# A Closer Look at Individual Districts

In order to set the context for a closer look at individual districts, the demographic characteristics of participating districts are shown in tables 1 and 2. The percentage of minority (not White) students ranges from about 60 percent to more than 90 percent in the participating districts, compared to about 40 percent nationally in public schools at both grades 4 and 8. The percentage of low-income students (those eligible for free or reduced-price school lunch) ranges from 43 percent to

100 percent in the districts, compared with 45 and 39 percent nationally in public schools at grades 4 and 8, respectively. Most of the districts also have numerically higher percentages of students identified as English language learners than do public schools nationally.



Table 1. Characteristics of fourth-grade public school students in 2005, by jurisdiction												
Student characteristics	Nation	Large central city	Atlanta	Austin	Boston	Charlotte	Chicago	Cleveland	Houston	Los Angeles	New York City	San Diego
Number of fourth-graders	3,745,000	563,000	6,000	7,000	5,000	9,000	36,000	7,000	18,000	63,000	81,000	12,000
Number of students assessed	142,700	26,900	1,200	1,300	1,200	1,400	2,000	1,000	2,000	2,000	2,000	1,400
Percent White students	57	21	11	27	12	40	9	18	10	9	13	23
Percent Black students	17	32	83	15	47	40	47	70	28	11	35	14
Percent Hispanic students	20	38	4	56	30	13	42	10	59	74	39	45
Percent Asian/Pacific Islander students	4	6	1	2	9	4	3	#	3	6	12	18
Percent eligible for free/reduced-price lunch	45	69	75	63	83	46	85	100	79	85	86	61
Percent students with disabilities	14	13	9	17	22	13	13	16	12	10	14	12
Percent English language learners	10	21	1	27	15	9	18	5	36	55	12	35

# The estimate rounds to zero.

NOTE: The number of fourth-graders is rounded to the nearest 1,000. The number of students assessed is rounded to the nearest 100. Race categories exclude Hispanic origin. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Trial Urban District Science

Assessment.

In the next section, profiles of selected NAEP results from the 2005 Trial Urban District Assessment in science are presented for each participating district. The profiles present a closer look at some key findings for each district's student groups by race/ethnicity and by income level (eligibility for free or reduced-price school lunch). In addition, results for a few, selected test questions are provided to give the reader a more concrete sense of how the district's students performed.<sup>2</sup> The data for the achievement-level results presented in the profiles can be found in figures 2 and 8.



# More Information on the 2005 Trial Urban District Assessment in Science

For general information and results <u>http://nationsreportcard.gov</u>.

For an interactive database including student, teacher, and school variables for all participating districts, the nation, and large central city schools, see the NAEP Data Explorer at <u>http://nces.ed.gov/nationsreportcard/nde/</u>.

All released NAEP sample test questions with associated performance results by nation, state, and district are available at <u>http://nces.ed.gov/nationsreportcard/itmrls/</u>.

Table 2. Characteristics of eighth-grade public school students in 2005, by jurisdiction												
Student characteristics	National	Large central city	Atlanta	Austin	Boston	Charlotte	Chicago	Cleveland	Houston	Los Angeles	New York City	San Diego
Number of eighth-graders	3,662,000	543,000	4,000	6,000	5,000	8,000	35,000	5,000	14,000	50,000	70,000	10,000
Number of students assessed	139,000	24,700	1,000	1,200	1,100	1,400	2,000	900	1,800	1,900	1,800	1,400
Percent White students	60	23	4	33	15	41	13	18	10	9	16	25
Percent Black students	17	33	92	12	47	45	47	71	30	13	34	14
Percent Hispanic students	17	35	3	52	28	9	37	9	56	71	35	43
Percent Asian/Pacific Islander students	4	8	#	3	9	4	3	#	3	7	14	17
Percent eligible for free/reduced-price lunch	39	62	75	51	76	43	81	100	72	78	84	52
Percent students with disabilities	13	13	11	13	19	12	17	19	13	12	10	11
Percent English language learners	6	14	2	14	9	7	7	3	14	33	10	21

# The estimate rounds to zero.

NOTE: The number of eighth-graders is rounded to the nearest 1,000. The number of students assessed is rounded to the nearest 100. Race categories exclude Hispanic origin.

