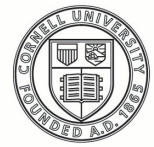

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Keywords

CAHRS, ILR, center, human resource, job, worker, advanced, labor market, satisfaction, employee, work, manage, management, gender, salaries, college major, job title, tenure, advantage, employer, salary

Comments

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GENDER DIFFERENCES IN CURRENT AND STARTING SALARIES: THE ROLE OF PERFORMANCE, COLLEGE MAJOR, AND JOB TITLE

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Abstract

Starting and current salaries of 3,564 men and 1,053 women hired between 1976 and 1986 by a large, private firm were examined. Using a comprehensive model including year of hire, potential experience, education degree, college major, firm tenure, performance, and job title, men were found to have 5.8% higher current salaries. Among college graduates, men realized a 2.9% current salary advantage. Further analyses suggested that the bulk of the current salary disadvantage of women could be attributed to a one-time salary shortfall incurred at the time of hire. Although among college graduates, for example, differences in college major explained much of the starting salary advantage for men, an unexplained 4.8% advantage in starting salaries remained. Although women were more likely to leave the firm, correction for this potential source of sample selection bias did not change the pattern of results. Finally, we suggest that the fact that women experience a greater salary disadvantage at entry may stem from the smaller amount of job-relevant information available for applicants relative to current employees.

In reviewing research on pay differences between men and women, Treiman and Hartmann (1981) concluded that "worker characteristics account for very little of the difference in earnings (p. 19)". Gender-related differences in demand side factors, mainly the occupational distribution, were found to explain a larger part of the earnings gap. Nevertheless, after adjusting for both supply and demand side factors, a substantial portion of the earnings differential between men and women remains (see also the review by Cain, 1986). The remaining portion of the pay differential is taken as evidence of (a) labor market discrimination against women and/or as (b) indicative of researchers' inability to identify, measure, and control for all aspects of worker productivity.

Several problems, however, characterize this stream of research. First, the data typically represent a snapshot at one point in time of what is really a dynamic process. This lack of attention to the dynamics of pay-setting may cause researchers to miss key elements of the process. Thus, for example, using cross-sectional firm level data, Gerhart and Milkovich (1987) found a salary disadvantage for women, after controlling for several factors including education and experience, consistent with much previous research. In sharp contrast, however, using longitudinal data from the same firm, Gerhart and Milkovich found that women actually received more promotions and larger percentage salary increases over a six year period than did men. As a result, the raw salary differential decreased over this period. These latter findings suggested a different picture of pay-setting vis-a-vis gender in this firm.

Second, key factors on both the supply and demand side have been neglected. On the supply side, for example, men and women are unequally

distributed across fields of study in college (Polachek, 1978). It is also the case that different college majors have different average starting salaries. Consistent with these observations, Daymont and Andrisiani (1984) have found that differences between men and women in college major significantly contribute to the earnings gap. Their study, however, used a sample of new entrants to the labor market. Some question remains as to whether college major plays such a key role among cohorts having more labor market experience (Blau & Ferber, 1986).

On the demand side, work content is an important, but neglected factor. Sanborn (1964) and Fuchs (1971) were among the first to stress the importance of the unequal distribution of men and women across occupations and jobs in explaining pay differences. Study of the role of work content has, however, been hampered by the lack of firm level data. Using national survey data, the most precise occupational classification is usually at the 3-digit census level. However, evidence suggests that the actual work content of jobs varies widely within 3-digit occupations (see Gerhart, forthcoming for a review). Firm level data has the potential to provide more precise control for differences in job content.

A final neglected factor is the performance of men and women in specific jobs in specific firms. This performance is likely to be a result of the quality of the match between the person (supply characteristics) and the job (demand characteristics). Most firms rely heavily on performance ratings in making pay allocation decisions.[2] Therefore, inclusion of performance measures would appear to be an important ingredient in understanding the pay-setting process for men and women.

