Housework over the life course: trajectories of change within marriage*

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Introduction

Despite the fact that women have been entering the formal labor force in increasing numbers over the past four decades, household work remains largely women's work (Brewster and Rindfuss 2000). A considerable literature has developed on the gender division of household labor to explain why men have not contributed more to housework (Coltrane 2000). This emphasis on the division of household labor as one part of a larger system of gender inequality has meant that much of the research in this area concerns the overall housework contributions of men and women at a point in time, or compares cross-sections of the population at different points in time. This approach has succeeded in describing the division of household labor as a measure of gender inequality in a population, but it has fallen short in looking at decisions about housework as a process that unfolds over the course of a relationship.

We need to rethink the division of household labor as a process of negotiation, rather than a static contract. The division of household labor is at the center of how couples integrate work and family responsibilities. Research on contemporary families demonstrates that gendered negotiations like the division of household labor are strong predictors of marital happiness and satisfaction, especially for wives (Amato et al. 2007; Kamp Dush, Taylor, and Kroeger 2008). For many couples, women's paid employment is viewed positively and both men and women increasingly believe that housework and paid work should be shared (Thornton and Young-DeMarco 2001). The rise of dual-earner couples is connected to these gender attitudes, but the increasing equality in paid work hours and income between spouses also has been a source of conflict between work and family obligations (Hochschild 1989). As part of the family economy, bargaining

over the division of household labor is one way the family unit adjusts to changes in household composition, jobs, and external pressures on the family (Moen, Kain, and Elder 1983).

The life course perspective provides a framework for understanding the division of labor as a trajectory—as an arrangement that develops over the course of a relationship, that is linked to the partner's decisions and transitions, and that is situated historically in social expectations for men's and women's work (Elder, Johnson, & Crosnoe 2003). This paper uses annual data on hours spent in housework to 1) describe how the average division of household labor develops over the duration of a marriage and 2) test for differences by gender, cohort, timing of marriage, and presence of children. Data from the 1969-2005 waves of the Panel Survey of Income Dynamics are analyzed using growth curve modeling (Singer and Willett 2003), which estimates the initial level and slope of within-couple trajectories of household labor.

Life course framework

Theorizing housework as a life course trajectory highlights how current work/family arrangements are tied to earlier decisions about the division of labor as the product of accumulated experiences within a relationship. Previous theories of housework assume within-person change – if the balance of power, time spent at work, or performance of gendered responsibilities change, the division of labor within a relationship should change in response. The life course framework supplies tools to think about conceptualizing and modeling within-person and within-relationship change for the division of household labor.

Trajectories

Trajectories are given their shape by important life transitions. Moving through a transition can redirect or reinforce the direction of a trajectory (Elder and Shanahan 2006). Previous work has shown the importance of specific life transitions in changing the division of housework – including marriage/partnering (Gupta 1999; Baxter, Hewitt and Haynes 2008), retirement (Szinovacz 2000), and women's employment (Cunningham 2007). Theorizing housework as a trajectory broadens the scope of housework research by placing these individual transitions in the context of an entire relationship. Is the division of household labor relatively static over time, or are their patterns of change for men and women within relationships? Interest in how the division of household labor changes over long spans of the life course dates back to the family cycle model (e.g., Blood & Wolfe 1960; Rexroat & Shehan 1987). Using cross-sectional data to compare couples at different stages of their relationships, family cycle studies found a steady decline in housework participation among men until retirement and a curvilinear pattern for women with peak housework hours when children are 7-13 years old. This paper tests whether similar housework patterns are found when we look within couples and across the duration of the relationship.

Historical time and place

The life course framework also helps to connect the patterns of housework to historical changes in the work and family lives of men and women and the gendered expectations for these roles. Over the span of PSID data collection, women's labor force participation in the U.S. has risen from 49 percent to 74 percent, and this increase has been driven by married women, many who do not leave the workforce after having a

child (Cotter, Hermsen, and Vanneman 2004). The shift from a traditional breadwinner/homemaker model to a dual-earner relationship has changed the everyday reality of many families, and the division of household labor sits at the intersection of these changes. Comparing cross-sectional time use surveys over the past 30 years, Bianchi and her coauthors (2000) find that married women cut their housework hours nearly in half, from 30 hours per week in 1965 to 16 hours per week in 1995. Married men increased their housework time per week from 1.8 hours in 1965 to 3.7 hours in 1995. This paper takes advantage of the length and intergenerational design of the PSID to investigate whether patterns of housework across the life course, rather than simply average levels of housework, have changed in younger cohorts.

Timing of marriage

The life course framework has guided previous cross-sectional housework studies that consider the timing of marriage (Pittman & Blanchard 1996). This research theorizes that women who postpone marriage are able to establish more independent, work-centered identities. Men who postpone marriage are assumed to have more experience doing housework, and to be more likely to know other couples who do not fit the traditional division of labor. This paper improves on previous cross-sectional research by examining whether women and men who delay marriage begin their relationship with a more egalitarian division of labor than spouses who marry early, and testing whether the housework of delayed couples shifts toward a more traditional model as the marriage progresses.

