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Marie Hirakawa

Nihon University

Nobuko Nagase

Otsuna Women's University

Emiko Usui

Hitotsubashi University
and IZA@LISER

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Women's Employment and Working-Hour Adjustments to Japan's 2016 Expansion of Employees' Social Insurance Coverage*

Abstract

This paper examines how Japan's 2016 expansion of employees' social insurance coverage affected women's employment and working hours. At firms with 501 or more employees, the reform lowered the prescribed weekly-hours threshold for mandatory pension and health-insurance coverage from approximately 30 to 20 hours. Using the rotating panel of the *Labour Force Survey*, we examine one-year transitions among women aged 45–59 initially employed as nonregular workers for 20–29 weekly hours. A difference-in-differences design compares changes in employment-and-hours status between women at large firms subject to the reform and those at smaller firms. Among married women—who were likely to have been exempt from direct contributions before the reform as economically dependent spouses—the probability of remaining at nonregular employment at 20–29 hours fell by 7.55 percentage points, while the probabilities of moving into nonregular employment below 20 hours or to 30–39 hours increased by 4.57 and 2.66 percentage points, respectively. Among unmarried women—who were more likely to have paid their own National Pension contributions—the probability of moving into nonregular employment at 40–49 hours increased by 11.77 percentage points. Movement below 20 hours was particularly large among married women whose husbands had a university degree or earned at least 10 million yen annually. Triple-difference estimates from the *Basic Survey on Wage Structure* show little change in hourly wages and bonuses. Overall, the findings show that expanded social-insurance coverage can shift working hours in opposite directions, depending on workers' prior insurance status and household circumstances.

JEL classification

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Keywords

social insurance, Employees' Pension Insurance, part-time employment, labor supply, married women, Japan

Corresponding author

Emiko Usui

emiko.usui@r.hit-u.ac.jp

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1. Introduction

Expanding women's employment has long been a policy priority in Japan, particularly as population aging and workforce decline have intensified concerns about future labor supply. Successive Japanese governments have expanded childcare services and strengthened parental-leave programs to support maternal employment and job continuity (Yamaguchi, 2017, 2019; Fukai and Kondo, 2024). In 2024, 81.5 percent of women aged 25–54 were employed, above the OECD average (OECD, 2026).

Yet rising employment has not eliminated Japan's pronounced divide between regular and nonregular employment. Among employees aged 25–54 in 2024, 7.55 million women were nonregular employees and 9.52 million were regular employees; the corresponding figures for men were 1.96 million and 17.07 million, respectively. Of the female nonregular employees in this age group, 5.73 million, or 76 percent, were classified as *pāto* or *arubaito*—Japanese workplace labels broadly corresponding to part-time and casual employment, respectively (Statistics Bureau of Japan, 2025). These workers are typically paid by the hour—many at wage rates close to the minimum wage—and offered substantially fewer opportunities than regular employment for wage growth, training, and career advancement. Their prevalence is particularly consequential for unmarried women, who can neither rely on a spouse's income nor qualify for social-insurance coverage as economically dependent spouses.

Japan's tax and social-insurance systems have long created earnings thresholds that shape married women's labor supply (Abe and Ōtake, 1995; Nagase, 1997, 2002; Akabayashi, 2006; Ministry of Health, Labour and Welfare, 2016; Yokoyama, 2018; Abe, 2023; Kondo and Fukai, 2023). Among these, the income threshold for social-insurance dependent status has remained particularly salient: crossing it can cause a dependent spouse to lose contribution-free status and become liable for pension and health-insurance contributions. Consequently, the social-insurance threshold has continued to play an important role in married women's earnings and working-hours decisions (Kondo and Fukai, 2023; Kodama and Momoda, 2025).

This paper examines Japan's expansion in October 2016 of employees' social-insurance coverage to short-hour workers. Before the reform, employees' pension and health insurance generally covered workers whose prescribed weekly hours were at least three-quarters of those of regular employees at the same workplace, the hours requirement was commonly approximated as 30 hours per week. The reform extended coverage to workers below the three-quarter standard if they worked at firms with more than 500 employees and met four additional conditions: at least 20 prescribed weekly hours; prescribed monthly earnings of at least 88,000

yen; expected employment of at least one year; and nonstudent status. Thus, for workers at large firms, the reform lowered the effective weekly-hours threshold from approximately 30 to 20 hours and required both employers and newly covered workers to contribute to employees' pensions and health insurance.¹

For nonregular workers at 20–29 hours, the reform created different incentives depending on workers' pre-reform insurance status (to be discussed in more detail in Section 2.1). Married women who qualified as Category III insured persons—i.e., economically dependent spouses of Category II employees—were not required to pay National Pension contributions but accrued Basic Pension entitlements. Obtaining social-insurance coverage through their own employment required these women to pay their share of contributions to Employees' Pension Insurance and health insurance, thereby reducing their current take-home pay, while providing earnings-related pension entitlements. They could respond by reducing their hours below the new 20-hour threshold to retain dependent status, or by increasing their hours sufficiently to offset the reduction in take-home pay. Unmarried women, by contrast, were more likely to have been Category I insured persons, who generally pay flat-rate National Pension contributions for Basic Pension entitlement and, where applicable, National Health Insurance contributions. For these workers, obtaining coverage through employment could be advantageous because employers pay half of the contributions and workers acquire additional earnings-related pension entitlements. These contrasting incentives motivate our analysis of whether the reform generated different employment and working-hour responses among married versus unmarried women.

Using the rotating panel structure of the *Labour Force Survey*, we follow women aged 45–59 who were nonregular employees working 20–29 hours per week at baseline and observe their employment-and-hours status one year later. We compare changes in these one-year transitions before and after the reform between women initially employed at large firms with 501 or more employees—the group exposed to the statutory large-firm rule—and women initially employed at smaller firms. This difference-in-differences design estimates the effect of exposure to the large-firm rule.

¹ This 2016 reform was the first step in expanding employees' social insurance coverage to short-hours workers—employees whose prescribed weekly working hours are shorter than those of comparable regular employees at the same workplace. In 2022, coverage was subsequently extended to firms over 100 employees, and in 2024 to firms over 50 employees. This study focuses on the 2016 reform. The 2022 expansion coincided with the COVID-19 pandemic, which substantially disrupted the Japanese labor market, particularly women's employment (Fukai, Ichimura, and Kawata, 2021; Fukai, Ikeda, Kawaguchi, and Yamaguchi, 2023).

Among married women, the probability of remaining in the nonregular 20–29-hour category fell by 7.55 percentage points after the reform at large firms relative to the corresponding change at smaller firms. The probabilities of moving into nonregular employment below 20 hours or to 30–39 hours increased by 4.57 and 2.66 percentage points, respectively. Changes in the number of weekly workdays reinforce this two-sided pattern: married women at large firms were 4.01 percentage points less likely to work five days a week, and 1.19, 2.79, and 1.94 percentage points more likely to work two, three, and six days, respectively. These results are consistent with adjustments on both sides of the new coverage threshold. Some appear to have reduced their hours to remain below the new coverage threshold, whereas others increased their hours to offset the reduction in take-home pay.

Heterogeneity analyses vary with women’s household characteristics. Among women whose husbands had a university degree, the estimates point mainly toward movement below 20 hours; among those whose husbands had a junior college education or less, they point more toward longer hours. Women whose husbands earned at least 10 million yen annually primarily moved below 20 hours, whereas those whose husbands earned from 5 million to less than 10 million yen annually were more likely to move to longer hours.

Unmarried women displayed yet another pattern. Following the reform, their estimated probability of moving into nonregular employment at 40–49 hours per week increased by 11.77 percentage points at large firms relative to smaller firms. This finding is consistent with the interpretation that, among workers more likely to have been Category I insured persons before the reform, enrollment in employees’ social insurance increased the effective return to longer hours.

We also examine compensation responses using the *Basic Survey on Wage Structure*. Triple-difference estimates show little change in hourly wages, receipt of a bonus, or bonus amounts among female nonregular employees working 20–29 hours at large firms following the reform.² Because the reform may have changed the composition of workers within weekly-hours categories, these findings are suggestive rather than clean causal estimates of firms’ compensation responses.

² Kawaguchi and Hara (2017) argue that firms faced a highly elastic supply of female labor during 2001–2015. Although this period preceded the 2016 expansion of employees’ social insurance coverage, they show that part-time wages increased by only about 10 percent, while the labor force participation rates of women aged 30–34 and 35–39 increased by approximately 14 and 10 percentage points, respectively. They interpret this pattern as evidence that firms were able to secure additional female workers with a relatively modest wage increase.

Taken together, the findings indicate that the expansion of social-insurance coverage did not produce a uniform working-hours response. Married women moved away from the newly covered 20–29-hour range in both directions, whereas unmarried women largely shifted toward longer hours. The results show how workers’ prior insurance status and household resources can mediate the labor-market effects of social-insurance coverage mandates.

The remainder of the paper is organized as follows. Section 2 describes the institutional setting and expected responses. Section 3 presents the *Labour Force Survey* and the empirical framework. Sections 4 and 5 report the main and heterogeneity estimates. Section 6 discusses robustness checks. Section 7 reports the *Basic Survey on Wage Structure* analysis, and Section 8 concludes.

2. Institutional Background, the 2016 Reform, and Expected Responses

2.1 Japan’s Social Insurance System

Japan’s public pension system classifies insured persons into three categories. Category I comprises residents aged 20–59 who are neither Category II nor Category III insured persons, including many self-employed people, students, unemployed people, and nonregular workers not covered by Employees’ Pension Insurance. Category II consists of workers enrolled in Employees’ Pension Insurance. Category III consists of economically dependent spouses aged 20–59 of Category II insured persons.

Category I insured persons generally pay a flat-rate National Pension contribution and accrue Basic Pension rights. Those not covered by another public health-insurance arrangement generally enroll in National Health Insurance, for which contributions vary according to household income and local rules.³

Category II insured persons do not pay a separate National Pension contribution. Instead, they and their employers share equally a single contribution for Employees’ Pension Insurance, which funds both the Basic Pension and the earnings-related Employees’ Pension. Through this coverage, these workers accrue entitlements to both benefits. They are generally also enrolled in an employees’ health-insurance plan.

