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Nonstandard Work and Educational Differentials in Married Women's Employment in Japan:

Patterns of Continuity and Change

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Abstract

The rapid expansion of nonstandard work has altered the nature of women's employment, but previous research on married women's employment trajectories in Japan has paid little attention to the role of nonstandard work. To fill this gap, we examine how patterns of employment in regular and nonstandard positions vary by married women's socioeconomic status using nationally representative longitudinal data. Results from discrete-time competing risks models of labor force transitions indicate that university graduates have the most stable labor force attachment in that they are the least likely to move from standard to nonstandard employment and to exit nonstandard jobs. In contrast, married women with a high school degree or less are more likely to reenter the labor force to take low-quality nonstandard jobs. These results are consistent with a scenario characterized by both continuity and change. Older patterns of labor force exit and reentry, combined with the rise in nonstandard employment, are most relevant for less educated women while the emergence of more career employment opportunities is most relevant for highly educated women. Considering the role of women's income in shaping patterns of inequality, these findings have important implications for stratification in Japan.

Keywords

nonstandard employment; female labor force participation; education; Japan; competing risks models

Very low fertility and rapid population aging have motivated efforts to promote women's attachment to the labor force in many countries. This is particularly true in Japan, where Prime Minister Abe's recent, highly publicized call for increased female labor force participation (e.g., Tyson 2013) is the latest chapter in a long string of public policy efforts to promote family formation and economic growth by improving women's ability to balance work and family. These policy discourses often discuss women's employment in general terms, ignoring major changes in the nature of employment over the past twenty-five years as employers have moved away from regular employment in favor of nonstandard

employment (e.g., part-time or contract work). This trend, often referred to as “the feminization of nonstandard employment,” is observed across industrialized countries (Houseman and Iwasawa 2003; Kalleberg 2000) but is particularly pronounced in Japan (Futagami 2010; Rebick 2005). Efforts to understand how Japanese women’s employment patterns are shaped by their own characteristics, their family circumstances, and their working conditions must therefore attend to differences between regular and nonstandard employment. Previous research provides valuable information on the prevalence and correlates of nonstandard employment (e.g., Houseman 2003; Yu 2002) but has paid little attention to the transitions between different types of employment and the role of nonstandard work in married women’s employment trajectories. The goal of this article is to provide that information. We are especially interested in understanding how patterns of employment in regular and nonstandard positions vary by married women’s socioeconomic status and what factors are responsible for such socioeconomic differences in women’s labor force transitions across different employment types.

To this end, we draw upon longitudinal data from a nationally representative survey of Japanese women collected from the early 1990s to the early 2000s. Estimation of discrete-time competing risks models allows us to evaluate how women’s labor force transitions (i.e., labor force exit and reentry and transitions between standard and nonstandard employment) differ by their educational attainment while taking into account the role of several established correlates of women’s employment in Japan.

To foreshadow our results, university graduates have the most stable labor force attachment in that they are the least likely to move from standard to nonstandard employment and the least likely to exit nonstandard jobs. In contrast, women with a high school degree or less are the most likely to reenter the labor force to take low-quality, nonstandard jobs. As a consequence, highly educated women are overrepresented in career-track standard employment while less educated women are overrepresented in noncareer-track, nonstandard employment. These findings are consistent with a scenario of continuity and change in which old patterns of employment shaped by asymmetric gender roles combine with the concurrent rise in nonstandard employment and career opportunities to create different employment (dis)incentives for married women that depend on their socioeconomic status. Considering that the homogeneous nature of Japanese women’s labor force participation has limited family income inequality in the past, our findings have important implications for stratification processes in contemporary Japan. Furthermore, our results have potentially broader relevance in showing how the expansion of nonstandard work, a universal feature of global labor market change, interacts with policies and gender context to increase socioeconomic differentials in married women’s employment.

Background

Married Women’s Labor Force Participation in Japan: Continuity and Change

Many scholars have contrasted married women’s employment in Japan to that in Western countries with similar levels of economic development. Employment trajectories of Japanese women have long been characterized by an M-shaped pattern, with significant proportions leaving the labor force during the prime ages for marriage and childbearing (e.g., Brinton

2001). The distinctively low level of labor force participation of married women with small children in Japan reflects the difficulty of balancing work and family responsibilities. The difficulty of work–family balance reflects gender and age discrimination in the labor market (Brinton 2001), inflexible work schedules and an unfriendly work environment for married women (Yu 2005), limited access to high-quality, convenient child care (Wada 2007), husbands' very limited participation in domestic work (Tsuya et al. 2005), and cultural norms emphasizing mothers' roles in children's education (Hirao 2001). Interestingly, this pattern is also found among highly educated women, who have theoretically stronger incentives (i.e., higher wages) and the ability to remain in the labor force (i.e., economic resources to outsource child care or housework). This pattern suggests that women's employment has been supplementary to men's employment and that the income effects of husbands' earnings have continued to outweigh substitution effects of women's own income (Higuchi 1995). As a result, Japanese women's own educational attainment has been weakly or even negatively associated with their labor force attachment (e.g., Brinton 1993; Choe, Bumpass, and Tsuya 2004), and this relationship has contributed to reducing family income inequality by lowering highly educated women's employment rates.

Until recently, this distinctive pattern of Japanese women's labor force participation was relatively stable, but the expansion of nonstandard employment has significantly altered the nature of women's employment (Futagami 2010; Houseman and Iwasawa 2003; Yu 2002). Nonstandard employment (e.g., part-time and contract work) has increased since the mid-1970s in most advanced economies, but the rate and magnitude of growth in this type of employment was relatively fast in Japan (Houseman and Iwasawa 2003). The feminization of nonstandard employment, that is, the overrepresentation of women in nonstandard employment arrangements, is also pronounced in Japan. Data collected in the 1990s indicate that 80 percent of Japanese part-time workers are women (e.g., Blossfeld and Hakim 1997). This is a positive development to the extent that nonstandard employment has provided employment opportunities for middle-aged, married women who seek to reenter the labor force after their children reach school age by replacing regular, clerical jobs, which were predominantly held by unmarried women (Houseman and Iwasawa 2003; Yu 2002). It is a negative development, however, in that the inferior job quality of nonstandard jobs is particularly pronounced in Japan, where the labor market is rigidly segmented between primary (internal) and secondary labor markets, with the former favoring age and seniority and the latter providing little security or opportunity for advancement (e.g., Lincoln and Nakata 1997).

