Women in Management, 1980-2000 Revisiting "Glorified Secretaries," Resegregation, and Title Inflation as Gender Equality Stalls*

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April 7, 2008

* Paper presented at the 2008 meeting of the Population Association of America. DRAFT - please do not cite or quote without the authors' written permission.

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#### Abstract

As progress toward gender equality stalled in the 1990s, women continued to increase their representation in management, albeit at a slower rate. This raises the possibility that women's influence in managerial positions does not carry the authority presumed in the titles they hold. Recalling Jerry Jacobs’ (1992) "skeptical" interpretation of women’s advancement into management, we revisit his analysis of the "glorified secretaries," resegregation, and title inflation hypotheses. We use U.S. Decennial Census data from 1980 to 2000, allowing us to compare the period of rapid progress in the 1980s with the period of stagnation in the 1990s. Our main findings indicate that occupational segregation among managers decreased in the 1980s, but increased sharply in the 1990s. However, the situation did not worsen for all women in management, because greater overall segregation coincided with a decreasing wage gap and sharply declining vertical segregation among managers. Finally, the largest net gender wage gaps are now found in female-dominated industry-specific managerial occupations, and substantial gender composition effects on wages still exits.


## Introduction

Women's representation in managerial occupations has increased in the last half century (Blum et al. 1994; Huffman 1999), but their access to top-level positions has been much more limited - in 2007 women held just $14.8 \%$ of seats on Fortune 500 corporate boards (Rubin 2008) - and in the workplace generally women's authority is not clearly established (Reskin and Ross 1992). In an influential study more than 15 years old, Jacobs (1992) observed women's increased presence in management, but offered several "skeptical interpretations" of that trend, which he tested with data through 1988. Despite 86 academic journal citations as of April 2008, that analysis has not been systematically updated, even though the questions it raised have perhaps grown even more pertinent. In this paper, we describe women's presence in management occupations from 1980 through 2000 using data from the U.S. Census. We then extend central aspects of Jacobs' analysis to help explain the progress and problems faced by women in the managerial workforce, with implications for all women.

We approach this question at a time when progress toward gender equality has slowed or stalled, depending on the indicators used (Cotter, Hermsen and Vanneman 2004) - even though entry into management jobs has continued (Cohen and Huffman 2007a). The pace of women's entry into managerial occupations slowed considerably in the years after Jacobs’ (1992) analysis. Figure 1 shows the percentage of all managers that were women from three different data sources: the EEO-1 reports from the U.S. Equal Employment Opportunity Commission, which reflects only medium- and largesized private-sector establishments (Cohen and Huffman 2007b); the Current Population Survey, the primary source for annual labor force data; and the Census data we use here.

Both the EEOC and Census results show a definitive stall in overall progress toward managerial integration in the 1990s.

This raises anew the questions posed by Jacobs (1992): Are women’s positions being renamed to increase the appearance of managerial integration? Are women entering those managerial occupations that are losing their authority and prestige? Are managerial job titles proliferating in bureaucratic organizations, but bringing few benefits to their incumbents in terms of job quality and rewards? By focusing on the period 1980 to 2000, we can compare changes in a decade of rapid progress to those in a period of stalling gender equality.

Recent work has investigated whether the presence of female managers within local industrial niches or establishments brings benefits in terms of gender equality to the workers below them. Findings from the 2000 U.S. Census suggest that nonmanagerial women benefit from working for female managers only if those managers are in high status positions relative to male managers in the same local industry (Cohen and Huffman 2007a). Cohen and Huffman (2007b) also report that establishments with more female managers exhibit less gender segregation across nonmanagerial occupations, although the causal sequencing of that pattern is not clear. To better understand the role of women in management - in terms of the benefits they receive, and the benefits they bring to others in the labor market - we need a better understanding of women's progress into management occupations, and their status relative to male managers in their occupations and across the managerial labor force.

