The U.S. Health Care System and Labor Markets

Brigitte C. Madrian

Introduction and Motivation

There is no universal provider of health insurance or health care in the United States. Rather, a patchwork system of institutions exists, each covering different subgroups of the population. Certain types of health insurance are provided as a condition of employment, while other types of health insurance are more readily available when individuals are not employed or not fully employed, and still others are available regardless of employment status. The two most significant sources of health insurance coverage in the United States are employers, who collectively insure 63 percent of the non-elderly (below age 65) population, and governments, who collectively cover 16.8 percent of the non-elderly population. Other types of insurance, such as individually purchased policies, or coverage obtained through an educational institution or other organization, provide the remaining 6.7 percent of the non-elderly population with health insurance coverage. However, a nontrivial fraction of the population, 17.7 percent or 44.7 million individuals, is uninsured.

As its title suggests, this paper considers the relationship between the U.S. health care system and the labor market. The second section describes some of the salient features of and facts about the system of health insurance coverage in the United States, particularly the role of employers. Much academic and media attention has been focused on the presumption that the relationship between the labor market and the type(s) of health insurance coverage available to individuals may motivate some individuals and firms to make different labor market decisions than they would otherwise, in ways that adversely impact overall labor market

performance. The third section summarizes this empirical evidence, examining how health insurance impacts labor market outcomes, such as wages, labor supply (including retirement, female labor supply, part-time versus full-time work, and formal versus informal sector work), labor demand (including hours worked and the composition of employment across full-time, part-time, and temporary workers), and job turnover. But the implications of the relationship between employer-provided health insurance and the labor market are not limited to labor market outcomes. The fourth section discusses the implications of having a fragmented system of health insurance delivery—in which the employer plays a central role—on the health care system and health care outcomes. The paper concludes with some thoughts on the long-run sustainability of this system.

Health Insurance Institutions in the United States

The most prevalent type of health insurance, covering 62 percent of the non-elderly U.S. population, is employer-provided health insurance coverage (Kaiser Family Foundation and Health Research and Educational Trust 2004). About half of those covered receive this type of insurance by virtue of their own employment, while the rest receive it as dependents of a spouse or parent who is employed. Employers in the United States who provide health insurance do so voluntarily, and many individuals (17 percent of those not self-employed) work in firms where such benefits are not offered (Fronstin 1999). Even in those firms where health insurance is provided as a benefit, not all employees are necessarily eligible, and those who are eligible must generally elect coverage in order to receive it. Indeed, only 62 percent of wage and salary workers are eligible to receive health insurance benefits through their own employment, and 17 percent of those individuals decline the coverage that is available to them (although they may receive health insurance from another source) (Fronstin 1999). Some employers also provide health insurance to former employees who have retired, so-called "retiree" health insurance. At present, about 29 percent of firms employing more than 500 workers offer health insurance to current and future retirees (Fronstin and Salisbury 2003, citing the Mercer/Foster-Higgins *National Survey of Employer-Sponsored Health Plans 2002*); the fraction of firms offering

this coverage, however, has been declining quite substantially over time, and is likely to continue to decline.

Various types of government insurance programs cover most, but not all, of the population who are not covered by employer-provided insurance. It is interesting that, even at the governmental level, there is no single unified health insurance program. By far the largest government health insurance program is Medicare, which was implemented in 1965 to provide health insurance coverage to individuals aged 65 and over, many of whom were left uninsured or underinsured upon their retirement when coverage through their former employers ceased.[1] Medicare also covers some individuals under age 65, specifically those who are disabled and eligible for Social Security Disability Insurance. Currently, Medicare covers more than 96 percent of those over age 65, and 5 percent of those under age 65.

Medicaid is a state-run health insurance program funded jointly by the federal and various state governments. (Some states call the program by different names; for example, in California the program is referred to as "Medi-Cal.") Historically, this was a health insurance program for public assistance recipients, primarily low-income single mothers and their children, and also a source of supplemental insurance for the low-income elderly. In recent years, it has been expanded to provide coverage to non-welfare-eligible families with modest incomes, particularly those with children. There is great heterogeneity across states in the eligibility requirements for Medicaid and in the benefits that are actually provided. Overall, 9 percent of the elderly are covered by Medicaid, as are 12 percent of the non-elderly (Fronstin 2003). The federal government also provides health insurance to members of the uniformed services and their families. About 3 percent of the non-elderly population are covered by this type of health insurance (Fronstin 2003).

Various other types of private insurance cover about 7 percent of the non-elderly population, and perhaps as much as one-third of the elderly population. These include individually purchased policies from private insurance companies such as Blue Cross/Blue Shield, insurance provided through membership organizations such as a trade union or professional association, university-provided health insurance for college students, and supplemental insurance for the Medicare-eligible elderly, often referred to as "Medigap" coverage.

This patchwork system of health insurance coverage leaves many people uninsured: those who do not have health insurance through their own or a family member's employment, those who are not old enough or disabled enough to qualify for Medicare, those who are not eligible for or decline to participate in Medicaid, and those who either cannot afford or choose not to purchase health insurance in the private market. The estimated 43 million uninsured individuals in the United States represent about 17 percent of the non-elderly population (Fronstin 2003). Thanks in large part to Medicare, only a small fraction of the elderly (65+), about one percent, are uninsured.

It is interesting to consider why the United States, in contrast to most other developed countries, has a health insurance system in which employers, rather than the government, are the primary providers of insurance, at least for the non-elderly.[2] The United States has repeatedly rejected broad attempts to "socialize" the provision of either medical care or health insurance. The first such initiative, during the 1930s, failed despite the concurrent genesis of so many other government social programs (including Social Security, Unemployment Insurance, and the Aid to Families with Dependent Children program, the precursor to contemporary public assistance programs for low-income families). The most recent initiative was the failed Clinton administration attempt at national health reform in 1993, although there were other unsuccessful attempts in the interim.

Even though there are some limited examples of U.S. companies' providing health insurance coverage before World War II, employer-provided health insurance, as an institution, really came into being during the two decades following the war. In the absence of universal government-provided health insurance coverage, market forces pushed employers into their role as the primary providers of insurance. These market forces are several, and include: a substantial price advantage given to employers through the tax code, since firms' health insurance expenditures on behalf of their employees are not counted as taxable income to either the firm or the employees; significant economies of scale that derive from providing health insurance to a large group of individuals; and the ability to pool individuals into insurance groups in a way that largely overcomes the problem of adverse selection, which plagues the individual market for health insurance.

Empirical Evidence on Health Insurance and Labor Market Outcomes

With this understanding of how the various U.S. health insurance institutions work, we can now consider the relationship between health insurance and labor market outcomes. This section describes some of the key empirical estimates of the relationship between health insurance and labor market outcomes, including retirement, employment, full-time versus part-time work, and job turnover. It does not, however, go into great detail on the strengths and weaknesses of the various empirical studies that are cited. Currie and Madrian (1999); Gruber (2000); and Gruber and Madrian (2004) provide greater detail on the data and methods used in the studies cited in this paper (and many others), and offer opinions on the relative merit of the different empirical approaches.

Retirement and the Labor Supply of Older Workers

Perhaps the most important labor market outcome to consider is employment itself—how does health insurance affect individual participation in the labor market? The potential impact of health insurance on labor force participation derives from the fact that, for some individuals, being employed is the cheapest (and perhaps even the only) way to obtain health insurance, while for other individuals, *not* being employed is in fact the cheapest way to obtain health insurance. In the decision about whether or not to be employed, health insurance will be a more important factor for individuals who place high value on health insurance—those with high anticipated medical expenditures either for themselves or for their dependents. Because medical expenditures tend to increase with age, individuals approaching retirement should be particularly interested in maintaining their health insurance coverage.

