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# Long-Term Impacts of the Equal Employment Opportunity Act in Japan\*

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In this paper, I survey the literature on the impact of the Equal Employment Opportunity Act (EEOA) on labor market outcomes of women in Japan. The findings are as follows. First, after the enactment of the EEOA, regular full-time employment rose among highly educated women younger than age 40. Second, examined separately by marital status, regular full-time employment did not increase for either married or single women, compared with their predecessors. These patterns reflect the fact that the marriage rates of highly educated women fell after passage of the EEOA. Third, the female-to-male wage ratio and the ratio of average tenure of female workers to that of male workers improved, mainly for less-educated women over age 40, but not for highly educated young women. Finally, there are regional differences in the increases in regular employment of highly educated women: namely, it increased significantly in Tokyo.

## I. Introduction

More than a quarter of a century has passed since the adoption of the Equal Employment Opportunity Act (EEOA) in Japan. Given the recent interest in women's status and their participation in the labor market in Japan (e.g., Hausmann, Tyson, and Zahidi 2012; Steinberg and Nakane 2012), it is worthwhile to evaluate what this law has (and has not) achieved over the last 25 years. It is likely that the EEOA has changed many dimensions of economic lives in Japan. For example, the term "post-EEOA cohorts" refers to the cohorts that graduated from school and entered the labor market after the enactment of the law.<sup>1</sup> Their experiences in work and life are thought to differ from those of their predecessors. In this paper, I assess the extent to which the law has changed the nature of work among women in Japan by summarizing findings from recent empirical studies. The aspects I focus on are as follows: (1) participation in the labor market, in regular full-time employment, and in non-regular employment; (2) wages; (3) tenure; and (4) geographical features in participation.

The most important finding is that, the EEOA did not increase regular employment either for highly educated married women or single women, compared with their predecessors.

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\* This paper uses microdata of the Employment Status Survey (ESS) made available by the Ministry of Internal Affairs and Communication of Japan under Article 33-2 of the Statistics Act. Microdata cannot be released because of the terms of data usage. Remaining errors are my own. This research is supported by the Japan Society for Promotion of Science Grant-in-Aid for Scientific Research (grant number C-23530261).

<sup>1</sup> The importance of considering cohort in understanding female participation or gender wage convergence is pointed out in the literature (e.g., Goldin 1990; O'Neill and Polachek 1993).

sors. The marriage rates of highly educated women fell after the EEOA, which contributed to the increase in regular employment among highly educated women younger than age 40, but the increase was small for those over age 40. The EEOA did not contribute to an increase in the number of women who achieve family and career. The most common obstacles to pursuing family and career are the high costs and/or availability of childcare and commuting costs.

## II. Overview of the EEOA<sup>2</sup>

The EEOA passed the Parliament in 1985 and was enacted in 1986. Major revisions of the EEOA took place in 1999 and 2007. In the EEOA of 1986, discrimination against women was not prohibited; rather, the law stipulated that employers needed to make an effort not to discriminate against women in hiring, task assignment, and promotion. In the 1999 revision, discrimination against women was prohibited, and the maternity protection for pregnant employees became mandatory.<sup>3</sup> In the 2007 revision, discrimination against both sexes (not just women) was prohibited. Positive action was first stipulated in the 1999 revision, and remained legal after the 2007 revision.

The Childcare Leave Act was enacted in 1992, and expanded to cover long-term care leave in 1999. Several revisions have been made since 1992. However, it is generally understood that the Childcare Leave Act did not increase continuous employment of mothers. More specifically, although the number of mothers who take childcare leave has increased, the number of mothers who continued employment without taking leave decreased; therefore, the total number of new mothers who continued their employment around childbirth increased only slightly (National Institute of Population and Social Security Research 2004).<sup>4</sup>

To summarize, the legal system now encourages women's employment, both by promoting equality and by facilitating continuous employment for new mothers. As the statistics in the following sections show, however, employment in regular full-time jobs has not increased much for married women after passage of the EEOA.

## III. Effects of the EEOA

### 1. Identifying the Effects of the EEOA

A natural way to evaluate the EEOA's impact would be to measure the differences in labor market outcomes before and after its passage. However, this comparison does not necessarily extract the causal impact of the law, if other changes took place at the same time

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<sup>2</sup> For a detailed explanation of EEOA, see Yamada (2013) in this issue.

<sup>3</sup> Mandate for maternity protection took effect in 1998.

<sup>4</sup> However, there are differences between regular full-time employment and other employment; see Cabinet Office (2012).

the law took effect. In fact, the labor market in Japan went through many changes during the time the EEOA was enacted and enhanced, including a greater degree of globalization, increases in the service sector and in non-regular employment, as well as recessions from the late 1990s to early 2000s. In general, disentangling the EEOA's effects from the impacts of other changes is not a straightforward process.

