

**First, Do No Harm:  
Designing Tax Incentives for Health Insurance**

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## **ABSTRACT**

A bipartisan consensus favors public policy initiatives to expand health insurance coverage. This paper summarizes new CPS data on health insurance coverage for the nonelderly and discusses the issues involved in subsidizing health insurance. We outline a tax credit option designed to diminish many health insurance market flaws. A simple model illustrates that the Administration's recent proposal for tax credits for nongroup insurance alone is equivalent to a general insurance tax credit (our preferred option) with a tax on ESI. Thus, it runs the risk of doing harm—undermining the insurance that currently covers most nonelderly Americans.

JEL Codes: H24, H31, I11

## INTRODUCTION

As part of his 2001 Budget, President Bush proposed a refundable tax credit in an effort to help the nearly 18 percent of nonelderly Americans who lack health insurance coverage. His goal of expanding access to insurance enjoys bipartisan support. Members of both parties have advanced proposals including health insurance tax credits or deductions.

A government commitment to expanding coverage is a positive development. More than 40 million nonelderly Americans—the overwhelming majority of them in working families—are uninsured. They are less likely to obtain important preventive screenings while healthy and receive lower quality care when they get sick. Furthermore, the public ultimately shoulders the burden of paying for the medical treatment of those lacking insurance, either through higher taxes or higher health care costs.

The President's plan may help some of those who currently lack health insurance. But his proposed commitment of about eight billion dollars per year in tax subsidies, starting in 2005, may also trigger unintended consequences. The vast majority of working-age Americans currently obtains health insurance coverage through an employer. Yet, the Administration's tax subsidy initiative would only be available to those without employer-sponsored insurance (ESI), effectively penalizing ESI recipients. Any policy undermining ESI might cause many workers, especially those at small firms, to lose their insurance coverage.

Our paper summarizes the latest descriptive data on health insurance coverage for the nonelderly, discusses the economic arguments for health insurance subsidies, and details the advantages and disadvantages of subsidizing ESI. We outline a private,

market-based option that combines voluntary health insurance market reforms and public incentives for individuals to obtain either high quality nongroup insurance or ESI. We also develop a simple model illustrating how various subsidy schemes affect the status quo and demonstrate that the President's proposal for non-ESI tax credits is equivalent to a nondiscriminatory subsidy scheme, financed partly by a tax on ESI. For that reason, it runs the risk of doing harm—that is, undermining the kind of insurance that currently covers most nonelderly Americans.

## BACKGROUND

### *Summary Data and Historical Trends*

The current U.S. health insurance system is largely employer-based. According to data from the March 2000 Current Population Survey (CPS), 164 million nonelderly Americans (68 percent) in 1999 received primary health insurance coverage from either their own or a family member's employer (see Figure 1). Of the 32 percent without ESI, about half were uninsured, roughly one-third were enrolled in a public health plan (including Medicaid, Medicare, or a program sponsored by the Department of Veterans' Affairs), and the rest were covered by private nongroup insurance.<sup>1</sup>

The likelihood of nonelderly people being uninsured grew by about two percentage points over the late 1980's and the 1990's, rising from roughly 15 percent in 1987 to a peak of 19 percent in 1998 and then falling to 18 percent in 1999 (see Figure

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<sup>1</sup> VA insurance includes CHAMPUS, CHAMPVA, and any government-sponsored military health insurance plan.

2).<sup>2</sup> Over the same period, ESI coverage levels fell by three percentage points (see Figure 3). The proportion of nonelderly individuals covered by their own or a family member's ESI decreased from 69 percent in 1987 to 64 percent in 1993. Employer coverage has increased in small increments since, rising a total of two percentage points to 66 percent in 1999.

Insurance coverage increases with age, income, and firm size (see Figure 4). Only 12 percent of workers between ages 50 and 64 were uninsured in 1999, but nearly 26 percent of workers between ages 18 and 29 lacked any type of health insurance coverage (see Table 1). About one-third of workers earning less than five dollars per hour lacked insurance in 1999, but the rate for the uninsured declined to 14 percent for workers who earned from ten to 15 dollars per hour.

More generally, people in poor households are much less likely to have insurance coverage than those with modest incomes or higher. About half of workers with incomes below the federal poverty level (FPL) (about \$17,000 for a family of four) lacked insurance in 1999. One in five families with incomes between 200 and 300 percent of the FPL were uninsured, and only seven percent of those with incomes greater than three times the poverty level were uncovered.

Small firms are much less likely to offer health insurance than larger firms. As a result, in 1999, only 26 percent of workers at firms with fewer than ten employees were covered through their own employer. Another 27 percent were covered by a spouse's ESI, but 30 percent were uninsured. In contrast, 70 percent of workers at firms with more

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<sup>2</sup> Comparisons over time using the CPS are imprecise because the survey's health insurance questions, the data collection methods, and weighting algorithms have all changed over time (Fronstin, 2000).

than 1,000 employees enrolled in a health insurance plan sponsored by their employer while 11 percent remained uninsured (see Table 1).

Although a large part of the disparity between small and large firms is likely due to the higher premiums charged to small groups, another factor is the difference in income levels between workers at small and large firms. Nichols, et al (1997) found that high-income workers at small firms in 1993 were more likely to be offered ESI than low-income workers at large firms. Nonetheless, workers at every income level were much more likely to be offered insurance by a large employer than by a small one.

In sum, certain demographics of health insurance coverage are striking (see Figure 4). Those who work for small firms, are young, or have low incomes are much less likely to have any type of health insurance than other workers.

Many proposals to expand coverage would target people without ESI. Although few rely on nongroup health insurance plans for primary coverage, those without access to ESI are much more likely to do so. The demographic profile of those holding nongroup insurance policies is the reverse of that for group insurance. About six percent of workers between ages 18 and 29 held nongroup policies, compared to roughly four percent in the next oldest cohort (ages 30 to 39) and only two percent of the population over age 50 (see Table 1). Low-wage workers were also more likely to hold nongroup insurance policies than their higher-income counterparts. Ten percent of those with wages below five dollars an hour were covered by private nongroup health insurance compared with only five percent in the next highest wage bracket.<sup>3</sup> Finally, a

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<sup>3</sup> Overall, about 30 percent of those whose primary source of coverage was private nongroup health insurance had wages under five dollars per hour in 1999. More than 70 percent had wages under ten dollars per hour.

comparatively high percentage of government, agricultural, and retail trade workers (about nine, six, and six percent respectively) held private nongroup policies.

### *Current Law*

The tax law provides substantial subsidies for employment-based health insurance. Employer contributions to employee health insurance are treated as nontaxable fringe benefits and are excluded from compensation for both income tax and payroll tax purposes.<sup>4</sup> If the employer contribution does not cover the entire premium, the employee pays for the remainder out of after-tax dollars (i.e., the tax exclusion only applies to the employer's share).<sup>5</sup>

Employers may purchase insurance for their employees or provide insurance themselves (typically, in a plan managed by an insurance company). Section 105 of the Internal Revenue Code sets out nondiscrimination rules for benefits provided by self-insured plans aimed at preventing highly compensated managers from providing generous tax-free benefits for themselves that are not available to the rank-and-file workers.<sup>6</sup> The Employee Retirement Income Security Act of 1974 (ERISA) exempts self-insured plans from state mandates and taxes on health insurance premiums that apply to third-party insurers.

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<sup>4</sup> See Lyke (2001) for an excellent summary of current law tax provisions and proposals related to health care.

<sup>5</sup> Employees with access to flexible spending accounts (FSAs) may be able to pay their share out of pre-tax dollars. FSAs are discussed below.

<sup>6</sup> In contrast, no nondiscrimination rules apply to the provisions of commercially purchased health insurance. The Tax Reform Act of 1986 included a new Section 89, which set out nondiscrimination rules for employee benefits generally, but the new restrictions raised a firestorm of protest among business interests and others and was repealed in 1989.

The Consolidated Omnibus Reconciliation Act of 1985 (COBRA) amended ERISA to require employers with 20 or more employees who provide health insurance to their employees (whether self-insured or not) to allow participants and other beneficiaries (i.e., family members) to purchase continuing coverage for at least 18 months after it would otherwise cease; for example, because of termination, death, or divorce. Employers cannot charge covered employees more than 102 percent of the applicable premiums for covered employees for continuation of coverage.<sup>7</sup>

Section 125 of the Internal Revenue code allows employers to set up so-called "cafeteria plans" for certain employee benefits. A cafeteria plan allows employees to choose to receive part of their compensation in the form of one or more nontaxable fringe benefits, including health insurance, or as cash wages. Flexible spending accounts (FSAs), which are closely related to cafeteria plans, allow employees to set aside a fixed dollar amount of annual compensation to pay for out-of-pocket expenses for medical and dental services and prescription drugs and eyeglasses, and the employee's share of the cost of employer-sponsored health insurance. The FSA is financed through regular salary reductions. Any amount unspent at the end of the year is forfeited to the employer. Medical-related benefits paid through a cafeteria plan or FSA are excluded from employees' taxable income for both income and payroll tax purposes. As a result, employees with access to a cafeteria plan may pay for all or most of their medical costs with pre-tax dollars.