A third general problem with existing research on the pay gap has

been the lack of attention to the role of specific human resource activities in generating pay differentials between men and women. Rather, most empirical research has relied on aggregate data on workers in many different and unknown firms. Yet, as Milkovich and Newman (1987) have argued, such research "must [instead] be performed at the level at which wages are set....Inferring and evaluating from aggregate data is misleading" (p. 498). Similarly, Hartmann, Roos, and Treiman (1985) emphasized that "We need to understand better how wages are set within enterprises and how they are affected by other employer practices..." (p. 7). A step in this direction was taken by Gerhart and Milkovich (1987) in their examination of promotion and salary increase decisions. Given their finding of an advantage for men in current pay levels, but an advantage for women in promotions and pay increases, they speculated that if discrimination does operate in pay-setting, it may do so at the time of entry into the firm.

Given evidence of a preference against women in hiring decisions (Olian, Schwab, Haberfeld, forthcoming), lower starting salaries for women seem plausible. Indeed, neoclassical economic models suggest that employer discrimination is eliminated in the market through the competitive advantage realized by firms that hire equally qualified employees from the disadvantaged group at lower salaries.[3]

One reason to expect a larger disadvantage for women in starting rather than current salary stems from the differing amounts of productivity information available on applicants compared with current employees. Nieva and Gutek (1980), for example, have argued that different human resource evaluations require different degrees of inference and that "the greater the amount of inference required...the more likely it is that evaluation

Under such circumstances, Aigner and Cain (1977) suggest the possibility that individual women who know their expected productivity is being misjudged may temporarily accept a lower salary than a comparable man in order to obtain the opportunity for a trial work period, thereby having the opportunity to demonstrate their true productivity. Based on this new and perhaps more directly job relevant information, salaries for such women may rise to correspond to revised productivity judgments.

The present study uses firm level data to examine the magnitude and possible causes of differences in starting and current salaries of newly hired men and women. Because the data are collected at the firm level, measures of key supply and demand side factors are available. On the supply side, standard measures of the amount of human capital (e.g. educational attainment) are used. In addition, a measure of the kind of human capital (Polachek, 1981), college major, is included for those with college degrees. On the demand side, job content is controlled through the use of job titles. Finally, performance level is controlled through inclusion of average performance rating since time of hire.

The model to be tested distinguishes between attributes that can be measured prior to firm entry versus those that can be measured only after an applicant becomes an employee. The structural model is as follows:

Current Salary = f(starting salary, firm tenure, performance, job title, gender)

Starting Salary = f(year of hire, general experience, education degree, college major, gender).

The reduced form equation for current salary is then:

Current Salary = f(year of hire, general experience, education

degree, college major, firm tenure, performance, job title, gender).

INSTITUTIONAL SETTING

The data apply to exempt employees of a firm that produces a diversified set of industrial and consumer products.[5] Compensation policies and practices of the firm are typical of those in the Fortune 500. For example, the firm participates in over 6 annual salary surveys for jobs included in the present study. Some focus on selected product market competitors, others focus on labor market competitors. Although statistical methods are used to combine the results of surveys, considerable judgment is also exercised because of different degrees of confidence placed on the results of the various surveys. This is consistent with Rynes and Milkovich's (1986) argument that ad hoc judgments are typically made throughout the process.

An explicit pay-for-performance policy exists for the determination of individual pay increases. The policy is implemented through the use of annual merit increase guides (see Milkovich & Newman, 1987 for some examples). Performance is assessed through a formal, annual performance appraisal process.[6] The immediate supervisor rates each employee on a 4-point scale with 4 being the highest performance level. The numerical rating is supplemented by a written description of the subordinates performance during the year. The complete appraisal is typically reviewed by a higher level manager.

In equal employment opportunity (EEO), the firm's standard training for its managers included materials on EEO compliance with respect to staffing, access to training, compensation, and performance appraisal.

The inclusion of EEO issues in training programs is typical of large firms.[7] Corporate personnel monitored managers' actions in these areas and encouraged improvement in those displaying subpar performance.

More on the institutional setting can be found in Gerhart and Milkovich (1987).

METHOD AND ANALYSES

Exempt employees hired between 1976 and 1986 are the focus of the present study.[8] Some exempt employees at the highest levels are excluded because of a lack of information. The final sample includes 4,617 employees (3,564 men and 1,053 women). Of these, 2,895 employees (2,281 men and 641 women) held a Bachelor's degree or higher. Professional, managerial, sales, and technical jobs are the major broad categories. Examples of common job titles include engineer, customer representative, technologist, office supervisor, production supervisor.

