HAVING A BABY:
Some Predictions of Maternal Employment Around Childbirth

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This analysis tests the influence of personal, job, and family status characteristics on maternal employment. We use the Merged Child/Mother File from the National Longitudinal Survey of Youth to examine employment patterns of mothers who gave birth between 1979 and 1986. Logistic regression is used to estimate the probabilities; proportional hazards techniques are used to estimate rates of leaving and return to employment after childbirth. We find that family status factors and the proportion of the family income the mother earns are consistently important in predicting maternal employment. Human capital factors are more significant in predicting employment exits and the rate of exit than the rate of return or employment status one year after a birth.

One of the most striking trends in women's labor force participation is that it is becoming more continuous throughout the childbearing years. While childbirth is still associated with exits from the labor market, in 1987 more than half the mothers with infants were in the labor force (Hayghe 1984, 1986; U.S. Bureau of the Census 1988). Nevertheless, there are important differences in who leaves, when, and for how long. This article explores how human capital and family status characteristics affect the timing and duration of labor market exits and reentries.

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We focus on four aspects of women's employment around the time of giving birth. First, we examine the probability that women ever leave employment around childbirth. Second, we examine the rate at which women exit the labor force before a birth. Third, among those who exit, we examine the rate at which they reenter the labor market. Finally, we analyze characteristics that influence the probability of employment one year after childbirth.

PREVIOUS RESEARCH AND CONCEPTUAL APPROACHES

Most scholarship on women's labor force participation has recognized that many women drop out of the labor market upon the birth of a child and sometimes return at a later date. Yet all women are not equally likely to drop out of the labor force around the time of childbearing, nor are they equally likely to return at any one point in time. Two explanatory approaches to differences in women's employment patterns are the human capital approach and the family status approach. We suggest an explanation that combines these two perspectives.

The Human Capital Approach

The human capital explanation emphasizes the effects of relative returns to education, training, and experience on labor force continuity. Women with the greatest investment in job-related skills are the least likely to exit the labor force and are likely to leave for the shortest period. Because they are most likely to suffer substantial reductions from intermittent employment, they have the most to lose by exiting (Cramer 1979; Polachek 1981).

The human capital approach also recognizes the short-term implications of child care costs for women with differential earning capacities. Well-trained, well-paid women can better afford the costs of having a child and day care. Women whose wages are lower relative to the high costs of child care may find it more rational to exit the labor force and provide care themselves, at least temporarily.

Research on several cohorts of mothers supports the human capital model (Glass 1988; O'Connell and Bloom 1987; Tienda and Glass 1985). Women with more formal education and labor market experience leave the work force more slowly and return more rapidly than those with less schooling and experience (McLaughlin 1982; Shapiro and Mott 1979; Shaw 1983; Annemette Sorensen 1983; Sweet 1972).

Occupational characteristics have also been shown to affect women's labor force exits. Glass (1988) finds labor force exits at the time of a pregnancy are associated with high job dissatisfaction, low occupational prestige, and low annual earnings. According to human capital theory, professional women remain in the labor force either because they have too much to lose by leaving or they have jobs providing paid maternity leave.

The Family Status Approach

The family status approach suggests that the mother's living environment at the time of the birth also influences her employment. Marital status and presence of children vary across the family life cycle (Moen 1985) and do not have consistent influences across time. If there were a cohort effect, marital and parental status could have different implications for employment during specific historical periods.

Research on the relationship between family status and maternal employment is inconsistent. This is not surprising given the many changes in the composition of the female labor force. Cross-sectional data are consistent with the interpretation that marital and parental status have different implications for employment, depending on mother's birth cohort.

There is substantial evidence that being married is less likely to inhibit employment in the 1980s than it did previously. Elder and Rockwell (1976) found that labor market exits among a sample of women born in the late 1920s occurred simultaneously with marriage, whereas in a sample of women born around 1940, labor market exit was delayed until the birth of the first child (Annemette Sorensen 1983). Glass (1988) found evidence that the effect of marital status on employment has decreased, and Eggebeen (1988) found that it declined between 1960 and 1980.

