

ABSTRACT

Dissertation directed by: GENDER-SPECIFIC SIGNIFICANCE OF
FAMILY TRANSITIONS ON WELL-BEING
AND WORK ATTITUDES

Yuko Hara, Doctor of Philosophy, 2022

Dissertation directed by: Professor Feinian Chen
Department of Sociology

Marriage and parenthood are major life events for many individuals. Marriage is linked with improved health partly through spousal influence on health-related behaviors including diet. Previous theoretical and qualitative research suggests a link between family transitions and meal patterns. Yet empirical research using a nationally representative sample to examine the association is scarce. And the issues of whether spousal influence on health-related behaviors can be extended to other types of romantic relationships, such as cohabitation, as well as whether the transition to parenthood is linked with changes in meal patterns, have not been adequately researched. Additionally, research examining whether the health benefits that marriage brings can be universally found for both genders across countries is limited.

Family life events carry other consequences, too. Prior research also suggests that family life often has a negative impact on attitudes toward paid work, particularly for women. Past research, however, primarily relied on small sample interview data or cross-sectional data, leaving unclear how work attitudes change during adulthood.

This dissertation examines the impact of different family life events such as marriage, cohabitation, and parenthood on changes in subjective well-being, health-related behavior (meal patterns), and attitudes towards work by gender. I focus on adults in their prime work and family life stages in the U.S. and Japan. By using fixed effects models and panel data, I aimed to estimate the average effect of family life events within individuals over time.

I found that entering a romantic union reduces meal skipping, but the type of union matters differently for men and women. I also found that the transition to parenthood discourages women's regular meal patterns, suggesting family ties do not necessarily facilitate healthy behaviors. In the highly gendered social context of Japan, contrary to previous findings from Western industrialized countries, I found no evidence indicating that marriage is associated with self-rated health for women. Additionally, I found that the transition to parenthood is negatively linked with men's self-rated health. In terms of work attitudes, even when controlling for various job characteristics, I found that both marriage and parenthood are negatively associated with enthusiasm toward work achievement, only for women in Japan. These findings highlight the importance of country context and reveal that entry into marriage triggers shifts in women's work attitudes even before having children.

GENDER-SPECIFIC SIGNIFICANCE OF FAMILY TRANSITIONS ON
WELL-BEING AND WORK ATTITUDES

by

Yuko Hara

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Advisory Committee:

Professor Feinian Chen, Chair
Professor Wei-hsin Yu
Professor Liana C. Sayer
Professor Sangeetha Madhavan
Professor Kerry M. Green

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Introduction

My dissertation examines the associations between family transitions and changes in health-related behaviors, subjective well-being, and attitudes toward work. I consider how these associations differ by gender using nationally representative samples from the United States and Japan. This dissertation focuses on two major family life events as key predictors for individuals: the formation of romantic unions (marriage/cohabitation) and the transition to parenthood. My dissertation addresses the following research questions: How are transition to marriage, cohabitation, and parenthood associated with changes in meal patterns, and how does the association differ by gender? How are marriage and parenthood related to subjective well-being by gender? How do attitudes toward work respond to changes in family responsibilities by gender? By using panel data and fixed-effects models that can adjust for the selectivity into different union/parental statuses, my dissertation more precisely estimates the effects of family life events on the outcomes than previous studies which used cross-sectional data. Furthermore, by analyzing differences in outcomes by gender, my dissertation highlights the gendered significance of life events among individuals in early to middle adulthood in the two industrialized nations.

Chapter 1 of this dissertation assesses changes in individuals' meal patterns—specifically, meal skipping, which is associated with poorer overall dietary quality (Kerver et al. 2006; Timlin and Pereira 2007; Zeballos and Todd 2020), a higher risk of obesity and type 2 diabetes (Pereira et al. 2011), and lower daily energy intake

(Zeballos and Todd 2020). Although the results are inconsistent, the possible link between family transitions and eating patterns are suggested by theoretical and qualitative work. Yet empirical research using nationally representative samples to examine this association between family formation and individuals' meal patterns is scarce. There are two competing theoretical perspectives on how romantic unions and parenthood are linked to changes in meal patterns: social control and time scarcity. The social control perspective posits that social ties, such as marriage and parenthood, can promote healthy behaviors and regulate unhealthy ones (Umberson 1987). Newly added family obligations may motivate individuals to routinize household activities by establishing patterns of regular family meals, which may lead to less frequent meal skipping. In contrast, the time-scarcity perspective posits that the time constraints created by various family obligations, particularly life with children, may come with new daily time pressures (Ruppanner, Perales, and Baxter 2019), which may lead to more frequent meal skipping. In fact, the perceived lack of time is the most important factor associated with meal skipping (see Pendergast et al. 2016 for a review).

Chapter 2 examines the relationship between transitions into marriage/parenthood and the subjective well-being of men and women in the highly gendered social context of Japan. Previous studies have demonstrated that marriage is associated with improved mental and physical health (for a review, see Umberson and Thomeer 2020). At the same time, a large body of research has shown that there is a negative association between parenthood and well-being, but the effect is small (see Hansen 2012 for a review). However, research on the relationship between marriage/parenthood and well-being has focused on North American and European

countries. It remains unclear whether the findings are generalizable for both genders across countries. In social contexts where married men's and women's expected roles and behaviors are highly gendered, it is possible that the relationship between marriage/parenthood and well-being not only differs from the relationship in the West, but also differs between men and women. Research presented in this chapter has been published in the *Journal of Family Issues* (Hara 2022).

Chapter 3 investigates how associations between family responsibilities and changes in attitudes toward work differ by gender. In this chapter, I use Japan as an illustrative case of a gender context where marriage and parenthood bring extremely gendered divisions of labor between spouses. Many women in Japan leave the labor market upon marriage or childbirth and re-enter it later when their children enter elementary or middle school, often as non-regular or contingent workers (Brinton 2001; Yu 2002, 2005). Such highly gendered work trajectories also make Japan an ideal setting in which to assess the opportunity structures perspective. Previous research suggests women that, mainly upon childbearing, are more likely than men to make a larger adjustment in attitudes toward work. Specifically, for women, parenthood provokes a major shift in their work-related strategies and attitudes (Becker and Moen 1999; Blair-Loy 2001; Evertsson 2013; Maume 2006; Stone 2007). At the same time, however, mothers may be channeled into less desirable jobs with less autonomy and fewer opportunities for career advancement. The shift in job conditions, rather than increased family responsibilities, may be mainly responsible for attenuating individuals' enthusiastic attitudes toward work. This contrasting position is represented by scholars who argue that the effect of family on attitudes

toward work is best predicted by job characteristics instead of gender (Cassirer and Reskin 2000; Kanter 1976, 1993). The opportunity structures perspective posits that women appear to have less vigorous work attitudes than men because women are more likely to occupy jobs with limited advancement opportunities in the workplace and organizations. Past empirical research, however, has primarily relied on small sample interview data or cross-sectional data, so that it remains unclear how and which life events precipitate changes in work attitudes over individuals' life course.

Chapter 1: How Does Family Formation Affect Health-related Behavior? The Case of Meal Skipping

Introduction

Research has demonstrated that marriage is associated with improved mental and physical health for both men and women (Ross, Mirowsky, and Goldsteen 1990; Waite and Gallagher 2000). Some studies have found that cohabitation also provides a level of health benefits similar to marriage (Amato 2015; Horwitz and White 1998; Musick and Bumpass 2006, 2012; Wu et al. 2003). Marriage and/or cohabitation leads to improved health through spousal control and monitoring and encouragement of self-regulation of health-related behaviors (Umberson 1987). Behavioral choices, including dietary factors, explain more than 40 percent of deaths in the United States and are the “single prominent domain of influence” on health of the population (McGinnis, Williams-Russo, and Knickman 2002:3). Research has highlighted the significant role of romantic partners in influencing each other’s health-related behaviors in many domains, including health risk behaviors, such as cigarette smoking and excess alcohol consumption (see review by Wood, Goesling, and Avellar 2007). Limited but some empirical studies based on non-nationally representative samples have suggested dietary improvement following remarriage for both men and women (Eng et al. 2005; Lee et al. 2005). Although results are inconsistent, previous research has also assessed the relationship between parenthood and health-related behaviors, such as alcohol consumption, cigarette smoking, or substance use (Torche and Rauf 2020; Wolfe 2009) as well as physical activity (Bell and Lee 2005; Brown, Heesch, and Miller 2009; Nomaguchi and Bianchi 2004). Yet,

there has been relatively little investigation of the association between family formation and meal patterns, such as meal skipping.

Previous theoretical and qualitative research has suggested a possible link between family formation and meal patterns (Kemmer, Anderson, and Marshall 1998; Marshall and Anderson 2002; Umberson 1987). Entry into a romantic union and parenthood may help usher in regular meal patterns, owing to a sense of obligation to family members' health and health behaviors (Umberson 1987, 1992), or even indirectly facilitate one's own regular meal patterns as a result of an increased frequency of family meals (Davidson and Gauthier 2010; Musick and Meier 2012; Sharif et al. 2017). On the other hand, family formation, and particularly life with children, may come with new daily time pressures (Ruppanner et al. 2019), leading to less regular meal patterns. Ultimately, empirical research using nationally representative samples to examine this association, between family formation and individuals' meal patterns, is scarce. Additionally, cohabitation has become more common among younger age cohorts (Bumpass and Lu 2000; U.S. Census Bureau 2018), and previous studies have suggested differences between the consequences of marriage and cohabitation on physical activity, smoking, or alcohol consumption (Duncan, Wilkerson, and England 2006; Josefsson et al. 2018). Yet, comparatively less attention has been paid to the possible difference between marriage and cohabitation in other health-related behaviors, such as diet (see review by Werneck et al. 2020). A longitudinal study from Australia indicates that men who transitioned from being single to romantic unions (either marriage or cohabitation) become less likely to skip breakfast at the 5-year follow-up, while the link is not statistically

significant for women (Smith et al. 2017). Still, whether the transitions affect individuals' overall meal patterns regardless of types of meals and whether cohabitation specifically leads to the same consequences for men and women remains unclear. Furthermore, while studies indicate that becoming a parent is associated with little changes in diet quality (Corder et al. 2020 for a review; Laroche et al. 2012; Smith et al. 2017), research examining the association between the transition to parenthood and meal patterns is currently limited.

The main objective of the present study is to examine whether and how the transitions to marriage/cohabitation/parenthood are associated with changes in meal patterns and whether the association differs by gender. This study focuses on changes in individuals' meal patterns, specifically, meal skipping, which is defined as “the omission or lack of consumption of one or more of the traditional main meals (breakfast, lunch or dinner) throughout the day” (Pendergast et al. 2016:1). This study pays attention to the gender difference in the links between family formation and meal patterns, as research indicates that union status and parenthood are associated differently with men's and women's health-related behaviors (e.g. Duncan et al. 2006; Josefsson et al. 2018; Nomaguchi and Bianchi 2004). Skipping meals is now common in the United States, and most individuals no longer eat three meals a day (Anekwe and Zeballos 2019). Previous research suggests that not only what individuals eat but also how they eat, that is, their meal patterns, are likely to be linked with their well-being. For adults, frequent meal skipping, especially skipping breakfast, is associated with poorer overall dietary quality (Kerver et al. 2006; Timlin and Pereira 2007; Zeballos and Todd 2020) and with a higher risk of obesity and type

2 diabetes (Pereira et al. 2011). Skipping meals, particularly dinner, reduces daily energy intake (Zeballos and Todd 2020).

Background

Previous research suggests two competing theoretical perspectives, social control and time scarcity, on how romantic unions and parenthood are linked to changes in meal patterns. The two perspectives offer opposing explanations about how family formation relates to meal skipping.

Social control

The social control perspective posits that social ties, such as marriage and parenthood, can promote healthy behavior and regulate unhealthy one (Umberson 1987). Social control occurs directly through external regulation and monitoring of health behaviors and occurs indirectly through the internalization of norms of family responsibility, resulting in individuals exerting control over their health behaviors (Umberson 1987, 1992). According to Umberson et al. (2010), marriage and parenthood “facilitate health habits because they tend to introduce regularity and routine (e.g., sharing scheduled meals) and foster a sense of responsibility and obligation (e.g., one must stay sober and healthy to take care of family members)” (2010:147). If so, the transitions to marriage and parenthood are likely to promote meal regularity so that individuals become less likely to skip meals.

Spouses are the main sources of social control among various social ties, particularly for men (August and Sorkin 2010; Umberson 1992). An ethnographic study from United Kingdom suggests that once they are married, individuals’ meal patterns become more structured, regular, and formalized compared with pre-marital

or cohabitating stages (Kemmer et al. 1998). Similarly, another ethnographic study from Scotland found that recently married or cohabiting couples tend to eat more regularly than they did before marriage/cohabitation (Marshall and Anderson 2002).

While relatively few studies have explored whether cohabitation is associated with meal skipping patterns, cohabiting relationships have characteristics similar to marriage, such as emotional and social support, sexual intimacy, and joint residence. Regardless of the types of romantic unions, the transition into either marriage or cohabitation might lead to more regular meal patterns to a similar extent. At the same time, cohabitators may not exert social control to the same degree as those who are married. Marriage is an institution where social norms define spouses' roles both inside and outside the household (Gove 1972) and provides individuals a sense of meaning and obligations to others, which inhibits unhealthy and encourages healthy behaviors (Gove 1973; Umberson 1987; Waite 1995). Compared to married relationships, cohabiting relationships are less institutionalized, meaning they are supported by weaker social norms that govern partners' behaviors (Nock 1995). Compared to married couples, cohabiters are: less committed to their relationships (Stanley, Whitton, and Markman 2004) particularly those without marriage plans (Wiik, Bernhardt, and Noack 2009), feel less morally obligated to remain together with their partner (Perelli-Harris and Bernardi 2015), and are more likely to reject the traditional marital roles and expectations (Clarkberg, Stolzenberg, and Waite 1995). Taken together, previous research has suggested that cohabitation may lead to investing in a relationship but without exerting as much influence over partners' meal patterns, as compared to marriage. Moreover, weaker social norms governing

cohabitation suggest that cohabitating couples may be less likely than married couples to self-regulate or engage in and adhere to behaviors that promote their health. This leads to the hypothesis that entering a cohabiting relationship is linked to improvements in meal patterns, but not to the same extent as entering a marital relationship.

Hypothesis 1a: *The transition to cohabitation is negatively associated with meal skipping, in comparison with being a never-married non-cohabiter [unpartnered single hereafter], but to a smaller extent as marriage.*

Following social control theory, the transition to parenthood induces favorable dietary behavior change. Parents, particularly mothers, monitor and attempt to affect their children's eating behaviors (Brenton 2017; Elliott and Bowen 2018; Wright, Maher, and Tanner 2015), and such efforts can indirectly bring health-related benefits to themselves. For instance, the presence of children promotes the shared consumption of food (Mestdag and Glorieux 2009), which can indirectly facilitate parents' own regular meal patterns e.g. by preparing their own lunch alongside their children's and eating breakfast or dinner with children (Aschemann-Witzel 2013; Sobal and Nelson 2003). A sense of responsibility as a parent is also expected to promote the parent's health through engaging in healthy eating behaviors. Taken together, the previous findings point to the possibility that becoming a parent leads to a more regular pattern of eating.

Hypothesis 2a: *Having children at home is negatively associated with meal skipping compared to having no children.*

As the number of children in a household increases, parents are more likely to share meal times with at least one of them (Mestdag and Glorieux 2009). Greater numbers of co-resident children can mean greater monitoring responsibilities over children's eating behaviors. The larger responsibilities may further motivate parents to routinize household activities by e.g. establishing patterns of regular family meals and the daily act of packing a lunchbox, which may facilitate parents' own regular meal patterns.

Hypothesis 3a: *The number of children at home is negatively associated with the frequency of meal skipping.*

For partnered mothers, the work of feeding a family is not merely an opportunity to provide sustenance, but is also a construction of family life through the act of bringing the family together and facilitating meal-time conversation (DeVault 1987). In fact, partnered parents are more likely than unpartnered single parents to have family meals (Davidson and Gauthier 2010; Musick and Meier 2012; Sharif et al. 2017), although the distinction between cohabiting and married is unclear. If partnered mothers are more likely to prepare home-cooked meals for the entire family, not only themselves, partnered fathers can be expected to reap the benefits. Such attempts by partnered mothers to indirectly influence the health behaviors of all family members may promote regular meal taking among both partnered mothers and fathers.

Hypothesis 4a: *The negative effect of having any children at home on the frequency of meal skipping is greater for married/cohabiting parents than unpartnered parents.*

Time Scarcity

Some scholars highlight the time constraints to engage in some activities, specifically, exercise time, due to a spousal or parental role in health-promoting behavior (Brown et al., 2009; Nomaguchi and Bianchi 2004; Taniguchi and Shupe 2014). Using longitudinal data from women in Australia, Brown et al. (2009) argued that reduced discretionary time due to increased caring responsibilities explains the negative association between marriage/parenthood and physical activity. Similarly, a study relying on cross-sectional data found that married individuals, particularly men, spent less time exercising compared to unmarried individuals (Nomaguchi and Bianchi 2004), highlighting the time demands of new spousal and parental roles.

Unlike exercise, which requires a focused time commitment that often cannot be easily combined with family role obligations, eating appears to be more easily combined with housework and childcare. Yet, it is still possible that a perceived shortage of time derived from caring for a partner and children is linked to more frequent meal skipping, particularly for women. The perception of time scarcity is linked with a decline in food preparation and family meals, an increase in the quick and convenient diet, and low consumption of fruit and vegetables (Jabs and Devine 2006; Venn and Strazdins 2017; Welch et al. 2009). In fact, the perceived lack of time is the most important factor associated with meal skipping (Pendergast et al. 2016 for a review). Hence, it is plausible that the feelings of time scarcity upon family formation can increase the frequencies of meal skipping.

As more married men and women engage in both work and family domains, marriage brings the feeling of being squeezed for time for both genders (Jacobs and

Gerson 2004; Roxburgh 2006). The rise of dual-earner couples implies additional time commitments and a greater need to coordinate family schedules, which potentially leads to more frequent meal skipping. Ethnographic research indicates that many married couples either skip or eat breakfast separately during weekdays, have lunch at work, but eat dinner together regularly (Sobal, Bove, and Rauschenbach 2002), which is considered to be the major occasion for interaction between couples (Marshall and Anderson 2002). Regardless of couples' employment status, aiming to secure some time together (Flood and Genadek 2016), married individuals may end up skipping breakfast or lunch. I am not aware of any published studies that would examine the association between the transition to a cohabiting relationship (as opposed to the marital relationship) and feelings of time scarcity or perceptions of being rushed. However, given that cohabiters tend to lead a more independent lifestyle compared to married individuals (van Houdt and Poortman 2018; Kalmijn and Bernasco 2001), it is possible that cohabitation also promotes meal skipping to carve out time to spend time together, but to a smaller extent than marriage.

Hypothesis 1b: *The transition to marriage is positively associated with meal skipping, in comparison with being an unpartnered single, to a greater extent than cohabitation.*

Like the transition to marriage, entry to parenthood provides role obligations that increase subjective feelings of time pressure, particularly for mothers (van der Lippe, Jager, and Kops 2006; Nomaguchi, Milkie, and Bianchi 2005). Using longitudinal data, Ruppanner et al. (2019) found that even after controlling for paid and domestic work hours, mothers, more than fathers, are likely to experience time

pressure with the arrival of a child, and the gender gap in time pressure remains stable even as children age. To accommodate their paid and household labor demands, mothers adopt various time management strategies (Hessing 1994), and meal skipping could be one of them. For instance, mothers may sometimes skip lunch to finish work in time to pick up children from childcare facilities. Driving children to and from after-school activities may lead mothers to miss dinner a few times a week. Therefore, the transition to parenthood may lead to more frequent meal skipping compared to the pre-parent stage particularly for mothers.

Hypothesis 2b: *Having children is positively associated with meal skipping compared to having no children, particularly for women.*

Having multiple children at home generally requires greater amounts of child-care time (Craig, Powell, and Smyth 2014; Sayer, Bianchi, and Robinson 2004), and as the number of children increases, parents' time pressures also become greater (Ruppanner et al. 2019). It stands to reason that the greater the number of children, the harder and greater time it takes to coordinate children's schedules, especially when locations and hours of child-care facilities, school, and after-school activities vary, leading parents to skip meals more frequently.

Hypothesis 3b: *The number of children at home is positively associated with the frequency of meal skipping.*

Without support from a spouse or live-in partner, unpartnered single parents must fulfill all household and childcare responsibilities, and are linked with greater work-family conflict and higher caregiving strain than partnered parents (Avison, Ali, and Walters 2007; Nomaguchi 2012). The high levels of role overload experienced by

unpartnered parents can exacerbate time pressures and, consequently, more frequent meal skipping.

Hypothesis 4b: *The positive effect of having any children at home and the frequency of meal skipping is greater for unpartnered parents than married/cohabiting parents.*

Data and Methods

Data

This study relies on panel data from the National Longitudinal Survey of Youth 1997 (NLSY97) (Bureau of Labor Statistics, U.S. Department of Labor 2020). The NLSY97 is an ongoing panel survey of a nationally representative sample of American youth born between 1980-84. The age cohort contains the so-called early Millennials who reached young adulthood in the early 21st century. The NLSY97 consists of an initial sample of 8,984 men and women interviewed annually until 2011 and then biannually from 2011 onward. The NLSY97 collects information on respondents' relationship histories and various health-related measurements. I use data from Rounds 13, 14, 15, and 17 (2009-2015) collected between 2009 and 2016, as the questions assessing meal patterns were only asked in these rounds. Respondents were 24-36 years of age during the observation period, a time when cohabitation rates in the United States peaked (Manning 2020).

