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Influences of Women's Employment on the Gendered Division of Household Labor Over the Life Course:

Evidence From a 31-Year Panel Study

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Abstract

Drawing on data from a panel study of White women spanning 31 years, the analyses examine the influence of women's employment on the gendered division of household labor. Multiple dimensions of women's employment are investigated, including accumulated employment histories, current employment status, current employment hours, and relative income. Results from fixed effect and change score models suggest that the husbands of women who accumulate more employment experience over the course of marriage perform a relatively larger amount of routine housework than the husbands of women with shorter employment histories. Women's employment status at a given point in time also increases men's relative participation in routine housework, and the influence of women's employment status operates in part by increasing women's support for egalitarian roles between spouses. Finally, women's hours of employment and relative income are stronger predictors of housework allocation than is their current employment status.

Keywords

gender; housework; life course; women's employment

Scholarship investigating interdependencies between paid employment and unpaid family labor is rapidly increasing our understanding of the pervasiveness of these linkages (Budig & England, 2001; Folbre, 2001; Hertz & Marshall, 2001). Although the spheres of family and economy have never been truly separate, the dramatic rise in women's labor force participation in recent decades has made connections between the two domains both more apparent and more conflict-ridden (Spain & Bianchi, 1996). A substantial amount of research has specifically examined the influence of women's employment on the gendered division of family work (Bittman, England, Folbre, Sayer, & Matheson, 2003; Presser, 1994; Shelton, 1992). Although some longitudinal work on this topic is beginning to emerge (Artis & Pavalko, 2003; Szinovacz, 2000), most of our knowledge to date relies on cross-sectional research designs. This analysis investigates the influences of multiple dimensions of women's employment on couples' patterns of housework allocation over a 31-year time span. The research explicitly considers the influences of wives' current employment status, current employment hours, relative earnings, and accumulated employment histories. The results provide several original contributions to our understanding of the way women's experiences in the labor market influence the gendered division of labor over the life course.

The analyses rely on panel data from a probability sample of White women who were initially interviewed in 1962 and interviewed seven more times through 1993. The analyses use statistical methods appropriate for panel data and, as a result, offer relatively strong grounds for making causal inferences about the influences of women's employment on the gendered

division of household labor. The analysis of panel data stretching over such a long time period specifically facilitates the investigation of several hypotheses about the influence of women's employment on the gendered division of labor that are not currently well understood. First, fixed effects estimation is used to assess the influences of women's employment status and employment hours on the gendered division of labor. Second, change score models facilitate the assessment of influences of women's employment histories on change in the gendered division of labor over time. Finally, the analysis also sheds new light on the mechanisms through which women's employment histories operate, focusing on the mediating roles of egalitarian gender attitudes and relative earnings. The results demonstrate independent and mediated effects of multiple dimensions of women's employment among the same women over time.

The article begins by considering a number of linkages between women's employment and commonly cited theoretical explanations of the gendered division of household labor, generating several hypotheses based on the insights of previous work. After describing the data, a series of multivariate analyses are carried out to test the central hypotheses.

This study conceptualizes household labor as the extent to which men participate in stereotypically female housework relative to their spouses. I focus specifically on stereotypically female housework because it includes tasks that must be performed frequently, that may be characterized as unpleasant, and that have a low level of "schedule control" for their completion (Barnett & Shen, 1997). In the paragraphs below, I outline theoretical rationale and review empirical research linking women's employment with the gendered division of routine housework. I begin by discussing potential influences associated with immediate characteristics of women's employment, such as current employment status, current employment hours, and relative earnings. I then consider longer term influences associated with women's accumulated employment histories.

Research on the causes of housework allocation consistently demonstrates that gender is the best predictor of time spent on housework and the type of tasks performed (Berk, 1985; Coltrane, 1989). The most recent time-use studies suggest that married women devote approximately twice as much time to housework as do married men (Bianchi, Milkie, Sayer, & Robinson, 2000). Beyond the influence of gender itself, many existing studies suggest that housework allocation is associated with (a) individuals' attitudes about appropriate roles for women and men, (b) the time an individual has available to do housework, and (c) couple members' relative resources (see Coltrane, 2000, and Shelton & John, 1996, for recent reviews). Women's employment may be implicated in each of these explanatory factors, and the primary goal of this study is to demonstrate how various dimensions of wives' employment are linked to changes in the allocation of routine housework among the same couples over time. Specifically, the analyses assess the influences of multiple dimensions of women's employment on the gendered division of household labor over the life course, compare the relative magnitude of the influences of each dimension of women's employment, and identify the mechanisms through which women's employment operates.