It should not be surprising, then, that the most widely studied facet of labor force participation that has been examined in the literature on health insurance and labor market outcomes is retirement: to what extent does health insurance determine when and how individuals choose to withdraw from the labor force? Health insurance is a potentially important determinant of retirement outcomes because some types of health insurance are more portable across the transition from work to retirement than are others. Employer-provided health insurance is typically

lost upon retirement, for example; in companies that provide retiree health coverage, however, employer-provided health insurance is portable—individuals retain their coverage even after they retire. Health insurance that comes from a source other than one's own employment would also be portable, including individual health insurance purchased in the private market or employer-provided coverage obtained as a dependent through one's spouse, so long as the spouse does not lose coverage.

If health insurance is not portable across the transition from work to retirement, the potential loss of health insurance coverage associated with leaving the workforce creates a deterrent to retirement. Thus, we would expect retirement rates to be higher among those with portable health insurance. Once individuals reach age 65 and are eligible for Medicare, completely losing health insurance coverage is no longer a concern for those workers previously covered by employer-provided health insurance. Thus, after age 65, retirement rates among those with nonportable insurance will no longer be lower, and, indeed, may increase, if individuals have postponed retirement until becoming eligible for Medicare.[3]

The empirical evidence on health insurance and retirement largely concurs with these theoretical predictions. Several studies have found consistent evidence that individuals whose employers provide retiree health insurance leave the labor force earlier than individuals whose employers do not. For example, Rust and Phelan (1997) estimate that retiree health insurance increases the probability of retiring before age 65 by 12 to 29 percent (the effects vary with age); Karoly and Rogowski (1994) and Rogowski and Karoly (2000) estimate effects ranging from 47 to 62 percent; while Blau and Gilleskie (2001) estimate effects ranging from 26 to 80 percent. Madrian (1994a) finds that individuals with access to retiree health insurance leave the labor market between 6 and 18 months earlier than individuals who do not have access to retiree health insurance, and they are also much more likely to retire before the age of 65.

Individuals who are covered by non-employment-based health insurance, for example, through policies purchased individually in the private market, through trade associations, or through Medicaid, also have a type of health insurance coverage that is portable across the transition from work to retirement. Rust and Phelan (1997) extend their analysis to these other types of portable health insurance, and find that as with

retiree health insurance, individuals with such coverage also have higher retirement rates than individuals who would lose their health insurance coverage upon retirement. Johnson, Davidoff, and Perese (2003) look at the health insurance-related costs of retiring more generally, and find that the higher these costs are, the less likely individuals are to retire.

One set of institutions designed to increase the portability of employer-provided health insurance, both across the transition from work to retirement and for other labor market transitions as well (for example, job change), are state and federal "continuation of coverage" laws. These include two well-known federal laws that go by the acronyms "COBRA" (for the Consolidated Omnibus Budget Reconciliation Act) and "HIPAA" (for the Health Insurance Portability and Accountability Act). COBRA and other similar state-level continuation of coverage laws mandate that employers must allow employees and their dependents the option to continue purchasing health insurance through the employer's health plan for a specified period of time after coverage would otherwise terminate, even if the employee is no longer employed by the firm.[4] HIPAA restricts the ability of insurers to impose pre-existing condition exclusions on individuals who change their health insurance coverage.[5] Both of these laws reduce the costs in terms of potential health insurance coverage loss associated with either retiring or changing jobs.

Although no research has yet been done on the impact of HIPAA on retirement, Gruber and Madrian (1995) examine the effect of COBRA and its state-level precursors on retirement. They find that among those with employer-provided health insurance, these continuation of coverage laws increase the probability of retiring by 30 percent; in contrast, among those without employer-provided health insurance, for whom the laws provide no benefit, continuation of coverage has no effect on retirement. These results, using a relatively exogenous source of variation in the portability of health insurance, confirm that retirement is very sensitive to health insurance availability.

An interesting thing happens at age 65 when individuals become eligible for Medicare. Even for those individuals with employer-provided health insurance that does not continue into retirement, leaving the labor force no longer implies a loss of health insurance, because individuals are covered by Medicare. Thus, Medicare eligibility should provide a strong

retirement incentive for those individuals not eligible for retiree health insurance. And indeed, a substantial fraction of 64-year-olds do retire at age 65, when they become eligible for Medicare. Empirical research has to date been unable to quantify the magnitude of this Medicare effect because age 65 also happens to be the Social Security normal retirement age and the age at which many pension plans provide full retirement benefits. With so many other factors motivating retirement that are coincident with Medicare eligibility, it is difficult to quantify exactly how big each of the respective effects is. But the evidence on how other types of health insurance affect retirement suggest that Medicare eligibility should be very important as well.

One idiosyncratic feature of Medicare relative to other types of health insurance, and one that also generates interesting variations in retirement behavior, is that Medicare covers only individuals and not spouses or dependent children. As a result, the retirement decisions of two individuals without retiree health insurance who are both about to turn 65, one with a spouse who is younger and the other with a spouse who is older, could be quite different. For the individual with the older spouse, retirement at the age of Medicare eligibility will result in a loss of health insurance coverage for neither spouse—both will be covered by Medicare (the older spouse already is). In contrast, retirement at the age of Medicare eligibility for the individual with a younger spouse will result in a loss of health insurance coverage for the spouse if the spouse was covered as a dependent on the employee's plan and not through his or her own independent coverage. Interestingly, Madrian and Beaulieu (1998) find that men with younger wives are less likely to retire than are men with older wives, until their spouses also become eligible for Medicare. Thus, retirement is affected not only by one's own Medicare eligibility, but also by the Medicare eligibility of one's spouse.

Health insurance also impacts the nature of the transition from work to retirement. Some individuals move from full-time work to full-time retirement, while others pursue a more gradual transition from work to retirement, moving from full-time work to part-time work (so-called bridge jobs), and then eventually to full-time retirement. Although many older workers, when asked, express a desire to make a gradual transition from work to retirement, it may be difficult for many actually to do

this before becoming eligible for Medicare while also maintaining health insurance coverage. This is because employer-provided health insurance in the United States is typically contingent upon full-time employment; very few employers provide health insurance benefits to part-time employees. Individuals with retiree health insurance, however, can retire from their full-time job and move to a different part-time or self-employment job while maintaining health insurance through their former employer. Research has shown that individuals with retiree health insurance are indeed much more likely to make a gradual transition from work to retirement than are individuals without retiree health insurance (Quinn 1997). Thus, health insurance that is portable across the transition from work to retirement appears to be an institution that enables individuals to retire both when and how they desire.

Health Insurance Eligibility through Government Public Assistance Programs and Labor Supply

While much of the research on how health insurance affects labor force participation has been directed at the issue of retirement, older individuals are certainly not the only ones whose employment decisions are impacted by health insurance. Another margin along which health insurance might affect labor market outcomes is through the labor supply decisions of potential public assistance recipients. A key feature of the two primary public assistance programs in the United States (TANF, or Temporary Assistance for Needy Families, and SSI, or Supplemental Security Income) is that, in addition to qualifying for cash and other benefits, recipients qualify for Medicaid—health insurance provided by the states to public assistance recipients and potentially to other low-income individuals. Because the groups who qualify for these types of programs—low-income families headed by single mothers and the low-income disabled and elderly—tend to qualify for low-wage, low-skilled jobs without health insurance, the coupling of Medicaid with public assistance encourages individuals to sign up for and remain enrolled in public assistance programs.

Overall, the literature suggests that health insurance availability, and Medicaid in particular, has either no effect (Meyer and Rosenbaum 2000; Blank 1989; Montgomery and Navin 2000; Decker 1993; and Ham and Shore-Sheppard 2005) or only a small effect (Yelowitz 1995; Moffitt and Wolfe 1992; and Winkler 1991) on the labor force participation of low-income single mothers. This is somewhat surprising, given the potential importance of health insurance for this population and their children. On the other hand, there is some evidence that the decision to participate in welfare programs, conditional on labor supply decisions, is fairly responsive to the availability of health insurance (Ellwood and Adams 1990; Moffitt and Wolfe 1992; Decker 1993; and Yelowitz 1996, 1998a, 1998b, and 2000), an interesting finding in its own right, and one with important public policy implications.