Transition to parenthood

The transition to parenthood is one of the most important transitions in the development of the gendered division of labor. This has been demonstrated using longitudinal data to compare housework before and after the parenthood transition in the U.S. (Sanchez and Thomson 1997) and recently in Australia (Baxter et al. 2008). The division of labor becomes more unequal in couples because the response to parenthood is highly gendered. Men's hours in paid work and housework are largely resistant to the transition to parenthood, but motherhood increases women's time spent in housework and reduces time at paid employment. Both of these studies of the transition to parenthood hypothesize that this experience locks in a more traditional division of labor for couples later in life. By placing the transition to parenthood in the context of the larger trajectory of housework, this paper will examine whether the pattern of change in housework trajectories is the same for parents and couples without children.

Data and methods

Sample

This paper uses data from the 1969-2005 waves of the Panel Study of Income Dynamics (PSID), a nationally representative sample of individuals and families in the United States (Hill 1992). Started in 1968, the PSID originally interviewed nearly 4,800 households and continued with annual surveys until 1997, when the study switched to a biennial design. The PSID follows members of the households from the original sample over time, even as they split off and form new households; the PSID also follows the children of study members as they move out and start their own families.

The sample for this paper includes all marriages that started after the first wave of data collection. Only including couples formed after 1968 allows the analysis to observe data on housework over the entire trajectory of the marriage, which is most important for estimating the initial level of housework hours performed by household heads and wives at the beginning of their partnership. Individuals do not need to participate in every survey wave during their marriage to be included in the analysis, due to the flexibility of the growth curve models used for this paper. Only the first marriage recorded after 1968 for each individual is included in the sample. The final sample consists of 8175 individuals and a total of 72,598 person-years.

Analytic Design

Trajectories of hours spent on housework are estimated using growth curve modeling (Singer & Willett 2003). The growth curve models are designed as hierarchical linear models, with observations from multiple survey waves over time nested within individuals. This method summarizes within-individual change in housework with a Level-1 model that estimates intercept, linear change, and quadratic change parameters for each person. A Level-2 model tests for group differences in the average values of these intercept and change parameters. Random effects allow individual variation around the mean trajectory. Example equations for the conditional growth models, with duration of marriage as the metric of time and gender as a time-invariant predictor:

Level-1 model: $Y_{ij} = \pi_{0i} + \pi_{1i}(\text{Duration}_{ij}) + \pi_{2i}(\text{Duration}_{ij})^2 + \varepsilon_{ij}$

Level-2 model: $\pi_{0i} = \gamma_{00} + \gamma_{01}(\text{Female}_i) + \zeta_{0i}$

$\pi_{1i} = \gamma_{10} + \gamma_{11}(\text{Female}_i) + \zeta_{1i}$

$\pi_{2i} = \gamma_{20} + \gamma_{21}(\text{Female}_i) + \zeta_{2i}$

These models are estimated in STATA using the xtmixed command.

Measures

Housework

Housework is measured in the PSID with a single question on the average number of weekly hours spent on housework:

> "About how much time do you spend on this housework in an average week – I mean time spent cooking, cleaning, and other work around the house?"

This question was first asked in the 1969 survey wave, and it appears in unchanged form for all subsequent survey years except for 1975 and 1982. Due to the design of the PSID, one person in the household (usually the head) answers this question for both the head and wife. The exceptions to this proxy response design are 1976 and 1985, when both heads and wives were interviewed separately.

As a measure of housework performance, the PSID question falls short of the "gold-standard" set by time-diary data (Bianchi, Robinson, and Milkie 2006). All housework tasks are combined in the single item for the PSID, although the typically "feminine" tasks of cooking and cleaning are emphasized in the question. This combined housework question allows the interpretation of what counts as housework to differ for each respondent. Because the head of the household typically answers the housework question and the head is usually the husband for married couples in the PSID, it is possible that there is measurement error in both the recall of wife's hours of housework and in reporting husband's own housework hours. Husbands may inflate their reported housework hours if they feel it is socially desirable, or if they perceive that they do more housework relative to their wives than they have actually performed. If this bias is stable

over the course of the relationship, this will affect the estimates of the level of the housework trajectory, but not its change over time. In the later waves of the PSID, an increasing number of wives have answered the survey.

Despite these limitations, the presence of the housework question with consistent wording over 31 waves of a nationally representative panel study presents a unique opportunity for studying long term patterns of change and stability in the division of household labor. The PSID measure of housework has been used in prominent studies of the relationship of earnings and the division of household labor (Brines 1994; Bittman et al. 2003), and also in comparing change in housework between different cross-sections of PSID data (Evertsson and Nermo 2004; Heath and Bourne 1995). This paper is one of the first to take full advantage of the panel design of the PSID to examine change in housework hours within marriages.

Duration of marriage

Duration is defined as the years a respondent was either a head or wife in the same marriage. Transitions in and out of couple relationships are identified over the survey waves using variables on change in marital status, change in family unit composition, and whether or not there is a new head or wife in the family unit at each survey.

