CSEF

Centre for Studies in Economics and Finance

WORKING PAPER NO. 122

Health Insurance and Job Mobility: Evidence from Clinton's Second Mandate

Anna Sanz de Galdeano

September 2004

University of Naples Federico II

University of Salerno

Bocconi University, Milan

CSEF - Centre for Studies in Economics and Finance – UNIVERSITY OF SALERNO
84084 FISCIANO (SA) - ITALY
Tel. +39 089 96 3167/3168 - Fax +39 089 96 3167 – e-mail: csef@unisa.it

CSEF
Centre for Studies in Economics and Finance

WORKING PAPER NO. 122

Health Insurance and Job Mobility: Evidence from Clinton's Second Mandate

Anna Sanz de Galdeano [1]

Abstract

In this paper we analyse data from the 1996 panel of the Survey of Income and Program Participation to investigate the effect of employer-provided health insurance (EPHI) on job mobility from 1996 to 2000. First, we estimate the effect of EPHI on four month job turnover. It is found that, after accounting for unobserved individual heterogeneity, holding EPHI induces substantial mobility reductions for all demographic groups, ranging from 31% to 58%. Second, we evaluate whether the 1996 Health Insurance Portability and Accountability Act succeeded in mitigating insurance induced mobility reductions and we find that it did not.

Keywords: Health Insurance; Job Mobility.

JEL Classification: C23; I18; J60.

[1] CSEF, University of Salerno

Address correspondence to: Anna Sanz de Galdeano, CSEF, Department of Economics, University of Salerno, Via Ponte don Melillo, 84084 Fisciano (SA), Italy. E-mail: asdega@unisa.it. Fax: +39 089 96 3169.
I wish to thank Andrea Ichino and Frank Vella for insightful advice and encouragement and Kanika Kapur for her helpful suggestions. I am also greatful to Dan Hamermesh, Lola Collado, Julián Messina and seminar participants at CEMFI's Policy Evaluation Workshop, CSEF and the IHS for their very useful comments on earlier drafts. The author acknowledges the financial support provided through the European Community's Human Potential Programme under contract HPMD-CT-2001-00069.

Contents

> No longer need you hesitate about taking a better job because you're afraid to lose your coverage.
> – President Clinton, at the signing of the Health Insurance Portability and Accountability Act of 1996.

Health insurance and the labour market are inextricably interlocked in the United States, where the vast majority of insured nonelderly individuals obtain their health insurance through their own or a family member's employment (Employee Benefit Research Institute, 2000). A major disadvantage of this system is that it may lead to inefficient mobility reductions if workers avoid pursuing higher productivity positions for fear of losing health insurance coverage, a phenomenon termed "job-lock". The most obvious situations in which job-lock may arise are related to the prevalence of pre-existing health condition exclusions, probationary periods for new coverage, lack of insurance during unemployed job search or preferences for a particular plan that might not be offered by another employer.

The job-lock phenomenon has motivated a significant literature. Although there is some disagreement, recent studies suggest that employer-provided health insurance (EPHI) reduces yearly job mobility by 25-50%, with mobility rates from data sources used in this literature that range from 16% to 25%. Concerns about job-lock have also played a central role in the national health insurance reform planning process. In 1985, the federal government, as part of its Consolidated Omnibus Budget Reconciliation Act (COBRA), required employers to continue providing health insurance coverage to workers who leave the firm for a specified period of time, and after 1990 there was an expansion of eligibility for COBRA coverage.

With Bill Clinton's ascension to the White House, major initiatives regarding health care reform were expected and job-lock was an important issue in the new Administration's agenda. Universal coverage was the most notable feature of the Health Security Act (HSA), which was unsuccessful. However, in 1996 President Clinton signed into law the Health Insurance Portability and Accountability Act (HIPAA). Although much less ambitious than the HSA, one of the several goals of HIPAA was to

reduce job-lock and increase labour market mobility. HIPAA included several reforms concerning access and portability in the employer group insurance market and also excluded health status as a factor in setting premiums. However, HIPAA actually did not impose many new requirements in the group market and several states already had some form of legislations that met or even surpassed HIPAA standards.

This paper offers two contributions to the job-lock literature. First, our empirical approach, which is different from methods used in this literature, allows for the possibility that holding EPHI is correlated with unobserved individual characteristics (mover-stayer heterogeneity) that may influence mobility decisions. Second, the use of the 1996 panel of the Survey of Income and Program Participation (SIPP), a longitudinal data set which interviewed respondents up to twelve times at four month intervals since 1996, allows us to evaluate the impact of HIPAA on job-lock.

1 Health Insurance and Job Mobility

1.1 Methods and Findings

During the past decade, there has been a substantial and growing body of work investigating the impact of EPHI on job mobility.[1] A major concern in this literature has been to find an identification strategy able to overcome the potential correlation between the holding of EPHI and factors which affect mobility independently from health insurance. There are two main reasons why this correlation is likely to exist. First, jobs that offer health insurance are likely to be "good" jobs. If individuals are reticent to leave these "good" (high wage and generous benefit package) jobs for reasons other than health insurance, then this would be incorrectly perceived as job-lock. Second, EPHI may be correlated with individual unobserved characteristics that are likely to influence mobility decisions.

The most popular identification strategy comes from Madrian (1994) and involves a difference-in-differences (DD) estimator, directly addressing the concern that EPHI

[1]See Gruber (2000) for an extensive analysis of the features of the health insurance market in the U.S. and Gruber and Madrian (2002) for a critical review of the job-lock literature.

is likely to be correlated with unobserved positive job attributes that tend to reduce mobility. The idea of the DD approach is to compare two groups for whom job-lock should operate differentially strongly because their insurance valuation is different, but for whom the other characteristics of the "good" jobs should be valued equally. If job-lock is important, having health insurance coverage from a source other than one's current employer should cause a greater variation in mobility for those with EPHI than for those without EPHI.[2] This DD identification strategy gives consistent estimates under the condition that unobservables about jobs and individuals are differenced away.

Most authors in this literature employ DD estimators to measure job-lock. Madrian (1994) estimates insurance induced reductions of mobility of approximately 25% for married men. Holtz-Eakin (1994) and Kapur (1998) find no evidence of significant levels of job-lock. Buchmueller and Valletta (1996) obtain job-lock estimates that range from 20% to approximately 48%, depending on the sub-group analysed, but these estimates are not statistically significant at standard levels for men. Anderson (1997) finds that EPHI reduces job mobility for those for whom losing coverage would be costly and that the lack of EPHI increases mobility for those who would benefit most by attaining it because of pregnancy or disability (she labels this type of behaviour "job push").