The Labor Supply of Married Women

Married women, and to a lesser extent married men, are another group whose labor force participation is likely to be impacted by the availability of health insurance coverage. Although most of the interest in the effect of health insurance on labor force participation in both policy and academic circles has been focused on older workers and public assistance recipients, the potential impact in terms of the aggregate effect on total hours worked may very well be largest for prime-aged workers, particularly married women who are typically estimated to have a large labor supply elasticity. Given the responsiveness of married women to wage changes, one might expect sensitivity to the availability of health insurance coverage as well.

Because most companies that offer health insurance make it available to both employees and their spouses, many married women receive health insurance coverage through their spouses. Whether or not a married women has health insurance through her spouse turns out to be a very important factor in whether and how much married women work. Married women with health insurance through their husbands are 7 to 20 percentage points less likely to work than are women without health insurance from their spouses (Buchmueller and Valletta 1999; Olson 1998; Schone and Vistnes 2000; and Wellington and Cobb-Clark 2000). Among those who do work, they are much more likely to be employed in part-time jobs that typically do not provide health insurance than in full-time jobs (Buchmueller and Valletta 1999; Olson 1998; Schone and Vistnes 2000; and Wellington and Cobb-Clark 2000). Thus, for married

women, the lack of health insurance from a spouse's employment seems to have a strong influence in motivating married women to find jobs with health insurance themselves.

In one of the few studies of health insurance and the labor market using non-U.S. data, Chou and Staiger (2001) examine the effects of health insurance on spousal labor supply in Taiwan. Before March 1995, when Taiwan implemented a new national health insurance program, health insurance was provided primarily through one of three government-sponsored health plans that covered workers in different sectors of the economy. Historically, these plans covered only workers and not their dependents. Thus, own employment was the only way for most individuals to obtain health insurance. However, there was one exception—coverage for spouses was extended to government workers in 1982, and subsequently to children and parents as well. By exploiting this variation in the availability of dependent health insurance coverage, Chou and Staiger (2001) are able to identify the effect of health insurance on employment. They estimate that the labor force participation rate of women married to government employees declined by about 3 percent after they were able to obtain coverage as spousal dependents relative to the labor force participation rate of women married to private-sector workers. They estimate similar declines in labor force participation for the wives of private-sector workers following the 1995 implementation of the National Health Insurance program, which made health insurance available to all individuals. Their results are largely corroborated in an analogous study by Chou and Liu (2000), using a different data set on labor force participation in Taiwan.

A recent study of married women's labor supply in Spain uncovered another interesting link between health insurance finance and female labor supply (De la Rica and Lemieux 1994). In Spain, health care is provided by the government and financed out of a mandatory payroll tax paid partially by the firm and partially by the employee. Payment of the payroll tax entitles workers and their spouses and dependent children to health care, as well as to a pension and sick leave. Among men, compliance with the payroll tax is nearly universal. Among married women, however, over one-quarter of those who are employed work in the "underground" economy where "required" taxes are not paid.

Only two studies have examined empirically the effect of health insurance on the labor force participation decisions of prime-aged men. The first, by Wellington and Cobb-Clark (2000), examines the effect of spousal health insurance on the employment decisions of both husbands and wives. As noted earlier, they find large effects of husbands' health insurance on the labor force participation of married women. They also find an effect of spousal health insurance on the labor force participation of married men: having a wife with health insurance reduces husbands' labor force participation, although the effect is less than half the size of the effect estimated for married women.

The only other study of health insurance and employment among prime-aged men, Gruber and Madrian (1997), exploits the continuation of coverage mandates discussed earlier in the context of retirement, to consider the impact of health insurance on the transition from employment to nonemployment and on the subsequent duration of nonemployment. This study finds that the availability of continuation of coverage increases the likelihood of experiencing a spell of nonemployment by about 15 percent and also increases the total amount of time spent nonemployed by about 15 percent.

Overall, the body of empirical literature on the effects of health insurance on the labor supply of married women and other prime-aged workers gives strong and consistent support to the notion that health insurance affects individual labor supply decisions. When there is a ready source of health insurance available that is not attached to one's own employment, individuals (particularly married women) are much less likely to be employed. This suggests that the institutional link between health insurance and employment may be a significant factor in the employment decisions of individuals.

There are many other, less studied avenues through which health insurance is likely to impact labor supply. The link between Medicare coverage and the receipt of Social Security Disability Insurance for disabled individuals under the age of 65 could act as a deterrent to work among the disabled, or at least to work that would be sufficient to disqualify them from further disability payments and the health insurance (Medicare) that accompanies these benefits. University-provided health insurance to students operates in a similar way. Individuals can participate in

student health plans if they maintain their student status, which typically involves registering for a certain number of credit hours and maintaining satisfactory grades. Employment, or at least full-time employment, may jeopardize an individual's ability to maintain status as a student. Thus, some students who value their health insurance may be deterred from entering the labor market. Anecdotally, this tends to take the form of delaying graduation.

Health Insurance and Job Choice

Beyond the full-time versus part-time dimension of labor supply, health insurance also has the potential to impact the initial choice of where to work and subsequent decisions about whether to change jobs, including the choice about whether or not to become self-employed. Economists are interested in the issue of job turnover because it is the process by which workers are reallocated away from jobs where they are less productive and into jobs where they are more productive. Impediments to productivity-enhancing job turnover are thus a barrier to economic growth.

Why does health insurance impact job turnover? One obvious reason is that not all employers offer health insurance. Individuals who have employer-provided health insurance and place a high value on it will be reluctant to switch to a company that does not provide health insurance. In addition, individuals who do not have employer-provided health insurance and who place a high value on it may attempt to find jobs at companies that do provide health insurance. An interesting piece of evidence on this front comes from the behavior of married men who are working in jobs without health insurance. If these men have pregnant wives, they are twice as likely to change jobs as are married men without health insurance whose wives are not pregnant (Madrian 1994b). The impending birth of a child clearly increases the value of health insurance, and these men clearly respond by changing jobs, presumably in an attempt to find a position with health insurance.

A second reason that health insurance affects the job turnover decisions of individuals is that not all employer-provided health insurance plans are equal, at least not for an employee who contemplates changing jobs. In addition to variation across employers in the generosity of the health insurance package in terms of co-payments, deductibles, and what

is and is not covered, there are two additional subtle issues to consider. The first is that many employers exclude pre-existing conditions for a certain period of time. So, even though a new employer and one's current employer may appear to provide identical coverage, the coverage of the new employer may, in fact, be vastly inferior for families with medical problems if these problems are not covered under the terms of a pre-existing-condition exclusion restriction. The second issue is that employers do not generally offer their employees free choice among the universe of medical providers in the health insurance plans that they provide. Thus, an employment change that is accompanied by a health insurance change may also necessitate a medical provider change. Individuals who value relationships with their current doctors may be averse to changing health insurance plans even if pre-existing conditions are not an issue.

My own research on the relationship between health insurance and job turnover suggests that health insurance is, indeed, an important factor in the decision to change jobs. One interesting finding is that among individuals who have employer-provided health insurance, those who also have coverage through the employment of a spouse are much more likely to change jobs than those who do not (Madrian 1994b). In essence, health insurance coverage through a spouse's employment is portable across the transition from one job to another, and is one way to skirt the pre-existing-condition exclusions that may be in place at a new employer. Another interesting finding is that COBRA, in addition to motivating retirement among older workers, also motivates job turnover among younger workers (Gruber and Madrian 1994). COBRA makes the health insurance from one's former employer portable across jobs, at least for a limited time, but long enough to avoid pre-existing-condition exclusions.

