

Do Sheepskin Effects Vary by Gender and Race? An Evaluation of the Return to College Degrees 1993 – 2003

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Abstract:

College enrollments vary significantly by gender and race and over time. In 1997, 63.6 percent of male high school graduates enrolled in college whereas 70.3 percent of females did so. By 2007, female enrollments had dropped to 68.3 percent and male enrollments grew to 66.1 percent. Over that time period, the percentage of black high school graduates enrolled in college dropped from 58.5 to 55.7 percent (*Statistical Abstract of the United States* 2010). The human capital model suggests that individuals invest in human capital to the point that the return on the investment is equal to the individual discount rate. We evaluate how changes in college enrollments and graduation by gender and race are related to changes in the return to college degrees using the 1993 and 2003 National Survey of College Graduates. Our preliminary results show that the returns to college degrees vary significantly by gender and race.

Previous studies have examined how the returns to schooling and sheepskin effects vary by gender and race. Belman and Heywood (1991) use data from the 1978 Current Population Survey (CPS) and measure sheepskin effects by years of schooling required for a given degree. They find that women and minorities earn smaller returns to low levels of schooling and higher returns to college and graduate school than comparable white men. Jaeger and Page (1996) use a matched sample from the 1990 and 1991 CPS which include both years of schooling and degrees awarded. They find that using observed degrees increases the estimated sheepskin effects, however, these effects do not vary significantly by gender and race. Similarly, Barrow and Rouse estimate the returns to schooling using the 1993 wave of the NLSY. They find few differences in the returns to schooling by race and ethnicity. However, their study does not evaluate sheepskin effects.

We use the 1993 and 2003 National Survey of College Graduates (NSCG) and CPS data for the same years to evaluate gender and race differences in the returns to schooling, the college wage premium, and sheepskin effects. The two waves of the NSCG contained detailed data on employment, including occupation and years of work experience; education, including college major and highest college degree; and demographic characteristics of individuals in the United States who have a bachelor's degree or higher. The 1993 NSCG is a subset of individuals from 1990 Decennial Census and the 2003 NSCG is drawn from the 2000 census. In order to estimate the returns to schooling and the college wage premium, we use data from the 1994 and 2004 March CPS which contain earnings information for the previous year.

Unlike previous studies our preliminary results indicate that the return to Bachelor's, Master's, Professional, and Doctorate degrees vary significantly by gender

and race. We regressed log earnings on gender, race, degree, experience, marital status and region and included interaction terms between race, gender, and degree to test for significant differences using the 1993 and 2003 waves of the NSCG. We find that white men earn significantly higher returns to degrees than women, blacks, and Hispanics. The returns on bachelor's degrees for women are between 26 to 27 percent lower than for men. Women with professional degrees lost ground compared to men between 1993 and 2003. The return on a woman's professional degree was 24.5 percent lower than a man's in 1993 and the difference grew to 30 percent by 2003. Blacks lost similar ground compared to white men over the decade. Blacks with a master's degree earned a 5.6 percent premium in 1993. Their earnings were not different from whites by 2003. Although there were no differences in the returns to professional degrees between blacks and whites in 1993, by 2003 the return on a black's professional degree was 13.3 percent lower.

We will develop the paper to examine why women and minorities have smaller sheepskin effects than whites. First, we will evaluate whether our sheepskin estimates are subject to omitted variable bias by including additional covariates for major field of study, occupation, and work activities. It could be that women and minorities are specializing in fields that earn lower returns. Second, we will examine the relationship between hours of work and earnings. It could be that white men supply more hours of labor contributing to the higher return on college degrees. Third, we will incorporate data on college enrollments and graduation to see whether women and minorities are responding to the observed changes in the returns on college degrees.

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