## Research questions and hypotheses

Jacobs (1992) noted the trend toward greater representation of women in management, but also a growing skepticism among researchers about its implications given persistent evidence of a "glass ceiling" blocking women's access to top managerial positions. In his discussion, he proposed three "principal skepticisms," all of which represented the suspicion that increasing representation of women in managerial positions did not or would not lead to concomitant growth in power, prestige, and compensation. First, the glorified secretary hypothesis, under which legal pressures and fear of lawsuits drives employers to reclassify women as managers without truly elevating their status within organizations. Second, the resegregation hypothesis, under which managerial ghettos emerge that draw women into those managerial occupations that already are losing power and prestige, leading to a feminization of a narrow range of jobs that are managerial in name only. Third, the title inflation hypothesis, which predicts that managers proliferate as organizations grow larger and more bureaucratic, so that women are entering managerial occupations just as all managers are losing power.

These explanations are not mutually exclusive. Each can be operationalized for our purposes, which focus on possible gender retrenchment in the 1990s. We test these hypotheses for the 1990s compared to the 1980s.
$H_{1}$ : Glorified secretary. (a) The wage gap between male and female managers has grown, as low-status women are reclassified into managerial positions. (b) The level of gender segregation among managerial workers has increased, with women concentrated in low-level occupations.
$H_{2}$ : Resegregation. (a) Managerial occupations exhibit increasingly negative gender-composition effects, such that the wages of female-dominated managerial
occupations decrease relative to those in male-dominated wages. This effect has been described as devaluation or crowding in previous research (Cohen and Huffman 2003; England et al. 1994), but it can also reflect the movement of women into occupations that already have lower wages. (b) The level of vertical gender segregation among managerial workers has increased, or at least decreased more slowly that it has for the labor force in general, as female managers’ ghettoized occupations fall further behind male-dominated managerial jobs. (c) Women concentrated at the bottom of female-dominated managerial occupations, so that the gender gap is larger where there are more female managers.
$H_{3}$ : Title inflation. As the proportion of all workers that are managers increases their wages will fall relative to those who are not in managerial occupations.

Although a definitive test will be beyond the scope of this paper, it is plausible that if any of these mechanisms is operating, that might help to explain why gender equality in the labor market has stalled even as women moved into more managerial positions. Without the status or authority to influence personnel and compensation decisions, an increasing number of female managers might be powerless to bring improvements in gender equality to the larger workforce.

## Research design

We examine each of these hypotheses using data from four decades of the decennial U.S. Census, drawn from the 1\% Public-Use Microdata Samples distributed by IPUMS. We have selected all managerial workers who worked full-year and full-time in
the previous year according to the IPUMS occupational recoding that is based on the 1990 occupation codes. ${ }^{1}$ Based on previous research that has constructed occupationindustry cells (see Cohen and Huffman 2003; England, Reid and Kilbourne 1996), we create industry-specific managerial occupations, or ISMOs, which allow for greater differentiation of managerial workers according to their skills and responsibilities. This is especially important for the "not elsewhere classified" managerial occupations, which are not meaningful in the aggregate, but when cross-classified with industry yield interpretable occupations (e.g., undifferentiated managers in banks versus those in restaurants). For this coding, we used the IPUMS-created 1990 industry codes. ${ }^{2}$

In order to reliably estimate gender composition and wages for each ISMO in each decade, we limited the sample to ISMOs with at least 50 incumbents in each decade in the $1 \%$ PUMS sample. This reduced our total number of ISMO cells from 1,599 combinations with any incumbents to just 153, but retained $72 \%$ of managers (158,020 out of 218,268). A final restriction for our earnings models - excluding self-employed workers - reduced the sample to 134,613 managers in 153 ISMOs with at least 50 incumbents in each of the three Census years.

