

## Subgroup Achievement and Gap Trends — Nevada

*K-12 enrollment — 437,198*

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](http://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), Nevada showed across-the-board gains—improvements in both reading and math at the basic, proficient and advanced levels for all racial/ethnic subgroups, low income students, and boys and girls. Achievement gaps between students in these subgroups and their white and non-low income peers narrowed. Comparable data were available from 2006 through 2009 for grade 4, and from 2004 through 2009 for grade 8 and high school.

- **Exceptions.** The gap between African American and white students widened in math at the high school level, but this was shown with the percentage proficient indicator only; the mean (average) score indicator showed this gap narrowing. Gaps between boys and girls in reading widened in middle school.

## Data Limitations

Years of comparable percentage proficient data	2004 through 2009, grades 3, 5, 8, and high school 2006 through 2009, grades 4, 6, and 7
Years of comparable mean scale score data	2004 through 2009, grades 3, 5, 8, and high school 2006 through 2009, grades 4, 6, and 7
Disaggregated data for all subgroups and comparison groups	Data disaggregated by achievement level and percentage proficient data for non-low-income students not available until 2005 for grade 10

## 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	Nevada Criterion Referenced Test (CRT), grades 3–8 Nevada High School Proficiency Examination (HSPE), grades 10–12 Analytic Writing, grades 5 and 8
Grades tested for NCLB accountability	3–8, 10–12
State labels for achievement levels	NV uses four achievement levels: Emergent/Developing, Approaches Standard, Meets Standard, and Exceeds Standard. For our analyses we treated Approaches Standard as Basic, Meets Standard as Proficient, and Exceeds Standard as Advanced.
High school NCLB test also used as an exit exam?	Yes
First year test used	2001: HSPE 2002: CRT grades 3 and 5 (see Comments section below) 2004: CRT grade 8 2006: CRT grades 4, 6, and 7
Time of test administration	Spring
Major changes in testing system (2002–present)	2003–04: Writing assessments moved from fall to spring administration 2004: New test contractor chosen 2005–06: Assessment expanded to include grades 3–8, 10–12 2005–06: Writing assessment moved from grade 4 to 5

## Comments

Nevada state education personnel indicated that although some assessments were in place prior to 2004, the earliest baseline year for this analysis should be 2004 because the state made changes to its assessment system, including changes in the item pool and item quality.

Discrepancies existed in the totals for the percentages of grade 10 students scoring at the proficient level and above in reading and math in 2007. Specifically, the sums of the discrete percentages of students scoring at the proficient and advanced levels in grade 10 reading and math do not match the total percentages of students scoring proficient and above reported for NCLB purposes. The state could not explain these discrepancies, which affected only 2007 data.

## 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 NV-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	2009	
<b>All tested students</b>									
Advanced			14%	13%	14%	13%	12%	15%	0.1
Proficient-and-above			51%	51%	50%	57%	54%	61%	2.0
Basic-and-above			90%	89%	91%	93%	91%	95%	0.9
<b>White</b>									
Advanced			21%	19%	20%	19%	18%	22%	0.1
Proficient-and-above			65%	65%	64%	71%	69%	73%	1.5
Basic-and-above			95%	95%	95%	96%	96%	97%	0.5
<b>African American</b>									
Advanced			5%	5%	6%	6%	5%	7%	0.4
Proficient-and-above			31%	32%	34%	41%	37%	47%	3.2
Basic-and-above			83%	82%	84%	88%	85%	92%	1.8
<b>Latino</b>									
Advanced			5%	5%	6%	5%	5%	7%	0.5
Proficient-and-above			31%	32%	35%	41%	40%	48%	3.4
Basic-and-above			84%	83%	87%	89%	87%	93%	1.7
<b>Asian</b>									
Advanced			16%	17%	20%	19%	19%	22%	1.2
Proficient-and-above			59%	61%	63%	69%	68%	74%	2.9
Basic-and-above			95%	94%	95%	96%	96%	98%	0.6
<b>Native American</b>									
Advanced			11%	7%	11%	7%	7%	11%	0.1
Proficient-and-above			49%	47%	47%	53%	51%	60%	2.3
Basic-and-above			93%	90%	92%	95%	92%	95%	0.5

