

National Endowment for the Arts

To Read or Not To Read

A QUESTION OF NATIONAL CONSEQUENCE



Research Report #47

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November 2007



National Endowment for the Arts

1100 Pennsylvania Avenue, NW

Washington, DC 20506-0001

Telephone: 202-682-5400

Produced by the Office of Research & Analysis

Sunil Iyengar, Director

Staff contributors: Sarah Sullivan, Bonnie Nichols, Tom Bradshaw,
and Kelli Rogowski

Special contributor: Mark Bauerlein

Editorial and publication assistance by Don Ball

Designed by Beth Schlenoff Design

Front Cover Photo: Getty Images

Printed in the United States of America

Library of Congress Cataloging-in-Publication Data

To read or not to read : a question of national consequence.

p. cm. — (Research report ; #47)

“Produced by the Office of Research & Analysis, National
Endowment for the Arts, Sunil Iyengar, director; editorial and
publication assistance by Don Ball.”

1. Books and reading—United States. 2.

Literature—Appreciation—United States. I. Iyengar, Sunil, 1973–

II. Ball, Don, 1964– III. National Endowment for the Arts.

Z1003.2.T6 2007

028:9—dc22

2007042469



202-682-5496 Voice/TTY

(a device for individuals who are deaf or hearing-impaired)



Individuals who do not use conventional print materials
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202-682-5532 to obtain this publication in an alternate format.

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the Web site of the National Endowment for the Arts.*

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PREFACE

T*o Read or Not To Read* gathers and collates the best national data available to provide a reliable and comprehensive overview of American reading today. While it incorporates some statistics from the National Endowment for the Arts' 2004 report, *Reading at Risk*, this new study contains vastly more data from numerous sources. Although most of this information is publicly available, it has never been assembled and analyzed as a whole. To our knowledge, *To Read or Not To Read* is the most complete and up-to-date report of the nation's reading trends and—perhaps most important—their considerable consequences.

To Read or Not To Read relies on the most accurate data available, which consists of large, national studies conducted on a regular basis by U.S. federal agencies, supplemented by academic, foundation, and business surveys. Reliable national statistical research is expensive and time-consuming to conduct, especially when it requires accurate measurements of various subgroups (age or education level, for example) within the overall population. Likewise, such research demands formidable resources and a commitment from an organization to collect the data consistently over many years, which is the only valid way to measure both short and long-term trends. Few organizations outside the federal government can manage such a painstaking task. By comparison, most private-sector or media surveys involve quick and isolated polls conducted with a minimal sample size.

When one assembles data from disparate sources, the results often present contradictions. This is not the case with *To Read or Not To Read*. Here the results are startling in their consistency. All of the data combine to tell the same story about American reading.

The story the data tell is simple, consistent, and alarming. Although there has been measurable progress in recent years in reading ability at the elementary school level, all progress appears to halt as children enter their teenage years. There is a general decline in reading among teenage and adult Americans. Most alarming, both reading ability and the habit of regular reading have greatly declined among college graduates. These negative trends have more than literary importance. As this report makes clear, the declines have demonstrable social, economic, cultural, and civic implications.

How does one summarize this disturbing story? As Americans, especially younger Americans, read less, they read less well. Because they read less well, they have lower levels of academic achievement. (The shameful fact that nearly one-third of American teenagers drop out of school is deeply connected to declining literacy and reading comprehension.) With lower levels of reading and writing ability, people do less well in the job market. Poor reading skills correlate heavily with lack of employment, lower wages, and fewer opportunities for advancement. Significantly worse reading skills are found among prisoners than in the general adult population. And deficient readers are less likely to become active in civic and cultural life, most notably in volunteering and voting.

Strictly understood, the data in this report do not necessarily show cause and effect. The statistics merely indicate correlations. The habit of daily reading, for instance, overwhelmingly correlates with better reading skills and higher academic



Photo by Vance Jacobs

achievement. On the other hand, poor reading skills correlate with lower levels of financial and job success. At the risk of being criticized by social scientists, I suggest that since all the data demonstrate consistent and mostly linear relationships between reading and these positive results—and between poor reading and negative results—reading has played a decisive factor. Whether or not people read, and indeed how much and how often they read, affects their lives in crucial ways.

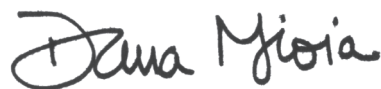
All of the data suggest how powerfully reading transforms the lives of individuals—whatever their social circumstances. Regular reading not only boosts the likelihood of an individual's academic and economic success—facts that are not especially surprising—but it also seems to awaken a person's social and civic sense. Reading correlates with almost every measurement of positive personal and social behavior surveyed. It is reassuring, though hardly amazing, that readers attend more concerts and theater than non-readers, but it is surprising that they exercise more and play more sports—no matter what their educational level. The cold statistics confirm something that most readers know but have mostly been reluctant to declare as fact—books change lives for the better.

Some people will inevitably criticize *To Read or Not To Read* as a negative report—understating the good works of schools, colleges, libraries, and publishers. Certainly, the trends reported here are negative. There is, alas, no factual case to support general growth in reading or reading comprehension in America. But there is another way of viewing this data that is hardly negative about reading.

To Read or Not To Read confirms—without any serious qualification—the central importance of reading for a prosperous, free society. The data here demonstrate that reading is an irreplaceable activity in developing productive and active adults as well as healthy communities. Whatever the benefits of newer electronic media, they provide no measurable substitute for the intellectual and personal development initiated and sustained by frequent reading.

To Read or Not To Read is not an elegy for the bygone days of print culture, but instead is a call to action—not only for parents, teachers, librarians, writers, and publishers, but also for politicians, business leaders, economists, and social activists. The general decline in reading is not merely a cultural issue, though it has enormous consequences for literature and the other arts. It is a serious national problem. If, at the current pace, America continues to lose the habit of regular reading, the nation will suffer substantial economic, social, and civic setbacks.

As with *Reading at Risk*, we issue this report not to dictate any specific remedial policies, but to initiate a serious discussion. It is no longer reasonable to debate whether the problem exists. It is now time to become more committed to solving it or face the consequences. The nation needs to focus more attention and resources on an activity both fundamental and irreplaceable for democracy.

A handwritten signature in black ink that reads "Dana Gioia". The signature is fluid and cursive, with the first letter of "Dana" being a large, stylized capital "D".

Dana Gioia
Chairman, National Endowment for the Arts

EXECUTIVE SUMMARY

In 2004, the National Endowment for the Arts published *Reading at Risk: A Survey of Literary Reading in America*. This detailed study showed that Americans in almost every demographic group were reading fiction, poetry, and drama—and books in general—at significantly lower rates than 10 or 20 years earlier. The declines were steepest among young adults.

More recent findings attest to the diminished role of voluntary reading in American life. These new statistics come from a variety of reliable sources, including large, nationally representative studies conducted by other federal agencies. Brought together here for the first time, the data prompt three unsettling conclusions:

- Americans are spending less time reading.
- Reading comprehension skills are eroding.
- These declines have serious civic, social, cultural, and economic implications.

A. AMERICANS ARE READING LESS

Teens and young adults read less often and for shorter amounts of time when compared with other age groups and with Americans of the past.

1. Young adults are reading fewer books in general.

- Nearly half of all Americans ages 18 to 24 read no books for pleasure.
- The percentage of 18- to 44-year-olds who read a book fell 7 points from 1992 to 2002.

Percentage of Young Americans Who Read a Book Not Required for Work or School

Age group	1992	2002	Change	Rate of decline
18–24	59%	52%	-7 pp	-12%
25–34	64%	59%	-5 pp	-8%
35–44	66%	59%	-7 pp	-11%
All adults (18 and over)	61%	57%	-4 pp	-7%

pp = percentage points

Source: National Endowment for the Arts

2. Reading is declining as an activity among teenagers.

- Less than one-third of 13-year-olds are daily readers.
- The percentage of 17-year-olds who read nothing at all for pleasure has doubled over a 20-year period. Yet the amount they read for school or homework (15 or fewer pages daily for 62% of students) has stayed the same.

Percentage of Students Reading for Fun

Reading frequency	Age 13			Age 17		
	1984	2004	Change	1984	2004	Change
Never or hardly ever read	8%	13%	+5 pp	9%	19%	+10 pp
Read almost every day	35%	30%	-5 pp	31%	22%	-9 pp

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

- Voluntary reading rates diminish from childhood to late adolescence.

Percentage Who Read Almost Every Day for Fun

	1984	1999	2004
9-year-olds	53%	54%	54%
13-year-olds	35%	28%	30%
17-year-olds	31%	25%	22%

Source: U.S. Department of Education, National Center for Education Statistics

Percentage Who Read a Book the Previous Day (Outside School or Work)

	In 2004	
	For at least 5 minutes	For at least 30 minutes
8- to 10-year-olds	63%	40%
11- to 14-year-olds	44%	27%
15- to 18-year-olds	34%	26%

Source: The Henry J. Kaiser Family Foundation, *Generation M: Media in the Lives of 8-18 Year-Olds* (#7251), 2005

3. College attendance no longer guarantees active reading habits.

- Although reading tracks closely with education level, the percentage of college graduates who read literature has declined.

Percentage of Literary Readers Among College Graduates

1982	1992	2002	Change 1982–2002	Rate of decline 1982–2002
82%	75%	67%	-15 pp	-18%

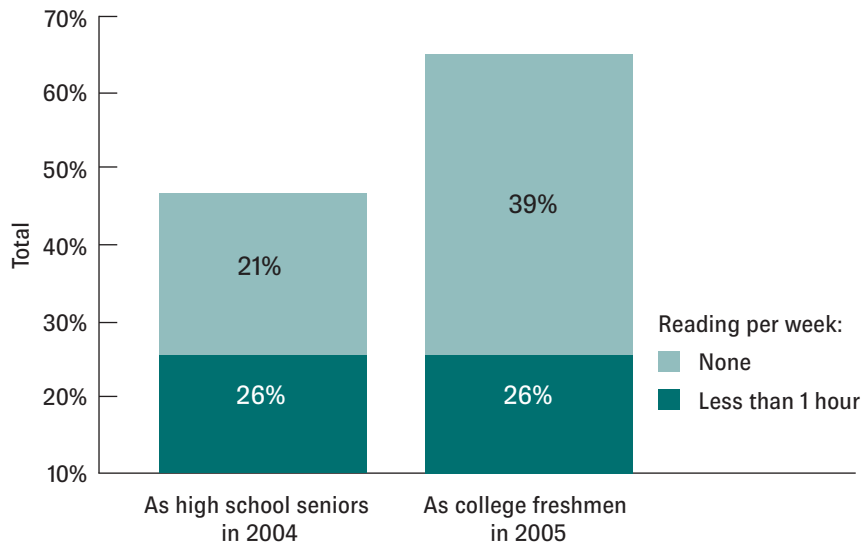
pp = percentage points

Source: National Endowment for the Arts

- 65% of college freshmen read for pleasure for less than an hour per week or not at all.
- The percentage of non-readers among these students has nearly doubled—climbing 18 points since they graduated from high school.

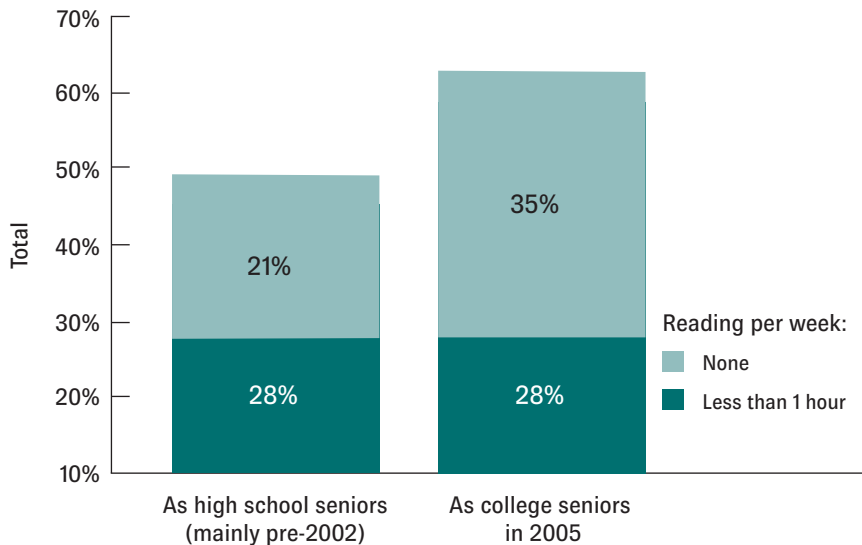
- By the time they become college seniors, one in three students read nothing at all for pleasure in a given week.

Percentage of U.S. College Freshmen Who Read Little or Nothing for Pleasure



Source: University of California, Los Angeles, Higher Education Research Institute

Percentage of U.S. College Seniors Who Read Little or Nothing for Pleasure



Source: University of California, Los Angeles, Higher Education Research Institute

4. Teens and young adults spend less time reading than people of other age groups.

- Americans between 15 and 34 years of age devote less leisure time than older age groups to reading anything at all.
- 15- to 24-year-olds spend only 7–10 minutes per day on voluntary reading—about 60% less time than the average American.

- By contrast, 15- to 24-year-olds spend 2 to 2½ hours per day watching TV. This activity consumes the most leisure time for men and women of all ages.

Average Time Spent Reading in 2006

	Hours/minutes spent reading	
	Weekdays	Weekends and holidays
Total, 15 years and over	:20	:26
15 to 24 years	:07	:10
25 to 34 years	:09	:11
35 to 44 years	:12	:16
45 to 54 years	:17	:24
55 to 64 years	:30	:39
65 years and over	:50	1:07

Source: U.S. Department of Labor, Bureau of Labor Statistics

- Literary reading declined significantly in a period of rising Internet use. From 1997–2003, home Internet use soared 53 percentage points among 18- to 24-year-olds. By another estimate, the percentage of 18- to 29-year-olds with a home broadband connection climbed 25 points from 2005 to 2007.ⁱ

Percentage of 18- to 24-Year-Olds Reading Literature

	1982	1992	2002
Percentage reading literature	60%	53%	43%
Change from 1982	#	-7 pp	-17 pp
Rate of decline from 1982	#	-12%	-28%

pp = percentage points

Source: National Endowment for the Arts

5. Even when reading does occur, it competes with other media. This multi-tasking suggests less focused engagement with a text.

- 58% of middle and high school students use other media while reading.
- Students report using media during 35% of their weekly reading time.
- 20% of their reading time is shared by TV-watching, video/computer game-playing, instant messaging, e-mailing or Web surfing.

Percentage Using Other Media While Reading

7th-12th Graders in 2003–2004

	% who use other media while reading
Most of the time	28%
Some of the time	30%
Most/some	58%
Little of the time	26%
Never	16%
Little/never	42%

Source: The Henry J. Kaiser Family Foundation, *Media Multitasking Among Youth: Prevalence, Predictors and Pairings* (# 7592), 2006

ⁱ U.S. Census Bureau, *Computer and Internet Use in the United States*, 1997 and 2003, and Pew/Internet & American Life Project, *Home Broadband Adoption 2007*.

Percentage of Time Spent Reading While Using Other Media

7th- to 12th-Graders in 2003–2004

	Percentage of reading time
Reading while:	
Watching TV	11%
Listening to music	10%
Doing homework on the computer	3%
Playing videogames	3%
Playing computer games	2%
Using the computer (other)	2%
Instant messaging	2%
E-mailing	1%
Surfing websites	1%
Using any of the above media	35%

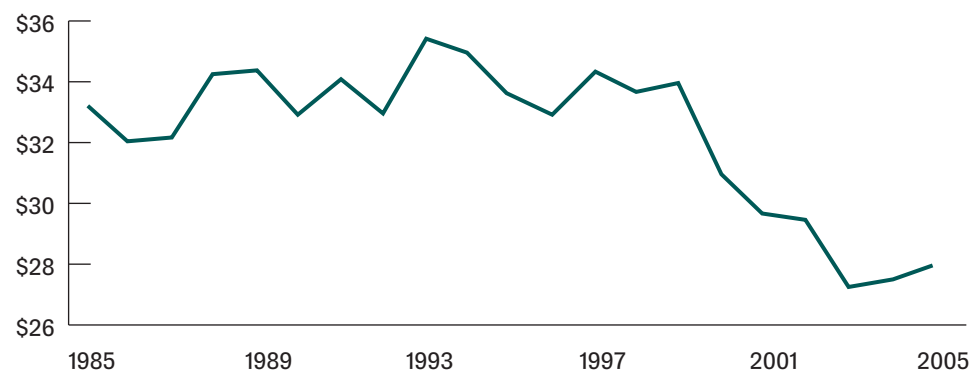
Source: The Henry J. Kaiser Family Foundation, *Media Multitasking Among Youth: Prevalence, Predictors and Pairings* (# 7592), 2006

6. American families are spending less on books than at almost any other time in the past two decades.

- Although nominal spending on books grew from 1985 to 2005, average annual household spending on books dropped 14% when adjusted for inflation.ⁱⁱ

Average Annual Spending on Books, by Consumer Unit

Adjusted for Inflation



The Consumer Price Index, 1982–1984 (less food and energy), was used to adjust for inflation.

Source: U.S. Department of Labor, Bureau of Labor Statistics

- Over the same period, spending on reading materials dipped 7 percentage points as a share of average household entertainment spending.
- Amid year-to-year fluctuations, consumer book sales peaked at 1.6 billion units sold in 2000. From 2000 to 2006, however, they declined by 6%, or 100 million units.ⁱⁱⁱ
- The number of books in a home is a significant predictor of academic achievement.

ⁱⁱ For the purpose of this analysis, “family” or “household” is used instead of the Bureau of Labor Statistics’ technical term “consumer unit.” In addition to families and households, a consumer unit may describe “a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent.”

ⁱⁱⁱ Albert N. Greco and Robert M. Wharton, *Book Industry TRENDS 2007* (New York, N.Y.: Book Industry Study Group, 2007), various pages.

Average Test Scores by Number of Household Books, Grade 12 (2005–2006)

Reported number of books at home	Average science score	Average civics score	Average history score*
More than 100	161	167	305
26–100	147	150	289
11–25	132	134	275
0–10	122	123	265

* Science and civics scores range from 0 to 300. History scores range from 0 to 500.

Source: U.S. Department of Education, National Center for Education Statistics

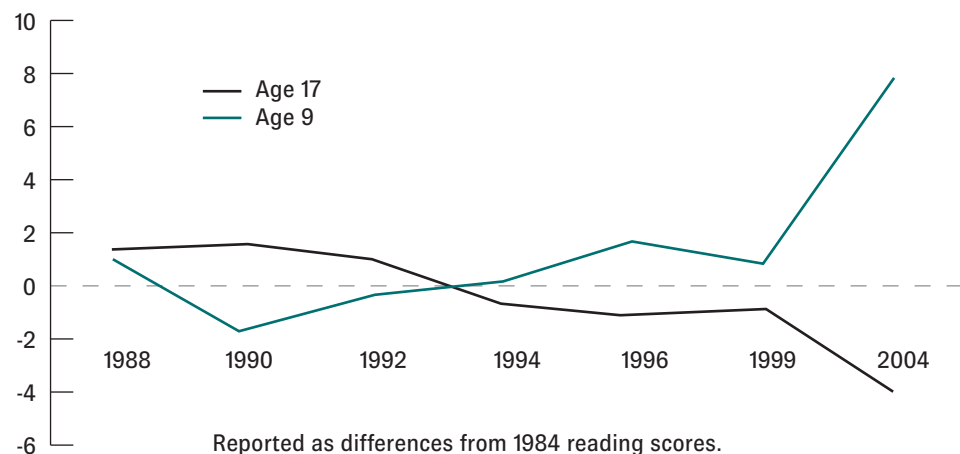
B. AMERICANS ARE READING LESS WELL

As Americans read less, their reading skills worsen, especially among teenagers and young males. By contrast, the average reading score of 9-year-olds has improved.

1. Reading scores for 17-year-olds are down.

- 17-year-old average reading scores began a slow downward trend in 1992.
- For more than 30 years, this age group has failed to sustain improvements in reading scores.
- Reading test scores for 9-year-olds—who show no declines in voluntary reading—are at an all-time high.
- The disparity in reading skills improvement between 9-year-olds and 17-year-olds may reflect broader differences in the academic and social climate of those age groups.

Trend in Average Reading Scores for Students Ages 17 and 9



Test years occurred at irregular intervals.

Trend analysis based on data from the U.S. Department of Education, National Center for Education Statistics.

2. Among high school seniors, the average score has declined for virtually all levels of reading.

- Little more than one-third of high school seniors now read proficiently.^{iv}

Percentage of 12th-Graders Reading at or Above the Proficient Level

1992	2005	Change	Rate of decline
40%	35%	-5 pp	-13%

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

- From 1992 to 2005, the average score declined for the bottom 90% of readers.
Only for the very best readers of 2005, the score held steady.

Change in 12th-Grade Reading Scores, by Percentile: 1992 and 2005

Percentile	1992	2005	Change
90th	333	333	0
75th	315	313	-2
50th	294	288	-6
25th	271	262	-9
10th	249	235	-14

All score changes from 1992 are statistically significant.

Source: U.S. Department of Education, National Center for Education Statistics

- The reading gap is widening between males and females.

Average 12th-Grade Reading Scores by Gender

	1992	2005
Female	297	292
Male	287	279
Male-female gap	-10	-13

Source: U.S. Department of Education, National Center for Education Statistics

^{iv} For 12th-graders, “Proficient” corresponds with a reading score of 302 or greater (out of 500).

3. Reading proficiency rates are stagnant or declining in adults of both genders and all education levels.

- The percentage of men who read at a Proficient level has declined. For women, the share of Proficient readers has stayed the same.^v

Percentage of Adults Proficient in Reading Prose, by Gender

	1992	2003	Change	Rate of decline
Female	14%	14%	0 pp	0%
Male	16%	13%	-3 pp	-19%
Both genders	15%	13%	-2 pp	-13%

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

- Average reading scores have declined in adults of virtually all education levels.^{vi}

Average Prose Literacy Scores of Adults, by Highest Level of Educational Attainment: 1992 and 2003

Education level:	1992	2003	Change
Less than/some high school	216	207	-9
High school graduate	268	262	-6
Vocational/trade/business school	278	268	-10
Some college	292	287	-5
Associate's/2-year degree	306	298	-8
Bachelor's degree	325	314	-11
Graduate study/degree	340	327	-13

Source: U.S. Department of Education, National Center for Education Statistics

- Even among college graduates, reading proficiency has declined at a 20%–23% rate.

Percentage of College Graduates Proficient in Reading Prose

	1992	2003	Change	Rate of decline
Bachelor's degree	40%	31%	-9 pp	-23%
Graduate study/degree	51%	41%	-10 pp	-20%

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

^v For adults, “Proficient” corresponds with a prose literacy score of 340 or greater (out of 500).

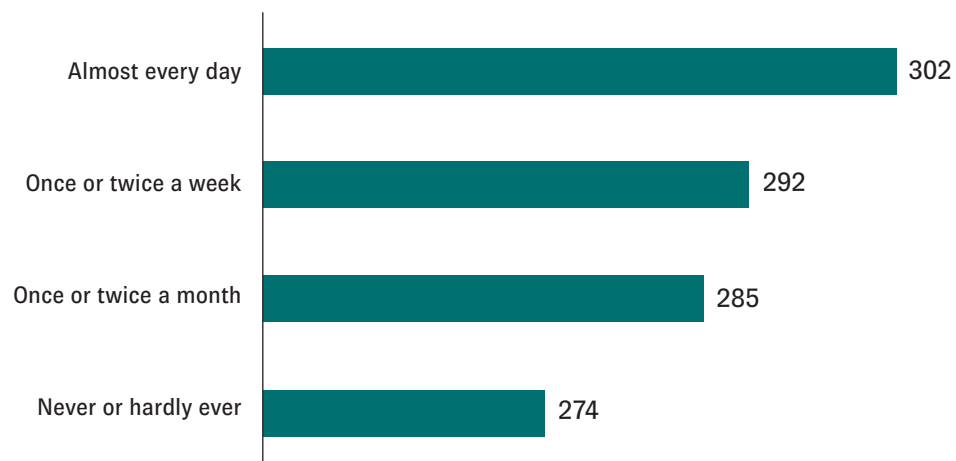
^{vi} Exceptions are adults still in high school and those with a GED or high school equivalency. In both cases, score changes from 1992 to 2003 were not statistically significant.

4. Reading for pleasure correlates strongly with academic achievement.

- Voluntary readers are better readers and writers than non-readers.
- Children and teenagers who read for pleasure on a daily or weekly basis score better on reading tests than infrequent readers.
- Frequent readers also score better on writing tests than non-readers or infrequent readers.

Average Reading Scores by Frequency of Reading for Fun

Grade 12 in 2005

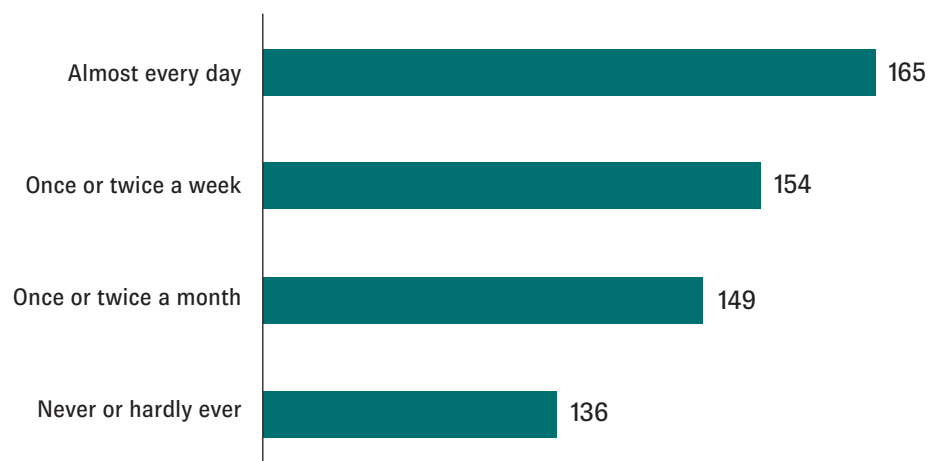


Reading scores range from 0 to 500.

Source: U.S. Department of Education, National Center for Education Statistics

Average Writing Scores by Frequency of Reading for Fun

Grade 12 in 2002



Writing scores range from 0 to 300.

Source: U.S. Department of Education, National Center for Education Statistics

C. THE DECLINES IN READING HAVE CIVIC, SOCIAL, AND ECONOMIC IMPLICATIONS

Advanced readers accrue personal, professional, and social advantages. Deficient readers run higher risks of failure in all three areas.

