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Depression risk among employed and non-employed mothers of young children: The impact of preferences, labor force status and job quality

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Abstract

Objective. This study explores the relationships among mothers' desire for employment, employment status, job quality and depression. *Methods.* The analysis uses the longitudinal NICHD Study of Early Child Care and Youth Development (SECCYD) and employs ordinary least squares models with multiple imputation to estimate these relationships controlling for prior depression. *Results.* Employment is associated with reductions in depression only among mothers who are employed in high-quality (not low-quality) jobs. But this reduction in depression is equally evident for mothers who desire and do not desire employment. Non-employed mothers have elevated depression levels only if they desire employment. *Conclusions.* The findings provide strong evidence of the benefits of multiple roles for mothers. Our results further demonstrate that neither employment nor non-employment is best for all mothers of young children, but rather that mental health depends on mothers' employment preferences and the quality of their jobs when they do work for pay.

A large body of research concludes that employment generally has positive or neutral rather than negative effects on women's mental health (Barnett & Baruch, 1985; Barnett & Hyde, 2001; Klumb & Lampert, 2004) and that the potential benefits of employment extend to mothers (Aneshensel, 1986; Pavalko & Smith, 1999; Wethington & Kessler, 1989). Much of this research draws on a role enhancement perspective, positing that multiple roles benefit women (and men) by providing multiple sources of satisfaction and identity and increased social support (Ahrens & Ryff, 2006; Barnett & Hyde, 2001) that are valuable for parents and non-parents alike.

Growing evidence, however, points to the significance of role quality as well as role quantity (Baruch & Barnett, 1986). Not surprisingly, for example, occupying the role of paid worker is most beneficial to mothers who have "good" jobs that offer opportunities for recognition and advancement and are not so demanding as to counteract whatever potential rewards they offer (Aneshensel, 1986; Glynn et al., 2009). But are "good" jobs good for all mothers or only for mothers who desire paid employment? And are mothers who remain out of the labor force by preference at greater risk of depression than mothers in low- or high-quality jobs? Most research on multiple roles and women's job quality focuses on employed wives and mothers. No research of which we are aware has considered how the combined effects of employment status and job quality may be moderated by maternal desire for employment.

In this paper, we use data from the first phase of the NICHD Study of Early Child Care and Youth Development (SECCYD) to explore the relationships among employment preferences, employment status, job quality and depression for mothers of children from birth to age three. We pose two questions: Do the mental health benefits of employment -- or the mental health risks of remaining out of the labor force -- depend on mothers' desire for employment?

And does job quality affect depression risk equally for mothers who say they would rather be at home full time and for mothers who prefer paid work?

Understanding the correlates of maternal depression is important because maternal depression is widespread and often recurrent, with estimated prevalence rates of eight to 15 percent among mothers during the infant and toddler years (McLennan, Kotelchuck & Cho, 2001). Maternal depression is not only harmful to mothers, but is also associated with a wide range of negative outcomes in children, including emotional and behavioral problems and an elevated risk of becoming depressed themselves (Goodman, 2007; NICHD, 1999).

Role Strain, Role Enhancement and Women's Depression

Several models have been proposed concerning how the number and quality of women's roles associate with their mental health. Role strain theory, also known as the role stress or scarcity hypothesis (Goode, 1960, Marks, 1977), conceives of the demands associated with social roles as fixed and cumulative so that adding one more role necessarily increases the obligations an individual faces and the likelihood of role overload. Role enhancement or accumulation theory counters that the benefits of occupying multiple roles typically exceed the costs because neither role demands nor human capacity to take on demands are fixed (Barnett & Hyde, 2001; Sieber, 1974) and because the benefits themselves are often substantial. Potential benefits include the accumulation of resources and privileges associated with each role such as prestige, income and social support; the ability to use successes in one role to buffer failures in another; and an enhanced sense of self (Barnett & Hyde, 2001; Sieber, 1974).

Research regarding women's roles and psychological distress, including depression, provides greater support for the role enhancement than the role scarcity perspective. Recent literature reviews and empirical work concur that the balance of evidence indicates that

employment has beneficial or neutral affects on women's mental health, including the risk of depression among mothers (Barnett & Hyde, 2001; Hock & DeMeis, 1990; Hyde et al., 1995; Klein et al., 1998; Klumb & Lampert, 2004; Repetti et al., 1989). Wethington and Kessler's (1989) longitudinal study, for example, found that mothers benefited from increased employment hours in terms of reduced depression risk as much as non-mothers and regardless of the number or ages of their children. Aneshensel (1986) similarly found that the impact of employment and employment-related strain were similar for mothers and non-mothers. The relevant question, scholars increasingly argue, is not whether multiple roles can benefit women but under what circumstances they do and do not confer benefits (Baruch & Barnett, 1986; Klumb & Lampert, 2004; Repetti et al., 1989).

