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Job-Lock: An Impediment to Labor Mobility?

Is Health Insurance Crippling the Labor Market?

Douglas Holtz-Eakin

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Summary

Although the restructuring of the nation's health care system has in recent years been near the top of the policy agenda, the introduction of President Clinton's and Congress's counterproposals for health reform has both increased the intensity of the dialogue and propelled the issue to the top of the list of national priorities.

Discussion about health care reform encompasses a wide array of issues: inadequate access, the growing share of national resources devoted to health care, the incidence of cost-shifting from the uninsured to the insured, and differences in premium costs between seemingly similarly insured individuals are but a few of the wide variety of concerns related to the current system of providing health care. Other concerns stem from the belief that employer-provided insurance creates distortions in the labor market and, hence, hinders labor mobility. For example, because employees must generally obtain new insurance when they switch jobs, those who wish to leave their current positions may not do so as they face being temporarily uninsured, paying a higher price for the same coverage, or losing all or part of their insurance coverage (due, for example, to a preexisting condition). Sacrificing job opportunities in order to retain health benefits, or "job-lock," is the result of the nonportability of health insurance. Entrepreneurship, too, may be hindered by nonportable health insurance by altering a worker's decision to leave a job and start a new firm.

If job-lock is a real phenomenon, the nation pays an economic price in terms of the costs associated with the misallocation of workers among productive opportunities; higher relocation and training costs for those workers who have stayed too long in their jobs; and the loss of innovation, employment, and competition related to start-up ventures. The question of the existence of job-lock is, therefore, crucial in determining the optimal system for the delivery of health insurance.

Recent survey results and anecdotal evidence appear to bolster the argument that job-lock is a factor in labor market mobility. In order to test the reliability of these findings, Douglas Holtz-Eakin conducts an empirical analysis to examine the incidence of job-lock resulting from the nonportability of health insurance. Using data from the Panel Study of Income Dynamics (PSID) (which include a representative sample of approximately 5,000 families), he compares the percentages of those who have switched jobs among individuals who do and do not have insurance coverage. His initial findings are consistent with the theory of job-lock—namely that those with employer-provided insurance were less likely to change jobs than those without insurance. The same results were found when controlling for gender and marital status.

Holtz-Eakin notes, however, that this comparison is not rigorous in that it does not include the enormous array of information needed to fully describe an individual's work environment. (For example, health insurance may be serving as a proxy for a "good job," which people are less likely to relinquish.) He therefore expands the scope of his analysis to married individuals and accounts for the presence of spousal insurance in order to better gauge the extent of job-lock.

From a direct comparison of those whose spouses do have insurance coverage with those whose spouses do not have health benefits, the author concludes that while there is some difference in mobility rates between the two groups, the rates are not statistically distinguishable from one another.

However, these results may reflect other factors not accounted for in the data; for example, being married to a skilled spouse may make it easier for an individual to change jobs and negate at least some of the effects of job-lock. Therefore, Holtz-Eakin separates the effect of the spouse's skills from that of his or her insurance. After accounting for market skills, Holtz-Eakin finds that "the extent to which mobility rates are higher for individuals whose spouses are insured apparently is attributable to the spouses' market skills. There is no residual job-lock effect in the data." Similar results were obtained when controlling for health status.

Due to concerns that aggregation may have masked the effects of job-lock among specific subgroups of the labor force, the data were divided by income (above and below $8,000 in earnings) and age (older and younger than 50 years of age); again, no statistically significant incidence of job-lock was recorded in the data. When the data were separated between those with more and fewer than 3 years of tenure on the job, it provided some evidence that concern about the loss of insurance might be important for individuals who had a relatively short job history with their current employers. However, the results were at best suggestive. Finally, results on the effect of job-lock on entrepreneurship indicated little systematic evidence that the presence or lack of health insurance had a negative effect on an individual's decision to become self-employed.

Based on these findings, Holtz-Eakin concludes that, despite anecdotal evidence to the contrary, the incidence of job-lock is overstated; therefore, reform programs proposing the dismantling of the current system of employer-provided insurance in order to improve labor mobility are misguided. Rather, recommendations should be concerned with improving access to care and enhancing the efficiency of insurance operations. In addition, any employer-provided system should be concerned with guaranteeing the portability of insurance coverage and premium expenses in order to avoid the possibility of job-lock in the future.

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Preface

As witnessed by the number and diversity of proposals put forth thus far, reforming the nation's health care system is at the top of the national policy agenda. Nearly all agree that any plan enacted must stem the tide of rising costs and improve access to care. Disagreement, though, still exists as to how broadly access should be expanded and how much costs should be reduced. How to realize these ends, then, is still a point of contention and is the center of the debate on health care reform.