Most research finds that employed women spend less time on housework than do women who are not employed (Berk, 1985; Shelton, 1991). As a result, the husbands of employed women perform a greater proportion of routine housework, although this may be true simply because a smaller total amount of work is being done (Pleck, 1985). Very few studies, however, have followed the same couples over time to discern whether women's entry into the labor force increases the share of housework that men perform. One way that women's entry into the labor market may influence housework allocation patterns is by increasing women's ideological support for an egalitarian division of household labor. Women's location in the social structure has changed dramatically as increasing proportions of women have entered the paid labor

market in recent decades (Spain & Bianchi, 1996). Women's paid employment may influence their ideological support for gender equality by increasing their exposure to occupation-based networks that are supportive of gender equality and by providing them with a greater stake in improving women's economic position (Bolzendahl & Myers, 2004; Plutzer, 1991). Many studies find evidence that paid employment leads women to adopt greater support for an egalitarian division of roles between men and women (Coverdill, Kraft, & Manley, 1996; Fan & Marini, 2000; Huber & Spitze, 1981). Furthermore, husbands' share of routine housework is greater in families in which wives hold more supportive attitudes toward an egalitarian division of labor between women and men (Greenstein, 1996; Orbach & Eyster, 1997; Presser, 1994). Based on these findings, I hypothesize that the husbands of employed women will participate in a relatively greater amount of stereotypically female housework. Furthermore, I expect the influence of women's employment status to be transmitted partly by their support for gender egalitarianism.

In addition to the influence of women's employment status, women's employment hours are also likely to influence the gendered division of labor. Women's employment hours are typically treated as a central indicator of time availability in studies of household labor (Coverman, 1985; England & Farkas, 1986). Research consistently shows that women's employment hours are negatively related to the time they spend on housework and positively related to men's contributions to housework (Coltrane & Ishii-Kuntz, 1992; Goldscheider & Waite, 1991; Robinson & Godbey, 1997). Although women's employment hours would be most clearly expected to influence their absolute time spent on unpaid family labor, I also expect women's employment hours to be positively linked to gender-based segregation in the allocation of stereotypically female housework. This should be true primarily because this kind of work must be done most frequently and requires the greatest amount of time for its completion.

Women's earnings are a direct outcome of their employment, and women's earnings are likely to influence the division of labor within households. Women's income is most commonly conceptualized in relative terms in studies of housework allocation, and the ratio of wives' to husbands' earnings is frequently interpreted as an indicator of power resources in marriages (Brines, 1994; Kamo, 1988). According to the relative resources perspective, women's ability to bargain over the performance of unpleasant household tasks is enhanced when their earnings are relatively larger compared with their spouses' earnings. Although the influence of relative earnings at different levels of household income is debated (Bittman et al., 2003; Gupta, 1999), most studies find that the greater the earnings of women compared with their male partners, the greater men's relative participation in routine housework (Blair & Lichter, 1991; Brayfield, 1992; Sanchez & Thomson, 1997). I expect that husbands will participate in a relatively greater share of routine housework when their wives earn a greater share of the couples' income.

Each of the hypotheses above suggests that wives' positions in the paid labor market at a given point in time will increase their husbands' relative participation in stereotypically female housework. Life course theory emphasizes the historical and relationship contexts in which a person lives and the influences of context on individuals' experiences across the life course (Elder, 1994). One of the key insights of the life course perspective is that current situations and experiences are almost always linked to past situations and experiences. Nonetheless, few studies have considered whether women's accumulated employment histories over the life course are linked to the gendered division of paid labor. A focus on women's accumulated employment experience over time facilitates a greater emphasis on the causal influence of behaviors as they unfold across the life course.

Human capital theory provides a cogent analysis of potential linkages between women's employment histories and the gendered division of paid labor. This theory suggests that a gendered division of household and market labor is likely to emerge as a result of men's comparative advantage in the paid labor market and women's comparative advantage in the domain of child care (Becker, 1991). As a result, human capital theory predicts that investments in schooling and employment experiences are key predictors of labor market outcomes and especially earnings (Altug & Miller, 1998). The theory also suggests that differential levels of work-related human capital investments between spouses are associated with specialization in the division of labor in marriages. Just as employment histories influence wages, investments in employment may have analogous effects on nonmarket work. Little research has examined the influence of women's employment history on the allocation of routine housework. In a study of the influence of retirement transitions on housework performance, however, Szinovacz (2000) included women's employment history as a control variable. Although she did not elaborate on this finding, she reported that men whose wives accumulated longer employment histories devoted more time to routine housework. I expect women's accumulated employment experiences to be positively associated with men's participation in routine housework.

Women's accumulated employment histories may exert a direct influence on the gendered division of labor. In this case, women's work experience would operate by redefining the division of labor within couples in such a way that men increase their subsequent share of routine housework regardless of women's later employment status, work hours, gender ideology, or earnings. It is also possible that women's employment experiences influence the gendered division of labor indirectly. Examination of the mechanisms through which women's employment histories influence the gendered division of labor requires longitudinal data, and no studies to date have carefully tested these kinds of mediating hypotheses. In this case, women's employment investments would be expected to increase men's participation in stereotypically female housework by increasing women's subsequent gender egalitarianism, likelihood and levels of employment, and income relative to their spouses.

Finally, women's employment histories may moderate the influence of women's employment status. Pittman and Blanchard (1996) argue that women's employment status may not exert substantial effects on the division of labor "unless the wives have made a long-term commitment to employment and breadwinning" (p. 88). Their argument suggests a conditional hypothesis in which the influence of women's employment status on the allocation of routine housework is stronger among women with long work histories than it is among women with less work experience.

