

## Reading Proficiency

### Headline

Average reading proficiency scores for white, black, and Hispanic students in both fourth and eighth grade were significantly higher in 2007 than in 1992, when assessment began. ([See Table 1 and Table 2](#))

### Importance

The ability to read proficiently is a fundamental skill that affects the learning experiences and school performance of children and adolescents. Students who are competent readers, as measured by their performance on reading tests, are more likely to perform well in other subjects, such as math and science.<sup>1,2</sup> Reading achievement also predicts the likelihood of graduating from high school and attending college.<sup>3</sup>

Reading skills also influence students' well-being as adults. For instance, illiterate adults find it difficult to function in society, as many basic decision-making skills require reading proficiency.<sup>4</sup> People who are not able to fill out an application because of limited reading or writing skills are likely to have difficulty finding a job. Strong reading skills protect against unemployment in early adulthood.<sup>5</sup> Research has confirmed that performance on adult literacy tests helps to explain differences in wages.<sup>6</sup> Further, adults with limited reading abilities are likely to pass these limitations on to their children.<sup>7</sup>

### Trends

From 1992 to 2002, average scores for eighth graders increased from 260 to 264, before declining slightly to 263 in 2007. ([See Figure 1](#)) Fourth grade reading scores are significantly higher than in any other assessment year, with a national average of 221 in 2007, as compared to 217 in 1992. ([See Figure 1](#)) Reading scores for twelfth grade students decreased significantly from 292 in 1992 to 286 in 2005, the last year for which data are available.

Note: In 1996, NAEP started allowing testing accommodations for students with disabilities and for limited English proficient students. Accommodations may include extra time, one-on-one administration, use of magnifying equipment, translation of assessments, or the use of bilingual dictionaries and are determined by state and district policies. Beginning in 2002, all NAEP assessments allow accommodations.

### Differences by Race and Ethnicity<sup>8</sup>

In 2007, white and Asian/Pacific Islander students had significantly higher reading scores than blacks, Hispanics, and American Indians in the fourth and eighth grades, with average scores ranging from 24 to 29 points higher. ([See Figure 2](#)) White and Asian American twelfth graders scored significantly higher than black and Hispanic students by 15 to 26 points in 2005. The performance gap between white and black students

consistently decreased from 1992 to 2007, while the gap between white and Hispanic students has not changed significantly since 1992. ([See Table 1](#), [Table 2](#), [Table 3](#))

### **Differences by Free/Reduced-Price School Lunch Program Eligibility**

At all three grade levels, lower-income students who were eligible for free- and reduced-price lunches had lower NAEP reading scores, on average, than students who were not eligible. In 2007, differences in performance were 27 points in the fourth grade and 24 points in the eighth grade. Among twelfth grade students, performance differed by 19 points in 2005. ([See Table 1](#), [Table 2](#), [Table 3](#))

### **Differences by Gender**

Girls had higher NAEP reading scores, on average, than boys. This gender gap increased modestly at higher grade levels. In 2007, in the fourth grade the gap was 6 points, increasing to 10 points by the eighth grade. ([See Figure 3](#)) Among twelfth graders, girls had significantly higher NAEP reading scores than boys (13 points).

### **Differences by Region**

Reading scores also differed by geographical region. In 2007, fourth graders from the Northeast, on average, scored 14 points higher than fourth graders in the West, 8 points higher than fourth graders in the South, and 4 points higher than fourth graders in the Midwest (228 versus 214, 220, and 224 respectively). Eighth graders in the Northeast scored, on average, 11 points higher than eighth graders in the West, 8 points higher than eighth graders in the South, and 3 points higher than eighth graders in the Midwest (269 versus 258, 261, and 266, respectively). ([See Figure 4](#))

### **State and Local Estimates**

2007 reading estimates for 4<sup>th</sup> and 8<sup>th</sup> graders for states participating in NAEP are available at: [http://nationsreportcard.gov/reading\\_2007/r0005.asp](http://nationsreportcard.gov/reading_2007/r0005.asp)

2007 reading estimates for 4<sup>th</sup> and 8<sup>th</sup> graders by region are available at [http://nationsreportcard.gov/reading\\_2007/r0037.asp](http://nationsreportcard.gov/reading_2007/r0037.asp)

