Published in final edited form as:
Work Occup. 2013 May 1; 40(2): . doi:10.1177/0730888413480893.

Paid Sick Leave and Job Stability

Heather D. Hill[1]
[1]University of Chicago, Chicago, IL, USA

Abstract

A compelling, but unsubstantiated, argument for paid sick leave legislation is that workers with leave are better able to address own and family member health needs without risking a voluntary or involuntary job separation. This study tests that claim using the Medical Expenditure Panel Survey and regression models controlling for a large set of worker and job characteristics, as well as with propensity score techniques. Results suggest that paid sick leave decreases the probability of job separation by at least 2.5 percentage points, or 25%. The association is strongest for workers without paid vacation leave and for mothers.

Keywords

paid sick leave; job separation; job mobility; employee benefits

By many measures, the quality and security of employment was declining in the United States long before the most recent economic crisis began. In the late 20th century, rates of involuntary job loss and part-time work increased while the availability of employee benefits, such as paid sick days and health insurance coverage, declined (Boisjoly, Duncan, & Smeeding, 1998; Fligstein & Shin, 2004). What Kalleberg (2011, 2009) calls the growing "precariousness" of work reflects employer responses to economic and demographic transformations that have increased the costs of doing business. Those costs are being transferred to workers in the form of fewer benefits, less scheduling control, and less security from job loss. These changes has been greatest among, but not limited to, less educated and hourly wage workers (Fligstein & Shin, 2004; Gottschalk & Danziger, 2005; Hacker, 2006; Keys & Danziger, 2008; Lambert, 2008).

Current policy initiatives at local, state, and federal levels propose to protect workers by mandating that private and public employers provide paid sick leave. One argument for these policies is that paid sick leave reduces job instability associated with own or family member illness (e.g., Brown, Shulkin, Casey, & Pitt-Catsouphes, 2007; Lovell, 2004). No published study examines this claim explicitly; in fact, paid sick leave is relatively neglected in studies of job quality, work-family policies, and job stability. It is theoretically plausible, however, that workers with paid sick leave are better able to address their own health issues, and both routine and urgent family issues, without having to quit a job or risk being fired. In addition, workers might be willing to forgo higher wages in alternative jobs in order to maintain a position that offers paid sick leave (thereby reducing voluntary job separations; Dwyer, 2004).

Corresponding Author: Heather D. Hill, University of Chicago, 969 E. 60th St., Chicago, IL 60637, USA. hhill@uchicago.edu.

Declaration of Conflicting Interests
The author declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

A positive relationship between paid sick leave and job stability might also result purely from selection; that is, workers with lower levels of human capital or more complicated family lives are both less likely to find good quality jobs and to be stably employed. However, studies that carefully control for education and other individual-level characteristics find evidence that other employee benefits directly affect the propensity for workers to retain or lose a job. For instance, "job lock" describes the phenomenon of employees being less likely to leave a job that provides health insurance coverage (Bansak & Raphael, 2008; Bradley, Neumark, Luo, & Heather, 2007; Buchmueller & Valletta, 1996; Madrian, 1994; Monheit & Cooper, 1994).

Using two panels of the Medical Expenditure Panel Survey-Household Component (MEPS-HC), this study estimates the probability of job separation as a function of access to paid sick leave. The measures of job separation are prospective, indicating whether a worker changes employers or becomes unemployed in future rounds of the survey. The main estimation models control for a large set of observed worker and job characteristics collected in the MEPS-HC, including measures of human capital, health, and family income. I test the sensitivity of these results to two different propensity score techniques—inverse-probability-of-treatment-weighting (IPTW) and nearest neighbor propensity score matching (PSM)—as alternative approaches to addressing nonrandom selection of workers into jobs. These are reasonable approaches to addressing observed differences between workers and jobs, but they cannot account for unobserved heterogeneity or a reverse causal relationship. A falsification test strengthens the causal inference in this study, by testing whether later access to leave predicts earlier separation. Lastly, I examine differences in the relationship between access to paid sick leave and job mobility in subgroups of workers most likely to depend on sick leave to address family caregiving demands. The subgroup analyses compare the association of access to paid sick leave with job stability among workers with and without paid vacation; among parents and nonparents; and among mothers and fathers.

Background

The United States is one of the few highly developed countries not to have a national paid sick leave policy (Heymann, Rho, Schmitt, & Earle, 2010). Instead, the decision to provide paid sick days to employees and the costs of doing so are shouldered entirely by employers. As a consequence, paid sick leave is unequally distributed among workers and jobs: Just 33% of workers in the bottom quartile of the wage distribution have paid sick days, compared to 81% in the top quartile. Similarly, 42% of service workers have paid sick leave, compared to more than 80% of workers in management and professional occupations (U.S. Bureau of Labor Statistics, 2010). In addition, as global competition and the costs of health care have increased, the proportion of employers offering paid sick leave to employees has declined (Fligstein & Shin, 2004).

Current policy initiatives at local, state, and federal levels would mandate private and public employers to provide paid sick leave. For example, if passed, the California Healthy Families, Healthy Workplaces Act of 2008 (AB 2716) would require that all workers in the state accrue at least 1 hr of paid sick time for every 30 hr worked (A Health Impact Assessment of the California Healthy Families, Healthy Workplaces Act: Summary of Findings 2008). Advocates of mandated paid sick days make two primary arguments for the policies: First, that leave promotes both individual and public health by reducing the length of illness and the risk of spreading disease; and second, that it reduces the probability of job separations (and consequent loss of income and increase in stress) associated with own or family member illness. No study has tested the latter claim empirically.

In fact, paid sick leave has been largely ignored in the research literature as a job characteristic that increases both compensation and work schedule control. In discussions of the economic rewards of work, it is often overshadowed by wage and employer-sponsored health insurance (e.g., Kalleberg, 2011), and in discussions of work-family policies, it is overlooked for longer parental leave and flextime (e.g., Blair-Loy & Wharton, 2002; Davis & Kalleberg, 2006; Fenwick & Tausig, 2001; Wharton, Chivers, & Blair-Loy, 2008). This study examines the relationship between access to paid sick leave and job separations, building on prior theoretical and empirical work on job-level predictors of stability and mobility.

Determinants and Consequences of Job Separation

A large body of research conceptualizes job separations along three key dimensions: voluntary versus involuntary; job-to-job versus job-to- nonemployment; and, among job-to-job transitions, intra- versus interfirm (Dwyer, 2004; Estes & Glass, 1996; Farber, 1994; Glass, 1988; Hachen, 1988, 1990, 1992; Light & McGarry, 1998; Royalty, 1998; Theodossiou & Zangelidis, 2009; Rosenfeld, 1992). Worker, employer, and industry characteristics all predict the likelihood of different types of job separations, although the salience of specific characteristics varies. For instance, job separations, particularly those followed by a period of nonemployment, are far more common among workers with no more than a high school diploma, among single mothers, and among economically disadvantaged racial groups (Holzer & LaLonde, 2000; Johnson & Corcoran, 2003; Royalty, 1998).

Whether these inequities arise primarily from skill differences among workers or from employer practices is a long-standing topic of theoretical and empirical debate. Neo-classical economic theory assumes that employers mix and match job features (e.g., wage and flexibility) in order to attract appropriately skilled workers, and that workers can obtain higher quality jobs by investing in human capital (Becker, 1975; Mincer, 1974). There is considerable descriptive evidence, however, that job features cluster (rather than compensate for one another) to create distinctly “good” or “bad” jobs (Dickens & Lang, 1985; Kalleberg, 2003; Kalleberg, 2011; Reich, Gordon, & Edwards, 1973; Tilly, 1992) and that certain workers face noneconomic barriers (such as discrimination) to moving from bad to good jobs (e.g., Kilbourne, Farkas, Beron, Weir, & England, 1994; Pager, Western, & Bonikowski, 2009; Tomaskovic-Devey & Skaggs, 1999). Also inconsistent with a strictly human capital explanation for job matching and retention is evidence that both the structure of industries and employment relations affect the characteristics of jobs (Kalleberg, Reskin, & Hudson, 2000), and the amount and type of employee turnover (Hachen, 1990, 1992). For instance, high-paying industries have lower rates of voluntary quits, while labor-intensive industries have high involuntary quit rates (Hachen, 1992).

