Opting Out, Scaling Back, or Business-As-Usual? An Assessment of Women's Employment Hours in 92 Occupations.

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Abstract

Recent media reports claim that highly educated, professional women are increasingly exiting the labor force when they have children and are the leading edge of an "opt-out revolution." Research does show that mothers work fewer hours and are more likely to opt out of the labor force than non-mothers, however these trends have become less pronounced over the years. Furthermore, the extent to which women opt out or scale back on work hours depends on the occupation they are in. Using data from the first 3-year Public Use Microdata Sample of the American Community Survey (2005-2007), I examine patterns of opting out and scaling back across 92 occupations. Mothers in managerial and professional occupations are the least likely to opt out of the labor force but most likely to work reduced hours relative to non-mothers in the same occupation. Employed mothers in most other occupations work about the same number of hours per week as non-mothers. Occupational disaggregation is one of the key mechanisms through which these patterns can be evaluated, as women are opting out or scaling back within a

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[1] The views expressed herein are those of the author and not necessarily those of the U.S. Census Bureau.

specific context that is significantly influenced by their occupation in combination with their individual circumstances.

Key words: Women's employment; Occupations; Gender; Work hours; Opting out.

Introduction

Mothers' employment is a topic of intense media and academic scrutiny. Popular *New York Times* articles describe a retrenchment of mothers' labor force participation since the 1990s, particularly among highly educated women (Belkin 2003; Story 2005). Recent work by Pamela Stone (2007) also shows that women in "elite" occupations have a difficult time negotiating reduced or flexible schedules and as a result may "opt out" of the labor force. On the other hand, Boushey (2008a) documents no significant reduction in labor force participation among highly educated women in recent years and Percheski (2008) shows that the leveling off in women's employment in recent cohorts affected childless women as well. Neither Boushey nor Percheski find evidence supporting an "opt-out revolution."

Although women are not opting out in increasingly large numbers, the media and researchers alike usually agree that mothers, on average, are less likely to be employed and work fewer hours than their childless counterparts (Kaufman and Uhlenberg 2000; Altonji and Paxson 1992). This gap has narrowed substantially over the years (Boushey 2008a) but the labor supply gap remains. When, whether, and how much mothers work continues to vary by education, birth cohort, race and ethnicity, age, and household income, among other characteristics (Boushey 2008a; Percheski 2008). These characteristics are also associated with a person's occupation and each occupation may provide a different set of advantages and disadvantages to combining work

and family responsibilities. For instance, professional occupations may provide more access to paid leave and higher wages (Boushey 2008b), enabling women to combine caretaking (own or purchased) with work more easily, but on the other hand, some professional occupations have long average work hours (Hilgeman 2009).

An important limiting factor to recent research on opting out is its focus on affluent, educated, mostly white, married women due, in part, to a small sample size (e.g., Epstein et al. 1999; Blair-Loy 2003; Stone 2007). These compelling studies provide admirable detail on the work-family time bind and their sample of professional and managerial women wield authority and privilege other women do not, making them useful case studies to examine the challenges that even privileged women face. However, less advantaged women or women in different occupations may not have the same set of challenges or options. It is important to make occupational comparisons of women's employment precisely to provide insight into the differential structures of disadvantage that lead to different work-family balance outcomes. Recent research by Joan Williams (2010) critiques the absence of research on the working class and the disproportionate focus on managerial and professional workers. Williams claims that working class families have less employment flexibility, are at increased risk of mandatory overtime, lack employment benefits, and are more likely to have to work on-site. These structural employment differences merit expanding the opt-out discussion to a much wider range of women to have a fuller grasp of the work-family challenges and potential solutions.

This research aims to expand the opting-out discourse to a wider range of women to understand differences between women who opt out and those who do not. Through comparisons among women in a wide range of occupations, of a variety of income levels, of different races and ethnicities, I show who is more likely to opt out or scale back on work hours. I illustrate

these patterns of opting out and scaling back across 92 occupations while controlling for individual characteristics. I use the 2005-2007 Public Use Microdata Sample (PUMS) file of the American Community Survey (ACS). These data are cross-sectional. As such, I cannot measure whether women are opting out or scaling back in response to recent childbearing. Instead, I measure the association between labor force participation, work hours, and the presence of children. Women are characterized as opting out if they had a job within the last 5 years but are not currently in the labor force. Women may opt out for a variety of reasons, some of which may not be related to parental status (parental status is controlled for in the models). Scaling back is operationalized as the work-hour gap between mothers and non-mothers within the same occupation and with similar demographic and economic characteristics.

I find that women with children do scale back on work hours and they are primarily concentrated in managerial and professional occupations. Although Stone (2007) and Epstein and her colleagues (1999) might argue that the long work hours required in professional occupations prompt women to exit the labor force, I show that mothers in these occupations are not particularly likely to opt out (relative to mothers in other occupations). In fact, women in occupations with long weekly work hours are less likely to opt out. These women are disproportionately in managerial and professional occupations and may have lucrative careers and higher opportunity costs as well as more flexibility and options than other women. Women in these occupations are the only occupational grouping showing a significant degree of scaling back on work hours. In most other occupations, the presence of children in the household has no effect on work hours among employed women (perhaps because women who would be likely to scale back opt out in the absence of scale-back options). Although the odds of opting out are generally higher among mothers than non-mothers in most occupations, there is occupational

variation. On average, the odds of opting out among women with a preschool child are about 36 percent higher than women without children and most occupations fall between the 0 to 50 percent range. Occupational disaggregation is one of the key mechanisms through which work hour and labor force participation patterns can be evaluated, as women are opting out or scaling back within a specific context that is significantly influenced by their occupation in combination with their individual circumstances.

Trends in Women's Employment

Women's labor force participation has risen significantly throughout the past two centuries. With changes in federal legislation (e.g., Title VII of the Civil Rights Act of 1964, Equal Pay Act of 1963) and increased educational attainment, job opportunities for women have become more varied and rewarding. Women's employment has increasingly resembled men's employment (despite a slowdown in the 1990s and early 2000s). Blau and Kahn (2005) argue that there has been a reduction in women's wage elasticity since the 1980s and they are also less responsive to husbands' wages. Women with higher wages are more likely to work and labor force participation rates increased more among women married to men with higher wages. This indicates that women are showing a greater attachment to the labor market over time. Percheski (2008) examined professional and managerial women's employment rates by birth cohort and found rising labor force participation rates and full-time, year-round employment. Although a measure of work hours is included (working 50 or more hours per week) and shows increase as well, most women do not work more than 50 hours per week. Boushey (2008a) uses Current Population Survey data to examine trends in women's employment between 1980 and 2006. She finds that individual characteristics are still significant predictors of women's employment.

