The Impact of the 2007-2009 Recession on Mothers’ Employment

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Abstract

In all recent recessions, men’s unemployment has been higher than women’s because they are disproportionately likely to be concentrated in cyclical industries such as construction and manufacturing. This recession has been particularly severe for men and women, as they are both experiencing unprecedented levels of long-term unemployment, along with declining wages. Because of the severity of the recession, married mothers of young children may have increased their labor force participation to compensate for their husbands’ under- or unemployment. Using 2006 and 2010 American Community Survey data, I show that married mothers’ increased labor force participation likely occurred in households that were less economically disadvantaged prior to the recession. The demand for married women’s employment should have been stronger in households where men were employed in industries that were hard-hit by the recession. However, employment rates were lower among women married to men with lower earnings who are or were employed in construction and agriculture, the two industries with the highest levels of unemployment. Because their wives were less likely to be employed prior to the start of the recession, they may have been at a stronger disadvantage in obtaining employment in a tight labor market without recent job experience.

Introduction

The recent recession took a significant toll on men’s and women’s employment. At the start of the recession (December 2007) men’s and women’s unemployment rate stood at 4.4 percent. By the end of the recession (June 2009), men’s unemployment rate reached 10 percent while women’s unemployment rate was 7.6 percent (Bureau of Labor Statistics 2006 and 2010).[[2]](#footnote-2) Between 2006 and 2010, women’s employment rate declined by nearly 2 percentage points, while men’s declined more than 5 percentage points. Men and women have also reduced their work hours by 1.3 and 0.6 hours per week, respectively.

Here, I examine men’s and women’s labor force participation during the recession. I show that while men experienced a significant downturn in employment, mothers of young children (ages 0-5) retained pre-recession levels of employment. That the labor force participation rate of mothers of young children remained stable is particularly surprising in light of the decline among other subgroups (i.e., men, fathers, women with older children) and research showing that mothers are less likely to get hired than fathers or non-mothers (Correll et al. 2007). This may be attributable to the growth in education and health care industries, where unemployment rates are lower and women with young children are consistently overrepresented. Their advantage may be short-lived, however, as layoffs have continued in the post-recession period in state and local government which employ more women than men.

In all recent recessions, men’s unemployment has been higher than women’s because they are disproportionately likely to be concentrated in cyclical industries such as construction and manufacturing (Dunne and Fee 2010). This recession has been particularly severe for men and women, as they are both experiencing unprecedented levels of job loss and long-term unemployment, along with declining wages. Because of the severity of the recession, new studies show that women may have increased their labor force participation to compensate for under- or unemployment among their husbands (Mattingly and Smith 2010; Woodring 2010). However, women’s increased labor force participation likely occurred in households that were less economically disadvantaged prior to the start of the recession. Even though employment might have been more urgent among women married to men with lower earnings who were in industries that were hard-hit by the recession, employment rates were lower among women married to men who are or were employed in construction and agriculture.

This study explores potential causes for mothers’ employment stability during the recession. First, I examine trends in men’s and women’s labor force participation prior to, during, and after the recession. Next, I examine how the recession affected labor force participation among married mothers of young children. Because of financial need, mothers’ employment may have been increasingly necessary to supplement household earnings, and because of their industry concentration, they may have been in a better position to retain or obtain jobs. Finally, I examine whether married mothers of young children from more economically disadvantaged households, measured by the characteristics of their husbands, were more likely to enter the labor force.

The Great Recession

The 2007-2009 recession has had unprecedented levels of long-term unemployment and unusually large reductions in hours worked. In 2010, nearly half of the unemployed population was considered long-term unemployed (27 weeks or more) with an average unemployment duration of 20 weeks for women and 22 weeks for men (U.S. Department of Labor 2011). The increased duration of unemployment has kept unemployment levels atypically high (Elsby et al. 2010). Men, mothers of young children, younger and less educated workers, and Blacks and Hispanics are among those who have been most severely affected during this recession and have experienced higher-than-average unemployment rates (U.S. Department of Labor 2011). In addition to a weak labor market, this recession has been characterized by a weak housing market. Loss of home equity and home loan credit tightening have compounded unemployment problems, as individuals are more tied to their local labor markets as they are unable to sell their homes and move for new jobs (Elsby et al. 2010). Individuals who may have remained out of the labor force during a weak labor market have had to reenter the labor force as they have exhausted savings and home equity (Şahin et al. 2010).

The recovery has been slow and characterized by anemic levels of job growth. Women’s job recovery has been slower than men’s, in part because state and local government have continued to shed jobs post-recession. Men have also been more successful in gaining jobs in industries where they have typically been underrepresented. Men have outpaced women in gaining jobs in the education, health care, and social assistance industry, for instance (Kochhar 2011). Men are also less likely to wait out a weak labor market (Şahin et al. 2010).

Women’s Employment During Periods of Recession

Rubery (1988) summarizes 3 theoretical perspectives on women’s labor force participation during periods of recession. The first perspective argues that women’s labor force participation is pro-cyclical because women are a flexible and surplus supply of labor (“industrial reserve army” (Marx [1867] 1978)). As such, they increase their employment when unemployment levels are low and exit the labor force when unemployment is high. Because women lack job tenure and are more likely to be part-time workers, they may be at a disadvantage during recessions and may be the first to get laid off. A second perspective argues that women’s employment is counter-cyclical because of substitution effects. As recessions intensify, employers seek to cut costs. Because women command lower wages than men, employers may substitute male employment with female employment as a cost-cutting strategy. Finally, job segregation theories posit that women’s employment is a-cyclical due to rigid sex-typing of occupations. The demand for female labor depends on demand in female-dominated sectors, such as government and service, and these do not necessarily mirror recession cycles.

