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Contact:

Dr. Elizabeth U. Cascio
eucascio@ucdavis.edu
530-752-3028

Dr. Ethan G. Lewis
215-574-6057
Ethan.G.Lewis@phil.frb.org

One More Year of Schooling Could Narrow Racial/Ethnic Skills Gaps, New Research Suggests

Staying in high school one more year, rather than dropping out, can go a long way toward increasing teenagers' basic-skills test scores, and that extra year of schooling could also narrow minority-white skill gaps by 25 to 50 percent, a new study published in the *Journal of Human Resources* suggests.

“Many people hypothesize that investments in early childhood education are the most effective means of closing the achievement gap between whites and minorities and that by the time kids enter high school, it’s too late to make a difference,” explains researcher Elizabeth U. Cascio, Ph.D., assistant professor in the Department of Economics, University of California Davis. “We wanted to measure the achievement value of getting kids who are at risk of dropping out to stay in school one more year. We found that more time spent in high school can matter a lot for the skills that minority teens take with them into the labor market.”

U.S. high school completion rates vary greatly by race and ethnicity. According to the National Center for Education Statistics, in 2000, 8.2 percent of whites ages 18 to 24 years had not completed high school, compared with 16.3 percent of blacks, and 35.9 percent Hispanics in the same age group.

Cascio and co-author Ethan G. Lewis, Ph.D., a research economist at the Federal Reserve Bank of Philadelphia, analyzed the effect of one extra year of education by looking at 3,300 teenagers' scores on the Armed Forces Qualifying Test (AFQT), a measure of math and verbal aptitude that was included in the National Longitudinal Study of Youth in 1980. The AFQT is used by the U.S. military as the primary criterion for determining eligibility for armed forces enlistment and “trainability” and has been used for decades by social scientists as a measure of general skills.

The researchers compared the AFQT scores of students whose birthdays were immediately before their states' school-entry cutoff dates with those of students whose birthdays were soon after the cutoff date—in effect randomizing them into two groups that had similar family backgrounds and other characteristics. Although they may be close in age—even just one day apart—students whose birthdays fall before school-entry cutoff dates at any point in time typically have been in school one more year than those whose

birthdays are just after the cutoff date.

Cascio and Lewis found that, independent of family background and age, an additional year of formal education raised the AFQT scores of black teenagers by between 0.3 and 0.35 standard deviations and raised the AFQT scores of U.S.-born Hispanic teenagers by between 0.35 and 0.4 standard deviations.^[1] These estimates imply that closing racial and ethnic gaps in schooling would reduce black-white skills gaps by about 25 percent and the Hispanic-white skills gap by more than half, the researchers report.

“These findings suggest that schools can play an important role in building skill among minorities and in preventing test score gaps from widening further into the teenage years,” the authors write. “Thus, even though earlier policy interventions might be more cost effective, policies devoted either to dropout prevention or to raising the productivity of public high schools might bestow valuable skills.”

The co-authors further note that this study uses a unique, new strategy to identify the contribution of formal education to skill formation among teenagers and that many studies in the education arena have focused on interventions (such as changes in class size) that affect younger students and on tests that have not been directly linked to labor market outcomes.

The study results can be found in the Spring 2006 issue of the *Journal of Human Resources*, published by the University of Wisconsin Press.

^[1] Standard deviation is a measure of the average difference between the values in a set of data. The greater the difference, the higher the standard deviation.

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