At the same time, changes in laws and public policies have also changed the relatively homogeneous nature of Japanese women's work by opening up new opportunities for career employment. In particular, the Equal Employment Opportunity Law (EEOL), which was implemented in 1986 and strengthened in 1999, aims to reduce gender inequality and provide career opportunities for women. One consequence of the introduction of the EEOL was the creation of a two-tracked recruitment system as employers began to hire women into two different tracks, that is, *seishu shoku* (integrated track, i.e., career-track positions) and *ippanshoku* (clerical track, i.e., noncareer positions) in response to the mandatory requirement to secure career-track positions for women (Gelb 2000). It is important to note that almost all nonstandard jobs, which increasingly absorbed the labor force supply of

married women, are *ippanshoku* track and excluded from various benefits of the internal labor market available to full-time regular employees such as higher wages, employment stability, on-the-job training, and promotion (e.g., Lincoln and Nakata 1997; Nagase 2003). Similarly, the Child Care Leave Law (implemented in 1992) allows one year's maternal leave to enable more women to return to employment following childbirth (e.g., Boling 2007). But, again, those working in nonstandard jobs are usually excluded from this benefit (Nagase 2003). Since large companies and public sector entities have more actively implemented these policies, it is not surprising that recent studies increasingly document that working conditions and job characteristics affect Japanese women's labor force attachment (e.g., Raymo and Lim 2011; Yu 2005).

In contrast to policy initiatives to facilitate women's labor force attachment, tax and social security policies were revised in a way that increases the benefits for nonworking or low-earning housewives (Nagase 2003). These seemingly contradictory policies reflect the strong gender ideology of the breadwinner–homemaker family (Gottfried and Hayashi-Kato 1998). One feature of the tax code is an earnings threshold beyond which the lower-earning spouse (almost always the wife) loses the benefits associated with being a family dependent. This provides a strong incentive for married women either to not work or to take part-time (or other nonstandard) employment that generates earnings lower than that threshold (e.g., Nagase 2003).

Along with the changing nature of women's employment and policy initiatives, the recent economic recession and associated decline in men's income has increased the importance of women's employment for the financial well-being of families. Theories suggest that labor market uncertainty may accelerate the shift from a model of marriage based on specialization (i.e., breadwinner–homemaker) to one based on cooperation (Oppenheimer 1988; Sweeney 2002). Consistent with this theoretical argument, Japanese married couples increasingly indicate preferences for wives' longer hours and less support for the traditional gender division of housework in Japan (e.g., Atoh 2001). In the context of these changes, it is important to understand the characteristics associated with women's stable employment across the life course.

Educational Differentials in Labor Force Transitions Among Japanese Married Women

The growth of nonstandard employment and associated labor market segmentation in married women's employment may have important implications for processes of stratification since differential changes in married women's work by socioeconomic status can alter the pattern of family income inequality (e.g., Cancian, Danziger, and Gottschalk 1994; Cancian and Reed 1999). This may be particularly relevant in Japan, where recent increases in family income inequality appear to be the subject of great concern (Ohtake 2005; Sato 2000; Tachibanaki 1998). We speculate that old patterns (e.g., traditional gender norms) and recent changes in women's work (e.g., growth of nonstandard jobs and policy changes) created different (dis)incentives for married women's labor force participation by socioeconomic status. More specifically, we posit that the rise in nonstandard work is more relevant for less educated women while the emergence of career jobs is more relevant for the highly educated.

The Japanese labor market is rigidly segregated by education (Ogawa and Clark 1995). This labor market segregation, in conjunction with the introduction of a two-track system created by the EEOL, may have contributed to educational differences in women's work, in that career-track standard jobs have typically been filled by university graduates and that less educated women are increasingly concentrated in noncareer-track, nonstandard jobs (Nagase 2003; Rosenbaum and Kariya 1989). However, we should also note that the emergence of career-track positions for women might encourage labor force attachment among the highly educated but may have little effect on their likelihood of returning to the labor market after exiting for childrearing. Some previous research suggests that policy changes have not been effective in expanding access to career jobs for married women reentering the labor market due to the rigid emphasis on age and seniority in the internal labor market (e.g., Yu 2002).

In addition, the creation of career jobs along with the expansion of female education may have contributed to growing socioeconomic differences in married women's employment by altering the distribution of women's work orientation. The role of work orientation in women's labor force participation has received little attention in Japan. This presumably reflects both the lack of socioeconomic differentials in women's employment and insufficient data on women's attitudes toward work and family. However, recent evidence suggests that the passage of the EEOL and associated increases in career opportunities has fostered growth in female college students' career aspirations (Gelb 2000). At the same time, the implementation of child-care leave may have helped realize women's career orientations considering that the level of work commitment affects women's labor force participation surrounding childbirth as documented in the United States (Desai and Waite 2001). Given that family-friendly policies are usually available for career-type jobs that typically require a university degree, we expect to see educational differences both in the degree of career orientation and in the ability to realize career aspirations.

One interesting possibility is that the relationship between education and work orientation among Japanese married women may not be linear. Higher education is usually associated with stronger labor force attachment (Sorensen 1995), but previous research suggests that highly educated Japanese women are more likely to emphasize the roles of mother and wife in comparison with their less educated counterparts (Hirao 2001). This implies that there might be substantial variation in work and life preferences among highly educated women, with some having strong career orientation while others prioritize family responsibilities. At the same time, work orientation may underlie recently documented differences in labor force attachment between vocational school and junior college graduates (Raymo and Lim 2011). Considering the educational objectives of these two types of institutions and associated compositional differences in the students attending them, vocational school graduates presumably have stronger career orientation than junior college graduates. To the extent that work orientation affects women's employment decisions, the patterns of labor force transitions will differ between the two groups.

Taken together, this theoretical and empirical evidence suggests that highly educated women may have the most heterogeneous patterns of labor force transitions due to the tension between increasing incentives (change) to work and lingering disincentives to return to work (continuity) (e.g., Raymo and Lim 2011). Some may remain in regular employment to take

advantage of increased career opportunities (the EEOL effects) while others deliberately choose to work in nonstandard jobs because they prioritize domestic responsibilities over career development (Hakim 2000; Hirao 2001). They may also be more likely to remain in nonstandard jobs if that employment is incentivized by tax benefits and supported by high-earning husbands, but they are less likely to reenter the labor force once they have left if the economic incentives to return to the labor market in a low-paying nonstandard job are smaller than the opportunity costs (e.g., losing tax benefits and employer-provided family subsidies) (Raymo and Lim 2011).

