DISCUSSION PAPER SERIES

IZA DP No. 9277

High School Experiences, the Gender Wage Gap, and the Selection of Occupation

Michael R. Strain
Douglas A. Webber

August 2015

Forschungsinstitut
zur Zukunft der Arbeit
Institute for the Study
of Labor

High School Experiences, the Gender Wage Gap, and the Selection of Occupation

Michael R. Strain
American Enterprise Institute for Public Policy Research

Douglas A. Webber
Temple University
and IZA

Discussion Paper No. 9277
August 2015

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0
Fax: +49-228-3894-180
E-mail: iza@iza.org

IZA Discussion Paper No. 9277
August 2015

ABSTRACT

High School Experiences, the Gender Wage Gap, and the Selection of Occupation*

Using within-high-school variation and controlling for a measure of cognitive ability, this paper finds that high-school leadership experiences explain a significant portion of the residual gender wage gap and selection into management occupations. Our results imply that high-school leadership could build non-cognitive, productive skills that are rewarded years later in the labor market and that explain a portion of the systematic difference in pay between men and women. Alternatively, high-school leadership could be a proxy variable for personality characteristics that differ between men and women and that drive higher pay and becoming a manager. Because high school leadership experiences are exogenous to direct labor market experiences, our results leave less room for direct labor market discrimination as a driver of the gender wage gap and occupation selection.

JEL Classification: J16, J31

Keywords: gender wage gap, noncognitive skills, occupational choice

Corresponding author:

Douglas A. Webber
Department of Economics
Temple University
1301 Cecil B. Moore Ave
Ritter Annex 883
Philadelphia, PA 19102
USA
E-mail: douglas.webber@temple.edu

* We are grateful to Regan Kuchan for excellent research assistance.

1. Introduction

The gender wage gap is of great interest to the general public and to policymakers, and for good reason: It would be deeply unjust if women are systematically underpaid — if they face different prices for the same productive characteristics — relative to men. The gender wage gap is of great interest to economists for this reason as well, surely. It is also interesting to economists both inherently, and because it sheds light on the strength of the wage-productivity link, the drivers of productivity, and occupation selection, among others.

This paper contributes to our understanding of the gender wage gap by comparing standard gender wage gap regressions with and without detailed pre-labor-market-entry controls, including a measure of high-school leadership (being the president or an officer of a club) and unobserved high-school-level heterogeneity. We also study whether these pre-market experiences affect the management occupation gap across genders.

Our measure of high-school leadership is interesting for several reasons. (1) It captures an experience that occurs before the individual enters the labor market, so it is exogenous to (direct) labor market experiences. (2) It likely contains information on a productive input or personality characteristic that is non-cognitive in nature. (3) This input or characteristic may differ between men and women.

The combination of these factors implies that a measure of high-school leadership may help economists to explain a portion of the gender wage gap by pulling a productive characteristic or personality trait out of the error term of a standard wage regression. In addition, if the measure is related to occupation and industry selection, it may help economists to further the debate over whether we should control for occupation and industry in measuring the gender gap.

We find evidence of both. Our preferred specification finds an 8 percent wage premium for female workers who had significant high-school leadership experiences. High-school leadership explains roughly 10 percent of the residual gender wage gap observed in the early career jobs of the cohort being studied. In addition, high-school leadership experiences nearly eliminate the gender gap in the probability of working in a management occupation. Looking within management occupations provides suggestive evidence of even more significant reductions in the residual gender wage gap. These results are estimated using within-high-school variation and control for a measure of cognitive ability.

The inclusion of high-school fixed effects is particularly relevant in the context of the gender wage gap and occupational choice given the importance that cultural and geographic factors play in both discrimination and gender-specific preferences. Finally, our control for other important cognitive measures (math test scores) is certainly not novel to this literature, but does allow us to more precisely estimate the effects of leadership.