2007 state estimates for 4<sup>th</sup> graders who scored below the basic reading level are available at [http://www.aecf.org/kidscount/sld/compare\\_results.jsp?i=550](http://www.aecf.org/kidscount/sld/compare_results.jsp?i=550)

2007 state estimates for 4<sup>th</sup> graders who scored at or above the proficient reading level are available at [http://www.aecf.org/kidscount/sld/compare\\_results.jsp?i=560](http://www.aecf.org/kidscount/sld/compare_results.jsp?i=560)

2007 state estimates for 8<sup>th</sup> graders who scored below the basic reading level are available at [http://www.aecf.org/kidscount/sld/compare\\_results.jsp?i=630](http://www.aecf.org/kidscount/sld/compare_results.jsp?i=630)

2007 state estimates for 8<sup>th</sup> graders who scored at or above the proficient reading level are available at [http://www.aecf.org/kidscount/sld/compare\\_results.jsp?i=640](http://www.aecf.org/kidscount/sld/compare_results.jsp?i=640)

2007 estimates for 4<sup>th</sup> and 8<sup>th</sup> graders in 11 large urban districts participating in NAEP are available at [http://nationsreportcard.gov/tuda\\_reading\\_2007](http://nationsreportcard.gov/tuda_reading_2007)

### **International Estimates**

International estimates of reading literacy for 4<sup>th</sup> grade students are available from the Progress in International Reading Literacy Study (PIRLS) assessment, which compares the scores of U.S fourth graders to their peers in 44 different countries. Available at: <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008017>

International estimates of reading literacy for 4<sup>th</sup> grade students and 15 year olds are available from the Organization for Economic Cooperation and Development's (OECD) *Education at a Glance 2004* report at: [http://www.oecd.org/document/11/0,2340,en\\_2649\\_34515\\_33712011\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/11/0,2340,en_2649_34515_33712011_1_1_1_1,00.html) (Tables A6.1-A6.3)

### **National Goals**

The No Child Left Behind Act, signed into law in January 2002, requires states to set performance standards for multiple subjects, including reading, and requires that each state measure students' progress in reading and mathematics every year from grades 3 to 8, and at least once in grades 10 to 12. Each state is expected to make adequate yearly progress toward meeting standards, and all children are expected to meet or exceed minimum proficiency standards, as defined by the state, within twelve years.

### **Definition**

Reading proficiency refers to performance on the National Assessment of Educational Progress (NAEP) Reading Assessments. Scale scores range from 0 to 500, with a standard deviation of 100. In 1996, NAEP started allowing testing accommodations for students with disabilities and for limited English proficient students. Accommodations may include extra time, one-on-one administration, use of magnifying equipment, translation of assessments, or the use of bilingual dictionaries and are determined by state and district policies. Beginning in 2002, all NAEP assessments allow accommodations.

### **Data Sources**

U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. *National Assessment of Educational Progress Reading and Mathematics Assessments (NAEP), 2007, 2005, 2003, 2000, 1996, 1992, and 1990 Reading Assessments*. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>

## Raw Data Source

National Assessment of Educational Progress

<http://nces.ed.gov/nationsreportcard/>

## Approximate Date of Next Update

2009

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<sup>1</sup> Jordan, W.J., & Nettles, S.M. (1999). *How Students Invest Their Time Out of School: Effects on School Engagement, Perceptions of Life Chances, and Achievement*. Report No. 29. Washington, D.C.: Center for Research on the Education of Students Placed At Risk.

<http://www.csos.jhu.edu/crespar/techReports/Report29.pdf>

<sup>2</sup> Carnine, Linda, and Carnine, Douglas. (2004). "The Interaction of Reading Skills and Science Content Knowledge When Teaching Struggling Secondary Students." *Reading and Writing Quarterly* 20: 203-218.

<sup>3</sup> Ludwig, J. (1999). "Information and Inner City Educational Attainment." *Economics of Education Review*, 18, 17-30; Zaff, J.F., Moore, K.A., Papillo, A.R., & Williams, S. (2003). Implications of extracurricular activity participation during adolescence on positive outcomes. *Journal of Adolescent Research*, 18(06).