On the contrary, women with a high school degree or less may have more fluid employment trajectories. The opportunity costs of leaving nonstandard jobs or reentering the labor market may be lower than for highly educated women given that the Japanese labor market is highly segregated by education (Houseman and Iwasawa 2003; Yu 2002). For instance, seniority does not necessarily result in higher, long-term earning potential or the possibility of promotion for less educated women (who are more likely to have nonstandard jobs). The fact that most nonstandard jobs are excluded from policies conducive to women's work (e.g., child-care leave) also implies that they may lack the systematic support or resources that promote continuous employment. Strong educational homogamy further suggests that less educated women, whose husbands may have lower-quality employment, may need to return to the labor force in response to economic needs.

As for those with intermediate levels of education (i.e., vocational school and junior college), patterns of labor force attachment may be more similar to those of less educated women if most career jobs are occupied by university graduates (Raymo and Lim 2011). However, theoretical predictions about their labor market reentry are unclear. They might remain out of the labor force if disincentives to return to the labor market (e.g., losing tax benefits) outweigh incentives of reentry (e.g., income). This scenario may be more applicable to junior college graduates, who may have less economic pressure to return to work (due to educational hyper-gamy) and have weaker career orientation. However, vocational school graduates may be more likely to return to the labor force given the nature of vocational school (i.e., acquiring specific occupational skills) and access to greater employment opportunities in stable, skilled jobs.

Data and Methods

Data come from the Japanese Panel Survey of Consumers (JPSC), an annual survey of a nationally representative sample of women conducted by the Institute for Research on Household Economics. The original sample was stratified by marital status, with 1,002 married women and 498 unmarried women between the ages of twenty-four and thirty-four surveyed in the first wave in 1993. In wave 5 (1997), a second cohort consisting of 201 married and 299 unmarried women was added. A third cohort (351 married and 485 unmarried women) was recruited in wave 11 (2003). In this study, we use data from the first to twelfth waves (1993–2004). The analytical sample comprises records for married women, including those who were married at the time of the first survey in 1993, 1997 (second cohort), or 2003 (third cohort) and those who married subsequent to initial observation. With

some exceptions discussed below, we dropped observations with missing data. The final analytical sample comprises 11,403 person-year observations.

Women enter the observation window at the baseline survey or immediately following marriage and are censored at the earliest of the following three events: marital dissolution, loss to follow-up, or the most recent survey in 2004. Labor force transitions include labor force exit, job change (from standard/full-time jobs to nonstandard jobs and vice versa), and labor force reentry. Following convention (e.g., Kalleberg 2000; Houseman and Sawada 2003), we define standard employment as full-time, regular jobs, and nonstandard employment as part-time employment and nonregular/short-term contract jobs. The self-employed, family workers, and freelancers are also classified as nonstandard workers. Labor force exit refers to cases in which a woman who was working in either a regular job or nonstandard job at the previous survey year ($t - 1$) is not in the labor force at the survey year t . Job change refers to cases in which a woman's employment type at the previous year ($t - 1$) is different from that observed at survey year t . Labor force reentry refers to cases in which a woman who was not working the previous year ($t - 1$) reports that she is working at year t . The duration of the current employment (or nonemployment) spell is the observed number of years in the current employment type. For women who were married and (not) working in the baseline survey year (i.e., left-truncated cases), we calculate the duration of the current spell using occupational history data, which provides information on the previous employment circumstances.

In this study, we use discrete-time competing risks models. Estimating discrete-time hazard is appropriate given the outcome of interest (e.g., labor force transitions between different employment types) and the nature of the data (i.e., an annual survey). This method also allows us to examine how women's labor force transitions are related to posited correlates conditional on duration in the current employment spell. In light of the role that nonstandard employment has played in altering the nature of women's employment and evidence of important differences in regular and nonstandard employment (Raymo and Lim 2011), the incorporation of job change (e.g., from standard to nonstandard and vice versa) as competing risks models allow for a fuller understanding of educational differentials in the labor force transitions among Japanese married women.

Measures

We estimate three sets of models—one for women in standard employment, one for those in nonstandard employment, and one for those not in the labor force. In the first two sets of models, the independent variable includes three possible interwave transitions: staying in the labor force in the same employment type (i.e., no change), transitions between standard and nonstandard employment, and exit from the labor force. For the reentry model, the dependent variable is a dichotomous indicator for the reentry. We did not differentiate types of employment in the reentry models because the proportion of women who reentered standard employment was very small (less than 1 percent of women in the reentry models). We use a quadratic specification of employment duration (years and years squared) based on the results of exploratory analyses using several different specifications of duration (results not shown). The main independent variable of interest is educational attainment, which is

constructed as a categorical variable: high school graduation or less, junior college, vocational school, and university or greater.

To examine the factors linking women's education and their labor force transitions, we include the following measures: Women's own income (annual, logged) is a proxy for human capital and reflects the opportunity costs of leaving the current job. It also reflects economic resources that may allow women to stay in the labor force (such as the ability to outsource child care and housework). For those not in the labor force, their previous income at the last job is included as a proxy for the earning potential and financial incentives to return to work. We imputed missing values of income using observed mean values by women's education and employment type.

We include three proxies of career orientation: respondents' reason for choosing their last school, the reason for choosing their current company, and the reason for leaving their previous job. The first measure is constructed from a question that asked respondents the reason for choosing the school they last attended and is included in all three sets of models. We coded responses of "to prepare for my desired job in the future" or "to get a good education" as 1 (career-oriented education) and all other responses (e.g., "my teacher/parents suggested it," "to be helpful for marriage") as 0 (noncareer-oriented education). In addition, we added a measure of work orientation based on a question about reasons for choosing their current company. Women who answered yes to any items consistent with career orientation, such as "potential for career development," "interest in the work," or "opportunities for promotion" were coded as 1, and all others were coded as 0. A corresponding measure of reasons for leaving the previous job was included in the labor force reentry models.

