



The Nation's Report Card

Report for Colorado: Background & Visuals

Reading 2005

The National Assessment of Educational Progress
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Overview of the NAEP 2005 Reading Assessment

Who was assessed?

- The NAEP 2005 assessment was administered to a stratified random sample of fourth-, eighth-, and twelfth-graders at the national level and to fourth- and eighth-graders at the state level.
- Both public and nonpublic school students were assessed at the national level.
- At the state or jurisdiction level, only the results for public school students are reported.
- Fifty-two jurisdictions participated, including the 50 states, the District of Columbia, and the Department of Defense Schools (Domestic and Overseas).
- National sample number assessed:
 - Grade 4
 - Approximately 165,700 students
 - Approximately 9,500 schools
 - Grade 8
 - Approximately 159,400 students
 - Approximately 7,200 schools
- Colorado sample number assessed:
 - Grade 4
 - Approximately 2,800 students
 - Approximately 160 schools
 - Grade 8
 - Approximately 2,500 students
 - Approximately 140 schools

What is assessed?

- The NAEP Frameworks specify what is assessed and how it is to be assessed.
- The Reading Framework for NAEP 2005 (<http://www.nagb.org>) continues the NAEP reading trend begun in 1992.
- The framework sets forth a broad definition of "reading literacy" that includes developing a general understanding of written text, thinking about it, and using various texts for different purposes.
- There are three contexts for reading:
 - reading for literary experience,
 - reading for information, and
 - reading to perform a task (grades 8 and 12 only).
- Contexts provide guidance for passage selection.
- There are four aspects of reading—each represent different ways in which readers develop understanding of a text:
 - forming a general understanding,
 - developing interpretation,
 - making reader/text connections, and
 - examining content and structure.

The framework specifies the target percentage of questions devoted to each reading context, and the target percentage of student time devoted to each aspect of reading¹.

Contexts for Reading—Target Distribution of Questions			
Grade	Literary Experience	To Be Informed	To Perform a Task
4	55%	45%	NA
8	40%	40%	20%
Aspects of Reading—Target Distribution of Student Time			
Grade	Forming a General Understanding/ Developing Interpretation	Making Reader/ Text Connections	Examining Content and Structure
4	60%	15%	25%
8	55%	15%	30%

How is reading assessed?

- Students read passages and are asked to answer comprehension questions.
- Passages are authentic and are not developed specifically for the NAEP assessment.
 - Passages are drawn from those that students might encounter at school, in the library, or at home.
 - Passages are not abridged, but are presented full-length and resemble how students would encounter the passages in the format of the original publication.
- Multiple-choice questions—four choices are presented.
- Constructed-response questions—students write their own response:
 - Short—a few sentences.
 - Extended—a paragraph or a full page.
- In 2005, the distribution of types of reading questions across all blocks was as follows:

Type of Question	Grade 4	Grade 8
Multiple choice	52	62
Short, constructed response	39	65
Extended, constructed response	8	15
Total	99	142

¹ See Appendix A, *Overview of Procedures Used for the NAEP 2005 Reading Assessment* for the actual distribution of questions and time for the 2005 assessment.

How are constructed-response questions scored?

- Unique scoring guides are developed for each question.
- Scoring guides describe the specific criteria for assigning a score level for student responses.
- Scoring process:
 - Expert scorers are extensively trained to apply the scoring criteria consistently and fairly.
 - Scoring is monitored to ensure the scoring standards are being adhered to reliably.
 - Monitoring measures the consistency of scoring to the same items administered in different assessments—therefore, ensuring consistency of application of scoring standards across assessment years.
 - Over 3,773,700 reading constructed responses were scored for the 2005 assessment.

How is the NAEP reading assessment administered?

- Each fourth-grade student took two 25-minute sets of questions. Each eighth-grade student took either two 25-minute sets or one 50-minute set. All students took one set of general background questions, and one set of background questions related to reading.
- Each block contained one passage corresponding to one of the contexts for reading and 9–12 multiple-choice and constructed-response questions.
- In order to provide a comprehensive assessment of reading and to minimize the burden on any individual student, NAEP uses matrix sampling. Each student takes a subset of the total set of questions.
- Because each block is spiraled with other blocks and is administered to a representative sample of students, the results can be combined to produce average group and subgroup results based on the entire assessment.

How long does the NAEP assessment take?

No more than about 1 hour per student to actually take the assessment—about 50 minutes on reading questions, and a few more minutes on background questions.

Variables/Factors Available in NAEP Reporting

NAEP started in 1964 through a grant from the Carnegie Corporation; that set up the Exploratory Committee for the Assessment of Progress in Education. The first national assessments were conducted in 1969 under the U.S. Department of Education. Voluntary assessments for states began in 1990. In 2003, NCLB mandated NAEP grades 4 and 8 Reading and Mathematics Assessments.

