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Gender, Employment, and Housework in Japan

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Abstract

This paper examines employment and housework among Japanese wives and husbands in midlife, using data from two recent national surveys on the family. My analyses found as follows. First, family factors such as the presence and age of children and coresidence with parents strongly affect wives' employment patterns but have little effect on husbands' employment. Second, although wives shoulder most of housework, spouses' combined workload becomes equal when employment and housework hours are considered jointly. However, wives' combined workload increases dramatically as their employment hours increases, indicating the "second shift" of unpaid housework for full-time employed wives. Third, couples' housework hours and husbands' share of housework are influenced by couples' employment hours and family situations such as the presence of children and coresidence with parents. Fourth, husbands' hours and share of housework are notably higher among younger and more highly educated wives and husbands in 2000 (but not in 1994), implying a possibility of future improvements in gender relations in the Japanese home.

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Economic and domestic activities are the two major spheres of adult lives in contemporary societies. Though conceptually distinct and often studied independently, these two spheres are interrelated, and changes in one sphere influence the other. Like many other industrialized countries, with the expansion of the market economy, paid employment of Japanese women outside the home increased dramatically after World War II (Shimada and Higuchi 1985). Unlike many other industrialized countries, however, these changes in wives' economic roles have not brought about notable changes in husbands' domestic roles. So far, it seems to be wives who have made the major accommodations, either by adding paid employment to their existing domestic responsibilities, or by reducing the time spent in housework and/or employment (Tsuya and Bumpass 1998, 2004b). Meanwhile, the time Japanese husbands spend on housework has remained extremely low and virtually unchanged during the last four decades (Tsuya 1992; Tsuya and Bumpass 1998; United Nations 1991).

A vast amount of literature exists with regard to the relationship between employment and housework, and to the allocation of household tasks especially in the U.S. (e.g., Bianchi et al. 2000; Coverman 1985; England and Farkas 1986; Farkas 1976; Goldsheider and Waite 1992; Presser 1994). The topics have been studied much less for Japan. Nonetheless, employment and gender relations at home have been paid an increasing attention by the mass media and by the Japanese public in the face of profound family changes such as increasing delay of marriage and non-marriage, very low fertility, and rapidly rising divorce rate in the recent decades (for an overview of these demographic trends, see Tsuya and Bumpass 2004a).

In this paper, recognizing that *joint household production* includes time spent in the labor market as well as in housework (Tsuya and Bumpass 2004b), I examine the patterns of and recent changes in the relationship between employment and housework among married women and men in their reproductive years in Japan, using data from two recent national surveys on the family conducted in 1994 and 2000, respectively. The period from the early 1990s to 2000 is an interesting time in the sense that in the early 1990s, though its bubble economy had burst a few years before, Japan still enjoyed a relatively solid economy with a low level of unemployment (less than 3 percent) (OECD 1994). By 2000 the prolonged economic slump has permeated the society and labor-market conditions deteriorated (OECD 2000), thus making family life increasingly more difficult.

Specifically, the paper first compares the patterns and factors of employment among currently married women and men aged 20-49 and their spouses. Because many of the major changes are those in gender roles associated with wives' employment, most of the analysis is focused on wives' employment. Next, the paper turns to the patterns

and factors of housework time and the gender division of labor at home. Here, I look at the time spent in household tasks by currently married men and women of reproductive ages and their spouses. Because joint household production includes both labor-market and family time allocation, I also examine the "combined workload" of wives and husbands that consists of employment and housework combined. Throughout the paper, I look at the effects of a range of family and socio-demographic factors thought important to employment and housework of married women and men in industrialized countries.

DATA AND MEASURES

Data

This study draws on the data from two recent national surveys on the family in Japan: the 2000 National Survey on Family and Economic Conditions (NSFEC), and the 1994 National Survey on Work and Family Life (NSWFL). Designed by a team of researchers including the author, the NSFEC was conducted in November 2000. The author was the survey director, and funding and logistic support was provided by the COE Project at Keio University, Tokyo and also by a Grant-in-Aid for Specially Promoted Research from the Japanese Ministry of Education, Culture, Sports, Science, and Technology. The NSFEC is a national two-stage stratified probability sample of Japanese men and women aged 20-49 of all marital statuses in 2000. Three hundred fifty locales were randomly selected based on the 2000 population census tract distribution. Then, 20 individuals aged 20-49 were randomly selected within each locale, using the population registers based on current domicile (called "*jumin kihon daicho*"). Because one of the major objectives of the survey was to collect information on the early life course, individuals aged 20-39 were selected at twice the rate of those aged 40-49. Information was collected through self-administered questionnaires that were distributed to selected individuals by field workers and then subsequently picked up. A total of 4,482 usable questionnaires was returned, a response rate of 64 percent. Intending to collect nationally representative information on family, work, and life course, the 2000 NSFEC was also designed to replicate several questions asked in the 1994 NSWFL.

Conducted in January-February 1994, the NSWFL is also a national two-stage stratified probability sample of Japanese women and men aged 20-59 (for more details of the survey, see Nihon Daigaku Sogo Kagaku Kenkyusho 1994). Similar to the case of the 2000 NSFEC, the author was a member of the research team who designed the survey questionnaire, and also was the survey director. Based on the 1990 census tract distribution, 175 locales were randomly selected. Twenty individuals aged 20-59 were then selected randomly within each locale, based on the registration of current domicile. Similar to the 2000 NSFEC and many other large-scale surveys conducted in Japan (Yamada and Shynodinos 1994), the NSWFL collected information through self-administered questionnaires that were distributed and later picked up by field workers. A total of 2,447 usable questionnaires was returned, representing a response rate of 70 percent.

Drawing data on these two national surveys, this study focuses on currently married women and men aged 20-49 and their spouses. The 2000 survey included 2,443 such couples consisting of currently married respondents aged 20-49 and their spouses; the corresponding number of couples for the 1994 survey is 1,242. Because a comparison showed that the age-sex-marital status distributions of the NSWFL data were similar to those of the 1990 population census, the 1994 survey data are used un-weighted. Because the younger individuals (at age 20-39) were selected at twice the rate of those aged 40-49, and also because of its relatively low response rate, sample weights were estimated for the 2000 NSFEC, adjusting different rates of responses by sex, age, and place of residence. The non-multivariate analyses based on the 2000 survey presented in this paper therefore use sample weights.

In both surveys, respondents were asked to provide proxy reports for their spouses on objective information, including the status, hours and schedules of spouses' employment, spouse' time spent on housework, and such basic socio-demographic as spouses' age and education. Based on these proxy reports (in addition to respondents' self reports on these variables), I constructed the data focused on married couples in which one of the spouses is at age 20-49. In multivariate analyses, gender of respondent is included to control for the effect of proxy reporting.

Dependent Variables

This study has two general dependent variables: employment and housework, each of which is approached from a multiple number of dimensions. In the analysis of employment, I look at three dimensions: (1) wives' employment status, (2) employment hours of both spouses, and (3) commuting time and the hour that working wives and husbands returned home from work. Employment status was measured by a dichotomous variable indicating whether a person was employed or not. Employment hours were measured by a continuous variable indicating usual hours spent per week on employment. Since the 2000 and 1994 surveys both measured employment hours by (identical) categorical variables, they are estimated by imputing the midpoint of each category. Exceptions were the category of 35-41 hours and that of 60 hours and more per week, for which the values of 39 and 66 hours were assigned respectively, based on data from the Japanese national wage structure surveys. As for commuting time, the two surveys collected information on the number of hours and minutes that respondents and their spouses usually spent to commute one way to the place of work. The hour returned home from work was measured by the usual time that employed respondents and their employed spouses arrived home from work.

The analysis of housework looks at three dimensions of household labor: (1) the number of hours spent on housework by wives and husbands, (2) the combined workload of both spouses, and (3) husbands' share of the total time spent by couples on housework. Both the NSFEC and NSWFL asked the amount of time spent per week on such household tasks traditionally gender-typed as female: cleaning house, doing laundry,

cooking, cleaning up after meals, and grocery shopping.[1] Time spent on housework was computed as the sum of hours spent per week on these traditionally female household tasks by each spouse (then top-coded at the 98th percentile to reduce the effect of extreme values on the analysis). Combined workload was measured by adding together the hours spent per week on housework and on employment. The relative share of husbands on housework was computed by dividing the husbands' housework hours by the combined housework hours of both spouses.

Independent and Control Variables

Providing that time is a finite resource, time availability, as conditioned by time spent on employment, affects the time allocated to household tasks. The NSFEC and NSWFL both measured employment hours per week of wives and husbands by identical categorical variables consisting of seven categories: zero (not working), 1-15 hours, 16-34 hours, 35-41 hours, 42-48 hours, 49-59 hours, and 60 hours or more. In the multivariate analyses, because a small percentage of wives work less than 15 hours or more than 48 hours per week, wives working 1-15 hours are combined with those working 15-34 hours, and wives whose weekly work hours fall into the two highest categories are also combined. Thus, when included in the multivariate analyses as a covariate, wives' employment hours consist of 3 categories: zero (not working), 1-34 hours per week (part-time), and 35 or more hours per week (full-time).