 $<sup>^{2}</sup>$  In the table at the bottom of the following district profile pages for each grade, the "score location" of a test question on the scale represents the average scale score attained by students who had a 65 percent probability of successfully answering a constructed-response question, or a 74 percent probability of correctly answering a four-option multiple-choice question. The scale score ranges for the science achievement levels (*Basic, Proficient*, and *Advanced*) are also displayed in the table. For constructed-response questions, the data shown is the percentage of students' responses rated as completely correct.

### Average fourth-grade NAEP science scores in 2005, by jurisdiction and selected student groups



\* Significantly different (p < .05) from large central city public schools.

\*\* Significantly different (p < .05) from nation (public schools).

### Percentage of fourth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	ATLANTA	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION
			300 <b>CED</b>		
30	26	32	ADVAN	219	Interpret readings from rain gauges
33	27	22	205	208	Interpret data to conclude conditions needed for seed germination
36	29	30	IENT	203	Explain what can be learned from fossils
44	32	27	ROFIC	185	Relate air (oxygen) supply to burning time
65	62	64	170	174	Interpret melting point data to determine which item melts first
66	57	53	c	165	Use data table to determine which day has the most daylight
62	53	53	BASI	159	Predict and explain water displacement by two objects
76	71	69	138	139	Identify function of a human structure
75	68	62		136	Identify process fish use to obtain oxygen
87	78	77	01	103	Compare weather data to tell which city has warmer temperatures



## For Atlanta Fourth-Graders,

- ... the overall score was not significantly different from that in large central cities, but lower than it was in the nation.
- ... the percentage at or above *Basic* was lower than it was in large central cities, but the percentage at or above Proficient was not significantly different from that in large central cities.

### Compared with their peers...

- ... White students scored higher than those in large central cities and the nation.
- ...Black students had an average score that was not significantly different from those in large central cities and the nation.

### The score gap between...

- ... White and Black students was 57 points-which was wider than the gaps in large central cities and the nation.
- ...higher- and lower-income students was 38 pointswhich was not significantly different from the gap in large central cities, but wider than the gap in the nation.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.



# For Atlanta Eighth-Graders,

- ...the overall score was lower than it was in large central cities and the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were lower than they were in large central cities.

### Compared with their peers...

...Black students scored lower than those in large central cities and the nation.

### The score gap between...

...higher- and lower-income students was 26 points which was not significantly different from the gaps in large central cities and the nation.

# Average eighth-grade NAEP science scores in 2005, by jurisdiction and selected student groups

			AVE	RAGE S	CALE SC	ORE						
=	Γ	Nation				147	*					
/era		Large central city										
6		Atlanta	11	.7*,**								
nicity	Ĺ	Nation		123*								
(ethr	lach	Large central city	1	119**								
ace/		Atlanta	114'	*,**								
<u>م</u>	e	Nation			130*							
hric h	igibl	Large central city		122*	*							
lund		Atlanta	111*,	**								
hool	ible	Nation					158*					
ree/i sc	elig	Large central city				15	i0**					
æ	Not	Atlanta			137,	*,**						
			0 120	1 1 3 (	140	150	160 1	70 180				

\*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of eighth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	ATLANTA	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION																										
			300 NCED																												
22	16	4	ADVA	230	Explain how to find out if a glass contains salt water																										
16	9	2	208	218	Describe means by which plants prevent erosion																										
52	44	40	IENT	198	Identify location of cell's genetic material																										
51	42	47	ROFIC	188	Identify zone on a map with a temperate climate																										
43	32	26	170	178	Describe experiment to measure the volume of an object																										
53	43	28	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	162	Explain relative motion of two vehicles																			
54	44	27									BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC
72	64	52	143	147	Identify an action to reduce carbon dioxide in the atmosphere																										
77	71	60		136	Identify relationship between rainfall and seed production																										
80	73	52	01	111	List three uses for human-made satellites <sup>1</sup>																										

<sup>1</sup>Percentages for this question combine "Partial" and "Complete" responses to locate its position on the score scale.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was White, Hispanic, Asian/Pacific Islander, American Indian/Alaska Native, or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons. such as those in the single-district snapshot reports.

# Average fourth-grade NAEP science scores in 2005, by jurisdiction and selected student groups



\* Significantly different (p < .05) from large central city public schools.