For our regression models, we use variables commonly employed in wage determination models. The dependent variable in the earnings analyses is the natural

[^0]logarithm of annual earnings. ${ }^{3}$ We control for education level with dummy variables for less than high school (excluded), high school graduate, some college, and college graduate or higher; potential experience in the labor market, calculated as age - education - 6, and its square to capture reduced returns to experience at older ages; the natural logarithm of hours worked per week; race/ethnicity with the four mutually exclusive categories of White (excluded), Black, Latino and Asian; ${ }^{4}$ foreign-born status, with a dummy variable; family status with a dummy variable indicating married workers, a continuous variable for the number of the householder's own children in the household, and a dummy variable for the presence of an own child under age 5 in the household; and a dummy variable indicating workers with a work-related disability. ${ }^{5}$ Means for these variables, for men and women in each decade, are shown in Table 1.

To assess segregation levels, we use the index of dissimilarity to show the overall differentiation of male and female managers. This represents the percentage of men or women who would have to change occupations in order for the two groups to be evenly distributed across ISMOs. We use the index of net difference to show the relative ranking of male and female managers (Cohen and Huffman 2007a; Lieberson 1976). This represents the difference between the likelihood that a randomly chosen man is employed in a higher-ranked ISMO than a randomly chosen woman and the probability that a randomly selected woman works in a higher-ranked ISMO than a randomly chosen man. It ranges from -1.0 when all men are in higher-ranked ISMOs to 1.0 when all women are

[^1]in higher-ranked ISMOs. For this latter index, we need to rank ISMOs, and do so using men's median wages in each decade (which permits ISMOs to change rank from decade to decade).

## Results

Before looking at the wage and gender composition data by occupation, we first note that the proportion of all workers in the labor force who are managers has indeed increased considerably in recent years (Figure 2), a prerequisite for the mechanism specified in Jacobs' title inflation hypothesis, which implies that the number of managerial titles and workers is a function of growing bureaucracies with a proliferation of increasingly weak and low-status managers devoid of substantial workplace authority. At the time of Jacobs' writing, he noted that the rate of managerial growth may have been slowed by the wave of corporate downsizing in the 1980s. Figure 2 confirms this. However, after the mid-1980s the pace of managerial growth once again accelerated. Thus, it is plausible that there has been an increase in relatively powerless paper-shufflers with managerial titles, as this hypothesis predicts. We now turn to the tests of our three hypotheses.

## Glorified secretaries?

As noted, the glorified secretary hypothesis would be supported by both a growing gender wage gap and increasing gender segregation among managerial workers. With regard to the segregation prediction of the glorified secretary hypothesis - that segregation would increase over time - the left side of Figure 3 displays the gender
dissimilarity scores computed across industry-specific managerial occupations in 1980, 1990 and 2000. As gender equality advanced in the 1980s, segregation decreased, but in the 1990s it increased dramatically, from . 296 to .357 .

Closer examination of the pattern clearly shows the stark difference between integration in the 1980s and stalled progress in the 1990s - at least far as segregation is concerned. In the 1980s only 6 ISMOs in our sample showed declining female representation. But in 2000, 75 ISMOs - just under half - had lower proportions of women than they did in 1990s. The pattern of gender integration is shown in Figure 4. The red squares and top line show the change from 1980 composition ( $x$-axis) to 1990 composition ( $y$-axis). The intercept of the top line is .098 ( $9.8 \%$ ), and its slope is 1.0 , which means the average ISMO increased its female representation by $10 \%$, and that increase was constant across the range of gender composition. The figure also shows the 1990-2000 change, with dots and the bottom slope. That pattern shows the same slope (.98), but an intercept of 0.0 , which means the average ISMO had no change in its gender integration in the 1990s. Thus, the 1990s was not a period of managerial integration overall.

