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Enduring an Economic Crisis: The Effect of Macroeconomic Shocks on Intragenerational Mobility in Japan

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Abstract

After the burst of its “bubble” economy in 1989, Japan experienced an astonishingly long economic recession whose gravity surpassed any seen in the industrialized world since the 1930s. While this recession is likely to have important consequences on the well-known workplace arrangements and career mobility patterns in that country, systematic analyses of such consequences are nearly absent. This study examines changes in the rates and directions of job mobility in Japan using work history data collected in 2005 from a nationally representative sample of men and women. I find evidence that Japanese firms have largely retained the core elements of the permanent employment system. The norm that stresses men’s loyalty to their employers, however, appears to have weakened, resulting in higher voluntary job turnover among male workers. In addition, the gender gap in lifetime mobility processes has narrowed, but not because Japanese women have gained opportunities in the workplace. Rather, economic stagnation has led to greater fluctuations in employment and wages over men’s life course, thereby closing the gender gap. Beyond illustrating the changing stratification process in Japan, the findings have general implications for understanding how economic crises impact employment relations, institutional transformations, and social change in advanced industrialized countries.

Keywords

Economic crisis; career mobility; permanent employment system; institutional change; Japan

Rarely has a country experienced as extreme an economic rise and fall as Japan’s over the past half-century. Its unprecedented economic growth from the early 1950s to the late 1980s made Japan the second largest and perhaps most competitive economy in the world. Following this enviable success, however, was an astonishingly long and severe economic recession. Beginning with the burst of its “bubble” economy at the end of 1989, Japan abruptly fell into a 15-year economic downturn whose gravity surpassed any seen in the industrialized world since the 1930s (Hoshi and Kashyap, 2004; Hutchison, et al., 2006). From 1990 to 2005 Japan’s real growth averaged just 1.3% per year (Goodwin, et al., 2007). Based on one estimate, this “great recession” had an impact on Japan’s national wealth comparable to that of World War II (Gao, 2001).

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The prolonged economic stagnation is thought to have compelled Japanese corporations to adopt downsizing and abandon their well-known “permanent employment” practices (Ahmadjian and Robbins, 2005; Ahmadjian and Robinson, 2001; Lincoln and Nakata, 1997). As numerous studies indicate that Japan’s employment system shapes individuals’ mobility patterns and outcomes over their life course (Cheng and Kalleberg, 1996; Kalleberg, 1988; Kalleberg and Lincoln, 1988; Ono, 2007; Sakamoto and Chen, 1993; Yu, 2005), changes in work arrangements may also alter the country’s processes of social stratification. Nevertheless, systematic analyses of the mobility consequences of Japan’s economic recession since the 1990s are nearly absent.¹ At the same time, research based on anecdotal or aggregate evidence leads to substantial disagreement about whether Japan’s labor market arrangements and mobility structures indeed have been transformed (e.g., Kato, 2001; Kelly and White, 2006; Schoppa, 2006; Thelen and Kume, 1999).

In this paper, I examine changes in Japan’s job mobility patterns during the period of severe economic stagnation, using work history data through the year 2005 from a nationally representative sample of men and women. Because Japan’s permanent employment practices are generally associated with infrequent employer changes and ample opportunities for job shifts within organizations (Gao, 2001; Koike, 1983), studying changes in the rates and directions of job mobility helps resolve the debate about the extent to which these practices have persisted since the early 1990s. I also focus on job-shift patterns because they reveal the processes through which inequality is generated among different social groups. An examination of such processes, rather than inequality among individuals at a fixed time point, provides a more comprehensive picture of historical or cross-national variation in stratification mechanisms (Carroll and Mayer, 1986; DiPrete, 2002; Gerber, 2002; Parrado, 2005; Sorensen, 1975).

Beyond resolving the debate on the resilience of the permanent employment system, studying shifts in Japan’s structure of intragenerational mobility contributes to a general understanding of the links among macroeconomic shocks, institutional practices, and individuals’ life chances. While labor market institutions are thought to play an important role in mediating the effects of global economic pressure on social stratification processes across the industrialized world (Blau and Kahn, 1996, 2002), we know little about the direct impact of macroeconomic shocks on country-specific institutional arrangements (DiPrete, 2005:125). It is nevertheless possible that macroeconomic pressure affects individuals’ life chances precisely through altering institutionalized practices in the workplace. With its distinctive workplace arrangements and experience of severe economic recession, Japan’s case presents a unique opportunity to uncover how macroeconomic shifts may help reshape labor market institutions. By identifying the direction of Japan’s institutional transformation, as well as the actors responsible for the transformation, the analysis in this study sheds light on the process of institutional change in advanced economies.

With an emphasis on alterations in Japanese workers’ job-turnover behaviors, the present study also contributes to the literature on organizational practices and employment relations. Much previous research indicates differences between U.S. and Japanese workers’ commitment to firms (Cole, 1979; Lincoln and Kalleberg, 1985, 1990). Japanese workers’ higher level of commitment is thought to result from the application of “welfare corporatism,” in which firms control labor by providing long-term job stability and extensive welfare that cover employees’ family needs (Dore, 1973; Lincoln and Kalleberg, 1996). Critics of such research nevertheless contend that a comparison between U.S. and

¹Using information from publically listed companies, Ahmadjian and Robinson’s (2001) study of downsizing in the 1990s sheds some light on changes in job stability in Japan. Their research, however, applies to only part of the labor force and is not meant to provide a comprehensive picture of Japan’s mobility dynamics.

Japanese workers fails to discern the effect of the cultural context from that of organizational environments (Besser, 1993). While Ono's (2007) recent study is able to isolate cultural factors by comparing Japanese employees in foreign-owned and national firms, it only examines workers' attitudes toward their organizations. Yet it is behavioral commitment, measured by interfirm job mobility, that substantially distinguishes Japanese from U.S. workers (Lincoln and Kalleberg, 1990). In this article, I focus on Japanese workers' job-shift behaviors during a time when firms might have been compelled to modify their policy of welfare corporatism (Ahmadjian and Robinson, 2001; Lincoln and Nakata, 1997). By identifying changes in job-shift rates within the same cultural context, this study offers better evidence for examining the relation between organizational arrangements and worker commitment.

BACKGROUND

Social stratification researchers have long been interested in the impact of macroeconomic shifts on individuals' mobility processes. Technology advancement, global economic liberalization, and rises in flexible employment arrangements are all thought to cause redistributions of job opportunities and rewards across the economy (e.g., Kalleberg, et al., 2000; Villarreal and Yu, 2007). Such redistributions can stimulate or inhibit individuals' job mobility and labor market exits, thus shaping the frequency and directions of intragenerational mobility (DiPrete, 1993; DiPrete and Nonnemaker, 1997; Gerber, 2002).

The dramatic changes in Japan's economic conditions since the early 1990s can certainly be expected to alter distributions of job opportunities and rewards, hence affecting mobility patterns. What makes the Japanese case particularly interesting, however, is that the length and severity of the economic stagnation might have also shattered the institutional arrangements designed specifically for the purpose of facilitating employment stability—namely, permanent employment practices. While such an institutional change is likely to lead to fundamental shifts in the dynamics of intragenerational mobility in Japan, we have little systematic evidence about these shifts. We do not know for which social group the lifetime stratification process has changed the most; whether employers or employees may be responsible for the decline in job stability; or how changes in labor market transition rates affect individuals' likelihood of upward and downward mobility over their life course. This study fills these gaps by utilizing detailed work history data from Japanese men and women before and throughout the stagnation period. To inform the statistical analysis, I first review research on how Japan's employment practices through the early 1990s shaped intragenerational mobility patterns. I then discuss the recent economic shifts and likely adjustments in firm practices, as well as the effects they may have on the rates and directions of job mobility among Japanese workers.

The Japanese Employment System and Intragenerational Mobility

Aside from its remarkable economic success, the permanent employment system is perhaps Japan's best-known feature of the past half-century. Originally designed to discourage skilled workers' job turnover, this employment system prescribes that employers give priority to fresh graduates in recruitment and take responsibility for training and retaining workers throughout their careers. To provide incentives for trained workers to stay, employers reward employees according to their seniority within firms (Cole, 1971; Crawcour, 1978). As a result, the earnings-tenure profiles among Japanese men have been particularly steep (Hashimoto and Raisian, 1985; Mincer and Higuchi, 1988).

Although the permanent employment system was created under particular historical circumstances (Cole, 1971), the practices associated with this system are not unique to Japan. Instead, the system follows the general logic of "firm internal labor markets,"

structures in which management recruits inexperienced workers and provides them with opportunities for upgrading skills and moving up the firms' career ladders (Althauser, 1989; Doeringer and Piore, 1971). Firms' reliance on internal labor markets is thought to have important implications for individuals' work trajectories over their lifetimes. Specifically, to facilitate on-the-job training and take advantage of the fruits of such training, management has strong incentives to retain workers in internal labor markets for a long period of time. Such workers, at the same time, benefit from staying with the employers that have provided them the skills that are particularly valuable to their firms. Hence, the level of job mobility across firms is argued to be low in economies that feature salient firm internal labor markets. Japan has been shown to be one such case, at least up to the economic crisis of the 1990s (Lincoln and Kalleberg, 1990; Lincoln and McBride, 1987).

Because the structure of firm internal labor markets generally involves job ladders within organizations, the prevalence of this structure is also conducive to high rates of intrafirm job mobility. In addition to vertical job shifts, the establishment of firm internal labor markets increases horizontal job changes within organizations by enabling management to deploy workers across skill boundaries more flexibly (Cheng and Kalleberg, 1996). In Japan, under the permanent employment system, employers were particularly inclined to provide opportunities for lateral job changes within firms, as job rotation was assumed to contribute to workers' breadth of skills and productivity (Koike, 1987).

The career pattern featuring low interfirm and high intrafirm job mobility did not apply to all Japanese workers, however. Previous studies find substantial differences in job mobility and exit patterns by gender (Brinton, 1993; Yu, 2005). Japanese women have never been beneficiaries of the permanent employment system. Regardless of whether it had to do with management's prejudice or women's statistically higher turnover rates, Japanese managers rarely considered women as part of the core labor force that they would train and retain for a long period of time. With its strong assumption of the male breadwinning family, the welfare corporatist model that prevailed in postwar Japan further justified management's exclusion of women from internal labor markets (Gottfried and Hayashi-Kato, 1998; Gottfried and O'Reilly, 2002; Schoppa, 2006). Lacking training or promotion opportunities, Japanese women tended to have relatively low rates of intrafirm job mobility (Brinton, 1993; Yu, 2009).

