

Hiromi Ono and James Raymo

**Housework, Market Work, and “Doing Gender”  
When Marital Satisfaction Declines**

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## **Housework, Market Work, and “Doing Gender” When Marital Satisfaction Declines**

Hiromi Ono  
Institute for Social Research  
University of Michigan

James M. Raymo  
Department of Sociology  
University of Wisconsin

Direct correspondence to Hiromi Ono, Institute for Social Research, 426 Thompson St., University of Michigan, Ann Arbor, MI 48106, e-mail: hono@isr.umich.edu, phone: (734) 936-0099 and fax: (734) 936-3809. An earlier version of this paper was presented at the Population Association of America, 2002, Atlanta, GA. Research was supported by funds from the United States-Japan Foundation and the Abe Fellowship administered by the Social Science Research Council. We thank the anonymous reviewers, Debby Carr, N.E. Barr, Myra Marx Ferree, Akiko Nagai, and Pam Smock for their helpful input.

## **Abstract**

When faced with a decline in marital satisfaction, are wives constrained from increasing their labor market work time in part because they “do gender”? One of the predictions of the human capital accumulation hypothesis, which assumes no constraints, is that housewives with little work experience will respond to a decline in marital satisfaction by increasing labor market work time (only). In contrast, the gender display hypothesis predicts that, in settings where the evaluations of marriage and wives’ work performance are closely intertwined, a decline in marital satisfaction among this group of housewives will increase both labor market work and housework—and the increase in housework serves as a constraint on the increase in labor market work. To evaluate these contrasting hypotheses, we analyze a panel survey of women in contemporary Japan. Results from multinomial logit regression models are more consistent with the gender display hypothesis than the human capital accumulation hypothesis. Housewives with relatively little work experience are eleven times more likely to increase the time spent on both labor market work and housework when the satisfaction of their marriage declines than when it does not. No evidence is found that, when marital satisfaction declines, these housewives are statistically significantly more likely to increase labor market work only.

## Housework, Market Work, and “Doing Gender” When Marital Satisfaction Declines

Marriage is often viewed as an institution that improves women’s economic well-being by giving them access to men’s economic resources (e.g., Tyree and Treas 1974; Waite 1995). Some family scholars note, however, that marriage also compromises women’s economic well-being by discouraging paid work while encouraging unpaid work among women (e.g., Gupta 1999; Hoschild and Machung 1989). These scholars argue that marriage contains normative expectations about work appropriate for a husband or a wife. These expectations contribute to a gender asymmetric allocation of work in which husbands spend most of their work hours on labor market work while wives spend most of their time on housework. They are thought to severely disadvantage women’s economic position in the event of marital dissolution (e.g., Duncan and Hoffman 1985; Peterson 1996; Smock, Manning and Gupta 1999; Weitzman 1985).

This presumed linkage between the normative expectations in marriage and the negative economic consequences of divorce for women has been the subject of very little scrutiny or explication. Researchers have not investigated the mechanisms underlying these consequences, even though they have measured the extent of the consequences (e.g., Peterson 1996; Smock et al. 1999). On a theoretical level, there are reasons to question the assumed linkage. Neoclassical economic theorization, for example, implies that economically vulnerable wives who anticipated a divorce would devote more time to labor market work and would be able to do so in an unconstrained manner. Working within this neoclassical economic framework, Johnson and Skinner (1986) provide the only previous empirical study to examine the effect of the foreseen risk of divorce on married women’s allocation of time to labor market work. They hypothesize that the foreseen risk increases labor market work hours among wives who are relatively economically vulnerable (i.e., housewives) but not among wives who are already accumulating human capital (i.e., working wives). We modify their hypothesis to develop the baseline perspective in the current study--the *human capital accumulation hypothesis* (See next section for Background).<sup>1</sup> The hypothesis posits that a decline in marital satisfaction will: a) induce housewives with little work experience to increase the time allocated to labor market work--but not the time they devote to housework; and b) have no major effect on the time allocation of working wives, who are already accumulating human capital.

At the empirical level, however, the substantial negative economic consequences of divorce for women in a variety of industrialized countries (Burkhauser, Duncan and Hauser 1991; Cornell 1990) raise questions about the neoclassical economic assumption that wives have few structural constraints on their capacity to increase labor market work hours. In this paper, we develop an alternative theoretical perspective that could help explain the disjuncture between neoclassical economic theory and the empirical observation in at least a subset of settings. This alternative view integrates two perspectives: the institutional perspective of status attainment, which emphasizes structural constraints over women’s human capital accumulation (e.g., Mincer and Polachek 1974; Treiman and Hartmann 1981; Spilerman and Petersen 1999; see Coltrane 2000) and theories of “doing gender” or “displaying gender” (Berk 1985; Brines 1994; West and Zimmerman 1987; West and Fenstermaker 1995).

Specifically, the view is that wives’ behavioral conformity to normative expectations regarding activities appropriate to wives (i.e., doing or displaying gender) place constraints on the extent that wives increase labor market work time when they anticipate a divorce.<sup>2</sup> These gender appropriate work

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<sup>1</sup> Specifically, rather than measuring the propensity to divorce with estimates of future divorce probabilities derived from simultaneous equations and identifying assumption, we measure it with wives’ self-reported level of marital satisfaction. This modification relies on Booth, Johnson and Edwards’s (1983) view that marital satisfaction is an index of “propensity to dissolve an existing marriage” (p. 388) and a “qualitative evaluation of an intact marriage” (p. 387).

Modification also involves referring back to Becker (1981), the theoretical foundation of Johnson and Skinner’s analysis, to make predictions about changes in housework time.

<sup>2</sup> There are other constraints on wives’ capacity to increase labor market work that are present in the labor market,

activities include housework but typically exclude labor market work (Brines 1994), and hence serve as constraints. According to Brines (1994), spouses compensate for work activities that are inconsistent with normative expectations in one aspect of their lives by “doing gender” in another aspect of their lives. Brines’ argument implies that wives may compensate for the negative evaluation by displaying gender when a decline in marital satisfaction reflects poorly on wives’ overall work performance. Settings to which the process is applicable would be defined ideologically and institutionally. Fragmentary findings in previous studies suggest that how wives display gender differs by their labor market positions, hence predicted outcomes of declining marital satisfaction vary by wives’ labor market positions. The resulting *gender display hypothesis* (articulated more fully in the Background section) suggests that, in settings where marital dissatisfaction reflects poorly on wives’ work performance, a decline in marital satisfaction should: a) increase the likelihood that economically vulnerable housewives (i.e., those with little work experience) should allocate more time to *both* labor market work and housework;<sup>3</sup> and b) reduce the likelihood that working wives allocate more time to labor market work.

To empirically test the gender display hypothesis as an alternative to the human capital accumulation hypothesis, we investigate the influence of marital satisfaction decline on the subsequent chances that married women in Japan allocate more time to market work and/or to housework, conditional on their labor market position. We broaden the investigative scope relative to previous studies by simultaneously analyzing both changes in labor market work and housework time. In doing so, we assess the salience of “doing gender” in response to the perceived possibility of divorce in marriage as one form of institutionalized constraint on wives’ efforts to increase labor market work. Japanese wives provide an ideal opportunity to test the hypotheses; previous studies report that, due to the historical-political background of the country, they are expected to produce and sustain satisfactory marital life (Barlow 2001; Cornell 1989, 1990; see section titled *Contemporary Japan as an Analytical Setting* for additional reasons). Our analyses are based on data from the first four waves of the Japanese Panel Survey of Consumer Life, a longitudinal survey of Japanese women.

This analysis extends current knowledge of the potential link between gendered normative expectations in marriage and the negative economic consequences of divorce. Evidence supportive of the human capital accumulation hypothesis would suggest that gender display is unlikely to tie normative expectations in marriage to the negative economic consequences of divorce. Such evidence would suggest that sources of wives’ notable economic disadvantage after divorce may not be located in marriage. However, evidence supportive of the gender display hypothesis in Japan would link conformity to normative expectations in marriage to the negative economic consequences of divorce in at least one industrialized country. It would imply that the extent to which wives could economically prepare themselves is constrained by gender display in ideological and institutional settings similar to Japan.