For the most part, job separation is an adverse outcome for workers. While voluntary job-to-job changes early in a worker’s career (“job shopping”) are associated with job mobility and earnings increases (Topel & Ward, 1992), most job separations, and particularly those that lead to a period of nonemployment, do not incur benefits for the worker. Involuntary or job-to-nonemployment transitions not only inhibit wage growth and the accumulation of work experience (Holzer & Martinson, 2005), they are also related to reduced rates of marriage (Ahituv & Lerman, 2011) and child problem behavior and problems in school (Hill, Morris, Castells, & Walker, 2010; Kalil & Ziol-Guest, 2008). For these and other reasons, job security, or the protection from involuntary job separations, is considered a key dimension of job quality (Hacker, 2006; Kalleberg, 2011).

Paid Sick Leave: Compensation and Flexibility

Similar to employer-sponsored health insurance, paid sick leave is a part of a worker's compensation package; in effect, it increases the hourly wage for actual hours worked by paying for a certain number of nonwork hours. But, paid sick leave also provides the worker with flexibility to attend to personal health issues and family responsibilities as they see fit (within the constraints of the number of paid sick days available). If paid sick leave is used by workers to balance work and family obligations, it could conceivably increase worker reliability and productivity, and reduce the likelihood of getting fired or laid off. The more likely scenario, however, is that workers value paid sick leave as an economic and noneconomic benefit and are therefore less likely to quit a job or change jobs if their current position offers paid sick leave.

Direct evidence of the relationship between paid sick leave and job stability is scarce and the extant evidence cannot be generalized to all workers. Several descriptive studies suggest that parents without paid sick or vacation leave struggle to juggle family and work responsibilities, particularly during illnesses (Heymann, 2000; Seccombe & Hoffman, 2007). In addition, in a sample of women starting a spell of caring for an ill or disabled family member, Pavalko and Henderson (2006) find a marginally significant positive difference in the likelihood of staying in the labor force associated with access to paid sick or vacation leave. Finally, in a sample of employers, Baughman et al. (2003) find that flexible sick leave reduces employee turnover, but only after the company offers the benefit for 5 years or more.

Studies of maternity leave and other employee benefits also provide relevant insights into the potential for sick leave to affect job stability through its value to workers. For instance, the availability of maternity leave, paid or unpaid, increases the probability and speed of returns to employment after the leave period ends (Berger & Waldfogel, 2004; Glass & Riley, 1998; Joesch, 1997; Hofferth & Curtin, 2006). Glass and Riley (1998) found that a greater total number of days available for maternity leave—including paid sick and vacation days—reduced the likelihood that a working mother would change jobs or leave the labor force after having a child. In addition, health insurance coverage is associated with a phenomenon called "job lock," in which workers stay employed in a job they would otherwise leave but for the fear of losing health insurance (Bansak & Raphael, 2008; Gilleskie & Lutz, 2002; Kim & Phillips, 2010; Madrian, 1994).

There is also limited evidence of a linkage between sickness and job separation. A few studies conducted in Canada and Europe suggest that specific illnesses, poor general health, and disabilities are predictors of absenteeism, both involuntary and voluntary job separations, and unemployment (Arrow, 1996; Bradley, Bednarek, & Neumark, 2002; Jusot, Khlat, Rochereau, & Sermet, 2008; Magee, 2004; Virtanen et al., 2006). Magee (2004) finds no evidence of a relationship between general poor health and job separations, but disabling illness (reported poor health and an activity-limiting health problem) increases the hazard of both dismissal and quitting a job voluntarily to become a caregiver. Finally, paid sick leave increases work scheduling control, which is associated positively with a variety of mental health and well-being measures (Fenwick & Tausig, 2001; Joyce, Pabayo, Critchley, & Bambra, 2010), as well as job stability (Kossek & Ozeki, 1999; Moen, Kelly, & Hill, 2011). In fact, Fenwick and Tausig (2001) find that control over schedule is more important to mental health and other aspects of well-being than is the actual number of hours worked.

Establishing a causal link between access to paid sick leave and job stability is empirically challenging because of the many worker and job characteristics associated with both. For instance, paid sick leave is an employee benefit that may attract "better quality" employees and discourage job separations if interpreted by workers as offering higher compensation or

signaling greater employer flexibility. In addition, job characteristics—such as wages, benefits, and work hours—come in packages that are difficult to disentangle. Better paying jobs with full-time hours, and health benefits offer more stability and more leave. The most likely scenario is one of positive selection, in which worker characteristics associated with a higher probability of retaining employment are also positively related to accessing paid leave. The omission of these characteristics would cause estimates to be biased away from zero, leading to an overestimate of the causal effect of access to paid leave. Negative selection that suppresses the true estimate is also possible, however. For example, workers with chronically ill children might seek out jobs with paid leave but may also be more likely to change jobs; without a good measure of chronic illness in the model, the coefficient on paid leave in this case would be underestimated.

Prior research also suggests that the effects of paid sick leave on job stability are likely to vary by worker characteristics. In particular, there are clear gender differences in job stability, caretaking demands, and the valuing of employee benefits. Women are more likely to experience a job-to-nonemployment transition, but less likely to experience a job-to-job transition, than are men (Royalty, 1998). Women continue to carry a greater burden than do men for household responsibilities (Bianchi, Milkie, Sayer, & Robinson, 2000), particularly child care, and are at greater risk of having that work interfere with employment (Pavalko & Henderson, 2006). Finally, use of leave benefits (and other work-family policies) is also higher among women than men and among parents than nonparents (Blair-Loy & Wharton, 2002; Fried, 1998; Waldfogel, 2001; Wharton, Chivers, & Blair-Loy, 2008).

Hypotheses

The literature summarized above suggests three hypotheses about paid sick leave and job stability:

Hypothesis 1 Access to paid sick leave will be negatively associated with job separations, but a large part of the relationship will be explained by correlated worker and job characteristics.

Hypothesis 2 Access to paid sick leave will have a stronger negative association with job separation among those without paid vacation, parents (compared to nonparents), and mothers (compared to fathers).

Hypothesis 3 Access to paid sick leave will have a stronger negative association with voluntary than with involuntary job separations and with job-to-job transitions than with job-to-unemployment transitions.

Method

Data and Measures

I use two panels of the publicly available Medical Expenditure Panel Survey–Household Component (MEPS-HC; http://www.meps.ahrq.gov) collected between 2004 and 2006. The MEPS-HC is a nationally representative study of households focused on health care utilization, which is well designed to examine patterns of employment. Sample households are interviewed five times over the course of 2 years (with approximately 5 months between rounds) and the respondent reports on the employment status of each adult member in the family. Questions about employment focus on the characteristics of the current position—including wage rate, weekly hours, benefits, size of firm, and industry codes—as well as any changes to employment since the last interview. In addition, the MEPS-HC collects detailed information about demographics and family relationships.

The analytic sample for this study includes adults 18 to 64 years of age who worked in at least two rounds of the MEPS-HC data collection period. A sample member was considered employed if they were either currently working or "had a job to return to" at the time of the survey. I exclude sample members who reported self-employment or working in a "seasonal" or "temporary" job, given the focus of this analysis on employee benefits and job stability. The stacked person-round data set includes 13,900 individuals and 43,663 observations. Table 1 provides weighted characteristics of this population of workers and their jobs. Measurement of the key variables is described below.

Job Separation—At each of five MEPS-HC interviews, the respondents who were working in the previous round were asked whether they still have the same current main job (hereafter called "Main Job"). Using responses to these items, I measure whether a job separation occurs by the next survey round ("by next round;" approximately 5 months later) and between the first and last rounds of the study ("by last round;" approximately 20 months later). Both of these measures capture relatively short-term job stability and I use only the next round measure for alternative specifications and subgroup analysis.

One limitation of the MEPS-HC survey is that it only captures interfirm job separations. Intrafirm job transitions are not considered a change in employment and do not trigger the full battery of questions to update employment information. For this reason, the definition of job separation used in this study is a change in employer leading to a different employer or nonemployment. Twelve percent of workers experience a job separation each round, while 34% do between the first and last rounds.

For those survey respondents who report a job separation, the MEPS-HC survey asks about the reason for the change. I use that information to draw two distinctions between different types of job separations: voluntary versus involuntary and job-to-job versus job-to-nonemployment. Reasons that I consider involuntary include "job ended," "business dissolved or sold," and "laid off." Voluntary reasons include "retired," "illness or injury," and "quit." Nearly 25% of cases with a job separation between waves are missing information about the reason. For this reason, I consider the analysis of specific types of job separations to be exploratory.

Access to Paid Sick Days—The independent variable of interest in this study is an indicator of whether a sample member's main job provides paid sick leave. The MEPS-HC survey questions ask respondents, "On this job, do you have paid time off if (you) are sick?"[1] Overall, 65% of workers have access to paid sick leave.