In general, individuals who purchase their own insurance directly cannot deduct the cost. However, individuals may deduct the portion of premiums they pay for health

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<sup>7</sup> For other laws and special arrangements that apply to employee benefits, see Edward F. Shay (1993), pages 293-322.



insurance plus other medical expenses that exceeds 7.5 percent of adjusted gross income (AGI). The self-employed may deduct 60 percent of the cost of their insurance premiums under Section 162(l) of the Internal Revenue Code. The percentage will increase to 70 percent in 2002 and one hundred percent in 2003.

The Health Insurance Portability and Accountability Act of 1996 (HIPAA) established a four-year pilot program to make Medical Savings Accounts (MSAs) available to a limited number of people who are self-employed or work for a firm with 50 or fewer employees. Qualifying employed and self-employed individuals can opt for inexpensive health insurance with a high deductible and deposit up to 65 percent (75 percent for families) of that annual deductible into an MSA, tax-free.<sup>8</sup> The provision has since been extended through 2002 and President Bush proposes to expand it and make it permanent. Unspent balances in the MSA can be carried over tax-free to later years.

These supplemental tax subsidies for health insurance are small compared with the exclusion for employment-based health insurance. They reduce income tax revenues by about \$5 billion a year. In contrast, the employer exclusion costs about \$70 billion in lost income taxes. Including payroll taxes, the total tax expenditure exceeds \$100 billion per year (Sheils and Hogan 1999).

### *Health Insurance Market Failure*

Many arguments for government intervention in the health insurance market are based on the notion that the market would otherwise fail to operate efficiently. For

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<sup>8</sup> The law mandates that deductibles be between \$1,500 and \$2,250 for singles, and \$3,000 and \$4,500 for families. The out-of-pocket maximum is limited to \$3,000 for singles and \$5,500 for families. Nonmedical withdrawals before age 65 are generally taxable and subject to a 15-percent penalty. Nonmedical withdrawals upon death, disability, or after age 65 are taxable, but not subject to penalty.

example, market efficiency requires that buyers and sellers have complete product information, but lack of information is an endemic problem for both suppliers and consumers in the health insurance market. Insurers have only a limited ability to determine the health status—and, thus, the risk—of any individual. As a result, a health insurance company that sets a fixed price for individuals in a particular class is most attractive to those with the highest risk. This so-called adverse selection causes the average insurance purchaser to have above-average risk, which raises the insurer's costs and thus forces premiums to rise. Higher premiums then drive out lower-risk individuals, and the spiral continues. In theory, if adverse selection is severe enough, a market might even disappear (Rothschild and Stiglitz 1976).

Medical care is a unique commodity— when people become sick, they'll do almost anything to get well and physicians will usually provide the best care possible. Often, both parties agree to try new, experimental treatments, without concrete knowledge of the outcome. Aside from any moral or ethical objections, this lack of information renders cost-benefit analysis nearly impossible for the physician or patient and decisions are often made with little regard for cost (Aaron 1991). This may be a virtue for the ill, but from an economic perspective, it becomes a vice.

Insurance gives individuals an incentive to consume too much health care because they only have to pay a fraction of the cost (deductible and coinsurance). They will demand medical procedures until the marginal benefit to them equals their out-of-pocket expense.<sup>9</sup> Individuals who are fully insured may consume care unless its marginal

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<sup>9</sup> The marginal benefit is net of non-pecuniary costs, such as pain and discomfort, and other costs, such as lost time from work.

benefit is nil. To counteract this tendency, insurers are relying more and more on managed care plans and financial incentives for providers, designed to limit unnecessary medical expenditures.

These problems that arise from the low net-of-insurance price of insured care are called moral hazard (Pauly 1968). It is unclear how much of the cost of medical care is due to moral hazard. Newhouse (1992) argues that the lion's share of growth of health expenditures is attributable to advances in medical technology. He concludes that overzealous efforts to limit moral hazard could do more harm than good if they also reduce the incentive for medical innovation.

So-called free riders create another classic market failure. Because hospitals generally do not turn away very sick people who need care, the incentive to purchase insurance is diminished, especially for people who have little wealth to protect. Thus, part of the health cost incurred by insured people and taxpayers is the cost of providing care for other individuals who did not provide for their own insurance—that is, those who choose to “free-ride” (Olsen 1982).

Finally, a necessary condition for economic efficiency is the existence of complete markets—not only against current, but also against future risks. But it is virtually impossible for individuals to fully insure against future illness. Individuals cannot generally contract for health insurance at fixed rates, or under fixed terms, for more than one year in advance. While individuals can buy policies as part of a pool whose rates are determined based on the experience of the pool, adverse selection causes such pools to be too expensive for healthy members over time. As they drop out, those who become sick end up paying very high premiums. Thus, even in a set pool, insurance costs are based

on health status in the future as well as health status when the policy is purchased (Hall 2000/2001).

### *First, Do No Harm*

Hippocrates' dictum to "do no harm" represents a special challenge in the health insurance market. Although that market is the textbook example of the kind of market failures that could justify government intervention, the failures themselves have contradictory causes and effects; mitigating one problem could exacerbate another.

For example, the federal government spends over \$100 billion per year on tax incentives for employer-sponsored health insurance. Those incentives encourage employees to participate in health insurance plans, reducing adverse selection and free ridership. At the same time, the subsidy causes employees to demand more comprehensive health insurance than they would if they had to pay the full price. More comprehensive insurance exacerbates moral hazard (CBO 1994). The tax incentive could thus be a significant contributor to the rapid rise in health care costs. In combination with state laws and courts that put pressure on insurers to cover anything that might be efficacious, the net effect could be health insurance costs in the small group and individual markets that put such insurance out of reach of low- and moderate-income households.

Similarly, there are both advantages and disadvantages to tying health insurance to employment. The main advantage of subsidizing ESI is that employment is a natural way to pool health insurance risks, since people choose employment for many reasons other than their expected utilization of health care. That pooling works best for large

firms, but Pauly and Herring (1999) claim that even relatively small groups can effectively pool most risks.

Moreover, administrative and marketing costs are lower for large groups, and collecting premiums as a part of payroll processing is less expensive than direct billing. Collecting insurance premiums, either explicitly or implicitly as a part of payroll processing, may also be an especially effective way to encourage participation, because individuals like to break up large expenses into small automatically collected pieces (Thaler 1992). Large groups also have bargaining power when dealing with insurers and providers that can lower costs. Finally, to the extent that workers can count on long-term employment with an established firm, ESI provides a kind of renewable insurance on fair terms that does not exist in the individual market.<sup>10</sup>

But there are drawbacks as well. ESI is an imperfect pooling mechanism. In a small firm, if one person gets sick, average costs can increase dramatically. Also, ESI provides limited renewability at best. People can lose their jobs or employers can decide to drop coverage—for example, because of unacceptably large premium increases. Although no better mechanism for pooling or renewability exists in the individual market, such a mechanism might have arisen were it not for the large tax subsidy for ESI. For example, members of professional associations, unions, or churches might offer group health insurance policies to their members, much as they do with life insurance today (Pauly and Herring 2001).

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<sup>10</sup> By “fair” we mean that premiums do not vary over time in response to *unexpected* changes in health status. (A fair insurance policy could allow premiums to vary with age to reflect the normal increase in health expenditures that accompanies aging, much as term life insurance contracts call for increasing premiums with age to reflect higher expected mortality risk.) As discussed earlier, individuals may find that their nongroup health insurance premiums increase over time if they turn out to be sicker than average, even if they were healthy when they first purchased insurance (Hall 2000/2001).

Finally, the subsidy for ESI creates a number of inefficiencies in production—for example, by favoring large firms over small ones, encouraging employers to outsource certain workers, and affecting workers’ decisions about work and retirement (CBO 1994).

