

High School Literacy: A Quick Stats Fact Sheet

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From helping to achieve economic well-being to constructing a sense of self, literacy plays a central role in how people interact with each other and with the world around them (Phelps, 2005). The importance of being literate has only increased over the decades and stands to become even more important in the future. Fifty years ago, an abundance of manufacturing and other well-paying jobs for those with low levels of literacy allowed them to maintain a middle-class lifestyle (Biancarosa & Snow, 2004). However, the American economy has seen the flight of these low-skilled and well-paying jobs to other countries, with a simultaneous growth of service sector jobs requiring high levels of literacy from employees (National Center on Education and the Economy, 2007). These jobs require employees to integrate new information with the old, critique opinions, understand context, and synthesize new ideas – all high-order thinking skills facilitated by being fully literate. Unfortunately, the American high school is failing large proportions of its students, leaving them ill-equipped to compete in this new economy, as the following statistics illustrate:

Unacceptable numbers of high school students do not read proficiently

- Over the last 15 years, 15 million students have graduated from high school reading at below the basic level (Bottoms, 2004).
- The percentage of high school seniors performing at or above the basic level in reading on the National Assessment of Educational Progress (NAEP) decreased from 80% in 1992 to 73% in 2005 (NCES, 2007).¹
- Over the same period, the percentage of high school seniors performing at or above the proficient level decreased from 40% to 35% (NCES, 2007).
- About 70% of high school students need some form of remediation; the most common problem is that students cannot comprehend the words they read—not that they cannot read them (Biancarosa & Snow, 2004).
- Scores declined on each of NAEP’s three “reading contexts” between 1992 and 2005. There was a 2-point decline in reading for information, a 6-point decline in reading to perform a task, and a 12-point decline in reading for literary experience over this period (NCES, 2007).

Student literacy problems often start in high school

- Between 1992 and 2005, NAEP 4th-grade reading scores held steady, 8th-grade reading scores rose from 260 to 262, and 12th-grade reading scores *declined* 6 points from 292 in 1992 to 286 in 2005 (NCES, 2007).

¹ For more information on and definitions of NAEP achievement levels visit the National Center for Education Statistics Web site at <http://nces.ed.gov/nationsreportcard/reading/achieveall.asp#grade12> for reading test information and <http://nces.ed.gov/nationsreportcard/writing/achieveall.asp#grade12> for writing test information.

- Based on the results of assessments designed by ACT, Inc., fewer students are ready for college-level reading by the time they graduate from high school than would be expected given their performance levels in the 8th and 10th grades, suggesting that a drop off occurs in college-ready literacy between the 8th and 12th grades (ACT, 2006).
- NAEP trend results between 1971 and 2004 show that average reading scores among 9-year-old students were the highest they have ever been, while scores for 17-year-old students had dropped since 1992 (Perie, Moran, & Lutkus, 2005).

Literacy instruction is often not available in high school

- Two reasons for poor literacy performance in high school are that reading and writing are rarely taught as separate subjects beyond 8th grade, and content teachers do not feel that they need to include reading strategy instruction in their course curricula (Heller & Greenleaf, 2007). Of the 49 states with reading standards, 28 states fully define grade-level standards only through the 8th grade (ACT, 2006).
- A 2002 survey of content methods textbooks (i.e. teachers instructional guides) —including three each in mathematics, social studies, and science—found that content textbooks offer few specific strategies for teachers to use to help their students understand and actively engage the content material through reading, with no suggestions for struggling readers. This omission is of particular concern since students of high school age are expected to read to learn content material, and it is assumed that they learned to read prior to high school (Draper, 2002).
- Deliberate literacy instruction in high school offers some potentially promising outcomes. For example, a literacy-in-content program for ethnically diverse 9th-grade students in a San Francisco high school, that incorporated note taking, paraphrasing, vocabulary, writing, and instruction in text structures, resulted in large gains in reading comprehension scores on standardized tests (Greenleaf, Schoenbach, Cziko, & Mueller, 2001). Another recent study suggests that certain supplemental reading programs offered in high school to students who are reading two to five years below grade level can have a significant impact on their reading levels after only one year of the programs (Kemple et al., 2008).

Black and Hispanic students consistently underperform compared to Caucasian students in literacy measures

- Only 16% of Black high school seniors and 20% of Hispanic high school seniors scored at or above proficient on the 2005 NAEP reading test, compared to 43% of Caucasian students (NCES, 2007).
- Gaps in NAEP scores between Caucasian and Asian/Pacific Islander high school seniors on the one hand and Black and Hispanic high school seniors on the other have remained relatively constant during the past decade with the former group scoring 15–26 points higher than the latter over this period (NCES, 2007).