1. Employers now rank reading and writing as top deficiencies in new hires.

- 38% of employers find high school graduates “deficient” in reading comprehension, while 63% rate this basic skill “very important.”
- “Written communications” tops the list of applied skills found lacking in high school and college graduates alike.
- One in five U.S. workers read at a lower skill level than their job requires.^{vii}
- Remedial writing courses are estimated to cost more than \$3.1 billion for large corporate employers and \$221 million for state employers.^{viii}

Rated Very Important by Employers

Percentage of employers who rate the following basic skills as “very important” for high school graduates:

Reading comprehension	63%
English language	62%
Writing in English	49%
Mathematics	30%
Foreign languages	11%

Source: The Conference Board, *Are They Really Ready to Work?*, 2006

Percentage of Employers Who Rate High School Graduates as Deficient in Basic Skills

Writing in English	72%
Foreign languages	62%
Mathematics	54%
History/geography	46%
Government/economics	46%
Science	45%
Reading comprehension	38%
Humanities/arts	31%
English language	21%

Source: The Conference Board, *Are They Really Ready to Work?*, 2006

Percentage of Employers Who Rate Job Entrants as Deficient in Applied Skills

High school graduates deficient in:		College graduates deficient in:	
Written communication	81%	Written communication	28%
Leadership	73%	Leadership	24%
Professionalism/work ethic	70%	Professionalism/work ethic	19%
Critical thinking/problem solving	70%	Creativity/innovation	17%
Lifelong learning/self direction	58%	Lifelong learning/self-direction	14%

Source: The Conference Board, *Are They Really Ready to Work?*, 2006

^{vii} Statistics Canada and OECD, *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, 2005, 145.

^{viii} The National Commission on Writing, *Writing: A Ticket to Work...or a Ticket Out: A Survey of Business Leaders*, 2004, 29, and *Writing: A Powerful Message from State Government*, 2005, 32.

2. Good readers generally have more financially rewarding jobs.

- More than 60% of employed Proficient readers have jobs in management, or in the business, financial, professional, and related sectors.
- Only 18% of Basic readers are employed in those fields.
- Proficient readers are 2.5 times as likely as Basic readers to be earning \$850 or more a week.

Percentage Employed in Management and Professional Occupations, by Reading Level in 2003

	Management, business and financial	Professional and related	Total in either job category
Proficient	19%	42%	61%
Basic	8%	10%	18%
Below Basic	3%	4%	7%

Source: U.S. Department of Education, National Center for Education Statistics

Percentage of Full-Time Workers by Weekly Earnings and Reading Level in 2003

	\$850–\$1,149	\$1,150–\$1,449	\$1,450–\$1,949	\$1,950 or more	Total earning \$850 or more
Proficient	20%	13%	13%	12%	58%
Basic	12%	5%	2%	4%	23%
Below Basic	7%	3%	1%	2%	13%

Source: U.S. Department of Education, National Center for Education Statistics

3. Less advanced readers report fewer opportunities for career growth.

- 38% of Basic readers said their reading level limited their job prospects.
- The percentage of Below-Basic readers who reported this experience was 1.8 times greater.
- Only 4% of Proficient readers reported this experience.

Percentage of Adults Who Said Their Reading Skills Limited Their Job Opportunities, by Reading Level in 2003

	A little	Some	A lot	Total
Proficient	2%	1%	1%	4%
Basic	14%	15%	9%	38%
Below Basic	13%	22%	35%	70%

Source: U.S. Department of Education, National Center for Education Statistics

4. Good readers play a crucial role in enriching our cultural and civic life.

- Literary readers are more than 3 times as likely as non-readers to visit museums, attend plays or concerts, and create artworks of their own.
- They are also more likely to play sports, attend sporting events, or do outdoor activities.
- 18- to 34-year-olds, whose reading rates are the lowest for any adult age group under 65, show declines in cultural and civic participation.^{ix}

Participation Rates for Literary Readers in 2002

	Literary readers	Non-readers	Gap between groups
Visit art museums	43%	12%	-31 pp
Attend plays or musicals	36%	10%	-26 pp
Attend jazz or classical concerts	29%	9%	-20 pp
Create photographs, paintings, or writings	32%	10%	-22 pp
Attend sporting events	44%	27%	-17 pp
Play sports	38%	24%	-14 pp
Exercise	72%	40%	-32 pp
Do outdoor activities	41%	22%	-19 pp

pp = percentage points

Source: National Endowment for the Arts

5. Good readers make good citizens.

- Literary readers are more than twice as likely as non-readers to volunteer or do charity work.^x

Percentage of Literary Readers Who Volunteered in 2002

Literary readers	Non-readers	Gap between groups
43%	16%	-27 pp

pp = percentage points

Source: National Endowment for the Arts

- Adults who read well are more likely to volunteer than Basic and Below-Basic readers.

Percentage of Adults Who Volunteered, by Reading Level in 2003

	Less than once a week	Once a week or more	Total who volunteered
Proficient	32%	25%	57%
Basic	16%	15%	31%
Below Basic	8%	10%	18%

Source: U.S. Department of Education, National Center for Education Statistics

^{ix} National Endowment for the Arts, *The Arts and Civic Engagement: Involved in Arts, Involved in Life*, 2006.

^x *Ibid.*

- 84% of Proficient readers voted in the 2000 presidential election, compared with 53% of Below-Basic readers.

Percentage of Adults Who Voted in the 2000 Presidential Election, by 2003 Reading Level

Proficient	84%
Basic	62%
Below Basic	53%



Source: U.S. Department of Education, National Center for Education Statistics

6. Deficient readers are far more likely than skilled readers to be high school dropouts.

- Half of America's Below-Basic readers failed to complete high school—a percentage gain of 5 points since 1992.
- One-third of readers at the Basic level dropped out of high school.

Percentage of Adults at or Below "Basic" Prose Reading Level Who Did Not Complete High School: 1992, 2003

Prose reading level					
Below Basic			Basic		
1992	2003	Change	1992	2003	Change
45%	50%	+5 pp	38%	33%	-5 pp

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

- For high school dropouts, the average reading score is 55 points lower than for high school graduates—and the gap has grown since 1992.
- This fact is especially troubling in light of recent estimates that only 70% of high school students earn a diploma on time.^{xi}

Average Prose Reading Scores for Adult High School Graduates and Those Who Did Not Complete High School: 1992, 2003

Prose reading score			
Highest level of education	1992	2003	Change
Less than/some high school	216	207	-9
High school graduate	268	262	-6
Gap between groups	-52	-55	

Source: U.S. Department of Education, National Center for Education Statistics

^{xi} Editorial Projects in Education, *Diplomas Count 2007: Ready for What? Preparing Students for College, Careers, and Life after High School*, Executive Summary.

7. Deficient readers are more likely than skilled readers to be out of the workforce.

- More than half of Below-Basic readers are not in the workforce.
- 44% of Basic readers lack a full-time or part-time job—twice the percentage of Proficient readers in that category.

Percentage of Adults Employed Full-Time or Part-Time, by 2003 Reading Level

Proficient	78%
Basic	56%
Below Basic	45%



Source: U.S. Department of Education, National Center for Education Statistics

8. Poor reading skills are endemic in the prison population.

- 56% of adult prisoners read at or below the Basic level.
- Adult prisoners have an average prose reading score of 257—18 points lower than non-prisoners.
- Only 3% of adult prisoners read at a Proficient level.
- Low reading scores persist in prisoners nearing the end of their term, when they are expected to return to family, society, and a more productive life.^{xii}

Percentage of Adult Prisoners and Household Populations by 2003 Reading Level

Prose reading level	Household	Prison	Gap
Below Basic	14%	16%	*+2 pp
Basic	29%	40%	+11 pp
Intermediate	44%	41%	*-3 pp
Proficient	13%	3%	-10 pp

* = not statistically significant

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

^{xii} U.S. Department of Education, National Center for Education Statistics, *Literacy Behind Bars: Results from the 2003 National Assessment of Adult Literacy Prison Survey*, 2007, 77.

Conclusion

Self-reported data on individual behavioral patterns, combined with national test scores from the Department of Education and other sources, suggest three distinct trends: a historical decline in voluntary reading rates among teenagers and young adults; a gradual worsening of reading skills among older teens; and declining proficiency in adult readers.

The Department of Education's extensive data on voluntary reading patterns and prose reading scores yield a fourth observation: frequency of reading for pleasure correlates strongly with better test scores in reading and writing. Frequent readers are thus more likely than infrequent or non-readers to demonstrate academic achievement in those subjects.

From the diversity of data sources in this report, other themes emerge. Analyses of voluntary reading and reading ability, and the social characteristics of advanced and deficient readers, identify several discrepancies at a national level:

- Less reading for pleasure in late adolescence than in younger age groups
- Declines in reading test scores among 17-year-olds and high school seniors in contrast to younger age groups and lower grade levels
- Among high school seniors, a wider rift in the reading scores of advanced and deficient readers
- A male-female gap in reading proclivity and achievement levels
- A sharp divide in the reading skills of incarcerated adults versus non-prisoners
- Greater academic, professional, and civic benefits associated with high levels of leisure reading and reading comprehension

Longitudinal studies are needed to confirm and monitor the effects of these differences over time. Future research also could explore factors such as income, ethnicity, region, and race, and how they might alter the relationship between voluntary reading, reading test scores, and other outcomes. Critically, further studies should weigh the relative effectiveness and costs and benefits of programs to foster lifelong reading and skills development. For instance, such research could trace the effects of electronic media and "screen reading" on the development of readers in early childhood.

Recent studies of American time-use and consumer expenditure patterns highlight a series of choices lurking in the question "To read or not to read?" The future of reading rests on the daily decisions Americans will continue to make when confronted with an expanding menu of leisure goods and activities. The import of these national findings, however, is that reading frequently is a behavior to be cultivated with the same zeal as academic achievement, financial or job performance, and global competitiveness.

Technical Note

This report presents some of the most reliable and currently available statistics on American reading rates, literacy, and reader characteristics. No attempt has been made to explore methods for reading instruction, or to delve into racial, ethnic, or income traits of voluntary readers, though age, gender, and education are discussed at various points in the analyses. The majority of the data stem from large, nationally representative studies completed after the 2004 publication of the NEA's *Reading at Risk* report. Unless a footnote is provided, sources for all data in this Executive Sum-

mary are given with each accompanying chart or table. All adult reading scores and proficiency rates refer to the Department of Education's prose literacy category.

Caution should be used in comparing results from the several studies cited in this publication, as the studies use different methodologies, survey populations, response rates, and standard errors associated with the estimates, and the studies often were designed to serve different research aims. No definite causal relationship can be made between voluntary reading and reading proficiency, or between voluntary reading, reading proficiency, and the reader characteristics noted in the report. Finally, except where book reading or literary reading rates are specifically mentioned, all references to voluntary reading are intended to cover all types of reading materials.

Office of Research & Analysis
National Endowment for the Arts

INTRODUCTION

The National Endowment for the Arts' landmark report, *Reading at Risk: A Survey of Literary Reading in America*, grew out of a periodic survey the agency has been conducting since 1982. Co-developed with an expert team of statisticians, sociologists, and economists, the survey collected data from more than 17,000 adults, reported on every demographic group in the country, and relied on the U.S. Census Bureau for its administration. Key findings of the report occasioned considerable commentary from policy-makers, educators, librarians, journalists, scholars, and arts and cultural organizations. Those statistics included:

- Only 47% of adults read a work of literature (defined as a novel, short story, play or poem) within the past year.
- That figure represented a 7-point decline in the percentage of literary readers over a 10-year period.
- Literary reading declined in both genders, across all education levels, and in virtually all age groups.
- The declines were steepest in young adults, accelerating at a greater rate than in the general population.
- Americans were not only reading literature at a reduced rate—they were reading fewer books generally.

The NEA had begun to outline the nation's reading habits as early as 1989, with the publication of Research Report #22, *Who Reads Literature?* Based on the 1985 Survey of Public Participation in the Arts, that report found 56% of Americans reading literature, a percentage that dropped 10 points by 2002. But *Reading at Risk* was qualitatively different from prior NEA reports for the public concern it raised. With its distressing snapshot of literary reading in America, the study provoked a national conversation in news media and classrooms, and among local, state, and federal agencies, on how to respond to the problem.

The Arts Endowment responded by partnering with another federal agency, the Institute of Museum and Library Services, and the regional arts organization Arts Midwest, to initiate the Big Read, a grassroots literary program of unprecedented scale, designed to bring together American communities in the reading and celebration of great imaginative literature. By the end of 2007, nearly 200 towns and cities will have adopted the Big Read, and a national evaluation will identify the extent to which the program is helping to improve the reading rates of participants.

For a more extensive survey of American reading trends since *Reading at Risk*, the Arts Endowment will collect new data on reading as part of the agency's 2008 Survey of Public Participation in the Arts. Although findings from that study will not appear until late 2008, the agency has wanted to address several urgent questions raised by *Reading at Risk*—at least those questions for which data *are* available. For example, how does leisure reading fare in the lives of young Americans? (Only Americans 18 years of age or older were included in the *Reading at Risk* study.) Also, what is the relationship between reading for pleasure and reading proficiency? Finally, why does reading matter to our nation and communities?

This report uses large-scale, nationally representative data from a variety of

sources—federal, academic, nonprofit, and commercial—to draw a picture of voluntary reading rates and literacy in American life. The vast majority of these findings arose only after the 2004 publication of *Reading at Risk*, and never have been collected in a single narrative about reading in our culture and our times.

The report consists of three parts, subdivided into a total of 9 chapters. Each chapter begins with its conclusion: a statement whose truth is borne by subsequent data. Each chapter also includes a background section providing context for the analysis and listing all sources.

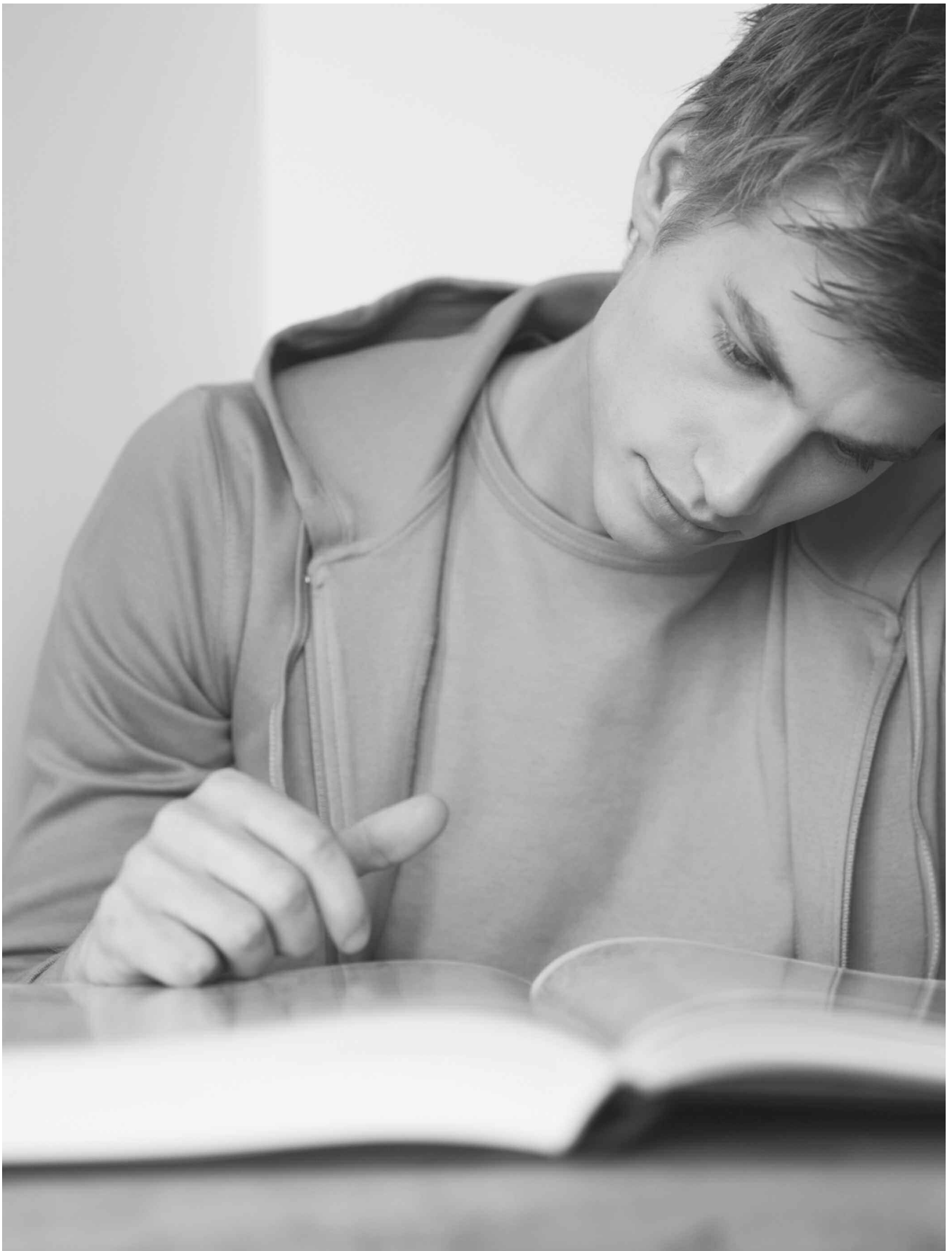
Of all the variables that can be examined in conjunction with leisure reading and reading skills, this report is concerned chiefly with age and education level. The potential roles of race, ethnicity, income level, or learning-related and other disabilities have not been considered, in part because reporting of those variables is inconsistent from study to study. Also absent is a discussion of U.S. public libraries and their part in promoting reading of all kinds. The lack of reliable national data on library circulation rates for reading materials—as separate from CDs and videotapes, for example—has informed this decision.

For the most part, footnotes have been avoided for sources already cited in a chapter's background section. Unless "book-reading" is specifically mentioned, study results on voluntary reading should be taken as referencing *all* varieties of leisure reading (e.g., magazines, newspapers, online reading), and not books alone. Unlike *Reading at Risk*, this report is not limited to the reading primarily of literature, except where that earlier report is cited.

An all-important word of caution: **None of the data on reading proficiency and the personal or social attributes of readers should be regarded as drawing a causal relationship between voluntary reading, reading skills, and other variables.** As we note elsewhere, the longitudinal study or randomized, controlled trial that would define those relationships is conspicuously absent. Yet the recurring associations between voluntary reading and advanced reading skills and other benefits are compelling in their own right.

The Survey of Public Participation in the Arts, with its up-to-date reporting of adult reading rates, will commence in May 2008. By then, many of the teenage groups discussed in this report, those showing the greatest declines in voluntary reading *and* in proficiency, will have aged into the population eligible for the survey. One hopes their engagement with books and other reading materials will have improved by that point. Until then, like stock analysts who must watch and record every fluctuation in the market, though they cannot predict outcomes with certainty, we offer this report capturing some of the most current and reliable statistical information on reading.

Sunil Iyengar
Director, Research & Analysis
National Endowment for the Arts



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SECTION ONE

Youth Voluntary Reading Patterns

CHAPTER ONE

- 1. Young adults are reading fewer books in general.
- 2. Reading is declining as an activity among teenagers.

BACKGROUND

When the National Endowment for the Arts released its *Reading at Risk* report in 2004, one of the more widely discussed findings was that declines in literary reading were sharpest in young American adults. Twenty years earlier, 18- to 34-year-olds had been the age group most likely to read literature. The 2002 Survey of Public Participation in the Arts revealed they were now the least likely (with the exception of Americans aged 65 and older, a group whose average reading rates may have been stifled by health issues).

Each year of the survey since 1992, the Arts Endowment has asked not only about participation in literary reading, but also about the reading of books in general. Among young adults in 2002, these data show trends similar to those for literary reading rates. The book-reading rate of 18- to 24-year-olds was only 52%, significantly below the percentage of all Americans who read a book in 2002 (57%). Here, as with literary reading, 18- to 24-year-olds showed one of the steepest percentage point declines for all age groups—a 7-point drop from 1992 to 2002, representing a loss of 2.1 million potential readers.

By contrast, the group with the greatest percentage of book readers within it (61%) was 45–54 years old. Perhaps not surprisingly, this age group was the one most likely to read novels, short stories, poetry, and plays. Indeed, a central finding of *Reading at Risk* was that literary reading rates declined substantially for all adult age groups

Table 1A. Percentage of Adults Who Read a Book Not Required for Work or School, by Age Group

Age	1992	2002	Change
18–24	59%	52%	-7 pp
25–34	64%	59%	-5 pp
35–44	66%	59%	-7 pp
45–54	64%	61%	*.3 pp
55–64	59%	58%	*.1 pp
65–74	55%	54%	*.1 pp
75+	42%	44%	*+2 pp

pp = percentage points
* no statistically significant change from 1992

Source: National Endowment for the Arts, Survey of Public Participation in the Arts

under 45.¹ This phenomenon extended to book reading of all types. See Table 1A.

Given this pattern of diminished reading in the U.S.—and the concentration of the trend in 18- to 44-year-olds’ literary and book-reading rates—it is reasonable to ask whether such declines also appear in children and teenagers. Because the Survey of Public Participation in the Arts (SPPA) is limited to U.S. adults, it cannot answer this question. Fortunately, other large-scale studies have investigated reading habits in Americans under 18. This chapter considers data from three primary sources:

- U.S. Department of Education: *NAEP 2004 Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics*, 2005.
- The Henry J. Kaiser Family Foundation: *Generation M: Media in the Lives of 8-18 Year-Olds*, (#7251), 2005.
- Higher Education Research Institute, University of California, Los Angeles: *American Freshmen: Forty-Year Trends 1966–2006*, 2007.

Like most of the data in this report, the results of all three studies became available after *Reading at Risk* was published. Although none identify the rates specifically for literary reading among children and adolescents, the studies do report percentages of voluntary (or leisure) readers among this population.

What Education Research Tells Us About Leisure Reading

The Department of Education’s NAEP, known as “the Nation’s Report Card,” has tracked achievement test scores of elementary, middle, and high school students for a range of subjects since 1969. In addition to this “main” assessment, conducted nationally and at the state level, the NAEP provides a long-term trend assessment of 9-, 13-, and 17-year-olds in reading and mathematics. The trend assessment is based on a nationally representative sample and is conducted roughly every four years. In 2004, the most recent year of the trend assessment, 38,000 students participated in the reading component.

A discussion of reading achievement trends, as charted by NAEP, follows in Chapter Five of this report. For our immediate purpose, however, the NAEP long-term assessment offers valuable information about childhood and teenage reading rates. These data are made available because apart from testing students’ progress in reading, the assessment asked students to report contextual variables such as time spent on homework, the number of pages read for school and homework, and the amount of time spent reading for fun.²

Table 1B shows the frequency of leisure reading by 9-, 13-, and 17-year-olds in three years: 1984, 1999, and 2004. Students on the lowest end of the age scale evinced not only the highest leisure reading rate for all three years—more than half of 9-year-olds reported reading “almost every day,” compared with 28%–35% of 13-year-olds and 22%–31% of 17-year-olds—but one that did not alter significantly with each test period. By 2004, 9-year-olds had the smallest percentage of non-readers (students in the “never or hardly ever” read category), and for all three years they had the smallest percentage of infrequent readers (“a few times a year”) relative to the two other age groups.

Chapter Seven describes how the consistently higher leisure reading rates in 9-year-olds correspond with improvements in their reading achievement scores. For now, 13- and 17-year-old leisure reading rates invite a closer comparison with those of the younger age group.

¹ NEA, *Reading at Risk: A Survey of Literary Reading in America*, 2004, 26–28.

² Nine-, 13- and 17-year-olds were asked “How often do you...read for fun on your own time?”

Table 1B. Percentage of Students Ages 9, 13, and 17, by Frequency of Reading for Fun: 1984, 1999, and 2004

Age 9	Almost every day	Once or twice a week	Once or twice a month	A few times a year	Never or hardly ever
1984	53%	28%	7%	3%	9%
1999	54%	26%	6%	4%	10%
2004	54%	26%	7%	5%	8%

Age 13	Almost every day	Once or twice a week	Once or twice a month	A few times a year	Never or hardly ever
1984	35%	35%	14%	7%	8%
1999	28%	36%	17%	10%	9%
2004	30%	34%	15%	9%	13%

Age 17	Almost every day	Once or twice a week	Once or twice a month	A few times a year	Never or hardly ever
1984	31%	33%	17%	10%	9%
1999	25%	28%	19%	12%	16%
2004	22%	30%	15%	14%	19%

Shading of a column denotes statistically significant changes between 1984 and 2004.

Source: U.S. Department of Education, National Center for Education Statistics

Among 1984–2004 trend data for 9-year-old reading rates, the one statistically significant finding was a growth in infrequent readers by two percentage points (from 3% in 1984 to 5% in 2004). For Americans at the early and late stages of adolescence, however, statistically significant changes appeared at each extreme of the frequency band. The percentage of avid readers (“almost every day”) slumped for 13- and 17-year-olds, from 35% to 30% and from 31% to 22%, respectively. Conversely, both age groups experienced a jump in the percentage of non-readers, from 8% to 13% of 13-year-olds and from 9% to 19% of 17-year-olds. The latter growth rate represents **a doubling of the percentage of 17-year-olds who never or hardly ever read for fun.**

The changes in leisure reading rates are disconcerting. In the two adolescent age groups, the rates have declined to such an extent that by 2004 less than one-third of 13-year-olds read for fun “almost every day.” The corresponding figure for 17-year-olds, combined with a growing percentage of non-readers in both teen groups, leads us to ask: What factors account for the relatively stable leisure reading rates among 9-year-olds?

More to the point, why are voluntary reading rates consistently higher in 9-year-olds than in 13- and 17-year-olds? It may be unwise to discount biological and social developmental factors in a child’s transition to adolescence: the teen’s growing need for peer approval; his or her bid for greater independence; the likelihood of less parental supervision; puberty itself. Still, none of these factors necessarily conflict with a voluntary reading lifestyle. Nor are they sufficient to explain the extent of the difference in reading rates.

If the low reading rates for 13- and 17-year-olds were constant over time, one might be tempted to call them characteristic of those age groups. Yet not only have teenager reading rates remained well below those of 9-year-olds; teen reading rates have diminished in the past two decades.

Voluntary Versus Compulsory Reading

There is another frequently voiced explanation for declines in reading from childhood to adolescence. It is sometimes argued that as children enter and progress through high school, they toil under more rigorous coursework, which, along with extracurricular activities, tend to sap time from leisure reading.³ (As shown later in this report, a similar view must be faced when characterizing reading trends in college students.)

The NAEP long-term trend assessment is a handy resource to consult when investigating this claim. Table 1C shows the number of pages read daily by 9-, 13-, and 17-year-olds—in school or for homework—for the years 1984, 1999, and 2004. The percentages suggest that compulsory reading has increased for both 9- and 13-year-olds. From 1984 to 2004, a statistically significant drop in the percentage of 9-year-olds reading 0–10 pages a day is accompanied by a proportionate increase in the percentage reading 16 or more pages a day.

Thirteen-year-olds also experienced a 20-year decline in the percentage of students reading 0–10 pages a day for school, with corresponding increases in the 16–20 and “more than 20” pages-daily categories. This latter percentage is nearly twice as great as the 1984 level.

By comparing Table 1C with 1B, we conclude that a growth in school-related reading for 9-year-olds does not appear to hinder their voluntary reading rate, but that for 13-year-olds, the relationship between compulsory and voluntary reading is altogether different. Thirteen-year-olds read more for school than in previous years, and they also read less for pleasure.

Yet this conflict is not apparent in older teens. In 17-year-olds—the group whose voluntary reading rates fared the worst—the **percentage of students at all five levels of compulsory reading has remained largely constant** for the three test periods.

³ The Henry J. Kaiser Family Foundation, *Generation M: Media in the Lives of 8–18-Year-Olds* (#7251), 2005, 26.

