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Trends in Worker Displacement Penalties in Japan: 1991-2002

by

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ABSTRACT

We examine the period from 1991 to 2002 to document the effects of a changing Japanese labor market on trends in the cost of job change. During this period, job change penalties and the extent to which they were age related grew. Evidence is also found of a diminishing specificity in human capital (in firm-size and industry) for job changers in the Japanese labor market. While penalties from changing industries were diminishing, occupational change penalties grew. As might be expected, older workers and workers leaving the largest firms suffered the largest wage losses from job change. Older workers were also harmed more by involuntary job separations. In percentage terms, young females have larger wage losses than young males but older females have smaller losses than older males. This pattern is masked in considering only the overall result of little gender difference in the cost of job change.

Theme: Microeconomics of unemployment

Keywords: Displacement

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1. Introduction

The Japanese labor market in the 1990s might be said to have been one of both change and continuity. While the prolonged recession in Japan had an impact on measurable aspects of the labor market, including rising unemployment, a gradual reduction in training expenditures¹ and shifting employment shares across industries, scholars argue that the basic characteristics of the employment system did not change.² This paper examines one aspect of the effect of the changes in the labor market on workers, namely, trends in job displacement penalties. A second question addressed is whether evidence can be found for human capital that is firm, industry, occupation or career specific and whether trends in these can be identified in light of diminishing training expenditures at the firm level.

There are reasons to believe changes in job displacement penalties were taking place during the time period under consideration. A rising level of unemployment presumably increases the cost of involuntary job change as continuously employed workers are somewhat shielded from conditions in the outside labor market relative to those who must find new employment. This is especially true in Japan where internal labor markets are particularly important and pay has been traditionally more determined by seniority and individual qualifications than by the market pay rate of the job. At the same time, falling job training expenditures should have the opposite effect as worker lose less firm specific human capital upon job change. The consequences of the changes taking place in the labor market on job

¹ Japanese firms reduced training expenditures during the 1990s. The share of training expenditures in total labor cost declined from 0.36% in 1991 to 0.28% in 2002. However, the average share during 1980s was approximately 0.30%. Therefore, the decline in 1990s might be interpreted as the return to previous levels. [Ohki (2003) figure 2, originally from Survey on Working Condition, MHLW.]

² Rebick [2005] argues that dismissals that occurred during Japan's post-bubble period economic slump did not represent a departure from traditional employment practices. Furthermore, employment up to the age of mandatory retirement for regular employees in the primary sector (mainly men in full-time employment at medium and large firms) still exists though it never characterized the careers of most workers. Kato [2001] also argues against the notion of a substantial change in regards to lifetime employment. To cope with the difficult economic climate, Rebick cites firm adaptations including an increase in the importance of lower cost non-standard employment, including part-time and contract work, and more of an individualistic approach to human resource management, including performance pay.

displacement penalties in the world's second largest economy have not been previously investigated.

A worker's return to firm tenure, often interpreted as a payment for the accumulation of firm specific human capital, has long been observed in wage equations. The results of some recent papers call into question whether specific capital accrues from firm tenure, as opposed to industry, occupation or career tenure. The increase in the cost of job displacement from industry change has been noted in several papers.³ Neal (1995) argues that previous studies on the returns to experience have attributed returns to firm specific tenure while overlooking the important effects of industry specific capital. Parent (2000) also finds wage profiles are more dependent on industry specific human capital than firm specific human capital. More recently, Kambourov and Manovskii (2005) note the importance of occupation specific human capital. They find returns to occupational tenure to be substantial and, when accounted for, that returns to firm or industry tenure are of much less importance. Finally, with data from the Danish labor market, Munch (2006) discounts notions of firm, industry or occupational specific capital in favor of the idea that the capital workers gain is actually career specific where career change is defined as a change in both industry and occupation.

We examine the period from 1991 to 2002 to document the effects of a changing labor market on the cost of job change and the source of and trends in specific capital. During this period, job change penalties and the extent to which they were age related grew. Evidence is also found of a diminishing specificity in human capital (in firm-size and industry) for job changers in the Japanese labor market occurring around 2000 that perhaps reflected the gradual reduction in on the job training expenditures. While penalties from changing industries were diminishing, occupational change penalties grew. As might be expected, older workers and workers leaving the largest firms suffered the largest wage losses from job change. Older workers were also harmed more by involuntary job separations. Young females have larger wage losses than young males but older females have smaller losses than older males. This pattern yields little overall gender difference in the cost of job change.

Numerous studies have investigated job displacement penalties in the US labor market. Surveys of this literature were conducted by Hamermesh (1989), Fallick (1996) and Farber, Haltiwanger, and Abraham (1997). Estimates of US job displacement penalties are in the range

³ For instance, see Podgursky and Swaim (1987), Addison and Portugal (1989), and Kletzer (1991).

of 15 to 40% [Topel 1993]. Larger penalties are associated with more firm and labor market experience, periods of higher unemployment and changing industry upon re-employment. Owing to the difficulty of obtaining data, studies of job displacement penalties in the Japanese labor market are quite scarce. Since the comprehensive study by Abe, Higuchi, Nakamura, Kuhn and Sweetman [2002], there has been no research with nationally representative data to establish how changes taking place in the Japanese labor market have affected the wage implications of job change. Abe et al. studied the effects of job change on wages that took place in 1995, a period of moderate GDP growth (2.4%) and unemployment (3.2%). We examine the survey data from the same source but over the period from 1991 through 2002.

Wage changes in this survey data are classified into five categories: over 30%, 10% to 30%, 10% to -10%, -10% to -30% and over -30%. When the following values are assigned to workers in each of these categories, 30%, 15%, 0%, -15% and -30%, the results of Abe et al. indicate that, when all sources of job separation both voluntary and involuntary are grouped together, on average male and female workers benefited slightly from job change. For both genders, the average benefit from job change was about 2.2%. The gains of young workers were partially offset by the losses of older workers, especially for men. When only involuntary job changes are considered and those transferred temporarily to other companies are excluded (the practice of *shukko*), the average male lost 4.3% and the average female gained .3%. The mean loss for men results from the losses of men 45 and over more than offsetting the gains of younger men. Nearly 28% of men 45 and over suffered wage losses of more than 30%. Abe et al. attribute the large losses for men over 55 to the traditional practice of mandatory retirement in Japan and to low paid or part-time work after retirement. Large wage reductions for older female job changers are much less frequent. This is suggested by Abe et al. to result because females are less often subject to mandatory retirement.

Using data from 2000 through 2003, Bognanno and Delgado [2005] find much larger job displacement penalties in Japan than Abe et al. However, their sample includes only workers successfully re-employed through the services of a job placement firm and, because of the specialized sample, their results can not be generalized to the labor market as whole. A study with nationally representative data is necessary to substantiate whether job displacement penalties have grown larger over time and whether these penalties have become more strongly related to age.

Theory offers several explanations for greater job displacement penalties for older workers. Four potential sources of job displacement penalties include the loss of specific human capital, the loss of a superior job match, the loss of possible union or industry wage premiums, and the loss of seniority [Fallick 1996]. If specific human capital, job match quality and wage premiums are increasing in job tenure, older workers should have greater losses upon job displacement. Regarding specific human capital, Koike [1988] has stressed the significance of on the job training in Japan and Rebeck [2005] notes that, in contrast to formal education, on the job training it is harder for employees to encapsulate for a new employer, thus making employment change more costly.

Another explanation follows Lazear's [1979] model of delayed compensation. It offers both an explanation of the institution of mandatory retirement and of why mandatory retirement might be followed by large wage losses for older workers with greater tenure. Workers in the model are motivated by a contract that pays them below their marginal product early in their firm tenure and more than their marginal product later. Motivation derives from the incentive to continue on in the firm in order to collect the premium at the end of the contract. Workers separated from their firms late in their tenure, lose the amount that they earn above their marginal product when they face the outside labor market. Mandatory retirement in the model is a device to protect the firm from employees wishing to collect wages exceeding their marginal products beyond the anticipated retirement date.

Lazear's model may be particularly applicable in Japan because mandatory retirement is both legal and prevalent [Clark and Ogawa, 1992] and because, relative to the US and the OECD, firm tenure is longer [Hashimoto and Raisian, 1985], especially for men [Rebeck]. As of 2002, almost all firms had mandatory retirement [JILPT, 2005, p.53, Table 3-27]. Long tenure is a necessary condition for the operation of a delayed payment contract. In support of the operation of delayed payment contracts, Clark and Ogawa found that earnings profiles were steeper in firms with earlier ages of mandatory retirement. More support for the model is comes from the observation that workers reemployed by their firm after mandatory retirement typically take wage reductions of 50-70% [Rebeck]. Additionally, Japanese firms provide workers a substantial payment upon retirement. The amount of this payment is heavily reduced should separation

occur for workers with little tenure, for workers who voluntarily quit or for workers who are dismissed.⁴

2. Employment Trend Survey Microdata: 1991-2002

The Ministry of Health, Labor and Welfare has been conducting the Employment Trend Survey twice a year at the end of June and at the end of December since 1964. The purpose of the survey is to observe the labor mobility between regions, industries, establishment size, occupation, and so forth. The survey encompasses 14,000 establishments with five or more regular employees sampled from all industries except Agriculture, Forestry and Fisheries, domestic services, educational services, and services by foreign governments and international agencies. Following Abe et al., because the labor mobility in public sector is so different from that in private sector, public sector employees have been deleted from the sample analyzed. We use the Employment Trend Survey micro-data with the permission of the Economic and Social Research Institute (ESRI), a Cabinet Office in the Japanese government.