Job characteristics reflecting women's working environment include occupation, firm size, and public sector employment. Occupation is a categorical variable distinguishing family work/self-employment, professional/managerial work, clerical work, sales/service work, and manual labor. Because family work and self-employment are generally considered nonstandard work (e.g., Houseman and sawa 2003; Kalleberg 2000), this category is not relevant in the models for women in standard employment. Firm size differentiates public sector employment from three groups of private sector employers: small (1–99 employees), medium (100–499 employees), and large (more than 500 employees) firms. In the models for labor force reentry, job characteristics from respondents' previous employment spell were used. Because about 10 percent of women had missing data on previous firm size, we included an additional category for these missing cases.

In all models, we include controls that previous studies have shown to be related to both women's educational attainment and labor force participation, including demographic characteristics (age, parity, having interwave birth, presence of preschool-age child), husbands' characteristics (income, education, proportion of housework done by husbands), and family-related measures (coresidence with parents[-in-law]) (e.g., Raymo and Lim 2011; Yu 2005).

For women in each of the three labor force statuses, we estimate five models: the first examines the relationships between educational attainment and labor force transitions, net of controls and the quadratic specification of employment duration as baseline hazard. We then examine how the associations observed in the baseline model are mediated by women's own income in Model 2, work orientation in Model 3, and job characteristics in Model 4. The fifth model (full model) examines the extent to which the relationships in the first model are altered by including all three hypothesized mediators of relationships between educational attainment and labor force transitions.

Results

Table 1 presents descriptive statistics (means and standard deviations) of the variables used in the analysis for the entire sample and separately by employment type. Duration in the current status is longest for standard employment (8.13 years) and shortest for those in nonstandard employment (3.51 years). Relatively stable labor force attachment among standard employees reflects the high opportunity costs of leaving full-time standard jobs and long-term earning potential in seniority-based, internal labor markets. The proportion remaining in their current labor force status across successive survey years is similar for all three groups of women, ranging from 0.82 (nonstandard employment sample) to 0.87 (not-working sample). However, the nature of labor force transitions varies by employment type. For those with standard jobs, 7 percent of women exited the labor force in any given year and 6 percent moved to nonstandard employment. In contrast, women working in nonstandard employment are much more likely to drop out of the labor force (14 percent) altogether than to move to a standard job (4 percent). The small proportion of married women who move from nonstandard to standard employment demonstrates the difficulty of making this transition in the Japanese labor market (Yu 2002). Among those not in the labor force at wave t , 16 percent reentered the labor market by wave $t + 1$.

Table 1 also shows that, not surprisingly, women holding standard jobs have substantially higher income than those working in nonstandard jobs (Nagase 2003). It is also interesting that the previous income for women not in the labor force is higher than that of women having nonstandard jobs. This reflects the large pay gap between standard and nonstandard employment (Houseman and Owasa 2003). Also, those working in standard employment are more likely to have chosen the final school for reasons suggestive of a career orientation relative to those with nonstandard jobs or those not in the labor force. However, differences in reasons for choosing the current company among those in the labor force are small.

Turning to job characteristics, standard employees are much more likely than nonstandard workers to work in large firms and in the public sector, and to have professional or managerial jobs. In contrast, women having nonstandard jobs are concentrated in self-employment/family work and sales/services jobs and the majority of them (86 percent) are employed in small- or medium-size companies. Previous job characteristics of women currently out of the labor force are similar to those of nonstandard workers: their previous occupations are predominantly clerical and sales/service jobs, and they also tend to have worked in small firms.

Husbands of working women are somewhat more likely to do housework, although the differences across the three categories are small. Furthermore, women in the labor force are more likely to co-reside with parents (-in-law), indicating that help from extended family is conducive to married women's labor force attachment (Sasaki 2002). Those not in the labor force are most likely to give birth between two waves (11 percent) and to have preschool-age child(ren) (56 percent), which is consistent with a large drop of women's labor force participation due to childrearing (Brinton 2001). Interestingly, the proportion giving birth between waves was 10 percent among women in regular jobs, but only 5 percent among women employed in nonstandard jobs. The higher proportion of childbirth among women in standard employment might reflect access to child-care leave, as discussed in the previous section.

Table 2 presents the results of discrete-time event history models for labor force transitions among women in standard employment. As described earlier, the dependent variable has three categories: staying in standard employment (the reference outcome), job change into nonstandard employment, and exit from the labor force. The baseline model includes duration (baseline hazard), educational attainment, and background variables. The two coefficients for duration indicate that the hazard of exit is U-shaped, with the likelihood of labor force exit declining as women's duration in standard employment increases, but increasing after 12.6 years of employment. The hazard of transition to nonstandard work is also U-shaped.

Results from the baseline model indicate that there is little difference in the likelihood of labor force exit from standard employment between high school graduates (reference group) and vocational school graduates or university graduates. This result likely reflects the high opportunity costs of leaving standard employment (e.g., higher pay and superior benefits) as well as the difficulty of returning to standard employment after career disruption (Yu 2002). One interesting finding from Model 1 is that junior college graduates are less likely to quit a standard job relative to high school graduates. Another notable finding is that university graduates are the least likely to change jobs from standard to nonstandard employment.

Subsequent models sequentially introduce the posited linkages between education and labor force transitions: income (Model 2), work orientation (Model 3), and job characteristics (Model 4). Results of these models reveal that the low likelihood of moving from standard to nonstandard employment among university graduates reflects their job characteristics (Model 4). In addition, we find that the significantly lower hazard of exiting standard jobs among junior college graduates (relative to high school graduates) observed in the baseline model disappears when income (Model 2), work orientation (Model 3), and job characteristics (Model 4) are taken into account. It is not clear, however, why similar results are not found for women with vocational school and university education. Considering that junior college is predominantly female and the purpose of junior college education is not directly linked to career jobs, junior college graduates who have standard employment appear to be more affected by the incentives to remain in standard jobs, such as higher income and better working conditions (e.g., parental leave) relative to women with vocational school or university degrees. However, this interpretation is speculative and needs to be evaluated in future research.

Table 3 presents results from the models predicting labor force transitions for women in nonstandard jobs. The baseline hazard expressed as linear and quadratic terms suggests that the probability of exit declines as spell duration increases, but this negative association changes at some point (16.3 years). In the baseline model (Model 1), there are no educational differences in the odds of job change from nonstandard to standard employment. This finding is not surprising in light of the extremely low mobility from nonstandard to standard jobs in the relatively rigid primary labor market in Japan (Lincoln and Nataka 1997; Yu 2002). However, we do find that university graduates are the least likely to quit nonstandard jobs.