Owing to a relatively small number of husbands whose employment time is less than 35 hours per week, the first three categories are also grouped together to measure husbands' weekly employment hours. Thus, when used as a covariate in the multivariate analyses, husbands' employment hours consist of 5 categories: less than 35 hours per week, 35-41 hours, 42-48 hours, 49-59 hours, and 60 hours or more.

In addition to including employment hours of both spouses, this study looks at family factors that are thought to influence wives' employment and couple's housework time, including: (1) age of youngest child, and (2) coresidence with parents. Age of youngest child is coded into three categories: preschool age (age 0-6), school age (ages 7-17), and no child under age 18. Coresidence with parents is indexed by a dichotomous variable indicating whether or not couples live with at least one parent or parent-in-law. Though decreasing in recent decades, the proportion of married women and men aged 20-49 coresiding with at least one parent or parent-in-law is still sizable: 35 percent in 1994 and 31 percent in 2000.

[1] The measure of housework time employed by this study excludes time spent on childcare. The 1994 NSWFL collected information on time spent on childcare, but the 2000 NSFEC did not collect such information. Not only to achieve comparability of the analyses/results based on the two surveys, there are other reasons to exclude childcare time from the analyses of housework time. First, it is almost impossible to assign unique hours to the time spent on childcare, especially among mothers of small children, as they are likely to do other tasks while caring for their children. Second, it is difficult to separate the work dimension of childcare (e.g., feeding and bathing the child) from general oversight (i.e., simply keeping an eye out for needed intervention) or the leisure dimension (e.g., playing with the child). Third, time spent on childcare is likely to be short except for a small group of parents (mothers) caring for very young children.

Our analysis also controls for the effects of basic demographic and socioeconomic factors such as couples' education, wives' age, age difference between spouses, and husbands' income. Education of both spouses is measured by two identical categorical variables, consisting of four categories: less than high school, high school, some college or equivalent, and four-year college or higher. The category of "some college or equivalent" includes junior college, advanced professional school,[2] and post-high-school professional training school. As we will see later in the paper, educational attainment of married Japanese women and men at reproductive ages is relatively high and increased, albeit moderately, from 1994 to 2000. The proportion of wives under consideration who have higher education is 40 percent in 1994 and 47 percent in 2000, whereas the corresponding proportions of husbands are 43 percent and 47 percent, respectively.

Age of wives is measured by a categorical variable, consisting of less than 30, 30-34, 35-39, 40-44, and 45 or older. Because wives' age and husbands' age are strongly correlated (the correlation coefficient is 0.88 for both years), they cannot be included in a same multivariate model. This study uses wives' age in all the multivariate analyses in order to facilitate simpler and more straightforward interpretation of the results, and also because wives' age has fewer outliers (those with extreme values) than does husbands' age.

To capture the curvilinearity of the effect, age difference between spouses is indexed by a categorical variable consisting of five categories: husband is younger; spouses are at same age or husband is older by 1 year; husband is older by 2-3 years; husband is older by 4-5 years; and husband is older by 6 or more years.

Husbands' income is also indexed by a categorical variable measuring the yearly income of husbands in the year prior to the survey (i.e., 1993 for the 1994 survey data and 1999 for the 2000 survey data). The categories of husbands' income are: less than 2 million yen, 2-3.99 million yen, 4-5.99 million yen, 6-7.99 million yen, 8-9.99 million yen, and 10 million yen or more.[3] The multivariate analyses of couples' housework hours and husbands' share on housework include an additional control variable--sex of respondent--in order to control for the effect of proxy reporting.

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[2] Advanced professional school (*kōto-senmon-gakko* in Japanese) is equivalent to junior college in which students study for 5 years after completing junior high school, specializing mostly in various sub-fields of engineering. Advanced professional schools are all public, i.e., funded by the national or municipal governments.

[3] Wives' income is not included in the analysis primarily because it is highly correlated with their employment hours. Although the exchange rate between US dollar and Japanese yen fluctuates considerably, one US dollar was approximately 110 yen at the end of January to the beginning of February 1994, and was around 109 yen in November 2000. Based on these exchange rates, one million yen is equivalent to 9,091 to 9,174 US dollar.

DESCRIPTIVE ANALYSIS

Employment

(1) General Patterns

Table 1 presents the percentage distribution of the usual weekly employment hours of husbands and wives in Japan in 1994 and 2000. The right panel of the table shows that virtually all husbands are employed: around 99 percent in both years under consideration. This reflects the persisting social expectation that husbands' primary activity should be to provide economic support for their families. This also suggests that, despite the prolonged economic recession and the sharply rising overall unemployment rate during the late 1990s (OECD 2000), married men in their prime working years have been affected little by the adverse labor-market situations associated with the prolonged economic downturn.

<Table 1 about here>

On the other hand, during the period from 1994 to 2000, the rate of wives' employment increased from 58 percent to 62 percent. Though the amount of increase is modest, it is noteworthy that the increase occurred despite sharply raising unemployment, and that they are married women in their reproductive years, many of whom are mothers of preschool or school-aged children. Like other East Asian societies, Japan places primacy on women's roles as wives and mothers (Bumpass and Choe 2004). Given the persistence of this cultural expectation, and the declining demand for labor, it is remarkable that the employment rate, albeit slightly, rose among wives of reproductive ages.

There is also a notable change in wives' employment patterns. The proportion of wives whose usual weekly work hours were 41 hours or less increased considerably whereas that of wives who work more than 41 hours per week decreased. As a result, the average work hours of employed wives decreased from 36 hours per week in 1994 to 33 hours per week in 2000. (The mean work hours of husbands also decreased during the same period, but the decline was very small--51 vs. 50 hours.) This suggests that although Japanese wives in their reproductive years continued to be drawn into the labor force in the latter 1990s, their work status has become increasingly marginalized, because most of women employed part-time are so-called "paa-to" workers who only earn hourly wages without any fringe benefits.[4]

[4] "Paa-to" is a Japanese term used to describe a worker (usually a female worker) who can only earn hourly wages (plus transportation fees in some cases) regardless of the number of hours they work. Thus, a sizable minority of "paa-to" workers works more than 35 hours per week (i.e., full-time) while almost all workers whose usual work hours are less than 35 hours are paa-to workers. Paa-to workers are usually not eligible for unemployment insurance, health care benefits, bonuses, and other kinds of protection and benefits that come with regular employment (Rodosho Fujin Kyoku 1997: appendix tables pp. 96-108).

(2) Differentials in Wives' Employment by Selected Characteristics

We next turn to differentials in wives employment status and hours by family, socioeconomic, and demographic characteristics.[5] Looking at the relationship between husbands' employment hours and wives' employment status and hours, we can see in Table 2 that there are no clear patterns between the percentage of wives employed and husbands' employment hours. Excluding a small proportion of husbands (and wives whose husbands) work less than 35 hours per week, however, we see that whereas there is little difference in the percentage of wives employed by husbands' employment hours in 1994, wives' employment rate is inversely associated with husbands' employment hours in 2000. Net of the other family and socio-demographic factors, the negative relationship still remains in 2000 (and no clear pattern is seen for 1994 in the multivariate context).[6] This suggests an increasing relevance of the household economic necessity hypothesis for Japan, namely, when husbands do not work long hours in the labor market (by implication, do not provide as much as needed in the household), their wives are more likely to be employed to meet those economic needs.

<Table 2 about here>

There is a *positive* relationship between husbands' employment hours and employment hours of employed wives, and this positive association remains after controlling for the effects of the other family and socio-demographic factors. Although the positive relationship is somewhat less marked in 2000 than in 1994, there still is a clear tendency for wives of men who work many hours in the labor market to also work, if not as many, a considerable number of hours. This positive association suggests a "joint economic response"--namely, that the financial needs of the household, such as mortgage payment or saving for children's education expenses, are making both wives and husbands to work more. This pattern may also reflect the local conditions for labor demand, which affect employed wives and husbands in similar ways.

In summary, whereas husbands' employment hours did not affect whether their wives are employed or not in 1994, there is a negative relationship between husbands' employment hours and their wives' employment rate in 2000. Further, once wives are employed, they tend to work many hours when their husbands also spend long time in the labor market. When couples work many hours in the labor market, the time available for their families must be severely constrained.

The presence and age of children are probably the most important factors affecting wives' employment. As expected, compared to mothers of older children, the proportion employed is considerably lower among mothers of preschool children, with

[5] I do not discuss the results of an analysis of husbands' employment status and hours because there is not much to report. Because virtually all husbands are employed, there is nothing to report in terms of their employment rate. The family, demographic, and socioeconomic factors that affect wives employment rate and hours have little (at best weak) relationship with husbands' work hours.