Category III insured persons do not directly pay National Pension contributions but accrue Basic Pension rights. They are also generally covered as dependents under their spouses’

³ Low-income individuals may qualify for full or partial contribution exemptions or payment deferrals; however, exempted periods receive only partial credit toward the Basic Pension, potentially reducing benefits to half the full amount.

employees' health insurance without paying separate health-insurance premiums. Moving from Category III to Category II through one's own employment therefore immediately requires payment of employee contributions to both Employees' Pension Insurance and health insurance, while also providing earnings-related pension entitlements.⁴

2.2 The 2016 Expansion of Coverage

Before October 2016, nonregular workers were generally covered by employees' pension and health insurance when their prescribed weekly working hours were at least three-quarters of those of regular employees at the same workplace. At a workplace with a 40-hour regular schedule, the weekly-hours component of this standard was commonly approximated as 30 hours per week.⁵

Beginning in October 2016, workers who did not satisfy the three-quarter standard also became mandatorily covered if they were employed by firms over 500 employees and met four additional conditions: at least 20 prescribed weekly hours; prescribed monthly earnings of at least 88,000 yen; expected employment of at least one year; and nonstudent status.

2.3 Expected Responses of Workers and Firms

For a married woman who would otherwise remain a Category III dependent spouse, crossing the eligibility threshold activates mandatory enrollment in employees' social insurance. Once coverage takes effect, contributions are levied on her entire earnings base—not merely on the earnings above the threshold. Coverage therefore creates a notch in her budget constraint: a woman just above the threshold may have lower current disposable income than a woman just below it. Standard labor-supply theory predicts that such a notch will generate bunching immediately below the threshold and a missing mass immediately above it (Kleven, 2016).

Figure 1 illustrates two potential responses to this notch. Before the reform, the weekly-hours requirement under the conventional three-quarter rule was approximated as 30 hours. For workers at large firms, the reform lowered this threshold to 20 hours. In response, some workers may reduce their hours below 20 to retain dependent status (Panel A), whereas others may

⁴ Newly covered workers begin to accrue earnings-related pension entitlements through their own employment and contributions, but for some married women, these gains may be partly offset by coordination rules governing Survivors' Employees' Pension benefits.

⁵ Before the 2012 Pension Reform Act, the three-quarter rule rested on administrative interpretations and Ministry of Health, Labour and Welfare (MHLW) circulars rather than statute. Using 1999 MHLW survey data, Nagase (2004) found that only about 70 percent of female part-time workers working 31–35 hours per week had Category II coverage, suggesting incomplete application even near the conventional 30-hour threshold. The 2012 Act codified the rule in statute for the first time.

increase their hours sufficiently to compensate for the contribution-induced reduction in take-home pay (Panel B). The direction of adjustment depends on workers' preferences, wages, household resources, family responsibilities, and firms' scheduling decisions.⁶

The incentives differ for unmarried women who would otherwise remain Category I insured persons. A worker previously responsible for her own National Pension contributions and, where applicable, National Health Insurance contributions may benefit from coverage through employment because the employer shares the contribution costs and the worker acquires earnings-related pension rights (Figure 2). The net financial effect varies with the worker's pre-reform contribution liabilities, including whether she qualified for any contribution exemptions. Nevertheless, moving from Category I to Category II may increase the relative attractiveness of covered employment and encourage longer hours.

The reform also changed employers' incentives at large firms. The weekly-hours threshold above which employers were required to make social-insurance contributions fell from 30 to 20 hours. Employers could respond by reducing scheduled hours or earnings to keep some workers below the eligibility threshold. Conversely, once a worker became covered, employers might assign more hours or adjust wages or bonuses to retain her. Section 7 examines the available evidence on these compensation responses.

Observed changes in working hours therefore reflect the interaction of workers' labor-supply decisions and firms' labor-demand responses. Bunching below 20 hours could arise because workers seek to retain dependent status, firms seek to avoid employer contributions, or both. Similarly, increases in hours could reflect workers' efforts to compensate their additional contribution costs, firms' decisions to assign more hours to covered employees, or a combination of these responses.

This paper builds on and complements related studies. Surveys of establishments and short-hour workers document both coverage-expanding and coverage-avoidance responses by employers and workers (Japan Institute for Labour Policy and Training, 2018). Yamada and Mehr (2021) find that the reform increased average weekly working hours, including among women likely to have been either Category III dependent spouses or unmarried part-time workers. Our transition estimates complement their findings by documenting movements in both directions around the coverage threshold. These offsetting movements may still produce

⁶ These interpretations are based on a standard labor supply model in which workers choose their working hours at a given wage. In practice, however, employers' labor demand and scheduling practices may constrain workers' choice of hours. Altonji and Paxson (1988), among others, emphasize the importance of such hours constraints.

an increase in average hours if the additional hours worked by those who lengthened their workweeks exceeded the hours forgone by those who moved below 20 hours. Hosono and Hotei (2025) show that firms with greater pre-reform exposure to part-time employment substituted regular workers for part-time workers and consequently experienced increases in total labor costs. Their findings suggest that observed changes in working hours reflect equilibrium outcomes jointly shaped by workers' labor-supply decisions and firms' labor-demand responses.⁷

3. Data and Empirical Framework

3.1 Labour Force Survey

We use the *Labour Force Survey*, conducted by the Statistics Bureau of Japan. This nationally representative survey covers approximately 40,000 households each month, and is one of Japan's fundamental statistical surveys of employment. It consists of two components. The Basic Questionnaire, administered monthly, collects information on employment status, working hours, and household characteristics. The Special Questionnaire, administered during the second month of the second survey year, collects additional information on income, educational attainment, and job changes.

The survey has a rotating panel structure based on dwellings: household members residing in the same dwelling are surveyed for two consecutive months in the first year and again in the same two months in the following year. This design allows us to link an individual's records by 12 months and observe changes in employment status and working hours over one year.⁸ Because educational attainment is collected only in the Special Questionnaire, we treat it as time-invariant and assign the reported value to the individual's other survey months.

The main sample consists of women aged 45–59 who were nonregular employees working 20–29 hours per week at baseline. The outcome is each individual's employment-and-hour state one year later. Baseline observations from January 2013 through September 2015 generate pre-reform transitions whose follow-up observations occur before October 2016. Baseline

⁷ Beyond studies of the 2016 reform, Mori and Okudaira (2025) highlight working hours as an important margin of adjustment in a different policy setting. Exploiting a 2007 minimum-wage reform, they find that minimum-wage increases led women with earnings near tax and social-insurance thresholds to reduce their work hours.

⁸ We link observations 12 months apart. A complete four-interview sequence can contribute two annual transitions. Because the panel follows dwellings rather than individuals, movers are not followed—though Nagase (2011) reports high residential stability and a one-year follow-up rate slightly above 90 percent among women aged 40 or older.

observations from October 2015 through September 2016 generate reform-exposure transitions whose follow-up observations occur between October 2016 and September 2017.⁹

The treatment group consists of women whose baseline employer had a reported firm size of 500 or more employees, whereas the control group consists of workers whose baseline employer had fewer than 500 employees. Although the statutory threshold was 501 employees, the *Labour Force Survey* does not distinguish firms with exactly 500 employees from those with 501 or more.¹⁰ We therefore use reported firm size of 500 or more as a proxy for exposure to the large-firm rule.

Appendix Table 1 reports the distribution of baseline employment status among women aged 45–59. Nonregular employment at 20–29 hours per week is more common among married women (13.8 percent) than among unmarried women (6.5 percent), whereas regular employment is more common among unmarried women (41.6 percent) than among married women (22.7 percent).

3.2 Empirical Specification

We estimate linear probability models for employment-and-hour outcomes measured one year after baseline. The estimation sample consists of women aged 45–59 who were nonregular employees working 20–29 hours per week at baseline. For each mutually exclusive follow-up state s , we estimate:

$$y_{it}^{(s)} = \alpha_s + \beta_s \text{Prelargefirm}_{it} \times \text{Exposure}_{it} + \delta_s \text{Prelargefirm}_{it} + \lambda_s \text{Exposure}_{it} + \gamma'_s \mathbf{X}_{it} + \varepsilon_{it}^{(s)}, \quad (1)$$

where i indexes the individual and t denotes the baseline observation. Prelargefirm_{it} equals one if individual i worked at a large firm at baseline, and zero otherwise. Exposure_{it} equals one if the follow-up observation occurs in or after October 2016, and zero otherwise. The vector $\mathbf{X}_{it}$ contains controls for region, age group, survey year, and birth year, and ε_{it} is the error term.

⁹ Our analysis ends in 2017, thereby avoiding potential confounding between the 2016 social insurance reform and the spousal-deduction reform enacted in 2017, which applied to income earned from January 2018. The latter broadened the earnings range covered by the special spousal deduction and raised its phase-out threshold, creating a separate change in married women's labor-supply incentives.

¹⁰ Firm size is reported in the following categories: "1 employee," "2–4 employees," "5–9 employees," "10–29 employees," "30–99 employees," "100–499 employees," "500–999 employees," "1,000 or more employees," and "government office." The ideal cutoff for the 2016 reform would be 501 or more versus 500 or fewer employees. The categories available in this national survey instead require us to compare firms reporting 500 or more employees with those reporting fewer than 500 employees.