NAEP is not designed to report individual students, school or district data due to a number of reasons including: sample size, students do not take the entire test and the data are only estimates of selected sample population subgroups. Therefore only state and national results are available.

NAEP/Westat, the contractor for NAEP data submittal uses a number of student variables to report on the subject-matter achievement of selected sample population subgroups. These variables are:

- Gender
- National School Lunch Program status
- Race/ethnicity
- Limited English Proficiency status
- Individualized Educational Plan or 504 status

In addition, NAEP surveys the school administrator, teachers of assessed students and the participating students on a number of factors including but not limited to:

- School Location and Demographics
- Teacher Demographics
- Teacher Preparation, Credentials, Experiences
- Student Time Use Outside of School
- Parental Education Level

A number of these variables/factors are reported for Colorado grades 4 and 8 in this document and are certainly not inclusive of the vast quantity of data available from NAEP. For access to more data please visit the NAEP Data Explorer tool on-line at <http://nces.ed.gov/nationsreportcard/nde/>

Types of Scoring

Two different ways NAEP reports scores is represented in this document: Average Scale Score and Achievement Levels. Following is a brief description of each.

Average Scale Score

- Scale scores—indicate how much students *know and can do*.
 - Range is 0-500
 - The Average Scale Score reflects the subgroup as a whole and is not necessarily the Average Scale Score achieved by those students at or above Proficient.

NAEP Reading Cut Scores – 4th Grade	
Advanced (A)	268 - 500
Proficient (P)	238 - 267
Basic (B)	208 - 237
Below Basic (BB)	0 - 207

NAEP Reading Cut Scores – 8th Grade	
Advanced (A)	323 - 500
Proficient (P)	281 - 322
Basic (B)	243 - 280
Below Basic (BB)	0 - 242

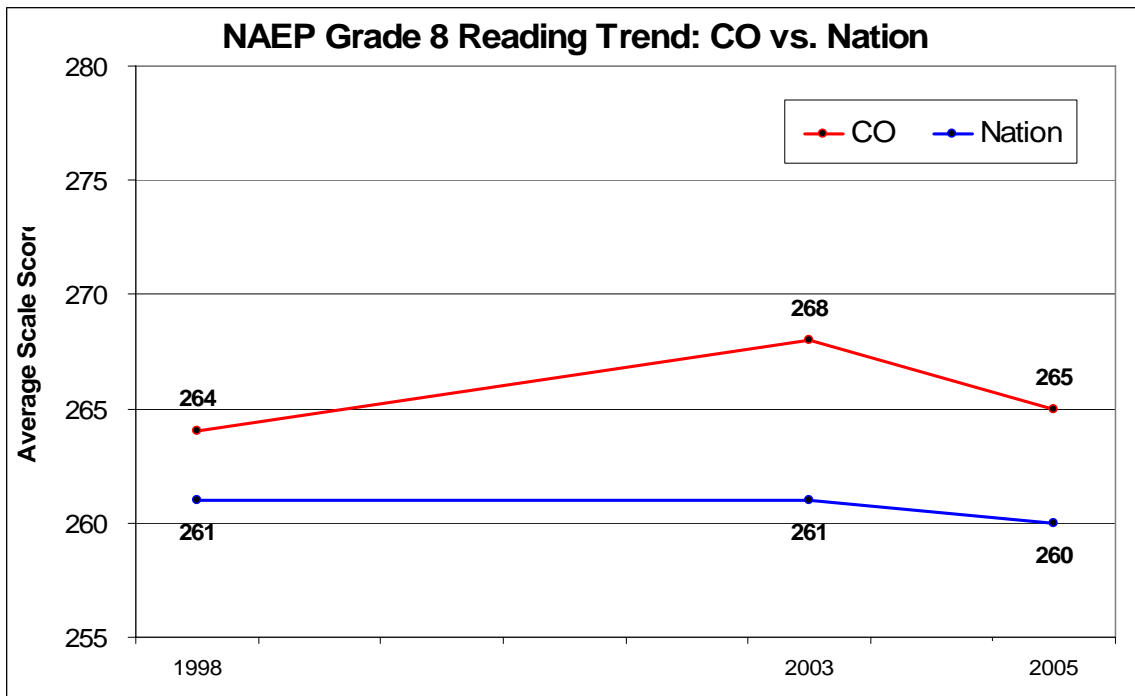
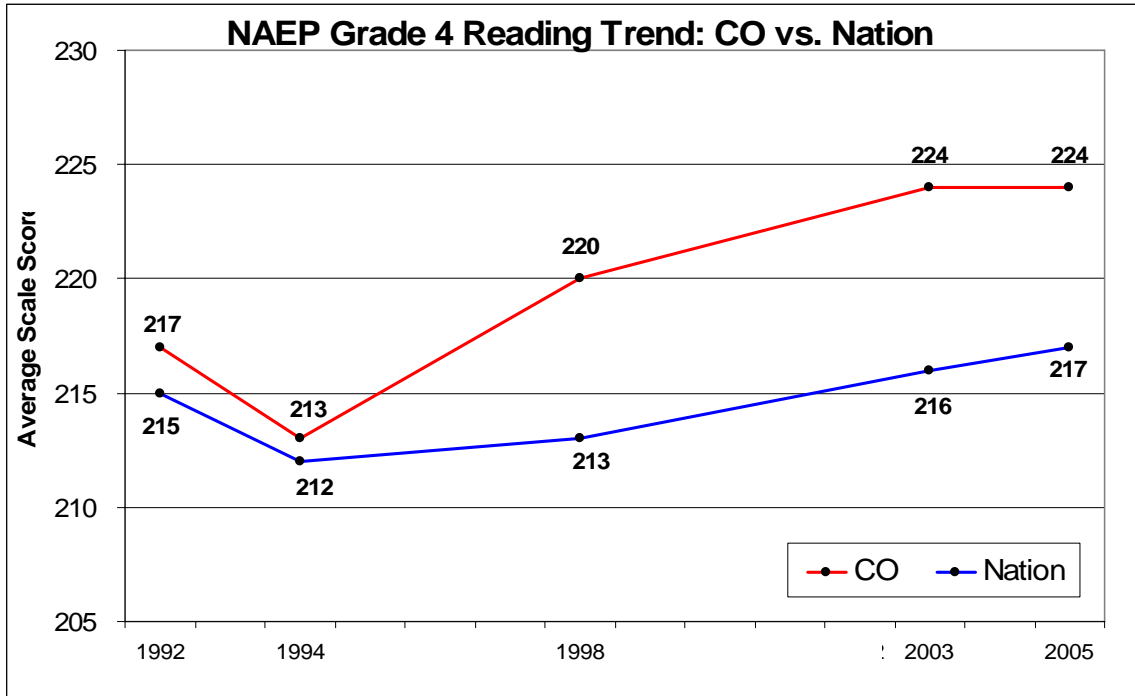
Achievement Levels