Table reads: The percentage of white 8<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 21% in 2004 to 22% in 2009. During this period, the average yearly gain in the percentage advanced in reading for white 8<sup>th</sup> graders was 0.1 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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 NV-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 <sup>1</sup>	
	2002	2003	2004	2005	2006	2007	2008		2009
<b>All tested students</b>									
Advanced			14%	13%	14%	13%	12%	15%	0.1
Proficient-and-above			51%	51%	50%	57%	54%	61%	2.0
Basic-and-above			90%	89%	91%	93%	91%	95%	0.9
<b>Low-income students</b>									
Advanced			5%	5%	6%	6%	5%	7%	0.3
Proficient-and-above			33%	33%	35%	43%	40%	48%	3.1
Basic-and-above			84%	83%	86%	90%	88%	93%	1.7
<b>Students with disabilities<sup>3</sup></b>									
Advanced			1%	2%	2%	1%	1%	1%	-0.1
Proficient-and-above			12%	13%	12%	13%	13%	16%	1.5
Basic-and-above			64%	63%	68%	71%	66%	76%	2.8
<b>English language learners<sup>3</sup></b>									
Advanced			1%	1%	2%	0%	0%	0%	-0.7
Proficient-and-above			9%	11%	14%	9%	9%	13%	-0.3
Basic-and-above			72%	70%	77%	74%	68%	81%	1.5
<b>Female</b>									
Advanced			17%	15%	16%	15%	15%	18%	0.2
Proficient-and-above			56%	56%	56%	63%	60%	67%	2.2
Basic-and-above			93%	92%	94%	95%	94%	97%	0.8
<b>Male</b>									
Advanced			11%	11%	12%	10%	9%	11%	0.0
Proficient-and-above			46%	47%	45%	51%	49%	55%	1.8
Basic-and-above			88%	87%	88%	90%	89%	93%	1.0

Table reads: The percentage of low-income 8<sup>th</sup> graders who scored at the advanced level on the state reading test increased from 5% in 2004 to 7% in 2009. During this period, the average yearly gain in the percentage advanced in reading for low-income 8<sup>th</sup> graders was 0.3 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	2009	
<b>All tested students</b>									
Advanced			11%	11%	11%	10%	10%	14%	0.6
Proficient-and-above			49%	49%	50%	53%	52%	55%	1.1
Basic-and-above			83%	80%	83%	81%	82%	87%	0.8
<b>White</b>									
Advanced			15%	16%	16%	14%	16%	20%	0.9
Proficient-and-above			62%	61%	62%	67%	66%	67%	1.0
Basic-and-above			90%	88%	90%	90%	91%	93%	0.6
<b>African American</b>									
Advanced			3%	3%	4%	3%	3%	5%	0.4
Proficient-and-above			28%	28%	32%	33%	34%	36%	1.7
Basic-and-above			70%	66%	71%	67%	72%	76%	1.3
<b>Latino</b>									
Advanced			4%	4%	4%	4%	4%	6%	0.4
Proficient-and-above			32%	34%	35%	38%	39%	42%	1.9
Basic-and-above			74%	71%	75%	73%	76%	81%	1.4
<b>Asian</b>									
Advanced			17%	19%	20%	20%	22%	27%	1.9
Proficient-and-above			61%	64%	67%	71%	70%	72%	2.1
Basic-and-above			91%	88%	91%	90%	92%	94%	0.6
<b>Native American</b>									
Advanced			6%	4%	5%	6%	4%	8%	0.3
Proficient-and-above			44%	40%	43%	47%	45%	51%	1.4
Basic-and-above			79%	79%	84%	79%	83%	88%	1.9