## Background

### *Human Capital Accumulation Hypothesis*

From a neoclassical economic perspective, when expectation of divorce rises, economically vulnerable wives (i.e., housewives with little work experience) prepare themselves for a possible divorce by accumulating human capital through the increased allocation of time to labor market work (Greene and Quester 1982; Johnson and Skinner 1985). This is a “rational” response to the expected need to earn labor income sufficient for independent living (Brines 1994). Proponents of this view (e.g., Becker 1981;

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such as labor market discrimination against women of any marital status (e.g., Treiman and Hartmann 1981). Because the purpose of this study is to assess the view that marriage insures women’s economic well-being, we focus on constraints that are located in marriage rather than those located outside of marriage.

<sup>3</sup> An increase in housework time creates constraints on the capacity to increase labor market work time by limiting the time available to do so. The Japanese data used in the current analysis, for example, indicated a negative correlation between the change in housework time and the change in labor market work time between waves.

Greene and Quester 1982) argue that, by contributing housework, wives in a stable marriage make investments in the marriage to produce marital-specific capital. However, wives in failing marriages are likely to invest their efforts in alternatives to marriage (by doing more market work) rather than in the marriage itself (by doing more housework); “[t]he accumulation of marital-specific capital is, in turn, discouraged by the prospect of divorce because, by definition, such capital is less valuable after divorce” (Becker 1981, p. 224). Wives in this situation have less of an incentive to spend more time on marriage-specific investment activities that compete with their investment in human capital accumulation, such as housework.<sup>4</sup>

Implicit in this argument is the prediction that working wives will not respond (in a major way) to an increase in the expectation of divorce, as measured by a decline in marital satisfaction, by increasing their labor market work. These wives are already in the process of accumulating human capital through their current employment. This view, which assumes that part-time work is presumably sufficient to accumulate human capital at the stage of preparation for a possible divorce. So this prediction treats all working wives equivalently (e.g., Johnson and Skinner 1986).<sup>5</sup>

Empirical support for the human capital accumulation hypothesis is reported by Johnson and Skinner (1986). Using the Panel Study of Income Dynamics, they find that a perceived higher probability of divorce in the near future leads to an increase in labor market work hours among housewives, but is not statistically significantly related to labor market work hours among wives who already work. Additional, though fragmentary, findings of a correlation between divorce risks and wives’ longer hours of labor market work is reported by Greene and Quester (1982). In addition, Blair (1993) finds that perception of a possible divorce is correlated with an increased hours of labor market work among wives.

### ***Gender Display Hypothesis***

From an institutional perspective, structural constraints over wives’ efforts to increase labor market work arise partly from wives’ effort to conform to normative expectations regarding gender appropriate work activities. These expectations include: wives are to act as the primary housekeeper and the primary emotional and physical caregiver for family members; and wives are to be less committed to labor market work than their husbands (Allen, Goldscheider, and Ciambone 1999; Brines 1994; Hoschild and Machung 1989). Some researchers note that women’s activities conforming to these gendered norms partly reflect women’s effort to display gender—which is essential to the reproduction of the gendered social structure (Berk 1985; West and Fenstermaker 1995, p. 21), including the institution of marriage (Brines 1994).<sup>6</sup> Sanctions govern spouses who do not engage in activities consistent with expectations about appropriate behavior of husbands and wives (Berk 1985; Nock 1999). As a result, when facing situations in which their performance as a wife or a husband could be evaluated negatively, spouses display gender to manage the situation. West and Fenstermarker note that “[d]isplaying gender consists of managing such occasions so that, whatever the particulars, the outcome is seen and seeable in context as gender-appropriate or, as the case may be, gender-inappropriate, that is, accountable” (West and Zimmerman, 1987, p. 135).

Gender could be displayed with housework (Bittman, England, Folbre, Sayer, and Matheson 2003) but might also be displayed with labor market work, emotional work, or power dynamics (Hoschild 1983; Hoschild and Machung 1989). Of these various means of display, conformity to expectations about spousal physical work—namely husbands acting as the primary breadwinner and wives acting as the

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<sup>4</sup> A discussion on “skilled housewives,” who are not central to the hypotheses tested, is located at the end of the next subsection.

<sup>5</sup> Once divorced, however, ex-wives with part-time jobs may increase to full-time status to attain sufficient income for independent living.

<sup>6</sup> Gender display, according to Goffman (1976, p. 69), is a “conventionalized portrayal” of “culturally established correlates of sex (whether in consequence of biology or learning).” The production of gender through gender display affirms one’s membership in the dichotomized sex categories, such as “boy” and “girl”, “men” and “women”, or “husband” and “wife.”

primary housekeepers--has received the most attention (e.g., Berk 1985; Brines 1994). Brines (1994) argues that, when spouses do not conform to this expected work pattern, they “are likely to compensate by adopting gender traditional behaviors elsewhere in the marriage” (Brines 1994, p. 664). She finds, for example, that in marriages where the wife is the primary breadwinner and the husband is economically dependent on the wife, husbands tend to engage in compensatory gender display by suppressing the amount of housework they contribute (Brines 1994).

Does a decline in marital satisfaction produce a situation in which wives’ work is negatively evaluated against normative expectations? Brines’s (1994) argument (see above) implies that, if it does, wives are expected to engage in compensatory gender display in this situation. For marital dissatisfaction to be interpreted as inadequate work performance of wives, blame for the possibility of divorce needs to be assigned to the activities normatively expected of wives. A variety of combination of conditions could produce this situation, but one possibility is when: a) divorce implies fault of one of the spouses (and hence blame for marital failure is sought in a spouse); and b) a high degree of gender stratification coexists with normative expectations that clearly distinguish husbands from wives in terms of their work activities (and hence the blame is placed on wives’ work performance).<sup>7</sup>

How wives engage in compensatory gender display with work activities (in the situation described above or otherwise) is likely to differ by their labor market position. Fragmentary evidence in the literature suggests that wives who most conform to traditional gendered norms (e.g., housewives with limited labor market work experience) tend to display gender with housework in general. The classic case in Hochschild and Machung’s (1987, p. 85) study of dual earner couples demonstrates that housework is used to display gender among couples that are characterized as “traditional.” The way in which “traditional” wives display gender implies a prediction contrary to that based on the human capital accumulation hypothesis. Specifically, housewives with limited work experience who increase labor market work when marital satisfaction declines would do so by also increasing housework. Such efforts to display gender in the face of a potential divorce would presumably limit the time available to prepare for independent living by building human capital in the labor market.

Compared to housewives, working wives may have time constraints that make displaying gender with housework less of an option or make it less desirable. Fragmentary statistics suggest that, compared to housewives, working wives spend a smaller portion of their week doing housework. Bianchi, Milkie and Sayer (2000) estimate that wives on average spent about 20 hours per week on housework (excluding child care) in 1995, with part-time working wives averaging about 8.5 fewer hours per week and full-time working wives averaging about 13 fewer hours per week than full-time housewives. The substantially smaller amount of time devoted to housework among working wives is partly a product of the limited time available to do housework. Watanabe (2002) shows that the majority of employed women in industrialized countries work full time (i.e., 40-plus hours per week). It may also reflect dual-earner couples’ efforts to avoid conflict over the division of household labor by using strategies such as outsourcing housework and eating out (Becker and Moen 1999; Hochschild and Machung 1987). In either case, the reduced time spent on housework may make housework less central to the lives of working wives and thus influence the way they display gender.

Working wives may be more likely to display gender by manipulating labor market work rather than housework. Previous studies suggest two means of displaying gender with labor market work among dual earner couples: a) suppressing labor market work commitment beyond the current commitment; and b) reducing labor market work commitment below the current level. Becker and Moen’s (1998) ethnographic study of dual-earner couples finds that wives are far more likely than husbands to leave

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<sup>7</sup> Hoschild (1983) argues that gender stratification places blame on women more than men. She observes this pattern among men and women who work as a team of flight attendants and argues that men have “protective shields” against blame that women do not.

In relatively gender egalitarian settings, such as the U.S., the decline in marital satisfaction may be mapped onto perceived unfairness in the division of labor (Lavee and Katz 2002) rather than perceived inadequacy of wives’ work performance.

work at a “reasonable hour” in order to meet family demands. They find that these limits set on work time are far more commonly observed among wives than among husbands. Sanchez and Thomson’s (1997) analysis of data from the National Survey of Families and Households shows that, controlling for wives’ economic dependency level, parenthood reduces wives’ labor market work hours, but has no major effect on husbands’ labor market work hours.