But for all its imperfections, ESI covers the vast majority of American workers. It is unclear that a better mechanism would exist in the absence of ESI, and it is possible that major tax changes could significantly reduce insurance coverage. Although some young, healthy people might be induced to gain coverage in the individual nongroup market under a different set of incentives, the loss of ESI could be particularly devastating to old and unhealthy workers who would face prohibitively high health insurance premiums in the private nongroup market.

Thus, the conundrum: more than 40 million Americans lack health insurance. Subsidizing the purchase of private nongroup insurance for those who cannot obtain it at work seems a natural remedy for this problem. But subsidizing private nongroup insurance makes employment-based insurance less valuable to those who could enroll in subsidized private insurance. Thus, some employers will stop sponsoring health insurance if their workers don’t demand it. Others may increase the employee share of premiums or increase the cost-sharing requirements under the company health insurance plan (i.e., provide less generous insurance). Depending on the extent of employer response, a new coverage initiative might actually end up reducing the number of people with health insurance. Undermining ESI, which currently covers two-thirds of workers and their families, would be a reckless violation of Hippocrates’ dictum.

## FOUR ISSUES FOR TAX REFORM

Several features of the current tax subsidy and the market for health insurance are especially relevant to considerations of possible changes. First, the tax exclusion for ESI is “upside down”—providing the most benefit to those likely to be least affected by it. Second, virtually all of the advantages of ESI are diminished for small employers. The tax exclusion does little to help small employers and, in some ways, magnifies their disadvantages relative to large employers (CBO 1994). Third, individual insurance is expensive. The overhead costs (or “load”) charged to individuals who purchase insurance in the nongroup market can equal 30-40 percent of the premium, compared with ten percent or less for large groups (Sloan, Conover, and Hall 1999). Finally, individuals cannot purchase insurance against the risk of getting sick beyond the current year on fair terms.<sup>11</sup>

### *An Upside Down Subsidy*

Because the subsidy for ESI is delivered in the form of an exclusion from income, it provides little benefit to low-income workers. Figure 5 shows that the subsidy created by the exclusion from income and Medicare payroll taxes is worth about three cents on the dollar to the roughly 25 percent of workers who do not pay income taxes.<sup>12</sup> If we include savings in Social Security taxes, the tax price falls to 86 percent of premiums.

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<sup>11</sup> There are numerous other issues in the market for individual insurance. They are described in a fascinating narrative by Hall (2000).

<sup>12</sup> The percentage could be even smaller, because the calculation assumes that the employer passes on the savings on the employer share of payroll taxes in the form of higher wages. For workers who are paid the minimum wage, that assumption is questionable.

However, because Social Security benefits are so progressive, reduced future benefits are likely to offset much or all of a low-income person's payroll tax savings. Feldstein and Samwick (1992) estimate that the lifetime effective Social Security tax rate (including both payroll taxes and benefits) for employees with low covered earnings was negative in 1990. That is, the present value of future benefits more than offset the tax paid for people with very low earnings. If employees understand the relationship between benefits and taxes, then it is inappropriate to treat Social Security payroll contributions as a tax for lower income people.<sup>13</sup> In that case, the three-percent tax price might be the best measure of the after-tax cost of health insurance for those with low lifetime incomes.

The connection between Social Security benefits and taxes is weaker for higher income people. For someone in the 15-percent federal income tax bracket, the tax price of health insurance, including saved Social Security taxes, is as low as 72 percent of premiums. In the 28-percent tax bracket, the price is under 60 percent. For very high-income taxpayers, the price can fall below 50 percent, but most people in the 39.6-percent tax bracket are not subject to Social Security taxes on the margin, so the 58-percent tax price is more appropriate.<sup>14</sup>

The tax exclusion is not only upside down from an equity perspective, it is also poorly designed to change behavior. The high-income people who benefit most from the

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<sup>13</sup> Feldstein and Samwick (1992) point out that many individuals with low covered earnings were not in fact poor, but earned most of their income working for state and local governments that were exempt from the Social Security payroll tax.

<sup>14</sup> On the other hand, phantom taxes caused by the phase out of itemized deductions and other provisions can add one to four percentage points to the effective tax rate for upper middle and upper income taxpayers. However, since these taxes are obscured by the complexity of the tax law, it is unclear that they would affect most taxpayers' decisions (Burman and Gale 2001).



tax exclusion would also be most likely to purchase insurance without a subsidy. They can more easily afford to pay for the premiums. They also possess more of the wealth that insurance serves to protect.

Finally, the perverse skew in the tax subsidy undermines one of its key purposes: it is ineffective at encouraging the young and healthy to participate in employer groups. Since young workers tend to have lower incomes than their older counterparts, they have the least tax incentive to participate in employer health insurance. They are also most likely to be able to get inexpensive insurance outside of work. Thus, the tax incentive may do little to stem adverse selection by age within the employer group.

### *Small Businesses are More Disadvantaged After the Subsidy*

Even without a tax subsidy, small businesses would be at a disadvantage in purchasing health insurance. They face the highest loading costs. They cannot pool risks especially well. And, since small businesses fail more often than large ones, the insurance they offer their employees provides no guarantee of renewability.

The tax subsidy exacerbates those disadvantages because it favors firms that provide compensation in the form of health insurance. Small firms inevitably have to pay more for that insurance, so it remains a relatively costly form of compensation. Moreover, since large firms that offer generous fringe benefit packages have a tax advantage in competing for workers, the small firm that chooses not to offer health insurance has to pay more in taxable cash wages to compensate. The net effect is that the subsidy serves to lower labor costs more for large firms than for small ones, which can create an inefficient allocation of labor.

### *Loads are High in the Individual Market*

Overhead costs are high for private nongroup policies, in part because of underwriting costs (that is, assessing the health status of the applicant) and in part because many of the costs, such as marketing, are relatively fixed. Thus the average overhead cost for a single policy can be two or three times as large as the cost for even a small group policy (Sloan, Conover, and Hall 1999). Pauly and Herring (2001) have speculated that new technology, such as the Internet, could reduce the load factors in the individual market. Similarly, any policy that reduced the level of underwriting could reduce costs.

### *Nongroup Insurance is Not Renewable on Fair Terms*

As discussed earlier, the individual insurance market does not provide health insurance that is renewable on fair terms. Blocks of policies tend to degrade over time as some people get sick and the healthy drop out to seek less expensive insurance. There is also a problem of adverse selection among those who purchase insurance. People are most apt to apply for insurance when they expect to have high medical expenditures. For both of these reasons, nongroup health insurance is expensive to purchase and even more expensive to maintain.

Unlike the other market failures, lack of renewability is not necessarily inherent to the health market. The tax exclusion might actually have precluded the development of long-term contracts by tying insurance to jobs rather than to people.

But it is uncertain whether long-term contracts would exist in the absence of a subsidy (Pauly 1970).<sup>15</sup> Such contracts would have to include mechanisms to guarantee that those who are healthy and could buy a better contract from another insurer remain in the pool. Such mechanisms exist in theory, but raise serious issues in practice (CBO 1994; Pauly, Nickel, and Kunreuther 1998). For example, renewable insurance sold by a single insurer would need to establish reserves against future risks. But that would require premiums too high in the early years of a policy to attract young and healthy people, because they tend to have low incomes. Moreover, there is no guarantee that the insurer could reserve enough to be able to cover unexpectedly high health costs or unexpectedly bad health status outcomes.

### *Some Principles for Health Insurance Tax Incentives*

Based on those considerations, a set of four objectives should guide any incremental tax reform:

- Encourage low-income people to participate in health insurance plans;
- Do not undermine small businesses that want to offer health insurance;
- Reduce the high loads in the individual market;
- Encourage the creation of health insurance that is renewable on fair terms.

Beyond these four, we might add that any new tax incentives should not undermine ESI, since it covers more than two-thirds of nonelderly Americans. Although a better alternative might materialize over time, given the right incentives, it would be premature

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<sup>15</sup> Pauly suggests that such contracts are a way to deal with the problem of social insurance. However, he does not explain how such contracts could be implemented.

to jettison the employer-based system as the anchor of our health insurance system until we are sure that the alternative works.

Finally, it is worth noting that many objectives might be better met by a spending program, such as expansion of the state program that covers low-income children—S-CHIP—than by additional tax incentives (Feder and Levitt 2001). There are inevitably problems of assessing eligibility and getting the money to poor people in a timely way through the tax system. A spending program can better address such problems.

Nonetheless, political reality may mean that taxes are the only option for trying to expand coverage. What kind of tax incentive would improve the market for health insurance without undermining employers?