Current (1986) and starting (in 1986 dollars) salary are the endogenous variables. In both cases, the natural logarithm transformation is used.

The first set of exogenous variables, referred to as human capital (HC) variables in this study, are potential labor market experience (age - years of schooling - 6)[9], its square, and education dummies for highest degree. These measures are taken at the time of first entry to the firm. In addition, dummy variables are used for year of hire.

The second set of factors are 65 dummy variables for college major. These are based on the person's highest degree at the time of entry to the firm. Of course, as discussed earlier, college major can be thought of as a measure of the kind of human capital.

The third set of exogenous variables are those measured within the

firm such as tenure[10] (and its square). To measure differences in job content, 60 dummy variables corresponding to job titles are used. Performance history is measured by including the average of performance ratings received since commencing employment with the firm. Gender is measured using a dummy variable (men = 1, women = 0).

Mean age at the time of hire was 28.5 years for men, 27.7 years for women. The mean age as of 1986 was 33.8 years for men, 32.8 years for women. Mean tenure was 5.5 years for men, 5.1 years for women. Mean potential experience at time of hire was 7.3 years for men, 7.0 years for women. By 1986, mean potential experience was 12.7 years for men, 12.0 years for women.[11] Finally, the average performance rating was 2.46 (on a 1 to 4 scale with 4 being the highest rating) for both men and women.

Ordinary least squares is used to estimate the reduced form equation for current salary. In estimating the structural model, however, two stage least squares is used to account for any correlation between starting salary and the error term in the current salary equation.

RESULTS

Table 1 reports mean current and starting salaries for men and women. In the full sample, the women/men salary ratio was lower for starting salary than for current salary. In the case of college graduates, the ratios were similar for starting and current salary. Note, however, that these raw ratios do not control for the fact that different numbers of men and women were hired in different years under different labor market conditions.

Table 2 reports estimates of the gender coefficient in the current and starting salary equations under different reduced form specifications. In the full sample, controlling only for year of hire, men had a 12.3%

higher current salary. This advantage is, however, smaller than the 18.9% advantage men realized in starting salaries (in 1986 dollars). Among college graduates, although the advantage of men is smaller for both starting and current salary, the pattern is the same in that men's greatest advantage is in starting salary. These findings suggest support for the hypothesis that the raw salary level disadvantage of women occurs largely at the time of hire.

Adding standard human capital variables (education degree and potential experience) reduces the gender coefficient in both the starting and current salary equations across samples. Of special note, the introduction of dummy variables for college major further reduces the coefficient by an important amount in the sample of college graduates. The effect of controlling for potential experience, education degree, and college major is to reduce the gender coefficient by 1 - .086/.123 = 30% for current salary, and by 1 - .122/.189 = 35% for starting salary in the full sample. Among college graduates, the corresponding reductions are 1 - .046/.094 = 51% for current salary, and 1 - .048/.133 = 63% for starting salary. Similarly, among college graduates, introduction of college major results in a substantial increase in the R^2 of the starting salary equation. The increment is less for current salary, consistent with the notion that the organization has access to what it deems more relevant measures of performance after an applicant becomes an employee.

The remaining exogenous variables are observed only for employees (versus applicants), and thus are relevant only for the current salary equations. As Table 2 indicates, the addition of firm tenure only slightly increases the explanatory power of the models for current salary and does

not change the gender coefficient by much.

In contrast, introduction of average performance rating leads to a relatively large increment in the R-square, suggesting that it does play an important role in pay-setting. However, consistent with Gerhart and Milkovich's finding, gender differences in average performance rating are not an important determinant of pay differences between men and women.

The final row in Table 2 shows the result of adding dummy variables for job title to the models for current salary. This addition results in a substantial increase in the R-square in both samples. Nevertheless, the coefficients on gender remain positive and statistically significant and indicate that men's salaries are still 5.8 % higher on average than women's in the full sample, 2.9 % higher on average among college graduates. In raw dollars, this translates into an advantage of $2,160 for men in the full sample, and an advantage of $1,095 for men in the sample of college graduates. In view of the relatively comprehensive list of control variables, these amounts are substantial.