Beyond my own work, the broader literature on health insurance and job choice is more divided. About one-third of the papers studied find that health insurance significantly impacts the job choice decisions made by workers, with a potential loss of health insurance as a result of job change acting as a deterrent to job turnover, and a potential gain in health insurance leading to increased mobility (Cooper and Monheit 1993; Madrian 1994b; Gruber and Madrian 1994; Anderson 1997; and Stroupe, Kinney, and Kniesner 2001). Another one-third of the papers find no significant relationship between job choice and health insurance (Mitchell

1982; Holtz-Eakin 1994; Penrod 1994; Holtz-Eakin, Penrod, and Rosen 1996; Slade 1997; Kapur 1998; and Spaulding 1997). And the remaining one-third find evidence that varies by empirical specification or subgroup analyzed or find effects that are not statistically significant at standard levels (Buchmueller and Valletta 1996; Brunetti et al. 2000; Madrian and Lefgren 1998; Berger, Black, and Scott 2004; and Gilleskie and Lutz 2002). It is interesting to note that a fair number of the studies that find a significant effect of health insurance on job choice obtain estimates that are fairly similar in magnitude—the potential loss of employer-provided health insurance associated with job change reduces job mobility by 25 to 50 percent (Cooper and Monheit 1993; Madrian 1994b; Buchmueller and Valletta 1996; and Stroupe, Kinney, and Kniesner 2001).

It is also interesting to consider the relationship between health insurance and job turnover from the employer's perspective. For an employer that offers health insurance coverage, a sick employee is costly in two ways. First, a sick employee may be less productive. Second, a sick employee (or a healthy employee with sick dependents) is likely to generate higher insurance claims. Because of their medical expenditures, these employees may be relatively more attractive targets for layoffs. The link between health insurance and employment may thus have an adverse impact on families with medical problems if these problems lead to claims-based layoffs.

Health Insurance and Labor Demand

In addition to its impact on the employment and job choice decisions of individuals, health insurance may also affect the labor demand decisions of employers. There are two features of health insurance provision that are particularly salient in this regard. The first is that health insurance is a fixed cost of employment. Expected employer expenditures on health insurance do not increase when the weekly hours worked by their employees increase, and they do not increase when compensation increases. They increase only when more employees are hired. This fixed-cost feature of employer-provided health insurance gives firms an incentive to economize on the costs of providing health insurance in two ways. The first is by hiring fewer employees but at longer weekly hours—this is one way to maintain production while reducing the overall costs of

providing health insurance. The second is by hiring fewer but more productive employees—those who can produce more than the average employee would. Cutler and Madrian (1998) provide partial evidence that firms have substituted using long weekly hours of fewer workers for employing more workers as health insurance costs have increased over recent years. Moreover, the effects are nontrivial. The increase in weekly hours associated with the increase in health insurance costs between 1980 and 1993 resulted in a change in average weekly hours among those with health insurance equivalent to roughly half the change in labor input that is observed in a typical recession. Baicker and Chandra (2006) examine the impact of rising health insurance costs on employment and find that a 10 percent increase in health premiums reduces the aggregate employment rate by 1.6 percent.

The second feature of health insurance that is salient to the labor demand decision is the distinction between full-time and part-time workers in the tax treatment of employer expenditures on health insurance. These expenditures are usually not subject to taxation—with one caveat: employers must satisfy a set of Internal Revenue Service nondiscrimination rules, which stipulate that if a firm is to provide health insurance, it must make it widely available to substantively all employees. In essence, employers cannot selectively decide that they will provide health insurance to some employees and not to others, either because of favoritism or as a cost-saving measure. However, certain groups of employees, namely part-time, temporary, and seasonal workers, are exempt from the requirements of the nondiscrimination rules. Thus, employers can deny health insurance coverage to part-time, temporary, and seasonal workers while still obtaining favorable tax treatment for their health insurance expenditures on full-time permanent employees. As health insurance becomes more expensive to provide, the nondiscrimination rules give employers an incentive to hire part-time and temporary workers in lieu of full-time workers as a way to economize on insurance expenditures. This could account for some of the phenomenal growth in the temporary services industry over the past two decades.

More concrete evidence that employers substitute from full-time to part-time workers in the face of higher health insurance costs comes from the state of Hawaii. In 1974, Hawaii mandated employer provision of

health insurance to full-time workers but not to part-time workers. Thurston (1997) finds that those industries most affected by the mandate, namely, industries in which relatively few full-time workers were initially covered by health insurance, saw large increases in the fraction of workers employed in part-time jobs. In contrast, industries in which almost all full-time employees were already receiving health insurance saw little shift in the fraction of full-time versus part-time workers. Baicker and Chandra (2006) also find a shift to part-time employment as a result of recent increases in health insurance costs.

Thus, health insurance affects both the size and composition of the workforce that firms employ. As health insurance becomes more costly to provide, employers have an incentive to reduce their health insurance costs by substituting overtime for employment, skilled labor for unskilled labor, and part-time and temporary workers for regular full-time employees.

Health Insurance and Wages

A final labor market outcome of interest is of wages, which are determined jointly by the labor supply decisions of individuals and by the labor demand decisions of employers. From the firm's perspective, providing health insurance imposes an additional compensation cost on the employer and will reduce the level of wages it is willing to offer for a given level of labor input. From the worker's perspective, employer-provided health insurance is simply another form of compensation and will reduce the level of wages required to supply a given level of labor input. In a competitive labor market, the level of total compensation received by employees will be determined by worker productivity. The composition of that compensation between wages and fringe benefits will be dictated by the value that employees place on having employer-provided health insurance relative to the cost to the employer of providing it. If employees value employer-provided health insurance at less than the cost to the employer of providing it, the firm will not be able to pass on to workers the full cost of offering the insurance in the form of lower wages and will opt not to provide health insurance. That employers do provide health insurance would seem to indicate that at least some employees are willing to accept a wage reduction at least equivalent to the cost to the firm of providing the insurance.

Given the inherent risks of being uninsured, risk-averse individuals should value having some sort of health insurance, although as noted above in Section II, there may be more than one way to obtain this insurance. The value to employees of having *employer-provided* health insurance has already been mentioned: the tax deductibility of employer expenditures on health insurance, the economies of scale from providing health insurance to a large group of individuals, and the ability to pool individuals into insurance groups in a way that largely overcomes the problem of adverse selection, which plagues the individual market for health insurance. These advantages of employer-provided health insurance are potentially large, and we should expect many employees to be willing to accept a wage reduction at least equivalent to the cost to their employer of providing health insurance. However, some individuals have cheaper health insurance available from another source (for example, the government or a family member), and they may place a very low value on having employer-provided health insurance from their own employer.

Despite the strong presumption of a trade-off between wages and health insurance, the early literature on this topic was focused not on the magnitude of the wage-health insurance trade-off, but rather on the reasons why researchers could not find evidence that there is a trade-off (Currie and Madrian 1999). The fundamental problem was a lack of appropriate data for estimating the magnitude of any such relationship. More recent studies that have been careful to find suitable data and to specify carefully the empirical relationship have found evidence of a trade-off. Gruber and Krueger (1991) and Gruber (1994) exploit exogenous changes in the cost of benefits offered to workers and find that essentially the full amount of these cost increases is passed on to workers in the form of lower wages.[6] Royalty (2005) examines the choices that workers make among health plans within a given firm when those plans receive different employer subsidies and require different employee contributions, and finds evidence of an incomplete trade-off between wages and health insurance. Baicker and Chandra (2006), exploiting variation in health insurance costs driven by variation in medical malpractice payments, similarly find an incomplete trade-off between wages and health benefits. These recent studies all concur that there is a trade-off between wages and health benefits, but the magnitude of this trade-off, that is,

whether workers are willing to accept a dollar-for-dollar reduction in wages in exchange for receiving health benefits or a lesser reduction, is still open to question.