Cohort

About 40 percent of the respondents in the sample for this paper were born in the 1950s due to the selection of study members who began marriages after 1968. This cohort born from 1951 to 1960 passed through their prime years for family formation in the 1970s and 1980s, a period when women's education and work opportunities changed

dramatically and created new pressures for a more equal division of labor. This paper compares the housework trajectories of this 1950s cohort with the experiences of individuals born before 1951 and also those born after 1960. Because the unit of time for this analysis is the duration of the relationship, the measure of cohort is not as confounded with time as it would be if age were used as the time unit. A wide range of durations are observed within each cohort, and the two variables are not highly correlated. The one exception is that there are fewer relationships with durations of more than 20 years in the youngest cohort. Otherwise, the overlap between duration and cohort should allow the models to identify independent effects of these variables.

Age at marriage

The age at marriage measure is a continuous variable that records the age of the respondents during the survey wave they entered into a new married family unit. This variable is mean centered in the growth curve analyses to make the interpretation of the intercept value meaningful.

Number of children

This measure captures the maximum number of children ages living in the family unit with the head and wife at any point in the relationship. Children are defined as members of the family unit 0 to 17 years old who are not the head or wife; these do not have to be the biological children of the current head or wife. This measure is time-invariant and the maximum category is 4 or more children.

Controls

Gender is coded as an indicator variable for female based on self-reports. Education is measured using the maximum number of years reported for an individual

over the survey, and is split into three categories – less than high school education (0-11 years), high school education (12 years), and more than high school education (13+ years). With the original sample drawn in 1968, the PSID does not have enough respondents from Latino and Asian race and ethnic groups to analyze them separately. Therefore, race is coded into three categories for this paper – White, Black, and Other Race.

Results

Descriptive statistics

Table 1 contains the descriptive statistics for variables used in the housework trajectory models. Already, we can see the gender gap in housework hours with women averaging 22.59 hours per week and men averaging 7.28 hours per week over the survey waves. The average duration of a relationship in the sample is 9.11 years, with a standard deviation of about 7 years. As expected, women enter marriages about a year and a half before men on average. The sample includes slightly more women (51.2%) than men (48.8%). The 1951-1960 birth cohort is the largest with nearly 40 percent of the sample. Respondents born before 1951 make up about 28 percent of the sample, and those born after 1960 account for nearly 32 percent. Over one-fifth of the respondents did not have children living in the family unit at any point during their marriage. About one-half had a maximum of 1-2 children living with them, while over a quarter lived with 3 or more children. Twenty percent of the respondents have less than a high school education, with the remainder split about evenly between those who completed high school only and

those who continued their education after high school. The racial composition of the sample is about 60 percent White, 34 percent Black, and 6 percent of another race.

Growth curve models

Table 2a presents the fixed effects from the growth curve models, and Table 2b contains the random effects for these models. Model A is an unconditional growth model that includes terms for initial level and both linear and quadratic change in housework over the duration of a relationship. All fixed effects are significant, showing that the average housework trajectory has a negative curve as found in previous cross-sectional life cycle models. The random effects also are all significant, confirming that there is individual variation around the mean trajectory left to explain in the model. Model B adds gender as a predictor using the full sample. Women start their marriages performing an average of 21 hours of housework per week; this increases to 23.5 hours at 10 years into the marriage, and then declines over the remainder of the relationship. Men also increase their housework from an average of 6.5 hours to 7.7 hours over the first decade of a marriage. Men's housework declines after this point, but the overall change in their average housework hours is substantively small compared to the change in women's housework over the relationship.

The remaining growth curve models are run separately for women and men, as many of the predictors act in opposite directions on women's and men's housework hours. Models C and D examine the influence of birth cohort on housework trajectories. The effects of cohort on initial level of housework in Model C show the large decline in hours of housework among younger women. Compared to the oldest cohort born before 1950, on average the 1951-1960 cohort performs 2.5 fewer hours of housework and the

cohort born after 1960 does 7.6 fewer hours of housework at the beginning of the marriage. However, the housework trajectories are steeper and more strongly curved for the younger cohorts of women, as illustrated in Figure 1.

Model D presents the effects of cohort on housework for men. Men have changed their housework hours in recent cohorts, but not as drastically as women. The 1951-1960 cohort begins their relationships doing 1.2 hours more housework than the oldest cohort; the cohort born after 1960 starts at 2.4 hours more than the oldest group on average. The pre-1951 and 1951-1960 cohorts also have a significant, negative curve to their average housework trajectories. Figure 2 illustrates the average housework trajectories by cohort for men. The curve of these average trajectories is flatter compared to the women's, which shows that men do pick up some housework hours over the course of the relationship, but not nearly as many hours as found for women's trajectories. The smaller positive slope for the 1951-1960 cohort and the non-significant quadratic coefficient for this group suggest that despite doing marginally more housework at the start of a relationship, the average trajectory for the middle cohort of men eventually converges with the older cohort. The cohort of men born after 1960 demonstrates the most promise of change. Their average housework trajectory also converges with the older cohorts of men after about 10 years in a relationship; however, the significant, positive quadratic coefficient for the youngest cohort of men born provides some evidence that they do not continue to reduce their housework hours to the same extent as older cohorts of men.