[6] Due to limitation in space, I do not present the results of the binary logistic regression of wives' employment status (employed or not) and those of the OLS multiple regression of employment hours of employed wives.

mothers of children under age 3 showing a markedly lower rate of employment. Nonetheless, we should also note that despite the strong cultural emphasis that mothers of small children should stay home (Bumpass and Choe 2004; Jolivet 1997), employment among mothers of infants and toddlers is not trivial: roughly 30 percent of them work in the labor market. This implies a potentially strong demand for childcare services for infants and toddlers of working mothers who do not have other family members (such as coresiding grandparents) who can provide the needed care at home.

Comparing 1994 and 2000, we can see that the proportion employed increased considerably among mothers of school-aged children and wives who have no child under age 18 while the proportion among mothers of preschool children remained almost unchanged. This suggests that increases in the employment rate over this period among wives of reproductive ages were brought about almost entirely by increasing employment of wives who were not mothers of preschool children.

Further, comparing the average work hours of employed wives between the two years, a larger decline is seen among mothers of preschool children compared to mothers of school-aged children, whereas the mean work hours of wives who have no children under age 18 do not show any notable change. I am not certain how much of the decreases in employment hours among mothers of non-adult children can be attributed to their family/household situations affecting labor supply, on the one hand, or to changes in the structures of opportunities and options in the labor market affecting labor demand, on the other. In any event, the marginalization of wives' employment (i.e., decreases in work hours of employed wives from above 35 hours per week--the threshold considered as full-time--to less, in the face of increases in their employment rate) that we saw in the previous section seems to be concentrated in employed mothers of non-adult children.

Coresidence with parents or parents-in-law facilitates wives' employment by enabling a higher proportion of them to be employed, and also by allowing employed wives work more hours. The strong positive association between wives' employment and coresidence with parents persists in 1994 and 2000 (and remains very significant in the multivariate context in both years). This finding supports existing evidence that in Japan coresidence with parents facilitates wives' employment, especially full-time employment, by providing a ready source of assistance in household tasks and child care (Martin and Tsuya 1992; Morgan and Hirosima 1983; Tsuya 1992). Further, the results here confirm the speculation that it is couples' mother or mother-in-law who facilitates wives' employment, especially full-time employment (see the third panel of Table 2).[7]

We can see a change in the relationship between the rate of wives' employment and education of both spouses over the six-year period under consideration. Whereas there is an inverse relationship between the employment rate of wives and education of wives themselves or their husbands in 1994, the negative association almost disappears in

[7] Since only a very small minority of couples lives with a male parent/parent-in-law only, the (negative) effect of this type of intergenerational coresidence on wives' employment status and hours is minimal.

2000.[8] Putting aside a small proportion of wives who have less than high school education (9 percent in 1994 and 5 percent in 2000), the negative association is still seen in 1994. This finding implies that in Japan in the early 1990s female education may still have served primarily not as a means to improve women's value as human capital, but to improve their life prospect through marriage. However, this has become not to be the case any more by 2000. There is no clear pattern in wives' employment hours by their own or their husbands' education.

The relationship between the rate of wives' employment and their age was a reverse-J shape with the peak at age 40-44 in 1994. By 2000, the peak shifted to 45 and above, and the relationship became a clear negative one in which the rate of employment went up with wives' age. Net of the other family and socio-economic factors, these age patterns in wives' employment rate (J-shaped in 1994 and linearly negative in 2000) remain. This implies that Japanese wives of reproductive ages were increasingly drawn into the labor market, and that, once in the labor force, they continued to be employed. We do not see any clear age pattern in work hours of employed wives.

There is no discernable pattern in the relationship of age difference between spouses with wives' employment rate or with work hours of employed wives in both years. This remains to be the case even after controlling for the other family and socio-economic factors.

Though somewhat less marked in 2000 compared to 1994, there in general is a negative relationship between husbands' income and the rate of wives' employment. Further, husbands' income is also inversely related to work hours of employed wives in both years. Controlling for the effects of the other family and socio-demographic factors, the inverse relationship between husbands' income and wives employment rate or hours is statistically significant and becomes strong.

(3) Commuting Time

Commuting time is an integral component of the time working wives and husbands spend on employment, yet it often ignored in considerations of the time demand that the labor market places on their family life. Time when employed wives and husbands return home from work is another measure to examine how employment hours affect family life. As we have just seen in the previous section, a large majority (roughly 80 percent in 1994 and 2000) of Japanese husbands work more than 41 hours per week, i.e., more than 8 hours per day, 5 days a week. Once employed, wives also spend a substantial number of hours on employment. Given these facts, it is important to consider the time employed husbands and wives spend commuting between home and workplace, as well as the time they arrive home from work.

It seems to be widely believed that employed Japanese men and women spend many hours on commuting, being pushed into a crowded commuter train, especially in

[8] Drawing data on the 1990 national opinion survey on family planning in Japan, Ogawa (1990) also found a negative relationship between education of women of reproductive ages and their employment.

big cities. We find a different and somewhat more complicated story when we look at the percentage distribution of commuting time among employed husbands and wives, shown in Table 3.[9] The mean commuting time (one way) for employed husbands is 37 minutes in 1994 and 32 minutes in 2000, though the distribution is bimodal with a large concentration in less than 30 minutes and a smaller one in 46-60 minutes.

<Table 3 about here>

The time employed wives spend commuting tended to be much shorter. Employed wives spent, on the average, 20 minutes in 1994 and 18 minutes in 2000 in commuting (one way) to and from their workplace. Furthermore, roughly two-thirds of employed wives spent 15 minutes or less in commuting. This is a point where balancing family and labor-market obligations has a clear impact on female employment, as this suggests that, to meet these obligations, wives have to choose from a narrower range of employment opportunities defined by being closer to home.

Another way of looking at the impacts of employment combined with commuting is to ask when employed husbands and wives return home from work. As shown in Table 4, among employed husbands whose time of returning home was determined, about 40 percent did not usually arrive home until after 8:00pm in 1994. The situation further deteriorated in 2000: almost one half (47 percent) of employed husbands did not come home until after 8:00pm. This suggests that a substantial proportion of husbands have relatively little time left for family life. The proportion of returning home this late is much smaller among employed wives. However, similar to the case of husbands, the proportion of late-working wives also increased from 1994 to 2000: 6 percent in 1994 vs. 11 percent in 2000.

<Table 4 about here>

Housework and Combined Workload

(1) General Patterns

The upper panel of Table 5 presents the mean hours per week that wives and husbands spent on housework and husbands' average share of couples' housework time in Japan in 1994 and 2000. Husbands' share of housework increased from 7 percent in 1994 to 10 percent in 2000, but it was due primarily to *wives'* cutting their housework time (from 33 hours to 29 hours per week on average), as the average housework time of husbands remained at around 3 hours per week. Despite the small increase in husbands' share of

[9] The percentages presented in Table 3 are based on employed husbands and wives who have any "commuting time" to report. That is, we exclude a small group of employed husbands and wives who live above or next to their workplace persons (most of whom are shopkeepers or small business proprietors) who had no "commuting time" to report. If these husbands and wives with no commuting time were included, the mean commuting time would become even shorter, as their commuting time is equal to or near zero.

couples' housework time, however, overwhelming gender imbalance in household task allocation remains in the Japanese home today.

<Table 5 about here>

On the other hand, however, the proportion of husbands who did not do any housework (i.e., had zero housework time) decreased sharply from a high of 42 percent in 1994 to 30 percent in 2000. Given the potential salience of this marked decline in the face of the persisting low levels of participation in housework among Japanese husbands, I will later analyze, in the multivariate context, the factors associated with husbands doing any housework (i.e., husbands whose housework time is more than zero).

When we turn to the average combined workload (housework time and employment time combined), yet another dramatic picture emerges. The lower panel of Table 5 shows that when housework and labor-market hours are considered jointly, the clear gender inequality we saw in the division of housework disappears, and the gender balance in combined workload becomes, though slightly, more favorable toward wives. Husbands' share of combined workload is 51 percent in 1994 and 53 percent in 2000.

The gender equality in these overall averages in combined workload nevertheless masks large gender differences when viewed from the employment hours of each spouse. As shown in the left panel of Table 6, whereas the combined workload of wives who do not work or work only a small number of hours in the labor market is much less than that of their husbands, wives' combined workload increases dramatically as their employment hours increases. This clearly indicates the "second shift" of unpaid housework of wives who are also employed full-time (Hochschild 1991). In 1994 the average combined workload of wives more than doubled from 38 hours to 86 hours per week when we compare full-time homemakers and wives who worked 49 or more hours a week in the marketplace. While the overall number of wives' employment hours decreased over the six years, the second shift among employed wives is, if not more, equally evident in 2000. The average combined workload again more than doubled from 34 hours to 81 hours per week when we compare wives at the two ends of the employment-hour continuum.

<Table 6 about here>

As noted earlier, our measure of housework does not include time spent on childcare. Given that many wives who work few or no hours are mothers of small children and that childcare time is not considered here, differences between husbands and wives in combined workload are understated, and those between wives employed full-time and those not employed are also understated. Even when we limit our analysis to couples without preschool children, however, the "second shift" still holds clearly in both years (see Table A1 in the appendix).