## HEALTH INSURANCE TAX CREDIT WITH A PURPOSE

During the Presidential campaign, President Bush promised to enact a tax cut with a purpose. Expanding health insurance coverage for lower-income working people is certainly a worthy purpose. The important policy question is, “Can a health insurance tax credit be designed to effectively expand coverage?” In other words, can it be designed to help advance the objectives just outlined?

This section describes a possible approach that would use the tax credit as a carrot to induce employees, employers, and insurers to alter their behavior to try to rectify some of the shortcomings of the health insurance market. It is not a proposal, per se, as many important details are not addressed. We present it for discussion purposes.

## *A Credit for Market-Based Renewable Insurance*

A tax credit could be designed to test whether the insurance market can voluntarily solve some of its most vexing problems, in exchange for the inducement of a substantial additional tax incentive. The credit would apply to insurance that is fully portable and renewable on fair terms in both employer and individual markets.<sup>16</sup>

Employer insurance that covers workers who have had continuing coverage without preexisting condition exclusions would automatically qualify. The credit should apply to both the employer's and the employee's share of premiums. Proposals that limit subsidies to the employer share are based on the presumption that employers pay for health insurance. Economists generally agree that market forces require workers to pay for the employer's share of health insurance premiums through lower wages, at least on average over time. Although the empirical evidence is far from conclusive, a growing body of research is consistent with the economic model of incidence. (See, e.g., Sheiner 1999)

Individual insurance would qualify if it is renewable on fair terms and portable (in the sense that a participant could purchase comparable insurance from another insurer under similar terms to those offered by the original insurer). This would be a new kind of insurance that the insurance industry would have to collectively decide to create and monitor if they wanted to qualify for the tax credit. Participating insurers would have to

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<sup>16</sup> The Health Insurance Portability and Accountability Act (HIPAA) requires that all nongroup insurance be renewable, but there is no limit on annual premium increases. Some states attempt to regulate premiums in the nongroup market, but insurers can often find ways to subvert the intent of those regulations (Hall, 2000). HIPAA also requires insurers to offer insurance to terminated employees who have exhausted their COBRA coverage, but insurers can and do charge much higher rates for HIPAA customers. For example, CareFirst (Blue Cross-Blue Shield) charges a 50 percent markup for HIPAA coverage in Virginia compared with otherwise identical underwritten policies. (<http://www.carefirst.com>, May 8, 2001) The option described here would require insurers to offer a form of renewable and portable insurance with far less future premium risk than existing policies.

create a common rating scheme that will allow any participating person to purchase insurance from any insurer according to the universal rating schedule.

Individuals who buy into this system, or maintain continuing coverage through qualifying employer plans, could buy insurance from any participating provider for the lowest rate charged to people in their original risk class. For example, if Joe first buys insurance in the individual market when he is young and healthy and is thus assigned a #1 risk rating, he would automatically qualify for insurance from any participating insurer at the #1 rate (possibly adjusted for age) at any time during his life as long as he maintains continuous qualifying coverage.<sup>17</sup>

Qualifying individual insurance would need to be annually certified as meeting the renewability, portability, and minimum benefit standards, by an objective independent entity. An obvious candidate would be the National Association of Insurance Commissioners (NAIC)—a national organization of state insurance regulators (including the 50 states, the District of Columbia and the four U.S. territories).

Since this model insurance would eliminate annual risk rating, it would eliminate an important source of overhead costs of insurance. Individuals who have had continuous coverage could conceivably apply for and receive insurance coverage through the Internet. Although the initial status would be more important than under current insurance arrangements, because it would establish the rates for many years, insurers may face much less adverse selection among applicants because healthy people would have a

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<sup>17</sup> Defining the rating categories in a consistent way across participating insurers so as to preclude risk-selection and other manipulation would be one of the principal challenges of this approach.

strong incentive to participate. The net effect is probably little if any additional cost for the first application, and much lower costs for renewals.

### *Other Issues*

A minimum package of benefits must be defined to deter cherry-picking, and in particular to deter insurers from selling access at favorable rates without actually providing insurance. Because of the possibility of adverse selection, the minimum benefit level would probably become the de facto norm for credit-eligible insurance. For example, if high-deductible and low-deductible insurance plans coexist in the guaranteed renewable pool, healthy people may opt for inexpensive high-deductible insurance if they knew that they could switch to low-deductible insurance if they got sick (Burman 2001). One possible way to address this problem would be to allow insurers to set up two guaranteed renewable pools: one with benefits actuarially equivalent to a high-deductible plan and one with benefits equivalent to a low-deductible plan. Participants would not be guaranteed the right to switch between pools without a physical.

A key issue is whether insurers should be permitted to vary premiums with age. The advantage of allowing premium variation by age is that it would reduce or eliminate the extent to which young people subsidize older people who also tend to have higher incomes. The disadvantage of age rating is that insurers might attempt to use it to deter high risks (older people) from continuing to participate. Consumers should be informed in advance about how age rating would affect premiums among the qualifying plans. Changes in the age profile should require approval by the independent monitoring agency. Presumably, changes would only be authorized if they were justified by

changing medical technology, not a change in the industry's taste for insuring older people.

The credit should be refundable and progressive. There should be a mechanism to transfer the credit to an employer or an insurer to deal with the liquidity problems facing low-income people. These requirements are not simple to satisfy. There are problems in establishing eligibility for credits in advance based on tax information. Conceivably employers could establish eligibility based on wages; however, many people have low wages but high family income. Setting eligibility based on prior year income can mean that the subsidies arrive a year too late to help people who fall on hard times. But allowing low-income people to claim a *tentative* credit based on what they expect their income to be raises the possibility that some credits might need to be recaptured at the end of the year—an undesirable and difficult to enforce outcome. For that reason, Blumberg (1999) urges that credits be allowed based on the prior year's income with no end-of-year reconciliation. President Bush's proposal adopts this approach—simply allowing people to claim a credit in the form of a voucher of some sort (the details have not been announced) based on prior year's income. Under the President's proposal, individuals can also elect to pay for their own insurance and claim a tax credit at the end of the year on their tax returns.<sup>18</sup>

Furthermore, rules are needed to reduce the possibility that credits could be converted into cash equivalents. The experience with the abortive health credit as part of the earned income tax credit (HEITC) provides a cautionary tale. Unscrupulous

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<sup>18</sup> Allowing a choice provides flexibility for taxpayers, but could create significant administrative problems for the IRS. In particular, it would need to develop procedures to deter taxpayers from attempting to claim tax credits on two different years' tax returns for the same health insurance expenditures.



characters tried to sell individuals policies that had no insurance value, but which could be purchased for the amount of the HEITC.<sup>19</sup> The monitoring agency (e.g., NAIC) must set clear standards to guarantee that the products purchased with the credits are actually insurance.

### *Why Would the Insurance Industry Participate?*

It is in the industry's interest to address adverse selection. Although adverse selection might raise the profits of an individual insurer that can "cherry pick" good risks, it works against the interest of the insurance industry because it deters participation. Individuals who know that their premiums will go up if they get sick have little incentive to purchase health insurance when they are healthy. As a result, fewer people are in the market than would be if insurance were renewable, and those who purchase insurance are likely to be less healthy than average.

The credit plus guaranteed renewability and portability would provide a strong incentive for healthy individuals to participate. If they chose not to participate, they would risk very high health insurance premiums if they should become ill. A refundable credit targeted at lower income households would help alleviate the liquidity problems of lower-income and younger individuals.

Moreover, the credit would build on the employer network. Individuals who maintained insurance continuously while at work would qualify for the same risk class of insurance (e.g., risk class #1) for which they qualified before they started participating in

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<sup>19</sup> There were many other abuses (Subcommittee on Oversight of the Committee on Ways and Means, 1993).

ESI.<sup>20</sup> Employer insurance would qualify for the credit on the same terms as individual insurance. Thus, the relative tax advantage for employment-based insurance would remain. If the individual insurance reforms turned out to be wildly successful, then policymakers could consider phasing out the relative tax advantage for ESI over time.

## THE PROBLEM WITH A DISCRIMINATORY TAX CREDIT

A low-income tax credit for any qualifying insurance, including ESI, would be expensive. Although most low-income people do not have health insurance, a significant minority does have coverage, and most of that is ESI. Fourteen million workers with family incomes under 200 percent of FPL were covered by their own or their spouse's ESI. By comparison, only three million were covered by individual nongroup insurance. Thus, even a highly targeted tax incentive that includes ESI would cost much more than a similar subsidy limited to individuals without ESI.