Transformations in the labor market that are important for understanding the EEOA's impact are the recession in the late 1990s (Heisei recession) and the increase in non-regular employment. As is well known, the recession in the late 1990s decreased the regular full-time employment of the young. Men and women who finished schooling and entered the labor market during the recession period have had difficulties obtaining full-time positions later in life, even during times of economic recovery (Genda, Kondo, and Ohta 2010). Examined separately by education, however, university graduate women gained regular employment more than their male counterparts even in the Heisei recession period, whereas for less-educated groups, females lost regular employment to a similar extent as males (Abe 2010).

Another important change was the increase in non-regular employment, which began with the higher participation by middle-aged married women in part-time employment. In the Heisei recession period, non-regular employment became more prevalent among young workers. Traditionally, the typical non-regular workforce consisted of part-time workers and casual workers.<sup>5</sup> After 1997, the number of new types of non-regular workers, such as temporary staffers or contract workers, increased (Kambayashi and Kato 2011; Abe 2012). The EEOA's impact on non-regular employment is likely to be limited, because the majority of traditional-type, non-regular employees (part-time and casual employees) were women; therefore, the equal treatment of men and women is a minor issue.

## 2. Participation

In this subsection, I review how the EEOA affected women's participation in the labor market, mainly based on Abe (2011a).<sup>6</sup>

The conclusions of Abe (2011a) are summarized as follows. First, the EEOA increased regular employment of university graduate women younger than 40. For the less-educated group, regular employment has not increased compared to that of their predecessors. Furthermore, even for university graduate women, the increase in regular employment in the early 40s was small. In other words, when the earliest post-EEOA cohorts reached age 40 or over, the increase in the proportion of regular employment in population was not much greater than it was among earlier cohorts of university graduate women. At the same time, non-regular employment (especially part-time employment) has increased among women over time, independent of the EEOA; part-time employment increased even before the EEOA, and this trend continued thereafter.

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<sup>5</sup> Casual workers are called "arbeit workers" in Japan.

<sup>6</sup> The statistics shown below cover a longer time period than those shown in Abe (2011a)

Second, women of post-EEOA cohorts marry later, or a higher proportion remain unmarried, than their pre-EEOA counterparts. Furthermore, examined separately by marital status, participation in regular full-time employment has not increased since passage of the EEOA.

In what follows, I use microdata of the Employment Status Survey (ESS) from 1982 to 2007 to show the cohort profiles of participation by women. By using repeated cross sectional data, I trace the average experience of women of each cohort over a 25-year period. Cohort is defined by the combination of the 5-year intervals in the birth year and educational attainment. Three levels of education are used: (1) junior high school graduates, (2) senior high school graduates, and (3) university graduates or over. For participation, three measures are used: (1) the regular employment ratio; (2) the part-time employment ratio; and (3) the non-traditional, non-regular employment ratio. These are defined as follows:

$$(1) \quad RER = \frac{\text{Number of Regular Employees}}{\text{Population}},$$

$$(2) \quad PTER = \frac{\text{Number of Part-time Employees}}{\text{Population}},$$

$$(3) \quad NTNR = \frac{\text{Number of non-traditional non-regular Employees}}{\text{Population}},$$

where “Number of Regular Employees” is the sum of regular employees and executives and “Population” is the population for each cell defined by birth year, education, and age group.<sup>7, 8</sup>

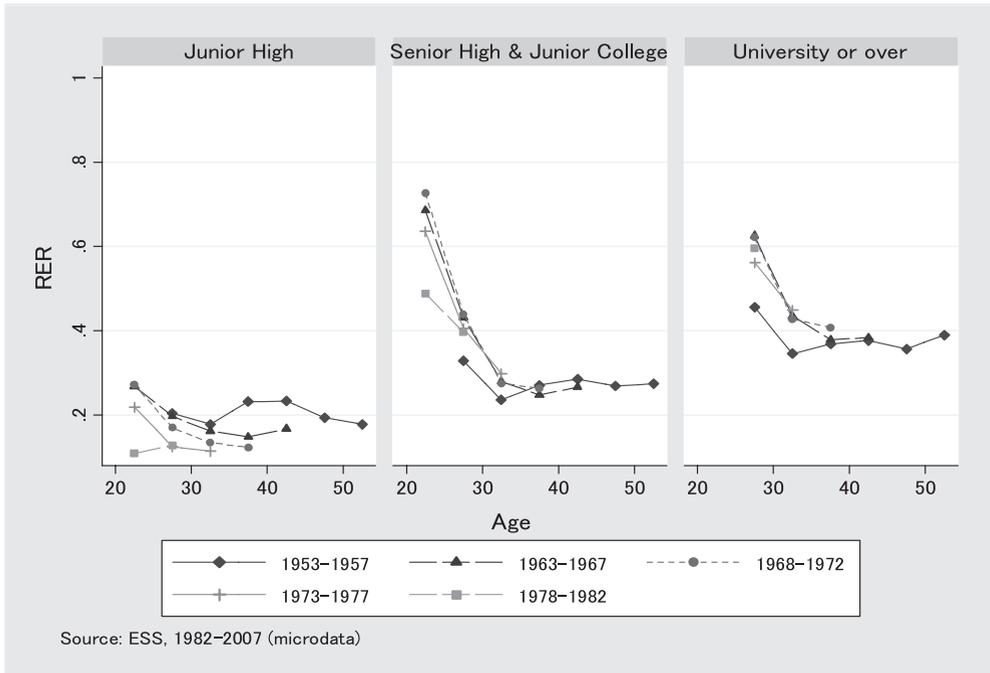
Figure 1 plots the three measures for each cohort, against age. Three patterns emerge. First, post-EEOA cohorts of university graduates consistently experienced increases in regular employment, but those with less education did not experience similar increases. Even for university graduates, the increase was limited to ages younger than 40. Senior high school graduate women of early post-EEOA cohorts had high regular employment ratios, but later cohorts had a low level of regular employment. Second, for part-time employment, participation has significantly increased as each cohort has aged. There also was a discernible inter-cohort increase in participation in part-time employment by less-educated women; that is, later cohorts of less educated women are more likely to work part time, compared