Other issues forming the debate over the "best" reform plan are contentions over what, if any, other goals should be realized by reform. One such problem receiving considerable attention has been the phenomenon referred to as "job-lock": the reluctance of an individual to leave his or her current position for another because of the fear of losing health benefits or being forced to pay more for the same level of benefits. If job-lock takes place, then, workers may not relocate to jobs in which their productivity is greater, or, if aspiring entrepreneurs are reluctant to start their own businesses, the potential innovation, employment, and competition fostered by small business will not be realized. Either of these events results in the national

economy operating at less than its full potential. If the incidence of job-lock—which survey evidence indicates could affect as much as 30 percent of the labor force—is widespread, reform of the health care system should include provisions that result in health benefits that are portable from one job to another. Most, therefore, would advocate policies that move the health care delivery system away from the current mode of employer-provided benefits to one that is more national in scope.

The research conducted by Douglas Holtz-Eakin in this issue of the Institute's *Public Policy Brief* details the theoretical reasons for job-lock and outlines recent survey results used to back up claims of its occurrence. To test the validity of these surveys, Holtz-Eakin conducts an empirical analysis of the incidence of job-lock in over 5,000 families. His investigations measure job-lock among workers based on a number of different variables, including

- gender
- marital status
- spousal insurance status
- changes in health status
- income levels
- job tenure

His findings lead him to conclude that "despite concerns to the contrary, health insurance considerations do not appear to be a pervasive roadblock to job mobility in the U.S. labor market . . . It is not necessary, then (at least from a job-mobility perspective), to break the historical employer-based provision of the system in order to institute reforms to improve access and control costs."

We recognize that job-lock is but one aspect in the health care reform debate. While job-lock alone may be insufficient reason for changing the current health care delivery system from its current employer-based form, it is at the same time insufficient basis for an argument against other reform proposals. We hope that the research presented by Douglas Holtz-Eakin will, therefore, stimulate discussion and help to identify which issues—be they related to the labor market or not—are most in need of attention in ongoing efforts to heal the problems of the national health care system.

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Is Health Insurance Crippling the Labor Market ?

Douglas Holtz-Eakin

I. Health Insurance and the Labor Market

Access to health care, medical costs, and health insurance have risen to the top of the national policy agenda. This attention reflects the increasing share of U.S. resources devoted to health care expenditures: Between 1950 and 1990, the share of Net National Product devoted to health care has risen from 4.8 percent to 13.7 percent.[1] Despite the increase in expenditures, there is widespread concern that the large number of uninsured families exposes individuals and their children to health problems. In the eyes of many, the root of both problems may be at least partially attributed to the U.S. tradition of providing health insurance with other job-related benefits.

Aaron (1991) reports that two out of every three Americans under the age of 65 are covered by employer-provided insurance,

and that these individuals constitute roughly 75 percent of all employees. Government policy has fostered this reliance on employer-provided insurance through the exclusion of premiums from taxable income under the U.S. individual income tax. These deductions have a value of nearly $80 billion and provide a clear incentive to add health insurance as a fringe benefit.[2,3] At the same time, premium deductibility provides little incentive for individuals to reduce insurance costs or to efficiently utilize medical services. For these reasons, many diagnoses of the health care cost spiral center on the incentives provided by the U.S. system of employer-based insurance plans.

Employer-provided insurance may impose an equally large, if hidden, cost on the economy by interfering with labor market mobility. Employer-provided insurance typically is not portable. As a result, individuals who choose to leave their employers usually must change their health insurance. In the process, they may face being temporarily uninsured, paying a higher price for the same coverage, or losing all or part of their insurance coverage (due, for example, to a preexisting condition). In response to these risks, individuals may feel compelled to sacrifice job opportunities; if so, they are "locked" in their jobs as a result of nonportable health insurance.

Increased attention has been paid to the issue of insurance-related "job-lock" due to recent survey evidence. In 1991, a CBS/*New York Times* survey indicated that roughly 30 percent of respondents had stayed in jobs to retain their current health insurance coverage.[4] The *Wall Street Journal* recently reported a similar, if somewhat smaller finding—namely that in 1992, 12 percent of respondents had "passed up job opportunities because of considerations involving health insurance benefits."[5]

Such survey evidence raises the specter of a labor market lacking the flexibility to respond to changing economic conditions. To the extent that this scenario is true, the U.S. pays a cost in the form of reduced productivity from

- workers ill-suited to their current employers
- a misallocation of its labor force

- higher relocation and training costs for those workers who have stayed too long in their jobs

In a similar fashion, job-lock may be an impediment to entrepreneurship. Entrepreneurial enterprises are widely recognized as an important source of innovation, employment, and economic dynamism. Start-up ventures create jobs and provide new competition to existing businesses, thereby helping to improve product quality and the supply of new goods and services. The absence of portable health insurance, however, may affect a worker's decision to leave a job and start a new firm. Indeed, the *Wall Street Journal* noted, "If you're thinking of taking the entrepreneurial plunge, take a break from the business plans and five-year projections and consider your family's need for health, disability, and life insurance."[6]

II. Job-Lock and Its Costs

The emergence of health insurance as a reoccurring theme in policy discussions concerning the labor market raises important questions about issues relating to the nature and size of the distortions induced by our national system of health insurance.