Models E and F present the effects of the timing of marriage on the housework trajectories. As shown in Model E, women perform 0.12 fewer hours of housework at the beginning of a marriage for each year they delay getting married. Women who wait until

later in their lives to form a new household also have a flatter curve to their housework trajectory than women who enter relationships at younger ages. Therefore, women who wait longer to marry do not change their housework hours as much during the relationship.

The effect of age at marriage on men is the opposite of that for women, at least for the initial level of housework. As shown in Model F, men begin their relationship doing 0.09 hours more housework for every year they delay forming a new family. However, men who wait longer to enter marriage show no significant differences from younger men in the linear or quadratic rates of change over time for their housework trajectories.

Models G and H contain the effects of the number of children on housework trajectories, as well as controls for education and race. For the women in Model G, marriages with more children have higher levels of housework. Each additional child adds between 2-3 hours of housework to the average initial number of housework hours performed by women. Women who live with only one child during their marriage do not differ significantly from childless women in how their housework hours change over the course of the relationship. Women with two or more children do have steeper housework trajectories than childless women, such that they pick up more housework hours in the middle of the relationship.

In models for women that only include cohort, age at marriage, and number of children (results not shown), the effect of age at marriage is reduced to non-significance as it is in the full model with controls for education and race. Finally, in models for women that only include number of children as a predictor (results not shown), the parameters for linear and quadratic change are both non-significant as in the full Model

G. This indicates that the curvilinear pattern found for women's average housework trajectories is driven largely by the experience of having children in the family.

The results from Model H demonstrate that children have a much smaller impact on men's housework. The initial level of housework hours are no different for men with children than those who did not live with children during their marriage. Men who lived with one or two children also show no significant differences in their linear or quadratic rates of change in housework compared to childless men. Men who lived with three children, but especially four or more children have greater change over time in picking up housework hours than men with fewer children.

In contrast to women, the positive effect of age at marriage on initial housework level remains significant and unchanged for men, even including number of children in the model. However, much like the women, a model including only the effect of number of children reduces the linear and quadratic change parameters to non-significance. Though men's housework appears to be more resistant to the effect of children, change in men's housework over a relationship also is related to the parenting experience.

Adding the controls for education and race provides further insight into group differences in housework trajectories for women in Model G. Women with a high school education start their relationships doing over 3 fewer hours of housework compared to women who did not complete high school; women who are educated beyond high school perform nearly 7.5 fewer hours of housework initially. Education level does not appear to affect the pattern of change over time in housework. The change in Black women's housework trajectories are opposite those of White women's trajectories. After starting at the same level of housework, Black women cut back on their hours more quickly on

average than White women, but the quadratic coefficient for Black women is positive, suggesting that they do not drop housework hours later in the relationship like White women.

The control for education in Model H shows that men with at least some college education do about 0.8 hours more housework on average at the beginning of the relationship. Education level has no affect on the change in housework for men, similar to the findings for women. Black men start their relationships doing about 1.3 more hours of housework than White men, but they also decrease their hours at a faster rate so that their housework trajectory converges with the average trajectory for White men over time.

Discussion

Studying the development of the division of household labor over long periods of time using panel data provides a new perspective on the role of housework. The division of household labor is not only an indicator of gender inequality at a point in time, housework is a process that develops over the course of a relationship and responds to changes inside and outside of the family. The goal of this paper is primarily descriptive – it identifies average patterns of change over time in housework hours, and distinguishes significant group differences in housework trajectories by gender, cohort, timing of marriage, and presence of children.

This paper has demonstrated that housework can be estimated as a trajectory within marriage using growth curve models. This confirms the central argument of this study – the division of household labor is not a static contract that is unchanging within

relationships, but a process of negotiation that responds to life course experiences. The older family cycle model (Blood and Wolfe 1964; Rexroat and Shehan 1987) looked at a cross-section of adults and found a curvilinear relationship between life stage and housework hours. This curvilinear pattern has been confirmed in this paper using prospective panel data that measures change within rather than between individuals. Women especially increase their hours over the first decade of a marriage to meet the increased demand for housework encountered through changes like the transition to parenthood.

The original family cycle model was rooted in the breadwinner/homemaker form of the gender division of labor, and it predicted that men would decrease their housework contributions as they reached later life stages in order to specialize in paid work and provide for their family. This prediction also has parallels with the incentives to gender specialization theorized in the economic model of the family (Becker 1991). While men's housework hours are more resistant to change than women's hours on average, they do follow the same direction of change as the women's trajectory by picking up some housework hours over the first 10 years of the marriage. This life course pattern suggests that men do increase their household labor in response to family transitions, but that it is women who remain responsible for changing their time use the most.

As emphasized by the family cycle theory and found in more recent longitudinal studies, parenthood is a driving force in changing the division of household labor within couples. Including number of children in the growth curve models reduces the linear and quadratic change parameters to non-significance for both men and women who did not live with a child during their marriage. Women's housework is more responsive to the

changes that come with parenthood. The level of housework hours increases with each child in the family for women, and women with more than one child face a sharper increase in housework hours on average than women with one or no children during their marriage. Men's housework trajectory is not affected as much by parenthood; it is only when there are three or more children in the family that men show higher levels and greater change in their housework hours, and these changes are smaller in magnitude than women's changes. These differences between men's and women's housework trajectories demonstrate that despite changes in women's education and paid employment, the traditionally feminine tasks that make up housework remain highly gendered.