Results from the subsequent models (Model 2 to Model 4) reveal that women's income and career orientation (reason for choosing the final school) are associated with a lower likelihood of labor force exit. In contrast to findings from the standard employment model (Table 2), occupation, firm size, and public sector are not associated with the likelihood of labor force exit or change in employment type. One exception is evidence that self-employment as well as family work increases the hazard of exit and decreases the likelihood of employment type change. These results likely reflect the overall poor quality of nonstandard jobs (Kalleberg, Reskin, and Hudson 2000; Nagase 2003) and also imply that university graduates who chose to work in nonstandard employment do not do so for the income or opportunities for career development. It might be the case that these women want to balance work and family (Hakim 2000) or take advantage of the tax benefits associated with dependent status by working in low-paying, nonstandard jobs (Nagase 2003). However, it is important to note that university graduates' significantly lower likelihood of leaving nonstandard jobs (relative to their less educated counterparts) still remains even after the posited linkages are taken into account (Model 2 to Model 4).

Finally, Table 4 presents results from the models for labor force reentry. The two coefficients for duration indicate that women who are not in the labor force are less likely to go back to work the longer they stay out of the labor force, but the likelihood of reentry increases after 13.7 years. This pattern is consistent with evidence that married women tend to return to work when their children reach school age (Brinton 2001). Results from the baseline model also show that women with university and junior college degree are less likely to reenter the labor market compared to high school graduates. Combined with the results from the earlier models, university graduates are most heterogeneous in terms of the pattern of labor force transitions: when these highly educated women are employed, they are the least likely to experience labor force transitions, but they are also less likely to reenter once they leave the labor force.

In the next three models, we find that both career orientation (the reason for leaving the previous job) and having had a professional job significantly increase the hazard of labor force entry. With the inclusion of work orientation in Model 3 and previous job characteristics in Model 4, vocational school graduates are now also less likely to reenter the labor force than women with a high school education or less. This change is due to the fact that vocational school graduates have stronger work orientation (reason for choosing the final school) and are more likely to have worked in professional/managerial positions before labor force withdrawal relative to high school graduates (supplementary analyses). This

finding is consistent with the hypothesis that vocational school graduates have more job opportunities that match their occupational skills and expectations (i.e., stable low- to mid-skill jobs), which encourages their labor market return. It is also worth noting that, once work orientation and previous job characteristics are taken into account, only the least educated women (i.e., high school or less) tend to reenter the labor market while their counterparts with higher education remain out of the labor force. As discussed earlier, characteristics of the Japanese labor market (e.g., the low quality of nonstandard jobs and the difficulty of returning to standard employment) and tax disincentives for employment among economically dependent housewives appear to have increased the opportunity costs of reentry for more highly educated women, who also tend to have high earning husbands and thus less economic need to work.

Discussion and Conclusion

In this study, we used nationally representative longitudinal data to examine the extent to which married women's labor force transitions vary by education in Japan. We paid particular attention to the role of nonstandard work in shaping women's employment trajectories. Using discrete-time competing risks models, we also evaluated whether women's income, work orientations, and working conditions accounted for observed educational differences in the patterns of married women's labor force transitions. In this section, we summarize our findings and discuss potential implications of the study results.

First, we did find that married women's employment trajectories differ across the educational spectrum and also vary by employment type. Results showed that highly educated women (university graduates) have the most stable employment trajectories. When working in standard employment, they are the least likely to move from standard to nonstandard employment. When working in nonstandard jobs, they are also the least likely to leave their jobs. These results show that, among married women in the labor force, those with a four-year degree or more are different from everybody else. Highly educated women's stable labor force attachment presumably reflects increased career opportunities following the implementation of the EEOL as well as the high opportunity costs of leaving standard jobs in the relatively inflexible internal labor markets and growing labor market uncertainty associated with the economic recession. In contrast, upon reentry to the labor force, there is a clear difference between women at the lower end of the educational spectrum (i.e., high school or less) and other groups. High school graduates are more likely to reenter the labor force than otherwise similar women with some postsecondary education. It may be that the lack of meaningful career opportunities for those seeking reentry in the Japanese labor market (Yu 2002) is less relevant for high school graduates than it is for their more highly educated counterparts. The employment disincentives associated with tax policy, social security policy, and employer-provided dependence allowance may also be less relevant for women married to men with lower levels of education and earnings. The result of these two contrasting patterns is an overrepresentation of highly educated women in standard employment and less educated women in nonstandard employment.

Second, we found some evidence consistent with a mediating role for women's work orientation and job characteristics. For example, the relatively low probability of

transitioning from standard to nonstandard employment among university graduates is primarily due to their higher likelihood of working in large firms and public sector employment. Given that large firms and public sector entities are more likely to implement policy measures designed to facilitate women's work, highly educated women in these positions can enjoy career-track jobs and take advantage of family-friendly policies. We also found that previous occupational characteristics are related to vocational school graduates' return to the labor force. As posited, career opportunities in stable, moderately skilled jobs may attract vocational school graduates to return to the labor market. Also, vocational school graduates have relatively strong work orientation as proxied by the reasons for choosing their final school or the reason for leaving their previous job, which is also associated with a higher likelihood of returning to work. Our results imply that policies designed to facilitate married women's work may need to consider these differentials in key mediators. In particular, the strong mediating effects of job characteristics indicate that educational differentials reflected in such job characteristics will continue to increase if current labor market conditions (e.g., inferior job quality of nonstandard employment, exclusion of nonstandard workers from family-friendly policies) do not change.

Third, our results indicate variation in employment patterns and their correlates both across and within educational groups. Prior research has paid relatively little attention to this within-group heterogeneity. In addition to the differences at the two ends of the educational spectrum, we find evidence that those in the middle categories (vocational school and junior college) differ in terms of their employment stability and in the key factors affecting their employment trajectories. In past studies, these two groups of women were usually grouped together and assumed to be homogeneous. However, our findings indicate that between-group variation should be taken into account. Another interesting finding is that university graduates are most heterogeneous in terms of their employment trajectories: some of them have strong labor force attachment to career jobs (standard employment) while others stay in less demanding noncareer jobs (nonstandard employment). At the same time, university graduates tend to stay out of the labor force once they leave. This heterogeneity is consistent with the hypothesis that tensions between increasing incentives for work and disincentives to return to mostly nonstandard jobs are strongest for highly educated women (Raymo and Lim 2011).