Worker Characteristics—The MEPS-HC measures a large set of individual and family characteristics that are potential covariates of both access to paid leave and job separation. The following measures of worker characteristics are included as controls: age (in years); female; education level (no degree; high school degree; or college degree); job tenure, measured by an indicator of holding the main job for 12 months or more (dichotomized because the survey structure does not allow for identification of exact job tenure beyond 12 months); race (Black, White, or other); Hispanic ethnicity; poor or low income; unmarried; presence of children under 13 years of age; self-report of very good or excellent health; own functional limitation; and family member with functional limitation. Gender, race, ethnicity, and functional limitations are time invariant and capture the information collected in the first

[1]It is increasingly common for employers to provide "consolidated leave plans" or "paid time off" (particularly in the health care field). This approach does not differentiate between vacation and sick days, instead providing the employee a maximum number of days to be used for either or both purposes. The MEPS-HC does not ask a specific question about consolidated leave, but the wording of the questions would allow recipients of consolidated leave to answer "yes" to having both paid vacation and paid sick days.

round of the survey. Other characteristics are updated in each round and I use the most recent information for each data point.

Job Characteristics—The models also include controls for characteristics of the worker's main job: usual weekly work hours, measured by an indicator of full-time hours (35+ hr); union membership; occupational status, measured by an indicator for management/professional occupations; industry type, measured by an indicator for service-producing (reference category is goods-producing); and firm size, measured by an indicator of working at a location with 10 or fewer employees.

Work hours and firm size are dichotomized at thresholds associated with large changes in the probability of having access to paid sick leave. Industries categorized as goods-producing include natural resources, mining, construction, and manufacturing. Service-producing industries include wholesale and retail trade; transportation and utilities; professional and business services; education, health, and social services, leisure and hospitality; other services; public administration; and the military. The worker's package of compensation at the main job is measured by log of hourly wage; access to paid vacation days; access to a pension plan; and whether employer-sponsored health insurance is offered.

Analytic Approach

Barring a randomized experiment, the identification of a causal relationship between access to benefits and job stability must tackle the nonrandom process of matching workers to employers and jobs. Figures 1a and 1b illustrate this problem by showing the distribution of access to paid sick days by selected worker and job characteristics. While 65% of all workers have paid sick days at their main job, workers with less education and lower income, those with shorter job tenure, and Hispanic workers, are much less likely to hold jobs with paid sick leave (see Figure 1a). A variety of job characteristics are also associated with the probability of having access to leave: Workers in private firms, smaller firms, and those with part-time hours are significantly less likely to have paid sick leave (Figure 1b).

The bundling of employee benefits is also a challenge to identifying the independent effects of paid sick leave. Table 2 provides cross-tabulations of access to paid sick leave and the three other employee benefit measures: paid vacation, employer-sponsored health insurance, and pension benefits. The associations between access to paid sick leave and both paid vacation and health insurance are particularly strong. Just 11% of those without paid vacation days and 16% of those without an employer-sponsored health plan have access to paid sick days. More striking, more than 90% of those workers with access to paid sick leave also have access to paid vacation.[2]

The present study uses a large set of observed characteristics of workers and jobs to address these potential sources of bias. The basic estimation model is:

$$Y_{\mathrm{it}+r}=\beta_1 \mathrm{SL}_{\mathrm{it}}+\mathbf{X}'_{\mathrm{it}}\beta_X+\mathbf{J}'_{\mathrm{it}}\beta_J+\mathbf{C}'_{\mathrm{it}}\beta_C+\varepsilon_{\mathrm{it}}, \quad [1]$$

where Y is a binary variable indicating whether the individual *i* had experienced a job separation by *t+r* from the job they held in *t*. Most analyses use job separation in *t+1* as the dependent variable, but I also examine job separation between the first and last rounds. **SL** indicates whether individual *i* has access to paid sick days at their main job during period *t*.

[2]Multicollinearity between these four employee benefits is moderately high. In regressions predicting paid sick leave as a function of the other employee benefits, tolerance scores are 0.50 to 0.60. This level of multicollinearity could lead to imprecision (large standard errors) in the coefficient estimates on each employee benefit, but this problem is largely mitigated by the large sample size in this study.

The vectors **X** and **J** represent worker and job characteristic control variables, respectively. **C** includes four measures of compensation, the natural log of hourly wage and indicators for access to paid vacation days, a pension plan, and employer-sponsored health insurance. ε_{it} is a random disturbance term. I estimate a series of three equations: The first includes only worker characteristics; the second includes worker and job characteristics; the third includes all three sets of covariates. I also estimate separate subgroup models for workers with and without paid vacation leave, for parents and nonparents, and for mothers and fathers.

I test the sensitivity of the results to several alternative model specifications. First, I use two different propensity score techniques, PSM, and IPTW.[3] Propensity score techniques are commonly used alternatives to multivariate regression for addressing nonrandom selection into the independent variable (Heckman, Ichimura, & Todd, 1997; Rosenbaum & Rubin, 1983). These approaches first model the probability of treatment (in this case, access to paid sick leave) and then use an individual's propensity to receive the treatment to "control" for nonrandom sampling. The PSM model matches treatment-group members (those with paid sick leave) to their "nearest neighbor" control group members (those without paid sick leave) according to their propensity score, while the ITPW model skips the matching step and simply uses the inverse of the propensity score as a probability weight in the outcome regression. There is some evidence that IPTW is best for the purposes of estimating risk (models with dichotomous dependent variables; Austin, 2010) because they appear to produce unbiased estimates if either the exposure to treatment or outcome models are correctly specified (Lunceford & Davidian, 2004). The appendix provides additional information about the specification of the PSM and IPTW models.

The advantages of propensity score techniques over standard regression models is that they improve both the match between treatment- and control-group members on a range of characteristics using a single dimension (propensity) and the precision of estimates in finite samples (Angrist & Pischke, 2009). However, it is important to note that propensity score approaches cannot address bias that arises from unobserved heterogeneity related to selection into the treatment, or from simultaneity or measurement error. For this reason, I look to the consistency of results across the regression and propensity score models, rather than preferencing one over the other.

In addition, to address remaining potential bias in the regression and propensity score models, I conduct a falsification test. In this model, the probability of a job separation in an earlier round is predicted as a function of access to paid leave in a later round. Future employee benefits should not be causally related to past job stability, so any relationship between these two variables can be interpreted as evidence of bias from either reverse causality or omitted variables. Other alternative specifications use only respondents to the MEPS-HC and examine different types of job separation (voluntary vs. involuntary and job-to-job vs. job-to-nonemployment).

All models use robust standard error estimates that account for nonindependence between observations of individuals over time. Marginal effects are estimated by setting all independent variables to their mean values.

[3]In Stata, the PSM model is estimated using the commands, *pscore* and *nattnd* (Becker & Ichino, 2002) and the IPTW model uses the *dr* command (Emsley, Lunt, Pickles, & Dunn, 2008).

Results

Main Regression Models

Table 3 presents results from logistic regression models predicting job separation as a function of access to paid sick days in the worker's current main job. Each column reports results from a separate regression, with increasing levels of controls across the three models. The table reports logistic regression coefficients, robust standard errors, and the estimated marginal effect of having paid sick days relative to not. The marginal effect is the percentage-point change in the probability of job separation associated with access to paid sick leave, holding all other independent variables at their mean values.

Across the models, and consistent with Hypothesis 1, access to paid sick leave is negatively and significantly related to the probability of job separation, but the strength of the association decreases as controls are added. The marginal effect estimate declines by approximately two thirds across the three models. For instance, in Model 1, access to paid sick days is predicted to increase the probability of retaining the same job for 5 months by 7.8 percentage points, relative to having no paid sick days. That estimate decreases to 2.5 percentage points, once job characteristics and compensation are included as controls in Model 3. From the base probability of 10%, the conservative estimate suggests a 25% decrease in the likelihood of job separation associated with paid sick leave.

I estimate similar models predicting job separation from the start to the end of the survey (nearly 2 years). Just less than one third of the sample employed at the start of the survey had experienced a job separation by the last wave. The coefficients in the models predicting this measure of job mobility are comparable in size to the main models and statistically significant. Paid sick leave is associated with a 5.2 percentage point decrease in the probability of job separation (a 19% decrease). Note that because these results are consistent and both dependent variables capture relatively short-term job stability, I restrict the remaining analysis to predicting job separation in the next round.

Other worker characteristics that are statistically significant predictors of job separation across all models are age (negative), Hispanic ethnicity (negative), poor or low income (positive), having young children (negative), very good/excellent health (negative), and having a functional limitation (positive). Consistent with prior research, tenure in the job was negatively related to job separation in the future. Most of the other job characteristics and aspects of compensation were also negatively and statistically significantly related to short- and long-term separation. The exceptions are being employed in a small firm and in a service-producing industry, which are both positively related with job separation.