Table reads: The percentage of white 8<sup>th</sup> graders who scored at the advanced level on the state math test increased from 15% in 2004 to 20% in 2009. During this period, the average yearly gain in the percentage advanced in math for white 8<sup>th</sup> graders was 0.9 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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 NV-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 <sup>1</sup>
	2002	2003	2004	2005	2006	2007	2008	2009	
<b>All tested students</b>									
Advanced			11%	11%	11%	10%	10%	14%	0.6
Proficient-and-above			49%	49%	50%	53%	52%	55%	1.1
Basic-and-above			83%	80%	83%	81%	82%	87%	0.8
<b>Low-income students</b>									
Advanced			4%	4%	4%	4%	4%	7%	0.5
Proficient-and-above			33%	33%	34%	39%	39%	42%	1.9
Basic-and-above			75%	71%	75%	73%	76%	81%	1.3
<b>Students with disabilities<sup>3</sup></b>									
Advanced			1%	1%	1%	1%	1%	1%	0.2
Proficient-and-above			10%	11%	11%	12%	13%	15%	1.4
Basic-and-above			44%	40%	47%	43%	47%	54%	2.4
<b>English language learners<sup>3</sup></b>									
Advanced			1%	2%	2%	1%	1%	2%	-0.2
Proficient-and-above			14%	17%	18%	13%	14%	15%	-1.0
Basic-and-above			60%	55%	59%	49%	52%	58%	-0.5
<b>Female</b>									
Advanced			10%	10%	10%	9%	10%	13%	0.6
Proficient-and-above			50%	50%	51%	53%	53%	55%	0.9
Basic-and-above			86%	83%	85%	83%	85%	88%	0.4
<b>Male</b>									
Advanced			12%	12%	11%	10%	11%	15%	0.6
Proficient-and-above			48%	48%	49%	52%	51%	55%	1.3
Basic-and-above			81%	78%	80%	79%	82%	86%	1.0

Table reads: The percentage of low-income 8<sup>th</sup> graders who scored at the advanced level on the state math test increased from 4% in 2004 to 7% in 2009. During this period, the average yearly gain in the percentage advanced in math for low-income 8<sup>th</sup> graders was 0.5 percentage points per year.

<sup>1</sup>Averages are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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 <sup>1</sup>	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain <sup>1</sup>	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain <sup>1</sup>	Gain larger or smaller than comparison group
All tested students	06-09	54%	62%	2.8		04-09	51%	61%	2.0		04-09	77%	80%	0.5	
White	06-09	67%	75%	2.6		04-09	65%	73%	1.5		04-09	86%	88%	0.5	
African American	06-09	40%	49%	3.2	L	04-09	31%	47%	3.2	L	04-09	62%	68%	1.2	L
Latino	06-09	39%	50%	3.8	L	04-09	31%	48%	3.4	L	04-09	62%	71%	1.8	L
Asian	06-09	65%	72%	2.6	E	04-09	59%	74%	2.9	L	04-09	81%	85%	0.8	L
Native American	06-09	46%	55%	2.9 <sup>2</sup>	L	04-09	49%	60%	2.3	L	04-09	72%	76%	0.8 <sup>2</sup>	L
Not low-income	06-09	65%	73%	2.6		04-09	60%	69%	1.8		05-09	78%	84%	1.4	
Low-income	06-09	40%	50%	3.5	L	04-09	33%	48%	3.1	L	05-09	57%	70%	3.1	L
Not disabled	06-09	58%	79%	7.3		06-09	55%	81%	8.7		06-09	83%	84%	0.4	
Students with disabilities <sup>3</sup>	06-09	22%	26%	1.4	S	06-09	12%	16%	1.5	S	06-09	32%	34%	0.8	L
Not ELLs	06-09	61%	70%	3.1		06-09	55%	66%	3.6		06-09	82%	84%	0.4	
English language learners <sup>3</sup>	06-09	16%	34%	5.8	L	06-09	14%	13%	-0.3	S	06-09	33%	30%	-1.0	S
Female	06-09	58%	66%	2.8		04-09	56%	67%	2.2		04-09	80%	83%	0.5	
Male	06-09	50%	58%	2.9	L	04-09	46%	55%	1.8	S	04-09	74%	77%	0.5	E

Table reads: In 2006, 67% of white 4<sup>th</sup> graders and 40% of African American 4<sup>th</sup> graders scored at the proficient level on the state reading test. In 2009, 75% of white 4<sup>th</sup> graders and 49% of African American 4<sup>th</sup> graders scored at the proficient level in reading. Between 2006 and 2009, the percentage proficient improved at an average rate of 2.6 percentage points per year for white students and 3.2 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4<sup>th</sup> graders.