It is important to be clear about what we have found. Suppose the high-school leadership variable captures an important non-cognitive attribute: assertiveness, the personality characteristic. Then we have found evidence consistent with the hypothesis that a significant

portion of the residual gender wage gap and occupational choice are driven by systematic differences in personality between men and women. (To use a straightforward example, perhaps women who were club presidents in high school are more likely to be as assertive as men during salary negotiations.) Suppose instead that our high-school leadership variable captures non-cognitive attributes that are more directly productive: say, organizational ability, or, more generally, leadership skills. If these attributes vary systematically between men and women, then their omission from standard wage regressions biases estimates of the gender gap, and could explain differences in occupation assignment.

What does this say about discrimination? Not much in the global sense. It is obviously the case that female high-school students are not randomly assigned to high-school leadership positions. Discriminatory factors could be a driver of assignments into and away from high-school leadership roles, which implies that gender discrimination would be an underlying driver of our results. At the same time, it could be the case that being in a leadership role in high school causes productive skills and personality traits to develop that students subsequently take with them into the workplace years later. In this case, a nudge — discriminatory in origin, or not — into a leadership role could affect productivity and earnings years later.

The case is much the same for the debate over whether to control for occupation and industry in estimating the gender gap. To take the extreme cases, one should not include these controls if they reflect discrimination, but should if they reflect preferences. The underlying mechanisms of high-school leadership assignment are key.

Despite this ambiguity, it is the case that in any event our results — our estimates of the effect of high-school leadership on the gender wage gap and on selection into management occupations — do leave less room for gender discrimination that occurs *in the labor market itself* as a significant driver of the residual gender wage gap and occupational choice, since high-school experiences are exogenous to direct labor market experiences.

The rest of our paper is organized as follows: Section 2 reviews the various literatures pertinent to our study, Section 3 describes our data, Section 4 presents our empirical strategy, Section 5 presents the results and a discussion of their place in the literature, and Section 6 concludes.

2. Related literature

The gender wage gap has been extensively studied by labor economists.[1] We do not seek to provide a comprehensive overview of the literature, but rather to highlight papers that are especially relevant to understanding ours.

The gender wage gap is often described as being driven by a combination of women's choices, differences in characteristics between women and men, and different prices accruing to those characteristics for women and men (i.e., discrimination). The economics literature has paid

[1] Blau and Kahn (2007), and Blau and Kahn (2000) provide excellent overviews.

much attention to standard characteristics and their prices (e.g., Blau and Kahn, 1997), but more recent research has focused on non-standard characteristics (at least from an economist's perspective).

Preferences and attitudes have been found to be important determinates of gender differentials in the labor market. Fortin (2005) finds a strong relationship between attitudes about gender roles and the gender wage gap and employment gap when looking both across countries and across time. Fortin (2008) concludes that differences between men and women regarding attitudes about the value of money, work, and family are significant determinants of the gender wage gap. Focusing on IT workers, Rosenbloom *et al.* (2009) finds that gender differentials in employment can be explained by taking account of measured preferences. These results relate to the current paper in so far as attitudes and preferences may drive female high-school students into leadership roles in which non-cognitive skills may be developed, or may capture personality differences which make some female workers more likely to negotiate for higher pay.

There is evidence that women are less likely to negotiate over their salaries than men (Babcock *et al.*, 2003), a feature which could be misconstrued as discrimination if it reflects innate personality differences across genders, or alternatively could be a rational response to discriminatory hiring and management practices / preferences reflecting traditional gender roles. This phenomena is true even among highly educated women. A study of graduating professional school students of a major university found that 57 percent of male students had asked for higher compensation than their initial offer, compared to only 7 percent of female students. Students who negotiated increased their starting salaries by 7.4 percent (Babcock and Laschever, 2003).

This empirical reality may be driven by a variety of causes (Kray, Galinsky, and Thompson, 2001; Kray, Kennedy, and Van Zant, 2014). For example, if women are treated differently than men when they attempt to negotiate, then this differential propensity to initiate negotiations could be a rational response to incentives (Bowles, Babcock, and Lai, 2007; Rudman *et al.*, 2012).