Notably, the coefficients on access to paid vacation in the current main job are as large (and statistically significant) as those for having access to paid sick leave. There are several ways to interpret this finding. Paid sick leave and paid vacation may actually be used by workers similarly to exert control over work schedules and to provide flexibility with meeting the demands of work and family. Alternatively, both benefits may simply be attracting the most stable workers who are more likely to stay employed. In either case, this is evidence that paid sick leave and paid vacation are similarly positively related to job stability.[4]

[4]While paid sick leave and paid vacation are highly correlated, the sample here is large enough to estimate the two coefficients separately.

Subgroup Analysis

It is likely that the importance of paid sick leave to job stability varies for different types of workers. I hypothesized that access to paid sick leave would have the largest effect on the stability of workers with the greatest family demands and the least flexibility at work. I compare workers with and without paid vacation, parents to nonparents, and mothers to fathers. In each comparison, I hypothesize that the relationship between access to paid sick leave and job mobility will be larger (more negative) for the latter group. Table 4 shows the results of these subgroup regressions. In addition to the coefficient and standard error on access to paid sick leave, the table shows the base probability (of job separation), marginal effect estimate, percentage change in probability, and sample size for each subgroup. The percentage change in probability estimate is calculated as the marginal effect divided by the base probability.

These results are generally consistent with my hypotheses, although they do not find conclusive subgroup differences. Workers without paid vacation, parents, and mothers all have larger negative associations between access to paid sick leave and the probability of job separation (compared to workers with paid vacation, nonparents, and fathers, respectively). The contrast is most striking for mothers and fathers: Access to paid sick leave is associated with a reduction in the probability of job separation for mothers, but not fathers. The coefficient and marginal effect estimates are three times larger for mothers than fathers and only statistically significant for mothers. Note, however, that I am unable to reject the null hypothesis of the two coefficients in each subgroup comparison being identical (using Wald tests).

The final set of subgroup models predicted different types of job separation (results not shown). I suggested that access to paid sick leave would be associated with all types of job separation, but would be most likely to reduce voluntary and job-to-job separations (relative to involuntary and job-to-unemployment separations; Hypothesis 3). There are data constraints on testing this hypothesis: Workers are asked to describe the reason for a job transition between rounds, but nearly one quarter of the workers provide answers that are categorized in the catchall “other.” For the purposes of determining whether a job separation was voluntary or involuntary, and job-to-job or job-to-unemployment, these observations are essentially missing.

Bearing this limitation in mind, I estimated models predicting voluntary job separation and job-to-job separations, conditional on experiencing any separation. Access to paid sick leave had no association with whether a job separation was voluntary or involuntary, but it did decrease the likelihood of a job-to-job separation ($\beta = -0.25$; $SE = 0.019$) relative to a job-to-nonemployment separation. This lends partial support to Hypothesis 3 that voluntary and job-to-job separation would be most likely to decrease with access to paid sick leave.

Alternative Specifications

As an alternative to the logistic regression model with controls, I estimate models using two propensity score techniques, weighting, and matching. Figure 2 displays the distribution of estimated propensity scores separately for those workers with access to paid sick leave (treatment group) and those workers without access to paid sick leave (control group). As we would expect, the two groups’ distributions of estimated propensities are quite different in shape and central tendency. The mean propensity score for those with paid sick days was 0.731, compared to 0.421 for those without paid sick days. What is essential to the estimation of propensity score models is that the two groups share a large region of “common support,” from 0.022 to 0.992, in which there are both treatment and control group observations.

Table 5 provides the sample sizes, base probability, marginal effect estimates, and percentage change in the probability of job separation for the main logistic regression models shown in Table 3; a logistic regression model including only the covariates used in the propensity score models; and the PSM and IPTW models. The results consistently show a negative and statistically significant relationship between access to paid sick leave and job separation. The propensity score estimates are larger than the fully controlled logistic regression model but more consistent with a logistic regression model that includes the same covariates. I also tested the sensitivity of the PSM results to dropping two blocks in which the baseline covariates were not balanced. The estimates were larger in this case ($\beta = -0.075$; $p < .05$).

Both the logistic regression and propensity score matched estimates could be biased if the relationship between paid sick leave and job stability were bidirectional or if I have omitted correlates of both paid sick leave and job separations. To partially address this concern (within the limitations of a non-experimental study), I conduct a falsification test predicting prior instability based on future access to leave. This model includes only workers who had changed jobs at some point between the first and last rounds of data collection. The measure of access to paid sick leave was based on the Round 5 interview and the measure of job separation was based on a change between Rounds 1 and 2. I hypothesized that there should be no relationship between future access to paid leave and past job separation; if such a relationship was present, it would suggest that important correlates of both paid sick leave and job stability were omitted and likely to confound my main estimates. The results of this test (not shown here) provide additional support for a causal relationships between paid sick leave and job stability: Future access to sick leave has no statistically significant relationship with prior job separation ($\beta = 0.037$; $SE = 0.099$).

The MEPS-HC survey asks one respondent per family to report on the employment of all family members over 15 years of age. We might be concerned that there would be more measurement error in the measures for non-respondents. I tested the sensitivity of the logistic regression models to excluding workers who were not survey respondents. This exclusion made almost no difference in the magnitude of the regression coefficient or marginal effect estimate for job separation (results not shown).

Discussion

This study examines whether having access to paid sick leave predicts short-term job separation. Increasing employment instability, decreasing availability of employee benefits, and recent policy initiatives aimed at mandating paid sick leave all motivated this important research question. The findings were consistent with Hypothesis 1, which stated that access to paid sick leave will be negatively associated with job separations, but a large part of the relationship will be explained by correlated worker and job characteristics. The coefficients decreased in size by two thirds with the addition of worker and job characteristic controls, but the fully controlled models still suggested a 25% to 50% decrease in the probability of experiencing a job separation in a 5-month period associated with access to paid sick leave. This effect is comparable in size to the reduction in job mobility associated with employer-provided health insurance (Bansak & Raphael, 2008).

The estimated relationship with job stability was larger for workers without paid vacation than for those with paid vacation, for women than men, and for parents than nonparents. While these differences were not statistically significant, the patterns were consistent with Hypothesis 2 that workers with greater caregiving responsibilities and less flexibility would have a larger association between access to paid sick leave and job stability. Exploratory analysis of the type of job separation offered only partial support for Hypothesis 3 that

access to paid sick leave would reduce the probability of voluntary (relative to involuntary) and job-to-job (relative to job-to-nonemployment) separations. This analysis is limited, however, by the missing data in the relevant variables.

The study has several other limitations. First, even after controlling for a large set of worker and job characteristics, there are likely still some unobserved factors associated with selection into specific jobs that may be biasing these estimates. Positive selection that would overstate the relationship between access to paid sick leave and retention is the most likely scenario. Second, this study did not deal directly with the fact that different aspects of compensation packages are jointly determined. I included measures of compensation—wage and access to paid vacation, a pension plan, and employer-sponsored health insurance—in the logistic regression models and this decreased the size of the relationship between access to sick days and job separation. In propensity score models, I excluded the measures of compensation in order to restrict the covariates in the exposure model to those things that were plausibly "pretreatment." The propensity score estimates are larger and may reflect, in part, the effect of the complete compensation package or aspects of compensation other than paid sick leave.

Third, this analysis is limited by the questions asked about paid sick days in the MEPS-HC survey. For instance, some jobs may formally offer paid leave, but workers may be informally punished if they take days off. In this situation, a worker may or may not report having access to paid leave on a survey. In addition, these data only capture a change in benefits associated with a new employer. This is another potential source of measurement error, in which respondents who received paid sick leave after a within-firm promotion or job change are being coded as not having access to paid sick days.

Conclusion

The analysis presented here provides some of the first evidence of a relationship between access to paid sick days and the stability of employment. The results suggest that paid sick leave decreases the probability of job separation by at least 2.5 percentage points, or 25%. The association is strongest for workers without paid vacation leave and for mothers. The findings warrant replication and additional analysis of the size of these benefits relative to the costs to employers. Job security and stability are increasingly viewed as dimensions of job quality, yet paid sick leave has been largely ignored in the research literature as a dimension of both compensation and flexibility. While not traditionally thought of as a tool of worker flexibility and control, paid sick leave could empower workers to make responsible decisions about days in which their health or home responsibilities outweigh the demands of work. Similar to employer-sponsored health insurance, paid sick leave may also be valued sufficiently by workers to influence their decisions about moving between jobs.