The prevalence of the permanent employment system also led to a wide gender gap in employment exit rates. Because such a system nominally entitles regular female workers seniority-based wages (even though their skill accumulation is limited), management has incentives to discourage women from remaining in their firms for long. Direct or indirect pressures on women to leave their jobs upon marriage and pregnancy was found to be common in Japanese firms, especially the larger, better-paying ones (Ogasawara, 1998; Yu, 2009). Thus, whereas Japanese men were rarely forced out of the labor force under the protection of the permanent employment system, women had relatively high employment exit rates (Estevéz-Abe, 2007; Yu, 2005).

Even among Japanese men, the patterns of intragenerational mobility have been found to vary by their original structural positions. For instance, the career pattern featuring low interfirm and high intrafirm job mobility has been more prevalent among men employed by larger firms (Cheng and Kalleberg, 1997; Sakamoto and Powers, 1995). Not only have larger firms generally offered higher wages, more extensive fringe benefits, and longer job ladders, but historically such firms have been more committed to the permanent employment system (Cole, 1971; Gao, 2001). Large Japanese firms are also thought to have relied heavily on internal labor markets for matching workers to jobs (Cheng and Kalleberg, 1996; Koike, 1987). All these employment practices, joined with the incentives large firms

provide, have led their male employees to be particularly unlikely to change employers, while being prone to develop careers within firms.²

Occupation type is another factor shaping Japanese men's career trajectories. Because of their differential likelihood of being in internal labor markets, men in white-collar occupations have been shown to experience more job shifts within firms than their blue-collar counterparts. The former group also changed employers less frequently than the latter group (Cheng and Kalleberg, 1996, 1997). In other words, under the permanent employment system, occupational skills were positively associated with men's likelihood of taking advantage of internal labor markets within Japanese firms.

In summary, research using data up to the mid-1990s indicates that Japanese men displayed a comparatively strong attachment to their employing organizations. Men also experienced within-firm job shifts relatively frequently, as management relied heavily on internal labor markets. Such a "typical" career pattern, however, was less relevant to men originating in smaller firms and blue-collar occupations. In addition, the same employment structures that ensured men's job security and on-the-job training limited women's opportunities of job shifts within firms, as well as led to their frequent employment exits upon marriage and childbearing. Thus, the career processes of Japanese workers differed remarkably based on their gender, firm size, and occupation.

Economic and Institutional Shifts since the 1990s

Japan's severe economic downturn since 1990 has posed significant challenges to its employment structures. Facing budget constraints, corporations are thought to have become less able to keep their promise of long-term employment to male regular workers (Ahmadjian and Robinson, 2001). Also because of the economic recession, the Japanese government considerably reduced the barriers to firms' use of temporary, contract-based workers (Shire, 2002). This policy change further exacerbated individuals' job prospects. While in previous decades the rise in low-wage, highly unstable, contingent jobs affected mostly female workers (Houseman and Osawa, 2003; Yu, 2002), the recent recession and policy shifts made men no longer exempt from working in such jobs. According to data from the Statistics Bureau of Japan, the percentage of men with contingent jobs increased at an average rate of 4.1% annually from 1996 to 2005.

Economic stagnation thus may have important implications for Japanese workers' mobility prospects over their life course. To provide a complete picture of the mobility consequences of Japan's economic restructuring, however, it is critical to ask whether the permanent employment system indeed has been dismantled. Based on aggregate statistics, ethnographic observations, or nonrepresentative samples of firms, recent research offers mixed answers. Arguing that the system has continued, some researchers note that interfirm moves and employment exits remain rare for men, despite their decreased expectation of lifetime employment (Kato, 2001; Lincoln and Nakata, 1997; Rebick, 2001). Others reveal that young workers are experiencing more employer changes and work interruptions than ever, hence suggesting the decline of the lifetime employment practice (Genda and Kurosawa, 2001; Kelly and White, 2006). Similarly, while some firm-based studies show that large Japanese firms increasingly adopt downsizing as a business strategy (Ahmadjian and

²Cheng and Kalleberg (1997) show that the rate of employer change increases more among male employees in large Japanese firms toward the end of their work lives (age 55 and older) because of the relatively early retirement age set by large firms. They therefore argue that by the end of Japanese men's careers, those starting at large and small firms would eventually experience similar numbers of employers. This study, however, focuses on changes in Japanese adults' job mobility during their prime working age. Firm size is negatively associated with Japanese men's likelihood of shifting to a different firm before they approach retirement age.

Robbins, 2005; Ahmadjian and Robinson, 2001), others provide counterexamples to support the permanent employment system's resilience (Thelen and Kume, 1999).

The difficulty of resolving the debate about the demise of Japan's employment system results largely from a lack of analyses that examine changes in individuals' work trajectories over time. Prior research using nonrepresentative samples of firms or individuals is generally unable to demonstrate alterations in employment practices or worker commitment systematically. At the same time, studies relying on aggregate statistics fail to take into account variations in individual characteristics and job conditions over time. A key reason to consider variations in worker composition is that the Japanese employment system prior to the 1990s was essentially a dualist structure in which permanent employment practices protected male regular full-time workers, but not others, including part-time and temporary employees, as well as female workers (Brinton, 1993; Houseman and Osawa, 1995; Yu, 2009). To the extent that the recession has reduced the share of male regular employees in the economy, we may observe a decrease in the overall job retention rate. Such a change is important in its own right, because it reflects a shrinking coverage of the permanent employment system. Whether or not this change is observed, however, does not help determine whether there have been shifts in male regular workers' firm attachment or their employers' commitment to job protection, a question often at the center of the debate on the permanent employment system's decline (e.g., Ahmadjian and Robinson, 2001; Kato, 2001; Thelen and Kume, 1999). Only a systematic analysis of individuals' work trajectories can determine whether, beyond affecting the coverage of the permanent employment system, economic stagnation has fundamentally altered practices associated with this system.

If economic restructuring has indeed led to the abandonment of long-term employment practices, then the rates of interfirm job mobility and labor force exits among men, particularly those with regular full-time positions, can be expected to have increased significantly since the early 1990s. Without an assumption of long-term employment, Japanese employers should also have become less likely to use internal labor markets to match individuals to jobs. As a result, male regular workers' opportunities for job changes within firms would have decreased during the recessionary period. However, changes in men's job-turnover rates may not necessarily be driven by employers' actions. It is possible that rather than employers' diminished commitment to job protection and internal labor markets, the lowered expectation of long-term job security in recent years has raised Japanese men's likelihood of seizing job opportunities outside their firms, as well as interrupted their employment careers temporarily. In that case, the rates of men's intrafirm job mobility and involuntary job separations should both be constant over time, but their rates of voluntary job turnover would have increased since the early 1990s.

The breakdown of the permanent employment system would have had very different implications for women. Employers' abandonment of the practices of lifetime employment and seniority-based payment may decrease their incentives to pressure women to quit upon marriage and childbearing. Greater personnel flexibility may also encourage Japanese management to take more risks when matching people to jobs, thus enabling more women to enter internal labor markets. Thus, at least among women with regular full-time positions, we should expect the rate of labor force exits to have decreased and the rate of intrafirm job mobility to have increased. These rates, however, should be constant over time if the recession has mainly resulted in an increase in contingent jobs or men's lowering commitment to a single employer, rather than fundamental alterations of firm practices.

Finally, because the permanent employment system was closely associated with career patterns of workers in large firms, a decline of this system should lead to a convergence of the job-shift patterns between those employed by small and large firms. Likewise, if the

economic recession has compelled Japanese employers to decrease their use of internal labor markets, then men with high occupational skills would have lost some of their comparative advantages in employment protection and within-firm job mobility. Occupational skills, however, would have enabled workers to obtain jobs outside of their firms more frequently, if Japanese employers have become more open to recruiting and promoting experienced workers from other firms.

DATA AND METHODS

Data

The data for this study are drawn from the latest wave of the Social Stratification and Social Mobility Survey (SSM), conducted in late 2005. The SSM has collected retrospective work and life histories through face-to-face interviews from nationally representative samples of Japanese adults every decade since 1955.³ Respondents were asked to supply information about each of the jobs they had ever held, including its starting and ending years. The survey also recorded the years in which respondents completed a given level of schooling, became married, and had children. Because of its extensive job history data, the SSM has been the primary source for labor market research on Japan, particularly when career trajectories are concerned (e.g., Cheng and Kalleberg, 1996; Ishida, 1993; Sakamoto and Powers, 1995; Yu, 2005).

The 2005 wave of the SSM consists of a multistage probability sample of 5,765 Japanese men and women aged 20–69.⁴ To my knowledge, this wave generated the only data that include detailed employment trajectories of a national sample of working-age adults for the entire period of economic stagnation (1990–2005). This data set therefore constitutes a valuable source for studying the post-1990 changes in Japan's mobility structures.

To examine shifts in the rates and patterns of intragenerational job mobility, the statistical analysis utilizes event history models, which are sensitive to changes in individuals' experiences and job characteristics over time (Yamaguchi, 1991). The unit of analysis for event history models is the person-duration of exposure to the outcome of interest, rather than the individual. Because the SSM recorded respondents' life events by year, person-year is used as the unit of analysis. Based on respondents' reports of their life and work histories, I transformed the 2005 SSM data into person-year observations with time-varying individual and job characteristics. I then selected the years when respondents reported being in the labor market, as their chance of job turnover is conditional on having a job. I eliminated the years in which respondents were older than 55 years of age, so that the expectation of retirement is unlikely to affect the job-shift dynamics examined in this study. Besides, the lifetime employment practice has been shown to be less relevant to the job stability of men over age 55 (Cheng and Kalleberg, 1997).⁵ Finally, I deleted 5.5% of the observations because of missing information on crucial variables. After all the selections, the analytical sample consists of 64,268 person-year observations for men and 51,501 for women, covering the period spanning from 1956 to 2005.