College educated women and Black women are more likely to work while Hispanic women, married women, and women with a larger family income are less likely to work.[2]

Approximately 66 percent of married couples with children under 18 are dual-earner couples (Kreider and Elliott 2009). Although the majority of women are now employed, mothers are more likely to leave paid employment than are non-mothers and mothers are more likely to work shorter hours if they remain employed (Kaufman and Uhlenberg 2000; Altonji and Paxson 1992). These differences are frequently attributed to the time constraints created by work and family responsibilities. Using panel data from the Survey of Income and Program Participation, Johnson (2008) shows that among women who worked during pregnancy and returned to work within 12 months of giving birth, 33 percent of women worked fewer hours, 53 percent worked about the same number of hours, and 14 percent worked longer hours after having a child. The combination of lower labor force participation rates and shorter work hours creates a labor supply gap between mothers and non-mothers. While the effect of having a child (on women's employment) has declined over the years, there are differences. Using Current Population Survey data, Boushey (2008a) shows that having a child reduced the likelihood of employment by 22 percent in 1978 and by 13 percent in 2005. Blau and Kahn (2005) also show that annual hours of work are decreasing less among mothers of young children since 1990.

The "Child Effect" Within Occupations

Several recent studies examine the effect of parenthood on women's careers within selected industries or occupations: lawyers (Epstein et al. 1999), health care industry (Garey

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[2] Kreider and Elliott (2009) also find that Hispanic women with lower levels of education are less likely to be in the labor force. However, they find that it is women with lower family income who are less likely to work. Day and Downs (2008) show that women in households with higher income levels are more likely to work, except for women in the highest income category (over $200,000).

1999), "elite" managerial and professional women (Stone 2007), "privileged" managerial and professional couples (Becker and Moen 1999), and the financial sector (Blair-Loy 2003). These studies used qualitative interviews with a small sample of women to illustrate work-family dynamics within particular industrial and occupational settings.

Stone (2007) conducted intensive life history interviews with 54 highly educated women who were married with children and had left elite careers. Stone finds that there is a "choice gap" in that women quit as a last resort after unsuccessful attempts at combining demanding careers with parenthood. The occupations' long hours were seen as a "fundamental obstacle" (p. 222) to mothers' employment. Neither husbands nor employers were accommodating to work-family, dual-demands and husbands' income was usually sufficient to provide a "choice" for their wives to stay home.

Blair-Loy (2003) held in-depth interviews with 81 female finance and business executives. About one third had left their jobs while two thirds remained employed after having children. While some women had been able to negotiate part-time arrangements, they typically worked long part-time hours and felt resistance from co-workers and employers for "violating the work devotion ethos" (p. 23). Epstein and her colleagues (1999) report similar reactions to part-time work in the legal profession based on their 125 interviews with attorneys. Full- or part-time hours were evaluated in comparison to co-workers and employers, not to a standard full-time cut off (i.e., 35 hours a week), hence some were working "part-time" (according to employer standards) at 40 hours a week. Becker and Moen (1999) show that scaling back is one type of work-family strategy women employ as women are more likely to place limits on their work hours, opting to increase efficiency within fewer hours of work.

Shifting away from professional and managerial occupations, Garey (1999) focused on women in the health care industry. She interviewed 37 women in a variety of occupations including nurses, nursing directors, janitors, clerical and administrative assistants. Garey finds that women frequently mention "being there" for their children and will work night shifts or otherwise alter schedules to do so (managerial and professional women in the previous studies had similar concerns but seemingly different strategies or options). Employment was described as being part of their identities as well as a necessary source of income. Part-time schedules were not always viable because some could not afford to work a reduced schedule.

Most recently Day and Downs (2008) examined women's employment rates in an extensive number of occupations using 2005-2007 American Community Survey data. They find that women with a birth in the last 12 months have lower labor force participation rates and higher part-time, part-year employment. Women in health care, computer, engineering, science, management, business, and professional occupations have the highest probability of working after a birth, while women in farming, fishing, forestry, and construction occupations have a lower probability of working following a birth. Although a measure of part-time work is included (part-time, part-year employment consisting of either less than 50 weeks per year or less than 35 hours per week), one is not able to determine the incidence of smaller but more normative variations in scaling back (e.g., going from 38 to 36 hours per week).

Research Contributions

This research expands the literature in two important ways. First, I examine the likelihood of opting out using a large sample of diverse women in a wide range of occupations using hierarchical models. Prior research has usually been limited in sample and/or constrained

to a narrow set of occupations (for an exception, see Day and Downs 2008). Second, I examine the magnitude of scaling back on work hours among employed women. I use a continuous work hour variable to show patterns of variation in work hours by occupation among mothers and non-mothers while controlling for a variety of individual characteristics. A continuous work hour variable can more precisely reflect differences in work hours between mothers and non-mothers. This research is among the first to use hierarchical logistic models and hierarchical linear models to explore these issues. Because work hours are correlated with occupation and because of differences in potential selection bias into an occupation between mothers and non-mothers, it is important to examine individual differences within occupations.

Data

I use data from the first 3-year Public Use Microdata Sample (PUMS) file of the American Community Survey (ACS).[3] The ACS PUMS file provides detailed demographic, social, economic, and housing data obtained from approximately 3.8 million households over a three-year period (2005-2007). The ACS is the largest household survey in the United States and the large sample allows me to examine women's employment patterns in a large number of occupations with statistical precision. The unweighted sample size is 1,714,605 in the first set of analyses and 1,559,944 in the second set of analyses. My sample consists of women ages 18-64 who are currently employed or who have had a job in the last five years, accounting for about 85% of all women in this age group. Occupational information is gathered for the person's current job, if the person is employed, or her last job if she is not employed but had a job in the last five years. This provides the data necessary to examine work hours and labor force

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[3] Results from the ACS PUMS file are comparable to results obtained using the full, internal ACS file.

participation rates of women who are either presently in an occupation or who were in an occupation but have since left the labor force.