The coefficient β_s is the difference-in-differences estimate. It compares the change from before to after the reform in the probability of entering follow-up state s among women initially employed at large firms with the corresponding change among women initially employed at smaller firms.¹¹

The dependent variable, y_{it} , is an indicator for one of the following twelve mutually exclusive and exhaustive follow-up states:

1. Nonemployment
2. Nonregular employment with weekly working hours below 20
3. Nonregular employment with weekly working hours of 20–29
4. Nonregular employment with weekly working hours of 30–39
5. Nonregular employment with weekly working hours of 40–49
6. Nonregular employment with weekly working hours of 50 or more
7. Regular employment with weekly working hours below 20
8. Regular employment with weekly working hours of 20–29
9. Regular employment with weekly working hours of 30–39
10. Regular employment with weekly working hours of 40–49
11. Regular employment with weekly working hours of 50 or more
12. Self-employment

We estimate Equation (1) separately for each state. Each interaction coefficient represents a change in probability and, when multiplied by 100, can be interpreted in percentage points. This transition-specific approach shows how a decline in the probability of remaining in the baseline category is distributed across alternative employment-and-hours states.

Because the twelve states are mutually exclusive and exhaustive, their indicators sum to one for every individual. When all twelve regressions use the same sample and regressors, the estimated interaction coefficients therefore sum to zero. For married women, for example, the 7.55-percentage-point decline in the probability of remaining in nonregular employment at 20–29 hours is offset by estimated changes across the other eleven states. The positive estimates for categories below 20 hours and above 29 hours indicate the adjustment occurred in both directions.

Identification requires a conditional parallel-trends assumption: absent the reform, differences in transition probabilities between women initially employed at large and smaller

¹¹ Because the survey does not identify workers' actual enrollment or all statutory eligibility conditions, β_s should be interpreted as a reduced-form estimate of exposure to the large-firm coverage mandate, rather than as the causal effect of enrollment among newly covered workers.

firms would have remained stable over time, conditional on the included covariates. We assess this assumption for married women by interacting baseline large-firm status with indicators for the quarter of the follow-up observation during the pre-reform period, omitting 2016Q3, the final pre-reform quarter. Joint tests fail to reject the null that all ten interaction coefficients are zero at the ten percent level for 9 of the 12 employment-hour-state outcomes (see Appendix Table 2).

The joint null is rejected for nonregular employment below 20 hours, regular employment below 20 hours, and regular employment at 40–49 hours. None of these rejections, however, reflects a monotonic differential trend or a divergence concentrated just before the reform. The latter two outcomes are rare (sample means of 0.49 and 0.86 percent) and at most one coefficient is individually significant for either outcome. For nonregular employment below 20 hours—an important outcome in our analysis—only the 2015Q1 and 2015Q4 coefficients are individually significant; these quarters are nonadjacent and do not immediately precede the reform. For nonregular employment at 30–39 hours, the joint test does not reject the null ($p = 0.215$); although all ten coefficients are negative and seven are individually significant, they fluctuate rather than moving systematically as the reform approaches. Overall, the pre-reform estimates provide broad, though not uniform, support for the parallel-trends assumption.

4. Estimation Results: Married and Unmarried Women

Table 1 reports difference-in-differences estimates for employment-and-hour state one year after baseline. Among married women who were nonregular employees working 20–29 hours per week at baseline, the probability of remaining in that state declined by 7.55 percentage points at large firms after the reform relative to the corresponding change at smaller firms (Table 1, Panel A). This decline was accompanied by statistically significant increases in the probabilities of moving to nonregular employment below 20 hours (4.57 percentage points) and at 30–39 hours (2.66 percentage points), as well as a smaller, statistically insignificant increase at 40–49 hours (0.94 percentage points). These estimates indicate working-hour adjustments in both directions away from the baseline category.

This pattern is consistent with the incentives facing married women who had been Category III dependent spouses before the reform and therefore paid no social-insurance contributions directly. At large firms, women whose prescribed hours used to fall below the three-quarter standard but had been at least 20 per week were now required to enroll in employees’ pension and health insurance—and pay the employee’s share of contributions. This requirement created

a discrete decline in current take-home pay at the 20-hour threshold. Some may therefore have reduced their hours to remain below the threshold, while others may have increased their hours enough to offset the cost of the new contributions with additional earnings.¹²

Appendix Table 3 provides complementary evidence from respondents' reported workdays. Among married women, the probability of working five days per week fell by 4.01 percentage points, while the probabilities of working two, three, or six days increased by 1.19, 2.79, and 1.94 percentage points, respectively. For monthly workdays, the probability of working 20–23 days fell by 4.17 percentage points, while the probability of working 19 days or fewer increased by 4.04 percentage points. The estimated increase in the probability of working 24 or more days was 0.13 percentage points, which was small and not statistically significant. Taken together, the weekly workdays measure shows evidence of adjustment in both directions, while the monthly measure captures only the decrease. This is likely to reflect a ceiling effect: with 20–23 days already near the practical maximum, there is little room to detect further increase, and women who worked longer hours per day rather than more days would not show up in this measure at all. The monthly measure may therefore understate the extent of the increase-side adjustment.

The results for unmarried women differ. As shown in Table 1, Panel B, the probability of remaining in nonregular employment at 20–29 hours fell by 6.56 percentage points, but the estimate was not statistically significant. The probability of moving to nonregular employment at 40–49 hours increased by 11.77 percentage points and was statistically significant. Weekly workdays also increased by 0.24 days (Appendix Table 3). The estimated response among unmarried women is therefore a movement toward longer working hours.

This pattern is consistent with the pre-reform insurance status typical of unmarried women, who were more likely to be Category I insured persons paying flat-rate National Pension contributions and, where applicable, National Health Insurance premiums. For these workers, enrollment in employees' social insurance could lower their direct contribution burden—since employers share the cost—while also generating earnings-related pension rights. The net gain is not uniform, particularly for workers eligible for contribution exemptions, but the shift

¹² The main post-reform period spans October 2016–September 2017. From April 2017, firms with 500 or fewer employees could voluntarily cover short-hour workers with labor-management consent and an employer application, potentially exposing some workers in the comparison group. Take-up was limited: by September 2017, only 1,788 establishments covering 2,708 workers had opted in nationwide (Japan Pension Service, 2017). Nevertheless, restricting the sample to observations through March 2017 yields qualitatively similar estimates from the main results.

toward longer hours is consistent with covered employment becoming comparatively more attractive.

Together, these estimates show different transition patterns by marital status and likely prior insurance status. Married women moved both below and above the baseline 20–29-hour category, whereas the estimate for unmarried women is a movement toward longer hours.¹³

5. Heterogeneity in Labor-Supply Responses

5.1 Heterogeneity among Married Women

Section 4 shows that married women moved away from the 20–29-hour category in both directions after the reform. To examine how these patterns vary across women and households, we estimate the model separately by husbands' education, husbands' income, and women's own education.

Table 2 reports results by husbands' education. Among married women whose husbands had a junior-college education or less, the probability of remaining in nonregular employment at 20–29 hours fell by 8.74 percentage points. The probabilities of moving to 30–39 or 40–49 hours increased by 3.62 and 1.67 percentage points, respectively. By contrast, the estimated increase in the probability of moving below 20 hours is smaller, at 2.39 percentage points, and was not statistically significant. Within this subgroup, the estimates therefore point mainly toward longer working hours (Figure 1, Panel B).

Among married women whose husbands had a university degree or higher, the probability of remaining in nonregular employment at 20–29 hours fell by 6.10 percentage points, while the probability of working below 20 hours increased by 7.47 percentage points. The estimates for movement into longer-hour categories were smaller and not statistically significant. Within this subgroup, the clearest adjustment was therefore toward working below the new coverage threshold (Figure 1, Panel A), suggesting greater downward adjustment among women with university-educated husbands.

¹³ As a functional-form check, we compute the interaction effect in the probit model as the cross-difference in predicted probabilities across the four cells defined by firm size and reform exposure, following Ai and Norton (2003). The estimates, reported in Appendix Table 4, are close in magnitude and statistical significance to the linear probability model estimates in Table 1—for example, a decline of 7.54 percentage points (probit) versus 7.55 percentage points (linear probability model) in the probability of remaining in nonregular employment at 20–29 hours among married women. While this quantity is conceptually distinct from the treatment effect in a nonlinear difference-in-differences model (Puhani, 2012), the two share the same sign, and the close correspondence with the linear probability model estimates indicates that our main results are not sensitive to the functional-form assumption.

Table 3 reports results by husbands' annual income. Among married women whose husbands earned less than 5 million yen annually, the probability of remaining in nonregular employment at 20–29 hours fell by 8.05 percentage points, while the probability of moving below 20 hours increased by 6.68 percentage points. The estimated increase in movement to 30–39 hours was smaller and not statistically significant. This downward response could reflect avoidance of the immediate contribution burden or firm scheduling.

Among women whose husbands earned from 5 million to less than 10 million yen, the probability of remaining at 20–29 hours fell by 4.76 percentage points, although the estimate was not statistically significant. The probability of moving to 30–39 hours increased significantly by 4.16 percentage points, with little evidence of movement to below 20 hours. Within this group, the clearest estimate therefore points toward longer hours, possibly to raise earnings after enrollment.

Among women whose husbands earned 10 million yen or more, the probability of remaining at 20–29 hours fell by 16.98 percentage points, while the probability of moving to below 20 hours increased by 11.87 percentage points; these estimates clearly indicate a downward adjustment. Consistent with the results for married women of university-educated husbands, greater household resources may have made reducing hours more affordable (Figure 1, Panel A).

Table 4 reports estimates by women's own education. Among women educated through junior college or less, the probability of remaining in nonregular employment at 20–29 hours fell by 7.49 percentage points, while the probabilities of working below 20 hours or at 30–39 hours increased by 3.56 and 2.98 percentage points, respectively. These statistically significant estimates indicate movement in both directions. Among university-educated women, the point estimate for movement to below 20 hours was 9.43 percentage points, compared with 3.56 percentage points in the less-educated group. Relative to the post-reform control-group means, these estimates correspond to approximately 58 and 20 percent, respectively. However, the estimate for university-educated women is based on a much smaller sample.

One possible interpretation is that university-educated married women have higher reservation wages, particularly because available short-hour nonregular jobs offer limited returns to their qualifications. At exactly 20 prescribed hours per week, the monthly earnings threshold of 88,000 yen corresponds to an hourly wage of approximately 1,015 yen ($= 88,000 \text{ yen} \div (20 \text{ hours/week} \times 4.33 \text{ weeks/month})$). If available jobs do not provide wages, training, or career opportunities commensurate with their education, increasing hours enough to offset the new required contributions may be less attractive than reducing hours below the threshold.