An average of 84,408 newly hired workers per year were sampled in the sample establishments in the years from 1991 to 2002. Newly hired workers are separated into three categories: (1) school leavers (graduates in the survey year); (2) unemployed and inexperienced (those having been unemployed more than one year or those in their first job); (3) job changers (the focus of this paper). Only job changers have information collected about their previous employment and the wage changes resulting from job change. From the overall sample of newly hired workers from 1991 to 2002, totaling 1,012,899 workers, 517,384 are job changers. From this group, 446,100 job changers have relatively complete information. Table 1 provides sample means for the variables used in this analysis.

The survey collects categorical information in regards to wage change, age, firm size, educational attainment and cause of job separation. The wage change upon reemployment is categorized as a loss of 30% or greater (coded as -2), a loss of 10% to 30% (coded as -1), between a 10% loss and a 10% gain (coded as 0), a gain of 10% to 30% (coded as 1) and a gain of 30% or more (coded as 2). Age is provided in seven five year increments and includes those 19 and under and 65 and over to form nine categories in total. Present firm size is divided into

⁴ On average a 40-year-tenure worker can receive 27.3 times as much as 3-year-tenure worker. (Statistics and Information Department, Minister's Secretariat, Ministry of Health, Labour and Welfare. "2003 Survey of Employment Management – Retirement Management 2003," table 7.

five categories (5-29, 30-99, 100-299, 300-999, 1000+). Previous firm size is divided into seven categories (public organization, 1-4, 5-29, 30-99, 100-299, 300-999, 1000+). Education is divided into four categories by graduation level (junior high, high school, junior college, university).

The cause of job separation is classified into one of eight categories: (1) job dissatisfaction; (2) bad human relations in the firm; (3) concern over the future of firm; (4) dissatisfaction over compensation; (5) dissatisfaction with working time and/or number of holidays; (6) marriage, maternity or family care; (7) mandatory retirement or dismissal; (8) other. We combine these categories into either voluntary or involuntary job separations. Categories 1–6 and 8 denote job separations initiated by the workers and are deemed “voluntary.” Mandatory retirement and dismissals are coded as “involuntary.” (These categories that define job separations our data do not match exactly with the reasons for job separation listed in table 2 that come from a different source and are not tabulated from our data.)

“Job displacement” in the US context has been defined as involuntary job separation for reasons such as mass layoffs or plant closure and excluding firings for cause (Kletzer 1998). Those dismissed or subject mandatory retirement in their previous job, workers that we classify as involuntarily separated from their jobs, do not exactly fit this definition for displaced workers. In these data, the various reasons for dismissal can not be separated from one another. Reasons for dismissal include plant closings, layoffs and worker misconduct. We contend that, because Japanese labor law makes dismissals for misconduct difficult, the bulk of dismissals result from dire financial circumstances faced by the firm. While mandatory retirement is not a feature of the US labor market, these workers fit within the displaced worker definition as they found re-employment subsequent to mandatory retirement, and, hence, would presumably have remained in their prior job if allowed. In any case, those subject to mandatory retirement are not specifically coded as such and no easy way to exactly identify on the basis of workers age exists because the age of mandatory retirement varied both across industry and over time. Despite the legal invalidation of mandatory retirement prior to the age of sixty in 1994, the

decline in firms with a mandatory retirement age prior to sixty adjusted gradually from 20% in 1994 to 11.7% in 1997 and 0.8% in 2000.⁵

Summary Statistics

Table 1 provides means (which amount to frequencies) for the numerous binary variables available in these data. Of job changers in the sample, 40% are female, 14% are subject to involuntary job change, 52% changed industry, 34% changed occupation, and 17% are employed part-time both before and after job change. While 71% of job changers move to a firm in a different size category, 54% move to larger firms.

Table 2 provides reasons for job separations by year and gender. Trends toward more involuntary separations for both males and females are clearly evident. The primary source of involuntary job separation growth is management convenience which is akin to a layoff in the US. It is interesting to note that marriage and childbirth are decreasing in relative importance as a source of job separation for females. This makes sense in light of the falling rates of fertility and marriage in Japan.

A simple examination of the year by year wage changes in the data is provided in table 3. Table 3 displays a clear trend towards less favorable job separation outcomes for workers between 1991 and 2002. In the first panel, the reduction in workers with pay increases of 10% to 30% through job change is marked. Whereas 30% of workers had job change outcomes resulting in wage increases of 10% to 30% in 1991, this fell to 11% by 2002. Most of the decline in this category's share showed up as an increase among those with more neutral wages changes of between -10% to +10% and, to a lesser extent, as an increase among those with wage losses over 30%. Wage changes between -10% to +10% increased in share from 46% to 61% between 1991 and 2002. During the same period, those with wage losses over 30% increased in share from 5% to 11%. It is also evident in table 3 that increasing wage penalties coincided with the gradually rising unemployment rates.

To summarize the wage changes across the five categories in table 3, we followed Abe et al. (2002) and assigned values of -30%, -15%, 0%, 15% and 30% respectively to the five

⁵The ratio of firms which had the mandatory retirement set at less than 60 is as follows: 36.1% in 1991; 29.2% in 1992; 23.4% in 1993; 20.0% in 1994; 15.9% in 1995; 14.2% in 1996; 11.7% in 1997; 9.8% in 1998; 6.7% in 1999; 0.8% in 2000; 0.8% in 2001; 1.0% in 2002.

categories to compute a rough mean wage change. While not exact as a mean wage change, it facilitates consideration of time trends, age relationships and comparisons across panels. It is clear that older workers face larger job change costs, but more so for males than for females. Similarly, restricting the sample to involuntary job separations shows that they increase the cost of job separation, especially for men. Temporary transfer to another company (shukko) has implications for wage changes that are similar to job changes from all sources in the full sample.

3. Factors Influencing Job Change Costs: Empirical Estimates

Since the dependent variable in this study, wage change, is an ordered, discrete variable, a technique that recognizes both of these characteristics is desired. Under these circumstances, an ordered logit model is appropriate. The estimated parameters values are such that a positive value indicates that an increase in the independent variable results in a more favorable wage change. Negative parameter values indicate that an increase in the independent variable has a negative effect on the wage change.

The results of the ordered logit estimations are presented in tables 4 and 5. The specifications estimate the effects of individual characteristics (age, gender and education level), whether the termination was involuntary, and job characteristics in both the present and previous job (part-time status, firm size, industry and occupation) on job displacement penalties. The estimations in table 4 are performed separately for each year in all but the last column that pools the data. Table 5 is estimated entirely on data pooled across the years 1991 to 2002. Table 5 focuses on key variables interacted with year dummy variables, the effect of movement to smaller or larger firm size categories and differences that result when the sample is divided by age, particularly in regards to gender. To allow time trends to be more clearly identified, the last column of table 5 uses year trend variables rather than individual year interaction variables.

The results in table 4 suggest that in any given year, older workers suffer larger job change penalties than younger workers. This owes to the negative sign on age squared. No clear sign pattern emerges with respect to gender in table 4 and parameter estimates are insignificant in most years. The influence of gender on job change penalties receives more attention in table 5. Workers with more education tend to have larger job change penalties relative to those with a junior high education. However, this pattern is not orderly as junior college graduates have larger penalties than college graduates and later in the sample period college graduates have outcomes

not significantly different from junior high graduates. Better outcomes exist for those reemployed at larger firms. (“Present” in the tables indicates subsequent employment. “Previous” indicates original employment.) This is consistent with Rebeck’s finding that pay is 14% (23%) higher for males (females) at firms with over 1000 employees in comparison to firms with 10-100 employees.

The part-time dummy is coded as a 1 when re-employment is part-time. Not surprisingly, those accepting part-time work have larger penalties, as do those involuntarily separated from their previous employment.

In terms of subsequent employment, the results in table 4 suggest that workers finding jobs in the wholesale/retail/restaurant and service industries or administration and sales occupations tend to fare worse than workers going to other industries or occupations. In terms of previous employment, the results suggest that workers leaving the mining and finance/insurance/real estate industries or managerial occupation fare worse than other job changers. In terms of firm size, only leaving a large firm with employment over 1000 carries a larger penalty than leaving a public organization. The smaller the previous firm, the more favorable is the wage change upon reemployment. Workers leaving jobs that were previously part-time, do increasingly well later in the sample.

Table 5 pools all of the sample years and in the center two columns provide separate estimates for those workers less than 35 years of age and those 35 years of age and over. We confine our discussion of table 5 primarily to the time trends results in columns 14 and 17 and the key differences between columns 15 and 16 that divide the sample by age.

Considering columns 14 and 17 of table 5, we see that the age-related job change penalty is increasing over time during the sample period. After controlling for age and age-squared, the age-year interaction variables transition from positive in the early sample years to generally negative in later years in column 14 and the age-year trend interaction variable is significantly negative in column 17, depicting an increasing age-related job change penalty.

Gender exerts more influence on wages in Japan than in other developed countries [Tachibanaki 1998] and the median weekly earnings ratio of female to male earnings in Japan (.64) is substantially lower than the OECD average (.78) or in the US (.76) [Blau and Kahn, 2000, p.92, table 3]. Overall in these data, females in the pooled estimations in columns 14 and 17 have

better outcomes than males in terms of the percentage wage change. Perhaps lesser paid females are closer to their value on the external labor market because of less firm specific training.

