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An Examination of Gender Wage Differences Among Graduates of the Agribusiness Department, California Polytechnic State University, San Luis Obispo, California

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Abstract:

Utilizing an original and extended data set containing information on annual wages, demographic and personal characteristics, work history and job characteristics, we examine gender differences in the wages of the graduates of the agribusiness department.

The regression analysis suggests that after controlling for the main characteristics that affect earnings, significant differences in wages of men and women still remain present.

This study provides new empirical evidence on the gender wage gap in the labor market for the agricultural graduates.

Key words: wages, gender, decomposition, labor market

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Introduction

Extensive research and numerous studies have long confirmed differences in pay that exist between men and women. Despite the rise in women's active participation in the labor force, important gender differences remain however in pay (Blau and Kahn, O'Neill, Leonhardt). Data from the Bureau of Labor Statistics (BLS) show that in 1999, women earned approximately 77 percent as much as men did. Recent evidence from General Accounting Office (GAO) confirms that though the gap in earnings has diminished in recent years, women on average still earn 80 percent of what men earn. Though magnitudes of the estimated gender wage gap influenced by various factors vary (methodology used in the study, type of the data and key variables used in the analysis), studies from various fields (Goldin, Fuller and Schoenenberger, Blau, Barkley, Stock and Sylvius) collectively agree that women continue to earn less than men in every sector of economy.

Much debate however exists around the causes of this wage disparity between men and women. Explanations offered to elucidate the causes of this persisting phenomenon range from differences in human capital endowments between men and women (such as education levels, work patterns etc) to the existence of discrimination in the labor market and segregation of men and women with respect to occupation or industries.

Though empirical studies that have analyzed earning differentials of men and women are numerous, studies of earnings of agricultural professionals have been sparse. Following Broder and Deprey, Preston, Broder and Almero, and Barkley the most important and comprehensive study of the earnings for agricultural alumni comes from

Barkley, Stock and Sylvius. Based on survey data on agricultural college graduates from Kansas State University, they examine the determinants of the salaries of the graduates as well investigate the factors behind the gender wage gap in the agricultural profession. Their results indicate that women were making on average $13,769 annually less then men. The major factors cited to contribute to this wage differential were differences between sexes in starting salaries, field of study, job experience, and marital status.

As the number of women working in the field of agriculture has increased over the past decades, so has their level of participation in issues and activities that affect the industry. Studies point out the growing role women play in the once male-dominated world of agribusiness. One of the goals of these studies is to expand the knowledge and understanding of gender relationships in agriculture and related fields.

The objective of this study is to identify the important factors that influence the earnings of agribusiness graduates by linking wage information to the relevant individual, job-related, firm-level and other characteristics. The better the wage determination process is recognized, the more knowledge about the factors related to gender pay gap can be gained, and the better the policy measures can be targeted.

The Model

Following the standard Mincer specification, a wage regression equation that relates yearly individual earnings to a set of independent variables is specified. The following regression is estimated:

$$\ln W_i = X_i \beta_i + \varepsilon_i \qquad (1)$$

where the dependent variable $\ln W_i$ represents the natural logarithmic wage, vector X_i contains sets of explanatory variables, i denotes individuals within the sample, and the error term is assumed to have mean zero and constant variance σ^2. The first set of explanatory variables consists of individual and family related characteristics containing demographic information such as educational background, gender, marital status, and presence of children less than 18 years old living in the same household. Following literature, interaction terms between gender, marital status and children are also included to capture interactions between these qualitative factors on earnings.

The second set of explanatory variables includes a measurement of past work experience, as well as measurements of extra curricular activities during school years. To deduce past work experience a "potential experience" variable is constructed, which is essentially the number of years since graduation.

The job related set of independent variables includes variables that specify work related characteristics such as the field of employment, type of employment, position status, job benefits offered by the company and the starting wage.