Estimates for the structural model appear in Tables 3 (full sample) and 4 (college graduates sample). In both Tables, the first 3 columns pertain to a model that does not include gender in the starting salary equation. In contrast, the last 3 columns of both Tables describe a model where a gender effect is included in the starting salary equation. In both cases, the current salary equation is estimated with and without the job title dummies in recognition of the possibility that job title assignment may not be completely exogenous to gender.

The general story in Tables 3 and 4 is that gender has its largest impact on starting salaries. Further, controlling for this effect

substantially reduces the impact of gender on current salaries. For example, Table 3 shows that starting salaries were 12.2 % higher for men. Introducing this effect for gender reduces men's advantage in current salaries from 8.7% to 2.9% in the equation without control for job titles. Similarly, among college graduates, the starting salary advantage for men was 4.8%., compared to 1.4% for current salary (reduced from 3.8%). Inclusion of the job title dummies does not change this general pattern.

One concern with these results is the possibility that the sample of men and women used is the result of a selection process that may be related to gender and the salary determination process, perhaps biasing the parameter estimates in the preceding models. To address this issue, an approach described by Heckman (1976) was followed. First, a selection equation that models the probability of being included in the sample is required. Second, a correction term is constructed that indicates the probability of exclusion from the sample. The substantive equation is then estimated with this correction term included as an independent variable. To estimate the selection equation, information on persons excluded from the sample is necessary. Fortunately, the firm was able to supply supplemental data covering most of the time period of interest (persons hired between 1976 and 1984). Although this supplemental database did not include information on some key variables (e.g. education), information was available on several factors that typically influence turnover.

The results shown in the first column of Table 5 suggest that women are less likely to be employed as of 1984 than men. Also, more likely to leave are younger employees, those with higher starting salaries, and

those with lower average performance ratings. The relation between performance and turnover is consistent with other emerging research in this area (Bishop, 1988; McEvoy & Cascio, 1987).[12] The second column in Table 5 indicates that there is also an interaction between gender and starting salary.[13] The nature of the interaction is such that higher starting pay is associated with more turnover for women, less turnover for men. Finally, although new hires typically have the highest turnover rates, note that only 1763 out of 8344 employees hired between 1976 and 1984 had separated from the organization by the end of 1984[14].

To determine the effect of the selection process on the substantive model, the selection model estimated on persons hired during the 1976-1984 period was assumed to also describe the selection process for persons hired during the slightly longer 1976-1986 period. Table 6 reports the gender coefficients obtained after re-estimating the structural model with a correction for sample selection bias. A comparison of the top half of Table 6 with Table 4 and the bottom half of Table 6 with Table 5 suggests that the coefficients on gender change only slightly, leaving unchanged the general pattern of results.

Finally, given the key role of starting salary differentials, a standard decomposition (Blinder, 1973; Jones, 1983) was performed to more precisely determine what factors contributed to these differentials. The results are shown in Table 7. Consistent with the other analyses, college major plays an important role, accounting for 30% of the pay differential. Note, however, that it is the unequal distribution of men and women across majors, not unequal returns to specific majors that contributes to the pay differential. In fact, women tend to receive slightly higher returns

than men across majors. The bottom of Table 7 shows the percentage of the pay gap accounted for by the 10 college majors having the most men and women. Two majors, mechanical engineering and electrical engineering account for most of the effect of college major.

DISCUSSION

The current study provides two key findings. First, despite a comprehensive group of control variables, women experienced a significant disadvantage in terms of both starting and current salaries. Second, the current salary disadvantage was largely a result of a one-time salary shortfall for women occurring at the time of hire. These findings provide direct support for recent suggestions (Gerhart & Milkovich, 1987; Megdal & Ransom, 1985) that starting salary differences play a major role in current salary differentials between men and women. Additional supportive empirical evidence has also begun to appear (e.g. a study of University of Pittsburgh MBA graduates by Olson, Frieze, & Good, 1987).