Policy definitions of NAEP Achievement Levels:

- *Basic:* This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
- *Proficient:* This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
- *Advanced:* This level signifies superior performance.

For more details on the NAEP *Achievement Level descriptions for reading—set separately by grade* see the following indicated source.

Source: National Assessment Governing Board. (2004) *Reading Framework for the 2005 National Assessment of Educational Progress*. Washington, DC: Author
http://www.nagb.org/pubs/r_framework_05/toc.html



NOTE: The NAEP Reading scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, 2002, 2003 and 2005 Reading Assessments.

**Stem and Leaf Table Comparing Colorado's
Grade 4 Percentage of Students At and Above Proficient
NAEP 2005 Reading**

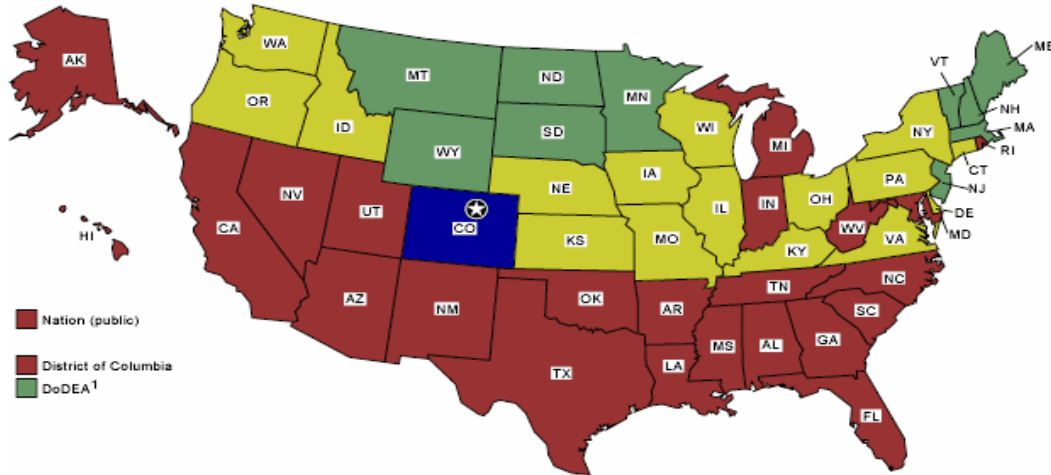
Previous Years		% At or Above Proficient	States and Other Jurisdictions
		44	Massachusetts (43.7)
		43	
		42	
		41	
		40	
		39	New Hampshire (38.6), Vermont (38.5)
		38	Connecticut (38.3), Minnesota (38)
COLORADO 2005 and 2003		37	New Jersey (37.2), Virginia (36.9)
		36	Pennsylvania (35.9), Department of Defense (35.6), Montana (35.6), Washington (35.5), North Dakota (35.5)
		35	Maine (35.2), Wyoming (34.5)
		34	Ohio (34.4), Delaware (34.2), Utah (34.1), Nebraska (33.5)
COLORADO 1998		33	New York (33.3), Wisconsin (33.1), Iowa (33), South Dakota (32.9), Idaho (32.9), Missouri (32.7), Kansas (32.5)
		32	Maryland (32.3) Michigan (31.7)
		31	Kentucky (30.8)
National 2002	National 2005	30	Indiana (30.3), Florida (30.1), National (29.8), Rhode Island (29.7), Arkansas (29.7)
		29	Illinois (29.4), Oregon (29.4), North Carolina (29.3), Texas (29)
National 1994, 1998 and 2000	COLORADO 1994	28	
National 1992		27	Alaska (26.7), Tennessee (26.7)
		26	Georgia (26.3), South Carolina (25.6), West Virginia (25.6)
COLORADO 1992		25	Oklahoma (25.1)
		24	Arizona (23.6)
		23	Hawaii (23.4)
		22	Alabama (22.3)
		21	California (21.4), Nevada (20.5), New Mexico (20.5)
		20	Louisiana (20.4)
		19	
		18	Mississippi (18.2)
		17	
		16	
		15	
		14	
		13	
		12	
		11	District of Columbia (11.2)
Higher than COLORADO		Not significantly different from COLORADO	
		Lower than COLORADO	

