The Effects of Family Leave on Wages, Employment, and the Family Wage Gap: Distributional Implications

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INTRODUCTION

Perhaps the most striking demographic change in the United States in the past fifty years is the growing involvement of females in the labor force. During this time period, overall female labor force participation increased from 33.9% in 1950 to 60.1% in 2001; while during the same time, male labor force participation actually fell from 86.4% to 74.4%. These percentages compare to a Labor Force Participation Rate (LFPR) at the turn of the twentieth century of over eighty-five percent for males and just twenty percent for females. Currently, females comprise 46.6% of the United States workforce. Over the course of the past half-century, females have integrated themselves into the workforce, broadening their horizons with respect to lifetime commitments to full-time employment, enjoying

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^{1.} Labor force participants include those with paid employment as well as those actively seeking work. BRUCE E. KAUFMAN & JULIE L. HOTCHKISS, THE ECONOMICS OF LABOR MARKETS 116 (6th ed. 2003).

^{2.} *Id.* at 119. Note that these Labor Force Participation Rates (LFPR) are somewhat higher when considering prime-aged workers (aged twenty-five to fifty-four). For these workers, the LFPR is 91.6% for males and 76.8% for females. *See* SAUL D. HOFFMAN & SUSAN L. AVERETT, WOMEN AND THE ECONOMY: FAMILY, WORK, AND PAY, ch. 7, at 2 (forthcoming 2004), *available at* http://www.buec.udel.edu/hoffmans/textbook/index.htm (last modified Dec. 10, 2003).

^{3.} HOFFMAN & AVERETT, *supra* note 2, ch. 7, at 3.

^{4.} See KAUFMAN & HOTCHKISS, supra note 1, at 140.

occupational diversity, and even experiencing some success with movement into upper management.⁵ Evidence of this progress can be seen in improvements in the ratio of median earnings of full-time, vear-round employed females to like earnings of males, which has increased from approximately 60.7% in 1960 to 76.3% in 2001.⁶

Within this growing female workforce presence, notable change has been seen through the remarkable influx of mothers into the workforce, particularly married mothers with pre-school aged children. Historically, these women were the least likely to participate in the paid market. For example, in 1960 only 18.6% of mothers of children under the age of six were in the labor force;⁷ by 2001 this figure had grown to 62.5%. While mothers are increasingly likely to engage in paid employment, the motherhood wage gap (the gap between the wages of mothers and like nonmothers) has not improved. This wage ratio has remained at approximately ninety percent since 1970. Jane Waldfogel suggests this lack of confluence between the gender wage gap and the motherhood wage gap may be caused by inadequate family employment policies in the presence of improved gender equity policies.9 If this were the case, then the passage of the Family and Medical Leave Act (FMLA) in 1993¹⁰ should improve mothers' labor force standing, with consequent improvement in the motherhood wage gap.

Despite the proliferation of research and publications in recent years on the topic of the FMLA, little has been published to date presenting a broad overview of the economic impact of mandated family leave, particularly regarding its distributional effects for women and their children. We focus this Article on the implications of family leave policy for wage gaps by motherhood status, as well as

7. U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES § 13, at 395 (1995), available at http://www.census.gov/prod/1/gen/95statab/labor.pdf.

^{5.} HOFFMAN & AVERETT, *supra* note 2, ch. 7, at 7 and ch. 8, at 18–19.

^{6.} Id. ch. 8. at 4.

^{8.} U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES § 12, at 373 tbl.570 (2002), available at http://www.census.gov/prod/2003pubs/02statab/labor.pdf.

^{9.} Jane Waldfogel, Understanding the "Family Gap" in Pay for Women with Children, 12 J. ECON. PERSP. 137 (1998).

^{10.} Family and Medical Leave Act of 1993, Pub. L. No. 103-3, 107 Stat. 6 (codified as amended at 29 U.S.C. §§ 2601-2655 (2000)).

on the policy's distributional effects. We begin by briefly describing the progress (and lack of progress) experienced by women in the workforce in the past half-century and discussing the factors thought to be important in these various outcomes. We then present the underlying economic theory of employer mandates, culminating with a discussion of the potential labor force impacts of mandated employer leave. Next, we use data from the 1979 National Longitudinal Survey of Youth¹¹ to estimate the impact of state leave policies on employment and wage outcomes for women, both mothers and non-mothers, thereby producing estimates of such leave policies on the family earnings gap. Finally, we discuss distributional implications of the current FMLA policy and suggest policy revisions.

I. WOMEN IN THE WORKFORCE IN THE PAST HALF-CENTURY

Much lies hidden beneath the aggregate labor force participation trends presented previously. Clearly, all women—particularly mothers—are significantly more likely to engage in paid work than they were fifty years ago. This section of the manuscript addresses the ways in which employed women are becoming more like their employed male counterparts, their remaining differences and the factors thought to contribute to these continuing gender disparities.

Looking at the sex composition of occupations, the degree of gender-based occupational segregation began to decline in the 1970s, with continued improvement to the present. Females have gained substantial inroads into executive, administrative, and managerial occupations. Also, in 2001, over one-half of economists and 29.3% of lawyers were women. However, much occupational segregation still exists. For example, in 2001, 97.8% of pre-kindergarten and kindergarten teachers were female, as were 97% of receptionists.

^{11.} BUREAU OF LABOR STATS., U.S. DEP'T OF LABOR, NATIONAL LONGITUDINAL SURVEY OF YOUTH, 1979, available at http://www.bls.gov/nls/nlsy79.htm (last visited Jan. 21, 2004). For further information about the National Longitudinal Survey of Youth, see BEREAU OF LABOR STATS., U.S. DEP'T OF LABOR, NLSY97 GEOCODE DATA, available at http://www.bls.gov/nls/nlsgeo97.htm (last visited Jan. 21, 2004).

^{12.} Id. at 18.

^{13.} U.S. CENSUS BUREAU, supra note 8, at 381 tbl.588.

Additionally, 97.3% of firefighters, 85.9% of police officers, and 89.6% of engineers were male. 14

Female workers continue to differ from their male counterparts in other ways as well. Female workers are considerably more likely to work part-time (defined as fewer than thirty-five hours per week) than male workers, and female workers experience more intermittent work. Women are also somewhat less likely than men to work in jobs with flexible schedules (30% of men versus 27.4% of women), resulting from males' higher status on the managerial ladder. ¹⁵ This lack of continuous, full-time employment hinders wage growth, and lack of access to a flexible work schedule can put additional pressure on the work and family balancing effort.

The bulk of the improvement in the U.S. gender wage gap occurred during 1980s; in fact, the percentage improvement experienced during that decade exceeded that of most of other countries. Surprisingly, the gender wage gap for year-round, full-time workers is nearly identical across a wide range of education levels. Comparing like-educated women and men, the gender wage gap is in the narrow range, seventy-two percent to seventy-five percent, for all levels of education between less than high school and a doctorate degree. Thus, educational attainment does not enable women to overcome this wage gap. The gender wage ratio discussed above is closer to equity in many developed countries. For example, in Sweden in 1993 the ratio of women's to men's wages was ninety percent, and in Australia in 1989 and Norway in 1994 the ratios were eight-eight percent and eighty-seven percent, respectively.¹⁷

Some concerns remain regarding the ability of women to integrate themselves fully into the workforce. While the gender wage gap has improved, Waldfogel has demonstrated that mothers continue to earn less than like non-mothers, with the ratio of mothers' to non-mothers' earnings in the ninety percent range since 1970. Waldfogel estimates that over one half of the gender wage gap is due to the

^{14.} Id.