Race and marital status jointly influence maternal employment in ways that appear to have changed over time. Shapiro and Mott (1979) found that the birth of a first child inhibited the labor market behavior of white mothers more than that of Black mothers. O'Connell and Bloom (1987), however, show precisely the opposite trend for recent cohorts of white and Black mothers.

There is also evidence suggesting change in the effects of husbands' and wives' earnings on labor market exits. Glass (1988) found that the effect of a woman's earning power on her exit from the labor market increased, while the effect of her husband's income has declined over time. Thus it may be that the proportional rather than the absolute contribution of mother to total family income is an overlooked but important variable.

The literature on maternal employment around the time of childbirth focuses on women having their first child. Consequently, it is not clear how the presence of other preschoolers influences labor force participation. Although one might hypothesize that the presence of preschool children would encourage labor market exits and discourage reentry, neither Glass (1988) nor Spenner and Rosenfeld (1989) found such effects. It may not be family composition but access to social support networks like child care that is the relevant consideration.

An Integrated Approach

In this study we integrate the human capital and family status approaches. Conceptually, we consider the mother's proportional contribution to total family income as a critical link between the two approaches because it is sensitive to both sets of variables. This measure takes into account the human capital approach attention to the earnings that the family might sacrifice if the mother left the labor force. It also takes into account the family status approach by including the effects of household structure. When the mother is a single head of household, the proportion approximates unity; when the mother is married, it typically drops below half. In some cases mothers are married but are the sole earners in their families. In these cases the proportion does not measure household structure so much as the mother's financial responsibility for the household.

We integrate both approaches by demonstrating the significance of the mother's contributions to family income and by showing that family status variables significantly influence maternal employment above and beyond the effects of personal and occupational characteristics. We also show that the influences of human capital and family status characteristics on mothers' employment patterns vary by the phase of the employment history under analysis. By including both types of variables in our multivariate analysis, we hope to clarify some of the complex, even contradictory, findings from previous research.

DATA AND METHODS

Data

The 1986 Merged Child/Mother File of the National Longitudinal Survey of Youth (NLS-Y) includes information on 5,226 children born between 1979

and 1986 to 2,918 young mothers aged 14 to 29 at the birth of a child. Blacks, Hispanics, and low-income whites are oversampled.[1]

The subsample used for this analysis consists of all children born between 1979 and 1986 to mothers employed approximately at the time of the child's conception ($N = 1,920$).[2] Many mothers appear in the sample more than once because they have more than one child (35% of sample), but analysis performed on firstborn children shows no substantial differences in results, except that mothers with no other children are more likely to be in the labor force initially. The NLS-Y provides detailed personal and household charac-teristics of the mother at the time, or very near the time, of each child's birth, before and after, as well as a weekly description of mother's employment history. Thus longitudinal analysis is possible.

Methods

Logistic regression is used to estimate the relationship of the explanatory variables to two dichotomous dependent variables: any time out from em-ployment immediately before or after a birth and employment status one year after a birth. The response distribution for both variables is skewed. Among all women employed nine months before a birth, only 25 percent do not exit the labor force at any time in the nine months before or in the year after a birth. About 40 percent of the mothers employed nine months before a birth are employed one year after a birth. Although these distributions are close to the split considered safe for performing standard dichotomous dependent variable regression (25 to 75 percent), risks of violating assumptions of un-restricted range and homoscedasticity remain (Goodman 1976). Log-linear techniques present no such risks.

The dependent variables in the logistic regression are interpreted as the log-odds of taking time out from employment or of being employed one year after a birth. The beta coefficients indicate the amount of change in the log-odds per unit change in the explanatory variable. The amount of change in the probability per unit change in the explanatory variable is calculated by using the following formula:

$$p = \exp(L_1)/[1 + \exp(L_1)] - \exp(L_0)/[1 + \exp(L_0)],$$

where p is the change in the probability, L_0 is the logit before the change, and $L_1 = L_0 + B$ is the logit after the unit change (Petersen 1985).

We use linear proportional hazards analysis to examine influences on the rate at which mothers leave employment before a birth and the rate at which those who leave employment return after a birth. The hazards analysis allows

us to retain mothers never leaving or returning to employment. Censoring such cases has been shown to lead to serious biases (Aage Sorensen 1977; Tuma and Hannan 1978).