**Stem and Leaf Table Comparing Colorado's
Grade 8 Percentage of Students At and Above Proficient
NAEP 2005 Reading**

Previous Years		% At or Above Proficient	States and Other Jurisdictions
		44	Massachusetts (44)
		43	
		42	
		41	
		40	
		39	
		38	Maine (38), New Hampshire (37.9), New Jersey (37.7)
		37	Vermont (37.4), Department of Defense (37.3), Minnesota (37.2), Montana (36.7), North Dakota (36.5)
COLORADO 2003		36	Pennsylvania (36), Virginia (35.7), Wyoming (35.7), Ohio (35.5)
		35	South Dakota (35.1), Wisconsin (34.9), Kansas (34.8), Nebraska (34.5)
		34	Washington (34.3), Iowa (33.8), Connecticut (33.6), New York (33.5)
		33	Oregon (32.6)
COLORADO 2005		32	Idaho (32.2)
National 2002		31	Illinois (31), Missouri (30.9), Kentucky (30.6)
National 1998 and 2003	COLORADO 1998	30	Delaware (30.3), Maryland (29.9)
National 2005		29	Rhode Island (29.4), Utah (29.3) National (28.9), Michigan (28.5)
		28	Indiana (28.4)
National 1992 and 1994		27	North Carolina (26.9)
		26	Alaska (26.4), Tennessee (26.2), Texas (26.1), Arkansas (25.9)
		25	Oklahoma (25.3), Florida (25.1), Georgia (24.9), South Carolina (24.7)
		24	
		23	Arizona (23.1)
		22	Nevada (22.4), West Virginia (21.9), Alabama (21.9)
		21	California (20.5)
		20	Louisiana (19.9)
		19	New Mexico (19.2), Mississippi (18.5)
		18	Hawaii (18.3)
		17	
		16	
		15	
		14	
		13	
		12	District of Columbia (11.7)
Higher than COLORADO		Not significantly different from COLORADO	Lower than COLORADO