Looking across cohorts, there is evidence that the changes in women's lives have had an impact on the division of household labor. There are substantial declines in the initial level of housework hours performed by women in the middle and youngest cohorts in this study. These results align with the findings from repeated cross-sections of time use data that find a dramatic drop in the number of hours women spend on housework over the past 30 years (Bianchi et al. 2000). However, by looking at long term trajectories of housework this paper shows that though the level of housework may have changed for women, the life course pattern of increasing housework hours is the same for women in the middle and youngest cohorts.

Men show some change among the middle and youngest cohorts in this paper that is parallel to the increased housework hours found for men in more recent years from time use studies. Both the cohorts of men born between 1951-1960 and after 1960 perform more hours of housework at the beginning of a marriage on average when

compared to the cohort of men born before 1951. Like the time use results, this study finds that the scale of change for men is much smaller than that for women. Theorizing and modeling housework as a trajectory reveals that despite this initial housework contribution among younger cohorts, the average patterns of housework hours converge over the first decade of a marriage for all three cohorts. There is some evidence of more lasting change in the youngest cohort of men, though, as the positive curve of their housework trajectory indicates that this group may not be decreasing their housework hours like older cohorts of men.

The results for age at marriage support the previous cross-sectional research on the timing of major life events and the division of household labor. Pittman and Blanchard (1996) argue that women who delay marriage are more likely to develop independent identities outside of their family roles as wife and mother, including stronger work-centered identities. The growth curve models match this expected pattern – women who marry at older ages do less housework at the beginning of their relationship and also show less change in housework hours over the course of their marriage. However, the effect of age at marriage on the housework trajectory is explained entirely by the presence of children in the family. Parenting responsibilities make sense as a mechanism for marital timing, as women who delay forming a family are more likely to remain childless or have fewer children overall.

Parenthood does not appear to mediate the effect of marital timing on men's housework as it does for women. The results show a robust effect of marital timing on the initial level of men's housework even controlling for number of children – on average, men who marry later contribute more hours of housework at the beginning of a

marriage. This finding also fits with Pittman and Blanchard's argument that men who delay marriage will have more experience being responsible for their own housework, and are more likely to have formed friendships with other couples who have a less traditional division of labor. Though the timing of marriage may have an impact on the level of housework, it does not have any effect on the average pattern of change within marriage for men. Analyzing housework as long term trajectories shows that the level of housework hours is often more responsive to social change, while the gendered pattern of change in housework over time persists.

A limitation of this paper is the use of proxy reporting for many of the person-years of data on housework. Previous research on the measurement of housework has shown that spouse reports of housework can be biased, with husbands often overestimating their own housework contributions. There is enough variation in whether the household head or wife answers the PSID survey each year, despite the study design, that it may be useful to examine the effects of proxy reporting in more detail. Future work using the PSID variable can employ a time-varying indicator for proxy reports to estimate and control the effects of husbands reporting on wives or wives answering for husbands.

In the analyses for this paper, husbands and wives are treated independently, yet there is valuable information in the connection between spouses' housework trajectories. Combining the analysis of housework trajectories at the couple level would display how changes in the division of household labor are linked within couples over time. Besides providing a methodological check on clustering and possible correlated errors within

couples, linking spouses will push the analysis closer to the theorization of the division of household labor as an ongoing negotiation that develops over the course of a marriage.

The importance of the parenting role for housework trajectories is demonstrated in this study with simple descriptive comparisons of average differences between couples with different numbers of children over their marriages. The role of parenthood can be examined in much greater detail with more dynamic models that incorporate time-varying measures of parenting transitions and consider the timing as well as number of these transitions. This paper includes measures of two family transitions, but much of the research on the division of household labor focuses on economic predictors of housework. Future research could examine the effects of work history and changes in income on housework trajectories, as economic factors are measured with considerable detail in the PSID.

This paper has used growth curve models with over thirty waves of panel data to estimate housework trajectories and describe differences between groups based on gender, cohort, timing of marriage, and number of children. The results illustrate the usefulness of theorizing and modeling the division of household labor as a long term process of negotiation and change. Men and women do adjust their hours of housework in predictable ways during a marriage despite the substantial variation between individual housework trajectories. Although men and women have altered the level of their housework participation in response to a changing work/family environment, women continue to be responsible for meeting the majority of the increased demand for housework over the course of a marriage.

Bibliography

Amato, P. R., A. Booth, D.R. Johnson, S.J. Rogers. 2007. *Alone Together: How Marriage in America is Changing*. Cambridge: Harvard UP.

Baxter, J., B. Hewitt, and M. Haynes. 2008. "Life Course Transitions and Housework: Marriage, Parenthood, and Time on Housework." *Journal of Marriage and Family* 70:259-272.