Employment Preferences

Women's attitudes toward employment are likely to shape the degree to which employment benefits them (Repetti et al., 1989; Ross, Mirowsky & Huber, 1983). In accord with role enhancement theory, a preference for employment should increase the benefits of multiple roles and reduce their potential drawbacks (Baruch & Barnett, 1986). Women who prefer paid employment may enjoy work more, work harder, achieve greater success, reap more social support and better handle job-related stress than women who prefer to remain out of the labor force and who thus may experience the addition of another role as difficult or overwhelming as predicted by role strain theory. The impact of employment preferences is a particularly relevant question for mothers of young children who must obtain child care in order to work outside the home. Some mothers who prefer to be employed instead stay home to care for their children because they or their partner believe this is the right thing to do or because they cannot find child care (Blair-Loy, 2003; Hock & DeMeis, 1990). Other mothers who would prefer to stay home

instead work because they need the money they can gain from employment (Deutsch, 1999) or because they are required to work under welfare policy (Grogger and Karoly, 2005).

The impact of incongruence between desired and actual employment status may differ for employed and non-employed mothers. The small body of scholarship exploring this question comes to conflicting conclusions and is based on geographically limited samples which do not always include controls for prior depression. Based on one-way ANOVA analyses of two samples of women who gave birth in three metropolitan hospitals, Hock and DeMeis (1990) found that mothers who preferred employment but stayed home to care for their children faced a heightened risk of depression compared to three other groups: mothers who achieved their desire to stay home; mothers who achieved their desire to be employed; and mothers who preferred to stay home but were employed. Pistrang (1984) came to similar conclusions based on analysis of a convenience sample of 105 Los Angeles area married mothers who had been employed prior to giving birth to their first child five to nine months earlier. Dividing mothers into four groups based on prior "work involvement" and current employment status, Pistrang found prior high work involvement to be associated with increased depression risk among non-employed mothers. But prior work involvement was unrelated to depression risk among employed mothers. Neither of these studies controlled for prior depression.

In contrast, Klein et al. (1998) found that incongruence between actual and desired employment status mattered for employed as well as for non-employed mothers. Klein et al. used MANOVA techniques to analyze a longitudinal sample of 570 partnered women recruited from obstetrics and family practice clinics in two Midwestern cities. Controlling for prior depression, they found that mothers who had not achieved their desired employment status one year after birth faced a heightened risk of depression regardless of whether they were employed.

Two other studies of wives who were not necessarily mothers of young children (Ross et al., 1983; Waldron & Herold, 1986) also concluded that incongruence between desired and actual work status increased depression risk among employed as well as non-employed women. Thus, while non-employed mothers who would prefer employment appear to face an elevated risk of depression, it is unclear whether the same holds true for employed mothers who would prefer to remain at home with their young children.

Job Quality

In addition to employment preferences, job quality also affects women's depression risk (Baruch & Barnett, 1986; Glynn et al., 2009). Proponents of role enhancement theory increasingly argue that role quality is as or more important than role quantity (Barnett & Hyde, 2001; Baruch & Barnett, 1986). Jobs that require long hours, for example, may remain beneficial if they are offer other rewards, such as high pay and high levels of autonomy. Similarly, jobs that offer good pay may be stressful if they require overtime or other unexpected schedule changes. But only a few studies of the effects of job quality focus on new mothers, and most studies of job quality and depression examine employed women exclusively, precluding comparison of depression among non-employed women and those employed in high- and low-quality jobs. An exception to the latter limitation is Aneshensel (1986) who used a representative panel of women in Los Angeles County to examine the effects of high-strain jobs, defined by work overload, depersonalization and inadequate rewards. Controlling for prior depression, Aneshensel found that women in high-strain jobs were more likely to be depressed than women in low-strain jobs but considerably less likely to be depressed than women who were not employed. Follow-up analysis demonstrated that this relationship held for mothers with children at home, mothers

whose children were no longer at home and women without children. But the study did not focus on mothers of young children.

Using a sample of new mothers interviewed four months post partum in Wisconsin, Hyde et al. (1995) found that employed mothers who reported higher job rewards also reported less depression. A subsequent study following the same women one year after birth indicated that job overload was associated with heightened depression risk (Klein et al., 1998). But neither of these studies compared depression levels among mothers employed in high- and low-quality jobs to those of non-employed mothers.

We are unaware of any studies that directly explore whether the impact of job quality on women's depression depends on mothers' desire for employment. It is possible that the benefits of employment – particularly employment in good jobs – override the effects of preferences (Hock & DeMeis, 1990; Pistrang, 1984). For example, women who work despite a preference for staying home may be able to justify their employment as a necessary financial contribution to the family (Hock and DeMeis, 1990). On the other hand, if mothers who prefer to stay home are particularly anxious about leaving their children to go to work (Hock & DeMeis, 1990) or do not see their identities as closely tied to their jobs (Pistrang, 1984), then they may not benefit from employment, even in a "good" job. The failure to account for the combined effects of employment preferences, employment status and job quality and the scarcity of research comparing employed and non-employed new mothers limit the conclusions we can draw about these relationships. This paper addresses these gaps in the literature while taking into account other maternal and child-related factors likely to relate to depression, including number of children, child care arrangements, child gender and child temperament.