\*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of fourth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	AUSTIN	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION											
			<b>100</b> 00													
30	26	30	ADVAI	219	Interpret readings from rain gauges											
33	27	36	205	208	Interpret data to conclude conditions needed for seed germination											
36	29	33	IENT	203	Explain what can be learned from fossils											
44	32	46	ROFIC	185	Relate air (oxygen) supply to burning time											
65	62	74	م 170	174	Interpret melting point data to determine which item melts first											
66	57	62	נכ	J L	IJ	IC	2	2	2	JI L	2	2	SIC	sic	165	Use data table to determine which day has the most daylight
62	53	54	BASI	159	Predict and explain water displacement by two objects											
76	71	74	138	139	Identify function of a human structure											
75	68	75		136	Identify process fish use to obtain oxygen											
87	78	87	01	103	Compare weather data to tell which city has warmer temperatures											



## For Austin Fourth-Graders,

- ...the overall score was higher than it was in large central cities, but not significantly different from that in the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were higher than they were in large central cities.

### Compared with their peers...

- ...White students scored higher than those in large central cities and the nation.
- ...Black and Hispanic students had average scores that were higher than those in large central cities, but not significantly different from those in the nation.

### The score gap between...

- ...White and Black students was 43 points—which was not significantly different from the gaps in large central cities and the nation.
- ...White and Hispanic students was 40 points—which was not significantly different from the gap in large central cities, but wider than the gap in the nation.
- ...higher- and lower-income students was 34 points which was not significantly different from the gap in large central cities, but wider than the gap in the nation.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was Asian/Pacific Islander, American Indian/Alaska Native, or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.



## For Austin Eighth-Graders,

- ...the overall score was higher than it was in large central cities, but lower than it was in the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were higher than they were in large central cities.

## Compared with their peers...

- ...White students scored higher than those in large central cities and the nation.
- ...Black students had an average score that was not significantly different from the scores in large central cities and the nation.
- ...Hispanic students had an average score that was higher than the score in large central cities, but not significantly different from the score in the nation.

## The score gap between...

- ...White and Black students was 49 points—which was wider than the gaps in large central cities and the nation.
- ...White and Hispanic students was 43 points—which was wider than the gaps in large central cities and the nation.
- ...higher- and lower-income students was 41 points which was wider than the gaps in large central cities and the nation.

# Average eighth-grade NAEP science scores in 2005, by jurisdiction and selected student groups



#### \* Significantly different (p < .05) from large central city public schools. \*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of eighth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	AUSTIN	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION																									
			<b>CED</b> 000																											
22	16	26	ADVAN	230	Explain how to find out if a glass contains salt water																									
16	9	11	208	218	Describe means by which plants prevent erosion																									
52	44	54	ENT	198	Identify location of cell's genetic material																									
51	42	37	ROFIC	188	Identify zone on a map with a temperate climate																									
43	32	50	<b>م</b> 170	178	Describe experiment to measure the volume of an object																									
53	43	54	С	162	Explain relative motion of two vehicles																									
54	44	50	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	BASIC	160	Describe effect of pollutant on food web
72	64	69	143	147	Identify an action to reduce carbon dioxide in the atmosphere																									
77	71	77		136	Identify relationship between rainfall and seed production																									
80	73	74	01	111	List three uses for human-made satellites <sup>1</sup>																									

<sup>1</sup> Percentages for this question combine "Partial" and "Complete" responses to locate its position on the score scale.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was Asian/Pacific Islander, American Indian/Alaska Native, or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.

# Average fourth-grade NAEP science scores in 2005, by jurisdiction and selected student groups



\* Significantly different (p < .05) from large central city public scr \*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of fourth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	BOSTON	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION
			300		
30	26	25	ADVA	219	Interpret readings from rain gauges
33	27	31	205	208	Interpret data to conclude conditions needed for seed germination
36	29	21	IENT	203	Explain what can be learned from fossils
44	32	29	ROFIC	185	Relate air (oxygen) supply to burning time
65	62	64	<b>2</b> 170	174	Interpret melting point data to determine which item melts first
66	57	61	c	165	Use data table to determine which day has the most daylight
62	53	56	BASI	159	Predict and explain water displacement by two objects
76	71	75	138	139	Identify function of a human structure
75	68	71		136	Identify process fish use to obtain oxygen
87	78	81	01	103	Compare weather data to tell which city has warmer temperatures



## For Boston Fourth-Graders,

- ...the overall score was not significantly different from that in large central cities, but lower than it was in the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were lower than they were in large central cities.