The best way to limit the cost of a health insurance tax incentive is probably to limit it to very low-income individuals. Although that would limit the number of people who could be helped, it would also reduce interference with ESI, since very low-income workers are less likely to be covered by ESI than the rest of the population (see Table 1). However, credits that phase out quickly with income create implicit taxes that could discourage work, especially among second earners.<sup>21</sup>

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<sup>20</sup> A rule would be needed for people who are continuously covered by ESI and never had individual insurance. It may be desirable to permit short gaps in coverage to prevent someone from losing their coverage because of delays in processing paperwork or other unavoidable factors.

<sup>21</sup> For example, a \$1,000 tax credit phased out over a \$10,000 income range is equivalent to a ten percent surtax in that range ( $1,000/10,000 = 10\%$ ).

Another option would be to reduce the size of other tax cuts in order to free up budget resources to pay for a more broadly applicable health insurance tax credit. The refundable health insurance tax credit is the most progressive element of President Bush's package of tax cuts. Increasing its scope would make the overall package more progressive, because the refundable tax credit would benefit low- and middle-income taxpayers exclusively.

The option actually adopted in the budget blueprint would limit the tax credit to nongroup health insurance (U.S. Treasury 2001). The proposal would allow a refundable tax credit equal to 90 percent of health insurance expenditures up to \$1,000 for single policies and \$2,000 for policies that cover two or more family members. The credit would phase out between \$15,000 and \$30,000 of AGI for single returns. On joint returns the phase-out would start at \$30,000 of AGI and extend to \$45,000 for single coverage and \$60,000 for family policies. The taxpayer could elect to take the credit in advance based on prior year income as a kind of voucher that could be transferred to an insurer. A taxpayer who participates in his or her employer's health insurance plan would be ineligible for the credit.

Most Congressional proposals also limit eligibility for tax incentives to individual nongroup health insurance. Such a discriminatory credit is equivalent to a generally available tax credit partially financed by a tax on employers who currently provide health insurance. Looked at that way, it is apparent that this financing mechanism is likely to be counterproductive.

To see why this is so, note that, under the President's proposal, an employee offered health insurance has the choice of either refusing ESI or refusing the tax credit. If

she takes ESI, she loses out on a valuable tax subsidy. A foregone subsidy is economically equivalent to a tax.

A simple model illustrates the point. First, consider the case of a universally available tax credit, assumed to be equal to  $c$  per policy. (The credit could be a percentage of the premium; the algebra would be different, but the results would be qualitatively identical.) Suppose the tax price of ESI is  $(1-t)$ , where  $t$  is the effective tax rate on the exclusion from income and payroll taxes.<sup>22</sup> If the premium for ESI is  $P^E$ , then the after-tax price of ESI is  $P^E(1-t)-c$ .

If the premium for individual nongroup insurance (II) is  $P^I$ , then the after-credit price under this policy would be  $P^I-c$ . The difference in cost between ESI and II would equal

$$(1) \quad \Delta = P^I - P^E(1-t),$$

the same as it is under current law.

The difference in premium between ESI and II for an individual may be expressed in terms of the savings from generally lower loading factors on ESI ( $d$ ) plus or minus a rating factor ( $r$ ) that reflects the difference between the health status of the individual and the average health status of the employer group, assuming that individual insurance is risk-rated. The risk factor,  $r$ , is defined to be negative for a sick person and positive for a healthy one.

The relationship between employer and individual insurance may be written as

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<sup>22</sup> The tax price,  $t$ , solves  $1-t = \frac{1-t-\tau_p}{1+\tau_p}$ , where  $\tau$  is the marginal income tax rate and  $\tau_p$  is the

employer's (or employee's) payroll tax rate. Solving for  $t$  yields the following expression:  $t = \frac{t+2\tau_p}{1+\tau_p}$ .

$$(2) \quad P^E = P^I(1-d+r).$$

Then the difference is

$$(3) \quad \Delta = ((d-r)(1-t)+t)P,$$

the after-tax premium savings  $((d-r)(1-t))$  plus the tax savings attributable to the employer exclusion. This tax advantage may be appropriate if a goal is to reduce adverse selection by encouraging participation in ESI. As discussed earlier, the tax advantage for low-income workers can be fairly small (only the savings in Medicare payroll taxes). Moreover, for young, healthy employees, the advantage of switching to the rated individual market,  $r$ , may offset the overall cost advantage of ESI, especially for small firms for which  $d$  is small.

Now consider a policy where ESI doesn't qualify for the tax credit. The after-tax cost of ESI becomes  $P(1-d+r)(1-t)$ . The cost advantage (if any) becomes

$$\Delta' = ((d-r)(1-t)+t)P - c.$$

Compared with  $\Delta$ , the discriminatory credit effectively includes a tax of  $c$  per policy for employers who offer insurance.

When is  $\Delta'$  likely to be negative (i.e., when will individuals opt out of ESI)?

- $d$  small (i.e., small firms)
- $r$  large (i.e., young, healthy employees)
- $t$  small (i.e., lower-income workers)
- $c$  large (i.e., tax credit significant compared with premiums)

That is, this tax on employers who offer health insurance undermines ESI in exactly the cases where it is most fragile. There is also some irony in the fact that the credit needs to be large to induce low-income uninsured people to purchase health

insurance, but a large discriminatory credit is also most likely to undermine ESI (Blumberg, 1999).

The Jeffords-Breaux proposal represents a compromise approach between that offered by the Administration and a universally available credit. S590, introduced in March 2001, would create a refundable health insurance tax credit of \$1,000 for individual coverage and \$2,500 for a family plan. Unlike the Administration's proposal, S590 would allow a partial credit for workers enrolled in (or eligible for) employer-based insurance: \$400 for individuals and \$1,000 for families. The credit would phase out starting at annual incomes of \$35,000 for individuals and \$55,000 for families. The bill directs the Secretary of the Treasury to develop procedures to advance the credit directly to insurers.

Jeffords-Breaux reduces the cost of either participating in an employer plan or purchasing individual nongroup insurance for those without access to ESI. Thus, it might encourage more people to be insured. However, compared with present law, it reduces the cost of nongroup insurance by more than it reduces the cost of ESI. For that reason, it might encourage some employees to forgo employer coverage in favor of individual nongroup insurance. The net effect on ESI coverage would be the sum of these two contradictory forces (some uninsured may choose to participate in employer plans; some people may avoid ESI in favor of nongroup insurance). Thus, it is uncertain whether this bipartisan alternative would increase or decrease ESI coverage.

Mark Pauly and Bradley Herring (2001) have commented on the irrationality of the preoccupation with avoiding windfalls for people who are already insured. Public finance principles suggest that windfalls are economically efficient because they do not

distort economic behavior. In contrast, trying to eliminate windfalls by excluding those with employment-based insurance does create economic distortions. Pauly and Herring are not concerned with the effect of increased choice on the prevalence of ESI: “People should buy insurance in the most efficient setting for them.” But they are concerned about tilting the playing field in favor of individual insurance: “If the program denies the use of credits to persons who want to arrange their insurance purchases at the workplace, there will be an inappropriate negative effect” (Pauly and Herring 2001: 22).

That is, the new credit could undermine the system that provides health insurance to two-thirds of working-age people and their families.

## CONCLUSION

With money to spend and a bipartisan consensus to expand health insurance coverage, policymakers could design a new health insurance tax credit that would expand coverage without undermining employment-based insurance. But the kind of tax credit advanced by the President and some lawmakers—one aimed solely at those without ESI—has the potential to do real harm. By reducing the relative support for ESI compared with private nongroup coverage, especially by young and healthy workers and employees of small firms, it could significantly reduce the prevalence of such insurance. There is no guarantee that the increased attractiveness of individual nongroup insurance would take up the slack. Even if it does, the new insurance that some people would gain would be offset at least in part by the loss of insurance of those whose employers no longer offer insurance and who cannot afford the insurance they could purchase on their own.

The credit should not discriminate between ESI and individual insurance. Moreover, it should pay for real insurance market reform. This paper has laid out a possible model for voluntary self-monitoring industry reform that would use the tax credit as an inducement for insurers to offer portable renewable insurance with lower overhead costs. The combination of the credit, guaranteed renewability on fair terms, and the cost savings from reduced underwriting could induce young, healthy people to purchase individual insurance, and to maintain continuous coverage. These features could substantially diminish the adverse selection that currently plagues individual insurance pools.

There are, of course, many issues not addressed in this paper. For example, significant obstacles stand in the way of implementing targeted refundable health insurance tax credits in a fair and effective way. Policymakers should seriously consider the possibility that targeted subsidies for low-income people might be better supplied through an expansion of S-CHIP or Medicaid.