The study also provides support for mandating paid sick leave as a method of supporting workers and promoting job stability in the face of individual and family illness. Many of the policies generally associated with flexible work schedules—such as flextime and telecommuting—are not compatible with service or manufacturing occupations (Blair-Loy, 2009) or with jobs that have unpredictable or scarce hours (Lambert, Haley-Lock, & Henly, 2012). Paid sick leave might be a tool of flexibility that could be more evenly applied across industries, occupations, and workers.

Acknowledgments

The author thanks Jane Waldfogel, Tiffany Manual, and Robert Plotnick for comments on earlier drafts.

Funding

The author disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The author is grateful to the W.E. Upjohn Institute for Employment Research for supporting this research; to the Population Research Center at NORC and the University of Chicago (National Institute for Child Health and Human Development grant 5R24HD051152-07) for office space and computing resources.

References

Ahituv A, Lerman RI. Job turnover, wage rates, and marital stability: How are they related? Review of Economics of the Household. 2011; 9:221–249.

Angrist, JD.; Pischke, JS. Mostly harmless econometrics: An empricist's companion. Princeton, NJ: Princeton University Press; 2009.

Arrow JO. Estimating the influence of health as a risk factor on unemployment: A survival analysis of employment durations for workers surveyed in the German Socio-Economic Panel (1984–1990). Social Science & Medicine. 1996; 42:1651–1659. [PubMed: 8783427]

Austin PC. The performance of difference propensity-score methods for estimating differences in proportions (risk differences or absolute risk reductions) in observational studies. Statistics in Medicine. 2010; 29:2137–2148. [PubMed: 20108233]

Bansak C, Raphael S. The State Children's Health Insurance Program and job mobility: Identifying job lock among working parents in near-poor households. Industrial & Labor Relations Review. 2008; 61:564–579.

Baughman R, DiNardi D, Holtz-Eakin D. Productivity and wage effects of "family-friendly" fringe benefits. International Journal of Manpower. 2003; 24:247–259.

Becker, GS. Human capital: A theoretical and empirical analysis, with special reference to education. New York, NY: National Bureau for Economic Research; 1975.

Becker SO, Ichino A. Estimation of average treatment effects based on propensity scores. The Stata Journal. 2002; 2:358–377.

Berger LM, Waldfogel J. Maternity leave and the employment of new mothers in the United States. Journal of Population Economics. 2004; 17:331–349.

Bianchi SM, Milkie MA, Sayer LC, Robinson JP. Is anyone doing the housework? Trends in the gender division of household labor. Social Forces. 2000; 79:191–228.

Blair-Loy M. Work without end? Scheduling flexibility and work-to-family conflict among stockbrokers. Work and Occupations. 2009; 36:279–317.

Blair-Loy M, Wharton AS. Employees' use of work-family policies and the workplace social context. Social Forces. 2002; 80:813–845.

Boisjoly J, Duncan GJ, Smeeding T. The shifting incidence of involuntary job losses from 1968 to 1992. Industrial Relations. 1998; 37:207–231.

Bradley CJ, Bednarek HL, Neumark D. Breast cancer and women's labor supply. Health Services Research. 2002; 37:1309–1328. [PubMed: 12479498]

Bradley CJ, Neumark D, Luo Z, Heather LB. Employment-contingent health insurance, illness, and labor supply of women: Evidence from married women with breast cancer. Health Economics. 2007; 16:719–737. [PubMed: 17177273]

Brown, M.; Shulkin, S.; Casey, J.; Pitt-Catsouphes, M. Policy leadership series: Work-family information for state legislators. Boston, MA: Sloan Work and Family Research Network; 2007. Opportunities for policy leadership on paid sick days. Retrieved from http://workfamily.sas.upenn.edu/sites/workfamily.sas.upenn.edu/files/imported/pdfs/policy_makers10.pdf

Buchmueller TC, Valletta RG. The effects of employer-provided health insurance on worker mobility. Industrial & Labor Relations Review. 1996; 49:439–455.

Caliendo, M.; Kopeinig, S. Discussion Paper No 1588. Bonn, Germany: Institute for the Study of Labor; 2005. Some practical guidance for the implementation of propensity score matching.

Davis AE, Kalleberg AL. Family-friendly organizations? Work and family programs in the 1990s. Work and Occupations. 2006; 33:191–223.

Dickens WT, Lang K. A test of dual labor market theory. The American Economic Review. 1985; 75:792–805.

Dwyer RE. Downward earnings mobility after voluntary employer exits. Work and Occupations. 2004; 31:111–139.

Emsley R, Lunt M, Pickles A, Dunn G. Implementing double-robust estimators of causal effects. The Stata Journal. 2008; 8:334–353.

Estes SB, Glass JL. Job changes following childbirth—Are women trading compensation for family-responsive work conditions? Work and Occupations. 1996; 23:405–436.

Farber HS. The analysis of interfirm worker mobility. Journal of Labor Economics. 1994; 12:554–593.

Fenwick R, Tausig M. Scheduling stress—Family and health outcomes of shift work and schedule control. American Behavioral Scientist. 2001; 44:1179–1198.

Fligstein, N.; Shin, T. The shareholder value society: A review of the changes in working conditions and inequality in the United States, 1976–2000. In: Neckerman, KM., editor. Social inequality. New York, NY: Russell Sage Foundation; 2004. p. 401-432.

Fried, M. Taking time: Personal leave policy and corporate culture. Philadelphia, PA: Temple University Press; 1998.

Gibson D, Christina M, Foster EM. A cautionary tale: Using propensity scores to estimate the effect of Food Stamps on food insecurity. Social Service Review. 2006; 80:92–126.

Gilleskie DB, Lutz BF. The impact of employer-provided health insurance on dynamic employment transitions. Journal of Human Resources. 2002; 37:129–162.

Glass J. Job quits and job changes: The effects of young women's work conditions and family factors. Gender & Society. 1988; 2:228–240.

Glass JL, Riley L. Family responsive policies and employee retention following childbirth. Social Forces. 1998; 76:1401–1435.

Gottschalk P, Danziger S. Inequality of wage rates, earnings and family income in the United States, 1975–2002. Review of Income and Wealth. 2005; 51:231–254.

Hachen DS. Gender differences in job mobility rates in the United States. Social Science Research. 1988; 17:93–116.

Hachen DS. 3 models of job mobility in labor-markets. Work and Occupations. 1990; 17:320–354.

Hachen DS. Industrial characteristics and job mobility rates. American Sociological Review. 1992; 57:39–55.

Hacker, JS. The great risk shift: The assualty on American jobs, families, health care, and retirement and how you can fight back. Oxford, UK: Oxford University Press; 2006.

Heckman JJ, Ichimura H, Todd PE. Matching as an econometric evaluation estimator: Evidence from evaluating a job training programme. Review of Economic Studies. 1997; 64:605–654.

Heymann, J. The widening gap: Why America's working families are in jeapardy and what can be done about it. New York, NY: Basic Books; 2000.

Heymann J, Rho HJ, Schmitt J, Earle A. Ensuring a healthy and productive workforce: Comparing the generosity of paid sick day and sick leave policies in 22 countries. International Journal of Health Services. 2010; 40:1–22. [PubMed: 20198801]

Hill HD, Morris PA, Castells N, Walker JT. Getting a job is only half the battle: Maternal job loss and child classroom behavior in low-income families. Journal of Policy Analysis and Management. 2011; 30(2):310–333. [PubMed: 22162901]

Hofferth SL, Curtin SC. Parental leave statues and maternal return to work after childbirth in the United States. Work and Occupations. 2006; 33:73–105.

Holzer, HJ.; LaLonde, R. Job change and job stability among less-skilled young workers. In: Card, DE.; Blank, RM., editors. Finding jobs: Work and welfare reform. New York, NY: Russell Sage Foundation; 2000. p. 125-59.

Holzer, HJ.; Martinson, K. Low-income working families. Washington DC: The Urban Institute; 2005. Can we improve job retention and advancement among low-income working parents?. Retrieved from http://www.urban.org/UploadedPDF/311241_job_retention.pdf

Joesch JM. Paid leave and the timing of women's employment before and after birth. Journal of Marriage and the Family. 1997; 59:1008–1021.

Johnson RC, Corcoran ME. The road to economic self-sufficiency: Job quality and job transition patterns after welfare reform. Journal of Policy Analysis and Management. 2003; 22:615–639.10.1002/pam.10158

Joyce K, Pabayo R, Critchley JA, Bambra C. Flexible working conditions and their effects on employee health and well being. Cochrane Database of Systematic Reviews. 2010:CD008009. [PubMed: 20166100]

Jusot F, Khlat M, Rochereau T, Sermet C. Job loss from poor health, smoking and obesity: A national prospective survey in France. Journal of Epidemiology and Community Health. 2008; 62:332–337. [PubMed: 18339826]

Kalil A, Ziol-Guest KM. Parental job loss and children's academic progress in two parent families. Social Science Research. 2008; 37:500–515.