It is also important to recognize the possibility that historical circumstances condition the influence of women's employment on the gendered division of routine housework. The women to be studied in this investigation married and formed families during the height of the baby boom. Although they subsequently entered the labor force in large numbers, they reached adulthood prior to the most active years of the movement for women's equality and before the initiation of the most rapid changes in women's employment. It is possible that the experiences of the women in the sample analyzed here differ from those of women in later cohorts, and as a result, the relationship between women's employment and the gendered division of household labor may not be the same in more recent cohorts. Investigation of cohort-related influences requires the analysis of data with representatives of different age groups of women, however, and is beyond the scope of this study.

In summary, the analyses facilitate the ability to address two important research questions. First, what is the relative magnitude of the influences associated with various dimensions of women's employment on the gendered division of routine housework over the life course? Second, what is the process through which women's entry into the labor market influences this

kind of unpaid family labor? In terms of the former question, the multivariate analyses make it possible to ascertain, for instance, whether women's employment status or employment hours have a more sizable influence on men's participation in stereotypically female housework. In terms of the latter question, the analyses are designed to show, for instance, whether women's employment histories operate directly, indirectly, or by moderating the influence of women's employment status.

Data and Measures

An excellent data source for investigating the hypotheses outlined above is the Intergenerational Panel Study of Parents and Children (IPSPC), a longitudinal survey of mothers initiated in 1962. The families participating in the study represent a probability sample of White couples in the Detroit metropolitan area who had given birth to a first, second, or fourth child in the summer of 1961. Follow-up surveys with the women were conducted by telephone in fall 1962, and in 1963, 1966, 1977, 1980, 1985, and 1993. Throughout this panel, the original respondents were re-interviewed, regardless of the location of their current residence. Substantial fractions of the sample had moved outside of the Detroit area by 1993. The 1962 survey had a response rate of 92% ($n = 1,113$ families), and approximately 85% of those families responded to the 1993 survey. This is an exceptional response rate for longitudinal studies of this duration.

Because the goal of this research is to identify the long-term effects of women's employment, the data are appropriate for the central research questions posed in the analysis. It is, of course, possible that the determinants of housework allocation among the women analyzed in this study differ from those of more contemporary cohorts. Nonetheless, there is a direct trade-off between the ability to study long-term influences and the ability to study contemporary family patterns. Furthermore, despite the fact that this cohort of women married and became parents prior to the largest surge in women's rates of employment, the findings from this research can be expected to have relevance for studies of contemporary families. These women were not immune to the forces that continue to draw women into the labor market in large numbers. Despite low levels of employment in the early waves of the study, large percentages of these women entered the labor market and many experienced significant changes in their attitudes about gender (Thornton, Alwin, & Camburn, 1983). Given the availability of information about a wide array of background variables, family histories, and attitudinal measures in the IPSPC, the data represent an appropriate resource for studying the influences of multiple dimensions of women's employment on the gendered division of labor over long periods of time.

Measuring the Allocation of Family Work

The primary measures of the gendered division of labor assess the relative participation of husbands and wives in stereotypically female household tasks based on an ordinal response scale. The questions were administered in 1962, 1977, and 1993, and each respondent reported whether she or her spouse usually performed a particular task (see appendix). Three types of tasks are assessed at each interview wave: shopping for groceries, washing the dishes, and cleaning the house. The variables were summed into an index and coded so that a high score represents greater relative participation by the man in the tasks and a low score represents greater relative participation by the woman in the tasks. A variable capturing changes in housework allocation between 1962 and 1977 is created by subtracting the former score from the latter.

It is important to note two changes that were made to the housework allocation indicators between the 1962 interview and subsequent waves. First, there was a change of mode from face-to-face interviews with responses on show cards to telephone interviews with verbal responses only. The switch to telephone interviews for the 1977 wave necessitated a change

to eliminate the show cards, and as a result, the question wording was modified. Specifically, the response format for each task was changed from “wife almost always, wife mostly, husband and wife exactly the same, husband mostly, husband almost always” (on a show card) to a telephone question in which the response format read, “wife usually, wife a little more often, husband a little more often, husband usually.” The option of “husband and wife exactly the same” available in 1962 was removed in subsequent waves as an explicit choice, although respondents could still volunteer this option. The implication of this change in mode and wording is that the responses from 1962 are not directly comparable with measures from 1977 and 1993, as evidenced by the substantially lower scores representing men's relative participation in stereotypically female tasks in 1977 compared with 1962 (see Table 1).

In an effort to account for these changes in the outcome measure, the summed housework allocation index values in the analyses are transformed into standard scores. Although the housework items are measured at the ordinal level, they are analyzed as an interval-level index. Couples who exhibit a high level of gender segregation on any single task might have a high level of segregation for all tasks, but it is also plausible that a different kind of calculation at the household level is involved. Task allocation may involve a trading process, such that grocery shopping is input by one person in exchange for house cleaning by the other. If the process involves this kind of trading, then it is more conceptually appropriate to sum the items into an index of the total participation in all tasks (or in all similarly grouped tasks) than to view them as a common factor, especially in the absence of a more comprehensive set of commonly performed household tasks. In addition, there is no agreed-upon method for modeling ordinal-level variables in the context of the kinds of fixed effects models used in the analysis (see below).