^{15.} Id. at 377 tbl.579.

^{16.} HOFFMAN & AVERETT, supra note 2, at 11 tbl.3.

^{17.} Waldfogel, supra note 9, at 140 tbl.1.

^{18.} The exact ratios are: 1970: 91.4%; 1980: 87.9%; and 1994: 90.2%. Id. at 144 tbl.4.

motherhood wage gap, and she argues that this family wage gap is growing over time.¹⁹ New estimates of the motherhood wage gap in the range of five to ten percent have recently been produced using data from the 1990s.²⁰ To what can this motherhood wage gap decrease be attributed? In addition to the limited availability of family-friendly workplace policies, the motherhood wage gap has been attributed to such unobservable factors as on-the-job productivity and energy, individual differences based on timing in regard to return to work after childbirth, or inflexible work schedules. However, recent empirical evidence has found little support for these hypotheses.²¹ Other research has examined the role that fertility timing plays in the motherhood wage effect, and has found that fertility delay can enhance wages for college-educated mothers but cannot mitigate the motherhood wage gap for lesser-educated mothers.²²

What factors contribute to this persistent family wage penalty? Waldfogel's research focuses on the impact of childbirth and maternity leave.²³ Her results suggest that the availability of jobprotected maternity leave can lessen the negative impact of mothering on women's wages.²⁴ In fact, her international comparative research suggests that family leave generosity has a strong influence on mitigating the motherhood wage penalty.²⁵

To what extent can potentially positive wage effects of mandated maternity leave be expected to "trickle down" to the lowest wage earners? Related in part to the motherhood wage penalty is the persistence of disproportionately high poverty rates for families with

^{19.} Id. at 138-39.

^{20.} Catalina Amuedo-Dorantes & Jean Kimmel, The Motherhood Wage Gap for Women in the United States: The Importance of College and Fertility Delay 7–11 (W. Mich. U. Dep't of Econ., Working Paper No. 03-07, 2003), *available at* http://homepages.wmich.edu/~jkimmel/motherhood%20wage%20gap%20for%20women.pdf.

^{21.} Deborah J. Anderson et al., *The Motherhood Wage Penalty Revisited: Experience, Heterogeneity, Work Effort and Work-Schedule Flexibility*, 56 INDUS. & LAB. REL. REV. 273 (2003); *see also* Michelle J. Budig & Paula England, *The Wage Penalty for Motherhood*, 66 AM. SOC. REV. 204, 204–11 (2001) (explaining the various factors related to the motherhood wage penalty).

^{22.} Amuedo-Dorantes & Kimmel, supra note 20.

^{23.} Waldfogel, supra note 9.

^{24.} Id.

^{25.} Id.

young children. In 1997, approximately two-thirds of all families living in poverty were families with young children. ²⁶ The workers in these families are disproportionately less likely to be working in firms of sufficient size to be covered by the FMLA.²⁷

Ellwood and Jencks express a related concern. 28 They argue that if marriage rates among the lesser-educated remain low (or continue to fall), then the pressures on single mothers to support families will remain a national concern.²⁹ They worry about a rising unequal income distribution in the United States, with an increasingly marginalized group of "have-nots" suffering from low family incomes. These low family incomes are due in part to low earnings for the poorly educated and the motherhood wage penalty. If familyfriendly policies, such as family leave, can reduce the family wage gap, then perhaps rising inequality can be tempered.

II. THE ECONOMICS OF MATERNITY LEAVE AND THE FMLA

The FMLA was passed and signed into law by President Clinton in 1993. While other articles in this symposium describe it in detail, the Act's critical components are a mandated leave period of twelve weeks and the job-protected nature of this leave. 30 Specifically, all workers (with the requisite hours and tenure, and employment in

^{26.} Gregory Acs et al., On the Bottom Rung: A Profile of Americans in Low-Income Working Families, in New Federalism: Issues and Options for States 2000 1 (Urban Inst., Series A. No. A-42, Oct. 1, 2000).

^{27.} See Katherine Ross Phillips, Working For All Families? Family Leave Policies in the United States, in THE ECONOMICS OF WORK AND FAMILY 170 (Jean Kimmel & Emily P. Hoffman eds., 2002); see also COMM'N ON FAMILY & MED. LEAVE, U.S. DEP'T OF LABOR, BALANCING THE NEEDS OF FAMILIES AND EMPLOYERS: THE FAMILY AND MEDICAL LEAVE SURVEYS 2000 UPDATE 3-5, available at http://www.dol.gov/asp/fmla/chapter3.pdf. The Commission was established under section 301 of the FMLA, and some of the Commission's stated duties include collecting data to be used to analyze the progress and impact of the FMLA for both workers and their employers. 26 U.S.C. §§ 2631–2636 (2000). According to the survey report, lower income workers are very unlikely to be working in FMLA-covered firms or eligible for leave. COMM'N ON FAMILY & MED. LEAVE, supra.

^{28.} See David T. Ellwood & Christopher Jencks, The Growing Differences in Family Structure: What Do We Know? Where Do We Look for Answers? (Aug. 2001) (unpublished manuscript, on file with New Inequality Program, supported by the Russell Sage Foundation).

^{29.} Id. While the percentage of married women aged twenty-five to sixty-four with a college education fell 6.9% between 1970 and 1995, the percentage decline for those with less than a high school education fell by 17.5%. HOFFMAN & AVERETT, supra note 2, at 8, tbl.2.

^{30. 26} U.S.C. §§ 2612, 2614 (2000).

firms with fifty or more workers) are entitled to twelve weeks of unpaid leave in any calendar period, after which they must be permitted to return to the same job position or an alternative position of similar responsibility and compensation.³¹ Access to job-protected leave is at least equally important as access to leave because job-protected leave has significant implications for wage growth. Rather than losing the firm-specific human capital accumulated during the pre-leave job tenure, job-protected leave enables the employee to return to the same job with the same employer, thereby exploiting her previous experience.³² The fact that women change employers more often than men during their working lives contributes in large part to the gender wage gap. Job-protected leave can reduce the frequency of job change for female workers.

Recent evidence shows that more than one-half of FMLA leave-takers do not take the leave for pregnancy or childbirth-related reasons, despite the legislation's intent to primarily aid women.³³ Though it has broader applicability to all workers, the FMLA is perceived as addressing gender inequality in the workforce. The wording of the legislation documents this intent.³⁴

From an economist's perspective, what are the mechanisms through which mandated leave might affect employment and wages? Kaufman and Hotchkiss present an economic analysis of mandated maternity leave.³⁵ They analyze the problem in the framework of hedonic wage theory.³⁶ This theory explains that firms and workers are most concerned with the total compensation package and will be willing to trade off wages and nonwage benefits to various degrees.³⁷ However, there are particular problems arising from mandating a

^{31.} Id

^{32.} Jacob Alex Klerman & Arleen Leibowitz, Labor Supply Effects of State Maternity Leave Legislation, in GENDER AND FAMILY ISSUES IN THE WORKPLACE 65 (Francine D. Blau & Ronald G. Ehrenberg eds., 1997).

^{33.} COMM'N ON FAMILY & MED. LEAVE, *supra* note 27, at 2–6 tbl.2.5, *available at* http://www.dol.gov/asp/fmla/chapter2.pdf.