The dependent variable is the hazard rate or the probability that a mother returns to employment during each week after a birth, given that the mother is at risk at that time. The explanatory variables influence the speed and upward or downward movement of the rate. In computation, the natural logarithm of the rate is taken. The beta coefficients for the explanatory variables show the change in the hazard rate for each unit increase. The coefficients are transformed by calculating the inverse logarithm of the beta. Calculating $(\exp(\beta) - 1)100$ gives the percentage change in the hazard per unit change in the explanatory variable (Allison 1984).

By using the proportional hazard technique (Cox 1972), we assume that the speed of women leaving the labor force before a birth and returning after a birth does not depend on the amount of time in the previous states. The explanatory variables are assumed to incorporate the effects of time. Mother's age, education, and occupational status are likely to be highly correlated with how long she has been in the labor force before exiting to give birth. In the analysis of return to the labor force, we include a variable indicating whether the mother took time out before a birth and whether she had another birth before returning to the labor force—both highly correlated with the amount of time unemployed. Nevertheless, there may be some effects of unobserved sources of heterogeneity on the rates (Allison 1984).

MEASURES

Explanatory Variables

Human capital variables measured include maternal education, mother's age at birth of child, mother's occupation in the third quarter before the birth of the child (including the birth of the child), average number of hours worked per week, the Duncan (1961) socioeconomic status of the occupation, government or private sector, and unionization (see Table 1).

Family status characteristics include the number of mother's other children under age five, number of other adults in the household, presence of a spouse at the time of a birth, and spouse's earnings. Whether the mother has an additional birth before returning to employment and whether time is taken before a birth are also included to control for their negative effects on the rate

TABLE 1:   Descriptive Characteristics of the Mothers of National Longitudinal Survey of Youth Children

Variable	Range	(N = 1,920)
Black	0 = no; 1 = yes	0.2501
Other	0 = no; 1 = yes	0.1754
Education	1-19	11.95
Age at birth of child	14-29	22.15
Hours worked per week	1-86	32.83
Job status	4-84	36.25
Government job	0 = no; 1 = yes	0.1220
Union membership	0 = no; 1 = yes	0.1325
Number of other children < age 5	0-5	0.4114
Number of other adults in household	0-8	0.6639
Presence of spouse	0 = no; 1 = yes	0.6384
Spouse's income (1982 $s; N = 3,109)	0-107,740	13,234
Grandmother's employment	0 = no; 1 = yes	0.5345
Mother's earnings (1982 $s)	0-37,787	5,834
Family income (1982 $s)	0-100,000	18,495
Mother's percentage of total family income	1-100	35.22
Additional birth within one year	0 = no; 1 = yes	0.0263
Additional birth before return	0-4	0.3650

of return to employment after a birth. The effect of the child's grandmother's employment on mother's employment around the time of childbirth is also controlled. The proportion of the total family income earned by the mother is included to integrate human capital and family status variables.[3]

Dependent Variables

The first analysis uses a dummy dependent variable indicating that the mother does or does not exit the labor force either before or after childbirth. A value of 1 means that there are 0 weeks that mother is out of the labor force between the 27 weeks before and the 52 weeks after the birth. It is possible that women never leave the labor force around the time of childbirth if they have formal or informal maternity leave arrangements with their employers.

In the second analysis the dependent variable is the rate at which the mothers employed 27 weeks before birth leave the labor force before childbirth. Time out before the birth is measured in weeks, and the rate indicates how long mothers remain in the labor force before the birth.

In the third analysis the dependent variable is the rate at which mothers who exit the labor force around the time of the birth (i.e., those with a value

of 0 on the dependent variable in the first analysis) return to the labor force after childbirth. The time before returning is measured in weeks, and the rate indicates how quickly mothers return. Mothers who do not return to the labor force within the survey period are retained in the analysis (see discussion of methodology).[4]

The dependent variable in the final analysis indicates the likelihood that mothers employed around the time of conception are employed one year after the birth. It is a dummy variable coded 1 if the mother is employed in the fifth quarter or 52 to 65 weeks after the birth and 0 for those not employed at this time.[5]

RESEARCH HYPOTHESES

We expected human capital variables to have significant effects on exiting and the timing of exits and returns, because they reflect the status and flexibility of the job. We anticipated that the family status variables would have larger effects on employment after rather than before the birth, because they should influence the possibility of employment, given the need for child care. The other variables were expected to have similar effects in each of the analyses. A positive effect on employment refers to several behaviors: never exiting the labor market around the time of a birth, leaving the labor force more slowly before a birth, returning more quickly to the labor force after a birth, and being in the labor force one year after a birth.