<sup>4</sup> Kirsch, I., Jungeblut, A., Jenkins, L. & Kolstad, A. (1993). *Adult Literacy in America: A First Look at the Findings of the National Adult Literacy Survey*. Washington, DC: National Center for Education Statistics. [On-line]. Available <http://nces.ed.gov/pubs93/93275.pdf>; Humboldt Literacy Project. N.D. *Fast Facts on Literacy*. Eureka, CA. Author. [On-line]. Available: [http://www.eurekaweb.com/humlit/fast\\_facts.htm](http://www.eurekaweb.com/humlit/fast_facts.htm)

<sup>5</sup> Caspi, A., Wright, B.E., Moffit, T.E., & Silva, P.A. (1998). "Childhood Predictors of Unemployment in Early Adulthood." *American Sociological Review*, 63 (3), 424-451.

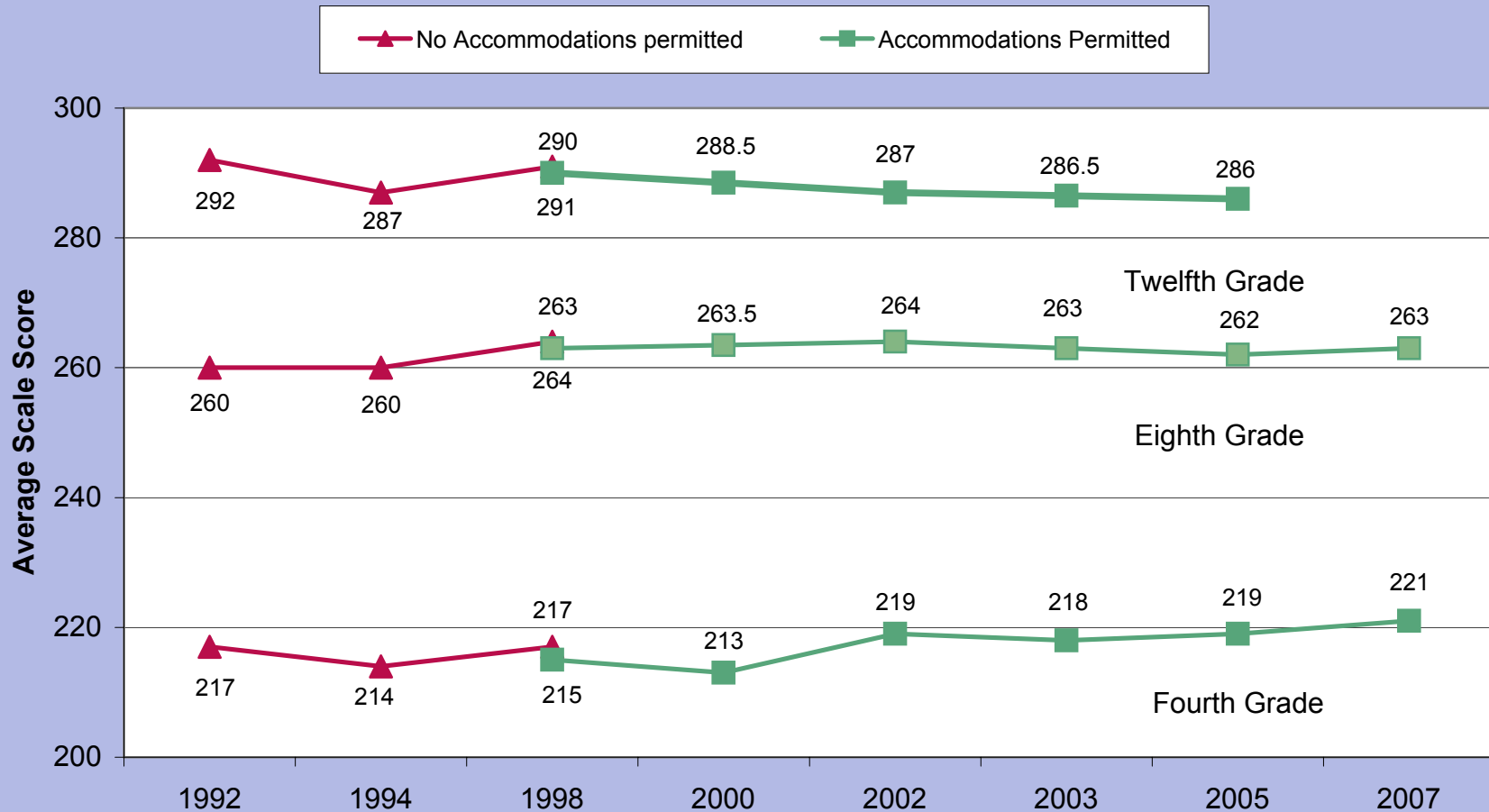
<sup>6</sup> Blau, F. & Kahn, L. (2000). *Do Cognitive Test Scores Explain US Wage Inequality?* National Bureau of Economic Research, Inc (RePEc:nbr:nberwo:8210).