^{34. 26} U.S.C. § 2601(a)(5) (2000) (stating that "[d]ue to the nature of the roles of men and women in our society, the primary responsibility for family caretaking often falls on women, and such responsibility affects the working lives of women more than it affects the working lives of men")

^{35.} KAUFMAN & HOTCHKISS, supra note 1, at 413–19.

^{36.} Id.

^{37.} Id.

benefit that might advantage one readily identifiable group of workers more than the average worker. For example, discrimination laws prevent employers from paying different groups of workers different wages merely because one group might utilize a particular benefit more than another. ³⁸ According to Summers,

If wages could freely adjust, these differences in expected benefit costs would be offset by differences in wages. If such differences are precluded, however, there will be efficiency consequences as employers seek to hire workers with lower benefit costs. It is thus possible that mandated benefit programs can work against the interests of those who most require the benefit being offered.³⁹

Summers makes a strong argument for government intervention in the market for fringe benefits based on adverse selection considerations, arguing:

If employees have more information about whether they will need parental leave or face high medical bills than their employers do, then employers that provide these benefits will receive disproportionately more applications from employees who require benefits and so will lose money. The market thus discourages provision of any fringe benefit.⁴⁰

Kaufman and Hotchkiss put this in a different light, explaining that if left to private forces, while some firms might finance generous leave benefits by reducing wages to cover the nonwage benefit costs, these firms are at risk of losing their male employees as the men search for more desirable wage/fringe packages.⁴¹

A final argument for mandating employer-provided, job-protected maternity leave is an externalities argument based on social benefit. Improving females' access to previously male-dominated occupations (as job-protected leave can facilitate) could bring a broader

^{38.} Lawrence H. Summers, *Some Simple Economics of Mandated Benefits*, 79 AM. ECON. REV. 177, 181–82 (1989).

^{39.} Id. at 182.

^{40.} Id. at 179.

^{41.} KAUFMAN & HOTCHKISS, supra note 1, at 418.

perspective to both female and male workers, which could improve personal and social well-being in ways that are difficult to measure.

In summary, what does economic theory tell us about the *a priori* expectations concerning the wage and employment effects of the FMLA? Regarding wages, economic theory suggests that they could go up or down. Compensating wage differentials (from the hedonic theory described earlier) implies that workers will "buy" better leave benefits via reduced wages. However, wages could also go up as job retention contributes to long-term wage growth. Economic theory also suggests that, on net, employment could be affected either positively or negatively. Summers explains that mandated maternity leave could cause unemployment (or gender discrimination) if wages are not fully flexible or employers retaliate. ⁴² But, if the job retention component of the FMLA⁴³ improves female job retention or encourages more women to undertake professional careers, the employment effects might be positive.

Several recent econometric studies attempt to determine the wage and employment effects of family medical leave, although the results yield no consistent conclusion on these issues. Waldfogel finds that the FMLA has had a very small positive effect on employment, suggesting that the availability of leave has induced more women to enter and remain in the workforce. He has finding as evidence that compensating wage differentials negate the positive wage effects of job-protected leave. Waldfogel uses self-reported data on access to family leave, and finds that the motherhood wage penalty of eight percent is nearly counter-balanced by a six percent premium to having and using maternity leave. He leave and Baum finds no statistically significant impact of family leave on employment, or

^{42.} Summers, *supra* note 38, at 177.

^{43.} Family and Medical Leave Act of 1993, Pub. L. No. 103-3, 107 Stat. 6 (codified as 29 U.S.C. §§ 2, 5 (2000)).

^{44.} Jane Waldfogel, *The Impact of the Family and Medical Leave Act*, 18 J. POL'Y ANALYSIS & MGMT. 281 (1999).

^{45.} Jane Waldfogel, The Family Gap for Young Women in the United States and Britain: Can Maternity Leave Make a Difference, 16 J. LAB. ECON. 505 (1998).

^{46.} Klerman & Leibowitz, supra note 32.

wages.⁴⁷ Baum argues that the FMLA has no impact on women's employment or wages because many employers had provided leave prior to the enactment of the FMLA and because the mandated leave is short and unpaid.⁴⁸ Examining European nations and considering leave times consistent with that mandated by the FMLA, Ruhm finds a positive effect on women's employment, but no impact on women's wages.⁴⁹ So, taken together, it appears that mandated job-protected family leave could actually enhance women's employment and could improve wages, although the bulk of the evidence shows little to no impact on either labor market outcome. Hopefully, our research findings will contribute in a substantive way to resolve the disagreement in the existing literature.

III. EMPIRICAL APPROACH AND DATA DESCRIPTION

A. Empirical Approach

We implement a well-known regression-based method to estimate the relationship between family leave policies and employment and wage outcomes, while incorporating factors to control the role of motherhood status on both labor market outcomes. Our empirical model is a straightforward implementation of Mincer's human capital model in which wages are expressed as a function of factors known to determine wages.⁵⁰ The full model to be estimated is a two-

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^{47.} Charles L. Baum II, The Effect of State Maternity Leave Legislation and the 1993 Family and Medical Leave Act on Employment and Wages, 10 LAB. ECON. 573 (2003).

^{48.} However, the DOL report explains that many employers had to modify their leave policies in response to FMLA.

^{49.} Christopher J. Ruhm, *The Economic Consequences of Parental Leave Mandates: Lessons From Europe*, Q. J. ECON. 285, 311–15 (1998).

^{50.} JACOB MINCER, SCHOOLING, EXPERIENCE, AND EARNINGS 1 (1974). We opt not to use the approach relied on by some other researchers in this area, see, e.g., Baum, supra note 47, because our method is more direct and permits the inclusion of more control variables. See Waldfogel, supra note 44, at 284. One econometric concern is that states with good family leave policies will also tend to be states with higher wages. We address this concern by including a measure of the state's average annual earnings in both equations. A second concern, one of selectivity, hypothesizes that more productive female workers are more likely to get jobs in firms with generous leave packages, thereby pushing up the coefficient on leave in the wage equation. See Rebecca Blank, Commentary on Chapter 4, in GENDER AND FAMILY ISSUES IN THE WORKPLACE, supra note 32, at 127, 127–29. We combat this problem by including firm size in our wage equation, which serves as a proxy for good jobs.

equation model, with the first equation modeling the woman's discrete decision to participate in paid employment, and the second equation modeling the hourly wage earned by those women who work. The two-equation model is shown below:

(1)
$$Employed_{is} = g\left(D_i, HC_i, F_i, R_i, P_s\right) = D_i \gamma + HC_i \eta + F_i \mu + R_i \theta + \psi P_s + u_{is}$$

(2)
$$LogWage_{ijs} = f\left(D_i, HC_i, J_{ij}, R_{is}, P_s\right) = D_i \beta + HC_i \chi + J_{ij} \delta + R_{is} \phi + P_i \phi + \rho \lambda_{ijs} + \varepsilon_{ijs}$$

Where: D is a vector containing demographic characteristics of the women in our sample, such as their age, race, marital status, and motherhood; HC is a vector of human capital measures, including education, tenure, and work experience; F includes family size, household non-labor income, and women's family background characteristics, such as the educational attainment of parents and whether they lived at home by age eighteen; J refers to job related characteristics, such as whether the woman works in a large firm, part-time, and her occupation; and R is a vector of local and regional characteristics, such as whether the woman resides in an urban area, local unemployment rates, and average state earnings. The vector P includes the policy measures of interest to this study; that is, the provision of state-mandated family leave policies in the case of the employment equation and information on the woman's leave eligibility in the case of the wage equation. Finally, the sub-indices i, j, and s stand for individual, job, and state-level characteristics, respectively. A detailed description of our variables appears in Table 1.