Variables

The outcome is the frequency of meal skipping in the past seven days, which was assessed using the question, "In the past seven days, how many times did you skip a meal?" Respondents were asked to report their answers in actual numbers,

followed by a separate question asking them to report the unit for their previous response (times per day or times per week). Though there is no standardized measurement of meal skipping, the seven-day recall questionnaire has been used in some studies to assess meal skipping (Monzani et al. 2019; Pendergast et al. 2016). I convert the measurement unit to be frequencies of meal skipping per week and top-code the frequencies at 21 to account for unreasonably high numbers. 0.17 percent of responses were top-coded.

The key independent variables are union status and parental status at the time of each interview. Union status is classified into four categories: never-married non-cohabiting (unpartnered single), never married-cohabiting (cohabiting hereafter), married, and previously married (legally separated, divorced, or widowed), with unpartnered single as a reference group. Parental status is indicated by whether or not respondents have any biological, adopted, step, or foster children in the household at the time of the interview. To assess the possibility that the frequency of meal skipping increases as the number of children at home increases, the number of children in the household is assessed as a continuous measure instead of a binary measure.

For control variables, I use time-varying demographic characteristics, including weekly work hours, age, educational attainment (less than high school, high school, some college, college and higher), number of people in the respondents' household, the natural logarithm of gross family income in the previous year, and respondents' height-adjusted body mass index (BMI). Age, education, financial resources, and BMI were identified as factors associated with meal skipping (Pendergast et al. 2016). Previous research has also found that household size is

positively associated with eating practices (Mestdag and Glorieux 2009; Yates and Warde 2017). Respondents' weekly work hours are included in the models based on previous research indicating that working long hours is associated with feelings of time pressure (Mattingly and Sayer 2006; Van der Lippe, Van Breeschoten, and Van Hek 2018). Regarding weekly work hours, 0 (hours) was assigned to respondents who were out of the labor force at the time of each round of interviews. Respondents in active military service at the time of each round of interviews were excluded from the analyses because information on total weekly work hours was not available. I impute missing family income using the closest family income record of each respondent in the past three years, following prior research using longitudinal income data of National Longitudinal Survey of Youth 1979 (Cheng, 2014). I calculate respondents' BMI based on respondents' self-reported height and weight.

Fewer than 4% of cases are missing for the variables included in the analyses. I adopt a listwise deletion procedure to handle the missing data. For this study, I limit my sample to individuals who responded to at least two rounds of the survey with non-missing values on both the dependent and independent variables, as required by fixed-effects models. For analytical purposes, I convert the data to person-year format. The final sample size is 12,489 person-year observations from 3,535 male respondents and 12,778 person-year observations from 3,551 female respondents. To adjust for the complex survey design and data from multiple years, I apply NLSY97-provided custom weights in all data analyses. The weighted descriptive statistics for the analytical samples are shown in Table 1. On average, respondents skipped 2.7 meals in the previous week.

[TABLE 1 ABOUT HERE]

Analysis strategy

I use individual-level fixed-effects models to control for pre-existing stable individual differences (Allison 2009), focusing on marriage/cohabitation/parenthood and changes in meal patterns. Potential selection bias arises when individuals with certain unobserved characteristics self-select into marriage, cohabitation, or parenthood. In addition, the measured outcomes are self-reported dietary behaviors potentially susceptible to social desirability and social approval bias (Hebert et al. 1997). Employing a fixed-effects model can minimize such potential biases, as the model assesses how meal patterns change within the same individual over time. I should note that the effects of time-invariant variables, such as race/ethnicity, cannot be estimated as such variables automatically drop out of the model. Based on previous research highlighting gender differences in the relationship between family transitions and health-related behaviors (e.g. Duncan et al. 2006; Josefsson et al. 2018; Nomaguchi and Bianchi 2004), I additionally test the association separately for each group.

[TABLE 2 ABOUT HERE]

Results

The results of a series of fixed-effects models are presented in Table 2. The results for all respondents in Model 1 show that the transitions to marriage and cohabitation are both negatively associated with meal skipping. A statistical test indicated that the size of the coefficient for marriage is not statistically different from cohabitation. Therefore, Hypothesis 1a predicting that compared to being an

unpartnered single, the transition to cohabitation is negatively associated with meal skipping, but to a smaller extent than for marriage, is partially supported. On the contrary, Hypothesis 1b, which predicted a positive association, is not supported. The results suggest that the transition to cohabitation and marriage both lead to less frequent meal skipping, and no evidence is present to indicate a difference in the size of the effects.

At the same time, the results of Model 2 by gender suggest that type of romantic union matters differently for men and women. Specifically, for men, the coefficient for marriage is statistically different from being an unpartnered single. The results also indicate a marginally significant difference between the transition to cohabitation and being an unpartnered single. A statistical test indicated that the size of the coefficient for marriage is marginally larger than that for cohabitation ($p < 0.1$). Conversely, for women, the coefficient for cohabitation is statistically different from the coefficient for being an unpartnered single, but the results do not indicate a statistically significant difference between marriage and being an unpartnered single. In other words, the results demonstrate that for men, the transition to marriage (and also cohabitation, to a lesser extent) reduces meal skipping, whereas, for women, the transition to cohabitation reduces meal skipping.

Concerning parenthood, the results of Model 2 indicate that for women, the presence of children at home is negatively associated with meal skipping. This suggests that having children at home leads to more frequent meal skipping for women. Therefore, Hypothesis 2a predicting that having children is negatively associated with meal skipping, in comparison with having no children, is not

supported for both genders. However, Hypothesis 2b predicting the association in the opposite direction is supported only for women. Figures 1 and 2 are graphical representations of the results of the key independent variables of Model 2 in Table 2 for both genders.

[FIGURE 1 AND 2 ABOUT HERE]

To examine whether and how the number of children at home is associated with fathers' and mothers' meal patterns, I include a continuous measure of the number of children in the household in Model 3. To avoid multicollinearity, the variable measuring respondents' household size is removed from Model 3. The results show that an increase in the number of children is positively associated with meal skipping only for women, providing evidence for Hypothesis 3b for women. Specifically, the results for women indicate that on average, for every child increase in the household, meal skipping in a week increases .28 times, holding all other variables constant. The results for both genders do not provide evidence for Hypothesis 3a, which had predicted an association in the opposite direction.

To further examine whether the positive association between having any children for women and meal skipping differ by union status, in Model 4, I add the interactions between union status and parental status. Because the results do not provide evidence indicating that the presence or the number of children at home is associated with the frequency of meal skipping for men, I only tested the interactions for women. I find a positive and statistically significant interaction between being married and having children, indicating that having children has a greater effect on meal skipping when women are married instead of being unpartnered single.

Specifically, the average effect of having any residential children on meal skipping is higher by .50 than the average effect of having any children when being married instead of unpartnered single, holding all other variables constant. The other combinations of union and parental status are not statistically significant, indicating that the positive effect of having children on meal skipping does not vary by whether women have a cohabiting partner. Social control theory-driven Hypothesis 4a, predicting that the negative effect of having any children at home on the frequency of meal skipping is greater for married/cohabiting parents than unpartnered parents, is not supported. Also, time scarcity theory-driven Hypothesis 4b, predicting that the positive effect of having children on meal skipping is greater for unpartnered parents than married/cohabiting parents, is not supported. The results indicate that the positive effect is instead greater for married parents compared with unpartnered parents.

Discussion

This study shows that forming a romantic union (either marriage or cohabitation) is linked to less frequent meal skipping. The findings for romantic unions do not support the hypothesis derived from the time-scarcity theoretical perspective, positing that the time constraints due to newly added obligations as a spouse or a cohabiting partner may lead to more frequent meal skipping. Rather, the findings are consistent with the social control theory, highlighting spousal control and monitoring and encouragement of self-regulation of health-related behaviors (Umberson 1987, 1992).

This study also demonstrates that different types of romantic unions have different implications for men and women. Possibly because women tend to link cohabitation more strongly to marriage than men (Huang et al. 2011; Reneflot 2006), women may start to eat more regularly when entering cohabitation than in their pre-cohabitation stage. Having meals together with a cohabiting partner may encourage women to develop more regular meal patterns, although many of them may not attempt to influence their partner's meal patterns. As cohabiting men are less willing to yield to normative pressure towards marriage (Reneflot 2006), many cohabiting women may refrain from such an attempt in fear of incurring negative reactions (Rook et al. 2011) and undermining their partners' sense of autonomy. Once married, a spouse may fulfill certain expectations by adopting healthy behaviors (Gove 1973; Umberson 1987). Facing marital role obligations, men may start to engage in healthy eating behaviors themselves as well as expect and become more willing to accept greater involvement from their spouses. Specifically, upon marriage, men may be encouraged to adopt healthy meal patterns indirectly through their spouse preparing meals and directly through their spouse reminding them not to skip meals.

Contrary to the predictions of social control theory and some previous empirical findings (Aschemann-Witzel 2013; Smith et al. 2017; Umberson 1987), the present study results do not provide evidence that the presence of children at home discourages meal skipping. The results instead suggest that having residential children promotes meal skipping only for women. The results for women are in line with the theoretical perspective focusing on the feelings of time scarcity due to parental obligations. Feelings of time scarcity due to heavy household and childcare

responsibilities as a mother can better explain more frequent meal skipping than their non-parental stage. The positive association between the number of children and frequency of meal skipping parallels the previous findings suggesting that experiences of time pressure become greater as the number of children increases (Ruppanner et al. 2019). Facing time pressure, mothers, but not fathers, sometimes sacrifice their health habits for their children's well-being or child-related activities, potentially playing a role in gendered patterns of meal skipping.

The lack of statistically significant differences in the effects of having any children between women with and without a cohabiting partner suggests that the presence of a cohabiting partner hardly matters for mothers' meal patterns. Furthermore, the greater effect of having any children on being married rather than unpartnered single for women suggests that the combination of spousal and maternal roles leads to more frequent meal skipping. The increase of actual time demands and feelings of time scarcity as a wife and a mother may have particularly detrimental consequences on women's meal patterns. Stronger adherence to intensive mothering ideology, which posits that mothers are primarily responsible for children's well-being (Christopher 2012), may lead to greater time pressure experienced by married mothers, and as a consequence, leaving less time to have meals for themselves, as compared to unpartnered mothers. To summarize, the transition to parenthood does not necessarily encourage regularity and routinization of mothers' overall meal patterns. Even though women have a steady partner, the negative effects of perceived time scarcity due to parental obligations may cancel out and even overrun the positive effects obtained from the partner's encouragement of healthy meal patterns and

internalization of norms as a spouse or cohabiting partner. Meal skipping may be one of the strategies that mothers adopt to meet the perceived time demands imposed by household and childcare responsibilities, often in addition to paid work.

The present study's findings add to previous research showing that family ties do not necessarily facilitate healthy behaviors, such as exercise, and that the associations between certain family ties and health-related behaviors can be negative (Nomaguchi and Bianchi 2004; Umberson et al. 2010). Even in non-discretionary time activities like having meals, the perceived time demands countervail the positive effects of the partner's direct and indirect social control and self-regulation when facing time-demanding family ties. In other words, the positive effects of social ties on health-related behaviors may manifest only when time demanding social ties are not present. The findings may have implications for other time-intensive family ties, such as adult children providing care for frail or sick elderly parents or spouses taking care of their disabled partner.

While this study offers insights into whether and how the transitions to different types of family ties might influence individuals' meal patterns, some limitations must be considered. First, detailed relationship dynamics around meal patterns remain unclear. Specifically, the precise ways in which partners in different types of relationship influence each other's meal patterns and how the transition into parenthood affect mothers' and fathers' meal patterns differently are uncertain. Research using dyadic data, instead of data from only one partner, or qualitative data to identify specific gendered processes that underlie the findings should advance the research in this area. Survey data on the feelings of time scarcity should also enable

detailed investigations of the mechanisms. Second, the NLSY97 does not provide information about the quality of union or parent-child relationships during the study's period of observation. Poor quality relationships may not encourage consumption of regular meals as much as good quality ones. Lastly, the present study cannot identify which meal is more likely to be skipped in response to each family transition for men and women. These limitations reveal directions for future research.

Nevertheless, the study advances the current knowledge of the relationship between family ties and health-related behaviors in several ways. First, this study extends previous research by providing empirical evidence on the possible link between family transitions and meal patterns, as hypothesized by the theoretical and qualitative work. Using panel data and adjusting for the selectivity into different romantic union/parental statuses with fixed-effects models, the present study estimates the effects of family formation on meal patterns. Second, by focusing on early millennials who are more likely to accept and engage in cohabitation, the study shows that marriage may not be the sole driver of changes in health-related behaviors, such as meal patterns among young adults in the United States. Lastly, the findings extend previous literature by showing that certain health-related behaviors are gendered and that the transition to parenthood has a distinctive consequence for women's meal patterns. The findings for mothers show that the effects of social ties on health-related behaviors are not unequivocally positive. The presence of time-demanding family ties may undermine the positive effects of other family ties on health-related behaviors.

Table 1. Descriptive statistics of the analytic sample

	Total	Men	Women
Frequency of meal skipping in the past seven days	2.7 (3.2)	2.7 (3.2)	2.7 (3.2)
Union status (%):			
Unpartnered single	36.2	41.5	30.9
Cohabiting	16.3	16.5	16.0
Married	39.3	35.1	43.5
Legally separated/Divorced/Widowed	8.3	6.9	9.6
Presence of children in the household (%):			
No	53.1	64.7	41.5
Yes	47.0	35.4	58.5
Number of children at home	0.9 (1.2)	0.7 (1.1)	1.2 (1.3)
Weekly work hours	32.8 (22.3)	37.0 (22.7)	28.5 (21.0)
Age	29.0 (2.7)	29.0 (2.7)	29.1 (2.7)
Education (%):			
Less than high school	3.3	3.4	3.2
High school	37.0	41.5	32.5
Some college	24.7	24.5	24.8
College and higher	35.0	30.5	39.4
Family income (in U.S. dollars)	69,453 (61,949)	68,433 (61,437)	70,469 (62,441)
Number of people in the household	3.2 (1.6)	3.0 (1.5)	3.4 (1.6)
BMI	28.0 (10.0)	28.1 (11.5)	27.9 (8.3)

Note: The unit of analysis is person-years. The sample contains 25,267 person-years which consist of 12,489 person-years for men and 12,778 person-years for women. All numbers followed by parentheses are mean values, with the standard deviation in the parenthesis; other values are in percentage (as indicated in the labels). Weighted statistics.

Data source: National Longitudinal Survey of Youth 1997

Table 2. Fixed-effects models predicting the frequency of meal skipping

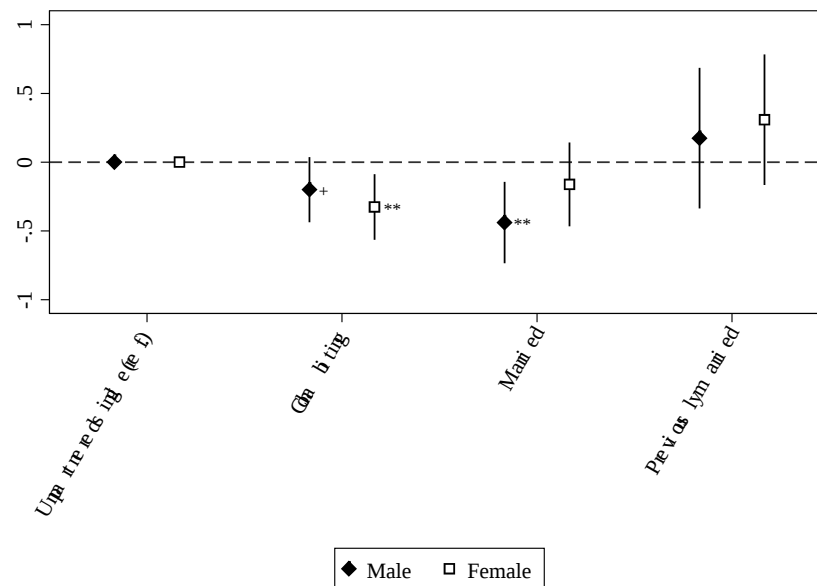
	Model 1	Model 2		Model 3		Model 4
	All	Men	Women	Men	Women	Women
Union status (<i>ref.</i> Unpartnered single):						
Cohabiting	-.272** (.086)	-.200+ (.121)	-.326** (.122)	-.227+ (.120)	-.328** (.122)	-.452** (.154)
Married	-.312** (.109)	-.439** (.151)	-.162 (.156)	-.482** (.150)	-.162 (.155)	-.338* (.165)
Previously married (Legally separated/Divorced/Widowed)	.225 (.176)	.174 (.261)	.308 (.242)	.183 (.263)	.377 (.241)	.200 (.330)
Presence of children in the household (<i>ref.</i> No children in the household):	.134 (.088)	-.032 (.122)	.345** (.128)			
Number of children in the household				.096 (.063)	.283*** (.066)	
Interactions						
Cohabiter x Children present in the household						.347 (.241)
Married x Children present in the household						.502* (.237)
Previously married x Children present in the household						.406 (.413)
Weekly work hours	.001 (.001)	-.000 (.002)	.002 (.002)	-.000 (.002)	.003 (.002)	.002 (.002)
Age	-.021* (.009)	-.016 (.013)	-.027* (.013)	-.022 (.014)	-.043** (.014)	-.028* (.013)
Education (<i>ref.</i> Less than high school):						
High school	-1.447 (1.218)	.173 (.815)	-2.725 (1.886)	.179 (.816)	-2.851 (1.828)	-2.624 (1.936)
Some college	-1.076 (1.202)	.338 (.778)	-2.193 (1.879)	.351 (.778)	-2.308 (1.823)	-2.101 (1.931)
College and higher	-1.251 (1.216)	.597 (.834)	-2.684 (1.891)	.614 (.833)	-2.812 (1.835)	-2.583 (1.941)
Family income (Natural log)	.004 (.014)	.008 (.017)	-.002 (.023)	.007 (.017)	-.004 (.023)	-.002 (.023)
Household size	.009 (.024)	.029 (.035)	-.009 (.033)	- (.033)	- (.033)	-.014 (.033)
BMI (kg/m2)	-.017+ (.010)	.000 (.015)	-.029* (.014)	-.000 (.015)	-.028* (.014)	-.029* (.014)
Constant	5.010***	2.852**	6.658***	3.092***	7.067***	6.711***

	(1.213)	(.920)	(1.869)	(.914)	(1.820)	(1.919)
N of person-years	25,267	12,489	12,778	12,489	12,778	12,778
N of respondents	7,086	3,535	3,551	3,535	3,551	3,551

Note: [†] $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$. Robust standard errors in parentheses. Regression is weighted.

Data source: National Longitudinal Survey of Youth 1997

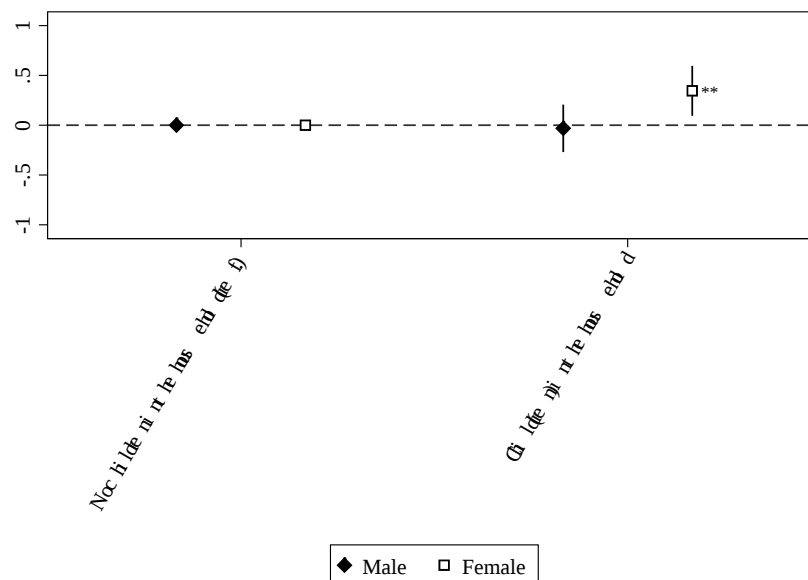
Figure 1. Predicted Change in Frequency of Meal Skipping by Union Type



Note: + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ Error bars show 95% confidence intervals. Positive number indicates more frequent meal skipping. Estimates are based on Models 2 in Table 2. Error bars show 95% confidence intervals.

Source: National Longitudinal Survey of Youth 1997

Figure 2. Predicted Change in Frequency of Meal Skipping by Parental Status



Note: + $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$ Error bars show 95% confidence intervals. Positive number indicates more frequent meal skipping. Estimates are based on Model 2 in Table 2.