ALL STUDENTS – AVERAGE SCALE SCORE

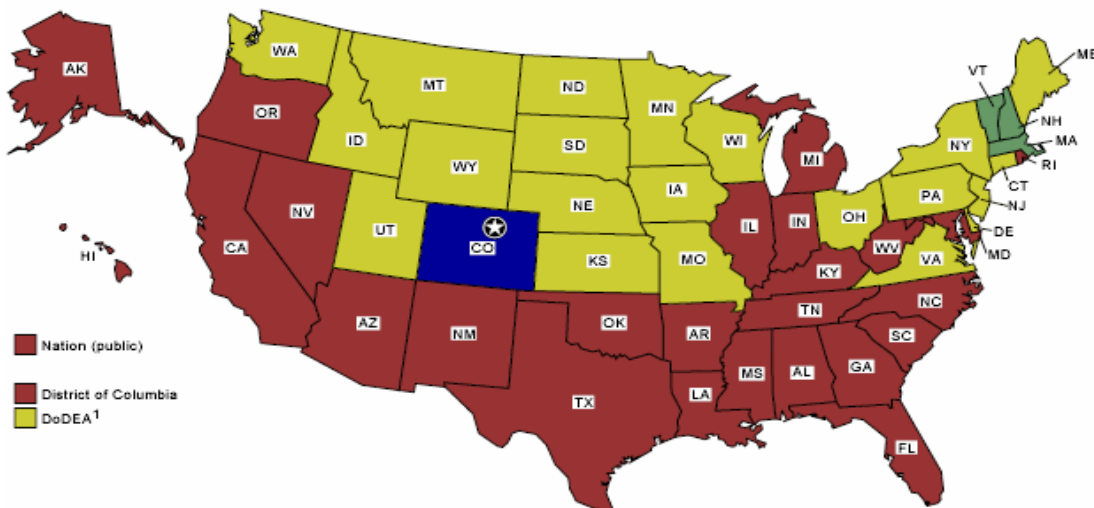
Reading: Grade 4



- ★ Focal state/jurisdiction (Colorado)
- Higher average scale score than Colorado (11 jurisdictions)
- Not significantly different from Colorado (16 jurisdictions)
- Lower average scale score than Colorado (nation and 24 jurisdictions)

¹ Department of Defense Education Activity schools (domestic and overseas).
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Reading: Grade 8



- ★ Focal state/jurisdiction (Colorado)
- Higher average scale score than Colorado (3 jurisdictions)
- Not significantly different from Colorado (22 jurisdictions)
- Lower average scale score than Colorado (nation and 26 jurisdictions)

¹ Department of Defense Education Activity schools (domestic and overseas).
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2005 Reading Assessment.

Description of Geographic Locations

The bar graphs on the next page compare the results for the different types of geographic locations in Colorado.

Results from the 2005 assessment are reported for students attending schools in three mutually exclusive location types: central city, urban fringe/large town, and rural/ small town.