TABLE 1: VARIABLE DESCRIPTION

| Variables | Description |
|------------------|--|
| Real Hourly Wage | Logarithm of real hourly wage in 1984-1986 dollars |
| Working | Dummy variable equal to 1 if woman works |
| Age | Age of respondent |
| Hispanic | Race dummy |

| Variables | Description |
|-----------------------------|---|
| Black | Pace dummy |
| Other Race | Race dummy |
| Married | Marital status dummy |
| | • |
| Mom | Dummy equal to 1 if woman is a mother |
| Eligible for Leave | Dummy variable equal to 1 if state offers leave and woman works in a firm affected by the state mandate |
| Family Size | Number of household members |
| Less than High School | Educational attainment dummy |
| High School | Educational attainment dummy |
| Some College | Educational attainment dummy |
| College | Educational attainment dummy |
| Tenure | Tenure in weeks |
| Work Experience | Work experience in weeks |
| Part-time Job | Dummy variable equal to 1 if woman works part-time |
| Large Firm | Dummy equal to 1 if worker's firm employs 100 or more workers |
| Professional & Managers | Occupation dummy |
| Sales | Occupation dummy |
| Clerical | Occupation dummy |
| Craftsmen | Occupation dummy |
| Operatives | Occupation dummy |
| Laborers | Occupation dummy |
| Farm | Occupation dummy |
| Services | Occupation dummy |
| Family Non-labor Income | Previous Year Family Income–Respondent's Labor Income |
| Mother's Highest Grade | Mother's highest grade completed |
| Father's Highest Grade | Father's highest grade completed |
| Live with Parents by Age 18 | Dummy equal to 1 if respondent lived with parents at age 18 |
| Urban | Dummy equal to 1 if respondent lives in an urban area |
| High Unemployment Rate | Dummy equal to 1 if respondent lives in an area with high unemployment |
| | |

| Variables | Description |
|------------------------|--|
| Average State Earnings | Average state earnings |
| State Mandated Leave | Dummy equal to 1 if state offers leave |

Equation (1) models the likelihood of being employed and is estimated as a probit model.⁵¹ The results of this model will serve two purposes. First, as the state-mandated leave variable will be included directly in the probit model, this model will permit estimation of the role, if any, played in the availability of state leave on the woman's employment outcome. Second, the probit model is estimated jointly with the log wage equation via Maximum Likelihood Estimation (MLE) to eliminate the econometric problems associated with estimating the log wage equation only for those with positive wages. The predictions from the probit model (equation (1)) will be used to construct a sample-selection term (inverse Mill's ratio or λ) to be included in the wage equation (equation (2)).⁵²

Note that the actual dependent variable in equation (2) is the natural logarithm of the real hourly wage. This log wage is used to gain consistency with the rest of the literature and to produce parameter estimates with more straightforward interpretations. Equation (2) expresses the individual's hourly wage as a function of various factors, including demographic, human capital, job related, and local and regional characteristics. Of special interest to us is the inclusion of a dichotomous variable indicative of whether the woman is a mother. This is a key variable in our analysis, since it will produce the direct estimate of the motherhood wage gap. Additionally, we control for a variety of local and regional characteristics affecting individual earnings. In particular, we include the state's average annual earnings as a proxy for the strength of the state's labor market. This variable is critical to purge the effect of generous state compensation from that of state family laws on

^{51.} A probit model is used to transform a discrete 0-1 dependent variable into a continuous probability with a normal distribution. *See* WILLIAM H. GREENE, ECONOMETRIC ANALYSIS 812–16 (4th ed. 2000).

^{52.} We estimate the MLE version of the Heckit model, which treats the sample selection problem like an omitted variable problem. *Id.* at 911–13. The Heckit approach was first developed and presented by James Heckman. *See* James J. Heckman, *Sample Selection Bias as a Specification Error*, 47 ECONOMETRICA 153 (1979).

women's earnings. Finally, equation (2) includes information on women's leave eligibility.⁵³

In this analysis, we focus on state policies in existence immediately prior to the enactment of the FMLA to determine the impact, if any, of a somewhat limited availability of leave. We draw our state leave data from Baum, who explains that there are twelve states that mandated job-protected, employer-provided maternity leave prior to the 1993 enactment.⁵⁴ We construct two leave variables from Baum's data. First, we construct a dummy variable indicative of the presence of state-mandated leave, which equals one for residents of those states with job-protected mandated family leave. We include this variable in the employment probit to estimate the effect that living in a state with a mandated family leave policy may have on women's likelihood of being employed. The presence of statemandated leave can have a negative effect on female employment if wages do not fully adjust in response to the higher quasi-fixed employment costs imposed by the state-mandated leave. In those instances, the coefficient will be ψ <0. In contrast, the possibility exists that the presence of state-mandated leave allows women to retain their jobs as they become mothers; hence, results in a higher likelihood of being employed or $\psi > 0$.

Secondly, we construct a variable indicative of the individual worker's leave eligibility, where eligibility is contingent on residing in a state with state mandated leave as well as working in a firm with a sufficient number of workers to be covered by the leave statute. We include this variable in the log wage equation to determine the impact of having access to job-protected family leave on wages. As in the

^{53.} In order to identify the parameters in our two-equation system, we include a series of family related variables (F) as well as information on the presence of a state-mandated leave in the employment equation. These variables are excluded from the log wage regression, which, in turn, contains a vector of job related characteristics (J) as well as information on women's leave eligibility excluded from the employment equation. In this manner, we guarantee the identification of the system via variable exclusion rather than through the functional form.

^{54.} Charles L. Baum II, *The Effects of Maternity Leave Legislation on Mothers' Labor Supply After Childbirth*, 69 S. ECON. J. 772, 782 tbl.5 (2003). Note that these data are widely available and have been used by other family leave researchers. The twelve states with job-protected family leave prior to the passage of FMLA are California, Connecticut, Maine, Massachusetts, Minnesota, New Jersey, Oregon, Rhode Island, Tennessee, Vermont, Washington, and Wisconsin.

case of examining the impact of a state-mandated leave on employment, women leave eligibility can have a negative or a positive effect on hourly wages. On the one hand, according to the compensating wage differentials theory, the possibility exists that employers discount women wages to offset the increased employment costs resulting from the mandated leave, i.e., φ <0. On the other hand, women eligible for maternity leave may be able to keep their jobs following their pregnancies, accumulating tenure and increasing earnings (hence: φ >0).

We analyze the employment and wage effects of pre-FMLA state leave policies contemporaneously. Specifically, we use 1992 data to look for a relationship between current state laws and labor market outcomes. The non-leave group is all individuals residing in states without state leave policies.

B. Data Description

We use data drawn from the Geo-coded 1979 National Longitudinal Survey of Youth (NLSY79 Geo-coded file). This is a nationally-representative sample of 12,686 individuals who were fourteen to twenty-one years old as of December 31, 1978. This cohort was initially interviewed annually from 1979 through 1994, and starting in 1994, the interviews were conducted biennially. We use data for the year 1992 (pre-FMLA) and restrict our analysis to women for whom we have information on all the variables of interest in our analysis. Table 2 and Table 3 provide the means and standard deviations for the variables being used in our analysis for all women, all working women, as well as for working mothers eligible and ineligible for leave.