Source: National Longitudinal Survey of Youth 1997

Chapter 2: Marriage, Parenthood and Subjective Well-being among Japanese Adults

Introduction

Research from North American and European countries has repeatedly demonstrated that marriage is associated with improved mental and physical health and reduced mortality for both men and women (Rendall et al. 2011; Ross et al. 1990; Waite and Gallagher 2000). Some scholars have argued that marriage itself has a positive effect on well-being and have found evidence supporting this claim (Kim and McKenry 2002; Rendall et al. 2011; Waite and Gallagher 2000). Additionally, previous research shows that the protective effect of marriage is larger for men than for women (see review by Umberson and Thomeer 2020). Furthermore, a large body of research from Western countries has shown that there is a negative association between parenthood and well-being, but the effect is small (see review by Hansen 2012). However, research on the relationships between marriage and well-being as well as the relationship between parenthood and well-being has focused on Western cultures (Hansen 2012; Mastekaasa 1994). It remains unclear whether the findings are generalizable across countries. Furthermore, empirical evidence of whether the effects of marriage and parenthood differ by gender across countries is scarce in the literature.

Research also finds that the effects of parenthood on well-being depend on the parents' marital status (Evenson and Simon 2005; Nomaguchi and Milkie 2003). Nomaguchi and Milkie (2003) for instance, found that for married women, parenthood was associated with less psychological distress than for their childless

counterparts, but the association is minimal for married men. Previous research has often examined the effects of transitions into marriage and parenthood on subjective well-being separately, which potentially conflates the effects of the two transitions. Less is known about the change in subjective well-being as men and women transition across the family roles of marriage and parenthood.

In this study, I use Japan as an illustrative case of a highly gendered industrialized social context to address the following questions: how are transitions into marriage and parenthood related to changes in subjective well-being? And how does the relationship differ by gender? Japan is an interesting country in which to study these questions, as it is a nation where marriage is valued by most young single men and women (Raymo et al. 2015), where the norm of childbearing only within marriage remains strong (Hertog and Iwasawa 2011), and where there is also a high degree of gender inequality among married couples compared to many other industrialized nations. Japanese wives perform most of the housework even among dual-earner couples (Oshio, Nozaki, and Kobayashi 2013), and husbands do substantially less housework than their counterparts in other industrialized countries (Fuwa 2004). Marriage may bring psychological benefits for both men and women in the country context, but highly asymmetric gender relations within marriage may undermine women's general health. Likewise, the transition to parenthood may be detrimental to women's well-being, as their family obligations increase significantly, especially given that they are expected to be the best caretakers and educators (Fujita 1989; Hirao 2001; Yu 2009). Yet for men who spend little time with their children (Ishii-Kuntz 2008), the transition may have little impact on their well-being. As

childbearing almost exclusively occurs among married couples in Japan (Raymo and Iwasawa 2008), this study focuses on individuals' transitions into the spousal role and, subsequently, to parenthood. The Japanese case potentially underscores the importance of the normative environment in examining the link between family roles and well-being. The findings may also have implications for other gender inequalitarian countries.

Previous research using cross-sectional data in Japan on the association between marital status and well-being demonstrated better self-rated health only for married women and better mental health for both genders compared to their never-married counterparts (Tamaki 2014). Cross-sectional studies, however, fail to account for systematic differences in characteristics among those who transition to different marital or parental statuses. Another empirical research using panel data has demonstrated that in Japanese society, marriage is associated with better mental and physical health for women compared with their never-married counterparts (Lim and Raymo 2016). Yet it remains unclear whether and to what extent marriage is associated with subjective health for Japanese men, as well as whether and to what extent marriage is more beneficial in terms of well-being for men than for women. Furthermore, how the transition to parenthood may be associated with changes in well-being in this social context is unknown.

The goal of this study is to examine how the transitions to marriage and parenthood are related to subjective well-being among Japanese men and women in early to middle adulthood. I use longitudinal data from a nationally representative sample of men and women who were between 20 years and 40 years of age in 2007.

With longitudinal data, I am able to use individual-level fixed-effects models to take into account all time-invariant personal characteristics that lead individuals to select into different marital and parental statuses. I examine two dimensions of well-being: self-rated health and mental health. Examining these two measures of well-being, rather than a single measure, allows for a more nuanced understanding of this complex phenomena.

This study adds to the scholarship on family, gender, and well-being in several ways. First, the present study provides empirical evidence on the relationship between changes in family roles and well-being by gender in the context of Japan, which has a highly gendered normative environment. Second, by employing a life-course perspective, which focuses on a sequence of roles that the individual occupies over time, this study contributes to better understanding of the relative change in subjective well-being as individuals experience marriage and parenthood. Third, this study assesses gender differences in the impact of occupying different family roles. Lastly, the study sheds light on how the effect of change in family roles can manifest differently, depending on indicators of well-being.

Marriage, Parenthood, and Subjective Well-Being

Many studies conducted in the West have demonstrated that, compared with being never married, divorced, or widowed, being married is associated with better self-rated health (Hahn 1993; Hughes and Waite 2009; Liu and Umberson 2008), mental health (Horwitz, White, and Howell-White 1996; Hughes and Waite 2009; Kim and McKenry 2002), morbidity (Hughes and Waite 2009), and longevity (Rendall et al. 2011). Marriage can be linked with both objective and subjective well-

being in different ways, but in recent decades, the availability of longitudinal data enables researchers to track individuals transitioning to different life stages. Using longitudinal data, accumulating evidence indicates that transitioning into marriage itself has a positive effect of well-being (Kim and McKenry 2002; Waite and Gallagher 2000) and longevity (Lillard and Waite 1995; Rendall et al. 2011). The theoretical perspective that posits a protective effect of marriage postulates that marriage itself promotes well-being and longevity because marriage provides individuals with social, psychological, and economic resources. A spouse can take care of his/her partner in case of illness. Partners may monitor each other's health and health-related behaviors, such as excessive drinking and encourage self-regulation (Umberson 1987). Marriage may also provide emotional support (Simon 2002).

How might the transition to parenthood be related to men's and women's well-being? Previous research suggests multiple ways in which being a parent may have an impact on men's and women's well-being. First, some studies suggest that parenthood results in increased social resources. Becoming a parent (Ambert 2001) and the presence of children (Gallagher and Gerstel 2001; Nomaguchi and Milkie 2003) bring about social integration for parents, which can promote well-being, especially if parents have good-quality social ties (see review by Umberson and Karas Montez 2010). Another body of research highlights the psychological benefits of parenthood. Parenthood may provide individuals with a sense of meaning and purpose (Umberson and Gove 1989), which could improve well-being. At the same time, parenthood can bring with it work-family conflict (Nomaguchi 2009; Winslow 2005) and increased housework demands, especially for mothers. To summarize, the

association of parenthood and well-being can be explained in terms of a combination of burden and rewards, with positive and negative consequences offsetting each other (Nomaguchi and Milkie 2003).

Gender Differences

Studies have indicated that men generally benefit more than women from marriage (see review by Umberson and Thomeer 2020). Why might marriage provide different degrees of health benefits for men and women? Some scholars argue that the mechanisms underlying the association between marriage and better health may differ by gender (Coombs 1991). Married men tend to benefit in terms of psychological well-being (Gove 1984) and longevity (Lillard and Waite 1995; Rendall et al. 2011) more than do women, possibly because wives put more effort into monitoring and controlling their husbands' negative health behaviors such as excessive smoking and drinking than husbands do for their wives (Umberson 1992). Married women, on the contrary, may benefit from increased economic resources more than do men (Bianchi and Spain 1986; Cherlin 1981). In fact, empirical research finds that much of the relationship between marriage and women's better health can be explained by economic assets gained through marriage (Hahn 1993), although other scholars found few gender differences in the relationship between marital status and physical mobility, mental health, and self-rated health (Hughes and Waite 2009). When interdependence between spouses due to a sharp division of labor is high, marriage may provide health benefits to both genders to a similar extent.

With parenthood, mothers are more likely to experience higher levels of distress and fatigue than fathers, even after work status are controlled (Bird 1997;

Musick, Meier, and Flood 2016; Simon 1992). A study of dual-earner parents indicates that mothers are more likely than fathers to feel time strain, and that feeling is associated with higher psychological distress for mothers, but not fathers (Nomaguchi et al. 2005). Likewise, previous research finds no association between the transition to co-resident fatherhood and their self-rated health and depression (Knoester and Eggebeen 2006). Some scholars highlight the differences in social roles occupied by men and women that account for gender differences in psychological well-being (Aneshensel, Frerichs, and Clark 1981; Gove and Geerken 1977). For women, increased family role obligations as they become spouses and mothers, especially in a social context with strong normative expectations that mothers should devote themselves to child-rearing, can undermine their well-being. In such a context, transitioning to parenthood may lead to particularly sharp gender differences in subjective health.

The Japanese Context and Hypotheses

Is the transition to marriage associated with better health for individuals in Japan? If so, are Japanese men and women likely to benefit from marriage in terms of well-being to a similar degree? It is possible that, unlike what has been found in Western research (Umberson and Thomeer 2020), both men and women benefit from marriage to a similar extent in Japan. Especially in a country like Japan where marriage is perceived to be a “rigid social institution involving the interests of and influences from the extended family and kinship” (Tsuya and Choe 2003:20), marriage is expected to expand family networks. In Japan, despite a rising average age of first marriage (Raymo 2003), most young single men and women still highly

value marriage and desire to marry (Raymo et al. 2015), raising the possibility that marriage provides health benefits to individuals by creating a sense of accomplishment. Furthermore, marriage may provide couples with elevated living standards through pooled incomes. Given that a large gender wage gap persists (OECD 2012:167 Figure 13.1.), health advantages from marriage may be particularly large for women because women in Japan gain access to increased economic assets. This potentially makes marriage similarly beneficial for both genders.

***Hypothesis 1a:** Transitioning from being never married to being married without children is positively associated with well-being for both genders to a similar extent.*

At the same time, there is a possibility that the gain in well-being from marriage for women is minimal compared to that of men's. When interdependence between spouses due to a sharp division of labor was higher, the transition into marriage may have been equally beneficial for both men and women. However, as more married women have entered the labor force in recent years (Gender Equality Bureau, Cabinet Office 2015) and married men's participation in household labor has only slightly increased (Tsuya et al. 2005), many Japanese wives, particularly those without children, have faced the dual burden of paid work on top of domestic work. Even in the case of dual-earner couples, Japanese wives do 90% of the housework, and Japanese husbands do much less compared to Chinese and Korean husbands (Oshio et al. 2013), and substantially less compared to husbands in other industrialized countries (Fuwa 2004). Thus, many wives without children nowadays may be physically and emotionally exhausted by the dual responsibilities of home and

outside work, and the exhaustion and psychological distress may undermine the health benefits of marriage from increased economic resources, while men may gain from marriage by having a wife who performs most of the domestic labor.

Hypothesis 1b: *Transitioning from never having been married to being married without children is positively associated with well-being, only for men.*

Previous studies indicate that parenthood brings few changes in terms of costs or rewards of parenting for married men (Nomaguchi and Milkie 2003). Employees in Japan, particularly those with more promising positions, are expected to show commitment and loyalty to their employers through long work hours in a male-centered corporate culture (Nemoto 2013; Ono 2018; Yu 2009). Men work 50 hours per week on average, and employment hours of Japanese husbands in their prime working years have remained relatively stable over a couple decades (Kuroda 2010; Tsuya et al. 2012). Possibly due to long work hours and husbands' expected role as the primary breadwinner in the family, the time that Japanese fathers spend on childcare is very limited (Ishii-Kuntz 2008). In 2005, Japanese fathers spend 1.3 hours per day on childcare on average, which is just one-third of that of mothers' (Ishii-Kuntz 2008). Due to the limited time spent with children in Japan, becoming a father may hardly have an impact on their subjective well-being. I therefore propose:

Hypothesis 2a: *Transitioning to parenthood has no or little association with change in well-being, compared to being married without children, for men.*

Japanese mothers are expected to be the main caretakers for and educators of their children at home, which makes it difficult for them to combine family with paid

employment (Hirao 2001; Yu 2009). And the social disapproval of working mothers with young children is strong, especially for white-collar working mothers (Yu 2001). Many women in Japan leave the labor market upon marriage or childbirth and re-enter it later when their children enter elementary or middle school, often as non-regular or contingent workers (Brinton 2001; Yu 2002, 2005). Recent government survey results show that while over 70% of all married Japanese women remain in the labor force upon marriage, only a little less than 40% of them remain in the labor force when their first child is born (National Institute of Population and Social Security Research 2016). Particularly with limited childcare time by Japanese fathers (Ishii-Kuntz 2008), the transition to parenthood for married women further increases the domestic burden. While parenthood may bring increased social (Ambert 2001) and psychological resources (Umberson and Gove 1989), given findings on parenting and psychological/physical strain (Bird 1997; Musick et al. 2016; Simon 1992), the increased spouse–mother role obligations are hypothesized to undermine women’s well-being.

Hypothesis 2b: *For women, transitioning to parenthood is negatively associated with well-being, compared to being married without children.*

Data and Methods

The data used for this study were obtained from the University of Tokyo, Institute of Social Science, Japanese Life Course Panel Survey (JLPS) Wave 1 (2007) to Wave 9 (2015). JLPS is an ongoing panel survey conducted annually in Japan since 2007. The JLPS collects information on respondents’ labor market and household activities, attitudes, and well-being, and it is used by many scholars (e.g.

Ishida 2013; Shirahase 2010; Yu and Kuo 2018). The JLPS consists of nationally representative samples of men and women aged 20–34 years (youth sample) and 35–40 years (middle-aged sample). Survey questionnaires were identical for the two age groups and conducted at separate times in the same year. The JLPS added a supplementary sample of 963 during Wave 5. Respondents were not married to each other. For this study, I merged the two original datasets (4,800 in total), as well as the supplementary sample of 963 individuals. For analytical purposes, I converted the data to person-year format. By Wave 9 (2015), respondents were 28–48 years of age.

For this study, I focused on two outcomes related to individuals' well-being. Specifically, the dependent variables are self-rated health and mental health, which I created using the Mental Health Inventory (MHI-5) scale. Self-rated health is a widely used measure of health in population studies (Jylhä 2009), and research shows that self-rated health is sensitive to both physical and mental health statuses (Bailis, Segall, and Chipperfield 2003), associated with objective health (Zheng and Thomas 2013) and a strong predictor of mortality risk (Idler and Benyamini 1997; Jylhä 2009 for a review; Zheng and Thomas 2013). The MHI-5 scale is a short form of the RAND Mental Health Inventory that is used to screen for depressive symptoms (Veit and Ware 1983). The validity of the MHI-5 in a general population sample is established (Rumpf et al. 2001), and it has been shown to be an effective measure of mental health status in the West (Fone et al. 2007; Milner et al. 2018) as well as in Japan (Yamazaki, Fukuhara, and Green 2005).

Respondents' general health status was assessed using the question, "How do you feel about your health?" measured on a five-point scale (1 = very good, 2 =

somewhat good, 3 = normal, 4 = not so good, and 5 = bad). The respondents who rated their health as “bad” accounted for 1.5% of the original total sample of 34,785 observations. I combined the response categories of “bad” with “not so good” for analytic purposes, and I reverse coded the answer categories for the dependent variable so that 4 indicated the best and 1 indicated the worst self-rated health.

The respondents’ mental health was assessed using the question, “In the past month, how often did you feel the following items? Choose the best fitting number” for five items, which were: (a) felt very nervous, (b) felt so down in the dumps that nothing could cheer me up, (c) felt calm and peaceful, (d) felt downhearted and depressed, and (e) felt happy. Participants responded to each of the five questions on a five-point scale (1 = all of the time, 2 = most of the time, 3 = some of the time, 4 = a little of the time, and 5 = none of the time). I reversed the scoring of questions (c) and (e) so that higher scores indicate better mental health status. I used alpha scoring to create the MHI-5 scale (Cronbach’s $\alpha = 0.79$). The scale scores range from 1 to 5 and a higher score indicates better mental health status. The two indicators of well-being were moderately correlated. The correlation coefficient between self-rated health and MHI-5 was 0.37, which is statistically significant at the 0.001 level.

My key independent variable is family roles, indicated by the combination of marital and parental statuses. Roles refer to the “rights, duties, and normatively approved patterns of behavior for the occupants of a given position or status” (Aneshensel et al. 1981:380). The classification of family roles is “never married,” “married, nonparent” and “married, parent,” with “married, nonparent” as a reference group. In Japan, marriage and childbearing are closely tied (Raymo and Iwasawa

2008), with only 2% of children born outside of marriage (Raymo et al. 2015:477). This indicates that the proportion of unmarried mothers is low. Therefore, I did not break up the “never married” category by parenthood status. As the present study focuses on individuals’ transitions into the spousal role, and subsequently to parenthood, the data are restricted to individuals who did not experience a union dissolution (either by divorce or being widowed) during the nine-year window of observation.

For control variables, I used demographic characteristics that included age, type of work, daily work hours including overtime work, educational attainment, whether respondents were enrolled in school or not, respondents’ self-rated financial circumstances, and number of people in the respondents’ households. The JLPS asked respondents to select the type of work that they did from among 12 categories. I combined these into four categories: not employed, regular employment, nonstandard employment, and self-employment. There are two kinds of workers in the Japanese labor force: regular employees (*seishasin*) and non-regular employees (*hiseikishain*). The former are granted opportunities for promotion and training and enjoy job security and many fringe benefits (e.g., housing allowances, travel expenses, and family allowances), and are expected to work overtime (Brinton 1993; Yu 2002). For non-regular employees, there is little or no chance for promotion and benefits and no guarantee of long-term job security. 0 (hours) was assigned for respondents’ daily work hours when they were out of the labor force at the time of the interview. The JLPS asked respondents to indicate the level of education that they last attended from among six categories and whether or not they completed that level of education. I

created three categories of educational attainment: completed high school or less, completed junior college or vocational school, and completed university or higher. In addition to educational attainment, I included a dummy variable, indicating whether respondents were enrolled in school or not at the time of each interview. For household income, 24.9% of the original total sample either did not respond or reported that they did not know. These data are possibly missing not at random, and any approach to handling this much missing data can be expected to produce biased results. Therefore, instead of the household income variable, I used respondents' self-rated financial circumstance as a proxy for household income, measured on a five-point scale (1 = affluent, 2 = relatively affluent, 3 = average, 4 = relatively poor, and 5 = poor). I reversed the answer categories so that 5 indicates the best and 1 indicates the worst financial circumstance.

For the purpose of this study, I limited my sample to individuals who responded to at least two waves of the survey with non-missing values on both the dependent and independent variables, as required by the fixed-effects model. Missing values of the variables included in the analysis are within 2%. I used a listwise deletion procedure to handle the missing data. The final sample size was 30,224 person-year observations, with 13,732 person-year observations from 2,181 male respondents, and 16,492 person-year observations from 2,448 female respondents.

Table 1 presents the descriptive statistics for the analytical samples. For self-rated health, the mean is 2.4 with standard deviation 0.9. For the MHI-5 scale, the mean is 3.5 and standard deviation is 0.7. Overall, the distribution for the two well-being indicators was a little skewed to the positive side.

[TABLE 1 ABOUT HERE]

For marital/parental status, around 40%, 10%, and 50% were never married, married nonparent, and married parent, respectively.

Analysis Strategy

Following previous research (e.g. Lim and Raymo 2016; Musick and Bumpass 2012), I used an individual-level linear fixed-effects model to control for unvarying individual characteristics (Allison 2009), with self-rated health and MHI-5 score as dependent variables. The parameter estimates from the fixed-effects model used in the analysis represent changes in the average level of one of the two indicators of well-being with a one-unit change in each of the independent variables when holding all other variables in the model constant. Statistical analysis was performed using Stata version 14. Based on my hypotheses and previous research indicating that marital and parental statuses are associated differently with men's and women's subjective well-being outcomes (Coombs 1991), I tested the association separately for each group. The model for y is given by the following:

$$y_{ij} = \mu_j + \beta X_{ij} + \gamma Z_i + \alpha_i + \epsilon_{ij} \text{ where } \epsilon_{ij} \sim N(0, \sigma_e^2)$$

The y_{ij} denotes the dependent variable, which is self-rated health or MHI-5 of person i ($i = 1, 2, 3, \dots, n$) at time j ($j = 1, 2, 3, \dots, l$). μ_j is the intercept, and β and γ are vectors of coefficients. X_{ij} represents the time-varying variables and Z_i represents the time-invariant variable. α_i denotes the unobserved individual specific fixed effect that varies across individuals, not over time, and ϵ_{ij} indicates the individual unobserved random error term that varies across individuals at each point in time.

With fixed-effects models, time-invariant variables are dropped. Therefore, all variables used in the analysis are time-varying.

Results

The results of a series of fixed effects models are presented in Table 2. Figure 1 is a graphical representation of the estimates of the key independent variable by gender.

[TABLE 2 ABOUT HERE]

[FIGURE 1 ABOUT HERE]

Transition into Marriage and Well-being

I hypothesized that the transition from never having been married to being married without children would be linked with elevated levels of well-being either for both genders (Hypothesis 1a) or only for men (Hypothesis 1b). All the models for men show that being married is associated with better subjective well-being. For men, as shown in Table 2, becoming a spouse resulted in statistically significant improvement in self-rated health and mental health compared to their status before marriage when other variables were held constant. Women also seemed to benefit psychologically from marriage compared with being never married. Specifically, for women, becoming a spouse resulted in significantly improved mental health compared to when they were never married, when holding all other variables constant. However, the results did not support the prediction that becoming a spouse would be associated with improved self-rated health.