Methods

In order to assess labor force participation rates (opting out) and work hours (scaling back), I perform two separate analyses. The first set of analyses evaluates the likelihood of mothers' and non-mothers' employment in 92 occupations using hierarchical logistic models. These models allow me to examine an individual's probability of being in the labor force within a particular occupation while controlling for individual characteristics. By allowing individual characteristics' effects to vary by occupation, I can examine the extent to which parental status interacts with occupation to produce an occupationally-unique correlation between parental status and labor force participation.

The second set of analyses retains currently employed women who report working at least one hour in a usual week in order to assess mothers' and non-mothers' work hours within 92 occupations. Work hours are top coded at 79 to reduce model bias due to extreme outliers. These analyses use hierarchical linear models to allow me to evaluate the occupation-specific effect of having a child. Individual characteristics in both models are grand-mean centered, with the exception of parental status. Estimates can be interpreted as the odds ratio of being in the labor force for a woman without children who is at the mean on all characteristics in the hierarchical logistic models or the average work hours for a woman without children who is at the mean on all characteristics in the hierarchical linear models. To estimate the effect of parenthood, one would add the effect of having a preschool- or school-aged child to the estimate.

<u>Measures</u>

These analyses include two dependent variables. The dependent variable in the hierarchical logistic models is labor force participation. This is a binary variable with a value of 0 if a person is in the labor force and 1 if the person is not in the labor force. Individuals who are unemployed or temporarily absent from work (e.g., on sick leave or maternity leave) are considered part of the labor force. The second dependent variable, used in the hierarchical linear models, is a continuous measure of usual hours worked per week, ranging from 1 to 79. This variable is derived from the following question: "During the past 12 months, in the weeks worked, how many hours did this person usually work each week?"

Independent variables in both models include age, sex, marital status, presence and age of children in the household, presence of a person 65 and over in the household, race, ethnicity, educational attainment, school enrollment, class of worker, weeks worked in the last 12 months, natural logarithm of wages, natural logarithm of family income, and industry. Binary measures include sex (female = 1), marital status (married = 1), ethnicity (Hispanic = 1), and school enrollment (enrolled = 1). I include presence of a person 65 and over in the household (present = 1). This may capture some individuals who are part of the "sandwich" generation with caretaking responsibilities for children and aging parents. On the other hand, a person age 65 and over may be employed and/or may assist in caretaking of children. Therefore, the effect on work hours (if any) is not clear but could be valuable to consider. Race is categorized into Black, Asian, or Other with White as the reference category. Educational attainment consists of two binary variables indicating whether a person completed some college or a person attained a Bachelor's degree or higher level of education. Individuals who have not attended college are the reference category. Class of worker is measured using two variables to indicate whether a person works for

the government or is self-employed, with private sector employment as the reference category. Industry is included as a series of binary variables, capturing 13 different industrial sectors.

Presence and age of children is measured using two binary variables to indicate whether the respondent lived with at least one preschool-aged child (age 0 to 5) or a school-aged child (age 6 to 17). Households without children are the reference category. Women with children in multiple age groups are coded by the age of their youngest child. Although these may not necessarily be the respondent's own children, in the vast majority of the cases they are (about 90% of children in the household are children of the respondent). Additional children who are not the children of the respondent may still, in some cases, represent a caretaking responsibility. Unless otherwise stated, all references to "mothers" refer to women who have at least one child between the age of 0 and 5 in the home. For the purposes of these analyses, "non-mothers" are women who do not have any children age 0 to 17 in the home. Although I control for the presence of a school-age child in the models, I focus my analyses on mothers of preschool children because they have higher rates of opting out compared to mothers of school-age children and non-mothers. Mothers of school-age children are slightly less likely to opt out than non-mothers and much less likely to opt out than mothers of preschool-age children, although they do work about one hour less per week than non-mothers (see tables 1 and 2).

Continuous measures include age (18 to 64), percent female,[4] weeks worked in the last 12 months (0 to 52), the natural logarithm of wages,[5] and the natural logarithm of family

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[4] Percent female is the mean sex composition of each occupation included in the model and is based on the number of men and women ages 18-64 in these occupations.
[5] Wages are obtained by dividing wage, salary, or self-employment income in the past 12 months by weeks worked in the past 12 months and usual weekly work hours. Wages are set to 0 for women who have not worked in the past 12 months.

income.[6] The 92 occupational groupings employed in the analyses are consistent with the occupational nesting hierarchy provided by the Standard Occupational Classification 2000.

Results

These analyses reveal two primary findings. First, mothers' odds of opting out are about 36 percent higher than non-mothers'. Second, women with children do work reduced hours but this is mainly the case in managerial and professional occupations. Mothers in most other occupations work about the same number of hours per week as non-mothers. Differences that are statistically significant are not of a large magnitude. On average, mothers of preschoolers work an hour less per week than non-mothers after controlling for occupation and individual characteristics. Overall, mothers were more likely to opt out in 70 percent (64 of 92) of the occupations and scale back in 37 percent (34 of 92) of the occupations. In 23 percent of the occupations (21 of 92) having a preschool child neither increased the likelihood of opting out nor reduced work hours among mothers of preschoolers.

Opting Out

Mothers' and non-mothers' opt-out patterns are broadly similar within major occupation groups, even though mothers' rates are somewhat higher. Figure 1 illustrates the unadjusted opt-out rates (without control variables) among mothers and non-mothers. Without controlling for compositional effects, the rate of opting out among mothers of preschoolers ranges from 19 percent in management and professional occupations to 36 percent in farming, fishing, and forestry occupations. Similarly, the rate of opting out among non-mothers is lowest in

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[6] Family income includes wage or salary income; self-employment income; interest, dividends, or net rental income; Social Security income; Supplemental Security income; public assistance income; and retirement, survivor, or disability income. The incomes of all coresident family members 15 years old and over for the past 12 months are summed and treated as a single amount.

management and professional occupations (12 percent) and highest in farming, fishing, and forestry occupations (28 percent). Figure 1 suggests that although mothers opt out at higher rates than non-mothers, there is a significant amount of opting out for non-parenting related reasons. Parenting is just one of several reasons women may not be in the labor force. Other reasons may include school enrollment, other personal pursuits, disability, and unemployment. Some occupations may be more prone to long term unemployment than others leading to a higher number of discouraged workers who may be captured among those out of the labor force to the extent that they do not have a job and are no longer looking for employment. Because of significant variation in opting out among women without children, mothers' rate of opting out needs to be considered in comparison to women without children to more accurately parse out the "child effect."