Husbands' combined workload also increases somewhat when their wives are working in the labor market for 49 hours or more per week (see the right panel of Table 6). However, the level of the association between husbands' combined workload and

wives' employment hours is much weaker, compared to the strong positive relationship between wives employment hours and their combined workload.[10]

(2) Differentials in Couples' Housework Hours by Selected Characteristics

We next look at the mean number of hours spent per week on household tasks by wives and husbands, as well as husbands' relative share of couples' housework time, for an array of relevant characteristics in Japan in 1994 and 2000. The descriptive analyses presented here show the observed relationships as a context for the multivariate analyses that are presented in the following section.

As expected, there is a sharp reduction in wives' household task hours as their employment hours increased, and the pattern is similar in both years (see the top panel of Table 7). Husbands' housework hours increase when their wives work full-time (35 hours or more per week), although the absolute levels remain very low. As a result, husbands' relative share of couples' housework time increases notably when wives are employed full-time.

<Table 7 about here>

While husbands' employment hours reduce the time they spend on household tasks, there is no clear pattern in their relationship with wives' housework hours. As a result, husbands' relative share of housework decreases as their employment hours increases.

The presence of preschool and school-aged children increases wives' housework time. On the other hand, husbands' housework time is higher when they have an infant or toddler (at age 0-2) or when they do not have any children under age 18. Consequently, husbands' relative share of housework is higher when they had an infant or toddler (and this is especially the case in 2000), primarily because husbands' housework hours increase. Husbands' share of housework is also higher when there is no child under age 18 at home, in part because wives' housework time decreases, and in part because husbands' housework time increases.

Coresidence with parents reduces household task hours of both spouses, although husbands benefit more from intergenerational coresidence, given the low level of husbands' housework time. Further, as expected, what reduces the actual time that wives and husbands spend on housework appears to be coresidence with a female parent/parent-in-law.

Wives' higher education, especially four-year college or more, is associated positively with their husbands' housework hours, but there is no discernable relationship with their own housework time. Husbands' partial college education is also associated positively with somewhat higher hours of their own housework (therefore their higher

[10] The average combined workload of husbands more than quadruples from 15 hours to 68 hours in both 1994 and 2000. However, a large part of husbands' combined workload is their employment time.

share of housework) in 2000. Given a relatively small percentage of husbands in this educational category, however, the effect of husbands' education on their housework time and on the gender division of household labor may be limited

Whereas there is no clear pattern in the relationship between wives' age and their own and their husbands' housework hours in 1994, an inverse relationship is seen between wives' (therefore husbands') age and husbands' housework hours and share in 2000. Looking and comparing the absolute number of hours spent by husbands on housework, we can see that husbands of women in the youngest age group (in their twenties) in 2000 contribute a notably higher number of housework hours, compared with husbands of women in the older age groups. Consequently, in 2000 there is a clear negative association between husbands' age and their share of housework: the younger the husband is, the higher is his share.

There is no discernable pattern in the relationship between age difference of spouses and their housework time in 1994. In 2000, the average share on housework of husbands who are younger then their wives is somewhat higher than the others primarily because the time their wives spend on housework is shorter than the other wives. Though not sizable, the proportion of couples with husbands being younger than wives is not insubstantial and increased between the two years under consideration: 11 percent in 1994 and 14 percent in 2000. Among these couples, wives may enjoy a greater conjugal power in the sense that they can manage to spend less time in housework.

The relationship of husbands' income with couples' housework hours is largely linear in both 1994 and 2000. As husbands' income level becomes higher, their wives' housework hours tend to increase whereas their own housework time tends to decrease. As a result, husbands' share of housework decreases as their income increases.

Multivariate Analyses of Couples' Time & Husbands' Share on Housework

The results of the bivariate analysis presented in the previous section are all preliminary in the sense that other family, socioeconomic, and demographic factors are not controlled. Nonetheless, they provide the context for the multivariate analysis of couples' housework hours and husbands' relative share of housework that I discuss in this section. The factors of wives' housework hours are examined, using the OLS multiple regression model. The factors of husbands' housework hours and their share of couples' housework time are estimated, using tobit regression models, due to a high proportion of husbands who did not do any housework (42 % in 1994 and 30% in 2000). Means and standard deviations of the family and socio-demographic factors used in the three sets of regression analyses are presented in Table 8.

<Table 8 about here>

(1) Wives' Housework Time

We first look at the results of the OLS multiple regression analysis of wives' household task hours in 1994 and 2000. As shown in Table 9, wives reduce their own time on housework with increasing hours of their employment. Moreover, the size and direction of the effects of wives' employment hours on their own housework hours are similar in both years. These results suggest that Japanese wives are likely to cut down the time they spend on household tasks as their time in the labor market increases, and that this pattern was largely unchanged during the late 1990s.

<Table 9 about here>

Whereas the relationship between husbands' employment hours and wives hours on housework is linearly negative, the effect of husbands' employment hours is much weaker than that of wives' own employment hours in both years. With a possible exception of a small proportion of wives whose husbands worked less than full-time in 2000, the effects of husbands' household efforts are statistically insignificant.

Japanese wives spend significantly more time on housework when they have preschool children. Compared to wives who have no child under age 18, wives who have school-aged children also spend more time on household tasks although the degree of increase in housework time is not as much as the case in which they have preschool children. These findings show that the presence and age of children continue to affect household task hours of Japanese wives although the effect has weakened somewhat in the late 1990s.

Spouses' education does not generally affect wives' housework hours, except for a small group of wives whose husbands have less than high school education in 1994. Wives of the least educated husbands did the most housework in 1994, probably reflecting the more traditional expectations of their husbands. However, by 2000, this effect of traditional gender-role expectations seems to have disappeared.

The relationship between wives' age and their time on housework is positive, and this positive effect is much stronger and more significant in 2000 than in 1994. The younger the wife is, the less time she spends on housework. Perhaps younger Japanese wives do not hold as high a standard for household maintenance as their older counterparts, and this tendency seems to have become more explicit in the late 1990s.

Age difference between spouses does not generally affect wives' time on household tasks, except for a small group of couples where the husband is younger than the wife in 2000. Compared to wives who are the same ages as, or one year younger than their husbands, wives who are older than their husbands are somewhat less likely to spend time on housework.

(2) Husbands' Housework Time

We next turn to the results of the tobit regression analysis of husbands' household task hours in 1994 and 2000. As shown in Table 10, wives' employment hours affect

husbands' housework time, but it increases significantly *only when* wives are employed full-time, whereas there is no significant difference in husbands' housework time when wives are full-time homemakers or employed part-time. This suggests that Japanese husbands respond to their wives' employment only when wives work long hours (and probably under more strict work schedule) in the labor market.

<Table 10 about here>

The effect of husbands' own employment hours on their housework time is weaker than that of wives' employment hours and became less systematic over time. Whereas the relationship between these two variables was generally linear and negative in 1994, this linearity disappeared in 2000. Nonetheless, husbands' household efforts are markedly reduced among those working 60 or more hours a week in both years.

The effects of the household structural variables--age of youngest child and coresidence with parents--on husbands' housework time are the opposite of their effects on wives' housework time. The presence and age of children do not affect husbands' household task hours. Coresidence with parents significantly reduces the time husbands spend on household tasks although the effect of multigenerational coresidence is weaker in 2000 than in 1994. This suggests that Japanese husbands continue to benefit from the presence of the older generation at home in terms of household task allocation, although such benefits became smaller in the late 1990s.

Whereas major socio-demographic factors such as spouses' education and wives' age did not affect husbands' housework hours in 1994, these factors have notable effects in 2000. Wives' higher education (especially 4-year college education) significantly increases husbands' household efforts in 2000. Husbands' higher education (especially some college education) also increases their own housework hours although the effect of wives' education is stronger than that of husbands' own education. This in turn suggests that highly educated wives tended to be more successful in soliciting their husbands' participation in household tasks, compared to high-school educated wives, and that this tendency emerged in the late 1990s.

In 2000, Japanese husbands whose wives were younger tended to spend significantly more time on housework. Because spouses' ages are highly correlated, this means that younger husbands are likely to make much more efforts on household tasks than their older counterparts in 2000 (although this was not the case in 1994).

In contrast to wives' housework time in which no significant effects of proxy reporting are seen, husbands' housework time is significantly lower in both years when the respondent is the wife. This indicates that husbands tend to report more household task hours for themselves than their wives report for them. Although we cannot be certain whether husbands over-report their own household contribution, or their wives under-report their husbands' housework efforts, it is nonetheless interesting that housework time that husbands report for themselves are likely to be higher by a significant degree than the time their wives report for their husbands.

As stated earlier, a considerable proportion of Japanese husbands do not do any housework in both years (42 percent in 1994 and 30 percent in 2000). We then conduct a binary logistic regression analysis of the factors associated with husbands who do any housework, by coding them as 1 if they spend any time on housework, and 0 if not at all. As shown in Table 11, the factors associated with husbands' doing any housework are similar in the two years, except for wives' education and age, both of which were not statistically significant in 1994 but gained significance in 2000.