Methods

Data

The National Institute of Child Health and Human Development Study of Early Child Care is a prospective longitudinal study of 1,364 children and their families (NICHD Early Child Care Research Network, 1999). The study began in 1991 when newborns were sampled from hospital birth records at 10 sites in 9 states (Arkansas, California, Kansas, Massachusetts, North Carolina, Pennsylvania, Virginia, Washington, and Wisconsin). The enrollment process had three stages: (a) a hospital screening within 48 hours of birth, (b) a two-week phone call with a subset of screened eligible families, and (c) a one-month interview with contacted families who agreed to enroll in the study (NICHD Early Child Care Research Network, 1999). Although not based on a nationally-representative design, the SECC sample is similar to the U.S. population on a number of characteristics (Gordon, Kaestner, and Korenman, 2007).

We focus on the first phase of the study, which followed families for three years following the children's births. A baseline in-person interview was conducted at one month followed by major in-person interviews at 6, 15, 24, and 36 months. Attrition was modest across waves. By 36 months, 1,217 children (89%) remained. All time-varying variables were collected at all four major study waves, except for job quality, with was not assessed at the 36-month time point. We multiply imputed moderate item-level missing data using the *ice* and *mim* commands in Stata (Acock, 2005; Royston, 2005) as well as all job quality scores at 36-months. We report below sensitivity analyses for analyses of the three waves with observed job quality.

Measures

Maternal Depression

Current Depression was assessed using the Center for Epidemiological Studies Depression scale (CES-D) (Radloff, 1977). Respondents reported the frequency of experiencing

20 symptoms on a four-level rating scale (0=less than 1 day a week, 1=1-2 days a week, 2=3-4 days a week, 3=5-7 days a week). Example items include "I felt sad," "I had crying spells," and "My sleep was restless." The simple sum ranges from 0 to 60. In our SECCYD sample, the average score is 9.19 with a standard deviation of 8.23, similar to CES-D scores in other samples of mothers of infants and toddlers (McLennan et al., 2001). Prior research indicates that the CES-D has good internal consistency, test re-test stability, and concurrent validity and correlates highly with other measures of depression (Boyd, Le and Somberg, 2005; Joiner et al., 2005; Radloff, 1977).

Key Independent Variables

Each mother reported her *Current Job Status* (*Employed*, the omitted category, or *Non-Employed)* at each wave. Mothers also answered a question about their *Ideal Job Status* ("If you could have your ideal situation, what would it be right now?") at each wave. (For convenience, we use the terms "employment status" and "job status" and the terms "ideal job status" and "preferred job status" interchangeably.) The original coding of ideal job status included seven categories: (1) work full time, (2) work part time, (3) go to school full time, (4) go to school part time, (5) combine work and school full time, (6) combine work and school part time, or (7) be at home full time. Working part-time (chosen by 36% of mothers across study waves) and being at home full-time (30% across waves) were the most commonly selected categories. Only seven percent of mothers preferred full-time work. We found no significant differences in maternal depression across the seven categories in initial models, and the results presented below are similar for mothers who prefer full-time and part-time work (details available from the authors). Thus, we present models that classify mothers into two *Ideal Job Status* groups: *Non-Employed* (categories 3, 4, and7) and *Employed* (categories 1, 2, 5, and 6), the omitted group. Our models

also control for current part-time or full-time school enrollment as described below, although they are not associated with maternal depression.

Our measure of *Job Quality* was adapted from Marshall and Barnett's (1993) Job Role Quality Scale, which captured the mother's concerns about lack of advancement opportunities, lack of appreciation and respect, too much to do, lack of support, and lower than deserved earnings, as well as the rewards of doing important work, being part of a team, being recognized for hard work, and feeling a sense of accomplishment. Following standard scoring procedures, the average of the 10 job concerns was subtracted from the average of the 11 job rewards yielding a scale with a possible range of -3 to 3, with higher scores indicating poorer job quality. To simplify the results, we dichotomized the summary measure of concerns less rewards at the median to create a categorical measure distinguishing low- versus high-quality jobs. This dichotomous variable performed similarly to the continuous measure in initial models predicting depression among employed mothers (details available from the authors). Our final models distinguish mothers who are currently *Non-employed* (33%) from those who are *Employed in a Low-Quality Job* (33%) or *Employed in a High-Quality Job* (the omitted group, 33%).