Cummings (1987) examined whether women were more likely to be a surplus “reserve army of labor” and found that women were not more susceptible to unemployment. In fact, men have experienced the majority of the net job losses in all recessions since 1964, when complete estimates first became available (Goodman et al. 1993). Men’s unemployment rates have also been higher than women’s in the last 4 recessions and they are more likely to be employed in cyclical industries facing the brunt of layoffs during times of excess labor relative to product demand (Dunne and Fee 2010). Government and service industries, in which women are overrepresented, tend to feel recessionary effects later than the male-dominated manufacturing and construction sectors. Cummings (1987) argues that these employment patterns do not support the argument that women are a reserve pool of labor.

On the other hand, employment patterns during the recent recovery do not seem to support the idea that women are substitute labor during economic downturns, either. Although women experienced lower rates of unemployment during the recession and recovery, mothers’ rates of unemployment were high relative to fathers’ (9.0 percent for mothers and 7.5 percent for fathers), even though mothers earn lower wages than men and non-mothers. Women’s job recovery has also trailed men’s and they have lost some of their share in industries in which they have been typically overrepresented (U.S. Department of Labor 2011).

Although levels of job segregation have declined over time, they have been relatively stagnant since the 1990s and a significant amount of industrial and occupational sex segregation remains. Sex segregation has been shown to have a number of negative repercussions for women, including devaluation of their labor and lower earnings (Cohen and Huffman 2003). However, high levels of segregation contributed to lower rates of unemployment in recent recessions. Women’s unemployment rates would have been much higher if they were proportionally represented in construction and manufacturing, as men and women lost jobs at similar rates within industry (Kochhar 2011). In this recession cycle, unlike some of the previous recessions, the service and government sectors have experienced job losses, and these are disproportionately affecting women. During the recovery, while some sectors have started adding jobs, local and state governments have continued to make cuts. In this particular recession cycle, demand in female-dominated sectors has been affected and women’s unemployment rate has increased, in part, due to lower demand.

Added Worker Effect

Women’s employment has changed over time and current employment rates are mostly a result of long-term trends rather than current economic conditions. Women have experienced greater continuity of employment and have reduced their wage elasticity as they have become less responsive to husbands’ wages (Blau and Kahn 2005). In fact, women with higher wages are more likely to work and labor force participation rates have increased more over time among women married to men with higher wages. Part of this increase in labor force participation may be due to increased educational attainment, better occupational opportunities, and the long-term decline in real earnings. Even though employment rates continue to be significantly lower among mothers (Kaufman and Uhlenberg 2000; Altonji and Paxson 1992), younger cohorts of women have experienced increases in labor force participation (Percheski 2008). Finally, not all women are married or have access to sufficient alternative sources of income. A large number of female-headed households and low-income households depend on women’s earnings and they may seek employment regardless of economic conditions.

Nonetheless, the recession has had an impact on women’s employment and prior recessions may have prompted more women to enter the labor force than otherwise would have. A number of studies have looked at family household labor supply decisions and the “added worker effect,” in particular. That is, households in which a wife enters the labor force or increases her work hours to supplement her husband’s employment (or lack thereof). Though representing only a small percentage of households, the percentage of married-couple families with own children under 18 years old with an unemployed husband and an employed wife grew substantially from 1.8 percent in 2008 to 3.4 percent in 2009 (Woodring 2010). Mattingly and Smith (2010) show that wives of husbands who stopped working during the current recession were twice as likely to enter the labor force, particularly among those with older children or no children and those in lower-income households. Similarly, Juhn and Potter (2007) found that women are 5 to 6 percent more likely to enter employment if their husbands exit employment, particularly among more highly educated women. They argue, however, that the growing correlation between spouses employment has reduced the added worker effect over time.

Research Questions

 In this study, I examine how the recession affected married mothers’ labor force participation. There are a number of reasons that would lead one to expect an increase in labor force participation rates. First, unemployment has been lower in female-dominated industries. As men have lost jobs, women may be under increasing pressure to work if they can secure a job. Second, fertility has declined during the recession (Livingston and Cohn 2010). To the extent that young children present a significant demand on women’s time and reduce their labor force participation rates, lower fertility levels should result in higher female labor force participation. Third, the likelihood of opting out of the labor force may have dropped as women may have been less likely to leave the labor force in a more uncertain economic environment. On the other hand, there are reasons why mothers’ employment may have declined. To the extent that mothers have higher reservation wages (Heckman 1974), they may avoid entering the labor market at a time of reduced job opportunities and lower wages. As mothers typically have shorter job tenure, they may be more likely to get laid off with a “last hired, first fired” employer strategy. Correll and her colleagues (2007) also show that mothers are less likely to be hired than men and non-mothers, which may disadvantage mothers even further in a period of job shortages.

 Next, I examine whether financial hardship motivated married mothers of young children to enter the labor force. I would expect women to have increased their labor force participation when married to men with lower earnings and in recession-affected industries. To the extent that women are entering the labor force to supplement men’s earnings, the change in labor force participation rates should be largest among women married to men in the construction, agriculture, manufacturing, professional, and arts and entertainment industries, all of which experienced above-average unemployment.