Health insurance may also affect wages through mechanisms other than a direct trade-off between wages and fringe benefits. For example, health insurance has the potential to affect the job matching process. As discussed earlier, the costs of relinquishing health insurance upon job change may lead individuals to remain in their current jobs even if higher productivity job alternatives are available. This productivity loss would presumably result in lower levels of compensation as well. Gruber and Madrian (1997) find evidence that unemployed individuals who have access to continued health insurance coverage while out of work spend more time unemployed (presumably searching for better jobs) and are subsequently reemployed at higher wages. This evidence is at least suggestive that health insurance may impact the process through which workers are sorted into the jobs where their productivity is greatest.

The U.S. Health Insurance System and Health Care Outcomes

Despite a large and growing body of literature on the impact of U.S. health insurance institutions on labor market outcomes, surprisingly little attention has been focused on the effect of U.S. health insurance institutions on health outcomes. As Levy and Meltzer (2004) noted in a recent survey of the literature on health and health insurance: "Literally hundreds of studies have documented the fact that the uninsured have worse health outcomes than the insured…. Very few of these studies establish a causal relationship between health insurance and health, however." Beyond the question of whether health insurance as a general proposition impacts health is the question of whether, or how, the U.S. health care system impacts health.

The U.S. system of health insurance provision is anything but stable for most individuals. Although some people may never experience a spell without health insurance, the type of health insurance coverage that individuals have is likely to change several times over the course of a lifetime as they change jobs or move between different types of public, private, or other coverage. And many people will experience not only changes in the

source of their health insurance coverage, but also intermittent or sometimes lengthy spells without any coverage. What implications does the patchwork-quilt nature of the U.S. health care system have for health?

One way in which the system can impact both health and medical care expenditures is through its effect on the incentives to invest in socially efficient preventive care or disease management. Some forms of preventive medicine have both short-term costs and short-term benefits (for example, a flu vaccine). Others, however, have short-term costs but much longer-term benefits (for example, weight control, smoking cessation, diabetes management). Under the current system of health insurance provision in the United States, no one may have the appropriate incentives to make socially efficient investments in preventive care if the costs accrue in the short term (or on an ongoing basis), but the benefits (lower costs in the future) accrue only many years hence.

Any investments in health that yield a payoff beyond an insured's expected tenure with the insurance provider (either an employer, a public insurer, or a private insurer) will not be cost-effective for the insurer to provide. And individuals, who are largely insensitive to the price of medical care by virtue of being insured, will also have little incentive to make personal investments today that lead to reduced social costs in the future. Moreover, to the extent that some types of preventive measures involve investments that are not specific to the insurer or the insured (for example, investments in computer systems to help doctors monitor patient conditions that are not specific to the patients covered by a particular insurer), the large number of agents in the current system will result in a free-rider problem and the underprovision of socially valuable preventive investments.

Beaulieu, Cutler, and Ho (2003) discuss these problems for the specific case of diabetes management. They analyze monitoring systems that reduce the long-run costs of diabetes, but that yield a payoff only over the time span of several years. They note that from a social perspective, the long-run benefits of these monitoring systems far exceed the costs. But, from the perspective of a profit-maximizing insurer, the private benefits to the firm are negative for the first few years, and the firm only begins to break even after a decade. As a consequence, firms with high levels of turnover are unlikely to invest in such systems, because other insurers are the ones who will reap the benefits.

Another way in which the system can impact health is through disruptions in the continuity of care as individuals move between different health insurance providers or between spells of insurance and uninsurance. The "startup" costs of interacting with the health system following a change in health insurance (for example, finding a new doctor) may lead individuals to delay getting treatment. Or, individuals who lose health insurance coverage may delay getting needed treatment, hoping to obtain insurance coverage before things get "too bad." Individuals who are transitioning from one doctor to another as a result of a change in health insurance coverage may also generate increased medical expenditures through the duplication of tests or diagnostic procedures done to generate measures of baseline health status or to determine an appropriate course of treatment. Their health may also suffer if there are miscommunications between the old and new medical care providers about the nature of an individual health condition and/or its treatment.

Conclusion

There is an important relationship between labor market outcomes and the institutions and rules governing health insurance provision in the United States. Health insurance is an important factor in almost every labor market decision made by individuals: whether to work, where to work, and how much to work. It is also an important factor in the human resource decisions made by employers: how many workers to hire, whom to hire, and how to structure the terms and conditions of employment.

An important lesson to be learned from the experience of the United States is that, while employer provision of health insurance is a convenient way to finance insurance benefits without involving the government budget directly, not everyone is tied to the labor market. Reliance on and encouragement of employer provision of health insurance will invariably result in government programs to fill in the gaps—to cover the otherwise uninsured either in whole or in part. But it is the interplay between these various institutions, some tied directly to the labor market and others not, that results in distortions of the labor market decisions of individuals and firms.

■ *This paper draws quite extensively on three previously written papers: "Health Insurance Portability, Labor Supply, and Job Mobility," July 2004, written for the Inter-American Conference on Social Security; "Health Insurance and the Labor Market," in The Political Economy of Health Care Reforms, edited by Huizhong Zhou (Kalamazoo, MI: Upjohn Institute for Employment Research, 2001); and "Health, Health Insurance, and the Labor Market," (with Janet Currie) in Handbook of Labor Economics, Volume 3, edited by Orley Ashenfelter and David Card (Amsterdam: Elsevier-North Holland, 1999).*

Notes

1. At the time that the federal Medicare program was implemented, individuals were not eligible for Social Security benefits until age 65.

2. It is also interesting to consider why employers are the primary providers of health insurance, but not other types of insurance.

3. If individuals value their current health insurance coverage more than Medicare, which is not implausible, there may still be some deterrent to retirement from having nonportable health insurance coverage even after individuals are eligible for Medicare.

4. Minnesota, in 1974, was the first state to pass a continuation of coverage law. Several states passed similar laws over the next decade. See Gruber and Madrian (1995, 1996) for more detail on continuation of coverage laws.

5. See Berger et al. (1999) for more detail on the health insurance portability aspects of HIPAA.

6. Gruber and Krueger (1991) exploit changes in the cost of offering workers' compensation insurance across states largely driven by changes in the medical component of workers' compensation; they estimate the impact on wages of changes in the value of workers' compensation benefits. Gruber (1994) exploits the widespread adoption of maternity benefits following the Pregnancy Discrimination Act of 1978, to estimate the impact on wages of this type of additional health insurance.

References

Anderson, P. M. 1997. The effect of employer-provided health insurance on job mobility: Job-lock or job-push? Working Paper, Dartmouth University.

Baicker, K. and A. Chandra. 2006. The labor market effects of rising health insurance premiums. *Journal of Labor Economics* 24 (4): 609–634.

Beaulieu, N. D., D. M. Cutler, and K. E. Ho. 2003. The business case for diabetes management at two managed care organizations. Working Paper, Harvard University.

Berger, M. C., D. A. Black, A. Chandra, and F. A. Scott. 1999. Health insurance coverage of the unemployed: COBRA and the potential effects of Kassebaum-Kennedy. *Journal of Policy Analysis and Management* 18 (3): 430–448.

Berger, M. C., D. A. Black, and F. A. Scott. 2004. Is there job-lock? Evidence from the pre-HIPAA era. *Southern Economic Journal* 70 (4): 953–976.

Blank, R. M. 1989. The effect of medical need and Medicaid on AFDC Participation. *Journal of Human Resources* 24: 54–87.

Blau, D. M. and D. B. Gilleskie. 2001. Retiree health insurance and labor force behavior of older men in the 1990s. *Review of Economics and Statistics* 83 (1): 64–80.

Brunetti, M. J., K. Nayeri, C. E. Dobkin, and H. E. Brady. 2000. Health status, health insurance, and worker mobility: A study of job lock in California. Working Paper, University of California at Berkeley, UC DATA/Survey Research Center.

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

Buchmueller, T. C. and R. G. Valletta. 1999. The effect of health insurance on married female labor supply. *Journal of Human Resources* 34 (1): 42–70.