Table 1C. Percentage of Students Ages 9, 13, and 17, by Pages Read Per Day in School and for Homework: 1984, 1999, and 2004

Age 9

	5 or fewer	6 to 10	11 to 15	16 to 20	More than 20
1984	36%	25%	14%	13%	13%
1999	28%	24%	15%	14%	19%
2004	25%	21%	13%	15%	25%

Age 13

	5 or fewer	6 to 10	11 to 15	16 to 20	More than 20
1984	27%	34%	18%	11%	11%
1999	23%	31%	18%	13%	16%
2004	21%	26%	18%	14%	21%

Age 17

	5 or fewer	6 to 10	11 to 15	16 to 20	More than 20
1984	21%	26%	18%	14%	21%
1999	23%	24%	17%	14%	22%
2004	21%	24%	17%	15%	23%

Shading of a column denotes statistically significant changes between 1984 and 2004.

Source: U.S. Department of Education, National Center for Education Statistics

Table 1D. Percentage Who Read Books for Fun the Previous Day: 2004

	8- to 18-year-olds	8- to 10-year-olds	11- to 14-year-olds	15- to 18-year-olds
Read for at least 5 minutes	46%	63%	44%	34%
Read for at least 30 minutes	30%	40%	27%	*26%

* No statistically significant change from the percentage directly to the left

Source: The Henry J. Kaiser Family Foundation, *Generation M: Media in the Lives of 8-18 Year Olds*, (# 7251), 2005

Indeed, by 2004, the percentage of 17-year-olds in the “more than 20 pages-a-day” category has failed to surpass that of 9-year-olds.

This observation does not preclude the possibility that expanded school-related activities among teens are displacing time spent on leisure activities such as reading—but it does complicate that view considerably. In this study, 17-year-olds are the only age group that a) lacked growth in the percentage reading more than 15 pages daily for school or homework and b) saw no attrition of the percentage reading fewer than 11 pages daily for school or homework. At the same time, they were the only age group to experience a doubling of the percentage that never or hardly ever reads for pleasure.

Without attempting to quantify reading for school or homework, another study shows a progressively lower rate of book reading for pleasure across age groups from 8 to 18 years old.

Generation M: Media in the Lives of 8–18 Year-Olds resulted from a nationally representative survey of 2,032 third- through twelfth-grade students, supplemented by 694 seven-day media-use diaries. Although the study aimed primarily to examine students’ access to a host of traditional and electronic media, and their related use patterns, it also shed light on the reading habits of teenagers.

Generation M reported that less than half of 8- to 18-year-olds spent at least 5 minutes of the previous day on the leisure reading of books. Yet within that group, 63% of 8- to 10-year-olds read books for 5 minutes or more, while only 44% of 11- to 14-year-olds did so. At the later stages of adolescence, that percentage dwindled to 34%. “Indeed, with each successive increase in age, both the proportion of kids who engage in leisure book reading and the proportion who read books for at least 30 minutes decreases significantly,” the study authors conclude before tentatively ascribing those discrepancies to increased reading for school.⁴ See Table 1D.⁵

If heavier course requirements were eroding the leisure reading time of high school students, one might expect the factor to be documented by large population surveys of teen experiences at home and school.

As it happens, a long-term trend analysis of high school seniors found that in 2006 only 33% of them reported spending 6 or more hours a week on homework, compared with 47% in 1987.⁶ The same analysis revealed, however, that **high school seniors’ leisure reading rates have failed to improve in the last 13 years** for which the survey has tracked this activity. In 1994, less than 20% of seniors reported they spent no time reading for pleasure on a typical week. In 1997, that figure jumped to 25% and has lingered there ever since.

Meanwhile, the percentage reading 6 or more hours a week for pleasure has dropped by two points, representing a 17% rate of decline. Table 1E shows the percentage of high school seniors engaged in leisure reading in 1994 and 2006 for the time amounts measured by the survey. For each year of the survey, students who read 0–2 hours a week made up a majority.

⁴ *Ibid.* However, the percentage of 11- to 14-year-olds who read a book for at least 30 minutes the previous day does not differ significantly from the percentage of 15- to 18-year-olds who did, as that sentence would appear to indicate.

⁵ This table does not display the reported time spent reading other materials, including magazines and newspapers. For both of these media, the percentage of readers among the 11- to 14-year-old and 15- to 18-year-old groups is *greater* than for the 8- to 10-year-old group—but only in the 5-minutes-or-more category. Forty-seven percent of 15- to 18-year-olds read a magazine for at least 5 minutes, compared with 35% and 54% of the 8–10 and 11–14 age groups, respectively. Forty-three percent of 15- to 18-year-olds read a newspaper for at least 5 minutes, compared with 21% and 35% of the 8–10 and 11–14 age groups, respectively.

For both media, there was no statistically significant difference in the percentage of 11- to 14-year-old and 15- to 18-year-old children who read for at least 5 minutes. Indeed, the percentage of 8- to 10-year-olds who read *any* of the three media—books, magazines, or newspapers—for at least 5 minutes (73%) did not differ in comparison with the 11- to 14- and 15- to 18-year-old groups.

Regarding newspaper and magazine reading for at least 30 minutes the previous day, there were *no statistically significant differences* in the percentages of any of the age groups. Thus, for 8- to 10-year-olds, the percentage who read any of the three media—books, magazines, or newspapers—for at least 30 minutes (51%) was roughly the same as for the two older age groups.

⁶ From trend data provided by UCLA’s Higher Education Research Institute.

Table 1E. Percentage of High School Seniors Who Read for Pleasure, by Hours Per Week

	1994	2006	Change	Rate of change
None	20%	25%	+5 pp	+25%
Less than one hour	25%	25%	0 pp	0
1 to 2 hours	26%	25%	-1 pp	-4%
3 to 5 hours	17%	16%	-1 pp	-6%
6 or more	12%	10%	-2 pp	-17%

Numbers do not total 100% due to rounding.

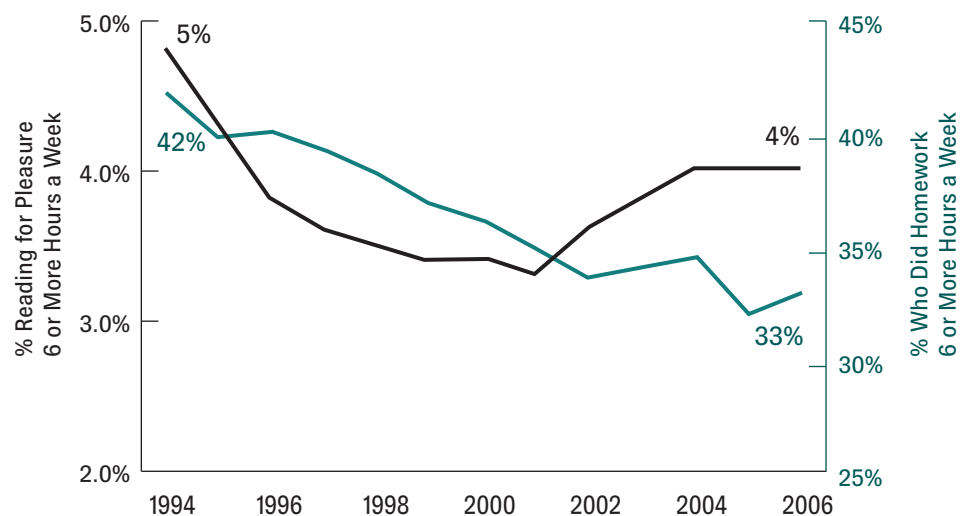
pp = percentage points

Source: University of California, Los Angeles, Higher Education Research Institute

Chart 1F tracks year-over-year changes in the percentage of students who read 6 or more hours a week for pleasure. For the sake of comparison, a line is also given for the percentage of high school seniors who did homework for 6 or more hours a week. As illustrated by two vertical axes, both activities display a downward trend from 1994 through 2001.

Comparisons such as these do not solve the puzzle of why leisure reading rates are declining among teenagers, yet they do suggest that compulsory reading trends lack a clear and obvious relationship with voluntary reading patterns. As Chapter Two explains, relatively low reading rates persist throughout the teen's entry into college and adulthood.

Chart 1F. Percentage of High School Seniors Who Read for Pleasure and/or Did Homework 6 or More Hours Per Week: 1994–2006



Source: University of California, Los Angeles, Higher Education Research Institute

CHAPTER TWO

3. College attendance no longer guarantees active reading habits.

BACKGROUND

In 2005, approximately 8.5 million students were enrolled as undergraduates in U.S.-based four-year colleges and universities. By partaking of higher education, those individuals were on track to join the nation's 52 million college graduates, who account for 28% of Americans ages 25 years or older.⁷

College attendance, although far from universal, is often depicted as a rite of passage into independent adulthood. (The word “Commencement,” and the ceremonies it describes, marks the beginning of that transition.) Throughout the histories of modern universities, college learning has been portrayed as a series of classroom and out-of-classroom experiences and responses that equip the student for participation in adult life.

In “The Idea of a University” (1854), John Henry (Cardinal) Newman distinguishes between didactic learning and the behavioral framework that must be cultivated if education and not “mere extrinsic or accidental advantage” is to prevail:

[Knowledge] is an acquired illumination, it is a habit, a personal possession, and an inward endowment. And this is the reason why it is more correct, as well as more usual, to speak of a University as a place of education, than of instruction, though, when knowledge is concerned, instruction would at first sight have seemed the more appropriate word....But education is a higher word; it implies an action upon our mental nature, and the formation of character; it is something individual and permanent....

Newman's distinction between “instruction” and “education” proves helpful when we consider voluntary reading as a strategy to reinforce the skills and habits needed for lifelong learning. Three large population studies gauge the intensity of that engagement—of reading beyond the curriculum—during this formative period. They are:

- Higher Education Research Institute, University of California, Los Angeles: *Findings from the 2005 Administration of Your First College Year (YFCY) Survey: National Aggregates*, 2007.
- Higher Education Research Institute, UCLA: *Findings from the 2005 College Senior Survey (CSS): National Aggregates*, 2007.
- Indiana University Bloomington: *National Survey of Student Engagement 2006 Institutional Report*, 2006.

UCLA Freshman and Senior Surveys

The first two reports stem from annual surveys conducted by UCLA's Higher Education Research Institute (HERI), which also produced the trend analysis discussed in Chapter One (see pp. 31–32). As part of the Cooperative Institutional Research Program, a longitudinal study billed as “the nation's oldest and largest empirical study

⁷ U.S. Census Bureau's 2004 Current Population Survey; Department of Education's 2006 *Digest of Education Statistics* (National Postsecondary Aid Study), Table 180.

Table 2A. First-Year College Students: Time Spent Reading for Pleasure

Reading per week:	Percentage as high school seniors in 2004	Percentage as college freshmen in 2005	Change
None	21%	39%	+18 pp
Less than 1 hour	26%	26%	0 pp
1 to 2 hours	27%	20%	-7 pp
3 or more hours	27%	15%	-12 pp

pp = percentage points

Source: University of California, Los Angeles, Higher Education Research Institute

Table 2B. College Seniors: Time Spent Reading for Pleasure

Reading per week:	Percentage as high school seniors	Percentage as college seniors in 2005	Change
None	21%	35%	+14 pp
Less than 1 hour	28%	28%	0 pp
1 to 2 hours	27%	23%	-4 pp
3 or more hours	24%	14%	-10 pp

pp = percentage points

Source: University of California, Los Angeles, Higher Education Research Institute

of higher education,” UCLA collects baseline data each year from incoming college students.⁸

The baseline data can be analyzed separately or in tandem with two other annual surveys: UCLA’s *Your First College Year* survey and the *College Senior Survey*, which poll college students approaching the end of their freshman and senior years, respectively. Because the three surveys yield a wealth of statistics on student life experiences from twelfth grade to college—and from the undergraduate’s first through final year—they allow us to assess reading habits at key points along the continuum.

In the annual report for the 2005 *Your First College Year* survey, researchers identified “reading for pleasure” as one of several leisure activities that have sustained “notable declines” as high school students enter college and progress throughout their first year.⁹ In the fall of 2004, 27% of incoming college freshmen reported having read for pleasure for three or more hours per week during their senior year in high school. By the spring of 2005—when those students were set to finish their first year of college—only 15% reported that level of reading intensity. See Table 2A.

The situation does not improve as students advance through college. Although the percentage of college seniors in 2005 who did no reading for pleasure was 4 points less than that of college freshmen in the same year (35% versus 39%), a longitudinal perspective prompts a more sobering view.

Table 2B shows that the college seniors of 2005 had a greater likelihood of reading less on any given week than when they were high school seniors. Twenty-one percent of incoming college freshmen reported reading nothing for pleasure during their senior year in high school, which, for the majority of students, was pre-2002. By the time that population reached senior year in college, **the percentage of nonreaders had climbed by 14 points, to 35%**. Moreover, only 14% of 2005 college seniors reported reading weekly for 3 hours or more. That figure marks a 10-point drop from the percentage who read for the same amount of time as high school seniors.

⁸ See HERI website (<http://www.gseis.ucla.edu/heri/heri.html>). In 2006, the baseline survey obtained responses from 271,441 first-year college students at 393 U.S. colleges and universities.

⁹ HERI, *Findings from the 2005 Your First College Year (YFCY) Survey: National Aggregates*, 2007, 20. Other “notable declines” arose in students’ reported time spent playing sports, exercising, participating in student clubs or groups, or watching television.

Table 2C. Comparison of First-Year and Senior College Student Reading Rates in 2007

		Percentage of first-year students	Percentage of seniors	Gap between groups
Number of unassigned books read	None	27%	21%	-6 pp
	1–4	55%	54%	-1 pp
	5 or more	18%	25%	+7 pp

pp = percentage points

Source: Indiana University Bloomington, National Survey of Student Engagement

National Survey of Student Engagement

Results from another large-scale, institutional survey tell a different story. Indiana University has polled random samples of first-year and senior college students every year since 1999, focusing its questions on “items that are known to be related to important college outcomes.”¹⁰ Unlike the UCLA surveys, the National Survey of Student Engagement (NSSE) asks about leisure reading in terms of volume of books read, not hours spent reading.

NSSE is not designed as a longitudinal study—and therefore does not track the same cohort of students as they pass through college—but the researcher can compare first-year and senior book-reading rates for a given year. Toward the end of their freshman year, 27% of college students reported reading zero books for pleasure or enrichment in 2007.¹¹ For outgoing college seniors, the corresponding figure is 21%. Similarly, while only 18% of first-year college students had read five or more books during the school year, college seniors reported doing so at a rate of 25%. See Table 2C.

Despite the apparently significant gains in college senior reading rates when compared with students roughly four years their junior, this analysis does not report whether the same seniors read fewer or greater numbers of books than in their first year of college. Similarly, the study does not reveal whether college students experienced a change from their reading levels in high school. Still, if we accept that voluntary reading habits are central to a liberal arts education, then surely it is troubling to find that the majority of freshmen and seniors alike read only 1–4 books for pleasure throughout the entire school year or they read no unassigned books at all.

As when reviewing reading rates of high school students, we might ask whether incrementally more challenging course requirements are stunting the growth of voluntary reading in undergraduates. The question cannot be answered with the NSSE data alone. Still, the 2007 data show that seniors are not assigned more college texts, on average, than freshmen of the same year—see Table 2D—and that seniors, on average, do not spend more time on class preparation. Table 2E clarifies the latter point.

From these data, it still is plausible that college seniors, in aggregate, are assigned more rigorous coursework in general than first-year students, though not reflected in the amount of assigned texts. Yet this is by no means the only way to interpret the data. The NSSE results do not explain, after all, whether the students completely read every assigned text, whether the texts ranged in complexity from freshman to senior year, or whether the prescribed reading materials grew progressively more complex during the same college year.

Similarly, we lack a number for other, non-reading assignments and activities. At

¹⁰ See NSSE Web site: “Our Origins and Potential” (<http://nsse.iub.edu/html/origins.cfm>).

¹¹ The corresponding item on the questionnaire is “Number of books read on your own (not assigned) for personal enjoyment or academic enrichment” during the current school year.

Table 2D. Comparison of College-Prescribed Reading Levels in 2007

		Percentage of first-year students	Percentage of seniors	Gap between groups
Number of assigned textbooks, books, or book-length packs of course readings	None	1%	1%	0 pp
	Between 1–4	22%	28%	+6 pp
	Between 5–10	44%	39%	-5 pp
	Between 11–20	24%	20%	-4 pp
	More than 20	10%	12%	+2 pp

pp = percentage points

Source: Indiana University Bloomington, National Survey of Student Engagement

Table 2E. Comparison of Time Spent on College Preparation in 2007

		Percentage of first-year students	Percentage of seniors	Gap between groups
Preparing for class (studying, reading, writing, doing homework, etc.)	0 hours/wk	0%	0%	0 pp
	1–5 hours/wk	17%	18%	+1 pp
	6–10 hours/wk	27%	26%	-1 pp
	11–15 hours/wk	22%	19%	-3 pp
	16 hours or more/wk	34%	35%	+1 pp

Numbers do not total 100% due to rounding.

pp = percentage points

Source: Indiana University Bloomington, National Survey of Student Engagement

the end of this exercise, we are left with a cheerless statistic: **74%–80% of college freshmen and seniors read 0–4 books on their own** during the school year.¹²

We are also left with a further question: if we cannot credit school and homework assignments entirely with displacing early reading habits, then what other factors are responsible? To explore these issues, we must turn to a federal study of how Americans spend their leisure time.

¹² See Table 2C, p. 35.

CHAPTER THREE

4. Teens and young adults spend less time reading than people of other age groups.

5. Even when reading does occur, it competes with other media.

BACKGROUND

The rapid technological shifts that marked the second half of the last century—breakthroughs in electronics, computers, and communications—reverberated far beyond the fields where they occurred. Parallel developments in medicine, commerce, media, and manufacturing have continued to benefit the average consumer. Yet a subtler revolution is dictating the way Americans live and work today.

With the advent of time-saving technologies, we have more time to spend on leisure—but we also have more ways to spend time on work. (Blackberries, pagers, and cell-phones attest to this paradox, as does the growing popularity of telecommuting, which collapses conventional boundaries of home and work.) To some extent, the Digital Age merely accelerated an earlier process. More fundamental changes in work and leisure patterns had originated with 18th- and 19th-century industrialization, which heightened public awareness of time as a commodity to be managed.

In early-to-mid-20th-century America, two trends placed time management under greater scrutiny than before. First were improvements to manufacturing efficiencies, represented by the automobile industry and the assembly line. Innovations in scalable production, involving the subdivision of time and tasks into discrete units, ensured America's competitiveness in a global market.

The second change was the commercialization of leisure in the two decades after World War II, a period of unrivalled prosperity for the nation. Product vendors and advertisers began vying more aggressively for the leisure hours of a growing middle-class. They also targeted the free time of America's largest generational cohort ever, the Baby Boomers.

Roughly concurrent with those trends, academic researchers, corporations, and public policy planners began to crave a more sophisticated understanding of how Americans use leisure time. In 1954, more than 8,000 Americans participated in a time-use study conducted by the Mutual Broadcasting Corporation.¹³ This exercise involved "time diaries" in which subjects reported all their activities within a two-day period. Time diaries were again used in a 1965 multinational study including more than 1,200 Americans. Subsequent major time-use studies occurred in 1975, 1985, and throughout the 1990s.¹⁴

This chapter examines leisure reading habits in the context of more recent time-use studies. The data derive from four independent sources—a private foundation, two university research teams, and the U.S. government:

- Department of Labor's Bureau of Labor Statistics: *American Time Use Survey (ATUS)*, 2006.
- University of Michigan/Ann Arbor's Institute for Social Research: *Changing Times of American Youth: 1981–2003*, 2004.

¹³ Robinson, John P. and Godbey, Geoffrey, *Time for Life: The Surprising Ways Americans Use Their Time*: Penn State Press, University Park, PA. 1997, 67.

¹⁴ *Ibid.*

- Indiana University Bloomington: *2006 High School Survey of Student Engagement (HSSSE)*, 2007.
- The Henry J. Kaiser Family Foundation: *Media Multitasking Among American Youth: Prevalence, Predictors and Pairings*, (# 7592), 2006.

Federal Data on Time Use Patterns

Since 2003, the Department of Labor's Bureau of Labor Statistics (BLS) has sponsored the annual *American Time Use Survey*, conducted by the U.S. Census Bureau. Consisting of telephone interviews, this nationally representative survey included about 13,000 people in 2006. The interviewees, who must be at least 15 years old, are asked about the activities they did during the last 24 hours. (To avoid obtaining varied response rates throughout the week, the interviews are pre-assigned.)¹⁵

The survey responses are then used to report the average number of hours and minutes per day spent—by the total civilian population or a demographic group—in performing various activities. BLS designates several categories of “major activity,” including “leisure and sports,” of which reading is a part.

According to the survey results for 2006, Americans' leisure and sports activities accounted for an average of 4 hours and 32 minutes on weekdays and 6 hours and 22 minutes per day on weekends and holidays. For teenagers and very young adults, the share of leisure time is slightly greater, exceeding that for all other age groups under 55. See Table 3A.

Before we consider the average number of hours per day spent reading, it is worth knowing what other types of activity compose the “leisure and sports” category. They are: “participating in sports, exercise, and recreation”; “socializing and communicating”; “watching TV”; “relaxing/thinking”; “playing games and computer use for leisure”; and “other leisure and sports activities, including travel.”

When we review the average number of hours that Americans daily devote to these activities, however, an anomaly arises. As Table 3B reveals, only one category of leisure activity claims more than an hour of Americans' daily time—claims, indeed, more than 2 hours on weekdays and, on weekends, more than 3. This activity is TV-watching.¹⁶

On average, **TV-watching consumes about half of the total daily leisure time of all Americans ages 15 and older.** Equally significant, of all the leisure categories, only TV-watching is wholly dependent on electronic media. For example, the “recreation” in “sports, exercise, and recreation” may represent many different types of activity. Likewise, “playing games and computer use for leisure” is not restricted to computer games or computer use. “Socializing and communicating” is described as “face-to-face social communication and hosting or attending social functions.”¹⁷

How does TV-watching time compare with time spent reading? Table 3C shows two sets of columns: the amounts of time spent reading and TV-watching by the various age groups. On weekdays, most Americans under 55 watch about 2 hours of TV. (Older adults watch significantly more.) By contrast, this group spends less than 20 minutes per weekday on reading, with teens and young adults of 15–34 years old spending only 7–9 minutes.

Now see Table 3D, which gives the same time amounts as a percentage of all leisure time. Although all age groups read far less than they watch TV, we may take heart that 15- to 24-year-olds spend a lower percentage of their leisure time, relative to other age groups, on TV-watching. Yet **15- to 24-year-olds still spend less than 3% of their daily leisure time reading**, and 25- to 34-year-olds spend roughly 4%.

¹⁵ For details, see *American Time Use Survey* “Overview” section of BLS website (<http://www.bls.gov/tus/overview.htm#purpose>).

¹⁶ “Socializing and communicating” involves 1 hour and 7 minutes of Americans' average leisure time—but only on weekends and holidays. On weekdays, the activity consumes 36 minutes.

Table 3A. Hours and/or Minutes Per Day Spent on Leisure and Sports Activities, by Age Group

2006 Annual Averages

	Weekdays	Weekends and holidays
Total, 15 years and over	4:32	6:22
15 to 24 years	4:39	6:33
25 to 34 years	3:38	5:52
35 to 44 years	3:34	5:20
45 to 54 years	3:54	5:59
55 to 64 years	4:47	6:54
65 years and over	7:08	7:57

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 3B. Hours and/or Minutes Per Day Spent on Leisure and Sports Activities, by Activity

2006 Annual Averages

Ages 15 Years and Over	Weekdays	Weekends and holidays
Participation in sports, exercise and recreation	0:16	0:20
Socializing and communicating	0:36	1:07
Watching TV	2:21	3:06
Reading	0:20	0:26
Relaxing and thinking	0:17	0:20
Playing games and computer use for leisure	0:18	0:22
Other leisure and sports activities, including travel	0:24	0:41

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 3C. Hours and/or Minutes Per Day Spent Watching TV or Reading

2006 Annual Averages

	Hours/minutes spent watching TV		Hours/minutes spent reading	
	Weekdays	Weekends and holidays	Weekdays	Weekends and holidays
Total, 15 years and over	2:21	3:06	:20	:26
15 to 24 years	1:57	2:33	:07	:10
25 to 34 years	1:55	2:51	:09	:11
35 to 44 years	1:53	2:39	:12	:16
45 to 54 years	2:07	3:02	:17	:24
55 to 64 years	2:35	3:35	:30	:39
65 years and over	3:56	4:10	:50	1:07

Source: U.S. Department of Labor, Bureau of Labor Statistics

Academic Time-Use Studies

In 1981, University of Michigan researchers began conducting nationally representative time-use studies of the behavior patterns of children and adolescents. The data involve American youth ages 6–17, and the studies allow comparisons of various age subgroups.

¹⁷ BLS economic news release, “American Time Use Survey—2006 Results,” Technical Note.

Table 3D. Percentage of Daily Leisure Time Spent Watching TV or Reading
2006 Annual Averages

	Percentage spent watching TV		Percentage spent reading	
	Weekdays	Weekends and holidays	Weekdays	Weekends and holidays
Total, 15 years and over	51.8%	48.7%	7.3%	6.9%
15 to 24 years	41.9%	38.9%	2.6%	2.6%
25 to 34 years	52.7%	48.6%	4.1%	3.2%
35 to 44 years	52.8%	49.6%	5.6%	4.9%
45 to 54 years	54.1%	50.7%	7.4%	6.7%
55 to 64 years	54.2%	52.0%	10.5%	9.4%
65 years and over	55.3%	52.5%	11.6%	14.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 3E. Weekly Average Hours and/or Minutes Spent on Various Activities by American Children
Ages 6–17, 2002–2003

Leisure activity	2002–2003
Visiting, socializing	4:47
Sports	2:59
Outdoor activities	0:50
Hobbies	0:12
Art activities	0:48
Television	14:36
Other passive leisure	2:46
Playing	8:05
Reading	1:17
Being read to	0:05
Computer activities	2:45

Source: University of Michigan, Ann Arbor, Institute for Social Research

For a 2002–2003 study, published in late 2004, researchers interviewed 2,017 families who had participated in a 1997 time-use study. The 2002–2003 interviews generated data for nearly 3,000 children and adolescents. Co-sponsored by the National Institutes of Health’s National Institute of Child Health & Human Development, the study had children and teens fill out 24-hour time-use diaries for randomly selected weekdays and weekends, with 6- to 9-year-olds receiving parental help.

Not surprisingly, given what we have seen with the *American Time Use Survey*, TV-watching occupied the most weekly leisure time of 6- to 17-year-olds in the University of Michigan study. (Among non-leisure activities, only sleep and school attendance claimed more hours per week than TV-watching.¹⁸) Table 3E breaks down weekly average hours and/or minutes that 6- to 17-year-olds spent on a range of leisure activities for the 2002–2003 study period.

¹⁸ F. Thomas Juster, *et al.*, University of Michigan’s Institute for Social Research, *Changing Times of American Youth: 1981–2003*, 2004. Table 1.