Central city: Following standard definitions established by the Federal Office of Management and Budget, the Census Bureau (see <http://www.census.gov/>) defines "central city" as the largest city of a Metropolitan Statistical Area (MSA) or a Consolidated Metropolitan Statistical Area (CMSA). Typically, an MSA contains a city with a population of at least 50,000 and includes its adjacent areas. An MSA becomes a CMSA if it meets the requirements to qualify as an MSA, has a population of 1,000,000 or more, its component parts are recognized as primary MSAs, and local opinion favors the designation. In the NCES Common Core of Data (CCD), locale codes are assigned to schools.

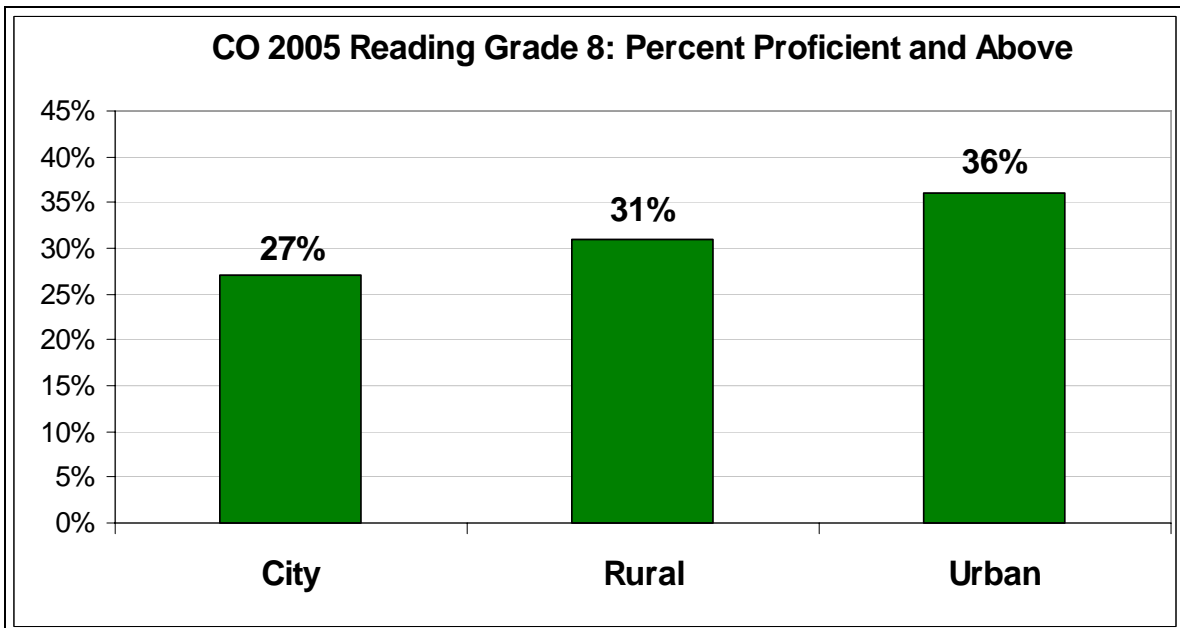
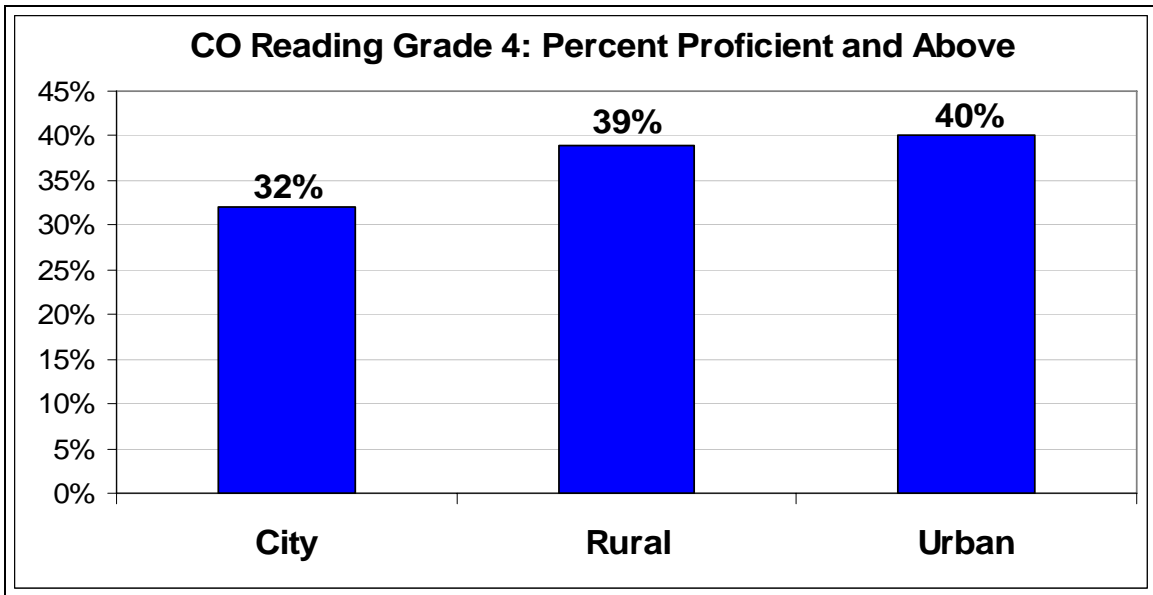
For the definition of central city used in this report, two locale codes of the survey are combined. The definition of each school's type of location is determined by the size of the place where the school is located and whether or not it is in an MSA or a CMSA. School locale codes are assigned by the Census Bureau. For the definition of central city, NAEP reporting uses data from two CCD locale codes: large city (a central city of an MSA or CMSA with the city having a population greater than or equal to 25,000) and mid-size city (a central city of an MSA or CMSA having a population less than 25,000). Central city is a geographical term and is not synonymous with "inner city."