More recent papers do explicitly model workers' decisions and the potential correlation between unobserved individual heterogeneity and EPHI. Dey and Flinn (2003) develop and estimate an equilibrium model of EPHI and wage determination. They find that jobs providing health insurance are substantially longer than those that do not provide it. Within their model, heterogeneity in the distribution of firm costs of health insurance leads to some inefficient mobility decisions, but the majority of moves from job to job are associated with productivity improvements.

Gilleskie and Lutz (2002) estimate a joint model of initial tenure, employment

[2]Apart from using an indicator for holding non-employer provided health insurance, Madrian employs two other proxies for insurance valuation which are more direct indicators for potential medical expenditures: family size and pregnancy of the spouse.

status, marital status, the offer of EPHI, the holding of EPHI, the holding of health insurance from another source and the employment transition decision. The error terms in these equations are decomposed into a permanent unobserved component that may affect different outcomes differently and random noise and the distribution of the permanent unobserved heterogeneity is approximated by a step function. The equations of the model are allowed to be linked by dependence on the unobserved heterogeneity which is treated as a random effect and is integrated out of the model. They find no evidence of job-lock among married men and producing small estimates of job-lock among unmarried males of between 10% and 15%.

Stinson (2002) estimates a joint model of wages, hazard of job ending and holding of EPHI. Unobservable characteristics are modeled using person and job random effects that are correlated across the three equations. She finds substantial levels of job-lock of 30-60%.

Our empirical strategy to estimate the effect of EPHI on job turnover differs from the methods used in these studies, since we model the unobserved individual heterogeneity as a fixed effect and allow it to be correlated with EPHI.

Using statewide variation in continuation of coverage laws, which require employers to continue providing health insurance coverage to workers who leave the firm for a specific period of time, Gruber and Madrian (1994) find that twelve months of continuation coverage increase turnover by about 10%,[3] which suggests that health insurance does indeed cause reductions in mobility. In the second part of the paper we evaluate a more recent legislation, the 1996 HIPAA, which also aimed at reducing job-lock and increasing job mobility.

Finally, another interesting debate in this literature has to do with the temporary or permanent nature of the job-lock phenomenon. Job-lock could reflect risk aversion on the part of the average employee, arise from fear of being medically underwritten out of coverage, concerns about long-run coverage or from long-run medical conditions. On the other hand, job-lock might arise from short-run medical conditions such as pregnancy. In this case, mandatory limited portability policies should be expected to

[3] A sizeable effect relative to Madrian's (1994) estimates of job-lock.

alleviate job-lock. Gruber and Madrian's (1994) finding that continuation of coverage mandates alleviate a substantial portion of the job-lock problem seems to support the view that job-lock has a temporary nature. However, Madrian's (1994) evidence is mixed, as she finds evidence of job-lock arising from both pregnancy and larger families, which gives rise to long-run concerns.

1.2 The Health Insurance Portability and Accountability Act of 1996

HIPAA was enacted on August 21, 1996. Interim final rules implementing the HIPAA provisions were first made available to the public on April 1, 1997 and the HIPAA provisions generally applied for plan years beginning after June 30, 1997. The HIPAA key reform provisions regarding the employer group insurance market are summarised below: [4]

1. Increased portability through limitation on pre-existing condition exclusions and crediting for periods of previous coverage. No firm can exclude from coverage for more than 12 months (or 18 months in the case of a late enrollee) any condition (regardless of its cause) for which medical advice, diagnosis, care or treatment was recommended or received within the 6-month period prior to the enrollment in the insurance plan. Furthermore, the period of any such preexisting condition exclusion is reduced by the aggregate of the periods of creditable coverage (if any) applicable to the participant or beneficiary as of the enrollment date. [5]

2. Guaranteed issue in the small group market. Health insurance issuers in the small group market must offer insurance (that is, to offer all actively marketed products in the small group market) to all small firms (defined as firms with 2 to 50 employees)

[4]Individuals can get private health insurance through their employer or by purchasing it in the individual or non-group market. Small firms and big firms are often termed the small and big group insurance market, respectively.

[5]Most health coverage is creditable coverage. A period of creditable coverage is not counted if, after such period and before the enrollment date, there has been a 63-day period during all of which the individual was not covered under any creditable coverage. A waiting period is not considered as a break in coverage.

wishing to buy it and must accept all eligible individuals without regard to health status related factors.

3. Guaranteed renewability in the small and large group market. Once an insurer sells health insurance coverage in the small or large group market, they must renew coverage regardless of the health status of any member of a group.

4. Individuals cannot be discriminated against on the basis of health status related factors, both in terms of eligibility (including continued eligibility) and premium contributions.

Before discussing the expected effects of these provisions, it is important to note that states differed in their regulations prior to HIPAA. Table 1 identifies groups of states according to their regulatory environment prior to the federal legislation. [6] A complete list of the states belonging to each of the groups is given in the Appendix.

Alabama (shown as Group A) is the only state that lacked all of the HIPAA requirements in the pre-HIPAA period. Both Group B and Group C include states that allowed to use health as a rating factor and lacked guaranteed issue, although in the case of Group C, states lacked guaranteed issue but only of a number of insurance products. Group D includes states that met all the HIPAA access provisions but they did not exclude health status as a factor in setting premiums. Finally, it is worth noting that there were several states (Group E) that met or even surpassed all the HIPAA standards.

It might seem obvious that HIPAA should indeed have contributed to alleviating job-lock in the states that did not a priori conform to all its requirements. Provisions 1 and 4 would be expected to reduce job-lock, specially for those workers with pre-existing medical conditions or in poor health. Regarding provisions 2 and 3, they may increase the number of firms that offer health insurance coverage, therefore reducing job-lock. However, given that HIPAA did not guarantee affordability, these provisions

[6] Table 1 is based on the database collected by the Institute for Health Policy Solutions which has been described and analysed by Long et. al. (1998) and Curtis et. al. (1999). This database reviewed detailed information on the small-group health insurance reform statutes and regulations adopted by each state prior to HIPAA, therefore providing a comprehensive picture of each state's regulatory environment prior to the federal legislation.

may also lead to premium increases which would in turn exacerbate job-lock by reducing the fraction of firms offering health insurance coverage. According to the view of Cutler and Gruber (2001), what HIPAA did was to codify the states regulations, "making them uniform and expanding them in a minor way" (p. 42). Therefore, it is ultimately an empirical question to evaluate to what extent the HIPAA regulatory expansions succeeded in reducing job-lock.