Time-Varying Controls

We included a lagged measure of depression to adjust for bias from stable, unmeasured characteristics that predict current depression levels as well as employment preferences, employment status, and job quality. *Prior Depression* was based on the CES-D score recorded in the previous wave (1-month CES-D at six months, 6-month CES-D at 15 months, 15-month CES-D at 24 months and 24-month CES-D at 36 months). *Marital Status* indicated whether the mother was: *Single*, *Married*, or *Cohabiting*. We adjusted for *Any Major Life Events*, which was dummy coded "*1*" for family members' job losses, deaths, and/or major illnesses or the mother's

report of a "big difference" happening in the family. *Poor Health* indicated whether the mother reported that her own, the baby's and/or her partner's health was poor. *Mother's School Status* was indicated by two dummy variables: *Part-time Enrollment* or *Full-time Enrollment* versus *Not Enrolled,* the omitted category. The *Number of Children <7* in addition to the focal child and the *Number of Children 7-17* were drawn from a household roster. We also included dummy indicators of the study wave and the mother's primary *Child Care Arrangement* (*Father Care, Other Relative Care, Non-Relative Care, Center Care* or *No Child Care*).

Time-Constant Controls

Time-constant covariates included the mother's perception of the level of emotional and instrumental support she received based on a modified version of Marshall and Barnett's (1993) Social Support Scale. The *Emotional Support* subscale included eight items, such as "People who are important encourage me when I feel discouraged or down." The *Instrumental Support* subscale included three items, such as "When I need someone to help me out, I can usually find someone." Items on both subscales ranged from *1*=none of the time to *6*=all of the time. The *Parenting Stress Index* (Abidin, 1983) summed 25 questions scored from 1 to 5, which the mother answered at one month. These included, for example, "When my baby came home from the hospital, I had doubtful feelings about my ability to handle being a parent;" "Being a parent is harder than I thought it would be;" and "I feel capable and on top of things when I am caring for my baby" (reverse coded).

Other time-constant maternal controls included a continuous measure of *Educational Attainment* measured at the child's birth*, Race-Ethnicity* (*Non-Hispanic White, Non-Hispanic Black, Hispanic* or *Other*), and *Age at Child's Birth.* We also adjusted for the baby's *Gender*

(1=Female) and *Temperament.* The latter consisted of a scale based on 14 items ranging from *1*=Almost Never to *6*=Almost Always, such as "My baby's hunger cry is a scream rather than a whimper" and "My baby accepts face washing at any time without protest" (reversed), with higher scores indicating more difficult temperament. Finally, we included dummy indicators of the study site.

Analyses

We estimated a series of OLS regression models predicting the mothers' depression scores. The models are based on the five multiply imputed datasets (Acock, 2005; Royston, 2005) and adjust for clustering of multiple waves within children (Wooldridge, 2009). We begin with two models that replicate prior studies of (1) the effects of match and mis-match between actual and ideal job status on depression risk and (2) the effects of job quality on maternal depression risk. We look to see which prior results hold up in our large, geographically varied data set. These models also go beyond much of the prior literature by explicitly comparing depression risk among employed and non-employed mothers. Our third model has not been estimated in prior studies. In it, we examine how job preferences moderate the association between maternal job status and quality and depression. We end by summarizing a series of sensitivity analyses that use alternative measures of ideal job status and job quality.

(APPENDIX ABOUT HERE)

Descriptive statistics for variables in the analyses appear in the Appendix. The average mother in our sample was a married, 28-year-old, non-Hispanic, white woman with 14 years of education and a CES-D score of 9.19, similar to CES-D scores in other samples of mothers of infants and toddlers (McLennan et al., 2001). Mothers in our sample were equally divided among the non-employed and those with low- and high-quality jobs (one third in each group). Forty-one

percent gave their ideal job status as non-employed, with the remainder preferring paid employment. Relative care was the most common type of child care arrangement (14% father care and an additional 15% other relative care), followed by non-relative care (28%) and center-based care (17%). One quarter of mothers did not use any care.

Results

(TABLE 1 ABOUT HERE)

Table 1 presents our three main OLS models. Model 1 reveals that in our large geographically diverse dataset there is an interaction between non-employment and preference for non-employment. To facilitate interpretation of the results, particularly in terms of gauging whether incongruence between actual and preferred job status increases depression risk for employed as well as non-employed mothers, we generated predicted CES-D scores based on Model 1 holding all other covariates at their means. The results appear in Figure 1. Confidence intervals are indicated by the small black lines above and below the predicted values.

(FIGURE 1 ABOUT HERE)

Comparing these values across columns reveals statistically significant differences, which were confirmed with t-tests of coefficients (details available from the authors). Non-employed mothers who prefer employment have a significantly higher depression risk than non-employed mothers who would prefer to remain out of the labor force, consistent with prior studies using smaller, more geographically limited samples (Hock & DeMeis, 1990; Klein et al., 1998; Pistrang 1984). The 1.3-point difference between these two groups' predicted CES-D scores (10.14 and 8.83 respectively) is modest but statistically significant using a 95% confidence level. In contrast, employed mothers who would prefer non-employment face no greater depression risk than employed mothers who prefer employment (9.39 and 8.99 respectively). Thus, before we

distinguish mothers in lower- and higher-quality jobs, we see that for all employed mothers combined in our sample, incongruence between actual and desired job status is not a risk factor for depression. Instead, incongruence matters only for non-employed mothers.