However, of the two ways that working wives could display gender through their labor market commitment, reducing hours is less likely to be an effective strategy when marital satisfaction declines for two reasons. First, in order to reduce work hours without jeopardizing their job, wives would need to have a flexible job. But, job flexibility is not common, and continues to be a challenge for women workers in many industrialized countries, including Japan (e.g., Gender Equity Bureau 2002). Second, even if working wives have a flexible job, they would be disadvantaged in the event of a divorce if they substantially reduced their work hours. Reduction in labor market work time may be a viable strategy in response to other changes in life, but is not likely to be as viable when the perceived risk of divorce is increasing. Therefore, we predict that working wives who report a decrease in marital satisfaction are likely to display gender by maintaining rather than reducing their labor market work time. That is, we predict that a decline in marital satisfaction will decrease the likelihood that working women will allocate more time to labor market work.

Table 1 summarizes the predicted influence of marital satisfaction decline on wives’ labor market work time (with or without an increase in housework time) based on the human capital accumulation hypothesis (column 2) and the gender display hypothesis (column 3). For each hypothesis, expected responses to declining marital satisfaction are presented separately for full-time housewives with relatively little work experience (row 2) and for wives with either part-time or full-time jobs (row 3).

This table highlights two major differences between predictions from the human capital accumulation hypothesis and the gender display hypothesis. First, according to the human capital accumulation hypothesis, a decline in marital satisfaction should increase the likelihood that housewives with little work experience allocate more time to market work *only*. In contrast, the gender display hypothesis posits that a decline in marital satisfaction should increase the chance that these wives do more market work *and* more housework in settings where marital dissatisfaction reflects poorly on wives’ performance. Second, the human capital accumulation hypothesis posits very little, if any, work response to a decline in marital satisfaction among working wives. However, the gender display hypothesis predicts that a decline in marital satisfaction will make employed wives less likely to increase labor market work in settings where marital dissatisfaction reflects poorly on wives’ performance.

We have not included in Table 1 any predicted responses for full-time housewives with substantial work experience. Virtually nothing is known about activities of “skilled housewives” in the literature, making *a-priori* prediction difficult. We suspect, however, that this is a heterogeneous and select group, possibly in ways that weaken the influence of marital satisfaction decline. This group is likely comprised of: a) wives who prefer to work but have lost their jobs; and b) wives who previously worked out of necessity but can now afford their preferred status as full-time housewives. The former are likely to increase their work hours regardless of a decline in marital satisfaction. Because skilled housewives have less need to “prepare” due to their accumulated work experience, the latter are likely to respond to marital satisfaction decline in ways similar to housewives with little work experience (albeit to a much lesser extent). In both cases, the effect of marital satisfaction decline should be minor.

### ***Contemporary Japan as an Analytical Setting***

Contemporary Japan, relative to contemporary U.S. (or other industrialized countries where appropriate data are available), has several advantageous qualities for this analysis. First, previous studies suggest that, due to the country’s historical-political background, Japanese wives are negatively evaluated when their marriage is negatively evaluated (i.e., when marital satisfaction level is low). Theoretically, wives will display gender with work when marital satisfaction declines in settings where such dissatisfaction is interpreted as inadequacy in wives’ work. Second, Japanese husbands and wives tend to

have more distinct work patterns than their counterparts in other industrialized countries, even though there are ample employment opportunities for married women. A setting with a higher degree of differentiation between husband's and wife's work than the U.S. is desirable because gender display is more likely to be detectable through work patterns there than in a setting where little work differentiation exists. Evidence of gender display has been ambiguous among American marriages (see Bittman et al. 2003; Brines 1994; Greenstein 2000). The hypotheses would be tested most appropriately in settings where gender display is highly likely to be present. Third, despite these distinct work patterns, Japan has ample employment opportunities for married women. This allows Japanese housewives the option of responding to marital satisfaction decline by increasing their labor market work. Finally, demographic conditions of Japan reduce issues arising from selection and censoring, as elaborated further toward the end of this section.

Cornell (1989, 1990) suggests that, in Japan, wives are negatively evaluated (by themselves and by others) for their performance as a wife when marital dissatisfaction surfaces. As part of her description of the social sanctions against divorced women in contemporary Japan, she notes that "...it is the wife who is considered primarily responsible for the quality of domestic relationship" and that the failure of a marital relationship is "treated as her failure" (Cornell 1989 p. 462). She also notes that divorced women in Japan are viewed with suspicion by their neighbors (Cornell 1990). Wives' expected role as the bearer of marital success has historical roots and is summarized in the saying "good wife, wise mother" (*ryosai kenbo*) that appeared in the Meiji era (1868-1912). Wives were expected to devote themselves to serve domestic activities so that husbands could be effective in their labor market work (*naijo no ko*). The expectation was translated into public policy by the Meiji government in 1898, and later became the concept guiding the development of educational curriculum for women. Some scholars argue that the policy was part of the strategy for rapid industrialization (Barlow 2001). Cornell's studies suggest that the expectations continue to be a standard by which femininity is evaluated among wives in contemporary Japan.

Available evidence indicates that men's and women's work activities in Japan tends to be more distinct than those in other industrialized countries. Gender differentiation is observed in varying degrees in all industrialized countries (Bianchi, Casper and Peltola 1999), but is described as particularly notable in contemporary Japan (Inoue and Ehara 1995; Norris and Inglehart 2000). Compared to other industrialized countries with similar per capita income, such as the U.S., Japanese men work longer hours and do substantially less housework. In a recent study using time diaries from 1999 and 2000 (Juster, Ono and Stafford 2003), Japanese men reported 5 hours of housework per week in contrast to American men who reported 20 hours of housework per week. Japanese men worked in the labor market about 48 hours, where as American men reported 39 hours of labor market work per week.

The Japanese labor market currently provides sufficient opportunities for wives to increase their market work hours. Supporting one of the largest economies in the world, the contemporary Japanese labor market affords married women a range of opportunities (Iguchi 1998; Ministry of Public Management 1997), though not as attractive as those available to men (Inoue and Ehara 1995). In some respect, government policies are more supportive of women's work than in the U.S. today (Kammerman 2002; Thode, Esche and Gramke 2001)—for example, as of the late 1990s, parental leave policy is more generous in Japan than in the U.S.<sup>8</sup>

Japan also has two demographic advantages. First, Japan's crude marriage rate is higher than in countries with similar divorce rates (Ministry of Health, Labor and Welfare 2001), which reduces selection bias in the analysis. That is, a study of Japan is less likely to be influenced by the fact that only particular types of women enter marriage. Among women age 45-49, the percentage ever married is 95.4 in Japan (United Nations 2000), a rate higher than in many Western and Northern European countries and

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<sup>8</sup> However, labor force participation rates among Japanese wives are similar to those of American wives in the early 1970s (about 40 percent) and are substantially lower than those of American wives in the 1990s (Gender Equity Bureau 1998; Cornell Career Institute 1999).

in the U.S.<sup>9</sup> Second, because the crude divorce rate in Japan is roughly one-third of that in the U.S. (see Ministry of Health, Labor and Welfare 2003a), work responses to declining marital satisfaction are less likely to be censored by divorce. Comparative evidence suggests that, possibly as a result of the lower divorce rates, stated levels of marital satisfaction are lower in Japan than in the U.S. (Westley 1998). At the same time, however, divorce rates in Japan are high enough to assume that divorce is a realistic possibility for couples in low-satisfaction marriages. The Japanese probabilities of divorce were slightly below a fifth of the U.S. probabilities when averaged over the first 20 years of marriage.<sup>10</sup>

## Data and Methods

### Sample

To evaluate the hypotheses in Table 1, we use data from the first four waves of the Japanese Panel Study of Consumers (JPSC). The JPSC is an annual survey of a nationally representative sample of 1,500 women who were 24-34 years old when first interviewed in 1993 (Institute for Household Economy 1995). Because they contain longitudinal information on self-reported time use (at each wave) and marital satisfaction (at waves 2 and 3), the JPSC data are well suited to our purpose.<sup>11</sup> We first restricted our sample to the 904 respondents who were in their first marriage and responded to the question on marital satisfaction at wave 2. Of these respondents, 97 were excluded because they were either lost to non-response at waves 3 and 4, had missing time use data, or divorced by wave 3. Our analytic sample thus consists of the 807 married women observed at each of the first four waves of the survey.

