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Pay Differences Among College Students: Are Women the Weaker Sex?

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Abstract

Our society continues to indicate real remnants of gender discrimination. One artifact of this discrimination is the gender gap in pay that remains after all other known factors are controlled for. While many explanations are offered for this, one is that women are willing to work for less money by accepting lower salaries. Research suggests there may be gender differences in negotiating styles, but there is a lack of understanding in the role gender plays in negotiating context and behaviors. Further, artifacts of the study design and implementation may play a role in our lack of understanding. The goal of this study is to understand gender differences in initial salary requests so that we, as teachers and mentors, can assist our students, particularly female students, in increasing their earning potential. Subjects were students at a regional midwestern university enrolled in the introductory management course. The results of the study indicate real differences between men and women in initial salary requests. Women asked for less wages than what the men asked for, regardless of their college major. One of the benefits of this study is that, with this result, a program aiming at improving the negotiating skills of our female students can be developed. This can help reduce the gender gap in pay.

Keywords: *gender discrimination, pay equity, negotiation.*

1. Introduction

Women in the United States earn 22% less than their male counterparts do (US Census Bureau, 2011). Explanations offered for this wage differential include discrimination against women (Blau & Kahn, 2000; U.S. General Accounting Office, 2003; Hellerstein, Neumark, & Troske, 2002), women working fewer hours to spend more time on family obligations (Dey & Hill, 2007), women working fewer years for maternity reasons (Dey & Hill, 2007), women self-selecting to less dangerous and therefore lower paying jobs (Farrell, 2005; Nielsen, 2005), women self-selecting social science majors in college which lead to lower paying careers (Dey & Hill, 2007), and weaker negotiation skills among women as compared to men (Babcock & Laschever, 2003; Pradel, Bowles, & McGinn, 2006).

Although we may not like to admit it, our society still indicates real remnants of gender discrimination. One of the artifacts of this discrimination is the gender gap in wages that remains after all other known factors are controlled for. This 'unexplained' difference in wages

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between men and women can be attributed to gender discrimination. Various explanations for the root cause of this discrimination are possible (U.S. General Accounting Office, 2003). While this is a major concern for society, it is not the focus of this paper.

The other causes of wage differentials as listed in the opening paragraph have been the subject of numerous studies. While these are not the focus of this paper, we present summaries of noteworthy findings here.

Parenting is undertaken unequally by men and women. Using either part-time employment or no employment as an indicator, the differences are striking. Only about 1 percent of fathers do not work; approximately 23 percent of mothers do not. Approximately 17 percent of mothers work part-time while 2 percent of fathers do the same (Dey & Hill, 2007).

While it might be obvious that women will need to miss more work than men due to childbirth, it is of interest to note that the time commitment involved is not due only to the actual birthing. In fact, it seems that men spend more time at work *after* becoming a father. This constitutes the equivalent of a wage premium for fathers, as opposed to a wage penalty for mothers (Dey & Hill, 2007).

High risk jobs, which pay more than those with lower risk, are 95 percent filled by males. These jobs include firefighting, mining, logging, and truck driving (Farrell, 2005). Conversely, lower risk jobs, such as in the fields of childcare and secretarial work, are 95 percent filled by females (Farrell, 2005). These lower risk jobs are accompanied by lower pay scales. Thus, it would seem historical stereotypes have a continuing impact on gender wage inequity.

A White House report indicates that while women choose majors which lead to lower career earnings—such as education, humanities, and social sciences, men have much more of a presence in the higher-paying fields—engineering, mathematics, and physical sciences. For example, in 2008, of those students receiving bachelor's degrees, more than 80 percent of the engineering degrees went to men, while less than 20% went to women. For bachelor's degrees in education, the ratio of women to men was greater than 3:1 (U.S. Department of Commerce Economics and Statistics Administration and the Executive Office of the President--Office of Management and Budget, 2011).

Understanding the reasons for such pay inequity is necessary to developing and implementing solutions. The area we focus on in this paper, understanding initial pay requests, is one in which we believe education can lead to greater understanding to mitigate pay disparity between men and women. The present research explores differences in pay-negotiating abilities among men and women, indifferent to the existing factors in literature that are believed to contribute to pay differences and pay negotiating abilities among men and women.