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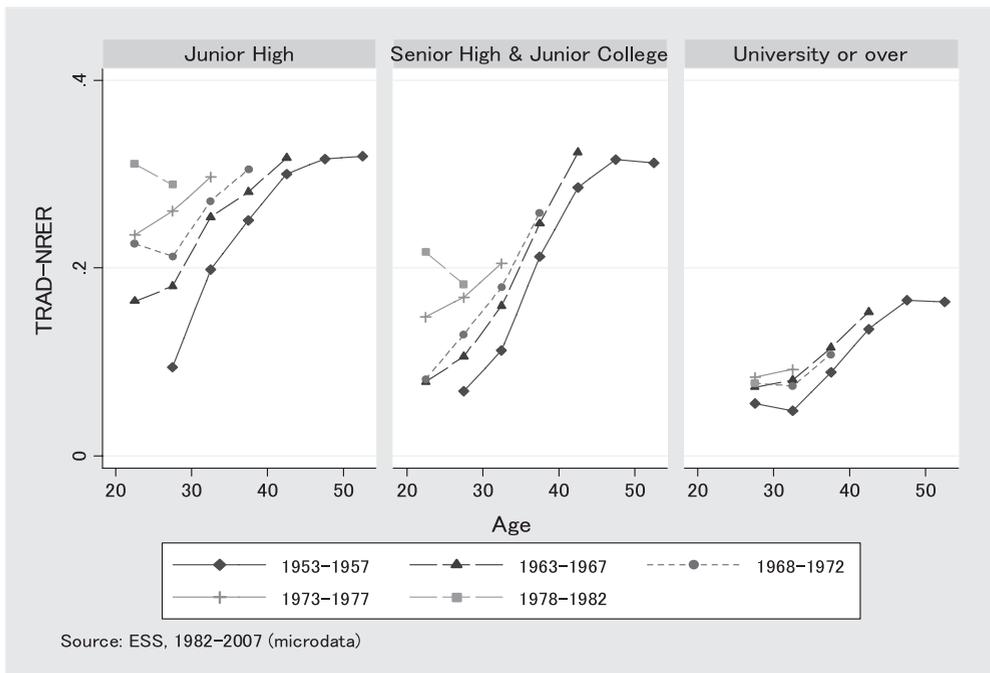
<sup>7</sup> Part-time workers in the numerator of Eq. (2) include both part-timers and casual (arbeit) workers in the ESS. Part-time workers in the ESS correspond to those who are called part-timers in the workplace. Therefore, they include non-regular employees whose working hours are relatively long.

<sup>8</sup> In this paper, regular employment is defined by the worker title at the workplace, instead of working hours.