To examine whether the difference in protective effects for men and women in terms of mental health was statistically significant, I ran separate exploratory models,

which included both genders with an interaction term for family roles and gender. The interaction was not statistically significant. The results do not provide evidence, indicating that the effects of transitioning into marriage differ by gender.

Thus, in terms of mental health, Hypothesis 1a was supported, but Hypothesis 1b, which predicted that the health benefits of marriage would be only evident for men, was not supported. The results demonstrate that there are protective effects of marriage for both men and women in terms of mental health. On the other hand, in terms of self-rated health, Hypothesis 1a was not, but Hypothesis 1b was supported. While the transition into marriage also seems to be beneficial in terms of self-rated health for men, the effect is unclear for women.

Transition into Parenthood and Well-being

I expected that the transition into parenthood would have no or little association with changes in well-being for men (Hypothesis 2a), but it would be negatively associated with changes in well-being for women (Hypothesis 2b). The results do not support either hypothesis. For men, contrary to Hypothesis 2a, the model for self-rated health demonstrates that becoming a parent is associated with worse self-rated health. Specifically, compared to being married without children, becoming a father resulted in a statistically significant deterioration in self-rated health, when holding all other variables constant. However, no evidence showing that becoming a parent is associated with changes in mental health was found. For women, the results do not support the prediction (Hypothesis 2b) that becoming a parent would be associated with worsening of self-rated health or mental health.

In addition, I explored whether the number of children, as opposed to merely whether or not respondents were parents, would matter for parents' well-being. To assess this possibility, I ran models using a categorical variable that measured the number of children (results not shown). The categories are never married, married nonparent, married with one child, and married with two or more children. The results indicated that only for men, the transition from being a parent of one child to having subsequent children further deteriorated their self-rated health. However, the results of other models did not provide evidence showing that the outcomes were affected by changes in the number of children.

Summary and Discussion

Research from the West suggests that marriage is associated with an elevated level of subjective well-being. By netting out the selectivity into different marital and parental statuses with fixed-effects models, I examined how transitions to the role of spouse and subsequently the role of parent were associated with changes in two indicators of well-being, self-rated health, and mental health measured by the MHI-5 and how the relationship differed by gender.

Consistent with previous research and associated theory, the results of this study generally support the protective effect of marriage perspective. While a protective effect for men was manifested for both indicators of health, the results do not support the prediction that marriage would have a protective effect in terms of women's self-rated health. Contrary to previous research findings (Umberson and Thomeer 2020), I did not find that the protective effect of marriage in terms of mental health was larger for men than for women. Taken together, the findings suggest that

both men and women in Japan benefit psychologically from marriage, possibly because partners provide emotional support to each other. In addition, as marriage is valued (Raymo et al. 2015) and is a precondition to childbearing (Hertog and Iwasawa 2011), transition into marriage may provide an additional psychological boost for both genders. The findings of this study for women's mental health are consistent with previous findings from Japan (Lim and Raymo 2016). Married men's self-rated health may benefit from having a wife who provides emotional support and helps monitor her husband's health. While previous research shows that marriage is associated with elevated levels of physical health (Lim and Raymo 2016), findings of this study do not indicate the link between marriage and self-rated health for women, though the outcomes are not exactly the same. I speculate that the absence of evidence for a protective effect of marriage in terms of women's self-rated health is due to their heavy work-family obligations of more recent age cohort. Upon marriage, while women may benefit from access to increased economic resources (Hahn 1993), many may experience physical fatigue deriving from dual responsibilities of household tasks and paid work, as husbands contribute little to household tasks.

Contrary to the prediction derived from previous research, the present study found that the transition into parenthood among married men was negatively associated with self-rated health, while there was no statistically significant association among women. The finding is particularly noteworthy, considering the limited amount of time that Japanese fathers spend on childcare (Ishii-Kuntz 2008). The results suggest that even if fathers spend little time on childcare, their general health can be affected by becoming a father. Parenthood may deteriorate men's self-

rated health by leading them to take on a larger role as a breadwinner, as many wives leave the labor force upon childbirth. Because of the large change in mothers' work circumstances, fathers in Japan may be under high pressure as the sole or primary earner for the family, where social norms put emphasis on fathers' financial provider role (Ishii-Kuntz 1993), and parents are expected to make a large monetary investment in children's education (Tsuya, Oppenheim Mason, and Bumpass 2003). Results of the exploratory analyses, indicating that the arrival of subsequent children further worsens their self-rated health, suggest that increased family role obligations as a father of multiple children in a gender-inegalitarian context is detrimental to fathers' general health. Japanese fathers may actively take and be given more responsibilities by their employers, on top of already long work hours, which may negatively affect their physical health. The finding has implications for future studies in country contexts where social norms emphasize the importance of fathers' role as the primary financial provider for the family. For women, while becoming a parent is expected to sharply increase women's household responsibilities, the large adjustment in work circumstances possibly offsets the negative effects on well-being at least temporarily, as many wives leave the labor force upon childbirth.

This study has some limitations. First, the conclusions drawn in this study are only applicable to Japanese women and men in early to middle adulthood. It is unclear whether the findings can be generalized to older ages as well. For instance, it is unable to assess any long-term health consequences of marriage and parenthood when individuals are 50 years of age or older. Second, research indicates that the association between parenthood and psychological well-being may differ by marital

status (Evenson and Simon 2005; Nomaguchi and Milkie 2003). Because of low statistical power due to the small sample size of single mothers and fathers, this study could not address the question of whether the transition to parenthood among unmarried individuals had a different association with well-being than for married individuals. Likewise, for the same reason, this study did not consider the distinction between cohabiting and non-cohabiting unmarried individuals, though there has been a significant increase in premarital cohabitation (Raymo, Iwasawa, and Bumpass 2009). Third, the exact mechanisms of the association between family roles and well-being remain unknown. This study did not find that marriage elevates women's self-reported health, possibly due to physical fatigue deriving from dual responsibilities of household tasks and paid work, but as the JLPS does not specifically ask about respondents' share of domestic labor with their spouse or their hours spent on domestic labor, it is difficult to assess this possibility. Likewise, it remains unclear why parenthood seems to negatively affect men's self-rated health. Future studies can address these issues.

Despite these limitations, this study provides empirical evidence of how men's and women's experience of marriage and subsequently parenthood are linked with changes in subjective well-being from a non-Western, highly gender-unequal industrialized country. The findings illuminate the ways that normative context shapes the relationship between family roles and subjective well-being and how the relationship differs by gender. Specifically, in terms of self-rated health, the lack of empirical support for the protective effect of marriage for women, and the negative relationship between parenthood and self-rated health for married men, show that

experiencing marriage and parenthood can lead to different findings, depending on country context. This study also highlights the importance of considering multiple dimensions of well-being, as the outcomes of occupying certain family roles may be more sensitive to some indicators of well-being than others. More research examining whether the influence of family roles on well-being differs by country context, and why, is needed.

Table 1. Descriptive statistics of the analytic sample

	Total	Men (45.4%)	Women (54.6%)
Self-rated health (Mean, SD)	2.4 (.9)	2.4 (.9)	2.4 (.9)
Mental Health Inventory (MDI-5) scale (Mean, SD)	3.5 (.7)	3.5 (0.7)	3.5 (.7)
Marital and parental status (%)			
Never married	39.6	45.0	35.1
Married, nonparent	10.3	10.1	10.6
Married, parent	50.1	45.0	54.3
Age (Mean, SD)	34.8 (6.4)	34.7 (6.3)	34.8 (6.5)
Work types (%)			
Not employed	16.8	5.7	26.0
Regular employment	53.4	75.0	35.5
Non-regular employment	24.1	12.0	34.2
Self-employment	5.7	7.3	4.4
Work hours (Mean, SD)	7.0 (3.8)	8.9 (2.9)	5.5 (3.8)
Educational attainment			
Completed high school or less	32.6	35.3	30.3
Completed junior college / vocational school	32.7	19.9	43.3
Completed university or higher	34.8	44.8	26.4
Enrolled in school (%)			
No	96.6	96.0	97.2
Yes	3.4	4.0	2.8
Self-rated financial circumstance (Mean, SD)	3.0 (.8)	3.0 (.8)	3.1 (.7)
Number of residents in household (Mean, SD)	3.5 (1.5)	3.4 (1.5)	3.6 (1.5)

Note: The unit of analysis is person-years. The sample contains 13,732 person-years for men and 16,492 person-years for women.

Data source: Japanese Life Course Panel Survey

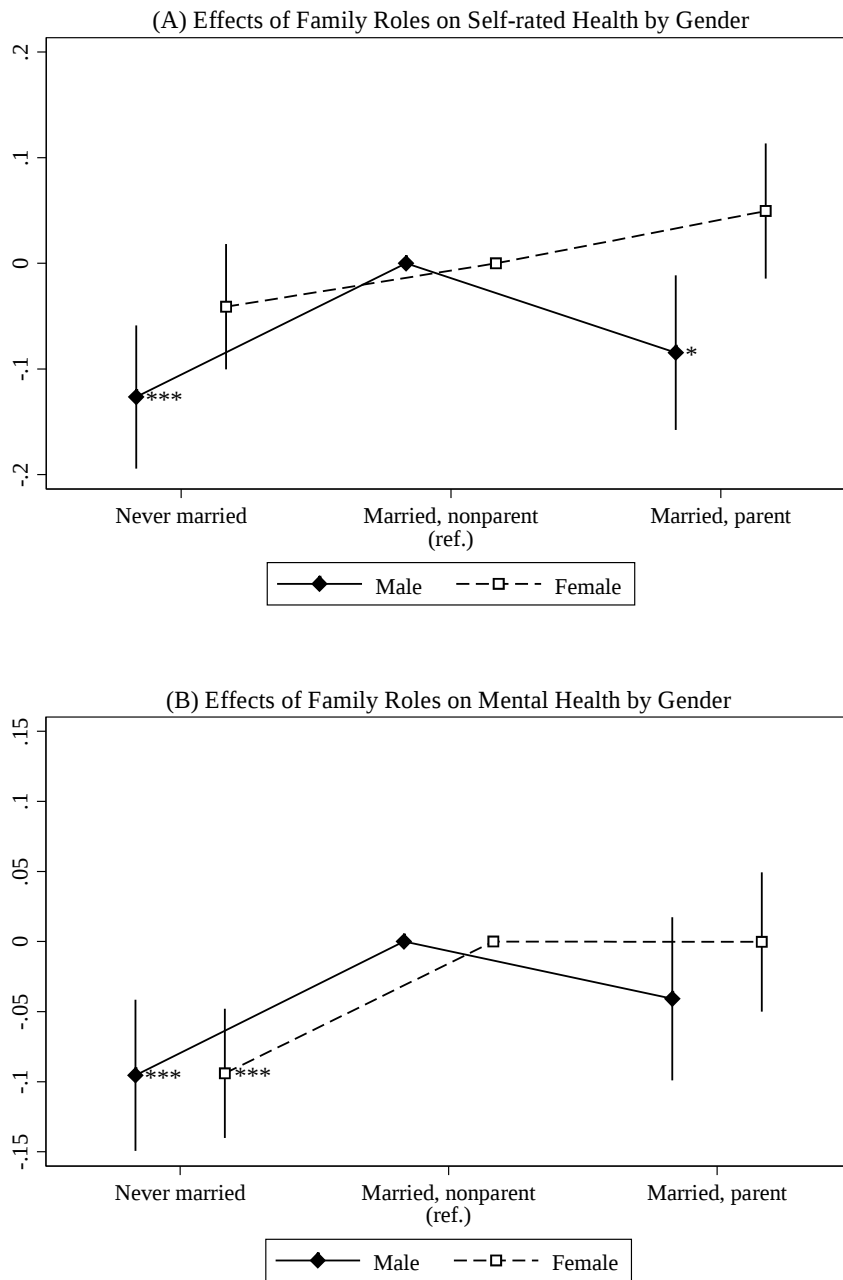
Table 2. Results from fixed-effects models predicting men's and women's subjective well-being

	Men		Women	
	Self-rated health	Mental health	Self-rated health	Mental health
Never married (<i>ref.</i> married, nonparent)	-.127*** (.035)	-.095*** (.028)	-.041 (.030)	-.094*** (.024)
Married, parent	-.085* (.037)	-.041 (.030)	.050 (.033)	-.001 (.025)
Age	-.027*** (.002)	-.004* (.002)	-.030*** (.002)	.000 (.002)
Regular employment (<i>ref.</i> not employed)	.211*** (.053)	.236*** (.042)	.017 (.044)	.054 (.034)
Non-regular employment	.228*** (.049)	.231*** (.039)	.094** (.034)	.110*** (.026)
Family/self-employment	.265*** (.065)	.255*** (.052)	.087+ (.046)	.091* (.036)
Work hours per day	-.025*** (.004)	-.022*** (.003)	-.022*** (.005)	-.024*** (.004)
Educational attainment (<i>ref.</i> completed high school or less)				
Completed junior college/vocational school	-.036 (.067)	.047 (.053)	.141* (.066)	.082 (.051)
Completed university or higher	.008 (.065)	.041 (.052)	.063 (.069)	.073 (.054)
Enrolled in school (<i>ref.</i> not enrolled)	.014 (.046)	.039 (.037)	.021 (.043)	.008 (.033)
Self-rated financial status	.090*** (.011)	.089*** (.009)	.084*** (.011)	.082*** (.008)
Number of residents in household	.014+ (.008)	-.004 (.007)	-.001 (.008)	-.018** (.006)
Constant	3.083*** (.107)	3.402*** (.085)	3.191*** (.094)	3.376*** (.073)
N of person-years	13,732	13,732	16,492	16,492
N of respondents	2,181	2,181	2,448	2,448

Note: Standard errors in parentheses. *** p<0.001, ** p<0.01, * p<0.05, and + p<0.1 (Two-tailed test)
Self-rated health is measured on the scale of 1 (not so good/bad) to 4 (very good). Mental health is measured by MHI-5 scores, which range from 1 to 5 with 5 indicating better mental health.

Data source: Japanese Life Course Panel Survey

Figure 1. Model-estimated effects of family roles on well-being



Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, and + $p < 0.1$ (two-tailed test). The unit of analysis is person-years. The sample contains 13,732 person-years for men and 16,492 person-years for women. Estimates of graph (A) are based on the Model for self-rated health in Table 2. Self-rated health is measured on a scale of 1 (not so good/bad) to 4 (very good). Estimates of graph (B) are based on the Model for mental health in Table 2. Mental health is measured by MHI-5 scores which range from 1 to 5 with 5 indicating better mental health. Error bars show 95% confidence intervals.

Data source: Japanese Life Course Panel Survey

Chapter 3: Gender Differences in Scaling Back: Family Responsibilities and Work Attitudes among Japanese Adults

Introduction

Marriage and becoming a parent are major life events for many individuals. Family responsibilities as a spouse and a parent and associated work-life conflict have been shown to affect attitudes toward work, which are often negative for women. Examples of such negative effects include decreased long-term expectations for career advancement (Becker and Moen 1999) and work commitment (Desai and Waite 1991; Evertsson 2013) and increased desire to reduce the number of work hours (Reynolds 2005). A contrasting position is represented by scholars who argue that the effect of family on attitudes toward work is best predicted by job characteristics, instead of gender, and found evidence supporting this claim (Cassirer and Reskin 2000; Kanter 1976, 1993). The individuals with family responsibilities may be channeled into less-desirable jobs with less autonomy and fewer opportunities for career advancement. The shift in job conditions, rather than increased family responsibilities, may be mainly responsible for attenuating individuals' enthusiastic attitudes toward work. Yet previous research on the relationship between family responsibilities and work attitudes has often relied on relatively small sample interview data or cross-sectional data observed at one point in time. Comparing different individuals with different family lives has limitations in addressing the possibility that unobserved personal attributes explain the transitions to different marital or parental statuses. Moreover, although research using qualitative and cross-

sectional data implies that parenthood provokes a major shift in women's work-related strategies and attitudes (Becker and Moen 1999; Blair-Loy 2001; Evertsson 2013; Maume 2006; Stone 2007), these studies have not identified which life events actually precipitate changes in work attitudes. Whether becoming a parent (versus another event, such as marriage) triggers changes in work attitudes in both men and women remains unclear. Furthermore, previous research has focused on individuals who are in the labor force. Omitting individuals who are out of the labor force potentially underestimates the impact of family responsibilities on work attitudes.

This study examines how the work attitudes of individuals change by using fixed effects models and nationally representative panel data from Japan. Specifically, the study examines the association between changes in family responsibilities and the work-attitude trajectory of women and men in Japan in early to middle adulthood. One of the advantages of the survey data that used for this study is that the survey asked all respondents their attitudes toward work, regardless of their work status at the time of the survey. This enables me to estimate the average effect of family responsibilities on work attitudes more accurately than previous research, as individuals espousing negative attitudes toward work may be more likely to be out of the labor force. I use Japan as an illustrative case of a gender context where marriage and parenthood bring extremely gendered divisions of labor between spouses. In Japan, married women perform 90 percent of the housework even in the case of dual-earner couples (Oshio et al. 2013). Once they become parents, fathers spend just one-third of the time per day on childcare that mothers do (Ishii-Kuntz 2008). Japanese individuals hold much more traditional views toward gender than individuals of most

other industrialized countries (Inglehart, Norris, and Welzel 2002). In such a context, the expected findings can be different from theoretical predictions from the opportunity structures perspective. Positions in the workplace indicated by job characteristics may not be sufficient to explain the effect of family responsibilities on attitudes toward work.

Examining attitudes toward work is important, as work attitudes have implications for gender inequality inside and outside the home. If women place less priority on work achievement as a result of having family responsibilities, that shift in attitudes reinforces and legitimizes the division of household labor, which may hinder women's labor force participation and career advancement. Work attitudes predict work outcomes such as performance (Judge and Kammeyer-Mueller 2012; Riketta 2008) and, may consequentially explain worker's chances of securing higher positions and the net wage penalty or premium that marriage and parenthood bring for women and men. Attitudes toward work also potentially influence how employers treat their employees. Assessing factors that affect work attitudes would be particularly crucial for a country like Japan where women account for only 15 percent of senior leadership positions, which is lower than many advanced economies (The World Economic Forum 2019).

By using fixed effects models to account for systematic differences in characteristics among those with different marital or parental status, this study advances our understanding of the effects of family responsibilities on attitudes toward work over women's and men's life course. Furthermore, cross-national studies using cross-sectional data suggest that work attitudes vary from country to country

(Hult and Svallfors 2002; Svallfors, Halvorsen, and Andersen 2001; de Vaus and McAllister 1991). The present study potentially underscores the importance of the normative context of a country when examining the link between family responsibilities and attitudes toward work.

Theoretical Framework

Two theoretical perspectives can explain changes in work attitudes, specifically the opportunity structures and family role perspectives. The opportunity structures perspective hypothesizes that positions in opportunity structures in the workplace, not gender, shape men's and women's work attitudes (Kanter 1976, 1993). Kanter (1976, 1993) argued that women appear to have less vigorous work attitudes than men because women are more likely to occupy jobs with limited advancement opportunities in the workplace and organizations. Focusing on promotion aspirations, Cassirer and Reskin (2000) tested Kanter's claim and found that workers' position in the opportunity structure at work, not their gender, affects their attitudes. Furthermore, after controlling for job characteristics, they did not find evidence indicating that workers' family characteristics affect the promotion aspirations of either gender. Following the argument proposed by the perspective, undertaking family responsibilities is expected to have no or little association with changes in work attitudes for both genders when job and demographic characteristics are adjusted.

In contrast, the family responsibilities perspective highlights different work and family experiences that marriage and parenthood bring for men and women. Women traditionally shoulder larger family responsibilities than men, spending an

average of twice as many hours on housework, whether they work full-time or not (Bianchi 2000). Parenthood leads to sharper divisions of labor between spouses among married couples (Sanchez and Thomson 1997). Previous research has shown that women are more likely than men to adjust their work life to meet family demands by, for instance, turning down promotions or interesting work assignments (Maume 2006) and cutting back on work hours and job demands, especially when they have young children (Young and Schieman 2018). Likewise, family demands may affect more work attitudes of women rather than men's. For instance, Becker and Moen's (1999) interviews with middle-class dual-earner couples revealed wives who have childrearing responsibilities employ different scaling-back strategies, including reducing long-term expectations for career advancement. Using longitudinal data from Sweden, Evertsson (2013) found that becoming a mother is linked to a decreased emphasis on the importance of work in respondents' lives. Married men, on the other hand, are traditionally expected to fulfill the role of breadwinner for the family (Hood 1986), suggesting that marriage is associated with men's income-earning responsibilities more than women's. Fathers, compared with non-fathers, place greater importance on extrinsic work rewards such as pay and job security (Johnson 2005). Research on the net wage premium that fathers can receive, or the fatherhood wage premium, suggests that the premium is partly explained by fathers' increased labor-market productivity (Killewald 2013). Taking on new family responsibilities, therefore, is expected to lead to changes in attitudes toward work, and the directions differ by gender.

Japanese Context and Hypotheses

Despite women's progress in educational attainment and labor force participation (OECD 2017), social norms in Japan still define a husband's role as the primary breadwinner and define women's primary role as involving domestic work and childrearing (Fuwa 2004; Ochiai et al. 2008; Yu 2009). In fact, the division of labor at home in Japan is highly unequal compared with that in Western countries (Batalova and Cohen 2002; Davis 2010; Fuwa 2004), and, even in the case of dual-earner couples, Japanese married women do 90 percent of the housework, and Japanese men do much less compared with Chinese and Korean men (Oshio et al. 2013).

