

Tax Incentives
for Health Insurance

Leonard E. Burman
Cori E. Uccello
Laura L. Wheaton
Deborah Kobes

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Leonard E. Burman is a senior fellow at the Urban Institute and codirector of the Tax Policy Center. Cori E. Uccello is a consultant in the Urban Institute's Income and Benefits Policy Center. Laura L. Wheaton is a senior research associate in the Urban Institute's Income and Benefits Policy Center. Deborah Kobes is a research assistant at the Urban Institute and Tax Policy Center.

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INTRODUCTION

President Bush has proposed a refundable tax credit in an effort to help the 16.5 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. Approximately 41 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 they 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 government is already involved in the health insurance market. By treating health insurance as a tax-free fringe benefit, the federal government provides a subsidy worth over \$100 billion per year for employer-sponsored health insurance (ESI). The subsidy has worked in one sense: ESI covers more than two-thirds of workers and their families. However, the subsidy is very poorly targeted. The value of a tax exclusion grows with income and is worth little or nothing to those with low incomes. But high-income people would be the most likely to have insurance even if they were not subsidized.

The challenge for policymakers seeking to expand coverage is to build on the strengths of the employment-based health insurance market while providing coverage to those outside that system. This is not as easy as it might seem. Many reform proposals would offer new tax credits or deductions for insurance purchased outside of work. Although that seems justifiable on equity grounds, it threatens to undermine employment-based health insurance because it reduces the value of ESI.

This paper examines the data on health insurance coverage and discusses trends in coverage. It considers the problems in the health insurance market and their implications on the nature and scope of government intervention. It uses the Urban Institute's Transfer Income Model (TRIM) to show who gains from the current tax exclusion, and examines the mismatch between current subsidy schemes and the problems in the health insurance market that an ideal subsidy might mitigate. It also discusses how some reform schemes match up with the health insurance market failures described earlier. Finally, using TRIM, we simulate the effects of illustrative tax subsidy proposals.

BACKGROUND

Summary Data and Historical Trends

Most working age Americans and their families get health insurance through employers. According to data from the March 2002 Current Population Survey (CPS), 164 million nonelderly Americans (66 percent) in 2001 received primary health insurance coverage from either their own or a family member's employer (see figure 1). Of the 34 percent without ESI, about half were uninsured, and most of the rest were enrolled in a public health plan (including Medicaid, Medicare, or a program sponsored by the Department of Veterans' Affairs). Only 4 percent of nonelderly Americans were covered by private non-group insurance in 2001.¹

The likelihood that a nonelderly person was uninsured grew markedly over the late 1980s and most of the 1990s, rising from 14.4 percent in 1987 to a peak of 18.4 percent in 1998. The trend reversed at the end of the decade, as the combination of a tight labor market and a moderation in the growth in health insurance premiums caused more employers to offer health insurance. The rate of uninsurance fell to 17.2 percent by 2000.² (See figure 2.)

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

² The estimates in the table are based on the number of people in the CPS who do not report coverage from employers or any other source, because those estimates are most consistent over time. As discussed below, those

More people may have insurance than these statistics suggest, however. Starting with the March 2000 CPS, which collected data for 1999, interviewers asked respondents who did not report any type of health insurance whether they were, in fact, uninsured. Of the 42.6 million persons who did not report health insurance coverage prior to the verification question, 3.3 million responded that they were not uninsured and did have health insurance coverage (Nelson and Mills 2000). This reduces the number of uninsured in 1999 to 39.3 million. Again, in 2001, 3.5 million people who did not report having insurance said that they were not uninsured in response to the verification question. Based on this measure, 40.9 million nonelderly people (16.5 percent) were uninsured in 2001—2.5 million more than in 2000. The rise is likely due to the recession.

Between 1987 and 2001, ESI coverage levels fell by 4 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 increased during the economic expansion of the 1990s, rising a total of 2 percentage points to 67 percent in 2000. Coverage declined by about 1 percentage point in 2001, reflecting the economic downturn.

The probability of having insurance coverage from any source increases with age, income, and firm size (see figure 4). Only 11 percent of workers between ages 50 and 64 were uninsured in 2001, but nearly 26 percent of workers between ages 18 and 29 lacked any type of health insurance coverage. (See table 1.) Over one-third of workers earning less than five dollars per hour lacked insurance in 2001, but the uninsurance rate declines to 16 percent for workers who earned from ten to fifteen dollars per hour.