Becker, G. 1991. *A Treatise on the Family*. Cambridge: Harvard UP.

Bianchi, S.M., M.A. Milkie, L.C. Sayer, and J.P. Robinson. 2000. "Is Anyone Doing the Housework? Trends in the Gender Division of Household Labor." *Social Forces* 79:191-228.

Bianchi, S.M., M.A. Milkie, and J.P. Robinson. 2006. *Changing Rhythms of American Family Life*. Newbury: Sage Foundation.

Bittman, M., P. England, L. Sayer, N. Folbre, and G. Matheson. 2003. "When Does Gender Trump Money? Bargaining and Time in Household Work." *American Journal of Sociology* 109:186-214.

Blood, R.O. and D.M. Wolfe. 1960. *Husbands and Wives*. New York: Free Press.

Brewster, K. L., and R.R. Rindfuss. 2000. "Fertility and Women's Employment in Industrialized Nations." *Annual Review of Sociology* 26:271-296.

Brines, J. 1994. "Economic Dependency, Gender, and the Division of Labor at Home." *American Journal of Sociology* 100:652-688.

Coltrane, S. 2000. "Research on Household Labor: Modeling and Measuring the Social Embeddedness of Routine Family Work." *Journal of Marriage and the Family* 62:1208-1233.

Cotter, D.A., J.M. Hermsen, and R. Vanneman. 2004. *Gender Inequality at Work.* A volume in the series, The American People: Census 2000. New York, NY: Russell Sage Foundation and Population Reference Bureau.

Cunningham, M. 2007. "Influences of Women's Employment on the Gendered Division of Household Labor Over the Life Course: Evidence from a 31-Year Panel Study." *Journal of Family Issues* 28:422-444.

Elder, G.H., M.K. Johnson, and R. Crosnoe. 2003. "The Emergence and Development of Life Course Theory." In *Handbook of the Life Course*, J.T Mortimer and M.J. Shanahan, eds. New York: Kluwer Academic/Plenum Publishers.

Elder, G.H., Jr., and M.J. Shanahan. 2006. The life course and human development. In Richard E. Lerner (ed.), *Theoretical models of human development,* (Chapter 12, pp. 665-715), (Volume 1: The Handbook of Child Psychology, 6th Edition). William Damon, series editor. New York: Wiley.

Evertsson, M. and M. Nermo. 2004. "Dependence Within Families and the Division of Labor: Comparing Sweden and the United States." *Journal of Marriage and Family* 66:1272-1286.

Gupta, S. 1999. "The Effects of Transitions in Marital Status on Men's Performance of Housework." Journal of Marriage and the Family 61:700-711.

Heath, J.A. and Bourne, D.W. 1995. "Husbands and Housework: Parity or Parody?" *Social Science Quarterly* 76:195-202.

Hill, M. 1992. The Panel Study of Income Dynamics: A User's Guide. Newbury, MA: Sage Publications.

Hochschild, A. 1989. The Second Shift. New York: Avon.

Kamp Dush, C.M., M.G. Taylor, and R.A. Kroeger. 2008. "Marital happiness and psychological well-being across the life course." In M. B. Tucker & A.C. Crouter (Guest Eds.) Enduring couples in various sociocultural contexts [Special issue]. *Family Relations* 57(2): 211-226.

Moen, P., E.L. Kain, and G.H. Elder, Jr. 1983. Economic conditions and family life: Contemporary and historical perspectives. In Richard R. Nelson and Felicity Skidmore (eds.), *American Families and the Economy*, (pp. 213-259). Washington, D.C.: National Academy Press.

Pittman, J.F. and D. Blanchard. 1996. "The Effects of Work History and Timing of Marriage on the Division of Household Labor: A Life-Course Perspective." *Journal of Marriage and the Family* 58:78-90.

Rexroat, C. and C. Shehan. 1987. "The Family Life Cycle and Spouses' Time in Housework." *Journal of Marriage and the Family* 49:737-750.

Sanchez, L. and E. Thomson. 1997. "Becoming mothers and fathers. Parenthood, gender and the division of Labor." *Gender and Society* 11:747-772.

Singer, J.D. and J.B. Willett. 2003. *Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence*. New York:Oxford UP.

Szinovacz, A. 2000. "Changes in Housework after Retirement: A Panel Analysis." Journal of Marriage and the Family 62:78-92.

Thornton, A. and L. Young-DeMarco. 2001. "Four Decades of Trends in Attitudes Toward Family Issues in the United States: The 1960s Through the 1990s." *Journal of Marriage and the Family*, 63 (4): 1009-1037.

Table 1. Descriptive Statistics.

	Mean	Standard Deviation
Housework – Weekly Hours	15.05	14.32
Women: Housework Hours/Wk	22.59	15.13
Men: Housework Hours/Wk	7.28	7.83
Duration of Relationship in Years	9.11	6.99
Age at Marriage	26.75	9.62
Women: Age at Start	25.91	9.43
Men: Age at Start	27.61	9.74

	Frequency	Percent
Gender		
Female	4185	51.19
Male	3990	48.81
Birth Cohort		
Before 1951	2299	28.12
1951-1960	3265	39.94
After 1960	2611	31.94
Number of Children		
0	1817	22.22
1	1758	21.50
2	2516	30.78
3	1329	16.26
≥4	755	9.24
Education		
Less than High School	1698	20.77
High School	3290	40.24
More than High School	3187	38.98
Race		
White	4963	60.71
Black	2746	33.59
Other	466	5.70

Note: Data from PSID 1969-2005. N=8175.