Kalleberg AL. Flexible firms and labor market segmentation—Effects of workplace restructuring on jobs and workers. Work and Occupations. 2003; 30:154–175.

Kalleberg AL, Reskin BF, Hudson K. Bad jobs in America: Standard and nonstandard employment relations and job quality in the United States. American Sociological Review. 2000; 65:256–278.

Kalleberg AL. Precarious work, insecure workers: Employment relations in transition. American Sociological Review. 2009; 74:1–22.

Kalleberg, AL. Good jobs, bad jobs. New York, NY: Russell Sage Foundation; 2011.

Keys, BJ.; Danziger, S. Hurt the worst: The risk of unemployment among disadvantaged and advantaged male workers, 1968–2003. In: Newman, KS., editor. Laid off, laid low. New York, NY: Columbia University Press; 2008. p. 56-73.

Kilbourne BS, Farkas G, Beron K, Weir D, England P. Returns to skill, compensating differentials, and gender bias—Effects of occupational characteristics on the wages of White women and men. American Journal of Sociology. 1994; 100:689–719.

Kim J, Phillips P. Health insurance and work retention in the construction industry. Journal of Labor Research. 2010; 31:20–38.

Kossek EE, Ozeki C. Bridging the work-family policy and productivity gap: A literature review. Community, Work, & Family. 1999; 2:7–32.

Lambert SJ. Passing the buck: Labor flexibility practices that transfer risk onto hourly workers. Human Relations. 2008; 61:1203–1227.

Lambert SJ, Haley-Lock A, Henly JR. Schedule flexibility in hourly jobs: Unanticipated consequences and promising directions. Community, Work, & Family. 2012; 15:293–315.

Light A, McGarry K. Job change patterns and the wages of young men. Review of Economics and Statistics. 1998; 80:276–286.

Lovell, V. No time to be sick: Why everyone suffers when workers don't have paid sick leave. Washington, DC: Institute for Women's Policy Research; 2004.

Lunceford JK, Davidian M. Stratification and weighting via the propensity score in estimation of causal treatment effects: A comparative study. Statistics in Medicine. 2004; 23:2937–2960. [PubMed: 15351954]

Madrian BC. Employment-based health-insurance and job mobility—Is there evidence of job-lock. Quarterly Journal of Economics. 1994; 109:27–54.

Magee W. Effects of illness and disability on job separation. Social Science & Medicine. 2004; 58:1121–1135. [PubMed: 14723907]

Mincer, J. Schooling, experience, and earnings. New York, NY: Columbia University Press; 1974.

Moen P, Kelly EL, Hill R. Does enhancing work-time control and flexibility reduce turnover? A naturally occurring experiment. Social Problems. 2011; 58:69–98. [PubMed: 21532909]

Monheit AC, Cooper PF. Health-insurance and job mobility—Theory and evidence. Industrial & Labor Relations Review. 1994; 48:68–85.

Pager D, Western B, Bonikowski B. Discrimination in a low-wage labor market: A field experiment. American Sociological Review. 2009; 74:777–799. [PubMed: 20689685]

Pavalko EK, Henderson KA. Combining care work and paid work—Do workplace policies make a difference? Research on Aging. 2006; 28:359–374.

Reich M, Gordon DM, Edwards RC. Dual labor markets: A theory of labor market segmentation. American Economic Review. 1973; 63:359–365.

Rosenbaum PR, Rubin DB. The central role of the propensity score in observational studies for causal effects. Biometrika. 1983; 70:41–50.

Rosenfeld RA. Job mobility and career processes. Annual Review of Sociology. 1992; 18:39–61.

Royalty AB. Job-to-job and job-to-nonemployment turnover by gender and education level. Journal of Labor Economics. 1998; 16:392–443.

Seccombe, K.; Hoffman, KA. Just don't get sick: Access to health care in the aftermath of welfare reform, critical issues in health and medicine. New Brunswick, NJ: Rutgers University Press; 2007.

Theodossiou I, Zangelidis A. Should I stay or should I go? The effect of gender, education and unemployment on labour market transitions. Labour Economics. 2009; 16:566–577.

Tilly C. Dualism in part-time employment. Industrial Relations. 1992; 31:330–347.

Tomaskovic-Devey D, Skaggs S. An establishment level test of the statistical discrimination hypothesis. Work and Occupations. 1999; 26:422–445.

Topel RH, Ward MP. Job mobility and the careers of young men. Quarterly Journal of Economics. 1992; 107:439–479.

U.S. Bureau of Labor Statistics. Paid sick leave in the United States. Program Perspectives. 2010; 2:1–4.

Virtanen M, Kivimaki M, Vahtera J, Elovainio M, Sund R, Virtanen P, Ferrie JE. Sickness absence as a risk factor for job termination, unemployment, and disability pension among temporary and permanent employees. Occupational and Environmental Medicine. 2006; 63:212–217. [PubMed: 16497865]

Waldfogel J. Family and medical leave: Evidence from the 2000 surveys. Monthly Labor Review. 2001; 124:17–23.

Wharton AS, Chivers S, Blair-Loy M. Use of formal and informal work-family policies on the digital assembly line. Work and Occupations. 2008; 35:327–350.

Biography

Heather D. Hill is an assistant professor in the School of Social Service Administration at the University of Chicago. She is the co-Principal Investigator of EINet: The Employment Instability, Family Well-Being, and Social Policy Network. Her research examines the effects of social policy on family economic circumstances and child development.

Appendix: Specification of Propensity Score Models

The specification of the exposure to treatment model is critical to producing unbiased estimators using propensity score methods, and the approach is new enough that few clear conventions exist. There are debates in the literature on relative harm that can come from overly parsimonious models (omitted variable bias) versus over-parameterized models (narrowing of the common support region and loss of precision; Caliendo & Kopeinig, 2005; Gibson, Christina, & Foster, 2006).

Starting with the original set of controls included in the logistic regression models, I took a relatively conservative approach to selecting covariates for the propensity score estimation based on two criteria: First, the characteristic had to be time invariant or reasonably unlikely to be affected by the treatment itself. Second, it had to be statistically related to both the treatment and the outcome. The second criteria was determined by running step-wise regressions predicting access to paid sick days and job separation, adding each covariate sequentially and keeping the covariate only if its coefficient had a p-value smaller than .05. The resulting set of covariates included: age, female, education, poverty status, marital status, young children in the household, full-time work hours, union status, public-sector

firm, management or professional occupation, and firm size. Appendix Table 1 shows the control variables included in and excluded from the propensity score models.

The IPTW estimates use the resulting propensity score as a probability weight in a model predicting job separation. That outcome model includes all covariates that were statistically related to job separation in the step-wise procedure described above. The PSM estimation involves several more steps: The sample is divided into blocks, for which there is no statistically significant difference between the average propensity of treatment and control group members. Tests are then conducted to ensure that the characteristics included as control variables are "balanced" (not significantly different) for the treatment and control groups in each block. Higher order terms and interactions can be added to the main effects to achieve balance. In this case, the model that came closest to balancing the block characteristics included all main effects, plus two-way interactions between full-time work, union status, public-sector firm, management/professional occupation, and firm size. I restrict the PSM analysis to the region of common support, cells of the propensity score distribution in which there are similar numbers of both treatment and control group members. I also test the sensitivity of the PSM models to excluding the two blocks that did not balance.

Appendix Table 1

Covariates Included in Propensity Score Models.