After controlling for individual characteristics using hierarchical logistic models, occupational trends in the odds of opting out diminish (see table 1 for results on all control variables and figure 2 for the adjusted opt-out odds ratio by occupation). That means that some of the opt-out differences across occupations are accounted for by compositional effects given the correlation between individual characteristics and occupation. Significant variation remains, however. Taking the example of architects, who show among the highest odds of opting out relative to non-mothers, we see that after controlling for individual characteristics mothers are about four and half times more likely to opt out. As seen in figure 1, mothers who are architects do not have notably high rates of opting out. The unadjusted rate of opting out is 27 percent among mothers who are architects. However, the opt-out rate is unusually low among non-mothers at 8 percent. In contrast, an occupation with a relatively high opt-out rate among mothers such as cashiers (35 percent) has a lower odds ratio (1.4) than architects because non-

mothers also opt out at fairly high rates (23 percent), which shrinks the parenthood gap in opting out.

Interestingly, women who are in occupations with long normative hours are less likely to opt out. Although it may seem intuitive to think that long average work hours would be a tremendous barrier to combining work and family, women in these occupations are less likely to opt out. In models that control for the average hours worked in each occupation, women are 2 percent less likely to opt out for every additional average hour worked in that occupation.[7] These results differ from those found by Moen and Huang (2010). Moen and Huang find that women working longer hours are more likely to exit the labor force. These differences in findings could be the result of differences in sample and measurement. Moen and Huang use a small sample (N = 983) of middle-class, managerial and professional couples. They do not use a continuous work hour measure and do not control for detailed occupation or incorporate women in a variety of occupations. When we examine labor force patterns across all occupations it becomes evident that it is typically women in long-hour occupations who are more likely to remain employed (compare figure 1 and figure 3).

Managerial and professional occupations tend to be more lucrative and women in these occupations face higher opportunity costs for opting out. Women in these occupations also have more flexibility and options, allowing them to scale back their work hours even if the normative work-week is longer (Hilgeman 2010). Even though women in these occupations may have more flexibility to scale back their work hours, this does not imply that they are able to work their ideal set of hours. Mothers in these occupations remain pressed for time and many are not able to

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[7] Results available upon request. These models replicate the model results in tables 1 and 2 with the addition of a variable for average hours worked in each occupation. Average work hours by occupation is derived by calculating the mean usual work hours for employed men and women ages 18-64 in each of 92 occupations.

structure work and family time in ways that meet their preferences (Epstein et al. 1999; Stone

2007).

Scaling Back

Mothers of preschool children working in managerial and professional occupations work

reduced hours (relative to women without children in these same occupations). This stands in

contrast to Stone's (2007) findings that women in elite professional and managerial occupations

were not able to cut back on work hours. Figure 3 shows the unadjusted average work hours

among mothers and non-mothers. Figure 4 shows the work hour gap between mothers and non-

mothers after controlling for individual characteristics. Both figures show that this gap is largest

in managerial and professional occupations. This is the case even after controlling for the

average work hours in each occupation, indicating that women in managerial and professional

occupations are not just showing larger reductions in work hours simply because they work long

hours and have more hours available to cut back on.[8] On the other hand, because of the long

work hours in managerial and professional occupations, many women who cut back on work

hours are still working full-time hours (see figure 3). Physicians, for example, scale back among

the largest number of hours (about 6 hours per week) but Physicians who are mothers still

average 45 hours of work per week. Given that in the United States part-time work is penalized

(Kalleberg 2000), women might be less likely to scale back if the resulting hours will be part-

time. Therefore, managerial and professional women have the disadvantage of working in

occupations requiring long hours of work yet still have the advantage of some flexibility in

reducing hours (albeit above the part-time threshold) without the fear of losing benefits

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[8] Results available upon request.

associated with full-time work within these occupations (e.g., health, retirement, and vacation benefits).

Because scaling back may not necessarily be of a large magnitude (ranging from 0 to 6 hours per week), studies that use a "one-size fits all" definition of part-time work (i.e., less than 35 hours a week) will miss the mechanism by which most women with children scale back their work hours.[9] There are some occupations with normative hours that fall below the 35-hour part-time cut off, therefore this cut off would not pick up scaling back or find meaningful work hour distinctions between mothers and non-mothers. Equally, there are many long-hour occupations in which mothers may scale back but not below the 35-hour cut off. My research provides some evidence that women do not always scale back employment by switching from full-time to part-time employment, particularly half-time employment such as 20 hours per week. Longitudinal assessment by occupation would be necessary to verify this, however few longitudinal studies have sample sizes large enough to accommodate an occupational assessment as performed here. In the absence of panel data with a large enough sample size and occupational detail to perform a longitudinal assessment of scaling back, this research uses a cross-sectional approximation.[10]

What these analyses show is that scaling back usually consists of a reduction in work hours of a few hours per week. Managerial and professional women are the least likely to opt out but most likely to scale back work hours. Women with children in most other occupational groupings (e.g., construction, transportation, production, sales, and office) either opt out of the labor force or continue to work regular hours (as defined by the occupation).

Business-As-Usual

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[9] Results for primary and control variables are available in table 2. Table 3 provides coefficients for the presence of a preschool child for the ten largest occupations among women.

[10] Panel data from the Survey of Income and Program Participation were examined, however the sample size was too small and margins of error too large to yield any meaningful conclusions. The sample size was too small for statistical analyses even after collapsing the data into 2 large occupational aggregations.

Of the 92 occupational groupings examined here, 21 occupations show no "child effect."[11] That is, having preschool children neither increased the likelihood of opting out nor reduced mothers' work hours. These occupations seem to fall in two categories: short-hour occupations (e.g., librarians and transportation attendants) or heavily male-dominated occupations (e.g., electricians and rail workers). Although it is not possible to assess why there is no child effect in these occupations with these data, it is possible that short-hour occupations may create less of a need for scaling back among women with children. Occupations that are male-dominated may provide less flexibility in working reduced schedules. In fact, women working in two major occupational groupings with a higher concentration of male workers: construction, extraction, maintenance, and repair occupations and production, transportation, and material moving occupations show very little scaling back of work hours, if any.[12] When including men in the sample, the distribution of work hours in these occupations shows a strong cluster around a 40-hour work-week. Future research should examine why there is such a small child effect in these occupations.