For most of the analysis, I further restrict the sample to person-year observations from regular full-time employees. It is possible that Japan's economic stagnation have affected

³Although the 2005 SSM was conducted mainly through face-to-face interviews, two leave-in questionnaires were also used to collect additional information from respondents. Nevertheless, all the data used for this study were collected through personal interviews.

⁴The response rate for this wave was 44.7%, based on the strictest operational definition provided by the American Association for Public Opinion Research (http://www.aapor.org/uploads/Standard_Definitions_04_08_Final.pdf).

⁵Because the survey collected work history information from adults aged 20–69 in 2005, there is virtually no information for those older than 55 years of age in the period before 1990. Therefore, limiting the observations to age 55 and younger also helps avoid the problem of confounding age and period effects.

the employment stability of *all* workers. If the stagnation had prompted the permanent employment system's breakdown, however, it was likely to have particular implications for the job protection, as well as the inter- and intra-firm mobility, of those typically included in this system. Focusing on regular full-time employees' experiences enables me to better examine shifts in practices associated with the permanent employment system. Although the lifetime employment practice was generally relevant to only male regular employees, I include female regular employees as well, because firms' abandonment of the permanent employment system can be expected to have direct effects on these employees' mobility dynamics. The sample with only the spells of regular employees contains 49,869 and 26,827 person-years for men and women, respectively.

Variables and Measurement

To assess the extent of institutional change and its impact on labor market dynamics in Japan, the statistical analysis examines the occurrence of nine types of employment transitions. Respondents of the SSM were asked to report a new job spell if they changed employers, and if they altered occupations, managerial positions, or employment status within a firm. They also reported the time spells during which they were away from the labor force.⁶ Such detailed records enable me to measure various kinds of labor market transitions that respondents experienced over their life course. Each of the transitions examined is measured by a dummy variable, coded as 1 if the specified event occurred during a person-year observed in the sample. Because the unit of analysis is a person-year, the models are unable to handle more than one event of interest occurring in the same year. In such cases I use the earliest event of the year in the analysis.

The first type of employment transition analyzed in this study is the occurrence of any job separation, which is measured by a reported departure from a job, regardless of the reason for or destination of the departure. This analysis enables us to examine whether overall employment stability changed in Japan as a result of economic stagnation. As discussed earlier, the prolonged recession might have affected Japan's employment stability in two ways: by modifying the share of workers typically shielded by the permanent employment system and by altering job protection for such workers. Hence, I first analyze job separations among all workers to show the extent to which changes in worker composition has reshaped overall employment stability in Japan. I then restrict the analysis to regular full-time employment spells to assess shifts within the permanent employment system.

Next, focusing on the experiences of regular full-time employees, I estimate event history models of three types of transitions that manifest Japan's employment practices: job shifts within the same firm, job shifts to a different firm, and job exits to nonemployment. Because the permanent employment system is associated with low-interfirm and high-intrafirm job mobility, as well as infrequent labor force exits, at least for men, studying shifts in the rates and patterns of these transitions provides evidence on whether and how the system has transformed. In addition to disaggregating job separations according to their destinations, I also analyze the occurrence of job separation by reason. That is to say, I further distinguish voluntary from involuntary job separations. With this distinction I investigate whether decreases in employment stability, if any, are driven by employers' or employees' actions (or both). The survey asked respondents to specify the reason why each of their jobs ended. I consider a job exit as involuntary if respondents reported it to be the result of their company's "lay-off, reorganization, or bankruptcy" or "end of the employment contract."⁷

⁶The SSM defines any jobless spell that lasts more than three months as "out of the labor force." Following the same definition, in this study the labor force (or participants in the labor market) refers to individuals with jobs, as well as those without jobs for no more than three months.

Separating from a job for any other reason, such as family responsibility or internal transfer, is coded as voluntary.

The final set of outcome variables concerns the consequences of employment transitions. In particular, I measure shifting to jobs with higher, similar, and lower pay to indicate upward, lateral, and downward job mobility, respectively. By examining these transitions, I directly assess the effects of Japan's economic restructuring on individuals' life chances. I create these variables based on respondents' reports regarding whether each job's starting pay was higher, lower, or about the same as the ending pay of their previous job. I also consider respondents' involuntary exits from the labor market as downward moves, because such moves lead to a complete loss of earnings.

An identical set of predictors is used in the models examining each of the employment transitions just specified. To begin, the primary concern of my analysis involves identifying changes in Japanese adults' employment trajectories and mobility chances during the period of economic stagnation, from 1990 to 2005. A dummy variable is hence introduced for this period. To separate the effects of changing labor market practices from economic contraction, I also introduce two variables indicating the levels of economic performance and industrial expansion for each calendar year under examination. They are the annual growth rates of Japan's gross domestic product (GDP) and its nonfarm labor force, created from official statistics published for each calendar year (Cabinet Office of Japan, various years; Statistics Bureau of Japan, various years). After controlling for these macroeconomic indicators, any remaining period effect can be attributed to Japan's alterations in employment practices and workplace norms.

Other important factors that may affect individuals' mobility processes in Japan include gender, occupation, and firm size (Brinton, 1993; Cheng and Kalleberg, 1996; Sakamoto and Chen, 1993). To fully capture potential gender differences in career dynamics, I fit separate models to the data of men and women for most of the analysis. Both occupation and firm size are time-varying variables, drawn from respondents' jobs held at the beginning of a given year.⁸ The 2005 SSM used the International Standard Classification of Occupations of 1988 (Ganzeboom and Treiman, 1996) to classify occupations. Based on my exploratory analysis, I further group respondents' occupations into five categories: 1) managers and professionals; 2) associate professionals, technicians, and clerks; 3) service and sales workers; 4) skilled agricultural and fishery workers; and 5) manual workers, including craft and related trade workers, plant and machine operators and assemblers, and unskilled laborers.⁹ Firm size is measured as the reported number of employees in respondents' companies. Although the SSM includes 10 firm-size categories, my earlier explorations indicated that combining some of the categories was appropriate and helped simplify the analysis. Therefore, in the models presented, respondents' employing organizations are divided into four major categories: 1) small firms, with 29 and fewer employees; 2) medium-sized firms, with 30–999 employees; 3) large firms, with 1,000 and more employees; and 4) government offices. A dummy variable is also included for those who reported not knowing their firm size.

⁷In the survey, the option "end of the employment contract" also includes the case of retirement. Although not all workers retire involuntarily, in most Japanese firms retirement is mandatory for employees reaching a certain age. Moreover, because the analysis is limited to workers up to age 55, retirements reported by those in the sample were likely to be early retirements, which frequently result from pressure from management.

⁸When a respondent's job held at the beginning of the year does not coincide with the one held immediately before a transition of interest, however, job records of the latter are used for the year.

⁹My earlier analysis showed that further separating the occupational categories, such as separating managers from professionals, or associate professionals from clerks, does not affect the results.

For the analysis using observations from all job spells, employment status is also included as a predictor. Doing so enables me to investigate whether the changing distribution of workers with various employment statuses since Japan's economic recession explains any observed change in its employment stability. I use four categories to capture respondents' employment status each year: 1) regular full-time employment, 2) temporary or part-time employment, 3) self-employment, and 4) family enterprise employment. Part-time jobs are grouped together with temporary ones because they represent similar employment arrangements in Japan, even in terms of the number of working hours (Houseman and Osawa, 1995; Yu, 2002).

The statistical models also contain a series of time-varying control variables. First, I introduce age and education, because they have been shown to affect individuals' job prospects and employment stability in Japan (Brinton and Ngo, 1993; Cheng and Kalleberg, 1997; Ishida, 1993; Sakamoto and Powers, 1995). I measure education as the highest level of schooling completed by the end of an observed year. I also add a dummy variable to indicate having received additional vocational training that is not counted toward formal schooling. The second group of controls has to do with family status. Being married or having a young child is likely to decrease Japanese women's job stability (Yu, 2005), while increasing men's by raising male wages (Kalleberg and Lincoln, 1988). I categorize respondents' marital status as one of the following: 1) never married; 2) married; 3) divorced, separated, or widowed;¹⁰ and 4) unknown.¹¹ I include a dummy variable for the presence of a preschool child (i.e., one under age seven). Finally, I control for experiences of employment discontinuity and intrafirm job shifts, as well as previous job mobility, because respondents' mobility outcomes are likely to be path-dependent. I construct two dummy variables based on whether respondents had experienced a labor market exit and a job shift within an organization, respectively, at any time before an observed year. I measure past job mobility as the number of job turnovers respondents had experienced prior to the job under observation: 1) none, 2) two or three times, and 3) four times and more.¹²

Analytic Approach

For the statistical analysis I adopt discrete-time hazard models, which closely approximate continuous-time hazard models using logit regression (Allison, 1982; Yamaguchi, 1991). I use discrete-time methods because the SSM recorded the respondents' life events by year, a discrete-time unit. The models estimate the log odds of each of the specified employment transitions occurring in a given year, conditional on this transition not having already occurred. To estimate the baseline hazard, each model consists of a set of dummy variables for respondents' duration of exposure to the transition of interest, in addition to the explanatory variables described above. Because all the outcomes of interest involve separation from a job, the duration of exposure to these outcomes is equivalent to the duration (or tenure) of the job in question. In this sense, the models also take into account the effect of job tenure on each type of transition. Based on an exploratory analysis of the baseline hazard function, I measure duration with indicators for 1 year or less, as well as 2–4, 5–9, 10–14, 15–19, and 20 or more years from the beginning of a job.¹³

¹⁰Because the observations are no older than 55 years of age, widowhood was relatively rare in the sample. I therefore combine the widowed with the divorced to ensure stable results.

¹¹The survey asked respondents to report about their current or latest marriage only. I assume that only those whose first child was born two years or more before the reported marriage had been married more than once. In such cases, the marital status for the years before the reported marriage is coded as unknown. My assumption about previous marriage should be largely accurate because both out-of-wedlock childbirths and childless marriages are uncommon for the generations of most respondents (Rindfuss, et al., 2004).

¹²Thus, this variable generally indicates whether an observed person-year is part of the respondent's first, second, or later job spell. I use only three categories for the number of previous job turnovers because an earlier analysis showed that using a finer measure, such as having separate categories for two and three job turnovers, or for four, five, and more job turnovers, made virtually no difference to the results.