<Table 11 about here>

In both 1994 and 2000, the likelihood of husbands' doing any housework increases significantly when: (1) wives are employed full-time; and (2) husbands themselves are college-educated. On the other hand, in both years, the likelihood of husbands' any household effort is lowered significantly when: (1) husbands themselves work many hours (60 hours or more per week) in the labor market; (2) parents or parents-in-law are coresiding; and (3) their wives report for them.

Wives' higher education also significantly increases the probability of husbands' doing any housework in 2000 (but not in 1994). Compared to husbands whose wives are high-school educated, husbands who have college-educated wives are much more likely to participate in household tasks in 2000. Further, wives' (therefore husbands') age is linearly and negatively associated with husbands' doing any housework in 2000 (but not in 1994). That is, in 2000 the younger the husband is, the more likely for him to do any housework.

(3) Husbands' Share of Housework

Finally, we look at the results of the tobit regression analysis of husbands' share of couples' total housework time in 1994 and 2000. Whereas the relative share of each spouse in household tasks reflects the gender division of labor at home, variations in relative shares may derive from differences in the housework time of either spouse. Increases in husbands' share can result from either greater contributions from husbands or reduced efforts by wives; an important adaptation by wives to their increased employment has been a reduction in the time they spend on household tasks.

As shown in Table 12, in both 1994 and 2000, husbands' share of housework increases significantly when (and only when) their wives are employed full-time, in part because wives reduce their housework time when they are employed full-time, and more importantly because husbands spend much more time on housework when (and only when) their wives are working full-time in the labor market. On the other hand, husbands' share of household tasks is markedly lower among those working sixty or more hours per week in both years, primarily because husbands' time spent on housework is reduced markedly when they work this many hours in the marketplace. These results demonstrate the effects of differential time availability of both spouses on the gender division of labor in the Japanese home.

Having non-adult children tends to lower husbands' share of household tasks. The presence of school-aged children somewhat reduces husbands' share of housework in 1994, and the presence of preschool children significantly decreases husbands' relative share in 2000. These reductions take place almost entirely because the time *wives* spend on housework increases significantly when they have non-adult children at home while husbands' housework time remains unaffected by the presence of preschool or school-aged children.

Coresidence with parents/parents-in-law significantly reduces Japanese husbands' share of housework in 1994 and 2000. While living with the older generation reduces the household task hours of both spouses, the degree of reduction in husbands' hours is much greater (and significantly so) than in wives' hours. This suggests that while coresiding parents may contribute to household efforts by shouldering part of the housework, husbands are likely to benefit more from such contributions than are their wives.

Spouses' higher education increases husbands' share of housework, and this enhancing effect became stronger between 1994 and 2000. This is due primarily to the fact that husbands' time on housework increases significantly if their wives are college-educated. The positive effect of wives' 4-year college education is notably strong in 2000, indicating that wives with the highest level of education are much more successful in enlisting their husbands' participation in household tasks than are high-school educated wives. Husbands' higher education is also associated positively with their share of housework; and this positive effect is again stronger in 2000.

Whereas we do not see any significant age differentials in husbands' share of housework (with an exception of couples in which the wife is younger than age 30) in 1994, there is a very strong inverse relationship between wives' (therefore husbands') age and husbands' share of household tasks in 2000. This is the case in part because younger Japanese wives spend significantly less time in housework than their older counterparts, and also because younger Japanese husbands do more housework than older ones. Age difference between spouses does not generally affect husbands' share of housework, with a possible exception of couples where the husband is younger than the wife in 2000.

Lastly, when the respondent is the wife (i.e., information is based on wives' proxy reporting), husbands' share of housework is significantly lower than the case when husbands themselves are the respondents in both 1994 and 2000. This is due almost entirely to the fact that the housework time husbands report for themselves tends to be significantly lower than the time reported by wives for them. Although we cannot be certain which report (self report by the husband or proxy report by the wife) is correct, this result implies that wives do not appreciate their husbands' household efforts as highly as do husbands themselves.

Conclusion and Discussion

This paper has examined and compared the patterns and factors of employment and housework, as well as the relationship between them, among Japanese wives and husbands in their midlife in 1994 and 2000. Level and hours of employment of women and men both reflect and contribute to the social differences in the allocation of gender roles. Consistent with gender role expectations, virtually all Japanese husbands in midlife are employed, and they work, on average, 50 to 51 hours per week, that is, around 10 hours a day, 5 days a week. These many employment hours are often compounded by the commuting time required to get to and from work, especially in big cities. Hence, Japanese husbands' time away from home for employment-related reasons is likely to be long, as reflected in the fact that around 40 percent of them did not return home from work until after 8pm in 1994. The situation became worse in 2000: almost one half of employed husbands did not come home until after 8pm.

Although the rate of wives' employment is much lower than that of husbands, a substantial proportion (roughly 60 percent) of Japanese wives in both 1994 and 2000 are employed in the labor market. Once employed, they also spend a considerable number of hours on employment--36 and 33 hours per week on average in 1994 and 2000, respectively. When these employment hours are combined with their heavy household responsibilities, many employed wives are likely to face a difficult situation in which they have to juggle their economic and domestic obligations.

The paper has further revealed that family factors such as the presence and age of children and coresidence with parents strongly influence wives' employment status and hours (whereas they have little systematic effect on husbands' employment patterns). Thus, despite the prevalence of wives employment and increases in the rate of such employment in Japan in the late 1990s, married women's employment is still bounded by their family situations in a way that men's is not.

This paper also shows that Japanese wives continue to shoulder the lion's share of housework in the late 1990s, but that when employment and housework hours are considered jointly, the mean combined workload of husbands and wives becomes similar and the gender inequality in housework alone disappears. However, this gender equality covers wide differentials in the combined workload of wives by their own employment hours. Wives' combined workload increases dramatically as their employment hours increase, and the "double burden" of unpaid housework for employed wives remained evident in the late 1990s.

The multivariate analysis has also found the continued importance of the time availability of each spouse for housework measured by employment hours in determining the gender division of labor in the Japanese home. The time constraints of own employment hours reduce the household task hours of both husbands and wives in 1994 and 2000. Further, Japanese husbands respond to the increased time pressure on their full-time employed wives by increasing their own contributions to household tasks. As a result, the gender division of household labor is altered in the expected direction:

husbands' share of housework increases when their wives work full-time, and decreases when they work many hours in the labor market.

Family factors such as the presence and age of children and coresidence with parents also influence the gender division of labor at home. The presence of non-adult children decreases husbands' housework share because wives' housework time increases significantly when there are preschool (and, to a lesser extent, school-aged) children at home but that of husbands do not. Coresidence with parents also decreases husbands' share of housework because multigenerational coresidence reduces husbands' time on housework. This suggests that coresident parents help with household chores, allowing husbands to do less.

The most notable change in the underlying factors of the gender division of household labor in Japan between 1994 and 2000 is the emergence of the significance of couples' education and age. In 2000 higher education of both spouses increases husbands' share of housework because husbands with college education spend more time on housework, and because husbands who have college-educated wives also spend more time on housework. Hence, higher education in Japan began to push the gender division of household labor in a more egalitarian direction, suggesting the emerging effect of higher education in molding gender role attitudes and gender-typed behavior in the country in the late 1990s.

Age of wives (therefore of husbands) is strongly and negatively related to husbands' hours and share in housework in 2000 (but not in 1994), implying the cohort change in gender role attitudes that has begun to take place in Japanese society in recent years. To the extent that age indexes differences in gender ideology and socialization, gender role attitudes seem to play an important role in explaining the gender division of household labor in Japan today.

The results of this study offer important social and policy implications for more equal gender relations in the Japanese home. Given the finite nature of time, a better understanding of how wives (and husbands) reconcile employment and household tasks is essential for improving the quality of marriage and family life. Given the continued increases in employment of wives at reproductive ages and the decreasing coresidence with parents (Ogawa and Retherford 1997; Shimada and Higuchi 1985), labor-market policies need to be more family friendly and family policies also need to be expanded and more flexible.

At the same time, there are signs that younger and more highly educated husbands have began to help more in housework, and that husbands with highly educated wives also make more household efforts. Although the gender gap is still large, given the increasing attainment of college education among younger Japanese men and women (National Institute of Population and Social Security Research 2003: 151-52), there may be some future improvements in gender relations in the Japanese home.

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Table 1. Percentage Distribution on Usual Employment Hours per Week of Currently Married Women and Men Aged 20-49 and Their Spouses: Japan, 1994 and 2000

Hours per week	Wives		Husbands	
	1994	2000	1994	2000
Not employed	41.7	37.9	0.5	1.4
Employed				
15 or less	7.5	8.8	2.6	2.6
16-34	16.5	20.6	1.1	1.9
35-41	12.6	16.2	14.4	16.2
42-48	12.4	10.1	29.7	30.4
49-59	5.4	4.4	28.6	28.4
60 or more	3.9	2.0	23.2	19.2
Mean work hours of those employed	35.8	33.1	51.0	49.9
(Number of cases)	(1,236)	(2,376)	(1,236)	(2,417)

Notes: Percentages are weighted for 2000, but they are unweighted for 1994; the numbers of cases are unweighted for both years.