Reading and TV-Watching



Why focus on TV-watching time in a report on voluntary reading habits? Admittedly, there is no single barrier, which, if removed, would raise reading rates for young Americans. Moreover, there is no assurance that a decline in one type of leisure habit would spur greater participation in another. We can, on the other hand, use statistics from the 2002 Survey of Public Participation in the Arts (SPPA) to gauge the strength of the correlation between leisure reading and TV-watching.

Although the SPPA survey revealed that readers of literature watch the same average amount of TV per day as non-readers—roughly 2 hours—**the likelihood of reading diminishes with additional hours watched.** According to a regression analysis, the odds of literary reading by Americans who watch 3 or more hours of TV are significantly less than (or 13% below) the odds of literary reading by Americans who watch 2 hours or less per day. For all types of book reading—not only fiction, plays, or poetry—non-readers watch an average of 3 hours per day, while Americans who read at least one book per year watch, on average, 2 hours daily.

As *Reading at Risk* concedes, "the SPPA results cannot show whether people would read more if they watched less TV, or whether they would use this extra time in other ways." Elsewhere, the report adds: "television does not seem to be the culprit" in the 10- and 20-year declines of American literary reading rates. It is not *the* culprit, perhaps, but certainly *a* culprit in subtracting time and work from the development of young readers—especially when we regard the SPPA statistics alongside American time-use data and recent medical articles. (See, for example, Jeffrey Johnson, *et al.*, "Extensive Television Viewing and the Development of Attention and Learning Difficulties During Adolescence," in the May 2007 *Archives of Pediatrics & Adolescent Medicine*.)

In their comprehensive study of U.S. time use in the latter part of the 20th century, *Time for Life: The Surprising Ways Americans Use Their Time* (1997), John P. Robinson and Geoffrey Godbey conclude: "The real adversary of the arts...is television." *Amusing Ourselves to Death: Public Discourse in the Age of Show Business* (1985), Neil Postman's classic polemic against popular media culture, is more dire and less empirically driven, but its metaphor still resonates:

We are now a culture whose information, ideas and epistemology are given form by television, not by the printed word. To be sure, there are still readers and there are many books published, but the uses of print and reading are not the same as they once were; not even in schools, the last institutions where print was thought to be invincible. They delude themselves who believe that television and print coexist, for coexistence implies parity. There is no parity here. Print is now merely a residual epistemology, and it will remain so, aided to some extent by the computer, and newspapers and magazines that are made to look like television screens. Like the fish who survive a toxic river and the boatmen who sail on it, there still dwell among us those whose sense of things is largely influenced by older and clearer waters. (p. 28)

Table 3F. Weekly Average Hours and/or Minutes Spent Reading by American Children, By Age: 2002–2003

6–8	9–11	12–14	15–17
1:22	1:33	1:25	0:49

Source: University of Michigan, Ann Arbor, Institute for Social Research

Reading accounts for 1 hour and 17 minutes of the weekly average leisure time of 6- to 17-year-olds. That amount represents less than 9% of their TV-watching time, which averages 14 hours and 36 minutes per week. But the most revealing observations about children and adolescent reading patterns flow from subgroup comparisons.

The University of Michigan study lists average weekly time expenditures for four age ranges within the 6- to 17-year-old group: 6 to 8, 9 to 11, 12 to 14, and 15 to 17. Table 3F signals a discrepancy in the leisure reading patterns of older teenagers, compared with those of younger age groups. For young children (6- to 8-year-olds), many of whom are relatively new readers, the average weekly time spent reading is 1 hour and 22 minutes. That number increases for the 9-to-11 age group. Among 12- to 14-year-olds, the time allotment is slightly less. But the average reading time of 15- to 17-year-olds is markedly different.

These older teens read for just under 50 minutes a week—not even the full hour granted by all the other age groups. Taken together with what we learned in Chapter One about leisure reading trends for 17-year-olds, the University of Michigan time-use data suggest **a decline in voluntary reading from childhood to adolescent age groups.**

Another study, Indiana University’s *High School Survey of Student Engagement (HSSSE) 2006*, polled 81,499 students of all high school grades from 110 schools across the U.S. Responding to questions about various activities, 56% of high school students attributed only 0–1 hour per week to “reading for self.” An additional 30% read 2–5 hours a week.

As with the federal *American Time Use Survey*, trend data are limited for the purpose of accurate year-over-year comparisons. Still, when a similar question was asked in the 2005 version of the high school survey, 54% reported “personal reading” of “books, magazines, newspapers, etc.” for 0–1 hours a week. Another 34% of students read those materials 2–5 hours weekly for pleasure.¹⁹

In 2004, the high school survey asked respondents whether they gave 0 hours, 1–3 hours, 4–6 hours, 7–10 hours, or 11–14 hours to weekly personal reading of “books, magazines, newspapers, etc.” The majority by far (70%) reported reading those materials for 0–3 hours a week. Yet in 2005, a greater percentage of high school students (77%) were in the 0–3 hours category.²⁰

In Chapters One and Two, we asked whether homework is crowding out students’ leisure time devoted to voluntary reading. Further data from the *High School Survey of Student Engagement* appear to dispel this notion. In 2004, 2005, and 2006, **the majority of high school students read only minimally for class.** In 2004, as we have seen, 70% spent 0–3 hours weekly on leisure reading. That year, 76% of high school students reported reading assigned texts or course materials for only 0–3 hours a week.²¹ The following year, that figure was 81%.

In 2006, the question on compulsory reading was phrased differently. Students were asked about the amount of time “reading/studying for class,” and they selected

¹⁹ Data provided by HSSSE, Indiana University Bloomington. The 2004 and 2005 surveys also asked students how much time they spent on “personal reading online/web.” In 2004, 71% of students read online for 0–3 hours per week, 17% reported reading online for 4–6 hours per week, and the remainder read online for 7 or more hours per week. In 2005, the share of online readers in the 0–3-hours category rose to 84%.

Still more recent data suggest that online reading does not contribute greatly to the overall reading rates of high school students. In the 2007 HSSSE, “online articles” was included as an option in the survey question about “reading for yourself.” Of college freshmen and seniors alike, more than half said they spent only 1 hour per week, less, or no time at all on this activity. (Complete 2007 HSSSE results were unavailable at the time of publication.)

²⁰ Ibid.

²¹ Ibid.

from five possible choices: 0 hours, 1 or fewer, 2–5, 6–10, and 10 or more. Fifty-five percent selected 0–1 hours.²² Yet as shown above, a comparable percentage (56%) also reported “reading for self” for 0–1 hours.

“Generation M”: Reading While Doing Other Activities

Americans largely accept the role of multitasking in their daily routines at home and at work. They may even view the ability to accomplish several discrete tasks, simultaneously, as a source of pride in their efficiency. Economic pressures and time constraints—the one factor scarcely distinguishable from the other—have combined with increasingly user-friendly technologies to create a scenario where it no longer seems unnatural to talk on the phone while driving, to grab lunch while Web-surfing, or to compose an office memo while a 24-hour TV news channel blares in the background.

Early data suggest that the use of some types of digital media for multitasking is more prevalent among youth.²³ Much more research is needed to weigh the relative costs and benefits of IT multitasking. Nevertheless, a March 2007 *New York Times* article posed the question, citing several published and unpublished studies by “neuroscientists, psychologists and management professors.”²⁴ For example, the article references a field study of Microsoft employees’ work habits.

The study showed that after interrupting their computer tasks to respond to e-mail or instant messages, employees took, on average, an additional 10–15 minutes to resume work. In 27% of the cases, the interruptions resulted in employees taking more than two hours until task resumption.²⁵ The *Times* quotes the study’s co-author, a Microsoft researcher, as saying: “If it’s this bad at Microsoft...it has to be bad at other companies, too.”

Taking time off in the middle of the workday to respond to a personal e-mail is one type of inefficiency, but a matter best left for the employer to resolve—if the costs are significant enough to merit attention in the first place. By contrast, there is no easy method to account for the costs incurred by IT multitasking while attempting to read a book. Still, while we may lack substantive data on any tradeoffs associated with this behavior, we do know that the tendency is rampant among American youth.

In late 2006, the Henry J. Kaiser Family Foundation issued the report *Media Multitasking Among American Youth: Prevalence, Predictors and Pairings*. The report built on an earlier study by the foundation. Titled *Generation M: Media in the Lives of 8-18 Year-Olds*, the earlier study reported, among other findings, that young people use multiple media 26% of the time that they use any media at all—whether listening to music, using the computer, watching TV, or reading. This percentage marks a 10-point climb from 1999, when 16% of children and adolescents reported multimedia use.

The *Generation M* study results came from a nationally representative sample exceeding 2,000 students in grades 3–12. In addition, the study involved 694 weekly diaries on media use. These data allowed the Kaiser Family Foundation to analyze youth multitasking for the 2006 study, *Multitasking Among American Youth*.

Tables 3G and 3H display two of the analysis’ core findings: **58% of 7th- to 12th-graders multitask while reading**, some or most of the time. To consider multitasking in other terms: 35% of total weekly reading time for children and teens is shared with other media. “Screen media” alone—video/computer games, e-mail or instant messaging, Web surfing and, of course, TV-watching—account for 20% of reading time, according to the analysis.

²² HSSSE, Indiana University Bloomington, *Voices on Student Engagement: A Report on the 2006 High School Survey of Student Engagement*, 2007.

²³ Pew Internet & American Life Project, *Teens and Technology*, 2005, 22.

²⁴ Steve Lohr, “Slow Down, Brave Multitasker, and Don’t Read This in Traffic,” *The New York Times*, March 25, 2007.

²⁵ Shamsi Iqbal, University of Illinois, and Eric Horvitz, Microsoft Research, “Disruption and Recovery of Computing Tasks: Field Study, Analysis, and Directions” (San Jose, Calif.: CHI 2007).

Table 3G. Percentage Using Other Media While Reading

7th- to 12th-Graders in 2003–2004

	% who use other media while reading
Most of the time	28%
Some of the time	30%
Most/some	58%
Little of the time	26%
Never	16%
Little/never	42%

Source: The Henry J. Kaiser Family Foundation, *Media Multitasking Among Youth: Prevalence, Predictors and Pairings*, (# 7592), 2006

Table 3H. Percentage of Time Spent Reading While Using Other Media

7th- to 12th-Graders in 2003–2004

	Percentage of reading time
Reading while:	
Watching TV	11%
Listening to music	10%
Doing homework on the computer	3%
Playing videogames	3%
Playing computer games	2%
Using the computer (other)	2%
Instant messaging	2%
E-mailing	1%
Surfing websites	1%
Using any of the above media	35%

Source: The Henry J. Kaiser Family Foundation, *Media Multitasking Among Youth: Prevalence, Predictors and Pairings*, (# 7592), 2006

Again, more data are needed to show conclusively that multitasking, especially with information technology, helps or hinders productivity in any single task. But given what we know about reading as a sustained act of participation with a text, an act requiring great resources of memory, imagination, and intent questioning, it seems unlikely that multiple diversions *during the reading process itself* can do anything but dilute the reader's experience and enjoyment of a literary work.

Add to this possibility that the dilution is occurring at the formative stages of a reader's development—when any reading at all competes heavily with other demands on a youth's leisure time—and the prospect grows more troubling. In a recent white paper, Vanderbilt University researchers David Touve and Steven Tepper posit that the multitasking way is here to stay:

Leisure is fully embedded within the context of everyday routines, work and social obligations. We may expect those who offer leisure choices to fit into this polychronic, punctuated, even interrupted lifestyle.²⁶

In the next chapter, we will consider how book buying has been affected by this ever-expanding, sometimes deafening array of "leisure choices."

²⁶ David Touve and Steven Tepper, Curb Center for Art, Enterprise and Public Policy, Vanderbilt University, *Leisure in America: Searching for the Forest Amongst the Trees*, 2007, 17–18.

Different Questions, Different Answers



Since 2004, when the Arts Endowment published its *Reading at Risk* report, several organizations have conducted surveys of book-reading by the general adult population. The surveys vary by sample size, methodology, questions asked, and data reported. For that reason, specific characteristics of each survey are provided with the results below.

Table 3I. Book-Reading Rates as Measured by Multiple Surveys

Survey Year	Surveying Organization	Number of Respondents	Response Rate	Survey Question	Result
2002	U.S. Census Bureau and the National Endowment for the Arts	17,135 adults	70%	"With the exception of books required for work or school, did you read any books during the last 12 months?"	57%
2005	The Gallup Organization	1,006 adults	20%	"Do you happen to be reading any books or novels at present?"	*47%
2005	Mediamark Research, Inc.	9,823 adults	38%	Checklist of leisure activities, including "reading books," under "Participated in the last 12 months."	35%
2006	Pew Research Center for the People & the Press (with Princeton Survey Research Associates International)	3,204 adults plus 250 cell-phone-only respondents	29% for landline, 24% for cell-phone only	"Not including school or work-related books, did you spend any time reading a book yesterday?"	38%
2007	Associated Press/Ipsos	1,003 adults	N/A	"Have you read any books in the past year or haven't you had the chance to read a book in the past year?"	*73%

* Does not exclude reading required for work or school.

CHAPTER FOUR

6. American families are spending less on books than at almost any other time in the past two decades.

BACKGROUND

With the 21st century barely begun, the word “mature” can describe both the U.S. book market and its customer base. In 1991, Americans in the 25- to 44-year-old age group accounted for about 42% of the book market (excluding children’s books). Thirteen years later, they represented only 28%. Over the same period, the percentage of book buyers in the 55-and-older category leapt 13 points to 44%. See Table 4A.

Not surprisingly, the aging of America’s baby boomers—a demographic shift that has altered business practices across the commercial sector, in fields such as health-care, travel, insurance, and transportation—has also affected book buying and publishing trends. However, the percentage shifts in Table 4A do not uniformly reflect changes in the age of the general population.

For example, from 1991 to 2004, the share of 25- to 34-year-olds nationwide slipped by two percentage points—from 16% to 14%—and this group’s stake of the total book-buying market also decreased, from 19% to 11%. But the 35–44 age group exhibited a different trend: while the group held largely steady as a percentage of the total population, it too made up a significantly lower share of book purchasers in 2004, compared with the 1991 level.²⁷

Beyond the maturing of baby boomers, then, we must look elsewhere to explain the decline in 25- to 44-year-olds as a percentage of the book-buying public. Part of the reason exists in their leisure reading patterns relative to other age groups.

The National Endowment for the Arts’ 2004 *Reading at Risk* report revealed that the demographic group with the highest percentage of literary readers (readers of novels, short stories, plays, or poetry) was no longer young adults. In 1982, Americans ages 18–34 were the most likely to read literature—at a rate of about 60%. Twenty years later, however, 45- to 54-year-olds had the highest literary reading rate: 52%.²⁸

The study also found a four-point decline in the percentage of Americans who read any book at all within the past 12 months: 61% in 1992 versus 57% in 2002. Behind this trend were substantial declines in the book reading rates of 18- to 44-year-olds, as noted earlier in this report (*see Table 1A on p. 27*).

²⁷ Also, while the percentage of 45- to 54-year-olds in the general population grew four points from 1991 to 2004 (from 10.2% to 14.2%), its share of the U.S. book-buying market remained flat. (Population data for the age groups derive from the U.S. Census Bureau.)

²⁸ NEA, *Reading at Risk: A Survey of Literary Reading in America*, 2004, xi.

²⁹ Bowker press release, May 9, 2006.

³⁰ Albert N. Greco, *The Book Publishing Industry*, 2nd ed. (Mahwah, N.J.: Lawrence Erlbaum Associates, 2005), 341.

³¹ In contrast to the boom in title output, book sales have been characterized as sluggish. New book “production jumped 64% between ’99 and ’04, but sales increased by barely 10%,” the industry trade magazine *Publishers Weekly* reported in 2005 (“Cranking It Out,” May 30).

Table 4A. Percentage of Book Purchasers, by Age

	1991	2004
Under 25 years old	4.4%	5.1%
25 to 34 years old	18.7%	11.0%
35 to 44 years old	23.7%	17.4%
45 to 54 years old	22.4%	22.8%
55 to 64 years old	15.6%	21.0%
65 years and older	15.2%	22.8%

Source: Ipsos-NPD, reported in the U.S. Census Bureau’s *Statistical Abstract of the United States*, 2003 (Table 1138) and 2006 (Table 1128)

Industry Book Sales Figures

How are these declines being registered by the book industry? On the surface, there is no connection. In 2005, U.S. publishers brought out 172,000 new titles and editions.²⁹ That total represents an 18,000-unit drop from 2004—the first decline in annual title output since 1999, according to the industry data publisher Bowker. Nonetheless, the 2005 amount is almost three times the title output of a decade earlier: 62,000.³⁰

Publisher revenues also have grown, albeit at a slower rate.³¹ In 2006, publishers did \$28.6 billion in total book sales (after returns). This amount is \$800 million up from the previous year, and a \$3.9 billion increase over the 2000 level. Sales from consumer books, which are a subset of all books and include only adult and juvenile trade books and mass-market paperback rack-size books, contributed to this rise. Net consumer book sales were \$9.2 billion in 2006, up \$1 billion from 2000.³²

Likewise, sales figures from the nation's largest booksellers are robust—though in many cases it is difficult to credit books alone. In 2006, Amazon's net sales for "Media" items (including DVD rentals, DVD/video and music products, magazine subscriptions, software games and video consoles, as well as books) were \$7.1 billion, a 20% climb from the previous year.

For less diversified booksellers, 2006 net sales were flat or slightly positive: Barnes & Noble and Borders brought in \$5.3 billion and \$4.1 billion, respectively. (Bottom-line numbers for all three companies give a more nuanced picture: In 2006, Barnes & Noble's net income rose 3% above the 2005 level, Amazon's declined by nearly half, and Borders posted a net loss.)³³

Like their client base, however, the market for booksellers and publishers is mature. The industry is perpetually chasing the next hot title or market segment to achieve the high-growth potential of other businesses in the entertainment sector.

Despite Barnes & Noble's lofty sales figure, the company's chairman acknowledged in a letter to shareholders that "2006 was a challenging year...as a lack of high-profile titles contributed to softness across the bookselling industry." The CEO of Borders Group separately relayed to shareholders his concern that the bookseller has not "moved fast enough to keep up with rapid changes in how consumers access information and entertainment."³⁴

Both large bookseller chains, and several others, supplement book sales with the marketing of coffee, CDs and DVD/video products, magazines, stationery, and other items. Those additional types of revenue are captured in the net sales data reporting for both firms. For small, independent, and specialty bookstores, a slump in yearly book sales can be debilitating, having a palpable effect on the neighborhood and community, where the store may provide the only locus for literary event programming, book clubs, and author readings.³⁵

Consumer Book Unit Sales

Better than total sales figures *per se*, book unit sales are useful in quantifying book purchases.³⁶ For example, while publishers' revenues for consumer books rose from 2000 to 2006, the number of consumer book units sold fell.³⁷ Gains in publisher revenues, therefore, would have been driven by higher book prices, not expanded book-buying.

Chart 4B shows trend data for publisher unit sales of consumer books, from 2000 to 2006. Amid year-to-year fluctuations, consumer book unit sales climbed through-

³² Albert N. Greco and Robert M. Wharton, *Book Industry TRENDS 2007* (New York, N.Y.: Book Industry Study Group, 2007), various pages. Total book sales include data for the following categories: adult and juvenile trade, mass-market paperback rack size, book clubs, mail-order publications, religious, professional, university press, elementary-high school, college, and subscription reference, excluding standardized tests.

³³ The annual reporting schedules vary for Amazon, Barnes & Noble, and Borders.

³⁴ Barnes & Noble, Inc., *2006 Annual Report*, 2, and Borders, *Annual Report 2006*, Shareholders' Letter.

³⁵ The American Booksellers Association, which represents independently owned bookstores, draws attention to a 6.6% dip in bookstore sales in June 2007, compared with the prior-year period. The group's newsletter, *Bookselling This Week* (Aug. 13, 2007), cites U.S. Census Bureau estimates of \$1.13 mil. in retail bookstore sales for June 2007, compared with June 2006 sales of \$1.21 mil. "This was the twelfth month in a row that book sales failed to keep pace with the previous [year's] results," the newsletter states.

Retail bookstore sales trend data for 1992–2005 are available through the Census Bureau's Annual Retail Trade Survey. Over the 13-year period, retail book sales grew 49% to \$8.45 mil., after adjusting for inflation. A steady growth pattern was undercut after 2000, with declines in 2001 (-1.2%), 2002 (-0.1%), and 2005 (-0.9%), and increases in 2003 (3.3%) and 2004 (1.8%).

³⁶ Unit sales are computed by dividing net publisher revenues by the wholesale price of books. Net publisher revenue numbers come from publishers' quarterly and annual reports and conference calls. Bowker provides the wholesale price numbers. All unit sale numbers are net, thus reflecting total sales after returns.

³⁷ Albert N. Greco and Robert M. Wharton, *Book Industry TRENDS 2007* (New York, N.Y.: Book Industry Study Group, 2007), various pages.

Chart 4B. Unit Sales of Consumer Books



The data represent publishers' unit sales net of returns.

Source: Book Industry Study Group, *Book Industry TRENDS*, 2007

out the 1980s and early 1990s, but have since slowed.

In 2000, more than 1.6 billion consumer books were purchased in the U.S.—a record high. One possible reason for the spike in unit sales is the Harry Potter series: J.K. Rowling's fourth book was released in hardback in January 2000, and a paperback version of the second book became available in August of that year.³⁸

Residual sales from publication of the first three Potter books, which came out in 1998 and 1999, also may have contributed. Since 2001, no single title has helped to restore unit sales to the 2000 level. (It remains to be seen whether Rowling's final Harry Potter book, issued in 2007, will do the trick. The series' publisher, Scholastic Corp. reported 8.3 million hardback copies sold in the first 24 hours of its release.³⁹) By 2006, unit sales for consumer books were down 100 million from 2000, with 1.5 billion books sold.⁴⁰

Purchasing trends for general trade print books reflect a similar slowing.⁴¹ Unit sales grew between 1992 and 1996, but trailed off near the turn of the century, barely keeping pace with population growth, according to an industry consultant quoted in *Bookselling This Week*, the newsletter of the American Booksellers Association, representing independent bookstores.

From 1992–2002, unit sales of general adult trade print books grew 2.4%, but for the last 5 years of that period, the growth rate was only 1.3%—roughly the same as for the U.S. population, the newsletter reports.⁴²

There are no signs that the U.S. book market will pick up dramatically anytime soon. Between 2001 and 2011, the compound annual growth rate for consumer book sales is projected to be only 0.2%.⁴³

These background statistics are intended to show how complex and multi-layered must be any analysis of the book-buying market that seeks to quantify the link between leisure reading declines and the health of the commercial publishing industry. Instead of pursuing this aim, which exceeds the scope of our report, the remainder of Chapter Four will rely on a large federal data source to examine book-buying in relation to other consumer spending patterns:

³⁸ In 2000, unit sales of juvenile trade hardback books rose 8%, while juvenile trade paperback book unit sales grew nearly 12%, according to unpublished data from the Institute for Publishing Research, Inc.

³⁹ Scholastic press release, Aug. 2, 2007.

⁴⁰ Albert N. Greco and Robert M. Wharton, *Book Industry TRENDS 2007* (New York, N.Y.: Book Industry Study Group, 2007), various pages.

⁴¹ General trade print books exclude children's books, audio, and digital purchases.

⁴² Dan Cullen, "National Figures Show Independents Hold Market Share in a Flat Market," *Bookselling This Week*, May 1, 2003.

⁴³ Albert N. Greco and Robert M. Wharton, *Book Industry TRENDS 2007* (New York, N.Y.: Book Industry Study Group, 2007), various pages.

- Department of Labor's Bureau of Labor Statistics: *Consumer Expenditure Survey*, 1985–2005.

Annual Consumer Spending on Books

The Consumer Expenditure Survey, administered by the U.S. Census Bureau for the Bureau of Labor Statistics, collects information about American household and family buying habits, including expenditures, income, and other characteristics.⁴⁴

Conducted annually since 1980, the survey consists of two parts: a quarterly interview and a diary (or recordkeeping) survey. The interview features questions on large expenditures such as purchases of property and cars, as well as expenditures that occur on a monthly basis, such as utility payments. The diary part is intended to capture weekly expenditures on smaller, frequently purchased items such as food and beverages, housekeeping supplies, personal care products, and medications.

Results from the survey indicate that the average annual amount that American families spend on books is near its 20-year low.⁴⁵ After adjusting for inflation, average consumer spending on books in 1985 was \$33.25. By 2003, it had dropped to \$27.69, and though it gained slightly in each of the next two years, by 2005 the amount represented a 14% decline over two decades. See Table 4C and Chart 4D. Notably, the sharpest decrease occurred after 2000, when unit sales started to sag.

Some of the decline in spending may be attributed to the growing popularity of used books, especially through online sales. On the other hand, a recent study has suggested that most purchasers of used books through Amazon are committed readers who also buy new books, and that used books are a means by which readers often get introduced to new titles and authors.⁴⁶

Table 4C. Average Annual Spending on Books, by Consumer Unit

	1985	2005	Change
Consumer unit spending on books (current dollars)	\$37.74	\$57.43	+\$19.69
Consumer unit spending on books (inflation adjusted ¹)	\$33.25	\$28.59	-\$4.66
Percentage change in spending, 1985–2005 (inflation adjusted)			-14.02%

¹The Consumer Price Index, 1982–1984 (less food and energy), was used to adjust for inflation.
Source: Department of Labor, Bureau of Labor Statistics

Reading as Entertainment

Another way to understand trend data on book purchasing is to relate those household expenditures to other types of spending. Books are classified as “reading materials” within the survey’s Entertainment category, which includes a variety of potential goods and services, ranging from compact discs and musical instruments to pets, toys, and playground equipment. It is useful to compare average consumer spending on reading materials—newspapers, magazines, and newsletters, in addition to books—with spending on other entertainment options.

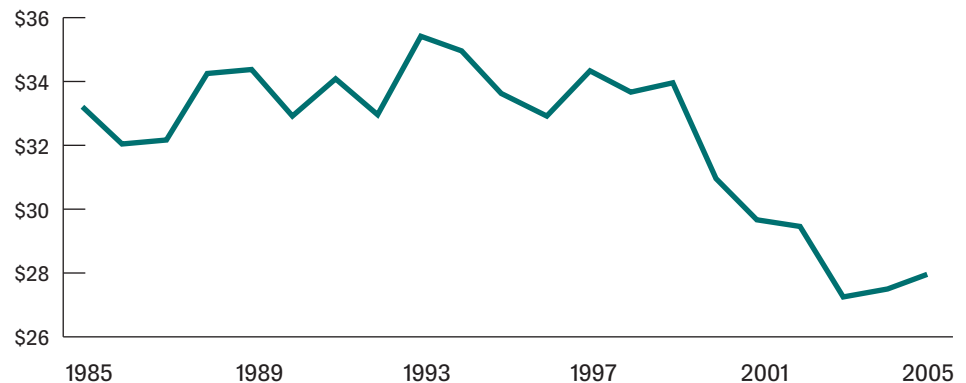
⁴⁴ For the purpose of this analysis, “family” and/or “household” is used instead of the Bureau of Labor Statistics’ technical term “consumer unit.” In addition to families and households, a consumer unit may describe “a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent.” See “Frequently Asked Questions” on the BLS Web site (<http://www.bls.gov/cex/csxfqs.htm>).