I estimate separate logit models for each of the employment transitions, even though some of them can be considered competing-risk events. For example, workers generally are exposed to the risk of internal job shifts, employer changes, and labor force exits at the same time. It is important to note that estimating the models separately for each of the competing-risk events does not compromise any statistical precision (Allison, 1995). Rather, this modeling strategy enables more straightforward interpretations of the findings.

Finally, given that the analysis includes all job spells reported by respondents, it is possible that the job spells observed from the same respondent are more alike than those from different respondents. I therefore use the Huber-White method of estimating standard errors to account for the correlation between observations from the same person. In an earlier analysis I also tried a random-effects modeling approach to address this issue.¹⁴ The results were similar to those generated using the Huber-White estimator; thus for easier interpretations of the results I chose the Huber-White method.

RESULTS

Descriptive Findings

Table 1 provides descriptive statistics for Japanese men and women at the time they first entered the labor force, as well as their frequencies of job separations, in two different periods. The descriptive results reveal some similarities in the patterns of job mobility before and since 1990. Regardless of gender, the rate of job separations decreased as individuals move along their employment careers. Furthermore, women generally experienced job turnover more frequently, with the gender gap being particularly large during the first 10 years of individuals' careers. A comparison between the two time periods, however, shows that the frequency of job separations increased for both men and women at every stage of their careers.¹⁵ Thus, the overall level of job stability had decreased since the onset of Japan's severe economic recession.

With respect to other changes over time, the average level of education rose for both male and female workers. Among men who just entered the labor force, for example, the percentage with a university education or more increased by 73% from the period through 1989 to the 1990–2005 period. This percentage more than tripled—from 5.4 to 18.7%—for women. Corresponding to this change, the percentage of Japanese workers with manual labor jobs at career entry decreased in the period between 1990 and 2005, while the percentage of those with professional or managerial occupations increased. In addition, the proportions of men and women starting their careers in small-sized firms (those with fewer than 30 employees) decreased slightly during the 1990–2005 period, while a greater proportion of individuals had their first jobs in medium-sized firms (those with 30–999 employees).

The descriptive statistics also show sizable increases in the percentage of temporary and part-time workers in recent years. Whereas only 6.3% of men began their employment

¹³To be more specific, when a respondent has more than one job spell in the sample, the duration clock restarts for the second as well as any successive job spells. One potential problem is that the hazard function for the first job spell may differ from that for the second or subsequent job spell. Including controls of previous job-turnover experiences in my analysis should avoid this problem, however, because the difference between an individual's first and second job spells (or second and later job spells) primarily has to do with the existence (or the amount) of past history (also see Yamaguchi [1991]).

¹⁴To elaborate, I added to the logit models an error term that is random across individuals but constant across observations of each individual. Allison (1995:243–244) recommends this method to handle the problem of unobserved heterogeneity when analyzing repeated events. I should nevertheless note that under the random-effects approach the estimates are conditional on the subjects' random effects. This condition complicates interpretations of the coefficients.

¹⁵These increases are statistically significant at the 0.05 alpha level, with the one for women during the first decade of their careers being the only exception.

careers with part-time or temporary jobs in 1956–1989, 15.8% of them have done so since 1990. Similarly, the percentage of women with a contingent employment status at career entry rose from 10.0 to 26.1 between the two periods. These increases are notable because, in the past, part-time and temporary jobs were common mostly among middle-aged female workers and male workers after retirement age (Houseman and Osawa, 1995; Yu, 2002). Since the SSM asked respondents to report their job experiences only after they left school, the period differences just described cannot be a result of increases in Japanese students with part-time jobs. Rather, they indicate that economic restructuring has reshaped intragenerational mobility in Japan by exposing more demographic groups to the risk of contingent employment arrangements.

Interestingly, despite the substantial increase in the proportion of Japanese men holding part-time or temporary jobs at career entry, the percentage of them starting with regular full-time jobs declined only slightly, from 84.2 to 79.6. The decline seems even smaller when looking at all person-year observations in the sample. In 1956–1989, 78.2% of the observations for men had a regular employment status, as compared with 76.9% in 1990–2005. Because male regular employees are the only ones potentially subject to Japan's long-term employment practices, the small decrease in the percentage of these employees over time indicates that economic stagnation had a rather minor impact on the overall coverage of the permanent employment system. Given this finding, in resolving the debate about the permanent employment system's continued relevance, it is particularly important to address whether employers' commitment to job protection and workers' firm attachment have changed *within* the system.

Multivariate Analysis

Table 2 provides coefficients from logit models predicting male respondents' likelihood of job separation. The models for all male workers are presented with increasing complexity to show the extent to which shifts in Japan's job stability are the result of changing distributions of occupation, firm size, and employment status over time. Because the changes in the distribution of employment status since 1990 seem more dramatic than those of occupation and firm size, I first add occupation and firm size to the baseline model that contains no indicators of job characteristics, and I leave the addition of employment status until the final model. According to Model 1 (the baseline model), Japanese men's odds of exiting a job increased by nearly one fourth ($\exp[0.214] = 1.24$) during the period of economic stagnation. The magnitude of this period effect changes little after adding occupation and firm size in Model 2. With the addition of employment status, however, Model 3 shows that the odds of a job separation increased by only 16% ($\exp[0.150] = 1.16$) during the stagnation period. Thus, the increase in the proportion of part-time or temporary employees, who are particularly likely to undergo job separations, explains about one third of the observed increase in men's job instability during the recent economic recession.

While the changing distribution of Japanese men's employment status accounts for part of the rise in employment instability, most of the rise appears to be related to shifts within the sector to which the lifetime employment practice applied. Limiting the sample to male regular employees, Model 4 in Table 2 indicates that the odds of exiting a regular full-time job increased by 19% among these employees during Japan's severe recession. This finding confirms that job stability has decreased considerably among those traditionally covered by the permanent employment system.

Because the transformation of the permanent employment system might be a long-term process that accelerated as the recession prolonged, I further divide the period of Japan's economic stagnation into two phases, 1990–1997 and 1998–2005, and examine the effects of these different phases in Model 5. I use 1997 as a dividing point because that was the year

when the Japanese economy further suffered from the “East Asian Financial Crisis,” which led to a few important reforms in subsequent years (Schoppa, 2006; Shire, 2002). As Model 5 demonstrates, the rate of job separations among male regular employees was significantly higher in both the early and late stagnation periods than in the time period before 1990. Although the results in Model 5 seem to reveal an increasing trend of employment instability, the coefficients for the early and late stagnation periods are not statistically different. I also estimate the effects of the early and late stagnation periods separately for each of the models presented below. I find no statistical difference between these effects for virtually all types of employment transitions (results not presented to conserve space). Thus, there was no accelerating or decelerating trend of any observed transformation of the permanent employment system from the onset of Japan’s severe economic recession.

Table 3 presents the same models as those in Table 2 for women. Similar to the results for men, changes in women’s employment status, more than their occupations and types of firms, account for the difference in their job stability over time. In fact, while results from Models 1 and 2 indicate a substantial increase in Japanese women’s rates of job separation during the stagnation period, Model 3 shows that this increase is fully explained by the rise of women holding part-time and temporary jobs. The nonsignificant effect of the stagnation period in Model 4 further confirms that there was no fundamental change in female regular employees’ job-shift behaviors (or job protection). Moreover, this lack of change was equally evident in the early and late parts of Japan’s grave economic recession, as both the early and late stagnation periods yield nonsignificant results in Model 5.

Beyond overall job turnover, Table 4 provides results from the models predicting three types of transitions that involve job separations: interfirm job shifts, intrafirm job shifts, and labor force exits. The recessionary period was associated with a 25% ($\exp[0.224] = 1.25$) increase in male regular employees’ likelihood of changing employers and a 51% ($\exp[0.410] = 1.51$) increase in their likelihood of becoming jobless, even after controlling for period differences in macroeconomic conditions and individuals’ job characteristics. These increases suggest that men’s attachment to any given employer has been decreasing in Japan. While such a trend can be expected to discourage Japanese employers from continuing to maintain internal labor markets, the evidence indicates otherwise. Over time, men’s rates of within-organization job shifting remained unchanged. Thus, for Japanese men who held regular full-time jobs, opportunities for climbing internal career ladders during the period of severe economic stagnation were just as abundant as in previous decades. Interestingly, female regular employees’ rates of moving within the firm were also unaffected by the economic recession, as were their rates of exiting the labor force. These findings suggest that many of the firm practices associated with the permanent employment system still primarily pertain to men; management has become neither more willing to include women in the internal labor market nor less likely to compel women to interrupt their careers upon marriage or pregnancy.

Table 4 also reveals that the dynamics of individuals’ labor market transitions were largely consistent with those expected under Japan’s permanent employment system. Men who were university educated, employed in semiprofessional and clerical rather than blue-collar occupations, and working in large firms, for example, were particularly likely to experience internal job mobility.¹⁶ At the same time, having white-collar jobs and working in larger firms decreased men’s likelihood of moving to a different firm or out of the labor force,

¹⁶Although the coefficient indicates that men in managerial and professional occupations were less likely to experience internal job mobility than those in manufacturing occupations, it does not mean that those with higher occupational skills were less appreciated in Japanese firms. Rather, men in managerial and professional occupations were less likely to move within firms because they had reached the top of the corporate ladders and faced limited opportunities for further movement.

confirming the salience of internal labor markets. In contrast, women with higher education and semiprofessional and clerical occupations tended to exit the labor force at a higher rate, as they generally faced very different treatment in the workplace. The results regarding family status are also consistent with individuals' mobility patterns under the model of welfare corporatism, a core feature of Japan's employment system. Specifically, being married increased men's likelihood of internal job shifts and decreased that of external job moves, while having a young child greatly enhanced women's probability of exiting the labor market. The fact that the overall dynamics observed are similar to those found with earlier data suggests that any recent departure from the Japanese employment system was rather modest. I nevertheless leave more precise tests about this departure for a later section, in which I introduce interaction terms between the stagnation period and key predictors of individuals' labor market transitions.