Firms competing in labor markets hire those workers whose productivity is high enough to offset the cost of their compensation. For example, if a firm offers $20,000 in wages and $5,000 in health insurance it will profit from hiring any worker whose productivity exceeds $25,000.

On the other side of the labor market, workers analyze offers, implicitly weighing the relative value of wages and salary versus benefits such as medical insurance. Some workers may value health insurance highly, perhaps even more than the purchase price of $5,000. Other workers (those with little demand for health insurance) may value medical benefits at less than $5,000, and, therefore, value the total package offered by the firm at less than $25,000. For example, if the latter workers value health insurance at only $0.80 per dollar of benefits provided, the effective value of the firm's total compensation is $24,000. Such workers would prefer a firm offering more compensation in the form of salary and less in medical benefits: $22,000 in salary and $3,000 in

health insurance, for example, would provide an effective value of compensation of $24,400 to such employees.[7] As workers choose among their options and firms adjust their compensation packages, employees in the economy will be distributed among the productive opportunities in industries and firms.

There are two important features to this process. First, for each firm in the example, total compensation per worker is $25,000. Those who are hired return at least this amount of productivity to the firms. From this perspective, workers are interchangeable: Equally productive workers are equally costly to the firm. The second key aspect is that in the worker's view, firms are *not* interchangeable. Workers who place a very high value on health insurance (and other benefits) will be attracted to firms that offer even small amounts of these benefits. However, because the amount of insurance compensation offered by any one firm tends to be equal for each employee, firms must increase the level of benefits they extend in order to attract workers who place a lower value on health insurance (that is, to offset the lower valuation placed on benefits by these workers). As firms compete for workers, both the amount of health insurance and its implicit value in the market will be determined by these lower-valuation workers. This process generates a surplus for high-valuation employees as they receive a higher level of insurance and, in doing so, garner benefits the value of which exceeds the implicit price determined by the labor market.

In the end, otherwise identically productive workers (who are interchangeable from the firms' perspective) will differ in their propensity to move to new jobs. Any implicit surplus provided by health insurance will act as a "wedge" between a worker's current compensation and the value of offers elsewhere (which are determined by lower-valuation individuals). The greater the value placed on health insurance the larger the wedge and, hence, the greater the outside offer needed to induce a worker to change jobs.[8] New employment offers arise when a worker's productivity is higher in another job; from the perspective of the economy as a whole it is desirable for the individual to choose his or her most productive opportunity. Because of differences in the valuation of health insurance, however, individuals may not pursue these opportunities but, rather, may be locked into activities in which their productivity is lower.

The cost to the economy of job-lock, then, is the difference between an individual's productivity in the two jobs, which represents the foregone opportunity to raise the amount of economic output through a more efficient utilization of labor and its skills. The longer the mismatch persists over time, the greater the costs.

In extreme cases, individuals may fear losing their health insurance—either in part or entirely—when changing jobs. By definition, this produces large differences between the value of compensation in their current jobs versus employment elsewhere. The practice of medical underwriting—which requires individuals to pass a physical examination in order to qualify for coverage—may increase the risk of an individual losing insurance when he or she changes jobs. This feature looms largest for those who have experienced a significant decline in their health and may further hinder job mobility.

Even if not denied coverage, a second feature of the insurance market may raise impediments to job mobility. As part of his or her current group plan, a worker may be relatively inexpensive to insure. The cost of insurance to small firms, however, may be experience-rated (that is, based on the number of, or growth in, recently submitted claims). This makes a new employee (especially one who has experienced a decline in his or her health) more costly to insure in a new job at a small firm, and results in the individual being a less attractive candidate for such jobs. From the perspective of the individual, the higher premium reduces the net benefit from insurance. In either example, the net value of health insurance benefits may drop sharply (even to zero) as an individual changes jobs.

Cooper and Monheit (forthcoming) report that "among job changers, only two-thirds of the 4.7 million wage earners who held employment-related insurance at their first 1987 jobs obtained such coverage at their new jobs, while over one-fifth of such policyholders became uninsured." Because many firms impose waiting periods before providing health insurance, Cooper and Monheit recognize that their computation will overstate permanent insurance losses.[9] Nevertheless, the risk of at least a temporary loss of coverage appears to be significant.

Even if coverage is not lost entirely, it may be limited by clauses precluding coverage for preexisting conditions. A 1987 survey indicated that 57 percent of employers had clauses in their insurance arrangements that limited or excluded coverage for expenses stemming from preexisting conditions. For smaller firms such caveats were even more prevalent: 64 percent of employers in small firms (those with fewer than 500 employees) had policies that included such a clause.[10]

In sum, it is not difficult to envision the role health insurance might play in reducing labor market mobility. Notice, too, that differences among individuals in the valuation of health insurance are at the heart of job-lock. The degree to which individuals differ in their assessments of health benefits (which, in turn, determines the relative extent of job-lock) is ultimately an empirical issue. Employment decisions are, of course, affected by a multitude of other considerations. Job-lock resulting from health insurance factors may, then, be dominated by other considerations.