Data and Methods

Data for this research come from the American Community Survey (ACS) 2006 through 2010 1-year files. The ACS provides detailed demographic, social, economic, and housing data obtained from final interviews of approximately 2 million households per year. The ACS collects data on a rolling basis, enabling me to assess men’s and women’s labor force participation and work hours before and after the recession. Because the ACS is the largest household survey in the United States, I can reliably estimate labor force participation and work hours among subgroups of the population and by industry.

I first examine trends in the employment rate and work hours among men and women between the ages of 18 and 64. I then restrict the sample to married women ages 18 to 44 who have at least one young child (ages 0-5) in the household and are currently employed or were last employed within the past 5 years.[[3]](#footnote-3) Married women with young children in the household tend to have lower rates of labor force participation than men and other women and their labor force participation is more likely to be jointly determined with their husbands’ (Lundberg 1988). I limit the analyses to this subgroup to determine whether the recession may have reduced the likelihood of opting out of the labor force due to household financial need. I compare employment between 2006 (pre-recession) to 2010 (post-recession) to determine how the recession affected married mothers’ labor force participation. I provide descriptive statistics for the sample and use logistic regression to compare 2006 to 2010 labor force participation. Individual characteristics are grand-mean centered and can be interpreted as the odds of being in the labor force for a woman who is at the mean on all characteristics. In the final set of analyses, I examine married mothers’ labor force status by their husbands’ employment characteristics to determine whether married mothers increased their labor force participation in response to recessionary effects on men’s employment.

The final weighted sample size is 8,448,887 for 2006 and 7,812,678 for 2010. The dependent variable 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 (the modeled probability is that labor force participation = 0). Individuals who are unemployed or temporarily absent from work (e.g., on sick leave or paid maternity leave) are considered part of the labor force. Age is restricted to 44, as the analyses focus on women with young children. The models include a binary measure for having a birth in the last 12 months (1=birth in the last 12 months). I control for various demographic and job characteristics, including race, ethnicity, educational attainment, school enrollment, class of worker, industry, and earnings. Industry and class of worker information is collected for the person’s current job or most recently held job in the past 5 years. Because not all of the women in my sample are employed and earnings are only collected for the previous 12 months, I constructed a predicted earnings measure to capture potential earnings of women who are not in the labor force but had a job in the past 5 years.[[4]](#footnote-4) I also control for family characteristics, including family income, housing tenure, and receipt of public assistance. Descriptive statistics for all measures are provided in Table 1. The final set of analyses assesses wives’ labor force status based on their husbands’ employment characteristics. Measures include husbands’ current or former industry of employment, earnings, and usual weekly work hours.

Results

*Overview*

 Between 2006 and 2010, women’s employment rate dropped from 66.2 percent to 64.5 percent (see Figure 1). While a significant reduction, men experienced an even larger employment decline: 76.2 in 2006 compared to 70.8 in 2010. However, employment losses were not spread out equally among subgroups of men and women. While fathers reduced their employment by nearly 5 percentage points, employment among mothers of young children remained at pre-recession levels.[[5]](#footnote-5) Women with older children reduced their employment by 2 percentage points. Similarly, men experienced a greater drop in hours worked. Men reduced their weekly work hours from 43.0 to 41.7, while women reduced their hours from 37.3 to 36.7 (see Figure 2). While mothers of young children only reduced their hours of work by about 12 minutes per week, fathers cut back nearly an hour and a half.[[6]](#footnote-6) Among all subgroups analyzed, mothers of young children had the most consistent labor supply, in terms of employment and hours worked, during the recession. To examine why this may be the case, I turn to results from the logistic regression models.

*Labor Force Participation among Married Mothers of Young Children*

 While women who had a child in the past 12 months are less likely to work than those who did not, the birth effect has weakened. In 2006, women were 38 percent less likely to be in the labor force following a birth in the last 12 months compared to women without a birth. This dropped to 31 percent in 2010 (see Table 2). Although popular *New York Times* articles described a retrenchment of mothers’ labor force participation in the early 2000s, particularly among highly educated women (Belkin 2003; Story 2005), I show here that the odds of opting out have dropped during the recession. Furthermore, the effect of education intensified. While women with a higher level of educational attainment were 45 percent more likely to be in the labor force than those with a high school degree in 2006, now women with a bachelor’s degree or higher are 67 percent more likely to be working or seeking work.

 Industry is a significant predictor of labor force participation, both pre- and post-recession. In 2006 and 2010, labor force participation was among the highest in public administration and educational services, health care, and social assistance industries.[[7]](#footnote-7) These industries also have among the lowest levels of unemployment, according to the Bureau of Labor Statistics (2006 and 2010) (Table 3). Although unemployment rates have risen in these industries, as in every other industry, unemployment rates remain well below average and they are expanding their share of the economy. These are also industries in which women with young children are overrepresented, particularly in the case of the education and health care industry. As Figure 3 shows, mothers of young children make up only 7 percent of the labor force but are 11 percent of the educational services, health care, and social assistance labor force. Due to their industry concentration, mothers may have been more successful in retaining jobs than individuals in other sectors of the economy.

 Turning to household characteristics, we see that the effect of family income has remained steady during the recession. However, there was a large increase in the odds of being employed among those with a mortgage. Home-owners with a mortgage are 74 percent more likely to be employed than renters. During the recession, there was a significant decrease in the percentage of individuals owning a house with a mortgage mirrored by an increase in renters (see Table 1), as with job losses many were unable to afford a house payment and new credit restrictions left many ineligible for home loans. Those who have kept their homes may face increased pressure to work to be able to make payments. Furthermore, with the credit-tightening and drop in home values, home-owners may not be able to use their homes for extra cash or emergency savings through home equity loans, and may instead need more workers in the family for additional income.