The results presented thus far suggest that Japanese employers have continued to maintain the structure of internal labor markets within firms. The next step is to address the extent to which employers have also preserved long-term job protection for core workers, which is an important practice associated with the use of internal labor markets. Table 5 presents results from logit regression models predicting voluntary and involuntary job separations among regular full-time employees in Japan (the coefficients of most control variables are omitted to conserve space). The period of economic stagnation is positively associated with men's likelihood of leaving a regular full-time job voluntarily, but it has no significant effect on men's involuntary job exits. That is to say, despite the severe economic recession that lasted one-and-a-half decades, the net probability of job loss for men remained the same as that in the era of rapid economic growth. Japanese employers' commitment to job protection for male regular employees appears to have endured the recession. This commitment was not reciprocal, however. Male regular employees in Japan clearly have become less committed to staying with their jobs; their odds of voluntarily leaving their jobs increased by one fourth ($\exp[0.223] = 1.25$). In contrast to men, the period of economic stagnation has no significant effects on women's voluntary or involuntary job moves. This lack of effect suggests that female regular employees encountered few alterations in workplace practices or norms during Japan's severe recession.

Although the prolonged economic stagnation did not fundamentally reshape job protection practices in Japan, it might still have affected mobility processes by altering workers' likelihood to gain or lose upon job separations. Table 6 shows partial results from analyzing the rates of upward, lateral, and downward job moves. During the period of economic stagnation, a male regular employee's likelihood of experiencing downward mobility, measured by moving to a lower-paying job or job loss, increased by 76% ($\exp[0.567] = 1.76$), whereas his female counterpart's did not change significantly. I should note that in the analytical sample, no voluntary job exit among male regular employees was followed by downward earnings mobility. Therefore, the substantial increase in men's downward mobility indicates that even though men's rate of involuntary job separations remained constant over time, the prolonged economic downturn generally worsened their subsequent job opportunities after they experienced any involuntary job exit.

Also notable in Table 6 is the nonsignificant effect of the stagnation period on male regular employees' rates of upward earnings mobility. While we have observed a significant increase in voluntary job exits among male regular workers, this group's likelihood of obtaining higher-paying jobs did not change during the period of economic stagnation. My separate analysis also showed a positive period effect on men's rates of voluntary job exits even after excluding all upward job moves. Taken together, these results indicate that Japanese men's decreased job attachment cannot be attributed to their greater accessibility to better, alternative job opportunities. Rather, there has been an important change in

employment relations in Japan: The lasting economic stagnation appears to have shattered the norm that emphasizes men's loyalty to their workplace, thereby enhancing their likelihood of employer changes.

The Differential Effect of Economic Stagnation

The analysis so far has focused on the effects of economic stagnation on Japan's overall labor market transition rates. Nevertheless, through reshaping workplace norms and practices, economic restructuring might have particularly strong effects on the mobility processes of the permanent employment system's typical beneficiaries. As previous tables indicate, male regular employees, for example, have experienced more changes in their mobility dynamics than their female counterparts during Japan's lasting economic downturn. Among male regular workers, the economic stagnation might also have different levels of impact according to these workers' respective occupations and firms, given that the permanent employment system was found to be particularly relevant to the career patterns of men with white-collar occupations in relatively large firms. To test this possibility, I first add interaction terms between the stagnation period and occupational categories to the models presented above for male regular employees.¹⁷ The period interactions with occupation generally yield nonsignificant results. Moreover, including these variables does not significantly improve the models according to Chi-square tests. Thus, the grave economic recession barely altered the influences of occupational skills on Japan's mobility patterns. Occupational skills were still positively associated with men's job moves within firms, rather than across firms. The fact that occupational skills remained irrelevant to men's chances of obtaining jobs in the open labor market suggests that Japanese employers have continued to be reluctant to seek experienced and skilled workers from outside their firms.

Next, I estimate the same models with the interactions between the stagnation period and firm size instead. For a better presentation, I remove the dummy for the period of economic stagnation from these models. This removal enables me to not omit any category for the interactions between the period and firm size when fitting the models; thus the coefficients for these interactions directly indicate how much workers in organizations of a given size had changed in their probabilities of making a specified transition during the recessionary period.¹⁸ Table 7 presents these coefficients.

The results in Table 7 clearly show that the changes in men's mobility dynamics observed so far generally have to do with the economic stagnation's impact on a particular group: men employed by large-scale firms and in the government sector. The prolonged economic downturn was associated with considerable alterations in the mobility dynamics of this group of male workers, who were thought to constitute the main beneficiaries of the permanent employment system. Except for involuntary job exits and intrafirm moves, men holding regular jobs in large firms became more likely to make all types of employment transitions during the period of economic stagnation. In particular, these men's odds of job shifting to a different organization increased by 90% ($\exp[0.644] = 1.90$), and those of exiting the labor market more than doubled ($\exp[0.921] = 2.51$). Such increases appear to be largely driven by the declined commitment of Japanese men in large firms to their employers. I argue so because these men's odds of voluntarily leaving their jobs also rose substantially during the recessionary period, whereas their odds of involuntary job separations did not change significantly. The fact that male regular employees in large firms

¹⁷I also interacted the recessionary period with employment status, age, education, and marital status in the models. The improvement of model fit with the addition of these interactions was generally small and nonsignificant.

¹⁸Retaining the period dummy in the models would require adding the main period effect to the effect of the interaction between the period and a given firm category to know changes in the mobility dynamics for workers in the specific firm category over time. This addition would yield identical results to those presented in Table 7.

became more likely to experience lateral job moves also suggests that their decreased job commitment, rather than increased monetary incentives in the labor market, accounts for the rise in these men's job mobility. The findings for men employed by the government are mostly similar to those for men employed by large firms. Long-term job stability generally became less common after the economic downturn for men working in the public sector.

While male regular workers in large firms and government offices experienced particularly dramatic increases in job separation rates, the results provide little support for the conclusion that these increases were associated with alterations in organizational practices. Not only was there a lack of a concurrent increase in these workers' forced job exits, but the economic stagnation also had no significant impact on their likelihood of intrafirm job mobility. These findings suggest that large-firm managers were just as willing to provide their male employees job protection and utilize internal labor markets during the recessionary period as before. Thus, the only reason why the gap in employment stability between male workers employed by different sizes of firms decreased in Japan since 1990 is that those of large firms became more likely to give up their jobs for opportunities elsewhere.

Finally, it is noteworthy that Japan's economic stagnation led to greater fluctuations in financial status for men working in large firms and government offices, even though it did not affect the level of job protection provided for them. In particular, both groups became much more likely to experience downward job moves. While Japan's economic stagnation raised men's likelihood of downward mobility universally, it appears that those originating from large firms experienced greater increases in downward mobility. In this sense, the economic stagnation reduced the gap in lifetime economic wellbeing between large- and small-firm employees in Japan.

CONCLUSION

Japan's permanent employment system has been one of the most studied labor market institutions by sociologists and economists with a comparative focus (e.g., Brinton, 1993; Cole, 1979; Dore, 1973; Gordon, 1982; Kalleberg, 1988; Lincoln and McBride, 1987; Mincer and Higuchi, 1988). Whether the prolonged economic recession since the early 1990s has led to the demise of this employment system is a central question of the present study. Results from the statistical analysis provide evidence that many firm practices associated with the permanent employment system have survived the extreme economic downturn. Specifically, my analysis of the rate of involuntary job exits has shown that Japanese men in regular full-time positions have experienced little decrease in job protection since the onset of economic stagnation. Similarly, male regular workers' likelihood of job mobility within their firms was completely unaffected by the grave recession. This fact, joined with the finding that occupational skills continue to enhance men's access to jobs within rather than outside their organizations, indicates that Japanese employers have successfully maintained firm-based internal labor markets throughout the stagnation period. The continued use of internal labor markets also explains the evidence that women remain excluded from promising job opportunities in Japan. Not only has there been little improvement in women's access to job ladders within their firms, but their rates of labor force exits have also been persistently high.

Although the analysis suggests that Japanese management continues to maintain the permanent employment system for male workers in regular full-time positions, this does not mean that no change has occurred in the labor market. I have shown that the number of individuals with part-time and temporary jobs has increased considerably. Because contingent workers tend to exit their jobs relatively often, the overall level of employment

stability has decreased for both men and women. Evidence of rapid increases in part-time and temporary workers in Japanese workplaces naturally leads to the question of whether the permanent employment system continues to dominate, because the proportion of workers shielded by this system could have shrunk as a result of this change. Somewhat surprisingly, the evidence provides little support for this possibility. Using the proportion of male regular employees in the economy to estimate the coverage of the permanent employment system, I have shown that this coverage declined only slightly during Japan's economic stagnation. One explanation for this trend is that a considerable part of the increase in contingent workers in the Japanese labor market was offset by a decrease in self-employed and family workers (as Table 1 suggests). Thus, although employers became more likely to utilize temporary and part-time workers, this tendency has not severely weakened the relevance of the permanent employment system to the Japanese economy.

In addition to the increase in contingent employment, I have also demonstrated that Japanese men, particularly those with regular positions in large firms, have become more likely to choose to leave their employing organizations. In fact, male regular employees' diminishing attachment to their workplaces accounts for a larger part of the overall increase in job instability than the growth of contingent workers since the economic downturn of the 1990s. The decrease in men's "loyalty" to their firms can be seen as evidence for the transformation of the Japanese employment system if we define this system more broadly—that is, beyond employers' actions to include employees' actions as well. One unique feature of the permanent employment system is its association with strong social norms that compel its beneficiaries to exhibit high levels of commitment to their firms (Crawcour, 1978). The significant increase in men's voluntary departure from their work organizations suggests a decline in social sanctions against such behavior. The lack of a simultaneous increase in men's upward job moves with their rising tendency to change employers further corroborates that shifting norms, rather than better job opportunities, have been responsible for male workers' higher job-turnover rates. Thus, while Japanese employers remain reluctant to alter their personnel practices, the permanent employment system has lost its normative power over male workers. In this sense, the economic stagnation since the early 1990s has led to a rather profound change in the Japanese workplace.