RESULTS

Human Capital Variables

Mother's age and educational level at childbirth are significant predictors of time off (see Table 2). Older mothers with higher education are less likely ever to leave the labor force around the time of a birth than younger and less educated mothers. There is no significant effect of race on taking time off.

The characteristics of maternal employment that are significant predictors of taking time off are the number of hours worked and the Duncan (1961) socioeconomic status of the occupation. Mothers working more hours at higher-status jobs are less likely to exit employment around the time of a birth than those working at lower-status jobs for shorter hours.

TABLE 2: Logistic Regression Predicting Time Off From the Labor Force Before or After a Birth (N = 1,920)

Variable	Beta	Standard Error	Percentage of Change[a]
Black	0.2494	0.1442	6.18
Education (years)	0.1018**	0.0356	2.49
Age at birth of child	0.0921**	0.0274	2.66
Hours worked	0.0157**	0.0045	0.39
Job status	0.0113**	0.0035	0.28
Government job	0.2934	0.1665	7.05
Union membership	0.1391	0.1586	3.39
Number of other children < age 5	−0.0679	0.1002	2.25
Number of other adults in household	0.2390**	0.0659	5.77
Spouse present	1.0016***	0.1908	21.56
Spouse's earnings	−0.000004	0.000007	0
Grandmother's employment	0.0859	0.1128	2.10
Mother's percentage of total family income	0.0137***	0.0023	0.27
Intercept	−7.0797***	0.6473	

NOTE: Model chi-square 196.87 with 13 degrees of freedom; $p = .0$.
a. This refers to the percentage of change per unit of the independent variable in the odds of not being out of the labor force. For example, for every year of education the odds of not leaving the labor force around child birth increase by 2.49 percent.
*$p < .05$; **$p < .001$; ***$p < .0001$.

Table 3 presents the results from the proportional hazards analysis of the rate at which women leave employment before a birth. The mother's educational attainment and age at the time of the birth significantly slow the rate at which mothers leave the labor force, but race has no effect. The only work-related characteristic affecting the rate at which mothers leave the labor force before a birth is the status of their occupation. Women with higher-status occupations leave the labor force more slowly than those with lower-status occupations.

Table 4 presents results from the proportional hazards analysis of the rate at which women return to employment after the birth. While older mothers return to the labor force more quickly than younger mothers, the level of education makes no significant difference. Nonwhite mothers return to the labor force more quickly than white mothers. Working longer hours at higher-status jobs has no effect on how quickly they return after the birth. Employment in the public rather than private sector, however, results in slower return to employment.

TABLE 3:   Linear Proportional Hazards Analysis Predicting the Rate of
          Mother's Exit From Employment Before the Child's Birth ($N = 1,920$)

Variable	Beta	Standard Error	Percentage of Change[a]
Black	–0.0184	0.0595	–1.83
Education (years)	0.0514**	0.0143	5.28
Age at birth of child	0.0252*	0.0106	2.56
Hours worked	0.00074	0.0017	0.06
Job status	0.0049*	0.0015	1.00
Government job	0.1178	0.0731	12.50
Union membership	0.1043	0.0691	10.99
Number of other children < age 5	–0.0524	0.0395	–5.11
Number of other adults in household	0.0549*	0.0278	5.65
Spouse present	0.4004***	0.0752	49.24
Spouse's earnings (1982 $s)	–0.0000007	0.000003	0
Grandmother's employment	0.0764	0.0463	7.94
Mother's percentage of total family income	0.0056***	0.0009	0.75

NOTE: Model chi-square 179.74 with 13 degrees of freedom; $p = .0$.
a. This refers to the percentage of change per unit of the independent variable in the
rate at which mothers exit from employment before the child's birth. For example, for
every year of education the rate of exit from the labor force decreases by 5.28 percent.
*$p < .05$; **$p < .001$; ***$p < .0001$.