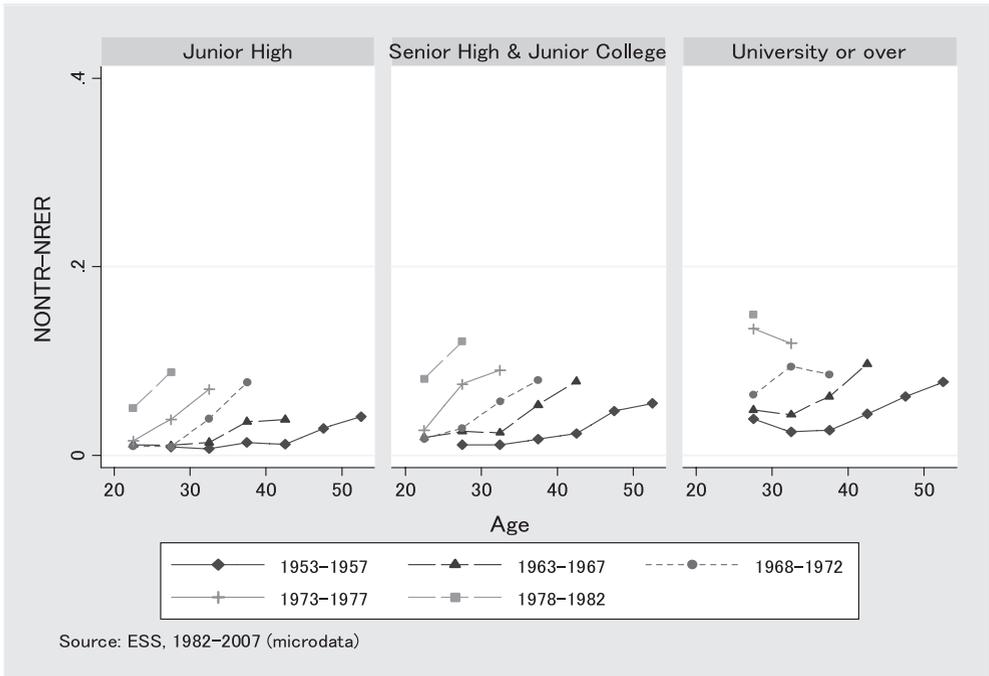
A. Regular employment



B. Part-time and arbeits employment



C. Non-traditional non-regular employment



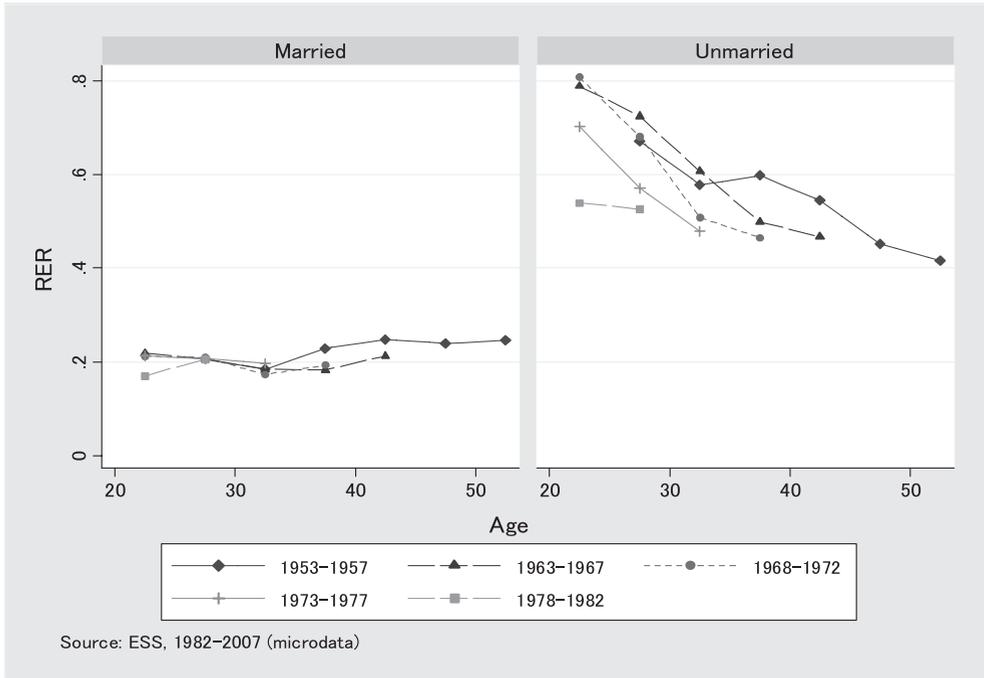
Source: Author’s calculation from the ESS (1982–2007).

Figure 1. Participation by Cohort

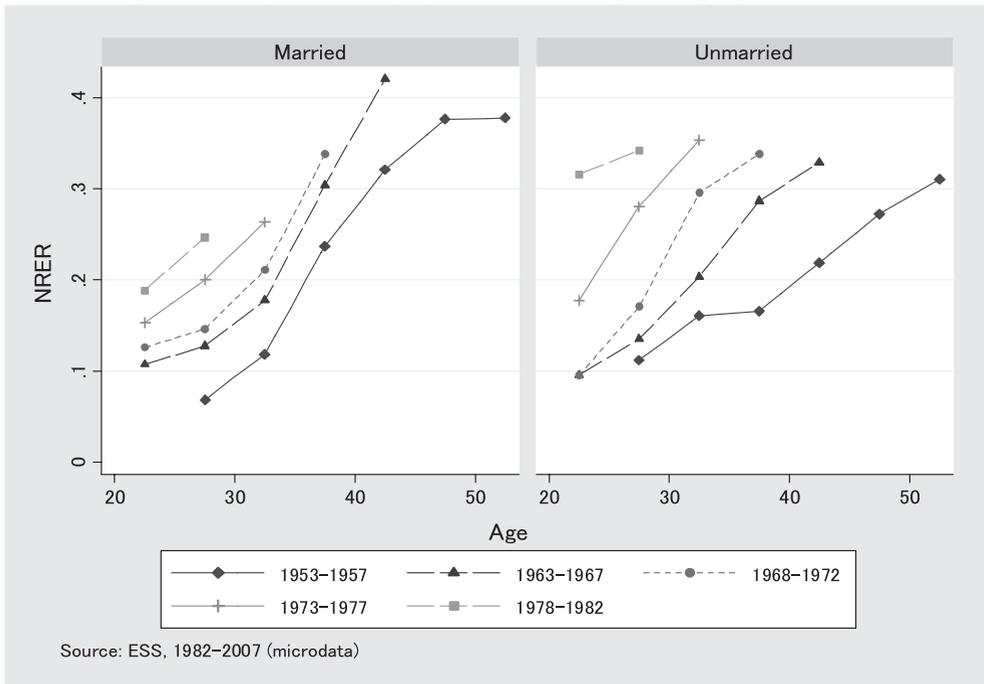
with their earlier counterparts. In panel C, the ratio of non-traditional non-regular employment is plotted. This type of employment increased for all education groups over time. It increased with age for fixed cohorts, but it also increased for recent cohorts, compared with earlier cohorts.