The intersection between the occupational choice and gender wage gap literatures is also important to this paper given the heterogeneous impact of leadership on management and non-management occupations documented in Kuhn and Weinberger (2005). Eide (1994) attributes part of the narrowed gender wage gap to the female college-major distribution becoming more like that of males, and thus leading to a more similar occupational distribution. Shatnawi *et al*. (2014) provides an in depth discussion of the issues surrounding the choice of controlling versus not controlling for occupation when studying the gender wage gap. Goldin (2014) focuses on occupation and the gender wage gap from the perspective of tasks.

Our paper is most closely related to Kuhn and Weinberger (2005), which studies the returns to non-cognitive skills and finds a substantial wage premium (up to 33 percent) associated with holding a leadership position during an individual's high-school career. Lazear (2012) presents a theoretical treatment of the return to leadership skills, and Lindqvist and Vestman (2011), find large premia associated with various psychological traits using detailed data on Swedish Military enlistment.

Much of the gender wage gap can be explained by observable characteristics, such as the selection of occupation and industry. But in thinking about the role of discrimination in the labor market, the question is not whether women select different roles and productive characteristics, but why. We know that the gender wage gap grows across the duration of women's careers (Bertrand, Goldin, and Katz 2010; Goldin 2014), and that there are well-identified studies suggesting that discrimination is a factor in the wage gap (Goldin and Rouse, 2000; Neumark, Bank, and van Nort, 1996).

Our paper's contributions lie in the intersection of the above-mentioned literatures. Most importantly, the focus on pre-market characteristics and detailed (and typically unavailable) controls allows us to evaluate potential pathways of gender pay differences, occupational choice, and discrimination that most studies are unable to assess.

3. Data

The National Longitudinal Study of the High School Class of 1972 (NLS72) is the first of several longitudinal studies developed by the US Department of Education's National Center for Education Statistics (NCES). The study was designed to document the development of its respondents as they completed high school, entered higher education, and joined the labor market. It consists of a nationally representative base-year survey of respondents who were high school seniors in the spring of 1972 and five follow-up surveys administered in 1973, 1974, 1976, 1979, and 1986.

In this paper, we focus on respondents who were first interviewed in the spring of 1972 and selected for reinterview in the fifth follow-up survey. The base-year's student questionnaire includes information on the demographic traits, family characteristics, future plans, and high school activities of 16,683 respondents who attended public and private schools in the US and were high school seniors in the spring of 1972. Respondents also completed six timed cognitive tests that were administered to assess the students' verbal and nonverbal abilities. The NCES conducted the fifth follow-up survey in 1986, 14 years after the respondents' senior year of high school. The sample consists of 12,841 respondents who took part in at least one of the NLS72's earlier surveys. The final follow-up survey includes information on respondents' work experiences, educational attainments, marital statuses, children, and family economic relationships.

Following Kuhn and Weinberger (2005), we construct measures of high school leadership and membership using variables from the base-year survey that asked about students' activities in or out of school in the past year. The students responded "have not participated," "have participated actively," or "have participated as a leader or official" to nine lists of activities. Seven of the nine lists fell into the club category: debating, drama, band, chorus; hobby clubs such as photography, model building, hot rod, electronics, crafts; honorary clubs such as Beta Club or National Honor Society; school newspaper, magazine, yearbook, annual; school subject matter clubs such as science, history, language, business, art; student council, student government, political club; and vocational education clubs such as Future Homemakers, Teachers, Farmers of America, DECA, OEA, FBLA, or VICA.

We consider students to be club members if they answered "have participated actively" to any one of the relevant activity lists. We placed students in the club president categories if they answered "have participated as a leader or officer" to any one of the relevant club activity lists.

Our measures of high school leadership and membership have some limitations. First, given the list-like structure of the activity survey questions, we cannot quantify the number of activities in which a student took part. Second, a respondent who only participated in an activity not mentioned by the survey will not be categorized in our data as a member or leader. Lastly, the possible responses to the activity survey questions are somewhat ambiguous; it is unclear if students would have selected "have not participated" or "have participated actively" if they had participated in an activity, but were not actively involved.