Chou, S. and J. Liu. 2000. National health insurance and female labor supply: Evidence from Taiwan. Working Paper, New Jersey Institute of Technology.

Chou, Y. J. and D. Staiger. 2001. Health insurance and female labor supply in Taiwan. *Journal of Health Economics* 20 (2): 187–211.

Cooper, P. F. and A. C. Monheit. 1993. Does employment-related health insurance inhibit job mobility? *Inquiry* 30 (4): 400–416.

Currie, J. and B. C. Madrian. 1999. Health, health insurance, and the labor market. In *Handbook of Labor Economics, Volume 3*, edited by Orley Ashenfelter and David Card. Amsterdam: Elsevier Science. 3309–3416.

Cutler, D. M. and B. C. Madrian. 1998. Labor market responses to rising health insurance costs: Evidence on hours worked. *RAND Journal of Economics* 29 (3): 509–530.

De la Rica, S. and T. Lemieux. 1994. Does public health insurance reduce labor market flexibility or encourage the underground economy? Evidence from Spain and the United States. In *Social Protection Versus Economic Flexibility: Is There a Trade-off?* edited by Rebecca M. Blank. Chicago: University of Chicago Press. 265–299.

Decker, S. L. 1993. The effect of Medicaid on access to health care and welfare participation. Ph.D. Dissertation, Harvard University.

Ellwood, D. and K. Adams. 1990. Medicaid mysteries: Transitional benefits, Medicaid coverage, and welfare exits. *Health Care Financing Review, 1990 Annual Supplement*, 119–131.

Fronstin, P. 1999. *Employment-Based Health Benefits: Who Is Offered Coverage versus Who Takes It*. EBRI Issue Brief No. 213. Washington, DC: Employee Benefit Research Institute.

Fronstin, P. 2003. *Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2003 Current Population Survey*. EBRI Issue Brief No. 264. Washington, DC: Employee Benefit Research Institute.

Fronstin, P. and D. Salisbury. 2003. *Retiree Health Benefits: Savings Needed to Fund Health Care in Retirement*. EBRI Issue Brief No. 254. Washington, DC: Employee Benefit Research Institute.

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

Gruber, J. 1994. The incidence of mandated maternity benefits. *American Economic Review* 84 (3): 622–641.

Gruber, J. 2000. Health insurance and the labor market. In *Handbook of Health Economics, Volume 1*, edited by Anthony J. Culyer and Joseph P. Newhouse. Amsterdam: Elsevier Science. 645–706.

Gruber, J. and A. B. Krueger. 1991. The incidence of mandated employer-provided insurance: Lessons from workers' compensation insurance. In *Tax Policy and the Economy, Volume Five*, edited by David Bradford. Cambridge, MA: The MIT Press.

Gruber, J. and B. C. Madrian. 1994. Health insurance and job mobility: The effects of public policy on job-lock. *Industrial and Labor Relations Review* 48 (1): 86–102.

Gruber, J. and B. C. Madrian. 1995. Health insurance availability and the retirement decision. *American Economic Review* 85 (4): 938–948.

Gruber, J. and B. C. Madrian. 1996. Health insurance and early retirement: Evidence from the availability of continuation coverage. In *Advances in the Economics of Aging*, edited by D. A. Wise. Chicago: University of Chicago Press. 115–143.

Gruber, J. and B. C. Madrian. 1997. Employment separation and health insurance coverage. *Journal of Public Economics* 66 (3): 349–382.

Gruber, J. and B. C. Madrian. 2004. Health insurance, labor supply, and job mobility: A critical review of the literature. In *Health Policy and the Uninsured*, edited by Catherine G. McLaughlin. Washington, DC: Urban Institute Press. 97–178.

Ham, J. and L. Shore-Sheppard. 2005. Did expanding Medicaid affect welfare participation? *Industrial and Labor Relations Review* 58 (3): 452–470.

Holtz-Eakin, D. 1994. Health insurance provision and labor market efficiency in the United States and Germany. In *Social Protection Versus Economic Flexibility: Is There a Trade-off?* edited by Rebecca M. Blank. Chicago: University of Chicago Press. 157–187.

Holtz-Eakin, D., J. R. Penrod, and H. S. Rosen. 1996. Health insurance and the supply of entrepreneurs. *Journal of Public Economics* 62 (1–2): 209–235.

Institute of Medicine of the National Academies. 2003. *Hidden Costs, Value Lost: Uninsurance in America*. Washington, DC: National Academies Press.

Johnson, R. W., A. J. Davidoff, and K. Perese. 2003. Health insurance costs and early retirement decisions. *Industrial and Labor Relations Review* 56 (4): 716–729.

Kaiser Family Foundation and Health Research and Educational Trust. 2004. *Annual Employer Health Benefits Survey*. http://www.kff.org/insurance/7148.cfm.

Kapur, K. 1998. The impact of health on job mobility: A measure of job lock. *Industrial and Labor Relations Review* 51 (2): 282–297.

Karoly, L. A. and J. A. Rogowski. 1994. The effect of access to post-retirement health insurance on the decision to retire early. *Industrial and Labor Relations Review* 48 (1): 103–123.

Levy, H. and D. Meltzer. 2004. What do we really know about whether health insurance affects health?" In *Health Policy and the Uninsured*, edited by C. G. McLaughlin. Washington, DC: The Urban Institute Press: 179–204.

Madrian, B. C. 1994a. The effect of health insurance on retirement. *Brookings Papers on Economic Activity* 1: 181–232.

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

Madrian, B. C. and N. D. Beaulieu. 1998. Does Medicare eligibility affect retirement? In *Inquiries in the Economics of Aging*, edited by D. A. Wise. Chicago: University of Chicago Press. 109–131.

Madrian, B. C. and L. J. Lefgren. 1998. The effect of health insurance on transitions to self-employment. Working Paper, University of Chicago.

Meyer, B. D. and D. T. Rosenbaum. 2000. Medicaid, private health insurance, and the labor supply of single mothers. Working Paper, Northwestern University.

Mitchell, O. S. 1982. Fringe benefits and labor mobility. *Journal of Human Resources* 17 (2): 286–298.

Moffitt, R. and B. L. Wolfe. 1992. The effect of the Medicaid program on welfare participation and labor supply. *Review of Economics and Statistics* 74 (4): 615–626.

Montgomery, E. and J. C. Navin. 2000. Cross-state variation in Medicaid program and female labor supply. *Economic Inquiry* 38 (3): 402–418.

Olson, C.A. 1998. A comparison of parametric and semiparametric estimates of the effect of spousal health insurance coverage on weekly hours worked by wives. *Journal of Applied Econometrics* 13 (5): 543–565.

Penrod, J. R. 1994. Empirical essays in the economics of labor and health. Ph.D. Dissertation, Princeton University.

Quinn, J. 1997. The role of bridge jobs in the retirement patterns of older Americans in the 1990s. In *Retirement Prospects in a Defined Contribution World*, edited by D. Salisbury. Washington, DC: Employee Benefit Research Institute. 25–39.

Rogowski, J. A. and L. A. Karoly. 2000. Health insurance and retirement behavior: Evidence from the health and retirement survey. *Journal of Health Economics* 19 (4): 529–539.

Royalty, A. B. 2005. Estimating workers' marginal valuation of employer health benefits: Would insured workers prefer more health insurance or higher wages? Working Paper, Indiana University-Purdue University at Indianapolis, forthcoming *Journal of Health Economics*.

Rust, J. and C. Phelan. 1997. How Social Security and Medicare affect retirement behavior in a world of incomplete markets. *Econometrica* 65 (4): 781–831.

Schone, B. S. and J. P. Vistnes. 2000. The relationship between health insurance and labor force decisions: An analysis of married women. Working Paper, Agency for Healthcare Research and Quality.

Slade, E. P. 1997. The effect of the propensity to change jobs on estimates of 'job-lock.' Working Paper, Johns Hopkins University.