<sup>7</sup> Moore, K., Gleib, D., Driscoll, A., Zaslow, M., and Redd, Z. (2002). "Poverty and Welfare Patterns: Implications for Children." *Journal of Social Policy*.

<sup>8</sup> Note that none of the race groups include Hispanics of those races. Special analyses by the NCES of the 12<sup>th</sup> grade American Indian and Alaska Native data raised concerns about accuracy so these results are not discussed in this paper.

Figure 1

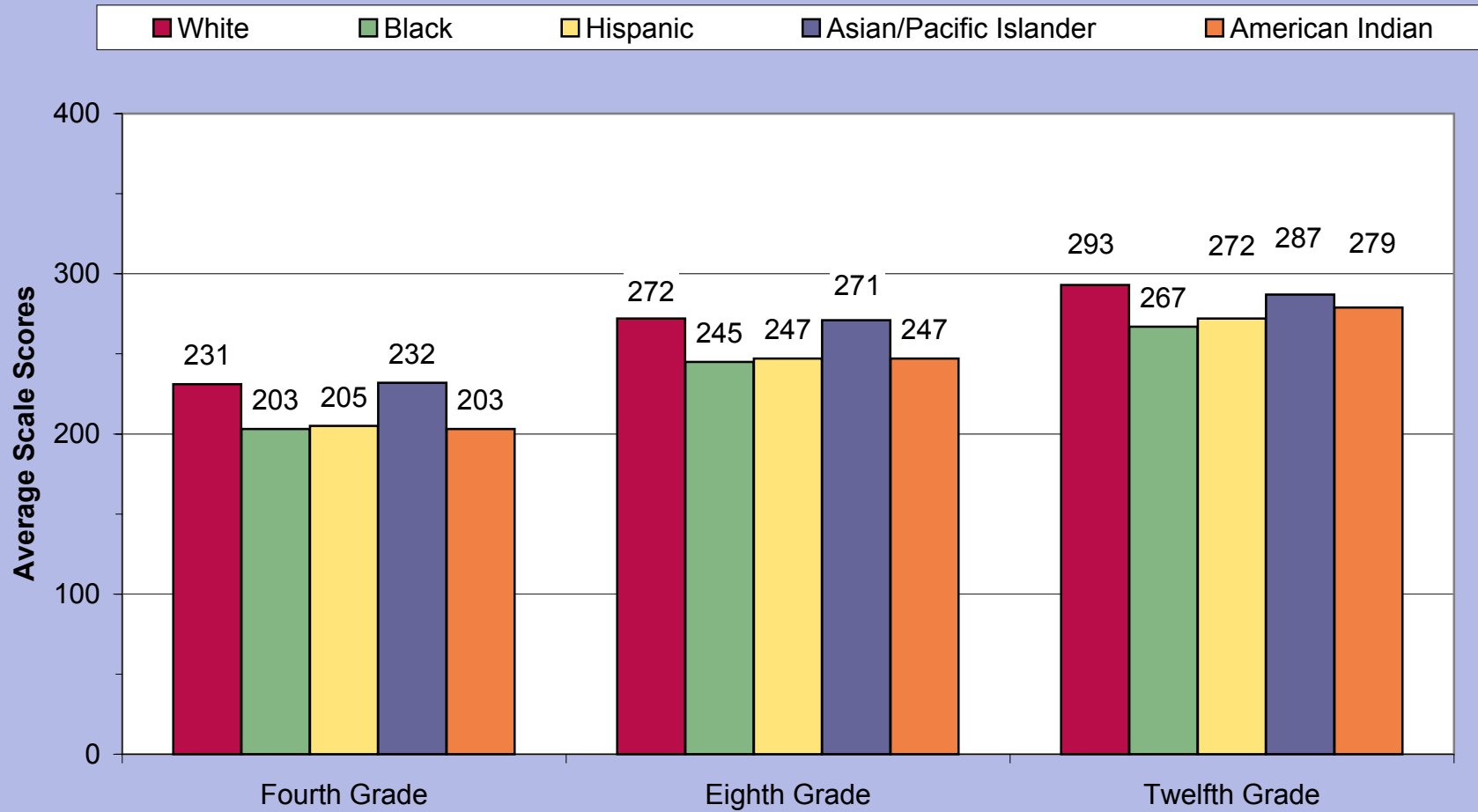
## Trends in NAEP Reading Scale Scores, by Grade, 1992-2007