This interpretation remains tentative because the education-specific estimate is imprecise and the data do not measure job offers or preferred hours.¹⁴

5.2 Married Women with Young Children

We next examine married women aged 35–44 who were nonregular employees working 20–29 hours per week at baseline. As shown in Table 5, Panel A, the probability of remaining in nonregular employment at 20–29 hours fell by 2.58 percentage points. The probabilities of moving to nonregular employment below 20 hours, to 30–39 hours, or to 40–49 hours increased by 1.96, 0.02, and 1.89 percentage points, respectively. These estimates are all smaller in magnitude than the corresponding estimates for married women aged 45–59, and none was statistically significant.

We then focus on married women aged 35–44 with children aged 0–9. As shown in Table 5, Panel B, the probability of remaining in nonregular employment at 20–29 hours fell by 9.83 percentage points. The probabilities of moving to nonregular employment below 20 hours or to 30–39 hours increased by 6.06 and 3.97 percentage points, respectively. These estimates therefore suggest movement away from the 20–29-hour category in both directions, with the larger offsetting increase occurring below the new coverage threshold. One possible interpretation is that childcare responsibilities increased the value of nonmarket time, making reductions below 20 hours relatively more attractive for women with such responsibilities.¹⁵

6. Robustness Checks

To assess the robustness of our main findings, we conduct three additional analyses using alternative sample restrictions. We examine groups not directly affected by the new 20-hour

¹⁴ Consistent with the possibility that higher education does not necessarily yield commensurate labor-market returns for Japanese women, Ueno and Usui (2026) find that, six to ten years after graduation, women with bachelor's degrees in STEM, social sciences, or humanities earn less annually than men with a high-school or junior-college education. They also document substantial declines in regular employment and movement toward shorter working hours among highly educated women.

¹⁵ Related evidence suggests that mothers' responses to working-hour policies vary by education and implementation stage. Hirakawa and Usui (2026) study phased revisions to the Child Care and Family Care Leave Act requiring employers to provide eligible employees caring for children under age three with reduced working hours and, upon request, an exemption from overtime work. During the initial phase, when these provisions applied only to employees at large firms, continued employment and continued regular employment increased among women with at least a junior-college education, but not among less-educated women. After the provisions were extended to firms of all sizes, positive effects emerged for both educational groups. Because less-educated women at large firms had already been eligible during the initial phase, this pattern suggests delayed policy take-up.

threshold, exclude women who changed jobs between the two observations, and restrict the sample to women with annual earnings of at least 1 million yen.

6.1 Samples Not Directly Affected by the Reform

We conduct robustness checks using two samples that should not have been directly affected by the new 20-hour threshold: married women who were nonregular employees working fewer than 20 hours per week at baseline and those working 30–39 hours per week at baseline. The first group was already below the new hours threshold. Many workers in the second group would already have met the pre-reform three-quarter standard, although actual hours worked may not always perfectly correspond to prescribed hours. For both groups, remaining in the same hours category was therefore less likely to result in change in insurance status following the reform.

Table 6 shows no common pattern across the two comparison samples that would mirror the two-sided adjustment reported in Table 1, Panel A.¹⁶ This provides some reassurance that the main estimates are not simply capturing broad changes affecting all female nonregular workers at large firms.

6.2 Excluding Job Changers from the Sample

We re-estimate the models after excluding women who reported having left a job between the first- and second-year observations. The results, reported in Table 7, are similar to those in Table 1. Among married women, the probability of remaining in nonregular employment at 20–29 hours fell by 8.25 percentage points, while the probabilities of moving to nonregular employment below 20 hours or to 30–39 hours increased by 4.64 and 3.03 percentage points, respectively.¹⁷ Among unmarried women, the probability of moving to nonregular employment at 40–49 hours increased by 11.85 percentage points, closely matching the main estimate (Table 1). Thus, the principal transition patterns remain when reported job changers are excluded. Because job changing is a post-reform outcome that may itself have been affected by the reform, restricting the sample to women who did not change jobs may introduce selection. We therefore treat these estimates as a sensitivity analysis rather than as the preferred specification.

¹⁶ Table 6 shows statistically significant increases of 0.7 and 0.17 percentage points for “regular employment with weekly working hours below 20” and “regular employment with weekly working hours of 50 or more,” respectively. However, both estimates are very small in magnitude.

¹⁷ The probability of leaving the baseline job increased by only 0.20 percentage points and is also statistically insignificant, suggesting that most hours adjustments occurred without a job change (Appendix Table 3).

6.3 Restricting the Sample to Annual Earnings of at Least 1 Million Yen

The 2016 reform applied only to workers whose scheduled monthly earnings were at least 88,000 yen, equivalent to approximately 1.06 million yen annually. The baseline analysis cannot impose this earnings requirement because the *Labour Force Survey's* Basic Questionnaire does not record earnings at the baseline observation.

Annual earnings are available from the Special Questionnaire, administered in the second month of the second survey year. Respondents report income from all jobs during the preceding year, including wages, overtime pay, allowances, and bonuses. Respondents who changed or started a job are instructed to report an annualized estimate based on their current job alone and to exclude income from their previous job. Thus, for individuals who changed jobs between the first- and second-year observations, reported annual income reflects earnings only from the new job. However, as shown in Appendix Table 3, few workers left jobs during the period surrounding the reform. Even among individuals who remained in the same job, reported annual income covers the 12-month period from the month following the first-year observation through the month of the second-year observation. For example, if an individual was surveyed in October in both years, reported annual income covers earnings from November of the first year through October of the second year.

The income measure therefore more closely reflects the individual's circumstances at the second-year observation than at baseline. In particular, if the reform occurred between the two observations, income reported in the second year may incorporate post-reform changes in working hours and hourly wages. It therefore does not correspond exactly to the employment conditions observed at baseline. Given this limitation, we use second-year annual income only as an approximate sensitivity check for the reform's earnings requirement and restrict the sample to women reporting annual earnings of at least 1 million yen.

Table 8 reports the earnings-restricted estimates. Among married women, the probability of remaining in nonregular employment at 20–29 hours fell by 9.82 percentage points, while the probabilities of moving to nonregular employment below 20 hours or to 30–39 hours increased by 3.38 and 6.27 percentage points, respectively. The decline in the 20–29-hour category is larger than the corresponding estimate in Table 1, Panel A. Thus, after excluding workers earning less than 1 million yen, who were less likely to satisfy the earnings requirement for mandatory coverage, the estimated response to the reform becomes more pronounced. This pattern is consistent with the reform having a stronger effect on workers who were more likely to be subject to the new coverage requirement.

7. Wage Responses Using the *Basic Survey on Wage Structure*

7.1 Data and Empirical Specification

This section examines wage and bonus responses by employers, using the *Basic Survey on Wage Structure*, an establishment survey conducted each June by the Ministry of Health, Labour and Welfare. Employers report wages, bonuses, and working hours based on payroll records. Although the survey lacks information on workers' marital status or the presence of children in the home—both of which are available in the *Labour Force Survey*—it provides precise measures of compensation.¹⁸

We use surveys conducted from June 2014 through June 2019. The sample consists of female nonregular short-hour employees aged 45–59. We compare workers at firms with at least 500 employees with those at smaller firms, and estimate a triple-difference model by firm size, survey year, and working-hours category. The estimating equation is given by Equation (2):

$$\begin{aligned} \log w_{it} = & \alpha + \beta_1 \text{Largefirm}_{it} \times H_{it} \times \text{Year}_{it} + \beta_2 \text{Largefirm}_{it} \times H_{it} \\ & + \beta_3 \text{Largefirm}_{it} \times \text{Year}_{it} + \beta_4 H_{it} \times \text{Year}_{it} + \beta_5 \text{Largefirm}_{it} + \beta_6 H_{it} \\ & + \beta_7 \text{Year}_{it} + \gamma X_{it} + \varepsilon_{it}, \quad (2) \end{aligned}$$

where Year_{it} denotes indicators for 2014–2015 and 2017–2019, with June 2016—the last pre-reform survey—as the reference year. H_{it} identifies the 20–29-hour and 30–39-hour categories, with fewer than 20 hours as the reference.¹⁹ Largefirm_{it} denotes employment at a firm with at least 500 employees. The X_{it} includes controls for age group, industry, region of establishment, and the prefecture-level effective ratio of job openings to applicants for part-time workers. The dependent variables are (1) the log hourly wage rate, calculated as scheduled monthly earnings divided by scheduled monthly hours, (2) an indicator for receiving a bonus, and (3) the bonus amount.²⁰ Bonus amounts are estimated in levels because 61.0 percent of the sample received no bonuses.

¹⁸ The *Basic Survey on Wage Structure* did not collect the educational attainment of short-workweek workers through 2019; collection of those data began after a 2020 change in survey structure.

¹⁹ We calculate weekly hours from scheduled monthly working hours, assuming 4.33 weeks per month. We restrict the sample to workers with scheduled monthly hours between 19 and 173, thereby excluding those classified by their employers as short-workweek employees despite having scheduled working hours exceeding 40 hours per week.

²⁰ We exclude wage rates in the bottom and top 1 percent, and bonus amounts in the top 1 percent as outliers. Bonus amounts reported for a given survey year refer to bonuses paid during the previous calendar year. Accordingly, bonuses reported in 2016—the reference category—were paid in 2015 and constitute the last bonus observation from a fully pre-reform period. Survey year 2017 includes bonuses

The triple-interaction coefficients for the 20–29-hour category are the main parameters of interest. Each coefficient compares the change relative to June 2016 in the compensation gap between 20–29-hour and below-20-hour workers at large firms with the corresponding change at smaller firms.