1.1. Gender Differences in Negotiation

Pay is not necessarily a clear-cut exercise in an organization. There is generally some negotiation between the employer and employee in terms of the starting pay. This is particularly true as one moves into higher level positions within an organization. Thus, understanding the negotiating process and the gender differences associated with it are important in understanding the reasons for pay differences between men and women.

Unfortunately, the negotiating differences between men and women are not clear in the current state of research. Karakowsky and Miller (2006) state, "The extant literature suggests

that men and women do not necessarily possess identical negotiating styles. However, unfortunately the literature has yet to clearly identify the role that gender plays in the negotiation context and in the behaviors of male and female negotiators" (p. 50). This conclusion echoes the opinions of Walters et al. (1998) who stated, "Although there have been numerous investigations into the relationship between gender and bargaining competitiveness over the past several decades, few conclusions have been reached" (p. 1). These researchers focused their meta-analysis on studies that utilized dyadic bargaining interactions.

In their meta-analysis, Stuchlmacher and Walters (1999) identified as key moderators the opponent and the type of negotiation situation constructed for negotiation experiments. These meta-analyses give us some insight as to what factors to be mindful of when investigating negotiation differences between the genders.

Barron (2003) used an interactive negotiation design and found men asked for higher salaries than women. However, the use of interactive design brings a multiplicity of concerns into play. With whom is the subject negotiating? At the end of the negotiation, is the subject subject to a review or evaluation, even if that evaluation is a voluntary, informal one by friends? For example, Bowles, Babcock, and Lai (2007) found women less inclined to negotiate when evaluated in those negotiations by men, but no difference in men's and women's willingness to negotiate when the evaluators were female. Koeszegi, Pesendorfer, and Stolz (2006) investigated interactive negotiations and found women more likely to disclose more personal information and more willing to acquiesce than men. Men were found to be more competitive than women in the negotiations. Florea et al. (2003) found differences in negotiation styles between all-female, all-male, and mixed gender groups.

Small et al. (2007) explored whether the framing of negotiating situations had an impact on gender differences in negotiation outcomes. When the situations were framed as negotiation, women were found to be intimidated. When the situations were framed as asking, women were much less intimidated. The authors determined these differences were due to the degree of politeness inherent in the situation, a factor consistent with a female role.

Further support for Small et al.'s (2007) conclusion can be found in the personal entitlement literature. Major, McFarlin, and Gagnon (1984) found that in the absence of any social comparison information, women paid themselves less than men on average for working on a task for a fixed period of time. Interestingly, when social comparison information was present, no gender differences were found. Thus, in the absence of any information regarding the "going rate of pay", women tend to devalue the worth of their work as compared to men.

The Methodology section will examine procedures in detail, but it is appropriate to point out here our handling of the preceding issues. First, in the present study, subjects responded to a written instrument depicting a scenario. By making this exercise non-interactive, there were no gender issues of negotiation partners to confound the results. Second, the key question read, "How much will you ask the Dean to pay you?" By expressing the scenario as asking rather than negotiating, issues of intimidation were also taken out of the equation. Further, by giving no comparison information by which individuals can ascertain the typical rate of pay for such a task, we hoped to get a more pure notion of what the students feel is their worth.

By focusing on negotiation, we do not suggest the other factors contributing to gender inequity in regards to wages are unimportant. However, as instructors, the factor that most interests us is the one centering on skill sets—negotiations. If improving negotiating skill might help alleviate some of this inequity, we feel optimistic about, and obligated to, teaching our

students how to improve such skills. The other possible reasons listed for wage inequity also deserve our attention, but they mainly involve value choices among women (the exception being discrimination against women). Frankly, teaching negotiation skills is of more interest to us than pushing a particular set of lifestyle values onto our students.

If negotiation skills are weaker in women, the cumulative effects can be devastating. A young woman out of college who does not negotiate as good a salary as her male classmate will find herself perpetually behind. Each subsequent percentage raise will see her falling further behind. Even changing employers will not necessarily correct things—it is common for employers to request a salary history in order to determine what the offer should be.

