

**The Change of Job Mobility among Workers with Disability in the Early
1990's**

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Abstract

Using data from the 1990 and 1993 Survey of Income and Program Participation, this paper attempts to examine how job mobility among disabled workers changed in the early 1990s and to disentangle the American with Disabilities Act (ADA) effects from the macroeconomic effects on this change of job mobility. This paper finds that the job mobility among disabled workers improved but there is no evidence of the ADA effects from the data.

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I. Introduction

Almost three-fourths of working-age Americans with work disabilities, the vast majority of whom want to work, don't have jobs. Almost 30% of people with work disabilities live below the poverty line. For the people with disabilities, employment is a path out of poverty. A decent job can also enhance self-worth, provide educational opportunities and skills training, give one's life structure and purpose, increase social contacts, and offer important fringe benefits such as health insurance, retirement pensions, travel opportunities and paid vacation time. Passage of the American with Disabilities Act (ADA) in 1990 signaled an historic awakening and promoted equality and greater opportunity in the employment arena. An examination of job mobility, which measures both of job separation and job accession for disabled workers, is important in order to understand their labor market experience, to evaluate the effectiveness of policies concerning disabled workers and to predict the trends in the future.

However the literature on job mobility among disabled workers is very small. And to my awareness little is known about the change of job mobility and the reasons for this change. This paper makes contributions to that literature by using the 1990 and 1993 panels of Survey of Income and Program Participation (SIPP) to estimate and explain the change of job mobility. Multinomial logit models are adopted to determine the probability of subsequent job change status with respect to disabled workers' current job and labor market characteristics. The paper goes on to disentangle the ADA effects from the macroeconomic effects on the change of job mobility. Assuming the ADA took effects after it was enacted in 1992, I constructed interactions of disability with year to capture the ADA effects.

The paper finds that the job mobility for disabled workers improved during the early 1990s. The probability of job stay increased and the probability of involuntary external job

changes decreased. But the finding suggests that there is no ADA effect on the job mobility for disabled workers. The implication is that the improvement of job mobility is mainly attributed to the economic expansion from early 1992.

The next section provides a theoretical overview of job mobility and reviews the previous literature in this area. Section III describes the data and methods. Section IV reports descriptive statistics. Section V contains the main empirical findings and Section VI concludes.

II. Theory and Literature Review

Job Mobility Patterns and the Choice of Job Change Status

A voluntary job change is a form of investment of human capital like schooling or training. Searching in the job market is a process of learning about one's comparative advantage by sampling and experiencing a variety of jobs. The growing wage is the return to such an investment. Voluntary job changes also increase human capital by accumulating comprehensive job experience and thus make the job changer more qualified for a variety of positions and more adaptable to changes in the labor market. Voluntary job changes often directly increase wage too. Disabled workers face special difficulties caused by communication and mobility limitations when conducting job searching and thus are less likely to make voluntary job changes.

On the other hand they are more likely to experience an involuntary job change because the uncertainties in their health status may cause trouble to their work performance and make the job mismatched. A job displacement induces wage loss on displaced worker (Ruhm, 1991; Jacobson, et al.,1993; Fallick, 1996; Farber, 1998). Wrongful termination is a big concern in

the labor market for disabled workers. Empirical research (DeLeire, 1998) indicates that ‘the most common ADA violations alleged in charges filed with the Equal Employment Opportunity Commission (EEOC) involved discharge, layoff, or suspension (45 percent). Acemoglu and Angrist (1998) report that the 62.9% of charges that EEOC received from July 1992 to September 1997, are for wrongful terminations.

The above analysis suggests that disabled workers are disadvantaged in the investment of human capital obtained through job mobility. Next I will look at how a disabled worker chooses job change status, i.e. how they measure the utility of job changes, which is the basis of the specification of the multinomial logit model.

Assume workers are utility maximizing. Let W_c be the wage of the current job, W_n the wage of the new job, I_c the average rate of wage growth on the current job, I_n the average rate of wage growth on the new job, Y the total years worked, U_c other utilities provided by the current job such as working environment etc., U_n other utilities provided by the new job, H_c and P_c the utilities of health insurance and pension coverage provided by the current job, respectively, H_n and P_n the utilities of health insurance and pension coverage provided by the new job, respectively, and C_n the cost of searching and changing job. The choice of staying or making a voluntary job change is determined by the utility of the new job relative to the utility of the current job.