<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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 <sup>1</sup>	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain <sup>1</sup>	Gain larger or smaller than comparison group	Year span	Starting PP	Ending PP	Average annual gain <sup>1</sup>	Gain larger or smaller than comparison group
All tested students	06-09	56%	64%	2.8		04-09	49%	55%	1.1		04-09	52%	48%	-0.8	
White	06-09	68%	73%	1.8		04-09	62%	67%	1.0		04-09	64%	62%	-0.4	
African American	06-09	39%	49%	3.4	L	04-09	28%	36%	1.7	L	04-09	31%	28%	-0.5	S
Latino	06-09	43%	56%	4.3	L	04-09	32%	42%	1.9	L	04-09	32%	34%	0.2	L
Asian	06-09	70%	80%	3.0	L	04-09	61%	72%	2.1	L	04-09	62%	64%	0.3	L
Native American	06-09	48%	51%	1.2 <sup>2</sup>	S	04-09	44%	51%	1.4	L	04-09	38%	40%	0.4 <sup>2</sup>	L
Not low-income	06-09	67%	73%	2.2		04-09	58%	63%	1.1		05-09	55%	54%	-0.4	
Low-income	06-09	43%	55%	3.9	L	04-09	33%	42%	1.9	L	05-09	31%	36%	1.2	L
Not disabled	06-09	59%	70%	3.4		06-09	54%	56%	0.6		06-09	50%	52%	0.6	
Students with disabilities <sup>3</sup>	06-09	27%	34%	2.3	S	06-09	11%	15%	1.4	L	06-09	9%	11%	0.7	L
Not ELLS	06-09	62%	69%	2.5		06-09	54%	59%	1.7		06-09	49%	51%	0.6	
English language learners <sup>3</sup>	06-09	26%	47%	6.9	L	06-09	18%	15%	-1.0	S	06-09	15%	12%	-0.9	S
Female	06-09	56%	65%	2.8		04-09	50%	55%	0.9		04-09	50%	47%	-0.7	
Male	06-09	55%	64%	2.9	L	04-09	48%	55%	1.3	L	04-09	54%	50%	-0.8	S