While the difference of average annual wages of men and women gives a first idea of the gender pay gap, it conceals the contribution of particular factors that are of interest to be explored. To examine the gender wage gap, the most common used

decomposition procedure for cross-sectional data as defined by Oaxaca is followed. This technique is used to determine the share of the difference in wages between two groups (male and female) that is due to differences in human capital stock between two groups -- (factors that can be explained) and the share of the difference in wages that could not be attributed to human capital characteristics -- (unexplained factors).

Specifically, if the fitted values of earnings for men and women evaluated at the means of the independent variables ($X's$) are:

$$\overline{\ln(W_M)} = \overline{X_M}\ \hat{\beta}_M$$

$$\overline{\ln(W_F)} = \overline{X_F}\ \hat{\beta}_F$$

then the raw wage differential between men and women is expressed by the difference in the logarithmic mean wages:

$$\overline{\ln(W_M)} - \overline{\ln(W_F)} = \underbrace{\left(\overline{X_M} - \overline{X_F}\right)\hat{\beta}_F}_{Explained} + \underbrace{\overline{X_F}\left(\hat{\beta}_M - \hat{\beta}_F\right)}_{Unexplained} \qquad (2)$$

where $\hat{\beta}$'s are the estimated coefficients and M and F represent male and female respectively.

The first term on the right side expresses the difference in wages due to the remuneration of different human capital characteristics that affect productivity of the two groups when both groups are treated the same. This component is offered referred to as the explained component of the difference in wages (or the characteristics effect). It implies that if women as a group have lower average human capital characteristics, then it is expected that they earn a lower average wage. Oaxaca suggests that either the wage

structure of men $\hat{\beta}_M$ or women $\hat{\beta}_F$ can be used as the prevailing (nondiscriminatory) market wage structure and equation (2) specifies the male wage structure as the prevalent structure. The wage structure of men is used as the non-discriminating wage structure since most authors argue that in the economy, men form the largest group of workers and therefore face virtually no discrimination.

The second term expresses the portion of the gap in wages that is due to differences in the remuneration of the human capital characteristics. It measures how much less than men, women are making if they have the same human capital as the average man but receive a woman's return to that human capital. Since the observable differences between men and women are controlled for, this component is referred to as the unexplained portion (or the remuneration effect unrelated to productive characteristics) of the difference in wages.

Data

The data being used in this analysis comes from the California Polytechnic State University, Agribusiness Department. The department mailed approximately 3000 surveys to agribusiness graduates during the summer of 2002. A response rate of 44 percent was generated with 1327 completed surveys. The purpose of the survey was to learn more about the careers of the graduates of the program. In addition, questions were included in the survey asking graduates to evaluate a list of skills and broad categories of abilities, attributes or knowledge necessary for the success of agribusiness graduates in industry. The results were used in the evaluation of the agribusiness curriculum.

The Agribusiness Department first conducted a survey like this one in 1966 and continues to conduct them every five years. Each year the survey was conducted, it was revised accordingly so it could provide relevant income and employment information.

Respondents were required to be employed at the time survey was completed to be included in the sample for this analysis. The sample was truncated to include data only on respondents aged 20 to 64 years and working full time. The levels of measurement of the variables examined in the survey include nominal, ordinal, interval, and ratio data. Starting wage data are deflated to 2002 dollars using the Personal Consumption Expenditure Index (U.S. Department of Commerce).

Results

The model specified in the equation (1) is estimated by ordinary least square method. During the regression diagnostics, multicollinearity was found to be present between the experience and experience square variables. However, since these variables turned out to be highly statistically significant and the estimates are unbiased, both of them remain in the regression model. Table 1 summarizes the estimated results for the overall model. The model proved to be statistically significant and explained 41 percent variation in the current earnings of the graduates. Results indicate that as expected, several factors determine the wages of the agricultural alumni. **Past work experienc**e variables are important factors in determining current earnings. Estimates on the experience and experience square measures indicate that the labor market rewards each year of additional experience with a 3.3 percent increase in earnings, however that relationship between earnings and years of experience evolves overtime with a decreasing rate. Further, experience gained during college years through a foreign

internship positively influences wages of the agricultural professionals (26 percent increase if the graduate had participated in a foreign internship). The significance of internship abroad variable may be a proxy for a multilingual ability and an understanding of the importance of cultural differences in global business management. The foreign internships available to the Cal Poly agribusiness graduates were primarily in Mexico and Kenya. However, experience gained through other extracurricular activities in college does not show to have any impact on the earnings.