Table 2. Percentage of Wives Employed and Their Mean Employment Hours per Week, by Selected Characteristics: Japan, 1994 and 2000

Characteristics	% of wives employed		Wives' work hours per week	
	1994	2000	1994	2000
Total	58.3	62.1	35.8	33.1
Husbands' employment hours per week				
Less than 35	45.1	57.1	14.1	22.6
35-41	60.8	67.2	32.6	30.7
42-48	59.6	67.2	34.2	31.9
49-59	59.3	58.6	35.7	34.2
60 or more	56.7	56.1	43.4	38.6
Age of youngest child				
Preschool age[a]–total	40.2	40.0	36.1	30.6
Age 0-2	27.8	29.6	37.4	32.9
Age 3-6	52.4	51.9	35.5	29.1
School age[b]	70.6	77.8	35.4	32.5
No child under age 18	66.2	74.3	36.7	36.0
Coresidence with parent/parent-in-law				
No	54.4	57.1	33.6	31.7
Yes–total	65.4	72.4	39.3	35.7
With male parent only	48.8	63.6	30.5	33.3
With at least one female parent	67.2	73.0	39.9	35.8
Wives' education				
Junior high school or less	75.0	62.2	37.2	31.9
High school	59.3	66.1	35.0	33.0
Some college or equivalent[c]	53.5	57.3	36.9	33.2
Four-year college or higher	46.7	60.3	35.2	33.8
Husbands' education				
Junior high school or less	70.2	62.2	37.3	33.9
High school	60.9	66.3	36.1	33.5
Some college or equivalent[c]	59.2	60.2	37.1	32.4
Four-year college or higher	49.1	57.3	34.1	32.0
Wives' age				
Less than 30	37.2	46.2	34.8	33.1
30-34	47.0	46.8	35.6	33.3
35-39	59.6	59.4	35.4	31.4
40-44	73.0	75.1	36.8	32.4
45 or older	64.6	79.6	35.1	34.8
Age difference between spouses				
Husband younger	54.9	56.2	36.4	34.8
Same age or husband older by 1 year	58.9	58.8	35.5	33.3
Husband older by 2-3 years	59.6	63.1	35.0	33.2
Husband older by 4-5 years	59.6	60.0	38.5	33.7
Husband older by 6 or more years	55.4	59.9	34.1	30.2

Table 2--Continued

Characteristics	% of wives employed		Wives' work hours per week	
	1994	2000	1994	2000
Husbands' yearly income				
Less than 2 million yen	62.2	69.3	45.2	33.8
2-3.99 million yen	64.5	64.1	38.1	34.7
3-5.99 million yen	58.1	61.6	35.7	33.7
5-7.99 million yen	58.8	63.2	33.4	31.2
8-9.99 million yen	56.9	52.0	34.4	30.4
10 million yen or higher	37.0	54.5	30.9	26.8
(Number of cases)	(1,224)	(2,362)	(717)	(1,414)

Notes: The percentages and the means are weighted for 2000; they are unweighted for 1994; the numbers of cases are unweighted for both years.
a--Ages 0-6.
b--Ages 7-17.
c--Includes Junior college, advanced professional school, and post-high-school professional training school.

Table 3. Percentage Distribution of Minutes Spent by Employed Husbands and Wives in Commuting to Work (One Way): Japan 1994 and 2000

Minutes	Wives		Husbands	
	1994	2000	1994	2000
15 or less	67.7	63.1	38.3	36.6
16-30	22.3	24.1	27.9	27.8
31-45	4.7	5.1	9.3	10.9
46-60	3.0	5.3	14.7	14.4
61-90	2.2	1.9	7.5	8.2
91 or more	0.2	0.5	2.3	2.1
Mean commuting time	20.0	18.2	36.9	32.2
(Number of cases)	(475)	(1,352)	(975)	(2,331)

Notes: Percentage distributions and mean commuting time are weighted for 2000, but they are unweighted for 1994; the numbers of cases are unweighted for both years. The percentages, means, and the number of cases are all based on employed husbands and wives who have commuting time to report, excluding a small group of employed persons who live above or near their place of work.

Table 4. Cumulative Percentage of Husbands and Wives Returning Home from Work at Specified Times Among the Working Whose Time Returning from Work Is Known: Japan 1994 and 2000

Returning home by	1994		2000	
	Husbands	Wives	Husbands	Wives
5:00 pm	2.0	35.0	2.4	31.8
6:00 pm	11.2	63.3	10.6	54.9
7:00 pm	34.0	87.0	29.6	78.9
8:00 pm	60.4	93.7	52.8	89.4
9:00 pm	79.0	94.8	71.4	93.3
10:00 pm	90.5	95.5	85.3	95.7
After 10:00 pm	100.0	100.0	100.0	100.0
(Number of cases)	(954)	(463)	(2,285)	(1,305)

Notes: The percentages above are computed, using noon (12 o'clock in the daytime) as the starting point. The percentages are weighted for 2000 but unweighted for 1994; the numbers of cases are unweighted for both years.

Table 5. Mean Hours per Week Spent by Wives and Husbands on Housework and Their Average Combined Workload (Hours on Housework and Employment Combined): Japan, 1994 and 2000

	1994		2000	
	Mean	(N)	Mean	(N)
Housework[a]				
Wives' hours per week	33.3	(1,210)	29.0	(2,417)
Husbands' hours per week	2.5	(1,224)	2.8	(2,384)
Husbands' share (%)	7.2	(1,202)	9.5	(2,366)
% of husbands with no housework	41.9	(1,210)	30.4	(2,384)
Combined workload[b]				
Wives' hours per week	54.2	(1,211)	49.6	(2,354)
Husbands' hours per week	53.4	(1,206)	52.1	(2,366)
Husbands' share (%)	50.6	(1,186)	52.6	(2,297)

Notes: Mean hours and percentages are weighted for 2000 but unweighted for 1994; the numbers of cases are unweighted for both years.

a--The hours spent on housework were computed by adding the time devoted to cleaning house, doing laundry, cooking, cleaning after meals, and grocery shopping. Housework time excludes time spent on childcare.

b--Combined workload was computed by adding the number of hours spent on housework and on employment.

Table 6. Average Combined Workload (Mean Hours Spent on Employment and Housework Combined) per Week of Wives and Husbands by Their Weekly Employment Hours: Japan 1994 and 2000

Hours per week	Wives		Husbands	
	1994	2000	1994	2000
Wives' employment hours				
0 (not working)	37.6	33.6	52.6	52.9
1-15	41.8	37.8	44.8	46.2
16-34	59.8	54.0	52.8	51.9
35-41	66.7	63.3	53.4	50.1
42-48	73.1	68.1	53.9	53.3
49 or more	86.3	81.1	63.4	62.9
Husbands' employment hours				
Less than 35	38.5	39.6	14.7	14.6
35-41	52.8	49.1	41.5	42.2
42-48	52.3	49.6	48.6	48.8
49-59	55.4	49.6	57.5	57.8
60 or more	58.7	52.3	68.3	68.5

Notes: Averages are weighted for 2000; they are unweighted for 1994.

Table 7. Mean Hours per Week Spent by Wives and Husbands on Housework and Husbands' Average Share (%) of Couples' Housework Time, by Selected Characteristics: Japan, 1994 and 2000

Characteristics	Wives' hours		Husbands' hours		Husbands' share	
	1994	2000	1994	2000	1994	2000
Wives work hours per week						
0 (not working)	37.6	33.7	2.1	2.8	5.1	7.8
1-15	33.8	29.8	1.9	2.4	4.9	7.9
16-34	34.9	29.0	2.1	2.4	5.6	7.9
35-41	27.8	24.3	3.5	3.0	10.6	11.1
42-48	27.2	22.1	3.0	3.4	11.5	13.9
49 or more	26.6	22.7	3.8	4.2	11.4	16.1
Husbands' work hours per week						
Less than 35	32.2	26.9	3.1	3.1	9.5	10.9
35-41	32.9	28.5	2.5	3.2	7.3	10.7
42-48	32.1	28.2	2.6	2.8	8.3	9.7
49-59	34.2	29.4	2.5	2.8	6.6	9.4
60 or more	34.0	30.6	2.3	2.5	6.2	8.0
Age of youngest child						
0-2	35.8	30.6	2.8	3.5	7.4	10.5
3-6	34.2	31.3	2.5	2.4	6.7	7.6
7-17	33.5	28.9	2.2	2.5	6.4	8.8
No child under age 18	29.6	25.9	3.0	2.9	9.5	11.1
Coresidence with parents						
No	34.0	29.3	2.9	3.0	8.0	10.0
Yes–total	32.0	28.5	1.9	2.3	5.8	8.1
With male parent only	40.7	29.3	2.4	2.7	5.2	9.9
With at least one female parent	31.1	28.4	1.8	2.2	5.8	8.0
Wives' education						
Junior high school or less	32.1	27.8	2.3	2.5	6.8	9.5
High school	33.6	28.9	2.4	2.6	6.9	8.4
Some college or equivalent[a]	33.5	29.6	2.5	3.0	7.1	10.0
Four-year college or higher	33.4	28.3	3.3	3.4	10.0	12.1
Husbands' education						
Junior high school or less	35.9	28.5	2.5	2.3	5.6	7.7
High school	33.1	29.0	2.4	2.8	6.9	9.1
Some college or equivalent[a]	32.0	28.4	2.4	3.3	7.6	11.0
Four-year college or higher	33.5	29.4	2.9	2.8	8.3	9.9
Wives' age						
Less than 30	33.3	26.8	2.5	3.8	7.2	12.4
30-34	34.2	29.5	2.4	2.8	7.0	9.3
35-39	33.4	30.1	2.6	2.9	7.3	9.1
40-44	33.0	29.3	2.4	2.5	6.8	9.0
45 or older	33.7	28.8	2.5	2.4	7.0	7.7