Moreover, economic incentives can be used to circumvent job-lock. To the extent that firms have the flexibility to alter the mix of wages and benefits on an employee-by-employee basis, it is possible to tailor compensation to attract individual workers. A firm could compensate individuals with more expensive insurance (for example, by covering preexisting conditions) at the expense of wages, thereby overcoming proclivities toward job-lock.

In the end, job-lock is like most economic policy issues: It is possible to envision circumstances in which a problem will arise and obtain survey evidence that suggests that individuals may be subject to these forces. The severity and/or general incidence of the phenomenon, however, is often unknown. Only empirical research may reveal the extent of its economic effect.

III. Job-Lock: How Big?

Do people get locked into their jobs by health insurance? Figure 1 provides a comparison of job-mobility behavior between 1984 and 1985 for individuals with and without employer-provided health insurance.[11]

Figure 1
Health Insurance and the Propensity to Change Jobs*

(A) ALL INDIVIDUALS

	No Job Change	*Job Change*
No Insurance Plan	2,078 0.78	588 0.22
Insurance Plan	2,880 0.85	515 0.15

(B) MARRIED MEN

	No Job Change	*Job Change*
No Insurance Plan	810 0.82	174 0.18
Insurance Plan	1,500 0.87	221 0.13

(C) MARRIED WOMEN

	No Job Change	*Job Change*
No Insurance Plan	665 0.76	213 0.24
Insurance Plan	771 0.84	148 0.16

(D) SINGLE MEN

	No Job Change	*Job Change*
No Insurance Plan	222 0.70	96 0.30
Insurance Plan	244 0.74	69 0.26

(E) SINGLE WOMEN

	No Job Change	*Job Change*
No Insurance Plan	381 0.79	105 0.22
Insurance Plan	365 0.83	77 0.17

*Each cell shows the number of entries in the cell (top) and the proportion of the entries in each *row* that are in the cell (bottom).

Each cell of the panel contains two entries: The top number indicates the number of individuals who fall into that cell, while the bottom number displays the fraction of people *in that row* who fall into the cell. For example, consider panel (A), which summarizes the entire sample: Its first cell indicates that of the 2,666 people who did not have employer-provided insurance, 2,078 individuals, or 78 percent, did not change their jobs during the survey period. In contrast, the upper-right cell in the panel shows that the remaining 588 individuals without an employer plan, or 22 percent, did change jobs between 1984 and 1985.

What message is conveyed by the data in panel (A)? The notion of job-lock predicts that those with employer-provided insurance will not change jobs, while those without insurance will switch employment; entries, therefore, should be clustered in the upper-right and lower-left cells. The data in panel (A) indicate that the propensity to change jobs *is* much higher for those without insurance (22 percent) than for those with insurance (15 percent).

Is job-lock a phenomenon restricted to certain workers? The remaining panels in Figure 1 display the relationship between insurance and job mobility for men and women by marital status. In each case, the percentage of those who change jobs is lower among those with insurance than among those who are not provided health insurance by their employers.[12]

Figure 1 provides a relatively crude examination of job-lock because it ignores other factors that may be associated with changing jobs. In their study of job-lock, Cooper and Monheit (forthcoming) utilize a more sophisticated incarnation of the strategy employed here. Specifically, they use the National Medical Expenditure Survey (NMES) to compare job mobility between those with and those without employer-provided insurance while controlling for a wide array of economic and demographic characteristics of the individuals included in the sample. They conclude that for married males, the decline in mobility is as much as 25 percent.

There is an important pitfall to using this approach, however. In doing a statistical analysis, even comprehensive data sets do not include the enormous array of information needed to fully describe an individual's

work environment. As a result, employer-provided health insurance is likely acting as a proxy for a wide variety of desirable, but unobserved, characteristics of a job. That is, "good jobs" provide a package of desirable characteristics including health insurance (which appears in the data) and other characteristics (which do not). Hence, the fact that workers are less likely to leave jobs that provide health insurance benefits may tell us nothing more than that people are less likely to leave "good jobs."

To deal with this problem, Holtz-Eakin (forthcoming) and Madrian (1992) examined the behavior of married individuals who had employer insurance, and compared job mobility of those whose spouses had insurance to those whose spouses did not have coverage. The logic of the test is straightforward: If job-lock is important, an individual whose spouse has health benefits effectively receives "portable insurance" via the spouse's plan; the job mobility of such an individual, therefore, should be unaffected by the loss of his or her own insurance plan. In contrast, individuals whose spouses do not have insurance will find themselves locked into their jobs.

Figure 2 displays the findings based on this strategy using a format analogous to the type used to derive the statistics shown in Figure 1. As panel (A) shows, 13 percent of individuals whose spouses did not have insurance did change jobs. Consistent with the notion of job-lock, the 15 percent mobility rate recorded among those whose spouses had insurance is higher than the mobility rate among those who did not have insurance, although the difference is quite small. Indeed, a statistical test indicates that the rates are indistinguishable. Thus, a more refined technique provides no support for the job-lock hypothesis.