If $W_c * (1+I_c)^Y + H_c + P_c + U_c < W_n * (1+I_n)^Y + H_n + P_n + U_n - C_n$, the worker will choose to make a voluntary job change. If $W_c * (1+I_c)^Y + H_c + P_c > W_n * (1+I_n)^Y + H_n + P_n - C_n$, the worker will choose to stay on the job.

The most relevant study of job mobility among workers with disability is done by Baldwin and Schumacher (1999). They use data from the 1990 Survey of Income and Program

Participation to compare the mobility patterns of workers with disability against workers without disability. They find that workers with disabilities are more likely to make external job changes than are workers without disabilities. Disabled workers are also found to be more likely to experience an involuntary job change than non-disabled workers. They give two explanations for the patterns. One is that there is a greater incidence of job mismatch among workers with disabilities. The other is discrimination against disabled workers in job terminations. They also find that health insurance, pension coverage and job experience have negative effects on job mobility for all workers but the effects are stronger for non-disabled workers than disabled workers.

The Americans with Disabilities Act

Signed into law on July 26 1990, the Americans with Disabilities Act is a wide-ranging legislation intended to make job market and society more accessible to people with disabilities. It is divided into five titles:

1. Employment (Title I) Business must provide reasonable accommodations in all aspects of employment. Possible changes may include restructuring jobs, altering the layout of workstations, or modifying equipment. Employment aspects may include the application process, hiring, wages, benefits, and all other aspects of employment. Medical examinations are highly regulated.
2. Public Services (Title II) Public services cannot deny services to people with disabilities participation in programs or activities which are available to people without disabilities. In addition, public transportation systems, such as public transit buses, must be accessible to individuals with disabilities.

3. Public Accommodations (Title III) All new construction and modifications must be accessible to individuals with disabilities. For existing facilities, barriers to services must be removed if readily achievable.
4. Telecommunications (Title IV) Telecommunications companies offering telephone service to the general public must have telephone relay service to individuals who use telecommunication devices for the deaf or similar devices.
5. Miscellaneous (Title V) Includes a provision prohibiting either (a) coercing or threatening or (b) retaliating against the disabled or those attempting to aid people with disabilities in asserting their rights under the ADA.

The ADA has a broad definition of disability. An individual is ‘disabled’ if he or she meets at least any one of the following tests:

1. He or she has a physical or mental impairment that substantially limits one or more of his/her major life activities;
2. He or she has a record of such an impairment.
3. He or she is regarded as having such an impairment.

The enforcement of ADA was left to the Equal Employment Opportunity Commission (EEOC).

DeLeire (1998) used data from SIPP to analyze ADA effects on the employment and wages of disabled men. He used a vector of dummy variables and interactions to capture the ADA effects. I adopted this approach in the paper. DeLeire found some negative ADA effects in that study. As early as 1990 employment rates of men with disabilities decreased dramatically and continued to decrease through the beginning of 1995. On average over the post-ADA period, employment of men with disabilities was 7.2 percentage points lower than

before the Act was passed. On the other hand wages of disabled men did not change with the passage of the ADA. Acemoglu and Angrist (1998) used CPS data and also found that the ADA had a negative effect on the employment of disabled men of all working ages and disabled women under age 40. Estimates also suggest the ADA reduced hiring of the disabled but did not affect separations.

Prediction of the ADA Effects on Job Mobility

The ADA induces mainly three costs: accommodation cost, hiring cost and firing cost. Assume that accommodation cost is relatively trivial compared to firing cost. Then for disabled workers, the ADA is expected to decrease the probability of involuntary job change among disabled workers all else equal.