At the same time, employees, particularly those who work as regular full-time employees and those with more promising positions, are expected to show commitment and loyalty to their employers through long work hours in a male-centered corporate culture (Nemoto 2013; Ono 2018; Yu 2009). Men work 50 hours per week on average, and the employment hours of Japanese husbands in their prime working years have remained relatively stable over the last couple of decades (Kuroda 2010; Tsuya et al. 2012). Possibly due to long work hours and a husband's expected role as the primary breadwinner in the family, the amount of time that Japanese fathers spend on childcare is limited (Ishii-Kuntz 2008). In 2005, Japanese fathers spent just one-third as much time as mothers on childcare (Ishii-Kuntz 2008).

In Japan, where the difficulty of combining work and family responsibilities is presumably high, individuals are hypothesized to *choose* to focus on either work or family responsibilities. As their family responsibilities expand, women's work

attitudes are expected to become less positive. At the same time, in the Japanese context where many women leave the labor market upon marriage or childbirth (Brinton 2001; Yu 2002, 2005), it is even possible that for men, the increased financial responsibilities may lead to more positive attitudes toward work. Therefore, I hypothesize the following:

Hypothesis 1: Being married and becoming a parent are negatively associated with work attitudes for women, compared with being never married.

Hypothesis 2: Being married and becoming a parent are positively associated with work attitudes for men, compared with being never married.

According to the 2020 Gender Gap Index published by the World Economic Forum, Japan ranks 115 out of 153 countries on one of the key dimensions of economic participation and opportunity (The World Economic Forum 2019). Japanese women remain in relatively less promising positions in opportunity structures in the workplace than their male counterparts. In 2007, 55.2% of the female labor force in Japan were non-regular workers, while the proportion was 19.9% for male workers (Osawa, Kim, and Kingston 2013). After women leave the labor market upon marriage or childbirth, they re-enter later but as non-regular or contingent workers (Brinton 2001; Yu 2005). And even when work hours and other job attributes are controlled, women in Japan tend to have much less decision-making authority and have less influence on pay raises or promotions of subordinates in the workplace than their male counterparts (Wright, Baxter, and Birkelund 1995).

Following Kanter's (1976, 1993) argument, differences in work attitudes are attributed to the fact that women tend to occupy less desirable positions in opportunity structures in the workplace, rather than to their gender itself. Specifically, less desirable job characteristics such as lower job autonomy are expected to predict changes in work attitudes in a less favorable direction for both genders. When job and demographic characteristics are adjusted, it is expected that both men's and women's work attitudes are largely unresponsive to additions of family responsibilities. In other words, when controlling for the effects of job and demographic characteristics, the observed relationship between family responsibilities and work attitudes is expected to disappear for both genders. Hence, I expect the following.

Hypothesis 3: Job characteristics mediate the effects of marriage and parenthood on work attitudes for both genders.

Data and Methods

The data used for this study come from the University of Tokyo Institute of Social Science Japanese Life Course Panel Survey (JLPS). JLPS is an ongoing panel survey conducted annually since 2007. The JLPS consists of nationally representative samples of men and women aged 20 to 34 (youth sample) and 35 to 40 (middle-aged sample) and is used by many scholars (e.g. Ishida 2013; Shirahase 2010; Yu and Hara 2020). Survey questionnaires for Wave 1 are identical for the two surveys, conducted at separate times in the same year. The JLPS added a supplementary sample of 963 during Wave 5. For this study, I merged the two original data sets (4,800 in total) as well as the supplementary sample of 963 individuals.

This study concerns one dimension of work attitudes, respondents' degree of enthusiasm toward achievement in the sphere of work. The two dependent variables are importance of work success and aspiration to improve work-related skills. The importance of work success to respondents was assessed by their response to the question, "How important to you are the following items?" followed by a listing of six items relating to their work and life. One of the six items is "success in work," measured on a 3-point scale (1 = very important, 2 = somewhat important, 3 = not important). Respondents were also asked, "How much do the following items apply to you?" regarding six items relating to their work and life. One of the six items is "I would like to improve my work skills." The response categories ranged from 1 to 4 (1 = applies strongly, 4 = does not apply at all). Responses for both of the outcomes were reverse-coded; thus, a high score indicates that respondents placed a high level of importance on success at work and have a high level of aspiration to improve work skills. The correlation coefficient between the two outcomes is 0.41 and it is statistically significant at $p < 0.001$. The JLPS asked all respondents both questions regardless of whether or not they were working for pay. I used data from Waves 1, 3, 5, 7, 9, and 11 with an eleven-year window of observation, as the question regarding importance of work success was only asked in these waves.

My key independent variable is family responsibilities, indicated by the combination of marital and parental statuses. The classification of family responsibilities was "never married," "married, no child" and "married, one or more children," with "never married" as a reference group. In Japan, marriage and childbearing are closely tied (Raymo and Iwasawa 2008), with only 2 percent of

children born outside of marriage (Raymo et al. 2015:477). This indicates that the proportion of unmarried mothers is low. Therefore, I do not break up the unmarried category “never married” according to parenthood. As the present study focuses on individuals’ taking on a spousal role, and subsequently a parental role, I restricted the data to observations where individuals did not experience a union dissolution (either by divorce or being widowed).

For control variables, I use demographic characteristics, which include age, types of work, work hours per day including overtime work, income in the previous year, self-rated financial circumstances, educational attainment, whether or not respondents were enrolled in school, and city size. The JLPS asked respondents to select the type of work they do from among 12 categories. I combine these into four categories: not employed, regular employment, nonstandard employment, and self-employment. There are two kinds of workers in the Japanese labor force: regular employees (*seishasin*) and non-regular employees (*hiseikishain*). The former are granted opportunities for promotion and training and enjoy job security and many fringe benefits (e.g., housing allowances, travel expenses, and family allowances). At the same time, however, such career-track employees are expected to adhere to the male-centered norm of working long hours (Nemoto 2013). For non-regular employees, there is little or no chance for promotion and benefits and no guarantee of long-term job security. I assign 0 for work hours of the non-employed portion of the sample. The majority (91.2%) of the non-employed sample in the six waves of data has labor market experience in previous years, though information on the last job’s characteristics is not available for respondents who skipped any survey rounds or for

wave 5 observations of the supplementary sample. Therefore, although work attitudes of the non-employed sample are possibly influenced by the characteristics of respondents' last job, the characteristics are not controlled. I also include respondents' income in the previous year as one of the control variables. Five percent of the sample did not provide their income information. Following prior research employing longitudinal income data (Cheng, 2014), I impute missing income by using the closest income record of each respondent in the past three years. For household income, 21.5 percent of the sample reported that they either did not respond or reported that they did not know. Any approaches to handle missing data, when the missingness presumably happens not at random, can be expected to produce biased results. Instead of the household income variable, I thus used respondents' self-rated financial circumstances as a proxy for household income, which were measured on a 5-point scale (1 = affluent, 2 = relatively affluent, 3 = average, 4 = relatively poor, and 5 = poor). I reverse-coded the answer categories so that 5 indicates the best and 1 indicates the worst financial status.

For part of the analysis, I included respondents' job title, occupation, and size of the workplace. In addition, I also introduced a series of variables measuring multiple dimensions of job characteristics. To identify the dimensions of job characteristics underlying the measured items, I performed factor analysis with a series of questions measured on a 4-point scale (1 = very much, 2 = to some extent, 3 = not so much, and 4 = not at all) which I first reverse coded. Two factors with an eigenvalue greater than 1 emerged. Based on the results of the analysis, I created an index variable that measures the degree to which respondents have job autonomy with

two items which assess the extent to which respondents are able to decide their own working pace and the way they perform their jobs. The index variable measuring the extent to which respondents' job enables skill growth is comprised of two other items which assess the extent to which they have learning opportunities and opportunities to improve job skills in the workplace. I averaged scores on the two sets of items and created two indices, the "job autonomy" index and the "job enabling skill growth" index (Cronbach's alpha = 0.74 and 0.72, respectively). The results of the factor analysis show that the absolute value of the standardized loading of the two variables measuring respondents' job flexibility and job insecurity are smaller than 0.3, suggesting that these items capture different aspects of job characteristics by themselves. Therefore, I separately included two additional variables by using the responses to a question about the extent to which respondents are able to adjust their work schedule according to their personal needs and how likely they think it is that they will lose their job within a year.

Other variables regarding job characteristics are: whether many jobs require a lot of teamwork or can be mostly done independently, whether or not their workplace provides opportunities for career advancement, and whether or not their workplace is stressful. These three variables come from a multiple-choice question asking respondents to choose all the items that apply to their workplace. After preparing a dummy variable for each item and assigning 1 if the respondents chose each item, and 0 if they did not, I perform principal component analysis, as the method is more common for binary data (Landgraf & Lee, 2020). Three factors having eigenvalues greater than 1 emerge. I used the items "the majority of work is team-based" and

“employees support one another” to create an index variable measuring the degree to which respondents’ jobs require a lot of teamwork and collaboration. I created another variable that measures the degree to which respondents’ workplace provides opportunities for career advancement with five items: “job rotation option available,” “assigns junior employees a mentor for work or life related issues,” “opportunities available for receiving advice on career advancement,” and “environment of senior employees leading junior employees.” Lastly, the index variable that assess the degree to which respondents’ workplace is stressful was based on three items: “requiring overwork almost every day,” “normally facing a shortage of workers,” and “always struggling to meet deadlines.” The absolute value of the standardized loading of the variable assessing whether the majority of respondents’ is performed independently does not pass the 0.3 threshold; therefore, I include the binary variable separately in the models.

Missing values of the variables included in the analysis are within 3 percent. I used a listwise deletion procedure to handle the missing data. For the purpose of this study, I limited my sample to individuals who responded to at least two waves of the survey with non-missing values on both the dependent and independent variables, as required by fixed effects models. For analytical purposes, I converted the data to person–year format. The final sample size is 7,481 person–year observations from 1,907 male respondents and 9,032 person–year observations from 2,238 female respondents. Table 1 presents descriptive statistics for the sample.

[TABLE 1 ABOUT HERE]

To examine how changes in family responsibilities indicated by marital/parental statuses are associated with attitudes toward work, I used fixed effects models. Because there may be unmeasured stable characteristics that differentiate unmarried from married individuals or parents and non-parents, fixed effects models are suitable because the models can minimize such selection biases (Allison 2009). In my exploratory analysis, I also fitted fixed-effects ordered logit models, as the outcome measure is ordinal response categories (results not shown). Since the models do not include observations from respondents whose outcome is constant across waves, results of my exploratory analysis indicate fitting the models leads to a reduction of around 30% of observations, losing substantial statistical power. I therefore choose the fixed effects models over the fixed-effects ordered logit models. Based on my hypothesis that being married and becoming a parent are differently associated with men's and women's work attitudes, I conducted analyses separately for each group.

Results

Figure 1 presents the unadjusted mean differences for the two outcomes by gender and family responsibilities. The top two panels (1-a) and (2-a) show, respectively, the average levels of rated importance of work success and aspirations to improve work skills by gender and family responsibilities, whereas the bottom two panels (1-b) and (2-b) show the same outcomes but limited to observations when respondents were in the labor market. The four panels indicate that women on average demonstrate a lower degree of enthusiasm toward work achievement than

men regardless of whether they have any family responsibilities, when demographic and job characteristics are not controlled.

[FIGURE 1 ABOUT HERE]

The results of a series of fixed effects models are presented in Table 2 and Table 3 for women and men, respectively. I begin with the baseline models (Model 1) with the key independent variable without control variables, and subsequently add the control variables. Models 1 and 2 for both outcomes include all respondents regardless of their work status; those who are out of the labor force at the time of the survey are included. In Model 3, which is limited to observations of respondents who are in the labor market, I included a series of variables indicating job characteristics.

[TABLES 2 AND 3 ABOUT HERE]

I hypothesized that being married and becoming a parent are negatively associated with work attitudes for women, compared with being never married for women (Hypothesis 1). All the models for women show that taking on family responsibilities is associated with a decreased level of importance of work success, and of aspirations to improve work skills. Model 2 for both outcomes shows a negative association even when demographic characteristics of respondents are controlled. Furthermore, Model 3 for both outcomes indicates that, even among observations when respondents are in the labor force, and when job characteristics are controlled, the association between family responsibilities and outcomes remains negative. Therefore, Hypothesis 1 is supported. Additionally, I conducted two exploratory analyses to further assess the changes in the outcomes. First, to test whether there are statistically significant differences between “married, no child” and

“married, one or more children” for women, I ran the same models first with “married, no child” as the reference group (results not shown). The results do not provide evidence to show that the change from being married but having no child to being a married parent change the outcomes. Second, to test whether there are statistically significant differences in the two outcomes as a function of number of children, I ran the same models by breaking the category “married, 1 or more children” into “married, one child,” “married, two children,” and “married, three or more children.” The results do not provide evidence to show that the changes from one child to two or two to three or more change the outcomes.

On the other hand, for men, I expected that there would be a positive association between family responsibilities and work attitudes, compared with being never married (Hypothesis 2). Neither model 2 or model 3 for the two outcomes provide evidence to show that family responsibilities are linked with work attitudes. The results therefore do not support Hypothesis 2.

Lastly, I predicted job characteristics would mediate the effect of family responsibilities on attitudes toward work for both genders (Hypothesis 3). For both genders, among variables measuring different aspects of job characteristics, when respondents’ job is more team-based and collaborative, enables skill growth, when there is a higher level of autonomy on the job, and when opportunities for career advancement are available (evident only for men), their enthusiasm toward work achievement is likely to be greater. In addition, compared to having a position without a title, an executive position is associated with elevated awareness of the importance of work success for women. Furthermore, compared to being employed as

a non-regular employee, being employed as a regular employee is negatively associated with both outcomes, but only for women. In other words, switching from regular to non-regular employment *boosts* women's achievement enthusiasm at work, suggesting the difficulty of combining work as a regular employee and family responsibilities in the social context of Japan. For women, even after controlling for job characteristics, however, Model 3 for importance of work success demonstrates that family responsibilities are still negatively associated with the outcome. Model 3 for aspiration to improve work skills showed similar results. For men, while the baseline models (Model 1) indicate that family responsibilities are associated with changes in both of the two outcomes, once job characteristics and other control variables are included in the models, the associations are no longer observable. The results do not provide evidence indicating that job characteristics mediate the effects of marriage and parenthood on work attitudes for *both genders*. Therefore, the results do not support Hypothesis 3. Figure 2 is a graphical representation of the results of the key independent variable in Model 3 on the two outcomes for both genders.

[FIGURE 2 ABOUT HERE]

Discussion

The findings show that family responsibilities are linked with restrained enthusiasm toward work achievement among women in the highly gendered industrialized social context of Japan. The findings for women are consistent with the family responsibilities perspective that highlights family responsibilities that women shoulder, whereas for men, taking on spousal and parental roles has little or no association with work attitudes. Men's work attitudes are largely unresponsive to

additions of family responsibilities once job and demographic characteristics are adjusted. But women's work attitudes are still negatively associated with family responsibilities, even when controlling for job characteristics. The patterns of changes in work attitudes over individuals' life course differ by gender, suggesting that the adjusted results do not provide evidence to support the opportunity structures perspective, which posits that positions in opportunity structures in the workplace, not gender, are primarily responsible for shaping individuals' work attitudes (Kanter 1976, 1993). While women in Japan temporarily leave and re-enter the labor force as non-regular or contingent workers with less-desirable job characteristics upon marriage or childbirth (Brinton 2001; Yu 2005), the results of the present study demonstrate that shifts in job characteristics cannot fully explain the change in work attitudes for women.

The findings imply that even if women are in a desirable position in the workplace, the demands of family make women scale back their enthusiasm toward work achievement. In the gender context of Japanese society, women may curtail the enthusiasm after facing work-family conflicts, as they try to fulfill new family responsibilities. When women enter into marriage, their achievement enthusiasm at work starts to wane even before becoming a parent. The lack of evidence indicating being a parent further accelerates the change in work attitudes suggests that women may be already thinking ahead about parenthood and downshift their enthusiasm toward work achievement upon marriage (Bass 2015). Women's attitudinal scaling back upon marriage may be further encouraged by their husband's attitudes, as previous research suggests that husbands' attitudes toward their wives' employment

influence women's own employment attitudes (Spitze and Waite 1981). Especially in a country like Japan where marriage involves the interests of and influences from the extended family and kinship (Tsuya and Choe 2003), women may also react to pressures from their extended family. In any case, either consciously or unconsciously, many women in such a gendered context may make a tradeoff between active engagement in their work and family caregiving. It is important to note that unmeasured variables, such as employers' discriminatory practices toward wives and mothers at the workplace, may explain the change in attitudes.

Limitations of this study include constraints imposed by the dimensions and meaning of the two work attitudes measurements: importance of work success and aspiration to improve work skills. The two measurements assess the degree of enthusiasm toward achievement in the sphere of work, which is different from work commitment measured by women's imagined work plans at age 35 (Desai and Waite 1991) or importance of work in the respondents' lives (Evertsson 2013). Women may become committed to work by engaging in the labor market but are not necessarily enthusiastic about work or career achievement, as some may work mainly aiming to supplement family income. Nevertheless, work attitudes are multidimensional (Judge and Kammeyer-Mueller 2012), and the present study identified two work attitudes assessing individuals' degree of achievement enthusiasm in response to changes in family responsibilities for women. Furthermore, with respect to subjective assessment of the importance of work success, though work success traditionally refers to securing a higher position and salary in the labor market, women and men potentially define success differently (Dyke and Murphy 2006). Regardless of how respondents

define work success, however, the results of this study suggest negative consequences of family responsibilities on work attitudes for women. Additionally, the mechanisms underlying the association between family responsibilities and work attitudes remain unclear, as the JLPS does not include questions regarding division of domestic labor between spouses, perceived work-family conflict, or spouses' work attitudes. Lastly, this study focuses on the family responsibilities of spouses and a parents, and not others such as a caregivers for the elderly. These limitations point to possible directions for future research.

Despite some limitations, this study advances previous research on the link between family responsibilities and attitudes toward work by providing empirical evidence regarding how work attitudes change over individuals' life course based on panel data and employing fixed effects models. This case study of Japan reveals that entry into marriage triggers shifts in women's work attitudes even before having children. In a normative environment where marriage is prerequisite for childbearing and where marriage and childbirth bring highly asymmetric gender relations, once married, women may downshift their enthusiasm toward achievement in the sphere of work. The findings reaffirm the close link between marriage and childbearing (Raymo and Iwasawa 2008) and may have implications for other social contexts similar to Japan's. The findings highlight the limitations of changing women's positions in opportunity structures in the workplace with the objective of motivating women to be more ambitious in terms of work achievement.