Model 2 in Table 1 takes up the question of whether we replicate prior evidence of the benefit of job quality for reducing maternal depression risk. The results are consistent with prior studies demonstrating that the impact of multiple roles depends on role quality, with low-quality jobs associating with increased depression risk relative to high-quality jobs (Baruch & Barnett, 1986; Glynn et al., 2009). Our analysis further demonstrates that, before considering the moderating effect of job preferences, the effects of holding a low-quality job and holding no job are similar (1.63-1.05=0.58, se=0.32, t=1.82, $p>0.05$). That is, mothers in low-quality jobs face only a slightly higher depression risk than non-employed mothers, and this difference falls short of traditional levels of statistical significance. Similarly, before considering job preferences, non-employed mothers and mothers in low-quality jobs face a higher depression risk than mothers employed in high-quality jobs. The differences of approximately 1.0 to 1.6 points (no job vs. high-quality job and low-quality vs. high-quality job respectively) on the CES-D are equivalent to about one- to two-tenths of a standard deviation in our sample. These findings differ somewhat from those of Aneshensel (1986), who found that non-employed mothers exhibited a greater depression risk than mothers employed in low-quality jobs. But she focused on women, not mothers specifically, and her supplementary analysis of mothers (mentioned in the text but not shown) was not restricted to mothers of young children. Additionally, her sample was drawn from a single county (Los Angeles), and may not generalize to other localities.

We now turn to our central research questions: Do the mental health benefits of employment -- or the mental health risks of remaining out of the labor force -- depend on

mothers' desire for employment? And does job quality affect depression risk equally for mothers who say they would rather be at home full time and for mothers who prefer paid work? Model 3 reveals that there is an interaction between non-employment and a preference for non-employment (thus the answer to our first research question is yes) whereas there is no interaction between holding a low-quality job and preferring non-employment (thus the answer to our second research question is also yes). To aid in interpretation of these results, Figure 2 presents the predicted levels of depression for the six groups of mothers classified by actual and desired job status and by job quality. The predicted values were calculated with all covariates held

(FIGURE 2 ABOUT HERE)

constant at their means. Confidence intervals are indicated by the small black lines above and below the predicted values to identify significant differences, which were confirmed with t-tests of coefficients (details available from the authors).

Figure 2 shows that both women who prefer employment and those who prefer to remain out of the labor force have better mental health when they are employed in high- versus low-quality jobs. Indeed, women employed in high-quality jobs who do and do not desire employment have equivalently lower depression levels (means of 8.19 and 8.53 respectively). And, women employed in low-quality jobs who do and do not desire employment have equivalently higher depression levels(means of 9.92 and 9.97). The differences in the mean depression scores of women employed in low- and in high-quality jobs are 1.73 points on the CES-D (about two-tenths of a standard deviation) for mothers who prefer employment and 1.44 points for mothers who prefer non-employment. .

But job preference does moderate the association between not working for pay and depression. Women who are not employed but would prefer employment have high depression

levels equivalent to those of women employed in "bad" jobs. Women who are not employed and prefer to remain out of the labor force have low depression levels equivalent to those of women employed in "good" jobs. Among mothers who prefer employment, depression risk is fully two points (almost one-quarter of a standard deviation) lower among those who are employed in a high-quality job compared to those who are not employed. Among mothers who prefer to remain out of the labor force, the average depression level is just over one point or about one-tenth of a standard deviation higher among those employed in a low-quality job than among the non-employed, a modest but statistically significant difference.

A number of control variables also relate to maternal depression risk. As shown in the Appendix, which lists coefficients and standard errors for control variables in our final model (Model 3 in Table 1), lagged depression is one of the most important such correlates. Each additional point on the CES-D at the prior wave was associated with an increase of nearly four tenths of a point in current depression. Some child-related controls were also associated with maternal depression. Specifically, mothers who used child care reported less depression than mothers who did not, but only the contrast between mothers who used father care and mothers who used no care was statistically significant. Parenting stress was positively associated with depression as was having a female child. Number of children and child temperament did not predict depression. Other important correlates of current depression include: marital status; major life events; poor health; non-maternal income; ; perceived emotional support; ; educational attainment; and child gender.

Sensitivity Analyses

We ran a series of sensitivity analyses to determine whether our findings hold using alternative measures of job quality and employment preferences. For job quality, we ran two

alternative models to see how much the results were affected by focusing on the first three study waves in which job quality was measured directly rather than imputed and by using a time-constant version of job quality measured at six months to avoid simultaneity of maternal reports of job quality and depressive symptoms. The results (available from the authors) are highly similar to Model 3 in Table 1, both in terms of the pattern of significance and in terms of the magnitude of coefficients.