III. Data and Methods

The Definition of Disability

Persons are considered disabled if they indicate that a health condition limits their ability to work at a job or around the house or limits their mobility or ability to communicate. That is, if they met any of the following criteria:

- Used a wheelchair or were a long-term user of a cane, crutches, or a walker
- Had difficulty performing one or more functional activities (seeing, hearing, speaking, lifting/carrying, using stairs, or walking)
- Had difficulty with one or more activities of daily living (getting around inside the home, getting in or out of bed or a chair, bathing, dressing, eating, and toileting)

- Had difficulty with one or more instrumental activities of daily living (going outside the home, keeping track of money and bills, preparing meals, doing light housework, taking prescription medicines in the right amount at the right time, and using the telephone)
- Had one or more specified conditions (a learning disability, mental retardation or another developmental disability, Alzheimers disease, or some other type of mental or emotional condition)
- Were limited in their ability to do housework
- Were 16 to 67 years old and limited in their ability to work at a job or business
- Were receiving federal benefits based on an inability to work.

Sources of data on disability

The data come from Wave III to VIII of the 1990 and the 1993 panels of the Survey of Income and Program of Participation (SIPP). The United States Bureau of the Census provides data on disability based on three primary sources: SIPP, the decennial census of population, and the Current Population Survey (CPS).

The SIPP is designed so that a panel of households enters the survey at the beginning of each calendar year and are interviewed at four-month intervals over period of two years or more (the 1996 panel design is different). An extensive and reasonably consistent set of disability questions was asked in the 1990, 1991, 1992 and 1993 SIPP panels.

The long-form questionnaires used in the 1970, 1980, and 1990 decennial censuses contained questions about disability status. The 1970 census had questions about work disability, the 1980 census had questions about work disability and the ability to use public transportation, and the 1990 census had questions about work disability, the ability to go outside the home alone, and the ability to take care of personal needs.

The third data set, the CPS, identifies persons who are out of the labor force because of a disability and, in each March survey since 1980, identifies persons who have a health problem which ‘prevents them from working or limits the kind or amount of work they can do’.

SIPP and the March Current Population Survey (CPS) are the most used sources of data on both job mobility and disability. The SIPP has the following advantages with respect to our purpose of research.

1) The extensive set of disability questions asked in SIPP makes it the preferred source for examining most disability issues. The SIPP obtains information on the presence of limitations in functional activities and in activities of daily living; the presence of certain conditions related to mental functioning and the presence of a work disability. CPS data concern only work disability. A worker with impairments that do not limit him on job will not be coded as a disabled worker. Thus, the CPS tends to underestimate the rate of disability.

2) The SIPP contains detailed information on the reason for job change so that job changes can be classified as voluntary or involuntary.

3) The SIPP is more longitudinal. It follows initial respondents for more than two years. The March supplement collects information on employment and income just in the previous calendar year.

The major drawback to the SIPP as a disability data source is the relatively small sample size of the survey. Estimates are more likely to be insignificant. The other disadvantage is that the SIPP tends to over-sample the poor. When it comes to comparison between groups such as the disabled against the non-disabled, the between-group difference is biased.

The Working Data

The working data are supplied by Baldwin and Schumacher. Employment histories from Wave IV to VIII are matched to Wave III. Hence for each observation in the sample, we observe the labor market characteristics in Wave III and the subsequent job change history up to 20 months, i.e. from Wave III to Wave VIII.

The sample includes men and women aged 17 to 65, all employed at the beginning of the Wave III (excluding people who are self-employed). Workers with negative family total income are also eliminated from the sample. There are 2,738 disabled workers and 28,712 non-disabled workers in the pooled data.

Coding Job Change Status

There are five job change categories: job stayers, internal job changers, voluntary external job changers, involuntary external job changers and other external job changers, valued 0, 1, 2, 3, 4, respectively.

The job change categories are coded as follows. The first step identifies job stayers from job changers by the question "Did you change job this month?". If yes, the worker is coded as job changer; otherwise, the worker is coded as job stayer (valued 0). The second step identifies internal changes from external changes by the question "Did you stop working for the employer?". If yes, the worker is coded as external job changer; otherwise, the worker is coded as internal job changer. For workers who change the job more than once, those who ever made an external change are coded as external job changer. The final step is to identify the reason for the external job change. The following choices are included: laid off, discharged, temporary job ended, retired, new job or quit for other reason. Involuntary external changers are those who were ever laid off, discharged, or in a temporary job that ended in the

20 months. Voluntary external changers are those who indicate they left their current job to accept a new job or to retire. Other changers are those who changed jobs for unspecified reasons and had no experience of either voluntary or involuntary external job changes.

