

Virtual Illiteracy: Electronic Media Is Replacing Reading at All Age Levels

The National Endowment for the Arts on Nov. 11 released a devastating report on reading trends in America, comparing the current quantity and quality of reading by different age groups, and these with results from earlier decades. While the most dramatic declines are among teenagers, all age groups showed declines (with the sterling exception of nine-year-olds!). Unfortunately, the studies on which the report is based do not include specific data on time spent with video games, instant messaging, social-networking chatrooms, and other endlessly time-consuming and even addictive brands of “virtual reality.” Television is included, as well as a general category of “computer use for leisure.”

Here are excerpts from the report, To Read or Not To Read: A Question of National Consequence, produced by the National Endowment for the Arts’ Office of Research & Analysis, November 2007. Footnotes and graphics have been renumbered, and some have been omitted. The full document is at www.nea.gov/research/ToRead.pdf.

Chairman’s Preface

To 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 iso-

lated 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 volunteerism and voting. . . .

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. . . .

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. (Table 1)

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.

• Voluntary reading rates diminish from childhood to late adolescence. (Tables 2-3))

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. (Table 4)

• 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. (Figure 1)

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.

TABLE 1
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.

TABLE 2
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

TABLE 3
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

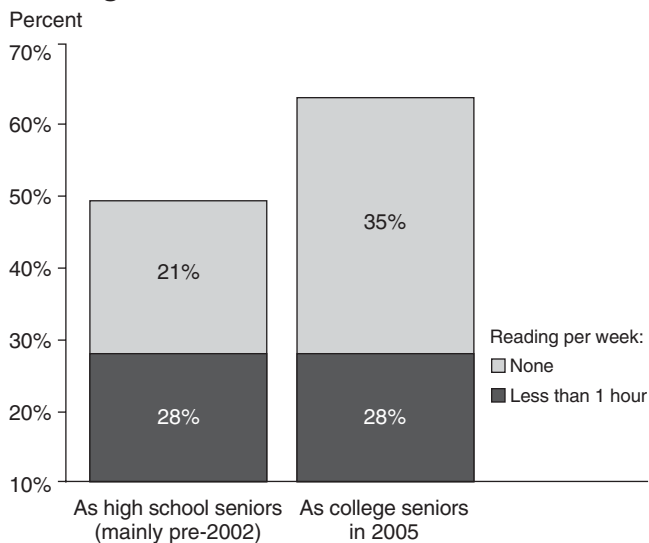
TABLE 4
Percentage of Literary Readers Among College Graduates

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.

FIGURE 1
U.S. College Seniors Who Read Little or Nothing for Pleasure



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

- 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 2007.¹...

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. . . .

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.² (Tables 5-6)

1. 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.

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

TABLE 5
Percentage of 12th Graders Reading at or Above the Proficient Level

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

pp = percentage points

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

TABLE 6
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.

TABLE 7
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.

- 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. . . .

- The reading gap is widening between males and females. (Table 7)

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.³
- Average reading scores have declined in adults of virtu-

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

ally all education levels.⁴

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

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.

- Remedial writing courses are estimated to cost more than \$3.1 billion for large corporate employers and \$221 million for state employers....

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.

5. Good readers make good citizens.

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

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

- 84% of Proficient readers voted in the 2000 presidential election, compared with 53% of Below-Basic readers. (Table 8)...

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.

- 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 esti-

4. 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 8

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

Reading Level	
Proficient	84%
Basic	62%
Below Basic	53%



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

mates that only 70% of high school students earn a diploma on time.

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. . . .

[From the body of the report, EIR selects a few points for elaboration (Tables 9-13):]

TABLE 9
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.

TABLE 10
Hours and/or Minutes per Day Spent on Leisure and Sports Activities, by Activity
(2006 Annual Averages)

Ages 15 years and over	Weekends and Holidays	
	Weekdays	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 11
Hours and/or Minutes per Day Spent Watching TV or Reading

(2006 Annual Average)

	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.

TABLE 12
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.

TABLE 13
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%
Associates/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.