	Included	Reason for exclusion
Worker characteristics		
Age (years)	Yes	
Female	Yes	
Education	Yes	
Job tenure is 12 months or more	No	Potentially affected by treatment
Race	No	Not related to treatment
Hispanic	No	Not related to outcome
Poor to low income (<200% of FPL)	Yes	
Marital status	Yes	
Any young kids (<13 years) in family	Yes	
Very good/excellent self-reported health status	No	Potentially affected by treatment
Own functional limitation	No	Not related to treatment
Family member with functional limitation Job characteristics	No	Not related to outcome
Usual weekly work hours are full-time (35+)	Yes	
Unionized position	Yes	
Management or professional occupation	Yes	
Small firm (≤10 employees)	Yes	
Public-sector firm	Yes	
Service-producing industry	No	Not related to outcome
Compensation		
Hourly wage (US$)	No	Potentially affected by treatment
Paid vacation leave provided	No	Potentially affected by treatment
Pension plan provided	No	Potentially affected by treatment
Health insurance offered	No	Potentially affected by treatment

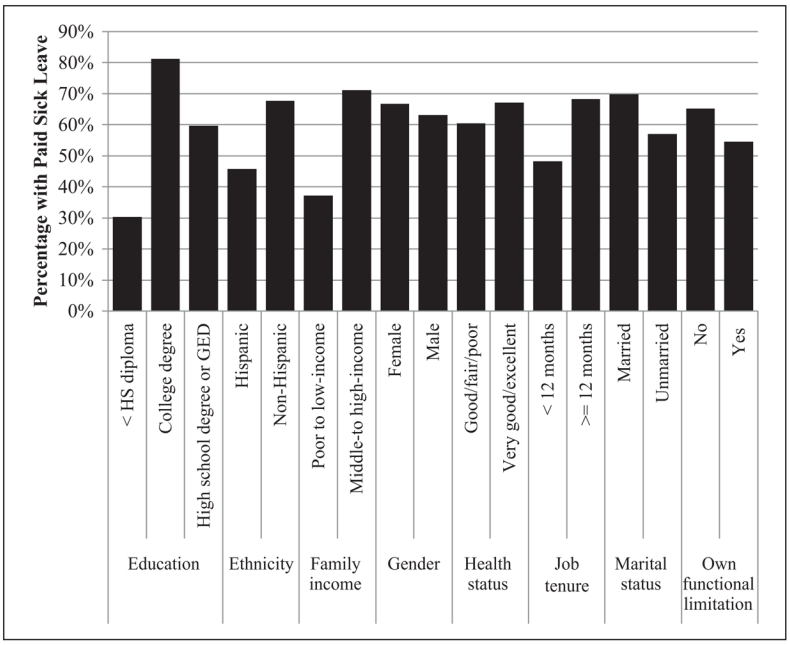

Figure 1a.

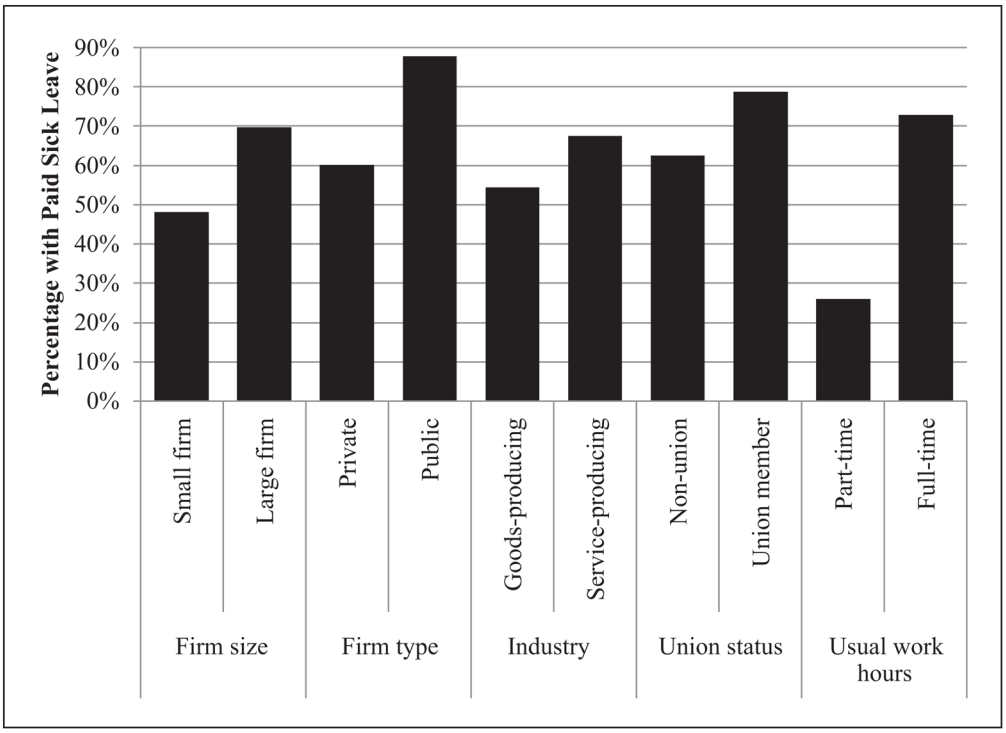

Figure 1b.

Figure 1.

Figure 1a. Access to paid sick leave at main job by worker characteristics.

Note. All differences are statistically significant at the $p < .05$ level or higher.

Figure 1b. Access to paid sick leave at main job by job characteristics.

Note. All differences are statistically significant at the $p < .05$ level or higher.

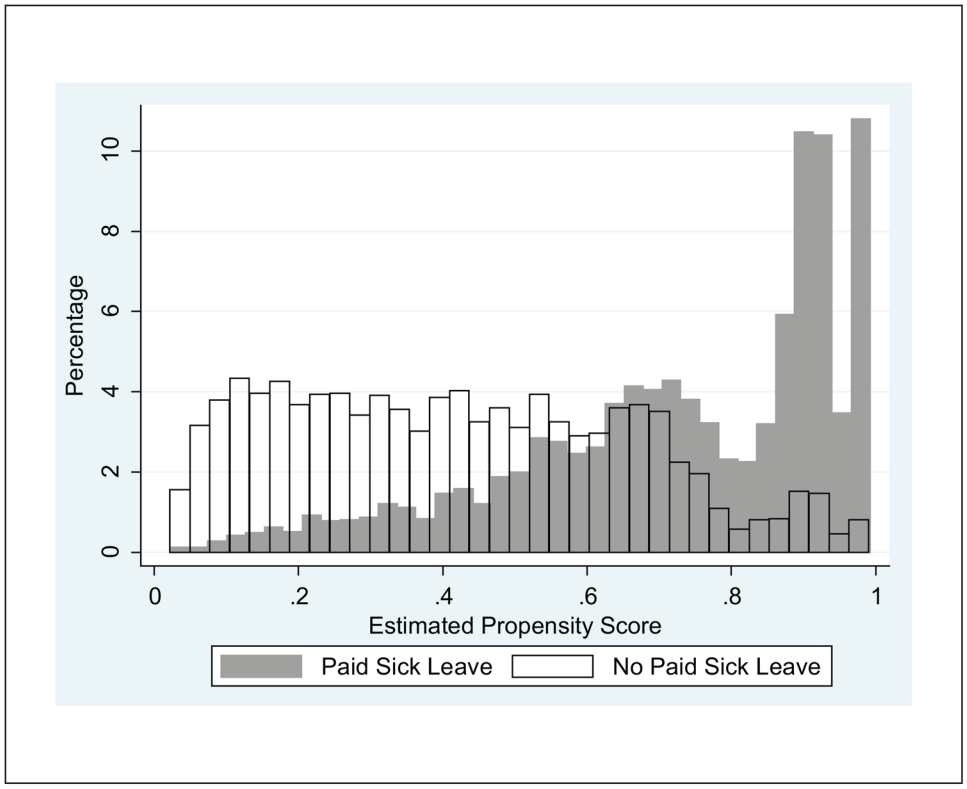

Figure 2.
Histogram of estimated propensity score, conditional on covariates, and access to paid leave.

Table 1

Weighted Population Characteristics of Workers 18 to 44 Years of Age and of Jobs Held by those Workers.

Worker characteristics	Mean (*SE*) or proportion	Job characteristics	Mean (*SE*) or proportion
Age (years)	39.83 (0.17)	Work hours	39.96 (0.12)
Female	0.47	Full-time hours (35+)	0.83
Education		Unionized position	0.13
No degree	0.11	Management/professional occupation	0.36
High school degree or GED	0.51	Firm size	147.71 (2.66)
College degree	0.38	Small firm (≤10 employees)	0.24
Job tenure is 12+ months	0.16	Public-sector firm	0.17
Race		Service-producing industry	0.79
Black	0.11	Hourly wage ($)	18.68 (0.20)
White	0.82	Paid sick leave provided	0.65
Other	0.07	Paid vacation leave provided	0.74
Hispanic	0.13	Pension plan provided	0.56
Poor to low income[a]	0.19	Health insurance offered	0.74
Marital status and spouse's employment			
Unmarried	0.43	*Job separation*	
Married with working spouse	0.47	Next round (~5 months)	0.12
Married with nonworking spouse	0.10	First to last round (~20 months)	0.34
Any young kids (<13 years) in family	0.32		
Verg good/excellent health status	0.66		
Own functional limitation	0.03		
Family member with functional limitation	0.06		
Observations	43,663		
Individuals	13,900		

Source. MEPS-HC Panels 9 and 10, sample of adults 18 to 64 years of age employed in nonseasonal/temporary job.