Methods

Multinomial logit models on the job change status are estimated to explain the choices of job status. The linear probability model is unsatisfactory as a probability model because it can lead to predicted probabilities outside the interval (0, 1) and/or negative variances for the coefficients. Both probit and logit statistical model can be used for discrete or binary choice models. But in our case, I choose the logit model because it takes much less time to obtain the estimates. The probability density function of the logistic distribution is smooth, symmetric about zero and bell-shaped, has slightly thicker tails than the standard normal probability density function. Maximum likelihood method is used to estimate the unknown parameters of the multinomial logit model.

Let P_i be the probability associated with the five job categories, where i equals 0, 1, 2, 3, or 4. Let

$$P_i / (P_i + P_4) = F(\beta'_i x), \quad i=0, 1, 2, 3$$

This implies

$$P_i / P_4 = F(\beta'_i x) / [1 - F(\beta'_i x)] = G(\beta'_i x), \quad i=0, 1, 2, 3$$

We have

$$P_4 = [(1 + \sum G(\beta'_i x))]^{-1}, \quad i=0, 1, 2, 3$$

And hence, we have

$$P_i = G(\beta'_i x) * [(1 + \sum G(\beta'_i x))]^{-1}, \quad i=0, 1, 2, 3$$

Each of the n individuals will fall into one of the 5 categories. Let x_j denote the vector of observations on the variables x for individual j . Then the probabilities P_{ji} ($i=0, 1, 2, 3$) and P_{j4} for the j th individual are obtained by substituting x_j for x in the above equation. We also define a set of dummy variables:

$$y_{ji}=1 \text{ if the } j\text{th individual falls in the } i\text{th category}$$

$$y_{ji}=0 \text{ otherwise}$$

Then the likelihood function for the multinomial logit model can be written as

$$L = \prod P_{j0}^{y_{j0}} P_{j1}^{y_{j1}} P_{j2}^{y_{j2}} P_{j3}^{y_{j3}} P_{j4}^{y_{j4}}$$

Model Specification

First I estimate the multinomial logit model for disabled workers in the 1990 and 1993 panels respectively. The right hand side variables include three variables that measure the value of the current job, i.e. wage, health insurance, pension coverage; two variables that measure the human capital, i.e. education and job experience; and demographic characteristics, including race, gender, marital status, part-time status, public section status and union status. Then the model is estimated for the pooled data of disabled workers. A dummy variable of Y93 and its interactions with health insurance etc are added to the model. Next a multinomial model is estimated for the pooled data of the 1990 and 1993 panels for all workers in order to identify the ADA effects.

IV. Summary Statistics

Table 1 reports types of job changes. Within the group of disabled workers, the percentage of job stayers, internal changers increased while the percentage of external changers decreased from 1990 to 1993. Among external changers, the percentage of voluntary changers

increased from 21% to 31% of all external changers while the percentage of involuntary changers decreased from 45% to 42% and the percentage of other external changers increased from 34% to 27%. For both panels, a larger percentage of disabled workers than that of non-disabled workers change their jobs. The above changes suggest that job mobility among disabled workers is improving over time. When it comes to between-group comparison, a larger percentage of non-disabled workers are job stayers and a larger percentage of disabled workers make external job changes. Among external job changers in 1990, a smaller percentage of disabled workers than that of non-disabled workers experienced involuntary changes while in 1993 a larger percentage of disabled workers experienced involuntary changes. The rate of involuntary external job change of disabled workers decreases slower than that of the non-disabled workers, suggesting the job separation might be worse for disabled workers relative to non-disabled workers over time.

Table 2 reports means of variables by year and job change status. The descriptive statistics give a clear picture of the demographic characteristics for workers of different job statuses. The involuntary group is the most economically disadvantaged. The involuntary group has the lowest health insurance and pension coverage, the lowest wage and family income. The involuntary group also has the least education and job experience and the least union proportion. The between-group difference is consistent with the analysis of the choice of job change status (utility maximization).