2 Data

Our data source is the 1996 panel of the SIPP. The adults followed in each SIPP panel come from a nationally representative sample of individuals 15 years of age and older selected from households in the civilian noninstitutionalized U.S. population. Those individuals, along with others who subsequently live with them, are interviewed once every four months over the life of the panel. In the case of the 1996 panel of the SIPP, respondents were interviewed up to twelve times. Each SIPP panel is divided into four rotation groups. Each rotation group is interviewed in a separate month and four rotation groups thus constitute a wave.

An important issue that must be addressed when using the SIPP data is "seam bias": respondents tend to propagate their status at the point of the interview (the seam month) backwards through the preceding months. Therefore, we only use information corresponding to the fourth month of each reference period (the closest one to the interview date) so that seam bias is not a concern.

Following previous studies, we use a number of sample selection criteria. First, we restrict the sample to individuals between the ages of 25 and 55 who are not enrolled at school so that the analysis focuses on a group that has high attachment to the labour force and the results are not confounded by the effect of EPHI on the retirement decision. Second, the self-employed are excluded. Third, following Buchmueller and Valletta (1996) we also exclude agricultural workers, construction workers and military personnel.[7] Finally, we also lose a number of observations because of missing

[7]Buchmueller and Valletta (1996) point out the idiosyncratic nature of job turnover in the agri-

information on some critical control variables such as wages or health insurance coverage. The final sample consists of 213,360 observations at four month intervals for 35,992 employees, spanning the period from March 1996 to February 2000. The panel is unbalanced, with employees contributing between once and a maximum of eleven times.

Each job is given a unique identification number and turnover is defined as changing employers, becoming self-employed or becoming unemployed during the next four months. Overall, the four month turnover rate for our sample is 8.22% and the annual turnover rate is 24.38%. These numbers are in line with mobility rates reported elsewhere. Although job-lock really applies only to voluntary turnover, it is not possible to distinguish voluntary from involuntary job changes in our SIPP panel.[8]

The core survey contains several questions on health insurance coverage. Respondents are asked whether they had private health insurance during the previous four months and those answering yes are asked whether it was in their own name, in someone else's name or both. Respondents with insurance in their own name are then asked whether the source of their insurance was their employer, former employer or union.

The percentages of employees holding EPHI are 72%, 71%, 77% and 51% for single men, single women, married men and married women, respectively. This lower percentage for married women is not surprising, given that 81% of them have an alternative source of coverage (most commonly, the EPHI available to their husbands) against only 21% of married men.

Descriptive evidence on the job-lock conjecture is reported in Table 2. This table shows the frequency with which those employees who do and do not receive EPHI leave their jobs in a period of four months. Not surprisingly, single employees have higher turnover rates than married employees. To the extent that job-lock is a significant feature of labour market dynamics, turnover rates should be relatively lower among

cultural sector as well as the uniqueness of construction workers in both the seasonal nature of their work and the tendency for their health insurance to be provided through unions, which explains their high turnover rates combined with little discontinuity in insurance coverage.

[8]However, it should be noted that Madrian (1994) finds that her estimates of job-lock are not sensitive to whether or not her job change variable includes those who change jobs involuntarily.

those who receive EPHI. The predicted pattern is found for both married and single employees, being these differences substantial (turnover rates for the uninsured are more than double those of the insured).

This transition table only provides some descriptive evidence on the job-lock hypothesis, since it focuses on EPHI and ignores other important factors influencing turnover decisions. The core SIPP questionnaire also provides additional information on a wide set of individual and job characteristics that affect mobility decisions such as age, sex, race, education, state of residence, family size, family non wage income, industry, occupation, firm size, class of worker, wage, union membership, and tenure[9] We also control for local labour market conditions by including states unemployment rates over the estimation period as explanatory variables. This not only accounts for their direct effect on mobility but also for the likely correlation between business cycle conditions and the employers' incentives to provide health insurance and to contribute a larger or smaller share of its cost. Regarding pension coverage information, unfortunately it is not available on a four month basis but only on the seventh wave of the panel, when a special topical module on pensions was administered.[10]

Table 3 presents summary statistics for the main individual and job related variables used in the statistical analyses for the entire sample of employees and for those with and without EPHI. Consistent with the idea that jobs with health insurance are "good" jobs, insured employees have higher wages and longer tenure. Moreover, employees holding EPHI are much more likely to work in a big firm, to be unionized and to have a higher level of education. Overall, there are substantial differences between the two groups in terms of most of the explanatory variables, which may suggest that there might be differences in the unobservables as well.

[9]Although tenure may be seen as a problematic variable because it is the result of a sequential set of quit decisions, it is important to include it because employees are often required to complete a probationary period before they become eligible for health benefits (Buchmueller and Valletta 1996; Madrian 1994).

[10]Buchmueller and Valletta (1996) point out that pension coverage is likely to be correlated with EPHI and therefore it should be incorporated into the model.

3 Estimation and Results

3.1 The Effect of Employer-Provided Health Insurance on Job Mobility

Consider the following model where Q is a dummy variable that takes value 1 if the employee quits his/her job and 0 otherwise:

$$Q_{it} = \beta_0 + \beta_1 EPHI_{it} + \beta_2 O_{it} + \beta_3 (EPHI_{it} * O_{it}) + \beta_4 X_{it} + \upsilon_{it} \quad (1)$$

$$i = 1, ..., N; t = 1, ..., T_i$$

where i denotes individuals, N is the total number of individuals, t denotes time and T_i is the number of time periods over which individual i is observed. $EPHI$ is a dummy variable that takes value one if the individual has employer-provided health insurance and value zero otherwise. O represents health insurance coverage from a source other than one's current employer and $EPHI*O$ is the interaction of this source of coverage and employment-provided health insurance. X denotes the other individual and job characteristics influencing mobility decisions described in the previous section.

To explicitly account for the potential presence of individual specific effects correlated with the regressors we assume that the error term, υ_{it}, can be decomposed as

$$\upsilon_{it} = \eta_i + \varepsilon_{it} \quad (2)$$

where η_i denotes an unobservable individual specific effect, which is assumed time-invariant, $\varepsilon_{it} \sim IID(0, \sigma_\varepsilon^2)$ and all the explanatory variables are assumed independent of the ε_{it} for all i and t. η_i represents mover-stayer heterogeneity, which may reflect factors such as individual-specific turnover propensities and risk aversion. For instance, risk averse individuals are likely to prefer jobs that provide health insurance coverage, and, at the same time, to be reluctant to move. Alternatively, one could also argue that those employees who care a lot about their career and professional development are likely to have "good" jobs that offer health insurance and to be ready to move more easily. What these examples show is that the coefficients on $EPHI$ and $EPHI*O$ are

likely to be biased in the presence of individual specific effects and that, in principle, the bias could go in either direction.