The impact of **job characteristics** was considered in the model by including variables such as type of employment, field of employment, position in the firm and starting salary. Results indicate that graduates that worked directly in the agricultural sector or in sectors connected to agriculture earned respectively 12.4 and 9.9 percent less compared to those graduates that worked in other sectors of economy. Specialties such as marketing, accounting, finance both in the agricultural and nonagricultural sector positively and significantly influence their earnings. In fact, working in marketing and accounting in the agriculture sector increased wages 25 and 21 percent, respectively, *ceteris paribus*. As expected, job status increased earnings as well. Positions in upper management were associated with increased earnings of about 48 percent compared to non- management functions. Further, proprietors earned about 70 percent more on average than professional agriculturals, holding everything else constant. Among benefits that increased salaries, health insurance and retirement benefits were important variables. Earnings increased on average 35 and 21 percent in the presence of health benefits and retirement packages offered by the company. Starting salary comes across also as an important variable that influences future earnings.

Individual and demographic characteristics included in the model were found to be important determinants of earnings for agribusiness alumni. Those graduates that obtained advanced degrees such as MBA and JD increased their earnings of about 16-36 percent compared to the graduates with a bachelor degree (the control group).

Gender variable is statistically significant in the model indicating that women earn less than men, ceteris paribus. Estimates show that on average (married) women earn about 19.3 percent less than (married) men. Other factors, such as marital status and presence of children in the household also affect the annual wages. Being married helps increase the earnings for men. In fact, married men earn on average about 18 percent more than men that were never married and 23 percent more than previously married men. Women that had never been married earned around 2 percent (19.3% - 17.4%) less than married men. Children did not affect significantly the wages of male graduates. Literature suggests that a strong relationship exists between children, wages and job experience of mothers, especially when children are young. Indeed, regression results indicate that the presence of children under eighteen in the household was associated with a decrease in women's earnings of about 23 percent compared to men's earnings. Estimated coefficients of the interaction variables such as gender*marital status and gender*children are statistically significant, indicating the relevance of family relationships in the annual earnings.

Although the raw difference in annual wages between men and women offers an overall picture of the actual gender pay gap, identifying and measuring the components the wage gap between men and women is important for policy purposes. As mentioned, wage differentials between men and women are assumed to be due to at least two factors:

differences in productivity characteristics and differences in market remuneration of these characteristics. Table 2 reports the mean values of the human capital characteristics separately for men and women included in the sample. Data show the differences between groups that exist in the human capital stock. The major difference is evident in the category of work experience; men report almost double years of experience on the job (17.5 years) compared to women's experience (10 years). Another difference in productivity characteristics is observed in the job status; men tend to hold more often upper management and proprietor positions compared to women, which are concentrated in staff and non-supervisory positions.

To further investigate the wage gap separate regressions were run for men and women. The estimated coefficients express the remuneration of productivity characteristics for men and women in the labor market. Results are reported in Table 3 and 4. Results show that the considered variables generally affect both groups in the same direction. Exceptions were marital status and presence of children variables. The presence of young children negatively affects the earnings for women but does not prove to be a significant factor on the earnings of men (similar results as with the overall regression). Married men earn 18 percent more than never married men and 21 percent more than previously married men. Women on the other hand, did not report any statistically significant differences with regard to marital status.

