WASHINGTON, D.C. – Twenty percent of U.S. college students completing 4-year degrees – and 30 percent of students earning 2-year degrees – have only basic quantitative literacy skills, meaning they are unable to estimate if their car has enough gasoline to get to the next gas station or calculate the total cost of ordering office supplies, according to a new national survey by the American Institutes for Research (AIR). The study was funded by The Pew Charitable Trusts.

The AIR study found there is no difference between the quantitative literacy of today’s graduates compared with previous generations, and that current graduates generally are superior to previous graduates when it comes to other forms of literacy needed to comprehend documents and prose.

The complete study is available on the AIR Web site, www.air.org.

The new study, “The National Survey of America’s College Students,” (NSACS) is based on a sample of 1,827 graduating students from 80 randomly selected 2-year and 4-year public and private colleges and universities across the United States. By targeting students nearing the end of their degree programs, the study provides a broader and more comprehensive picture of fundamental college literacy skills than ever before.

“The surprisingly weak quantitative literacy ability of many college graduates is troubling,” says Dr. Stéphane Baldi, who directed the AIR study. “A knowledgeable workforce is vital to cope with the increasing demands of the global marketplace.”

Study findings include:

- More than 75 percent of students at 2-year colleges and more than 50 percent of students at 4-year
colleges do not score at the proficient level of literacy. This means that they lack the skills to perform complex literacy tasks, such as comparing credit card offers with different interest rates or summarizing the arguments of newspaper editorials.

- Students in 2- and 4-year colleges have the greatest difficulty with quantitative literacy: approximately 30 percent of students in 2-year institutions and nearly 20 percent of students in 4-year institutions have only Basic quantitative literacy. Basic skills are those necessary to compare ticket prices or calculate the cost of a sandwich and a salad from a menu.

- Students about to graduate from college have higher prose and document literacy than previous graduates with similar levels of education; for quantitative literacy, differences between current and former college graduates are not significant.

- There are no significant differences in the literacy of students graduating from public and private institutions. Additionally, in assessing literacy levels, there are no differences between part-time and full-time students. No overall relationship exists between literacy and the length of time it takes to earn a degree, or between literacy and an academic major.

- There are no significant differences between men and women in college in their average prose, document, and quantitative literacy – indicating that women may be bridging a divide that has long existed between the sexes.

- The average prose and quantitative literacy of Whites in 4-year institutions is higher than for any other racial/ethnic group, mirroring trends in the general population. The fact that white students also have the highest prose and document literacy among students in 2-year colleges provides further evidence that the literacy gap between minority and non-minority students persists.

- The literacy skills of college students are directly related to the education of their parents: children whose parents graduated college or attended graduate school have higher literacy than students whose parents did not graduate high school or stopped after receiving a high school diploma or GED.

- Despite variations in income, most differences in the literacy of students across income groups are not significant. The most significant disparity exists between students in 4-year institutions with the lowest and highest income backgrounds. Students in the highest income group (either their personal income or the income of their parents) have higher prose and document literacy than students in the lowest income group.

- Literacy level is significantly higher among students who say their coursework places a strong emphasis on applying theories or concepts to practical problems, in comparison to students who say their coursework rarely touch on these skills.

The results of the study are intended to help college and university administrators identify specific academic areas where students have literacy gaps that should be addressed, as well as provide information on how prepared students are to join the labor force.

The report includes comparisons with data contained in the U.S. Department of Education’s “National Assessment of Adult Literacy” (NAAL), the first nationwide assessment of the literacy skills of U.S. adults aged 16 and older in more than a decade. The first NAAL report, which was released in December, was written by AIR authors.
“Despite the lackluster performance of many graduates on quantitative literacy, we should nevertheless be encouraged that current college graduates are not falling behind in terms of literacy when compared to graduates from earlier generations,” says Emerson Elliott, a former Commissioner of Education Statistics at the U.S. Department of Education.

“Higher education institutions should take careful note of the important benefits derived from emphasizing analytic and critical thinking, and the application of theories in preparing students,” says Peter Ewell, vice president of the National Center for Higher Education Management Systems.

Elliott and Ewell are members of the National Advisory Panel that guided the direction of the study. Other panel members include: Joni Finney, vice president of the National Center for Public Policy and Higher Education; George Kuh, director of the Center for Postsecondary Research at Indiana University; Margaret Miller, director of the Center for the Study of Higher Education at the University of Virginia; and Nichole Rowles, Planning and Evaluation Officer for The Pew Charitable Trusts.

About AIR

Established in 1946, the American Institutes for Research (AIR) is an independent, nonpartisan not-for-profit organization that conducts behavioral and social science research on important social issues and delivers technical assistance both domestically and internationally in the areas of health, education, and workforce productivity.

The Pew Charitable Trusts

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