So women need to be able to negotiate as well as men upon entering the corporate world. We wonder if women getting ready to begin their careers truly do differ in their negotiating strength from men at the same juncture. If so, then we, as business school educators, could help.

Thus, the purpose of this study is to explore within a student population, whether men and women do indeed differ in their negotiation skills, controlling for the mediating factors described earlier in this section. Given that negotiations start with an initial offer, we seek to identify if that initial offer would differ between the men and women in our sample. Thus, given the extant research regarding gender differences in negotiation, we expect the initial salary request by the men and women in our study to be different. We expect men to ask for higher salary.

2. Method

2.1. Sample

Data for this study come from a sample of students enrolled in an introductory management course at a midwestern university. These students consisted largely of students with a junior or senior standing in school. At the beginning of both the fall and spring semesters over two academic years, all students enrolled in the course taught by two instructors were asked to participate in our study. Students received a packet containing a cover letter and the questionnaire. The cover letter explained the nature of the research, stating the researchers were interested in understanding how young men and women view themselves and how this impacts their sense of entitlement. Students were given class time to complete the questionnaire, which took approximately 10 minutes to complete.

Of the 624 students who were enrolled in the course and thus asked to participate in the survey, 531 completed the survey. This represents a participation rate of 85%. Accounting for missing data, 467 responses contained useful information and it is on this that the analysis reported here is based.

Approximately 63% of the 467 students who completed the survey fully were male and 37% were female. Students reported their actual age. Their ages range from 19 to 55. The mean age of the students is 21, with over 85% of them reporting they were 20-22 years of age.

Although this was a management course, typically housed in business colleges and schools, students from other colleges are often required to take this course. Of the students participating in the survey, approximately 56% were from the college of business, which also houses engineering technology programs. Almost 25% of the participants are majors from the

education/human services college. Majors in this college include law enforcement, health services, hospitality, and recreation/tourism.

Finally, about 90% of our sample reported their ethnicity as white. This was not an unexpected finding given the university and its location as well as its target market.

2.2. Measures

The survey contained five parts, with the last part asking demographic questions which are reported above.

Pay was the amount of money the students would request. Participants were given a scenario to read:

> Yesterday, you gave a twenty-minute oral presentation in your Management class. Today, the Dean of the College approaches you and tells you he heard about your excellent presentation from your Management professor. The Dean is hosting an orientation program this weekend for prospective students and their parents. The Dean would like you to give this same presentation to the group of approximately fifty persons. For this twenty-minute presentation, the Dean would like to pay you. The Dean tells you not to offer to speak for free; there is a budget and the Dean wants to pay you.

The scenario was written by one of the authors. Originally, this scenario was developed for use as a class exercise, with wording changed based on feedback from students. Further, after presenting the class exercise and scenario at a teaching conference, the scenario wording was further changed based on feedback from conference participants. All wording changes were made to ensure clarity of the issue and request and to ensure that the gender of the Dean was as ambiguous was possible.

Following the scenario, respondents were asked: How much will you ask the Dean to pay you? Participants were instructed to put an actual dollar amount over zero. Respondents who did not answer or answered something other than an actual dollar amount were treated as missing data for this study. Further, several participants provided a dollar amount far outside the range of what was socially appropriate (e.g., $1 billion, $1 million, etc.) and were thus treated as outliers and were not used in the final analysis of our data. Dollar amounts provided ranged from $0-$5000, with a mean of $135.92 (s.d. 369.23).

Since this study was part of a larger study regarding gender and pay, we also asked additional questions of our participants. Some of the question items in the questionnaire pertained to personality measures, including the Big 5, self-esteem, self-efficacy, and gender roles. Because these measures are not the focus of the study presented here, we do not report information from them.

3. Results

Our question of interest for this study was simply: Do young men and women, completing their college degrees, *really* differ in terms of the amount of pay they request for employment? To test this question, a simple one-way ANOVA was conducted which found that the mean requested-pays for men and women were different. The mean requested-pay for men was

$168.56 while that of women was $82.89. The difference was statistically significant (F=5.709) at p<.05. This confirms what has been reported in the existing literature.