Next, the Oaxaca decomposition was applied and results of the decomposition analysis are reported in Table 5[1]. The raw wage gap between men and women is

[1] The decomposition is based on the assumption that men wage structure prevails in the market Results when the female wage prevails were also obtained and are available from the authors upon request.

estimated to be approximately 0.465. This reveals that on average, men earn a log wage 46.5 percent higher than women. Results show that 55 percent (0.257) of the wage gap between men and women can be attributed to differences in productivity characteristics (explained component), while 45 percent (0.211) is due to the remuneration effects on these characteristics (unexplained component). The difference in the wage gap due to remuneration is some times interpreted as mainly caused by some sort of discriminating behavior in the labor market towards women. However, these results must be interpreted with some caution, given the difficulty of measuring important factors such as labor market experience (the difference between actual and potential experience), motivation and intelligence. In this model, the inclusion of potential experience variable approximates the real experience, however, it has been suggested that this variable in fact overstates women's actual labor market experience (generally women spend less time in the labor market compared to men, especially in the presence of young children). As a result, the use of men wage structure to experience overestimates the remuneration of women's experience, and inflates the unexplained part of the wage gap. Also, factors such as intelligence and motivation that are likely to play an important role on earnings, are not present in the model since they are difficult to capture, so their effect is captured in the error term.

Positive values in the decomposition columns of Table 4 indicate an earning advantage for men, while negative values indicate an advantage for women. Results show that men have a relative advantage in the human capital characteristics due essentially to work experience and job status (Figure 1). Women on the other hand have an advantage over men in the remuneration component attributable mainly to starting salary (Barkley,

Stock and Sylvius found the opposite effect)[2], marital status and education. However, these advantages are offset by disadvantages due to the remunerations of variables related to the presence of children, extracurricular experience and the difference in the intercept of the regressions, which include the unmeasured effects not identified in the regressions. These results agree with findings of other studies, such as Barkley, Stock and Sylvius.

Conclusions

Various studies continue to debate the role and importance of gender in the process of wage determination. Moreover, research findings suggest that no matter how the gender wage gap is measured, women's earnings are below those received by men. The aim of this study is to contribute to the knowledge about the factors that influence earnings of agricultural graduates and explore the causes of the persistent wage gap between men and women. By providing new empirical evidence on the gender pay gap this analysis complements previous research on the earnings of college graduates. Based on survey data from agribusiness graduates of Cal Poly, San Luis Obispo, results show that women are paid 81 percent of men's wages, corresponding to a wage gap of 19 percent. Differences in human capital characteristics explained to a large extent (55 percent) the gender wage gap; however a large, unexplained gap remains between the earnings of men and women. Literature emphasizes the role of preferences as important determinants of work-lifestyle choices and behavior in the labor market as a possible justification of the unexplained component of the wage gap between men and women. Data suggests that though men and women do not differ in many of their underlying abilities, they do differ in their attitudes toward work, with a large share of them continuing to attach importance to traditional gender roles (Hakim). As a result, women

[2] This may be a result of a higher proportion of the female sample having starting salaries in later years.

make lifestyle choices that trade greater flexibility to manage work and family versus potentially higher earnings.

Table 1. Coefficient Estimates for the Overall Regression Model of Earnings

Variables	Mean	Estimated Coefficients	Standard Error	t-values
Dependent: Ln (Current Salary)	11.1546			
Independent:				
Intercept		8.053	0.438	18.398***
Past Experience				
Experience	14.8361	0.0330	0.0069	4.7878***
Experience Squared	318.4305	-0.0006	0.0002	-3.0598***
Extracurricular Activities				
[Did not Participate]				
Club Member	0.4801	0.0222	0.0444	0.5011
Club Officer	0.3400	0.0227	0.0474	0.4789
Foreign Programs				
[Did not participate]				
Study Abroad	0.0452	-0.0006	0.0784	-0.0079
Internship Abroad	0.0154	0.2581	0.1310	1.9698**
Job Characteristics				
Ln (Starting Salary)	10.3120	0.2023	0.4377	4.8919***
Type of Employment				
[Not in the Ag Sector]				
Ag Sector	0.4684	-0.1244	0.0569	-2.1848**
Related to Ag Sector	0.3698	-0.0986	0.0499	-1.9757**
Job Status				
[Entry Level Position]				
Lower Management	0.3571	0.1609	0.0462	3.4774***
Upper Management	0.2016	0.4772	0.0541	8.8219***
Proprietor	0.2450	0.6994	0.0574	12.1704***
Employment Specialty				
[Other Non-ag]				
Accounting	0.1121	0.2050	0.0639	3.2061***
Marketing	0.1763	0.2471	0.0599	4.1186***
Greenhouse	0.1492	-0.0707	0.0645	-1.0962
All Other Ag	0.1302	0.0156	0.0627	0.2487
Non-ag Marketing	0.1049	0.3766	0.0633	5.9509***
Non-ag Finance	0.0515	0.1606	0.0800	2.0068**
Non-ag Services	0.0913	0.0226	0.0660	0.3427
Benefits				
[Other]				