V. Results

The Change of Job Mobility

Table 3 reports the coefficients and marginal effects on the probability of the job change status for the disabled workers in the 90 panel, the 93 panel and the pooled sample in column 1, 2, and 3, respectively. The marginal effects are computed at the means of the right hand side variables. The marginal effect is, therefore, explained as the change in the probability of job change status for a disabled worker with mean characteristics. For example, the marginal effect of health insurance on the probability of job stayer is 0.06 and statistically significant. That means that for a disabled worker with mean characteristics the presence of health insurance will increase his probability of being a job stayer by 6 percent. The marginal effect of interaction of Y93 with variables such as male measures how the effect of sex on the probability of being in a job status has changed from the 1990 panel to the 1993 panel. For example, the marginal effect of the interaction of Y93 with pension coverage on the probability of being job stayers is 0.13. Assume this marginal effect is statistically significant. The result means that for a disabled worker with mean characteristics the presence of pension coverage increases the probability of being a job stayer by 13 percent more in the 1993 panel than it did in the 1990 panel. That is, the effect of pension coverage on the probability of being job stayers becomes 13 percent stronger across the time.

Overall Change in Job Mobility

In the early 1990s, for a disabled worker with mean characteristics the probability of job stay increased from 73% to 76% and the probability of involuntary external job change decreased from 9% to 6% while the probability of voluntary external job change and internal job change almost remain unchanged . With the increase in job stability and the decrease in

involuntary external job change, the results suggest that the overall job mobility improved across the two panels.

The Effect of Year

The marginal effect of Y93 is significant for job stay and voluntary job change. A disabled worker with mean characteristics is 5.8 percent less likely to stay and 2.8 percent more likely to make a voluntary external job change in the 1993. This reduce in job stability accompanied by an increase in the probability of voluntary external job change suggests that disabled workers are transferring from job stayers to voluntary job changers. Therefore, the year effect is to improve the job mobility for disabled workers because voluntary job change helps to increase wage directly or accumulation of human capital, which leads to subsequent higher wage.

The Effect of Pension Coverage

Generally the pension effects on job stability become stronger over the early 1990s. In the 1990 panel its marginal effect is insignificant for voluntary external or involuntary external job change. In the 1993 panel the presence of pension coverage is associated with 7.6 percent lower probability of voluntary external job change and 5.9 percent lower probability of involuntary external job change. For a worker with mean characteristics the presence of pension coverage in the 1993 panel increases the probability of staying on the job by 12.7 percent more than it did in the 1990 panel. On the other hand in the 1993 panel the presence of pension coverage reduces the probability of voluntary external job change by 6.3 percent more than it did in the 1990 panel. It also reduces the probability of experiencing an involuntary external job change for an average worker by 4.9 percent more than it did in the 1990 panel.

Therefore, the effect of pension coverage strengthened job stability and reduced job mobility for disabled workers in the early 1990s.

The Effect of Health Insurance

The effect of health insurance is similar to that of pension coverage. The presence of health insurance increases the probability of job stay by 7.4% in the 1990 panel and 6.7% in the 1993 panel. However these marginal effects are not significant. Health insurance also reduces the probability of voluntary external job change by 2.1% in the 1990 panel and the probability of involuntary external job change by 4.6% in the 1993 panel. But again there is no robust evidence that supports the theory that employer-related health insurance inhibits job mobility. With health insurance a worker in the 1993 panel is 3.6 percent more likely to make voluntary job changes than in the 1990 panel while he is 4.9 percent less likely to make involuntary job changes in the 1993 panel than in the 1990 panel. Hence health insurance helps to improve the job mobility for the disabled workers in the early 1990s.

The Effect of Current Job Experience

Current job experience increases the probability of job stay and reduces the probability of involuntary job change in both panels. Its effect on voluntary job change is inconclusive because there are two offsetting effects. One effect is that the longer the current job experience the better the job matching is and so that the probability of voluntary job change is smaller. The other effect is that the longer the current job experience the more human capital the worker has and so that the probability is bigger to find a better job somewhere else. The effect of job experience is stable throughout the early 1990s. It has little effect on the change of job mobility.

The ADA Effects on Job Mobility

Table 4 reports the coefficients and marginal effects of ADA on the probability of job change status. The marginal effect of disability measures the difference of probability for disabled workers relative to non-disabled workers. The marginal effect of the dummy variable Y93 measures the difference of probability after 1993 relative to before 1993. Finally the marginal effect of the interaction of disability with Y93 measures the ADA effect, i.e. the difference of cohort effects between disabled workers and non-disabled workers.