⁴⁵ Unpublished data provided by the Bureau of Labor Statistics.

⁴⁶ Anindya Ghose, New York University, et al., “Internet Exchanges for Used Books: An Empirical Analysis of Product Cannibalization and Welfare Impact,” *Information Systems Research*, March 2006, 3–19.

Chart 4D. Average Annual Spending on Books, by Consumer Unit

Adjusted for Inflation



The Consumer Price Index, 1982–1984 (less food and energy), was used to adjust for inflation.

Due to the small size of this spending category, caution should be used in interpreting year-over-year changes.

Source: U.S. Department of Labor, Bureau of Labor Statistics

Take electronic media, for instance. In late 2003, the Henry J. Kaiser Family Foundation reported on the pervasiveness of electronic media in early childhood development. Titled *Zero to Six: Electronic Media in the Lives of Infants, Toddlers, and Preschoolers*, the Kaiser study found that children from six months to six years old use screen media, on average, for about 2 hours a day, compared with reading or being read to, which occupies roughly 40 minutes of their average daily time. Screen time for these children is three times the amount of their reading time.⁴⁷

The study also showed the omnipresence of electronic media in children's living spaces. For example, half the young children in the study lived in a home with three or more television sets, 36% had a TV in their bedroom, and 49% had a video game player. Thirty-four percent of young children lived in homes receiving a newspaper subscription, while almost twice as many (63%) lived in homes with Internet access.

A logical question is how this media saturation might be reflected in American family buying patterns, particularly in relation to reading. Although the Consumer Expenditure Survey's Entertainment category does not include computer-based or online entertainment options, the data do cover "television, radios, and sound equipment"—a subcategory that includes video games, CD players, cable, and satellite dishes.⁴⁸

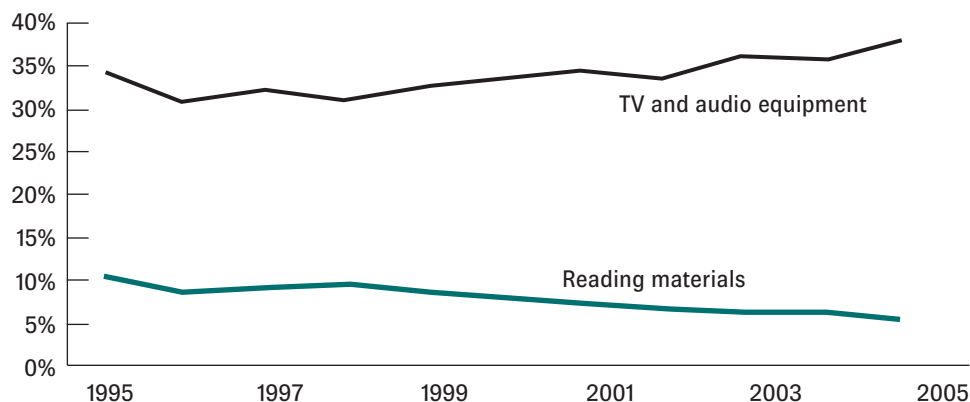
Books and reading materials are fundamentally different from electronic media in a variety of ways. For the purpose of our analysis, however, the key distinction is that TVs, video game consoles, and audio equipment—as single units—simply cost more than most books. Unlike electronic media, books are usually not subject to technological innovation or upgrades, and they do not reflect those advances in substantial price increases from year to year. In that sense, we may expect spending on the TV/audio category to frequently outpace spending on reading materials.

Far more revealing is to assess both reading and electronic media as proportions of family/household entertainment spending, and to compare those percentages over time. Chart 4E and Table 4F do just that. As they illustrate, the share of American families' entertainment budget that goes toward reading materials is shrinking.

⁴⁷ The Henry J. Kaiser Family Foundation, *Zero to Six: Electronic Media in the Lives of Infants, Toddlers, and Preschoolers*, 2003, 4.

⁴⁸ Consumer spending on computers and Internet services is categorized as "Miscellaneous Household Equipment" in the survey.

Chart 4E. Average Annual Spending on TV/Audio Equipment Versus Reading Materials as a Share of All Entertainment Spending, by Consumer Unit



Source: U.S. Department of Labor, Bureau of Labor Statistics

Table 4F. Average Annual Spending on TV and Audio Equipment Versus Reading Materials as a Share of All Entertainment Spending, by Consumer Unit

	1995	2005	Change
TV and audio equipment	33.6%	37.2%	+3.6 pp
Reading materials	10.1%	5.3%	-4.8 pp

pp = percentage points

Source: U.S. Department of Labor, Bureau of Labor Statistics

Between 1995 and 2005, average annual spending on reading material dipped almost five percentage points as a share of total family/household entertainment spending. Yet over the same time period, average annual spending on TV/audio equipment grew almost four percentage points to more than one-third of total family/household entertainment spending, as shown in Table 4F.

Given the Kaiser Family Foundation statistics—and the American time-use survey data discussed in the preceding chapter of this report—it might have been expected that consumer spending patterns would reflect increased time spent with electronic media in comparison to books and other reading materials. Combined with the relatively flat unit sales of books in recent years, this consumer spending trend is yet another indicator of the loss of reading time and the rise of screen time.

From Page to Screen: Newspapers, Blogs, and Book Reviews



Books are not the only texts in decline. Newspapers, too, have lost ground. According to annual data from the Audit Bureau of Circulations, average daily circulation for major newspapers fell 2% to 3% each year from 2005 to 2007. Part of the reason lies with American youth. David T. Z. Mindich, author of *Tuned Out: Why Americans Under 40 Don't Follow the News* (2004), outlines the problem:

In 1972, 46% of college-age Americans read a newspaper every day. Today it's only 21% percent, according to research by the Roper Center for Public Opinion Research's General Social Survey.... While many point to new media as the best hope for rekindling interest in news, only 11% of 18- to 24-year-olds list news as a major reason for logging on. The Internet is a great source of news for some, but for most it is a great way of avoiding the news, to be used for e-mail, instant messages, and other personal information. ("Dude, Where's Your Newspaper?" *Chronicle of Higher Education*, Oct. 8, 2004.)

Those statistics were updated by separate national survey results published in July 2007. In *Young People and News*, researchers at Harvard's Joan Shorenstein Center on the Press, Politics and Public Policy found that only 16% of 18- to 30-year-olds said they read newspapers daily, while 9% of 12- to 17-year-olds said they did. (By contrast, 35% of Americans over 30 read newspapers daily.) Even when they did read newspapers, teens and young adults were more likely than older readers to "skim through the news sections," rather than read the stories.

Young people's lukewarm stance to newspapers extends to news from other media. Approximately one-fifth of teens and young adults alike said they use the Internet daily to access news. Yet of those readers, only 32% of teens and 46% of young adults actively "seek" news on the Internet, while 65% and 48% "just happen to come across it."

Newspapers, for their part, remain undeterred. Many maintain blogs on their Web sites, offering readers the chance to comment on reported information. Similarly, many news reporters now include their e-mail addresses in their bylines, encouraging contact with their readership. Perhaps as a result of these changes, the Newspaper Association of America was able to announce that Web sites of newspapers had increased their audience by 7.7% in the second quarter of 2007, compared with the prior-year period. And in January 2007, Nielsen/NetRatings reported that visits to blogs at the Web sites of the nation's top newspapers had soared 210% year over year in December.

Blogging seems a safe bet for the attraction of teen and young adult readers to news media. According to *Bloggers: A Portrait of the Internet's New Storytellers*, a 2006 study by the Pew Internet & American Life Project, 54% of bloggers are under 30 years old.

But if this interactive capability endows the average reader with a public forum to discuss news developments, it also can create a sense of vertigo, as the line between news and hearsay, between reportage and rumor, becomes increasingly blurred. Sven Birkerts, author of *The Gutenberg Elegies: The Fate of Reading in an*

Electronic Age (1994), recently described a conflict between blogging and newspaper book reviews:

Indeed, I would say we are right now at what feels like a point of vital balance, and those of us involved with literary journalism and book-reviewing live with the sense of a balance teetering....The implicit immediacy and ephemerality of "post" and "update," the deeply embedded assumption of referentiality (linkage being part of the point of blogging), not to mention a new of-the-moment ethos among so many of the bloggers (especially the younger ones) favors a less formal, less linear, and essentially unedited mode of argument. ("Lost in the Blogosphere: Why Literary Blogging Won't Save Our Literary Culture," *Boston Globe*, July 29, 2007.)

Opinions aside, there is a shortage of scientific research on the effects of screen reading—not only on long-term patterns of news consumption, but more importantly, on the development of young minds and young readers. (A good research question is whether the hyperlinks, pop-up windows, and other extra-textual features of screen reading can sharpen a child's ability to perform sustained reading, or whether they impose unhelpful distractions.) Some of the difficulty stems from the constantly evolving nature of information technology, which often requires equally adaptive research tools to study it effectively. The news market cannot wait, however, until the definitive study is conducted.

Meanwhile, many newspapers have scaled back their print content, often in the arts or cultural sections, to make up for lost revenue. Recently, as Birkerts notes, *The Boston Globe*, *Los Angeles Times*, *Chicago Tribune*, and *The Atlanta Journal-Constitution* all have cut or reallocated space for book reviews, a form of news coverage originally designed to benefit the serious leisure reader.



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SECTION TWO

What the Declines Mean for Literacy

CHAPTER FIVE

1. Reading scores for 17-year-olds are down.
2. Among high school seniors, the average score has declined for virtually all levels of reading.

BACKGROUND

In this report so far, we have seen several studies in support of the Arts Endowment's 2004 conclusion that reading rates are comparatively lower in young adults. But Department of Education and time-use survey data have shown that the problem extends to even younger Americans, and that it appears to start in the transition from childhood to adolescence.

The subsequent loss of potential readers can be estimated, but not the lost literary experience. By forfeiting access to a range of emotions and viewpoints—in addition to verbal, aesthetic, and intellectual pleasures—the non-reader is impairing his or her prospects for communication through the written word. And while we cannot assign value to a lost literary encounter, we can track the erosion of basic skills teenagers bring to reading a previously unseen text.

This discussion will avoid the heavily studied and debated topics of childhood literacy and the proper way to teach reading. In 1997, Congress asked the National Institute of Child Health & Human Development to convene a National Reading Panel to recommend reading instructional methods. Composed largely of psychologists and educators, the panel issued a 2000 report that informed the Reading First initiative, legislated by the No Child Left Behind Act of 2001.

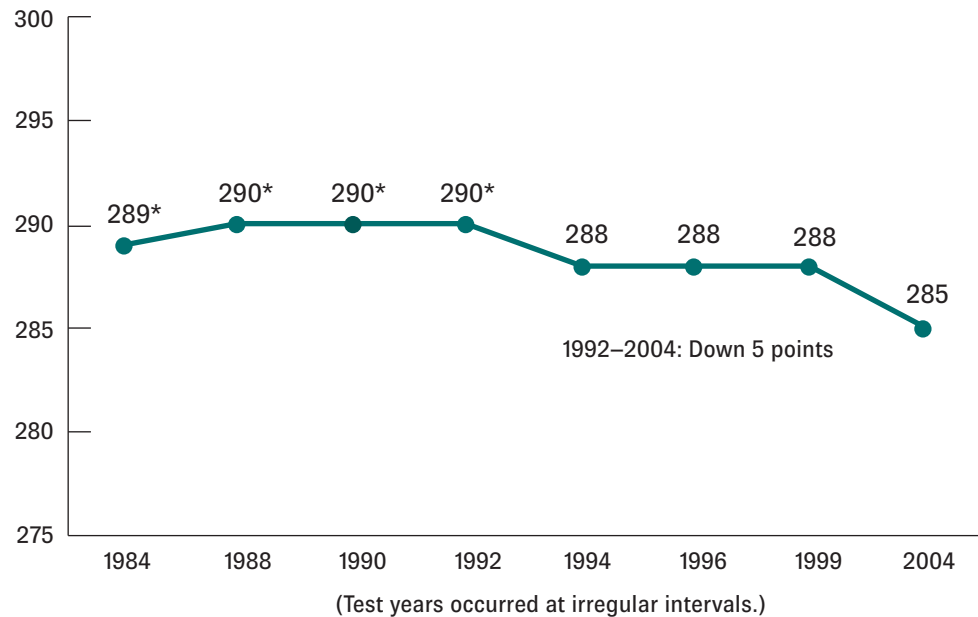
Since the law's enactment, debate continues over which classroom tools and curricula work best to improve student literacy. This chapter will not revisit claims for one technique versus another. Rather, it assumes a logical, relatively straightforward link between reading often and reading well, while recognizing that the link may be two-directional. For statistics supporting this connection, turn to Chapter Seven.

As noted in the first chapter of this report, a preponderance of information on teenage reading trends is available through the Department of Education, which administers the National Assessment of Educational Progress (NAEP). The following data can be found in three NAEP reports:

- *NAEP Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics*, 2005.
- *The Nation's Report Card: 12th-Grade Reading and Mathematics 2005*, 2007.
- *The Nation's Report Card: Reading*, 2005.

Chart 5A. Trend in Average Reading Scale Scores for Students Age 17

Test Years 1984–2004



* Significantly different from 2004.

Source: U.S. Department of Education, National Center for Education Statistics

9-, 13-, and 17-Year-Olds: Reading Score Trends

The NAEP long-term trends assessment, explained in Chapter One, reviewed 2004 reading comprehension scores for 12,000–13,000 students in each of three age groups: 9-, 13-, and 17-year-olds. The nationally representative study compared average reading scores for each group with averages from previous years.

The test has been conducted 11 times since 1971. It presents readers with brief passages of text and a multiple choice format asking the reader to pinpoint information, draw inferences, and identify “the main idea of a passage.”⁴⁹ A few of the questions are open-ended, requiring a written response.

Scoring occurs on a 0- to 500-point scale, with 350 or higher denoting the ability to “learn from specialized reading materials” such as scientific, literary, or historical essays. At the other end of the scoring range, Level 150 readers can “carry out simple, discrete reading tasks.” These readers can “select words, phrases, or sentences to describe a simple picture and can interpret simple written clues to identify a common object.” Between Levels 150 and 350, there are three intermediate reading levels.⁵⁰

Chapter One revealed that in contrast to 9- and 13-year-olds, 17-year-olds read at significantly lower rates than in 1999 and 1984. How do these age groups fare in reading comprehension?

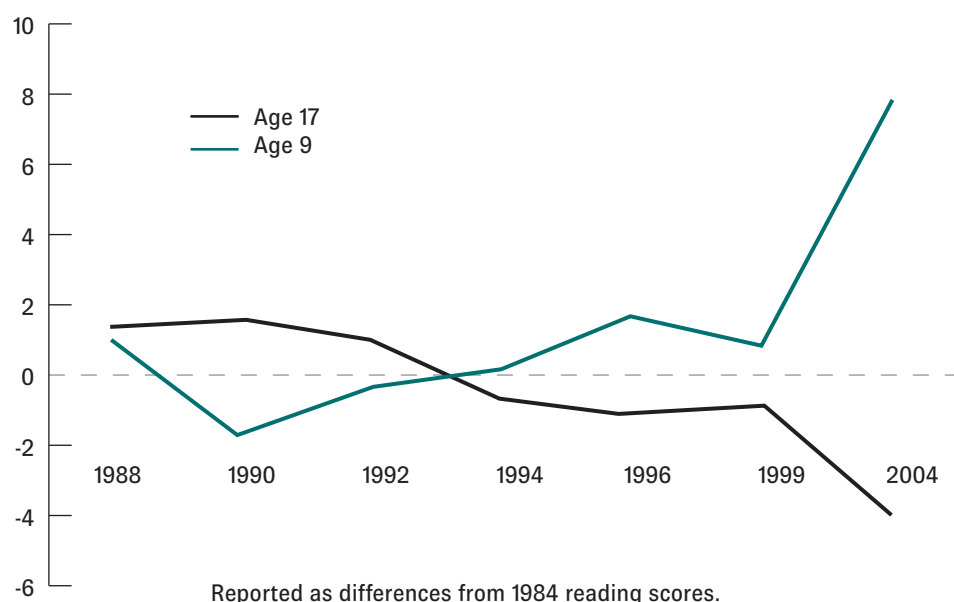
Chart 5A depicts the pattern of average reading scale scores for 17-year-olds since 1984. That year marked the first statistically significant difference from the 2004 average score for this age group since the test was first administered in 1971. As shown by the chart, average reading scale scores were flat for the three test years after 1984. Then the scores began to slip, resulting in a five-point loss from 1992 to 2004.

By 2004, the average scale score had retreated to 285, virtually the same score as

⁴⁹ See “What are the Differences between Long-Term Trend NAEP and Main NAEP?” on The Nation’s Report Card website (http://nces.ed.gov/nationsreportcard/about/ltt_main_diff.asp).

⁵⁰ They are Level 200, “Demonstrate Partially Developed Skills and Understanding,” Level 250, “Interrelate Ideas and Make Generalizations,” and Level 300, “Understand Complicated Information.”

Chart 5B. Trend in Average Reading Scores for Students Ages 17 and 9



Test years occurred at irregular intervals.

Trend analysis based on data from the U.S. Department of Education, National Center for Education Statistics.

in 1971, though not shown in the chart. For more than 30 years, in other words, **17-year-olds have not sustained improvements in reading scores.** For a vivid picture of 17-year-old reading patterns, see Chart 5B, which displays a slow downward trend in score differences since 1984, when the average scale score was 289.

A different scenario applies to 9-year-old reading score trends, also captured by Chart 5B. See Chart 5C for more detail. From 1984–2004, while 17-year-old average reading scores weakened, 9-year-old reader scores climbed eight points, with the most dramatic hike occurring in 2004. That year, 9-year-olds scored higher than in *any* previous assessment year—11 points ahead of the 1971 average score.⁵¹

This growth pattern stands in contrast to 17- and 13-year-old reading score trends. As Chart 5D illustrates, the scores for 13-year-olds have remained largely flat from 1984–2004, with no significant change between the 2004 average score and the scores from the preceding seven test years. Although not apparent from the chart, the 2004 score does represent a significant improvement over the 1971 average—a four-point increase.

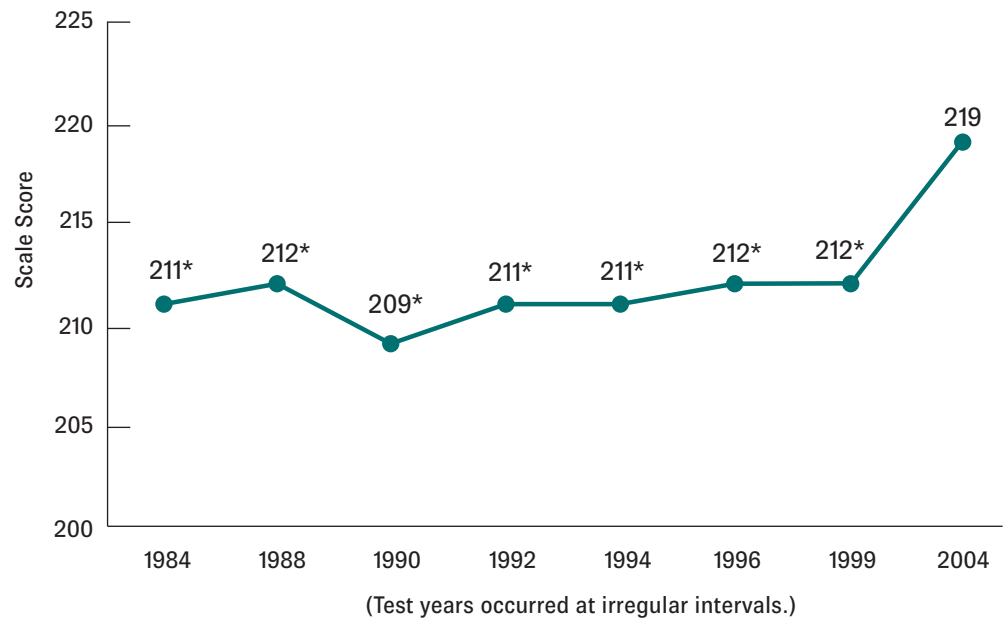
At this point, it is worth stressing that 13- and 17-year-olds show progressively lower voluntary reading rates, from 1984–2004, compared with 9-year-olds. As Chapter One noted, in 2004 the teenage groups showed significant declines in the percentage reading almost daily; both groups also had significant gains in the percentage reading “never or hardly ever” for pleasure.

Although no causal relationship can be determined, **9-year-olds were the only age group that maintained an above-50% “almost daily” reading rate from 1984–2004—and they were also the only group to show major improvements in reading test scores.** Further research is needed to identify age-specific social and/or academic factors underlying those patterns.

⁵¹ Regarding the performance range of 9-year-old readers, the score at the 50th percentile surpassed the median score from every other year of the test. Thirteen-year-olds showed measurable differences only at the 75th and 90th percentile scores, which exceeded those of 1971, but not those of 1999. Only 17-year-olds showed no measurable difference in 1971 or 1999 scores at any of the selected percentiles (10th, 25th, 50th, 75th, and 90th).

Chart 5C. Trend in Average Reading Scale Scores for Students Age 9

Test Years 1984–2004

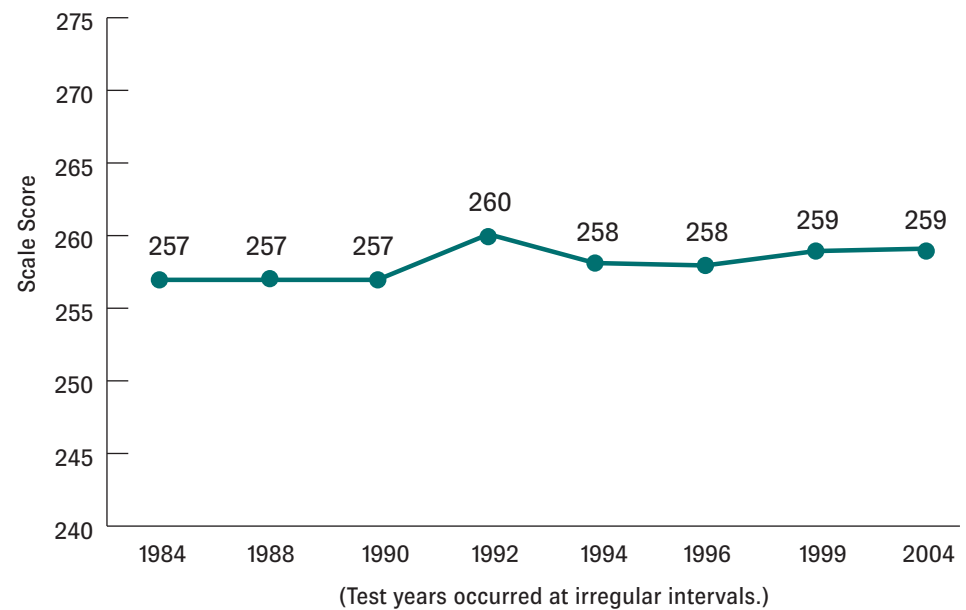


*Significantly different from 2004.

Source: U.S. Department of Education, National Center for Education Statistics

Chart 5D. Trend in Average Reading Scale Scores for Students Age 13

Test Years 1984–2004



Source: U.S. Department of Education, National Center for Education Statistics.

Reading Proficiency of 12th Graders

In addition to the NAEP long-term trend assessment, last administered in 2004, the Department of Education tests students by grade level (4th-, 8th-, and 12th-graders) on a biennial basis.

For 12th-graders, this “main assessment” occurred most recently in 2005, with more than 21,000 high school seniors evaluated for reading comprehension. The test featured longer passages than the trend assessment, and measured “a range of reading skills, from identifying explicitly stated information, to making complex inferences about themes, to comparing multiple texts on a variety of dimensions.”⁵² Like the trend assessment, the 2005 test adopted a 0–500 score scale, but it also ranked performance levels into three categories: Basic (at least 265), Proficient (at least 302), and Advanced (at least 346).

After our review of 17-year-old reading test scores in the long-term trend assessment, the 2005 results for high-school seniors may not be surprising—but they should raise fresh concern. The 2005 test found that the average NAEP reading score for 12th-graders was 286 out of 500. The score was not significantly different from the average score for the preceding test year, 2002. This outcome fits with what we know about trends in 17-year-old reading scores, that they often have remained flat for several test years at a time.

But go back to 1992—four tests ago—and it becomes clear that average 12th-grade reading scores have declined by a significant six points, placing the readers 16 points shy of the “Proficient” level. See Chart 5E.

When viewed across a range of percentile scores (10th, 25th, 50th, 75th, and 90th), the declines appear for most of the performance distribution. Students performing at the 10th, 25th, 50th, and 75th percentiles all experienced significant declines from 1992 to 2005.⁵³ Only the highest-scoring students of 2005—those at the 90th percentile—experienced no declines, compared with students at their performance level in 1992. Conversely, reading scores at the very bottom of the 2005 performance range declined the sharpest across the whole distribution. See Table 5F.

These extreme trend differences for the highest and lowest performing readers suggest a growing disparity in educational needs of 12th-grade readers. Bad readers are reading worse, and outstanding readers are barely meeting the expectations set by performance levels in previous years.

Another way of understanding the spread or distribution of 12th-grade average reading score declines from 1992 to 2005 is to consider trend differences for students performing at or above the Basic and Proficient reading levels. This analysis shows that the percentage of 12th-grade readers at or above Basic slipped from 80% in 1992 to 73% in 2005, while the 1992 percentage of readers at or above Proficient fell five percentage points over the same period.⁵⁴

Also notable is that the 2005 declines occurred in all three “reading contexts” established by NAEP. The assessment classifies test passages into three categories: “reading for literary experience” (such as short stories, poems, folktales, and biographies), “reading for information” (e.g., textbooks, newspaper and magazine articles, essays, and speeches) and “reading to perform a task” (including charts, public transportation schedules, instructions for games, recipes, maps, or insurance forms).⁵⁵

In each of the three reading contexts, 2005 average scores declined significantly from 1992. But “reading for literary experience” suffered worst: an 11-point decrease, from 290 to 279. Independent of the statistical difference, the decline in this ability is alarming because imaginative literature fosters personal inquiry and identification

⁵² See “What are the Main Differences between Long-Term NAEP and the Main NAEP?” on The Nation’s Report Card website (http://nces.ed.gov/nationsreportcard/about/ltr_main_diff.asp).