Table reads: In 2006, 68% of white 4<sup>th</sup> graders and 39% of African American 4<sup>th</sup> graders scored at the proficient level on the state math test. In 2009, 73% of white 4<sup>th</sup> graders and 49% of African American 4<sup>th</sup> graders scored at the proficient level in math. Between 2006 and 2009, the percentage proficient improved at an average rate of 1.8 percentage points per year for white students and 3.4 percentage points per year for African American students, indicating a larger rate of gain and a narrowing of the achievement gap for African American 4<sup>th</sup> graders.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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 <sup>1</sup>	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS <sup>1</sup>	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS <sup>1</sup>	Gain larger or smaller than comp. group
All tested students	MSS	06-09	300.5	311.4	3.6		04-09	294.3	310.1	3.2		04-09	286.5	294.5	1.6	
	SD	06-09	85.6	77.5			04-09	73.3	70.4			04-09	58.2	56.4		
White	MSS	06-09	327.5	334.0	2.2		04-09	317.2	327.5	2.1		04-09	302.5	312.4	2.0	
	SD	06-09	79.9	72.9			04-09	68.5	68.7			04-09	54.3	52.9		
African American	MSS	06-09	272.7	287.6	5.0	L	04-09	261.9	287.5	5.1	L	04-09	260.4	272.0	2.3	L
	SD	06-09	84.8	77.5			04-09	70.3	68.8			04-09	57.2	55.9		
Latino	MSS	06-09	271.7	289.9	6.1	L	04-09	263.0	291.1	5.6	L	04-09	260.3	275.6	3.1	L
	SD	06-09	82.4	75.5			04-09	68.4	67.1			04-09	54.6	53.7		
Asian	MSS	06-09	324.6	334.9	3.4	L	04-09	308.0	333.0	5.0	L	04-09	292.0	305.1	2.6	L
	SD	06-09	76.9	71.0			04-09	66.0	64.0			04-09	54.2	51.1		
Native American	MSS	06-09	289.5	303.0	4.5 <sup>2</sup>	L	04-09	291.2	303.9	2.5	L	04-09	274.4	288.3	2.8 <sup>2</sup>	L
	SD	06-09	80.1	70.9			04-09	66.6	69.4			04-09	53.0	52.9		
Not low-income	MSS	06-09	323.6	330.9	2.4		04-09	309.2	322.8	2.7		04-09	288.7	302.4	2.7	
	SD	06-09	80.8	73.6			04-09	70.8	69.7			04-09	NA	55.2		
Low-income	MSS	06-09	272.9	290.1	5.7	L	04-09	265.4	290.4	5.0	L	04-09	260.9	275.6	2.9	L
	SD	06-09	83.1	76.1			04-09	69.5	66.9			04-09	56.7	54.8		
Not disabled	MSS	06-09	309.4	320.0	3.5		06-09	306.0	317.8	3.9		06-09	299.2	301.0	0.6	
	SD	06-09	81.5	71.5			06-09	67.6	66.2			06-09	52.6	52.3		
Students with disabilities <sup>3</sup>	MSS	06-09	230.4	236.8	2.2	S	06-09	224.7	237.3	4.2	L	06-09	227.7	231.1	1.1	L
	SD	06-09	85.3	87.8			06-09	68.0	67.5			06-09	54.4	55.6		
Not ELLs	MSS	06-09	314.9	324.9	3.4		06-09	305.7	317.6	4.0		06-09	297.8	299.7	0.7	
	SD	06-09	80.8	74.3			06-09	68.9	67.3			06-09	54.2	53.8		
English language learners <sup>3</sup>	MSS	06-09	229.1	264.6	11.8	L	06-09	236.8	239.3	0.8	S	06-09	233.2	229.1	-1.4	S
	SD	06-09	72.3	69.9			06-09	65.9	58.4			06-09	50.3	46.8		
Female	MSS	06-09	310.0	319.7	3.2		04-09	305.0	321.0	3.2		04-09	291.2	298.2	1.4	
	SD	06-09	83.6	74.9			04-09	71.4	67.6			04-09	56.0	54.5		
Male	MSS	06-09	291.6	303.5	4.0	L	04-09	284.6	299.5	3.0	S	04-09	281.9	290.8	1.8	L