Just as having insurance may be a reflection of holding a good job, a spouse with insurance may reflect a "good spouse," that is, one with skills sufficient to be employed in a job that provides insurance. Moreover, simply being married to a skilled spouse may make it easier for an individual to change jobs, as there is less risk involved than when the spouse does not have health insurance and/or good labor market skills. If the risk associated with job mobility is inversely related to the extent of a spouse's market skills, the difference in job mobility in Figure 2 reflects both the effects of health insurance and the effects of

Figure 2
Spouse Insurance and the Propensity to Change Jobs Among the Insured*

(A) ALL INDIVIDUALS

	No Job Change	*Job Change*
No Spouse Insurance	1,267 0.87	191 0.13
Spouse Insurance Plan	1,004 0.85	178 0.15

(B) MARRIED MEN

	No Job Change	*Job Change*
No Spouse Insurance	1,002 0.88	133 0.12
Spouse Insurance Plan	498 0.85	88 0.15

(C) MARRIED WOMEN

	No Job Change	*Job Change*
No Spouse Insurance	265 0.82	58 0.18
Spouse Insurance Plan	506 0.84	90 0.16

*See the note to Figure 1.

the skills of the spouse. However, because the spouse's skills will still be valuable even if the individual is not job-locked, it is possible to disentangle the effect of the spouse's skills from that of the insurance, per se. To do so, we first must examine individuals who do not have insurance and, thus, do not have a job-lock problem for their spouses' insurance to "solve." Using the Panel Study of Income Dynamics (PSID), the mobility rate for uninsured individuals whose spouses have insurance is 5 percentage points higher than the mobility rates for uninsured individuals whose spouses do *not* have insurance. This is the effect of the spouse's skills alone. As shown in Figure 2, the difference in mobility rates for insured individuals is 2 (that is, 15 minus 13) percentage points. As noted earlier, this reflects both the effect of the spouse and the value of having portable insurance. Subtracting the spouse effect (5 points) from the combined effect (2 points) gives an estimate of the lock-in effect equal to *negative* 3 percentage points. (Because it uses a comparison of differences in mobility rates to identify lock-in, this approach is known as differences-in-differences.[13]) The choice of method, however, does not alter the outcome: Job-lock does not appear to be an important empirical issue. The extent to which mobility rates are higher for individuals whose spouses are insured apparently is attributable to the spouses' market skills. There is no residual job-lock effect in the data.

Because the labor force behavior of married men may be quite different from that of married women, there may be concern that the pattern noted above could be contaminated as the result of pooling these two groups together. However, panels (B) and (C) in Figure 2 indicate that when the two groups are examined separately, the difference in mobility rates between them is quite small. For men, mobility is higher if the spouse is insured, but the difference is not significant. For women, the mobility difference is negative, indicating that the result goes the "wrong" way from a job-lock perspective.[14]

Again, the results stated thus far may not fully capture the more complex story behind actions in the labor market. As noted earlier, both Holtz-Eakin (forthcoming) and Madrian (1992) embed the logic of the test in Figure 2 within comprehensive studies of job mobility. Madrian focuses on the behavior of married men aged 25 to 55 included in the NMES and finds, at best, weak evidence of job-lock, while Holtz-Eakin

finds no effect of health insurance on job mobility regardless of either marital status or gender.

Using information about the insurance status of spouses to isolate the occurrence of job-lock is an improvement over simple comparisons of the insured to the uninsured. It is not, however, without potential pitfalls. Spouses are likely to make jointly both insurance and labor market decisions; thus, differences in the insurance status of spouses are unlikely to be independent of employment decisions. In short, there is some risk that causation could run from job mobility to spouses' insurance and not the reverse.

It is straightforward, however, to extend the logic of the spouse insurance test. The key precept of the test is that individuals place different values on their insurance—and, hence, their cost of changing jobs—if they have access to other insurance. There are, however, added reasons that one might place a high value on insurance. Individuals in poor health, for example, are likely to place a higher value on their insurance than those in good health.

Keeping this in mind, consider the data in Figure 3. The first row shows the occurrence of job-lock among married men with employer-provided insurance. Column (a) shows that 7.3 percent of married men who reported themselves as being in poor health and whose spouses had insurance changed jobs. In contrast, 9.6 percent of married men in similarly poor health whose spouses were not insured changed jobs (refer to column (b)). Labor mobility was 2.3 percentage points *lower* for the insured-spouse group than for the uninsured-spouse group (see column (e)). To see if the effect was larger for those in poor health, the same comparisons must be made for individuals in good health; these are shown in columns (c) and (d). As shown in column (f), for those in good health, the simple difference in mobility was 3.7 percentage points higher for the insured-spouse group.