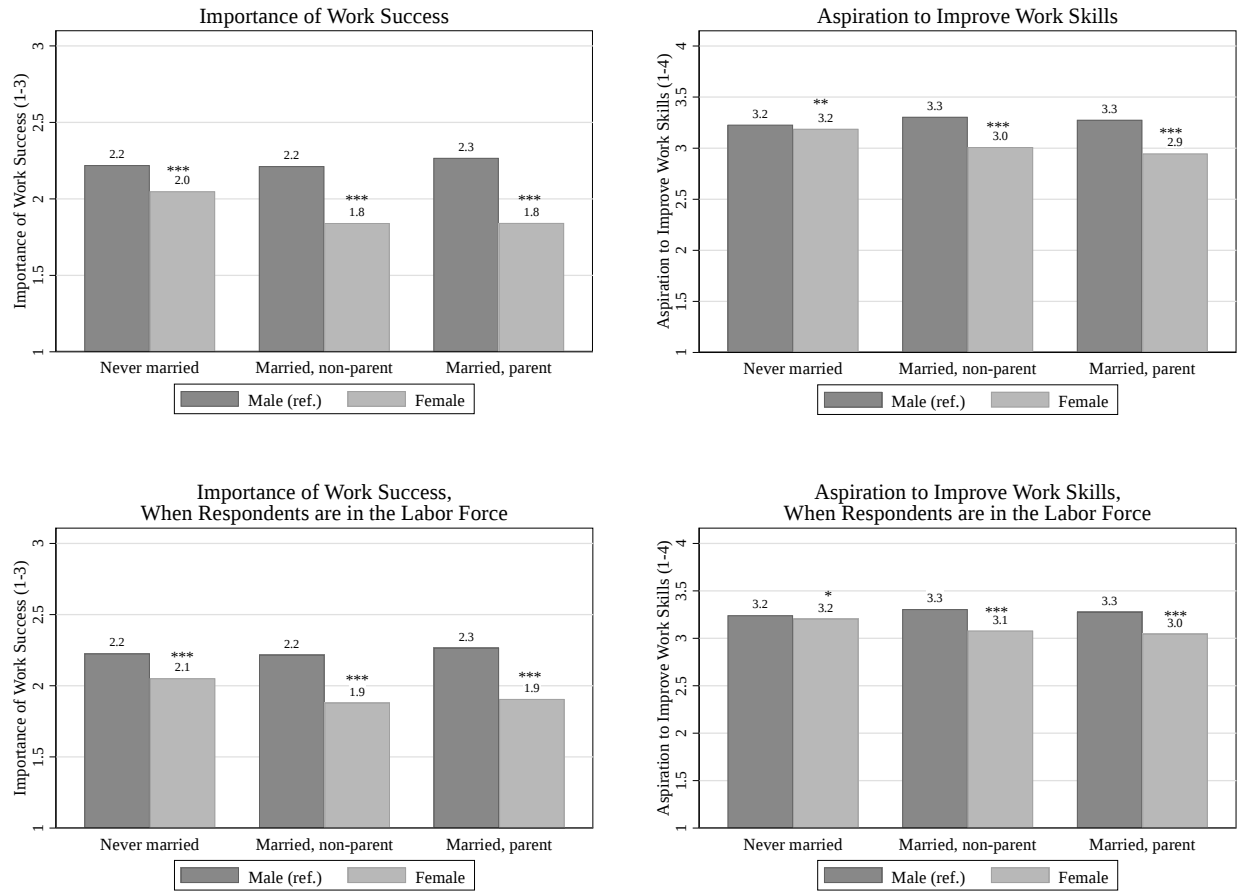
Table 1. Descriptive statistics of the analytic sample

	Total	Men	Women
Importance of work success (1-3):	2.1 (0.7)	2.2 (.7)	1.9 (.7)
Aspiration to improve work skills (1-4):	3.1 (0.8)	3.3 (.7)	3.0 (.8)
Marital/parental statuses (%):			
Never married	37.2	42.6	32.8
Married, no children	10.7	10.4	10.9
Married, 1 or more children	52.2	47.0	56.4
Work status (%):			
Not in the labor force	15.5	5.0	24.0
Regular employment	54.1	76.5	35.7
Non-regular employment	24.7	11.3	35.7
Family/Self-employment	5.8	7.2	4.6
Work hours per day:	7.1 (3.6)	8.9 (2.8)	5.6 (3.7)
Income (in 1,000,000 yen):	3.0 (2.7)	4.4 (2.9)	1.8 (1.7)
Self-rated financial status (1-5):	3.0 (.8)	3.0 (.8)	3.0 (.7)
Age:	35.8 (6.8)	35.8 (6.7)	35.9 (6.8)
Educational attainment (%):			
Completed high school or less	32.4	35.0	30.2
Completed junior college / vocational school	32.7	20.1	43.1
Completed university or higher	35.0	45.0	26.7
Enrolled in school (%):	2.9	3.2	2.6
City size (%):			
Major population center	33.6	36.5	31.2
Other city/town/village	66.4	63.6	68.8
Job title (%) ^a :			
No title	75.8	61.9	90.2
Assistant manager/Section chief	14.8	22.1	7.2
Section manager	4.7	8.4	1.0
General manager	1.3	2.4	.3
Executives	3.3	5.3	1.3
Occupation (%) ^a :			
Professional/technical	24.6	23.2	26.2
Management	1.6	3.0	.1
Clerical	27.5	17.2	38.0
Sales	12.9	14.3	11.4
Service	8.0	5.3	10.9
Production site workers/Technical	20.5	29.5	11.3
Transportation/security	3.8	6.4	1.1
Other	1.1	1.3	1.0
Size of workplace (%) ^a :			
Small [<30 employees]	26.7	26.8	26.5
Medium [30-300 employees]	28.1	28.0	28.2
Large [>300 employees]	32.1	36.4	27.6
Government/municipal offices	5.0	5.0	4.9
Unknown	8.2	3.7	12.8
Schedule flexibility (1-4) ^a :	2.5 (1.0)	2.4 (1.0)	2.7 (1.0)
Job autonomy (1-4) ^a :	2.6 (.8)	2.7 (.8)	2.4 (.8)
Job enabling skill growth (1-4) ^a :	2.5 (.9)	2.6 (.8)	2.4 (.9)
Team-based/collaborative jobs (0-1) ^a :	.5 (.4)	.4 (.4)	.5 (.4)
Opportunities for career advancement available (0-1) ^a :	.1 (.2)	.1 (.2)	.1 (.2)
Jobs independently done (%) ^a :	33.8	38.4	29.0
Stressful workplace (0-1) ^a :	.3 (.3)	.4 (.3)	.2 (.3)
Job insecurity(1-4) ^a :	1.6 (.8)	1.6 (.8)	1.6 (.8)

Note: The unit of analysis is person-years. The sample contains 8,707 person-years for men and 10,572 person-years for women. All numbers followed by parentheses are mean values, with the standard deviation in the parenthesis; other values are in percentage (as indicated in the labels).

a: The sample is limited to observations when respondents were in the labor market.

Figure 1. Unadjusted mean differences by gender and family responsibilities



Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$ (Two-tailed test) The unit of analysis is person-years. The sample contains 8,707 person-years for men and 10,572 person-years for women.

Data source: Japanese Life Course Panel Survey

Table 2. Fixed effects models predicting women's attitudes toward work

	Importance of work success			Aspiration to improve work skills		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Married, no child (ref. never married)	-.206*** (.027)	-.160*** (.028)	-.171*** (.033)	-.225*** (.031)	-.103** (.032)	-.114** (.036)
Married, 1 or more children	-.237*** (.027)	-.154*** (.033)	-.178*** (.041)	-.326*** (.031)	-.071+ (.037)	-.083+ (.044)
Regular employment (ref. non-regular employment)		-.037 (.024)	-.029 (.027)		-.046+ (.027)	-.052+ (.029)
Not employed		-.007 (.033)	-		-.075* (.037)	-
Family/Self-employment		.038 (.037)	.029 (.049)		.034 (.043)	.037 (.053)
Work hours per day		.006 (.005)	.008 (.006)		.011* (.005)	.012+ (.006)
Income (in 1000,000 yen)		.000 (.000)	-.000 (.000)		.000 (.000)	.000 (.000)
Self-rated financial status		.014 (.011)	.010 (.013)		.028* (.012)	.029* (.014)
Age		-.006*** (.002)	-.008*** (.002)		-.023*** (.002)	-.025*** (.002)
Educational attainment (ref. completed high school or less)						
Completed junior college / vocational school		-.012 (.066)	-.064 (.083)		.046 (.076)	.001 (.090)
Completed university or higher		-.207** (.069)	-.198* (.087)		.012 (.079)	-.099 (.093)
Enrolled in school (ref. not enrolled in school)		.091* (.046)	.040 (.062)		.119* (.053)	-.082 (.066)
City size (ref. Major population center)						
Other city/town/village		.011 (.031)	.030 (.040)		-.061+ (.036)	-.054 (.043)
Job title (ref. No title)						
Assistant manager/Section chief			.042 (.032)			.034 (.034)
Section manager			.007 (.076)			.098 (.082)
General manager			.140 (.150)			-.176 (.161)
Executives			.304** (.101)			-.013 (.108)
Occupation (ref. Professional/technical)						
Management			-.100 (.177)			.118 (.191)
Clerical			-.010 (.039)			-.023 (.042)

Sales						
			-.001			-.069
			(.045)			(.048)
Service			-.042			.029
			(.041)			(.044)
Production site workers/Technical			.011			-.142**
			(.048)			(.051)
Transportation/security			.009			.007
			(.113)			(.121)
Other			.004			-.028
			(.121)			(.130)
Size of workplace (ref. small [<30 employees])						
Medium [30-300 employees]			-.039			-.033
			(.026)			(.028)
Large [>300 employees]			-.043			-.042
			(.029)			(.031)
Government/municipal offices			.003			.059
			(.052)			(.056)
Unknown			-.022			-.018
			(.031)			(.033)
Schedule flexibility			-.003			.006
			(.009)			(.010)
Job autonomy			.017			.031**
			(.011)			(.012)
Job enabling skill growth			.036***			.062***
			(.011)			(.011)
Team-based/collaborative jobs			.084***			.081***
			(.022)			(.023)
Opportunities for career advancement available			.043			.048
			(.041)			(.045)
Jobs independently done			-.007			.019
			(.018)			(.019)
Stressful workplace			.011			-.050
			(.030)			(.032)
Job insecurity			-.002			-.001
			(.010)			(.011)
Constant	2.066***	2.219***	2.210***	3.242***	3.798***	3.740***
	(.017)	(.083)	(.115)	(.020)	(.095)	(.124)
Observations	10,572	10,572	7,725	10,572	10,572	7,725
Number of respondents	2,245	2,245	2,055	2,245	2,245	2,055

Note: Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$ (Two-tailed test)

Data source: Japanese Life Course Panel Survey

Table 3. Fixed effects models predicting men's attitudes toward work

	Importance of work success			Aspiration to improve work skills		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Married, no child (ref. never married)	-.099** (.031)	-.025 (.032)	-.026 (.033)	-.104** (.034)	-.002 (.035)	.008 (.035)
Married, 1 or more children	-.141*** (.032)	-.013 (.034)	-.017 (.035)	-.136*** (.034)	.051 (.037)	.047 (.038)
Regular employment (ref. non-regular employment)		.016 (.030)	.012 (.034)		.005 (.033)	-.021 (.036)
Not employed		-.054 (.051)	-		-.014 (.055)	-
Family/Self-employment		.047 (.049)	.041 (.052)		.065 (.053)	.031 (.056)
Work hours per day		.000 (.004)	.002 (.005)		.002 (.005)	.008 (.005)
Income (in 1000,000 yen)		.000 (.000)	-.000 (.000)		.000 (.000)	.000 (.000)
Self-rated financial status		.018 (.011)	.014 (.012)		.050*** (.012)	.031* (.013)
Age		-.017*** (.002)	-.020*** (.002)		-.027*** (.002)	-.027*** (.002)
Educational attainment (ref. completed high school or less)						
Completed junior college / vocational school		.066 (.071)	.159+ (.088)		.237** (.077)	.168+ (.094)
Completed university or higher		-.031 (.067)	.076 (.087)		.107 (.073)	.248** (.093)
Enrolled in school (ref. not enrolled in school)		.122* (.050)	.174** (.067)		.115* (.054)	.160* (.071)
City size (ref. Major population center)						
Other city/town/village		-.020 (.034)	-.010 (.035)		-.016 (.036)	.000 (.038)
Job title (ref. No title)						
Assistant manager/Section chief			.028 (.021)			-.028 (.023)
Section manager			.060+ (.035)			-.053 (.037)
General manager			.087 (.054)			-.058 (.058)
Executives			.091+ (.052)			-.001 (.055)
Occupation (ref. Professional/technical)						
Management			.058 (.060)			-.069 (.064)
Clerical			-.003 (.039)			-.056 (.042)

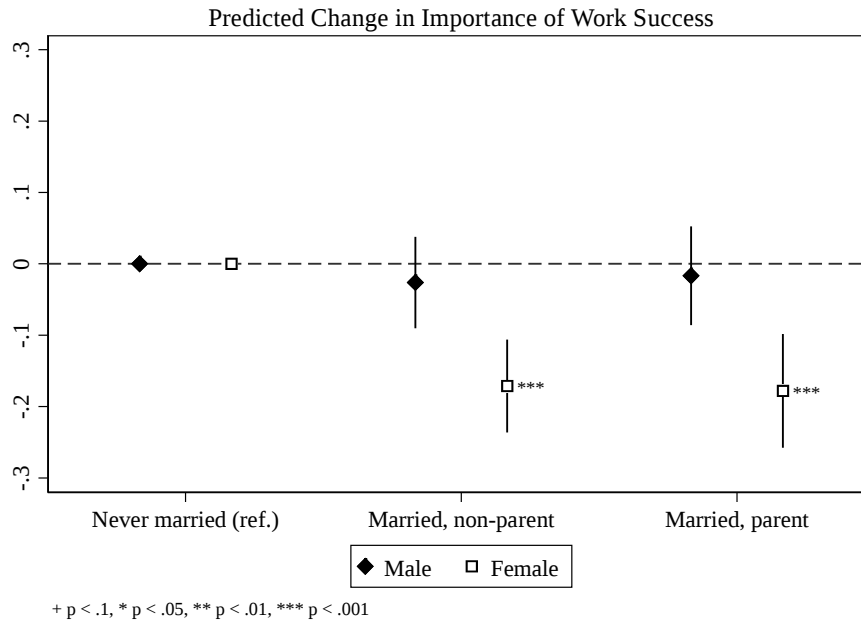
Sales						
			-0.071			-0.058
			(.044)			(.047)
Service			-0.046			-0.043
			(.055)			(.059)
Production site workers/Technical			-0.028			-0.066
			(.042)			(.045)
Transportation/security			.007			-.005
			(.063)			(.067)
Other			.030			-.010
			(.125)			(.133)
Size of workplace (ref. small [<30 employees])						
Medium [30-300 employees]			-.052+			-.026
			(.028)			(.030)
Large [>300 employees]			-.073*			-.033
			(.032)			(.035)
Government/municipal offices			-.041			.009
			(.055)			(.058)
Unknown			-.076+			-.005
			(.045)			(.048)
Schedule flexibility			.010			-.006
			(.009)			(.009)
Job autonomy			.042***			.035**
			(.011)			(.012)
Job enabling skill growth			.031**			.086***
			(.011)			(.012)
Team-based/collaborative jobs			.040+			.086***
			(.021)			(.022)
Opportunities for career advancement available			.114**			.111**
			(.039)			(.041)
Jobs independently done			-.014			-.005
			(.016)			(.017)
Stressful workplace			-.015			-.066*
			(.026)			(.028)
Job insecurity			-.014			-.014
			(.010)			(.011)
Constant	2.319***	2.786***	2.669***	3.335***	3.906***	3.663***
	(.017)	(.092)	(.115)	(.019)	(.099)	(.123)
Observations	8,707	8,707	7,938	8,707	8,707	7,938
Number of respondents	1,914	1,914	1,866	1,914	1,914	1,866

Note: Standard errors in parentheses. *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$, + $p < 0.1$ (Two-tailed test)

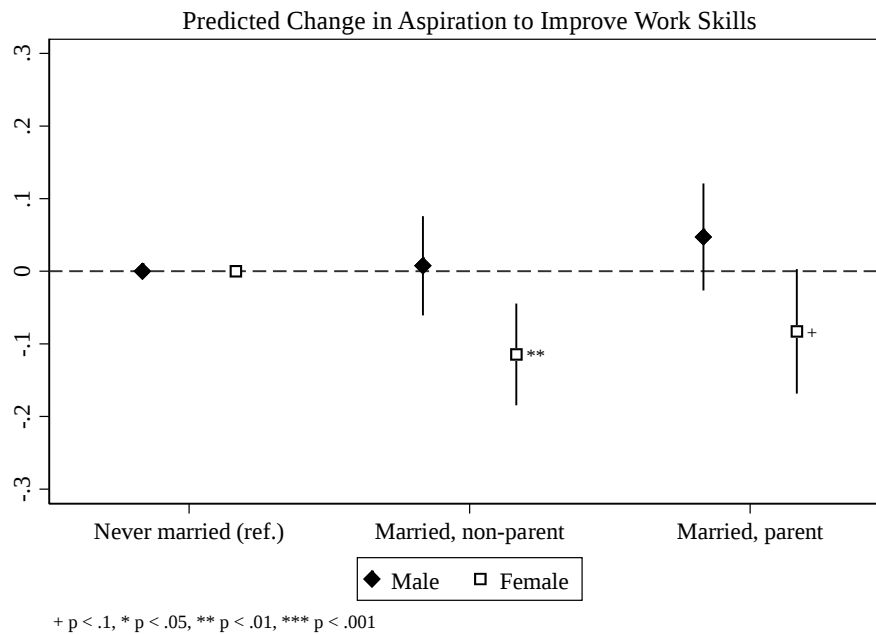
Data source: Japanese Life Course Panel Survey

Figure 2. Predicted change in outcomes by gender and family responsibilities

(A)



(B)



Note: The unit of analysis is person-years. The sample is limited to observations when respondents were in the labor market, containing 7,938 person-years for men and 7,725 person-years for women. Estimates are based on Models 3 in Tables 2 and 3. Error bars show 95% confidence intervals.

Data source: Japanese Life Course Panel Survey

Conclusion

My dissertation aimed to contribute to the scholarship on family, gender, well-being, and work in several ways. First, my dissertation has provided new empirical evidence by testing different theoretical perspectives proposed by previous studies—namely, 1) social control theory, 2) time scarcity perspective on how transitions into romantic unions and parenthood are linked to changes in meal patterns, 3) protective effect theory on the relationship between transitions into marriage and changes in well-being, 4) opportunity structures perspective, and 5) family role perspective on the association between changes of family responsibilities as a spouse/parent and attitudes toward work. Three chapters strengthen these theories or suggest the need to revise them.

Using four rounds of nationally representative U.S. panel survey data (NLSY97) and fixed effects models, chapter 1 of my dissertation examined whether and how transitions to marriage/cohabitation/parenthood are associated with gender-specific changes in meal-skipping patterns. The results indicate that romantic unions (either marriage or cohabitation) are linked with less frequent meal skipping, but in ways that differ by gender. For men, entering a marital union (and cohabiting, to a smaller extent) is associated with less meal skipping. For women, only entering a cohabiting union is associated with less meal skipping. The findings on union formation for both genders are consistent with social control theory, whereas for mothers, they are better explained by perceived time scarcity. The empirical findings add to previous research showing family ties do not necessarily facilitate healthy behaviors, and the associations between certain family ties and health-related

behaviors can be negative. The perceived time demands countervail the positive effects from direct and indirect social control from one's partner.

Using 9 waves of panel data and fixed effects models, chapter 2 examined the relationship between family roles and the subjective well-being of men and women in the highly gendered social context of Japan. The results broadly support the protective effect theory, which posits that marriage itself has a positive effect on well-being; however, no association was observed between becoming a wife and self-rated health. Contrary to what previous findings suggest, only men's self-rated health negatively responds to the transition to parenthood. The findings challenge the idea that the protective effect of marriage can be universally found for both genders across countries and illuminate the ways that the normative context shapes the relationship between family roles and subjective well-being.

Chapter 3 examined how the association between family responsibilities with changes in attitudes toward work differ by gender by using six waves of panel data of a nationally representative sample from Japan and fixed effects models. The results indicate that job characteristics mediate the effect of family responsibilities on attitudes toward work for men. However, the results do not support the hypothesis derived from the opportunity structures theoretical perspective. For women, even when controlling for job characteristics, family responsibilities are negatively associated with work attitudes. The results for women are in line with the family responsibilities perspective. This chapter revealed that entry into marriage triggers shifts in women's work attitudes even before having children. The empirical findings, which may apply to other contexts similar to Japan, highlight potential limitations of

strategies aiming to improve women's enthusiasm toward work achievement by improving their workplace positions alone.

This dissertation also contributes to scholarship on family, gender, and well-being by analyzing differences in outcomes by gender, highlighting the gendered significance of family life events (marriage/cohabitation/parenthood) among individuals in early to middle adulthood in the United States and Japan. Similarly, my dissertation also underscored the importance of country context when examining the link between family life events and well-being/attitudes toward work by assessing Western-emergent theories in Japan. I use Japan as an illustrative case of a national context where family life events bring extremely sharp divisions of labor within the family.

This dissertation employed fixed effects models, which can help minimize selection bias (Allison 2009). By adjusting for the selectivity into different romantic union/parental status with fixed effects models, I could more precisely estimate the effects of family life events on well-being/attitudes toward work than previous studies using cross-sectional data.

Lastly, compared to previous studies on these topics, my dissertation relied on more finely measured event history data for union and parental statuses (4 rounds for chapter 1, 9 rounds for chapter 2, and 6 rounds for chapter 3) and relatively longer windows of observations (around 7 years for chapter 1, 10 years for chapter 2, and 11 years for chapter 3). These higher quality datasets helped estimate the relationships more precisely than previous studies. In these ways, my dissertation could also

contribute to the existing literature in terms of both the data used and statistical methods employed.

In the next few years, I intend to continue my work to understand the ways in which family composition is linked with subjective health, health-related behaviors, and attitudes toward work by gender. A new project includes a paper that investigates gender differences in the relationship between changes in family structures and health behaviors among older adults by using Health and Retirement Study data. Another paper investigates whether and how married and cohabiting individuals spend mealtime together with their children differently by using the American Time Use Survey data.

Bibliography

- Allison, Paul D. 2009. *Fixed Effects Regression Models*. 1st ed. Thousand Oaks, CA: SAGE Publications.
- Amato, Paul P. R. 2015. *Marriage, Cohabitation and Mental Health*. Text. 96.
- Ambert, Anne-Marie. 2001. *The Effect of Children on Parents*. 2nd ed. New York: Haworth Press.
- Anekwe, Tobenna D., and Eliana Zeballos. 2019. "Food-Related Time Use: Changes and Demographic Differences."
- Aneshensel, Carol S., Ralph R. Frerichs, and Virginia A. Clark. 1981. "Family Roles and Sex Differences in Depression." *Journal of Health and Social Behavior* 22(4):379–93. doi: 10.2307/2136679.
- Aschemann-Witzel, Jessica. 2013. "Danish Mothers' Perception of the Healthiness of Their Dietary Behaviors During Transition to Parenthood." *Journal of Family Issues* 34(10):1335–55. doi: 10.1177/0192513X12463688.
- August, Kristin J., and Dara H. Sorkin. 2010. "Marital Status and Gender Differences in Managing a Chronic Illness: The Function of Health-Related Social Control." *Social Science & Medicine* 71(10):1831–38. doi: 10.1016/j.socscimed.2010.08.022.
- Avison, William R., Jennifer Ali, and David Walters. 2007. "Family Structure, Stress, and Psychological Distress: A Demonstration of the Impact of Differential Exposure." *Journal of Health and Social Behavior* 48(3):301–17. doi: 10.1177/002214650704800307.
- Bailis, Daniel S., Alexander Segall, and Judith G. Chipperfield. 2003. "Two Views of Self-Rated General Health Status." *Social Science & Medicine* 56(2):203–17. doi: 10.1016/S0277-9536(02)00020-5.
- Bass, Brooke Conroy. 2015. "Preparing for Parenthood?: Gender, Aspirations, and the Reproduction of Labor Market Inequality." *Gender & Society* 29(3):362–85. doi: 10.1177/0891243214546936.
- Batalova, Jeanne A., and Philip N. Cohen. 2002. "Premarital Cohabitation and Housework: Couples in Cross-National Perspective." *Journal of Marriage and Family* 64(3):743–55. doi: 10.1111/j.1741-3737.2002.00743.x.
- Becker, Penny Edgell, and Phyllis Moen. 1999. "Scaling Back: Dual-Earner Couples' Work-Family Strategies." *Journal of Marriage and Family* 61(4):995–1007. doi: 10.2307/354019.
- Bell, Sandra, and Christina Lee. 2005. "Emerging Adulthood and Patterns of Physical Activity among Young Australian Women." *International Journal of Behavioral Medicine* 12(4):227. doi: 10.1207/s15327558ijbm1204_3.