	SD	06-09	86.6	79.1			04-09	73.7	71.5			04-09	59.9	58.0		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade reading test was 327.5 for white students and 272.7 for African American students. In 2009, the mean scale score in 4<sup>th</sup> grade reading was 334.0 for white students and 287.6 for African American students. Between 2006 and 2009, the mean scale score improved at an average yearly rate of 2.2 points for white students and 5.0 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Nevada Criterion Referenced Test (CRT) for grades 4 and 8, and the Nevada High School Proficiency Examination (HSPE) are scored on a scale of 100 – 500.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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 <sup>1</sup>	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS <sup>1</sup>	Gain larger or smaller than comp. group	Year span	Start year	End year	Avg. gain MSS <sup>1</sup>	Gain larger or smaller than comp. group
All tested students	MSS	06-09	309.0	330.5	7.2		04-09	291.7	309.6	3.6		04-09	288.6	298.4	2.0	
	SD	06-09	88.8	88.7			04-09	97.0	96.0			04-09	58.5	51.8		
White	MSS	06-09	334.6	350.4	5.3		04-09	319.7	335.8	3.2		04-09	303.4	313.0	1.9	
	SD	06-09	83.6	84.6			04-09	92.3	91.7			04-09	54.4	47.9		
African American	MSS	06-09	271.2	295.9	8.2	L	04-09	243.5	268.0	4.9	L	04-09	257.9	274.1	3.3	L
	SD	06-09	88.3	89.7			04-09	88.5	92.1			04-09	58.0	52.1		
Latino	MSS	06-09	284.0	312.9	9.6	L	04-09	254.3	281.3	5.4	L	04-09	264.7	283.0	3.7	L
	SD	06-09	84.7	86.4			04-09	88.4	89.5			04-09	54.5	48.9		
Asian	MSS	06-09	338.6	366.0	9.1	L	04-09	323.0	353.7	6.1	L	04-09	305.7	317.6	2.4	L
	SD	06-09	84.7	83.0			04-09	92.4	91.3			04-09	56.0	50.9		
Native American	MSS	06-09	290.7	302.2	3.8 <sup>2</sup>	S	04-09	276.3	297.3	4.2	L	04-09	267.2	290.2	4.6 <sup>2</sup>	L
	SD	06-09	79.7	85.0			04-09	92.7	89.7			04-09	55.8	48.0		
Not low-income	MSS	06-09	331.6	349.9	6.1		04-09	310.2	327.7	3.5		04-09	290.9	304.5	2.7	
	SD	06-09	85.2	85.4			04-09	95.9	95.1			04-09	NA	50.9		
Low-income	MSS	06-09	282.0	309.2	9.1	L	04-09	255.8	281.5	5.1	L	04-09	262.4	284.0	4.3	L
	SD	06-09	85.5	87.4			04-09	88.7	90.4			04-09	57.3	51.8		
Not disabled	MSS	06-09	317.1	338.5	7.1		06-09	307.1	319.8	4.2		06-09	299.6	304.5	1.6	
	SD	06-09	85.4	84.2			06-09	93.5	91.5			06-09	53.2	47.5		
Students with disabilities <sup>3</sup>	MSS	06-09	244.9	260.1	5.1	S	06-09	197.6	213.8	5.4	L	06-09	228.6	239.4	3.6	L
	SD	06-09	89.4	96.2			06-09	77.9	83.5			06-09	61.2	54.5		
Not ELLs	MSS	06-09	321.0	341.1	6.7		06-09	305.8	319.1	4.4		06-09	296.9	302.1	1.7	
	SD	06-09	85.9	87.4			06-09	95.0	92.6			06-09	56.1	49.9		
English language learners <sup>3</sup>	MSS	06-09	249.5	293.7	14.8	L	06-09	220.9	220.5	-0.1	S	06-09	249.7	251.6	0.6	S
	SD	06-09	78.5	83.2			06-09	85.1	79.5			06-09	58.3	51.4		
Female	MSS	06-09	311.1	331.1	6.7		04-09	294.6	309.8	3.0		04-09	287.1	297.8	2.1	
	SD	06-09	86.8	87.5			04-09	91.4	92.9			04-09	55.9	49.0		
Male	MSS	06-09	307.2	329.9	7.6	L	04-09	289.4	309.5	4.0	L	04-09	290.2	299.0	1.8	S
	SD	06-09	90.6	89.9			04-09	101.8	98.8			04-09	60.9	54.3		