Discussion and Conclusion

Here I show that women with children tend to work a few hours less than women without children with a varying magnitude of scaling back across occupations. Although interview respondents have described professional and managerial occupations as an "all-or-nothing" endeavor (Stone 2007, p.83), I find that managerial and professional occupations are the most

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[11] The occupations are: drafters; legal support workers; librarians; health technologists; firefighters; law enforcement; transportation attendants; communications equipment operators; fishing, hunting, and forestry workers; construction supervisors; construction laborers; electricians; plumbers; other construction workers; vehicle mechanics; electrical equipment mechanics; printing workers; woodworkers; transportation supervisors; rail workers; and truck drivers.

[12] These occupations contain a smaller but sufficient number of women to assess work hours and labor force participation rates. All occupations contain between 150 and 140,000 unweighted cases.

likely to show some evidence of scaling back. Anderson and her colleagues (2003) point out that in certain occupations it may be easier to "trade off time for effort." Managerial and professional occupations tend to be salaried thus concentrating more work into a shorter amount of time may be more feasible than for women in occupations that pay an hourly rate or where effort cannot replace "face-time" (e.g., assembly line workers). Some women are in occupations where there may not be a substantial amount of worker control over work hours or conditions (Galinsky et al. 2010) and not all workers are able to work their preferred set of hours (Reynolds 2003).

Even in managerial and professional occupations the magnitude of scaling back is small (a few hours in these occupations) and normative hours for professional and managerial occupations are long (Jacobs and Gerson 2004). This is also taking place in a context of minimal protected entitlements for working parents. Federal family leave provisions are unpaid and do not cover all of the labor force. Quality child care often comes at a high cost. Work hours are mostly unregulated. Balancing work and family responsibilities, given these conditions, remains a challenge and still poses a barrier to retaining and increasing labor supply among women.

Although mothers show a higher rate of opting out of the labor force, research shows that mothers also have a more difficult time getting hired so opting out may not accurately describe these women's circumstances (Correll et al. 2007). Given these issues with re-entry we might consider the difficulties with "opting in" across different occupations. Progress and expansion of parental leave legislation may help reduce some of these difficulties with employment re-entry as mothers who have parental leave coverage are more likely to return to work for the same employer than women without coverage (Waldfogel 1998). Yet in light of the current recession workers may have even greater difficulties obtaining a job, particularly one with benefits and flexibility.

Somewhat surprisingly, I find that it is women in long-hour occupations who are least likely to opt out. Although women in managerial and professional occupations work long hours, women in these occupations may face higher opportunity costs for opting out. Because work hours are not entirely standardized by occupation (Hilgeman 2009), women have more flexibility in these occupations and may be able to modify hours in response to family circumstances even though the scaling back tends to be of a fairly small magnitude. Occupational context is an important dimension for assessing women's labor supply. The extent to which mothers opt out and scale back their work hours varies by occupation. Although mothers do scale back and opt out at higher rates than non-mothers in many occupations, having children has very little effect in others. Future research should consider why some occupations are more flexible than others and how that affects mothers' employment hours and rates.

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Figure 1: Opting Out by Occupation for Women With a Preschool Child and Employed in the Last 5 Years Compared to Women Without Children (Unadjusted for Control Variables)
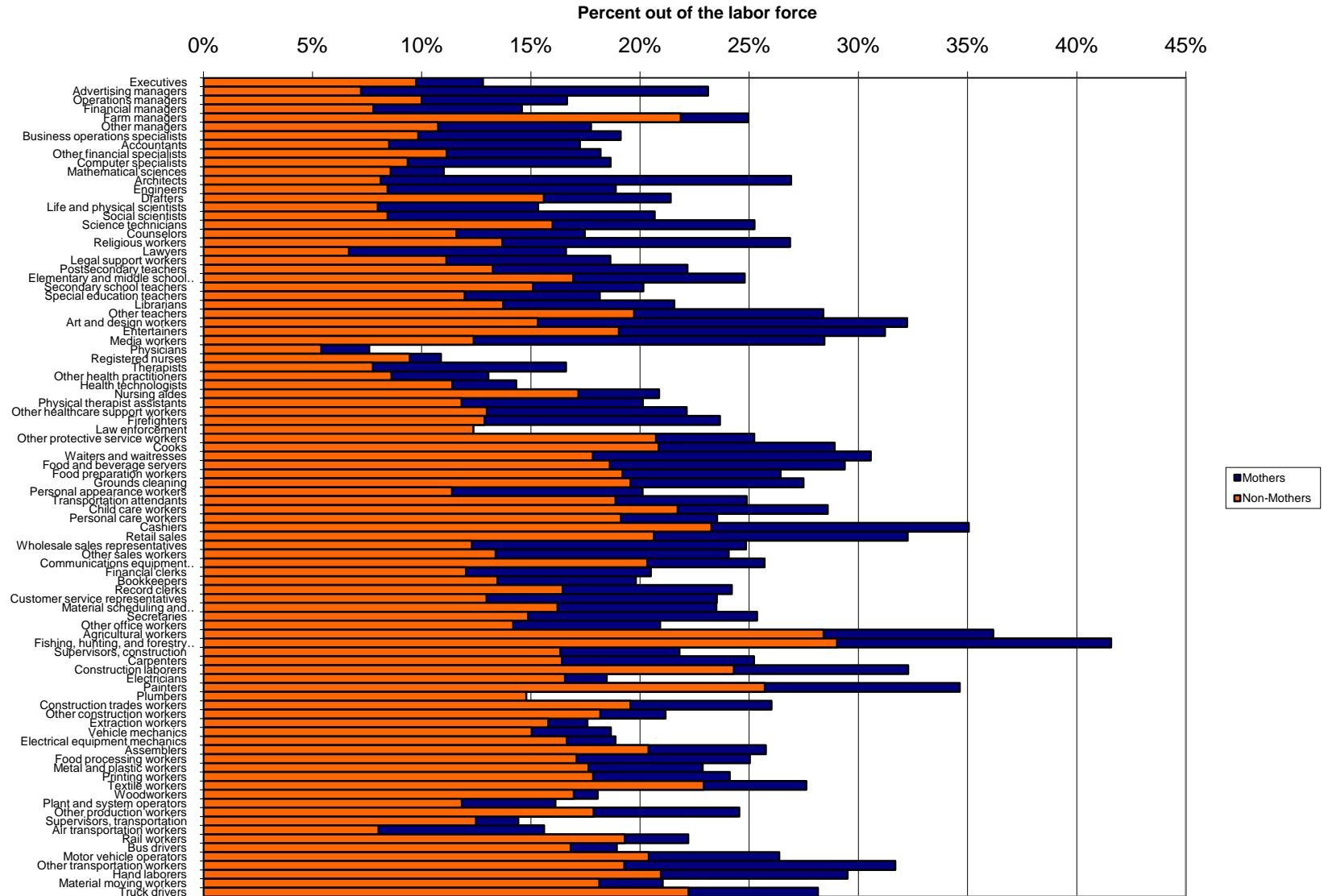