Due to the structure of the household labor indicators, women who were not married at the time of the interview were not asked to report on their allocation of housework. All respondents were married at the initial interview wave, but women who separated, divorced, or widowed and did not remarry during the ensuing years were not administered the housework items. Approximately 13% of the sample who remained in the study between 1962 and 1977 were not married in 1977 and approximately 22% of those in the study across all years (1962-1993) were not married in 1993. In addition, some women in the sample remarried after divorce, although this occurred among less than 10% during each interval. I limit the analyses to continuously married women. Sensitivity tests designed to compare those who were continuously married with those who divorced (with or without remarriage) reveal surprisingly few differences in the two groups at the baseline interview. Mean levels of housework allocation, gender attitudes, and family income did not differ between continuously married and divorced women in 1962, although women who divorced were somewhat younger than women who remained married. Taken as a whole, there is relatively weak evidence that there were substantial baseline differences in the two groups of women that would bias the results presented below.

Measuring the Independent Variables

The analyses include measures of respondents' and husbands' current employment status (not employed or employed) and respondents' weekly employment hours in 1962, 1977, and 1993. Respondents who were not employed at a given interview are assigned a value of zero on the indicator of employment hours. Total family income is assessed for the years 1961, 1976, and 1992, and these values are inflated to 1992 dollars. Women's work histories are measured as the number of years of full-time employment between 1962 and 1977, and women's relative income is measured as the ratio of the wives' income to the total income of the woman and her spouse in 1977. It is unfortunate that measures of employment history and relative income were

not assessed after 1977. As a result, the analyses examining influences of women's employment history and relative income are limited to the interval between 1962 and 1977.

Respondents' attitudes about gender are measured with an index summing responses to four questions about appropriate roles for women and men administered in 1962, 1977, and 1993. A high score indicates greater support for egalitarian roles. One additional variable taps change in gender attitudes between 1962 and 1977.

A number of additional variables are controlled in several of the multivariate models to reduce the likelihood that the relationship between women's employment and housework allocation is spurious. The education levels of the respondent and her husband are measured in years. Respondents were selected based on their birth to a first, second, or fourth child in 1961, and 1961 parity is measured with two dummy variables identifying whether the child was the second or fourth born. Respondents' age and age-squared are measured in years.

Method

The analyses use two different modeling strategies. Fixed effects models are used to analyze the influences of women's employment status, employment hours, and gender egalitarianism across the entire survey interval from 1962 to 1993. The data are arranged in a pooled time-series cross-section with person-periods as units of analysis. Fixed effects models take the following form:

$$Y_{it} = b_0 + \sum b_k X_{kit} + \varepsilon_{it}, \text{ where} \\ \varepsilon_{it} = u_i + v_t + w_{it}.$$

Regression coefficients are denoted by b , k indexes measured independent variables (X s), i indexes individuals, t indexes the three time periods, ε is the error term, u is the cross-sectional (individual) component of the error, w is the purely random component of error, and b_0 is the intercept. The dependent variable, Y , is the standardized score for the housework index.

Person fixed effects models provide relatively strong grounds for making causal assertions, primarily because they avoid bias that can result from the failure to include unobserved personal characteristics that might be associated with the outcome (Halaby, 2004). In the case of this study, such unobserved characteristics might include a propensity for paid employment among women or husbands' attitudes toward their wives' employment. Despite the advantages of this approach, there are some limitations to fixed effects models. For instance, fixed effects models are unable to identify influences associated with time-invariant covariates. Because the measure of women's employment history used in the analysis is not time-varying (as a result of pragmatic limitations of the data), I use change score models and ordinary least squares regression to address several of the hypotheses. Specifically, I examine the total and indirect influences of women's accumulated years of full-time employment between 1962 and 1977 on change in husbands' participation in stereotypically female tasks. Like the fixed effects framework, change score models also control for unobserved heterogeneity, and the estimates produced are unbiased by measurement error in the outcome (Allison, 1994; Johnson, 2005).

Results

Descriptive statistics for all variables are provided in Table 1. This table highlights substantial changes in women's rates of employment, especially during the early time interval. Specifically, whereas only 10% of women were employed in 1962, 57% were employed 15 years later, in 1977. Table 2 presents results from a set of fixed effects models designed to identify the influences of women's employment status, employment hours, and gender ideology on changes in the allocation of household labor. The outcome is the index of men's relative

participation in stereotypically female household tasks. All models in Table 2 control for family income and husbands' employment status. Table 3 presents a set of change score models designed to identify the influence of women's accumulated employment on change in the gendered division of labor. These models carefully consider mechanisms that may mediate the influences of women's employment histories.