### Variables

The three central variables in our analysis are change in marital satisfaction, change in wives' allocation of time to labor market work and housework, and wives' "baseline" labor market position. In an attempt to limit problems with reverse causality (Rogers 1999; Spitze 1988), we exploit the time ordering available in the longitudinal JPSC data by measuring change in marital satisfaction as the difference between reported marital satisfaction in waves 2 and 3. We measure the *response* to this change as the difference between reported time allocation at waves 3 and 4. Wives' labor market position is measured at wave 3.

Our dependent variable is a categorical measure of *change in time allocated to labor market work and housework between waves 3 and 4*. Information on time use in the JPSC was collected in a stylized format rather than in time diary format. More specifically, respondents were asked to indicate the amount of time spent per day on six activities: commuting, labor market work, study, housework/child care, leisure, and other. One question was asked about time use on a typical weekday and another about a typical weekend day. For each day, respondents were asked to report a total time of 24 hours. The fact that this stylized method is known to provide biased estimates of time use especially for housework hours (e.g., Bianchi, Milkie, and Sayer 2000) poses little problem for our analyses. This study focuses on

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<sup>9</sup> However, Japanese age at marriage tends to be later than that of industrialized countries with similar rates of marriage. For example, in 2000 in Japan, age at first marriage for men was 28.8 and that for women was 27.0 (Ministry of Health, Labor and Welfare 2003b), about two years older than the American averages (Fields and Casper 2001).

<sup>10</sup> We used the 2000-01 rounds of the Japanese General Social Survey and the U.S. Panel Study of Income Dynamics to obtain comparable annual probabilities of divorce conditional to the marriage surviving to the beginning of the year for couples who first married between 1975-1990.

Iwai (2000) reports that wives are more likely to first raise the discussion of divorce than husbands, but her data from 1978 are probably somewhat outdated. She also reports that, in 1994, about 75% of children's custody was given to the mother, and 25% to the father. Joint custody is rare. She notes that almost all divorce in contemporary Japan is done through mutual consent between the spouses. Only about 10% of the divorce cases reach the courts.

<sup>11</sup> Although data on marital satisfaction are also available in waves 5 and 6, we focus on data from the earlier waves to limit potential biases that could result from increasing attrition at later waves.

between-wave changes in the time spent on market work and housework rather than the absolute time spent on each activity. A recent assessment indicates that time use values obtained from the stylized method capture shifts over longitudinal time as well as, if not better than, time diaries (Juster, Ono and Stafford 2003).

Rather than adding and multiplying responses to approximate weekly time use values, we calculate between-wave changes in labor market work and housework time from a single question (i.e., either weekend or weekday). Combining multiple stylized measures, each with statistical biases of their own, may compromise the strength of the stylized method in measuring intertemporal shifts. Our approach is facilitated by the fact that almost all between-wave changes in housework time are observed on a typical weekend day, while almost of all between-wave changes in labor market work time are observed on a typical weekday. In other words, we are able to parsimoniously capture information on change in work time allocation over the two reported days by using one measure each for labor market work and housework. We report results from this parsimonious approach while noting that the conclusions of this study do not depend on whether or not information from the other day is used.

We construct the dependent variable from the time use data in a three step process. We first generate continuous measures of change in time spent on housework and labor market work by subtracting reported time use values at wave 3 from the corresponding measures at wave 4. Change in labor market work time is measured from the weekday account, and change in housework time is measured from the weekend day account. Next, we collapse these continuous measures into the following three categories: “increase between waves,” “decrease between waves” and “no change between waves.” Table 2 presents the 3 x 3 cross-classification of these categorical measures of change. Roughly one quarter of the cases are in cells representing an increase in housework time only (cell 1,2) or a decrease in housework time only (cell 3,2).<sup>12</sup> This pattern presumably reflects the greater rigidity in labor market work hours relative to housework hours. In the third step, we collapse the nine cells of this cross-classification into a smaller number of categories that reflect the responses of central theoretical interest while also ensuring adequate sample size for each possible outcome. Because relatively few respondents increased labor market work time without changing housework time (cell 2,1), we combine these wives with those who increased labor market work time while decreasing housework time (cell 3,1). We label this group “increase in labor market work time only.” For the sake of symmetry, we also combine those who increased housework time while not changing labor market work time (cell 1,2) with those who increased time allocated to housework while decreasing time allocated to labor market work (cell 1,3). This group is labeled “increase in housework time only.” The remaining three cells containing those respondents who did not increase either housework or labor market work time (cells 2,3, 3,2, and 3,3) are collapsed into a residual category labeled “increase in neither (labor market work time nor housework time but a decline in at least one).” This classification scheme produces the five mutually exclusive and exhaustive categories indicated in the right hand panel of Table 2: (1) Increase in market work only (category 1 in Table 1), (2) Increase in both market work and housework (category 2 in Table 1), (3) Increase in housework only, (4) Increase in neither market work nor housework (but a decrease in at least one), and (5) No change in market work or housework (reference category).<sup>13</sup> We test the two hypotheses by examining the relationship between decline in marital satisfaction and the likelihood of being in categories (1) and (2) relative to the likelihood of being in category (5). These comparisons are made conditional upon wives’ labor market position.

One of the challenges of this analysis is that the outcome is constructed from two continuous measures, one related to labor market work time and the other related to housework time. In creating categories to capture the patterns of variation in the two measures, we were concerned about what information might be lost by collapsing the level of between-wave increase in time. To assess this, we conducted analyses using more refined categories for the dependent variable. The very limited

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<sup>12</sup> The cell label is indicated by (row, column).

<sup>13</sup> The average increase in time allocation to both housework and labor market work is approximately 3 hours.

information gained through this effort is noted at the end of the results section. We also considered the use a continuous measure of change in labor market work hours as the dependent variable. However, we concluded that treating the change in labor market work time between waves as a ratio scale is not appropriate—for example, the difference of 2 between -1 and +1 (i.e., a decline versus an increase in time) is difficult to interpret.

The covariate of central interest is *decline in marital satisfaction*. The questionnaire asks the respondents how satisfied they are with their marital relationship on a single-item five-point scale: “very satisfied,” “somewhat satisfied,” “neither satisfied nor dissatisfied,” “somewhat dissatisfied,” and “not at all satisfied.” This variable is coded “1” if the wave 3 response indicates lower marital satisfaction than the wave 2 response, and “0” otherwise. This measure is based on a subjective report of wives’ marital satisfaction and may differ from measures based on husbands’ reports (Rhyne 1981), or measures relying on objective standards of a satisfying marriage (Gager and Sanchez 2003). For the purpose of this study, wives’ subjective evaluation is the most relevant. Wives presumably are more likely to act on their own evaluation of marriage rather than their husbands’ evaluation or some objective standard, both of which might go unobserved from her perspective unless discussions on the topic take place.

The hypotheses depicted in Table 1 suggest that wives’ labor market position will moderate the effect of a decline in marital satisfaction. We measure *wives’ labor market position* as a combination of employment status and the proportion of years (and months) worked since school completion—conceptually and empirically indexing wives’ labor market position with current and past work experience rather than education. Human capital is typically operationalized as levels of education or work experience, depending on the context. In the case of Japan, where education has little effect on occupational attainment after the first job (Ishida, Spilerman, and Su 1997), particularly for women (Brinton and Lee 2001), it is likely that work experience captures the extent of the current level of human capital better than educational level.

Employment status is a dichotomous measure indicating whether or not the respondent was employed at wave 3. The proportion of years worked since school completion is also dichotomized: those working more than 60% of the years since school are coded as having “substantial” work experiences and those working 60% or fewer of the years are classified as having “less substantial” work experience.<sup>14</sup> In preliminary analyses, we distinguished between part-time and full-time work among employed wives, but found no statistical differences in response patterns. Furthermore, because these initial analyses indicated that response to a decline in marital satisfaction among employed women did not differ by previous work experience, we collapsed all women employed at wave 3 into one category. Thus, the measure used in the analyses presented below has three categories: 0=employed, 1=not employed and worked 60% or less of the years since school completion, and 2=not employed and worked more than 60% of the years since school completion. The first category corresponds to the group in row 2 of Table 1 and the second category corresponds to the group in row 1 of Table 1.