For job preferences, we were similarly concerned about simultaneity of reports about ideal job quality and depression symptoms. To take these concerns into account, we used a measure of ideal job status identical to the measure in our main models but collected when the baby was one month old. And, we tested the robustness of our findings to a measure of maternal job *expectations* (versus preferences) also measured at one month. The pattern of coefficients (available from the authors) using these dummy indicators of whether the mother preferred to be employed or expected to be employed when the child was newborn was similar to that in Model 3 (Table 1) although the interaction between job status and preference was smaller and non-significant. That contemporaneous preferences matter more than preferences one month after birth suggests that mothers' experiences with employment or non-employment since the child's birth may shape her subsequent preferences.

Conclusion

Using a longitudinal study of families with young children and controlling for prior depression, we find that employment is associated with reduced depression risk compared to non-employment only among mothers who are employed in high-quality jobs. Importantly, mothers in high-quality jobs who do and do not prefer employment have equivalently low depression levels. Mothers employed in low-quality jobs likewise experience a comparably high

depression risk regardless of their employment preferences. In sharp contrast, mothers who are not employed have elevated depression levels only if they would prefer to be working for pay.

Our research contributes to the literature in several respects. We use a large, longitudinal and geographically diverse sample to study the combined effects of desired and actual employment status and job quality on women's depression. We include non-employed as well as employed mothers and make explicit comparisons of depression levels across our six groups. And we study mothers of children from birth to age three for whom mismatches between desired and actual job status are likely to be particularly common and to have important effects on mental health (Hock & DeMeis, 1990; Klein et al., 1998). Mothers of older children who spend more time in school and require less intensive parental supervision have fewer incentives to remain out of the labor force.

Our finding that high job quality benefits mothers regardless of their employment preferences strengthens the evidence for role enhancement theory by suggesting that multiple roles can benefit women even when they do not desire them. Our finding that non-employed mothers have elevated depression levels only if they desire to be working for pay is equally important, given prior research suggesting that all mothers who remain out of the labor force suffer from poorer mental health. The earliest literature hypothesized that non-employed mothers faced isolation and monotony that would be detrimental to their mental health (Gove, 1972). Our findings reveal, in contrast, that contemporary "stay-at-home" mothers have good mental health, as long as they desire to be in this role. Our research is subject to some limitations. Unmeasured factors could influence mothers' depression risk. In addition, we cannot rule out the possibility that changes in depression lead to changes in employment preferences and perceived job quality. We have, however, controlled for a wide variety of time-varying and time-stable

characteristics likely to influence depression, reducing, although not eliminating, the likelihood that the relationships we find are spurious or reflect reverse causality.

Our results have implications for policy and practice. First, even mothers who do not desire employment may experience employment-related reductions in depression, but only if they acquire high-quality jobs. Thus, whether requiring mothers to work as a condition of welfare receipt is helpful or harmful for maternal mental health may hinge on the quality of the jobs mothers obtain. Second, in order to foster maternal mental health and, through it, favorable child outcomes, we need to better understand the connections among measurable job characteristics, mothers' perceptions of job quality and mothers' preferences for employment or non-employment. Future research should continue to go past simple contrasts of employed and non-employed mothers and consider variation in the benefits of employment across subgroups. Studies that examine whether our findings hold among mothers of school-age children and ethnographic research probing the meaning of employment preferences and perceptions of job quality would be particularly valuable.

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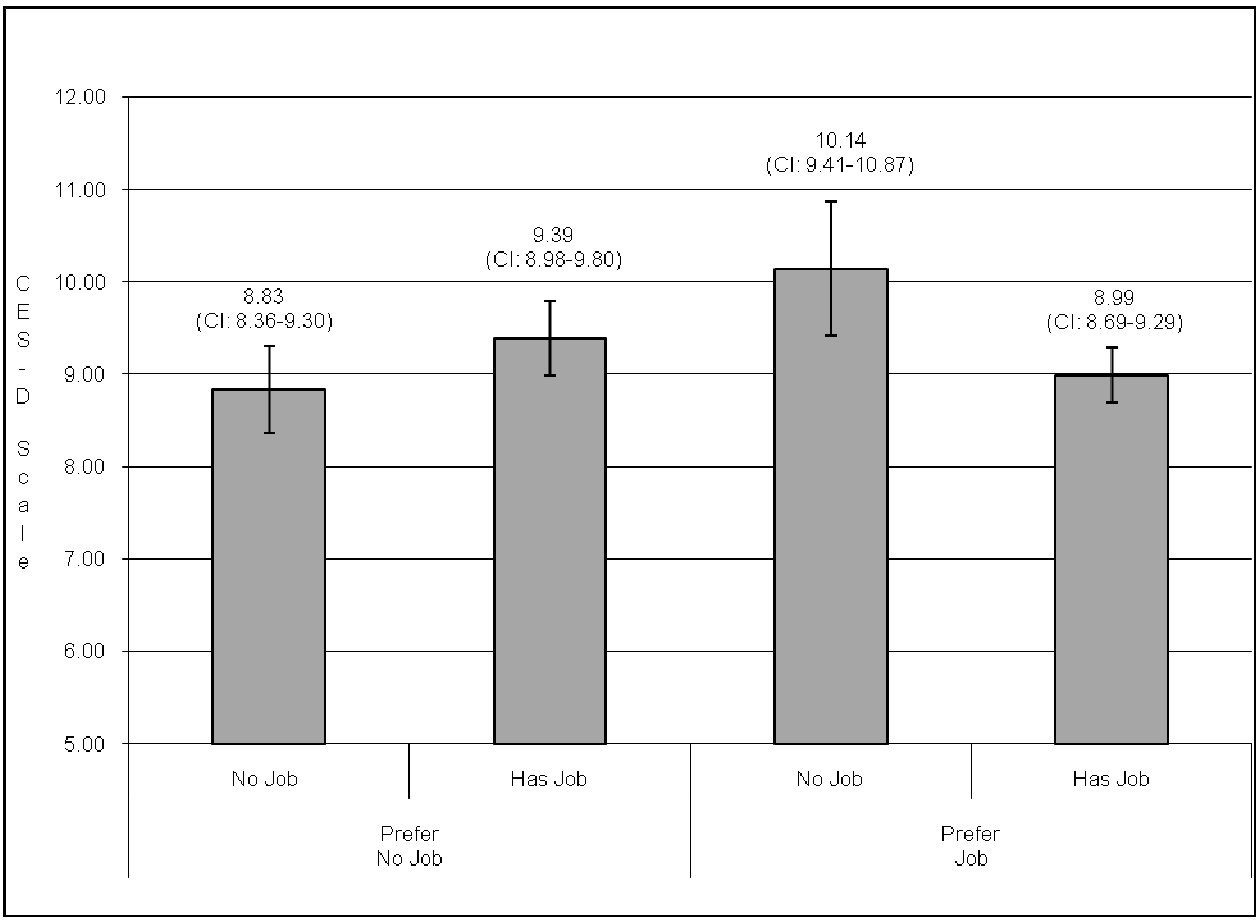
Table 1. Predicting Maternal Depression by Ideal Job Status, Current Job Status and Job Quality