Spaulding, J. W. 1997. Fringe benefits, job quality, and labor mobility: Pension and health insurance effects on job-change decisions. Ph.D. Dissertation, University of Wisconsin-Madison.

Stroupe, K. T., E. D. Kinney, and T. J. Kniesner. 2001. Chronic illness and health insurance-related job lock. *Journal of Policy Analysis and Management* 20 (3): 525–544.

Thurston, N. K. 1997. Labor market effects of Hawaii's mandatory employer-provided health insurance. *Industrial and Labor Relations Review* 51 (1): 117–135.

Wellington, A. J. and D. A. Cobb-Clark. 2000. The labor supply effects of universal health coverage: What can we learn from individuals with spousal coverage? In *Worker Well-Being: Research in Labor Economics, Volume 19*, edited by Simon W. Polachek. Amsterdam: Elsevier Science.

Winkler, A. E. 1991. The incentive effects of Medicaid on women's labor supply. *Journal of Human Resources* 26 (2): 308–337.

Yelowitz, A. S. 1995. The Medicaid notch, labor supply, and welfare participation: Evidence from eligibility expansions. *Quarterly Journal of Economics* 110 (4): 909–940.

Yelowitz, A. S. 1996. Did recent Medicaid reforms cause the caseload explosion in the food stamp program? Working Paper #756, UCLA; IRP Discussion Paper, 1109–1196.

Yelowitz, A. S. 1998a. The impact of health care costs and Medicaid on SSI participation. In *Growth in Disability Benefits: Explanation and Policy Implications*, edited by Kalman Rupp and David C. Stapleton. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Yelowitz, A. S. 1998b. Why did the SSI-disabled program grow so much? Disentangling the effect of Medicaid. *Journal of Health Economics* 17 (3): 321–350.

Yelowitz, A. S. 2000. Using the Medicare buy-in program to estimate the effect of Medicaid on the SSI participation. *Economic Inquiry* 38 (3): 419–441.

Comments on Madrian's "The U.S. Health Care System and Labor Markets"

Henry S. Farber

Brigitte Madrian did a wonderful job summarizing the reasons why linking health insurance to employment is just a terrible idea. Her paper reminds me of a trip I took to China in 1990 to work on Chinese labor market reform. In theory, I was there to advise the Chinese government on that issue. One of the rigidities in their market is that housing is linked to employment; so, in order to change employers, workers actually have to find new housing. Now, you can imagine what that does to mobility and the proper allocation of workers to jobs. In the United States, health insurance plays a similar role, and Brigitte is a pioneer in looking at job lock and the effect of health insurance on flexibility in the labor market. She reminded me yesterday that, when she first suggested this idea, I said, "Oh, you'll never find anything." Well, I was wrong.

Linking health insurance to employment is not a good idea, even aside from the problems of adverse selection. As Brigitte established, however, employer-provided health insurance is the modal source of insurance in the United States for the non-elderly, and this link has important consequences for both the labor and product markets. To take the example that Brigitte used, the health insurance costs of General Motors (GM) are more extreme than those of Wal-Mart—and, indeed, more extreme than the health insurance costs of most other companies. This is largely because the United Auto Workers (UAW) union was able to negotiate very, very generous health insurance benefits for pensioners, and GM has more pensioners than active employees right now. That set of circumstances has led to real problems, as international product market competition has made it difficult to sustain generous health insurance coverage and remain competitive. In a sense, it is not surprising that GM's bond status

has been downgraded.[1] Of course, there are many differences between GM and Wal-Mart other than how they treat their health insurance.

Looking more generally at employer-provided health insurance, Figure 5.1 shows data from tabulations of workers between the ages of 20 and 64 from various *Current Population Survey*s that asked what fraction are covered by health insurance offered by their own employer. That is, leaving aside the possibility of getting insurance from someone else, you can see that the fraction of the population covered by own-employer-provided health insurance between the late 1970s and 2005 has fallen from around 72 percent to 64 percent.

This decline has important distributional consequences that have not yet been mentioned. Not everyone has the same access to employer-provided health insurance; nor is it the case that all employed workers have the same access to employer-provided health insurance. I think these equity considerations alone are an important argument for universal coverage and for disconnecting health insurance from employment.

I agree with Brigitte that the linkage of health insurance with employment can skew labor market decisions. The need for health insurance can

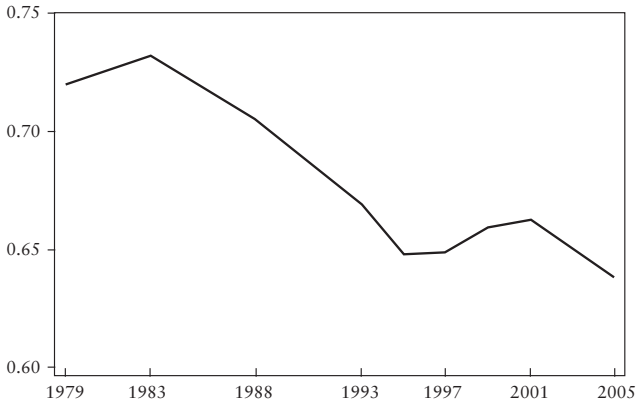

Figure 5.1
Fraction of the Labor Force Covered by Own-Employer Health Insurance
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

certainly tie workers to jobs. Workers who lose jobs may find themselves without health insurance coverage, and there is a lot of job displacement going on. The hallmark of the American labor market is its dynamism: jobs are destroyed, jobs are created, and we have an enviable record of employment growth over the last 30 years compared with European countries. Since 1980, annual employment growth in the United States has averaged about 1½ percent; in Germany, it has averaged approximately one-third of one percent. Part of the reason for the faster pace of growth in the United States is that we do not penalize employers for laying off workers. Also, workers can move freely from one firm to another. This is all good, but if health insurance were not tying people to jobs, we could have even more dynamism. Something that was not mentioned is that workers may be reluctant to move into self-employment because of the difficulty in finding affordable insurance. One would think that the George W. Bush White House would be very interested in an initiative that could rekindle the entrepreneurial spirit in America, and universal health insurance coverage might do just that.

Now, to build on some work that I did with Helen Levy (1998) a number of years ago, it turns out that not all jobs are created equal. It is well known that part-time workers are less likely than full-time workers to be covered by employer-provided health insurance, as is allowed by Internal Revenue Service rules. In order for employee benefits to be tax-deductible, they cannot be awarded on the basis of wages. That is, employers are not allowed to give benefits only to their high-wage employees. However, they are permitted to discriminate on the basis of hours worked and to deny benefits to part-time workers. This is the game that Wal-Mart plays very, very well. They define a high threshold for full-time work in terms of minimum hours and, as a consequence, only a small fraction of their workforce is covered by insurance provided by Wal-Mart. For example, in Maryland in 2005, less than 8 percent of Wal-Mart's wage bill came from employee benefits.[2] Workers who are new to their jobs are also less likely to be covered by employer-provided health insurance. This is the result of waiting periods, which employers have increasingly used to their advantage.

Figure 5.2 decomposes the labor force into four groups. The top line represents what I call "old full-time jobs": workers who have been in their job for more than a year and who are employed on a full-time basis.

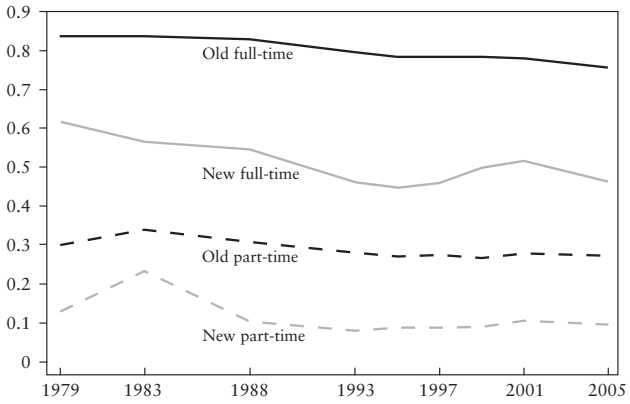

Figure 5.2
Fraction of the Labor Force Covered by Own-Employer Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

A large, though declining, fraction of these workers (from 84 percent in 1979 to 76 percent in 2005) are covered by employer-provided health insurance. The bottom line represents "new part-time workers": people in a part-time job who have been in that job for less than a year. Only about 10 percent of these workers are covered by employer-provided health insurance. The second line from the top—the middle group—represents "new full-time workers": those who just started a full-time job, and coverage for these workers fell from 61 to 47 percent between 1979 and 2005. The third line from the top is for "old part-time workers" who have been at their jobs for a while, and about 30 percent of these workers are covered by employer-provided health insurance.