As seen in Table 2, the average age of women in our sample is thirty-one. There is an over-representation of Hispanic and black women in our sample. Hispanic and black women accounted for approximately nineteen percent and twenty-six percent of our sample

^{55.} BUREAU OF LABOR STATS., NLSY GEOCODE DATA, *supra* note 11. Per the Geo-coded file contract agreement with the United States Department of Labor, Catalina Amuedo-Dorantes handled all National Longitudinal Survey of Youth data analyses and safeguarded all data files.

^{56.} Bureau of Labor Stats., National Longitudinal Survey of Youth, supra note 11.

^{57.} Id.

of women, respectively. These percentages are slightly lower among working women. Sixty percent of women were married in our sample. About seventy-three percent of women in our sample were mothers; in contrast, the percent of mothers working was sixty-seven percent. Approximately one-fifth of women in our sample have a college degree, and about one-fourth of working women were college-educated. A similar percentage (twenty-six percent) of employed women were working part-time. Finally, family non-labor income appears higher among all women (including both working and non-working) than among working women, signaling the importance of family non-labor income in women's labor supply decisions.

TABLE 2: VARIABLE MEANS AND STANDARD DEVIATIONS

| Variables A | | Vomen | Working | g Women |
|-------------------------|----------|----------|----------|----------|
| | Means | S.D. | Means | S.D. |
| Log Real Hourly Wage | 1.8033 | 0.5202 | 1.8595 | 0.5086 |
| Working | 0.7049 | 0.4561 | 1.0000 | 0.0000 |
| Age | 31.0323 | 2.2379 | 31.0296 | 2.2440 |
| Hispanic | 0.1891 | 0.3916 | 0.1662 | 0.3723 |
| Black | 0.2582 | 0.4377 | 0.2406 | 0.4275 |
| Other Race | 0.5527 | 0.4973 | 0.5933 | 0.4913 |
| Married | 0.5890 | 0.4921 | 0.6024 | 0.4895 |
| Mom | 0.7269 | 0.4456 | 0.6687 | 0.4708 |
| Eligible for Leave | 0.2001 | 0.4001 | 0.2126 | 0.4093 |
| Family Size | 3.3802 | 1.5969 | 3.0291 | 1.4047 |
| Less than High School | 0.1202 | 0.3252 | 0.0653 | 0.2472 |
| High School | 0.4506 | 0.4976 | 0.4293 | 0.4951 |
| Some College | 0.2363 | 0.4249 | 0.2619 | 0.4398 |
| College | 0.1928 | 0.3946 | 0.2435 | 0.4293 |
| Tenure | 163.1190 | 190.1408 | 220.9049 | 195.1931 |
| Work Experience | 32.9052 | 37.6975 | 39.1697 | 30.8951 |
| Part-time Job | 0.4181 | 0.4933 | 0.2550 | 0.4360 |
| Large Firm | 0.3058 | 0.4608 | 0.4125 | 0.4924 |
| Professional & Managers | 0.3187 | 0.4661 | 0.3451 | 0.4755 |
| Sales | 0.0858 | 0.2801 | 0.0805 | 0.2722 |
| Clerical | 0.2824 | 0.4502 | 0.2885 | 0.4532 |

| Variables | All V | Vomen | Working | g Women |
|--------------------------|----------|----------|----------|----------|
| Craftsmen | 0.0307 | 0.1726 | 0.0316 | 0.1750 |
| Operatives | 0.0692 | 0.2538 | 0.0657 | 0.2479 |
| Laborers | 0.0229 | 0.1498 | 0.0199 | 0.1396 |
| Farm | 0.0085 | 0.0917 | 0.0056 | 0.0747 |
| Services | 0.1818 | 0.3857 | 0.1631 | 0.3696 |
| Family Non-labor Income | 15601.06 | 124753.6 | 11292.76 | 128647.9 |
| Mother's Highest Grade | 10.8202 | 3.2030 | 11.1600 | 2.9757 |
| Father's Highest Grade | 10.7872 | 3.9530 | 11.1784 | 3.8070 |
| Live with Parents by Age | | | | |
| 18 | 0.6563 | 0.4750 | 0.6743 | 0.4688 |
| Urban | 0.8121 | 0.3907 | 0.8155 | 0.3880 |
| High Unemployment Rate | 0.2734 | 0.4457 | 0.2431 | 0.4291 |
| Average State Earnings | 25774.90 | 3443.68 | 25630.75 | 3386.93 |
| State Mandated Leave | 0.2916 | 0.4546 | 0.2867 | 0.4523 |

It is of special interest to look at some of the divergent characteristics of working mothers with and without leave eligibility. Table 3 contains some of these characteristics. First, as expected, log hourly wages for mothers eligible for leave are higher than those of mothers not eligible for leave. Secondly, while the percentage of nonblack and non-Hispanic working mothers with and without leave eligibility only differs by a couple of percentage points, those of Hispanic and black mothers with and without leave eligibility are substantially different. In particular, the percent of Hispanic working mothers enjoying 1992 leave eligibility was practically double the percent of Hispanic working mothers without a leave (thirty-one percent versus fifteen percent, respectively). The opposite appears to be the case among black working mothers, who do not benefit as extensively from these leaves. This differential in the incidence of leaves by race could, in part, be due to combined differences in fertility, labor force participation, and types of jobs held by women in each of these demographic groups. Additionally, the family size and educational attainment of working mothers with and without leave do not appear to be substantially different. Nonetheless, working mothers without leave display slightly higher job tenure and work experience, and show marginally lower part-time employment rates. These women are also less likely to occupy professional and managerial occupations, and their family non-labor incomes are

lower than those of their counterparts with leaves.⁵⁸ Finally, states offering employer-mandated leaves display higher average earnings than those without the mandated leaves, reinforcing the importance of accounting for the generosity of states' earnings to assess the true impact of the leave on women's earnings.

TABLE 3: VARIABLE MEANS AND STANDARD DEVIATIONS

| Variables | Mothers with Leave | | Mothers without Leave | |
|-------------------------------|--------------------|---------|--------------------------|---------|
| | Means | S.D. | Means | S.D. |
| Logarithm of real Hourly Wage | 1.9533 | 0.5021 | 1.7349 | 0.5000 |
| Working | 1.0000 | 0.0000 | 1.0000 | 0.0000 |
| Age | 31.3965 | 2.3239 | 31.2743 | 2.2378 |
| Hispanic | 0.3103 | 0.4636 | 0.1573 | 0.3643 |
| Black | 0.1293 | 0.3363 | 0.3043 | 0.4604 |
| Other Race | 0.5603 | 0.4974 | 0.5383 | 0.4988 |
| Married | 0.7069 | 0.4562 | 0.6625 | 0.4731 |
| Mom | 1.0000 | 0.0000 | 1.0000 | 0.0000 |
| Eligible for Leave | 1.0000 | 0.0000 | 0.0000 | 0.0000 |
| Family Size | 3.6509 | 1.1598 | 3.6625 | 1.1463 |
| Less than High School | 0.1255 | 0.3321 | 0.0807 | 0.2726 |
| High School | 0.4545 | 0.4990 | 0.4865 | 0.5001 |
| Some College | 0.2684 | 0.4441 | 0.2660 | 0.4421 |
| College | 0.1515 | 0.3593 | 0.1667 | 0.3729 |
| Tenure | 216.82 | 203.37 | 219.57 | 196.17 |
| Work Experience | 36.4095 | 29.0748 | 39.2547 | 31.0176 |
| Part-time Job | 0.3276 | 0.4703 | 0.2808 | 0.4496 |
| Large Firm | 0.5259 | 0.5004 | 0.4289 | 0.4952 |
| Professional & Managers | 0.3190 | 0.4671 | 0.2930 | 0.4554 |
| Sales | 0.0216 | 0.1455 | 0.0921 | 0.2894 |
| Clerical | 0.3448 | 0.4763 | 0.2723 | 0.4454 |
| Craftsmen | 0.0216 | 0.1455 | 0.0373 | 0.1895 |
| Operatives | 0.0991 | 0.2995 | 0.0870 | 0.2819 |