In general, the factors mentioned above are likely to be correlated with $EPHI$ as well as with other explanatory variables such as education, wages or occupation. If this is the case, and one mistakenly models η_i as independent of the explanatory variables, there will be an omitted variable bias and maximum likelihood logit or probit estimation techniques will fail to provide consistent estimates.

As a starting point and as a benchmark for later comparisons, equation 1 is estimated by using a logit model. In addition, we also use Chamberlain's (1980) conditional logit model to control for the fixed effects. Under the assumption that the error term ε_{it} follows a logistic distribution, Chamberlain (1980) shows that consistent estimates can be obtained by maximising a conditional version of the likelihood function in which the likelihood of a given mobility sequence is calculated conditional on the total number of periods in which the individual changed jobs in the sequence. As for the nature of this conditional likelihood function, it does not involve η_i, the fixed effects, which are "differenced out".

3.1.1 Logit Results

Logit coefficient estimates are reported in Table 4 for married employees and in Table 5 for single employees, with columns 1 and 3 corresponding to the male and female samples, respectively. First, consider the coefficients on some of the explanatory variables. Consistent with previous studies, wages and union membership are negatively associated with turnover for all the demographic groups, although the coefficient on union membership does not achieve standard levels of significance for single women. The effect of an additional month of tenure is statistically significant, positive and decreasing. Having children under 18 in the household significantly reduces the turnover probability only for women (although the effect for married women is only significant at the 10% level). Being white is negatively associated with turnover for all groups except for married men, and, in contrast with the results of Gruber and Madrian (1994), education has a positive and statistically significant effect on mobility. This difference

is likely due to the inclusion of a richer set of individual and job explanatory variables.

The estimate of the coefficient on EPHI is negative and statistically significant at the 1% level for all four demographic groups while the EPHI*Other Insurance interaction coefficient is positive and statistically significant for the female and male married employees samples. Therefore, having EPHI reduces the turnover probability and having other source of insurance causes a greater change in mobility for those with EPHI than for those without EPHI.

It is worth remarking that, since by far the most prevalent source of non-employment based coverage is the employment-based health insurance available to one's spouse, the DD job-lock test based on the EPHI*Other Insurance interaction term is not feasible for the sample of single employees. One might be concerned about the potential endogeneity of spousal health insurance in the DD job-lock test for married employees.[11] However, Buchmueller and Valletta (1996) use data from the 1984 SIPP to estimate a model that accounts for the joint nature of job change decisions by dual earner couples and find that the failure to account for the potential endogeneity of spousal health insurance does not significantly bias estimates of job-lock.

As mentioned in Section 2, pension coverage information is not available on a four month basis but only on the seventh wave of the panel. Thus, the best we can do to assess the sensitivity of our results to the inclusion of pension coverage in the model is to estimate a job turnover equation including pension coverage as an independent variable by focusing on the information provided on the seventh wave of the 1996 SIPP panel and using a logit model. The results of this estimation, not reported in the paper, do not significantly alter the conclusions reached so far.

In order to assess the magnitude of job-lock and to facilitate comparisons with the results of previous studies, we examine the slopes of the turnover probabilities and their percentage variations.[12] The marginal and percentage effects corresponding

[11]None of the identification strategies proposed in the literature are free from potential criticism. Gruber and Madrian (2002) extensively discusss the advantages and disadvantages of the alternative job-lock tests proposed and argue that using spousal health insurance to identify job-lock is the most appealing approach.

[12]The marginal effect for a binary independent variable is computed as $\frac{\sum_{j=1}^{S}(\hat{Q}_{1j}-\hat{Q}_{0j})}{S}$, where S

to the logit estimation are displayed in columns 1 and 3 of Table 6. For married employees, as expected, the EPHI variable produces substantially larger percentage job-lock effects (65.81% for men and 56.96% for women) than the DD test, which indicates a 30.80% reduction in mobility due to EPHI for men versus 20.16% for women. For single employees, there is a 58.31% reduction in mobility due to EPHI for men and a 62.27% for women.

All the models presented so far have also been estimated considering yearly instead of four month turnover equations. The results obtained are qualitatively very similar and therefore not reported, although the magnitude of the effects is, not surprisingly, generally somewhat smaller.

3.1.2 Conditional Logit Results

Conditional logit coefficient estimates are reported in Table 4 for married employees and in Table 5 for single employees, with columns 2 and 4 corresponding to the male and female samples, respectively. As in the logit estimation, the estimate of the coefficient on EPHI is negative and statistically significant at the 1% level for all four demographic groups whereas the EPHI*Other Insurance interaction coefficient is positive and statistically significant for the male and female married employees samples. There are, however, substantial differences in the size of the coefficients.

---

is the total number of observations and $\hat{Q}_{1j}$ and $\hat{Q}_{0j}$ denote the predicted probability of moving for observation j when the dichotomous variable takes values 1 and 0 respectively (both EPHI and the interaction term EPHI*Other Insurance are dummy variables). We evaluate the marginal effect at every observation and then compute the sample average. Standard errors are computed by bootstrapping. The turnover probability's percentage variation due to the EPHI variable is equal to $\frac{\sum_{j=1}^{S}\left[(\hat{Q}_{1j}-\hat{Q}_{0j})/\hat{Q}_{0j}\right]}{S} * 100$. As for the EPHI*Other Ins. interaction term, it is computed as the DD estimator proposed by Madrian (1994):

$$\frac{\sum_{j=1}^{S}\left[(\hat{Q}_{11j}-\hat{Q}_{01j})/\hat{Q}_{11j}\right]}{S} * 100 - \frac{\sum_{j=1}^{S}\left[(\hat{Q}_{10j}-\hat{Q}_{00j})/\hat{Q}_{10j}\right]}{S} * 100$$

where $\hat{Q}_{11j}$, $\hat{Q}_{01j}$, $\hat{Q}_{10j}$ and $\hat{Q}_{00j}$ denote the predicted probability of moving for observation j when having both EPHI and other insurance, only EPHI, only other insurance and no insurance at all, respectively.

