgroup	Subject	Grade 4					Grade 8					Grade 10				
		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	07-09	13,201	13,359	1.2%	100.0%	07-09	13,115	12,540	-4.4%	100.0%	07-09	12,814	12,715	-0.8%	100.0%
	Math	07-09	13,188	13,436	1.9%	100.0%	07-09	13,116	12,520	-4.5%	100.0%	07-09	12,784	12,731	-0.4%	100.0%
White	Reading	07-09	1,994	1,923	-3.6%	14.4%	07-09	1,746	1,761	0.9%	14.0%	07-09	1,740	1,731	-0.5%	13.6%
	Math	07-09	1,988	1,919	-3.5%	14.3%	07-09	1,736	1,755	1.1%	14.0%	07-09	1,733	1,734	0.1%	13.6%
African American	Reading	07-09	306	321	4.9%	2.4%	07-09	270	318	17.8%	2.5%	07-09	232	254	9.5%	2.0%
	Math	07-09	307	322	4.9%	2.4%	07-09	271	318	17.3%	2.5%	07-09	234	254	8.5%	2.0%
Latino	Reading	07-09	453	459	1.3%	3.4%	07-09	357	378	5.9%	3.0%	07-09	317	348	9.8%	2.7%
	Math	07-09	451	458	1.6%	3.4%	07-09	358	376	5.0%	3.0%	07-09	314	348	10.8%	2.7%
Asian	Reading	07-09	10,007	10,558	5.5%	79.0%	07-09	10,332	10,023	-3.0%	79.9%	07-09	9,860	10,324	4.7%	81.2%
	Math	07-09	10,006	10,544	5.4%	78.5%	07-09	10,343	10,011	-3.2%	80.0%	07-09	9,846	10,338	5.0%	81.2%
Native American	Reading	07-09	65	98	50.8%	0.7%	07-09	63	60	-4.8%	0.5%	07-09	60	58	-3.3%	0.5%
	Math	07-09	65	98	50.8%	0.7%	07-09	62	60	-3.2%	0.5%	07-09	60	57	-5.0%	0.4%
Low-income	Reading	07-09	5,632	6,268	11.3%	46.9%	07-09	5,375	5,414	0.7%	43.2%	07-09	4,161	4,854	16.7%	38.2%
	Math	07-09	5,628	6,257	11.2%	46.6%	07-09	5,380	5,400	0.4%	43.1%	07-09	4,151	4,867	17.2%	38.2%
Students w/ disabilities	Reading	07-09	1,270	1,350	6.3%	10.1%	07-09	1,498	1,351	-9.8%	10.8%	07-09	1,474	1,479	0.3%	11.6%
	Math	07-09	1,269	1,331	4.9%	9.9%	07-09	1,497	1,354	-9.6%	10.8%	07-09	1,467	1,475	0.5%	11.6%
English language learners	Reading	07-09	1,158	1,557	34.5%	11.7%	07-09	804	1,010	25.6%	8.1%	07-09	845	950	12.4%	7.5%
	Math	07-09	1,157	1,555	34.4%	11.6%	07-09	806	1,006	24.8%	8.0%	07-09	844	954	13.0%	7.5%
Female	Reading	07-09	6,350	6,378	0.4%	47.7%	07-09	6,240	6,158	-1.3%	49.1%	07-09	5,960	6,078	2.0%	47.8%
	Math	07-09	6,349	6,373	0.4%	47.4%	07-09	6,250	6,150	-1.6%	49.1%	07-09	5,946	6,086	2.4%	47.8%
Male	Reading	07-09	6,792	6,979	2.8%	52.2%	07-09	6,809	6,378	-6.3%	50.9%	07-09	6,722	6,636	-1.3%	52.2%
	Math	07-09	6,783	6,965	2.7%	51.8%	07-09	6,803	6,366	-6.4%	50.8%	07-09	6,709	6,644	-1.0%	52.2%

Table reads: In 2007, 1,994 students in the white subgroup took the state 4th grade reading test. By 2009, the number of white test-takers had fallen to 1,923 students, a decrease of 3.6%. In 2009, the white subgroup made up 14.4% of the 13,359 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.