In Figure 2, the regular and non-regular employment ratios are plotted against age by education and marital status. For both married and non-married groups, the regular employment ratio did not increase for post-EEOA cohorts from pre-EEOA cohorts. In other words, post-EEOA cohorts had levels of regular employment similar to those of their pre-EEOA counterparts, implying that the EEOA has not advanced regular employment of married women.

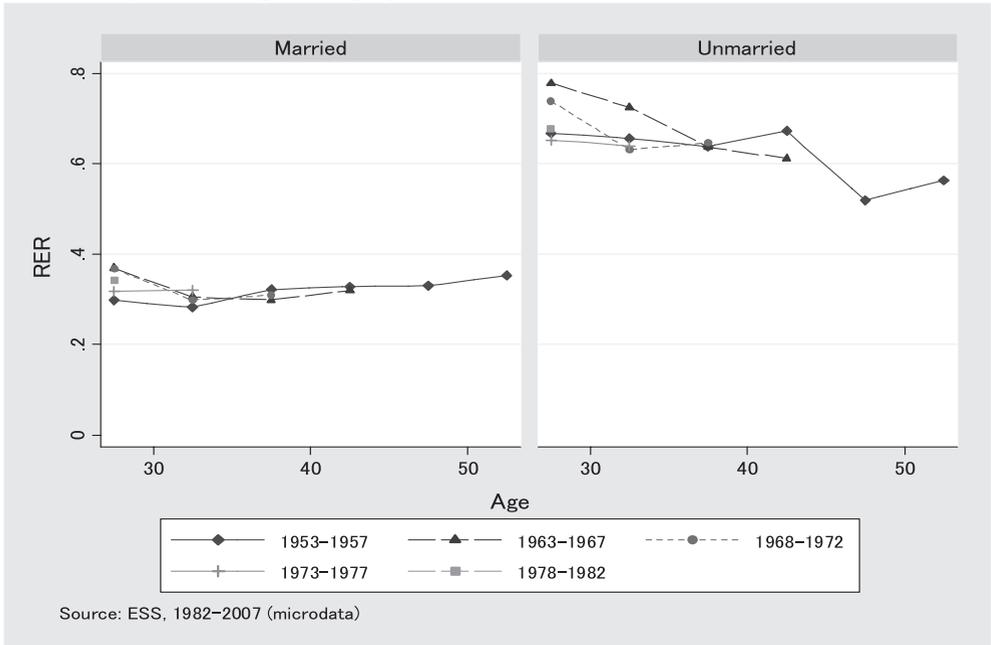
A. Senior high school or junior college graduates, regular employment



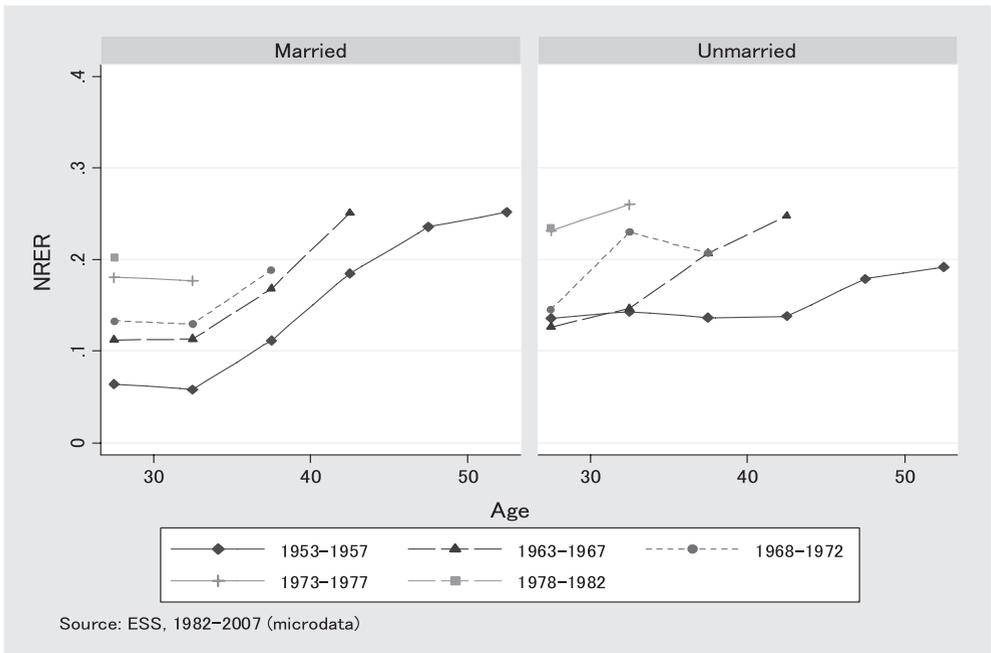
B. Senior high school or junior college graduates, non-regular employment



C. University or over, regular employment



D. University or over, non-regular employment



Source: Author's calculation from the ESS (1982–2007).