Coverage is the result of decisions by employers regarding whether or not to offer health insurance and, if so, which workers are eligible. What is the fraction of workers who are in firms that actually offer health insurance coverage? Ninety percent of full-time workers who have been in their job for more than a year work in firms that offer health insurance (see Figure 5.3). That does not necessarily mean that they are eligible for health insurance, only that their firms offer it. At the other extreme,

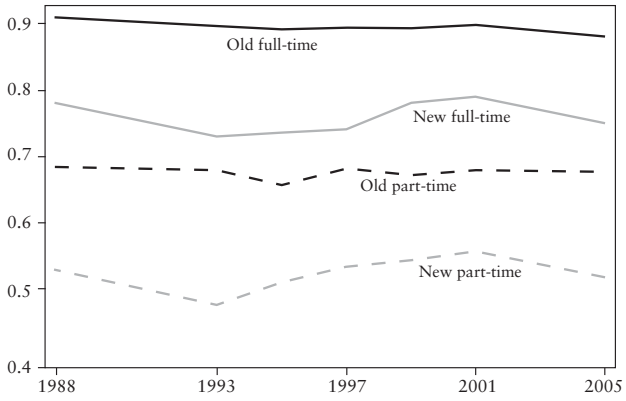

Figure 5.3
Fraction of the Labor Force in Firms Offering Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

only 50 percent of workers in new part-time jobs work in firms that offer health insurance. Here, "offer health insurance" means that a firm offers health insurance to at least one employee.

Figure 5.4 shows, for each part of the employed labor force, the share eligible for employer-provided benefits. This is the fraction of workers who both work for an employer that offers health insurance and are eligible to receive that insurance. Again, full-time workers who have been at their jobs for a while are much more likely to be eligible than other workers. Part-time workers are much less likely to be eligible for employer-provided health insurance. All four groups registered declines in this measure from the late 1980s through the mid 1990s, although the situation has generally stabilized since then.

Figure 5.5 shows, again for each part of the employed labor force, the fraction of workers eligible for employer-provided health insurance among workers in firms that offer health insurance. That is, conditional on being in a firm that offers health insurance, Figure 5.5 shows the fraction of employees who are eligible for that insurance. Almost all full-time workers who have been at these firms for a while are eligible, but rela-

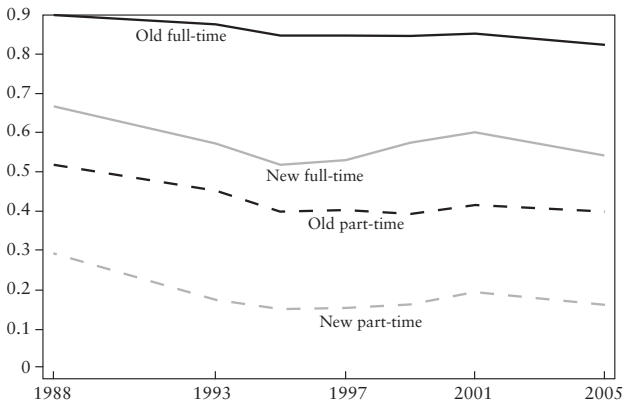

Figure 5.4
Fraction of the Labor Force Eligible for Own-Employer Health Insurance, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

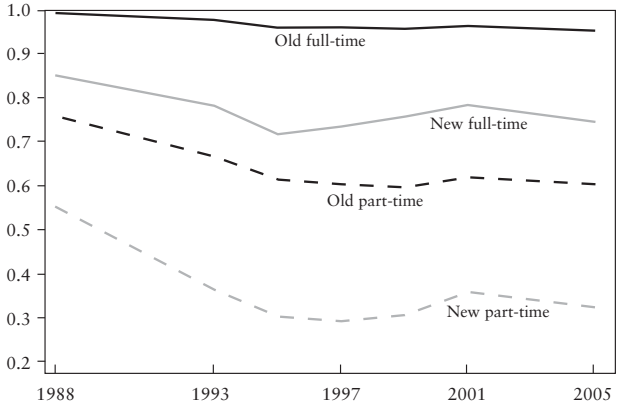

Figure 5.5
Fraction of Employees in Firms Offering Health Insurance Who Are Eligible, by Job Type
Source: Current Population Survey (May 1979, 1983, 1988, 1993, February 1995, 1997, 1999, 2001, 2005).

tively few of the part-time workers are eligible for coverage. This reflects the exclusion of part-time workers in many firms from eligibility, as well as the introduction of waiting periods for new employees.

Table 5.1 presents tabulations of health insurance status by sex and marital status. These tabulations provide strong evidence for the effect of health insurance on labor markets. The lesson I want to draw from these data is that single men and single women do not differ all that much from each other, but there is a huge disparity in employer-provided health insurance coverage between married men and married women.

The health insurance status of unmarried workers does not vary substantially by sex. In contrast, married women, relative to married men, are (1) more likely to work for firms that do not offer health insurance, (2) less likely to be covered by employer-provided health insurance, (3) more likely to decline coverage, and (4) more likely to be ineligible for coverage. These differences survive multivariate analyses that control for other differences across workers.

It seems clear that workers systematically choose different jobs based, at least in part, on demand for health insurance. The linkage of health insurance to employment is neither the best way to utilize talent nor the best way to allocate labor. The prescription obviously is to provide health insurance independent of firm-specific employment.

Table 5.1
Health Insurance (HI) Status by Sex and Marital Status, 1979–2005

HI Status	Unmarried Male	Unmarried Female	Married Male	Married Female
Not Offered	21.40	17.90	12.89	16.80
Covered	63.97	65.82	74.44	54.72
Declined	2.54	3.45	7.48	17.36
Ineligible	8.71	9.97	3.74	9.74
Waiting Period	3.37	2.86	1.45	1.37

Source: *Current Population Survey* (May 1979, 1988, April 1993, February 1995, 1997, 1999, 2001, 2005).

Notes

1. Since the June 2005 conference, health care costs have continued to have an adverse effect on GM's earnings. In October 2005, General Motors announced an agreement with the UAW reducing the cost of health care for union members, retirees, and their families by $1 billion a year. They have also continued to close U.S. plants and lay off workers. As of January 2007, the UAW was in talks with GM, Ford, and Chrysler about the possibility of the union's assuming responsibility for billions in retiree health care costs in the future. The UAW proposed these talks as a way of assuring that retirees' health care coverage would not be lost in case of a bankruptcy filing, and as a way of helping the automakers to compete.

2. Wal-Mart has come under fire for its labor practices, and in 2006 Maryland passed a law forcing Wal-Mart to extend health insurance coverage to a greater share of its workers in Maryland. Later that year, the law was overturned in federal court on the grounds that it violated the Employment Retirement Income Security Act (ERISA). In early 2007, Wal-Mart and the Service Employees International Union (SEIU) stood together and agreed on a series of goals for achieving universal health coverage. Wal-Mart and the SEIU are calling for universal coverage by a specific date—around 2012—and have said that this is a shared responsibility, emphasizing that individuals, businesses, and government all play a role in financing health care and expanding coverage.

References

Farber, H. S. and H. Levy. 1998. Recent trends in employer-sponsored health insurance coverage: Are bad jobs getting worse? NBER Working Paper No. W6709.