Given the lack of symmetrical alterations in workplace practices, the change in Japanese men's job-shift behaviors seems inconsistent with the argument that the application of welfare corporatism is conducive to Japan's high level of worker commitment. One may ask: If Japanese employers are still maintaining the permanent employment system, why would their male regular employees become less loyal? When answering this question, it is important to keep in mind that most of the Japanese have observed a growing number of part-time and temporary workers in their firms since the early 1990s. This trend might have led to a perception of elevated employment instability, thereby raising doubts about firms' ability to keep their promise of job protection over the long run. Moreover, the increase in men's share of the contingent labor force is also likely to have shattered the general labor force's trust in firms' commitment to welfare corporatism. Because Japan's welfare corporatist model used to take care of the family needs of nearly all men, it is possible that the exclusion of some men, even as a result of their contingent employment status, could have been interpreted as a departure from that model. Findings from this study thus suggest that the relative stability of the broader environment mediates the influences of organizational practices on workers' commitment behaviors. In a time of economic crisis, any signal of firms' struggle to preserve welfare corporatism is likely to be sufficient to erode workers' trust in firms' ability to ensure their wellbeing throughout their working lives. Without this trust, management's adoption of welfare corporatist practices alone appears unable to reduce job turnover among male workers.

The results regarding Japanese men's changing behaviors and their employers' resistance to change also inform a response to the question of how labor market institutions transform under great economic pressure. Specifically, the experience of Japan demonstrates strong inertia among business organizations against altering their already institutionalized employment practices. Rather than abandoning the practices of lifetime employment and internal labor markets, organizational actors in Japan coped with the severe recession by making adjustments that presented little challenge to the essence of the permanent employment system, such as increasing the use of contingent workers. In comparison, individual workers were less resilient, because they were less able to endure the unfavorable consequences that the breakdown of the permanent employment system might bring. Thus, Japanese men altered their job-shift behaviors before most employers modified their personnel practices. Without male employees honoring their end of the bargain, however, it is questionable how much longer Japanese employers will be willing to preserve current practices. In other words, the decline in male workers' workplace attachment observed in this study is likely to be just the first step of a more fundamental institutional transformation. Substantial shifts in Japan's employment practices and work structures are yet to come. Japan's case thus suggests that, through affecting individuals' behaviors, macroeconomic shocks are likely to eventually compel labor market institutions to change.

The discussion thus far has centered on men's job-shift patterns, partly because the net effects of economic stagnation on women's life-course mobility are rather limited. Despite this, the increases in men's rates of job turnover, employment exits, and downward mobility suggest a shrinking gender gap in economic instability over the life course. Although this shrinking gap does not directly improve women's lifetime wellbeing, it may be related to other aspects of social change in Japan—namely, demographic shifts. Recent research and mass media reports have paid great attention to dramatic declines in the rates of marriage and childbearing among the Japanese (Raymo, 2003; Raymo and Iwasawa, 2005; Retherford, et al., 2001; Rindfuss, et al., 2004), and women's rising educational and occupational opportunities are often thought to account for these declines. Findings from this research, however, suggest a different possibility: Japanese women might have become more reluctant to embrace marriage and motherhood not for the sake of their own careers, but because of the greater fluctuations in men's job conditions and earnings over the life course. As men's lifetime economic stability decreases, the potential benefit of marriage for women also decreases. Thus, beyond demonstrating the impact of economic recession on mobility dynamics, this study identifies potential mechanisms for social and demographic changes in Japan. In doing so, this research also points to the importance of taking macroeconomic shifts into consideration when conducting future research on family transformations in industrial societies.

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Table 1

Period Differences in Job Mobility and Individual Characteristics at Career Entry

	Men		Women	
	1956–1989	1990–2005	1956–1989	1990–2005
Frequency of job separations during: ^a				
1st decade of the career	10.1	13.1	16.0	17.1
2nd decade of the career	6.4	7.6	6.5	8.3
3rd decade and later of the career	4.8	5.6	3.8	5.2
Average age	19.0	20.5	19.2	20.8
Education:				
Up to middle school	23.7	9.4	23.4	7.6
High school	52.7	52.3	61.9	52.0
Junior college	2.5	1.8	9.3	21.7
University and above	21.1	36.5	5.4	18.7
Additional training received	3.8	12.0	10.4	17.0
Marital status:				
Single	93.6	96.2	89.0	90.3
Married	1.4	1.7	7.0	6.8
Divorced/widowed	0.0	0.0	0.3	0.7
Unknown	5.1	2.2	3.8	2.4
Preschool child present	1.3	1.4	3.2	3.6
Occupation:				
Managerial/professional	6.3	11.0	7.5	12.6
Semiprofessional/clerical	32.1	33.9	49.3	53.0
Sales/service	11.1	16.2	18.8	22.0
Agricultural	5.5	1.4	2.3	0.2
Manual labor	45.0	37.5	22.1	12.3
Firm size:				
≤ 29 employees	33.0	27.1	33.0	30.5
30–999 employees	32.7	39.3	34.4	39.2
1,000 and more employees	20.8	19.8	16.8	14.3
Government office	10.2	8.2	6.1	7.7
Unknown	3.4	5.6	9.8	8.3
Employment status:				
Full-time, regular employment	84.2	79.6	83.6	71.4
Part-time/temporary employment	6.3	15.8	10.0	26.1
Self-employment	3.8	0.6	1.1	0.6
Family enterprise employment	5.7	4.0	5.3	1.9

Note: All values are in percentages, except for those for average age (in years).

^aFrequency of job separation is calculated as the percentage of the person-year observations included that have at least one job separation.

Table 2

Discrete-Time Logit Models Predicting Job Separations among Men

	All male workers			Male regular employees	
	Model 1	Model 2	Model 3	Model 4	Model 5
Job duration (<i>ref.</i> ≤ 1 year):					
2~4	0.130* (0.057)	0.137* (0.057)	0.196** (0.057)	0.312** (0.064)	0.313** (0.064)
5~9	0.083 (0.060)	0.095 (0.060)	0.212** (0.060)	0.319** (0.068)	0.320** (0.068)
10~14	0.167* (0.074)	0.179* (0.074)	0.338** (0.074)	0.453** (0.082)	0.453** (0.082)
15~19	0.042 (0.091)	0.052 (0.091)	0.247** (0.091)	0.288** (0.101)	0.289** (0.101)
20~	0.053 (0.102)	0.057 (0.102)	0.307** (0.104)	0.309** (0.116)	0.313** (0.116)
Stagnation period	0.214** (0.043)	0.210** (0.043)	0.150** (0.042)	0.174** (0.046)	
Early stagnation period (1990–1997)					0.153** (0.049)
Later stagnation period (1998–2005)					0.220** (0.060)
Nonfarm labor force growth rate	−0.035 [†] (0.019)	−0.030 (0.019)	−0.012 (0.019)	−0.006 (0.020)	0.006 (0.022)
GDP growth rate	−0.007 (0.007)	−0.005 (0.007)	−0.002 (0.007)	0.002 (0.008)	0.000 (0.008)
Age	−0.043** (0.004)	−0.041** (0.004)	−0.037** (0.004)	−0.033** (0.004)	−0.034** (0.004)
Education (<i>ref.</i> Up to middle school):					
High school	−0.043 (0.042)	−0.042 (0.044)	0.030 (0.045)	0.029 (0.051)	0.029 (0.051)
Junior college	0.033 (0.099)	0.084 (0.101)	0.201 [†] (0.114)	0.253* (0.116)	0.254* (0.116)
University and above	0.121* (0.054)	0.187** (0.062)	0.296** (0.063)	0.300** (0.070)	0.300** (0.070)
Additional training received	−0.002 (0.072)	−0.027 (0.075)	0.009 (0.077)	0.071 (0.080)	0.069 (0.080)
Marital status (<i>ref.</i> Never married):					
Married	−0.213** (0.051)	−0.194** (0.051)	−0.143** (0.053)	−0.107 [†] (0.057)	−0.105 [†] (0.057)
Divorced/separated/widowed	0.336** (0.120)	0.285* (0.128)	0.275* (0.131)	0.260 [†] (0.140)	0.260 [†] (0.140)
Unknown	0.148 [†] (0.086)	0.171* (0.087)	0.174 [†] (0.089)	0.158 (0.101)	0.160 (0.101)
Presence of a preschool child	−0.142** (0.045)	−0.137** (0.045)	−0.102* (0.045)	−0.118* (0.048)	−0.118* (0.048)
Previous job experiences:					
No job turnover (<i>ref.</i> 1 or 2 job turnovers)	−0.046 (0.043)	−0.009 (0.044)	−0.028 (0.044)	0.016 (0.049)	0.016 (0.049)
≥ 3 job turnovers	0.301** (0.053)	0.284** (0.054)	0.281** (0.054)	0.271** (0.058)	0.270** (0.058)

	All male workers			Male regular employees	
	Model 1	Model 2	Model 3	Model 4	Model 5
Experience of a labor force exit	0.139 [*] (0.069)	0.115 [†] (0.069)	-0.007 (0.072)	-0.031 (0.080)	-0.032 (0.080)
Experience of a within-org. job shift	0.175 ^{**} (0.049)	0.197 ^{**} (0.050)	0.241 ^{**} (0.052)	0.281 ^{**} (0.056)	0.280 ^{**} (0.056)
Occupation (<i>ref.</i> Manual labor):					
Managerial/professional		-0.296 ^{**} (0.076)	-0.212 ^{**} (0.077)	-0.284 ^{**} (0.082)	-0.285 ^{**} (0.082)
Semiprofessional/clerical		-0.012 (0.042)	0.023 (0.043)	-0.009 (0.045)	-0.009 (0.045)
Sales/services		0.179 ^{**} (0.061)	0.361 ^{**} (0.061)	0.403 ^{**} (0.073)	0.403 ^{**} (0.073)
Agricultural		-0.471 ^{**} (0.085)	0.077 (0.084)	-0.012 (0.150)	-0.015 (0.150)
Firm size (<i>ref.</i> ≤29 employees):					
30-999 employees		0.108 ^{**} (0.041)	-0.225 ^{**} (0.043)	-0.234 ^{**} (0.046)	-0.234 ^{**} (0.046)
1,000 and more employees		-0.028 (0.047)	-0.37 ^{**} (0.050)	-0.401 ^{**} (0.054)	-0.399 ^{**} (0.054)
Government office		-0.115 [†] (0.066)	-0.525 ^{**} (0.070)	-0.568 ^{**} (0.074)	-0.567 ^{**} (0.074)
Firm size unknown		0.560 ^{**} (0.099)	0.061 (0.105)	0.088 (0.122)	0.088 (0.122)
Employment status (<i>ref.</i> Regular emp.):					
Part-time/temporary employment			0.954 ^{**} (0.072)		
Self-employment			-1.732 ^{**} (0.093)		
Family enterprise employment			-0.559 ^{**} (0.08)		
Constant	-1.108 ^{**} (0.120)	-1.249 ^{**} (0.124)	-1.336 ^{**} (0.120)	-1.578 ^{**} (0.132)	-1.593 ^{**} (0.133)
Log pseudolikelihood	-16986.5	-16916.1	-16479.3	-13894.2	-13893.5
Number of observations		64268			49869
Number of job spells		6915			5560
Number of events		4936			4109

Note: Numbers in parentheses are robust standard errors.