All these changes surrounding women's work in Japan have important implications for other outcomes such as marital stability, fertility, and children's development and well-being. Growing differentials in women's labor force attachment may be particularly important for understanding variation in the economic well-being of families. For instance, women's education is positively associated with both labor force participation and husbands' education in the United States (Cancian, Danziger, and Gottschalk 1994), and these changes associated with married women's employment have been linked to increasing inequality in household income (Cancian and Reed 1999). It is, therefore, theoretically and substantively important to carefully examine whether newly emerging educational differentials in women's labor force participation in Japan play similar roles in stratification processes.

Given that women's concentration in nonstandard employment and the inferior quality of nonstandard jobs are observed in many advanced economies, our finding that nonstandard

employment plays a role in labor market segmentation among married women has potentially broad implications. Future research should consider whether our findings reflect distinctive features of the Japanese context or if they are more broadly applicable in a globalized economy characterized by significant growth in the prevalence of nonstandard employment.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

References

- Atoh Makoto. 2001 "Very Low Fertility in Japan and Value Change Hypotheses." Review of Population and Social Security Policy 10:1–21.
- Blossfeld Hans-Peter, and Hakim Catherine. 1997 *Between Equalization and Marginalization: Women Working Part-Time in Europe*. Oxford: Oxford University Press.
- Boling Patrica. 2007 "Policies to Support Working Mothers and Children in Japan" In *The Political Economy of Japan's Low Fertility*, ed. Rosenbluth FM, 131–54. Stanford, CA: Stanford University Press.
- Brinton Mary C. 1993 *Women and the Economic Miracle: Gender and Work in Postwar Japan*. Berkeley: University of California Press.
- Brinton Mary C. 2001 "Married Women's Labor in East Asian Economies" In *Women's Working Lives in East Asia*, ed. Brinton, 1–37. Stanford, CA: Stanford University Press.
- Maria Cancian; Danziger Sheldon; and Gottshalk Janet. 1994 "Working Wives and Family Income Inequality Among Married Couples" In *Uneven Tides: Rising Inequality in America*, ed. Danziger S and Gottschalk P, 195–221. New York: Russell Sage Foundation.
- Cancian Maria, and Reed Deborah. 1999 "The Impact of Wives' Earnings on Income Inequality: Issues and Estimates." *Demography* 36: 173–84. [PubMed: 10332609]
- Choe Minja Kim; Bumpass Larry L.; and Tsuya Noriko O.. 2004 "Employment" In *Marriage Work, & Family Life in Comparative Perspective*, ed. Tsuya and Bumpass, 95–113. Honolulu: East-West Center.
- Desai Sanalde, and Waite Linda J.. 2001 "Women's Employment During Pregnancy and After the First Birth: Occupational Characteristics and Work Commitment." *American Sociological Review* 56, no. 4: 551–66.
- Futagami Shiho. 2010 "Non-Standard Employment in Japan: Gender Dimensions" Discussion Paper DP/200/2010. Geneva: International Institute for Labour Studies.
- Gelb Joyce. 2000 "The Equal Employment Opportunity Law: A Decade of Change for Japanese Women?" *Law and Policy* 22: 385–407.
- Gottfried Heidi, and Hayashi-Kato Nagisa. 1998 "Gendering Work: Deconstructing the Narrative of the Japanese Economic Miracle." *Work, Employment and Society* 12: 25–46.
- Hakim Catherine. 2000 *Work-lifestyle Choices in the 21st Century: Preference theory*. London: Oxford University Press.
- Higuchi Yoshio. 1995 "Sengy Shufu Hog Seisaku no Keizaiteki Kiketsu" [The Economic Consequences of Policies Favoring Full-Time Housewives] In *jakusha Hog seisaku no Keizai Bunseki* [Economic Analysis of Policies Protecting the Vulnerable], ed. Hatta T and Yashiro N, 185–219. Tokyo: Nihon Keizai Shinbunsha.
- Hirao Keiko. 2001 "Mothers as the Best Teachers: Japanese Motherhood and Early Childhood Education" In *Women's Working Lives in East Asia*, ed. Brinton MC, 180–203. Stanford, CA: Stanford University Press.
- Houseman Susan N. 2003 "The Benefits Implications of Recent Trends in Flexible Staff Arrangements" In *Benefits for the Workplace of the Future*, ed. Mitchell Olivia S., Blitzstein