Evidence from column 1 suggests that disabled workers have less job stability than do non-disabled workers. They are more likely to experience involuntary changes as well as voluntary changes. However the marginal effect of disability status is small. This evidence is consistent with the finding by Baldwin and Schumacher (1999). Column 2 indicates that both job stability and the probability of voluntary job change increases in the 1993 panel while the probability of involuntary job change decreases in the 1993 panel. In general the job mobility improves. Column 3 indicates that ADA has no effects on the change of job mobility among disabled workers because the marginal effects are all highly insignificant.

In this reasearch I also examined the differential effect of the ADA on the job status of different groups of disabled workers, such as workers with college degree against workers without college degree, workers in the public sector against workers in other sectors and females against males. The only ADA effect detected is that the probability of voluntary external job change for disabled workers with college degree decreased by 1.9 percent more than that for disabled workers without college degree decreased after the enactment of the ADA. Other ADA effects are not significant.

VI. Conclusion

The findings indicate that the job mobility for disabled workers improves in general in the early 1990s. The evidences are:

1. The probability of job stay increased from 73% to 76% and the probability of involuntary external job change decreased from 9% to 6% while the probability of voluntary external job change remains unchanged.
2. The year effect improves the job mobility for disabled workers by showing disabled workers are transferring from job stayers to voluntary external job changers. The positive effects of pension coverage and health insurance may contribute to the improvement of job mobility among the disabled workers.

Despite the finding of improvement of job mobility, the reasons for this change are not clear yet. There are two factors that are most likely to contribute to the change: one is ADA; the other is the improving labor market due to economic expansion. The paper finds no evidence of ADA on the change of job mobility among the disabled workers. The reasons why we don't observe the ADA effects might be:

1. The data are not sufficient. In addition to the small sample size, the ADA covers a broader range of disabled individuals than those our data can identify. The ADA may simply have no effects on the specific subgroup of disabled people.
2. The ADA effect is weak because the incentive to employment protection is weak or because the ADA is not well enforced.
3. The economic expansion affects the disabled worker and the non-disabled worker in such a different way that the ADA effects on job mobility are offset by the macroeconomic effects.

4. The method in application can not capture the ADA effect.

However, the results presented in the paper do strongly suggest that the economic expansion generally has improved the job mobility for disabled workers and non-disabled workers similarly. Larger longitudinal data on disabled workers, which are more representative and better control the unmeasurable individual characteristics, are called for further study on this subject.

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Table 1 Types of Job Changes

	Disabled		Non-disabled	
	90	93	90	93
Job stayers	975(67%)	887(69%)	11102(70%)	9264(73%)
Internal changers	151(10%)	148(11%)	1959(12%)	1481(12%)
External changers	319(22%)	258(20%)	2917(18%)	1989(16%)
Voluntary	66(21%)	80(31%)	647(22%)	640(32%)
Involuntary	144(45%)	108(42%)	1408(48%)	756(38%)
Other	109(34%)	70(27%)	862(30%)	593(30%)
N	1445	1293	15978	12734

Source: Wave III to VIII of the SIPP 1990 and 1993 panels. Disability rates based on self-reported work limitations due to health impairments.

Table 2 Means of Variables by Job Change Category for Disabled Workers

	Stayers		Voluntary		Involuntary	
	90	93	90	93	90	93
Health Insurance	0.69	0.68	0.61	0.61	0.49	0.31
Pension	0.57	0.55	0.52	0.21	0.31	0.17
Wage	10.59	12.17	11.81	12.75	8.26	9.01
Family Income	41,235	44,823	42,735	41,562	33,972	33,297
Education	12.88	13.21	12.89	12.79	12.31	12.56
Job Experience	9.30	9.25	9.31	6.31	4.18	4.32
Age	43.46	45.52	44.67	43.71	38.91	41.18
Male	0.47	0.48	0.61	0.61	0.54	0.55
Non-white	0.18	0.15	0.12	0.07	0.14	0.09
Public	0.22	0.29	0.18	0.19	0.13	0.11
Part-time	0.19	0.18	0.20	0.18	0.26	0.36
Union	0.24	0.26	0.26	0.25	0.12	0.08
Married	0.61	0.61	0.62	0.65	0.49	0.53
N	975	887	66	80	144	108

Source: Wave III to VIII of the SIPP 1990 panel and 1993 panel.