We measure respondents' cognitive skills by using the results from the base-year mathematics aptitude test. Students were asked to answer 25 quantitative comparison questions in 15 minutes. We calculate math percentile scores for all respondents in the sample who were first interviewed in the spring of 1972 and had completed high school by the first week of February 1986.

Using data from the fifth follow-up survey, we examine respondents' employment 14 years after their senior year in high school. We focus on the respondent's current or most recent job held since 1979, and kept only those respondents who were employed in 1986. We construct respondents' hourly wages in 1986 using their current salary, pay frequency, and the number of hours usually worked per week. Following Kuhn and Weinberger (2005), we restrict the sample to those earning hourly wages between $2.70 and $135.00 in 1986. We grouped into 12 categories the 351 occupations and 203 industries reported in our sample; we sorted them by the major occupation and industry headings outlined in Appendix B.2 of the fifth follow-up survey documentation.[2] Our final sample includes 6,335 respondents.

4. Empirical methodology

We estimate variants of the following equation:

$$Log(Wage_{86}) = \alpha_0 + \beta_1 female + \beta_2 leadership + \beta_3 female * leadership + \beta_4 math\ score + X\gamma + \delta_{HS} + \varepsilon, \quad (1)$$

[2] The NLS72 uses the U.S. Census Bureau's 1970 Classified Index of Industries and Occupations. The twelve major occupation groups are: professional, technical, and kindred workers; managers and administrators (except farm); sales workers; clerical and kindred workers; craftsmen and kindred workers; operatives (except transport operatives); transport equipment operatives; laborers (except farm); farmers and farm managers; farm laborers and farm foremen; service workers (excluding those in private households); and private household workers. The twelve major industry groups are: agriculture, forestry and fisheries; mining; construction; manufacturing; transportation, communications, and other public utilities; wholesale and retail trade; finance, insurance, and real estate; business and repair services; personal services; entertainment and recreation services; professional and related services; and public administration.

where $Wage_{86}$ is the respondent's wage in 1986; $female$ and $leadership$ are dummy variables equal to one if the respondent is a female or was the president or an officer of a club while in high school, respectively; ε is a standard error term; and α_0 and the βs are coefficients.

The primary focus of this paper is on β_3, the coefficient attached to the interaction between the female and high-school leadership indicator variables. Of particular interest is how this coefficient changes across different specifications of Equation (1).

X is a vector of person and work characteristics, including indicator variables for race, education, marital status, fertility status, and club and sport participation. δ_{HS} is a set of 939 high school fixed effects. Math percentile score ($math\ score$) is described in more detail in the data section of this paper.

The inclusion of the math percentile score and high-school fixed effects allow us to rule out a number of threats to identification which could not be accounted for by datasets without the rich set of covariates available in the NLS72. First, the math percentile serves as a strong proxy for unobserved cognitive ability. While this measure is likely less comprehensive than the better-known Armed Forces Qualification Test (AFQT) score from the National Longitudinal Survey of Youth, it is nonetheless highly predictive of future wages both in terms of statistical and economic significance. Though the processes that govern which students serve in leadership roles during their high school careers is not random, the ability of this study to proxy for cognitive aptitude allows us to focus on other selection mechanisms.

Conditioning on a set of high school fixed effects allows us to account for a wide variety of cultural factors that may arguably play a large role in the likelihood of women seeking out leadership roles as well as the gender pay gap. Female students raised in localities in which gender roles are more traditionally and stringently defined may be less likely to seek out or obtain leadership roles. Furthermore, women in these localities may be more likely to earn lower wages due to occupational selection or discriminatory channels. Failing to account for such factors would likely lead to an upward bias on the interaction coefficient of interest to this study.

5. Results and Discussion

Table 1 presents summary statistics from our analysis sample broken down by gender.