The findings regarding the wage gap dimension of the glorified secretary thesis appear in Table 2. These models regress logged annual earnings on gender and the set of individual-level control variables described above. There is a significant ( $p<.001$ ) net gender gap in all years. However, despite evidence of increasing segregation, or at least slowing integration, the results reported in Table 2 are inconsistent with the glorified secretary hypothesis, as we see a sharply decreasing net gender wage gap across each decade. Specifically, the net gender effect declined during the 1980s from -. 426 to -.340 ,
and to -.256 over the 1990 s. These findings are at odds with the wage prediction of the glorified secretary hypothesis, although the segregation trends offer some support.

## Resegregation?

The resegregation thesis predicts increasingly negative effects of percentage female on the wages of managerial occupations, increasing levels of vertical segregation among managers, and stronger gender composition penalties for female managers, who cluster at the bottom of female-dominated occupations. In Table 3 we report the results of our second set of regression models. These models nest managers within ISMOs, and estimate the net effect of managerial gender composition on logged annual earnings. The models were estimated with STATA's cluster command, so that standard errors were adjusted for correlations among managers clustered within ISMOs. The set of control variables is unchanged from Table 2.

The regression results reported in Table 3 offer some support to the resegregation thesis. All three models show significant ( $p<.001$ ) effects of gender composition, such that ISMOs with greater female representation have lower earnings, net of individual gender and other characteristics. That gender composition effect weakened over the 1980s, from $-.541(p<.001)$ in 1980 to $-.370(p<.001)$ in 1990 - a drop of $32 \%$ in the penalty for working in a female-dominated ISMO. But during the 1990s the change was much more modest - the effect decreased to -. 353 ( $p<.001$ ), a drop of just 5\%. Thus, although the gender composition effect did not increase, progress in its reduction largely stalled.

Trends in vertical segregation are similar. Vertical segregation decreased rapidly in the 1980s, dropping from -. 143 to -.027, and then dropped to zero in 2000. Thus, vertical segregation eroded markedly in the 1980s, and disappeared as the century came to a close. Although the change was slower in the 1990s, the elimination of vertical segregation - by this measure at least - does not support the resegregation hypothesis. As a whole, then, our results are not consistent with the resegregation thesis, which predicts both an increasing gender composition effect and sharpening vertical segregation among managers. However, the trends were closer to that prediction in the 1990s than they were in the 1980s.

In the final test of the resegregation hypothesis, we estimated models with a female $\times$ IMSO percent female interaction term (Table 4), again using the same control variables. These models tell us, for each decade, how the net gender wage gap varies as a function of the gender composition of the ISMOs. The only statistically significant interaction is in $1980(-.284, p<.05)$. For both men and women, the percent female effect is negative, but it is stronger among men (-.633) than among women $(-.633+.284=-$ .349). Thus, the model predicts narrower gender gaps among managers in ISMOs with higher levels of female representation in 1980. Specifically, at the mean of the control variables, in 1980 women are predicted to earn $58 \%$ of men's earnings in $0 \%$ female ISMOs, but $78 \%$ of men's earnings in $100 \%$ female ISMOs. That gender interaction is not significant in 1990 or 2000, but the trend in the interaction coefficient over the whole period is clear: the interaction term is smaller in 1990, and then below zero by 2000, suggesting wider gender gaps in female-dominated ISMOs. Although the interaction terms are not significantly different from zero in 1990 or 2000, the 2000 coefficient is
significantly smaller than the 1980 coefficient ( $p<.05$ ). This last result may be consistent with the resegregation hypothesis, insofar as female-dominated ISMOs used to be protective of women's earnings, but by 2000 that effect was eliminated. Segregation now works against gender earnings equality, either by channeling female managers into lowerpaying jobs (crowding), or by lowering the earnings of managerial jobs with high female representation (devaluation).