Compared to the logit coefficient estimates, the absolute value of the EPHI and the EPHI*Other Insurance interaction coefficients are bigger for both female and male married employees. On the other hand, the absolute value of the EPHI coefficient is smaller for single men and bigger for single women. Concerning the coefficients on the other explanatory variables, most of them widely differ from the logit coefficient estimates.

The marginal and percentage effects corresponding to the conditional logit estimation are reported in columns 2 and 4 of Table 6.[13] The DD test indicates a 33.50% reduction in mobility due to EPHI for married women versus 45.43% for married men. These effects are substantially larger than the ones estimated using a logit model displayed in columns 1 and 3. For single men, the percentage reduction in mobility due to EPHI corresponding to the conditional logit estimation (58.31%) is alsmost identical to the one obtained when using a logit model (58.67%). As for the sample of single women, it appears that holding EPHI reduces by 31.78% the turnover probability, being this percentage substantially smaller than the one corresponding to the logit estimation (62.27%).

Given the important differences that exist between the samples of employees with and without EPHI in terms of most of the explanatory variables, as shown in Section 2, the fact that different results are obtained when using logit and conditional logit estimation techniques should not come as a surprise, as there might well be substantial differences in the unobservables. To test for the presence of fixed-individual effects we performed a Hausman-type test based on the difference between Chamberlain's conditional MLE and the standard logit MLE.[14] The value of Hausman's χ^2 statistics reported in columns 1 and 3, at the bottom of Tables 4 and 5 rejects the unconditional logit results at the 1% level. Therefore, in what follows we primarily rely on the

[13]Note that in order to predict the turnover probabilities it is necessary to have an estimate of η_i. We use the coefficient estimates $\hat{\beta}$ to compute the value of η_i from the first order conditions corresponding to the η_i parameters in the joint maximum likelihood problem.

[14]The latter estimator is consistent and efficient only under the null hypothesis of homogeneity ($\eta_i = \eta$) and inconsistent under the alternative, whereas Chamberlain's estimator is consistent whether the null hypothesis is true or not.

conditional logit estimates.

Regarding the conditional logit estimation technique, note that, since individuals who never move or who move every interview are not used in the estimation, sample sizes are now smaller. One may be concerned that the results obtained with the conditional logit estimation are based on a very special sample of employees that does not necessarily represent the population of employees. Comparison of descriptive statistics for the samples used in the conditional logit estimations and the full samples show that there are no major differences. In results not reported, we also estimate a logit model on the samples used for the conditional logit estimations to see if the estimates obtained are closer to the conditional logit estimates than the logit estimates based on the full samples. Results from these analyses indicate that they are not. Therefore, the differences between the logit and the conditional logit estimates do not seem to be due to the fact that the latter are based on a special sample of employees.

3.1.3 Short-Run versus Long-Run Effects

The short run versus long run nature of the job-lock problem is now investigated. The time span of the 1996 SIPP panel is not long enough to estimate a three or even a two-year turnover equation by using a conditional fixed effects logit model. However, it is useful to do so by using a logit model, despite its limitations, to provide some evidence on this issue. Table 7 summarises the results of estimating a three-year turnover equation by using a logit model. The job-lock percentage effects are substantially smaller than those obtained when estimating four month turnover equations. However, these effects still range between 21% and 27% for all demographic groups and all the corresponding coefficients achieve standard levels of significance. Hence, these results support the view that the nature of the job-lock problem is not purely temporary.

3.2 Did HIPAA Reduce Job-Lock?

We now evaluate the extent to which HIPAA succeeded in mitigating insurance induced mobility reductions. To this purpose, one could simply compare the magnitude of job-lock before and after the HIPAA provisions became effective. However, simple

comparisons of pre-HIPAA and post-HIPAA job-lock magnitudes are likely to be contaminated by temporal trends in job-lock or by the effect of events, other than the legislation, that occurred between both periods. Ideally, the counterfactual exercise one would like to do would be to compare the changes that are observed in states in which the HIPAA provisions led to new group reforms to what would have happened over time in these same states had these reforms not taken place. It is not possible to observe the latter. However, there are several states that had already met all the HIPAA requirements in the pre-HIPAA period that can be used to identify temporal variation in job-lock that is not due to HIPAA. The difference-in-difference-in-difference (DDD) estimator is based on this idea.

To evaluate whether HIPAA succeeded in reducing job-lock, we use a DDD identification strategy. This strategy consists in exploiting the variation across states in the non redundancy of the HIPAA requirements to compare the change in job-lock in the pre-HIPAA and the post-HIPAA periods in states which had to adopt legislation to conform to the HIPAA requirements (Groups A, B, C and D in Table 1) with the change in states that did not need to do so (Group E in Table 1).

We estimate an extended version of equation 1:

$$\begin{aligned} Q_{it} = \ & \beta_0 + \beta_1 EPHI_{it} + \beta_2 GroupAD_{it} + \beta_3 PostHIPAA_{it} + \\ & \beta_4(EPHI_{it} * GroupAD_{it} * PostHIPAA_{it}) + \beta_5(EPHI_{it} * GroupAD_{it}) + \\ & \beta_6(EPHI_{it} * PostHIPAA_{it}) + \beta_7(GroupAD_{it} * PostHIPAA_{it}) + \beta_8 X_{it} + \upsilon_{it} \end{aligned} \tag{3}$$

where GroupA-D is an indicator variable identifying employees working in a state belonging to Group A, B, C or D, Post-HIPAA is an indicator variable marking observations during the period after HIPAA became effective and EPHI*GroupA-D*Post-HIPAA is an interaction term between EPHI, GroupA-D and Post-HIPAA. The pairwise interaction terms among these three variables are EPHI*GroupA-D, EPHI*Post-HIPAA and GroupA-D*Post-HIPAA. The HIPAA protections generally became effective with new plan years (i.e., the renewal date of the plan) beginning on or after July 1, 1997. Hence, in order to use in the estimation a post-HIPAA period in which the legislation had surely had time to play out its effects, we exclude all job

transitions that took place between March 1997 and May 1998.

The DDD test is based on the coefficient β_4 and it requires that in absence of the legislation, the average job-lock magnitude for all states would have followed parallel paths over time. This assumption might be implausible if characteristics that are thought to be associated with the dynamics of job-lock are unbalanced between the states belonging to groups A, B, C and D and the states belonging to group E. Therefore, it is necessary to control for a wide set of covariates, X , as done in the previous analyses.