College major was found to be a key determinant of differences between men and women in starting salaries, consistent with results obtained by Daymont and Andrisiani (1984). In the college graduates sample, the addition of college major reduced the salary advantage of men by almost one-half, even after controlling for standard human capital variables. Nevertheless, a 4.9% advantage for men in starting salaries remained. In raw dollars, this translates into a difference of $1,307, again a substantial amount in view of the relatively extensive list of control variables in the model.

We were also able to assess the effect of key firm level variables on current salaries. Average performance rating, for example, had a

substantial impact on current salaries, but did not help explain salary differences between men and women. Job title also had a large impact on current salaries. Although inclusion of job title controls tended to reduce the magnitude of the gender coefficient in the current salary equation, such was not the case when gender differences in starting salaries were taken into account.

Future research of at least two kinds would be helpful. First, replications in other organizations would help establish the external validity of the present findings. Given that (a) the findings pertaining to human capital are consistent with research using national survey data (see Cain, 1986), and (b) the firm studied is typical of other large firms in its human resource practices, it seems likely that other studies will find similar results.

Second, we need to better understand why women's starting salaries are lower despite similarities in educational attainment, field of study, and potential experience. As discussed earlier, because of the relative lack of information available to employers, hiring and compensation decisions regarding individual applicants may be especially susceptible to the effect of group stereotypes (Nieva & Gutek, 1980; Tosi & Einbender, 1985). Some research also suggests that women may have lower pay expectations than men for the same inputs (Major, McFarlin, & Gagnin, 1984). If true, women may be less willing than men to bargain for a higher starting salary. Of course, if as some evidence indicates (Olian et al., forthcoming), discrimination against women in hiring does exist, temporary acceptance of lower starting salaries by women could be viewed as a rational strategy to gain access to the firm and an opportunity to demonstrate their

true productivity (Aigner & Cain, 1977; Cain, 1986).

On the supply side, information also plays an important role. For example, differing amounts and types of information held by applicants (versus current employees) may contribute to the use of different comparison standards by the two groups. As an applicant, search costs constrain the amount of information gathered on jobs and their attributes (Stigler, 1962). In particular, much information is difficult to obtain without first being employed for a time, making many types of social comparisons difficult. In contrast, once employed, within large firms, personnel practices tend to be highly standardized. It is then comparatively easy to draw comparisons between one's own pay vis-a-vis perceived relevant inputs (e.g. job title, education, performance) and the pay of others given the relevant inputs they are perceived to have. Any disparity is likely to produce feelings of inequity and pressure for change (e.g., Adams, 1963). Combined with legal pressures for affirmative action, this increased access to and visibility of information may contribute to less persistence of unexplained pay shortfalls for women once within the firm.

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Footnotes

1.I am grateful to the National Research Council/National Academy of Sciences for funding an earlier stage of the present research project. I also thank George Milkovich for providing generous access to the data.

2.Based on a survey of personnel and industrial relations executives, the Bureau of National Affairs (1983) concluded that performance appraisal results are used by 86% of firms for making salary increase decisions and by 79% of firms for making promotion decisions concerning their white collar workers.

3.The irony is that the firm that discriminates in the short run by paying lower starting salaries to members of the disadvantaged group helps reduce discrimination in the long run by driving up salaries for this group.

4.Accuracy refers to less dispersion of observed productivity about the prediction line or surface (or a lower conditional variance). Thus, one index of accuracy is the R^2.

5.Some of these data were also used by Gerhart and Milkovich (1987) in their study of promotions and salary growth.

6.Cain (1986) has argued that supervisory ratings of performance are not "admissible" because they "might reflect discrimination". However, the empirical evidence does not support this hypothesis, despite the fact that a large amount of both laboratory and field research has been devoted to this question (see Dipboye, 1985 for a review).

7.A Bureau of National Affairs (1985) survey found that among firms with over 1000 employees, over 60% included EEO in their manager training programs. Further, EEO was the 4th (of 19) most commonly included issue in such programs.

8.The necessary detailed historical data was not available prior to 1976.

9.This measure is an imperfect proxy for persons with intermittent labor force attachment (e.g. women who leave the labor force to bear and raise children). Gerhart and Milkovich (1987), however, found evidence that the measure was not a problem in a similar sample, perhaps because of the strong labor force attachment of professional and managerial women. See also footnote #10.