Percent out of the labor force

Figure 2: Estimated Odds of Opting Out by Occupation for Women With a Preschool Child and Employed in the Last 5 Years Compared to Women Without Children (With Control Variables)
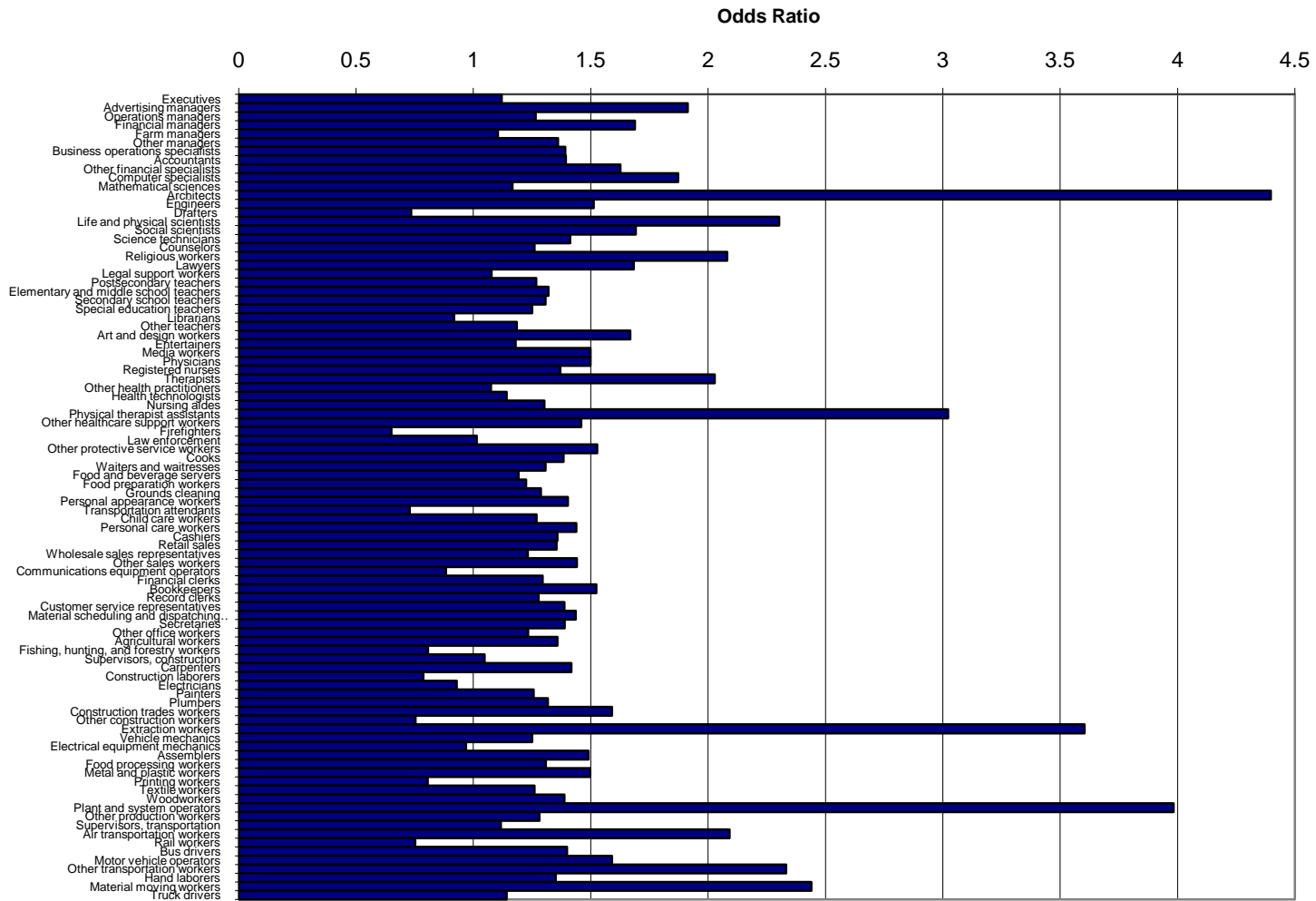
Figure 3: Work Hours by Occupation for Currently Employed Women With a Preschool Child Compared to Women Without Children
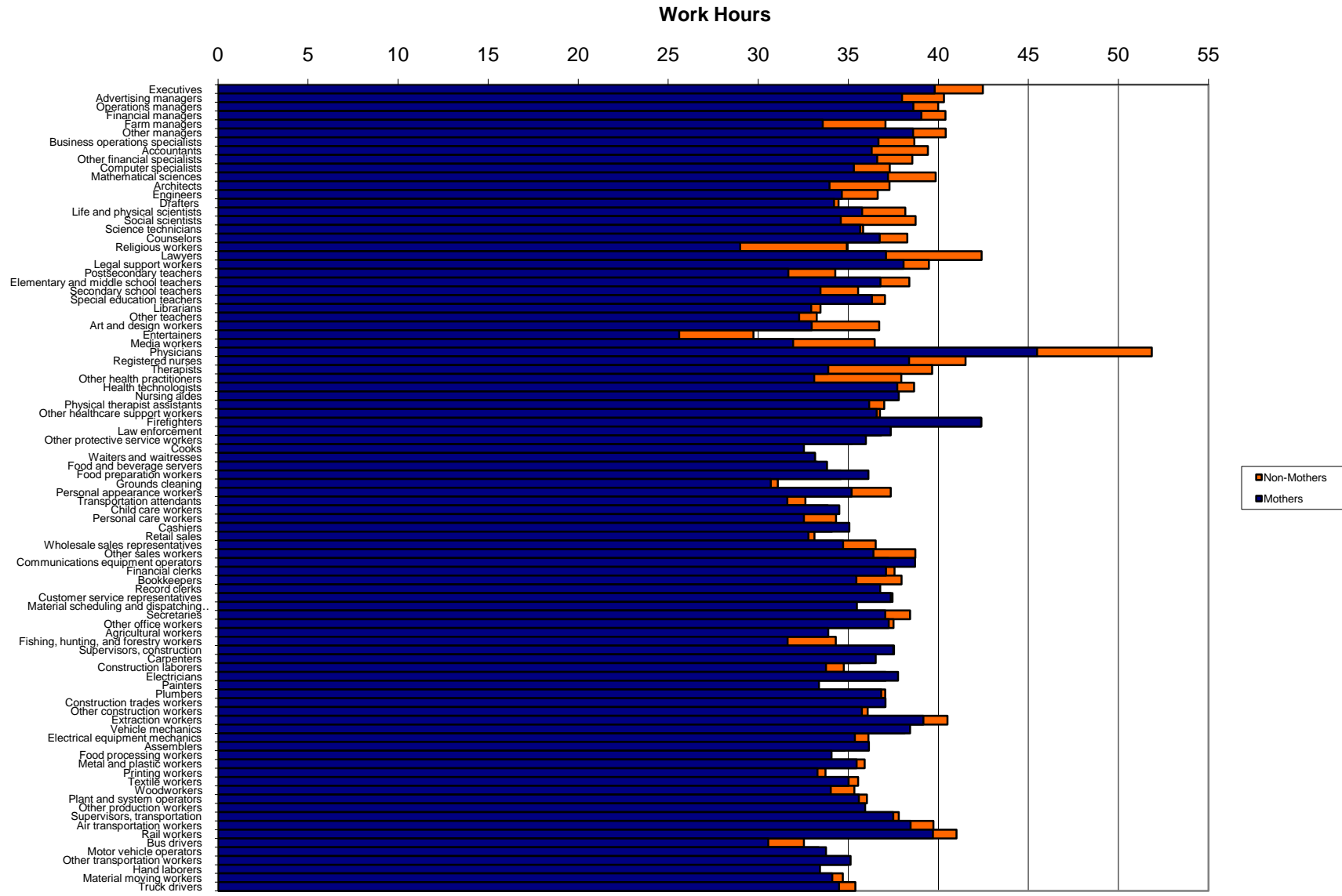
Figure 4: Estimated Scaling Back by Occupation for Currently Employed Women With a Preschool Child Compared to Women Without Children (With Control Variables)
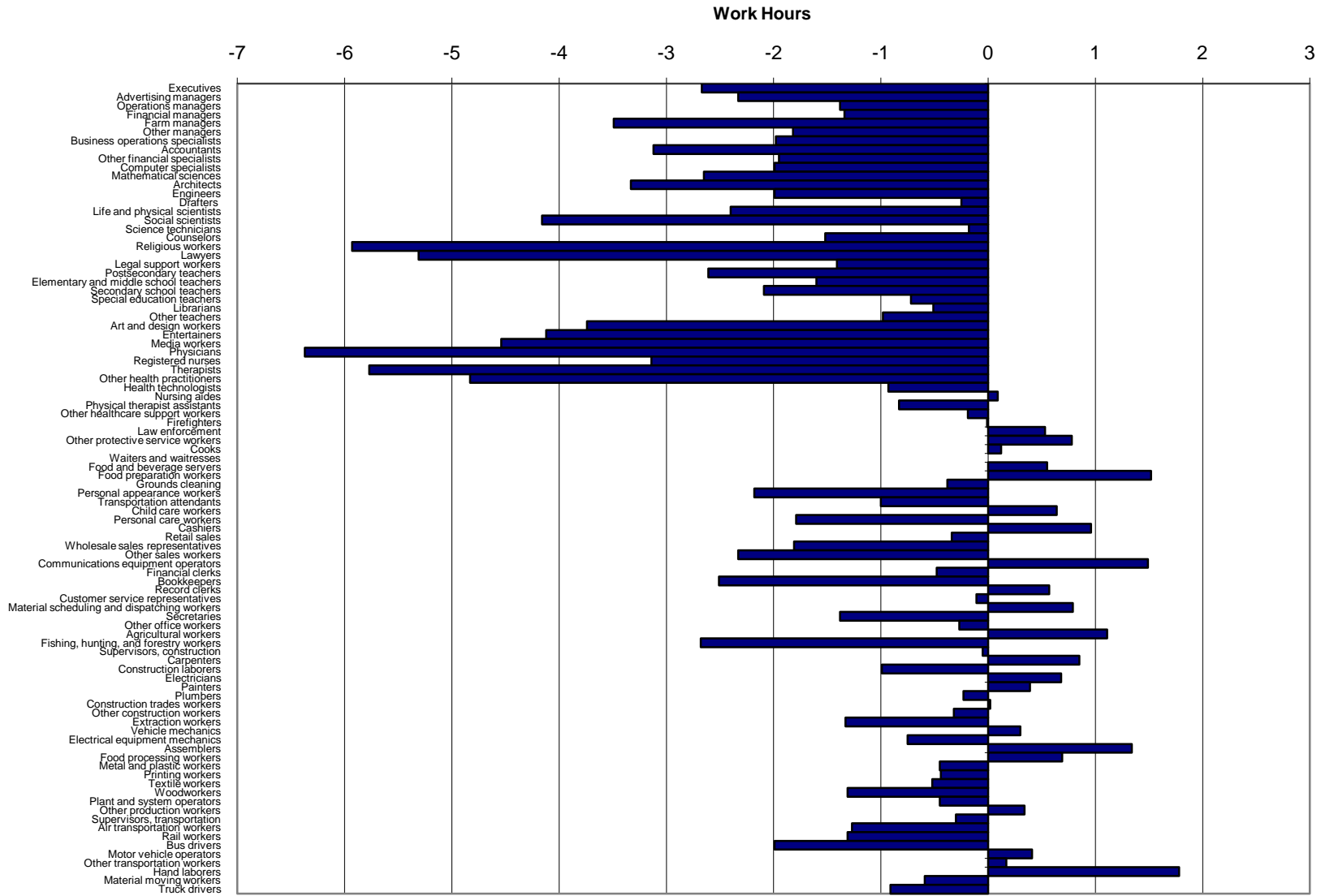
Table 1: Likelihood of Opting Out among Women Ages 18-64: Odds Ratios From Hierarchical Logistic Regression Models of Individuals Clustered Within Occupations