Table 7-- Continued

Characteristics	Wives' hours		Husbands' hours		Husbands' share	
	1994	2000	1994	2000	1994	2000
Age difference between spouses						
Husband younger	34.0	27.9	2.1	2.9	5.9	10.9
Husband older by 0-1 year	33.7	29.2	3.0	2.9	8.3	9.4
Husband older by 2-3 years	33.6	29.1	2.5	2.5	7.2	8.4
Husband older by 4-5 years	31.9	28.6	2.5	2.9	7.5	9.8
Husband older by 6+ years	33.0	30.3	2.2	3.0	6.2	9.3
Husbands' yearly income						
Less than 2 million yen	30.9	26.1	4.0	3.6	10.0	12.5
2-3.99 million yen	31.3	28.2	3.1	3.2	8.9	9.8
3-5.99 million yen	33.7	27.4	2.4	2.8	6.8	9.8
5-7.99 million yen	33.4	30.0	2.4	2.6	7.0	9.1
7-9.99 million yen	34.4	31.2	2.3	2.6	6.8	8.5
10 million yen or higher	36.3	31.8	1.8	2.1	4.7	6.6
(Number of cases)	(1,224)	(2,417)	(1,210)	(2,384)	(1,202)	(2,366)

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Notes: Means are weighted for 2000, but they are unweighted for 1994. The numbers of cases are unweighted for both years.

a--Includes junior college, advanced professional school, and post-high-school professional training school.

Table 8. Means and Standard Deviations of the Variables Used in the Regression Analyses of Wives' Housework Time, Husbands' Housework Time, and Husbands' Share of Housework: Japan, 1994 and 2000

Variables	1994		2000	
	Mean	S.D.	Mean	S.D.
Wives' employment hours per week:				
Not working†	0.417	--	0.380	--
Part-time (1-34 hours)	0.240	0.427	0.294	0.456
Full-time (35+ hours)	0.343	0.475	0.326	0.469
Husbands' employment hours per week:				
Less than 35 hours	0.041	0.199	0.059	0.236
35-42 hours†	0.144	--	0.161	--
42-48 hours	0.297	0.457	0.304	0.460
49-59 hours	0.286	0.452	0.284	0.451
60 hours or more	0.232	0.422	0.192	0.394
Age of youngest child:				
Preschool age (age 0-6)	0.375	0.484	0.396	0.489
School age (age 7-17)	0.439	0.496	0.363	0.481
No child under age 18†	0.186	--	0.241	--
Coresidence with parents/parents-in-law	0.354	0.478	0.309	0.462
Wives' education:				
Less than high school	0.092	0.289	0.049	0.215
High school†	0.511	--	0.485	--
Some college or equivalent[a]	0.323	0.468	0.353	0.478
4-year college or higher	0.074	0.289	0.113	0.316
Husbands' education:				
Less than high school	0.099	0.298	0.086	0.281
High school†	0.470	--	0.447	--
Some college or equivalent[a]	0.141	0.348	0.115	0.319
4-year college or higher	0.290	0.454	0.352	0.478
Wives' age:				
Less than 30	0.162	0.369	0.196	0.397
30-34	0.175	0.380	0.226	0.418
35-39	0.232	0.422	0.263	0.441
40-44	0.280	0.449	0.161	0.368
45 or older†	0.151	--	0.153	--
Age difference between spouses:				
Husband is younger	0.109	0.311	0.144	0.351
Same age or husband older by 1 year†	0.267	--	0.262	--
Husband is older by 2-3 years	0.262	0.440	0.250	0.433
Husband is older by 4-5 years	0.195	0.396	0.191	0.393
Husband is older by 6 or more years	0.167	0.373	0.153	0.360
Husbands' income in previous year:				
Level 1[b]†	0.267	--	0.316	--
Level 2[c]	0.385	0.487	0.355	0.476
Level 3[d]	0.206	0.404	0.195	0.396
Level 4[e]	0.142	0.349	0.134	0.340
Respondent=female	0.510	0.500	0.519	0.500
(Number of cases)[f]	(1,118)		(2,132)	

Table 8 -Continued

Notes: Means are weighted for 2000, but unweighted for 1994. The numbers of cases are unweighted for both years. Dagger sign (†) indicates the reference category.

a--Includes junior college, advanced professional school, and post-high-school professional training school.
b--Less than 4 million yen.
c--4-5.99 million yen.
d--6-7.99 million yen.
e--8 million yen or higher.
f--The number of cases used in the analysis of husbands' share of housework.

Table 9. Multiple Regression Estimates of the Coefficients and Standard Errors of Family and Socio-Demographic Factors of Wives' Housework Time: Japan 1994 and 2000

	1994		2000	
	Coefficient	(S.E.)	Coefficient	(S.E.)
Wives' Employment Hours (ref: Not working)				
Part-time	-3.10**	(1.05)	-4.40**	(0.78)
Full-time	-10.54**	(0.97)	-10.31**	(0.80)
Husbands' Employment Hours (ref: 35-41 hrs)				
Less than 35 hours	-3.17	(2.22)	-2.55#	(1.48)
42-48 hours	-0.32	(1.25)	-0.34	(0.94)
49-59 hours	1.29	(1.26)	0.70	(0.95)
60 hours or more	1.88	(1.33)	1.61	(1.03)
Age of Youngest Child (ref: No child under age 18)				
Preschool age	4.36**	(1.27)	2.59**	(0.89)
School age	3.61**	(1.19)	1.57#	(0.93)
Coresidence with Parents/Parents-in-law	-0.86	(0.84)	-0.33	(0.67)
Wives' Education (ref: High school)				
Less than high school	-2.18	(1.58)	-0.69	(1.55)
Some college	0.07	(0.99)	0.46	(0.72)
4-year college or higher	-0.52	(1.75)	-0.86	(1.13)
Husbands' Education (ref: High school)				
Less than high school	4.24**	(1.56)	0.73	(1.20)
Some college	-1.47	(1.30)	-0.96	(1.02)
4-year college or higher	-0.74	(1.08)	-0.83	(0.79)
Wives' Age (ref: 45 or older)				
Less than 30	-3.63*	(1.70)	-5.62**	(1.21)
30-34	-1.98	(1.65)	-3.41**	(1.18)
35-39	-1.97	(1.44)	-2.51*	(1.08)
40-44	-0.87	(1.32)	-0.89	(1.15)
Age Difference (ref: Husband older by 0-1 yr)				
Husband younger	-0.53	(1.44)	-1.69#	(0.98)
Husband older by 2-3 years	-0.08	(1.08)	-0.07	(0.85)
Husband older by 4-5 years	-1.19	(1.19)	-1.34	(0.92)
Husband older by 6+years	-0.72	(1.25)	0.01	(0.99)
Husbands' Income (ref: Level 1)				
Level 2	1.29	(1.03)	-0.70	(0.74)
Level 3	0.41	(1.22)	0.41	(0.94)
Level 4	1.54	(1.41)	0.67	(1.15)
Respondent= female	-0.04	(0.79)	-0.36	(0.62)
Constant	35.68**	(2.05)	35.34**	(1.62)
Number of cases	1,134		2,170	
F-statistics (Prob >F)	6.96 (.000)		9.76 (.000)	
Adjusted R-squared	0.124		0.098	

** Significant at 1 percent. * Significant at 5 percent. # Significant at 10 percent.

Table 10. Tobit Regression Estimates of the Coefficients and Standard Errors of Family and Socio-Demographic Factors of Husbands' Housework Time: Japan 1994 and 2000