The influence of gender on pay grows with age in Japan. The earnings of full-time females aged 20-24 relative to males is .89, this drops to .60 for those aged 40-44 [Rebick]. Columns 15 and 16 indicate that, while females under 35 have less favorable wage changes than males, females over 35 have more favorable wage changes than males. This pattern makes sense if male workers are more likely to be on delayed compensation contracts than female workers. Young female workers, earning close to their marginal product, may be harmed more by job loss relative to young males if males had accepted underpayment initially as part of a delayed payment contract. Older females fare better because older males are losing the premium that is paid towards the end of the delayed payment contract. Alternatively, older males may fare worse relative to females than younger males because of a greater loss of accumulated firm specific capital.

Involuntary job change harms older workers more than younger workers. Columns 15 and 16 show that wage change from involuntary job change is substantially more negative for older workers than their younger counterparts. The greater cost imposed on older workers in terms of wage change is to some extent mitigated by a larger severance payment upon job separation.

While industry change was disadvantageous as indicated by the negative industry change dummy variable in both columns 14 and 17, the penalty associated with industry change was diminishing. Column 14 suggests that sometime near 2000 industry change became neutral if not favorable for job changers, while at the start of the sample period, it was significantly negative. We can only speculate about the reason for this. It is possible that industry-specific human capital diminished in importance. Not surprisingly, as illustrated by the industry change dummy variable in columns 15 and 16, older workers finding reemployment in a different industry are harmed, while industry change has little discernable effect on the wage change of younger workers. This is reasonable since older workers lose more industry specific human capital than younger workers.

Occupation change has a different pattern than industry change in that the penalty from occupation change is growing during the sample. Again, as one would expect, the size of the penalty from occupation change is larger for older workers.

While it remained highly beneficial to be employed in a large firm, firm size fell in importance during the sample period. The consequences of a change in firm size diminished both in the rewards to moving to a larger firm and in the penalties to moving to a smaller firm. These results are evident in columns 14 and 17. The weakening of size effects suggests a diminishing firm-size premium.

Changes in employment status are considered through three dummy variables in table 5. Those workers who were initially employed part-time and remained part-time in subsequent employment are coded as ones for the “continuously part-time” dummy variable. Workers losing full-time employment status are coded as ones for the “from full-time to part-time” dummy variable. Workers gaining full-time employment status are coded as ones for the “from part-time to full-time” dummy variable. The status omitted from this coding scheme represents those who remain in full-time employment status through their job change. Naturally, the penalty from leaving full-time employment status is large as indicated by the dummy variable. However, there is a weak positive trend diminishing this penalty. The substantial gain in moving from part-time to full-time employment grows slightly larger over the sample.

The year dummy variables in the last panel of table 5 illustrate the rising overall job change costs during the sample. This rise is largely attributable to the increasing negative effects on those 35 years of age and older.

4. Conclusion

Few studies of job displacement in the Japanese labor market appear in the literature. This is largely due to the difficulty of obtaining worker level data and not on a lack of interest in the world’s second largest economy. We study a large national sample of firms with more than five employees to document basic trends in regards to job change. In doing so, we uncover both expected and novel results.

Because of a worsening in the labor market conditions during the period studied, it is not surprising that workers changing jobs had increasingly less favorable outcomes between 1991 and 2002. Given the strong returns to seniority in Japan, it was also not surprising that older workers had larger job displacement penalties. As well, the costs of changing industry, occupation and involuntary job separation were larger for older workers.

Other findings point to more nuanced changes taking place within the Japanese labor market in regards to the value assigned to workers changing jobs. The increasing strength in the age/job displacement penalty relationship suggests that the return to age in the Japanese labor market for those finding new employment is diminishing. The generally increasing job change costs were primarily born by older workers. The diminishing firm size wage premium suggests that the wage structures of larger and smaller firms may be gradually converging at least for the newly hired. Falling industry change penalties could be the result of less industry specific human capital, perhaps reflecting a gradual decline in industry specific training.

It is interesting to note that, hidden in the small gender differences in job change penalties, were larger penalties for young females in comparison with males and smaller penalties for older females. While younger females are treated more equitably in the labor market than older females relative to males in regards to pay, they suffer comparatively more from job change.

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Table 1				
Variable		N	Mean	
Wage change		446744	0.000 -2: -30%, -1: -10%, 0: 0%, 1: +10%, 2: +30%	
Age		446744	4.368 1: under 19, 2: 20-24, 3: 25-29, 4: 30-34, 5: 35-44, 6: 45-54, 7: 55-59, 8: 60-64, 9: over 65	
Female		446744	0.399 1=female, 0=male	
Graduation level	Junior high	446744	0.132 1=junior high, 0=other	
	High school	446744	0.538 1=high school, 0=other	
	Junior college	446744	0.147 1=junior college, 0=other	
	University	446744	0.184 1=university, 0=other	
Involuntary quit		446744	0.141 1=if the reason of quit is "mandatory retirement," "dismissal," or "end of contract," 0=other	
Industry dummy variables	Present industry	Mining	446744	0.013 1=mining, 0=other
		Construction	446744	0.048 1=construction, 0=other
		Manufacturing	446744	0.468 1=manufacturing, 0=other
		Electricity/ gas	446744	0.010 1=electricity/ gas, 0=other
		Communication/ transportation	446744	0.054 1=communication/ transportation, 0=other
		Wholesale/ retail/ restaurants	446744	0.053 1=wholesale/ retail/ restaurants, 0=other
		Finance/ insurance	446744	0.024 1=finance/ insurance, 0=other
		Real estate	446744	0.024 1=real estate, 0=other
		Service	446744	0.305 1=service, 0=other
	Previous industry	Agriculture	446100	0.008 1=agriculture, 0=other
		Mining	446100	0.006 1=mining, 0=other
		Construction	446100	0.072 1=construction, 0=other
		Manufacturing	446100	0.332 1=manufacturing, 0=other
		Communication/ transportation	446100	0.067 1=communication/ transportation, 0=other
		Wholesale/ retail/ restaurants	446100	0.120 1=wholesale/ retail/ restaurants, 0=other
		Finance/ insurance	446100	0.030 1=finance/ insurance, 0=other
		Service	446100	0.236 1=service, 0=other
		Other	446100	0.132 Other
Industrial change dummy		446100	0.520 1=change of industry, 0=same industry	
Occupation dummy variables	Present occupation	Technician	446744	0.138 1=technician, 0=other
		Manager	446744	0.053 1=manager, 0=other
		Administration	446744	0.169 1=administration, 0=other
		Sales	446744	0.061 1=sales, 0=other
		Service	446744	0.125 1=service, 0=other
		Communication/transportation	446744	0.043 1=communication/transportation, 0=other
		Production	446744	0.314 1=production, 0=other
		Others	446744	0.098 1=other, 0=occupation listed above
		Previous occupation	Technician	446665
	Manager		446665	0.062 1=manager, 0=other
	Administration		446665	0.156 1=administration, 0=other
	Sales		446665	0.100 1=sales, 0=other
	Service		446665	0.145 1=service, 0=other
	Communication/transportation		446665	0.044 1=communication/transportation, 0=other
	Production		446665	0.254 1=production, 0=other
	Other		446665	0.097 1=other, 0=occupation listed above
	Occupational change dummy			446665
	Working time	Present part time dummy	446744	0.176 1=part time, 0=full time
Previous part time dummy		446744	0.178 1=part time, 0=full time	
Change in working hours dummy		446744	0.133 1=change, 0=same working hours	
Firm size dummies	Present firm size	5 - 29	446744	0.067 1=employment of 5 - 29, 0=other
		30 - 99	446744	0.184 1=employment of 30 - 99, 0=other
		100 - 299	446744	0.221 1=employment of 100 - 299, 0=other
		300 - 999	446744	0.206 1=employment of 300 - 999, 0=other
		over 1000	446744	0.322 1=employment of over 1000, 0=other
		Previous firm size	Public organization	445091
	1 - 4		445091	0.027 1=employment of 1 - 4, 0=other
	5 - 29		445091	0.219 1=employment of 5 - 29, 0=other
	30 - 99		445091	0.238 1=employment of 30 - 99, 0=other
	100 - 299		445091	0.185 1=employment of 100 - 299, 0=other
	300 - 999		445091	0.119 1=employment of 300 - 999, 0=other
	Dummy for firm size change	up	445091	0.710 1=up or down, 0=invariant
down		446744	0.538 1=up, 0=down or invariant	
Year		446744	0.170 1=down, 0=up or invariant	
	1991	446744	0.103 1=1991, 0=other	
	1992	446744	0.087 1=1992, 0=other	
	1993	446744	0.071 1=1993, 0=other	
	1994	446744	0.067 1=1994, 0=other	
	1995	446744	0.075 1=1995, 0=other	
	1996	446744	0.086 1=1996, 0=other	
	1997	446744	0.095 1=1997, 0=other	
	1998	446744	0.081 1=1998, 0=other	
	1999	446744	0.074 1=1999, 0=other	
2000	446744	0.086 1=2000, 0=other		
2001	446744	0.086 1=2001, 0=other		
2002	446744	0.090 1=2002, 0=other		

Table 2
Reasons for Job Separations (%)