Model 1 of Table 2 provides an estimate of the influence of women's employment status on men's participation in stereotypically female household tasks across the three waves of data collection: 1962, 1977, and 1993. As such, it analyzes predictors of housework allocation over a much longer time-frame than has been observed in any previous research on the topic. Model 1 shows that the husbands of women who are employed perform a relatively larger share of routine housework than the husbands of women who are not employed. Furthermore, Model 1 controls for husband's employment status and family income. As a result, Model 1 shows that the influence of wives' employment status is greater than the influence of husband's employment status (which does not exert a statistically significant influence on housework allocation). When husband's employment status is included without women's employment status or family income, it is negatively related to men's housework participation ($p < .05$, not shown). Given the relatively stringent criteria for demonstrating causality that apply in fixed effects models, the finding in Model 1 offers some of the strongest evidence to date in support of the hypothesis that women's entry into the paid labor market increases the share of housework performed by men.

To ascertain the mechanisms through which women's employment status influences the gendered division of household labor, Models 2 and 3 of Table 2 introduce measures of women's employment hours and gender attitudes, respectively. Model 2 demonstrates that the influence of women's employment status is completely eliminated when women's employment hours are included in the model (the sign for employment status becomes negative, although the coefficient is not statistically different from zero). Each additional hour of weekly employment is associated with a predicted increase of .01 standard deviation units in the share of stereotypically female housework that husbands perform in relation to their wives. This suggests that the husband of a woman employed 40 hours per week would score .40 standard deviation units higher on the housework index than would the husband of a woman who was not in the labor market. The findings from Model 2 provide tentative support for the time availability hypothesis. Specifically, women's employment hours are strongly related to increases in the share of stereotypically female housework that men perform. It is possible, however, that part of the influence of women's employment hours operates by increasing their relative income, a question that I return to below.

Model 3 of Table 2 replaces the measure of women's employment hours with a measure of her gender egalitarianism. The influence of women's egalitarianism is positive and statistically significant, demonstrating the importance of women's attitudes in shaping the allocation of routine housework over the life course. Furthermore, the influence of women's employment status is reduced by approximately 25%, from .21 to .16, when women's gender ideology is included in the model (without employment hours). In this case, the influence of women's employment status remains statistically significant. Nonetheless, the results suggest that part of the reason the husbands of employed women perform a comparatively greater share of stereotypically female housework than the husbands of nonemployed women is that employed women increase their support for egalitarian roles for women and men.

All predictors are included in Model 4 of Table 2, and none of the coefficients change substantially in comparison with Models 2 and 3. It is interesting to note, however, that the influence of women's employment hours is not substantially reduced when it is included in a model with women's gender ideology. This suggests that whereas women's employment status

operates in part by increasing women's support for gender egalitarianism, the influence of women's employment hours on patterns of housework allocation is not transmitted through gender attitudes. As a result, the findings imply that although women's entry into the labor market increases their support for an egalitarian division of labor, their levels of employment do not appear to further affect their gender ideology. In combination, the results from Models 2, 3, and 4 suggest that the influence of women's employment status is transmitted through both women's employment hours and women's gender egalitarianism. Furthermore, the analyses demonstrate important influences of both employment hours and gender egalitarianism on the allocation of housework over the life course.

The multivariate models in Table 2 provide insight into the influences of women's employment status, employment hours, and gender egalitarianism on the gendered division of labor. The measures of women's employment in those models were assessed simultaneously with the division of labor and did not consider the influence of women's employment histories. Table 3 facilitates an examination of the influences of women's accumulated years of full-time employment between 1962 and 1977 on change in the allocation of routine housework over that interval. The models in Table 3 incorporate a fuller set of control variables than the models in Table 1, including the respondent's and spouse's education, the respondent's age and age-squared, respondent's gender ideology in 1962, 1962 parity, family income in 1977, and husband's employment status in 1977. Coefficients representing the influence of the control variables are presented in Table 3, but I do not focus on their interpretation.

Model 1 of Table 3 shows that women's accumulated full-time employment between 1962 and 1977 exerts a strong positive influence on change in men's relative participation in routine housework between 1962 and 1977. For each additional year of full-time employment that is accumulated over the 15-year interval, there is a predicted increase of .03 standard deviation units in men's relative participation in female housework. Given that the standard deviation of women's years of full-time employment is 3.5 years, the equation predicts that a husband of a woman employed a standard deviation above the average on work history (6.33 years) would score .19 standard deviation units higher on the housework allocation index than the husband of a woman who was never employed full-time during the interval. This finding provides original support for the hypothesis that the accumulation of job-related human capital investments increases men's relative participation in routine family work.

Models 2, 3, and 4 of Table 3 are designed to assess the extent to which women's employment histories between 1962 and 1977 are associated with change in housework allocation patterns over that interval as a result of their influence on changes in women's attitudes about gender, employment status, employment hours, and relative earnings in 1977. Model 2 adds a variable tapping change in women's gender egalitarianism between 1962 and 1977. Consistent with the fixed effects models, Model 2 demonstrates that the husbands of women who decrease their support for the male breadwinner, female homemaker family model between 1962 and 1977 increase their share of routine housework by 1977, and this effect is statistically significant. More important, the magnitude of the influence of women's employment history is reduced to statistical insignificance when change in women's gender ideology is included in the model. This finding suggests that part of the reason that women's accumulated work experience influences men's participation in routine housework is that women with longer work histories become more egalitarian.