While this finding is, in itself, interesting, we decided to dig a bit deeper and look at the data. First, we noticed that while both men and women reported they would not ask the dean for any money (coded as $0), more men than women did so (23 men versus 8 women); however, given that greater number of men than women responded to our survey, this is not unexpected. On the other end of the scale, the highest pay requested by females was $1000, while the highest pay requested by males was $5000 (4 males requested pay above $1000). Thus, we wondered if the higher pay by males was skewing the results. That is, we wondered if the significance of the pay difference between men and women would still hold if we "leveled the field" by capping the top pay at $1000; thus treating those male responses above $1000 as outliers. While this brought the mean requested pay for men down considerably (from $168.56 to $127.06), the mean for the women remained unchanged. The difference in the means of the requested pays was still significant (F=6.599, p<.05).

Considering that our respondents were of many different majors and, thus, several different colleges, we wondered if there were any pay differences between men and women within each college. On looking at the two largest groups of respondents, the College of Business and the College of Education and Human Services, we discover some interesting findings.

First, an analysis of the original data (i.e., without the $1000 cap) shows that there are indeed differences in pay between men and women from the College of Business. The mean requested pay for men from the College of Business is $185.42 while that of their female counterpart is $70.94. While this was not statistically significant (F=3.336, p<.10), one need only look at the standard deviations as a plausible reason for the lack of statistical significance. Given the large standard deviations, particularly the male standard deviation, for this subsample, it is clear that there is a lot of variability and lack of stability in the data for men's requested-pay. When the pay is capped at $1000, we find out that the large standard deviation for the male group reduced drastically (mean requested pay for men is $129.87 with a standard deviation of 195.10) and the difference between the mean requested pay for men and women from the College of Business becomes significant (F=6.010, p<.05).

The pay requests from the College of Education and Human Services present interesting findings as well, although the mean requested pays by men and women from the college are not significant. For example, without the pay cap, the mean requested pay for men is $117.76 while the one for women is $96.36. However, with the pay capped at $1000, the male mean=$96.80 (s.d.=153.36, n=54). Thus, capping the top pay request at $1000 effectively equalized the pay request for men and women within the College of Education and Human Services, but continued to show a large gap between men and women in the College of Business. The means of requested pays for men and women for the entire sample and for each college are presented in Table 1 below.

Table 1. Male and Female pay request means

	Male		Female	
	Overall	$1000 cap	Overall	$1000 cap
Entire Sample	$168.56	$127.06	$82.89	$82.89
College of Business	$185.42	$129.87	$70.94	$70.94
Accounting	$154.00	$154.00	$37.81	$37.81
Finance	$94.07	$94.07	$128.50	$128.50
Management	$297.22	$162.86	$53.47	$53.47
Marketing	$243.66	$198.79	$74.10	$74.10
College of Education and Health Sciences	$117.76	$96.80	$96.36	$96.36

3. Discussions and Limitations of the Study

4.1. Discussions

Are women the weaker sex when negotiating their salaries? If our results are any indication, we believe the answer is yes. The students in our study, across a variety of colleges and majors, clearly showed that on average women ask for less pay than do men.

As noted in the first sentence of this report, there continues to be a pay gap between men and women. While there are many explanations for this gap, including discrimination against women and career choices made by women, our research indicates that women are hampering themselves from the get-go by asking for less pay. Even when we capped the maximum amount asked to be equal for both men and women, females' pay requests are still much less.

It has often been argued that women's career choices account for much of the pay gap (Farrell, 2005). While this could certainly be true, even when we looked at men's and women's pay within each college, there continued to be a definite gap with men asking for more than women. We acknowledge that there are many different majors within each college and thus, women might be congregating within those "softer skilled" majors. Thus, we delved further and, within one of the colleges, we looked at pay differences within the majors represented. Specifically, within the College of Business, we looked at four majors that are most heavily represented within our sample: Accounting, Finance, Management and Marketing. We chose to look at this college more closely because it not only had the greatest representation of both male and female respondents, but also because it houses majors traditionally thought of as male-oriented. Within these four majors, only female Finance majors asked, on average, more than male Finance majors (female mean=$128.50, male mean=$94.07). In the other three majors, men asked for at least twice that of the women. Thus, even in a "man's world" where pay is higher, the female students were asking for far less.