Total		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<i>Shukko</i> assignments		1.8	1.8	2.7	3.1	3.1	3.2	3.1	2.7	2.9	2.9	3.1	3.0	3.2
Contract finished	(1)	8.2	8.6	9.0	8.4	10.1	10.4	10.7	12.3	10.7	10.5	10.2	11.9	10.5
Management convenience	(2)	4.5	5.2	7.0	7.5	8.7	6.9	7.4	10.0	11.1	9.3	12.0	12.3	9.8
Mandatory retirement	(3)	3.3	4.2	4.5	5.5	5.5	5.9	5.8	5.4	5.1	5.2	5.4	5.7	5.9
Firing	(4)	3.3	2.9	5.0	4.6	5.0	4.8	5.5	5.7	5.5	6.3	4.4	3.8	2.9
Death or injury	(5)	2.1	2.1	2.8	2.6	2.4	1.9	1.8	2.0	1.8	1.7	1.6	1.4	1.8
Total involuntary	(1)-(5)	21.4	23.0	28.3	28.6	31.7	29.9	31.2	35.4	34.2	33.0	33.6	35.1	30.9
Marriage	(7)	4.3	4.5	4.2	4.6	4.3	4.5	3.6	3.0	3.0	2.5	2.6	2.6	2.1
Childbirth	(8)	2.7	2.7	2.6	2.6	2.6	2.2	2.5	2.2	2.5	2.2	2.2	2.1	2.0
Nursing care	(9)	n.a.	n.a.	0.5	0.6	0.5	0.6	0.5	0.4	0.5	0.6	0.7	0.6	1.0
Total voluntary	(7)-(9)+other	78.8	77.0	71.6	71.5	68.2	70.1	68.7	64.5	65.8	67.0	66.3	65.0	69.3
Male		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<i>Shukko</i> assignments		3.1	3.3	4.3	5.0	5.3	5.4	5.3	4.4	4.9	5.1	5.2	5.0	5.5
Contract finished	(1)	10.3	10.7	10.7	9.4	11.6	11.8	13.1	13.9	13.3	10.6	10.0	12.3	11.1
Management convenience	(2)	6.2	7.1	9.1	9.2	11.3	8.9	10.3	13.4	14.6	12.2	16.1	16.8	13.8
Mandatory retirement	(3)	5.4	7.1	7.0	8.2	7.8	8.9	8.3	7.6	7.6	7.7	8.0	8.1	8.5
Firing	(4)	4.0	3.7	5.6	6.4	6.5	5.6	6.1	5.8	6.3	7.4	5.0	4.5	3.7
Death or injury	(5)	2.3	2.6	3.4	2.9	3.2	2.3	2.4	2.7	2.1	2.0	2.2	1.5	2.1
Total involuntary	(1)-(5)	28.2	31.2	35.8	36.1	40.4	37.5	40.2	43.4	43.9	39.9	41.3	43.2	39.2
Marriage	(7)	0.1	0.1	0.1	0.1	0.2	0.0	0.3	0.1	0.1	0.1	0.1	0.2	0.1
Childbirth	(8)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Nursing care	(9)	n.a.	n.a.	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.2	0.2	0.1	0.2
Total voluntary	(7)-(9)+other	71.9	68.8	64.3	63.9	59.6	62.5	59.9	56.7	56.1	60.1	58.7	56.7	60.8
Female		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
<i>Shukko</i> assignments		0.5	0.4	1.1	1.3	0.7	0.9	0.6	1.0	0.8	0.8	1.0	0.9	0.9
Contract finished	(1)	6.1	6.6	7.3	7.5	8.6	8.8	8.0	10.7	8.1	10.5	10.4	11.4	9.9
Management convenience	(2)	2.9	3.3	4.9	5.6	6.0	4.7	4.2	6.5	7.5	6.3	7.9	7.8	5.9
Mandatory retirement	(3)	1.3	1.5	2.0	2.7	3.0	2.7	3.0	3.1	2.6	2.7	2.8	3.3	3.3
Firing	(4)	2.6	2.2	4.3	2.7	3.5	3.8	4.9	5.7	4.6	5.2	3.7	3.1	2.1
Death or injury	(5)	1.9	1.7	2.3	2.3	1.6	1.6	1.2	1.3	1.5	1.3	1.1	1.2	1.5
Total involuntary	(1)-(5)	14.8	15.3	20.8	20.8	22.7	21.6	21.3	27.3	24.3	26.0	25.9	26.8	22.7
Marriage	(7)	8.2	8.6	8.6	9.2	8.7	9.3	7.3	6.0	6.0	5.0	5.1	5.1	4.1
Childbirth	(8)	5.3	5.2	5.4	5.2	5.5	4.5	5.3	4.5	5.0	4.4	4.5	4.2	3.9
Nursing care	(9)	n.a.	n.a.	0.9	1.2	1.0	1.1	1.1	0.8	0.8	1.0	1.3	1.1	1.9
Total voluntary	(7)-(9)+other	85.3	84.6	79.2	79.2	77.4	78.4	78.7	72.6	75.7	74.0	74.0	73.2	77.4

Notes: This table replicates one in Abe et al. (2002) computed with 1995 data. *Shukko* refers to temporary transfer to another company.

Source: <http://www.dbtk.mhlw.go.jp/toukei/kouhyo/data-rou14/jikei/kd-jikeiretu-13.xls>

Table 3											
Wage change (Δ)								Unemployment rate(%)			
Full Sample by Year								Female Ratio in			
Year	$\Delta < -30\%$	$-30\% < \Delta < -10\%$	$-10\% < \Delta < +10\%$	$10\% < \Delta < 30\%$	$\Delta > 30\%$	Mean*	N	Total	Male	Female	Workforce
All	7.79	12.67	55.89	19.05	4.61	0.00	446,744	2.1	2.0	2.2	38.88
1991	5.15	12.25	45.99	30.66	5.96	3.01	45,836	2.1	2.0	2.2	38.88
1992	5.75	12.96	49.90	26.59	4.80	1.76	38,815	2.2	2.1	2.2	38.68
1993	6.89	13.97	50.60	23.89	4.66	0.82	31,710	2.5	2.4	2.6	38.47
1994	7.25	14.50	52.16	21.52	4.58	0.25	29,811	2.9	2.8	3.0	39.60
1995	7.17	13.79	53.92	20.64	4.47	0.22	33,514	3.2	3.1	3.2	39.18
1996	7.66	14.25	52.02	21.32	4.75	0.19	38,270	3.4	3.4	3.3	39.72
1997	7.39	14.31	51.41	22.26	4.63	0.37	42,209	3.4	3.4	3.4	39.72
1998	7.99	10.83	65.67	11.55	3.96	-1.10	36,287	4.1	4.2	4.0	40.07
1999	9.68	12.04	62.82	11.48	3.98	-1.79	33,103	4.7	4.8	4.5	41.04
2000	8.85	10.98	62.46	13.10	4.61	-0.95	38,478	4.7	4.9	4.5	40.53
2001	9.01	10.58	64.02	12.22	4.16	-1.21	38,606	5.0	5.2	4.7	39.78
2002	11.01	12.09	61.33	11.25	4.31	-2.13	40,105	5.4	5.5	5.1	43.05
Full Sample by Age											
0-19	3.60	10.37	46.63	29.40	10.00	4.77	12,444				
20-24	4.79	12.86	50.38	25.10	6.87	2.46	81,039				
25-29	6.47	12.96	53.83	21.51	5.23	0.91	77,716				
30-34	5.42	11.98	56.92	20.89	4.79	1.15	53,788				
35-44	5.20	11.50	58.41	20.04	4.86	1.18	88,903				
45-54	7.37	11.65	64.36	13.94	2.69	-1.06	77,393				
55-59	14.79	15.31	58.68	9.71	1.52	-4.82	29,375				
60-64	33.75	18.55	40.50	6.18	1.01	-11.68	20,929				
65+	15.32	14.33	61.39	7.78	1.18	-5.22	5,157				
Full Sample of Males											
All	8.02	11.96	57.24	18.68	4.10	-0.17	268,462				
0-19	3.60	9.45	45.26	30.05	11.64	5.50	7,061				
20-24	3.65	10.58	49.51	28.08	8.18	3.98	40,862				
25-29	3.78	10.86	55.79	23.98	5.59	2.51	46,188				
30-34	3.70	10.95	59.72	21.54	4.09	1.71	35,418				
35-44	4.47	11.01	63.03	18.40	3.08	0.69	49,928				
45-54	7.72	11.18	67.34	12.03	1.73	-1.67	46,996				
55-59	17.41	16.72	56.14	8.51	1.22	-6.09	21,605				
60-64	39.26	19.70	34.82	5.33	0.89	-13.67	16,402				
65+	16.94	15.42	59.02	7.37	1.25	-5.91	4,002				
Full Sample of Females											
All	7.43	13.73	53.86	19.60	5.37	0.26	178,282				
0-19	3.60	11.59	48.43	28.53	7.84	3.81	5,383				
20-24	5.94	15.18	51.27	22.07	5.54	0.91	40,177				
25-29	10.42	16.04	50.95	17.88	4.71	-1.44	31,528				
30-34	8.74	13.98	51.50	19.64	6.14	0.07	18,370				
35-44	6.12	12.13	52.47	22.14	7.14	1.81	38,975				
45-54	6.81	12.37	59.74	16.91	4.17	-0.11	30,397				
55-59	7.49	11.36	65.75	13.02	2.37	-1.29	7,770				
60-64	13.81	14.38	61.08	9.28	1.46	-4.47	4,527				
65+	9.70	10.56	69.61	9.18	0.95	-2.83	1,155				