- Bianchi, Suzanne M. 2000. "Maternal Employment and Time with Children: Dramatic Change or Surprising Continuity?" *Demography* 37(4):401–14. doi: 10.1353/dem.2000.0001.
- Bianchi, Suzanne M., and Daphne. Spain. 1986. *American Women in Transition*. New York: Russell Sage Foundation.
- Bird, Chloe E. 1997. "Gender Differences in the Social and Economic Burdens of Parenting and Psychological Distress." *Journal of Marriage and Family* 59(4):809–23. doi: 10.2307/353784.
- Blair-Loy, Mary. 2001. "Cultural Constructions of Family Schemas: The Case of Women Finance Executives." *Gender and Society* 15(5):687–709.
- Brenton, Joslyn. 2017. "The Limits of Intensive Feeding: Maternal Foodwork at the Intersections of Race, Class, and Gender." *Sociology of Health & Illness* 39(6):863–77. doi: <https://doi.org/10.1111/1467-9566.12547>.
- Brinton, Mary C. 1993. *Women and the Economic Miracle: Gender and Work in Postwar Japan*. Berkeley: University of California Press.
- Brinton, Mary C. 2001. *Women's Working Lives in East Asia*. Stanford, Calif. : Stanford University Press,.
- Brown, Wendy J., Kristiann C. Heesch, and Yvette D. Miller. 2009. "Life Events and Changing Physical Activity Patterns in Women at Different Life Stages." *Annals of Behavioral Medicine* 37(3):294–305. doi: 10.1007/s12160-009-9099-2.
- Bumpass, Larry, and Hsien-Hen Lu. 2000. "Trends in Cohabitation and Implications for Children's Family Contexts in the United States." *Population Studies* 54(1):29–41. doi: 10.2307/2584631.
- Bureau of Labor Statistics, U.S. Department of Labor. 2020. *National Longitudinal Survey of Youth 1997 Cohort, 1997-2017 (Rounds 1-18)*. Columbus, OH: Produced and distributed by the Center for Human Resource Research (CHRR), The Ohio State University.
- Cassirer, Naomi, and Barbara Reskin. 2000. "High Hopes: Organizational Position, Employment Experiences, and Women's and Men's Promotion Aspirations." *Work and Occupations* 27(4):438–63. doi: 10.1177/0730888400027004002.
- Cherlin, Andrew J. 1981. *Marriage, Divorce, Remarriage*. Harvard University Press.
- Christopher, Karen. 2012. "Extensive Mothering: Employed Mothers' Constructions of the Good Mother." *Gender & Society* 26(1):73–96. doi: 10.1177/0891243211427700.
- Clarkberg, Marin, Ross M. Stolzenberg, and Linda J. Waite. 1995. "Attitudes, Values, and Entrance into Cohabital Versus Marital Unions." *Social Forces* 74(2):609–32. doi: 10.2307/2580494.

- Coombs, Robert H. 1991. "Marital Status and Personal Well-Being: A Literature Review." *Family Relations* 40(1):97. doi: 10.2307/585665.
- Corder, Kirsten, Eleanor M. Winpenny, Campbell Foubister, Justin M. Guagliano, Xenia M. Hartwig, Rebecca Love, Chloe Clifford Astbury, and Esther M. F. van Sluijs. 2020. "Becoming a Parent: A Systematic Review and Meta-Analysis of Changes in BMI, Diet, and Physical Activity." *Obesity Reviews* 21(4):e12959. doi: <https://doi.org/10.1111/obr.12959>.
- Craig, Lyn, Abigail Powell, and Ciara Smyth. 2014. "Towards Intensive Parenting? Changes in the Composition and Determinants of Mothers' and Fathers' Time with Children 1992–2006." *The British Journal of Sociology* 65(3):555–79. doi: 10.1111/1468-4446.12035.
- Davidson, Rebecca, and Anne H. Gauthier. 2010. "A Cross-National Multi-Level Study of Family Meals." *International Journal of Comparative Sociology* 51(5):349–65. doi: 10.1177/0020715210376853.
- Davis, Shannon N. 2010. "Is Justice Contextual? Married Women's Perceptions of Fairness of the Division of Household Labor in 12 Nations." *Journal of Comparative Family Studies* 41(1):19–41.
- Desai, Sonalde, and Linda J. Waite. 1991. "Women's Employment During Pregnancy and After the First Birth: Occupational Characteristics and Work Commitment." *American Sociological Review* 56(4):551–66. doi: 10.2307/2096274.
- DeVault, Marjorie L. 1987. "Doing Housework: Feeding and Family Life." Pp. 178–91 in *Families and work, Women in the political economy*, edited by Naomi. Gerstel and Harriet. Gross. Philadelphia: Temple University Press.
- Duncan, Greg J., Bessie Wilkerson, and Paula England. 2006. "Cleaning up Their Act: The Effects of Marriage and Cohabitation on Licit and Illicit Drug Use." *Demography* 43(4):691–710. doi: 10.1353/dem.2006.0032.
- Dyke, Lorraine S., and Steven A. Murphy. 2006. "How We Define Success: A Qualitative Study of What Matters Most to Women and Men." *Sex Roles* 55(5):357–71. doi: 10.1007/s11199-006-9091-2.
- Elliott, Sinikka, and Sarah Bowen. 2018. "Defending Motherhood: Morality, Responsibility, and Double Binds in Feeding Children." *Journal of Marriage and Family* 80(2):499–520. doi: <https://doi.org/10.1111/jomf.12465>.
- Eng, Patricia Mona, Ichiro Kawachi, Garrett Fitzmaurice, and Eric B. Rimm. 2005. "Effects of Marital Transitions on Changes in Dietary and Other Health Behaviours in US Male Health Professionals." *Journal of Epidemiology and Community Health* 59(1):56–62. doi: 10.1136/jech.2004.020073.
- Evenson, Ranae J., and Robin W. Simon. 2005. "Clarifying the Relationship Between Parenthood and Depression." *Journal of Health and Social Behavior* 46(4):341–58. doi: 10.1177/002214650504600403.

- Evertsson, Marie. 2013. "The Importance of Work: Changing Work Commitment Following the Transition to Motherhood." *Acta Sociologica* 56(2):139–53. doi: 10.1177/0001699312466177.
- Flood, Sarah M., and Katie R. Genadek. 2016. "Time for Each Other: Work and Family Constraints Among Couples." *Journal of Marriage and Family* 78(1):142–64. doi: <https://doi.org/10.1111/jomf.12255>.
- Fone, David, Frank Dunstan, Gareth Williams, Keith Lloyd, and Stephen Palmer. 2007. "Places, People and Mental Health: A Multilevel Analysis of Economic Inactivity." *Social Science & Medicine* 64(3):633–45. doi: 10.1016/j.socscimed.2006.09.020.
- Fujita, Mariko. 1989. "'It's All Mother's Fault': Childcare and the Socialization of Working Mothers in Japan." *Journal of Japanese Studies* 15(1):67–91. doi: 10.2307/132408.
- Fuwa, Makiko. 2004. "Macro-Level Gender Inequality and the Division of Household Labor in 22 Countries." *American Sociological Review* 69(6):751–67. doi: 10.2307/3593041.
- Gallagher, Sally K., and Naomi Gerstel. 2001. "Connections and Constraints: The Effects of Children on Caregiving." *Journal of Marriage and Family* 63(1):265–75. doi: 10.1111/j.1741-3737.2001.00265.x.
- Gender Equality Bureau, Cabinet Office. 2015. *Gender Equality White Paper 2015* [Danjo Kyōdō Sankaku Hakusho: Heisei 27nendo Ban].
- Gove, W. R. 1984. "Gender Differences in Mental and Physical Illness: The Effects of Fixed Roles and Nurturant Roles." *Social Science & Medicine* (1982) 19(2):77–91.
- Gove, Walter R. 1972. "The Relationship between Sex Roles, Marital Status, and Mental Illness." *Social Forces* 51(1):34–44. doi: 10.2307/2576129.
- Gove, Walter R. 1973. "Sex, Marital Status, and Mortality." *American Journal of Sociology* 79(1):45–67. doi: 10.1086/225505.
- Gove, Walter R., and Michael R. Geerken. 1977. "The Effect of Children and Employment on the Mental Health of Married Men and Women." *Social Forces* 56(1):66–76. doi: 10.2307/2577413.
- Hahn, Beth A. 1993. "Marital Status and Women's Health: The Effect of Economic Marital Acquisitions." *Journal of Marriage and Family* 55(2):495–504. doi: 10.2307/352818.
- Hansen, Thomas. 2012. "Parenthood and Happiness: A Review of Folk Theories Versus Empirical Evidence." *Social Indicators Research* 108(1):29–64. doi: 10.1007/s11205-011-9865-y.
- Hara, Yuko. 2022. "Changes in Family Roles and Subjective Well-Being among Japanese Adults." *Journal of Family Issues* 43(3):769–92. doi: 10.1177/0192513X21994137.
- Hebert, James R., Yunsheng Ma, Lynn Clemow, Ira S. Ockene, Gordon Saperia, Edward J. Stanek III, Philip A. Merriam, and Judith K. Ockene. 1997. "Gender Differences in

- Social Desirability and Social Approval Bias in Dietary Self-Report.” *American Journal of Epidemiology* 146(12):1046–55. doi: 10.1093/oxfordjournals.aje.a009233.
- Hertog, Ekaterina, and Miho Iwasawa. 2011. “Marriage, Abortion, or Unwed Motherhood? How Women Evaluate Alternative Solutions to Premarital Pregnancies in Japan and the United States.” *Journal of Family Issues* 32(12):1674–99. doi: 10.1177/0192513X11409333.
- Hessing, Melody. 1994. “More than Clockwork: Women’s Time Management in Their Combined Workloads.” *Sociological Perspectives* 37(4):611–33. doi: 10.2307/1389281.
- Hirao, Keiko. 2001. “Mothers as the Best Teachers: Japanese Motherhood and Early Childhood Education.” in *Women’s working lives in East Asia, Studies in social inequality*, edited by M. C. Brinton. Stanford, Calif.: Stanford University Press.
- Hood, Jane C. 1986. “The Provider Role: Its Meaning and Measurement.” *Journal of Marriage and Family* 48(2):349–59. doi: 10.2307/352402.
- Horwitz, Allan V., and Helene Raskin White. 1998. “The Relationship of Cohabitation and Mental Health: A Study of a Young Adult Cohort.” *Journal of Marriage and Family* 60(2):505–14. doi: 10.2307/353865.
- Horwitz, Allan V., Helene Raskin White, and Sandra Howell-White. 1996. “Becoming Married and Mental Health: A Longitudinal Study of a Cohort of Young Adults.” *Journal of Marriage and Family* 58(4):895–907. doi: 10.2307/353978.
- van Houdt, Kirsten, and Anne-Rigt Poortman. 2018. “Joint Lifestyles and the Risk of Union Dissolution: Differences between Marriage and Cohabitation.” *Demographic Research* 39:431–58.
- Huang, Penelope M., Pamela J. Smock, Wendy D. Manning, and Cara A. Bergstrom-Lynch. 2011. “He Says, She Says: Gender and Cohabitation.” *Journal of Family Issues* 32(7):876–905. doi: 10.1177/0192513X10397601.
- Hughes, Mary Elizabeth, and Linda J. Waite. 2009. “Marital Biography and Health at Mid-Life.” *Journal of Health and Social Behavior* 50(3):344–58. doi: 10.1177/002214650905000307.
- Hult, Carl, and Stefan Svallfors. 2002. “Production Regimes and Work Orientations: A Comparison of Six Western Countries.” *European Sociological Review* 18(3):315–31. doi: 10.1093/esr/18.3.315.
- Idler, Ellen L., and Yael Benyamini. 1997. “Self-Rated Health and Mortality: A Review of Twenty-Seven Community Studies.” *Journal of Health and Social Behavior* 38(1):21–37. doi: 10.2307/2955359.
- Inglehart, Ronald, Pippa Norris, and Christian Welzel. 2002. “Gender Equality and Democracy.” *Comparative Sociology* 1(3):321–45. doi: 10.1163/156913302100418628.

- Ishida, Hiroshi. 2013. "The Transition to Adulthood among Japanese Youths: Understanding Courtship in Japan." *The ANNALS of the American Academy of Political and Social Science* 646(1):86–106. doi: 10.1177/0002716212465589.
- Ishii-Kuntz, Masako. 1993. "Japanese Fathers." Pp. 45–67 in *Men, Work, and Family, Research on men and masculinities series ; 4*, edited by J. C. Hood. Newbury Park: Sage Publications.
- Ishii-Kuntz, Masako. 2008. "Sharing of Housework and Childcare in Contemporary Japan." *United Nations Division for the Advancement of Women*.
- Jabs, Jennifer, and Carol M. Devine. 2006. "Time Scarcity and Food Choices: An Overview." *Appetite* 47(2):196–204. doi: 10.1016/j.appet.2006.02.014.
- Jacobs, Jerry A., and Kathleen. Gerson. 2004. *The Time Divide: Work, Family, and Gender Inequality*. Cambridge, MA: Harvard University Press.
- Johnson, Monica Kirkpatrick. 2005. "Family Roles and Work Values: Processes of Selection and Change." *Journal of Marriage and Family* 67(2):352–69. doi: 10.1111/j.0022-2445.2005.00121.x.
- Josefsson, Kim, Marko Elovainio, Sari Stenholm, Ichiro Kawachi, Maarit Kauppi, Ville Aalto, Mika Kivimäki, and Jussi Vahtera. 2018. "Relationship Transitions and Change in Health Behavior: A Four-Phase, Twelve-Year Longitudinal Study." *Social Science & Medicine* 209:152–59. doi: 10.1016/j.socscimed.2018.03.006.
- Judge, Timothy A., and John D. Kammeyer-Mueller. 2012. "Job Attitudes." *Annual Review of Psychology* 63(1):341–67. doi: 10.1146/annurev-psych-120710-100511.
- Jylhä, Marja. 2009. "What Is Self-Rated Health and Why Does It Predict Mortality? Towards a Unified Conceptual Model." *Social Science & Medicine* 69(3):307–16. doi: 10.1016/j.socscimed.2009.05.013.
- Kalmijn, Matthijs, and Wim Bernasco. 2001. "Joint and Separated Lifestyles in Couple Relationships." *Journal of Marriage and Family* 63(3):639–54. doi: <https://doi.org/10.1111/j.1741-3737.2001.00639.x>.
- Kanter, Rosabeth Moss. 1976. "The Impact of Hierarchical Structures on the Work Behavior of Women and Men." *Social Problems* 23(4):415–30. doi: 10.2307/799852.
- Kanter, Rosabeth Moss. 1993. *Men and Women of the Corporation*. New York : BasicBooks,.
- Kemmer, Debbie, A. S. Anderson, and D. W. Marshall. 1998. "Living Together and Eating Together: Changes in Food Choice and Eating Habits during the Transition from Single to Married/Cohabiting." *The Sociological Review* 46(1):48–72. doi: 10.1111/1467-954X.00089.
- Kerver, Jean M., Eun Ju Yang, Saori Obayashi, Leonard Bianchi, and Won O. Song. 2006. "Meal and Snack Patterns Are Associated with Dietary Intake of Energy and Nutrients in US Adults." *Journal of the American Dietetic Association* 106(1):46–53. doi: 10.1016/j.jada.2005.09.045.

- Killewald, Alexandra. 2013. "A Reconsideration of the Fatherhood Premium: Marriage, Coresidence, Biology, and Fathers' Wages." *American Sociological Review* 78(1):96–116. doi: 10.1177/0003122412469204.
- Kim, Hyoun K., and Patrick C. McKenry. 2002. "The Relationship Between Marriage and Psychological Well-Being: A Longitudinal Analysis." *Journal of Family Issues* 23(8):885–911. doi: 10.1177/019251302237296.
- Knoester, Chris, and David J. Eggebeen. 2006. "The Effects of the Transition to Parenthood and Subsequent Children on Men's Well-Being and Social Participation." *Journal of Family Issues* 27(11):1532–60. doi: 10.1177/0192513X06290802.
- Kuroda, Sachiko. 2010. "Do Japanese Work Shorter Hours than before? Measuring Trends in Market Work and Leisure Using 1976–2006 Japanese Time-Use Survey." *Journal of the Japanese and International Economies* 24(4):481–502. doi: 10.1016/j.jjie.2010.05.001.
- Laroche, Helena H., Robert B. Wallace, Linda Snetselaar, Stephen L. Hillis, and Lyn M. Steffen. 2012. "Changes in Diet Behavior When Adults Become Parents." *Journal of the Academy of Nutrition and Dietetics* 112(6):832–39. doi: 10.1016/j.jand.2012.02.024.
- Lee, Sunmin, Eunyoung Cho, Francine Grodstein, Ichiro Kawachi, Frank B. Hu, and Graham A. Colditz. 2005. "Effects of Marital Transitions on Changes in Dietary and Other Health Behaviours in US Women." *International Journal of Epidemiology* 34(1):69–78. doi: 10.1093/ije/dyh258.
- Lillard, Lee A., and Linda J. Waite. 1995. "'Til Death Do Us Part: Marital Disruption and Mortality." *American Journal of Sociology* 100(5):1131–56. doi: 10.1086/230634.
- Lim, Sojung, and James M. Raymo. 2016. "Marriage and Women's Health in Japan." *Journal of Marriage and Family* 78(3):780–96. doi: 10.1111/jomf.12298.
- van der Lippe, Tanja, Annet Jager, and Yvonne Kops. 2006. "Combination Pressure: The Paid Work-Family Balance of Men and Women in European Countries." *Acta Sociologica* 49(3):303–19. doi: 10.1177/0001699306067711.
- Liu, Hui, and Debra J. Umberson. 2008. "The Times They Are a Changin': Marital Status and Health Differentials from 1972 to 2003." *Journal of Health and Social Behavior* 49(3):239–53. doi: 10.1177/002214650804900301.
- Manning, Wendy D. 2020. "Young Adulthood Relationships in an Era of Uncertainty: A Case for Cohabitation." *Demography* 57(3):799–819. doi: 10.1007/s13524-020-00881-9.
- Marshall, D. W., and A. S. Anderson. 2002. "Proper Meals in Transition: Young Married Couples on the Nature of Eating Together." *Appetite* 39(3):193–206. doi: 10.1006/appe.2002.0507.
- Mastekaasa, Arne. 1994. "Marital Status, Distress, and Well-Being: An International Comparison." *Journal of Comparative Family Studies* 25(2):183–205.

- Mattingly, Marybeth J., and Liana C. Sayer. 2006. "Under Pressure: Gender Differences in the Relationship Between Free Time and Feeling Rushed." *Journal of Marriage and Family* 68(1):205–21. doi: 10.1111/j.1741-3737.2006.00242.x.
- Maume, David J. 2006. "Gender Differences in Restricting Work Efforts Because of Family Responsibilities." *Journal of Marriage and Family* 68(4):859–69.
- McGinnis, J. Michael, Pamela Williams-Russo, and James R. Knickman. 2002. "The Case for More Active Policy Attention to Health Promotion." *Health Affairs* 21(2):78–93. doi: <http://dx.doi.org/10.1377/hlthaff.21.2.78>.
- Mestdag, Inge, and Ignace Glorieux. 2009. "Change and Stability in Commensality Patterns: A Comparative Analysis of Belgian Time-Use Data from 1966, 1999 and 2004." *The Sociological Review* 57(4):703–26. doi: 10.1111/j.1467-954X.2009.01868.x.
- Milner, Allison, Tania King, Anthony D. LaMontagne, Rebecca Bentley, and Anne Kavanagh. 2018. "Men's Work, Women's Work, and Mental Health: A Longitudinal Investigation of the Relationship between the Gender Composition of Occupations and Mental Health." *Social Science & Medicine* 204:16–22. doi: 10.1016/j.socscimed.2018.03.020.
- Monzani, A., R. Ricotti, M. Caputo, Arianna Solito, Francesca Archero, S. Bellone, and F. Prodam. 2019. "A Systematic Review of the Association of Skipping Breakfast with Weight and Cardiometabolic Risk Factors in Children and Adolescents. What Should We Better Investigate in the Future?" *Nutrients*. doi: 10.3390/nu11020387.
- Musick, Kelly, and Larry Bumpass. 2006. "Cohabitation, Marriage, and Trajectories in Well-Being and Relationships."
- Musick, Kelly, and Larry Bumpass. 2012. "Reexamining the Case for Marriage: Union Formation and Changes in Well-Being." *Journal of Marriage and Family* 74(1):1–18. doi: 10.1111/j.1741-3737.2011.00873.x.
- Musick, Kelly, and Ann Meier. 2012. "Assessing Causality and Persistence in Associations Between Family Dinners and Adolescent Well-Being." *Journal of Marriage and Family* 74(3):476–93. doi: 10.1111/j.1741-3737.2012.00973.x.
- Musick, Kelly, Ann Meier, and Sarah Flood. 2016. "How Parents Fare: Mothers' and Fathers' Subjective Well-Being in Time with Children." *American Sociological Review* 81(5):1069–95. doi: 10.1177/0003122416663917.
- National Institute of Population and Social Security Research. 2016. "The 15th Annual Population and Social Security Surveys: Summary of Married Survey [Dai 15kai Shusseï Doukou Kihon Chousa: Kekkon to Shussan Ni Kansuru Zenkoku Chousa Dokushinsha Chousa No Kekka Gaiyou]."
- Nemoto, Kumiko. 2013. "Long Working Hours and the Corporate Gender Divide in Japan." *Gender, Work & Organization* 20(5):512–27. doi: 10.1111/j.1468-0432.2012.00599.x.