Health	0.8327	0.3525	0.0615	5.7318***
Retirement/Savings	0.7297	0.2057	0.0537	3.8273***
Variable	**Mean**	**Estimated Coefficient**	**Standard Error**	**t-values**
Vacation	0.6582	-0.0243	0.0399	-0.6080
Equip Use /Discounts	0.8517	0.0221	0.0692	0.3203
Individual and Family Characteristics				
Education				
[BS]				
MBA	0.0552	0.1625	0.0709	2.2884**
MS	0.0642	0.0204	0.0676	0.3019
JD	0.0154	0.3627	0.1351	2.6847**
Gender				
[Male]				
Female	0.3580	-0.1932	0.0641	-3.0109***
Children				
[No Children < 18]				
Children < 18	0.4665	0.0180	0.0505	0.3583
Marital Status				
[Married]				
Never Married	0.1899	-0.1759	0.0664	-2.6488***
Previously married	0.0434	-0.2248	0.0962	-2.3379**
Interaction Terms				
Fem & Never Married	0.0976	0.1737	0.0961	1.8084*
Fem & Prev Married	0.0136	0.3116	0.1714	1.8182*
Female & Children<18	0.1474	-0.2269	0.0785	-2.8925**
N = 1106	Adjusted R^2 = 0.424		F-value = 23.91	

For two-sided test, * indicates $\alpha = 0.10$, ** indicates $\alpha = 0.05$ and *** indicates $\alpha = 0.01$.

Table 2. Mean Values of Human Capital Characteristics for Men and Women

	MEN		WOMEN	
Variable	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Ln (Current Salary)	11.3212	0.64131	10.8557	0.65141
Past Experience				
Experience	17.4525	10.36976	10.1452	6.92234
Experience Squared	411.969	404.42508	150.7229	191.0065
Extracurricular Activities				
Club Member	0.4775	049984	0.4848	0.50040
Club Officer	0.3070	0.46159	0.3990	0.49031
Foreign Programs				
Study Abroad	0.352	0.18444	0.0631	0.24351
Internship Abroad	0.0155	0.12359	0.0152	0.12231
Job Characteristics				
Ln (Starting Salary)	10.3625	0.40855	10.2213	0.36683
Type of Job				
Ag Sector	0.5254	0.49971	0.3662	0.48236
Related to Ag Sector	0.3479	0.47664	0.4091	0.49229
Job Status				
Lower Management	0.3211	0.46724	0.4217	0.49446
Upper Management	0.2479	0.43209	0.1187	0.32383
Proprietor	0.2930	0.45544	0.1591	0.36622
Job Specialty				
Accounting	0.1028	0.30393	0.1288	0.33539
Marketing	0.1944	0.39599	0.1439	0.35147
Greenhouse	0.1915	0.39380	0.0732	0.26085
All Other Ag	0.1254	0.33135	0.1389	0.34627
Non-ag Marketing	0.0859	0.28044	0.1323	0.42138
Non-ag Finance	0.0408	0.19807	0.0707	0.25666
Non-ag Services	0.0859	0.2844	0.1010	0.30172
Job Benefits				
Health	0.8310	0.37503	0.8359	0.37087
Retirement/Savings	0.7183	0.45014	0.7555	0.43356
Vacation	0.6423	0.47967	0.6869	0.46435
EquipmentUse/Discounts	0.8592	0.34811	0.8384	0.36856
Individual Characteristics				
Education				
MBA	0.0606	0.23870	0.0455	0.20856
MS	0.0577	0.23343	0.0758	0.26494
JD	0.0183	0.13416	0.0101	0.10012