Table 2 presents the results of various specifications of Equation (1). The coefficient on the interaction between the female and leadership indicator variables fluctuates between 4.6 and 10.0 log points depending on the covariates included in the model. The estimated interaction term in column 5, which controls for all available characteristics (e.g. demographics, test scores, high school fixed effects), except industry and occupation controls, is .0740, which implies a roughly 8% wage premium to females with high school leadership experience relative to their male counterparts. Adding a set of controls for industry and occupation cuts this figure almost in half, and renders the interaction statistically insignificant.

If the goal is to estimate the causal impact of female high school leadership, conditioning on future industry and occupation is likely a "bad control". However, this exercise is instructive for those considering the causes and size of the gender pay gap. Back of the envelope calculations using the figures in Column 5 and the proportion of females in leadership positions at some point throughout high school (24%) suggest that high school leadership participation explains roughly 10% of the residual gender pay gap. The fact that this figure is substantially diminished, and statistically insignificant, once employment controls are added is suggestive evidence that the mechanism that the leadership effect operates through has to with industry or occupation choice.

To further examine this relationship, Table 3 displays estimates from a linear probability model with employment in a management occupation as the dependent variable. The coefficient on the interaction between the female and leadership indicators is .0617 in the specification with the most comprehensive set of controls. This is a strikingly large effect given that the size of the raw gender differential in management occupation is only 6.5% (20.2% for men versus 12.3 % for women). Thus, virtually the entire gender gap in the proportion of management and nonmanagement workers is eliminated when looking only at those with high school leadership experience.

Table 4 presents log wage regressions only for those in management occupations. The sample size limits our ability to precisely estimate many of the coefficients in this model (particularly when high school fixed effects are included), however there is suggestive evidence that the residual wage gap is reduced to 25%-35% of its original magnitude for those women with high school leadership experience.

The implications of this study for understanding the gender wage gap depend on the degree to which the reader believes the results in Column 5 of Table 2 are a true "causal effect" (as usually defined). If this relationship is truly causal, then the policy implications are fairly clear: Exposing women at early ages to leadership opportunities will reduce the gender wage gap. Or, more generally, public policy should help women — and men, for that matter — to develop the characteristics that are learned by performing activities similar to taking on leadership roles prior to entering the labor market.

In this scenario, one can view high-school leadership through the lens of human capital accumulation. Women, on average, receive a differential benefit than men because they had fewer opportunities than men to develop the human capital associated with pre-labor-market-entry leadership roles. This leads them to choose more financially rewarding careers in traditionally male-dominated fields, and to earn more (on average) across occupations.

On the other hand, if the interaction effect is a proxy for personality characteristics, then the policy implications are quite different. In this case, differences over preferences governing competitiveness, financial ambition, or negotiating salary may drive a certain type of person to seek out leadership positions prior to labor market entry *and* to make correlated labor market choices, such as engaging in salary negotiations. This type of person tends to choose more financially rewarding careers, such as management roles, and, on average, is more likely to be male.

The role of discrimination is more nuanced here than is typical. Discrimination could be (in part) driving selection into and out of high-school leadership roles. If high-school leadership develops non-cognitive productive characteristics, then even though this paper pulls a productive characteristic out of the error term of standard wage gap regressions, it is still the case that discrimination is an underlying driver of our results. But if discrimination is not a large factor in determining which young people become high-school leaders — if, say, personality is the dominant factor — then this paper's results might suggest a smaller role for discrimination in the residual gender wage gap and occupation selection.

While it is impossible to rule out discriminatory channels in this context, the fact that our estimates are identified using within-high-school variation certainly rules out a number of cultural factors as potential drivers of discrimination (e.g. towns which are more conservative are more likely to discriminate against women both in terms of leadership opportunities and future wages).

In any event, this paper's results suggest a smaller role for direct labor market discrimination — high-school leadership is exogenous to direct labor market experience — as a driver of the residual gender wage gap and occupational choice.

6. Conclusion

This paper explores whether the relationship between an important non-cognitive characteristic, leadership experience, and labor market outcomes varies across gender. We utilize information on workers' pre-market leadership activities (officer or president of a club during high school) to identify the impact of leadership experience on the gender pay gap and occupational choice, estimated using within-high-school variation and controlling for a measure of cognitive ability.