	(1) Interaction: Ideal x Current Job Status	(2) Current Job Status and Quality	(3) Interaction: Ideal Job Status x Current Job Status and Quality
Current Job Status (omitted: employed)			
Non-employed	1.15**		
	(0.42)		
Ideal Job Status (omitted: employed)			
Non-employed	0.40		0.34
	(0.24)		(0.31)
Current Job Status and Quality (omitted: Employed in a high-quality job)			
Non-employed		1.05***	2.02***
		(0.30)	(0.44)
Employed in a low-quality job		1.63***	1.74***
		(0.25)	(0.32)
Interaction Terms			
Currently non-employed x Ideally non-employed	-1.71***		-1.74**
	(0.48)		(0.52)
Currently in a low-quality job x Ideally non-employed			-0.29
			(0.52)
Constant	9.65***	8.88***	8.55***
	(1.59)	(1.59)	(1.59)

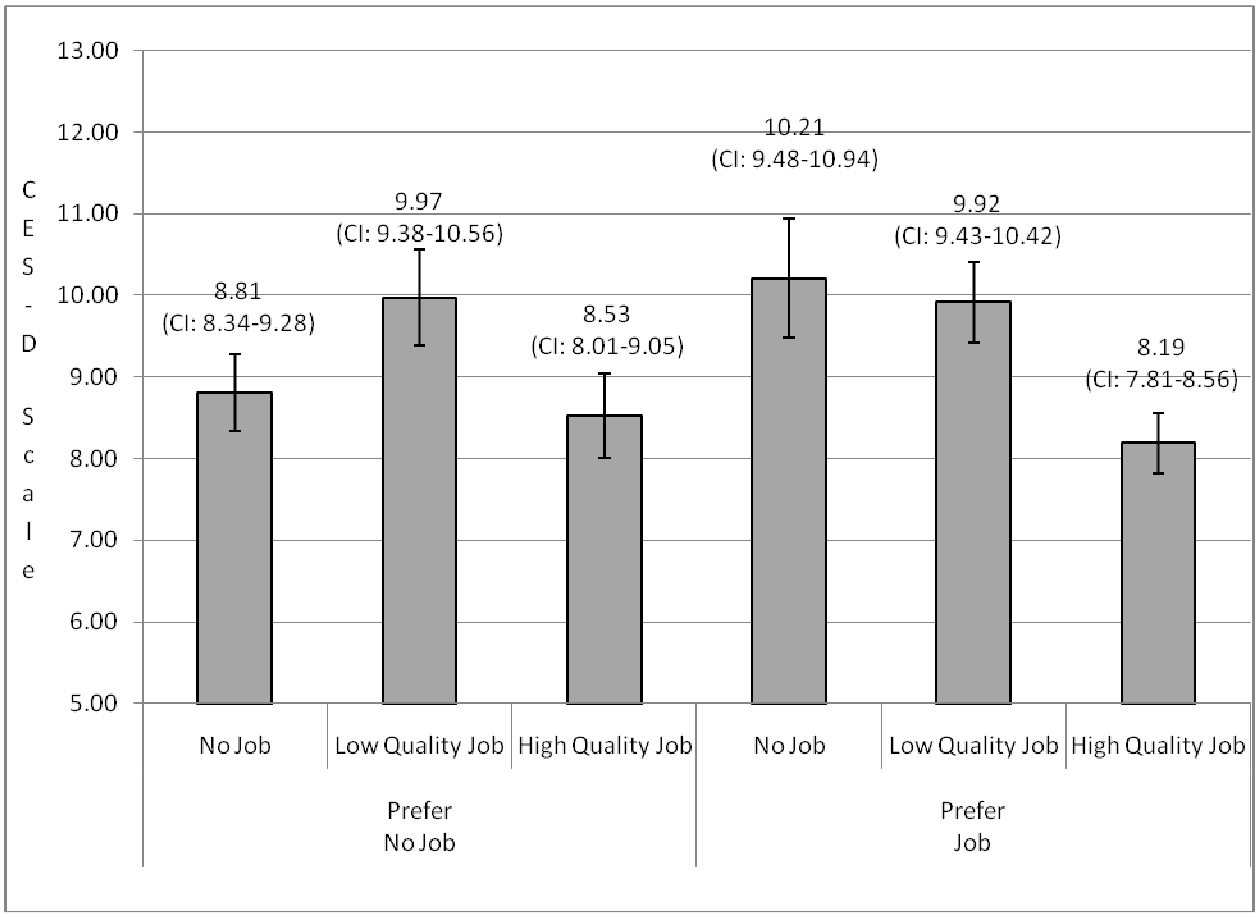
Note. 5,032 child observations across 4 study waves in each of 5 multiply imputed datasets. Robust standard errors, adjusting for multiple waves per child, in parentheses. Controls (not shown) include all variables listed in the Appendix as well as controls for study site and wave. * $p<.05$, ** $p<.01$, and *** $p<.001$.