Figure 2. Participation by Cohort, by Marital Status

### 3. Gender Wage Gap

How did the gender wage gap evolve after the EEOA? Wages are observed only for workers, but whether a woman works or not (participation) is endogenous; therefore, it is possible that the gender wage gap is affected by level of participation.<sup>9</sup> It is reported in the literature that the gender wage gap is greater in countries with high participation rates (Olivetti and Petrongolo 2008; see also Hunt 2002).

Hori (1998) and Kawaguchi (2005) apply Juhn, Murphy, and Pierce's (1991) procedure to decompose the wage gap into three components: (1) observed explanatory variables, (2) observed prices, and (3) unexplained differentials. Hori uses data of the Basic Survey of Wage Structure (BSWS) from 1986 and 1994 and concludes that the unexplained gap is the major cause of the narrowing gender wage gap between these two years. Kawaguchi (2005) uses the BSWS data from 1990 and 2000, and arrives at a different conclusion: he reports that the extension of tenure by female workers was the major cause of the narrowing gender wage gap, but the effect of tenure was small for university graduates. In other words, the extension of tenure occurred for less-educated female workers and resulted in the narrowing gender wage gap.

Abe (2010) analyzes aggregate data of the BSWS from 1975 to 2005 to examine the gender wage gap over this period. Over the cohorts, the gender wage gap narrowed significantly: later cohorts of women received a higher relative wage compared to their male counterparts. Figure 3 plots the relative wage for pooled education groups (Panel A) and separately for two education groups (senior high school graduates and university graduates or over, Panel B). As the figure shows, the improvement in relative pay took place for the less educated and not for the highly educated.

Since Hori (1998) and Kawaguchi (2005) arrive at somewhat different conclusions, future research should reconcile these findings and pursue the causes of long-term changes in the gender wage gap, preferably using data that span a long time period.

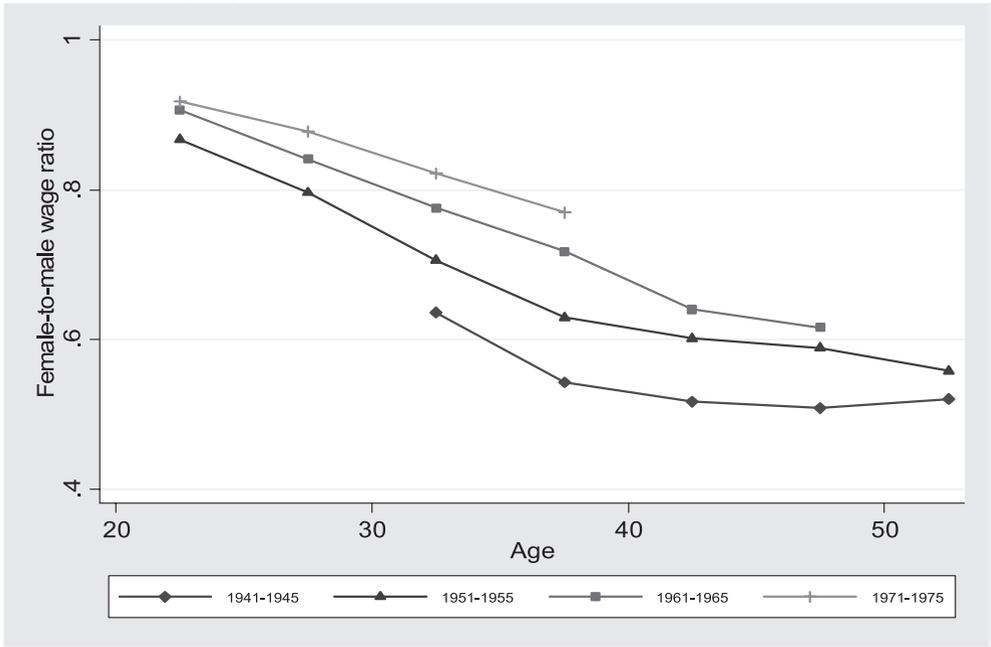
### 4. Tenure

Another dimension in which the EEOA may have had an impact is the tenure (length of service at the employer) of female workers. Kawaguchi (2005) argues that, although the average tenure of female workers grew from 1990 to 2000, its impact on the gender wage gap was limited for university graduates. In Figure 4, I use aggregate data of the BSWS from 1975 to 2010 to show the ratio of the average tenure of female workers to that of male workers. The higher the ratio, the longer the average tenure of women, relative to that of men. Since tenure is shorter for women than for men for older workers, this ratio takes values less than 1 for older age groups. Figure 4 shows that the tenure of less educated women was extended, whereas that of university graduates was not. University graduate women of post-EEOA cohorts gained in terms of regular employment, though their relative