Table 3 (continued)							
Wage change (Δ)							
Involuntary Male Job Change (excluding shukko)							
Age	$\Delta < -30\%$	$-30\% < \Delta < -10\%$	$-10\% < \Delta < +10\%$	$10\% < \Delta < 30\%$	$\Delta > 30\%$	Mean*	N
All	24.84	18.57	47.21	7.80	1.58	-8.59	38,947
0-19	10.34	17.77	46.95	16.71	8.22	-0.79	377
20-24	6.83	14.36	53.80	18.59	6.42	0.51	2,695
25-29	5.67	14.84	58.85	16.34	4.30	-0.19	3,067
30-34	6.20	15.41	60.01	15.25	3.14	-0.94	2,518
35-44	6.89	14.51	65.05	12.14	1.41	-2.00	4,672
45-54	17.17	17.77	57.30	6.99	0.77	-6.54	7,057
55-59	31.58	23.40	40.53	3.91	0.57	-12.23	6,264
60-64	50.54	21.38	25.77	2.04	0.27	-17.98	10,162
65+	22.11	17.00	56.39	3.61	0.89	-8.37	2,135
Males Temporarily Transferred to Another Company (shukko)							
0-19	1.10	3.56	89.59	4.93	0.82	0.12	365
20-24	1.18	3.68	88.91	5.57	0.66	0.13	2,282
25-29	0.94	2.64	91.72	3.52	1.17	0.20	4,880
30-34	1.02	2.92	92.10	3.37	0.59	-0.06	5,960
35-44	0.93	2.31	93.08	3.43	0.25	-0.04	11,988
45-54	1.58	3.40	92.44	2.37	0.20	-0.57	15,671
55-59	6.56	8.97	82.34	1.83	0.29	-2.95	5,454
60-64	31.98	15.99	48.20	3.38	0.45	-11.35	444
65+	20.51	15.38	64.10	0.00	0.00	-8.46	39
Involuntary Female Job Change (excluding shukko)							
All	8.75	14.77	62.37	11.47	2.64	-2.33	23,846
0-19	5.00	11.88	54.37	24.06	4.69	1.73	320
20-24	6.25	16.26	56.50	16.41	4.57	-0.48	3,345
25-29	8.47	15.99	58.72	13.72	3.10	-1.95	3,389
30-34	8.11	15.88	59.05	13.70	3.26	-1.78	2,022
35-44	6.48	13.91	61.96	13.99	3.67	-0.83	4,818
45-54	7.33	12.85	69.92	8.33	1.57	-2.41	5,345
55-59	9.26	13.03	70.36	6.28	1.07	-3.47	2,149
60-64	22.60	18.99	53.58	4.52	0.30	-8.86	1,969
65+	12.88	13.50	68.71	4.70	0.20	-5.12	489
Females Temporarily Transferred to Another Company (shukko)							
All	1.08	3.48	89.70	4.58	1.18	0.20	3,999
0-19	0.00	1.41	94.37	2.82	1.41	0.63	71
20-24	0.89	4.02	89.14	4.61	1.34	0.22	672
25-29	0.64	2.44	90.97	3.29	2.66	0.73	941
30-34	0.93	2.79	91.78	3.41	1.09	0.14	645
35-44	0.89	3.82	88.68	6.49	0.13	0.17	786
45-54	1.46	4.39	88.16	5.85	0.15	-0.17	684
55-59	3.14	5.03	86.79	3.14	1.89	-0.66	159
60-64	6.06	6.06	87.88	0.00	0.00	-2.73	33
65+	12.50	0.00	75.00	12.50	0.00	-1.88	8

*Mean is calculated by assigning values -30%, -15%, 0%, 15% & 30% to the five categories.

Table 4															
Dependent variable		Wage variation (five categories: -2: -30%, -1: -10%, 0: 0%, 1: +10%, 2: +30%)													
Estimation method		Ordered logit													
Data		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	pooled	
Control		prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture	prefecture year	
Age		0.241 (0.022)**	0.110 (0.023)**	0.124 (0.026)**	0.133 (0.027)**	0.099 (0.026)**	0.043 (0.025)	0.104 (0.024)**	0.018 (0.029)	0.081 (0.030)**	0.109 (0.028)**	0.212 (0.028)**	-0.022 (0.028)	0.121 (0.007)**	
Age ²		-0.045 (0.002)**	-0.024 (0.003)**	-0.028 (0.003)**	-0.029 (0.003)**	-0.027 (0.003)**	-0.022 (0.003)**	-0.031 (0.003)**	-0.021 (0.003)**	-0.032 (0.003)**	-0.036 (0.003)**	-0.045 (0.003)**	-0.024 (0.003)**	-0.032 (0.001)**	
Female dummy		-0.006 (0.023)	0.041 (0.025)	0.047 (0.028)	0.075 (0.029)**	0.013 (0.028)	-0.027 (0.026)	-0.065 (0.025)**	0.009 (0.029)	0.033 (0.030)	-0.090 (0.028)**	-0.070 (0.028)**	-0.038 (0.027)	-0.011 (0.008)	
Graduate level dummy	Base=junior high	High school	-0.133 (0.026)**	-0.068 (0.028)**	-0.162 (0.032)**	-0.147 (0.033)**	-0.184 (0.033)**	-0.093 (0.033)**	-0.155 (0.033)**	-0.195 (0.040)**	-0.124 (0.041)**	-0.053 (0.040)	-0.149 (0.041)**	-0.154 (0.042)**	-0.157 (0.010)**
		Junior college	-0.323 (0.041)**	-0.255 (0.046)**	-0.337 (0.049)**	-0.330 (0.052)**	-0.449 (0.048)**	-0.209 (0.042)**	-0.282 (0.041)**	-0.342 (0.049)**	-0.283 (0.050)**	-0.192 (0.048)**	-0.318 (0.049)**	-0.222 (0.049)**	-0.309 (0.013)**
		University	-0.052 (0.040)	-0.094 (0.044)**	-0.204 (0.047)**	-0.165 (0.050)**	-0.243 (0.047)**	0.020 (0.045)	-0.055 (0.043)	-0.088 (0.052)	-0.054 (0.053)	0.097 (0.050)	-0.073 (0.051)	0.054 (0.051)	-0.091 (0.013)**
Present firm size dummy	Base = 5 - 29	30 - 99	0.023 (0.041)	-0.021 (0.042)	0.060 (0.047)	0.076 (0.047)	-0.106 (0.046)**	0.090 (0.045)**	0.054 (0.045)	0.066 (0.053)	-0.005 (0.051)	-0.006 (0.049)	-0.050 (0.051)	-0.020 (0.050)	0.003 (0.013)
		100 - 299	-0.016 (0.040)	-0.042 (0.042)	0.030 (0.047)	0.034 (0.047)	-0.057 (0.046)	0.042 (0.046)	0.032 (0.044)	0.079 (0.053)	-0.181 (0.051)**	-0.009 (0.049)	-0.176 (0.050)**	0.114 (0.049)**	-0.019 (0.013)
		300 - 999	0.112 (0.041)**	0.088 (0.043)**	0.211 (0.049)**	0.192 (0.049)**	0.003 (0.047)	0.101 (0.047)**	0.224 (0.046)**	0.181 (0.054)**	0.122 (0.053)**	0.204 (0.050)**	-0.020 (0.051)	0.171 (0.051)**	0.119 (0.014)**
		over 1000	0.443 (0.041)**	0.336 (0.043)**	0.432 (0.049)**	0.321 (0.049)**	0.200 (0.046)**	0.269 (0.046)**	0.321 (0.045)**	0.342 (0.053)**	0.211 (0.052)**	0.249 (0.049)**	0.164 (0.050)**	0.320 (0.050)**	0.296 (0.013)**
Part time dummy		-1.309 (0.036)**	-1.571 (0.039)**	-1.599 (0.041)**	-1.665 (0.041)**	-1.678 (0.038)**	-1.516 (0.034)**	-1.515 (0.032)**	-1.784 (0.036)**	-1.639 (0.035)**	-1.518 (0.032)**	-1.594 (0.032)**	-1.614 (0.030)**	-1.569 (0.010)**	
Involuntary quit dummy		-0.915 (0.031)**	-0.665 (0.034)**	-0.591 (0.034)**	-0.640 (0.035)**	-0.619 (0.032)**	-0.642 (0.032)**	-0.639 (0.032)**	-0.701 (0.034)**	-0.709 (0.033)**	-0.763 (0.030)**	-0.571 (0.030)**	-0.573 (0.030)**	-0.648 (0.009)**	
Present industry dummy	Base = mining	Construction	-0.005 (0.089)	0.134 (0.089)	-0.282 (0.109)**	0.556 (0.111)**	0.129 (0.109)	0.193 (0.104)	0.283 (0.103)**	0.031 (0.114)	-0.238 (0.135)	-0.088 (0.125)	-0.034 (0.144)	-0.016 (0.142)	0.096 (0.031)**
		Manufacturing	-0.328 (0.078)**	-0.290 (0.079)**	-0.635 (0.099)**	0.127 (0.100)	-0.167 (0.101)	-0.115 (0.096)	-0.036 (0.097)	-0.239 (0.105)**	-0.420 (0.126)**	-0.316 (0.117)**	-0.216 (0.136)	-0.069 (0.134)	-0.197 (0.029)**
		Electricity/gas	-0.376 (0.131)**	-0.461 (0.121)**	-0.823 (0.136)**	0.326 (0.143)**	-0.219 (0.135)	-0.245 (0.134)	-0.210 (0.149)	-0.547 (0.160)	-0.443 (0.178)**	-0.499 (0.177)**	-0.157 (0.184)**	-0.321 (0.164)	-0.321 (0.041)**
		Communication/transportation	-0.140 (0.093)	0.024 (0.095)	-0.498 (0.111)**	0.473 (0.115)**	-0.077 (0.114)	-0.030 (0.106)	0.020 (0.107)	-0.007 (0.117)	-0.415 (0.138)**	-0.398 (0.128)**	-0.201 (0.148)	-0.066 (0.146)	-0.065 (0.032)**
		Wholesale/ retail/ restaurants	-0.446 (0.091)**	-0.331 (0.093)**	-0.815 (0.114)**	0.056 (0.117)	-0.332 (0.116)**	-0.349 (0.107)**	-0.322 (0.108)**	-0.772 (0.116)**	-0.623 (0.135)**	-0.685 (0.125)**	-0.294 (0.143)**	-0.429 (0.141)**	-0.429 (0.032)**
		Finance/ insurance	-0.580 (0.105)**	-0.482 (0.114)**	-0.550 (0.129)**	0.092 (0.128)	-0.379 (0.128)**	0.048 (0.117)	-0.145 (0.116)	-0.184 (0.121)	-0.421 (0.147)**	-0.185 (0.135)	-0.279 (0.152)	-0.209 (0.149)	-0.244 (0.035)**
		Real estate	-0.266 (0.101)**	-0.042 (0.108)	-0.582 (0.119)**	0.313 (0.122)**	-0.194 (0.121)	-0.225 (0.114)**	-0.225 (0.114)**	-0.357 (0.126)**	-0.505 (0.146)**	-0.194 (0.132)	-0.501 (0.151)**	-0.130 (0.158)	-0.208 (0.034)**
		Service	-0.446 (0.081)**	-0.312 (0.081)**	-0.604 (0.100)**	0.125 (0.102)	-0.209 (0.103)**	-0.182 (0.098)	-0.281 (0.099)**	-0.410 (0.107)**	-0.607 (0.128)**	-0.531 (0.118)**	-0.388 (0.137)**	-0.292 (0.135)**	-0.326 (0.029)**
Present occupation dummy	Base = technician	Manager	0.405 (0.072)**	0.268 (0.079)**	0.395 (0.081)**	0.371 (0.085)**	0.322 (0.082)**	0.480 (0.073)**	0.446 (0.072)**	0.400 (0.081)**	0.546 (0.081)**	0.348 (0.076)**	0.462 (0.075)**	0.515 (0.073)**	0.419 (0.022)**
		Administration	-0.506 (0.047)**	-0.612 (0.054)**	-0.553 (0.061)**	-0.675 (0.066)**	-0.610 (0.062)**	-0.574 (0.054)**	-0.568 (0.050)**	-0.683 (0.058)**	-0.498 (0.061)**	-0.463 (0.056)**	-0.443 (0.055)**	-0.616 (0.053)**	-0.557 (0.016)**
		Sales	-0.330 (0.059)**	-0.426 (0.067)**	-0.269 (0.074)**	-0.466 (0.077)**	-0.416 (0.072)**	-0.363 (0.065)**	-0.385 (0.063)**	-0.538 (0.070)**	-0.387 (0.072)**	-0.519 (0.065)**	-0.352 (0.067)**	-0.535 (0.065)**	-0.404 (0.019)**
		Service	0.195 (0.076)**	-0.205 (0.058)**	-0.215 (0.063)**	-0.318 (0.066)**	-0.436 (0.062)**	-0.452 (0.057)**	-0.372 (0.054)**	-0.472 (0.061)**	-0.414 (0.063)**	-0.425 (0.058)**	-0.374 (0.057)**	-0.471 (0.053)**	-0.314 (0.017)**
		Communication/transportation	-0.343 (0.092)**	0.188 (0.081)**	0.168 (0.087)	0.230 (0.093)**	0.316 (0.089)**	0.205 (0.079)**	0.117 (0.076)	-0.223 (0.090)**	-0.053 (0.096)	-0.071 (0.092)	-0.106 (0.095)	-0.063 (0.093)	0.047 (0.025)
		Production	0.010 (0.052)	-0.173 (0.053)**	-0.154 (0.060)**	-0.250 (0.062)**	-0.304 (0.059)**	-0.206 (0.053)**	-0.229 (0.048)**	-0.347 (0.058)**	-0.410 (0.059)**	-0.267 (0.053)**	-0.360 (0.054)**	-0.378 (0.052)**	-0.249 (0.015)**
		Others	-0.085 (0.045)	-0.484 (0.062)**	-0.425 (0.067)**	-0.367 (0.071)**	-0.500 (0.068)**	-0.480 (0.063)**	-0.445 (0.060)**	-0.564 (0.071)**	-0.539 (0.079)**	-0.312 (0.075)**	-0.347 (0.074)**	-0.607 (0.069)**	-0.345 (0.018)**