Urban fringe/large town: The urban fringe category includes any incorporated place, census designated place, or non-place territory within a CMSA or an MSA of a large or mid-sized city and defined as urban by the Census Bureau, but which does not qualify as a central city. A large town is defined as a place outside a CMSA or an MSA with a population greater than or equal to 25,000.

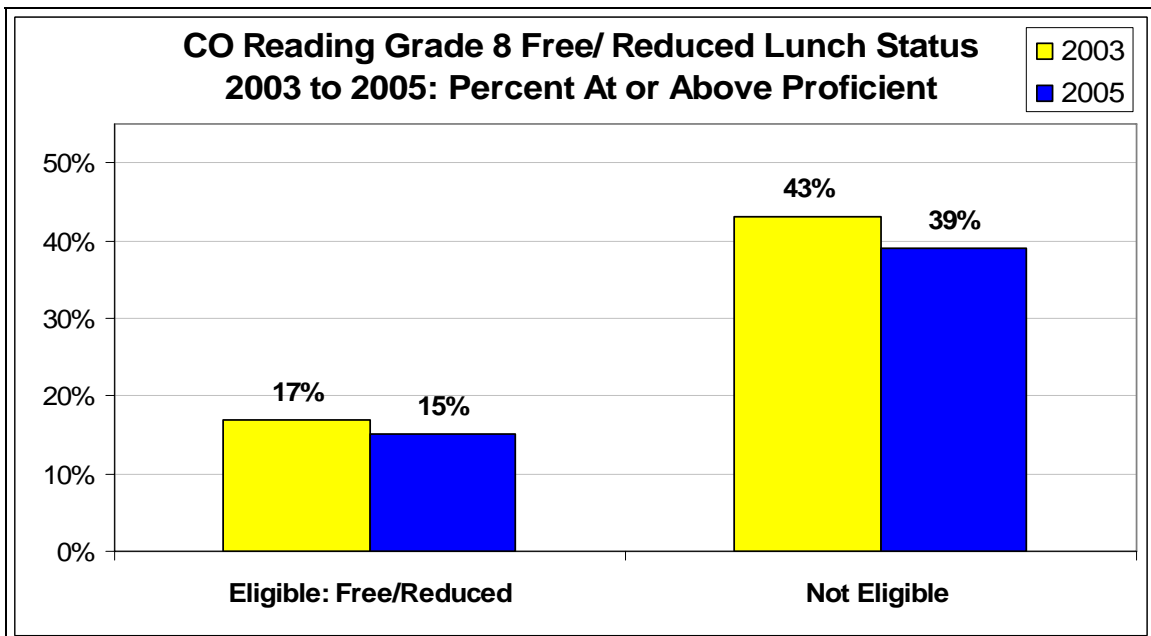
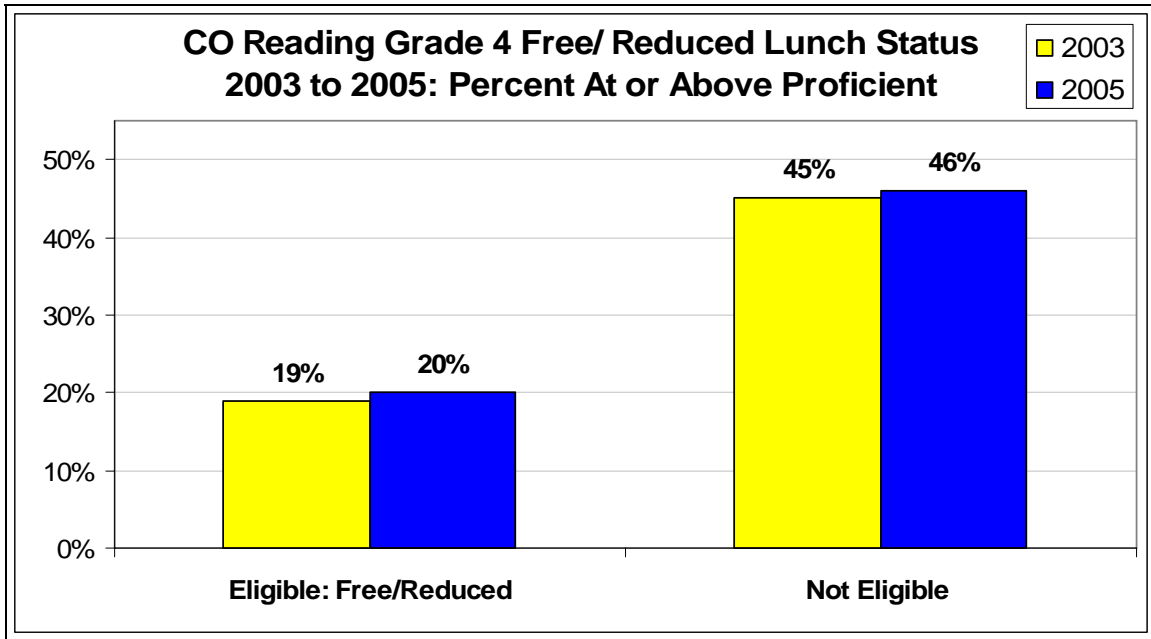
Rural/small town: Rural includes all places and areas with populations of less than 2,500 that are classified as rural by the Census Bureau. A small town is defined as a place outside a CMSA or an MSA with a population of less than 25,000, but greater than or equal to 2,500. Results for each type of location are only compared across years 2000 and after. This is due to new methods used by NCES to identify the type of location assigned to each school in the CCD. The new methods were put into place by NCES in order to improve the quality of the assignments, and they take into account more information about the exact physical location of the school. The variable was revised in NAEP beginning with the 2000 assessments.

Source: Appendix A, Overview of Procedures Used for the NAEP 2005 Assessment, State Report Generator