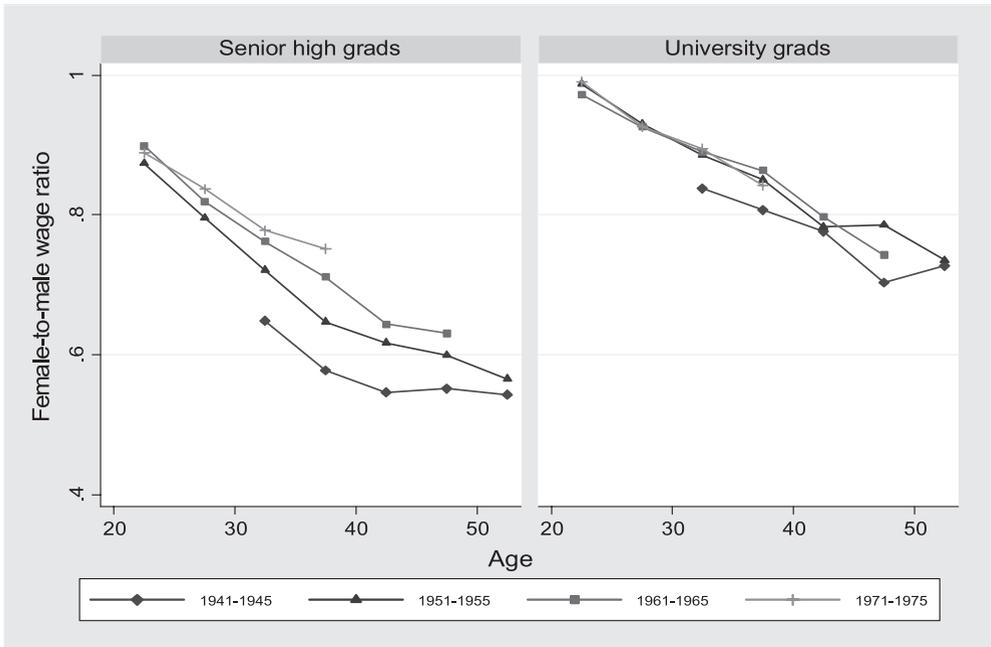
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<sup>9</sup> Onozuka (2013) is a recent study for Japan.

A. All education groups

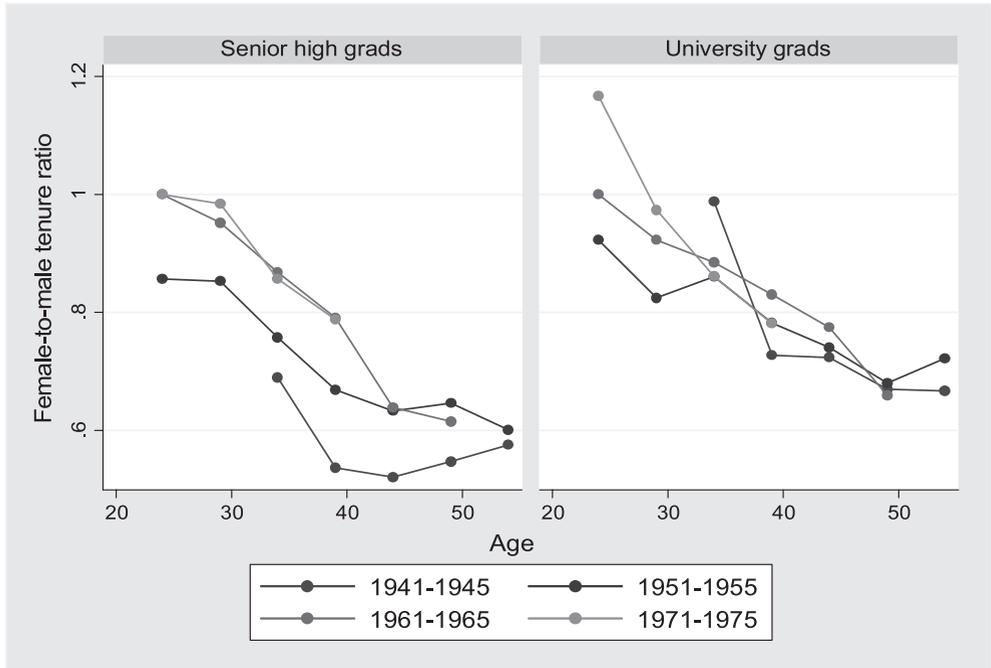


B. By education



Source: Authors' calculation from the BSWs (1975–2010).

Figure 3. Female-to-Male Wage Ratio, by Cohort



Source: Authors' calculation from the BSWS (1975–2010).

Figure 4. Female-to-Male Tenure Ratio

wages or tenure did not advance much compared to their male counterparts. On the other hand, there has been a gain in relative wages and average tenure of less-educated female workers.