English language learners (ELLs) face particular barriers to achieving high levels of literacy

- Nationally, ELLs scored an average of 41 points lower on the 2007 NAEP 12th-grade writing assessment. While 60% of ELLs scored below basic on this assessment, 83% of non-ELLs scored at or above basic (NCES, 2008).
- ELLs who enter into the U.S. school system in high school enter a learning environment where literacy instruction is rarely given, even though ELLs are expected to learn complex course content (Rivera & Collum, 2006).
- Academic content tests are not sensitive to English language literacy development, meaning that test scores may not be indicative of ELL content mastery (Torgesen et al., 2007).
- Tests often assume cultural experience or historical knowledge that many ELLs may not have as a result of diverse backgrounds, resulting in potential confusion not associated with the content being tested (Short & Fitzsimmons, 2007).
- To master high school coursework, the average high school student is expected to have a vocabulary of about 50,000 words. Considering that the average student learns approximately 3,000 new words each year without targeted intervention, the typical beginning ELL will have learned only 12,000 English words during the course of high school, thus falling well short of the number necessary to engage in high school-level content (Short & Fitzsimmons, 2007).
- Generally, teachers address the diverse linguistic needs of students by simplifying course content and focusing only on basic skills (Koelsch, 2006), whereas research suggests that increasing rigor is more beneficial to ELLs than basic skill instruction. ELLs who gain entry into more rigorous courses develop higher literacy levels than those who remain in low-track courses (Harklau, 2002).

Postsecondary education and workforce success depend on literacy

- Adults with lower levels of literacy earn lower salaries than their more literate peers. Almost 18% of adults with below-basic literacy levels, compared to only about 5% of adults with proficient levels of literacy, earn less than \$300 a week—about \$15,600 per year. Adults who have proficient levels of literacy are roughly five times as likely as adults with below basic levels of literacy to earn \$1950 or more a week—about \$101,400 a year (Kutner et al., 2007).
- According to a 2006 survey conducted by the Conference Board, 63% of employers rated reading comprehension as “very important” for new hired employees who are high school graduates, while 49% of employers found writing skills to be very important. However, almost 40% of employers found high school graduates to be deficient in their reading comprehension skills, and 72% of employers rate high school graduates as deficient in writing skills (National Endowment for the Arts, 2007).
- More than 60% of employed readers with proficient literacy levels have jobs in management, business, financial, or professional sectors, while only 18% of employed basic readers are employed in those sectors (National Endowment for the Arts, 2007).
- Seventy-eight percent of proficient readers have found employment, 56% of basic readers are employed, and only 45% of those reading below basic level are employed (National Endowment for the Arts, 2007).

- Eleven percent of students entering postsecondary schools are enrolled in remedial reading courses (ACT, 2006), and roughly 70% of students who take one or more remedial reading courses in college do not earn a degree or certificate within 8 years (Adelman, 2004).
- Only 51% of high school graduates taking the ACT college entrance exam met ACT's College Readiness Benchmark for Reading, which demonstrates whether or not a student is able to handle the reading requirements for first-year college coursework (ACT, 2006).

These statistics paint a portrait of some of the challenges high school students encounter in obtaining high levels of literacy. The costs of failing to become fully literate are great both to the students and to their communities. Because literacy plays a central role in adolescent development as well as lifelong academic and career opportunities, it is critical that high schools adopt programs and policies that ensure that students from diverse populations and backgrounds have the opportunity to gain high levels of literacy prior to graduation. Sensitivity to the unique needs of learners may require a continuum of approaches ranging from supplemental literacy courses and literacy coaches to embedding literacy across the curriculum. The literacy needs and expectations of high school students differ from those of the elementary and middle grades, requiring developmentally responsive strategies that result in optimal engagement among this age group. These related issues are more fully explored in a forthcoming National High School Center policy brief on high school literacy as well as in a forthcoming case study to be published by the National High School Center.