## Title inflation?

Finally, we examine the title inflation hypothesis, which predicts that the wages of managers will fall relative to non-managerial workers. Table 5 reports the regression results that speak to this hypothesis. These models, which are based on all full-time, yearround workers, estimate the adjusted wage gap between managerial workers and all other workers, with the same controls we used in the earlier models. The results do not support the title inflation hypothesis. Rather than eroding, the wage advantage of managers increased, from an adjusted gap of . 194 in 1980 to .215 in 1990 (both, $p<.001$ ), an increase in the advantage of $11 \%$. Over the course of the 1990s, the wage advantage for managers increased even more sharply, to . 263 ( $p<.001$ ), an increase of $22 \%$. Thus, with respect to wages, there has been an increasing divergence between managers and non-managers.

This is contrary to the notion of title inflation, where managers' titles imply improved status and rewards, but their actual pay and responsibility more closely track the status and rewards of non-managers. However, we note that the increase in the managerial earnings advantage occurred in the decade in which women's presence grew
much more slowly than it did in the previous decade, when managerial earnings grew more slowly relative to all workers' earnings.

## Discussion and Conclusions

Jacobs (1992:298) concluded that, "The notion that the entry of women into management represents a wholesale subterfuge on the part of corporations trying to present themselves as supportive of opportunities for women is not consistent with the results in this paper." He did not find direct support for either the glorified secretary or resegregation hypotheses, although there was some evidence of title inflation. Nevertheless, he concluded, "female managers have a long way to go before they reach parity with their male counterparts."

Our results are suggestive of a dramatic slowing of progress for women in managerial occupations, and may be summarized as follows:

First, occupational segregation among managers decreased in the 1980s, but increased sharply in the 1990s. The average industry-specific managerial occupation increased its female share by $10 \%$ in the 1980s, but not at all in the 1990s.

Second, however, the net gender wage gap decreased in each decade, apparently unaffected by the increased segregation as measured by the index of dissimilarity. That may reflect the decline in the vertical nature of the observed segregation, reflected in the falling index of net difference, which was reduced to zero by 2000. Thus, even though female managers were more concentrated by ISMO overall in 2000 than they were in 1990 or even 1980, the relative ranking of the positions they held improved (as measured by men's median earnings).

Third, another indication of slowing progress in the 1990s emerged in the estimates of gender composition effects on earnings. That effect - which leads to lower earnings in positions with more female managers - dropped by a third in the 1980s, but only an additional 5\% in the 1990s. It remains strong and significant, suggesting that female-dominated managerial occupations are lower paid, net of individual gender and other individual characteristics of which we have measures.

Fourth, as progress in reducing gender composition effects slowed, femaledominated managerial occupations became less protective of women relative to men. The gender relative gender gap at high levels of female representation increased from 1980 to 2000, as shown by the interaction between individual gender and ISMO gender composition.

Finally, it is not the case that the advantage of holding a managerial job title eroded as women's representation in the ranks of management increased. In fact, that advantage grew at twice the rate in the 1990s as it did in the 1980s. Unfortunately for women, they gained access to managerial positions at a slower pace during this later period of increased managerial advantage.

In conclusion, perhaps the Jacobs (1992) hypotheses ask too much for analysis of the 1990s, when women hold large proportions of managerial jobs. We believe they remain useful, however. Rather than finding absolute erosion of female standing among managers, as predicted by the skepticism that concerned Jacobs, we have seen that the progress for women in management ranges from steady or improving (earnings for all managers, and women relative to men) to stagnating (gender composition effects and relative ranking) to deteriorating (segregation and gender composition effects on women
relative to men). It is where we see relative erosion that the mechanisms proposed by Jacobs may be relevant. Where progress for women in management slowed in the 1990s, processes of resegregation in particular may be at work.