Note: In 1996, NAEP started allowing testing accommodations for students with disabilities and for limited English proficient students. Accommodations may include extra time, one-on-one administration, use of magnifying equipment, translation of assessments, or the use of bilingual dictionaries and are determined by state and district policies. Beginning in 2002, all NAEP assessments allow accommodations. Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress (NAEP), 2007 Reading Assessments. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>

Figure 2

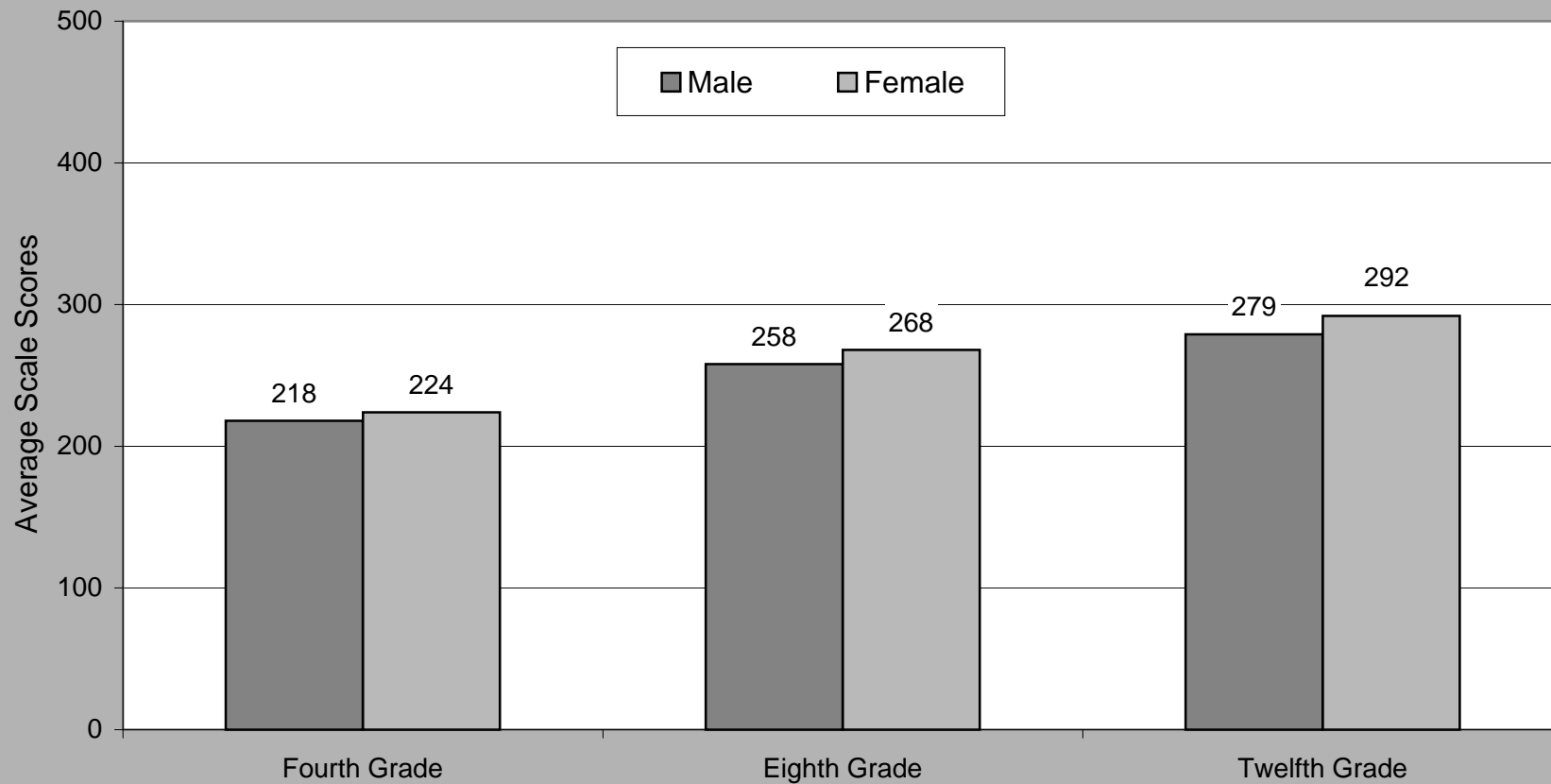
### National NAEP Reading Scale Scores for Grades 4, 8, (2007) and 12 (2005) by Race and Ethnicity