Table reads: In 2006, the mean scale score on the state 4<sup>th</sup> grade math test was 334.6 for white students and 271.2 for African American students. In 2009, the mean scale score in 4<sup>th</sup> grade math was 350.4 for white students and 295.9 for African American students. Between 2006 and 2009, the mean scale score

improved at an average yearly rate of 5.3 points for white students and 8.2 points for African American students, indicating a narrowing of the achievement gap for African Americans.

Note: The Nevada Criterion Referenced Test (CRT) for grades 4 and 8, and the Nevada High School Proficiency Examination (HSPE) are scored on a scale of 100 – 500.

<sup>1</sup>Numbers in these columns are subject to rounding error.

<sup>2</sup>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.

<sup>3</sup>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 NV-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	06-09	32,177	33,654	4.6%	100.0%	04-09	30,197	33,936	12.4%	100.0%	04-09	24,767	30,208	22.0%	100.0%
	Math	06-09	32,165	33,654	4.6%	100.0%	04-09	30,196	33,936	12.4%	100.0%	04-09	25,217	31,204	23.7%	100.0%
White	Reading	06-09	14,143	13,639	-3.6%	40.5%	04-09	15,497	14,594	-5.8%	43.0%	04-09	13,814	13,598	-1.6%	45.0%
	Math	06-09	14,136	13,639	-3.5%	40.5%	04-09	15,466	14,594	-5.6%	43.0%	04-09	13,996	13,885	-0.8%	44.5%
African American	Reading	06-09	3,422	3,714	8.5%	11.0%	04-09	3,272	3,878	18.5%	11.4%	04-09	2,471	3,487	41.1%	11.5%
	Math	06-09	3,421	3,714	8.6%	11.0%	04-09	3,283	3,878	18.1%	11.4%	04-09	2,530	3,648	44.2%	11.7%
Latino	Reading	06-09	11,560	13,016	12.6%	38.7%	04-09	8,521	12,050	41.4%	35.5%	04-09	5,930	10,052	69.5%	33.3%
	Math	06-09	11,563	13,016	12.6%	38.7%	04-09	8,536	12,050	41.2%	35.5%	04-09	6,092	10,527	72.8%	33.7%
Asian	Reading	06-09	2,333	2,807	20.3%	8.3%	04-09	2,107	2,893	37.3%	8.5%	04-09	1,903	2,603	36.8%	8.6%
	Math	06-09	2,329	2,807	20.5%	8.3%	04-09	2,107	2,893	37.3%	8.5%	04-09	1,937	2,658	37.2%	8.5%
Native American	Reading	06-09	535	<b>478</b>	-10.7%	1.4%	04-09	491	521	6.1%	1.5%	04-09	464	<b>467</b>	0.6%	1.5%
	Math	06-09	534	<b>478</b>	-10.5%	1.4%	04-09	490	521	6.3%	1.5%	04-09	475	<b>485</b>	2.1%	1.6%
Low-income	Reading	06-09	14,646	16,060	9.7%	47.7%	04-09	10,239	13,293	29.8%	39.2%	04-09	1,702	8,877	421.6%	29.4%
	Math	06-09	14,644	16,060	9.7%	47.7%	04-09	10,244	13,293	29.8%	39.2%	04-09	1,730	9,294	437.2%	29.8%
Students w/ disabilities	Reading	06-09	3,601	3,452	-4.1%	10.3%	06-09	3,353	3,254	-3.0%	9.6%	06-09	2,589	2,802	8.2%	9.3%
	Math	06-09	3,610	3,452	-4.4%	10.3%	06-09	3,332	3,254	-2.3%	9.6%	06-09	2,611	2,907	11.3%	9.3%
English language learners	Reading	06-09	5,378	7,527	40.0%	22.4%	06-09	3,794	3,263	-14.0%	9.6%	06-09	2,241	2,213	-1.2%	7.3%
	Math	06-09	5,380	7,527	39.9%	22.4%	06-09	3,789	3,263	-13.9%	9.6%	06-09	2,273	2,289	0.7%	7.3%
Female	Reading	06-09	15,681	16,426	4.8%	48.8%	04-09	14,572	16,736	14.9%	49.3%	04-09	12,276	14,979	22.0%	49.6%
	Math	06-09	15,672	16,426	4.8%	48.8%	04-09	14,577	16,736	14.8%	49.3%	04-09	12,504	15,409	23.2%	49.4%
Male	Reading	06-09	16,397	17,228	5.1%	51.2%	04-09	15,429	17,200	11.5%	50.7%	04-09	12,445	15,228	22.4%	50.4%
	Math	06-09	16,395	17,228	5.1%	51.2%	04-09	15,423	17,200	11.5%	50.7%	04-09	12,670	15,794	24.7%	50.6%

Table reads: In 2006, 14,143 students in the white subgroup took the state 4<sup>th</sup> grade reading test. By 2009, the number of white test-takers had fallen to 13,639 students, a decrease of 3.6%. In 2009, the white subgroup made up 40.5% of the 33,654 4<sup>th</sup> 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.