Finally, we offer an additional descriptive aside: industrial change in the economy seems to have played an important role in managerial integration. We ranked the ISMOs in each decade according to the rate of female representation change, and divided each decade's list into thirds. Nineteen ISMOS were in the top third of female representation growth in both the 1980s and 1990s, and the average growth for these ISMOs was $64 \%$ from 1980 to 2000. The five largest ISMOs in this category were education managers in colleges and universities (which increased from 34\% female in 1980 to 57\% female in 2000), medicine and health managers in hospitals (45\% to 65\%), education managers in elementary and secondary schools (21\% to 51\%), financial managers in banking (34\% to $60 \%$ ), and managers not elsewhere classified in security, commodity brokerage, and investment companies ( $21 \%$ to $44 \%$ ). On the other hand, the 17 ISMOs that fell from the top integration group in the 1980s to the bottom third in the 1990s were mostly shrinking over the period (average size dropped 6\%), including three that lost half or more of their managers in the 1990s: managers not elsewhere classified in motor vehicle dealers (1990: 34\% , 2000: 13\%), insurance (50\% to 45\%), and department stores (55\% to 37\%). Thus, if industrial shifts toward the service sector provided an important impetus for the growth of opportunity for women and the reduction of gender inequality in the 1970s and 1980s, we may find some seeds for the subsequence stalled progress in the structural changes that occurred in the subsequent decade.

The location and nature of stalled progress for managers should be seen in the context of the stall in overall trends toward gender equality (Cotter et al. 2004). We believe the study of managerial authority - who holds these positions, what authority they have, and how they wield it - should be an important part of the research agenda addressing this issue. Although we cannot demonstrate the connection between managerial trends and those broader changes, the presumption of managerial authority suggests that who holds such positions affects the practices of managers and the policies of organizations, providing potential mechanisms for the reproduction, or reduction, of gender and other forms of inequality (Reskin 2003).

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Table 1. Means of Variables Used in the Regression Analysis

|  | Men |  |  | Women |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1980 | 1990 | 2000 | 1980 | 1990 | 2000 |
| Earnings | 62,900.14 | 68,761.00 | 71,888.80 | 34,134.04 | 39,270.57 | 47,191.57 |
| Earnings(ln) | 10.91 | 10.95 | 10.96 | 10.32 | 10.44 | 10.58 |
| ISMO \% Female | . 23 | . 32 | . 32 | . 33 | . 44 | . 48 |
| Education |  |  |  |  |  |  |
| HS graduate | . 23 | . 17 | . 15 | . 42 | . 27 | . 20 |
| Some college | . 23 | . 30 | . 30 | . 24 | . 38 | . 35 |
| BA or more | . 47 | . 50 | . 52 | . 25 | . 32 | . 43 |
| Potential experience | 21.98 | 21.42 | 22.19 | 21.42 | 19.78 | 21.40 |
| Potential experience ${ }^{2}$ | 604.07 | 558.42 | 584.48 | 593.73 | 493.64 | 552.69 |
| Hours per week (ln) | 3.81 | 3.83 | 3.86 | 3.73 | 3.76 | 3.79 |
| Race/ethnicity |  |  |  |  |  |  |
| Black | . 03 | . 04 | . 05 | . 07 | . 07 | . 09 |
| Latino | . 02 | . 02 | . 03 | . 02 | . 02 | . 03 |
| Asian | . 01 | . 02 | . 04 | . 01 | . 02 | . 03 |
| Foreign born foreign | . 06 | . 08 | . 10 | . 05 | . 06 | . 08 |
| Family status |  |  |  |  |  |  |
| Married | . 86 | . 82 | . 78 | . 59 | . 62 | . 61 |
| Children under 18 | 1.27 | 1.11 | 1.06 | . 79 | . 81 | . 81 |
| Child under 5 | . 17 | . 18 | . 17 | . 06 | . 10 | . 11 |
| disable | . 03 | . 03 | . 07 | . 02 | . 02 | . 08 |
| $N$ | 25,999 | 31,963 | 30,821 | 8,830 | 18,454 | 18,546 |