Notes. Weighted population estimates use the longitudinal weights provided by the MEPS-HC. Standard error estimates for means are shown in parentheses. GED = General Education Diploma.

[a]Poor to low income is defined as having family income below 200% of the Federal Poverty Line.

Table 2

Cross-Tabulations of Paid Sick Leave and Other Employee Benefits at Main Job.

		Paid sick leave	
		Yes	**No**
Total	*n*	23,712	16,017
	%	60	40
Paid vacation			
Yes	*n*	22,200	5,469
	Row %	80	20
	Column %	94	34
No	*n*	1,338	10,494
	Row %	11	89
	Column %	6	66
Health insurance (offered)			
Yes	*n*	19,250	5,634
	Row %	77	23
	Column %	92	39
No	*n*	1,691	8,687
	Row %	16	84
	Column %	8	61
Pension benefits			
Yes	*n*	16,722	2,703
	Row %	86	14
	Column %	73	17
No	*n*	6,303	13,078
	Row %	33	67
	Column %	27	83

Source. MEPS-HC Panels 9 and 10, sample of adults 18 to 64 years of age employed in nonseasonal/temporary job.

Table 3

Logistic Regression Models Predicting Job Separation as a Function of Access to Paid Sick Leave.

	Next round			First to last round		
	1	**2**	**3**	**1**	**2**	**3**
Paid sick leave at main job	−0.756** (0.037)	−0.494** (0.041)	−0.273** (0.056)	−0.715** (0.051)	−0.435** (0.059)	−0.257** (0.074)
Marginal effect[a]	*−0.078*	*−0.047*	*−0.025*	*−0.149*	*−0.089*	*−0.052*
Worker characteristics						
Age (years)	−0.035** (0.002)	−0.027** (0.002)	−0.024** (0.002)	−0.038** (0.002)	−0.029** (0.003)	−0.026** (0.003)
Female	0.120** (0.035)	0.035 (0.037)	0.039 (0.041)	0.165** (0.048)	0.058 (0.054)	0.039 (0.056)
Education						
No degree	−0.019 (0.048)	−0.061 (0.049)	−0.134*** (0.054)	−0.113 (0.073)	−0.131* (0.078)	−0.188*** (0.081)
High school diploma or more	—	—	—	—	—	—
Job tenure is 12 months or more		−0.735** (0.039)	−0.698** (0.042)		−0.820** (0.060)	−0.773** (0.063)
Race						
White	—	—	—	—	—	—
Black	0.033 (0.049)	0.090* (0.050)	0.060 (0.054)	−0.067 (0.067)	−0.014 (0.074)	−0.023 (0.076)
Other	0.037 (0.067)	0.087 (0.065)	0.083 (0.071)	−0.045 (0.093)	0.003 (0.096)	0.006 (0.100)
Hispanic	−0.343** (0.048)	−0.270** (0.048)	−0.318** (0.054)	−0.301** (0.067)	−0.234** (0.072)	−0.285** (0.075)
Poor to low income[b]	0.523** (0.040)	0.406** (0.041)	0.383** (0.046)	0.590** (0.058)	0.458** (0.063)	0.420** (0.067)
Unmarried	0.118** (0.040)	0.080*** (0.040)	0.071 (0.044)	0.107*** (0.053)	0.078 (0.057)	0.054 (0.059)
Any kids <13 years old in family	−0.267** (0.040)	−0.220** (0.040)	−0.217** (0.044)	−0.370** (0.055)	−0.314** (0.058)	−0.307** (0.061)
Very good/ excellent health status	−0.089** (0.034)	−0.074*** (0.036)	−0.067* (0.038)	−0.104*** (0.049)	−0.082 (0.053)	−0.073 (0.054)
Own functional limitation	0.437** (0.098)	0.398** (0.099)	0.307** (0.107)	0.736** (0.146)	0.777** (0.153)	0.730** (0.159)
Family with functional limitation	0.023 (0.070)	0.007 (0.073)	−0.031 (0.081)	0.042 (0.100)	−0.031 (0.110)	−0.071 (0.114)
Job characteristics						
Full-time work hours (35+)		−0.285** (0.044)	−0.171** (0.051)		−0.386** (0.068)	−0.276** (0.074)
Unionized position		−0.358** (0.072)	−0.297** (0.079)		−0.405** (0.092)	−0.389** (0.096)
Public-sector firm		−0.497** (0.064)	−0.491** (0.069)		−0.547** (0.085)	−0.570** (0.089)
Service- producing industry		0.114*** (0.047)	0.085* (0.050)		0.188** (0.066)	0.195** (0.069)

	Next round			First to last round		
	1	2	3	1	2	3
Management or professional occupation		−0.146 ** (0.044)	−0.104 *** (0.050)		−0.117 * (0.062)	−0.087 (0.067)
Small firm (≤10 employees)		0.177 ** (0.039)	0.110 *** (0.044)		0.195 ** (0.059)	0.165 ** (0.064)
Compensation						
Log hourly wage			−0.066 * (0.038)			−0.114 *** (0.053)
Paid vacation leave provided			−0.258 ** (0.055)			−0.337 ** (0.078)
Health insurance offered			−0.096 * (0.053)			0.119 (0.078)
Pension plan provided			−0.186 ** (0.053)			−0.138 *** (0.069)
Base probability (of job separation)	0.11	0.10	0.10	0.28	0.28	0.27
Observations	39,527	36,407	31,404	9,783	9,052	8,611
R-squared	0.08	0.10	0.11	0.09	0.12	0.12

Source. MEPS-HC Panels 9 and 10, sample of adults 18 to 64 years of age employed in nonseasonal/temporary job.

[a]The marginal effect is the partial derivative of the function predicting job separation, evaluated at the means of the independent variables. It can be interpreted as a percentage-point change in the probability of experiencing a job separation.

[b]Annual family income is 200% of the Federal Poverty Line or less.

*$p < .10$.

**$p < .01$.

***$p < .01$.

Table 4

Logistic Regression Results Predicting Job Separation in Next Round, by Subgroup.

	N	β (*SE*)	Base probability	Marginal effect[a]	Percentage change in probability[b]
Paid vacation provided at main job	22,080	−0.236** (0.065)	0.074	−0.017	−23%
No paid vacation provided at main job	9,324	−0.420** (0.123)	0.193	−0.059	−31%
Nonparents	15,939	−0.243** (0.077)	0.102	−0.023	−23%
Parents	15,465	−0.316** (0.080)	0.096	−0.028	−29%
Fathers	7,687	−0.174 (0.120)	0.078	−0.013	−17%
Mothers	7,778	−0.426** (0.109)	0.114	−0.044	−39%

Source. MEPS-HC Panels 9 and 10, sample of adults 18 to 64 years of age employed in nonseasonal/temporary job.

Note. All models control for full set of covariates used in main models (see Table 3). None of the subgroup differences are statistically significant at conventional levels.

[a]The marginal effect is the partial derivative of the function predicting job separation, evaluated at the means of the independent variables. It can be interpreted as a percentage-point change in the probability of experiencing a job separation.

[b]Percentage change in probability = marginal effect/base probability.

**$p < .01$.

Table 5

Comparison of Regression and Propensity Score Estimates Predicting Job Separation in Next Round.

	N	Base probability	Marginal effect[a]	Percentage change in probability[b]
Logistic regression model with full controls (Table 3, Model 3)	31,404	0.100	−0.025** (0.005)	−25%
Logistic regression model with limited controls[c]	36,551	0.105	−0.051** (0.004)	−49%
PSM	8,597	0.135	−0.065* (0.019)	−48%
IPTW	8,597	0.135	−0.067** (0.009)	−50%

Source. MEPS-HC Panels 9 and 10, sample of adults 18 to 64 years of age employed in nonseasonal/temporary job.

Note. Standard error in parentheses. PSM = propensity-score-matched; IPTW = inverse-probability-of-treatment weights.

[a]The marginal effect is the partial derivative of the function predicting job separation, evaluated at the means of the independent variables. It can be interpreted as a percentage-point change in the probability of experiencing a job separation.

[b]Percentage change in probability = marginal effect/base probability.

[c]Includes same set of baseline covariates as propensity score models: age, gender, education, poverty status, marital status, age of youngest child, work hours, union status, public-sector firm, management/professional occupation, and small firm. The selection of these covariates was determined by the convention for propensity score models of including only covariates that are time invariant (or unlikely to affect treatment) and significantly related to the outcome in a step-wise regression process.

*$p < .05$.

**$p < .01$.