Finally, the net job-lock effect is derived by comparing the differences-in-differences between the "poor health" and "good health" groups; this is provided in column (g). Again, we observe a *negative* "job-lock" effect of 6 percentage points, which indicates that insurance is less important for those in poor health. That is, spousal health insurance is

Figure 3
Job-Lock Computations for Insured Married Men

	INDICATOR SAMPLE		NON-INDICATOR SAMPLE				
	Spouse Insurance	No Spouse Insurance	Spouse Insurance	No Spouse Insurance	Simple Difference	Simple Difference	Job-Lock Effect
Insurance Demand Indicator	(a)	(b)	(c)	(d)	(e) = (a)-(b)	(f) = (c)-(d)	(g) = (e)-(f)
Poor Health	0.073	0.096	0.156	0.119	-0.023	0.037	-0.060
Worse Health	0.282	0.147	0.114	0.141	0.135	-0.027	0.162
Lost 100 Hours of Work	0.112	0.106	0.157	0.119	0.007	0.038	-0.031
4+ Days in Hospital	0.083	0.031	0.153	0.120	0.052	0.033	0.019
Young Children	0.129	0.120	0.155	0.116	0.009	0.039	-0.030

a larger factor in job mobility for married men in good health than for those in poor health. In light of this, it is difficult to conclude from the data that job mobility among married men is affected by employer-provided health insurance.

Poor health is not the only (and may not be the best) indicator for placing a high value on health insurance. In the face of medical underwriting and preexisting condition clauses, individuals whose health has recently worsened may place a higher value on their existing insurance arrangements than those who have remained healthy. For example, a KPMG Peat Marwick survey cited in the *Wall Street Journal* indicated that the absence of coverage for preexisting conditions—a situation that affects over two-thirds of employees—may be an impediment to workers' switching jobs.[15] Thus, a decline in health status may have important implications for job mobility. (The second row of Figure 3 provides job-lock computations for individuals who reported a decline in health status during the previous two years.)

Alternatively, one might prefer more objective measures of health care needs, such as (1) individuals who have lost 100 or more hours of work due to their own or others' illness, (2) those who spent four or more days in a hospital, or (3) those with young children (aged two years old and less). (Computations (analogous to those discussed above) showing the incidence of job-lock are shown for each of these indicators in the final three rows of Figure 3.)

What sort of statistical picture do these investigations reveal? With the sole exception of the results for "Worse Health" (Figure 3, row 2), the estimated incidence of job-lock among married men is either in the wrong direction or of inconsequential size.[16] (A similar pattern arises in groups distinguished by gender and marital status, with a greater importance apparent only among those who categorize themselves as being in poor health. Refer to Appendix Figures 1–3.) Moreover, the results in Holtz-Eakin (forthcoming) suggest that even these weak effects overstate the effect of job-lock. In sum, even when a wide variety of methods is used to isolate the determinants of job-lock, little systematic evidence is found that health insurance interferes with job mobility.

IV. Job-Lock: Groups at Risk

The statistical findings reviewed in the previous section contradict survey and anecdotal evidence indicating that individuals tend to value their current insurance arrangements so highly that they forgo otherwise attractive new jobs. Can this apparent contradiction be resolved? One possibility is that such evidence reflects job-lock experienced only by specific subgroups of the labor force; the effects of job-lock on these groups, therefore, could be masked by data aggregation. Several possibilities for such groups come to mind, such as low-wage individuals who would find out-of-pocket medical expenses especially onerous, older workers who might have the greatest risk of loss of insurance as the result of medical underwriting, and short-tenure workers whose employment record might make it more difficult to attract a job with insurance benefits.

To check these possibilities, the data in the PSID were divided between men and women who, in 1984, made more than $8,000 in wages (and those who made less), those who were older than 50 (and those younger than 50), and those who had more than 3 years of tenure on the job (and those with fewer than 3 years of experience).

The same technique as that used in Figure 3 was used to assess the importance of job-lock for the newly defined sample. In only one instance was there a consistent pattern of job-lock, namely among men and women with relatively short job tenures.[17] In short, the data provide some evidence that concern about the loss of insurance may be important for individuals who have had a relatively short job history with their current employers. However, the results were at best, suggestive.

V. Job-Lock and Entrepreneurs

As noted at the outset, there is some concern that employment-based insurance acts as an impediment to aspiring entrepreneurs. Indeed, one might expect the effect to be even more dramatic in this context as the loss of insurance is a necessary consequence of starting a new venture.

Has employer-based health insurance reduced the supply of entrepreneurs?

Using the method employed above, spouses' insurance can be used to investigate job-lock effects on entrepreneurs. Specifically, we can compare the propensity to become self-employed among insured individuals whose spouses have insurance to that of individuals whose spouses do not have health coverage. Doing so, however, indicates essentially no difference between the groups in their proclivity to become entrepreneurs.[18]

As before, there is reason for concern with this approach. One explanation for a spouse to choose to have insurance is the possibility of an individual becoming self-employed. It then appears worthwhile to pursue other means of gauging job-lock for aspiring entrepreneurs. Attempts to do so are displayed in Figure 4, which uses the indicators of highly valued health insurance (used in Figure 3) to identify job-lock. As before, the basic method is to compare the difference in the rate of entrepreneurship among those with insurance to those without insurance, and then to examine whether this difference is greater for individuals who place a high value on health benefits. Despite one intriguing result (specifically, the job-lock estimate using poor health as an indicator of demand for health insurance), the outcome follows a similar trend to those discussed above, namely that there is little systematic evidence that the presence or lack of health insurance produces job-lock among aspiring entrepreneurs.[19]