Table 8 displays the logit estimation results. Unexpectedly, given that HIPAA aimed at reducing job-lock, logit coefficients on the EPHI*GroupA-D*Post-HIPAA interaction variable are negative for married men and women. However, coefficient estimates for all demographic groups are statistically insignificant at conventional levels of testing and translate into very small percentage effects. The conditional logit estmation results, not reported, also indicate that HIPAA had no statistically significant effect on job-lock. However, note that only individuals who moved from/to a state belonging to Groups A, B, C or D to/from a state belonging to Group E during the estimation period are contributing to the effect of interest. This is a small and very selected subset of the population. Therefore, in this context we choose to rely on the logit estimates, despite their limitations.

The classification of states displayed in Table 1 also allows us to separately evaluate the effect of some of the HIPAA provisions. The impact of guaranteed issue in the small group market is investigated by comparing Groups B and D, while Groups D and E are compared in order to evaluate the effect of prohibiting discrimination on the basis of any health status related factor. The results of these analyses (not shown) indicate that neither of these two provisions had a statistically significant impact on job-lock. Finally, we have replicated all the previous analyses restricting the sample to workers aged over 45, obtaining very similar results.

4 Conclusions

This paper analyses data from the 1996 panel of the SIPP to investigate the effect of EPHI on job mobility from 1996 to 2000. First, we estimate the effect of EPHI on job turnover. We depart from previous studies by allowing for the possibility that the holding of EPHI is correlated with unobserved individual heterogeneity that may influence mobility decisions and modeling the heterogeneity as a fixed effect. We find that, after accounting for unobserved individual heterogeneity, EPHI substantially reduces four month job turnover for all demographic groups. The estimated job-lock effects range between 31% and 58%. The evidence is also suggestive that the nature of the job-lock problem is not temporary, since the job-lock effects obtained when estimating three year turnover equations still range between 21% and 27%.

Second, we evaluate whether the 1996 HIPAA succeeded in alleviating job-lock. To this purpose, we exploit the variation across states in terms of their regulatory environments prior to the federal legislation. The evidence suggests that HIPAA did not succeed in reducing job-lock. This finding is consistent with Kapur's (2003) conclusion that, as a package, small group health insurance reforms are unlikely to have a large effect on job mobility. The main reason why HIPAA had no impact on job-lock is likely to be that it did not address the cost of health insurance, which is, according to the Employee Benefit Research Institute's 1998 Health Confidence Survey, the most frequently cited cause of job-lock (Employee Benefit Research Institute, 1998). HIPAA contained provisions designed to improve portability and intended to assure availability and renewability of health insurance coverage, but it did not specify the price at which insurance must be offered, therefore not ensuring affordability of health insurance.

References

Anderson, Patricia M., 1997, The effect of employer-provided health insurance on job mobility: job-lock or job-push?, Unpublished paper (Dartmouth University).

Buchmueller, Thomas C. and Robert G. Valletta, 1996, The effects of employer-provided health insurance on worker mobility, Industrial and Labor Relations Review 49(3), 439-455.

Chamberlain, Gary, 1980, Analysis of covariance with qualitative data, Review of Economic Studies 47, 225-238.

Curtis, Rick, Stephanie Lewis, Kevin Haugh and Rafe Forland, 1999, Health insurance reform in the small-group market, Health Affairs 18 (3), 151-160.

Cutler, David and Jonathan Gruber, 2001, Health policy in the Clinton era: once bitten, twice shy, NBER Technical Working Paper Series, No. 8455.

Dey, Matthew S. and Christopher J. Flinn, 2003, An equilibrium model of health insurance provision and wage determination, Unpublished paper.

Employee Benefit Research Institute, 1998, Health Insurance Portability and Job Lock: Findings from the 1998 Health Confidence Survey (Employee Benefit Research Institute: Washington DC).

Employee Benefit Research Institute, 2000, Sources of health insurance and characteristics of the uninsured (Employee Benefit Research Institute: Washington DC).

Gilleskie Donna B. and Byron F. Lutz, 2002, The impact of employer-provided health insurance on dynamic employment transitions, Journal of Human Resources 37(1), 129-162.

Gruber, Jonathan, 2000, Health insurance and the labor market, in Anthony J. Culyer and Joseph P. Newhouse, eds., Handbook of Health Economics Volume 1, (Elsevier Science: Amsterdam), 645-706.

Gruber, Jonathan and Brigitte C. Madrian, 1994, Health insurance and job mobility: the effects of public policy on job-lock, Industrial and Labor Relations Review 48(1), 86-102.

Gruber, Jonathan and Brigitte C. Madrian, 2002, Health insurance, labor supply and job mobility: a critical review of the literature, NBER Technical Working Paper Series, No. 8817.

Stinson, Martha H., 2002, Estimating the relationship between employer-provided health insurance, worker mobility and wages, Unpublished paper (Cornell University).

Holtz-Eakin, Douglas J., 1994, Health insurance provision and labor market efficiency in the United States and Germany, in Rebecca.M. Blank, ed., Social Protection Versus Economic Flexibility: Is There a Tradeoff? (University of Chicago Press: Chicago) 157- 187.

Kapur, Kanika, 1998, The impact of health on job mobility: a measure of job lock, Industrial and Labor Relations Review 51(2), 282-297.

Kapur, Kanika, 2003, Labor market implications of state small group health insurance reform, Public Finance Review 31(6), 571-600.

Long, Stephen H., M. Susan Marquis, Ellen R. Harrison, Peter D. Jacobson and Jennifer S. Sloan, 1998, Baseline information for evaluating the implementation of the Health Insurance Portability and Accountability Act of 1996: Final Report, The Rand Corporation.

Madrian, Brigitte C., 1994, Employment-based health insurance and job mobility: is there evidence of job lock?, Quarterly Journal of Economics 109(1), 27-54.

Appendix

PRE-HIPAA STATE GROUPS

- GROUP A: Alabama.
- GROUP B: Illinois, Georgia, Indiana, Louisiana, Nevada, New Mexico, West Virginia.
- GROUP C: Alaska, Arizona, Colorado, Delaware, Idaho, Iowa, Kansas, Mississippi, Missouri, Montana, Nebraska, North Carolina, North Dakota, South Dakota, Wyoming, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Utah, Virginia, Wisconsin.
- GROUP D: California, Minnesota, Texas.
- GROUP E: Arkansas, Connecticut, DC, Florida, Hawaii, Kentucky, Maryland, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Oregon, Pennsylvania, Washington, Maine, Vermont.