	Model 1 Random intercept	Model 2 Random intercept and fixed effects	Model 3 Random intercept and fixed and random effects[1]
Dependent variable: labor force participation (1= not in labor force)			
Intercept	0.208***	0.069***	0.069***
	(0.04)	(0.02)	(0.04)
Age		1.010***	1.013***
		(0.00)	(0.00)
Presence of children			
Preschool-age children		1.310***	1.356***
		(0.00)	(0.04)
School-age children		0.936***	0.921**
		(0.00)	(0.03)
Presence of person 65+		1.104***	1.104**
		(0.00)	(0.04)
Marital status (1=married)		1.326***	1.349***
		(0.00)	(0.03)
Education			
Some college		0.999	0.976
		(0.00)	(0.04)
College degree		0.871***	0.824***
		(0.00)	(0.05)
School enrollment (1=enrolled)		1.534***	1.610***
		(0.00)	(0.03)
Race			
Black		0.830***	0.867**
		(0.00)	(0.05)
Asian		1.197***	1.172**
		(0.00)	(0.06)
Other		1.034***	1.025
		(0.00)	(0.05)
Hispanic (1=yes)		0.932***	0.955
		(0.00)	(0.05)
Class of worker			
Government		1.063***	1.051
		(0.00)	(0.05)
Self-employed		1.223***	1.256**
		(0.00)	(0.07)
Weeks worked		0.930***	0.930***
		(0.00)	(0.00)
Percent female in occupation		0.999	1.001
		(0.00)	(0.00)
Log of wages		0.872***	0.856***
		(0.00)	(0.02)
Log of family income		1.096***	1.090***
		(0.00)	(0.00)
Industry (13)		Included[2]	Included[2]
Likelihood ratio chi-square	33.66	29.15	29.11
N	2,356,943	1,714,605	1,714,605