This analysis has three limitations. First, the *Basic Survey on Wage Structure* contains limited information on workers' household characteristics and does not identify their marital status or parental status. Second, because the BSWS consists of repeated cross-sectional data, we cannot follow individual workers as they move across working-hour categories. Reform-induced movements may change the composition of workers in each hours category. Consequently, the estimates may reflect both firms' wage-setting responses and changes in worker composition across working-hour categories.²¹ Third, several pre-reform triple interactions coefficients in Table 9 are statistically different from zero, particularly those for bonus amounts. The post-reform coefficients should therefore be interpreted as descriptive associations rather than as causal estimates of compensation responses.

7.2 Estimation Results

The post-reform estimates indicate only small changes in hourly wages in Table 9. For female nonregular workers in the 20–29-hour category at large firms, the estimated relative changes were 0.95 percent in 2017, 0.29 percent in 2018, and 1.37 percent in 2019. The estimates for 2017 and 2019 are positive and statistically significant, but their magnitudes remain small relative to the employee contribution burden.

Bonus receipt showed little change. The estimated relative change in the probability of receiving a bonus was 0.24 percentage points in 2017, 1.31 percentage points in 2018, and 0.54 percentage points in 2019, compared with a 2016 sample mean of 41.5 percent among workers at large firms. Bonus amounts also showed little change: the estimated change in bonus amounts was –2,183 yen in 2017, –353 yen in 2018, and 1,451 yen in 2019, compared with a 2016 sample mean of 33,357 yen among workers at large firms.

paid both before and after the October 2016 reform, whereas survey year 2018 is the first to report bonuses paid during a fully post-reform calendar year.

²¹ Kodama and Yokoyama (2018) study the 2003 introduction of the total remuneration system, which equalized the social insurance contribution rates applied to monthly salaries and bonuses. Using establishment-level panel data constructed from the BSWS, they exploit variation in establishments' pre-reform bonus-to-salary ratios and find that those facing larger increases in social insurance costs reduced employment and increased working hours among remaining employees. Unlike the 2016 coverage expansion examined here, the 2003 reform changed how contributions were calculated for workers already covered by employees' social insurance.

Table 9 shows little change in observed compensation for workers in the 20–29-hour category after the reform. However, this finding does not necessarily imply that firms made little adjustment. The *Labour Force Survey* shows that some workers moved below 20 hours following the reform, while others increased their hours, potentially changing the composition of the 20–29-hour category. For example, if higher-paid workers were more likely to leave the category, the increased share of lower-paid workers remaining could mask wage increases by firms.

8. Conclusion

This paper has examined the effects of Japan’s 2016 expansion of employees’ social insurance coverage to short-hour workers. For workers at firms with at least 501 employees, the reform lowered the prescribed weekly-hours criterion for mandatory employees’ pension and health-insurance coverage from approximately 30 to 20 hours. We used the rotating panel of the *Labour Force Survey* to estimate changes in one-year transitions in employment and hours, and the *Basic Survey on Wage Structure* to examine wage and bonus responses.

Among married women aged 45–59 who were initially nonregular employees working 20–29 hours per week, the probability of remaining in that category at large firms fell by 7.55 percentage points relative to the corresponding change at smaller firms. The probabilities of moving below 20 hours or to 30–39 hours increased by 4.57 and 2.66 percentage points, respectively, indicating that adjustments were made in both directions. Among unmarried women, the clearest response was an 11.77-percentage-point increase in movement to nonregular employment at 40–49 hours per week.

These patterns are consistent with differences in pre-reform insurance status. Some married women who had been exempt as Category III dependent spouses from paying any direct contribution may have reduced their hours to avoid the new contribution burden, while others may have increased hours to raise their earnings after enrollment. For some unmarried women who had been Category I insured persons, employer-shared contributions and earnings-related pension rights may have made covered employment comparatively more attractive.

Among married women, the direction of adjustment varied with household characteristics. Women whose husbands had a university degree moved primarily to below 20 hours, whereas those whose husbands had a junior-college education or less moved more toward longer hours. Women whose husbands earned at least 10 million yen primarily moved to below 20 hours,

whereas those whose husbands earned from 5 million to less than 10 million yen were more likely to increase their hours.

The wage analysis provides little evidence of substantial changes in observed compensation following the reform. Estimated increases in hourly wage among female nonregular workers in the 20–29-hour category were small, and bonus responses were limited. However, the *Basic Survey on Wage Structure* cannot distinguish firms' compensation responses from reform-induced compositional changes across working-hour categories.

The observed transitions cannot be attributed solely to workers' labor-supply choices. Firms also faced higher contribution costs when workers crossed the new threshold and may have altered scheduled hours or employment in response. Movement below 20 hours could therefore reflect workers' efforts to avoid contributions, firms' efforts to limit labor costs, or both; movement toward longer hours could similarly reflect workers' efforts to offset contribution costs by increasing earnings or firms' decisions to allocate more hours to covered employees.

Overall, the reform generated heterogeneous adjustments around the new threshold rather than a uniform change in working hours. When short-hour jobs offer low wages and limited prospects for wage growth, the discrete decline in take-home pay at the threshold may induce some women, particularly those with greater household resources, to reduce their hours. Coverage expansion alone may therefore be insufficient to increase women's labor supply. Instead, policymakers wishing to expand that supply should consider not only the threshold design but also measures to improve wages, training opportunities, and career prospects in short-hour jobs.

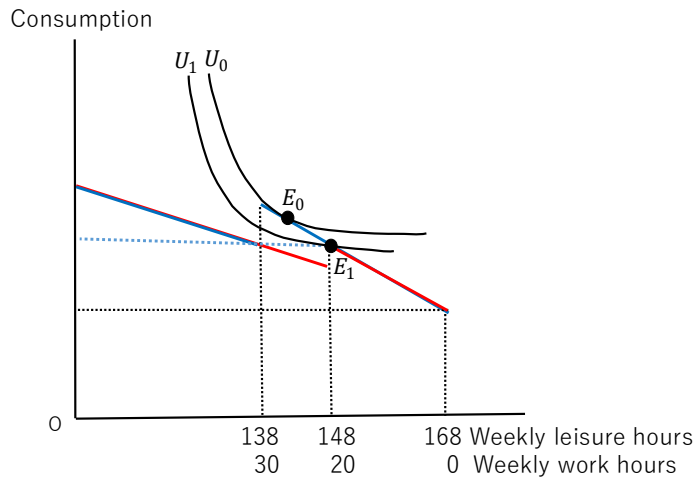
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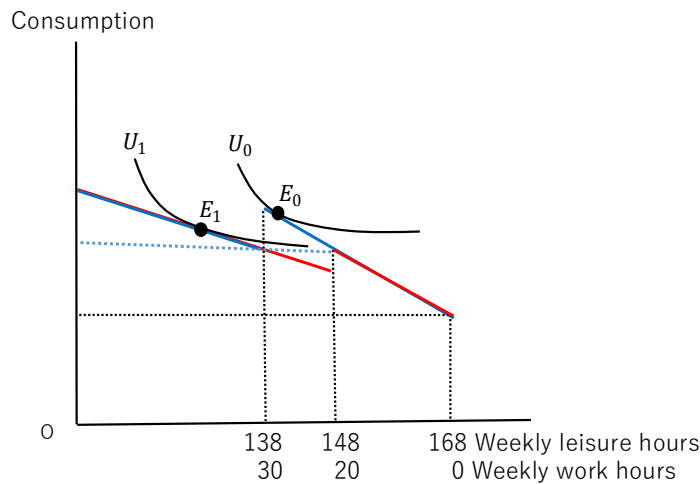
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**Figure 1. Labor-supply Responses of Category III Insured Persons to the 2016
Expansion of Employees' Social Insurance Coverage**

Panel A: Reducing working hours



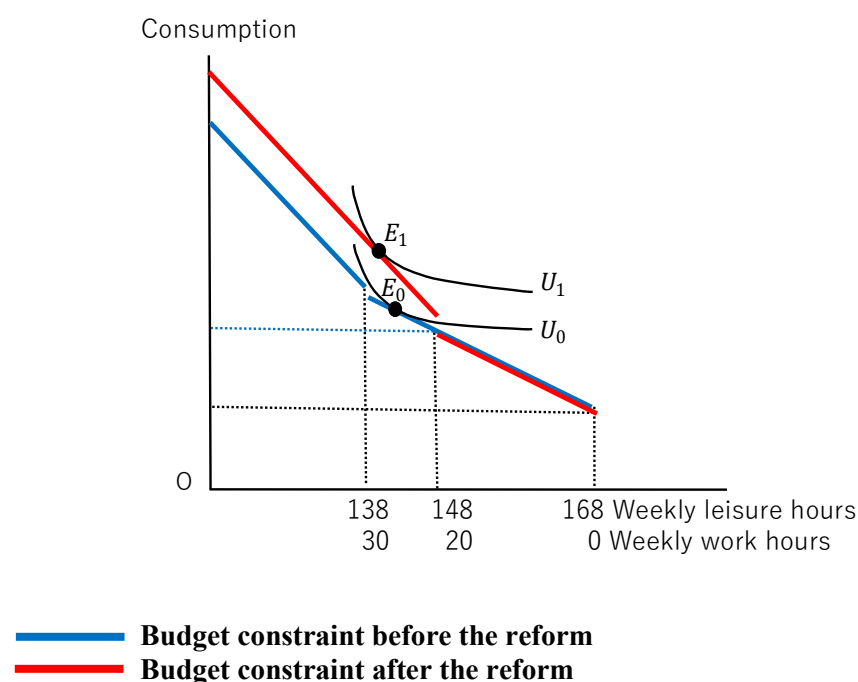
Panel B: Increasing working hours



— **Budget constraint before the reform**
— **Budget constraint after the reform**

Notes: See Section 2.1 for definitions of Categories I, II, and III. The blue and red lines represent the budget constraints before and after the reform, respectively. Before the reform, employees' social insurance generally applied to those working approximately 30 hours or more per week. Beginning in October 2016, coverage was extended to workers employed by firms with at least 501 employees who worked at least 20 hours per week and earned at least 88,000 yen per month. The reform shifted the social insurance notch from 30 to 20 hours per week, reducing take-home pay in the 20-29-hour range.