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress (NAEP), 2007, 2005 Reading Assessments. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>

Figure 3

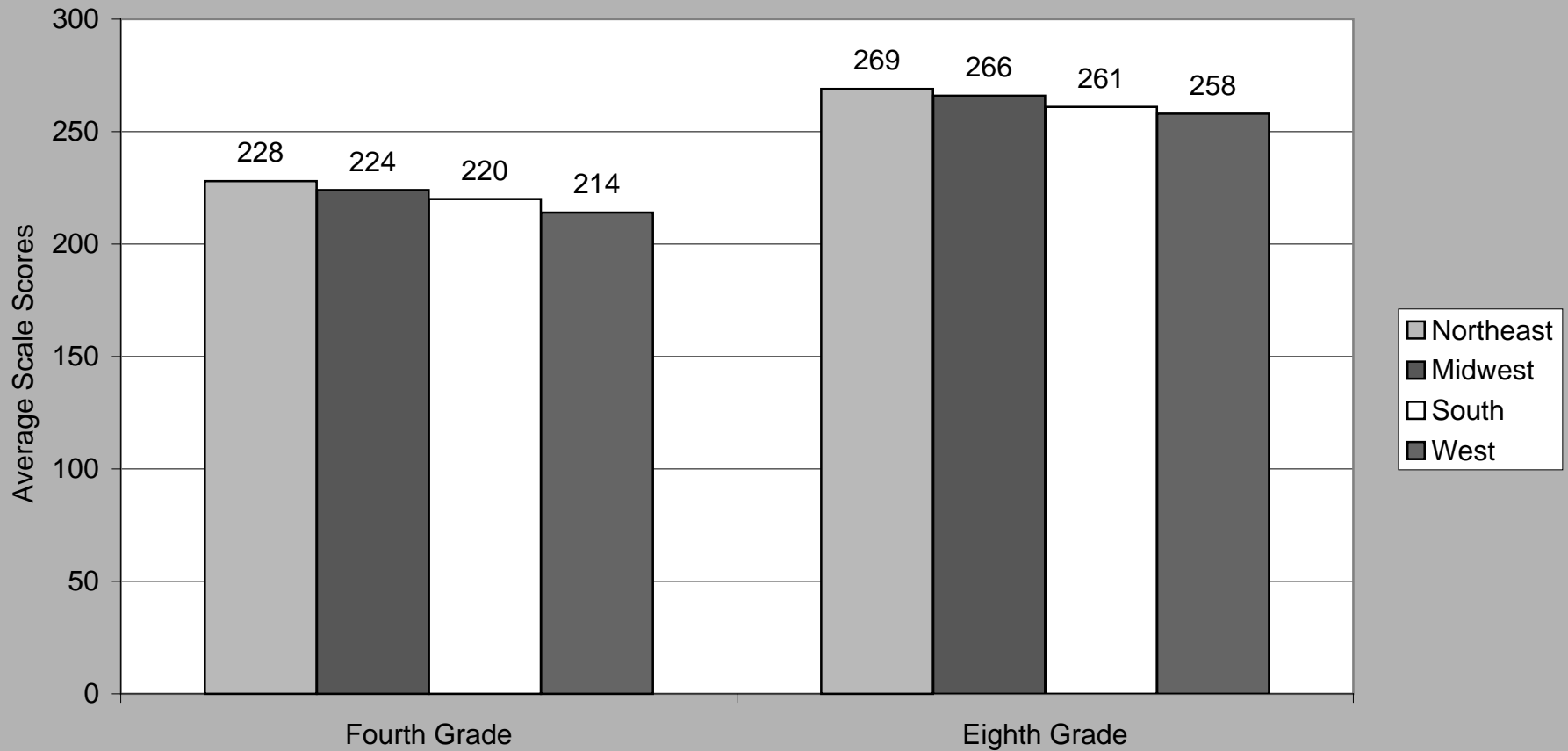
### National NAEP Reading Scale Scores for Grades 4, 8 (2007) and 12 (2005) by Gender