### Compared with their peers...

- ...White students scored lower than those in large central cities and the nation.
- ...Black, Hispanic, and Asian/Pacific Islander students had average scores that were not significantly different from those in large central cities and the nation.

### The score gap between...

- ...White and Black students was 27 points—which was narrower than the gap in large central cities, but not significantly different from the gap in the nation.
- ...White and Hispanic students was 25 points—which was not significantly different from the gaps in large central cities and the nation.
- ...higher- and lower-income students was 22 points which was not significantly different from the gaps in large central cities and the nation.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was American Indian/Alaska Native or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.



## For Boston Eighth-Graders,

- ...the overall score was not significantly different from that in large central cities, but lower than it was in the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were not significantly different than they were in large central cities.

### Compared with their peers...

...White, Black, Hispanic, and Asian/Pacific Islander students had average scores that were not significantly different from those in large central cities and the nation.

### The score gap between...

- ...White and Black students was 33 points—which was not significantly different from the gaps in large central cities and the nation.
- ...White and Hispanic students was 32 points—which was not significantly different from the gaps in large central cities and the nation.
- ...higher- and lower-income students was 23 points which was not significantly different from the gaps in large central cities and the nation.

# Average eighth-grade NAEP science scores in 2005, by jurisdiction and selected student groups

AVERAGE SCALE SCORE

=		Nation	147*									
/era		Large central city	132**									
6		Boston	131**									
		Nation	159									
	/hite	Large central city	158									
	s L	Boston	157									
	Γ	Nation	123*									
city	lack	Large central city	119**									
ethni	<b>∞</b> ∟	Boston	123									
ace/e	ic	Nation	127*									
æ	span	Large central city	123**									
	Ë	Boston	124									
cific	er	Nation	155*									
∿Pa	and	Large central city	147**									
Asia	<u>s</u>	Boston	154									
	- 9	Nation	130*									
5	igibl	Large central city	122**									
lun o		Boston	126*,**									
hool	ble	Nation	158*									
SC	elig	Large central city	150**									
-	Not	Boston	149**									
			10, 120, 130, 140, 150, 160, 170, 180, 190, 30									
		U 11	10 120 130 140 130 100 170 100 190 30									

\* Significantly different (p < .05) from large central city public schools. \*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of eighth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	BOSTON	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION
			300 NCED		
22	16	22	ADVA	230	Explain how to find out if a glass contains salt water
16	9	3	208	218	Describe means by which plants prevent erosion
52	44	37	IENT	198	Identify location of cell's genetic material
51	42	39	ROFIC	188	Identify zone on a map with a temperate climate
43	32	20	<b>م</b> 170	178	Describe experiment to measure the volume of an object
53	43	39	c	162	Explain relative motion of two vehicles
54	44	49	BASI	160	Describe effect of pollutant on food web
72	64	69	143	147	Identify an action to reduce carbon dioxide in the atmosphere
77	71	74		136	Identify relationship between rainfall and seed production
80	73	65	) 01	111	List three uses for human-made satellites <sup>1</sup>

<sup>1</sup> Percentages for this question combine "Partial" and "Complete" responses to locate its position on the score scale.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was American Indian/Alaska Native or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.

# Average fourth-grade NAEP science scores in 2005, by jurisdiction and selected student groups

			AVERA	GE SC	ALE SC	ORE						
=		Nation				149	)*					
vera		Large central city			135**	ł						
Ó		Charlotte				145*,*	**					
	Γ	Nation		161								
	/hite	Large central city	161									
	2	Charlotte	164									
	Γ	Nation		128*								
ity	lach	Large central city		124*'	-							
hnic	Ľ	Charlotte		129	)							
ce/et	ic	Nation		1	32*							
Rai	span	Large central city		128	3**							
	Ē	Charlotte			135							
cific	er	Nation	156*									
n/Pa	land	Large central city	151**									
Asia	<u>_</u>	Charlotte	153									
a)	e	Nation			135*							
pric.	igibl	Large central city		127	**							
-bad-	<u>ت</u>	Charlotte		12	9**							
hool	ible)	Nation					1	62*				
ree/I sc	elig	Large central city					156*	*				
	_Nd	Charlotte					159	)				
* Signif	icanth	0 11	0 120	130	140	150	160	170	180	190 300		
JISHII	calll	y unicient $(p < .05)$ If	un alge ce	ciudi C	ty publi	c sc11001	15.					