Many health experts have stressed the need for clear standards, careful targeting, and insurance market reforms in the context of any health insurance tax credit proposal. Indeed, the option for insurance market reform discussed here may be viewed as an optimistic variant on those proposals—one that assumes that the nongroup insurance market might be induced to “heal itself” (to conclude the Hippocratic theme). Many of the other issues addressed in that literature would be germane in fully developing the market-based tax credit option (Blumberg 1999; Lav and Friedman 2001).

We have not estimated the number of people that might benefit from the health insurance credit proposals made by the Administration and Congress, or from the option



outlined here. The empirical evidence on the effect of health insurance tax credits is highly uncertain (Council on Economic Advisers 2000).

Blumberg and Nichols (2000) suggest that a Catch-22 exists for policymakers considering broad-based health insurance tax incentives. If individuals are sensitive to the price of health insurance, then the gains from a discriminatory tax credit in the nongroup market are likely to be more than offset by losses in the employer market. If individuals are not sensitive to the price, then tax credits are likely to produce windfalls to those who already have private nongroup insurance without increasing coverage much. This does not rule out tax incentives to expand coverage (at least in the first case), but it suggests that any new tax credits should be designed to retain or enhance the current relative advantage for employment-based insurance rather than to penalize it.

## REFERENCES

- Aaron, Henry J.** *Serious and Unstable Condition: Financing America's Health Care.* Washington, D.C.: The Brookings Institution, 1991.
- Blumberg, Linda J.** "Expanding Health Insurance Coverage: Are Tax Credits the Right Tack to Take?", *Urban Institute Policy Brief*, August 1999.
- Blumberg, Linda J., and Len M. Nichols.** "Decisions to Buy Private Health Insurance: Employers, Employees, the Self-Employed, and Non-Working Adults in the Urban Institute's Health Insurance Reform Simulation Model," Final Report to the US Department of Labor, August 2000.
- Burman, Leonard E.** "Medical Savings Accounts and Adverse Selection." Unpublished manuscript, Urban Institute. April 2001.
- Burman, Leonard E. and William G. Gale.** "A Golden Opportunity to Simplify the Tax System." *Brookings Policy Brief*, April 2001.
- Congressional Budget Office.** *An Analysis of the President's Health Proposal.* Washington, D.C.: U. S. Government Printing Office, February 1994.
- Council of Economic Advisors.** "Reaching the Uninsured: Alternative Approaches to Expanding Health Insurance Access," September 2000.
- Feder, Judy and Larry Levitt.** "How to Effectively Combine a Public Program Expansion And Tax Credits." Unpublished manuscript, Georgetown University. April 2001.
- Feldstein, Martin, and Andrew Samwick.** "Social Security Rules and Marginal Tax Rates," *National Tax Journal* 45 No. 1 (March 1992): 1-22.
- Fronstin, Paul.** "Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2000 Current Population Survey." *EBRI Issue Brief* no. 228, December 2000.
- Hall, Mark A.** "The Structure and Enforcement of Health Insurance Rating Reforms." *Inquiry* 37 (Winter 2000/2001): 376-88.
- Hall, Mark A.** "An Evaluation of New York's Reform Law." *Journal of Health Politics, Policy and Law* 25 No. 1 (February 2000): 71-100.
- Lav, Iris J., and Joel Friedman.** "Tax Credits for Individuals to Buy Health Insurance Won't Help Many Uninsured Families," Center on Budget and Policy Priorities, February 2001.

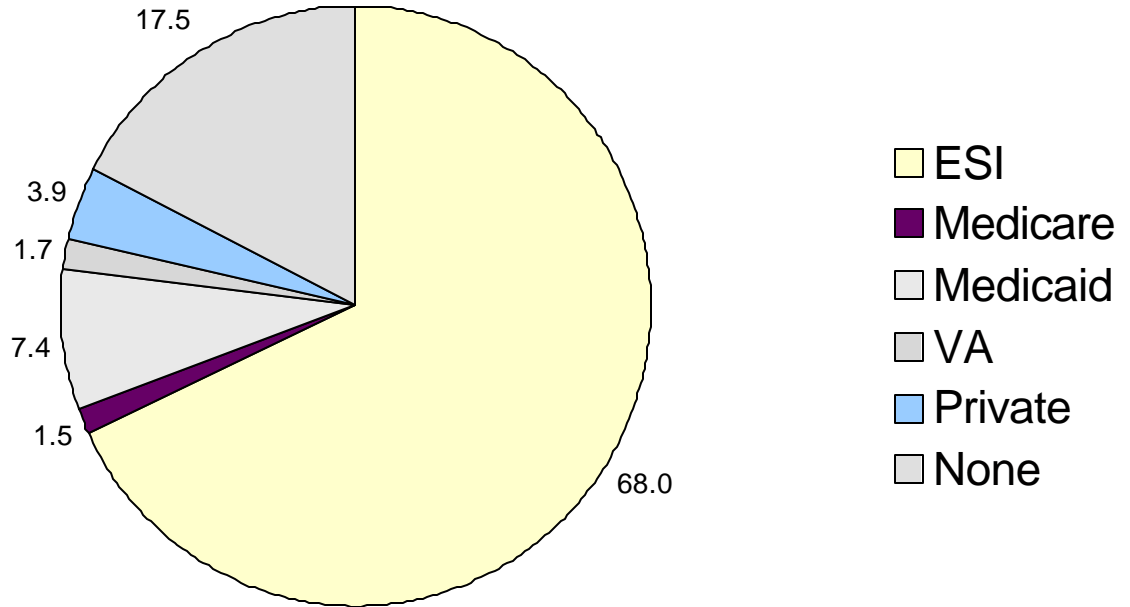
- Lyke, Bob.** "Tax Benefits for Health Insurance: Current Legislation." Washington, D.C.: Congressional Research Service, March 2001.
- Newhouse, Joseph P.** "Medical Care Costs: How Much Welfare Loss?" *Journal of Economic Perspectives* 6 No. 3 (Summer 1992): 3-21.
- Nichols, Len M., Linda J. Blumberg, Gregory P. Acs, Cori E. Uccello, Jill A. Marsteller.** "Small Employers: Their Diversity and Health Insurance." *Urban Institute Policy Brief*, June 1997.
- Olson, Mancur, Ed.** *A New Approach to the Economics of Health Care*. Washington, D.C.: The American Enterprise Institute Press, 1982.
- Pauly, Mark V.** "The Economics of Moral Hazard: Comment." *American Economic Review* 58 No. 3 (June 1968): 531-39.
- Pauly, Mark V.** "The Welfare Economics of Community Rating." *The Journal of Risk and Insurance* 37 No. 3 (September 1970): 407-18.
- Pauly, Mark and Bradley Herring.** "Expanding Coverage Via Tax Credits: Trade-Offs and Outcomes." *Health Affairs* (January/February 2001): 9-26.
- Pauly, Mark and Bradley Herring.** *Pooling Health Insurance Risks*. Washington, DC: American Enterprise Institute, 1999.
- Pauly, Mark, Andreas Nickel, and Howard Kunreuther.** "Guaranteed Renewability With Group Insurance." *Journal of Risk and Uncertainty* 16 (1998): 211-21.
- Rothschild, Michael and Joseph Stiglitz.** "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information." *Quarterly Journal of Economics* 90 No. 4 (November 1976): 629-650.
- Shay, Edward F.** "Regulation of Employment-Based Health Benefits: The Intersection of State and Federal Law." In *Employment and Health Benefits: A Connection at Risk*, edited by Marilyn J. Field and Harold T. Shapiro. Washington, D.C.: National Academy Press, 1993.
- Sheiner, Louise.** "Health Care Costs, Wages, and Aging," Federal Reserve Board of Governors, Finance and Economics Discussion Series 1999-19 (April 1999).
- Sheils, John, and Paul Hogan.** "Cost of Tax-Exempt Health Benefits in 1998," *Health Affairs* 18 No. 2 (March/April 1999): 176-81.
- Sloan, Frank A., Christopher J. Conover, and Mark A. Hall.** "State Strategies to Reduce the Growing Numbers of People Without Health Insurance." *Regulation Magazine* 22 No. 3 (1999): 24-31.

**Subcommittee on Oversight, Committee on Ways and Means.** *Report on Marketing Abuse and Administrative Problems Involving the Health Insurance Component of the Earned Income Tax Credit*, WMCP:103-14 (June 1, 1993).

**Thaler, Richard H.** "Saving and Mental Accounting," in George Loewenstein and Jon Elster, eds., *Choices Over Time*, New York: Russell Sage Foundation, 1992, 287-330.