As instructors, we find these results disheartening, and challenging. While we understand women's own choices result in several reasons why they may be paid less than men, the results show that we have more work to do in helping women prepare for salary negotiations. We must make them understand salary negotiations and the negotiation process, what the market pay rate

is for their chosen fields, and how to make that initial pay request. Thus, it is our responsibility as teachers to assist our students, particularly female students, in making decisions related to their careers that will start them on an equal footing with men.

4.2. Limitations of the Study

No study is perfect and thus, we must acknowledge the shortcomings of our study. Specifically, we used a single source, self-report study using a convenience sample of students. Thus, our sample lacked diversity of both sample participants and sources of information. We would argue, however, that the lack of diversity in our sample is not a limitation, but a strength. Because our sample was overwhelminingly white and within the same age cohort, it is reasonable to conclude that any age or racial differences are not present and thus could not affect our findings.

Further, we do acknowledge the limitations of our method, using a single source for all the data. However, given the nature of our study and our research question which focuses on looking at initial pay request of men and women, we do not see a better way of effectively obtaining this information. As we stated earlier, given the limitations of interactive methods that have been used in previous negotiation research, we sought to address these with a less threatening approach. That is, given that the gender of the other party in the negotiations may certainly account for some of the differences in pay, we sought to eliminate the actual interactive negotiating process to eliminate this potential intimidation factor. Our scenario is set up in such a way that the Dean simply pay whatever the student asked and thus, the student was free to choose his or her pay. Thus, there were no interactive negotiations.

5. Conclusion

The results of the research show that the gap between men and women with respect to salary/pay is still there. While many explanations (none of which we are disputing here), have been given for this, we believe that an important reason or explanation is that women simply ask for less money. To ameliorate this situation, women need to improve their salary negotiating ability. As teachers, we need to assist them in this endeavor. We cannot hope to end pay inequities among men and women if we do not teach women how to negotiate effectively.

Our task for the future becomes two-fold. First, we must understand how our students, particularly female students, estimate and put value on their knowledge, skills, and abilities. That is, future research must determine what factors women (and men) use when determining their worth on a job. Second, as educators and mentors, we must assist our female students in putting an appropriate, market-driven value on their skills so that they can receive competitive pay from their employers.

References

Babcock, L., & Laschever, Sara (2003). Women Don't Ask: The High Cost of Avoiding Negotiation--and Positive Strategies for Change. Princton and Oxford: Princeton University Press.

Barron, L. A. (2003). Ask and You Shall Receive? Gender Differences in Negotiators' Beliefs about Requests for a Higher Salary. Human Relations, 56(6), 635-662.

Blau, F. and Kahn, L. (1997). Swimming Upstream: Trends in the Gender Wage Differential in the 1980s. Journal of Labor Economics, 15(1), 1-42.

Blau, F. & Kahn, L. (2000). Gender differences in pay. Journal of Economic Perspectives, 14(4), 75–99.

Bowles, H.R., Babcock, L., & Lai, L. (2007). Social Incentives for Gender Differences in the Propensity to Initiate Negotiations: Sometimes It Does Hurt to Ask. Organizational Behavior and Human Decision Processes, 103(1), 84-103.

Bureau of Labor Statistics. 2008. Women in the Labor Force: A Databook. Report 1011, December 2008.

DeNavas-Walt, C., Proctor, B.D., & Lee, C.H. (2005). U.S. Census Bureau, Current Population Reports, P60-229, Income, Poverty, and Health Insurance Coverage in the United States: 2004, U.S. Government Printing Office, Washington, DC. [Online] Available: http://www.census.gov/prod/2005pubs/p60-229.pdf.

Dey, J.G., & Hill, C. (2007). Behind the Pay Gap. [Online] Available: http://www.aauw.org/research/upload/behindPayGap.pdf.

England, P., Reid, L.L., & Kilbourne, B.S. (1996). The Effect of the Sex Composition of Jobs on Starting Wages in an Organization: Findings from the NLSY. Demography, 33(4), 511-521.

Farrell, W. (2005). Why Men Earn More: The Startling Truth Behind the Pay Gap - and What Women Can Do about It. New York: AMACOM.

Figart, D., & Lapidus, J. (1996). The Impact of Comparable Worth on Earnings Inequality. Work and Occupations, 23(3), 297-318.