Table 1: States Regulations Prior to HIPAA

Regulations prior to HIPAA	State Groups				
	Group A	Group B	Group C	Group D	Group E
Limits on Pre-ex.conditions	No	Yes	Yes	Yes	Yes
Group to Group Portability	No	Yes	Yes	Yes	Yes
Guaranteed Renewal	No	Yes	Yes	Yes	Yes
Guaranteed Issue	No	No	Some Products	Yes	Yes
Health Allowed as Rating Factor?	Yes	Yes	Yes	Yes	No

Note: Information based on the database collected by the Institute for Health Policy Solutions.

Table 2: 4-Month Job Transition Rates

	Employer-Provided Health Insurance	
	Yes	No
Married employees		
Men	4.53	14.45
Women	4.63	11.38
Single employees		
Men	6.55	20.13
Women	5.65	19.88

Note: Statistics based on the observations for which complete information is available on all the variables used in the statistical analyses.

Table 3: Sample Means of Key Variables

	Employer-Provided Health Insurance		All
	Yes	No	
	(1)	(2)	(3)
Leave Job	0.05	0.14	0.08
	(0.22)	(0.35)	(0.27)
EPHI	-	-	0.67
			(0.47)
Other Insurance	0.09	0.54	0.23
	(0.28)	(0.49)	(0.42)
EPHI*Other Ins.	-	-	0.06
			(0.23)
ln(Hourly Wage)	2.60	2.19	2.46
	(0.55)	(0.57)	(0.59)
Months Tenure	112.62	60.60	95.48
	(96.70)	(71.50)	(92.48)
Small Firm	0.09	0.31	0.17
	(0.29)	(0.46)	(0.37)
Medium Firm	0.11	0.14	0.12
	(0.31)	(0.35)	(0.33)
Big Firm	0.78	0.53	0.70
	(0.40)	(0.49)	(0.45)
Union Member	0.22	0.06	0.17
	(0.41)	(0.25)	(0.37)
Age	39.90	38.95	39.59
	(8.35)	(8.33)	(8.35)
Male	0.54	0.35	0.48
	(0.49)	(0.47)	(0.49)
Married	0.63	0.71	0.66
	(0.48)	(0.45)	(0.47)
Non-White	0.15	0.17	0.15
	(0.36)	(0.37)	(0.36)
ln(Family non Wage Income)	2.91	2.88	2.90
	(2.60)	(2.77)	(2.66)
Nr. Children<18	0.84	1.05	0.91
	(1.09)	(1.18)	(1.12)
No High School Degree	0.06	0.14	0.09
	(0.24)	(0.35)	(0.28)
High School Degree	0.29	0.34	0.30
	(0.45)	(0.47)	(0.46)
Some College	0.31	0.31	0.31
	(0.46)	(0.46)	(0.46)
College Degree	0.21	0.14	0.19
	(0.40)	(0.35)	(0.39)
Graduate Degree	0.11	0.05	0.09
	(0.31)	(0.23)	(0.29)
N. Obs.	143,061	70,299	213,360

Table 4: Job Turnover Logit and Conditional Logit Coefficient Estimates. Married Employees

	Married Men		Married Women	
	(1)	(2)	(3)	(4)
Independent Variable	Logit	Cond. Logit	Logit	Cond. Logit
EPHI	-1.172**	-1.298**	-0.911**	-1.125**
	(0.047)	(0.069)	(0.052)	(0.082)
Other Insurance	-0.466**	-0.521**	-0.360**	-0.392**
	(0.048)	(0.095)	(0.043)	(0.085)
EPHI*Other Ins.	0.274**	0.451**	0.188*	0.257*
	(0.091)	(0.128)	(0.078)	(0.116)
ln(Hourly Wage)	-0.306**	-0.501**	-0.287**	-0.478**
	(0.033)	(0.051)	(0.035)	(0.057)
Months Tenure	-0.007**	0.015**	0.008**	0.019**
	(0.0005)	(0.001)	(0.0005)	(0.001)
Months Tenure^2/100	0.001**	-0.003**	0.001**	-0.005**
	(0.0001)	(0.0003)	(0.0001)	(0.0004)
Small firm	0.073˜	0.291**	0.027	0.032
	(0.043)	(0.071)	(0.037)	(0.065)
Medium firm	0.099*	0.218**	0.069	-0.024
	(0.045)	(0.067)	(0.044)	(0.067)
Union member	-0.201**	-0.163˜	-0.238**	-0.246*
	(0.051)	(0.093)	(0.060)	(0.101)
Age	-0.006	-0.038	-0.062**	-0.290**
	(0.019)	(0.095)	(0.018)	(0.094)
Age^2/100	-0.007	0.056	0.062**	0.344**
	(0.024)	(0.111)	(0.023)	(0.109)
Non-White	-0.002	-	0.139**	-
	(0.046)		(0.043)	
ln(Family non Wage income)	0.026**	0.010	0.022**	0.031**
	(0.006)	(0.010)	(0.005)	(0.010)
Nr. Children<18	-0.021	-0.175**	-0.028˜	0.006
	(0.013)	(0.053)	(0.014)	(0.058)
High School Degree	0.236**	-	0.027	-
	(0.052)		(0.054)	
Some College	0.202**	-	0.157**	-
	(0.055)		(0.056)	
College Degree	0.280**	-	0.091	-
	(0.064)		(0.065)	
Graduate Degree	0.310**	-	0.207*	-
	(0.076)		(0.082)	
N. Obs.	72,644	22,660	68,570	23,333
Log-Likelihood	-16722.5	-6726.6	-17681.2	-7134.3
χ^2 Hausman Test	781.41**		896.69**	

Note: The dependent variable takes value 1 if the employee leaves his/her job in the next four months and 0 otherwise. Additional control variables are industry, occupation, class of worker, state, year and quarter dummies and states unemployment rates. The year and quarter dummies are actually dummies for the year and the quarter in which the four month period begins respectively. Standard errors in parentheses with p<0.1=˜, p<0.05=* and p<0.01=**. "-" denotes variables not included in the conditional logit estimations because they are time-invariant.