*Married Mothers’ Labor Force Participation by Husbands’ Employment Characteristics*

 To assess whether financial hardship drew more mothers into the labor force, I examined married mothers’ employment status by their husbands’ characteristics. Although mothers increased their labor force participation in almost all industries, the increases were smaller when their husbands were employed in recession-affected industries or when their husbands worked part-time, contrary to what might be expected. Results indicate that mothers who increased their labor force participation had high-earning husbands working long hours and their husbands were not employed in an industry that experienced high levels of unemployment (see Figures 4, 5, 6, and 7).

Table 4 and Figures 4 and 5 show that the wives of men in the hardest-hit industries were less likely to be employed or become employed than the wives of men in industries that fared better during the recession. Furthermore, men in these industries were less likely to have employed wives even prior to the recession. As in 2006, men in agriculture and construction were the least likely to have employed wives in 2010, while men in educational services, health care, and social assistance and public administration were the most likely to have employed wives. Therefore, households in recession-affected industries that may have benefitted the most from having an additional earner were the least likely to have an employed wife. Although financial pressures may have motivated these wives to enter the labor force, they may lack job experience and be at a disadvantage for obtaining a job in a tight labor market. Indeed, 2010 unemployment rates are higher among wives with lower employment rates in 2006 (Table 4), with these two measures showing a strong negative correlation of -0.68. For example, among men in the construction industry, only about half of their wives were employed in 2006 and 2010. Their wives increased their employment by 4 percent between 2006 and 2010 and 11 percent fewer are out of the labor force, but most of the increase in their labor force participation is due to the doubling of their unemployment rate. [[8]](#footnote-8)

I further investigated wives’ employment patterns by limiting the analysis to wives of unemployed or out of the labor force husbands. Again, I found that employment rates were lower among women married to men formerly employed in hard-hit industries. Figure 6 shows the proportion of mothers of young children who are employed or unemployed or out of the labor force when their husbands are also unemployed or out of the labor force. Employment rates are lowest among women married to men who were formerly in agriculture and construction.

Part-time work for economic reasons doubled during the recession, going from 4.2 million at the end of 2006 to 8.9 million at the end of 2010 (Bureau of Labor Statistics 2006 and 2010). However, only wives of men working 45 hours or more per week significantly increased their employment, indicating that women have not increased employment in response to work-hour cuts among husbands. Wives of men working 45 or more hours per week were the most likely to enter the labor force during the recession, although their employment rates were lower, overall, than wives of husbands working fewer hours per week (see Table 5 and Figure 7).

Pre- and post-recession, women married to men earning less than $30,000 or $75,000 or more per year were the least likely to be employed. There is also a clear inverse relationship between wives’ unemployment and husbands’ earnings (see Table 5). During the recession, women married to men earning $75,000 or more increased their employment by 13 percent, the highest of any group. Because of their very low unemployment rates, pre- and post-recession (1 percent and 3 percent, respectively) these women are likely entering the labor force due to expanded opportunities and ability to obtain a job. On the other hand, wives of men earning less than $15,000 have the highest unemployment rate at 9 percent. By all measures examined, the results indicate that married mothers of young children from economically advantaged households are more likely to have secured employment while women married to men working fewer hours, earning less, or in recession-affected industries were more likely to be unemployed.

Conclusion

During the recession, mothers’ labor force participation rate remained at pre-recession levels and the odds of opting out dropped. Although mothers’ unemployment rate is higher than fathers’ (U.S. Department of Labor 2011), fewer of them opted out during the recession, which kept their labor force participation rate more stable. Women’s concentration in educational services, health care, and social assistance may have facilitated their employment. Having the opportunity to work, coupled with economic necessity, may have propelled more mothers into the labor force while the uncertain economic outlook appears to have reduced the number of mothers opting out. The lower rates of unemployment in health care and education and greater number of job openings in these industries, coupled with declining home values and wages may have encouraged mothers to enter or return to teaching and health care jobs.

Although previous studies show that women became increasingly likely to enter the labor force (Mattingly and Smith 2010) or be sole earners in married-couple households during the recession (Woodring 2010), these patterns were likely occurring in households that were more economically advantaged. Men experienced significant employment losses in construction, agriculture, and manufacturing, but their wives’ employment rates in 2010 are below average. On the other hand, educational services, health care, and social assistance experienced growth during the recession and lower unemployment rates, and men employed in this industry tend to have employed wives, as well. The recession did not affect all households equally and these results indicate that there is greater household polarization than prior to the recession. Mattingly and Smith (2010) show that wives of the long-term unemployed are also more likely to be unemployed, themselves. Even though more women may have entered the labor force, they are not necessarily finding jobs, and this is particularly true among women in low-income households. Obtaining employment after a period of being out of the labor force is challenging, particularly in a tight labor market. Because the wives of men employed in recession-affected industries were less likely to be in the labor force in the first place, they may be at a greater disadvantage to compete for jobs because of their lack of recent job experience.

References

Altonji, Joseph G. and Christina H. Paxson. 1992. “Labor Supply, Hours Constraints, and

 Job Mobility.” *The Journal of Human Resources* 27(2): 256-278.

Belkin, Lisa. 2003. “The Opt-Out Revolution.” *The New York Times*, October 26.

Blau, Francine D. and Lawrence M. Kahn. 2005. “Changes in the Labor Supply Behavior of

 Married Women: 1980-2000.” NBER Working Paper 11230.