Table 2a. Fixed effects: Quadratic growth curve models for change in housework over the duration of a relationship.

Fixed Effects			**Model A** Full Sample	**Model B** Full Sample	**Model C** Women Only	**Model D** Men Only	**Model E** Women Only	**Model F** Men Only	**Model G** Women Only	**Model H** Men Only
Initial Level, π_{0i}	Intercept	γ_{00}	13.80**	6.64**	24.06**	5.51**	25.51**	4.53**	24.25**	3.67**
	Female	γ_{01}		14.01**	---.	---.	---.	---.	---.	---.
	1951-1960 Cohort	γ_{02}			-2.50**	1.24**	-4.32**	2.37**	-2.38**	2.27**
	1961 and after Cohort	γ_{03}			-7.63**	2.41**	-9.44**	3.52**	-6.53**	3.52**
	Age at Marriage	γ_{04}					-0.119**	0.091**	-0.014	0.091**
	Number of Children:									
	1	γ_{05}							2.39**	-0.18
	2	γ_{06}							4.43**	0.13
	3	γ_{07}							7.36**	0.38
	≥4	γ_{08}							9.30**	-0.70
	High School Educ.	γ_{09}							-3.13**	0.58
	College Educ.	γ_{010}							-7.45**	0.83*
	Black	γ_{011}							-0.59	1.28**
	Other	γ_{012}							0.37	0.16
Linear Rate of Change, π_{1i}	Intercept	γ_{10}	0.313**	0.170**	0.102	0.291**	0.199*	0.358**	-0.036	0.119
	Female	γ_{11}		0.306**	---.	---.	---.	---.	---.	---.
	1951-1960 Cohort	γ_{12}			0.442**	-0.116*	0.266*	-0.187**	0.259*	-0.153**
	1961 and after Cohort	γ_{13}			0.679**	-0.376**	0.501**	-0.440**	0.402**	-0.403**
	Age at Marriage	γ_{14}					-0.017**	-0.005	-0.007	0.000
	Number of Children:									
	1	γ_{15}							0.128	0.115
	2	γ_{16}							0.440*	0.165
	3	γ_{17}							0.463*	0.232*
	≥4	γ_{18}							0.460*	0.504**
	High School Educ.	γ_{19}							0.152	-0.005
	College Educ.	γ_{110}							0.115	-0.004
	Black	γ_{111}							-0.743**	-0.155**
	Other	γ_{112}							-0.239	-0.032
Quadratic Rate of Change, π_{2i}	Intercept	γ_{20}	-0.016**	-0.007**	-0.013**	-0.010**	-0.019**	-0.011**	-0.001	-0.002
	Female	γ_{21}		-0.019**	---.	---.	---.	---.	---.	---.
	1951-1960 Cohort	γ_{22}			-0.017**	0.003	-0.008	0.003	-0.010*	0.002
	1961 and after Cohort	γ_{23}			-0.026**	0.014**	-0.017*	0.014**	-0.017*	0.012**
	Age at Marriage	γ_{24}					0.001**	-0.000	0.000	-0.000
	Number of Children:									
	1	γ_{25}							-0.008	-0.007
	2	γ_{26}							-0.024**	-0.008
	3	γ_{27}							-0.028**	-0.011*
	≥4	γ_{28}							-0.030**	-0.019**
	High School Educ.	γ_{29}							-0.007	-0.005
	College Educ.	γ_{210}							-0.001	-0.004
	Black	γ_{211}							0.029**	0.003
	Other	γ_{212}							0.004	0.001
N			8175	8175	4185	3990	4185	3990	4185	3990

Note: *p<.05, **p<.01; Data from PSID 1969-2005.

Table 2b. Random Effects: Quadratic growth curve models for change in housework over the duration of a relationship.

Random Effects			**Model A** Full Sample	**Model B** Full Sample	**Model C** Women Only	**Model D** Men Only	**Model E** Women Only	**Model F** Men Only	**Model G** Women Only	**Model H** Men Only
Level 1:	Within-person	σ_ε^2	80.38**	80.38**	120.95**	38.60**	120.92**	38.58**	120.91**	38.57**
Level 2:	In initial status	σ_0^2	129.04**	80.22**	122.90**	25.07**	121.74**	24.32**	104.32**	23.82**
	Linear term									
	variance	σ_1^2	1.86**	1.85**	3.01**	0.57**	3.00**	0.56**	2.83**	0.55**
	covariance with initial status	σ_{01}	-4.69**	-5.86**	-8.96**	-1.82**	-9.08**	-1.77**	-8.86**	-1.73**
	Quadratic term									
	variance	σ_2^2	0.002**	0.002**	0.004**	0.001**	0.004**	0.001**	0.003**	0.001**
	covariance with initial status	σ_{02}	0.046**	0.115**	0.176**	0.030**	0.182**	0.030**	0.192**	0.029**
	covariance with linear term	σ_{12}	-0.061**	-0.060**	-0.101**	-0.016**	-0.100**	-0.016**	-0.093**	-0.016**
Deviance (-2LL)			548242.82	543992.90	291527.26	239892.70	291451.42	239821.24	290719.86	239729.62
N			8175	8175	4185	3990	4185	3990	4185	3990

Note: *p<.05, **p<.01; Data from PSID 1969-2005.