We find a strong relationship between our measure of leadership and female wages, explaining roughly ten percent of the residual gender wage gap. Furthermore, we find evidence that high school leadership experience is correlated with occupational choice, specifically higher-income management occupations. Finally, we find that the gender wage gap is reduced by as much as 75% when accounting for leadership experience among those within management occupations.

Our results leave less room for direct labor market discrimination as a driver of the residual gender wage gap. In addition, our results strongly suggest that industry and occupation choices across gender are driven at least in part by something other than direct labor market discrimination because we have shown these outcomes are highly correlated with experiences predating labor market entry. In this way, our results can be seen as supporting the inclusion of industry and occupation fixed effects for researchers seeking to study the magnitude of gender discrimination by employers.

However, our results do nothing to rule out the presence of pre-market discrimination that influences the gender wage gap and occupation selection, such as discouragement or underinvestment in certain skills among young women that are highly valued in the labor market (e.g., leadership, math, and science).

References

Babcock, Linda and Sarah Laschever, *Women Don't Ask: Negotiation and the Gender Divide,* Princeton University Press, 2003.

Babcock, Linda, Sara Laschever, Michele Gelfand, and Deborah Small, "Nice Girls Don't Ask," *Harvard Business Review,* vol. 81, no. 10, October 2003, pp. 14—16.

Bertrand, Marianne, Claudia Goldin, and Lawrence F. Katz, "Dynamics of the Gender Gap for Young Professionals in the Financial and Corporate Sectors," *American Economic Journal: Applied Economics,* vol. 2, no. 3, July 2010, pp. 228—255.

Blau, Francine D. and Lawrence M. Kahn, "Swimming Upstream: Trends in the Gender Wage Differential in 1980s," *Journal of Labor Economics,* vol. 15, no. 1, January 1997, pp. 1—42.

Blau, Francine D. and Lawrence M. Kahn, "Gender Differences in Pay," *Journal of Economic Perspectives,* vol. 14, no. 4, Autumn 2000, pp. 75—99.

Blau, Francine D. and Lawrence M. Kahn, "The Gender Pay Gap: Have Women Gone as Far as They Can?" *Academy of Management Perspectives,* vol. 21, no. 1, February 2007, pp. 7—23.

Bowles, Hannah R., Linda Babcock, and Lei Lai, "Social incentives for gender differences in the propensity to initiate negotiations: Sometimes it does hurt to ask," *Organizational Behavior and Human Decision Processes,* vol. 103, no. 1, May 2007, pp. 84—103.

Eide, Eric, "College Major Choice and Changes in the Gender Wage Gap," *Contemporary Economic Policy,* vol. 12, no. 2, April 1994, pp. 55—64.

Fortin, Nicole M., "Gender Role Attitudes and the Labour-market Outcomes of Women across OECD Countries," *Oxford Review of Economic Policy,* vol. 21, no. 3, Autumn 2005, pp. 416—438.

Fortin, Nicole M., "The Gender Wage Gap among Young Adults in the United States: The Importance of Money versus People," *Journal of Human Resources,* vol. 43, no. 4, Fall 2008, pp. 884—918.

Goldin, Claudia, "A Grand Gender Convergence: Its Last Chapter," *American Economic Review,* vol. 104, no. 4, April 2014, pp. 1091—1119.

Goldin, Claudia and Cecilia Rouse, "Orchestrating Impartiality: The Impact of 'Blind' Auditions on Female Musicians," *The American Economic Review,* vol. 90, no. 4, September 2000, pp. 715—741.

Kray, Laura J., Adam Galinsky, and Leigh Thompson, "Battle of the Sexes: Gender Stereotype Confirmation and Reactance in Negotiations," *Journal of Personality and Social Psychology*, vol. 80, no. 6, June 2001, pp. 942—958.