Figure 2. Labor-supply Responses of Category I Insured Persons to the 2016 Expansion of Employees' Social Insurance Coverage



Notes: See Section 2.1 for definitions of Categories I, II, and III. The blue and red lines represent the budget constraints before and after the reform, respectively. Before the reform, employees' social insurance generally applied to those working approximately 30 hours or more per week. Beginning in October 2016, coverage was extended to workers employed by firms with at least 501 employees who worked at least 20 hours per week and earned at least 88,000 yen per month. The reform-induced enrollment in employees' social insurance may increase women's disposable income net of social-insurance contributions because employers share the cost of pension contributions; it also increases women's future pension benefits.

Table 1. Employment Transitions after the Reform, by Marital Status

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self- emp.
Panel A: Married women												
Large firm × post-reform transition dummy	-0.0012 (0.0095)	0.0457*** (0.0159)	-0.0755*** (0.0200)	0.0266* (0.0136)	0.0094 (0.0074)	0.0013 (0.0017)	-0.0000 (0.0015)	-0.0009 (0.0021)	-0.0010 (0.0022)	-0.0027 (0.0029)	-0.0005 (0.0008)	-0.0012 (0.0024)
R ²	0.0038	0.0114	0.0040	0.0028	0.0016	0.0013	0.0008	-0.0004	0.0015	0.0026	0.0001	0.0015
N	16695	16695	16695	16695	16695	16695	16695	16695	16695	16695	16695	16695
Dep. var. mean	0.0560	0.1756	0.5549	0.1411	0.0368	0.0020	0.0026	0.0049	0.0055	0.0117	0.0013	0.0075
Panel B: Unmarried women												
Large firm × post-reform transition dummy	0.0204 (0.0276)	-0.0828** (0.0359)	-0.0656 (0.0594)	0.0417 (0.0477)	0.1177*** (0.0386)	-0.0190** (0.0080)	0.0006 (0.0029)	-0.0150 (0.0107)	0.0155 (0.0111)	0.0106 (0.0140)	-0.0050 (0.0046)	-0.0191* (0.0104)
R ²	0.0191	0.0114	0.0052	0.0105	0.0188	0.0049	0.0076	0.0053	0.0020	0.0039	0.0008	0.0147
N	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972	1972
Dep. var. mean	0.0413	0.1405	0.4545	0.1956	0.0909	0.0083	0.0000	0.0193	0.0110	0.0138	0.0028	0.0220

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 2. Employment Transitions after the Reform, by Husband's Education

Sample: Married women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self- emp.
Panel A: Husband with a junior-college education or less												
Large firm × post-reform transition dummy	0.0151 (0.0125)	0.0239 (0.0200)	-0.0874*** (0.0259)	0.0362** (0.0178)	0.0167* (0.0099)	0.0003 (0.0023)	-0.0001 (0.0021)	0.0014 (0.0027)	-0.0013 (0.0032)	-0.0049 (0.0033)	0.0004 (0.0009)	-0.0003 (0.0031)
R ²	0.0070	0.0079	0.0029	0.0044	0.0032	0.0017	0.0006	-0.0003	0.0037	0.0043	-0.0010	0.0020
N	10352	10352	10352	10352	10352	10352	10352	10352	10352	10352	10352	10352
Mean of dep. var.	0.0525	0.1650	0.5617	0.1456	0.0389	0.0026	0.0026	0.0032	0.0068	0.0126	0.0005	0.0079
Panel B: Husband with a university degree or higher												
Large firm × post-reform transition dummy	-0.0312* (0.0170)	0.0747*** (0.0285)	-0.0610* (0.0353)	0.0294 (0.0243)	0.0010 (0.0125)	0.0009 (0.0025)	0.0013 (0.0022)	-0.0059 (0.0045)	-0.0004 (0.0035)	-0.0055 (0.0045)	-0.0004 (0.0012)	-0.0030 (0.0043)
R ²	0.0059	0.0163	0.0101	0.0017	-0.0005	-0.0010	0.0034	0.0026	0.0011	0.0066	0.0027	0.0018
N	4925	4925	4925	4925	4925	4925	4925	4925	4925	4925	4925	4925
Mean of dep. var.	0.0641	0.1857	0.5537	0.1270	0.0326	0.0011	0.0022	0.0098	0.0043	0.0109	0.0011	0.0076

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 3. Employment Transitions after the Reform, by Husband's Annual Income

Sample: Married women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self-emp.
Panel A: Husband's annual income below 5 million yen												
Large firm × post-reform transition dummy	0.0048 (0.0143)	0.0668*** (0.0226)	-0.0805*** (0.0300)	0.0172 (0.0213)	0.0092 (0.0117)	0.0009 (0.0027)	-0.0006 (0.0024)	0.0003 (0.0025)	-0.0042 (0.0038)	-0.0072 (0.0047)	-0.0012 (0.0014)	-0.0055 (0.0037)
R ²	0.0066	0.0071	0.0033	0.0029	0.0047	-0.0005	0.0012	0.0001	0.0046	0.0045	0.0000	0.0032
N	7784	7784	7784	7784	7784	7784	7784	7784	7784	7784	7784	7784
Mean of dep. var.	0.0587	0.1437	0.5480	0.1576	0.0470	0.0028	0.0035	0.0028	0.0069	0.0173	0.0014	0.0104
Panel B: Husband's annual income from 5 million to less than 10 million yen												
Large firm × post-reform transition dummy	-0.0005 (0.0152)	-0.0036 (0.0255)	-0.0476 (0.0320)	0.0416** (0.0208)	0.0131 (0.0118)	-0.0011 (0.0021)	0.0005 (0.0013)	-0.0039 (0.0043)	0.0032 (0.0032)	-0.0028 (0.0033)	0.0013* (0.0007)	-0.0003 (0.0027)
R ²	0.0073	0.0096	0.0022	0.0035	-0.0005	0.0024	0.0004	-0.0005	-0.0002	0.0022	-0.0004	0.0024
N	6330	6330	6330	6330	6330	6330	6330	6330	6330	6330	6330	6330
Mean of dep. var.	0.0497	0.1962	0.5780	0.1221	0.0288	0.0009	0.0009	0.0078	0.0026	0.0078	0.0000	0.0052
Panel C: Husband's annual income of 10 million yen or more												
Large firm × post-reform transition dummy	-0.0163 (0.0424)	0.1187* (0.0694)	-0.1698** (0.0772)	0.0577 (0.0477)	-0.0082 (0.0169)	0.0051 (0.0114)	0.0023 (0.0107)	-0.0026 (0.0086)	-0.0036 (0.0101)	-0.0038 (0.0038)	0.0055 (0.0054)	0.0152 (0.0143)
R ²	0.0445	0.0162	0.0287	0.0197	-0.0049	0.0018	0.0163	-0.0038	-0.0046	-0.0131	0.0114	-0.0046
N	928	928	928	928	928	928	928	928	928	928	928	928
Mean of dep. var.	0.0695	0.2460	0.5455	0.0909	0.0107	0.0053	0.0053	0.0107	0.0107	0.0000	0.0000	0.0053

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 4. Employment Transitions after the Reform, by Married Women's Education

Sample: Married women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self-emp.
Panel A: Women with a junior college education or less												
Large firm × post-reform transition dummy	0.0024 (0.0101)	0.0356** (0.0165)	-0.0749*** (0.0211)	0.0298** (0.0144)	0.0124 (0.0077)	0.0015 (0.0018)	-0.0004 (0.0016)	-0.0013 (0.0022)	-0.0001 (0.0023)	-0.0037 (0.0027)	-0.0002 (0.0008)	-0.0011 (0.0024)
R ²	0.0048	0.0104	0.0029	0.0039	0.0019	0.0017	0.0004	-0.0003	0.0022	0.0029	-0.0001	0.0021
N	14797	14797	14797	14797	14797	14797	14797	14797	14797	14797	14797	14797
Mean of dep. var.	0.0532	0.1747	0.5639	0.1403	0.0351	0.0018	0.0026	0.0048	0.0052	0.0103	0.0011	0.0070
Panel B: Women with a university degree or higher												
Large firm × post-reform transition dummy	-0.0235 (0.0342)	0.0943 (0.0652)	-0.0627 (0.0755)	0.0359 (0.0537)	-0.0017 (0.0348)	-0.0018 (0.0060)	0.0043 (0.0028)	0.0046 (0.0089)	-0.0172 (0.0115)	-0.0230 (0.0156)	- -	-0.0092 (0.0134)
R ²	0.0044	0.0149	0.0274	0.0148	0.0055	-0.0053	-0.0047	-0.0108	0.0182	0.0263		-0.0005
N	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149	1149
Mean of dep. var.	0.0815	0.1631	0.5150	0.1202	0.0558	0.0043	0.0000	0.0086	0.0129	0.0258	0.0000	0.0129

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. A dash indicates that the coefficient could not be estimated because the outcome had no variation within the relevant subsample. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 5. Employment Transitions after the Reform, Married Women Aged 35–44

Sample: Married women aged 35–44 who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self-emp.
Panel A: Married women												
Large firm × post-reform transition dummy	-0.0017 (0.0135)	0.0196 (0.0232)	-0.0258 (0.0296)	0.0002 (0.0208)	0.0189 (0.0127)	-0.0017 (0.0020)	0.0005 (0.0018)	0.0017 (0.0049)	-0.0049 (0.0047)	-0.0084 (0.0060)	-0.0003 (0.0013)	0.0019 (0.0057)
R ²	0.0048	0.0087	0.0044	0.0036	0.0037	-0.0011	0.0000	0.0005	0.0010	0.0026	0.0004	0.0017
N	8534	8534	8534	8534	8534	8534	8534	8534	8534	8534	8534	8534
Mean of dep. var.	0.0632	0.1729	0.4997	0.1570	0.0447	0.0026	0.0038	0.0083	0.0108	0.0204	0.0019	0.0147
Panel B: Married women with children aged 0–9												
Large firm × post-reform transition dummy	0.0048 (0.0260)	0.0606 (0.0454)	-0.0983* (0.0555)	0.0397 (0.0414)	-0.0071 (0.0187)	0.0007 (0.0027)	-0.0014 (0.0039)	-0.0014 (0.0078)	-0.0042 (0.0074)	-0.0095 (0.0080)	0.0019 (0.0014)	0.0141 (0.0155)
R ²	0.0111	0.0169	0.0172	0.0102	0.0004	-0.0033	-0.0049	0.0042	0.0006	0.0015	-0.0019	-0.0006
N	2463	2463	2463	2463	2463	2463	2463	2463	2463	2463	2463	2463
Mean of dep. var.	0.0655	0.1703	0.4956	0.1878	0.0349	0.0000	0.0044	0.0087	0.0066	0.0109	0.0000	0.0153