Florea, N.B., Boyer, M.A., Brown, S.W., Butler, M.J., Hernandez, N., Weir, K., Meng, L., Johnson, P.R., Lima, C., & Mayall, H.J. (2003). Negotiating from Mars to Venus: Gender in Simulated International Negotiations. Simulation & Gaming, 34(2), 226-248.

Goldin, C. and Rouse, C. (1997). Orchestrating Impartiality: The Impact of 'Blind' Auditions on Female Musicians. NBER working paper No W5903.

Hellerstein, J.K., Neumark, D., & Troske, K.R. (2002). Market forces and sex discrimination. Journal of Human Resources, 37(2), 353–80.

http://www.census.gov/hhes/www/income/histinc/p40.html

Institute For Women's Policy Research. (2005). The Gender Wage Ratio. [Online] Available: http://www.iwpr.org/pdf/C350.pdf .

Johnson, D. (1997). Getting Noticed in Economics: the determinants of academic citations. The American Economist, 41(1), 43-52.

Karakowsky, L., & Miller, D.L. (2006). Negotiator Style and Influence in Multi-Party Negotiations: Exploring the Role of Gender. Leadership & Organizational Development, 27 (1), 50-65.

Koeszegi, S. T., Pesendorfer, E, & Stolz, S. W. (2006). Gender Salience in Electronic Negotiations. Electronic Markets, 16 (3), 173 - 185.

Major, B., McFarlin, D., & Gagnon, D. (1984). Overworked and underpaid: On the nature of gender differences in personal entitlement. Journal of Personality and Social Psychology, 47, 1399-1412.

Mishel, L., Bernstein, J., & Schmitt, J. (1999). The State of Working America 1998-1999, Economic Policy Institute, USA.

National Center for Education Statistics. (2011). Postsecondary Institutions and Price of Attendance in the United States: Fall 2009, Degrees and Other Awards Conferred: 2008–09, and 12-Month Enrollment: 2008–09

Neumark, D., Bank, R.J., & Van Nort, K.D. (1996). Sex Discrimination in Restaurant Hiring: An Audit Study. Quarterly Journal of Economics, 111(3), 915-941.

Nielsen, A. (2005). Gender Wage Gap Is Feminist Fiction. [Online] Available: http://www.iwf.org/articles/article_detail.asp?ArticleID=749 .

Pradel, D. W., Bowles, H. R., & McGinn, K. L. (2006). When gender changes the negotiation. Harvard Business School Working Knowledge (reprint of Negotiation article in online newsletter).

Rones, P., Ilg, R., & Gardner, J. (1997). Trends in Hours of Work Since the Mid-1970s. Monthly Labor Review, April, 3-14.

Small, D., Gelfand, M., Babcock, L., & Gettman, H. (2007). Who goes to the bargaining table?

The influence of gender and framing on the initiation of negotiation. Journal of Personality and Social Psychology, 93(4), 600-613.

Stuhlmacher, A. F., & Walters, A.E. (1999). Gender Differences in Negotiation Outcome: A Meta-Analysis. Personnel Psychology, 52(3), 653-677.

U.S. Department of Commerce Economics and Statistics Administration and the Executive Office of the President--Office of Management and Budget (2011). Women in America: Indicators of Social and Economic Well-Being. Available: http://www.whitehouse.gov/sites/default/files/rss_viewer/Women_in_America.pdf

U.S. General Accounting Office. (2003). Women's earnings: Work patterns partially explain difference between men's and women's earnings (GAO-04-35). Washington, DC. [Online] Available: http://www.gao.gov/new.items/d0435.pdf (February 26, 2010).

Walters, A.E., Stuhlmacher, A.F., & Meyer, L.L. (1998). Gender and Negotiator Competitiveness: A Meta-Analysis. Organizational Behavior and Human Decision Processes, 76(1), 1-29.

Wenneras, C., & Wold, A. (1997). Nepotism and Sexism in Peer-Review. Nature, 387, 341-343.

Wood, R., Corcoran. M., & Courant, P. (1993). Pay Differences Among the Highly Paid: the male-female earnings gap in lawyers' salaries. Journal of Labor Economics, 11(3), 417-441.