The final analysis examines factors predicting mother's employment one
year after a birth (see Table 5). The effects of race and age are not significant,
but mother's educational attainment increases the likelihood of being em-
ployed one year after birth. None of the characteristics of mother's employ-
ment before a birth significantly predict the likelihood of her employment
one year after the birth.

Family Status Variables

Another adult in the household increases the likelihood that mothers do
not exit the labor force before giving birth (see Table 2). Having another adult
present in the household, spouse or not, greatly influences the mother's em-
ployment continuity. As expected, however, holding constant the presence of the
spouse, the amount earned by the spouse does not have a significant effect
on mother's taking time off. Employment of the grandmother and the number
of preschool children in the household have no effect on taking time off.

Household characteristics also account for a substantial percentage of
change in the rate of mother's exit from employment before a birth (see Table
3). The number of preschool children is not significant, but the presence of

TABLE 4: Linear Proportional Hazards Analysis Predicting the Rate of
Mother's Return to Employment After the Child's Birth ($N = 1,437$)

Variable	Beta	Standard Error	Percentage of Change[a]
Black	0.1441*	0.0717	15.51
Education (years)	0.0125	0.0163	1.26
Age at birth of child	0.0567**	0.0128	5.84
Hours worked	0.0026	0.0019	0.26
Job status	−0.0018	0.0018	−0.18
Government job	−0.1964*	0.0878	−17.83
Union membership	0.0451	0.0830	4.62
Number of other children < age 5	−0.0365	0.0444	−3.59
Number of other adults in household	0.0650*	0.0322	6.72
Spouse present	0.2408**	0.0886	27.24
Spouse's earnings (1982 $s)	−0.00000004	0.0000004	0
Grandmother's employment	0.1901**	0.0542	20.94
Mother's percentage of total family income	0.0044***	0.0010	0.56
Additional birth	−0.2363***	0.0469	−21.05
Time off before a birth	−0.9980***	0.0987	−63.14

NOTE: Model chi-square 264.26 with 15 degrees of freedom; $p = .0$.
a. This refers to the percentage of change per unit of the independent variable in the rate of returning to the labor force after the child's birth. For example, Black women return to employment 15.51 percent more quickly than non-Black women.
*$p < .05$; **$p < .001$; ***$p < .0001$.

other adults and a spouse slow mother's exit substantially. Holding constant the presence of a spouse, the amount that the spouse earned has no effect on how quickly mothers leave the labor force before a birth.

Mothers having a spouse or another adult present in the household return to the labor force more quickly after a birth than those without such adults (see Table 5). However, the number of preschool children in the household has no effect on how quickly the mother returns to employment. Spouse's earnings also do not have a significant effect, while grandmother's employment has a significant positive effect on the rate of return to employment.

Having an additional birth has a strong, negative effect on return to employment. The rate of return is 21 percent lower for mothers who have an additional birth. Taking time off before the birth has a very strong negative effect. The rate of return to employment, holding other variables in the model constant, is 63 percent lower for mothers who took time off before a birth than for those employed continuously up to childbirth.

Again, the number of preschool children has no effect, but the number of other adults in the household and the presence of a spouse have positive

TABLE 5: Logistic Regression Analysis Predicting the Labor Force Participation of the Mother One Year After the Child's Birth (N = 1,510)

Variable	Beta	Standard Error	Percentage of Change[a]
Black	0.2642	0.1470	5.53
Education (years)	0.1632***	0.0354	3.61
Age at birth of child	−0.0143	0.0286	−0.32
Hours worked	−0.0005	0.0042	−0.01
Job status	0.0058	0.0035	0.13
Government job	−0.0353	0.1770	−0.80
Union membership	0.1553	0.1743	3.44
Number of other children < age 5	0.0056	0.0952	0.13
Number of other adults in household	0.1314*	0.1654	2.92
Spouse present	0.5790**	0.1790	11.79
Spouse's earnings	0.0000001	0.000009	0
Grandmother's employment	0.2703*	0.1121	5.93
Mother's percentage of total family income	0.0075***	0.0022	0.14
Additional birth before one year	−10.8107***	0.0000	65.13
Intercept	−2.4048***	0.6143	

NOTE: Model chi-square 143.90 with 14 degrees of freedom; $p = .0$.
a. This refers to the percentage of change per unit of the independent variable in the odds of being in the labor force one year after the child's birth. For example, for every year of education, the odds of returning to employment one year after birth increase by 5.53 percent.
*$p < .05$; **$p < .001$; ***$p < .0001$.

effects on the probability of employment one year after a birth. The amount earned by a spouse is not a significant predictor of mother's employment, but grandmother's employment significantly increases the probability of being employed one year after the birth. Also, having an additional birth before returning to employment has a large negative effect on employment at the end of one year.