In addition to decline in marital satisfaction and wives’ labor market position, we control for a number of other variables. These include four measures of resources available to wives (educational attainment, employment conditions in the local area, husband’s total income, and coresidence with parents), two measures of life course stage (marital duration and number of children), and two measures of initial conditions (marital satisfaction at wave 2, and housework time at wave 3).<sup>15</sup>

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<sup>14</sup> The rationale for using 60% as a threshold is empirical. Experimentation with a variety of cutpoints ranging between 50% and 75% indicated that small sample size became problematic when using cutoffs larger than 62% (i.e., few women in the sample had worked more than 62% of the years since completing school). Substantive conclusions were similar when using cutoffs between 50% and 61%, but cutoff points closer to the upper end of this range produced clearer results.

<sup>15</sup> Controlling for initial conditions enables us to observe how wives’ time allocation changes in response to a decline in marital satisfaction among wives who have the same levels of marital satisfaction and time allocation at the beginning of the interval in which change is observed. However, note that labor market work hours at wave 3 are not included in the regression models presented below. The variable was not statistically significant net of work

*Educational attainment* of wives is categorized into three levels: 0=high school or less, 1=technical/vocational school, and 2=junior college or university.<sup>16</sup> As just noted, we do not view educational attainment as a good proxy for human capital (and hence labor market opportunities) in the Japanese context for jobs subsequent to the first. Education may better be viewed as an index of efficiency (e.g., Becker 1981) with more educated wives able to accomplish more in a given period of time whether working in the labor market or in the home. Higher education may also reflect less “traditional” attitudes that reduce the likelihood of conforming to gendered norms. *Local employment conditions* are measured as the ratio of job openings to job seekers (excluding recent graduates) during a three month period in 1995. This variable was taken from published government statistics (Ministry of Health, Labor and Welfare 1996) and merged with the JPSC sample by matching on prefecture of current residence. It controls for structural constraints on wives’ opportunities for increasing time allocated to labor market work. Because job postings are now gender neutral by law, it was not possible to obtain this measure by sex. Nevertheless, the measure is included under the assumption that, if labor market opportunities are poor for men in a local area, they are likely to be at least as poor for women.

*Husband’s total income* includes wages and income from assets and other sources. This variable is measured at wave 3 in units of 10,000 yen (roughly \$60 based on the 1995 Purchasing Power Parity conversion factor) and transformed into a logarithmic scale.<sup>17</sup> Because this variable proxies the amount of economic resources that the wife would lose if the couple were to divorce. We expect that an increase in housework time is less likely (or smaller in magnitude) among women married to low earners. In preliminary analyses, we also included husband’s time spent on housework (as reported by the wife) as a measure of his gender-egalitarian behavior. However, this measure varied little across respondents, was not statistically significant, and caused multicollinearity problems with wife’s housework time. Hence, it was ultimately excluded from the regressions.

*Coresidence with parents* is a dichotomous indicator (0=coresiding, 1=not coresiding) reflecting the potential influence of third party intervention. The expected effect of such intervention is ambiguous. On one hand, provision of financial resources and childcare by coresident parents (typically the husband’s) may make wives less responsive to changes in marital satisfaction. On the other hand, parental monitoring of compliance to gendered norms may make wives who live with parents more responsive to a decline in marital satisfaction. It is also possible that parental provision of childcare facilitates women’s ability to increase labor market work hours.

Control for *marital duration* (measured in years) is motivated by evidence that longer marital duration is associated with lower levels of marital satisfaction in the U.S. (e.g., VanLaningham, Johnson and Amato 2001). Previous findings suggest that, due in part to lifecycle conditions and in part to physiological changes, marriages of longer duration are more likely to be rated as “lower satisfaction” than are marriages of shorter duration (e.g., Jasso 1985). *Number of coresiding children* (measured at wave 3) controls for potential child care commitments that may restrict women’s ability to respond to a decline in marital satisfaction by increasing their labor market work time. We also control for initial levels of *marital satisfaction* (as measured at wave 2) and *housework time* (as measured at wave 3). Because the number of respondents reporting extreme levels of marital satisfaction is small, we collapse this variable into three categories: “satisfied,” “neither satisfied nor dissatisfied” and “dissatisfied.”

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history and employment status, and it caused multicollinearity problems with wife’s labor market position at wave 4.

<sup>16</sup> High school dropout is uncommon in Japan. The 36 women in our sample who did not complete high school are included with high school graduates in the lowest category of educational attainment. Junior college and university educated women are combined due to lack of statistical difference in their behavior patterns regarding shift in work time.

<sup>17</sup> The Purchasing Power Parity (PPP) conversion method adjusts for differences in the amount of goods that could be “bought” with a dollar-equivalent currency across countries (See Ono 2003). Unlike exchange rate-adjusted income measures, the PPP adjusted income measures thus account for the fact that goods are more expensive in Japan than in the U.S.

Descriptive statistics of all variables are presented in Table 3. At wave 2, 62% of the wives in this sample were satisfied (i.e., responded “very satisfied” or “somewhat satisfied”) with their marriage but at wave 3 the number fell by almost a quarter to 47%. Slightly less than half of the wives were working at wave 3, a substantially lower figure than the labor force participation rates of roughly 70% observed among married women in the U.S. during the mid-1990s (Cohen and Bianchi 1999). Roughly 40% of the women in this sample were housewives (i.e., not working in the labor market at the time) with relatively little work experience (i.e., had worked less than 60% of the years since completing school). About half of the wives had a high school degree or less. Those with post-secondary education were more likely to have attended junior college or university than technical/vocational school. Local labor markets had, on average, roughly two job seekers for every listed job opening. Husband’s annual earnings averaged \$29,012 (when converted to 1995 U.S. dollars using the PPP conversion factor). The average woman in the sample had been married for 5.9 years and had 1.8 children.

We make a couple of notes about the relationship between marital satisfaction and divorce and the economic consequence of divorce in Japan. As is observed in the U.S. (Booth 1984), marital dissatisfaction is correlated with divorce in Japan. Although this linkage has not been examined by Japan scholars, it can be observed in statistics from the JPSC data. At waves containing information on marital satisfaction (waves 2, 3 and 5), only 38–40% of currently married women are dissatisfied with their spousal relationship (i.e., on a 5 point self-rated scale of marital satisfaction, marital satisfaction below the mid-point of “neither satisfied nor dissatisfied”). In contrast, 74% of the women who divorced between waves 3 and 6 (N=34) were dissatisfied with their marriage one or two years prior to the divorce.

Virtually nothing is known, empirically, about divorce and its economic consequences for women and children in Japan. This reflects both the relatively low prevalence of divorce and the paucity of longitudinal data necessary to evaluate the consequence of divorce. We use the limited data available in JPSC to obtain some information on this topic. The panel contains 36 women between the age of 25 and 34 who were in their first marriage at the baseline but become divorced between waves 1 and 6 of the panel. The total household income of these women in the year of divorce relative to that in the year prior to divorce is about half (48%), a larger drop in income than found in parallel estimates from the U.S. in the late 1960s and early 1970s (e.g., Duncan and Hoffman 1985; see Holden and Smock 1991). In the year after divorce, the relative total household income of divorced Japanese women bounces back to three-quarters (75%) of the value prior to divorce. The recovery in total household income level among these Japanese women is probably short-term, as it reflects income of other coresident family members (excluding children). When restricting total income to that of the wives, the relative total income drops substantially to 13% in the year of the divorce and 20% in the year after the divorce.

### ***Analytical strategy***

To examine the influence of marital satisfaction decline on increases in wives’ labor market work and housework time, we contrast two multinomial logistic regression models. In the first model, we estimate:

$$\log\left(\frac{P_{i,j}}{1 - P_{i,0}}\right) = \alpha + \beta(MSD_i) + \sum_{k=1}^2 \gamma_j(LMP_{i,k}) + \sum_{l=1}^{10} \omega_k X_{i,l} + e_i \quad (1)$$

where  $p_{i,j}$  is the probability that wife  $i$  is observed in outcome category  $j$  as opposed to the omitted outcome category (i.e., 0 = no change in either labor market work or housework time).  $MSD_i$  is decline in marital satisfaction,  $LMP_{i,k}$  is the  $k$ -th category of wives’ labor market position, and  $X_{i,l}$  is the  $l$ -th control variable, including dummy variables created from contrasts in categorical variables. This additive model allows us to assess whether a decline in marital satisfaction leads, on average, to an increase in time allocated to labor market work and/or housework.