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 6. Robustness Check: Employment Transitions after the Reform, Married Women

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self-emp.
Panel A: Married women who were nonregular employees working less than 20 hours per week in the first-year observation.												
Large firm × post-reform transition dummy	0.0030 (0.0139)	0.0123 (0.0234)	-0.0113 (0.0197)	-0.0042 (0.0096)	0.0029 (0.0055)	-0.0008 (0.0020)	0.0070* (0.0039)	-0.0010 (0.0015)	-0.0023 (0.0021)	-0.0033 (0.0034)	0.0017** (0.0007)	-0.0040 (0.0048)
R ²	0.0007	0.0058	0.0046	0.0018	0.0011	-0.0007	0.0021	0.0002	0.0008	0.0042	0.0012	0.0007
N	13587	13587	13587	13587	13587	13587	13587	13587	13587	13587	13587	13587
Mean of dep. var.	0.0973	0.5719	0.2229	0.0519	0.0149	0.0033	0.0069	0.0033	0.0051	0.0087	0.0004	0.0134
Panel B: Married women who were nonregular employees working 30–39 hours in the first-year observation.												
Large firm × post-reform transition dummy	0.0038 (0.0106)	-0.0058 (0.0112)	-0.0240 (0.0206)	0.0538** (0.0268)	-0.0114 (0.0202)	-0.0003 (0.0057)	-0.0021 (0.0015)	-0.0020 (0.0033)	-0.0032 (0.0074)	0.0003 (0.0076)	-0.0023 (0.0016)	-0.0068* (0.0037)
R ²	0.0030	0.0052	0.0016	0.0053	0.0038	0.0001	-0.0002	-0.0007	-0.0010	0.0018	0.0001	0.0035
N	9333	9333	9333	9333	9333	9333	9333	9333	9333	9333	9333	9333
Mean of dep. var.	0.0420	0.0722	0.2144	0.4261	0.1641	0.0106	0.0022	0.0056	0.0235	0.0230	0.0034	0.0129

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 7. Robustness Check: Employment Transitions after the Reform, Excluding Job Changers

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation, excluding those who reported having left a job by the second-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self- emp.
Panel A: Married women												
Large firm × post-reform transition dummy	-0.0004 (0.0070)	0.0464*** (0.0163)	-0.0825*** (0.0202)	0.0303** (0.0140)	0.0092 (0.0073)	0.0012 (0.0018)	0.0004 (0.0015)	-0.0009 (0.0022)	0.0003 (0.0022)	-0.0027 (0.0027)	-0.0007 (0.0009)	-0.0007 (0.0024)
R ²	0.0025	0.0115	0.0042	0.0030	0.0011	0.0013	0.0010	-0.0004	0.0017	0.0022	0.0003	0.0014
N	15929	15929	15929	15929	15929	15929	15929	15929	15929	15929	15929	15929
Mean of dep. var.	0.0366	0.1782	0.5720	0.1430	0.0356	0.0021	0.0024	0.0051	0.0055	0.0113	0.0014	0.0068
Panel B: Unmarried women												
Large firm × post-reform transition dummy	0.0191 (0.0221)	-0.0786** (0.0371)	-0.0684 (0.0600)	0.0448 (0.0480)	0.1185*** (0.0387)	-0.0196** (0.0084)	0.0009 (0.0032)	-0.0143 (0.0112)	0.0140 (0.0115)	0.0092 (0.0147)	-0.0050 (0.0048)	-0.0207* (0.0110)
R ²	0.0135	0.0109	0.0051	0.0079	0.0178	0.0058	0.0082	0.0072	0.0030	0.0018	0.0008	0.0189
N	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862	1862
Mean of dep. var.	0.0265	0.1416	0.4690	0.1917	0.0885	0.0088	0.0000	0.0206	0.0118	0.0147	0.0029	0.0236

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 8. Robustness Check: Employment Transitions after the Reform, Women with Annual Earnings of at Least 1 Million Yen:

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation, and who earned at least 1 million yen in the second-year observation.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self- emp.
Panel A: Married women												
Large firm × post-reform transition dummy	-0.0055 (0.0061)	0.0338* (0.0196)	-0.0982*** (0.0285)	0.0627*** (0.0224)	0.0189 (0.0130)	0.0010 (0.0029)	-0.0015 (0.0016)	-0.0027 (0.0038)	-0.0009 (0.0040)	-0.0088 (0.0055)	-0.0003 (0.0015)	0.0015 (0.0034)
R ²	0.0042	0.0106	0.0046	0.0050	0.0035	0.0008	0.0014	-0.0001	0.0027	0.0072	0.0005	0.0016
N	7679	7679	7679	7679	7679	7679	7679	7679	7679	7679	7679	7679
Mean of dep. var.	0.0130	0.1272	0.5636	0.1902	0.0568	0.0014	0.0027	0.0068	0.0082	0.0226	0.0021	0.0055
Panel B: Unmarried women												
Large firm × post-reform transition dummy	0.0066 (0.0160)	-0.0896*** (0.0341)	-0.0419 (0.0715)	0.0219 (0.0635)	0.1519*** (0.0522)	-0.0181* (0.0108)	-0.0022 (0.0023)	-0.0149 (0.0152)	0.0304** (0.0149)	0.0000 (0.0185)	-0.0072 (0.0051)	-0.0369** (0.0157)
R ²	0.0264	-0.0002	0.0056	-0.0005	0.0232	0.0006	-0.0052	0.0072	0.0023	0.0015	0.0043	0.0270
N	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216
Mean of dep. var.	0.0143	0.0952	0.4190	0.2429	0.1333	0.0095	0.0000	0.0190	0.0048	0.0238	0.0048	0.0333

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Table 9. Triple-Difference Estimates for Wages and Bonuses, Basic Survey on Wage Structure

Sample: Female nonregular short-workweek employees aged 45–59

	Hourly wage (log)	Bonus receipt	Bonus amount
20-29 hours × Large firm × 2014	0.0083 (0.0051)	-0.0252** (0.0117)	-48.66*** (11.31)
20-29 hours × Large firm × 2015	0.0111** (0.0051)	0.0078 (0.0117)	-29.78*** (11.38)
20-29 hours × Large firm × 2017	0.0095* (0.0053)	0.0024 (0.0121)	-21.83* (12.02)
20-29 hours × Large firm × 2018	0.0029 (0.0052)	0.0131 (0.0121)	-3.53 (12.06)
20-29 hours × Large firm × 2019	0.0137*** (0.0052)	0.0054 (0.0121)	14.51 (12.34)
30-39 hours × Large firm × 2014	0.0155** (0.0064)	-0.0500*** (0.0155)	-54.72** (27.30)
30-39 hours × Large firm × 2015	0.0034 (0.0064)	-0.0392** (0.0156)	-62.83** (27.19)
30-39 hours × Large firm × 2017	0.0071 (0.0065)	-0.0528*** (0.0158)	-144.93*** (27.87)
30-39 hours × Large firm × 2018	-0.0079 (0.0065)	-0.0327** (0.0159)	-69.86** (28.67)
30-39 hours × Large firm × 2019	-0.0128** (0.0064)	-0.0530*** (0.0162)	-126.80*** (29.50)
Job openings-to-applicants ratio	0.0799*** (0.0016)	-0.0440*** (0.0037)	-20.51*** (4.93)
R ²	0.2630	0.0957	0.1426
N	359151	362491	362491
Mean of dep. var.	2.3422	0.4152	333.57

Notes: The table reports only the triple-difference estimates by firm size, year, and weekly-hours category. The sample consists of female nonregular employees aged 45–59 observed in June of each year. The reference categories are 2016, firms with fewer than 500 employees, and fewer than 20 hours per week. All regressions control for age group, industry, establishment region, and the prefecture-level ratio of job openings to applicants for part-time workers. Bonus amounts are measured in hundreds of yen. Dep. var. mean is the mean of the dependent variable in 2016 among large firms.

* p<0.10, ** p<0.05, and *** p<0.01.

Appendix Table 1. Distribution of Employment Status in the Baseline Observation: Women Aged 45–59

	Employment status in the first-year observation												Total	N
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h	Reg. <20h	Reg. 20-29h	Reg. 30-39h	Reg. 40-49h	Reg. ≥50h	Self- emp.		
Married Women	0.2830	0.1148	0.1379	0.0823	0.0562	0.0073	0.0089	0.0121	0.0464	0.1297	0.0297	0.0916	1.000	67,105
Unmarried Women	0.1986	0.0374	0.0646	0.1017	0.0961	0.0156	0.0079	0.0167	0.0923	0.2321	0.0676	0.0696	1.000	17,688

Notes: In the *Labour Force Survey*, the same individual may be surveyed up to four times. Because of the two-consecutive-month interview design, an individual may therefore be observed twice in the first survey year when the baseline (first-year) panel is constructed. In the descriptive statistics above, each individual is counted only once: for individuals with two observations in the first survey year, we use the second-month observation as the first-year observation. For example, if an individual was surveyed in March (the first month) and April (the second month) of the first survey year, the April observation is used.

Appendix Table 2. Pre-Reform Placebo Test: Large-Firm Interactions with Pre-Reform Quarters, Married Women

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation. Pre-reform period only.