- David S., Gordon Michael, and Mazo Judith F., 89–109. Philadelphia: University of Pennsylvania Press.
- Houseman Susan N., and Iwasawa Machiko. 2003 “The Growth of Nonstandard Employment in Japan and the United States: A Comparison of Causes and Consequences” In *nonstandard Work in Developed Economies: Causes and Consequences*, ed. Houseman and Iwasawa, 175–211. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.
- Kalleberg Arne L. 2000 “Nonstandard Employment Relations: Part-time, Temporary and Contract Work.” *Annual Review of Sociology* 26: 341–65.
- Kalleberg Arne L.; Reskin Barbara F.; and Hudson Ken. 2000 “Bad Jobs in America: Standard and Nonstandard Employment Relations and Job Quality in the United States.” *American Sociological Review* 65: 256–78.
- Lincoln James, and Nakata Yoshifumi 1997 “The Transformation of the Japanese Employment System: Nature, Depth, and Origins.” *Work and Occupations* 24: 33–55.
- Nagase Nobuko. 2003 “Standard and Nonstandard Work Arrangements, Pay Differences, and Choice of Work by Japanese Mothers” In *Nonstandard Work in Developed Economies: Causes and Consequences*, ed. Houseman S and Iwasawa M, 267–305. Kalamazoo, MI: Upjohn Institute for Employment Research.
- Ogawa Naohiro, and Clark Robert L.. 1995 “Earning Patterns of Japanese Women: 1976–1998.” *Economic Development and Cultural Change* 43: 293–313.
- Ohtake Fumino. 2005 *nihon no Fubyō : Kakusa Shakai no Genshō to Mirai* [Inequality in Japan: The Illusion and the Future of Unequal Society]. Tokyo: Nihon Keizai Shimbunsha.
- Oppenheimer Valerie Kincade. 1988 “A Theory of Marriage Timing.” *American Journal of Sociology* 94: 563–91.
- Raymo James M; and Lim So-jung. 2011 “A New Look at Married Women’s Labor Force Transitions in Japan.” *Social Science Research* 40: 460–72.
- Rebeck Marcus. 2005 *The Japanese Employment System: Adapting to a New Economic Environment*. Oxford: Oxford University Press.
- Rosenbaum James, and Kariya Takehiko. 1989: “From High School to Work: Market and Institutional Mechanisms in Japan.” *American Journal of Sociology* 94: 1334–65.
- Sasaki Masaru. 2002 “The Causal Effect of Family Structure on Labor Force Participation Among Japanese Married Women.” *Journal of Human Resources* 37, no. 2: 429–40.
- Sato Toshiki. 2000 *Fubyōdo Shakai Nihon* [Japan as an Unequal Society]. Tokyo: Chuo Koron Shinsha.
- Sorensen Annemette. 1995 “Women’s Education and the Costs and Benefits of Marriage” In *The New Role of Women: Family Formation in Modern Societies*, ed. Blossfeld H-P, 229–35. Boulder, CO: Westview Press.
- Sweeney Megan M. 2002 “Two Decades of Family Change: The Shifting Economic Foundations of Marriage.” *American Sociological Review* 67: 132–47.
- Tachibanaki Toshiaki. 1998 *nihon no Keizai kakusa* [Japan’s Economic Disparity]. Tokyo: Iwanami Shoten.
- Tsuya Noriko O.; Bumpass Larry L.; Choe Minja Kim; and Rindfuss Ronald R.. 2005 “Is the Gender Division of Labour Changing in Japan?” *Asian Population Studies* 1: 47–67.
- Tyson Laura D Andrea. 2013 “Japan’s Women to the Rescue.” *Economix*. Available at http://economix.blogs.nytimes.com/2013/08/23/japans-women-to-the-rescue/?_php=true&_type=blogs&_r=0/.
- Wada Junichiro. 2007 “The Political Economy of Daycare Centers in Japan” In *The Political Economy of Japan’s Low Fertility*, ed. Rosenbluth FM, 155–69. Stanford, CA: Stanford University Press.
- Yu Wei-hsin. 2002 “Jobs for Mothers: Married Women’s Labor Force Reentry and Part-Time, Temporary Employment in Japan,” *Sociological Forum* 17: 493–523.
- Yu Wei-hsin. 2005 “Changes in Women’s Post-Marital Employment in Japan and Taiwan.” *Demography* 42: 693–717. [PubMed: 16463917]

Table 1Sample Characteristics (mean and standard deviation), by Labor Force Status at Wave t

Variable	Total	Standard employment	Nonstandard employment	Not in the labor force
Duration in current status (years)		8.13 (5.9)	3.51 (3.7)	4.8 (4.3)
Transition (between wave t and wave $t + 1$)				
No transition		0.87	0.82	0.84
Labor force exit		0.07	0.14	N/A
Standard to nonstandard employment		0.06	N/A	N/A
Nonstandard to standard employment		N/A	0.04	N/A
Labor force reentry		N/A	N/A	0.16
Education				
High school or less	0.51	0.41	0.58	0.49
Vocational school	0.19	0.21	0.18	0.20
Junior college	0.20	0.21	0.17	0.21
University or more	0.10	0.17	0.07	0.10
Age	33.23 (4.5)	33.37 (4.7)	34.45 (4.5)	32.42 (4.3)
Gave birth between t and $t + 1$ ^a	0.09	0.10	0.05	0.11
Parity	1.71 (0.9)	1.47 (1.0)	1.8 (0.9)	1.75 (0.9)
Has preschool-age child ^a	0.40	0.32	0.23	0.56
Coresidence with parents(-in-law) ^a	0.35	0.45	0.41	0.28
Husband's education				
High school or less	0.51	0.52	0.58	0.47
Vocational school	0.16	0.14	0.17	0.15
University or more	0.33	0.34	0.26	0.38
Husband's income (logged)	6.09 (0.7)	6.03 (0.8)	6.05 (0.9)	6.17 (0.7)
Husband's share in housework	0.13 (0.1)	0.17 (0.2)	0.17 (0.1)	0.11 (0.1)
Current/previous income (logged)	4.41 (1.7)	5.55 (1.0)	3.88 (1.6)	4.43 (2.0)
Reason for choosing final school ^a				
Active	0.48	0.56	0.46	0.47
Passive	0.52	0.44	0.54	0.53
Reason for choosing the current company ^a				
Reasons related to career orientation		0.08	0.09	
Reasons not related to career orientation		0.92	0.91	
Reason for quitting the previous job ^a				
Reasons related to career orientation				0.01
Reasons not related to career orientation				0.99
Current/previous occupation				
Self-employed/family work		N/A	0.26	0.07
Professional/managerial		0.35	0.12	0.13
Clerical		0.36	0.18	0.47

Variable	Total	Standard employment	Nonstandard employment	Not in the labor force
Manual labor		0.13	0.18	0.10
Sales/service		0.17	0.28	0.24
Current/previous firm size				
1–99		0.35	0.73	0.49
100–499		0.19	0.13	0.19
500+		0.22	0.10	0.27
Public sector		0.24	0.05	0.05
Firm size missing		0.01	0.04	0.10
Number of person–years	11,403	1,995	3,925	5,483

^aDichotomous variables coded 1 = yes, 0 = no.

In some cases, totals do not sum up to 1 due to a rounding error.

Table 2
Discrete-Time Competing Risks Model Predicting Labor Force Transitions for Women Working in Standard Employment