10.Year of hire and firm tenure are both included because they are not identical. Firm tenure is based on the date used for calculating benefits. The latter date can differ from the original hire date. Firm tenure, then, should give an accurate indication of the amount of actual time spent with the firm even for persons not continuously employed with the firm.

11.Experience and age differences between men and women at the time of hire do not correspond to differences in 1986 because somewhat different numbers of men and women were hired in different years.

12.Additional analyses indicated that most separations were voluntary and that these voluntary quits were also more likely among low performers.

13.A test for an interaction between gender and average performance ratings revealed no statistically significant effect.

14.The number employed as of 1984 is 6581 (8344 - 1763). This number exceeds 1986 employment (4617) for several reasons. First, and most important, recall that the data sets were generated separately (and at different points in time). Therefore, despite our best efforts, they are not strictly comparable. Second, for most large firms, the mid-1980s represented a time of slow or negative employment growth. For example, a recent survey of firms by the Employment Management Association reported in Human Resource Management News (1987) found that 79.1% of responding firms had downsized during the previous five years. In these firms, cutbacks resulted in the dropping of, on average, 18% of their workforces. Exempt employees were the most frequent targets of cuts in these firms. The firm we studied was typical in these respects. Thus, relatively few people were hired during the 1984-1986 period. Even with normal levels of attrition, the result would be lower employment in 1986.

TABLE 1

Mean Starting and Current Salaries

	Full Sample			College Graduates Sample		
	Starting Salary	Current Salary	N	Starting Salary	Current Salary	N
Men	29,265	40,251	3,564	30,093	42,153	2,280
Women	25,043	37,239	1,053	26,894	37,764	615
Women/Men	.86	.93		.89	.90	

Table 2

Gender Coefficient and R^2 under Different Reduced Form Specifications

	Full Sample				College Graduates			
	Current Salary		Starting Salary		Current Salary		Starting Salary	
Variables	Coeff	R^2	Coeff	R^2	Coeff	R^2	Coeff	R^2
--	.123	.118	.189	.166	.094	.198	.133	.111
HC	.098	.367	.146	.423	.070	.410	.095	.376
HC, Major	.086	.404	.122	.473	.046	.481	.048	.507
HC, Major, Tenure	.086	.405			.044	.485		
HC, Major, Tenure Average performance rating	.089	.460			.042	.556		
HC, Major, Tenure, Average performance rating, Title	.058	.675			.029	.757		
Sample size	4617				2895			

All gender coefficients are statistically significant ($p < .001$).
All regressions include dummy variables for year of hire.

TABLE 3

Simultaneous Models for Current and Starting Salary, Two Stage Least Squares, Full Sample

Variables	Starting Salary	Current Salary	Current Salary	Starting Salary	Current Salary	Current Salary
Intercept	9.615[b]	5.011	7.934	9.532	4.830	7.791
	(.018)[c]	(.108)	(.105)	(.018)	(.108)	(.103)
Gender	---	.087	.059	.122	.029	.030
		(.005)	(.004)	(.009)	(.005)	(.004)
Starting Salary (predicted)[a]		.487	.237		.508	.252
		(.010)	(.010)		(.010)	(.010)
Tenure		.045	.020		.046	.022
		(.001)	(.001)		(.001)	(.001)
Tenure Squared		-.002	-.001		-.002	-.001
		(.0001)	(.0001)		(.0001)	(.0001)
Average performance rating		.142	.082		.144	.084
		(.006)	(.005)		(.006)	(.005)
Job Title Dummies		NO	YES		NO	YES
R^2	.451	.458	.700	.473	.471	.704

N = 4617

Note: All coefficients are statistically significant ($p < .001$). Each starting salary equation includes year of hire dummy variables, education degree dummy variables, potential experience (and its square), and college major dummy variables. Gender is included where noted in the table.

[a]Predicted value for starting salary using variables described in general note.

[b]Regression coefficients.