Kray, Laura J., Jessica A. Kennedy, and Alex B. Van Zant, "Not Competent Enough to Know the Difference? Gender Stereotypes about Women's Ease of Being Misled Predict Negotiator Deception," *Organizational Behavior and Human Decision Processes*, vol. 125, no. 2, November 2014, pp. 61—72.

Kuhn, Peter and Catherine Weinberger, "Leadership Skills and Wages," *Journal of Labor Economics*, vol. 23, no. 3, July 2005, pp. 395—436.

Lazear, Edward P., Kathryn L. Shaw, and Christopher T. Stanton, "The Value of Bosses," *NBER Working Paper 18317*, August 2012.

Lindqvist, Erik and Roine Vestman. "The Labor Market Returns to Cognitive and Noncognitive Ability: Evidence from the Swedish Enlistment," *American Economic Journal: Applied Economics*, vol. 3, no. 1, January 2011, pp. 101—128.

Neumark, David, Roy J. Bank, and Kyle D. Van Nort, "Sex Discrimination in Restaurant Hiring: An Audit Study," *The Quarterly Journal of Economics*, vol. 111, no. 3, August 1996, pp. 915—941.

Rosenbloom, Joshua L, Ronald A. Ash, Brandon Dupont, and LeAnne Coder, "Examining the Obstacles to Broadening Participation in Computing: Evidence from a Survey of Professional Workers," *Contemporary Economic Policy*, vol. 27, no. 3, July 2009, pp. 413—421.

Rudman, Laurie A., Corrine A. Moss-Racusin, Julie E. Phelan, and Sanne Nauts, "Status incongruity and backlash effects: Defending the gender hierarchy motivates prejudice against female leaders," *Journal of Experimental Social Psychology*, vol. 48, no. 1, January 2012, pp. 165—179.

Shatnawi, Dina, Ronald Oaxaca, and Michael Ransom, "Movin' on Up: Hierarchical Occupational Segmentation and Gender Wage Gaps," *Journal of Economic Inequality*, vol. 12, no. 3, September 2014, pp. 315—338.

Table 1: Summary Statistics

	Men	Women
Black	0.066	0.122
	(0.249)	(0.328)
Other	0.089	0.087
	(0.286)	(0.282)
High school	0.150	0.176
	(0.357)	(0.381)
Some college	0.270	0.293
	(0.444)	(0.455)
College degree or higher	0.391	0.369
	(0.488)	(0.482)
Wage	13.001	9.906
	(9.015)	(7.398)
On team	0.156	0.051
	(0.363)	(0.221)
In club	0.229	0.363
	(0.420)	(0.481)
President of club	0.175	0.234
	(0.380)	(0.423)
Captain of team	0.103	0.060
	(0.304)	(0.238)
Math Percentile	0.542	0.471
	(0.287)	(0.275)
Married	0.705	0.638
	(0.456)	(0.480)
Has children	0.635905	0.644519
	(0.481247)	(0.478739)
Cares for young children	0.290208	0.126476
	(0.453926)	(0.332441)
Management occupation	0.201187	0.135245
	(0.400947)	(0.342042)
Observations	3370	2965