Bureau of Labor Statistics. 2006. “The Employment Situation.” Available online at:

 http://www.bls.gov/schedule/archives/empsit\_nr.htm.

Bureau of Labor Statistics. 2010. “The Employment Situation.” Available online at:

 http://www.bls.gov/schedule/archives/empsit\_nr.htm.

Cohen, Philip N. and Matt L. Huffman. 2003. “Occupational Segregation and the Devaluation of

 Women’s Work across U.S. Labor Markets.” *Social Forces* 81(3): 881-908.

Correll, Shelly J., Stephen Benard, and In Paik. 2007. “Getting a Job: Is There a Motherhood Penalty?”

 *American Journal of Sociology* 112(5): 1297-1338.

Cummings, Scott. 1987. “Vulnerability to the Effects of Recession: Minority and Female Workers.”

 *Social Forces* 65(3): 834-857.

Dunne, Tim and Kyle Fee. 2010. “The Labor Market for Men and Women.” *Economic Trends* Aug: 7-9.

Elsby, Michael W. L., Bart Hobijn, and Ayşegül Şahin. 2010. “The Labor Market in the Great Recession:

 Comments and Discussion.” *Brookings Papers on Economic Activity* Spring: 1-48.

Goodman, William, Stephen Antczak, and Laura Freeman. 1993. “Women and Jobs in Recessions: 1969-

 1992.” *Monthly Labor Review* July: 26-35.

Heckman, James. 1974. “Shadow Prices, Market Wages, and Labor Supply.” *Econometrica* 42(4): 679-

 694.

Juhn, Chinhui and Simon Potter. 2007. “Is there Still an Added Worker Effect?” National Bureau of

 Economic Research working paper NB07-14.

Kaufman, Gayle and Peter Uhlenberg. 2000. “The Influence of Parenthood on the Work

 Effort of Married Men and Women.” *Social Forces* 78(3): 931-949.

Kochhar, Rakesh. 2011. “In Two Years of Economic Recovery, Women Lost Jobs, Men Found Them.”

 *Pew Social and Demographic Trends*. Issued July 3, 2011.

Livingston, Gretchen and D’Vera Cohn. 2010. “U.S. Birth Rate Decline Linked to Recession.” Pew

 Research Center Social & Demographic Trends Report. Issued April 6, 2010. Available online

 at: http://pewsocialtrends.org/files/2010/10/753-birth-rates-recession.pdf.

Lundberg, Shelly. 1988. “Labor Supply of Husbands and Wives: A Simultaneous Equations Approach.”

 *The Review of Economics and Statistics* 70(2): 224-235.

Marx, Karl. [1867] 1978. Capital: Volume I: A Critique of Political Economy. Translated by Ben Fowkes.

 London, England: Penguin Books.

Mattingly, Marybeth J. and Kristin E. Smith. 2010. “Changes in Wives’ Employment When Husbands

 Stop Working: A Recession-Prosperity Comparison.” *Family Relations* 59:343-357.

Percheski, Christine. 2008. “Opting Out? Cohort Differences in Professional Women’s

 Employment Rates from 1960 to 2005.” *American Sociological Review* 73(3): 497-

 517.

Rubery, Jill. 1988. Women and Recession. New York, NY: Routledge.

Şahin, Ayşegül, Joseph Song, and Bart Hobijn. 2010. “The Unemployment Gender Gap During the

 2007 Recession.” *Current Issues in Economics and Finance* 16(2): 1-7.

Story, Louise. 2005. “Many Women at Elite Colleges Set Career Path to Motherhood.” *The New*

 *York Times*, September 20.

U.S. Department of Labor. 2011. “Women’s Employment During the Recovery.” Issued May 3, 2011.

Available online at: http://www.dol.gov/\_sec/media/reports/FemaleLaborForce/FemaleLaborForce.pdf.

Woodring, Braedyn K. 2010. “Employment Status of Married-Couple Families by Presence of Own

Children Under 18 Years: 2008 and 2009.” *American Community Survey Briefs* ACSBR/09-10. Available online at: http://www.census.gov/prod/2010pubs/acsbr09-10.pdf