- Nock, Steven L. 1995. "A Comparison of Marriages and Cohabiting Relationships." *Journal of Family Issues* 16(1):53–76.
- Nomaguchi, Kei M. 2009. "Change in Work-Family Conflict Among Employed Parents Between 1977 and 1997." *Journal of Marriage and Family* 71(1):15–32. doi: 10.1111/j.1741-3737.2008.00577.x.
- Nomaguchi, Kei M. 2012. "Marital Status, Gender, and Home-to-Job Conflict Among Employed Parents." *Journal of Family Issues* 33(3):271–94. doi: 10.1177/0192513X11415613.
- Nomaguchi, Kei M., and Suzanne M. Bianchi. 2004. "Exercise Time: Gender Differences in the Effects of Marriage, Parenthood, and Employment." *Journal of Marriage and Family* 66(2):413–30. doi: 10.1111/j.1741-3737.2004.00029.x.
- Nomaguchi, Kei M., and Melissa A. Milkie. 2003. "Costs and Rewards of Children: The Effects of Becoming a Parent on Adults' Lives." *Journal of Marriage and Family* 65(2):356–74.
- Nomaguchi, Kei M., Melissa A. Milkie, and Suzanne M. Bianchi. 2005. "Time Strains and Psychological Well-Being: Do Dual-Earner Mothers and Fathers Differ?" *Journal of Family Issues* 26(6):756–92. doi: 10.1177/0192513X05277524.
- Ochiai, Emiko, Mari Yamane, Yasuko Miyasaka, Zhou Weihong, Setsuko Onode, Nachiko Kiwaki, Michiyo Fujita, and Hong Sang Ook. 2008. "Gender Roles and Childcare Networks in East and Southeast Asian Societies." Pp. 31–69 in *Asia's new mothers : crafting gender roles and childcare networks in East and Southeast Asian societies*, edited by E. Ochiai and B. Molony. Folkestone, UK: Global Oriental.
- OECD. 2012. "Closing the Gender Gap | OECD READ Edition." *OECD ILibrary*. Retrieved May 10, 2017 (http://www.keepeek.com/Digital-Asset-Management/oecd/social-issues-migration-health/close-the-gender-gap-now_9789264179370-en).
- OECD. 2017. "OECD Labor Force Statistics 2006-2015."
- Ono, Hiroshi. 2018. "Why Do the Japanese Work Long Hours? : Sociological Perspectives on Long Working Hours in Japan." *Japan Labor Issues* 2(5):35–49.
- Osawa, Machiko, Myoung Jung Kim, and Jeff Kingston. 2013. "Precarious Work in Japan." *American Behavioral Scientist* 57(3):309–34. doi: 10.1177/0002764212466240.
- Oshio, Takashi, Kayo Nozaki, and Miki Kobayashi. 2013. "Division of Household Labor and Marital Satisfaction in China, Japan, and Korea." *Journal of Family and Economic Issues* 34(2):211–23. doi: 10.1007/s10834-012-9321-4.
- Pendergast, Felicity J., Katherine M. Livingstone, Anthony Worsley, and Sarah A. McNaughton. 2016. "Correlates of Meal Skipping in Young Adults: A Systematic Review." *International Journal of Behavioral Nutrition and Physical Activity* 13(1):125. doi: 10.1186/s12966-016-0451-1.

- Pereira, Mark A., Elizabeth Erickson, Patricia McKee, Karilyn Schrankler, Susan K. Raatz, Leslie A. Lytle, and Anthony D. Pellegrini. 2011. "Breakfast Frequency and Quality May Affect Glycemia and Appetite in Adults and Children." *The Journal of Nutrition* 141(1):163–68. doi: 10.3945/jn.109.114405.
- Perelli-Harris, Brienna, and Laura Bernardi. 2015. "Exploring Social Norms around Cohabitation: The Life Course, Individualization, and Culture Introduction to Special Collection: 'Focus on Partnerships: Discourses on Cohabitation and Marriage throughout Europe and Australia.'" *Demographic Research* 33:701–32.
- Raymo, James M. 2003. "Educational Attainment and the Transition to First Marriage among Japanese Women." *Demography* 40(1):83–103.
- Raymo, James M., and Miho Iwasawa. 2008. "Changing Family Life Cycle and Partnership. Transition-Gender Roles and Marriage Patterns." Pp. 255–76 in *The Demographic Challenge: A Handbook About Japan*, edited by F. Coulmas, H. Conrad, A. Schadschfer, and G. Vogt. Brill Academic Pub.
- Raymo, James M., Miho Iwasawa, and Larry Bumpass. 2009. "Cohabitation and Family Formation in Japan." *Demography* 46(4):785–803.
- Raymo, James M., Hyunjoon Park, Yu Xie, and Wei-jun Jean Yeung. 2015. "Marriage and Family in East Asia: Continuity and Change." *Annual Review of Sociology* 41(1):471–92. doi: 10.1146/annurev-soc-073014-112428.
- Rendall, Michael S., Margaret M. Weden, Melissa M. Favreault, and Hilary Waldron. 2011. "The Protective Effect of Marriage for Survival: A Review and Update." *Demography* 48(2):481–506.
- Reneflot, Anne. 2006. "A Gender Perspective on Preferences for Marriage among Cohabiting Couples." *Demographic Research* 15:311–28.
- Reynolds, Jeremy. 2005. "In the Face of Conflict: Work-Life Conflict and Desired Work Hour Adjustments." *Journal of Marriage and Family* 67(5):1313–31. doi: 10.1111/j.1741-3737.2005.00219.x.
- Riketta, Michael. 2008. "The Causal Relation between Job Attitudes and Performance: A Meta-Analysis of Panel Studies." *Journal of Applied Psychology* 93(2):472–81. doi: 10.1037/0021-9010.93.2.472.
- Rook, Karen S., Kristin J. August, Mary Ann Parris Stephens, and Melissa M. Franks. 2011. "When Does Spousal Social Control Provoke Negative Reactions in the Context of Chronic Illness? The Pivotal Role of Patients' Expectations." *Journal of Social and Personal Relationships*. doi: 10.1177/0265407510391335.
- Ross, Catherine E., John Mirowsky, and Karen Goldsteen. 1990. "The Impact of the Family on Health: The Decade in Review." *Journal of Marriage and Family* 52(4):1059–78. doi: 10.2307/353319.
- Roxburgh, Susan. 2006. "'I Wish We Had More Time to Spend Together...': The Distribution and Predictors of Perceived Family Time Pressures Among Married Men and

- Women in the Paid Labor Force.” *Journal of Family Issues* 27(4):529–53. doi: 10.1177/0192513X05284008.
- Rumpf, Hans-Jürgen, Christian Meyer, Ulfert Hapke, and Ulrich John. 2001. “Screening for Mental Health: Validity of the MHI-5 Using DSM-IV Axis I Psychiatric Disorders as Gold Standard.” *Psychiatry Research* 105(3):243–53. doi: 10.1016/S0165-1781(01)00329-8.
- Ruppanner, Leah, Francisco Perales, and Janeen Baxter. 2019. “Harried and Unhealthy? Parenthood, Time Pressure, and Mental Health.” *Journal of Marriage and Family* 81(2):308–26. doi: 10.1111/jomf.12531.
- Sanchez, Laura, and Elizabeth Thomson. 1997. “Becoming Mothers and Fathers: Parenthood, Gender, and the Division of Labor.” *Gender and Society* 11(6):747–72.
- Sayer, Liana C., Suzanne M. Bianchi, and John P. Robinson. 2004. “Are Parents Investing Less in Children? Trends in Mothers’ and Fathers’ Time with Children.” *American Journal of Sociology* 110(1):1–43.
- Sharif, Mienah Z., Héctor E. Alcalá, Stephanie L. Albert, and Heidi Fischer. 2017. “Deconstructing Family Meals: Do Family Structure, Gender and Employment Status Influence the Odds of Having a Family Meal?” *Appetite* 114:187–93. doi: 10.1016/j.appet.2017.03.032.
- Shirahase, Sawako. 2010. “Japan as a Stratified Society: With a Focus on Class Identification.” *Social Science Japan Journal* 13(1):31–52. doi: 10.1093/ssjj/jyq011.
- Simon, Robin W. 1992. “Parental Role Strains, Salience of Parental Identity and Gender Differences in Psychological Distress.” *Journal of Health and Social Behavior* 33(1):25–35. doi: 10.2307/2136855.
- Simon, Robin W. 2002. “Revisiting the Relationships among Gender, Marital Status, and Mental Health.” *American Journal of Sociology* 107(4):1065–96. doi: 10.1086/339225.
- Smith, Kylie J., Sarah A. McNaughton, Seana L. Gall, Petr Otahal, Terence Dwyer, and Alison J. Venn. 2017. “Associations between Partnering and Parenting Transitions and Dietary Habits in Young Adults.” *Journal of the Academy of Nutrition and Dietetics* 117(8):1210–21. doi: 10.1016/j.jand.2016.12.008.
- Sobal, Jeffery, Caron F. Bove, and Barbara S. Rauschenbach. 2002. “Commensal Careers at Entry into Marriage: Establishing Commensal Units and Managing Commensal Circles.” *The Sociological Review* 50(3):378–97. doi: 10.1111/1467-954X.00388.
- Sobal, Jeffery, and Mary K. Nelson. 2003. “Commensal Eating Patterns: A Community Study.” *Appetite* 41(2):181–90. doi: 10.1016/S0195-6663(03)00078-3.
- Spitze, Glenna D., and Linda J. Waite. 1981. “Wives’ Employment: The Role of Husbands’ Perceived Attitudes.” *Journal of Marriage and Family* 43(1):117–24. doi: 10.2307/351422.

- Stanley, Scott M., Sarah W. Whitton, and Howard J. Markman. 2004. "Maybe I Do: Interpersonal Commitment and Premarital or Nonmarital Cohabitation." *Journal of Family Issues* 25(4):496–519. doi: 10.1177/0192513X03257797.
- Stone, Pamela. 2007. *Opting out?: Why Women Really Quit Careers and Head Home*. Berkeley: University of California Press.
- Svallfors, Stefan, Knut Halvorsen, and Jørgen Goul Andersen. 2001. "Work Orientations in Scandinavia: Employment Commitment and Organizational Commitment in Denmark, Norway and Sweden." *Acta Sociologica* 44(2):139–56. doi: 10.1177/000169930104400203.
- Tamaki, Emi. 2014. "The Gendered Effects of Marriage on Health: Evidence from Japan."
- Taniguchi, Hiromi, and Frances L. Shupe. 2014. "Gender and Family Status Differences in Leisure-Time Sports/Fitness Participation." *International Review for the Sociology of Sport* 49(1):65–84. doi: 10.1177/1012690212454762.
- The World Economic Forum. 2019. *Global Gender Gap Report 2020*.
- Timlin, Maureen T., and Mark A. Pereira. 2007. "Breakfast Frequency and Quality in the Etiology of Adult Obesity and Chronic Diseases." *Nutrition Reviews* 65(6):268–81. doi: 10.1111/j.1753-4887.2007.tb00304.x.
- Torche, Florencia, and Tamkinat Rauf. 2020. "The Transition to Fatherhood and the Health of Men." *Journal of Marriage and Family* n/a(n/a). doi: <https://doi.org/10.1111/jomf.12732>.
- Tsuya, Noriko O., Larry L. Bumpass, Minja Kim Choe, and Ronald R. Rindfuss. 2005. "Is the Gender Division of Labour Changing in Japan?" *Asian Population Studies* 1(1):47–67. doi: 10.1080/17441730500125805.
- Tsuya, Noriko O., Larry L. Bumpass, Minja Kim Choe, and Ronald R. Rindfuss. 2012. "Employment and Household Tasks of Japanese Couples, 1994–2009." *Demographic Research* 27:705–18. doi: 10.4054/DemRes.2012.27.24.
- Tsuya, Noriko O., and Minja Kim Choe. 2003. "Attitudes Relating to Marriage and Family Life." Pp. 19–38 in *Marriage, Work, and Family Life in Comparative Perspective: Japan, South Korea, and the United States*, edited by N. O. Tsuya and L. L. Bumpass. Honolulu: University of Hawai'i Press.
- Tsuya, Noriko O., Karen Oppenheim Mason, and Larry L. Bumpass. 2003. "Views of Marriage among Never-Married Young Adults." Pp. 39–53 in *Marriage, Work, and Family Life in Comparative Perspective: Japan, South Korea, and the United States*, edited by N. O. Tsuya and L. L. Bumpass. Honolulu: University of Hawai'i Press.
- Umberson, Debra. 1987. "Family Status and Health Behaviors: Social Control as a Dimension of Social Integration." *Journal of Health and Social Behavior* 28(3):306–19. doi: 10.2307/2136848.

- Umberson, Debra. 1992. "Gender, Marital Status and the Social Control of Health Behavior." *Social Science & Medicine* 34(8):907–17. doi: 10.1016/0277-9536(92)90259-S.
- Umberson, Debra, Robert Crosnoe, and Corinne Reczek. 2010. "Social Relationships and Health Behavior Across the Life Course." *Annual Review of Sociology* 36(1):139–57. doi: 10.1146/annurev-soc-070308-120011.
- Umberson, Debra, and Walter R. Gove. 1989. "Parenthood and Psychological Well-Being: Theory, Measurement, and Stage in the Family Life Course." *Journal of Family Issues* 10(4):440–62. doi: 10.1177/019251389010004002.
- Umberson, Debra, and Jennifer Karas Montez. 2010. "Social Relationships and Health: A Flashpoint for Health Policy." *Journal of Health and Social Behavior* 51(1_suppl):S54–66. doi: 10.1177/0022146510383501.
- Umberson, Debra, and Mieke Beth Thomeer. 2020. "Family Matters: Research on Family Ties and Health, 2010 to 2020." *Journal of Marriage and Family* 82(1):404–19. doi: 10.1111/jomf.12640.
- U.S. Census Bureau. 2018. "Historical Living Arrangements of Adults."
- Van der Lippe, Tanja, Leonie Van Breeschoten, and Margriet Van Hek. 2018. "Organizational Work–Life Policies and the Gender Wage Gap in European Workplaces." *Work and Occupations* 0730888418791652. doi: 10.1177/0730888418791652.
- de Vaus, David, and Ian McAllister. 1991. "Gender and Work Orientation: Values and Satisfaction in Western Europe." *Work and Occupations* 18(1):72–93. doi: 10.1177/0730888491018001004.
- Veit, Clairice T., and John E. Ware. 1983. "The Structure of Psychological Distress and Well-Being in General Populations." *Journal of Consulting and Clinical Psychology* 51(5):730–42. doi: 10.1037/0022-006X.51.5.730.
- Venn, Danielle, and Lyndall Strazdins. 2017. "Your Money or Your Time? How Both Types of Scarcity Matter to Physical Activity and Healthy Eating." *Social Science & Medicine* 172:98–106. doi: 10.1016/j.socscimed.2016.10.023.
- Waite, Linda J. 1995. "Does Marriage Matter?" *Demography* 32(4):483–507. doi: 10.2307/2061670.
- Waite, Linda J., and Maggie Gallagher. 2000. *The Case for Marriage : Why Married People Are Happier, Healthier, and Better off Financially*. New York : Doubleday,.
- Welch, Nicky, Sarah A. McNaughton, Wendy Hunter, Clare Hume, and David Crawford. 2009. "Is the Perception of Time Pressure a Barrier to Healthy Eating and Physical Activity among Women?" *Public Health Nutrition* 12(7):888–95. doi: 10.1017/S1368980008003066.
- Werneck, André O., Eleanor M. Winpenney, Campbell Foubister, Justin M. Guagliano, Alex G. Monnickendam, Esther M. F. van Sluijs, and Kirsten Corder. 2020. "Cohabitation

- and Marriage during the Transition between Adolescence and Emerging Adulthood: A Systematic Review of Changes in Weight-Related Outcomes, Diet and Physical Activity.” *Preventive Medicine Reports* 20:101261. doi: 10.1016/j.pmedr.2020.101261.
- Wiik, Kenneth Aarskaug, Eva Bernhardt, and Turid Noack. 2009. “A Study of Commitment and Relationship Quality in Sweden and Norway.” *Journal of Marriage and Family* 71(3):465–77. doi: 10.1111/j.1741-3737.2009.00613.x.
- Winslow, Sarah. 2005. “Work-Family Conflict, Gender, and Parenthood, 1977-1997.” *Journal of Family Issues* 26(6):727–55. doi: 10.1177/0192513X05277522.
- Wolfe, Joseph D. 2009. “Age at First Birth and Alcohol Use.” *Journal of Health and Social Behavior* 50(4):395–409. doi: 10.1177/002214650905000402.
- Wood, Robert G., Brian Goesling, and Sarah Avellar. 2007. “The Effects of Marriage on Health: A Synthesis of Recent Research Evidence.”
- Wright, Erik Olin, Janeen Baxter, and Gunn Elisabeth Birkelund. 1995. “The Gender Gap in Workplace Authority: A Cross-National Study.” *American Sociological Review* 60(3):407–35. doi: 10.2307/2096422.
- Wright, Jan, JaneMaree Maher, and Claire Tanner. 2015. “Social Class, Anxieties and Mothers’ Foodwork.” *Sociology of Health & Illness* 37(3):422–36. doi: <https://doi.org/10.1111/1467-9566.12202>.
- Wu, Zheng, Margaret J. Penning, Michael S. Pollard, and Randy Hart. 2003. “‘In Sickness and in Health’: Does Cohabitation Count?” *Journal of Family Issues* 24(6):811–38. doi: 10.1177/0192513X03254519.
- Yamazaki, Shin, Shunichi Fukuhara, and Joseph Green. 2005. “Usefulness of Five-Item and Three-Item Mental Health Inventories to Screen for Depressive Symptoms in the General Population of Japan.” *Health and Quality of Life Outcomes* 3(1):48. doi: 10.1186/1477-7525-3-48.
- Yates, Luke, and Alan Warde. 2017. “Eating Together and Eating Alone: Meal Arrangements in British Households.” *The British Journal of Sociology* 68(1):97–118. doi: <https://doi.org/10.1111/1468-4446.12231>.
- Young, Marisa, and Scott Schieman. 2018. “Scaling Back and Finding Flexibility: Gender Differences in Parents’ Strategies to Manage Work–Family Conflict.” *Journal of Marriage and Family* 80(1):99–118. doi: 10.1111/jomf.12435.
- Yu, Wei-hsin. 2001. “Family Demands, Gender Attitudes, and Married Women’s Labor Force Participation: Comparison Between Japan and Taiwan.” Pp. 70–95 in *Women’s Working Lives in East Asia*, edited by M. C. Brinton. 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(3):493–523.

- Yu, Wei-hsin. 2005. "Changes in Women's Postmarital Employment in Japan and Taiwan." *Demography* 42(4):693–717. doi: 10.1353/dem.2005.0039.
- Yu, Wei-hsin. 2009. *Gendered Trajectories : Women, Work, and Social Change in Japan and Taiwan*. Stanford, Calif. : Stanford University Press.
- Yu, Wei-hsin, and Yuko Hara. 2020. "Job Characteristics, Marital Intentions, and Partner-Seeking Actions: Longitudinal Evidence from Japan." *Demographic Research* S30(52):1509–44. doi: 10.4054/DemRes.2020.43.52.
- Yu, Wei-hsin, and Janet Chen-Lan Kuo. 2018. "Does Parenthood Foster Traditionalism? Childrearing and Alterations in Gender and Family Attitudes in Japan." *Social Forces* 97(1):221–50. doi: 10.1093/sf/soy023.
- Zeballos, Eliana, and Jessica E. Todd. 2020. "The Effects of Skipping a Meal on Daily Energy Intake and Diet Quality." *Public Health Nutrition* 23(18):3346–55. doi: 10.1017/S1368980020000683.
- Zheng, Hui, and Patricia A. Thomas. 2013. "Marital Status, Self-Rated Health, and Mortality: Overestimation of Health or Diminishing Protection of Marriage?" *Journal of Health and Social Behavior* 54(1):128–43. doi: 10.1177/0022146512470564.