Figure 1.

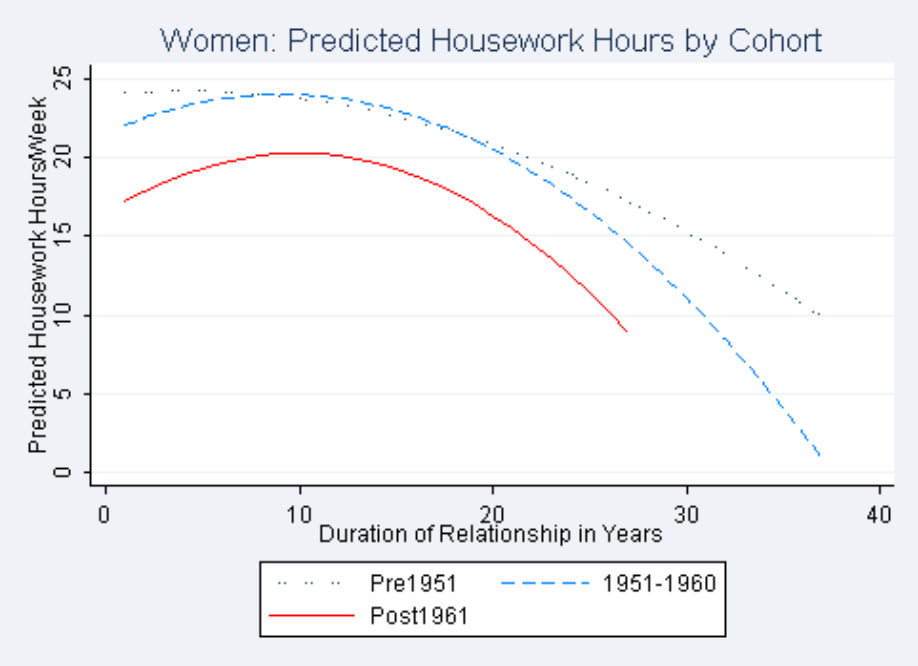
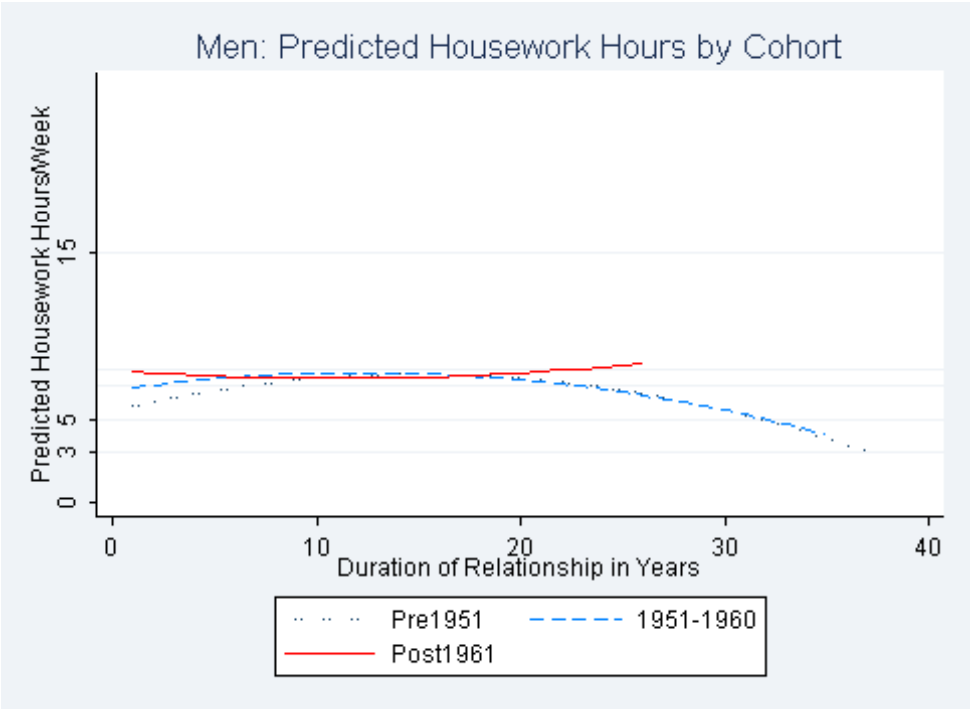


Figure 2.


Men: Predicted Housework Hours by Cohort
Predicted Housework Hours/Week
0
3
5
15
0
10
20
30
40
Duration of Relationship in Years
Pre1951
1951-1960
Post1961