Table 2. OLS Models for Managers’ Annual Earnings on Individual Characteristics

|  | 1980 |  | 1990 |  | 2000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 8.722 | *** | 7.821 | *** | 7.482 | *** |
| Female | -. 426 | *** | -. 340 | *** | -. 256 | *** |
| Education |  |  |  |  |  |  |
| HS graduate | . 209 | *** | . 196 | *** | . 226 | *** |
| Some college | . 385 | *** | . 410 | *** | . 425 | *** |
| BA or more | . 622 | *** | . 735 | *** | . 775 | *** |
| Potential experience | . 046 | *** | . 046 | *** | . 042 | *** |
| Potential experience ${ }^{2}$ | -. 0007 | *** | -. 0007 | *** | -. 0006 | *** |
| Hours per week (ln) | . 293 | *** | . 508 | *** | . 594 | *** |
| Race/ethnicity |  |  |  |  |  |  |
| Black | -. 158 | *** | -. 133 | *** | -. 095 | *** |
| Latino | -. 146 | *** | -. 078 | *** | -. 065 | *** |
| Asian | -. 104 | *** | -. 090 | *** | -. 015 |  |
| Foreign born | . 017 |  | . 023 | * | . 000 |  |
| Family status |  |  |  |  |  |  |
| Married | . 072 | *** | . 075 | *** | . 080 | *** |
| Children under 18 | . 007 | ** | -. 003 |  | . 004 | + |
| Child under 5 | -. 001 |  | . 041 | *** | . 044 | *** |
| Disability | -. 177 | *** | -. 194 | *** | -. 087 | *** |
| $\mathrm{R}^{2}$ | . 339 |  | . 356 |  | . 276 |  |

*p<.05; ** $p<.01 ;{ }^{* * *} p<.001$ (two-tailed tests)

Table 3. OLS Models for Managers’ Annual Earnings on Individual Characteristics and Gender Composition (with robust standard errors)

|  | 1980 |  | 1990 |  | 2000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 8.935 | *** | 8.009 | *** | 7.686 | *** |
| Female | -. 371 | *** | -. 297 | *** | -. 201 | *** |
| ISMO \% Female | -. 541 | *** | -. 370 | *** | -. 353 | *** |
| Education |  |  |  |  |  |  |
| HS graduate | . 211 | *** | . 196 | *** | . 229 | *** |
| Some college | . 392 | *** | . 416 | *** | . 438 | *** |
| BA or more | . 633 | *** | . 749 | *** | . 801 | *** |
| Potential experience | . 045 | *** | . 045 | *** | . 041 | *** |
| Potential experience ${ }^{2}$ | -. 0007 | *** | -. 0007 | *** | -. 0006 | *** |
| Hours per week (ln) | . 271 | *** | . 489 | *** | . 566 | *** |
| Race/ethnicity |  |  |  |  |  |  |
| Black | -. 139 | *** | -. 121 | *** | -. 076 | *** |
| Latino | -. 128 | *** | -. 071 | *** | -. 051 | *** |
| Asian | -. 104 | *** | -. 088 | *** | -. 016 |  |
| Foreign born | . 018 |  | . 026 | ** | . 000 |  |
| Family status |  |  |  |  |  |  |
| Married | . 066 | *** | . 073 | *** | . 076 | *** |
| Children under 18 | . 005 | * | -. 004 |  | . 005 | + |
| Child under 5 | . 002 |  | . 043 | *** | . 045 | *** |
| Disability | -. 171 | *** | -. 191 | *** | -. 085 | *** |
| $\mathrm{R}^{2}$ | . 354 |  | . 364 |  | . 284 |  |

Table 4. OLS Models for Managers' Annual Earnings on Individual Characteristics and Gender Composition (with robust standard errors)

|  | 1980 |  | 1990 | 2000 |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | :--- |
| Intercept | 5.037 |  | 4.094 | 3.738 |  |  |
| Female | -.456 | $* * *$ | -.336 | $* * *$ | -.147 | $*$ |
| ISMO \% Female | -.633 | $* * *$ | -.411 | $* *$ | -.309 | $* *$ |
| Female * ISMO \% Female | .284 | $*$ | .101 | -.128 |  |  |
| $\mathrm{R}^{2}$ | .330 |  | .345 | .245 |  |  |