^{58.} Using the U.S. Department of Labor's 2000 Employee and Employer Surveys, Phillips notes that lack of access to paid leave is a significant problem, as almost three-fourths of low-income leave-takers reported taking unpaid leave. Phillips, *supra* note 27, at 159.

| Variables | Mothers | with Leave | | s without ave |
|-----------------------------|----------|------------|---------|------------------|
| Laborers | 0.0302 | 0.1714 | 0.0207 | 0.1425 |
| Farm | 0.0043 | 0.0657 | 0.0052 | 0.0718 |
| Services | 0.1595 | 0.3669 | 0.1925 | 0.3945 |
| Family Non-labor Income | 19761.43 | 97884.57 | 7769.18 | 130726. 7 |
| Mother's Highest Grade | 10.2888 | 3.4639 | 10.8499 | 2.8158 |
| Father's Highest Grade | 10.4655 | 3.7829 | 10.6398 | 3.7853 |
| Live with Parents by Age 18 | 0.6336 | 0.4829 | 0.6325 | 0.4824 |
| Urban | 0.8836 | 0.3214 | 0.7712 | 0.4203 |
| High Unemployment Rate | 0.3707 | 0.4840 | 0.2133 | 0.4098 |
| Average State Earnings | | | 24602.6 | |
| | 28021.13 | 2915.63 | 4 | 2882.21 |
| State Mandated Leave | 1.0000 | 0.0000 | 0.0000 | 0.0000 |

IV. ESTIMATION RESULTS

Results from the employment probit and the wage regressions are presented in Table 4 and Table 5, respectively. 59 First, we run a baseline model (model (1)) that includes all the model variables with the exception of family leave variables. In this manner, we are able to obtain an estimate of the motherhood wage gap for our sample. Subsequently, in model (2), we add the family leave variables—a dummy for the passage of a state-mandated leave in the employment probit and a dummy for the woman's leave eligibility in the log wage regression. Finally, in model (3), we re-estimate our two-equation system, this time adding an interaction term of the motherhood dummy and the woman's eligibility for leave in the log wage regression. This interaction term provides an estimate of the effect that eligibility for a medical and family leave might have on the motherhood wage gap. Given the purpose of the study, we will focus our discussion on the coefficients of the motherhood and family leave variables in both the employment and wage regressions.

^{59.} Regression results were calculated using the statistical software, STATA, procedure called "Heckman." *See* STATA PRESS, REFERENCE MANUAL EXTRACT RELEASE 6.0 157–68 (1999).

Table 4 displays the results from the employment probits for each of the aforementioned specifications. Of special interest to us are the coefficients for the state mandated leave in models (2) and (3).⁶⁰ It is interesting to note that the enactment of a family and medical leave law in the state appears to have a negative impact on female employment. This result confirms the hypothesis that an increase in quasi-fixed employment costs, such as is the case with a family and medical leave, can result in a destruction of female employment on the part of employers if wages are not fully flexible.

TABLE 4:
COEFFICIENTS AND STANDARD ERRORS OF PROBIT MODEL FOR
BEING AT WORK

| Variables | Model (1) | Model (2) | Model (3) |
|--------------|--------------------|--------------------|--------------------|
| | Coefficient (S.E.) | Coefficient (S.E.) | Coefficient (S.E.) |
| Age | -0.8064** | -0.8766** | -0.8768** |
| | (0.3651) | (0.3708) | (0.3708) |
| Age Squared | 0.0133** | 0.0143** | 0.0143** |
| | (0.0059) | (0.0059) | (0.0059) |
| Hispanic | -0.0077 | 0.0332 | 0.0332 |
| | (0.0881) | (0.0889) | (0.0891) |
| Black | -0.0841 | -0.0685 | -0.0680 |
| | (0.0760) | (0.0768) | (0.0769) |
| Married | 0.1883*** | 0.1795*** | 0.1798*** |
| | (0.0686 | (0.6917) | (0.0693) |
| Mom | -0.5799*** | -0.5861*** | -0.5846*** |
| | (0.0881) | (0.0894) | (0.0894) |
| Family Size | -0.1133*** | -0.1142*** | -0.1145*** |
| | (0.0276) | (0.0271 | (0.0273) |
| High School | 0.5735*** | 0.5503*** | 0.5506*** |
| | (0.0896) | (0.0909) | (0.0909) |
| Some College | 0.8508*** | 0.8371*** | 0.8372*** |

^{60.} Note that, while the same regressors are included in models (2) and (3), their coefficients differ slightly because each probit model is estimated simultaneously with its corresponding log wage equation. This simultaneity produces slightly different probit coefficients despite having the same set of regressors.

| | Model (1) | Model (2) | Model (3) |
|-----------------------------|--------------|--------------|--------------|
| | (0.1035) | (0.1047) | (0.1047) |
| College | 1.0207*** | 0.9906*** | 0.9903*** |
| | (0.1221) | (0.1236) | (0.1238) |
| Family Non-labor Income | -1.62e-06*** | -0.16e-06*** | -1.56e-06*** |
| | 3.16e-07 | 3.16e-07 | 3.17e-07 |
| Mother's Highest Grade | -0.0028 | -0.0025 | -0.0026 |
| | 0.01215 | (0.0123) | (0.0123) |
| Father's Highest Grade | 0.0005 | -0.0005 | -0.0004 |
| | (0.0098) | (0.0098) | (0.0098) |
| Live with Parents by Age 18 | -0.0174 | -0.0363 | -0.0364 |
| | (0.0589) | (0.0594) | (0.0594) |
| Urban | 0.0067 | 0.0425 | 0.0424 |
| | (0.0732) | (0.0753) | (0.0753) |
| High Unemployment Rate | -0.2137*** | -0.1787*** | -0.1788*** |
| | (0.0653) | (0.0670) | (0.0670) |
| Average State Earnings | -0.00001 | -0.00001 | -0.00001 |
| | (8.77e-06) | (0.00001) | (0.00001) |
| State Mandated Leave | - | -0.2036*** | -0.2008*** |
| | - | (0.0730) | (0.0731) |
| Observations | 2587 | 2438 | 2438 |
| Log Likelihood | -2216.214 | -2079.866 | -2079.556 |

Note: *** Indicates significance at the one percent level; ** Indicates significance at the five percent level; and * Indicates significance at the ten percent level. All regressions include a constant term and occupation dummies.

What is the effect of family and medical leave eligibility on women's wages? Does it have a differential impact on mothers versus non-mothers? In order to answer these questions, we turn to the results displayed in Tables 5 and 6. Looking at the coefficient for the motherhood dummy variable in model (1) in Table 5, we can see that, on average, mothers in our sample experienced a motherhood wage gap of approximately eleven percent.