*Note: *p < .05   **p < .01   ***p < .001   (two-tailed tests). Standard errors are in parentheses. These models are estimated using residual pseudo-likelihood estimation.*
[1]*Random effects are allowed to vary by 92 occupations. Random effects included are: intercept**, age***, presence and age of children**, presence of person 65+*, Black*, Asian, Other*, Hispanic*, marital status**, educational attainment*, school enrollment**, government*, self-employed, and wages**. Coefficients for all 92 occupations are available upon request.*
[2] *Coefficients for 13 industries are available upon request.*
Data source: U.S. Census Bureau, 2005-2007 American Community Survey PUMS

Table 2: Usual Weekly Work Hours among Currently Employed Women Ages 18-64: Hierarchical Linear Model Estimates of Individuals Clustered Within Occupations

	Model 1 Random intercept	Model 2 Random intercept with fixed effects	Model 3 Random intercept with fixed and random effects[1]
Dependent Variable: Usual weekly work hours			
Intercept	38.50***	37.03***	36.68***
	(0.40)	(0.35)	(0.40)
Age		0.03***	0.01
		(0.00)	(0.01)
Presence of children			
Preschool-age children		-0.85***	-1.18***
		(0.02)	(0.20)
School-age children		-0.87***	-0.99***
		(0.02)	(0.11)
Presence of person 65+		-0.75***	-0.75***
		(0.03)	(0.06)
Marital status (1=married)		-1.16***	-1.25***
		(0.02)	(0.09)
Education			
Some college		0.07**	0.20*
		(0.02)	(0.10)
College degree		0.57***	0.55**
		(0.03)	(0.19)
School enrollment (1=enrolled)		-4.89***	-4.10***
		(0.03)	(0.30)
Race			
Black		2.13***	1.41***
		(0.03)	(0.16)
Asian		1.57***	0.90***
		(0.04)	(0.21)
Other		0.70***	0.68***
		(0.04)	(0.09)
Hispanic (1=yes)		1.26***	0.89***
		(0.03)	(0.12)
Class of worker			
Government		0.76***	-0.14
		(0.03)	(0.22)
Self-employed		-1.71***	-2.24***
		(0.03)	(0.45)
Weeks worked		0.18***	0.17***
		(0.00)	(0.00)
Percent female in occupation		-0.06***	-0.06***
		(0.01)	(0.01)
Log of wages		-1.12***	-1.32***
		(0.01)	(0.13)
Log of family income		0.80***	0.98***
		(0.01)	(0.01)
Industry (13)		Included[2]	Included[2]
Variance Components			
Intercept	14.46***	7.29***	8.78***
Residual	3949.56***	3435.22***	3580.43***
N	1,914,149	1,559,944	1,559,944

*Note: *p < .05 **p < .01 ***p < .001 (two-tailed tests). Standard errors are in parentheses. These models are estimated using restricted maximum likelihood estimation.*
[1] *Random effects are allowed to vary by 92 occupations and are statistically significant at the .001 level. Random effects included are: age, presence and age of children, presence of person 65+, race, ethnicity, marital status, educational attainment, school enrollment, class of worker, and wages. Coefficients for all 92 occupations are available upon request.*
[2] *Coefficients for 13 industries are available upon request.*
Data source: U.S. Census Bureau, 2005-2007 American Community Survey PUMS

Table 3: Estimated Association Between Usual Weekly Work Hours and Presence of a Preschool Child in the Ten Largest Occupations among Women

Occupation	Frequency[1]	Intercept[2]	Occupation-Specific Intercept[2]	Preschool Child[2]	Occupation-Specific Effect of Preschool Child[2]	Estimated Work Hours for Non-Mothers[2]	Estimated Work Hours for Mothers[2]	Difference in Work Hours Between Mothers and Non-Mothers[2]
Secretaries and administrative assistants	3,624,370	36.68	1.75	-1.18	-0.20	38	37	-1
Other office and administrative support	3,610,116	36.68	0.83	-1.18	0.91	38	37	-1
Preschool, kindergarten, elementary and middle school teachers	3,116,770	36.68	1.71	-1.18	-0.42	38	37	-1*
Other management occupations	2,981,683	36.68	3.73	-1.18	-0.64	40	39	-1*
Other sales and related workers	2,693,330	36.68	2.04	-1.18	-1.15	39	36	-3*
Registered nurses	2,366,440	36.68	4.83	-1.18	-1.96	42	38	-4*
Cashiers	2,321,728	36.68	-2.58	-1.18	2.14	34	35	1
Information and record clerks	2,309,913	36.68	-0.48	-1.18	1.75	36	37	1
Retail sales workers	1,812,247	36.68	-3.56	-1.18	0.84	33	33	0
Health technologists and technicians	1,810,710	36.68	1.97	-1.18	0.25	39	38	-1

[1] *Data source: U.S. Census Bureau, 2007 American Community Survey Table B24010.*
[2] *Data source: U.S. Census Bureau, 2005-2007 American Community Survey PUMS*
* Difference statistically significant at the 90-percent confidence level.