Two studies have examined the EEOA's impact on educational choice. If the EEOA opened up the labor market opportunities for highly educated women, then women who decide their educational investment after the law's enactment would be likely to choose a higher level of education, other things being equal. Edwards and Pasquale (2003) and Edwards and Sakai (2011) investigate this channel using the data from the Japan Panel Study of Consumers. Edwards and Sakai (2011) conclude that women who chose their educational investment after the EEOA were more likely to advance to four-year universities, and the likelihood that they would marry before age 30 decreased.

### 5. Residential Decisions and the EEOA

The statistics reported so far are the aggregate of all regions in Japan. Abe (2011c), on the other hand, investigates the possibility that the impacts of EEOA differ across regions. The factor that motivates regional analysis is that women's participation rates differ significantly across Japan's regions: in particular, the northern coastal region of Honshu

Island (Yamagata, Niigata, Toyama, Ishikawa, Fukui, Tottori, and Shimane prefectures) has much higher participation rates than any other region in Japan (Abe 2013).<sup>10</sup> For younger cohorts, however, the pattern of regional disparities has been changing: in 2007, for those aged 40 years or younger, the employment-population ratio in Tokyo was at a comparable level to that of the northern coastal region.

The three main conclusions from Abe (2011c) are as follows. First, the way in which women's participation changed after passage of the EEOA differs across regions. As shown in Section 3.2, regular employment of university graduate women increased for ages younger than 40 (Figure 1. A) for all of Japan. In terms of region, the regular employment ratio of highly educated young women increased in Tokyo, but to a lesser extent in non-metropolitan areas. Second, as shown in Figure 2. C, while married women's regular employment ratio did not increase for Japan as a whole, it increased significantly in Tokyo. In sum, after enactment of the EEOA, regular employment of highly educated women increased most in Tokyo, perhaps because employment in Tokyo is more likely to be affected by the EEOA than employment in other regions. For instance, the occupational composition in Tokyo and elsewhere may be different: employment as teachers or public officers exists both in Tokyo and elsewhere, but service sector or managerial jobs are more abundant in Tokyo than elsewhere. The EEOA's impact may be small for teachers and public officers, resulting in a smaller impact outside of Tokyo.

To summarize, the impact of the EEOA was not uniform across several dimensions. In terms of employment, post-EEOA cohorts of highly educated women increased their participation in regular full-time employment at ages younger than 40. Therefore, the EEOA has promoted the equality of men and women in the workplace for the highly educated young. On the other hand, this development has not resulted in an increase in relative pay for the group of female workers who gained in terms of regular employment (e.g., young university graduates). Rather, less-educated older women gained in wages, relative to their male counterparts. Examined separately by marital status, regular employment of women did not increase either for married or single women. After the EEOA, more women married late or chose not to marry, resulting in higher regular employment at young ages.

Women's labor market participation increased in many developed countries. In the United States, for instance, the most significant change has been that participation by married women with young children increased (Blau and Kahn 2007). The experience of women in Japan has been quite different. First, the increase in women's employment in Japan was due to an increase in part-time work by middle-aged married women and an increase in regular employment by young, unmarried women. Therefore, the EEOA did not increase the number of women who achieve both family and career. This does not necessarily mean that the EEOA did not improve the status of women in the workplace. Even though the

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<sup>10</sup> Regional variations in women's participation attract attention in other countries. For example, Black, Kolesnikova, and Taylor (2013) report evidence from US cities.

numbers did not increase, progress may have been made in other dimensions. For example, it is possible that women of post-EEOA cohorts are more likely to be promoted to managerial positions than their pre-EEOA counterparts. In addition, even though the proportion of women who continued their employment after childbirth did not increase significantly, women of later cohorts who did continue to work may have advanced further in their career than did their predecessors.

The possible reasons why the EEOA has not been successful in promoting women's employment are the limited availability of childcare and high commuting costs. Childcare is limited and rationed in large metropolitan areas, making it difficult for mothers to continue employment. Commuting costs and high housing prices in large metropolitan areas, especially in Tokyo, are also obstacles to women's employment in regular full-time jobs; these employment opportunities are located in the Central Business District, to which a lengthy commute is required (Abe 2011b). Legal measures, such as the EEOA or Childcare Leave Act, do not immediately reduce the cost of childcare, housing, or commuting. The main obstacles to the further advancement of women's career and family are in areas outside of legal measures.

#### **IV. Conclusion**

In this article, I survey recent literature on the impact of the EEOA in Japan. The findings are summarized as follows. First, regular employment among highly educated women younger than age 40 rose after enactment of the EEOA. Second, regular employment did not increase for either married or single women, compared with their predecessors. Third, the female-to-male wage ratio and the ratio of average tenure of female workers to that of male workers improved, mainly for less-educated women over age 40 and not for highly educated young women. Finally, regular employment of highly educated young women increased more significantly in Tokyo than elsewhere. The EEOA did not increase the number of women who achieve family and career. The obstacles for the further advancement of women's career and family are in areas outside of legal measures, such as costs of childcare and commuting.

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