\*\* Significantly different (p < .05) from nation (public schools).

#### Percentage of fourth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	CHARLOTTE	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION
			300 NCED		
30	26	32	АДИА	219	Interpret readings from rain gauges
33	27	36	205	208	Interpret data to conclude conditions needed for seed germination
36	29	38	IENT	203	Explain what can be learned from fossils
44	32	45	ROFIC	185	Relate air (oxygen) supply to burning time
65	62	68	170	174	Interpret melting point data to determine which item melts first
66	57	66	c	165	Use data table to determine which day has the most daylight
62	53	62	BASI	159	Predict and explain water displacement by two objects
76	71	77	138	139	Identify function of a human structure
75	68	73		136	Identify process fish use to obtain oxygen
87	78	87	01	103	Compare weather data to tell which city has warmer temperatures



## For Charlotte Fourth-Graders,

- ...the overall score was higher than that in large central cities, but lower than it was in the nation.
- ...the percentages of students at or above *Basic* and at or above *Proficient* were higher than they were in large central cities.

### Compared with their peers...

...White, Black, Hispanic, and Asian/Pacific Islander students had average scores that were not significantly different from those in large central cities and the nation.

### The score gap between...

- ...White and Black students was 35 points—which was not significantly different from the gaps in large central cities and the nation.
- ...White and Hispanic students was 29 points—which was not significantly different from the gaps in large central cities and the nation.
- ...higher- and lower-income students was 30 points which was not significantly different from the gaps in large central cities and the nation.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was American Indian/Alaska Native or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons, such as those in the single-district snapshot reports.



## For Charlotte Eighth-Graders,

- ...the overall score was higher than that in large central cities, but lower than it was in the nation.
- ...the percentages at or above *Basic* and at or above *Proficient* were higher than they were in large central cities.

### Compared with their peers...

- ... White students scored higher than those in large central cities and the nation.
- ...Black and Hispanic students had average scores that were not significantly different from those in large central cities and the nation.

### The score gap between...

- ...White and Black students was 43 points—which was not significantly different from the gap in large central cities, but wider than the gap in the nation.
- ...White and Hispanic students was 37 points—which was not significantly different from the gaps in large central cities and the nation.
- ...higher- and lower-income students was 37 points which was wider than the gaps in large central cities and the nation.

# Average eighth-grade NAEP science scores in 2005, by jurisdiction and selected student groups



\* Significantly different (p < .05) from large central city public schools.

#### Percentage of eighth-grade student responses rated correct or "Complete" on selected NAEP science questions in 2005, by jurisdiction

NATION	LARGE CENTRAL CITY	CHARLOTTE	ACHIEVEMENT LEVEL	SCORE LOCATION	QUESTION DESCRIPTION
			300 NCED		
22	16	20	ADVA	230	Explain how to find out if a glass contains salt water
16	9	18	208	218	Describe means by which plants prevent erosion
52	44	40	IENT	198	Identify location of cell's genetic material
51	42	52	ROFIC	188	Identify zone on a map with a temperate climate
43	32	28	170	178	Describe experiment to measure the volume of an object
53	43	54	C	162	Explain relative motion of two vehicles
54	44	53	BAS	160	Describe effect of pollutant on food web
72	64	66	143	147	Identify an action to reduce carbon dioxide in the atmosphere
77	71	74		136	Identify relationship between rainfall and seed production
80	73	83	01	111	List three uses for human-made satellites <sup>1</sup>

<sup>1</sup> Percentages for this question combine "Partial" and "Complete" responses to locate its position on the score scale.

NOTE: Groups not shown are included in overall. Results are not shown for students whose race/ethnicity was Asian/Pacific Islander, American Indian/Alaska Native, or "unclassified" because of small sample sizes. Race categories exclude Hispanic origin. "Score location" is described in the footnote on page 25. Multiple-choice questions are shown in *italic* type. Score gaps mentioned in the report are calculated based on differences between unrounded average scores. Cross-jurisdiction significance results are calculated using a multiple-comparison procedure based on all participating districts. Results may vary from those obtained using single-district comparisons. such as those in the single-district snapshot reports.