Table 3 Multinomial Logit Model: Marginal Effects on the Probability of Job Change among Disabled Workers

<i>Job Stayer</i>			
	90	93	Pooled
Health Insurance	0.074	0.067	0.066
Pension Coverage	0.088	0.186	0.077
Job Experience	0.012	0.007	0.010
Y93*health insurance	-	-	0.017
Y93*pension coverage	-	-	0.127
Y93*job experience	-	-	-0.001
Y93	-	-	0.058
Overall	0.073	0.076	
<i>Voluntary</i>			
	90	93	Pooled
Health Insurance	-0.021 -0.556** (0.329)	0.011 0.131 (0.285)	-0.023 -0.551** (0.310)
Pension Coverage	0.001 -0.096 (0.319)	-0.076 -1.659* (0.316)	-0.003 -0.166 (0.310)
Job Experience	0.000 -0.009 (0.017)	-0.002 -0.044* (0.020)	0.000 0.004 (0.016)
Y93*health insurance	-	-	0.036 0.696** (0.402)
Y93*pension coverage	-	-	-0.063 -1.436* (0.424)
Y93*job experience	-	-	-0.002 -0.042** (0.023)
Y93	-	-	0.028 0.647** (0.368)
Overall	0.050	0.051	
<i>Involuntary</i>			
	90	93	Pooled
Health Insurance	-0.017 -0.296 (0.225)	-0.046 -0.822* (0.263)	-0.012 -0.251 (0.216)

Pension Coverage	-0.020	-0.059	-0.018
	-0.350	-1.140*	-0.342
	(0.231)	(0.299)	(0.226)
Job Experience	-0.005	-0.002	-0.004
	-0.072*	-0.044*	-0.070*
	(0.018)	(0.021)	(0.018)
Y93*health insurance	-	-	-0.043
			-0.592**
			(0.318)
Y93*pension coverage	-	-	-0.049
			-0.819*
			(0.360)
Y93*job experience	-	-	0.001
			0.020
			(0.026)
Y93	-	-	0.011
			0.226
			(0.262)
Overall	0.090	0.059	
N	1445	1293	2738

Source: Wave III to VIII of the SIPP 1990 panel and 1993 panel.

Notes: in column 1 and 2 other right hand side variables included are wage, education, union, public, part-time, race, gender, age, marital status and metropolitan status. In column 3 interactions of Y93 with race and gender are included in addition to the variables in column 1 and 2. Marginal effects are shown in Arial font. Standard errors of coefficients are reported in the parentheses. (*) indicates that the coefficient is significant at 95% confidence level. (**) indicates that the coefficient is significant at 90% confidence level.

Table 4 Multinomial Logit Model: Marginal Effects on the Probability of Job Change for All Workers

	Disabled	Y93	Y93*Disabled
Stayer	-0.026	0.019	-0.014
Internal	-0.005	-0.001	0.013
	-0.015	-0.031	0.139
	(0.095)	(0.039)	(0.135)
Voluntary	0.002	0.003	-0.001
	0.179	0.292*	-0.098
	(0.269)	(0.114)	(0.362)
Involuntary	0.004	-0.004	0.000
	0.344**	-0.328	0.244
	(0.185)	(0.101)	(0.285)
Other	0.026	-0.018	0.002
	0.241*	-0.170*	0.035*
	(0.078)	(0.037)	(0.115)

Source: Wave III to VIII of the SIPP 1990 panel and 1993 panel.

Notes: the number of observations is 31,450. Other right hand side variables include wage, family quarterly total income, health insurance, pension coverage, college degree, current job experience, union, public, part-time, age, race, gender and marital status. Marginal effects are shown in Arial font. Standard errors of coefficients are reported in the parentheses. (*) indicates that the coefficient is significant at 95% confidence level. (**) indicates that the coefficient is significant at 90% confidence level.