Table 4 (continued)															
Data		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	
		1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	pooled	
Previous industry dummy	Base = agriculture	Mining	-0.497 (0.142)**	-0.963 (0.152)**	-0.351 (0.172)*	-0.443 (0.199)*	-0.842 (0.194)**	-0.617 (0.190)**	0.060 (0.180)	-0.572 (0.210)**	-0.848 (0.221)**	-0.573 (0.215)**	0.146 (0.234)	-0.443 (0.212)*	-0.505 (0.053)**
		Construction	-0.167 (0.094)	-0.617 (0.111)**	-0.506 (0.116)**	-0.520 (0.127)**	-0.389 (0.139)**	-0.438 (0.132)**	-0.036 (0.131)	-0.600 (0.137)**	-0.595 (0.145)**	-0.574 (0.143)**	-0.365 (0.157)*	-0.554 (0.153)**	-0.416 (0.036)**
		Manufacturing	-0.053 (0.089)	-0.383 (0.105)**	-0.429 (0.110)**	-0.324 (0.121)**	-0.454 (0.135)**	-0.293 (0.128)*	0.166 (0.127)	-0.475 (0.132)**	-0.519 (0.141)**	-0.558 (0.138)**	-0.438 (0.153)**	-0.624 (0.149)**	-0.338 (0.035)**
		Communication /transportation	-0.111 (0.102)	-0.519 (0.118)**	-0.360 (0.124)**	-0.563 (0.136)**	-0.459 (0.146)**	-0.444 (0.137)**	0.106 (0.136)	-0.416 (0.142)**	-0.586 (0.151)**	-0.421 (0.148)**	-0.318 (0.163)	-0.535 (0.158)**	-0.363 (0.038)**
		Wholesale/retail /restaurants	0.058 (0.094)	-0.377 (0.110)**	-0.314 (0.115)**	-0.324 (0.126)*	-0.376 (0.139)**	-0.253 (0.131)	0.229 (0.130)	-0.432 (0.135)**	-0.492 (0.143)**	-0.427 (0.140)**	-0.327 (0.155)*	-0.536 (0.151)**	-0.256 (0.036)**
		Finance/insurance /real estate	-0.311 (0.099)**	-0.758 (0.115)**	-0.716 (0.121)**	-0.557 (0.135)**	-0.703 (0.144)**	-0.627 (0.136)**	-0.058 (0.135)	-0.480 (0.171)**	-0.768 (0.178)**	-0.433 (0.170)*	-0.509 (0.188)**	-0.715 (0.182)**	-0.637 (0.039)**
		Service	0.019 (0.092)	-0.357 (0.107)**	-0.332 (0.110)**	-0.312 (0.122)**	-0.290 (0.136)**	-0.292 (0.128)*	0.281 (0.128)*	-0.351 (0.133)**	-0.377 (0.141)**	-0.422 (0.139)**	-0.232 (0.153)	-0.401 (0.150)**	-0.223 (0.035)**
		Others	-0.099 (0.092)	-0.568 (0.105)**	-0.492 (0.108)**	-0.375 (0.120)**	-0.518 (0.134)**	-0.444 (0.128)**	0.124 (0.128)	-0.425 (0.132)**	-0.519 (0.141)**	-0.517 (0.139)**	-0.350 (0.153)*	-0.466 (0.150)**	-0.372 (0.035)**
		Previous occupation dummy	Base = technician	Manager	-0.716 (0.068)**	-0.610 (0.076)**	-0.614 (0.078)**	-0.616 (0.082)**	-0.570 (0.078)**	-0.713 (0.070)**	-0.686 (0.069)**	-0.737 (0.077)**	-0.682 (0.077)**	-0.619 (0.073)**	-0.722 (0.071)**
Administration	0.268 (0.048)**			0.403 (0.055)**	0.199 (0.060)**	0.302 (0.065)**	0.282 (0.061)**	0.264 (0.054)**	0.141 (0.050)**	0.138 (0.058)*	0.128 (0.060)*	0.161 (0.056)**	0.191 (0.056)**	0.217 (0.054)**	0.232 (0.016)**
Sales	0.220 (0.052)**			0.370 (0.060)**	0.203 (0.066)**	0.430 (0.071)**	0.323 (0.065)**	0.243 (0.058)**	0.185 (0.054)**	0.294 (0.063)**	0.339 (0.065)**	0.388 (0.061)**	0.269 (0.062)**	0.343 (0.060)**	0.297 (0.017)**
Service	0.117 (0.074)			0.409 (0.058)**	0.403 (0.064)**	0.524 (0.068)**	0.435 (0.063)**	0.496 (0.057)**	0.278 (0.053)**	0.473 (0.062)**	0.452 (0.063)**	0.414 (0.057)**	0.377 (0.058)**	0.373 (0.054)**	0.405 (0.017)**
Communication/ transportation	0.452 (0.101)**			0.131 (0.085)	0.008 (0.092)	0.208 (0.098)*	0.143 (0.094)	0.287 (0.082)**	0.098 (0.077)	0.171 (0.092)	0.478 (0.096)**	0.266 (0.090)**	0.290 (0.095)**	0.171 (0.091)	0.197 (0.025)**
Production	0.329 (0.051)**			0.440 (0.054)**	0.347 (0.060)**	0.485 (0.063)**	0.463 (0.059)**	0.406 (0.053)**	0.363 (0.049)**	0.444 (0.059)**	0.549 (0.060)**	0.446 (0.055)**	0.388 (0.056)**	0.480 (0.054)**	0.423 (0.016)**
Others	0.277 (0.044)**			0.513 (0.061)**	0.402 (0.066)**	0.520 (0.070)**	0.458 (0.067)**	0.385 (0.061)**	0.335 (0.057)**	0.468 (0.068)**	0.433 (0.074)**	0.391 (0.069)**	0.348 (0.069)**	0.412 (0.067)**	0.412 (0.017)**
Previous firm size dummy	Base = public organization			1 - 4	0.895 (0.085)**	1.077 (0.094)**	0.885 (0.106)**	0.823 (0.112)**	0.599 (0.108)**	0.746 (0.093)**	0.751 (0.090)**	0.778 (0.107)**	0.712 (0.109)**	0.505 (0.103)**	0.866 (0.106)**
		5 - 29	0.667 (0.069)**	0.789 (0.074)**	0.703 (0.084)**	0.596 (0.088)**	0.647 (0.086)**	0.557 (0.075)**	0.507 (0.072)**	0.607 (0.083)**	0.524 (0.086)**	0.363 (0.082)**	0.677 (0.082)**	0.630 (0.086)**	0.597 (0.023)**
		30 - 99	0.502 (0.069)**	0.662 (0.074)**	0.513 (0.083)**	0.431 (0.087)**	0.465 (0.086)**	0.381 (0.075)**	0.361 (0.072)**	0.473 (0.082)**	0.384 (0.085)**	0.187 (0.081)**	0.532 (0.081)**	0.555 (0.085)**	0.453 (0.023)**
		100 - 299	0.342 (0.069)**	0.445 (0.074)**	0.334 (0.084)**	0.237 (0.088)**	0.255 (0.086)**	0.218 (0.075)**	0.198 (0.072)**	0.378 (0.082)**	0.190 (0.085)**	0.037 (0.082)	0.309 (0.082)**	0.330 (0.085)**	0.271 (0.023)**
		300 - 999	0.071 (0.071)	0.158 (0.076)*	0.034 (0.086)	0.030 (0.090)	0.083 (0.089)	0.086 (0.077)	0.066 (0.074)	0.068 (0.084)	-0.063 (0.088)	-0.231 (0.084)**	0.140 (0.083)	0.075 (0.087)	0.043 (0.023)
		over 1000	-0.371 (0.070)**	-0.123 (0.075)	-0.165 (0.084)	-0.075 (0.088)	-0.049 (0.086)	-0.172 (0.075)*	-0.258 (0.073)**	-0.096 (0.082)	-0.246 (0.086)**	-0.419 (0.082)**	-0.130 (0.081)	-0.156 (0.085)	-0.194 (0.023)**
		Previous part time dummy	1.242 (0.034)**	1.379 (0.037)**	1.467 (0.040)**	1.507 (0.040)**	1.683 (0.038)**	1.616 (0.034)**	1.681 (0.032)**	1.905 (0.036)**	1.918 (0.037)**	1.866 (0.033)**	1.899 (0.034)**	2.017 (0.032)**	1.65 (0.010)**
Observations	45560	38568	31464	29616	33410	38166	42052	36070	32908	38342	38420	39931	444507		