**United States Treasury.** *General Explanations of the Administration's Fiscal Year 2002 Tax Relief Proposals*, April 2001.

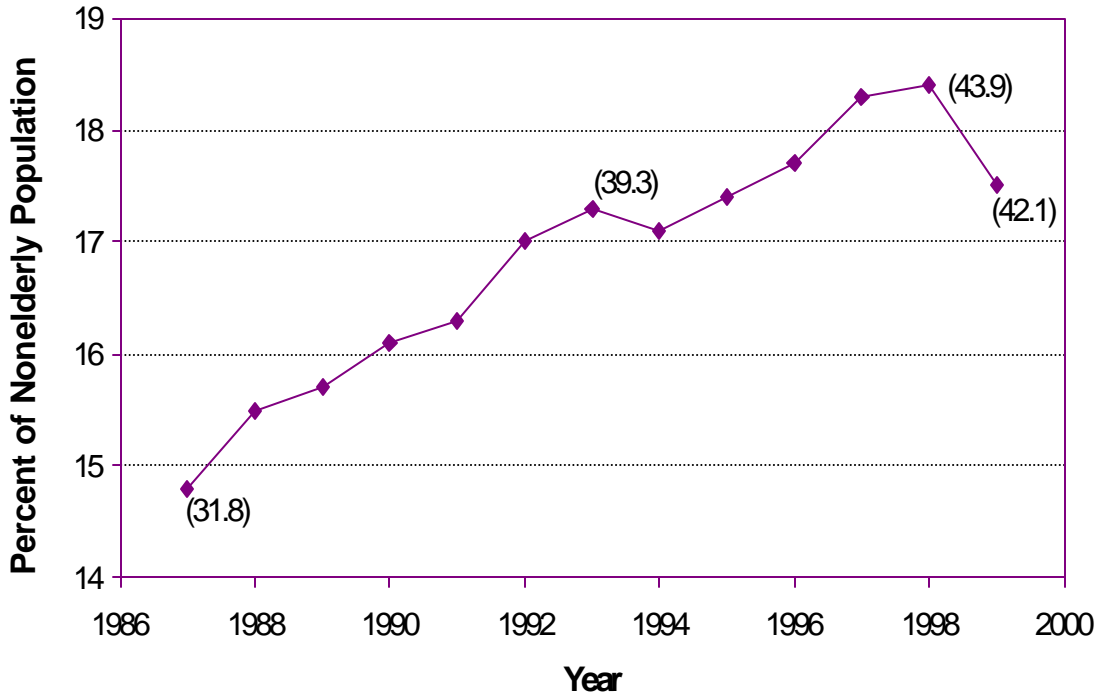
**Figure 1.**  
**Primary Source of Insurance for Nonelderly Americans in 1999 (In Percent)**



**Source:** Urban Institute Estimates based on data from the March 2000 Current Population Survey (CPS).

**Note:** VA includes CHAMPUS, CHAMPVA, and any government-sponsored military health insurance plan.

**Figure 2.**  
**Nonelderly Uninsured, 1987-1999**

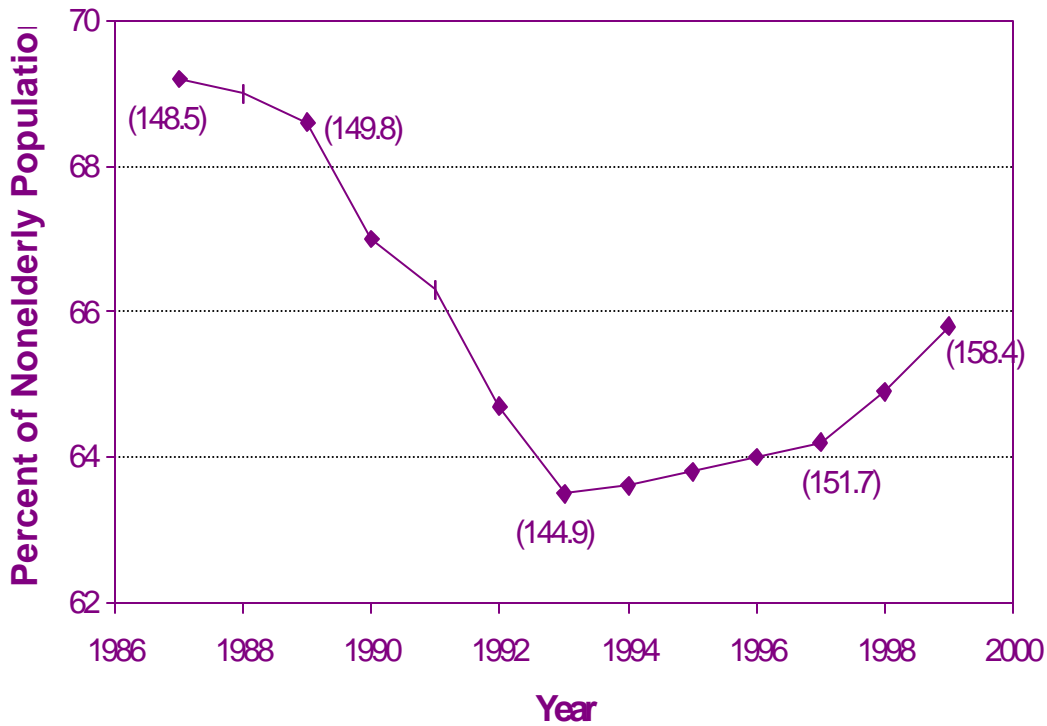


**Source:** Urban Institute estimates based on data from the 1988-2000 Current Population Survey (CPS).

**Notes:**

1. Percentages do not match those in Figure 1 because some respondents are enrolled in more than one health insurance plan.
2. Numbers in parentheses represent millions of uninsured, for selected years.