In the second model, we evaluate hypotheses regarding the way in which wives' labor market position may moderate the effect of declining marital satisfaction by adding the interactive term  $MSD_i \times LMP_i$  to Model 1:

$$\log\left(\frac{P_{i,j}}{1 - P_{i,0}}\right) = \alpha + \beta(MSD_i) + \sum_{k=1}^2 \gamma_j(LMP_{i,k}) + \sum_{l=1}^{10} \omega_k X_{i,l} + \sum_{m=1}^2 \lambda_m(MSD_{i,m} \times LMP_{i,m}) + e_i \quad (2)$$

The hypotheses in Table 1 can be tested by estimating the effect of a decline in marital satisfaction for each category of wives' labor market position. Of particular interest are the outcomes of increasing labor market work only (category 1) and increasing both labor market work and housework (category 2). The effect of a decline in marital satisfaction specific to a category of wives' labor market position can be obtained from Model 2 by taking the partial derivative of the equation with respect to MSD. The effect of marital satisfaction decline is  $\beta$  for employed wives (the reference category),  $\beta + \lambda_1$  for housewives with little work experience, and  $\beta + \lambda_2$  for housewives with substantial work experience.

For ease of interpretation, we plot the predicted probabilities of being in categories 1 (more labor market work only) or 2 (more labor market work and more housework) for working wives and housewives with limited work experience using Model 2. These are the probabilities of "choosing" a particular outcome among the five outcomes in the dependent variable.

The human capital accumulation hypothesis would be supported if results indicate that housewives with relatively little work experience have a statistically significantly higher likelihood of increasing labor market work only (i.e., category 1) when their marital satisfaction declines. A statistically significant relationship should not be observed among working wives, however. The gender display hypothesis would be supported if results indicate that, in response to a decline in marital satisfaction: a) housewives with little work experience have a statistically significantly higher likelihood of increasing both labor market work and housework (i.e., category 2); and b) working wives have a statistically significantly lower likelihood of increasing labor market work, regardless of whether they increase housework (category 1 or 2).

## Results

Table 4 presents results from Models 1 and 2. Estimated coefficients represent the log-odds of a given response to a decline in marital satisfaction relative to the reference response of "no change in either labor market work or housework time." For each of the four possible outcomes, results of Models 1 and 2 are presented side by side.

Before discussing the results relevant to the hypotheses tested in this study, we first highlight the danger of superficially examining the effect of declining marital satisfaction. Results from the additive specification in Model 1 (columns 1,3,5, and 7) indicate that a decline in marital satisfaction has no influence on the likelihood that wives increase the time devoted to labor market work or housework. The coefficients for a decline in marital satisfaction (row 1) are positive but not statistically significant for any of the four outcomes. However, Model 2 shows that marital satisfaction decline does indeed influence the likelihood that wives allocate more time to labor market work and housework. When we allow the effect of declining marital satisfaction to vary by wives' labor market position (columns 2, 4, 6, and 8), the effect of a decline in marital satisfaction for working wives (i.e.,  $\beta$ ) is significantly negative for each of the four outcomes (-1.51, -1.48, -1.01, and -1.19, respectively). In contrast, the effect of decline in marital satisfaction is positive for each of the four outcomes in both groups of housewives. For housewives with more substantial work experience,  $\beta + \lambda_1$  equals 1.28, 1.47, 0.80, 1.14, and for housewives with less substantial work experience,  $\beta + \lambda_2$  equals 0.86, 2.39, 1.44, 1.43. The effect of declining marital satisfaction is thus visible only when observed conditional upon labor market position.

In Table 4, we have shaded Columns 2 and 4, which are the columns containing results of central interest--those related to the outcomes of increase in labor market work only (category 1) and increase in labor market work and housework (category 2) in Model 2. Determining whether  $\beta$  is significantly

different from zero (at the conventional level of  $p < 0.05$ ) allows us to determine whether working wives' response to a decline in marital satisfaction is consistent with the hypotheses depicted in Table 1. Determining whether the sums  $\beta + \lambda_1$  and  $\beta + \lambda_2$  are significantly different from zero allows us to assess support for the hypotheses among housewives.  $\beta$  is the first coefficient presented in columns 2 and 4. The interaction terms ( $\lambda_1$  and  $\lambda_2$ ) are the fourth and fifth coefficients from the top of these columns. Statistical significance and non-significance of the effect of a decline in marital satisfaction for the two categories of housewives (i.e.,  $\beta + \lambda_1$  and  $\beta + \lambda_2$ ) are denoted by [S] and [NS], respectively.

Results for housewives with little work experience (Columns 4 and 6) are consistent with predictions of the gender display hypothesis. The sum of  $\beta$  and  $\lambda_1$  in Column 4 (2.39) indicates that a decline in marital satisfaction increases the likelihood that economically vulnerable housewives spend more time doing both labor market work and housework (category 2). This effect is statistically significant, as indicated by the [S] in Column 4. The exponentiated value of  $\beta + \lambda_1$  indicates that housewives with relatively little work experience whose marital satisfaction declines are 11 times (i.e.,  $\exp(2.39) = 10.91$ ) more likely than otherwise similar women whose marital satisfaction does not decline to increase the time allocated to both market work and housework.<sup>18</sup>

Results for housewives with relatively little work experience are not consistent with the human capital accumulation hypothesis. Specifically, a decline in marital satisfaction does not result in a statistically significant increase in the chance that they do more labor market work only (category 1). The sum of  $\beta$  (-1.51) and  $\lambda_1$  (2.37) in column 2 is positive but is not statistically significant [NS].

Results for employed wives are also consistent with the gender display hypothesis but contrary to the human capital accumulation hypothesis (see first row of coefficients in Columns 2 and 4). The estimated coefficients for  $\beta$  in Columns 2 and 4 (i.e., -1.51 and -1.48, respectively) indicate that a decline in marital satisfaction suppresses the likelihood that employed wives do more labor market work. Exponentiating these coefficients indicates that a decline in marital satisfaction among working wives is associated with a 78% (i.e.,  $1 - \exp(-1.51) = .78$ ) lower likelihood of increasing labor market work time only and a 77% (i.e.,  $1 - \exp(-1.48) = .77$ ) lower likelihood of increasing both labor market work time and housework time.

To further ease interpretation, the contrasts reported as log-odds ratios in Table 2 are converted to probabilities. In Figures 1.A and 1.B, we plot the predicted probability of increasing labor market work only as well as the probability of increasing both labor market work time and housework time. These probabilities are plotted separately for wives who did and did not experience a decline in marital satisfaction. The probabilities for housewives with relatively little work experience (Figure 1.A) indicate that, although the probability of increasing both housework and labor market work, which is very small in the absence of a marital satisfaction decline (0.008), it is much larger when marital satisfaction declines (0.085).<sup>19</sup> Among the same group of housewives, the difference in the probability of doing only more labor market work for those who experience a decline in marital satisfaction (0.044) and those who do not (0.014) is relatively minor. Employed wives (Figure 1.B) have substantially higher probabilities of increasing both labor market work time only (0.191) and labor market work and housework time (0.129) when marital satisfaction does not decline than when it does (0.067 and 0.027, respectively).

Analyses were conducted to assess whether additional information could be obtained by disaggregating the levels of increase in labor market work or housework within each outcome categories of interest (i.e., increase in housework and labor market work and increase in labor market work only). We subdivided each of these two categories into: "increase in housework (or labor market work) was less than 2 hours per day" and "increase in housework (or labor market work) was 2+ hours per day."

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<sup>18</sup> As a note, when predicting the likelihood of an increase in housework time only (Column 6), the effect of a decline in marital satisfaction is also statistically significant. Housewives with little work experience whose marital satisfaction declines between waves 2 and 3 are four times (exponent of 1.44) more likely to do more housework only than otherwise similar women whose marital satisfaction does not decline.

<sup>19</sup> While a 9% probability may appear small, it is larger than the annual employment transition probabilities (2 to 4%) among youths who are out of the labor force in France and the United States (Abowd 2000).

Because each subcategory had few cases (approximately 30), estimates were unstable for the most part. Hence the results are viewed as only suggestive. The effect of a decline in marital satisfaction found among housewives with relatively little work experience was larger when the increase in labor market work was 2+ hours than that when the increase was less than two hours. These results may simply reflect that, when housewives with little work experience prepare themselves for a possible divorce, they typically increase their labor market work by more than a couple of hours per day.