Variable	Labor force exit					Change to nonstandard employment				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Duration in current status (years)	-0.20 ***	-0.14 **	-0.21 ***	-0.18 ***	-0.14 *	-0.38 ***	-0.34 ***	-0.39 ***	-0.33 ***	-0.31 ***
Duration in current status (squared term)	0.01 **	0.01 *	0.01 **	0.01 *	0.01 *	0.01 **	0.01 *	0.01 **	0.01 *	0.01 *
Education										
High school or less ^a										
Vocational school	-0.47	-0.46	-0.34	-0.33	-0.35	0.07	0.07	0.10	-0.04	-0.07
Junior College	-0.61 *	-0.51	-0.49	-0.20	-0.16	-0.13	-0.07	-0.11	0.46	0.47
University or more	-0.57	-0.5	-0.45	-0.10	-0.07	-1.46 *	-1.40 *	-1.42 *	-0.91	-0.87
Income (logged)		-0.45 ***			-0.40 ***		-0.21 **			-0.20 *
Work orientation										
Reason for choosing final school ^b			-0.25		-0.02			-0.05		0.00
Reason for choosing the current company ^b			-0.16		-0.24			-0.37		-0.43
Job characteristics										
Occupation										
Clerical ^a				-0.09	-0.05				0.27	0.31
Professional/managerial				0.53	0.42				0.79 *	0.75 *
Manual labor				0.40	0.33				1.25 ***	1.27 ***
Sales/service										
Firm size										
Small (1–99) ^a				0.03	0.08				-0.5	-0.47
Medium (100–499)				0.23	0.24				-1.44 ***	-1.47 ***
Large (≥ 500)				-2.17 ***	-2.09 ***				-2.17 ***	-2.11 ***
Public sector				0.88	0.35				-0.29	-0.64
Missing									-1.58	-0.39
Constant	-2.13	-0.52	-1.99	-3.00 *	-1.32	-0.85	0.1	-0.71		

Variable	Labor force exit					Change to nonstandard employment				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Number of person-years	1,995	1,995	1,995	1,995	1,995	1,995	1,995	1,995	1,995	1,995
Log likelihood	-795.76	-778.43	-794.35	-748.62	-734.42	-795.76	-778.43	-794.35	-748.62	-734.42

^aOmitted category.

^bDichotomous variables coded 1 = yes, 0 = no (reference category).

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$.

Note: All models control for women's demographic characteristics (age, parity, having interwave birth, presence of a preschooler), husbands' characteristics (income, education, share in housework), and family characteristics (coresidence with parents [-in-law]). Supplementary tables provide results from full model.

Table 3

Discrete-Time Competing Risks Model Predicting Labor Force Transitions for Women Working in Nonstandard Employment

Variable	Labor force exit					Change to standard employment				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Duration in current status (years)	-0.29***	-0.25***	-0.30***	-0.29***	-0.26***	-0.09	-0.18*	-0.08	-0.06	-0.15*
Duration in current status (squared term)	0.01*	0.01	0.01*	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Education										
High school or less ^a										
Vocational school	-0.05	-0.05	0.09	-0.01	0.12	0.27	0.28	0.41	0.20	0.38
Junior College	-0.05	-0.06	0.07	0.03	0.11	-0.10	-0.10	0.02	-0.17	-0.05
University or more	-0.69**	-0.69**	-0.58*	-0.58*	-0.50*	-0.49	-0.46	-0.40	-0.43	-0.34
Income (logged)		-0.08**			-0.07*		0.30***			0.28***
Work orientation										
Reason for choosing final school ^b			-0.26*		-0.22			-0.24		-0.3
Reason for choosing the current company ^b			-0.09		-0.02			0.20		0.08
Job characteristics										
Occupation										
Clerical ^a										
Self-employed/family work				0.37*	0.31				-1.21***	-1.12**
Professional/managerial				-0.28	-0.25				0.4	0.41
Manual labor				0.16	0.15				0.04	0.05
Sales/service				0.15	0.12				0.01	0.03
Firm size										
Small (1–99) ^a										
Medium (100–499)				-0.05	-0.03				-0.06	-0.09
Large (500)				0.26	0.25				-0.31	-0.31
Public sector				-0.46	-0.50				-0.29	-0.30
Missing				0.15	0.15				-0.76	-0.73
Constant	0.17	0.49	0.25	0.07	0.43	-0.63	-1.77*	-0.67	-0.63	-1.76

Variable	Labor force exit					Change to standard employment				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Number of person-years	3,925	3,925	3,925	3,925	3,925	3,925	3,925	3,925	3,925	3,925
Log likelihood	-1,976.86	-1,960.36	-1,973.25	-1,951.72	-1,935.75	-1,976.86	-1,960.36	-1,973.25	-1,951.72	-1,935.75

^aOmitted category.

^bDichotomous variables coded 1 = yes, 0 = no (reference category).

* $p < 0.05$

** $p < 0.01$

*** $p < 0.001$.

Note: All models control for women's demographic characteristics (age, parity, having interwave birth, presence of a preschooler), husbands' characteristics (income, education, share in housework), and family characteristics (coresidence with parents[-in-law]). Supplementary tables provide results from full model.

Table 4

Discrete-Time Logistic Regression Model Predicting Labor Force Reentry for Women Not in the Labor Force

Variable	Labor force reentry				
	Model 1	Model 2	Model 3	Model 4	Model 5
Duration in current status (years)	−0.25 ***	−0.25 ***	−0.23 ***	−0.24 ***	−0.23 ***
Duration in current status (squared term)	0.01 ***	0.01 ***	0.01 ***	0.01 ***	0.01 ***
Education					
High school or less ^a					
Vocational school	−0.18	−0.19	−0.23 *	−0.27 *	−0.31 *
Junior College	−0.23 *	−0.24 *	−0.27 *	−0.27 *	−0.31 *
University or more	−0.39 *	−0.39 *	−0.41 *	−0.43 *	−0.44 *
Previous income (logged)		0.01			0.00
Work orientation					
Reason for choosing final school ^b			0.11		0.11
Reason for quitting the previous job ^b			1.06 ***		1.08 ***
Job characteristics					
Previous occupation					
Clerical ^a					
Self-employed/family work				0.35	0.42
Professional/managerial				0.35 **	0.34 *
Manual labor				−0.02	−0.01
Sales/service				0.04	0.04
Previous firm size					
Small (1–99) ^a					
Medium (100–499)				0.00	−0.01
Large (≥ 500)				−0.09	−0.10
Public sector				−0.25	−0.26
Missing				−0.37	−0.40
Constant	0.30	0.26	0.22	0.30	0.24
Number of person–years	5,483	5,483	5,483	5,483	5,483
Log likelihood	−2,164.99	−2,164.89	−2,156.65	−2,159.77	−2,151.38

^aOmitted category.^bDichotomous variables coded 1 = yes, 0 = no (reference category).*
 $p < 0.05$ **
 $p < 0.01$ ***
 $p < 0.001$.

Note: All models control for women's demographic characteristics (age, parity, having interwave birth, presence of a preschooler), husbands' characteristics (income, education, share in housework), and family characteristics (coresidence with parents[-in-law]). Supplementary tables provide results from the full model.

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