Mother's Contribution to Family Income

The increase in the probability that the mother remains employed throughout pregnancy and after her child's birth is 13.5 percent if she earns one-half of the family income and 27 percent if she earns all of the family income (see Table 2). Furthermore, the proportion of family income earned by the mother in the year before the child's birth substantially decreases the rate of exit (see Table 3). Mothers earning all of the family income slow their rate of exit from employment by 75 percent.

The proportion of the family income earned by the mother at the time of conception also has a positive effect on the rate of return (see Table 4). Mothers increase their rate of return to employment by 56 percent if they earn all of the family income. Mothers earning more of the family income also have a greater risk of being employed one year after the birth (see Table 5).

DISCUSSION AND CONCLUSIONS

We have considered human capital characteristics of the mother, family status variables, and mother's contribution to the household income to explain maternal employment behavior around the time of childbirth. Our analysis illustrates the utility of incorporating a comprehensive set of variables to predict the employment decisions of a recent cohort of young mothers.

In interpreting the results it is important to consider possible effects of the age range of mothers in this sample. Many previous studies also rely on samples of mothers who were young at the time of childbirth (e.g., Haggstrom et al. 1984; McLaughlin 1982; Mott and Shapiro 1982). These mothers probably differ from those over age 30 at childbirth. Older mothers are more likely to have other children at home, to be married with a spouse present, to be divorced with children, or to be professional women who have delayed childbearing. The distribution of younger and older mothers by marital status and household composition is likely to be different, but the effect of these variables on employment should be similar.

This aside, our analysis shows that the relative importance of specific human capital factors varies by the phase of employment. Education, age, job status, and number of hours worked greatly increase the probability of remaining employed around the time of a birth. Educational attainment and job status, however, have no effect on the rate of return, and the age of the mother at childbirth has no effect on employment one year later.

The family status variables are important at each phase of employment. As hypothesized, they have important influences on employment during the period immediately surrounding childbirth, net of the influences of human capital and occupational characteristic variables in the model. The particular family circumstances of the young mothers studied determine both their ability and their need to be employed around the time of childbirth.

We find that the presence of a spouse and an additional household member has a consistently positive effect on maternal employment. Women living

with another adult are more likely to be employed initially, to exit more slowly, to return more rapidly, and to remain employed one year after childbirth. Research on earlier cohorts of young women suggests that being married has negative effects on maternal employment, but our research contradicts this finding. A spouse may facilitate employment of young mothers by providing transportation, additional child care, and household services or by performing other activities that make it possible for the mother to continue working.

Like Glass (1988), we find no effect of other preschool children on mother's employment around the time of a birth, although it has a strong, negative effect on employment at the time of conception. An additional birth, however, has a very strong, negative effect on employment after childbirth. This finding probably reflects the difficulty of providing care for two children under one year of age.

Contrary to expectations, we find little effect of race, net of the influence of other variables in the model. Black mothers are less likely than others to be employed around the time of conception, and if they exited around the time of a birth, they returned to employment more quickly. Whether or not a spouse is present is consistently a stronger predictor than race of maternal employment behavior. Nevertheless, that race is sometimes statistically significant illustrates the complexity of family and employment patterns for different groups of women.

Our research illuminates how economic considerations affect maternal employment. Our data suggest that mothers contributing more to the total family income are more likely to remain employed, exit more slowly, return more quickly, and be employed one year after childbirth. The absolute amount of spouse's earnings is consistently nonsignificant. This suggests that the critical factor is the relative contribution of the mother rather than the absolute amount of family income. More generally, these results suggest that maternal employment should continue to increase, given the recent decline in real male wages and the consequent increase in the female/male wage ratio.