The coefficient on women's eligibility for a family or medical leave in model (2) in Table 5 provides further information on the overall effect of eligibility on their earnings. On average, current leave eligibility raises women's earnings by approximately seven percent. The positive effect of family and medical leave eligibility on

wages hints at the importance of leave benefits in promoting job retention that contributes to long-term wage growth.

TABLE 5: COEFFICIENTS AND STANDARD ERRORS OF REAL HOURLY WAGE REGRESSIONS

| Variables | Model (1) | Model (2) | Model (3) |
|----------------------------|--------------|--------------|--------------|
| | Coefficient | Coefficient | Coefficient |
| | (S.E.) | (S.E.) | (S.E.) |
| Age | 0.0504 | 0.0767 | 0.0772 |
| | (0.1209) | (0.1243) | (0.1244) |
| Age Squared | -0.0007 | -0.0011 | -0.0011 |
| | (0.0019) | (0.0020) | (0.0020) |
| Hispanic | -0.0200 | -0.0267 | -0.0269 |
| | (0.0269) | (0.0275) | (0.0275) |
| Black | -0.1057*** | -0.0966*** | -0.0961*** |
| | (0.0241) | (0.0245) | (0.0245) |
| Married | 0.0103 | 0.0089 | 0.0089 |
| | (0.0203) | (0.0208) | (0.0208) |
| Mom | -0.1084*** | -0.1077*** | -0.1154*** |
| | (0.0303) | (0.0294) | (0.0315) |
| Eligible for Leave | - | 0.0714*** | 0.0482 |
| | - | (0.0267) | (0.0397) |
| Mom*Eligible for Leave | - | - | 0.0371 |
| Leave | - | - | (0.0471) |
| High School | 0.2269*** | 0.2392*** | 0.2399*** |
| | (0.0468) | (0.0454) | (0.0458) |
| Some College | 0.3591*** | 0.3778*** | 0.3776*** |
| | (0.0537) | (0.0513) | (0.0519) |
| College | 0.5949*** | 0.6222*** | 0.6223*** |
| | (0.0577) | (0.0553) | (0.0560) |
| Tenure | 0.0011*** | 0.0011*** | 0.0011*** |
| | (0.0002) | (0.0002) | (0.0002) |
| Tenure Squared | -1.01e-06*** | -9.77e-07*** | -9.79e-07*** |
| | (2.17e-07) | (2.23e-07) | (2.23e-07) |
| Work Experience | 0.0008 | 0.0008 | 0.0008 |
| | (0.0006) | (0.0006) | (0.0006) |
| Work Experience Squared | -6.78e-06* | -6.01e-06 | -6.05e-06 |
| 1 | (4.07e-06) | (4.08e-06) | (4.07e-06) |
| Large firm | 0.1623*** | 0.1595*** | 0.1594*** |

| Variables | Model (1) | Model (2) | Model (3) |
|----------------------------|------------|------------|------------|
| · | (0.0193) | (0.0198) | (0.0198) |
| Part-time Job | -0.0463** | -0.0590** | -0.0592** |
| | (0.0225) | (0.0233) | (0.0233) |
| Urban | 0.1353*** | 0.1357*** | 0.1355*** |
| | (0.0250) | (0.0264) | (0.0263) |
| High Unemployment Rate | -0.0861*** | -0.0808*** | -0.0814*** |
| | (0.0233) | (0.0240) | (0.0240) |
| Average State Earnings | 0.00003*** | 0.00003*** | 0.00003*** |
| | (2.98e-06) | (3.52e-06) | (3.52e-06) |
| Lambda | 0.1444** | 0.1563*** | 0.1535** |
| | (0.0718) | (0.0615) | (0.0643) |
| Uncensored Observations | 1833 | 1684 | 1684 |
| Wald Chi-squared | 1006.76 | 1042.51 | 1036.37 |
| Prob > Chi-squared | 0.0000 | 0.0000 | 0.0000 |

Note: *** Indicates significance at the one percent level; ** Indicates significance at the five percent level; and * Indicates significance at the ten percent level. All regressions include a constant term and occupation dummies.

To assess further whether the leave has a differential effect on the earnings of mothers and non-mothers, we interact the motherhood and the leave eligibility dummies in model (3). The coefficient on this interaction term is positive, but not statistically different from zero. However, to conclude that leave eligibility does not help reduce the motherhood wage gap would be incorrect. In order to assess whether this is the case, we need to look at the joint significance of motherhood, women's eligibility for leave, and the interaction term involving both variables. Table 6 displays the results from this exercise. Eligibility for family and medical leave among mothers effectively reduces the motherhood wage gap (which goes from a twelve percent gap to approximately a three percent gap).

TABLE 6:
COMPARISON OF LEAVE WAGE AND EMPLOYMENT EFFECTS

| Category | Computation | Model (2) | Model (3) |
|-------------------------|----------------------|--------------------|--|
| | | Coefficient (S.E.) | Coefficient (S.E. or Chi2 test of Joint Significance) |
| Wage Effect of Leave on | | | |
| All Women | Eligible for Leave | 0.0714*** | 0.0482 |
| | - | (0.0267) | (0.0397) |
| Wages Earned by | | | |
| Mothers Without Leave | Mom | -0.1077*** | -0.1154*** |
| | | (0.0294) | (0.0315) |
| Wage Effect of Leave on | (Mom+Eligible for | - | |
| All Mothers | Leave +Mom*Eligible | | -0.0301*** |
| | for Leave) | | (60.53) |
| Effect of Leave on | | | |
| Female Employment | State Mandated Leave | -0.2036*** | -0.2008*** |
| | | (0.0730) | (0.0731) |

Note: *** Indicates significance at the one percent level; ** Indicates significance at the five percent level; and * Indicates significance at the ten percent level.

In addition to the motherhood and leave effects shown in Tables 5 and 6, results for other standard wage equation controls are given. A standard finding in the economics literature is the lower earnings of black women even after relevant productivity factors are controlled. In our baseline regression (model (1)), the coefficient implies that black female workers earn, on average, eleven percent less than their non-black and non-Hispanic counterparts. Secondly, the regression analysis confirms the positive relationship between human capital—in the form of higher educational attainment and tenure—and wages predicted by the human capital theory. Similarly, employees of large firms have enjoyed a significant wage premium of sixteen percent.

On average, part-time workers also experience a wage gap, as those workers earned five to six percent less than their full-time counterparts. Finally, we include a series of location and regional controls in our wage regression analysis to account for differences in pay in rural versus urban areas, as well as in areas with a booming economy or more generous state compensation versus areas with a lagging economy or less generous state compensation systems. All of these spatial characteristics seem to significantly affect earnings to some extent. Finally, it is worth noting the statistically significantly different from zero inverse Mill's ratio (Lambda), which confirms the

importance of accounting for the sample selection into working when examining earnings. In addition, the lambda coefficients reveal the existence of a positive selection into working.

V. DISTRIBUTIONAL IMPLICATIONS AND CONCLUDING REMARKS

Our results suggest a strong negative effect of mandated family leave on employment, implying that gender discrimination has resulted from a federally mandated benefit that employers fear will increase costs. Second, our results show that availability and eligibility for leave have a strong positive effect on wages, nearly overcoming the negative wage impact of motherhood. This encouraging finding suggests that the job-protection nature of the FMLA⁶¹ overcomes the potentially wage-depressing effects implied by compensating wage differentials.