References

- ACT, Inc. (2006). *Reading between the lines: What the ACT reveals about college readiness in reading*. Iowa City, IA: ACT, Inc. Retrieved from http://www.act.org/path/policy/pdf/reading_report.pdf.
- Adelman, C. (2004). *Principal indicators of student academic histories in postsecondary education, 1972-2000*. Washington, DC: Institute of Education Sciences.
- Biancarosa, G., & Snow, C. (2004). *Reading next: A vision for action and research in middle and high school literacy—A report to Carnegie Corporation of New York*. Washington, DC: Alliance for Excellent Education. Retrieved from <http://www.all4ed.org/files/ReadingNext.pdf>.
- Bottoms, G. (2004). Why we need an across-the-curriculum emphasis on literacy. In *Literacy across the curriculum: Setting and implementing goals for grades six through 12*. Atlanta, GA: Southern Regional Education Board. Retrieved from http://www.sreb.org/programs/hstw/publications/pubs/03V63_literacy%20guide_chapter_1.pdf.
- Draper, R. (2002). Every teacher a literacy teacher? An analysis of literacy-related messages in secondary methods textbooks. *Journal of Literacy Research*, 34, 357–384.
- Heller, R., & Greenleaf, C. L. (2007). *Literacy Instruction in the Content Areas: Getting to the Core of Middle and High School Improvement*. Washington, DC: Alliance for Excellent Education. Retrieved from <http://www.all4ed.org/files/LitCon.pdf>.

Greenleaf, C. L., Schoenbach, R., Cziko, C., & Mueller, F. L. (2001). Apprenticing adolescent readers to academic literacy. *Harvard Educational Review*, 71, 79–129.

Harklau, L. (2002). "ESL Versus Mainstream Classes: Contrasting L2 Learning Environments". In *Enriching ESOL Pedagogy: Readings and Activities for Engagement, Reflection, and Inquiry*. Zamel, V & Spack, R, eds. Philadelphia, PA: Lawrence Erlbaum Associates.

Joftus, S. (2002). *Every child a graduate: A framework for and excellent education for all middle and high school students*. Washington, DC: Alliance for Excellent Education. Retrieved from <http://www.all4ed.org/files/every.pdf>.

Kemple, J., Corrin, W., Nelson, E., Salinger, T., Herrmann, S., & Drummond, K. (2008). *The Enhanced Reading Opportunities Study: Early impact and implementation findings* (NCEE 2008-4015). Washington, DC: National Center for Education, Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.

Koelsch, N. (2006). *Improving literacy outcomes for English language learners in high school: Considerations for states and districts in developing a coherent policy framework*. Washington, DC: The National High School Center. Retrieved from: http://www.betterhighschools.org/docs/NHSC_ImprovingLiteracy_010907.pdf

Kutner, M., Greenberg, E., Jin, Y., Boyle, B., Hsu, Y., & Dunleavy, E. (2007). *Literacy in everyday life: Results from the 2003 National Assessment of Adult Literacy*. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/Pubs2007/2007480.pdf>.

National Center for Education Statistics. (2007). *The nation's report card: 12-Grade reading and mathematics, 2005*. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/nationsreportcard/pdf/main2005/2007468.pdf>.

National Center for Education Statistics. (2008). *NAEP data explorer*. Washington, DC: National Center for Education Statistics. Retrieved from <http://nces.ed.gov/nationsreportcard/nde>.

National Center on Education and the Economy. (2007). *Tough choices or tough times: The report of the new Commission on the Skills of the American Workforce: Executive summary*. Washington, DC: National Center on Education and the Economy. Retrieved from http://www.skillscommission.org/pdf/exec_sum/ToughChoices_EXECESUM.pdf.

National Endowment for the Arts. (2007). *To read or not to read: A question of national consequence*. Washington, DC: National Endowment for the Arts.

Perie, M., Moran, R., & Lutkus, A. (2005). *NAEP 2004 trends in academic progress: Three decades of student performance in reading and mathematics*. Washington, DC: National Center for Education Statistics.

Phelps, S. (2005). *Ten years of research on adolescent literacy, 1994–2004: A review*. Naperville, IL: Learning Point Associates.

River, C., & Collum, E. (2006). *State Assessment Policy and Practice for English Language Learners: A National Perspective*. New York, NY: Routledge.

Short, D., & Fitzsimmons, S. (2007). *Double the work: Challenges and solutions to acquiring language and academic literacy for adolescent English language learners*. New York: Carnegie Corporation of New York. Retrieved from <http://www.all4ed.org/files/DoubleWork.pdf>.

Torgesen, J., Houston, D., Rissman, L., Decker, S., Roberts, G., Vaughn, S., Wexler, J., Francis, D., Rivera, M., Lesaux, N. (2007). *Academic literacy instruction for adolescents: A guidance document from the Center on Instruction*. Portsmouth, NH.