Women most likely to be employed throughout the childbearing period fit O'Connell and Bloom's (1987) description of the delayed childbearer: a married white woman whose first child was born after age 24 and who completed some years of college. Least likely to be employed is the young minority mother with a high-school education or less. Clearly not all women fit these profiles. Moreover, such profiles cannot capture how changing one characteristic bears on the total effect. Two women with similar personal and occupational characteristics, except that one earns more of the family income than the other, have substantially different employment patterns around

childbirth. This study has documented some complex relationships among variables measuring human capital, job characteristics, and household composition. It has demonstrated the importance of family status and household characteristics, illustrating the merits of adopting an integrated perspective in the analysis of maternal employment behavior around the time of childbirth.

APPENDIX: Logistic Regression Predicting Mother's Employment Nine Months Prior to Child's Birth (N = 3,541)

Variable	Beta	Standard Error
Black	−0.4290***	0.0777
Education (years)	0.2443***	0.0197
Age at birth of child	0.0052	0.0162
Marital status at birth of child	−0.3913	0.2249
Number of other children < age 5	−0.4314***	0.0480
Number of other adults in household	0.1392***	0.0312
Spouse present	0.0264	0.1065
Log of spouse's income	0.0645**	0.0208
Grandmother's employment	0.2944***	0.0634
Year of child's birth	0.1250***	0.0198
Intercept	−3.1217***	0.3334

NOTE: Model chi-square 568.93 with 10 degrees of freedom; $p = .0$.
*$p < .05$; **$p < .001$; ***$p < .0001$.

NOTES

1. Further description of the data set is available from the Center for Human Resource Research (1988) of the Ohio State University. Approximately 54 percent of all mothers were employed before the birth of a child, a figure lower than the 75 percent reported by Haggstrom et al. (1984) and the 69 percent reported by McLaughlin (1982). There are two principal reasons that rates in the current sample are lower. First, women eligible for this analysis were employed during the entire period 27 to 39 weeks before the birth. During the third quarter before a birth, Haggstrom et al. (1984) show a drop in the employment rate from 75 percent to 60 percent while McLaughlin (1982) shows a decline from 69 percent to 53 percent. Second, employment rates were higher before a first birth than before subsequent births, because women with several children were less likely to be employed. In this sample, 59 percent of the mothers having their first birth were employed in the third quarter before the birth. Considering these differences in samples, it does not appear that mothers in this study were any more or less likely to be in the labor force.

2. The logistic regression predicting employment before childbirth is shown in the Appendix. Black mothers were less likely to be employed than others. Better educated mothers were more likely than less educated mothers to be employed, but age had no effect. Having other children under age 5 had a strong negative effect on employment, even holding all other factors

constant. Having another adult householder present, however, had a positive effect. Neither the effect of spouse presence nor marital status was significant. Holding other variables in the model constant, spouse's income had a positive effect on employment. The effect of grandmother's employment was positive. In the models, all earnings were standardized in 1982 dollars to control for the uneven effects of inflation over time. Standardized earnings were then logged. The distribution of earnings was positively skewed, and taking the natural logarithm normalized the distribution substantially. When there is no spouse or none present, earnings are coded 0. Cases with missing data on spouse's earnings are deleted from the analysis.

3. A mother's absolute earnings are highly correlated with her education and job status. Her proportional contribution is highly correlated with the amount she earns, but it has lower correlations with her education and socioeconomic status. The correlation between the proportion earned by the mother and spouse's income is significant ($r = .26$) but not alarming. Consequently, mother's earnings as a percentage of total family income captures the relative importance of maternal earnings while minimizing the risk of multicollinearity.

4. Only women who leave the labor force are at risk of returning. Consequently, the sample is limited to mothers (1,437) who leave for one week or more after a birth.

5. The logistic regression analysis cannot make appropriate corrections for those giving birth in 1985 and 1986 if they do not return to the labor force before the interview. For this reason, the sample is limited to children born in the years 1979 to 1984, leaving 1,510 cases. About 60 percent of those employed in the third quarter before the birth are also employed one year after the birth. This figure is substantially lower than the 72 percent who return to employment within a year after the birth, indicating that some returnees drop out of employment relatively soon. This finding is consistent with Shapiro and Mott's (1979).

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