Survey data from the U.S. Department of Labor (DOL) inform this discussion on several fronts.⁶² First, despite the employment-depressing effects of state mandated leave (at least in the short-term), most employers responding to the DOL survey report no significant increases in business costs resulting from the FMLA, suggesting that the negative employment effect we find is a result of fear of the unknown rather than actual costs.⁶³ Also, while FMLA leaves are more likely to be maternity-related in 2000 than in 1995, over one-half of leaves are *not* taken for maternity-related problems. This suggests that the lack of employer-provided paid sick and personal time is a significant burden on families, particularly given that FMLA-mandated leave is unpaid.

Our results provide strong evidence for Waldfogel's suggestion that family leave might serve to ameliorate the negative wage effects of having children.⁶⁴ We find that leave eligibility reduces this gap by two-thirds in the short-term. It appears that leave eligibility can be effective in the fight against gender workplace inequity.

^{61.} See supra note 43.

^{62.} COMM'N ON FAMILY & MED. LEAVE, supra note 27.

^{63.} *Id.* at 3–5 tbl.A2. Also discussed in this report is employee retention. Once granted FMLA leaves, approximately ninety-eight percent of workers return to leave-granting employers.

^{64.} Waldfogel, *supra* note 45.

However, there seems to be a clear consensus that much remains undone in the battle against gender workplace disparities. In fact, in its 2003 decision upholding the applicability of the FMLA for state employees, the U.S. Supreme Court signaled continuing workplace gender equity concerns. 65 When Congress enacted the FMLA, it had significant evidence of a "long and extensive history of sex discrimination" with respect to the administration of leave benefits by the states, which is weighty enough to justify the enactment of "prophylactic legislation."66 In addition, "by creating an across-theboard, routine employment benefit for all eligible employees, Congress sought to ensure that family-care leave would no longer be stigmatized as an inordinate drain on the workplace caused by female employees, and that employers could not evade leave obligations simply by hiring men."67 Despite the fact that the Court's ruling was decided by a five to four vote, the strong language is an encouraging sign of the acceptance of workplace gender disparities as a real phenomenon warranting concern at the national level.

What might be done to further the progress of women in the workplace? We feel that policy should be considered on three fronts: (1) providing for wage replacement for some fraction of the worker's wages; (2) expanding FMLA coverage to smaller firms; and (3) attempting to develop a policy targeted at fathers to encourage their participation in child-related FMLA leaves. Clearly, the greatest inadequacy with the FMLA is that the mandated leave is unpaid. President Clinton's "Baby UI" rule permitted states to use funds from their unemployment trust funds to finance paid family leaves. However, in a major setback for proponents of paid leave, President Bush repealed this rule in October 2003. According to Judith L.

^{65.} See Nev. Dep't of Human Res. v. Hibbs, 538 U.S. 721, 723 n.1 (2003). Note that the Court ruling repeats this policy emphasis, despite the fact that the case under consideration regarded a male worker needing leave to care for an ill wife. *Id.* Thus, this case did not involve a female's maternity leave and was not related to children at all.

^{66.} Id. at 724.

^{67.} Id. at 726.

^{68.} See Regulations for Birth and Adoption Unemployment Compensation, 20 C.F.R. § 604 (2003).

^{69.} In 2002, then-California Governor Gray Davis, signed legislation permitting the use of UI ("unemployment insurance") funds as partial wage replacement for family leave.

^{70. 68} Fed. Reg. 58,540, 58,549 (Oct. 9, 2003) (to be codified at 20 C.F.R. pt. 604).

Lichtman, President of the National Partnership for Women & Families, "President Bush has turned his back on working women, men and their families who are struggling to be responsible employees and responsible parents. In doing so, he makes a mockery of his claim to care about our nation's working families."⁷¹

An additional reason to focus on paid leave is the large number of children growing up in single-parent households. While this situation has improved in recent years (due in large part to the strong economy and welfare reform), still nearly one-in-five young children live in single-mother families and about five percent live in father-only families.⁷² The need for caregiver assistance is most acute in single-parent families, and these numbers remain strong and are likely to grow as the growth bubble of the 1990s fades from view.

A second avenue of policy improvement is to extend the coverage of the FMLA to smaller firms. Approximately forty percent of workers do not work for firms of sufficient size to be covered by the FMLA, and these forty percent are disproportionately young, female, and low income. According to Phillips, there is an inequitable access to employer-provided family leave; in particular, access is disparate across income and occupations.

Additionally, our own analyses of the DOL data reveal strong disparities in access to coverage by sex. Male workers without FMLA eligibility tend to be visibly disadvantaged on the standard measures (education, for example), while the unaffordability of leave

Coverage limits, eligibility criteria, and benefit levels combine to limit access to family leave for low-income workers and workers in blue-collar and service occupations. As welfare reform continues to influence the labor market behavior of low-income caregivers, the need for family leave among the population of low-income workers will grow.

^{71.} Press Release, Judith L. Lichtman, Repeal of "Baby UI" Rule Makes Mockery of President Bush's Claim to Support Working Families, (Oct. 10, 2003), available at http://www.nationalpartnership.org/INCLCnews.cfm?NewsItemID=556&zoom=true. Lichtman is the President of the National Partnership for Women & Families.

^{72.} Gregory Acs & Sandi Nelson, *The More Things Change? Children's Living Arrangements Since Welfare Reform, in SNAPSHOTS OF AMERICA'S FAMILIES III No.* 10, at 1 (Urban Inst. 2003).

^{73.} Phillips, *supra* note 27.

^{74.} Id. Phillips adds:

(or non-leave-taking for other reasons) extends farther into the middle rung for female workers. As women are considerably more likely to provide care for young children and older relatives, seeing that leave-needing applies to a seemingly "fortunate" class of female workers is cause for concern. A final factor suggesting extended coverage of FMLA is warranted by the fact that recent job growth has been experienced disproportionately in smaller firms. So, without any extension of coverage, the ranks of those covered under the current rules will decline.

The final concern, one of male leave-taking and, indeed, male responsibility for household tasks, is a more difficult nut to crack. Evidence from Europe suggests that even direct policy incentives to encourage fathers to take more paternal leave has experienced only limited success. As Selmi notes, as a society we cannot approach gender equity in the workforce until (among other improvements) men begin taking on more of the traditionally female caretaker roles. In fact, as argued by Bergmann, the current status and utilization of family leave policies in this country tends to lead to increased workplace gender inequities, rather than improving such disparities. The concludes that the critical factor has been the lack of males' movement towards acceptance of greater responsibility in household activities.

It is not evident how policy-makers could go about changing both males' and females' attitudes regarding gender roles in the household, or whether policy-makers will ever undertake this issue. Nonetheless, there are positive signs. First, our evidence that the motherhood wage gap can be reduced via leave eligibility is encouraging. Second, other workplace policies (such as flexible-benefit plans or on-site childcare) can make female workers' household responsibilities less burdensome. Finally, how the employment and wage effects of leave-eligibility will play out over the longer term remains to be seen.

^{75.} Barbara R. Bergmann, Work-Family Policies and Equality Between Women and Men, in Gender and Family Issues in the Workplace, supra note 32, at 278–79.

^{76.} Michael Selmi, Family Leave and the Gender Wage Gap, 78 N.C. L. REV. 707, 709 (2000).

^{77.} Bergmann, supra note 75, at 277.

^{78.} Id. at 277-78.