Table 2: Log Earnings Regressions

Female	-0.278***	-0.280***	-0.298***	-0.262***	-0.256***	-0.193***
	(0.0201)	(0.0203)	(0.0226)	(0.0200)	(0.0159)	(0.0171)
President		0.0338	-0.0165	-0.0624*	-0.0433*	-0.0275
		(0.0257)	(0.0384)	(0.0319)	(0.0258)	(0.0246)
Female*President			0.100**	0.0779*	0.0740**	0.0458
			(0.0509)	(0.0422)	(0.0343)	(0.0329)
Black				-0.0239	-0.0383	-0.0432
				(0.0401)	(0.0338)	(0.0337)
Other				-0.00587	-0.0127	-0.0133
				(0.0460)	(0.0289)	(0.0283)
On team				0.0664*	0.0620**	0.0600**
				(0.0358)	(0.0265)	(0.0253)
In club				0.0245	0.0758***	0.0657***
				(0.0285)	(0.0217)	(0.0207)
Math score				0.229***	0.213***	0.160***
				(0.0401)	(0.0287)	(0.0279)
High school				-0.102***	-0.0959***	-0.0789***
				(0.0224)	(0.0231)	(0.0223)
Some college				0.0284	-0.00559	-0.0178
				(0.0236)	(0.0219)	(0.0218)
College degree or higher				0.198***	0.147***	0.0891***
				(0.0247)	(0.0233)	(0.0243)
Married				0.0208	0.0563***	0.0502***
				(0.0252)	(0.0170)	(0.0162)
Has children				-0.0467	-0.0545***	-0.0469**
				(0.0291)	(0.0196)	(0.0188)
Parent cares for pre-schooler(s) at home				-0.00323	0.00101	0.0165
				(0.0248)	(0.0212)	(0.0202)
High School FE	No	No	No	No	Yes	Yes
Occupation FE	No	No	No	No	No	Yes
Observations	6,335	6,335	6,335	6,335	6,335	6,335
R2	0.073	0.074	0.075	0.183	0.396	0.447

Table 3: Occupational Choice Regressions (Management)

Female	-0.0789***	-0.0803***	-0.0965***	-0.0792***	-0.0588***
	(0.0139)	(0.0137)	(0.0157)	(0.0142)	(0.0128)
President		0.0255*	-0.0187	-0.0257	-0.0123
		(0.0150)	(0.0233)	(0.0237)	(0.0222)
Female*President			0.0880***	0.0758***	0.0617**
			(0.0294)	(0.0288)	(0.0289)
Black				-0.0328	-0.0618**
				(0.0299)	(0.0247)
Other				-0.0275	-0.00467
				(0.0182)	(0.0208)
On team				0.0148	0.0290
				(0.0317)	(0.0224)
In club				-0.00951	0.0114
				(0.0224)	(0.0171)
Math score				0.117***	0.0822***
				(0.0329)	(0.0254)
High school				0.0117	0.0194
				(0.0161)	(0.0175)
Some college				0.0624***	0.0612***
				(0.0183)	(0.0177)
College degree or higher				0.0445**	0.0272
				(0.0197)	(0.0191)
Married				0.0303**	0.0328**
				(0.0148)	(0.0136)
Has children				-0.0224	-0.0104
				(0.0172)	(0.0164)
Parent cares for pre-schooler(s) at home				-0.0409	-0.0230
				(0.0271)	(0.0176)
High School FE	No	No	No	No	Yes
Observations	6,335	6,335	6,335	6,335	6,335
R2	0.011	0.012	0.014	0.041	0.236

Table 4: Log Earnings Regressions (Management Only)

Female	-0.237***	-0.237***	-0.278***	-0.192***	-0.136*
	(0.0407)	(0.0400)	(0.0476)	(0.0419)	(0.0739)
President		0.000684	-0.0799	-0.0779	-0.0627
		(0.0419)	(0.0608)	(0.0554)	(0.105)
Female*President			0.177**	0.118	0.0824
			(0.0819)	(0.0739)	(0.142)
Black				0.141	0.113
				(0.0916)	(0.118)
Other				-0.0497	0.0325
				(0.0541)	(0.0986)
On team				0.146**	0.0737
				(0.0651)	(0.116)
In club				0.0862	0.0665
				(0.0549)	(0.0972)
Math score				0.204***	0.146
				(0.0741)	(0.135)
High school				-0.0706	-0.116
				(0.0748)	(0.142)
Some college				-0.00309	-0.0686
				(0.0708)	(0.139)
College degree or higher				0.152**	0.0596
				(0.0748)	(0.149)
Married				0.0567	0.109
				(0.0376)	(0.0784)
Has children				-0.0560	-0.0720
				(0.0495)	(0.104)
Parent cares for pre-schooler(s) at home				0.0677	-0.0510
				(0.0578)	(0.0943)
High School FE	No	No	No	No	Yes
Observations	1,079	1,079	1,079	1,079	1,079
R2	0.052	0.052	0.057	0.162	0.633