In Model 3 of Table 3, a measure of women's current employment status is added to the Model 2 equation. In contrast to the results from the fixed effects models, when women's current employment status is included along with a measure of their employment history, the influence of employment status is not statistically significant. The coefficient for the influence of women's employment history is reduced substantially (from .019 in Model 2 to .009 in Model

3; not shown), providing evidence that the influence of wives' employment histories operates in part by shaping the likelihood that women are employed at subsequent points in time. When the measure of gender ideology is removed from the Model 3 equation, the influence of women's employment status is positive and statistically significant ($b = .21, p < .01$, not shown). This accords very closely with the findings from the fixed effects models and demonstrates the strong association between women's employment and support for gender egalitarianism.

Model 4 of Table 3 adds a measure of women's current employment hours and, like the fixed effects models, suggests tentative support for the time availability hypothesis. Women's employment hours in 1977 are positively associated with change in the gendered division of housework between 1962 and 1977, demonstrating that men increase their participation in routine housework when their wives spend more time on the job. Although changes in women's gender egalitarianism remain significant, the influence of women's work history is reduced even further compared with Models 2 and 3. Model 4 suggests that part of the reason women's accumulation of employment is associated with the division of household labor is that it increases women's employment hours at later points in time. This, in turn, decreases the time women are available to perform housework and increases men's relative contributions to stereotypically female housework.

Model 5 includes all of the earlier variables and adds a measure of wives' relative earnings in 1977. This model provides support for hypotheses based on resource-based bargaining. Not only do women's relative earnings exert a substantial influence on the division of labor, the influence of women's employment hours is reduced to nonsignificance when relative income is included in the model. This finding suggests that women's relative earnings transmit the influence of their employment hours. Although the fixed effects models were unable to assess the influence of wives' relative income as a result of data limitations, the findings in Model 5 of Table 3 suggest that the bargaining resources women accrue as a result of their job-related earnings play a critical role in shaping the division of labor.

Supplementary models were examined to test several additional hypotheses, but the results of these models are not shown. First, separate equations were calculated in which each measure of women's employment was added to Model 1 of Table 3 in isolation. In each case, inclusion of the measure (women's employment status, employment hours, and relative income) reduced the influence of women's employment history to nonsignificance. In addition, a number of conditional hypotheses were considered. To test Pittman and Blanchard's (1996) hypothesis that women's work history moderates the influence of current employment on the division of labor, women's employment histories were interacted with their current employment status and this measure was added to Model 5 of Table 3; the influence of the cross-product term was not statistically significant, providing no evidence in support of this hypothesis. Furthermore, a term capturing the interaction of relative income and total family income in 1977, when added to Model 5, also did not attain statistical significance. This finding provides evidence that the influence of women's relative share of earnings does not vary by level of family income. Taken as a whole, the findings in Table 3 shed light on the process through which women's experiences in the paid labor market over the life course are transmitted into characteristics that influence the gendered division of labor at later points in time.

Conclusions

The analysis of panel data spanning 31 years provided a unique opportunity to study gendered family processes over a large proportion of the life course. The findings presented here enhance our understanding of the dynamic processes through which various dimensions of women's employment are linked to the gendered division of household labor. Before discussing the

theoretical contributions of the analyses, I first identify several limitations of the analysis and discuss steps that have been taken to address these potential shortcomings.

The sample for these analyses was racially and regionally homogeneous and was also made up of women who were old enough to have formed families by the early 1960s. Any of these factors could potentially limit the generalizability of the observed relationships. Although additional confirmation of the findings could be obtained through the analysis of more broadly representative data sources, at this point there are no existing datasets that include measures of housework allocation with a comparable time frame for analysis. The results were also confined to continuously married women, raising the potential for bias in the parameter estimates as a result of selection out of marriage. Sensitivity tests showed only minor baseline differences between continuously married women and women who divorced or remarried after 1962. As would be expected, however, divorced women accumulated more substantial employment histories over the ensuing years than did women who remained married. Further evidence that this restriction is not biasing results is provided from supplementary fixed effects models in which a variable capturing divorce and remarriage was added to an equation predicting the division of labor. In this model, the influence of divorce and remarriage was not statistically significant, and the pattern of statistical significance associated with the other predictors did not change (not shown). The analyses also lacked potentially important information about men's attitudes and perceptions of the division of labor. The fixed effects models were chosen in part to address problems associated with this kind of unobserved heterogeneity between sample members. Because fixed effects models analyze within-person changes, they effectively control for differences associated with unobserved factors such as husband characteristics. Finally, the meaning of the performance of certain household tasks may not have been constant over the period of study. Technological changes such as the introduction of automatic dishwashers or increases in the hiring of outside help for housework might alter the meaning of these housework measures over time. Similarly, the validity of items designed to tap attitudes about gender in 1962 may have declined as social change occurred, although the questions used in this study continued to capture meaningful variation throughout all waves. Such changes in the meaning of indicators are an inherent problem with long-term studies, but there are no clear ways to avoid this possibility.