[c]Standard errors

TABLE 4

Simultaneous Models for Current and Starting Salary, Two Stage Least Squares, College Graduates Sample

Variables	Starting Salary	Current Salary	Current Salary	Starting Salary	Current Salary	Current Salary
Intercept	9.924[b]	4.297	7.077	9.888	4.194	7.043
	(.021)[c]	(.134)	(.140)	(.022)	(.137)	(.142)
Gender	---	.038	.032	.048	.014[d]	.017
		(.006)	(.004)	(.009)	(.006)	(.005)
Starting Salary (predicted)[a]		.553	.317		.565	.321
		(.013)	(.013)		(.013)	(.005)
Tenure		.054	.024		.055	.025
		(.002)	(.001)		(.002)	(.001)
Tenure Squared		-.002	-.001		-.002	-.001
		(.0001)	(.0001)		(.0001)	(.0001)
Average performance rating		.155	.089		.156	.089
		(.006)	(.005)		(.006)	(.005)
Job Title Dummies		NO	YES		NO	YES
R^2	.502	.578	.772	.507	.577	.772

N = 2895

Note: All coefficients are statistically significant ($p < .001$), except as noted. Each starting salary equation includes year of hire dummy variables, education degree dummy variables, potential experience (and its square), and college major dummy variables. Gender is included where noted in the table.

[a]Predicted value for starting salary using variables described in general note.

[b]Regression coefficients.

[c]Standard errors

[d]Statistically significant at $p < .05$.

Table 5

Probit Estimates for Sample Selection Equation, 1976--1984 Supplemental Data

Variable	(1)	(2)
Intercept	.125[b] (.525)[c]	5.269 (1.286)
Gender	.139 (.040)	-5.931 (1.380)
Age	-.048 (.014)	-0.046 (0.014)
Age squared (00)[a]	.052 (.019)	0.050 (0.019)
Starting salary	-.039 (.051)	-0.550 (0.127)
Average performance rating	.796 (.040)	0.789 (0.040)
Starting salary * gender		0.603 (0.137)
-2 Log likelihood ratio	1104.517	1124.042
Degrees of freedom	12	13

Note: Each model includes dummy variables for year of hire;
6581 stayers, Active status = 1; 1763 leavers, Active status = 0.
[a]Divided by 100
[b]Regression coefficients
[c]Standard errors

Table 6
Gender Coefficient with Correction for Sample Selection Bias, Two Stage Least Squares

Variables	Starting Salary	Current Salary	Current Salary	Starting Salary	Current Salary	Current Salary
			Full Sample			
Gender	___	.090 (.005)	.062 (.004)	.126 (.009)	.031 (.005)	.033 (.005)
Inverse Mills Ratio	.036 (.032)a	.049 (.014)	.062 (.011)	.093 (.031)	.043 (.014)	.059 (.011)
Job Title Dummies	NO	NO	YES	NO	NO	YES
R^2	.452	.468	.703	.474	.472	.705
			College Graduates Sample			
Gender	___	.042 (.006)	.035 (.005)	.055 (.010)	.015 (.006)	.020 (.005)
Inverse Mills Ratio	.035 (.031)	.022 (.015)	.031 (.012)	.087 (.032)	.019 (.015)	.029 (.012)
Job Title Dummies	NO	NO	YES	NO	NO	YES
R^2	.502	.578	.773	.508	.577	.772

Note: The coefficients are based on equations identical to those used in Tables 3 and 4, except that the inverse mills ratio is added as an explanatory variable.
[a]Standard errors

Table 7

Decomposition of Starting Salary Differences, College Graduates

		Decomposition Standard			
		Men		Women	
Variables	Total	Endow	Coeff	Endow	Coeff
Intercept	-6%	0%	-6%	0%	-6%
Year of hire	31%	-5%	35%	-12%	43%
Education degree	25%	14%	11%	15%	10%
Potential Experience	20%	6%	14%	4%	16%
College Major	30%	43%	-12%	46%	-15%
Total	100%	58%	42%	53%	47%

MAJOR	TOTAL	ENDOW[a]	COEFF
Mechanical Engineering	12%	13%	-1%
Electrical Engineering	8%	8%	-1%
Education	3%	4%	-1%
Computer Science	1%	0%	1%
Chemical Engineering	1%	5%	-4%
Industrial Engineering	1%	2%	-1%
Business Administration	0%	0%	0%
Chemistry	-1%	-3%	2%
Math	-1%	0%	-1%
Biology	-1%	1%	-2%

[a]Using men's coefficients as standard.