More generally, workers in poor households are much less likely to have insurance coverage than those with modest or higher incomes. Almost half of poor workers (workers in

estimates are probably too high, but a historical time series does not exist containing the new validation questions. Nonetheless, comparisons over time are imprecise because the survey's health insurance questions, the data collection methods, and weighting algorithms have changed over time (Fronstin 2000).

families with incomes below the federal poverty level) and about one-third of near-poor workers (workers in families with incomes up to twice the federal poverty level) lacked insurance in 2001. In contrast, only one in five workers with incomes between two and three times the federal poverty level and 7 percent of those with incomes greater than three times the federal poverty level were uncovered. Small firms are much less likely to offer health insurance than larger firms. As a result, in 2001, only 27 percent of workers at firms with fewer than 10 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 than 1,000 employees enrolled in a health insurance plan sponsored by their employer while 10 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. Employees at small firms often earn less than employees at large firms, and are thus less likely to have health insurance coverage for that reason. Indeed, 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.³ Nonetheless, workers at every income level were much more likely to be offered insurance by a large employer than by a small one.

Although few rely on non-group health insurance plans for primary coverage, those without access to ESI are much more likely to do so. In contrast to the patterns in ESI coverage, non-group coverage is highest among low-wage workers and workers in small firms. Seven percent of workers with wages below five dollars an hour were covered by private non-group health insurance compared with only 4 percent of workers with wages of \$15 per hour or greater.

³ In addition, lower-income workers are less likely to accept an offer of health insurance than those with high incomes because they cannot afford to pay their share of the premium. This factor is further exacerbated by the fact that small employers typically pay a smaller share of premiums than large employers (Kaiser Foundation 2002). The combined effect of all of these factors is further explored below.

Non-group coverage is especially important among workers in small firms. Nearly 12 percent of workers in firms with fewer than 10 workers were covered by non-group coverage, compared with about 2 percent of workers in firms with 100 or more workers.

Current Law Treatment of ESI

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.⁴ If the employer contribution does not cover the entire premium, the employee pays for the remainder out of after-tax dollars. Thus, the tax exclusion only applies to the employer's share of the premium. Employees with access to flexible spending accounts (FSAs), however, may be able to pay their share out of pre-tax dollars.⁵

Employers may purchase insurance for their employees or provide insurance themselves (i.e., self-insure—typically, in a plan managed by a third-party administrator). 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.⁶ 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.

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 as cash wages or in the form of one or more nontaxable fringe benefits,

⁴ See Lyke and Sroka (2003) for an excellent summary of current law tax provisions and proposals related to health insurance.

⁵ These employees tend to be at larger firms. FSAs are discussed below.

⁶ 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

including health insurance. Flexible spending accounts (FSAs) are closely related to cafeteria plans. They allow employees to set aside a fixed dollar amount of annual compensation to pay for out-of-pocket expenses for medical and dental services, 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 such plans may pay for all or most of their medical costs with pre-tax dollars.

The Consolidated Omnibus Budget 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 any reason, including termination, death, or divorce. Employers cannot charge covered employees more than 102 percent of the applicable premiums for covered employees for continuation of coverage.

Most individuals who purchase their own insurance directly (including those covered by COBRA) cannot deduct the cost. However, individuals may deduct the portion of premiums they pay for health insurance plus other medical expenses that exceeds 7.5 percent of adjusted gross income (AGI). In addition, starting in 2003, the self-employed may deduct their health insurance premiums from income tax (although not payroll tax).⁷

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

generally (including health insurance), but the new restrictions raised a firestorm of protest among business interests and others and was repealed in 1989.

⁷ Prior to 2003, self-employed people could only deduct a portion of their health insurance premiums.

number of people who are self-employed or work for a firm with 50 or fewer employees.

Qualifying 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.⁸ Unspent balances in the MSA may be carried over tax-free to later years. The provision has since been extended through 2003 and President Bush has proposed to expand it and make it permanent.

These supplemental tax subsidies for health insurance are small compared with the exclusion for employment-based health insurance. They reduced income tax revenues by about \$9 billion in fiscal year 2003. In contrast, the employer exclusion cost \$80–\$108 billion in lost income taxes in the same year.⁹ Including payroll taxes, the total tax expenditure is \$120 billion per year or more.¹⁰

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 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

⁸ The law mandates deductibles 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. Non-medical withdrawals before age 65 are generally taxable and subject to a 15-percent penalty. Non-medical withdrawals upon death, disability, or after age 65 are taxable, but not subject to penalty.

⁹ The official government estimates are done for Congress by the Joint Committee of Taxation (JCT) and for the administration by Treasury's Office of Tax Analysis (OTA). Their estimates for the deduction for medical expenses and for health insurance premiums of the self-employed are quite similar, but the estimates for the exclusion from income tax of ESI diverge markedly. Treasury estimates that the latter provision will reduce revenues by \$108 billion in fiscal year 2003; the JCT estimates an \$80 billion revenue loss. The JCT estimates are smaller because they assume that, absent the tax exclusion, individuals who itemize deductions would be able to deduct the part of their health insurance premiums that, combined with other medical expenditures, exceeds 7.5 percent of AGI. OTA does not account for this offsetting deduction because it would logically require an increase in the tax expenditure estimate for the itemized deduction for health expenditures. Note that tax expenditure estimates are different from revenue estimates because, by convention, they do not take into account most behavioral responses or interactions with other tax expenditures. See Office of Management and Budget (2003) and Joint Committee on Taxation (2002).