Despite these limitations, the analyses provided several contributions to our understanding of the gendered division of household labor over the life course. The analyses were motivated by a desire to understand the family-related consequences of the dramatic increases in women's employment that occurred during the latter decades of the 20th century. A central question for those interested in understanding gender in contemporary families involves the ramifications of women's paid employment for the lives of individual women and men. Although some researchers have taken a relatively pessimistic view of husbands' responses to recent changes in patterns of wives' employment (Hochschild, 1989), other studies report gradual but slow increases in men's involvement in unpaid family work (Bianchi et al., 2000). Results from this analysis suggest that women's entry into the paid labor force had measurable effects on men's participation in the kinds of household tasks that have historically been performed by women. Specifically, findings from the fixed effects models provide some of the strongest evidence to date that women's entry into the paid labor force increased men's relative participation in routine housework. In contrast to models based on cross-sectional research designs, the results presented here show that women's entry into the paid labor force increases men's relative share of routine housework *among the same families over time*. This result is striking, in particular, given that the women in the sample married and had children prior to the historical period in which the movement for women's rights brought widespread attention to gender inequality in the labor market and the household (Ferree & Hess, 1985). Even though the women in the IPSPC sample married at a time when wives' rates of employment were substantially lower than they are today, their entry into the paid labor market nonetheless induced changes in the

allocation of housework between spouses. As a result, the findings reported in this analysis demonstrate how changes in women's position in the economic structure are linked to gendered interactions in households.

The analysis also provided original evidence concerning the mechanisms through which women's labor market experiences shape the allocation of routine housework. The findings point to four important conclusions. First, results from change score models during the early interval of the study (1962 to 1977) suggested that women's accumulated human capital in the form of employment experience exerts a sizeable influence on the gendered division of labor. The husbands of women who accumulated more years of full-time employment experience performed a relatively greater amount of stereotypically female housework than the husbands of women who spent fewer years working full-time. Very little empirical research has examined the influence of wives' employment histories on the allocation of household labor, and the results offer support for theories based on the importance of human capital investments for intra-household resource allocation. Nonetheless, the absence of data on women's employment histories during the later study interval limited the study's ability to discern the extent to which employment histories continue to influence housework allocation patterns in later years.

Second, the results highlighted the influence of women's changing attitudes toward egalitarian roles between spouses on patterns of housework. Women's gender ideology mediated the influence of women's employment histories in the change score models and also mediated the influence of women's employment status in the fixed effects models. As a result, the findings provide clear evidence about the importance of changes in gender ideology for the allocation of labor between wives and husbands. Specifically, the analyses demonstrated how women's experiences in the paid labor market influence the gendered division of unpaid labor in the household in part by increasing their support for role similarity between spouses. In the full models in both sets of analyses, the influence of women's gender egalitarianism remained statistically significant. The results suggest that across the last four decades of the 20th century, women who increased their support for egalitarian gender relations between spouses were able to convert these ideational sentiments into behavioral changes in household-level interactions.

Third, results from the fixed effects models provided support for the time availability hypothesis. Women's employment hours were strongly related to the allocation of routine housework, and the inclusion of women's employment hours in the fixed effects models eliminated the net effect of women's employment status. It is important to note here that data limitations precluded the ability to consider the influence of wives' relative earnings in the fixed effects models. However, the fourth contribution involves the powerful role of relative earnings that was demonstrated in the change score models. Specifically, the analyses showed that, along with change in gender attitudes, wives' relative earnings exerted the strongest influence on change in the division of labor. These results point to the importance of wives' earnings and highlight the value of continued research investigating the interplay of gender and financial resources in shaping gendered interactions (Bittman et al., 2003; Greenstein, 2000).

The analyses provide a dynamic interpretation of the way gendered family patterns unfold over the life course. The findings offer original evidence about the ways that multiple dimensions of women's employment shape the gendered division of domestic work over very long time intervals. The results presented here draw attention to the ongoing interrelationships between women's employment and family work. Research investigating longitudinal processes shaping the gendered division of labor among more recent cohorts is strongly warranted as other long-term data become available.

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Appendix: Text of Items Measuring Housework Allocation and Gender Attitudes

Stereotypically Female Housework (response format: 1 = *husband usually*; 5 = *wife usually*)^a

1. Which category best describes how grocery shopping is divided up in your family?^b
2. How about straightening up before company comes?^b
3. (How about) doing the evening dishes?^b

Gender Attitudes (response format: 1 = *strongly agree*; 5 = *strongly disagree*)

1. Most of the important decisions in the life of the family should be made by the man of the house.
2. It's perfectly alright for women to be very active in clubs, politics, and other outside activities before the children are grown up.^b
3. There is some work that is men's and some that is women's, and they should not be doing each other's.
4. A wife should not expect her husband to help around the house after he comes home from a hard day's work.

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^aResponse format in 1962: 5 = *husband almost always*; 1 = *wife almost always*.

^bIndicates reverse-coded items.