[†]
p < .10;

*
p < .05;

**
p < .01 (two-tailed tests).

Table 3

Discrete-Time Logit Models Predicting Job Separations among Women

	All female workers			Female regular employees	
	Model 1	Model 2	Model 3	Model 4	Model 5
Job duration (<i>ref.</i> ≤ 1 year):					
2~4	0.255** (0.045)	0.271** (0.045)	0.352** (0.045)	0.566** (0.062)	0.567** (0.062)
5~9	0.129* (0.053)	0.175** (0.053)	0.371** (0.054)	0.694** (0.073)	0.694** (0.073)
10~14	-0.223** (0.074)	-0.145 [†] (0.075)	0.174* (0.077)	0.369** (0.105)	0.367** (0.105)
15~19	-0.505** (0.101)	-0.388** (0.102)	0.053 (0.105)	0.292* (0.144)	0.290* (0.144)
20~	-0.416** (0.106)	-0.231* (0.106)	0.360** (0.112)	0.510** (0.156)	0.509** (0.157)
Stagnation period	0.193** (0.043)	0.177** (0.043)	0.067 (0.043)	0.076 (0.055)	
Early stagnation period (1990–1997)					0.066 (0.060)
Later stagnation period (1998–2005)					0.099 (0.076)
Nonfarm labor force growth rate	-0.059** (0.018)	-0.05** (0.018)	-0.027 (0.018)	-0.003 (0.023)	0.002 (0.025)
GDP growth rate	0.006 (0.007)	0.008 (0.007)	0.011 (0.007)	0.011 (0.008)	0.010 (0.009)
Age	-0.042** (0.004)	-0.044** (0.004)	-0.050** (0.004)	-0.050** (0.006)	-0.050** (0.006)
Education (<i>ref.</i> Up to middle school):					
High school	0.121** (0.039)	0.078 [†] (0.042)	0.105* (0.044)	0.222** (0.061)	0.223** (0.062)
Junior college	0.098 (0.065)	0.138* (0.069)	0.221** (0.070)	0.276** (0.094)	0.275** (0.094)
University and above	0.089 (0.080)	0.244** (0.087)	0.382** (0.090)	0.498** (0.120)	0.495** (0.121)
Additional training received	-0.063 (0.046)	-0.010 (0.048)	0.053 (0.049)	-0.026 (0.065)	-0.028 (0.065)
Marital status (<i>ref.</i> Never married):					
Married	-0.359** (0.062)	-0.299** (0.062)	-0.296** (0.063)	-0.120 (0.081)	-0.119 (0.081)
Divorced/separated/widowed	-0.260** (0.100)	-0.232* (0.101)	-0.168 (0.106)	-0.033 (0.139)	-0.033 (0.139)
Unknown	-0.029 (0.092)	-0.025 (0.093)	0.039 (0.092)	0.132 (0.118)	0.134 (0.119)
Presence of a preschool child	-0.022 (0.050)	0.015 (0.050)	0.106* (0.051)	0.203** (0.071)	0.203** (0.071)
Previous job experiences:					
No job turnover (<i>ref.</i> 1 or 2 job turnovers)	-0.008 (0.042)	-0.036 (0.043)	-0.061 (0.044)	-0.115* (0.057)	-0.115* (0.057)

	All female workers			Female regular employees	
	Model 1	Model 2	Model 3	Model 4	Model 5
≥ 3 job turnovers	0.233** (0.054)	0.209** (0.054)	0.203** (0.056)	0.190* (0.093)	0.189* (0.093)
Experience of a labor force exit	0.141** (0.047)	0.092 [†] (0.048)	-0.003 (0.050)	-0.192** (0.075)	-0.192** (0.075)
Experience of a within-org. job shift	-0.087 (0.082)	-0.067 (0.084)	0.045 (0.084)	0.075 (0.102)	0.074 (0.102)
Occupation (<i>ref.</i> Manual labor):					
Managerial/professional		-0.357** (0.083)	-0.347** (0.084)	-0.461** (0.104)	-0.460** (0.104)
Semiprofessional/clerical		0.016 (0.041)	0.049 (0.043)	0.033 (0.056)	0.033 (0.056)
Sales/services		0.121** (0.043)	0.172** (0.046)	0.263** (0.064)	0.263** (0.064)
Agricultural		-0.966** (0.092)	-0.201 [†] (0.110)	0.364 (0.391)	0.364 (0.392)
Firm size (<i>ref.</i> ≤29 employees):					
30-999 employees		0.091* (0.036)	-0.099* (0.039)	-0.142** (0.048)	-0.142** (0.048)
1,000 and more employees		0.151** (0.049)	-0.036 (0.051)	-0.143* (0.061)	-0.142* (0.061)
Government office		-0.093 (0.078)	-0.376** (0.078)	-0.786** (0.100)	-0.786** (0.100)
Firm size unknown		0.417** (0.054)	0.328** (0.057)	0.167* (0.080)	0.167* (0.080)
Employment status (<i>ref.</i> Regular emp.):					
Part-time/temporary employment			0.602** (0.047)		
Self-employment			-0.976** (0.097)		
Family enterprise employment			-1.064** (0.078)		
Constant	-0.763** (0.113)	-0.832** (0.119)	-0.779** (0.120)	-1.063** (0.167)	-1.069** (0.168)
Log pseudolikelihood	-16786.6	-16648.6	-16270.2	-9581.59	-9581.48
Number of observations		51501		26827	
Number of job spells		7351		4006	
Number of events		5624		3366	

Note: Numbers in parentheses are robust standard errors.

[†] $p < .10$;

* $p < .05$;

** $p < .01$ (two-tailed tests).

Table 4
Discrete-Time Logit Models Predicting Major Types of Labor Market Transitions

	Male regular employees			Female regular employees		
	Interfirm shifts	Intrafirm shifts	Labor force exits	Interfirm shifts	Intrafirm shifts	Labor force exits
Job duration (<i>ref.</i> ≤ 1 year):						
2~4	0.249** (0.075)	0.934** (0.157)	-0.164 (0.187)	0.319** (0.082)	0.167 (0.276)	0.767** (0.087)
5~9	0.062 (0.083)	1.381** (0.155)	-0.235 (0.192)	0.215* (0.099)	0.332 (0.278)	1.066** (0.101)
10~14	-0.034 (0.108)	1.795** (0.170)	-0.401 (0.250)	-0.040 (0.151)	0.690* (0.320)	0.619** (0.146)
15~19	-0.248 [†] (0.145)	1.593** (0.194)	0.143 (0.262)	-0.049 (0.208)	0.978** (0.364)	0.295 (0.215)
20~	-0.107 (0.161)	1.610** (0.226)	-0.156 (0.302)	-0.049 (0.251)	0.987* (0.394)	0.635** (0.228)
Stagnation period	0.224** (0.062)	-0.040 (0.075)	0.410** (0.160)	0.156* (0.080)	0.111 (0.214)	-0.021 (0.073)
Nonfarm labor force growth rate	0.001 (0.026)	0.007 (0.035)	-0.148 [†] (0.077)	-0.047 (0.034)	0.012 (0.099)	0.030 (0.031)
GDP growth rate	0.008 (0.010)	-0.020 (0.014)	0.020 (0.028)	-0.006 (0.012)	0.019 (0.037)	0.020 [†] (0.011)
Age	-0.041** (0.005)	-0.029** (0.006)	0.010 (0.011)	-0.058** (0.007)	0.001 (0.014)	-0.046** (0.008)
Education (<i>ref.</i> Up to middle school):						
High school	-0.089 (0.058)	0.562** (0.125)	0.164 (0.148)	0.117 (0.081)	0.343 (0.261)	0.266** (0.081)
Junior college	0.150 (0.166)	0.552** (0.205)	0.828** (0.282)	0.075 (0.143)	0.669 [†] (0.344)	0.352** (0.123)
University and above	0.004 (0.097)	1.001** (0.145)	0.050 (0.232)	0.332* (0.169)	0.805 [†] (0.419)	0.559** (0.166)
Additional training received	0.180 [†] (0.093)	-0.017 (0.169)	-0.433 [†] (0.251)	0.177* (0.084)	0.361 [†] (0.209)	-0.261** (0.088)
Marital status (<i>ref.</i> Never married):						
Married	-0.260** (0.078)	0.446** (0.104)	-0.755** (0.172)	-0.211 [†] (0.110)	0.244 (0.221)	-0.057 (0.115)
Divorced/separated	0.125 (0.212)	0.284 (0.352)	0.581 [†] (0.298)	0.308 [†] (0.178)	0.348 (0.462)	-0.625* (0.248)
Unknown	0.123 (0.118)	0.442* (0.174)	-0.015 (0.291)	0.086 (0.153)	-0.140 (0.608)	0.141 (0.147)
Presence of a preschool child	-0.151* (0.071)	0.007 (0.074)	-0.353** (0.204)	-0.093 (0.105)	-0.216 (0.222)	0.453** (0.097)
Previous job experiences:						
No job turnover (<i>ref.</i> 1 or 2 job turnovers)	-0.109 [†] (0.062)	0.294** (0.095)	0.593** (0.161)	-0.252** (0.078)	0.195 (0.195)	-0.032 (0.079)
≥ 3 job turnovers	0.481** (0.073)	-0.055 (0.097)	0.265 (0.178)	0.377** (0.124)	-0.010 (0.272)	-0.016 (0.125)
Experience of a labor force exit	-0.152 (0.107)	-0.357* (0.175)	1.035** (0.187)	-0.186 [†] (0.101)	-0.071 (0.235)	-0.130 (0.103)