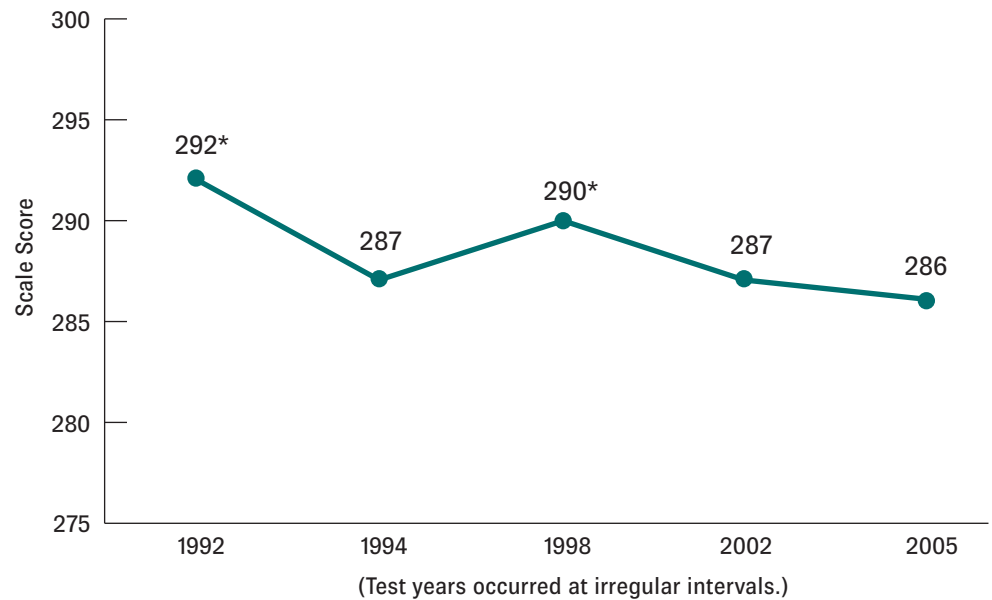
⁵³ Senior average reading scores were also lower in 2005 than in 1992 across all levels of parental education.

⁵⁴ The percentage of high school seniors at the Advanced reading level was 5% in 2005, compared with 4% in 1992—a change of no statistical significance.

⁵⁵ Examples of test passages from the 2005 main NAEP for high school seniors include a guide to the Washington, D.C. Metro transit system, Martin Luther King, Jr.’s “Letter from a Birmingham Jail,” Langston Hughes’ poem, “Harlem,” and a short story by Lucienne S. Bloch. The test used a multiple-choice format and questions requiring short or extended answers.

Chart 5E. Trend in Average Reading Scale Scores for 12th-Graders

Test Years 1992–2005



*Significantly different from 2005.

Source: U.S. Department of Education, National Center for Education Statistics

Table 5F. Change in 12th-Grade Reading Scores, by Percentile: 1992 and 2005

Percentile	1992	2005	Change '92-'05
90th	333	333	0
75th	315	313	-2
50th	294	288	-6
25th	271	262	-9
10th	249	235	-14

All score changes from 1992 are statistically significant.

Source: U.S. Department of Education, National Center for Education Statistics

⁵⁶ The three reading achievement levels for 4th-graders correspond with the following scores (in parentheses): Basic (at least 208); Proficient (at least 238); and Advanced (at least 268). For 8th-graders, reading achievement levels are: Basic (at least 243); Proficient (at least 281); and Advanced (at least 323). Published results of the 2005 NAEP reading tests for 4th-, 8th-, and 12th-graders do not report cumulative “below Basic” percentages at the national level for public and private schools. Consequently, the “below Basic” percentages in Table 5G were obtained by subtracting the “Basic or above” percentages from 100%.

with other lives, perspectives, and possibilities. Denied basic skills to participate in this art form, young Americans will lose access to a vital part of their cultural heritage.

4th- and 8th-Grade Reading Proficiency

The NAEP main assessment in 2005 includes a far larger sample of 4th- and 8th-graders than 12th-graders—more than 165,000 and 159,000 respectively—because that year the test involved participation of states and selected urban districts for the development of separate reports.⁵⁶

Of all the three grade levels tested, 4th-graders were the only students to see a significant climb in the percentage scoring at or above Proficient in 2005, compared with 1992: 31% versus 29%. But the larger point is just how poorly students in all three grades are reading.

Table 5G. Percentage of 4th-, 8th-, and 12th-Graders, by Reading Achievement Level

	Below Basic			Basic or above			Proficient or above		
	1992	2005	Change	1992	2005	Change	1992	2005	Change
Grade level:									
4th	38%	36%	*-2 pp	62%	64%	*+2 pp	29%	31%	+2 pp
8th	31%	27%	-4 pp	69%	73%	+4 pp	29%	31%	*+2 pp
12th	20%	27%	+7 pp	80%	73%	-7 pp	40%	35%	-5 pp

* Not statistically significant

All percentages are approximate.

Source: U.S. Department of Education, National Center for Education Statistics

Table 5H. Average Reading Scores of 4th-, 8th-, and 12th-Graders

	1992	2005	Change
Grade level:			
4th	217	219	+2
8th	260	262	+2
12th	292	286	-6

Source: U.S. Department of Education, National Center for Education Statistics

Table 5G reports reading achievement levels by grade. In 2005, approximately 36% of 4th-graders read at a level below Basic—the percentage had not changed significantly since 1992—while 27% of 8th-graders read below Basic. The percentage of 8th-grade readers below Basic lost four points from 1992 to 2005, becoming identical to the percentage of 12th-graders in that category: 27%. Among 8th-graders and 12th-graders alike, one in four students is a below-Basic reader.

For reasons that are unclear, 4th-graders consistently have had the greatest percentage of below-Basic readers. But where 12th-graders formerly had an 11-point lead over 4th- and 8th-graders in terms of the percentage of proficient readers at each grade level, by 2005 the gap had now narrowed to four points. Reading scores of 4th- and 8th-graders are improving.⁵⁷ See Table 5H. At the lower grades, average reading scores were two points higher than in 1992, small but significant increases. As shown earlier, the average reading score of 12th-graders has declined by six points.

Viewing the grade-level reading test results alongside the trend analysis of reading scores by age, we find the reading ability of 17-year-olds and 12th-graders has either declined or failed to improve. By contrast, 9-year-olds and 4th-graders, on one hand, and 13-year-olds and 8th-graders, on the other, have shown significant gains.

The disparity in reading skills improvement—between the lowest age/grade and the highest age/grade—mirrors the gulf in voluntary reading rates of those groups. The deterioration in reading rates and proficiency of 17-year-olds makes possible a scenario where, according to the 2003 National Assessment of Adult Literacy, **only 5% of high school graduates are Proficient readers**, as we shall see in the next chapter.

⁵⁷ Results from the NAEP 2007 reading assessments for 4th- and 8th-graders arrived as this report was in the process of publication. The reports reveal that 4th-grade reading scores are continuing to improve: in 2007, the average score for this grade level (221) was higher than in any of the preceding test years, and the percentage of readers at the Basic and Proficient levels grew by 5 and 4 points, respectively, compared with 1992 levels. (Like the average test score, the percentage of 4th-graders at the Basic and Proficient levels also rose significantly from 2005.)

Eighth-graders, too, showed an average reading score improvement (from 260 in 1992 to 263 in 2007) and a slight but significant gain in the percentage reading at or above the Basic level (74%), compared with 1992 and 2005 levels. Unlike 4th-graders, however, 8th-graders did not see a significant change in the percentage of Proficient readers, compared with those prior test years.



Reading and the Gender Gap

Among 12th-graders, boys and girls alike performed worse in the 2005 main NAEP reading assessment than in 1992. For girls, however, the average reading score was lower than in 2002, while for boys the score has remained constant for the past two test years. Still, because male student scores were eight points lower in 2005 than in 1992, compared with the five-point differential for females over the same period, **the gap between male and female reading scores has widened.** Further, female students outperformed males in all three reading contexts—literary reading, reading for information, and reading to perform a task.

Table 5I. Average 12th-Grade Reading Scores by Gender

	1992	2005
Female	297	292
Male	287	279
Male-female gap	-10	-13

Source: U.S. Department of Education, National Center for Education Statistics

This disparity in reading scores between the genders is not restricted to children or teenagers: as will be seen in the next chapter, women outscore men on adult prose literacy tests. What accounts for females leading males in reading ability? In many of the studies of voluntary reading that have been cited so far, females have proved more frequent readers than males, and it is hard not to credit greater exposure to books with playing a role.

The *American Time Use Survey*, for example, has consistently shown women to spend more time on leisure reading than men. The Henry J. Kaiser Family Foundation's *2005 Generation M: Media in the Lives of 8–18 Year-Olds* study identified the same split along gender lines in children and teens. And The National Endowment for the Arts' *Reading at Risk* (2004) report found that more than half of America's women (55%) read a novel, short story, poem, or play in the preceding 12 months, compared with 38% of men. Yet even for women, this reading rate was down eight percentage points from 20 years earlier. The gender factor may play a role in determining reading rates and reading skills, but females are by no means out of trouble when it comes to declines in both.

CHAPTER SIX

3. Reading proficiency rates are stagnant or declining in adults of both genders and all education levels.

BACKGROUND

The preceding chapter demonstrated that 17-year-old and high school senior reading scores have weakened over time. This finding has obvious implications for college preparedness, especially since two-thirds of 2008 high school graduates, or 2.2 million Americans, are likely to enroll that fall as first-year college students.⁵⁸

In 2006, the nonprofit organization ACT, which administers yearly college entrance exams, published an analysis of the more than 12.5 million high school students who had taken ACT tests from 1994 to 2005. ACT concluded: “Student readiness for college-level reading is at its lowest point in more than a decade,” with little more than half of all students meeting ACT’s benchmark score.⁵⁹

The organization also found, astonishingly, that “more students are on track to being ready for college-level reading in 8th and 10th grade than are actually ready by the time they reach 12th grade.” Those data derived from a comparison of ACT reading test scores for 352,000 high school students from 1998 to 2005.

Chapter Eight will review data from employer surveys assessing the knowledge gaps of high school graduates who enter the U.S. workforce. But college graduates suffer similar deficiencies, which may have originated with the mediocre reading rates and skills many carried through high school.

The Department of Education provides a snapshot of the reading ability of American adults—those who have graduated from college, but also those who have not. This time, our source is a single study:

- National Center for Education Statistics: *Literacy in Everyday Life: Results from the 2003 National Assessment of Adult Literacy*, 2007.

Adult Prose Literacy Rates: Overview

The Department of Education gave the 2003 National Assessment of Adult Literacy (NAAL) to 19,200 Americans ages 16 and above.⁶⁰ The NAAL test booklets consisted of a series of open-ended questions, each preceding a text passage.

Test-takers were scored on a 0–500 scale, with four distinct prose literacy levels: “Below Basic” (0–209), “Basic” (210–264), “Intermediate” (265–339), and “Proficient” (340–500). An Intermediate reading score corresponds with “understanding moderately dense, less commonplace prose texts as well as summarizing, making simple inferences, determining cause and effect, and recognizing the author’s purpose.”⁶¹

By contrast, a reading score of Proficient shows the test-taker’s ability to read “lengthy, complex, abstract prose texts,” synthesize information and make complex inferences. According to the NAAL, this literacy level includes the ability to compare viewpoints from two different newspaper editorials, to “compare and contrast the meaning of metaphors in a poem,” and to “infer the purpose of an event described in a magazine article.”

⁵⁸ Department of Education, National Center for Education Statistics, *Projections of Education Statistics to 2015*, and NEA Research projections based on historical NCES data.

⁵⁹ ACT, *Reading Between the Lines: What ACT Reveals About College Readiness in Reading*, 2006. The benchmark corresponds with an ACT Reading Test score of 21.

Few trend data have been published recently for the other well-known entrance exam, the College Board’s SAT, which integrated a new writing component in 2005. In August 2007, the College Board reported a one-point decline in the average critical reading score for 2007 test-takers, compared with the previous year. Otherwise, critical reading scores have remained flat for the past several years, according to test officials. Yet male students, who historically have outscored females in this test subject, are now only two points ahead of females—compared with a nine-point lead in 2003. As for the new writing component, females are 11 points ahead of males: 500 versus 489 (out of 800).

⁶⁰ This population thus included a younger cohort than the NEA’s *Reading at Risk* report of literary reading habits. That study defined adults as 18 or older. The NAAL tested approximately 18,000 adults in U.S. households and 1,200 adult prisoners.

⁶¹ *Literacy in Everyday Life*, p. 4.

Table 6A. Percentage of Adults at Each Prose Literacy Level: 1992 and 2003

	Below Basic	Basic	Intermediate	Proficient
1992	14%	28%	43%	15%
2003	14%	*29%	*44%	13%

* no statistically significant change from 1992

Source: U.S. Department of Education, National Center for Education Statistics

Table 6B. Average Prose Literacy Scores of Adults, by Highest Level of Educational Attainment: 1992 and 2003

Education level	1992	2003	Change
Less than/some high school	216	207	-9
High school graduate	268	262	-6
Vocational/trade/business school	278	268	-10
Some college	292	287	-5
Associate's/2-year degree	306	298	-8
Bachelor's degree	325	314	-11
Graduate study/degree	340	327	-13

Source: U.S. Department of Education, National Center for Education Statistics

For this analysis, we will examine prose literacy scores only. (The NAAL also tested for “document” and “quantitative” literacy.⁶²) In 2003, **43% of test-takers placed at or below Basic, with a third of that group in the Below Basic category.** This group represents 96 million Americans, with 30 million at Below Basic, and the remainder at Basic.⁶³

The Below-Basic group includes the 3% of all test-takers deemed “nonliterate in English”—a figure representing 7 million Americans. The designation does not include adults whose language barrier prevented them from taking the test; that figure is estimated at 2% of the U.S. adult population.

Comparing the 2003 results with those of the previous test year, 1992, we find that the percentage of prose readers at the Below Basic, Basic, and Intermediate levels has remained largely constant. A statistically significant change does arise, however, in the percentage of American adults who read at the Proficient level. They slipped from 15% in 1992 to 13% in 2003. See Table 6A.

Prose Literacy by Education Level

In addition to taking the literacy test, NAAL participants answered a “background questionnaire” that sought information on their demographics. Responses to the questionnaire allow us to understand, among other variables, the educational profile of test-takers. While 2003 average prose literacy scores rose with each increasing level of education (excluding adults still in high school), the trend data for 1992–2003 show significant score declines in almost all groups.⁶⁴ See Table 6B.

Strangely, those declines are steepest among the best-educated groups. Graduate students or degree-holders in 2003 scored, on average, 13 points lower than their 1992 counterparts. Other college graduates in 2003 were down 11 points, on average, compared with 1992 college graduates who did not pursue a higher degree. By con-

⁶² “Document examples include job applications, payroll forms, transportation schedules, maps, tables, and drug and food labels,” while quantitative literacy refers to “balancing a checkbook, figuring out a tip, completing an order form, and determining the amount of interest on a loan from an advertisement.” (See *Literacy in Everyday Life*, p. 2.)

⁶³ The 96 million derives from the total U.S. population represented by the 2003 NAAL study: 221,020,000 adults in U.S. households and 1,340,000 incarcerated adults.

⁶⁴ Exceptions are adults still in high school and those with a GED or high school equivalency. In both cases, score changes from 1992 to 2003 were not statistically significant.

Table 6C. Percentage of Adults Proficient in Reading Prose, by Highest Level of Educational Attainment

Education level	1992	2003	Change	Rate of decline
Less than/some high school	1%	1%	0	0
High school graduate	5%	*4%	*-1 pp	*-20%
Vocational/trade/business school	9%	5%	-4 pp	-44%
Some college	14%	*11%	*-3 pp	*-21%
Associate's/2-year degree	23%	*19%	*-4 pp	*-17%
Bachelor's degree	40%	31%	-9 pp	-22%
Graduate study/degree	51%	41%	-10 pp	-20%

* No statistically significant change

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

trast, the average score for 2003 high school graduates was 6 points lower than for high school graduates in 1992.

Despite exposure to higher learning in the case of college and graduate degree-holders, then, **American adults of virtually all education levels are reading less well than in the previous decade.** One may conjecture that the erosion of reading scores is partly due to less curricular emphasis on reading at the higher education levels, but another plausible explanation is that adults are losing the habit of voluntary reading, which could sustain and reinforce their literacy skills.

The NAAL report notes a paradox, however. Although prose literacy scores declined for high school and college graduates from 1992 to 2003, the average prose literacy score for the U.S. adult population remained constant over that period. The report explains that the declines in average prose literacy scores at every educational level were offset by an increase in the percentage of adults with postsecondary education from 1992 to 2003, and a corresponding decrease in the percentage that did not complete high school. After all, compared with adults who do not complete high school, adults with postsecondary education tend to attain higher prose scores.

The average prose reading score was stable from 1992 to 2003, and this trend applied to all but the very best readers. As we have seen, “Proficient” was the only literacy level to experience a significant change—a dip—in the percentage of qualifying readers. The decline is more striking when viewed as a function of the test-taker’s education status.

As Table 6C shows, **the decline in the percentage of Proficient readers is occurring at the highest educational levels.** From 1992 to 2003, the proportion of Proficient readers who had attended graduate school lost 10 percentage points. Among college graduates who had not proceeded to graduate school, the percentage of Proficient readers dropped nine points. Those reductions translate to a 20% rate of decline for adults with graduate school experience and a 22% rate of decline for other college graduates. Vocational/trade/business school graduates also experienced a significant decline in the share of Proficient readers: from 9% in 1992 to 5% in 2003.

Prose Literacy by Gender

The differences in male and female adult literacy levels resemble the disparities in reading skills of boys and girls (*see p. 62*). In 2003, the average prose score for males

Table 6D. Percentage of Adults Proficient in Reading Prose, by Gender

	1992	2003	Change	Rate of decline
Men	16%	13%	-3 pp	-19%
Women	14%	14%	0 pp	0%

pp = percentage points

Source: U.S. Department of Education, National Center for Education Statistics

was a significant four points lower than in 1992: 272 versus 276. Females experienced no change in average prose score over this period (277 in both 1992 and 2003), although because of the decline in male scores, women scores in 2003 exceeded men's by a statistically significant amount—an event that did not occur in 1992.

Prose scores for the best female readers also remained flat from 1992 to 2003. Yet the percentage of males at the Proficient reading level did drop significantly, as Table 6D shows.

Taken together, the national prose literacy data show a lack of improvement in the reading skills of women and a decline in the reading skills of men. Adults at virtually every education level exhibited declines in average reading scores.⁶⁵

The data also show a slight but significant decline in the overall percentage of Proficient-scoring readers, and declines in reading proficiency among college graduates and among adults who received vocational training. Although these trends suggest the need to expand adult learning opportunities in our civic institutions and communities, we should not overlook—as central to that aim—the promotion of voluntary reading habits in grown-ups no less than children.

⁶⁵ Other significant declines occurred among 25- to 39-year-olds, whose average reading score dropped five points to 283 from 1992 to 2003, and among 40- to 49-year-olds, who saw an *11-point score decrease* to 282 over the same period. The percentage of 25- to 39-year-olds in the Below Basic prose literacy category grew a significant two points, to 12%.

Literacy in the Prison Population



Incarcerated Americans, totaling 1.4 million in 2003, composed an important part of the National Assessment of Adult Literacy. Since the 1992 test, however, several changes occurred in this population that positively affected literacy scores in 2003.

By the time of the 2003 test, U.S. prisons had gained half a million adult inmates. On average, this group was older and better educated than the 1992 prisoners; indeed, parents of the 2003 prisoners also tended to be better educated than parents for the earlier test population. Related largely to those factors, the average prose literacy for 2003 was higher than in the 1992 group.

Still, prisoners continued to score significantly lower than non-incarcerated Americans on prose reading tests. **The average prose literacy score of prisoners in 2003 was 257, while for non-incarcerated adults it was 275.** Moreover, the percentage of prisoners at or below the Basic reading level was 56%, compared with 43% of non-prisoners.

Forty-one percent of prisoners were Intermediate readers and only 3% were Proficient. Among non-incarcerated Americans, 44% read at the Intermediate level. This percentage was not significantly different from the proportion of prisoners at that reading level. The proficiency rate for non-prisoners, however, was 13%—10 points higher than for prisoners.

A disparity in the scores of U.S. household and prison populations appears even in adults at the highest education level. The average prose score of non-incarcerated adults who had a postsecondary school education was 302, compared with 282 for prisoners of the same educational background, or one-fifth of incarcerated adults. Twenty-three percent of non-incarcerated adults who attended postsecondary school read at the Proficient level, while only 8% of prisoners of that background did. For adult prisoners and non-prisoners whose education ended with a high school diploma, average reading scores were almost identical: 264 and 262, respectively.

Regarding the literacy gap between adult prisoners and non-prisoners, the Department of Education's *Literacy Behind Bars* (2007) report concludes: "This would be of somewhat less concern if prison inmates who expected to be released within 2 years had higher literacy than inmates with more time left to serve on their sentences, but that was not the case." As the report observes, "The literacy of inmates who are near their expected date of release may be of particular concern because they will soon need to do such things as rejoin their families and find a job." Yet the 2003 literacy assessment revealed no difference in average prose scores of prisoners who still had more than 2 years to serve, and those to be released within a 2-year period.

CHAPTER SEVEN

4. Reading for pleasure correlates strongly with academic achievement.

BACKGROUND

Over the last three decades, cognitive psychologists specializing in childhood development have sought to clarify the relationship between reading widely and reading well. Much of that research has been distilled by Anne Cunningham, University of California at Berkeley, and Keith Stanovich, University of Toronto—notably in a Spring/Summer 1998 article for the American Federation of Teachers’ magazine *American Educator*. Titled “What Reading Does for the Mind,” the article begins:

Reading has cognitive consequences that extend beyond its immediate task of lifting meaning from a particular passage. Furthermore, these consequences are reciprocal and exponential in nature. Accumulated over time—spiraling either upward or downward—they carry profound implications for the development of a wide range of cognitive capabilities.

Cunningham and Stanovich go on to describe “the reciprocal effects of reading volume,” whereby, regardless of reading ability, children who start reading for pleasure at an early age are exposed to exponentially higher numbers of new words—and a greater opportunity to develop literacy skills—than children denied early reading experiences. Because these skills are associated not just with reading comprehension, but also with greater cognitive development, the researchers elsewhere state: “We believe that independent reading may help explain the widening achievement disparities between the educational haves and have-nots.”⁶⁶

Vocabulary growth is perceived by many to be central to reading development, but what often gets overlooked is the sheer quantity of words, concepts, and types of syntactic structure that reading provides. Cunningham and Stanovich cite statistical studies of printed texts ranging from children’s stories to adult books, from comic books to popular magazines, showing that each type of reading material contains a far greater average number of rare words than TV shows or adult speech.⁶⁷ The implication is that children would learn more vocabulary from reading juvenile fiction than from watching a prime-time television show or listening to their college-educated parents chat with each other!

Another article summarizing research on the link between voluntary reading and literacy rates was commissioned by the Department of Education in the late 1990s.⁶⁸ Its author postulates:

Voluntary reading involves personal choice, reading widely from a variety of sources, and choosing what one reads. Aliterates, people who have the ability to read but choose not to, miss just as much as those who cannot read at all. Individuals read to live life to its fullest, to earn a living, to understand what is going on in the world, and to benefit from the accumulated knowledge of civilization. Even the benefits of democracy, and the capacity to govern ourselves successfully, depend on reading.

⁶⁶ “Reading Can Make You Smarter,” by Anne Cunningham and Keith Stanovich, in *Principal*, November/December 2003. Reprinted with permission. Copyright (2003) National Association of Elementary School Principals. All rights reserved.

⁶⁷ The authors refer to Hayes, D.P. and Ahrens, M., “Vocabulary Simplification for Children: A Special Case of ‘Motherese’?”, *Journal of Child Language* 15 (1988): 395–410, and Hayes, D.P., “Speaking and Writing: Distinct Patterns of Word Choice,” *Journal of Memory and Language* 27 (1988): 572–585.

⁶⁸ Bernice E. Cullinan, “Independent Reading and School Achievement,” American Association of School Librarians’ *School Library Media Research*, Vol. 3, 2000.

That last proposition will resurface in Chapter Nine of this report, but for now, we are concerned with identifying the correlation between reading often and reading well. Our review will cover the most recent data available in Department of Education studies profiling youth reading skills and voluntary reading rates:

- *NAEP 2004 Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics*, 2005.
- National Center for Education Statistics: *NAEP Data Explorer* tool, available via NCES Web site.

Although earlier chapters have hinted at a mutual reinforcement between reading rates and literacy skills, the following graphs make that pattern explicit. Still, because the data cannot prove a causal relationship between the two variables, it is worth reproducing a disclaimer from the previously quoted article.

Longitudinal studies that show long-term effects or that isolate the exercise of literacy, however, are missing from the research on voluntary reading and school achievement. Such studies might indicate which factors make a difference in establishing lifetime reading habits, and in what influences readers' choice of reading material, that perhaps could help us plan effective programs.⁶⁹

Reading Often and Reading Well

9-, 13-, and 17-Year-Olds: Long-Term Trend Data

The consistently documented correlation between voluntary reading rates and higher test scores is summed up by a paragraph in the *NAEP 2004 Trends in Academic Progress* report. The study assessed the reading skills of 9-, 13-, and 17-year-olds over three decades (see Chapters One and Five).

At all three ages, students who indicated that they read for fun almost every day had higher average reading scores in 2004 than those who said that they never or hardly ever read for fun. Students at all three age levels who said that they read for fun once or twice a week had higher average scores than those who never or hardly ever read for fun.⁷⁰

Chart 7A displays this pattern for 17-year-olds—the age group least likely to read for pleasure, as we have seen, and also the only group whose reading scores have declined significantly since 1984.

Although average reading scores are similar for 17-year-olds who read once or twice a week and those who read once or twice a month, there are large score differences between these readers and the 17-year-olds who read infrequently or not at all. The gulf expands for infrequent or non-readers, compared with those who read “almost every day”—yielding a 33-point gap between daily readers and very infrequent readers, and a 37-point gap between daily readers and “never-or-hardly-ever” readers.

8th- and 12th-Graders: National 2005 Data

The NAEP national “main” assessment, administered biennially to 4th-, 8th- and 12th-graders, reflects the same pattern. Test-takers are asked how often they read for

⁶⁹ *Ibid.*

⁷⁰ *NAEP Trends in Academic Progress: Three Decades of Student Performance in Reading and Mathematics*, 2005, vii.

Chart 7A. Average Reading Scores by Frequency of Reading for Fun

Age 17 in 2004

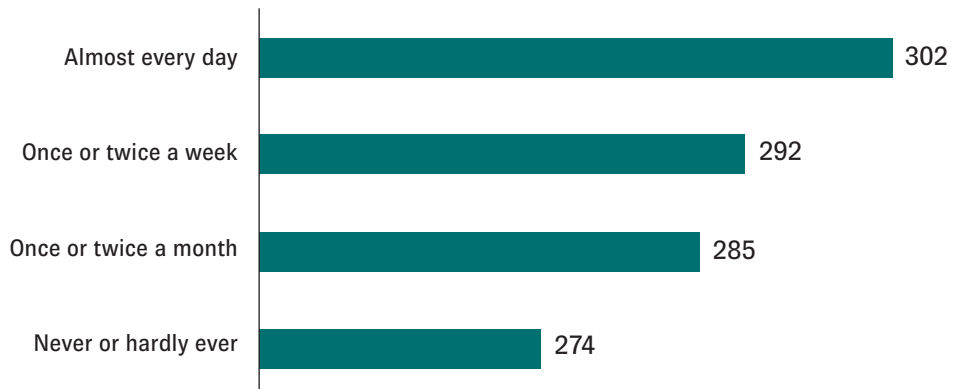


Reading scores range from 0 to 500.

Source: U.S. Department of Education, National Center for Educational Statistics

Chart 7B. Average Reading Scores by Frequency of Reading for Fun

Grade 12 in 2005



Reading scores range from 0 to 500.