VI. Lessons for Policy Reform

A review of the empirical evidence indicates that, despite concerns to the contrary, health insurance considerations do not appear to be a pervasive roadblock to job mobility in the U.S. labor market. This fact is an important consideration in the debate over reform of the health insurance system. To date, anecdotal evidence has overly emphasized the importance of job-lock and led to undue emphasis on the creation of an insurance system independent of employers (see, for example, Mitchell (1990)). Instead, the absence of widespread job-lock should ease concern about the employment-based structure of the U.S. health

Figure 4
Job-Lock Computations for Entrepreneurs

	INDICATOR SAMPLE		NON-INDICATOR SAMPLE				
	Insurance	No Insurance	Insurance	No Insurance	Simple Difference	Simple Difference	Job-Lock Effect
Insurance Demand Indicator	(a)	(b)	(c)	(d)	(e) = (a)-(b)	(f) = (c)-(d)	(g) = (e)-(f)
Poor Health	0.074	0.028	0.031	0.048	0.046	-0.017	0.062
Worse Health	0.034	0.040	0.029	0.045	-0.007	-0.016	0.009
Lost 100 Hours of Work	0.025	0.049	0.030	0.043	-0.024	-0.013	-0.011
4+ Days in Hospital	0.024	0.041	0.032	0.046	-0.018	-0.014	-0.004
Young Children	0.030	0.039	0.029	0.045	-0.009	-0.016	0.007

insurance system. It is not necessary, then (at least from a job-mobility perspective), to break the historical employer-based provision of the system in order to institute reforms to improve access and control costs. An even larger implication is that a system mandating the provision of health insurance by employers is unlikely to have large, adverse consequences for labor mobility.[20]

More generally, the evidence suggests that reform of the health insurance system in the United States should not be tailored to minimize the effects on labor mobility, as these effects are small and likely restricted to a few special subgroups of the labor market. Instead, reform should be judged on how it improves (1) access to care and (2) the efficiency of providing insurance.

Not all employer-provided systems are equal, however. In Germany, which has been presented by some as a model for any U.S. reform, virtually all citizens are guaranteed health insurance as part of a privately operated, compulsory health insurance system. Although insurance is provided by employers, the mandatory aspect of the system has the effect of insuring portability. One feature of the German system, however, is that individuals may pay different—sometimes very different—premiums for essentially the same coverage, with the cost of that coverage a function of which insurance company (sickness fund) is chosen by the employer. Thus, while health *coverage* may be portable, the *price* is not, which leads to a situation analogous to job-lock.[21]

The lesson for the United States is that it is not enough to ensure that all employers provide health insurance. While the evidence suggests that it is safe to link insurance *coverage* to one's employer, the *price* of such coverage should not be a function of an employer's type or size of firm. Reform proposals that attempt to impose differential costs for insurance between, for example, large and small employers are likely to generate perverse labor market incentives. More generally, reforms should be devoted to linking the price of insurance to the costs faced by insurers and not to the characteristics of employment.

Appendix A

About the Data

The data in this study are drawn from the Panel Study of Income Dynamics (PSID). Since 1968, the PSID has annually interviewed a representative sample of approximately 5,000 families. At least one member of each family was either a member of one of the families originally interviewed in 1968, or born to a member of one of these families (for a complete discussion, see Survey Research Center (1984)). The PSID offers many advantages, in particular a wealth of longitudinal data on labor market performance.

In 1984, individuals surveyed under the PSID were asked:

> "Does your employer pay for any medical, surgical, or hospital insurance that covers any illness or injury that might happen to you when you are not at work?"

For married couples, spouses were asked an identical question regarding the payment of health insurance by their employers. Those individuals who answered "yes" were classified as having employer-provided health insurance. The largest drawback was that the data contained no information about the extent or cost of coverage, especially the degree to which spouses were covered by any plan. Also, the information was collected for only a single year. However, even the relatively circumscribed information on health insurance coverage may provide useful insights about the job-lock hypothesis.

Appendix Figure 1
Job-Lock Computations for Insured Married Women

	INDICATOR SAMPLE		NON-INDICATOR SAMPLE				
	Spouse Insurance	No Spouse Insurance	Spouse Insurance	No Spouse Insurance	Simple Difference	Simple Difference	Job-Lock Effect
Insurance Demand Indicator	(a)	(b)	(c)	(d)	(e) = (a)-(b)	(f) = (c)-(d)	(g) = (e)-(f)
Poor Health	0.163	0.083	0.150	0.187	0.079	-0.037	0.117
Worse Health	0.256	0.111	0.143	0.186	0.145	-0.043	0.188
Lost 100 Hours of Work	0.129	0.119	0.157	0.195	0.009	-0.038	0.047
4+ Days in Hospital	0.148	0.179	0.250	0.188	-0.032	0.063	-0.094
Young Children	0.152	0.226	0.150	0.170	-0.074	-0.020	-0.054