Table 1: Characteristics of Married Mothers of Young Children

|  |  |  |
| --- | --- | --- |
|  | 2006 | 2010 |
|  | Mean | Standard error | Mean | Standard error |
| *Individual characteristics* |  |  |  |  |
| Labor force participation | 73.1 |  0.14 | 78.5 |  0.13 |
| Age  | 32.4 | 0.02 | 32.8 | 0.02 |
| Birth in last 12 months | 23.6 |  0.17 | 22.8 |  0.16 |
| Race |  |  |  |  |
|  Black | 6.8 |  0.08 | 6.9 |  0.09 |
|  Asian | 6.1 |  0.07 | 7.0 |  0.08 |
|  Other | 7.6 |  0.08 | 5.7 |  0.08 |
|  White  | 78.0 |  0.14 | 78.5 |  0.15 |
| Hispanic | 15.2 |  0.11 | 16.5 |  0.13 |
| Education |  |  |  |  |
|  High school or less  | 27.9 |  0.17 | 23.0 |  0.16 |
|  Some college | 31.5 |  0.14 | 31.7 |  0.16 |
|  Bachelor’s degree or higher | 40.6 |  0.15 | 45.3 |  0.18 |
| Enrolled in school | 8.1 |  0.09 | 9.3 |  0.10 |
|  |  |  |  |  |
| *Job characteristics (current or last job)* |  |  |  |  |
| Earnings ($) | 25,689 | 110 | 30,183 | 123 |
| Class of worker |  |  |  |  |
|  Private wage and salary  | 76.0 |  0.12 | 75.9 |  0.15 |
|  Government | 14.9 |  0.11 | 16.3 |  0.14 |
|  Self-employed | 8.6 |  0.09 | 7.5 |  0.08 |
| Industry |  |  |  |  |
|  Agriculture, forestry, fishing, and hunting, and mining | 0.9 |  0.04 | 0.9 |  0.03 |
|  Construction | 1.7 |  0.04 | 1.4 |  0.04 |
|  Manufacturing | 7.0 |  0.08 | 6.0 |  0.07 |
|  Wholesale trade | 2.3 |  0.05 | 2.0 |  0.05 |
|  Retail trade  | 11.2 |  0.10 | 10.5 |  0.11 |
|  Transportation, warehousing, and utilities | 2.0 |  0.05 | 1.7 |  0.04 |
|  Information | 2.4 |  0.05 | 1.9 |  0.05 |
|  Finance, insurance, real estate, and rental and leasing | 9.5 |  0.10 | 8.6 |  0.09 |
|  Professional, scientific, and management | 11.0 |  0.11 | 11.1 |  0.11 |
|  Educational services, health care, and social assistance | 34.9 |  0.17 | 38.3 |  0.14 |
|  Arts, entertainment, accommodation, and food services | 8.4 |  0.08 | 8.5 |  0.10 |
|  Other services | 5.2 |  0.08 | 5.2 |  0.09 |
|  Public administration | 3.4 |  0.05 | 3.8 |  0.07 |
|  |  |  |  |  |
| *Family characteristics* |  |  |  |  |
| Family income ($) | 85,985 | 267 | 91,927 | 307 |
| Housing tenure |  |  |  |  |
|  Own with a mortgage | 69.7 |  0.16 | 65.6 |  0.15 |
|  Own free and clear | 4.9 |  0.07 | 5.0 |  0.08 |
|  Rent  | 23.5 |  0.14 | 28.0 |  0.16 |
|  Occupy without payment of rent | 1.8 |  0.05 | 1.4 |  0.04 |
| Public assistance | 2.3 |  0.05 | 3.5 |  0.05 |
|  |  |  |  |  |
| N (weighted) | 8,448,887 |  | 7,812,678 |  |

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Table 2: Labor Force Participation of Married Mothers of Young Children: Odds Ratios From Logistic Regression Models

|  |  |  |
| --- | --- | --- |
|  | 2006 | 2010 |
|  | Estimate | Standard error | Estimate | Standard error |
| Dependent variable: labor force participation  |  |  |  |  |
|  |  |  |  |  |
| *Individual characteristics* |  |  |  |  |
| Age | 1.03\*\*\* |  – | 1.04\*\*\* |  – |
| Birth in last 12 months | 0.62\*\*\* | 0.02 | 0.69\*\*\* | 0.02 |
| Race |  |  |  |  |
|  Black | 1.95\*\*\* | 0.04 | 1.96\*\*\* | 0.05 |
|  Asian | 1.16\*\*\* | 0.03 | 1.23\*\*\* | 0.04 |
|  Other | 0.99 | 0.04 | 1.09 | 0.05 |
|  White [ref] | 1.00 | 0.00 | 1.00 | 0.00 |
| Hispanic | 1.01 | 0.03 | 1.10\*\*\* | 0.03 |
| Education |  |  |  |  |
|  High school or less [ref] | 1.00 | 0.00 | 1.00 | 0.00 |
|  Some college | 1.20\*\*\* | 0.02 | 1.27\*\*\* | 0.03 |
|  Bachelor’s degree or higher | 1.45\*\*\* | 0.02 | 1.67\*\*\* | 0.03 |
| Enrolled in school | 0.84\*\*\* | 0.03 | 0.74\*\*\* | 0.03 |
|  |  |  |  |  |
| *Job characteristics (current or last job)* |  |  |  |  |
| Log of earnings | 0.98\*\* | 0.01 | 0.96\*\*\* | 0.01 |
| Class of worker |  |  |  |  |
|  Private wage and salary [ref] | 1.00 | 0.00 | 1.00 | 0.00 |
|  Government | 1.03 | 0.03 | 1.04 | 0.03 |
|  Self-employed | 1.27\*\*\* | 0.03 | 1.01 | 0.03 |
| Industry |  |  |  |  |
|  Agriculture, forestry, fishing, and hunting, and mining | 1.09 | 0.08 | 1.11 | 0.10 |
|  Construction | 1.60\*\*\* | 0.06 | 1.22\* | 0.08 |
|  Manufacturing | 1.50\*\*\* | 0.04 | 1.44\*\*\* | 0.04 |
|  Wholesale trade | 1.42\*\*\* | 0.05 | 1.48\*\*\* | 0.07 |
|  Retail trade [ref] | 1.00 | 0.00 | 1.00 | 0.00 |
|  Transportation, warehousing, and utilities | 1.70\*\*\* | 0.06 | 1.57\*\*\* | 0.07 |
|  Information | 1.46\*\*\* | 0.05 | 1.35\*\*\* | 0.07 |
|  Finance, insurance, real estate, and rental and leasing | 1.78\*\*\* | 0.03 | 1.55\*\*\* | 0.04 |
|  Professional, scientific, and management | 1.33\*\*\* | 0.03 | 1.35\*\*\* | 0.04 |
|  Educational services, health care, and social assistance | 1.72\*\*\* | 0.03 | 1.75\*\*\* | 0.03 |
|  Arts, entertainment, accommodation, and food services | 1.05 | 0.03 | 0.97 | 0.04 |
|  Other services | 1.29\*\*\* | 0.04 | 1.16\*\*\* | 0.05 |
|  Public administration | 2.64\*\*\* | 0.06 | 2.56\*\*\* | 0.07 |
|  |  |  |  |  |
| *Family characteristics* |  |  |  |  |
| Log of family income | 0.63\*\*\* | 0.02 | 0.63\*\*\* | 0.02 |
| Housing tenure |  |  |  |  |
|  Own with a mortgage | 1.54\*\*\* | 0.02 | 1.74\*\*\* | 0.02 |
|  Own free and clear | 1.08\* | 0.04 | 1.09\* | 0.04 |
|  Rent [ref] | 1.00 | 0.00 | 1.00 | 0.00 |
|  Occupy without payment of rent | 0.74\*\*\* | 0.06 | 0.74\*\*\* | 0.07 |
| Public assistance | 0.65\*\*\* | 0.05 | 0.77\*\*\* | 0.05 |
|  |  |  |  |  |
| Likelihood ratio chi-square | 540063\*\*\* |  | 516122\*\*\* |  |