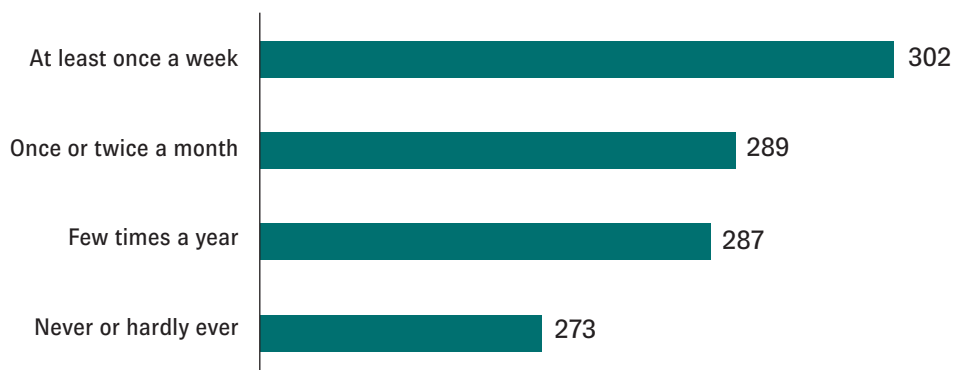
Source: U.S. Department of Education, National Center for Educational Statistics

fun on their own. Chart 7B shows the 2005 test score pattern of 12th-graders in four different categories of reading frequency. Although not shown here, the relationships between reading rates and test scores are similar in previous test years, and for all three grade levels.

Another question on the 2005 main NAEP assessment asked 8th- and 12th-graders how often, if ever, they read “fiction books or stories outside school.” Again, the results are similar—for both grade levels, and in previous years. Chart 7C displays the 2005 pattern for 12th-graders. Notably, there is no significant difference in scores between the 12th-graders who read only once or twice a month and those who read a few times a year. Although this anomaly does not appear in the previous two charts, it reinforces the notion that consistently high levels of leisure reading are crucial to a positive relationship between reading and test scores.

Chart 7C. Average Reading Scores by Frequency of Reading Fiction Books or Stories Outside School

Grade 12 in 2005



Reading scores range from 0 to 500.

Source: U.S. Department of Education, National Center for Educational Statistics

Reading Often and Writing Well

The National Assessment of Educational Progress (also known as “The Nation’s Report Card”) features a writing component. The test assigns students three types of writing tasks: narrative, informative, and persuasive. Assignments from the 2002 test included, for example, “writing a letter to the editor of a newspaper, offering advice to younger students, reporting to a school committee, and writing a story based on a poem.”⁷¹

Without citing a causal relationship between the two variables—once again, data do not exist to show conclusively that one pattern results from the other—we note a progressive rise in test scores by reading frequency. Chart 7D depicts a 29-point spread between the 12th-graders who are non- or infrequent readers and those who read daily or almost daily. (For 4th- and 8th-graders, the corresponding differences are 20 and 25 points, respectively.)

Writing and reading are separate skills, to be sure, but the likelihood of writing well is reduced when one has minimal exposure to printed texts. Does the same tendency apply to readers and non-readers tested for academic subjects beyond reading and writing?

Books in the Home

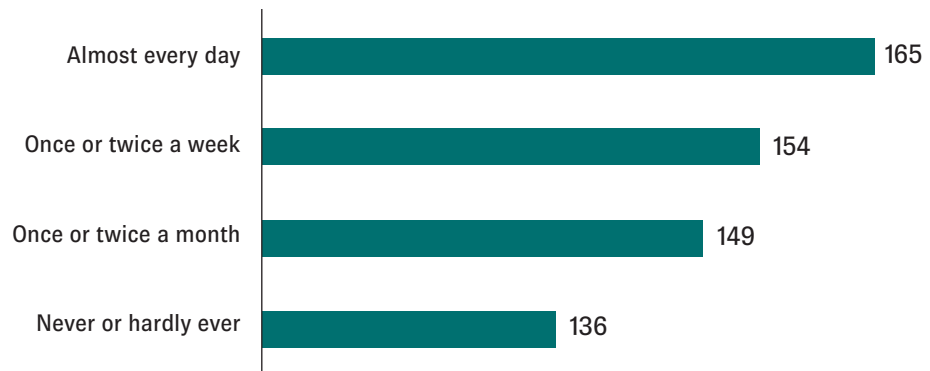
The NAEP does test for subjects such as math, science, history, and civics, but students are not asked about their voluntary reading rates. Rather, the NAEP inquires about the number of “books in the home.” While this variable says nothing of the student’s propensity for leisure reading, **access to printed matter is associated positively with test scores for a variety of subjects.**

For example, math, science, civics, and history scores are higher for 12th-graders who report having books in the home. See Tables 7E and 7F, which report, by number of “books in the home,” the average math and science scores of 12th-graders. The results are from the most recent NAEP tests.

⁷¹ See “What Does the NAEP Writing Assessment Measure?” on NCES Web site (<http://nces.ed.gov/nationsreportcard/writing/whatmeasure.asp>). Data from the 2007 NAEP writing assessment were unavailable at the time of preparing this publication.

Chart 7D. Average Writing Scores by Frequency of Reading for Fun

Grade 12 in 2002



Writing scores range from 0 to 300.

Source: U.S. Department of Education, National Center for Education Statistics

Table 7E. Average Mathematics Scores and Books in the Home: Grade 12 in 2005

Reported number of books at home	Average mathematics score
More than 100	163
26–100	151
11–25	136
0–10	126

Mathematics scores range from 0 to 300.

Source: U.S. Department of Education, National Center for Education Statistics

Table 7F. Average Science Scores and Books in the Home: Grade 12 in 2005

Reported number of books at home	Average science score
More than 100	161
26–100	147
11–25	132
0–10	122

Science scores range from 0 to 300.

Source: U.S. Department of Education, National Center for Education Statistics

The NAEP results of a 2006 civics test show a similar pattern, as do results from a 2006 history test. In contrast to students who reported 0–10 books at home, 12th-graders with 26–100 books at home scored 27 points higher. If they had more than 100 books at home, the score went up an additional 17 points.

That same year, history test-takers with 26–100 books at home scored 24 points more than 12th-graders with 0–10 books at home. If they had more than 100 books, the score was another 16 points greater. But even for households with 11–25 books,

Table 7G. Average Civics Scores and Books in the Home: Grade 12 in 2006

Reported number of books at home	Average civics score
More than 100	167
26–100	150
11–25	134
0–10	123

Civics scores range from 0 to 300.

Source: U.S. Department of Education, National Center for Education Statistics

Table 7H. Average U.S. History Scores and Books in the Home: Grade 12 in 2006

Reported number of books at home	Average history score
More than 100	305
26–100	289
11–25	275
0–10	265

History scores range from 0 to 500.

Source: U.S. Department of Education, National Center for Education Statistics

12th-grade scores were significantly higher than for households with 0-10 books. This tendency applies to test-takers in all four subjects: math, science, civics, and history.

At this point, we might ask whether the relationship between student test scores and number of books in the home is masking household income as a factor in the analysis. The Department of Education’s *NAEP Data Explorer* tool, available on the National Center for Education Statistics’ Web site, does not supply information on parents’ earnings, which we might have compared with student test scores. Yet the tool does track another variable closely related to socioeconomic status: parents’ level of education.

Although test scores rise successively with the parents’ education, the number of books remains a significant predictor of better test scores. Consider 12th-grade science scores: Students whose parents had high school diplomas and lived in homes with more than 100 books scored 22 points higher than students whose parents were college graduates and who reported 0–10 books in their home.

Indeed, for all the subjects reported in Table 7I, students of high school-educated parents living in homes with more than 100 books outscored students with college-educated parents and 0–10 books at home.⁷² Students with high school-educated parents and 26–100 books in the home also outscored students with college-educated parents and 0–10 books at home. The relationship between test scores and the availability of books may point to reading and literary activity as highly visible functions in the household—behaviors that strengthen the student’s own reading habits.

The close relationship between student achievement and exposure to books and reading has been quantified to some extent. But left untouched are the less academically relevant benefits of reading. Better test scores aside, there is a civic and social imperative, as subsequent pages will show.

⁷² Regression analyses support this finding. Test scores are roughly 30 points higher for students with 100 or more books at home than for students with 0–10 books, regardless of their parents’ education.

Table 7I. 12th-Grade Test Scores by Number of Books in the Home and by Parents' Education

(2005–2006)

	U.S. History		Civics	
	Test scores by parents' highest level of education		Test scores by parents' highest level of education	
	High school diploma	College graduate	High school diploma	College graduate
Books in the home:				
More than 100	290	309	152	172
26–100	284	294	141	156
11–25	270	281	133	140
0–10	264	275	121	131

	Mathematics		Science	
	Test scores by parents' highest level of education		Test scores by parents' highest level of education	
	High school diploma	College graduate	High school diploma	College graduate
Books in the home:				
More than 100	145	169	148	166
26–100	143	157	141	152
11–25	132	142	127	140
0–10	126	137	120	126

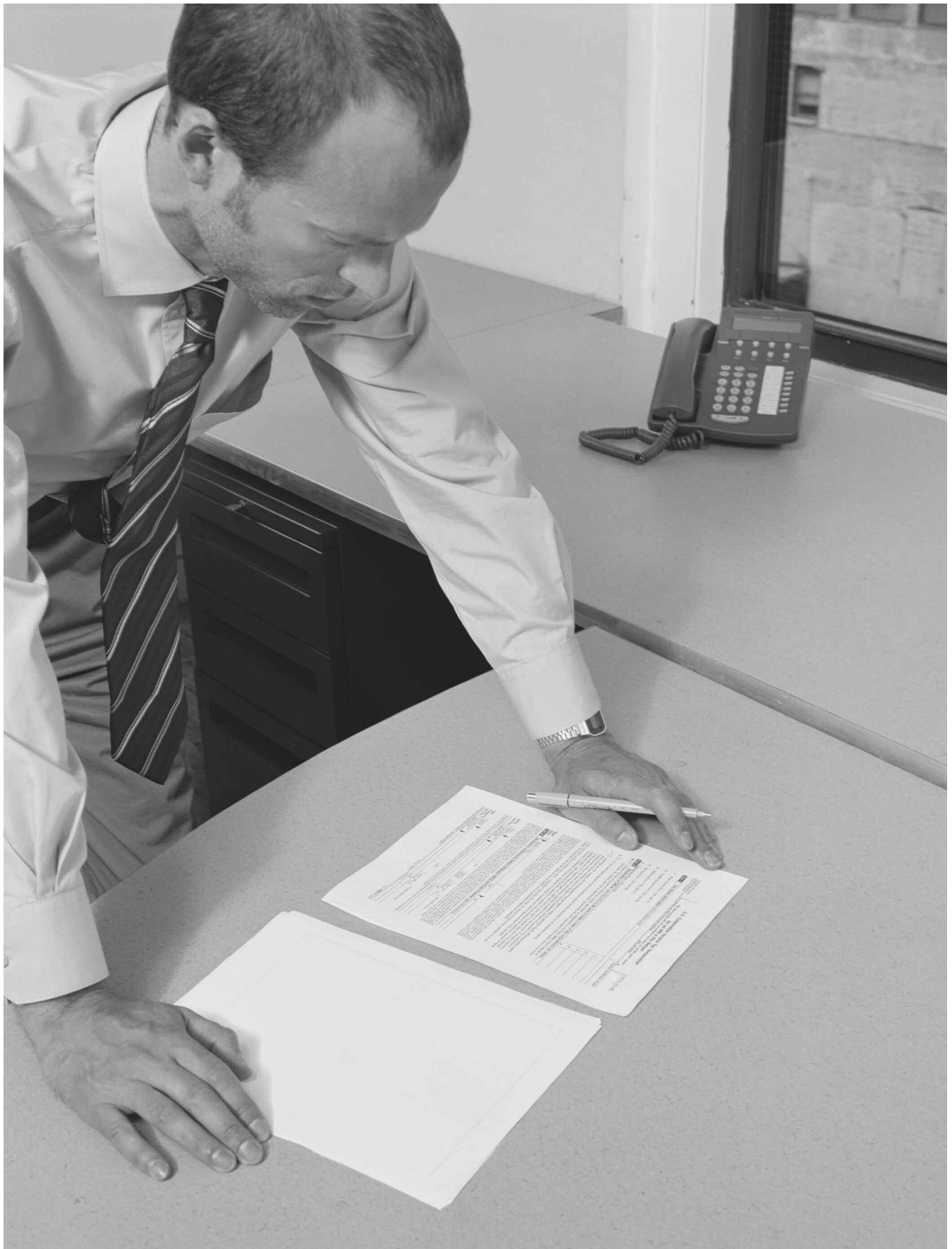
Data source: U.S. Department of Education, National Center for Education Statistics

Reading the Numbers: Math and Reading Scores



In August 2007, the Department of Education released a report comparing the U.S. educational system with those of the Group of Eight (G-8) countries, which rank among the world's most highly developed nations. The report found **a strong relationship between reading and math achievement** in seven of the G-8 countries: Canada, France, Germany, Italy, Japan, the Russian Federation, and the United States. (The UK was omitted because of its low response rate.)

Among 15-year-olds tested for reading and mathematics literacy in 2003, a low score in either subject was usually accompanied by a low score in the other subject. For example, 82% of Americans—the highest percentage among G-8 countries—who scored at the lowest proficiency level in reading also scored at the lowest level in math. Further, 62% of American 15-year-olds who scored at the lowest level in math also obtained the lowest performance level in reading. For details, see pp. 27–28 of the report, *Comparative Indicators of Education in the United States and Other G-8 Countries: 2006*, published by the Department of Education's National Center for Education Statistics.



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SECTION THREE

Why More Than Reading Is At Risk

CHAPTER EIGHT

1. Employers now rank reading and writing as top deficiencies in new hires.
2. Good readers generally have more financially rewarding jobs.
3. Less advanced readers report fewer opportunities for career growth.

BACKGROUND

Academic achievement tests are useful in distinguishing between high and low literacy levels in the general population, but they tell only half the story. As with many other life skills, often of the artistic or intellectual kind, reading and writing fluency yield intangible benefits that sharpen the divide between those who have the skills and those who do not. Some of those qualitative differences are all but immeasurable; others can be rated by their value in the job market.

The importance of technological innovation to the national economy has ensured that math and science skills are sought after and well-remunerated by many industries. Increasingly, however, think-tank organizations and expert panels have also cited the competitive value of advanced literacy in the American workplace. Some of their conclusions differ on the type of literacy required. In *Closing the Expectations Gap* 2007, for example, the nonprofit Achieve, Inc. reports:

Although [state] high school standards and courses tend to emphasize literature, most of the reading students will encounter in college or on the job is informational in nature (e.g., textbooks, manuals, articles, briefs and essays)....Most of the writing students will do in college and work is to inform and persuade, often requiring students to use evidence to support a position. Research also is cited as an important skill for college and work. State standards tend to give these types of writing short shrift, emphasizing narrative writing instead.⁷³

In contrast to this somewhat utilitarian perspective, another nonprofit public policy group places creativity on equal footing with traditional literacy skills. The National Center on Education and the Economy's 2007 report, *Tough Times or Tough Choices*, states:

This is a world in which a very high level of preparation in reading, writing, speaking, mathematics, science, literature, history, and the arts will be an indispensable foundation for everything that comes after for most members of our workforce. It is a world in which comfort with ideas and abstractions is the passport to a good job, in which creativity and innovation are the key to the good life, in which high levels of education—a very different kind of education than most of us have had—are going to be the only security there is.⁷⁴

⁷³ Achieve, Inc.: *Closing the Expectations Gap* 2007, 9.

⁷⁴ National Center on Education and the Economy, *Tough Choices or Tough Times: The Report on the New Commission on the Skills of the American Workforce*, 2007, xviii.

Despite the range of opinion on future career applications for literacy, a review of recent employer surveys is enough to attest that above-basic reading and writing skills are in high demand. Department of Education data profiling readers at competent and deficient literacy levels are additionally helpful in identifying positive outcomes associated with reading and writing well. Key sources for this chapter are:

- The Conference Board, Corporate Voices for Working Families, Partnership for 21st Century Skills, Society for Human Resource Management: *Are They Really Ready to Work? Employers Perspectives on the Basic Knowledge and Applied Skills of New Entrants to the 21st Century Workforce*, 2006.
- College Entrance Examination Board: *Writing: A Ticket to Work...Or a Ticket Out, A Survey of Business Leaders*, 2004.
- College Entrance Examination Board: *Writing: A Powerful Message from State Government*, 2005.
- U.S. Department of Education, National Center for Education Statistics, *Literacy in Everyday Life: Results from the 2003 National Assessment of Adult Literacy*, 2007.

Perceived Workforce Needs

American businesses and research and advocacy organizations posed a hard question about America's new hires in the title of a 2006 report, *Are They Really Ready to Work?* In April and May of that year, the group polled employers for "perspectives on the basic knowledge and applied skills of new entrants to the 21st-century U.S. workforce," a phrase captured by the report's subtitle.

The survey sample was not nationally representative, and the response rate was low—5%, or 431 companies with a combined workforce of 2 million U.S. employees. However, the sample was diverse: the highest percentage of respondents, 23%, belonged to the manufacturing industries, with another 21% of employers in government, nonprofit, or education sectors.

Business and professional services, on the one hand, and financial and insurance services, on the other, each claimed about 14% of the respondent pool, with some of the remaining percentages distributed across the healthcare (12%), entertainment/trade (10%), and energy/utilities/construction/transportation sectors (7%). About 80% of companies were small (less than 500 employees) or mid-sized (500–4,999), with the remaining respondents each having 5,000 or more employees.⁷⁵

Despite the range of employer-respondents, a clear majority viewed two basic skills as "very important" for new workforce entrants, regardless of education level. Those skills are reading and writing. See Table 8A.

Shown a list of nine "basic skill" areas—including math, science, and economics—90% of employers named "writing in English" as "very important" for the job success of new hires that had graduated from a four-year college or university. Reading comprehension also ranked high among the basic skill needs for this group, placing the skill in the top three, just under "English Language" skills.

We might expect college-educated employees to be valued more highly for their writing ability than employees with less education, if we can assume that the skill was refined as part of the college experience. But employers' expectations for less-educated workers, those who stopped at high school or junior college, also emphasize the skill. Writing is the third most commonly selected skill deemed "very important" for high school and junior college graduates alike. Among these hires,

⁷⁵ Forty-four percent of responding employers recorded annual revenues under \$100 million, while 29% had annual revenues of \$1 billion and more. Twenty-seven percent had revenues from \$100 million to \$999,999,999. Personnel with the job title of "director" accounted for just over half of the survey's respondents. Other respondents were company vice-presidents, senior VPs, managers/supervisors, human resource specialists, and other HR staff. (See p. 61 of *Are They Really Ready to Work?*)

Table 8A. Basic Skills Rated Very Important by Employers (Top Five)

Percentage of employers who rate the following basic skills as "very important" for:

High School Graduates		Two-Year College Graduates		Four-Year College Graduates	
Reading Comprehension	63%	Reading Comprehension	72%	Writing in English	90%
English Language	62%	English Language	71%	English Language	88%
Writing in English	49%	Writing in English	65%	Reading Comprehension	87%
Mathematics	30%	Mathematics	44%	Mathematics	64%
Foreign Language	11%	Science	21%	Science	33%

Source: The Conference Board, *Are They Really Ready to Work?* (2006)

Table 8B. Applied Skills Rated Very Important by Employers (Top Five)

Percentage of employers who rate the following basic skills as "very important" for:

High School Graduates		Two-Year College/Technical School Graduates		Four-Year College Graduates	
Professionalism/Work Ethic	80%	Professionalism/Work Ethic	83%	Oral Communications	95%
Teamwork/Collaboration	75%	Teamwork/Collaboration	83%	Teamwork/Collaboration	94%
Oral Communications	70%	Oral Communications	82%	Professionalism/Work Ethic	94%
Ethics/Social Responsibility	63%	Critical Thinking/Problem Solving	73%	Written Communications	93%
Critical Thinking/Problem Solving	58%	Written Communications	72%	Critical Thinking/Problem Solving	92%

Source: The Conference Board, *Are They Really Ready to Work?* (2006)

reading comprehension claimed the top spot, earning the most employer ratings of "very important."

In addition to asking employers about basic skill needs, the survey listed 11 "applied skills" such as critical thinking and problem solving, professionalism and work ethic, and asked which ones would be considered "very important," "important," or "not important."

Reading comprehension was not among the applied skills from which employers could choose, but "written communications" was. (The survey defines this skill as the ability to "write memos, letters and complex technical reports clearly and effectively.")

According to the majority of employers, written communications are essential for new hires among two-year or four-year college graduates. See Table 8B. More than 93% of employers rated the skill "very important" for job entrants with a college education, while 72% rated the skill very important for two-year or technical college graduates. For two-year and four-year college graduates alike, written communications ranks in the top five applied skills valued most highly by employers.

For new hires whose education stopped at high school, employer expectations do not appear to value written communications as greatly as for job entrants with higher education. Yet just over half of respondents (52%) deemed the skill very important even for this group of employees.

Top Deficiencies in New Hires

How do the skills of new hires stack up with these perceived job needs? For job entrants of all levels of educational attainment, writing is faring poorly. Among high school graduates, "writing in English" was the most commonly reported basic skill

Table 8C. Skill Deficiencies in High School Graduates (Top Five)

Percentage of employers who rate high school graduates as deficient in basic and applied skills:

Basic Skills		Applied Skills	
Writing in English	72%	Written Communications	81%
Foreign Languages	62%	Leadership	73%
Mathematics	54%	Professionalism/Work Ethic	70%
History/Geography	46%	Critical Thinking/Problem Solving	70%
Government/Economics	46%	Lifelong Learning/Self-Direction	58%

Source: The Conference Board, *Are They Really Ready to Work?* (2006)

Table 8D. Skill Deficiencies in College Graduates (Top Five)

Percentage of employers who rate two-year and four-year college graduates as deficient in basic and applied skills:

Two-Year College Graduates		Four-Year College Graduates	
Basic Skills		Basic Skills	
Foreign Languages	50%	Foreign Languages	41%
Writing in English	46%	Writing in English	26%
Government/Economics	32%	Government/Economics	17%
History/Geography	26%	History/Geography	17%
Mathematics	25%	Science	13%
Applied Skills		Applied Skills	
Written Communications	47%	Written Communications	28%
Leadership	43%	Leadership	24%
Professionalism/Work Ethic	31%	Professionalism/Work Ethic	19%
Lifelong Learning/Self-Direction	28%	Creativity/Innovation	17%
Creativity/Innovation	28%	Lifelong Learning/Self-Direction	14%

Source: The Conference Board, *Are They Really Ready to Work?* (2006)

deficiency reported by employers (72%). “Written communications,” meanwhile, was the most commonly reported “applied” skill deficiency: **81% of employers reported this problem with high school graduates**, as Table 8C notes.

New hires with two-year or four-year college backgrounds display a similar weakness, according to employers, albeit at a lower rate. Forty-six percent of employers judged two-year college graduates deficient in writing in English, while 26% of employers reported this deficiency in four-year college graduates. In both cases, the basic skill ranked as the second greatest deficiency found in the new hires.

Among applied skills, the job relevance of literacy is even clearer. For both two-year and four-year graduates, written communications claimed the top spot in applied skill deficiencies cited by employers. See Table 8D.

Before turning to a separate analysis of writing skill needs in the workplace, we should look more closely at reading comprehension, though not shown in the preceding table. As demonstrated in Table 8A, 63% of employers ranked reading comprehension “very important” for high school graduates. Yet 38% consider most high school graduates deficient in this basic skill.

The survey also revealed that employers in the manufacturing sector were more likely than other employers to report reading comprehension as a deficiency in new

hires. Forty-nine percent of employers in manufacturing cited this basic skill as lacking in job entrants, compared with 36% of employers in all other industries. Math and science were the two other basic skills that manufacturers found lacking in new hires more often than other industries did.

The importance of reading comprehension to the manufacturing sector is projected to grow, according to a separate survey, the *2005 Skills Gap Report—A Survey of the American Manufacturing Workforce*, conducted by the National Association of Manufacturers and Deloitte Consulting LLP. In results from the 800-employer survey, “reading/writing/communication skills” ranked among the top three types of skills that employers will demand increasingly. More than half of surveyed employers said the need for those skills would expand over the next three years.⁷⁶

Writing Skills in Demand

Chapter Seven identified a correlation between students’ reading patterns and National Assessment of Educational Progress (NAEP) writing test scores. Anecdotally, writing instructors have long witnessed the inspiration, stylistic lessons, and vocabulary growth that the best student-writers derive from authors they read on their own initiative.

In this respect, reading widely and reading well can be a career investment. Two reports, issued by the National Commission on Writing for America’s Families, Schools, and Colleges, underscore the perceived demand of today’s job market for advanced writing skills in new employees. The Commission was founded by the College Entrance Examination Board in 2005, the year the board launched its “new” SAT exam, which now includes a writing component.

The first report, *Writing: A Ticket to Work...or a Ticket Out* (2004), described results from a mailed survey with intensive phone call follow-up. Focused on writing needs in the workplace, the questionnaire was distributed to 120 “human resource leaders” belonging to the Business Roundtable, a CEO membership organization.

The survey yielded a 53% response rate. Like the survey in *Are They Really Ready to Work?*, the writing data cannot be viewed as nationally representative, and a further caveat applies. Unlike that previously discussed survey, the writing survey data do not reflect a broad range of employment sectors.

The National Commission on Writing notes, for example, that manufacturers are overrepresented among Business Roundtable membership, and they accounted for 69% of survey respondents. An additional 15% of respondents belonged to the transportation or utilities sectors, with another 7% in finance/insurance/real estate, 6% in services, with the remainder in construction or mining.

Some industries with Business Roundtable membership were not captured by the survey: wholesale and retail trade and agriculture, forestry, and fishing. The Commission also warns that the study’s findings cannot be applied to small business or government employment. (The average employee base for the 64 responding firms was 54,503.)

How do human resource personnel in large corporations rate the need for writing ability in the workplace? Nearly 70% of responding firms said at least two-thirds of their employees have “writing” in their job descriptions.⁷⁷ More than half of respondents claimed they “frequently or almost always” consider writing ability in hiring decisions.

Accuracy (95%), clarity (75%), and spelling, punctuation, and grammar (59%) were the top three writing characteristics valued by employers. They cited e-mail corre-

⁷⁶ National Manufacturers Association and Deloitte Consulting, *2005 Skills Gap Report—A Survey of the American Manufacturing Workforce*, 2005, 8. See p. 25 for survey methodology.

⁷⁷ Unless noted otherwise, the employee data culled from both National Commission on Writing surveys relate to “salaried” or “professional” employees, and not “hourly” or “clerical/support” staff.

**Table 8E. Selected Results from National Commission on Writing Surveys:
A Comparison**

Percentage who said:	Corporate employers	State employers
Writing is a job responsibility for at least two-thirds of employees	67%	100%
Writing is "frequently" or "almost always" a factor in hiring decisions	51%	80%
Writing is "frequently" or "almost always" a factor in promotion decisions	50%	60%
The majority of new and current employees possess this skill	35%	70%

Some percentages are approximate.

Sources: College Entrance Examination Board, *Writing: A Ticket to Work... Or a Ticket Out* (2004) and *Writing: A Powerful Message from State Government* (2005)

spondence, presentations and visuals, memos, and formal reports as some of the most frequently required communication formats.