	Dependent variables											
	Employment status in the second-year observation											
	Nonemp.	Nonreg.	Nonreg.	Nonreg.	Nonreg.	Nonreg.	Reg.	Reg.	Reg.	Reg.	Reg.	Self-emp.
	<20h	20-29h	30-39h	40-49h	≥50h	<20h	20-29h	30-39h	40-49h	≥50h		
Large firm × 2014Q1	-0.0097 (0.0190)	-0.0097 (0.0320)	0.0998** (0.0419)	-0.0652** (0.0292)	-0.0200 (0.0153)	0.0019 (0.0042)	0.0053* (0.0031)	-0.0062 (0.0051)	0.0007 (0.0040)	0.0004 (0.0055)	0.0005 (0.0014)	0.0022 (0.0056)
Large firm × 2014Q2	0.0209 (0.0196)	0.0066 (0.0322)	0.0240 (0.0411)	-0.0453 (0.0277)	-0.0165 (0.0145)	-0.0007 (0.0038)	0.0050 (0.0036)	0.0019 (0.0056)	0.0020 (0.0056)	0.0045 (0.0057)	0.0004 (0.0015)	-0.0028 (0.0057)
Large firm × 2014Q3	-0.0006 (0.0200)	-0.0305 (0.0326)	0.0487 (0.0426)	-0.0149 (0.0291)	-0.0039 (0.0154)	0.0005 (0.0048)	0.0042 (0.0038)	-0.0006 (0.0052)	0.0090 (0.0057)	-0.0102 (0.0065)	0.0022 (0.0023)	-0.0038 (0.0049)
Large firm × 2014Q4	-0.0021 (0.0196)	0.0238 (0.0338)	0.0325 (0.0420)	-0.0471* (0.0275)	0.0011 (0.0151)	0.0045 (0.0055)	-0.0006 (0.0039)	-0.0026 (0.0047)	0.0002 (0.0039)	-0.0050 (0.0068)	-0.0021 (0.0020)	-0.0026 (0.0044)
Large firm × 2015Q1	-0.0073 (0.0184)	0.0622* (0.0338)	0.0108 (0.0421)	-0.0585** (0.0278)	0.0006 (0.0150)	0.0021 (0.0047)	0.0037 (0.0032)	-0.0058 (0.0049)	-0.0023 (0.0035)	-0.0004 (0.0070)	0.0003 (0.0015)	-0.0055 (0.0054)
Large firm × 2015Q2	0.0345* (0.0201)	-0.0219 (0.0316)	0.0118 (0.0412)	-0.0205 (0.0283)	0.0073 (0.0155)	-0.0029 (0.0048)	0.0019 (0.0034)	-0.0032 (0.0050)	0.0011 (0.0050)	-0.0055 (0.0071)	-0.0013 (0.0018)	-0.0014 (0.0055)
Large firm × 2015Q3	0.0258 (0.0208)	0.0092 (0.0318)	0.0243 (0.0417)	-0.0480* (0.0290)	-0.0141 (0.0145)	0.0021 (0.0046)	-0.0020 (0.0042)	0.0028 (0.0056)	0.0045 (0.0058)	-0.0008 (0.0080)	0.0003 (0.0015)	-0.0039 (0.0045)
Large firm × 2015Q4	-0.0076 (0.0175)	0.0839** (0.0332)	-0.0100 (0.0424)	-0.0691** (0.0291)	0.0084 (0.0162)	-0.0009 (0.0046)	0.0042 (0.0039)	0.0015 (0.0068)	0.0027 (0.0069)	-0.0005 (0.0079)	-0.0003 (0.0016)	-0.0124** (0.0056)
Large firm × 2016Q1	0.0029 (0.0195)	-0.0033 (0.0341)	0.0645 (0.0445)	-0.0521* (0.0309)	-0.0106 (0.0167)	0.0014 (0.0047)	0.0051 (0.0042)	0.0012 (0.0055)	0.0004 (0.0034)	-0.0092 (0.0075)	0.0011 (0.0012)	-0.0013 (0.0047)
Large firm × 2016Q2	0.0247 (0.0196)	0.0078 (0.0355)	0.0200 (0.0445)	-0.0656** (0.0310)	-0.0019 (0.0169)	0.0092 (0.0058)	0.0036 (0.0034)	0.0022 (0.0055)	0.0011 (0.0033)	0.0053 (0.0056)	0.0012 (0.0012)	-0.0075 (0.0053)
R ²	0.0086	0.0120	0.0067	0.0049	0.0025	-0.0002	0.0025	-0.0008	0.0033	0.0049	-0.0010	0.0033
N	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152	18152
Dep. var. mean	0.0566	0.2005	0.5621	0.1119	0.0369	0.0049	0.0049	0.0037	0.0049	0.0086	0.0012	0.0037
Joint F-stat	1.3624	2.6228	1.2843	1.3168	1.1015	0.7123	2.0972	0.7198	0.4689	1.6438	1.3519	0.8585
p-value	0.1910	0.0035	0.2327	0.2146	0.3565	0.7137	0.0214	0.7066	0.9109	0.0879	0.1962	0.5719

Notes: Each column reports coefficients from a regression interacting baseline large-firm status with indicators for the quarter of the follow-up observation during the pre-reform period (2014Q1–2016Q2; 2016Q3 omitted). Regressions include follow-up-quarter fixed effects and control for the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean of the outcome among women initially employed at smaller firms whose follow-up observation occurred in 2016Q3. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; Reg. denotes regular employment; Self-emp. denotes self-employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses. The joint F-test evaluates the null that all ten interaction coefficients are equal to zero.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Appendix Table 3. Hours Transitions after the Reform, by Marital Status

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables													
	Days per week								Days / week	Days per month			Days / month	Left job
	0 day	1 day	2 days	3 days	4 days	5 days	6 days	7 days		≤ 19	20-23	24 ≤		
Panel A: Married women														
Large firm × post-reform transition	-0.0053 (0.0036)	-0.0034 (0.0029)	0.0119* (0.0068)	0.0279* (0.0143)	-0.0103 (0.0183)	-0.0401** (0.0203)	0.0194* (0.0103)	0.0000 (0.0032)	-0.0214 (0.0434)	0.0404* (0.0208)	-0.0417** (0.0204)	0.0013 (0.0082)	-0.1483 (0.1638)	0.0020 (0.0075)
R ²	0.0007	0.0020	0.0043	0.0192	0.0071	0.0212	0.0130	0.0020	0.0352	0.0456	0.0340	0.0144	0.0531	0.0002
N	15759	15759	15759	15759	15759	15759	15759	15759	15759	15715	15715	15715	15715	16695
Dep. var. mean	0.0090	0.0083	0.0321	0.1391	0.2813	0.4332	0.0873	0.0097	4.3728	0.5601	0.3776	0.0623	18.0003	0.0476
Panel B: Unmarried women														
Large firm × post-reform transition	-0.0085 (0.0097)	0.0057 (0.0090)	-0.0541*** (0.0132)	0.0170 (0.0292)	-0.0428 (0.0500)	0.0419 (0.0594)	0.0355 (0.0389)	0.0054 (0.0155)	0.2371** (0.1178)	0.0262 (0.0578)	-0.0287 (0.0594)	0.0025 (0.0335)	0.0811 (0.4552)	-0.0142 (0.0222)
R ²	0.0096	0.0013	0.0048	0.0023	0.0033	0.0048	0.0279	-0.0032	0.0321	0.0386	0.0305	0.0188	0.0333	0.0013
N	1855	1855	1855	1855	1855	1855	1855	1855	1855	1851	1851	1851	1851	1972
Dep. var. mean	0.0144	0.0057	0.0316	0.0690	0.2414	0.4626	0.1523	0.0230	4.6293	0.3506	0.5230	0.1264	19.3994	0.0661

Notes: Regressions control for the post-reform transition dummy, the large-firm dummy, region of residence, age group, survey year, and birth year. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Appendix Table 4. Probit Estimates of the Employment Transitions after the Reform, by Marital Status

Sample: Women who were nonregular employees working 20–29 hours per week at the first-year observation.

	Dependent variables					
	Employment status in the second-year observation					
	Nonemp.	Nonreg. <20h	Nonreg. 20-29h	Nonreg. 30-39h	Nonreg. 40-49h	Nonreg. ≥50h
Panel A: Married women						
Large firm × post-reform transition dummy	-0.0020 (0.0102)	0.0449*** (0.0157)	-0.0754*** (0.0200)	0.0266** (0.0134)	0.0086 (0.0066)	0.0011 (0.0017)
N	16695	16695	16695	16695	16695	16214
Dep. var. mean	0.0560	0.1756	0.5549	0.1411	0.0368	0.0021
Panel B: Unmarried women						
Large firm × post-reform transition dummy	0.0164 (0.0315)	-0.0857** (0.0354)	-0.0654 (0.0577)	0.0374 (0.0457)	0.1301*** (0.0425)	-0.0324** (0.0160)
N	1972	1972	1972	1972	1972	1168
Dep. var. mean	0.0413	0.1405	0.4545	0.1956	0.0909	0.0115

Notes: This table reports probit estimates of the employment transition after the reform, computed as an alternative to the linear probability model estimates in Table 1. The coefficient “Large firm × post-reform transition dummy” is the interaction effect in the probit model, computed as the cross-difference in predicted probabilities across the four cells defined by firm size and reform exposure, following Ai and Norton (2003). We report the six nonemployment and nonregular-employment outcomes, corresponding to columns (1)–(6) of Table 1; the remaining outcomes—regular employment and self-employment—are omitted because very few workers transitioned into these categories, and the corresponding probit estimates could not be obtained. Dep. var. mean is the mean for the post-reform control group, defined as observations with the post-reform transition dummy equal to one and the large-firm dummy equal to zero. Nonemp. denotes nonemployment; Nonreg. denotes nonregular employment; h denotes weekly hours. Robust standard errors, clustered at the individual level, are shown in parentheses.

***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.