Notes: standard errors in parentheses, *significant at 5% level, **significant at 1% level

Table 5						
Dependent variable		Wage variation (five categories: -2: -30%, -1: -10%, 0: 0%, 1: +10%, 2: +30%)				
Estimation method		Ordered logit				
Data		(1)	(2)	(2)	(4)	
		Pooled	Under 35	35 & over	Pooled	
Year control		age change × year Prefecture	age change × year Prefecture	age change × year Prefecture	age change × trend Prefecture	
Age - year interactions	Age	0.079 (0.009)**	-0.302 (0.031)**	-0.958 (0.047)**	0.117 (0.008)**	
	Age*dummy 1992	0.048 (0.007)**	-0.050 (0.020)*	0.169 (0.020)**		
	Age*dummy 1993	0.049 (0.008)**	-0.040 (0.022)	0.219 (0.021)**		
	Age*dummy 1994	0.038 (0.008)**	-0.077 (0.023)**	0.155 (0.021)**		
	Age*dummy 1995	0.032 (0.008)**	-0.070 (0.022)**	0.173 (0.020)**		
	Age*dummy 1996	-0.003 (0.007)	-0.097 (0.021)**	0.125 (0.020)**		
	Age*dummy 1997	-0.013 (0.007)	-0.088 (0.020)**	0.069 (0.020)**		
	Age*dummy 1998	0.028 (0.007)**	-0.121 (0.021)**	0.193 (0.020)**		
	Age*dummy 1999	-0.016 (0.008)*	-0.107 (0.022)**	0.118 (0.020)**		
	Age*dummy 2000	-0.025 (0.007)**	-0.086 (0.021)**	0.092 (0.020)**		
	Age*dummy 2001	0.003 (0.007)	-0.056 (0.021)**	0.121 (0.020)**		
Age*dummy 2002	-0.043 (0.007)**	-0.143 (0.021)**	0.136 (0.019)**			
	Age*year trend				-0.005 (0.000)**	
Age ²		-0.030 (0.001)**	0.046 (0.005)**	0.036 (0.003)**	-0.030 (0.001)**	
Female dummy		0.040 (0.008)**	-0.169 (0.010)**	0.286 (0.012)**	0.039 (0.007)**	
Graduate level dummy	Base = Junior	High school	-0.188 (0.010)**	-0.096 (0.018)**	-0.208 (0.012)**	-0.190 (0.010)**
		Junior college	-0.364 (0.013)**	-0.264 (0.021)**	-0.306 (0.019)**	-0.366 (0.013)**
		University	-0.198 (0.013)**	-0.138 (0.022)**	-0.203 (0.018)**	-0.201 (0.013)**
Present firm size dummy	Base = 5-29	30 - 99	-0.228 (0.013)**	-0.208 (0.019)**	-0.238 (0.019)**	-0.233 (0.013)**
		100 - 299	-0.405 (0.014)**	-0.365 (0.020)**	-0.429 (0.019)**	-0.407 (0.014)**
		300 - 999	-0.384 (0.014)**	-0.334 (0.020)**	-0.407 (0.020)**	-0.384 (0.014)**
		over 1000	-0.384 (0.014)**	-0.341 (0.020)**	-0.407 (0.020)**	-0.382 (0.014)**
Involuntary quit dummy		-0.715 (0.009)**	-0.384 (0.015)**	-0.917 (0.012)**	-0.702 (0.009)**	
Present industry dummy	Base = mining	Construction	0.072 (0.029)*	-0.193 (0.046)**	0.244 (0.039)**	0.079 (0.029)**
		Manufacturing	-0.167 (0.027)**	-0.257 (0.041)**	-0.169 (0.036)**	-0.153 (0.027)**
		Electricity/ gas	-0.380 (0.040)**	-0.627 (0.059)**	-0.188 (0.055)**	-0.386 (0.040)**
		Communication/transportation	-0.018 (0.031)	-0.212 (0.046)**	0.098 (0.042)*	-0.011 -0.031
		Wholesale/retail/restaurants	-0.368 (0.030)**	-0.496 (0.045)**	-0.272 (0.043)**	-0.362 (0.030)**
		Finance/ insurance	-0.218 (0.033)**	-0.337 (0.049)**	-0.128 (0.046)**	-0.216 (0.033)**
		Real estate	-0.273 (0.033)**	-0.295 (0.050)**	-0.237 (0.044)**	-0.264 (0.033)**
Service	-0.257 (0.027)**	-0.408 (0.042)**	-0.150 (0.037)**	-0.252 (0.027)**		
Present occupation dummy	Base = technician	Manager	-0.078 (0.015)**	-0.099 (0.041)*	-0.014 (0.019)	-0.079 (0.015)**
		Administration	-0.364 (0.011)**	-0.359 (0.014)**	-0.310 (0.019)**	-0.361 (0.011)**
		Sales	-0.096 (0.016)**	-0.142 (0.020)**	-0.075 (0.026)**	-0.099 (0.016)**
		Service	0.050 (0.013)**	-0.056 (0.017)**	0.084 (0.019)**	0.041 (0.013)**
		Communication/transportation	0.299 (0.021)**	0.343 (0.030)**	0.285 (0.029)**	0.283 (0.021)**
		Production	0.105 (0.011)**	0.020 (0.015)	0.115 (0.017)**	0.092 (0.011)**
		Others	0.022 (0.014)	0.026 (0.020)	0.006 (0.020)	0.072 (0.013)**
Industry change	Dummy	-0.035 (0.020)	0.048 (0.026)	-0.105 (0.032)**	-0.108 (0.014)**	
	× 1992	-0.078 (0.030)**	-0.079 (0.040)*	-0.090 (0.046)		
	× 1993	-0.068 (0.032)*	-0.109 (0.043)*	-0.060 (0.048)		
	× 1994	-0.072 (0.032)*	-0.152 (0.045)**	-0.026 (0.048)		
	× 1995	-0.023 (0.031)	-0.041 (0.043)	-0.025 (0.047)		
	× 1996	-0.068 (0.030)*	-0.035 (0.041)	-0.134 (0.045)**		
	× 1997	-0.061 (0.029)*	-0.049 (0.039)	-0.110 (0.044)*		
	× 1998	-0.006 (0.030)	-0.002 (0.040)	-0.046 (0.045)		
	× 1999	0.029 (0.030)	0.036 (0.042)	-0.014 (0.045)		
	× 2000	0.064 (0.029)*	0.018 (0.040)	0.077 (0.044)		
	× 2001	0.054 (0.029)	0.056 (0.039)	0.018 (0.044)		
	× 2002	0.017 (0.029)	-0.022 (0.039)	0.020 (0.044)		
	× trend				0.009 (0.002)**	