Figure 1. Predicted CES-D Scores based on Ideal Job Status and Current Job Status



Note. Values are predictions based on Model 1 in Table 1. Controls are held constant at their means. Solid bars indicate predicted means. Black lines above and below the solid bars represent confidence intervals, which are also listed below the numeric labels for each predicted value.

Figure 2. Predicted CES-D Scores based on Ideal Job Status and Current Job Status and Quality



Note. Values are predictions based on Model 3 in Table 1. Controls are held constant at their means. Solid bars indicate predicted means. Black lines above and below the solid bars represent confidence intervals, which are also listed below the numeric labels for each predicted value.

Appendix. Descriptive Statistics and Coefficients for Control Variables in Model 3 of Table 1

	Mean	SD	Coeff.	SE
Time-Varying Maternal Characteristics				
Current depression	9.19	8.23		
Current job status and job quality				
Non-employed	0.33	0.47		
Employed in a low-quality job	0.33	0.47		
Employed in a high-quality job	0.33	0.47		
Ideal job status				
Non-employed (omitted:employed)	0.41	0.49		
Prior depression	9.70	8.51	0.39***	0.02
Marital status				
Single	0.13	0.34	0.57	0.53
Married	0.79	0.41	-1.30**	0.45
Cohabiting (omitted category)	0.08	0.27		
Major life events	0.70	0.46	1.46***	0.20
Poor health	0.30	0.46	1.65***	0.24
Non-maternal income (in $10,000s of 2007 real dollars)	4.22	5.19	-0.05**	0.02
No. of children <7 (in addition to focal child)	0.16	0.48	0.48	0.24
No. of children 7-17	0.07	0.37	-0.01	0.30
Child care arrangement				
No child care (omitted category)	0.26	0.44		
Father care	0.14	0.34	-0.81*	0.38
Other relative care	0.15	0.35	-0.58	0.37
Non-relative care	0.28	0.45	-0.36	0.34
Center-based care	0.17	0.38	-0.61	0.35
School enrollment				
Not enrolled (omitted category)	0.92	0.27		
Part time	0.03	0.17	-0.35	0.56
Full time	0.05	0.22	-0.47	0.44
Time-Constant Maternal Characteristics				
Emotional support	36.34	4.48	-0.18***	0.04
Instrumental support	15.59	2.39	0.13	0.07
Parenting stress	53.19	10.64	0.06***	0.01
Educational attainment	14.32	2.48	-0.21***	0.05
Race-ethnicity				
Non-Hispanic White (omitted category)	0.81	0.39		
Non-Hispanic Black	0.12	0.32	0.13	0.38
Hispanic	0.04	0.20	0.46	0.59
Other	0.03	0.17	-0.20	0.50
Age at child's birth	28.31	5.59	-0.03	0.02
Time-Constant Child Characteristics				
Temperament	3.35	0.68	0.27	0.16
Female	0.49	0.50	0.43*	0.20

Note. 5,032 child observations across 4 study waves in each of 5 multiply imputed datasets. Controls for study wave and site not shown. * $p<.05$, ** $p<.01$, and *** $p<.001$.