	MEN		WOMEN	
Variable	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Children				
Children under 18	0.4972	0.50034	0.4116	0.49275
Marital Status				
Never Married	0.1437	0.35099	0.2727	0.44593
Previously Married	0.0465	0.21067	0.0379	0.19114

Table 3. Coefficient Estimates for the Men Regression Model of Earnings

Variable	Estimated Coefficient	Standard Error	t-value
Dependent Ln (Current Salary)			
Independent			
Intercept	8.60	0.537	15.981***
Past Experience			
Experience	0.03	0.0087	3.4896***
Experience Squared	-0.0004	0.0002	-2.307**
Extracurricular Activities			
[Did not participate]			
Club Member	0.03089	0.0520	0.5936
Club Officer	0.03699	0.0569	0.6485
Foreign Programs			
[Did not Participate]			
Study Abroad	0.01534	0.1118	0.1373
Internship Abroad	0.160	0.1637	0.9790
Job Characteristics			
Ln (Starting Salary)	0.15735	0.0502	3.1474***
Type of Employment			
[Not in the Ag Sector]			
Ag Sector	-0.1312	0.0774	-1.7042*
Related to Ag Sector	-0.108	0.0698	-1.5535
Job Status			
[Entry Level Position]			
Lower Management	0.15688	0.0663	2.3768**
Upper Management	0.51	0.0707	7.1848***
Proprietor	0.72758	0.0755	9.7011***
Employment Specialty			
[Other non-ag]			
Accounting	0.21364	0.0835	2.5738**
Marketing	0.227	0.0752	3.0290***
Greenhouse	-0.12	0.0771	-1.4828
All other ag	0.01004	0.0809	0.1237
Non-ag Marketing	0.3401	0.0847	4.0610***
Non-ag Finance	0.246	0.1106	2.2256**
Non-ag Services	0.09082	0.0857	1.0324
Benefits			
[Other]			

Variable	Estimated Coefficient	Standard Error	t-value
Health	0.298	0.0759	3.9252***
Retirement/Savings	0.1902	0.0629	3.0187***
Vacation	-0.08	0.0488	-1.1828
Equipment Use/Discounts	0.0503	0.0853	0.5896
Individual Characteristics			
Education			
[BS]			
MBA	0.10217	0.0863	1.1881
MS	-0.004	0.0895	-0.4339
JD	0.3374	0.1559	2.1627**
Children			
[No children under 18]			
Children under 18	0.02356	0.0525	0.4535
Marital Status			
[Married]			
Never Married	-0.185	0.0674	-2.7267***
Previously Married	-0.23	0.0971	-2.1757**
N = 710	Adjusted R^2 = 0.33	F-value = 12.867	

For two-sided test, * indicates $\alpha = 0.10$, ** indicates $\alpha = 0.05$ and *** indicates $\alpha = 0.01$.

Table 4. Coefficient Estimates for the Women Regression Model of Earnings

Variable	Estimated Coefficient	Standard Error	t-value
Dependent Ln (Current Salary)			
Independent			
Intercept	6.919	0.803	8.618***
Past Experience			
Experience	0.044	0.0147	2.9708***
Experience Squared	-0.001	0.0005	-1.7517*
Extracurricular Activities			
[Did not Participate]			
Club Member	-0.004	0.0889	-0.0439
Club Officer	-0.020	0.0914	-0.2239
Foreign Programs			
[Did not Participate]			
Study Abroad	-0.0131	0.1138	-0.1182
Internship Abroad	0.4151	0.2258	1.8392*
Job Characteristics			
Ln (Starting Salary)	0.284	0.0775	3.6668***
Job Field			
[Not in the Ag Sector]			
Ag Sector	-0.123	0.0889	-1.3861
Related to Ag Sector	-0.104	0.0738	-1.4133
Job Status			
[Entry Level Position]			
Lower Management	0.1831	0.0663	2.7617***
Upper Management	0.4413	0.0977	4.5187***
Proprietor	0.6392	0.0984	6.5005***
Job Specialty			
[Other non-ag]			
Accounting	0.188	0.1019	1.8439**
Marketing	0.2830	0.1030	2.7469***
Greenhouse	0.063	0.1355	0.4612
All other ag	0.002	0.1023	0.0157
Non-ag Marketing	0.372	0.0985	3.7767***
Non-ag Finance	0.0620	0.1197	0.5219
Non-ag Services	-0.101	0.1059	-0.9534
Job Benefits			
[Other]			

