The gender gap reloaded: Are school characteristics linked to labor market performance? ☆

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Abstract

This study examines the wage gender gap of young adults in the 1970s, 1980s, and 2000 in the US. Using quantile regression we estimate the gender gap across the entire wage distribution. We also study the importance of high school characteristics in predicting future labor market performance. We conduct analyses for three major racial/ethnic groups in the US: Whites, Blacks, and Hispanics, employing data from two rich longitudinal studies: NLS and NELS. Our results indicate that while some school characteristics are positive and significant predictors of future wages for Whites, they are less so for the two minority groups. We find significant wage gender disparities favoring men across all three surveys in the 1970s, 1980s, and 2000. The wage gender gap is more pronounced in higher paid jobs (90th quantile) for all groups, indicating the presence of a persistent and alarming "glass ceiling."
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1. Introduction

The existence of gender differences in labor market outcomes, such as wages, has gained ample attention in economics and the social sciences. Gender differences in wages have been researched and documented, and frequently debated in the literature. It is an established fact that males earn substantially higher wages than females.

There is some empirical evidence, however, that while the gender gap is decreasing over time due to women's increased labor force participation and experience, it remains strong across the entire wage distribution.

The quality of the empirical evidence on gender differences in wages has not always been very strong for two main reasons. First, typically, the samples of various studies on gender differences in wages are not representative of a well-defined population. Many studies have used convenient samples, and it is plausible that the results obtained from such selected samples are biased (positively or negatively), and hence very different from their "true" population parameters. Second, various previous studies on gender differences in wages have typically examined and reported group differences in means (the central tendency of the distribution of wages). Gender differences in the extremes (e.g., upper and lower tails) of the wage distribution are only recently documented in the literature. Since it is likely that gender differences in the tails of the wage distribution may be different qualitatively than differences in the middle of the distribution, examining gender differences across the entire distribution of wages is important and provides a more accurate picture of the gender gap. For example, males may be over-represented in the top 10 percent of the wage distribution compared to females, a byproduct of over-concentration of men in highly paid jobs. This difference may not necessarily be similar to gender differences observed in the middle or the lower tail of the wage distribution.

In this study we employ base years and follow-up data of national probability samples of high school students in the US, namely the National Longitudinal Study (NLS) of the High School Class of 1972 (base year, fourth and fifth follow-up) and the National Education Longitudinal Study (NELS) of the Eighth Grade Class of 1988 (second and fourth follow-up). The main advantage of these datasets is that we can link important characteristics of high schools attended in the base year to wages from follow-up years, and thus, examine how high school characteristics affect wage differentials. In addition, these rich data allow us to examine the labor market performance of similarly aged individuals 7, 8, and 14 years after high school graduation, and hence, likely avoiding transitional labor market effects. Because of the use of national probability samples our results are more likely to have higher external validity, and be more resilient to threats of selection bias. We examine gender differences in hourly wages for young adults in the late 1970s, mid 1980s, and 2000 across the entire distribution of wages, thus covering three important time spells. Our estimation technique is to employ quantile regressions while adjusting for selection biases in the labor force. Because the gender gap may be declining on average, but may be remaining strong in the upper or lower tails, affecting women disproportionately, we examine the following quantiles of the wage distribution: 10th, 25th, 50th, 75th, and 90th quantile. We conduct separate analyses for three major race/ethnic groups in the US: Whites, Blacks, and Hispanics. This permits us to determine whether the gender gap differs by race/ethnic group and whether it is changing over time.

An equally important objective of the present study is to investigate the link between high school characteristics and hourly wages. Gauging the effects of high school characteristics on the wage gender gap is of great importance because school effects have differential and enduring effects on the earnings of individuals who attend different schools net of individual and family background characteristics (Constant and Konstantopoulos, 2003). Previous work on school effects has yielded mixed and inconsistent findings with respect to the importance of schooling on school outputs such as academic achievement. Some researchers have concluded that there is little or no evidence of school effects (Hanushek, 1986), while others report that the impact of school factors may be substantial (Greenwald et al., 1996). In this study, we examine school effects on labor market outcomes and ask the question, can high school characteristics predict future wages of young adults, net of the effects of individual characteristics? If so, then which school characteristics matter more for the economic performance of young workers, and for which ethnic groups?

2. Related literature

Research on the gender wage gap has documented that, on average, the wages of white males are considerably higher than those of comparable females. Oaxaca (1973) was the first to examine earnings differences between sexes using residual analysis, and found the sex differential to be quite large. In fact, a substantial proportion of the gender gap was not explained by observable characteristics and was attributed to the effects of discrimination (77 percent for whites and 93 percent for blacks). Studying the gender wage gap in the South