*Note: \*p < .05 \*\*p < .01 \*\*\*p < .001 (two-tailed tests).*

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

An “ –“ entry in the standard error column indicates the estimate is not zero, but rounds to zero.

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Table 3: Unemployment by Industry

|  |  |
| --- | --- |
|  |  Unemployment |
| Industry | 2006 | 2010 |
|  |  |  |
| Agricultural and related private wage and salary workers | 0.07 | 0.14 |
| Mining, quarrying, and oil and gas extraction | 0.03 | 0.09 |
| Construction | 0.07 | 0.21 |
| Manufacturing | 0.04 | 0.11 |
| Wholesale trade | 0.03 | 0.07 |
| Retail trade  | 0.05 | 0.10 |
| Transportation, warehousing, and utilities | 0.04 | 0.08 |
| Information | 0.04 | 0.10 |
| Finance, insurance, real estate, and rental and leasing | 0.03 | 0.07 |
| Professional, scientific, and management | 0.06 | 0.11 |
| Educational services, health care, and social assistance | 0.03 | 0.06 |
| Arts, entertainment, accommodation, and food services | 0.07 | 0.12 |
| Other services | 0.05 | 0.09 |
| Government workers | 0.02 | 0.04 |
|  |  |  |

*Data source: Bureau of Labor Statistics, 2006 and 2010 Current Population Surveys*

Table 4: Employment Status of Married Mothers of Young Children by Their Husband’s Current or Former Employing Industry

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2006 | 2010 |  |  |  |
| Wife’s employment status | Employed | Unemployed | Out of the labor force | Employed | Unemployed | Out of the labor force | Change in employment | Change in unemploy-ment | Change in out of labor force |
| Average | 0.57 | 0.03 | 0.40 | 0.59 | 0.05 | 0.36 | 4% | 67% | -10% |
|  |  |  |  |  |  |  |  |  |  |
| Husband’s current or former industry1 |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| Agriculture, forestry, fishing, and hunting, and mining | 0.51 | 0.04 | 0.46 | 0.48 | 0.05 | 0.48 | \*-6% | \*25% | 4% |
| Construction | 0.51 | 0.03 | 0.46 | 0.53 | 0.06 | 0.41 | \*4% | \*100% | \*-11% |
| Manufacturing | 0.57 | 0.03 | 0.40 | 0.58 | 0.05 | 0.36 | 2% | \*67% | \*-10% |
| Wholesale trade | 0.58 | 0.03 | 0.39 | 0.61 | 0.05 | 0.34 | \*5% | \*67% | \*-13% |
| Retail trade  | 0.60 | 0.03 | 0.37 | 0.62 | 0.05 | 0.33 | \*3% | \*67% | \*-11% |
| Transportation, warehousing, and utilities | 0.56 | 0.03 | 0.40 | 0.58 | 0.06 | 0.37 | \*4% | \*100% | \*-7% |
| Information | 0.57 | 0.02 | 0.40 | 0.61 | 0.05 | 0.35 | \*7% | \*150% | \*-12% |
| Finance, insurance, real estate, and rental and leasing | 0.56 | 0.02 | 0.42 | 0.60 | 0.04 | 0.37 | \*7% | \*100% | \*-12% |
| Professional, scientific, and management | 0.54 | 0.03 | 0.43 | 0.57 | 0.05 | 0.39 | \*6% | \*67% | \*-9% |
| Educational services, health care, and social assistance | 0.66 | 0.02 | 0.32 | 0.68 | 0.03 | 0.29 | \*3% | \*50% | \*-9% |
| Arts, entertainment, accommodation, and food services | 0.57 | 0.04 | 0.39 | 0.59 | 0.06 | 0.36 | \*4% | \*50% | \*-8% |
| Other services | 0.57 | 0.03 | 0.40 | 0.57 | 0.05 | 0.38 | 0% | \*67% | \*-5% |
| Public administration | 0.66 | 0.02 | 0.32 | 0.67 | 0.04 | 0.30 | 2% | \*100% | \*-6% |
|  |  |  |  |  |  |  |  |  |  |

*1*Industry data are collected for the person’s current job, if employed, or most recent job held in the past 5 years if not currently employed. Husbands’ industry of employment is their current industry, if they are employed, or their most recent industry if not currently employed. Husbands who have never worked or last worked more than 5 years ago are excluded.

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

\* Denotes that the change is statistically significant.

