Women and higher education

During the last 40 years, the number of people going to college has increased dramatically throughout the world. Given that many studies have documented the widespread labor market benefits of higher education, the increase is hardly surprising. What could be considered surprising, however, is that the increase has been mostly among women. In 1970, far fewer women went to college than men, except in a few of the richer countries. But by 2010, the number of women who had attained a college education was greater than that of men in 67 of 120 countries around the world, including 17 relatively poor countries. In an article in the May 2010 issue of the American Economic Review entitled "The Market for College Graduates and the Worldwide Boom in Higher Education for Women," Nobel laureate economist Gary S. Becker and colleagues William H.J. Hubbard and Kevin M. Murray attempt to explain this phenomenon.

Becker and his colleagues present a model of the optimal investment in higher education for a person. In addition to increased lifetime earnings, the model's determinants include the benefits of a college education for a person's health, marital prospects, investments in his or her children, and propensity for coping with unexpected events. By each of these measures, people with more education generally are better off than those with less education. The decision to go to college also depends on the costs involved, including tuition, forgone earnings, and, crucially, the prospect of doing well in college. The authors attribute the increase in

higher education to greater benefits relative to costs from attaining a college education. In other words, the "rate of return" to higher education has increased in recent decades—in the United States and in many other countries—and although the overall benefits are still greater for men than for women, the gap has narrowed substantially.

After examining the effects of a university education on individuals, the authors turn to an equilibrium analysis of the market for collegeeducated women and men. Because the returns to attaining a college education have increased over time, both the demand for and the supply of college graduates have increased as well. Becker and his colleagues argue that more women than men currently go to college because women's elasticity of supply with respect to earnings is greater than men's. Women tend to have greater "noncognitive abilities," such as selfdiscipline, perseverance, and social skills than men, so women's costs of attending college are lower than men's. In addition, women appear to have less variability than men in both cognitive and noncognitive abilities, which increases their elasticity of supply. Thus, the increase in demand for college graduates has induced more women than men to go to college, even when the benefits are the same for both.

Students' studying time declining

The results of several time-use surveys indicate that college students in recent years have spent less time studying than students in previous years. In their working paper titled "The Falling Time Cost of College:

Evidence from Half a Century of Time Use Data," professors Philip S. Babcock and Mindy Marks present data from multiple sources showing the decline in college students' study times between 1961 and 2004 (NBER Working Paper 15954, April 2010). The results reveal that full-time students devoted a mean of 40 hours per week to studying in 1961, compared with 27 hours per week in 2003. Additionally, in 1961, 67 percent of students studied 20 or more hours per week; by 2003 that number had decreased to 20 percent. One survey reports that time spent studying declined by 4.7 hours per week from 1961 to 1981, another survey reports a decline of 1.7 hours per week from 1988 to 2004, and a third reports a decline of 11.1 hours per week between 1961 and 2004.

Interestingly, declines in study time exist in all demographic groups within the categories of race, sex, and family background, among others. Although the demographic composition of college students has changed over time, the authors state that these compositional changes do not appear to explain the trend of diminishing study times. In the recent respondent groups, there are more women, working students, and students with college-educated fathers. Declines in study time were also observed among all majors surveyed and among fouryear colleges of varying sizes, levels of selectivity, and degree structures.

Though it is beyond the scope of their study to determine reasons for these declines, Babcock and Marks discuss a number of theories as to why hours spent studying may have declined in recent decades. They mention technologies that make students more productive, students' increasing likelihood of holding a job while in school, and evolving institutional standards as speculative explanations. The authors argue that, if effort is a meaningful input to the educational process, then declines in study time are a signal of a decline in human capital production. They also assert that the data may suggest that students' opportunity cost of attending college has

declined over the years. In addition, they present data which dismiss the argument that declines in study time are the result of students spending more years attending college.

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