As for workers' writing ability, 34% of employers reported that adequate writing skills are lacking in two-thirds or more of the current workforce. Almost the same percentage—36%—found writing skills lacking in at least two-thirds of incoming employees. The Commission concludes: "Since up to one-third of the employees in these blue-chip corporations do not possess adequate writing skills, writing deficiencies may be even more pronounced elsewhere in the broader private sector, particularly among employees of small- and medium-sized businesses."

In 2005, the National Commission on Writing reported results from a smaller but more representative employer survey. This time, the Commission asked the National Governors Association to poll state human resources directors—through an online survey—on writing skill needs of state government employees. Forty-nine of 50 state human resource directors responded.

Table 8E displays key results from the two writing surveys side by side. On the whole, state employers appear to value writing even more highly than the large companies surveyed. *All* of the state personnel directors said two-thirds or more of their employees have writing as a job responsibility. (Two-thirds of large corporations said the same for their employees.) Eighty percent of state human resources directors frequently or almost always consider writing in hiring new employees, compared with just 51% of large companies.

When it comes to workforce writing ability, the corporate and state employer surveys yield markedly different conclusions: While 70% of state personnel directors reported that two-thirds of current and new employees possess this skill, the share of companies claiming this view is only half as great.

Costs of Remediation

The comparatively higher rate of satisfaction recorded by state employers for their workers' writing ability may reflect, at least in part, a greater emphasis on training. According to the National Commission on Writing, two-thirds of state employer-respondents said they "frequently" or "almost always" provide training for workers whose writing abilities are poor, and less than 10% of state employers said they never provide such training. Among large corporations, just over 40% frequently or almost always provide such training for employees who require it.

Even if training for writing is emphasized more strongly by state employers, the relative costs are reportedly greater for the private sector. State employers report pay-

Table 8F. Percentage of Adults Who Said Their Reading Skills Limited Their Job Opportunities, by Reading Level in 2003

Prose literacy level	Not at all	A little	Some	A lot
Below Basic	30%	13%	22%	35%
Basic	62%	14%	15%	9%
Intermediate	85%	7%	6%	3%
Proficient	96%	2%	1%	1%

Source: U.S. Department of Education, National Center for Education Statistics

ing, on average, \$425 per employee for writing training, which the National Commission on Writing estimates as costing state agencies \$221 million annually.

For large corporations, the average spent on writing training, across industries, is \$950 per employee, yielding a National Commission on Writing estimate of \$3.1 billion per year. Because of the range of reported costs, however, the total estimates must be viewed cautiously.⁷⁸

Prospects for Promotion

According to the National Commission on Writing, more than 60% of state employers take writing skills into account in making promotion decisions, compared with almost half of large corporate employers. In industry, manufacturers are more likely than the construction sector to base promotion decisions on writing skills: 58% of manufacturers versus one-third of construction companies.

The Department of Education's 2003 National Assessment of Adult Literacy (NAAL) provides another indirect measure of the link between literacy skills and job advancement. In addition to gauging U.S. adults' reading ability, the NAAL culled self-reported background characteristics from the test-takers. Several of these background characteristics cover workplace experience.

As shown by Table 8F, for example, the majority of adults at the "Below-Basic" reading level (70%) expressed their belief that low reading skills had hindered their job options. That percentage dwindles in relation to improved reading ability: 38% of Basic readers said their career growth suffered, while only 16% and 4% of Intermediate and Proficient readers, respectively, reported this experience.

The NAAL also obtained self-reported data on salaries of full-time employed adults who took the test. Here, too, advanced reading skills correlate with more positive outcomes, discounting other factors. The majority of Basic and Below-Basic readers—62% and 77%, respectively—report earning weekly incomes below \$650, while the majority of Proficient readers fall within the \$850-or-more-per-week category. Fifty-seven percent of Intermediate readers earn \$650 or more per week. See Table 8G.

What about the types of jobs that people of different literacy levels tend to have? According to Table 8H, more than 60% of Proficient readers are employed in the "management, business, and financial" or "professional and related" sectors, where average weekly earnings are typically the highest. Moreover, progressively higher rates of employment in those categories are associated with higher reading levels, with 7% of Below-Basic readers, 18% of Basic readers, and 36% of Intermediate readers working in those sectors. Also noteworthy is that **significantly higher percentages of readers at or above Basic are now employed in those sectors** than in 1992.⁷⁹

⁷⁸ For example, the Commission reports that corporate writing training services range from "online tutoring programs costing very little to full-scale writing workshops priced in the thousands." State agencies, by contrast, reported estimates ranging from \$35 per employee to \$5,000 per employee. The estimates include "hourly" or "clerical/support" staff, and not just the "professional" or "salaried" employees discussed elsewhere in this section.

⁷⁹ The percentage of Basic readers in management, business and the financial sector rose three points from 5% in 1992; the percentage of readers at that skill level who were employed in "professional and related" fields grew two points—from 8% to 10%—over the same period.

Table 8G. Percentage of Full-Time Workers, by Weekly Earnings and Reading Level in 2003

Prose literacy level	Less than \$300	\$300-\$499	\$500-\$649	\$650-\$849	\$850-\$1,149	\$1,150-\$1,449	\$1,450-\$1,949	\$1,950 or more
Below Basic	18%	41%	18%	12%	7%	3%	1%	2%
Basic	12%	31%	19%	16%	12%	5%	2%	4%
Intermediate	8%	19%	17%	18%	17%	8%	6%	8%
Proficient	4%	10%	11%	17%	20%	13%	13%	12%

Numbers do not total 100% due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics

Table 8H. Percentage of Adults in Each Occupational Group, by Reading Level in 2003

Prose literacy level	Management, business, and financial	Professional and related	Service	Sales and related	Office and administrative support
Below Basic	3%	4%	30%	8%	8%
Basic	8%	10%	24%	12%	14%
Intermediate	15%	21%	16%	12%	16%
Proficient	19%	42%	10%	7%	13%

Prose literacy level	Farming, fishing, and forestry	Construction and extraction	Installation, maintenance, repair	Production	Transportation and material moving
Below Basic	3%	15%	2%	15%	11%
Basic	1%	9%	4%	11%	9%
Intermediate	0%	5%	4%	7%	4%
Proficient	0%	3%	2%	3%	2%

Numbers do not total 100% due to rounding.

Source: U.S. Department of Education, National Center for Education Statistics

Compared with Proficient readers, Below-Basic readers do claim higher percentages of employment in certain sectors—construction, production, transportation, and service industries—but not in “office and administrative support.” Equal percentages of Below-Basic and Basic readers, on the one hand, and Intermediate and Proficient readers, on the other, occupy the “sales and related” sector.

From these data, we cannot conclude that deficient or mediocre readers universally experience less job satisfaction or less opportunity for advancement than good readers. But when it comes to higher salaries, self-reported confidence in job success, and employment in sectors with high-growth potential—management, business, and “professional” careers—reading skills are in abundance.

Data from other sources indicate that not only do employers view advanced literacy as critical to job success, but many Americans recognize their reading and writing deficiencies as potentially harmful to their careers. According to survey results reported in 2005, one-third of high school graduates who did not attend college identified the ability to read and understand complicated materials as a “gap” in their preparation for achieving goals in life. Even 29% of college students reported this gap.⁸⁰

As for writing ability, 35% of college students and 38% of high school graduates who did not attend college reported a gap between their writing skills and the “quality of writing that is expected” of them by future employers, the survey concluded.

An international study, conducted by Statistics Canada with the Organization for

⁸⁰ Peter D. Hart Associates/Public Opinion Strategies, *Rising to the Challenge: Are High School Students Prepared for College and Work? A Study of High School Graduates, College Instructors, and Employers*, conducted for Achieve, Inc., 2005, 5.

Economic Cooperation & Development, has attempted to quantify the distribution of deficient readers in the global workforce. By the study's estimates, 19%–20% of Americans ages 16–65 are “mismatched” for their jobs on the basis of their relatively low scores on literacy tests. The study's authors explain:

Skill deficits are apparent in every country, but the extent of the problem varies. Approximately 10%–30% of the workforce can fall into this category, depending on the country. Some countries have a comparatively high skills deficit....Presumably, a certain level of mismatch is expected in the labor market but whether 10%, for example, is normal cannot be answered with certainty. Higher rates, however, are likely to suggest a need for adjustment; in particular, the need for an increased effort to train persons in those jobs.⁸¹

Average Reading Scores: A Double Meaning?



In 2004, the Organisation for Economic Co-operation and Development published *Learning for Tomorrow's World: First Results from the OECD Programme for International Student Assessment*. Known as PISA, the program is a schools-based study the OECD conducted in 2000 and again in 2003 to assess literacy skills and student achievement outcomes based on an internationally accepted framework.

The 2003 assessment revealed that average American reading scores are truly average. U.S. 15-year-olds barely placed in the top half of average reading scores for 31 participating nations. Their scores lagged far behind those of readers in such countries as Australia, Canada, Ireland, Korea, Finland, Sweden, and The Netherlands. Especially in a global marketplace, with highly skilled and educated workers increasingly in supply, such mediocrity may become untenable.

Table 8I. Average Reading Scores of 15-Year-Olds in Selected Countries: 2003

Country	Score	Rank	Country	Score	Rank
Finland	543	1	Denmark	492	16
Korea	534	2	Iceland	492	16
Canada	528	3	Austria	491	17
Australia	525	4	Germany	491	17
New Zealand	522	5	Czech Republic	489	18
Ireland	515	6	Hungary	482	19
Sweden	514	7	Spain	481	20
Netherlands	513	8	Luxembourg	479	21
Belgium	507	9	Italy	476	22
Norway	500	10	Portugal	478	22
Switzerland	499	11	Greece	472	23
Japan	498	12	Slovak Republic	469	24
Poland	497	13	Turkey	441	25
France	496	14	Mexico	400	26
United States	495	15			

Source: *Learning for Tomorrow's World: First Results from PISA 2003*, Copyright OECD, 2004

⁸¹ Statistics Canada and the Organisation for Economic Co-operation and Development, *Learning a Living: First Results of the Adult Literacy and Life Skills Survey*, Copyright OECD, 2005, 144.

CHAPTER NINE

5. Good readers play a crucial role in enriching our cultural and civic life.

6. Good readers make good citizens.

BACKGROUND

Readers of poetry may recognize, in the second statement above, a faint allusion to Robert Frost's poem "Mending Wall." The poem depicts two neighbors mending a stone wall on a spring day. Winter has eroded the wall in parts, leaving "gaps that even two can pass abreast." As the neighbors toil on either side of the wall, the speaker of the poem asks why a wall must divide their properties in the first place.

This neighbor is more open and playful and perhaps more generous than the other, who comes off as stiff and prickly by comparison. (In a charming metaphor, the speaker explains: "He is all pine and I am apple-orchard.") The second neighbor justifies the wall, however, with a now-famous sentence: "Good fences make good neighbors."

The line recurs at the end of the poem, but this time the meaning is ironic. By contrast, no irony is intended in the second statement heading this chapter. Like the two characters in Frost's poem, advanced or frequent readers and deficient or irregular readers can be shown to exhibit unique sets of behaviors, and it is tempting to imagine a wall dividing the two groups.

This chapter draws from two publications, one an analysis conducted by the Arts Endowment as part of the 2002 Survey of Public Participation in the Arts, and the other a Department of Education report referenced in earlier chapters. Although none of the data show cause and effect where reading and reader traits are concerned, the two reports do highlight several shared behavior patterns linked with positive individual, civic, and social outcomes.

- National Endowment for the Arts: *The Arts and Civic Engagement: Involved in Arts, Involved in Life*, 2006.
- National Center for Education Statistics: *Literacy in Everyday Life: Results from the 2003 National Assessment of Adult Literacy*, 2007.

⁸² They are, in order of publication: "Survey of Public Participation in the Arts" (Research Note #81); Bonnie Nichols, "Demographic Characteristics of Arts Attendance" (Research Note #82); *2002 Survey of Public Participation in the Arts* (Research Report #45); *Reading at Risk: A Survey of Literary Reading in America* (Research Report #46); Bonnie Nichols, "Arts and Leisure Activities: Evidence from the 2002 Survey of Public Participation in the Arts" (Research Note, #89); and Bonnie Nichols, "Volunteering and Performing Arts Attendance: More Evidence from the SPPA" (Research Note #94).

Literary Readers and Civic Engagement

The 2002 Survey of Public Participation in the Arts (SPPA), designed by the National Endowment for the Arts and executed by the U.S. Census Bureau, is the most recent source of nationally representative, statistically reliable data on adult participation in arts events and activities. For the benefit of arts organizations, artists, academic researchers, policy makers, news media, and the general public, the 2002 data have been reported in multiple NEA publications.⁸²

That year, the SPPA was administered as a supplement to the Census' Current Population Survey. The SPPA involved a sample of 17,135 adults (defined as 18 years of age or older), and the response rate was 70%. Because the survey collected data not only on arts participation, but also on respondent background characteristics and a range of leisure activities, the results permit comparisons of self-reported behavior

Table 9A. Participation Rates for Literary Readers in 2002

Activity	Literary readers	Non-readers	Gap between groups
Visit art museums	43%	12%	-31 pp
Attend plays or musicals	36%	10%	-26 pp
Attend jazz or classical concerts	29%	9%	-20 pp
Create photographs, paintings, or writings	32%	10%	-22 pp
Attend sporting events	44%	27%	-17 pp
Play sports	38%	24%	-14 pp
Exercise	72%	40%	-32 pp
Do outdoor activities	41%	22%	-19 pp

pp = percentage points

Source: National Endowment for the Arts

patterns across the general population. Further, because the survey has been conducted five times since 1982, trend comparisons are available.

The 2004 NEA report *Reading at Risk* was based on an analysis of the 2002 SPPA data and identified declines in literary reading rates (the percentage of adults who had read a novel, short story, poem, or play in the last 12 months) among Americans of both genders, all education levels, and most age groups. The report also drew attention to measurable links between literary reading and participation in arts and civic activity. Those correlations were the focus of a separate NEA research brochure, *The Arts and Civic Engagement* (2006).

Table 9A demonstrates the statistical strength of those links, between literary reading and arts participation and other types of activities. Literary readers are well over three times as likely as non-readers to visit art museums and attend plays or musicals or classical or jazz concerts. Although not shown here, they are even more likely than non-readers to go out to the movies and listen to classical or jazz radio stations.

Further, literary readers are significantly more likely than non-readers to play sports or attend amateur or professional sporting events. They do outdoor activities (e.g., camping, hiking, and canoeing), exercise at home or in a gym, and create art through photographs, paintings, or writings—all at higher rates than Americans who do not read fiction, drama, or poetry.

Reading at Risk found that young adults (18- to 34-year-olds) in particular were reading literature at far lower rates than before—at a 45% rate in 2002, the sharpest decline (16 points) among all adults under 65. Given the strong correlation between literary reading and other positive individual and social behavior, one would expect to see declines in young adult participation in those activities as well.

Tables 9B and 9C bear out this hypothesis. Literary reading is among a host of cultural and civic activities that have experienced declines in young adult participation over a period of two decades.

Readers Serve Their Communities

Volunteering is the most directly “civic” activity tracked by the survey. Here the results are even more striking than for the other leisure activities done by literary readers. As Table 9D shows, literary readers are more than twice as likely as non-readers to volunteer or do charity work.

Table 9B. Literary Reading and Performing Arts Attendance (Ages 18–34)

	Participation trends				
	1982	1992	2002	1982–2002	Rate of decline
Percentage who read literature	61%	54%	45%	-16 pp	-26%
Percentage who attended a:					
Jazz concert	16%	13%	11%	-5 pp	-31%
Classical concert	12%	10%	9%	-3 pp	-25%
Musical	19%	16%	15%	-4 pp	-21%
Ballet	4%	5%	3%	-1 pp	-25%

pp = percentage points

Source: National Endowment for the Arts

Table 9C. Participation in Sports and Physical Activities (Ages 18–34)

	Participation trends				
	1982	1992	2002	1982–2002	Rate of decline
Percentage who:					
Attended a sporting event	62%	48%	43%	-19 pp	-31%
Played sports	60%	55%	43%	-17 pp	-28%
Did outdoor activities	50%	42%	38%	-12 pp	-24%
Exercised	67%	67%	60%	-7 pp	-10%

pp = percentage points

Source: National Endowment for the Arts

Table 9D. Percentage of Adults Who Volunteered or Did Charity Work: 2002

Literary readers	Non-readers	Gap between groups
43%	16%	-27 pp

pp = percentage points

Source: National Endowment for the Arts

Table 9E. Percentage of Adults Who Volunteered, by Prose Literacy Level in 2003

	Less than once a week	Once a week or more	Total who volunteered
Proficient	32%	25%	57%
Basic	16%	15%	31%
Below Basic	8%	10%	18%

Source: U.S. Department of Education, National Center for Education Statistics

⁸³ Bonnie Nichols, “Volunteering and Performing Arts Attendance: More Evidence from the SPPA” (Research Note #94), 2006, 9.

The strong link between literary reading and volunteering was observed in virtually all demographic groups captured by the SPPA: across all age groups, education levels, income groups, and Census regions. Moreover, when controlling for education level, gender, age, and ethnicity, the study found that literary readers were three times as likely as non-readers to volunteer.⁸³ Finally, not only literary readers but *readers of*

Table 9F. Percentage of Adults Who Voted in the 2000 Presidential Election, by 2003 Prose Literacy Level

Proficient	84%	↓
Basic	62%	
Below Basic	53%	

Source: U.S. Department of Education, National Center for Education Statistics

Table 9G. Percentage of Adults Who Got Information About Current Events, Public Affairs, and the Government from Various Media Sources, by Prose Literacy Level: 2003

Source and literacy level	None	A little	Some	A lot
Newspapers				
Proficient	7%	26%	32%	35%
Intermediate	8%	23%	36%	33%
Basic	12%	23%	35%	30%
Below Basic	29%	25%	26%	20%
Magazines				
Proficient	16%	37%	37%	10%
Intermediate	18%	35%	37%	10%
Basic	25%	30%	34%	12%
Below Basic	42%	23%	25%	9%
Books or Brochures				
Proficient	21%	39%	30%	9%
Intermediate	20%	34%	35%	11%
Basic	26%	30%	33%	11%
Below Basic	44%	23%	25%	8%
Internet				
Proficient	16%	22%	31%	31%
Intermediate	31%	18%	25%	26%
Basic	53%	13%	17%	17%
Below Basic	77%	6%	9%	8%

Source: U.S. Department of Education, National Center for Education Statistics

books in general are more likely than non-readers to do charity work. As *Reading at Risk* demonstrated—see pp. 6–7 of that earlier report—volunteering rates rose with the number of books (literary or nonfiction) read over the past year.

The Department of Education’s 2003 National Assessment of Adult Literacy (NAAL) also contains statistics on volunteering. Figures are presented not in relation to literary reading, but by reading skill level. Table 9E reveals that not only do advanced readers, on average, volunteer at a higher rate than Basic or Below-Basic readers—they also volunteer more frequently.

Another measurement of civic participation is the percentage of readers who choose to vote. The assessment asked U.S. adults whether they had voted in the most recent presidential election, which had occurred in 2000. As with the NAAL data on

volunteering, voting activity increases in relation to reading skill level: from 53% and 62% of Below-Basic and Basic readers, respectively, to 84% of Proficient readers. See Table 9F.

Proficient readers also exhibit greater curiosity about current events, public affairs, and government activity, as measured by their use of media to obtain this information. Table 9G displays the percentages of readers at all skill levels who received information on the aforementioned subjects through three types of print media and the Internet.

Based on the links we already have observed between voluntary reading and reading proficiency, the strong relationship between reading skills and engagement with print media is less surprising than another fact: even **Internet usage for information on current events, public affairs, and government rises in relation to reading skills**—from Below-Basic to Proficient.

Reading as an Act of Empathy

What accounts for these disparities in civic engagement between deficient and advanced readers? For some of the outcomes measured in this chapter, broader social dynamics may be at work.

For example, the lower income levels often associated with less-skilled readers may result in less access to the Internet for news purposes, let alone other types of computer use. Or the comparatively lower income level of the average deficient reader may require him or her to work more than one job—yielding fewer leisure hours to spend on volunteering and other civic activities. Alternatively, unremarked factors unique to the household, neighborhood, or health status of the individual may play a role.

In the absence of hard data explaining the *reason* for increased civic engagement among literary and skilled readers, we might consider the question more abstractly. The NEA's 2006 *Arts and Civic Engagement* research brochure noted: "By every measure captured by the Survey of Public Participation in the Arts, literary readers lead more robust lifestyles than non-readers. These findings contradict commonly held assumptions that readers and arts participants are passive, isolated, or self-absorbed."

Another quotation, this one from the novelist, literary critic, and popular theologian C.S. Lewis (author of *The Chronicles of Narnia*), presents a personal reason for expecting readers to identify more closely with community than non-readers:

Literary experience heals the wound, without undermining the privilege, of individuality. There are mass emotions which heal the wound; but they destroy the privilege....But in reading great literature I become a thousand men and yet remain myself....Here, as in worship, in love, in moral action, and in knowing, I transcend myself; and am never more myself than when I do.⁸⁴

Good readers, and not only literary ones, enjoy this privilege of understanding and appreciating the outlook of others while enlarging their own identity. Perhaps because of this active empathy, they contribute in measurable ways to civic and social improvements.

Ultimately, reading skills and early habits of leisure reading may come to occupy the same relationship to artistic, cultural, and civic progress as "basic science" skills

⁸⁴ C.S. Lewis, *An Experiment in Criticism*, Cambridge University Press, 1995, 140–141.

have had to technological breakthroughs. Just as fundamental knowledge of math and science has enabled practical innovations in everyday life, so might young readers of today yield unforeseen benefits for health policy, business, law, the social sciences, arts and culture, journalism, and civic planning.

But why limit their accomplishments to the humanities? In an era of specialization, the imaginative and analytical skills unlocked by reading can fuel a brisker dialogue between the arts and sciences. As this report has attempted to show, reading often and reading well are prerequisites for achievement in areas far beyond literature and literacy alone.



Patterns of Disengagement: A Corollary

Despite positive findings about the civic engagement levels of literary and advanced readers (*see the preceding pages*), the reverse trend for deficient or non-readers is worthy of special attention. As the tables below indicate, adults who are deficient readers are more likely than skilled readers to be high school dropouts—and they are more likely to be absent from the workforce.

The NAAL recorded education and employment background statistics of test-takers in 2003, and provided a comparison with 1992 levels. One-third of Basic readers have a history of not completing high school, while one half of Below-Basic readers share that history. Significantly, the percentage of Below-Basic readers who are high school dropouts expanded by five points since 1992. (The percentage of Proficient readers who dropped out of high school was only 1%.)

Measured on the basis of reading score, and not level of proficiency, the following table shows a gap of 55 points between the prose reading scores of 2003 high school graduates and high school dropouts. In addition to the gap, the average reading scores of both of those groups have decreased over time.

The nonprofit Editorial Projects in Education has reported that only 70% of all high school students graduate on time with their peers—suggesting a high dropout rate already for the general population. In this context, and given the profound disadvantages facing high school dropouts later in life, the NAAL numbers for Below-Basic and Basic readers are especially grim.

These findings are significant because they stress the erosion of reading scores for high school graduates and dropouts alike. The data also show that

Table 9H. Percentage of Adults at or Below "Basic" Prose Literacy Level Who Did Not Complete High School: 1992, 2003

Prose literacy level					
Below Basic			Basic		
1992	2003	Change	1992	2003	Change
45%	50%	+5 pp	38%	33%	-5 pp

pp = percentage points

Adults are defined as people 16 years of age and older living in households or prisons.

Source: U.S. Department of Education, National Center for Education Statistics

Table 9I. Average Prose Literacy Scores for Adult High School Graduates and Those Who Did Not Complete High School: 1992, 2003

Prose literacy score			
	1992	2003	Change '92-'03
High school graduate	268	262	-6
Less than/some high school	216	207	-9
Gap between groups	-52	-55	

Adults are defined as people 16 years of age and older living in households or prisons.

Source: U.S. Department of Education, National Center for Education Statistics

Table 9J. Percentage Employed Full-Time or Part-Time, by 2003 Prose Literacy Level

Proficient	78%	↓
Basic	56%	
Below Basic	45%	

Source: U.S. Department of Education, National Center for Education Statistics

dropouts retain far worse reading skills than graduates, which, as we have seen in this report, places the former group at greater risk in a number of areas throughout life.

Independent of what we have learned about employer preferences for good readers, the following table shows a familiar pattern: greater societal risks linked with poorer reading skills. Seventy-eight percent of Proficient readers are employed, compared with far lower percentages of less-skilled readers. Specifically, half of America's Below-Basic readers and 38% of Basic readers are classified as "not in the labor force"—a term that includes adults still in school or keeping home—compared with only 18% of Proficient readers. An additional 6% of Basic readers and 5% of Below-Basic readers are unemployed or looking for work, compared with 3% of Proficient readers. Although Chapter Eight provided some estimates on employer costs associated with remedial skills training, there is no reliable estimate of the economic damage done to society by the lost contributions of deficient readers.

CONCLUSION

Self-reported data on individual behavioral patterns, combined with national test scores from the Department of Education and other sources, suggest three distinct trends: a historical decline in voluntary reading rates among teenagers and young adults; a gradual worsening of reading skills among older teens; and declining proficiency in adult readers.

The Department of Education's extensive data on voluntary reading patterns and prose reading scores yield a fourth observation: frequency of reading for pleasure correlates strongly with better test scores in reading and writing. Frequent readers are thus more likely than infrequent or non-readers to demonstrate academic achievement in those subjects.

From the diversity of data sources in this report, other themes emerge. Analyses of voluntary reading and reading ability, and the social characteristics of advanced and deficient readers, identify several discrepancies at a national level:

- Less reading for pleasure in late adolescence than in younger age groups
- Declines in reading test scores among 17-year-olds and high school seniors in contrast to younger age groups and lower grade levels
- Among high school seniors, a wider rift in the reading scores of advanced and deficient readers
- A male-female gap in reading proclivity and achievement levels
- A sharp divide in the reading skills of incarcerated adults versus non-prisoners
- Greater academic, professional, and civic benefits associated with high levels of leisure reading and reading comprehension

Longitudinal studies are needed to confirm and monitor the effects of these differences over time. Future research also could explore factors such as income, ethnicity, region, and race, and how they might alter the relationship between voluntary reading, reading test scores, and other outcomes. Critically, further studies should weigh the relative effectiveness and costs and benefits of programs to foster lifelong reading and skills development. For instance, such research could trace the effects of electronic media and "screen reading" on the development of readers in early childhood.

Recent studies of American time-use and consumer expenditure patterns highlight a series of choices lurking in the question "to read or not to read." The future of reading rests on the daily decisions Americans will continue to make when confronted with an expanding menu of leisure goods and activities. The import of these national findings, however, is that reading frequently for pleasure is a behavior to be cultivated with the same zeal as academic achievement, financial or job performance, and global competitiveness.

I have sometimes dreamt, at least, that when the Day of Judgment dawns and the great conquerors and lawyers and statesmen come to receive their rewards—their crowns, their laurels, their names carved indelibly upon imperishable marble—the Almighty will turn to Peter and will say, not without a certain envy when he sees us coming with our books under our arms, “Look, these need no reward. We have nothing to give them here. They have loved reading.”

— Virginia Woolf, “How Should One Read a Book?”

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