Appendix Figure 2
Job-Lock Computations for Single Men

	INDICATOR SAMPLE		NON-INDICATOR SAMPLE				
	Insurance	No Insurance	Insurance	No Insurance	Simple Difference	Simple Difference	Job-Lock Effect
Insurance Demand Indicator	(a)	(b)	(c)	(d)	(e) = (a)-(b)	(f) = (c)-(d)	(g) = (e)-(f)
Poor Health	0.292	0.200	0.215	0.331	0.092	-0.116	0.208
Worse Health	0.406	0.246	0.199	0.314	0.161	-0.115	0.276
Lost 100 Hours of Work	0.173	0.316	0.230	0.300	-0.143	-0.070	-0.073
4+ Days in Hospital	0.077	0.214	0.227	0.310	-0.137	-0.084	-0.054
Young Children	0.167	0.211	0.222	0.306	-0.044	-0.083	0.040

Appendix Figure 3
Job-Lock Computations for Single Women

	INDICATOR SAMPLE		NON-INDICATOR SAMPLE				
	Insurance	No Insurance	Insurance	No Insurance	Simple Difference	Simple Difference	Job-Lock Effect
Insurance Demand Indicator	(a)	(b)	(c)	(d)	(e) = (a)-(b)	(f) = (c)-(d)	(g) = (e)-(f)
Poor Health	0.197	0.138	0.170	0.249	0.059	-0.079	0.138
Worse Health	0.204	0.097	0.170	0.244	0.107	-0.074	0.181
Lost 100 Hours of Work	0.160	0.241	0.180	0.211	-0.081	-0.032	-0.049
4+ Days in Hospital	0.206	0.208	0.169	0.217	-0.002	-0.049	0.047
Young Children	0.148	0.283	0.177	0.208	-0.135	-0.031	-0.104

Endnotes

1. Aaron (1991), Table 3-1. While the U.S. experience is slightly more extreme, most countries have experienced an increase in the share of output devoted to health expenditures. See, e.g., Congressional Budget Office (1992b), p. 3.

2. Calculations derived from data included in Congressional Budget Office (1992a), p. 258. Taxing employer-paid insurance would generate $230 billion in income tax revenues and $160 billion in payroll tax revenues over the five-year period of 1993–1997. The number in the text was derived by converting the total ($390 billion) into an annual average.

3. For a discussion of the relationship between tax policy and the provision of fringe benefits, see Sloan and Adamache (1986) or Hamermesh and Woodbury (1990).

4. The *New York Times*, September 26, 1991, page 1. The question asked was: "Have you or anyone else in your household ever decided to stay in a job you wanted to leave mainly because you didn't want to lose health coverage?"

5. *Wall Street Journal*, June 15, 1993, page A1.

6. Asinof (1992), p. C1.

7. This discussion ignores the effect of income and payroll taxes, which reduce the value of $1 of wages. Adding taxes would complicate the arithmetic, but would not alter the basic logic of the argument.

8. Gruber and Madrian (1993) detail the relationship between workers' valuation of health insurance benefits—indeed any job-specific amenity—and job-lock.

9. Madrian (1992) reports that length-of-service restrictions imposed prior to receiving insurance apply to slightly less than 50 percent of full-time workers who are employed by firms of 250 or more employees.

10. The survey—composed of 2,000 employers offering health insurance—was conducted by Foster Higgens, an employee benefits consulting firm (see Cotton (1991)).

11. The figures in this paper were derived from data in the Panel Study of Income Dynamics (PSID). See the Appendix for a description of the data.

12. It is possible to conduct a statistical test of whether the differences in measured job mobility rates reflect differences in underlying job-changing behavior, or are simply a reflection of the particular sample of individuals surveyed. Conducting such a test yields that, with the exception of single women, the differences in job-mobility rates shown in Figure 1 are all statistically significant.

13. For a discussion, see Madrian (1992).

14. Analogous results were obtained when the differences-in-differences approach was employed.

15. *Wall Street Journal*, December 31, 1991, p. A1.

16. In *no* case are the results statistically different from a zero effect.

17. Note, however, that when a multivariate statistical analysis was employed, Holtz-Eakin (forthcoming) found that job-lock was not related to tenure. Madrian (1992) did not have information on tenure; it, therefore, is tempting to speculate that the slightly stronger job-lock effect found there stems from the inability to control for tenure.

18. The difference in the rates is 0.5 percentage points. Using the differences-in-differences approach, the job-lock effect falls to 0.2 percentage points. Neither estimate is statistically different from zero.

19. Preliminary results based on the Survey of Income and Program Participation and the PSID indicate that health insurance has little effect on the supply of entrepreneurs. See Holtz-Eakin, Penrod, and Rosen (1993).

20. This does not imply that the costs of such a system would not affect overall employment. O'Neill and O'Neill (1993) estimate that mandating health insurance would raise overall labor costs by 3.8 percent and reduce aggregate employment by 3.1 million employees.

21. See Holtz-Eakin (forthcoming).

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