	Male regular employees			Female regular employees		
	Interfirm shifts	Intrafirm shifts	Labor force exits	Interfirm shifts	Intrafirm shifts	Labor force exits
Experience of a within-org. job shift	-0.465** (0.088)	1.242** (0.091)	-0.078 (0.179)	-0.498** (0.172)	1.441** (0.219)	-0.063 (0.156)
Occupation (<i>ref.</i> Manual labor):						
Managerial/professional	-0.051 (0.125)	-0.311* (0.124)	-0.572 [†] (0.300)	-0.543** (0.147)	0.145 (0.373)	-0.382** (0.144)
Semiprofessional/clerical	-0.213** (0.065)	0.301** (0.077)	-0.179 (0.151)	-0.258** (0.079)	0.717** (0.280)	0.222* (0.076)
Sales/services	0.475*** (0.084)	0.291* (0.127)	0.257 (0.196)	0.192* (0.087)	0.809** (0.309)	0.228** (0.087)
Agricultural	0.061 (0.171)	0.248 (0.446)	-0.763 (0.707)	0.557 [†] (0.294)	1.429** (0.508)	-0.363 (0.841)
Firm size (<i>ref.</i> ≤29 employees):						
30-999 employees	-0.423** (0.054)	0.645*** (0.100)	-0.247 [†] (0.138)	-0.343** (0.067)	0.739** (0.224)	-0.008 (0.064)
1,000 and more employees	-0.909** (0.076)	0.755*** (0.102)	-0.419* (0.171)	-0.559** (0.097)	0.906** (0.261)	0.101 (0.078)
Government office	-1.277** (0.129)	0.670** (0.117)	-1.197** (0.289)	-1.141** (0.195)	1.001** (0.279)	-0.911** (0.151)
Firm size unknown	-0.034 (0.138)	0.168 (0.299)	0.784** (0.245)	0.108 (0.106)	0.044 (0.478)	0.189 [†] (0.102)
Constant	-1.201** (0.168)	-5.922** (0.260)	-4.965** (0.393)	-0.875** (0.233)	-7.411** (0.603)	-2.507** (0.228)
Log pseudolikelihood	-8796.9	-5912.4	-1891.2	-5243.2	-1144.8	-5994.7
Number of observations	49869	49869	49869	26827	26827	26827
Number of job spells	5560	5560	5560	4006	4006	4006
Number of events	2366	1402	338	1433	209	1729

Note: Numbers in parentheses are robust standard errors.

[†]
p < .10;

*
p < .05;

**
p < .01 (two-tailed tests).

Table 5

Partial Results from Discrete-Time Logit Models Predicting Voluntary and Involuntary Job Separations

	Male regular employees		Female regular employees	
	Voluntary	Involuntary	Voluntary	Involuntary
Stagnation period	0.223 ** (0.065)	0.039 (0.066)	0.024 (0.06)	0.220 (0.157)
Nonfarm labor force growth rate	0.004 (0.027)	-0.020 (0.031)	0.012 (0.025)	-0.109 (0.073)
GDP growth rate	0.006 (0.010)	-0.008 (0.012)	0.006 (0.009)	0.021 (0.027)
Occupation (<i>ref.</i> Manual labor):				
Managerial/professional	-0.121 (0.129)	-0.353 ** (0.107)	-0.399 ** (0.112)	-0.494 [†] (0.267)
Semiprofessional/clerical	-0.272 ** (0.067)	0.250 ** (0.065)	0.074 (0.059)	-0.011 (0.15)
Sales/services	0.402 ** (0.090)	0.353 ** (0.103)	0.313 ** (0.067)	0.163 (0.177)
Agricultural	-0.083 (0.171)	0.260 (0.271)	-0.015 (0.445)	1.139 [†] (0.667)
Firm size (<i>ref.</i> ≤29 employees):				
30~999 employees	-0.416 ** (0.055)	0.255 ** (0.075)	-0.180 ** (0.050)	0.158 (0.138)
1,000 and more employees	-0.930 ** (0.079)	0.327 ** (0.080)	-0.187 ** (0.064)	0.312 [†] (0.176)
Government office	-1.349 ** (0.138)	0.197 * (0.095)	-1.111 ** (0.129)	0.322 (0.206)
Firm size unknown	0.026 (0.145)	-0.016 (0.218)	0.164 * (0.079)	0.081 (0.253)
Constant	-1.119 ** (0.175)	-4.886 ** (0.218)	-0.713 ** (0.183)	-5.331 ** (0.423)
Log pseudolikelihood	-8220.9	-7470.3	-8378.8	-1988.6
Number of observations	49869	49869	26827	26827
Number of job spells	5560	5560	4006	4006
Number of events	2203	1819	2888	397

Note: Numbers in parentheses are robust standard errors. Similar to those shown in Table 4, the models also include job duration, age, education, additional training, marital status, preschool-child presence, and previous job experiences. The coefficients for these predictors are omitted to conserve space.

[†] $p < .10$;

* $p < .05$;

** $p < .01$ (two-tailed tests).

Table 6
Partial Results from Discrete-Time Logit Models Predicting Upward, Lateral, and Downward Job Moves

	Male regular employees			Female regular employees		
	Upward	Lateral	Downward	Upward	Lateral	Downward
Stagnation period	0.015 (0.058)	0.184 [†] (0.105)	0.567 ^{**} (0.112)	0.095 (0.110)	0.180 (0.146)	0.194 (0.121)
Nonfarm labor force growth rate	0.029 (0.025)	-0.014 (0.047)	-0.085 [†] (0.048)	-0.012 (0.048)	-0.060 (0.058)	-0.083 (0.054)
GDP growth rate	0.010 (0.009)	-0.026 (0.018)	0.005 (0.021)	0.004 (0.018)	0.029 (0.021)	-0.033 (0.02)
Occupation (<i>ref.</i> Manual labor):						
Managerial/professional	-0.144 (0.103)	-0.517 [*] (0.204)	-0.289 (0.187)	-0.466 [*] (0.206)	-0.301 (0.248)	-0.695 ^{**} (0.233)
Semiprofessional/clerical	0.094 [†] (0.056)	-0.177 [†] (0.105)	-0.063 (0.106)	-0.124 (0.112)	-0.235 (0.149)	-0.156 (0.118)
Sales/services	0.429 ^{**} (0.087)	0.228 [†] (0.134)	0.419 ^{**} (0.136)	0.310 ^{**} (0.115)	0.050 (0.175)	0.163 (0.13)
Agricultural	0.179 (0.187)	-0.218 (0.388)	-0.235 (0.441)	-0.432 (0.900)	0.732 (0.59)	1.156 [†] (0.623)
Firm size (<i>ref.</i> ≥29 employees):						
30-999 employees	-0.186 ^{**} (0.057)	-0.306 ^{**} (0.099)	-0.251 ^{**} (0.097)	-0.434 ^{**} (0.091)	-0.244 [*] (0.121)	0.024 (0.103)
1,000 and more employees	-0.373 ^{**} (0.067)	-0.520 ^{**} (0.124)	-0.228 [*] (0.114)	-0.704 ^{**} (0.140)	-0.56 ^{**} (0.199)	0.112 (0.130)
Government office	-0.504 ^{**} (0.088)	-0.373 [*] (0.172)	-0.768 ^{**} (0.173)	-0.546 ^{**} (0.185)	-0.18 (0.262)	-1.184 ^{**} (0.282)
Firm size unknown	-0.112 (0.152)	0.118 (0.216)	0.055 (0.239)	0.127 (0.141)	0.139 (0.196)	-0.023 (0.179)
Constant	-2.183 ^{**} (0.176)	-2.822 ^{**} (0.289)	-4.024 ^{**} (0.303)	-1.753 ^{**} (0.300)	-2.48 ^{**} (0.493)	-3.594 ^{**} (0.315)
Log pseudolikelihood	-9485.66	-3774.06	-3487.2	-3119.85	-2095.85	-2793.49
Number of observations	49869	49869	49869	26827	26827	26827
Number of job spells	5560	5560	5560	4006	4006	4006
Number of events	2435	745	679	700	424	599

Note: Numbers in parentheses are robust standard errors. Similar to those shown in Table 4, the models also include job duration, age, education, additional training, marital status, preschool-child presence, and previous job experiences. The coefficients for these predictors are omitted to conserve space.

[†] $p < .10$;

* $p < .05$;

** $p < .01$ (two-tailed tests).

Table 7
The Effects of Stagnation Period on Male Regular Employee's Job Transitions by Firm Size

<i>Firm Size</i>	All job separations	Voluntary separations	Involuntary separations	Interfirm shifts	Intrafirm shifts	Labor force exits	Upward moves	Lateral moves	Downward moves
Small	0.019 (0.073)	0.116 (0.089)	0.109 (0.132)	0.110 (0.086)	-0.104 (0.193)	0.414 [†] (0.242)	-0.172 [†] (0.092)	-0.051 (0.156)	0.433* (0.170)
Medium	0.097 (0.062)	0.094 (0.088)	0.035 (0.090)	0.112 (0.084)	-0.049 (0.103)	0.337 (0.213)	-0.061 (0.079)	0.151 (0.146)	0.453** (0.146)
Large	0.379*** (0.079)	0.645** (0.136)	-0.009 (0.099)	0.644** (0.128)	-0.113 (0.108)	0.921** (0.288)	0.183 [†] (0.101)	0.420* (0.204)	0.774** (0.185)
Govt.	0.504*** (0.108)	0.876** (0.212)	0.094 (0.129)	0.774** (0.194)	0.111 (0.138)	0.136 (0.524)	0.421** (0.134)	0.717** (0.266)	0.802*** (0.296)
Unknown	-0.081 (0.193)	0.261 (0.257)	-0.240 (0.417)	0.174 (0.229)	0.249 (0.575)	-0.471 (0.496)	-0.482 (0.316)	-0.065 (0.403)	1.235* (0.495)

Note: Numbers in parentheses are standard errors. Other predictors included in the models are job duration, nonfarm labor force growth rate, GDP growth rate, age, education, additional training, marital status, presence of a preschool child, previous job experiences, occupation, firm size, and employment status. "Small" firms refer to those with 29 and fewer employees; "medium" firms 30-999 employees; and "large" firms 1,000 and more employees.

[†]
p < .10;

*
p < .05;

p < .01 (two-tailed tests).