**Figure 3.**  
**Percent Covered by ESI, 1987-1999**

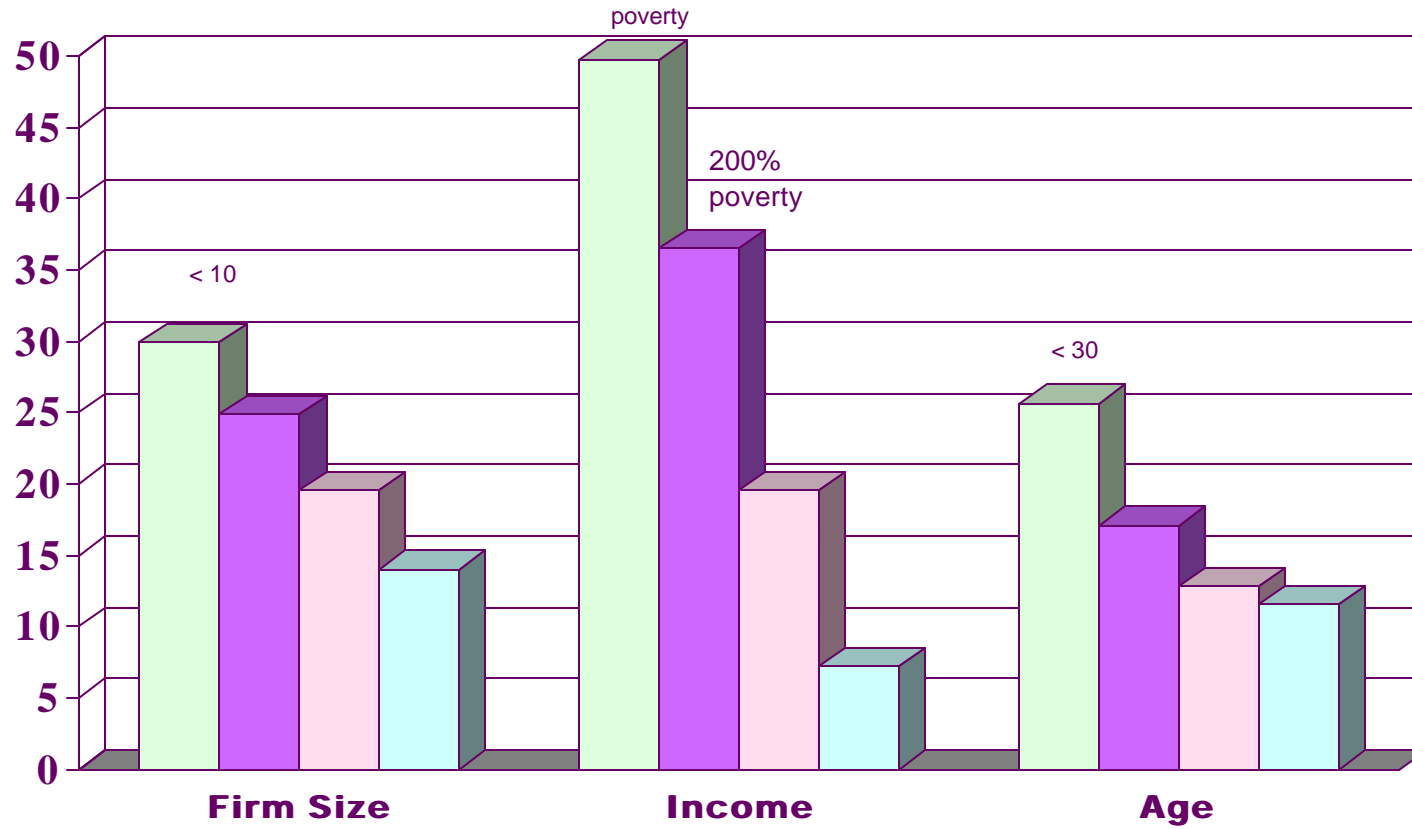


**Source:** Urban Institute estimates based on data from the 1988-2000 Current Population Survey (CPS).

**Notes:**

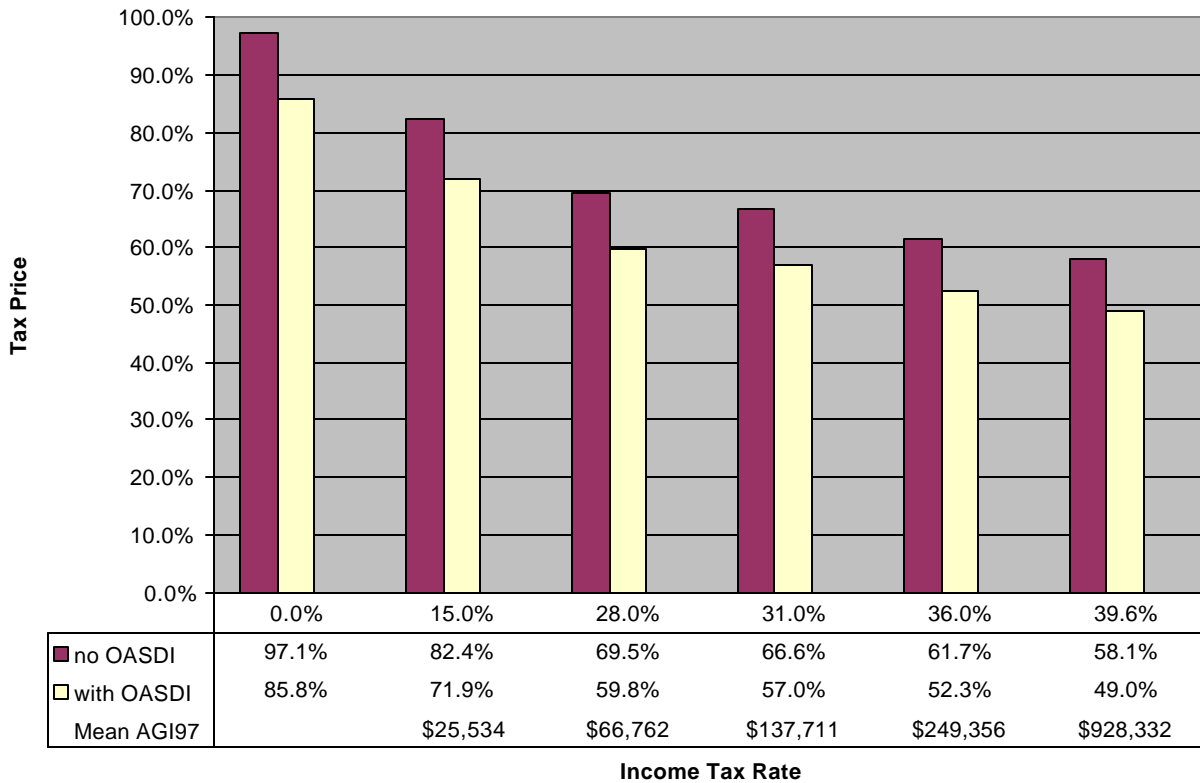
1. Percentages do not match those in Figure 1 because some respondents are enrolled in more than one health insurance plan.
2. Numbers in parentheses represent millions covered by ESI, for selected years.

**Figure 4.**  
**Percentage of Uninsured Workers Age 18-64**  
**By Certain Demographic Characteristics, 1999**





**Figure 5.**  
**Tax Price of Health Insurance by Income Tax Bracket**



**Note:** Chart shows after-tax price for health insurance assuming that entire premium is paid out of before tax income. The first bar includes the effect of income and Medicare payroll tax. The second includes the effect of Social Security (OASDI) payroll taxes. The formula for the tax price is  $(1-\tau-\tau_p)/(1+\tau_p)$ , where  $\tau$  is the marginal income tax rate and  $\tau_p$  is the payroll tax rate (1.45% for Medicare taxes for the first bar, or 7.65% for Medicare and Social Security taxes for the second bar). (See Gruber 2001.) AGI97 is the mean adjusted gross income in 1997 for taxpayers in each tax bracket. (See Campbell and Parisi 2000.)

**Table 1.**  
**Primary Source of Health Insurance for Workers Ages 18 to 64,**  
**By Demographic Category, 1999**

Category	Number of Workers <sup>1</sup> (Millions)	Percentage Distribution by Source of Insurance <sup>2</sup>				
		Own Employer	Other Employer	Private Nongroup	Public Insurance	No Insurance
All Workers	134.7	57.0	18.6	3.6	3.8	17.0
<b>Industry</b>						
Agriculture	2.9	27.4	20.2	5.9	12.6	33.9
Construction	9.2	44.6	16.0	2.5	6.0	30.9
Finance	8.6	66.0	17.6	2.1	4.8	9.4
Government	6.7	77.5	8.5	8.7	0.6	4.7
Manufacturing	21.2	73.7	11.0	1.9	1.3	12.0
Mining	0.6	76.2	7.8	1.2	4.7	10.0
Retail Trade	21.7	37.8	25.5	5.9	4.3	26.5
<b>Services</b>						
Professional	32.5	60.6	22.9	2.8	3.4	10.3
Other	16.2	41.5	22.6	5.0	5.6	25.3
Transportation	9.7	71.1	10.9	1.9	2.2	14.0
Wholesale Trade	5.4	64.3	14.8	1.4	4.0	15.4
<b>Wage Rate<sup>3</sup></b>						
Below \$5.00	14.3	22.9	28.4	10.0	5.0	33.7
\$5.00 to \$9.99	37.8	40.6	23.2	5.2	4.1	27.0
\$10.00 to \$14.99	31.3	63.8	17.1	2.2	3.1	13.7
\$15.00 or more	51.2	74.6	13.4	1.4	3.5	7.1
<b>HIU Income as a Percentage of Poverty Level</b>						
Under 100	10.2	18.3	12.6	15.3	4.0	49.7
100 to 199	21.0	40.0	11.8	7.2	4.5	36.5
200 to 299	22.3	58.0	15.4	2.9	4.1	19.5
300 and over	81.2	66.0	22.0	1.4	3.4	7.2
<b>Firm Size (Number of employees)</b>						
Fewer than 10	24.3	26.4	26.9	4.4	12.3	29.9
10 to 24	12.1	42.8	24.0	3.8	4.4	24.9
25 to 99	17.5	55.5	19.1	3.4	2.5	19.5
100 to 499	18.9	65.6	16.0	3.0	1.4	14.0
500 to 999	7.4	70.4	15.2	1.9	1.4	11.2
1,000 or more	54.4	69.5	14.9	3.7	1.3	10.6
<b>Age (Years)</b>						
Under 30	35.1	41.3	24.4	5.7	2.9	25.7
30 to 39	35.5	59.8	16.3	3.6	3.3	17.1
40 to 49	35.6	62.9	17.8	2.5	3.9	12.8
50 to 64	28.5	65.7	15.2	2.3	5.2	11.5

**Source:** Urban Institute estimates based on the March 2000 Current Population Survey (CPS).

**Notes:**

1. Includes either temporary or permanent workers with annual earnings of at least \$1,000.
2. If an individual is covered by more than one type of insurance, coverage is classified according to the following hierarchy: own employer, other employer, public insurance (including Medicare, Medicaid, and coverage through the Department of Veterans' Affairs), private nongroup, and no insurance respectively.
3. Defined as the worker's annual value of earnings divided by the number of weeks worked times estimated number of hours worked per week.