Table 5: Job Turnover Logit and Conditional Logit Coefficient Estimates. Single Employees

	Single Men		Single Women	
	(1)	(2)	(3)	(4)
Independent Variable	Logit	Cond. Logit	Logit	Cond. Logit
EPHI	-0.999**	-0.894**	-1.092**	-1.151**
	(0.049)	(0.072)	(0.045)	(0.067)
ln(Hourly Wage)	-0.231**	-0.293**	-0.243**	-0.325**
	(0.045)	(0.073)	(0.046)	(0.068)
Months Tenure	-0.008**	0.017**	-0.008**	0.018**
	(0.0007)	(0.001)	(0.0007)	(0.001)
Months Tenure^2/100	0.002**	-0.004**	0.001**	-0.005**
	(0.0002)	(0.0006)	(0.0002)	(0.0006)
Small firm	-0.060	0.016	-0.029	0.049
	(0.052)	(0.090)	(0.046)	(0.077)
Medium firm	-0.018	-0.020	0.0001	-0.118
	(0.056)	(0.091)	(0.053)	(0.078)
Union member	-0.212**	-0.129	-0.093	-0.252*
	(0.071)	(0.126)	(0.070)	(0.123)
Age	-0.024	-0.151	-0.018	0.036
	(0.023)	(0.120)	(0.020)	(0.100)
Age^2/100	0.006	0.196	-0.0001	-0.008
	(0.031)	(0.147)	(0.026)	(0.121)
Non-White	0.105*	-	0.019	-
	(0.052)		(0.043)	
ln(Family non Wage income)	0.003	0.040*	-0.0008	0.0003
	(0.006)	(0.016)	(0.006)	(0.012)
Nr. Children<18	0.033	0.097	-0.051**	-0.034
	(0.036)	(0.118)	(0.019)	(0.069)
High School Degree	0.241**	-	0.085	-
	(0.068)		(0.057)	
Some College	0.326**	-	0.238**	-
	(0.071)		(0.073)	
College Degree	0.227**	-	0.190*	-
	(0.084)		(0.095)	
Graduate Degree	0.401**	-	0.185*	-
	(0.108)		(0.120)	
N. Obs.	30,843	10,834	41,303	14,715
Log-Likelihood	-9324.3	-3424.0	-11911.8	-4640.1
χ^2 Hausman Test	352.57**		417.06**	

Note: See note to Table 4.

Table 6: Effect of Employer-Provided Health Insurance on Job Turnover

	Married Men		Married Women	
	(1)	(2)	(3)	(4)
	Logit	Cond. Logit	Logit	Cond. Logit
	Marginal Effects			
EPHI	-0.087	-0.144	-0.061	-0.001
	(0.0001)	(0.0004)	(0.0001)	(0.00001)
EPHI*Other Ins.	0.018	0.050	0.014	0.0004
	(0.00004)	(0.0001)	(0.00003)	(0.00001)
	% Reduction in Mobility due to:			
EPHI	65.81	66.83	56.94	67.50
EPHI*Other Ins.	30.80	45.43	20.16	33.50
	Single Men		Single Women	
	Marginal Effects			
EPHI	-0.097	-0.019	-0.099	-0.232
	(0.0002)	(0.0001)	(0.0001)	(0.0004)
	% Reduction in Mobility due to:			
EPHI	58.67	58.31	62.27	31.78

Note: Marginal and percentage effects have been computed using the coefficient estimates reported in Tables 4 and 5. Bootstrapped standard errors in parentheses.

Table 7: Effect of Employer-Provided Health Insurance on 3-Year Job Turnover. Logit Estimates

	Married Employees		Single Employees	
	(1)	(2)	(3)	(4)
	Men	Women	Men	Women
	Coefficients			
EPHI	-0.756**	-0.582**	-0.702**	-0.724**
	(0.105)	(0.115)	(0.120)	(0.145)
Other Insurance	-0.326**	-0.349**	-	-
	(0.123)	(0.111)		
EPHI*Other Ins.	0.424*	0.497**	-	-
	(0.168)	(0.149)		
	Marginal Effects			
EPHI	-0.171	-0.128	-0.155	-0.158
	(0.0002)	(0.0002)	(0.0004)	(0.0003)
EPHI*Other Ins.	0.093	0.105	-	-
	(0.0001)	(0.0002)		
	% Reduction in Mobility due to:			
EPHI	31.89	24.50	25.27	27.05
EPHI*Other Ins.	21.81	24.02	-	-
N. Obs.	6,273	5,992	2,410	3,357
Log-Likelihood	-3920.7	-3724.0	-1507.0	-2047.3

Note: The dependent variable takes value 1 if the employee leaves his/her job in the next three years and 0 otherwise. Additional control variables are ln(hourly wage), months tenure, months tenure^2/100, union membership, age, age^2/100, non-white dummy, ln(family non wage income), nr. children<18, firm size, education, industry, occupation, class of worker, state and month dummies and states unemployment rates. The month dummies are actually dummies for the month in which the four month period begins. Standard errors in parentheses with p<0.1=˜, p<0.05=* and p<0.01=**.

Table 8: Job Turnover Logit Coefficient Estimates. The Impact of HIPAA on Job-Lock

	Married Employees		Single Employees	
	(1)	(2)	(3)	(4)
	Men	Women	Men	Women
	Coefficients			
EPHI	-1.225**	-0.762**	-0.938**	-1.122**
	(0.100)	(0.095)	(0.118)	(0.104)
Group A-D	-0.021	0.008	0.135	0.019
	(0.081)	(0.062)	(0.100)	(0.083)
Post-HIPAA	-0.277**	-0.282**	-0.128	-0.423**
	(0.093)	(0.072)	(0.112)	(0.095)
EPHI*GroupA-D*Post-HIPAA	-0.079	-0.028	0.120	0.007
	(0.149)	(0.147)	(0.186)	(0.167)
	Marginal Effects			
EPHI*GroupA-D*Post-HIPAA	-0.005	-0.001	0.009	0.0006
	(0.00001)	(0.00001)	(0.00003)	(0.00002)
	% Variation in Job-Lock due to HIPAA:			
	3.58	5.21	-6.17	-0.07
N. Obs.	54,739	51,783	23,280	31,041
Log-Likelihood	-12814.0	-13680.8	-7258.2	-9049.6

Note: The dependent variable takes value 1 if the employee leaves his/her job in the next four months and 0 otherwise. Additional control variables are EPHI*GroupA-D, EPHI*Post-HIPAA, GroupA-D*Post-HIPAA, ln(hourly wage), months tenure, months tenure^2/100, union membership, age, age^2/100, non-white dummy, ln(family non wage income), nr. children<18, firm size, education, industry, occupation, class of worker and quarter dummies and states unemployment rates. The quarter dummies are actually dummies for quarter in which the four month period begins. Standard errors in parentheses with p<0.1=˜, p<0.05=* and p<0.01=**.