## Summary and Discussion

We have investigated whether Japanese wives' capacity to increase their labor market work time is constrained by their theoretically expected effort to display gender in marriage when marital satisfaction declines. Overall, our two main results are more consistent with predictions from the gender display hypothesis than with those generated by the human capital accumulation hypothesis. First, we find that marital satisfaction decline increases the likelihood that Japanese housewives with relatively little labor market work experience increase both labor market work and housework. However, we do not find that marital satisfaction decline statistically significantly increases the likelihood that these women increase their labor market work only. These results suggest that, in some settings, when divorce is increasingly likely, housewives with little work experience respond to it by increasing both labor market work and the time they devote to the gendered activity of housework. The results are not consistent with the neoclassical economic argument that, regardless of the settings, when expectation of divorce rises, wives are discouraged from making marital-specific investments with housework (Becker 1981; Greene and Quester 1982). Second, we find that a decline in marital satisfaction suppresses the likelihood that employed wives allocate more time to labor market work. This result is also not consistent with the prediction based on the human capital accumulation hypothesis. It suggests that working wives respond to increased possibility of divorce by limiting the increase in their labor market work time.

Our results for both housewives with relatively little work experience and working wives are thus consistent with the hypotheses developed from the institutional perspective. They imply that when a negative evaluation of marriage is tied to a negative evaluation of wives' work, women's ability to allocate more time to labor market work in preparation for a possible divorce is constrained by gender display. That is, wives ability to prepare themselves economically for the possibility of divorce is constrained by forces that encourage them to produce gender at the same time. The constraints link the normative expectations in marriage to the negative economic consequence of divorce in such settings.

Another implication of our findings is that the limits that gender display places on wives' increased labor market work when divorce becomes increasingly possible should be considered when determining the overall merits of marriage in insuring women's economic well-being. This is of particular relevance in industrialized countries where divorce rates are high or increasing, and where the evaluation of wives' work depends on the production and maintenance of marital satisfaction (e.g., settings that combine a high degree of gendered role differentiation and fault orientation toward divorce). These are also settings where the negative economic consequences of divorce are expected to be relatively severe and of greatest policy relevance. If displaying gender actually ameliorates marital problems and prevents divorce, then it is a beneficial response to marital satisfaction decline. In reality, however, it is unlikely to resolve fundamental sources of marital strains in contemporary marriages, such as weak communication skills (e.g., Martin and Bumpass 1989) and the stress of raising teenage children (Waite and Lillard 1991).

The findings in this study raise several questions for future research. For example, to what extent are the conclusions drawn from Japan generalizable to other industrialized countries? Answering this question would require further elaboration of when the evaluation of marriage and the evaluation of wives' work performance are linked in an industrialized country. One of the advantages of studying Japan is the previously found link between the evaluation of marriage and the evaluation of wives' work performance (Cornell 1989; 1990). As a step toward further elaboration, a study might extend previous work on the stigma of divorce (e.g., Gerstel 1987) by assessing gender differences in how blame is assigned for failed marriages in a range of industrialized countries.

Our initial expectation is that the responses to the decline in marital satisfaction noted in this study are most applicable among industrialized countries that treat divorce as a spouse's fault (e.g., through divorce law), and have a relatively high degree of gendered division of labor. These countries include Spain and Italy (Glendon 1987; Phillips 1988), where roles of wives that are defined ideologically and institutionally (Infante 1999) appear similar to those in Japan. But would the same conclusions hold for more gender egalitarian countries than Japan, such as the U.S. (Ono 2003)? In the U.S., divorce is no longer fault based in all states (Nakonezny, Shull, and Rodgers 1995). When taking this into account with the more gender egalitarian setting of the U.S., our initial expectation is that reaching the same conclusion for the contemporary U.S. would be difficult. In the U.S., the no-fault divorce law suggests that blame of marital failure may be sought less frequently than in Japan. Also, the relatively gender egalitarian setting suggests that blame would be placed selectively on wives less frequently.

As an empirical check, we conducted a partially comparable analysis among American wives in their first marriage with the National Longitudinal Survey of Youth, 1979 (not shown). The NLSY79 has multiple waves of data and a measure of marital happiness, but does not have information on wives' and husbands' housework time. Thus, the analysis could not take into account changes in housework time. No single public use longitudinal data set in the U.S. contain the same set of measures as those in the JPSC. The PSID does not have any measure on marital satisfaction or marital happiness. The National Survey of Families and Household does not have more than two waves of data publicly available at this point--at least three waves of data are needed to replicate the analysis.

We applied multinomial logit regressions to test whether, with a decline in marital happiness (between 1992 and 1994), working wives had suppressed chances of increasing weekly labor market work time (between 1994 and 1996). We included as covariates: the decline in marital happiness; labor market position of wives in 1994; the interaction between decline in marital happiness and labor market position; and age, marital duration, education, husband's earnings, and number of children in 1994. Contrary to the Japanese case, we did not find that the likelihood of increasing labor market work time was statistically significantly lower among working wives who experienced a decline in marital happiness than working wives who did not. Any results from the U.S., however, need to be viewed with caution because it is prone to censoring biases caused by the exceptionally high divorce rates.

Another question that arises from this study is if Japanese wives stopped "doing gender" in response to a decline in marital satisfaction, how many additional hours would they allocate to labor market work? Answering this question would be of policy interest. However, specifying the number of additional work hours done by not displaying gender would require the specification of a fuller range of ways that gender is displayed when marital satisfaction declines. Specification of the direct and indirect ways that work time is constrained by wives' effort to display gender would also be necessary.

This study was motivated by the need to better understand how wives' behavioral conformity to normative expectations in marriage could be linked to the negative economic consequences of divorce among women in highly gendered industrialized countries. Data limitations precluded a parallel investigation of husbands' responses to a decline in marital satisfaction. Such analyses would further the understanding of constraints on increases in the time that husbands spend on unpaid work. For example, do sole breadwinner husbands also tend to "do gender" by reducing their commitment to housework (Brines 1994) or caregiving when faced with declining marital satisfaction? Do husbands in dual-earner couples adapt to the decline in marital satisfaction by limiting their labor market work time? If so, is the extent of these limitations substantially smaller than that of wives? Answering these questions would provide insights into processes underlying husbands' relatively low housework time (e.g., Bianchi et al. 2000) as well as their relatively strong post-divorce economic position (e.g., Duncan and Hoffman 1985).

In sum, our study suggests that, when the evaluation of marriage is closely tied to the evaluation of wives' work performance, gender display in response to declining marital satisfaction can limit wives' allocation of time to labor market work. Potential limits imposed by gender display in response to expectation of divorce should be taken into consideration when evaluating the economic benefits of marriage in some settings.

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TABLE 1

PREDICTED INFLUENCES OF A DECLINE IN MARITAL SATISFACTION, CLASSIFIED BY WIVES' LABOR MARKET POSITION AND ALTERNATIVE HYPOTHESES

<b>Wives' Labor Market Position</b> (Column 1)	<b>Human Capital Accumulation Hypothesis</b> (Column 2)	<b>Gendered Display Hypothesis</b> (Column 3)
Not working – little work experience	More likely to increase in LMW only (category 1)	More likely to increase in both LMW and HW (category 2)
Working	Little increase in LMW (or HW)	Less likely to increase LMW only (category 1); and less likely to increase both LMW and HW (category 2)

*Notes.* MQ=marital satisfaction, LMW=labor market work, HW=housework

TABLE 2  
 CROSSTABULATION OF CHANGE IN HOUSEWORK AND LABOR MARKET WORK AND CODING OF DEPENDENT  
 VARIABLE

							Coding of the Nine Cells to Obtain the			
							Dependent Variable			
Change in Labor Market Work Time between Waves							Increase	No Change	Decrease	
		Increase	No change	Decrease						
Change in Housework Time										
between Waves		%	N	%	N	%	N			
Increase		8.8	71	26.3	212	7.6	61	2	3	3
No change		2.1	17	8.1	65	2.1	17	1	4	5
Decrease		8.4	68	29.1	235	7.6	61	1	5	5

*Note:* Total N=807. Percentages add up to 100% among the nine cells.