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Table 1
Descriptive Statistics for Analysis Variables, Intergenerational Panel Study of Parents and Children (IPSPC), 1962-1993

	M	SD	N
Fixed effects models			
Housework allocation index: 1962 ^a	5.98	2.02	1,030
Housework allocation index: 1977 ^a	4.62	2.05	740
Housework allocation index: 1993 ^a	5.81	2.64	588
Current employment status: 1962	.10	—	1,030
Current employment status: 1977	.57	—	740
Current employment status: 1993	.53	—	588
Current employment hours: 1962	3.05	9.76	1,030
Current employment hours: 1977	16.43	17.34	740
Current employment hours: 1993	17.63	19.40	588
Gender attitude index: 1962	11.47	2.74	1,030
Gender attitude index: 1977	13.94	2.92	740
Gender attitude index: 1993	15.11	2.68	588
Husband current employment status: 1962	.95	—	1,030
Husband current employment status: 1977	.95	—	740
Husband current employment status: 1993	.59	—	588
Ln family income (thousands): 1962	3.33	.53	1,030
Ln family income (thousands): 1977	4.15	.50	740
Ln family income (thousands): 1993	3.79	.76	588
Change score models			
Change in housework allocation: 1962-1977 ^b	-.04	1.20	707
Respondent years of full-time employment: 1962-1977	2.85	3.48	707
Change in gender attitude index: 1962-1977	2.54	3.47	707
Employment status: 1977	.57	—	707
Employment hours: 1977	16.56	17.34	707
Relative income: respondent/total: 1977	.17	.17	707
Education: 1962	12.18	1.83	707
Age	25.74	4.75	707
Age-squared	685.02	255.11	707
Second child born in 1961	.34	—	707
Fourth child born in 1961	.31	—	707
Ln family income (thousands): 1977	4.18	.47	707
Husband employment status: 1977	.97	—	707
Husband education: 1962	12.53	2.48	707

Note: Values in columns of means for dichotomous variables are proportions. Ln = natural log.

^aUnstandardized values.

^bBased on standardized values.

Table 2
Fixed Effects Regression Coefficients of Influence of Wives' Employment on Husbands' Participation in Stereotypically Female Housework, 1962 to 1993

Independent Variable	1	2	3	4
Currently employed	.21 (.05) **	-.10 (.10)	.16 (.06) **	-.15 (.10)
Current employment hours	—	.01 (.003) **	—	.01 (.003) **
Gender attitudes	—	—	.03 (.01) **	.02 (.01) *
Ln family income (thousands)	-.04 (.04)	-.06 (.04)	-.07 (.04)	-.0006 (.001)
Husband currently employed	-.08 (.06)	-.06 (.06)	-.02 (.07)	-.06 (.06)
R^2	.02	.04	.03	.04

Note: Number of observations = 2,357; number of cases = 1,030. Standard errors are in parentheses. Ln = natural log.

*
 $p < .01$.

**
 $p < .001$ (one-tailed).

Table 3

Ordinary Least Squares Regression Coefficients of Influence of Wives' Employment on Change in Husbands' Participation in Stereotypically Female Housework Between 1962 and 1977

Independent Variable	1	2	3	4	5
Years of full-time employment: 1962-1977	.03 (.01) *	.02 (.01) **	.01 (.01)	-.01 (.02)	-.02 (.02)
Change in gender attitudes: 1962-1977	—	.05 (.02)	.05 (.02) *	.04 (.02) *	.04 (.02) *
Currently employed: 1977	—	—	.16 (.10)	-.10 (.16) *	-.10 (.16)
Current employment hours: 1977	—	—	—	.01 (.005)	.01 (.01)
Relative income (respondent/total): 1977	—	—	—	—	.82 (.32) *
Gender attitudes: 1962	-.05 (.02)	-.01 (.02)	-.01 (.02)	-.01 (.02)	-.01 (.02)
Education	.01 (.03)	-.01 (.03)	-.01 (.03)	-.002 (.03)	-.01 (.03)
Age	-.10 (.10)	-.08 (.10)	-.08 (.10)	-.09 (.10)	-.07 (.10)
Age-squared	.002 (.002)	.001 (.002)	.002 (.002)	.002 (.002)	.001 (.002)
Second child born in 1961	.09 (.11)	.10 (.11)	.09 (.11)	.09 (.11)	.09 (.11)
Fourth child born in 1961	-.12 (.14)	-.11 (.14)	-.12 (.14)	-.11 (.13)	-.14 (.13)
Ln family income (thousands): 1977	.20 (.11)	.16 (.11)	.17 (.11)	.15 (.11)	.14 (.11)
Husband education: 1962	.01 (.02)	.01 (.02)	.01 (.02)	.01 (.02)	.01 (.02)
Husband currently employed: 1977	-.44 (.26)	-.42 (.26)	-.41 (.26)	-.39 (.26)	-.19 (.27)
R ²	.03	.05	.05	.06	.06

Note: N = 707. Standard errors are in parentheses. Ln = natural log.

*
p < .01.

**
p < .001 (one-tailed).