Variable	Estimated Coefficient	Standard Error	t-value
Health	0.436	0.1084	4.0171***
Retirement/Savings	0.260	0.1088	2.3873**
Vacation	0.033	0.0733	0.4531
Equipment Use/discounts	-0.062	0.1263	-0.4929
Individual Characteristics			
Education			
[BS]			
MBA	0.212	0.1322	1.6039
MS	0.124	0.1057	1.1754
JD	0.421	0.2801	1.5026
Children			
[No children under 18]			
Children under 18	-0.204	0.0699	-2.9117***
Marital Status			
[Married]			
Never Married	-0.009	0.0725	-0.1215
Previously Married	0.083	0.1473	0.5629
N = 396	Adjusted R^2 = 0.35	F-value = 8.164	

Table 4. Decomposition Results of Wage Gap by Components

Ln (Current Salary)	Men	11.3212	Women	10.8557	Effects Due to	Effects Due to
		Wage Gap = 0.4655			Characteristics	Remuneration
Variable	$\hat{\beta}_M$	$\bar{X}_M$	$\hat{\beta}_F$	$\bar{X}_F$	$\left(\bar{X}_M - \bar{X}_F\right)\hat{\beta}_M$	$\left(\hat{\beta}_M - \hat{\beta}_F\right)\bar{X}_F$
Intercept	8.581797		6.919			**1.662**
St Salary	0.15735	10.3625	0.284	10.2213	**0.02221782**	**-1.3**
Past Experience					**0.1147206**	**-0.0520328**
Experience	0.03	17.4525	0.044	10.1452	0.219219	-0.1420328
Exp Square	-0.0004	411.9689	-0.001	150.7229	-0.1044984	0.09
Extracurricular Activities	0.03	17.4525	0.044	10.1452	0.219219	-0.1420328
Club Member	-0.0004	411.9689	-0.001	150.7229	-0.1044984	0.09
Club Officer	0.030888	0.4775	-0.004	0.4848	-0.000225482	0.0169
Foreign Programs	0.036993	0.307	-0.02	0.399	-0.003403356	0.022
Study abroad	0.015344	0.0352	-0.013	0.0631	-0.000428098	0.001
Internship abroad	0.16	0.0155	0.415	0.0152	0.000048	-0.004
Job Characteristics						
Job Field					**-0.014278714**	**-0.00500577**
Ag Sector	-0.131208	0.5254	-0.123	0.3662	-0.020888314	-0.00300577
Related to Ag Sector	-0.108	0.3479	-0.104	0.4091	0.0066096	-0.002
Job Status					**0.147531963**	**0.006986039**
Lower Management	0.156882	0.3211	0.183	0.4217	-0.015782329	-0.011013961
Upper Management	0.51	0.2479	0.441	0.1187	0.065892	0.008
Proprietor	0.727575	0.293	0.639	0.1591	0.097422293	0.01
Job Specialty					**-0.035169508**	**0.0065044**
Accounting	0.213642	0.1028	0.188	0.1288	-0.005554692	0.003
Marketing	0.227	0.1944	0.283	0.1439	0.0114635	-0.0081
Greenhouse	-0.12	0.1915	0.063	0.0732	-0.014196	-0.0133956
All other ag	0.010044	0.1254	0.002	0.1389	-0.000135594	0.001
Non-ag Marketing	0.34	0.0859	0.372	0.1389	-0.01802	-0.005
Non-ag Finance	0.246	0.0408	0.062	0.0707	-0.0073554	0.01
Non-ag Services	0.090816	0.0859	-0.101	0.101	-0.001371322	0.019
Job Benefits					**-0.002881445**	**-0.158**
Health	0.298	0.831	0.436	0.8359	-0.0014602	-0.12
Retirement/Savings	0.190197	0.7183	0.26	0.75	-0.006029245	-0.053
Vacation	-0.08	0.6423	0.033	0.6869	0.003568	-0.078
Equipment /Discounts	0.05	0.8592	-0.062	0.8384	0.00104	0.093