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress (NAEP), 2007 and 2005 Reading Assessments. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>

Figure 4

### National NAEP Reading Scale Scores for Grades 4 and 8 by Region, 2007



Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress (NAEP), 2007 Reading Assessments. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>





Table 3

National Reading NAEP Average Scale Scores:<sup>4</sup> Grade 12

	1992	1994	1998	1998	2002	2005
	<u>No Accommodations permitted<sup>1</sup></u>			<u>Accommodations Permitted<sup>1</sup></u>		
<b>Total</b>	292	287	291	290	287	286
<b>Gender</b>						
<b>Male</b>	287	280	283	282	279	279
<b>Female</b>	297	294	298	298	295	292
<b>Race/Ethnicity<sup>2</sup></b>						
<b>White</b>	297	293	297	297	292	293
<b>Black</b>	273	265	271	269	267	267
<b>Hispanic</b>	279	270	276	275	273	272
<b>Asian/Pacific Islander</b>	290	278	288	287	285	287
<b>American Indian<sup>3</sup></b>	-	274	-	-	294	279
<b>Other</b>	-	-	-	-	287	283
<b>Program Eligibility</b>						
<b>Eligible</b>	-	-	271	270	273	271
<b>Not eligible</b>	-	-	293	293	289	290
<b>Information not available</b>	-	-	296	295	294	295
<b>Parent's Education</b>						
<b>Did not finish high school</b>	275	266	268	268	268	268
<b>Graduated high school</b>	283	277	280	279	278	274
<b>Some education after high school</b>	294	289	292	291	289	287
<b>Graduated college</b>	301	298	301	300	296	297
<b>Unknown</b>	258	248	250	248	247	255
<b>Type of School</b>						
<b>Public</b>	290	286	289	289	285	285
<b>Nonpublic</b>	308	301	303	303	304	-
<b>Type of Location</b>						
<b>Central City</b>	-	-	-	-	284	284
<b>Urban fringe/ large town</b>	-	-	-	-	290	288
<b>Rural/ small town</b>	-	-	-	-	285	285
<b>Percentile Score</b>						
<b>10<sup>th</sup></b>	249	239	242	240	237	235
<b>25<sup>th</sup></b>	271	264	268	267	263	262
<b>50<sup>th</sup></b>	294	290	293	293	289	288
<b>75<sup>th</sup></b>	315	313	317	317	312	313
<b>90<sup>th</sup></b>	333	332	337	336	332	333

"-" Indicates no data available

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<sup>2</sup>Note that none of the race groups include Hispanics of those races.

<sup>3</sup>Special analyses by the NCES of the 12th grade American Indian and Alaska Native data raised concerns about accuracy so these results should be

<sup>4</sup>Scale Scores range from 0 to 500, with a standard deviation of 100.

Source: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics. National Assessment of Educational Progress Reading Assessments (NAEP), 2005, 2003, 2000, 1996, and 1992, Reading Assessments. Accessed through the NAEP data tool at <http://nces.ed.gov/nationsreportcard/nde/criteria.asp>