TABLE 3  
 MEANS AND STANDARD DEVIATIONS OF THE VARIABLES EMPLOYED IN THE PRESENTED  
 REGRESSIONS: JPSC, 1994-1996

Variable	Means	Standard Deviation
<i>Work Response</i>		
Increase in labor market work only (category 1)	.12	.32
Increase in both (category 2)	.09	.28
Increase in housework only	.34	.47
A decline in either and no increase	.39	.49
No change	.08	.27
<i>Decline Status</i>		
Decline in marital satisfaction	.24	.47
<i>Labor Market Position</i>		
Wife's employment and employment history:		
Employed	.46	.50
Housewives, relatively little experience	.16	.37
Housewives, substantial experience	.38	.49
<i>Decline Status X Labor Market Position</i>		
Employed X Decline		
Decline X Housewives, relatively little experience	.05	.23
Decline X Housewives, substantial experience	.05	.22
<i>Controls</i>		
Wife's Education:		
High school graduate or less	.51	.50
Technical/vocational school	.19	.39
Junior college and university	.29	.46
Jobs per job seeker in prefecture	.56	.16
Husband's earnings at wave 3 in 10,000 yen (in Log)	490.32 (5.74)	266.65 (1.64)
Coresidence at wave 3	.38	.48
Marital duration at wave 3	5.87	3.50
Number of children at wave 3	1.82	.86

*(Table 3 continued)*

Marital dissatisfaction level at wave 2:		
Dissatisfied	.10	.30
Neither	.27	.44
Satisfied	.62	.48
Housework time at wave 3	8.46	3.87
<hr/>		
Total N	807	
<hr/>		



(Table 4 continued)

Technical/vocational school	.24 (.24)	.24 (.25)	.92 (.49)	.63 (.43)	.28 (.42)	.35 (.42)	.16 (.42)	.22 (.43)
Junior college and university	.28 (.47)	.28 (.48)	-.15 (.44)	-.20 (.45)	.15 (.32)	.13 (.33)	-.25 (.33)	-.29 (.33)
Jobs per job seeker in prefecture	.93 (1.05)	1.02 (1.06)	1.17 (1.12)	1.29 (1.13)	-.15 (.91)	-.07 (.92)	-.03 (.92)	-.04 (.93)
Log (husband's earnings) at wave 3	-.05 (.11)	-.06 (.11)	-.08 (.11)	-.11 (.11)	-.03 (.10)	-.04 (.10)	-.01 (.10)	-.02 (.10)
Coresidence at wave 3	-.57 (.36)	-.60 (.36)	-.99* (.38)	-1.10** (.40)	-.36 (.30)	-.38 (.30)	-.66* (.31)	-.69* (.31)
Marital duration at wave 3	-.02 (.06)	-.03 (.06)	-.11 (.07)	-.11 (.07)	-.11* (.05)	-.11* (.05)	.01 (.05)	.01 (.05)
Number of children at wave 3	.37 (.25)	.37 (.24)	.86*** (.26)	.89*** (.26)	.56** (.21)	.57** (.21)	.09 (.21)	.10 (.21)
Marital dissatisfaction level (at wave 2):								
Dissatisfied	1.02 (.68)	1.03 (.68)	-.23 (.40)	-.17 (.41)	.57 (.61)	.58 (.61)	.84 (.60)	.85 (.60)
Neither	-----	-----	-----	-----	-----	-----	-----	-----
Satisfied	.58 (.40)	.59 (.40)	-.29 (.79)	-.24 (.79)	.18 (.32)	.21 (.33)	.26 (.33)	.29 (.33)
Housework time at wave 3	.13* (.05)	.13* (.05)	-.09 (.06)	-.10 (.06)	-.11* (.04)	-.11* (.05)	.20*** (.04)	.20*** (.05)
Intercept	-.97 (1.15)	-.55 (1.18)	.89 (1.19)	1.62 (1.22)	2.45* (.98)	2.80** (1.01)	.41 (.99)	.82 (1.02)

Log Likelihood

Model 1=-1,002.91

Model 2=-994.44

\* p<0.05 \*\* p<0.01 \*\*\* p<0.001 (two-tailed test) N=807, LMW=labor market work, HW=housework

<sup>a</sup> Square brackets contain the significance [S] and non-significance [NS] of the t-test results from an alternative specification. In them, the particular effect for the group is specified a main effect by omitting that group instead of the group that is omitted in the specification reported here.

Figure 1.A. Probabilities of Increasing Only LMW and Both LMW with HW in a Year, Housewives with Relatively Little Work Experience

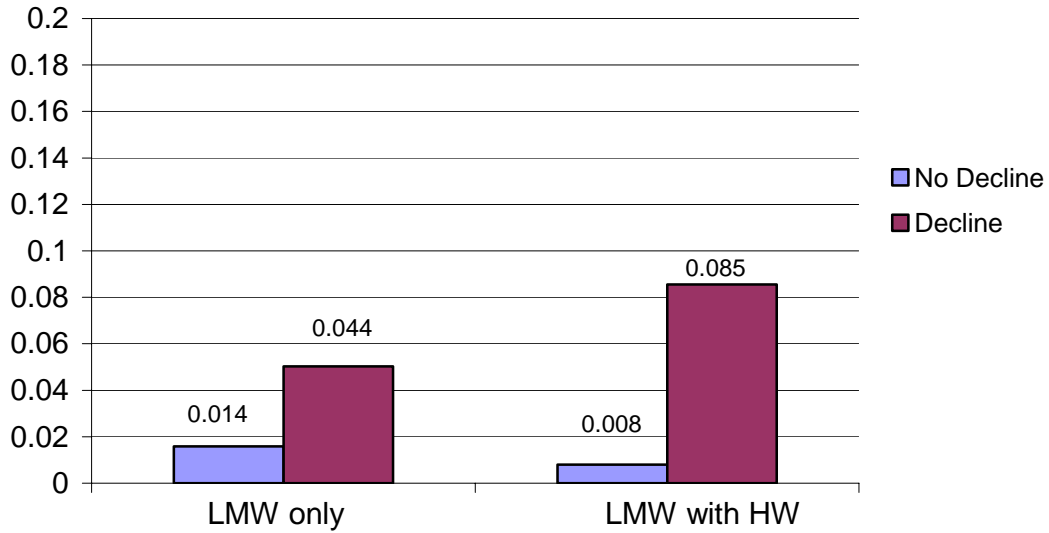
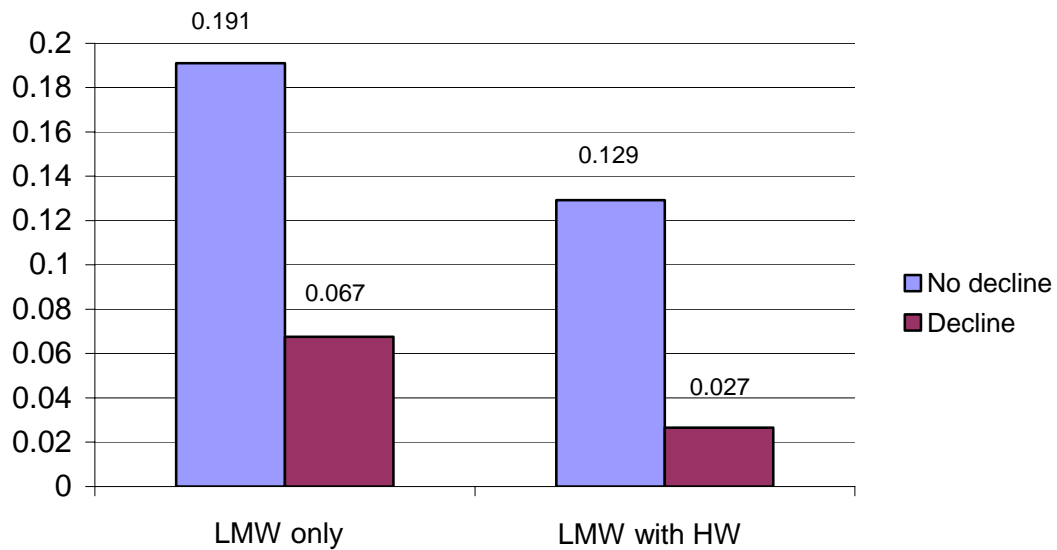


Figure 1.B. Probabilities of Increasing Only LMW and Both LMW with HW in a Year, Employed Wives



Notes: LMW: labor market work, HW=housework