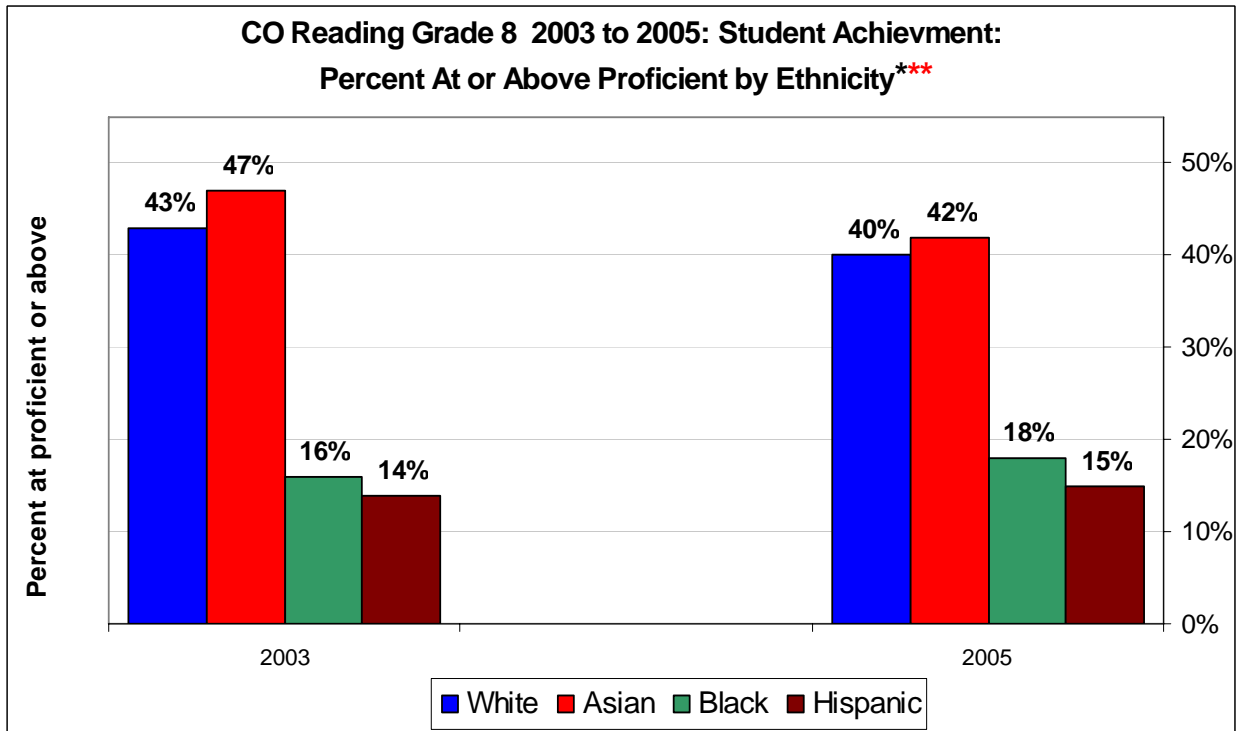
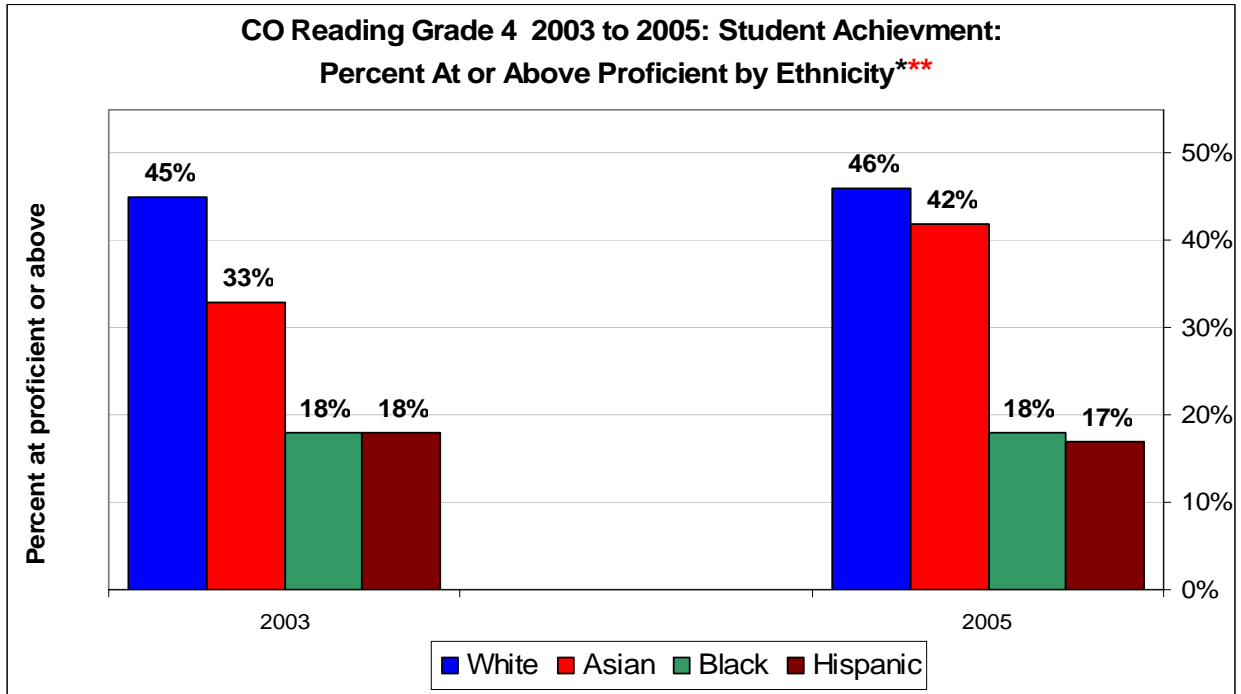
NAEP Reading by Location



NAEP Achievement by National School Lunch Eligibility



Achievement by Ethnicity from 2003 to 2005



*There is no statistically significant difference within any of the groups from 2003 to 2005.

**There was not a representative number of Native Americans to report results for them.