		Wage Gap	0.4655		Characteristics	Parameters
Variable	$\hat{\beta}_M$	$\bar{X}_M$	$\hat{\beta}_F$	$\bar{X}_F$	$\left(\bar{X}_M - \bar{X}_F\right)\hat{\beta}_M$	$\left(\hat{\beta}_M - \hat{\beta}_F\right)\bar{X}_F$
Individual Characteristics						
Education					**0.005033417**	**-0.018997356**
MBA	0.102168	0.0606	0.212	0.0455	0.001542737	-0.004997356
MS	-0.04	0.0577	0.124	0.0758	0.000724	-0.013
JD	0.3374	0.0183	0.421	0.0101	0.00276668	-0.001
Children					**0.002016394**	**0.09366205**
Children under 18	0.023556	0.4972	-0.204	0.4116	0.002016394	0.09366205
Marital Status					**0.021887**	**-0.06**
Never Married	-0.185	0.1437	-0.009	0.2727	0.023865	-0.048
Previously Married	-0.23	0.0465	0.083	0.0379	-0.001978	-0.012
SUM					**0.2570685**	**0.211016**

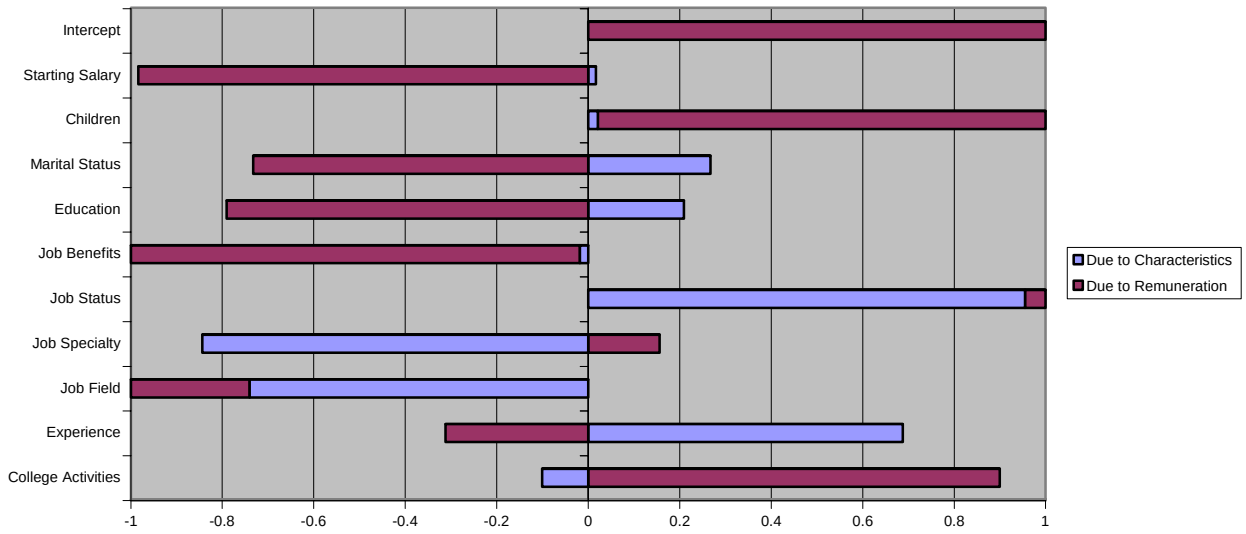

Figure 1. Contributions of Characteristics and Remuneration to the Gender Wage Gap

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