Table 5 (continued)						
Data		(1) Pooled	(2) Under 35	(3) 35 & over	(4) Pooled	
Occupation change	Dummy	-0.105 (0.022)**	-0.010 (0.027)	-0.276 (0.036)**	-0.098 (0.015)**	
	× 1992	-0.032 (0.032)	-0.022 (0.041)	-0.017 (0.051)		
	× 1993	-0.025 (0.034)	0.032 (0.044)	-0.045 (0.053)		
	× 1994	-0.031 (0.035)	0.014 (0.047)	-0.007 (0.054)		
	× 1995	-0.046 (0.034)	0.012 (0.045)	-0.039 (0.052)		
	× 1996	-0.043 (0.032)	-0.004 (0.042)	-0.041 (0.050)		
	× 1997	-0.068 (0.031)*	-0.086 (0.040)*	0.009 (0.050)		
	× 1998	-0.085 (0.032)**	-0.056 (0.042)	-0.067 (0.050)		
	× 1999	-0.121 (0.033)**	-0.066 (0.044)	-0.103 (0.051)*		
	× 2000	-0.078 (0.032)*	-0.049 (0.041)	-0.030 (0.050)		
	× 2001	-0.094 (0.032)**	-0.061 (0.041)	-0.059 (0.050)		
	× 2002	-0.143 (0.031)**	-0.097 (0.042)*	-0.110 (0.049)*		
	× trend				-0.011 (0.002)**	
Firm size change	Dummy: larger new firm	0.468 (0.022)**	0.544 (0.029)**	0.362 (0.033)**	0.399 (0.015)**	
	× 1992	-0.089 (0.032)**	-0.080 (0.043)	-0.073 (0.048)		
	× 1993	-0.110 (0.034)**	-0.082 (0.046)	-0.092 (0.050)		
	× 1994	-0.230 (0.034)**	-0.223 (0.048)**	-0.223 (0.050)**		
	× 1995	-0.226 (0.033)**	-0.197 (0.046)**	-0.216 (0.048)**		
	× 1996	-0.190 (0.032)**	-0.197 (0.044)**	-0.160 (0.047)**		
	× 1997	-0.121 (0.031)**	-0.136 (0.042)**	-0.107 (0.047)*		
	× 1998	-0.292 (0.032)**	-0.319 (0.043)**	-0.236 (0.048)**		
	× 1999	-0.294 (0.033)**	-0.299 (0.045)**	-0.267 (0.049)**		
	× 2000	-0.200 (0.032)**	-0.256 (0.043)**	-0.143 (0.047)**		
	× 2001	-0.225 (0.031)**	-0.250 (0.043)**	-0.190 (0.047)**		
	× 2002	-0.167 (0.031)**	-0.267 (0.043)**	-0.047 (0.046)		
	× trend				-0.016 (0.002)**	
		Dummy: smaller new firm	-0.591 (0.030)**	-0.567 (0.040)**	-0.599 (0.044)**	-0.564 (0.019)**
		× 1992	0.057 (0.043)	0.076 (0.059)	0.052 (0.063)	
		× 1993	0.053 (0.044)	0.095 (0.062)	0.030 (0.064)	
		× 1994	0.158 (0.044)**	0.076 (0.064)	0.214 (0.063)**	
		× 1995	0.184 (0.044)**	0.220 (0.064)**	0.170 (0.062)**	
		× 1996	0.150 (0.043)**	0.169 (0.061)**	0.148 (0.062)*	
		× 1997	0.194 (0.042)**	0.186 (0.059)**	0.218 (0.062)**	
		× 1998	0.219 (0.043)**	0.164 (0.061)**	0.274 (0.062)**	
		× 1999	0.165 (0.043)**	0.213 (0.061)**	0.144 (0.062)*	
		× 2000	0.278 (0.042)**	0.333 (0.060)**	0.234 (0.061)**	
		× 2001	0.257 (0.042)**	0.272 (0.059)**	0.248 (0.060)**	
		× 2002	0.205 (0.042)**	0.255 (0.059)**	0.172 (0.060)**	
		× trend				0.020 (0.003)**

Table 5 (continued)									
Data		(1) Pooled		(2) Under 35		(3) 35 & over		(4) Pooled	
Changes in employment status	Continuously part-time	0.098	(0.037)**	-0.063	(0.066)	0.063	(0.046)	-0.044	-0.023
	× 1992	-0.121	(0.053)*	0.065	(0.097)	-0.228	(0.066)**		
	× 1993	-0.007	(0.055)	0.074	(0.098)	-0.038	(0.068)		
	× 1994	-0.033	(0.055)	0.025	(0.097)	-0.067	(0.068)		
	× 1995	0.078	(0.051)	0.230	(0.091)*	0.021	(0.065)		
	× 1996	0.099	(0.050)*	0.217	(0.085)*	0.053	(0.063)		
	× 1997	0.128	(0.049)**	0.277	(0.083)**	0.062	(0.062)		
	× 1998	0.120	(0.049)*	0.163	(0.085)	0.120	(0.063)		
	× 1999	0.249	(0.048)**	0.217	(0.082)**	0.298	(0.062)**		
	× 2000	0.263	(0.046)**	0.219	(0.079)**	0.352	(0.060)**		
	× 2001	0.238	(0.046)**	0.285	(0.079)**	0.258	(0.060)**		
	× 2002	0.297	(0.045)**	0.278	(0.078)**	0.346	(0.058)**		
	× trend							0.039	(0.003)**
	From full-time to part-time	-1.699	(0.049)**	-1.672	(0.064)**	-1.613	(0.076)**	-1.917	(0.029)**
	× 1992	-0.083	(0.069)	-0.113	(0.092)	-0.097	(0.107)		
	× 1993	-0.250	(0.070)**	-0.312	(0.092)**	-0.207	(0.110)		
	× 1994	-0.178	(0.068)**	-0.299	(0.092)**	-0.112	(0.105)		
	× 1995	-0.161	(0.066)*	-0.310	(0.089)**	-0.096	(0.100)		
	× 1996	-0.049	(0.063)	-0.225	(0.083)**	0.119	(0.099)		
	× 1997	-0.029	(0.063)	-0.119	(0.082)	0.035	(0.097)		
	× 1998	0.105	(0.063)	-0.003	(0.084)	0.114	(0.096)		
	× 1999	0.103	(0.062)	0.030	(0.083)	0.105	(0.096)		
	× 2000	0.166	(0.061)**	0.166	(0.081)*	0.131	(0.094)		
	× 2001	0.098	(0.061)	0.123	(0.082)	0.034	(0.093)		
	× 2002	0.086	(0.059)	0.110	(0.079)	-0.023	(0.090)		
	× trend							0.031	(0.003)**
	From part-time to full-time	1.205	(0.038)**	1.078	(0.051)**	1.293	(0.058)**	1.284	(0.026)**
	× 1992	0.192	(0.056)**	0.166	(0.079)*	0.151	(0.082)		
	× 1993	0.200	(0.061)**	0.157	(0.083)	0.230	(0.090)*		
	× 1994	0.308	(0.060)**	0.266	(0.084)**	0.302	(0.088)**		
	× 1995	0.365	(0.059)**	0.407	(0.081)**	0.274	(0.088)**		
	× 1996	0.404	(0.056)**	0.448	(0.075)**	0.312	(0.086)**		
	× 1997	0.454	(0.053)**	0.513	(0.071)**	0.355	(0.081)**		
× 1998	0.449	(0.057)**	0.567	(0.075)**	0.255	(0.087)**			
× 1999	0.481	(0.058)**	0.462	(0.077)**	0.505	(0.090)**			
× 2000	0.428	(0.055)**	0.441	(0.072)**	0.409	(0.087)**			
× 2001	0.371	(0.055)**	0.365	(0.072)**	0.372	(0.086)**			
× 2002	0.622	(0.055)**	0.618	(0.071)**	0.586	(0.087)**			
× trend							0.042	(0.003)**	
Year dummy variables	1992	-0.308	(0.044)**	0.007	(0.069)	-1.016	(0.128)**		
	1993	-0.394	(0.047)**	-0.085	(0.075)	-1.424	(0.134)**		
	1994	-0.398	(0.048)**	0.042	(0.077)	-1.151	(0.135)**		
	1995	-0.404	(0.046)**	-0.069	(0.075)	-1.262	(0.130)**		
	1996	-0.263	(0.045)**	0.048	(0.073)	-1.031	(0.129)**		
	1997	-0.286	(0.044)**	-0.009	(0.070)	-0.782	(0.128)**		
	1998	-0.601	(0.045)**	-0.073	(0.074)	-1.641	(0.129)**		
	1999	-0.474	(0.047)**	-0.120	(0.078)	-1.320	(0.132)**		
	2000	-0.417	(0.045)**	-0.112	(0.073)	-1.202	(0.129)**		
	2001	-0.508	(0.045)**	-0.255	(0.075)**	-1.251	(0.126)**		
	2002	-0.473	(0.045)**	0.004	(0.075)	-1.695	(0.125)**		
trend							-0.032	(0.003)**	
Observations		446100		224657		221443		446100	

Notes: standard errors in parentheses, *significant at 5% level, **significant at 1% level