	1994		2000	
	Coefficient	(S.E.)	Coefficient	(S.E.)
Wives' Employment Hours (ref: Not working)				
Part-time	-0.37	(0.54)	-0.37	(0.32)
Full-time	2.40**	(0.49)	1.02**	(0.32)
Husbands' Employment Hours (ref: 35-41 hrs)				
Less than 35 hours	0.40	(1.15)	-0.17	(0.60)
42-48 hours	0.03	(0.63)	-0.59	(0.38)
49-59 hours	-0.85	(0.65)	-0.58	(0.38)
60 hours or more	-1.31#	(0.69)	-1.20*	(0.41)
Age of Youngest Child (ref: No child under age 18)				
Preschool age	0.08	(0.64)	-0.15	(0.35)
School age	-0.79	(0.61)	0.10	(0.37
Coresidence with Parents/Parents-in-law	-2.25**	(0.44)	-1.03*	(0.27)
Wives' Education (ref: High school)				
Less than high school	-0.49	(0.82)	-0.32	(0.64)
Some college	-0.32	(0.51)	0.54#	(0.29)
4-year college or higher	1.26	(0.86)	1.29**	(0.45)
Husbands' Education (ref: High school)				
Less than high school	-0.13	(0.81)	-0.69	(0.49)
Some college	0.36	(0.66)	0.91*	(0.41)
4-year college or higher	0.89	(0.55)	0.44	(0.32)
Wives' Age (ref: 45 or older)				
Less than 30	0.81	(0.86)	2.02**	(0.49)
30-34	0.12	(0.84)	0.90#	(0.48)
35-39	0.60	(0.74)	1.03*	(0.44)
40-44	0.07	(0.68)	0.31	(0.47)
Age Difference (ref: Same age or husband older by 1 yr)				
Husband younger	-1.05	(0.74)	0.15	(0.39)
Husband older by 2-3 years	-0.22	(0.55)	-0.42	(0.34)
Husband older by 4-5 years	-0.29	(0.61)	0.16	(0.37)
Husband older by 6+years	-1.01	(0.64)	0.25	(0.39)
Husbands' Income (ref: Level 1)				
Level 2	-1.06*	(0.53)	-0.31	(0.30)
Level 3	-0.88	(0.63)	-0.42	(0.38)
Level 4	-1.17	(0.72)	-0.75	(0.46)
Respondent= female	-1.19**	(0.40)	-1.18**	(0.25)
Constant	2.69*	(1.07)	1.94**	(0.65)
Number of cases	1,125		2,144	
LR chi-square (Prob >chi-sq)	90.67 (.000)		139.18 (.000)	

** Significant at 1 percent. * Significant at 5 percent. # Significant at 10 percent.

Table 10-Continued

Notes: The coefficients and standard errors are estimated by fitting the tobit regression model because 42% and 30% of husbands did no housework in 1994 and 2000, respectively.

Table 11. Odds Ratios and Standard Errors of Family and Socio-Demographic Factors of Husbands Who Do Any Housework, Estimated by Binary Logistic Regression Model: Japan 1994 and 2000

	1994		2000	
	Odds ratio	(S.E.)	Odds ratio	(S.E.)
Wives' Employment Hours (ref: Not working)				
Part-time	0.81	(0.14)	0.87	(0.11)
Full-time	1.42*	(0.22)	1.45**	(0.19)
Husbands' Employment Hours (ref: 35-41 hrs)				
Less than 35 hours	0.57	(0.21)	0.86	(0.20)
42-48 hours	1.10	(0.23)	0.94	(0.14)
49-59 hours	0.67#	(0.14)	1.04	(0.16)
60 hours or more	0.56**	(0.12)	0.75#	(0.12)
Age of Youngest Child (ref: No child under age 18)				
Preschool age	0.77	(0.16)	0.95	(0.14)
School age	0.83	(0.16)	1.05	(0.16)
Coresidence with Parents/Parents-in-law	0.58**	(0.08)	0.72**	(0.08)
Wives' Education (ref: High school)				
Less than high school	0.84	(0.21)	0.81	(0.19)
Some college	0.80	(0.13)	1.35**	(0.16)
4-year college or higher	1.27	(0.37)	1.80**	(0.36)
Husbands' Education (ref: High school)				
Less than high school	0.95	(0.24)	0.87	(0.16)
Some college	1.35	(0.28)	1.60**	(0.28)
4-year college or higher	1.49*	(0.26)	1.32*	(0.17)
Wives' Age (ref: 45 or older)				
Less than 30	2.12	(0.59)	1.98**	(0.39)
30-34	1.36	(0.36)	1.60*	(0.30)
35-39	1.39	(0.32)	1.53*	(0.26)
40-44	1.08	(0.23)	1.13	(0.18)
Age Difference (ref: Same age or husband older by 1 yr)				
Husband younger	0.87	(0.20)	1.11	(0.18)
Husband older by 2-3 years	0.94	(0.17)	0.92	(0.13)
Husband older by 4-5 years	0.85	(0.16)	1.06	(0.16)
Husband older by 6+years	0.74	(0.15)	1.18	(0.19)
Husbands' Income (ref: Level 1)				
Level 2	0.96	(0.16)	1.18	(0.14)
Level 3	1.18	(0.23)	1.19	(0.18)
Level 4	1.11	(0.25)	1.00	(0.18)
Respondent= female	0.62**	(0.08)	0.56**	(0.06)
Number of cases	1,125		2,144	
LR chi-square (Prob > chi-sq)	81.33 (.000)		144.22 (.000)	

** Significant at 1 percent. * Significant at 5 percent. # Significant at 10 percent.

Table 12. Tobit Regression Estimates of the Coefficients and Standard Errors of Family and Socio-Demographic Factors of Husbands' Share of Housework: Japan 1994 and 2000

	1994		2000	
	Coefficient	(S.E.)	Coefficient	(S.E.)
Wives' Employment Hours (ref: Not working)				
Part-time	-0.28	(1.46)	0.29	(0.85)
Full-time	9.54**	(1.33)	6.62**	(0.85)
Husbands' Employment Hours (ref: 35-41 hrs)				
Less than 35 hours	3.39	(3.09)	0.98	(1.62)
42-48 hours	1.02	(1.69)	-1.58	(1.01)
49-59 hours	-2.51	(1.73)	-1.64	(1.01)
60 hours or more	-3.93*	(1.84)	-3.93**	(1.11)
Age of Youngest Child (ref: No child under age 18)				
Preschool age	-2.35	(1.72)	-2.30*	(0.95)
School age	-3.07#	(1.64)	-1.11	(1.00)
Coresidence with Parents/Parents-in-law	-5.83**	(1.17)	-2.46**	(0.73)
Wives' Education (ref: High school)				
Less than high school	-0.17	(2.20)	1.08	(1.70)
Some college	-0.98	(1.35)	1.84*	(0.77)
4-year college or higher	4.43#	(2.33)	4.56**	(1.20)
Husbands' Education (ref: High school)				
Less than high school	-2.70	(2.19)	-2.06	(1.31)
Some college	1.93	(1.77)	2.24*	(1.09)
4-year college or higher	2.71#	(1.46)	1.79*	(0.85)
Wives' Age (ref: 45 or older)				
Less than 30	3.99#	(2.31)	8.10**	(1.31)
30-34	1.76	(2.26)	4.64**	(1.28)
35-39	2.32	(1.98)	4.18**	(1.18)
40-44	0.01	(1.82)	2.45#	(1.26)
Age Difference (ref: Same age or husband older by 1 yr)				
Husband younger	-2.65	(1.99)	1.92#	(1.04)
Husband older by 2-3 years	-0.46	(1.47)	-0.65	(0.92)
Husband older by 4-5 years	-0.59	(1.63)	1.22	(0.98)
Husband older by 6+years	-3.15#	(1.71)	0.93	(1.06)
Husbands' Income (ref: Level 1)				
Level 2	-2.17	(1.42)	0.40	(0.80)
Level 3	-1.18	(1.67)	0.33	(1.02)
Level 4	-2.34	(1.93)	-0.82	(1.24)
Respondent= female	-3.84**	(1.08)	-4.16**	(0.66)
Constant	6.35*	(2.85)	3.81**	(1.74)
Number of cases	1,118		2,132	
LR chi-square (Prob >chi-sq)	134.20 (.000)		254.80 (.000)	

** Significant at 1 percent. * Significant at 5 percent. # Significant at 10 percent.

Table 12-Continued

Notes: The coefficients and standard errors are estimated by fitting the tobit regression model because 42% and 30% of husbands did no housework in 1994 and 2000, respectively.

APPENDIX

Table A1. Average Combined Workload (Mean Hours Spent on Employment and Housework Combined) per Week of Wives by Their Weekly Employment Hours and by Age of Youngest Child: Japan 1994 and 2000

	1994	2000
Youngest Child at Preschool Age		
0 (not working)	38.4	34.5
1-15 hours	37.3	39.0
16-34 hours	60.0	52.2
35-41 hours	68.1	63.5
42-48 hours	75.5	67.1
49 hours or more	84.5	76.8
Total	49.3	43.3
Youngest Child at School Age		
0 (not working)	37.7	33.2
1-15 hours	44.4	38.4
16-34 hours	61.5	56.1
35-41 hours	67.4	63.5
42-48 hours	74.1	69.8
49 hours or more	88.0	83.7
Total	58.6	54.1
No Child Under Age 18		
0 (not working)	34.9	31.1
1-15 hours	41.8	34.9
16-34 hours	54.4	51.9
35-41 hours	64.2	62.6
42-48 hours	68.5	66.4
49 hours or more	84.8	79.6
Total	53.8	52.7