* $p<.05$; ** $p<.01$; *** $p<.001$ (two-tailed tests)

Table 5. OLS Models for Annual Earnings on Individual Characteristics and Managerial Status

|  | 1980 |  | 1990 |  | 2000 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intercept | 8.858 | *** | 8.135 | *** | 7.367 | *** |
| Manager | . 194 | *** | . 215 | *** | . 263 | *** |
| Female | -. 441 | *** | -. 337 | *** | -. 269 | *** |
| Education |  |  |  |  |  |  |
| HS graduate | . 206 | *** | . 234 | *** | . 232 | *** |
| Some college | . 349 | *** | . 441 | *** | . 439 | *** |
| BA or more | . 562 | *** | . 751 | *** | . 793 | *** |
| Potential experience | . 029 | *** | . 030 | *** | . 028 | *** |
| Potential experience ${ }^{2}$ | -. 0005 | *** | -. 0004 | *** | -. 0004 | *** |
| Hours per week (ln) | . 274 | *** | . 413 | *** | . 607 | *** |
| Race/ethnicity |  |  |  |  |  |  |
| Black | -. 146 | *** | -. 107 | *** | -. 076 | *** |
| Latino | -. 123 | *** | -. 070 | *** | -. 069 | *** |
| Asian | -. 050 | *** | -. 018 | *** | . 040 | *** |
| Foreign born | -. 051 | *** | -. 053 | *** | -. 073 | ** |
| Family status |  |  |  |  |  |  |
| Married | . 072 | *** | . 073 | ** | . 076 | *** |
| Children under 18 | . 004 | *** | -. 003 | *** | . 005 | *** |
| Child under 5 | -. 003 |  | . 033 | *** | . 045 | *** |
| Disability | -. 143 | *** | -. 144 | ** | -. 057 | *** |
| $\mathrm{R}^{2}$ | . 320 |  | . 348 |  | . 332 |  |
| * $p<.05 ;{ }^{* *} p<.01 ;{ }^{* * *} p<.001$ (two-tailed tests) |  |  |  |  |  |  |

Figure 1. Percent Female Among Managerial Workers, 1970-2005


Figure 2. Percent of All Workers in Managerial Occupations March Current Population Surveys, 1978-2002


Figure 3. Gender Segregation Across Industry-Specific Managerial Occupations, 1980-2000


Figure 4. Female Concentration in ISMOs, 1980-1990 \& 1990-2000



[^0]:    ${ }^{1}$ The period 1980-2000 spans three sets of occupation codes, with the 2000 representing the most distinct scheme.
    ${ }^{2}$ Examination of the industrial and occupational distributions showed several problems with the IPUMS recoding. In particular, some occupations are industry specific. In 1980 there are many managers "not elsewhere classified" in the food service industry and the hotels and motels industry, but in 1990 and 2000 they are classified as "managers of food service and lodging." In order to include the many managers from hotels and restaurants, we separated those managers by industry and combined them across occupations. As a result, in our coding managers in hotels and restaurants are differentiated only by industry. We did this rather than discarding these ISMOs because they are so big, together accounting for almost 16,000 managers in the sample - the 2nd and 8th largest ISMOs after the combination. Where median earnings are used (see below), we calculated them as weighted averages of all the occupational cells within each of these two industries.

[^1]:    ${ }^{3}$ For the final regressions, which test the interaction effect between ISMO percent female and individual gender, we accidentally used the natural log of estimated hourly wages instead of annual earnings.
    ${ }^{4}$ For 2000, we use the single-race variable constructed by IPUMS. Also, we forgot the dummy variable for "Other" race/ethnicity in the models.
    ${ }^{5}$ The definition of disability changed over these Census years, so these variables are not strictly comparable over the decades covered.