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Table 5: Employment Status of Married Mothers of Young Children by Their Husband’s Work Hours and Earnings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2006 | 2010 |  |  |  |
| Wife’s employment status | Employed | Unemployed | Out of the labor force | Employed | Unemployed | Out of the labor force | Change in employment | Change in unemploy-ment | Change in out of labor force |
|  |  |  |  |  |  |  |  |  |  |
| Husband’s usual weekly work hours*1* |  |  |  |  |  |  |  |  |  |
|  1-34 | 0.60 | 0.04 | 0.36 | 0.59 | 0.07 | 0.34 | -2% | \*75% | \*-6% |
|  35-44 | 0.60 | 0.03 | 0.37 | 0.60 | 0.05 | 0.35 | 0% | \*67% | \*-5% |
|  45+ | 0.53 | 0.02 | 0.45 | 0.56 | 0.04 | 0.40 | \*6% | \*100% | \*-11% |
| Husband’s earnings in the past 12 months ($) |  |  |  |  |  |  |  |  |  |
|  1-14,999 | 0.53 | 0.06 | 0.41 | 0.56 | 0.09 | 0.36 | \*6% | \*50% | \*-12% |
|  15,000-29,999 | 0.56 | 0.04 | 0.40 | 0.54 | 0.06 | 0.40 | \*-4% | \*50% | 0% |
|  30,000-44,999 | 0.64 | 0.03 | 0.33 | 0.63 | 0.05 | 0.32 | \*-2% | \*67% | \*-3% |
|  45,000-59,999 | 0.64 | 0.02 | 0.34 | 0.66 | 0.04 | 0.30 | \*3% | \*100% | \*-12% |
|  60,000-74,999 | 0.60 | 0.02 | 0.39 | 0.64 | 0.04 | 0.33 | \*7% | \*100% | \*-15% |
|  75,000+ | 0.48 | 0.01 | 0.51 | 0.54 | 0.03 | 0.43 | \*13% | \*200% | \*-16% |

*1*Usual weekly work hours refer to the usual number of hours worked during a week at all jobs held. Data are collected for the current job(s) or most recent job held in the past 12 months.

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

\* Denotes that the change is statistically significant.

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 1: Employment Rate of Individuals Aged 18-64: 2006-2010 American Community Surveys\*

*Data source: U.S. Census Bureau, 2006-2010 American Community Surveys*

*\*Subfamilies are excluded from the analyses of mothers and fathers.*

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 2: Weekly Work Hours for Employed Individuals Aged 18-64: 2006-2010 American Community Surveys\*

*Data source: U.S. Census Bureau, 2006-2010 American Community Surveys*

*\*Subfamilies are excluded from the analyses of mothers and fathers.*

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 3: Labor Force Participation by Sex, Presence and Age of Children, and Industry

*Data source: U.S. Census Bureau, 2010 American Community Survey*

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 4: Wives’ Employment Rate by Husbands’ Industry of Employment

*Data source: U.S. Census Bureau, 2010 American Community Survey*

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 5: Growth in Wives’ Employment Rate During the Recession by Husbands’ Industry of Employment

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

\*Estimate rounds to 0.

For information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 6: Wives’ Employment Status among Unemployed or Out of the Labor Force Husbands

*Data source: U.S. Census Bureau, 2010 American Community Survey*

For more information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

Figure 7: Growth in Wives’ Employment Rate During the Recession by Husbands’ Work Hours and Earnings

*Data source: U.S. Census Bureau, 2006 and 2010 American Community Surveys*

\*Estimate rounds to 0.

For more information on the source and accuracy of these estimates, see http://www.census.gov/acs/www.

1. **The views expressed herein are those of the author and not necessarily those of the U.S. Census Bureau.**  [↑](#footnote-ref-1)
2. Recession dates are determined by the National Bureau of Economic Research and are available at http://www.nber.org/cycles.html. [↑](#footnote-ref-2)
3. Only respondents and spouses of respondents are included. Subfamilies are excluded. Analyses are limited to women with a job in the past 5 years because industry and class of worker data are only collected for the current job or most recently held job within the past 5 years. [↑](#footnote-ref-3)
4. Measures that were used to predict earnings include occupation (collected for the most recently held job in the previous 5 years), educational attainment, race, ethnicity, and age. I use the most detailed level of occupation available (all Census occupation codes) in the models. In 2006 there were 505 occupation codes, while in 2010 there were 535 occupation codes (excluding military-specific occupations). [↑](#footnote-ref-4)
5. There was a spike in employment in 2008 among all subgroups, though this is likely the result of revised ACS labor force questions that had the effect of capturing a greater number of marginal workers. Secondary analyses with data from the Current Population Survey (CPS) show that the trend would be flatter during 2008 without the introduction of these changes. Using data from CPS, employment declined by 2.7 percentage points among mothers of young children, a smaller change than any other subgroup examined here. For more information about the modified questions, please see http://www.census.gov/hhes/www/laborfor/researchnote092209.html. [↑](#footnote-ref-5)
6. Employment patterns among fathers of young children and fathers of older children are similar, therefore they are combined in the analyses. [↑](#footnote-ref-6)
7. The employment likelihood in educational services, health care, and social assistance is not statistically different from employment in transportation, warehousing, and utilities. [↑](#footnote-ref-7)
8. Logistic regression results (not shown) confirm that the relationship between industry and wives’ employment remains significant and follows similar patterns to those presented in the descriptive statistics tables, even after accounting for control variables such as wives’ demographic characteristics and educational attainment. [↑](#footnote-ref-8)