¹⁰ Payroll tax revenue losses are more than half of the income tax revenue cost. (See Sheils and Hogan 1999, and discussion below.) Thus, conservatively, the payroll tax expenditure would be at least \$54 billion, based on Treasury numbers, or \$40 billion, based on the JCT's estimates. This yields a lower-bound estimate in excess of \$120 billion.

market. Insurers have only a limited ability to determine the health status—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 because there often is a lack of information regarding the effectiveness of various therapies, physicians attempting to provide the best care possible may prescribe tests or treatments regardless of whether there is evidence that they will lead to improved health. 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 over-consume 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.¹¹ Individuals who are fully insured may consume care until its marginal 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, however, 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, not moral hazard. He concludes that overzealous efforts to limit moral hazard could do more harm than good if they 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, a small 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, 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 future, risks. But it is virtually impossible to insure fully 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 a group of subscribers who purchased at a certain time, adverse selection causes such pools to be too expensive for healthy members over time. Members of the pool who turn out to be healthier than average can find insurance elsewhere that has lower premiums. As the healthiest drop out, those who become sick and remain in the pool 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 when the policy is purchased (Hall 2000/2001).

The Health Insurance Portability and Accountability Act (HIPAA) requires that all non-group insurance be renewable, but there is no limit on annual premium increases. Some states attempt to regulate premiums in the non-group market, but insurers can often find ways to circumvent those regulations (Hall 2000).

¹¹ The marginal benefit is net of non-pecuniary costs, such as pain and discomfort, and other costs, such as lost time from work.

Inability to renew on favorable terms may also arise in the employer market because premiums are underwritten. A large employer group partially solves this problem by continually refreshing the pool with healthy members who participate in the group for reasons largely unrelated to health status. Small employers, however, may be even more vulnerable to poor health outcomes than individuals in the non-group market.

Effects of Current Tax Subsidies

The federal government spends \$120 billion or more 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 high health care costs. In combination with state laws and courts that put pressure on insurers to provide more and more benefits, 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 use 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 (Monheit, Nichols, and Selden 1995/96). Collecting premiums as a part of payroll processing is also 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). Also, if the choice facing workers is framed in terms of opting out rather than opting into an insurance plan, participation rates are higher. Large groups also have bargaining power to lower costs when dealing with insurers and providers. And, to the extent that workers can count on long-term employment with an established firm, ESI may provide more protection against premium increases due to unexpected declines in health status than does the individual market.¹²

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.¹³ 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, professional associations, unions, or religious institutions might offer group health insurance policies to their members, much as they do with life insurance (Herring and Pauly 2001).

Finally, the subsidy for ESI tends to amplify the advantage of large firms over small ones in the provision of health insurance. To see why, imagine a world without a tax exclusion for ESI. Many large firms might still offer health insurance even without a tax subsidy because of

¹² An actuarially fair premium for a long-term health insurance contract would be one that does not vary over time in response to *unexpected* changes in health status. The long-term health insurance contract 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. Initial premiums under such a contract would probably be higher than those in the current individual market, because they would provide not only insurance protection against the health care costs incurred during that year, but also insurance protection against increased premiums due to unexpected declines in health status. (A mitigating factor, however, is that long-term insurance might be more attractive to people who are healthier than average, because they would value the insurance against future declines in health status.) As discussed earlier, individuals may find that their non-group 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 2000a). However, as discussed below, it may not be feasible for any single insurer to offer an actuarially fair premium schedule set for periods longer than one year, because of adverse selection among individuals covered by such insurance.

¹³ HIPAA 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 markup of almost 50 percent for HIPAA coverage in Virginia compared with otherwise identical underwritten policies. (<http://www.carefirst.com>, March 27, 2003)

their advantages in terms of pooling and administrative costs. Few if any small firms would.

Now, after a tax exclusion is introduced, taxes fall for employees who work for firms that offer health insurance, but not for other firms. Firms that do not offer health insurance now would face pressure from their employees to offer this valuable tax-free fringe benefit, and many would choose to do so, but their cost of compensation increases relative to the large firms because, for a given package or benefits, health insurance is more expensive for small firms. This tends to place them at a competitive disadvantage, i.e., their profits are lower than at larger firms because of the tax subsidy. Effectively, the tax exclusion for ESI is a differential labor subsidy that is most valuable to large firms, which tends to distort the allocation of labor and reduce production efficiency.

The subsidy for ESI also creates other production inefficiencies. It provides an incentive for employers that offer health insurance to outsource certain workers (low-income workers and younger workers who would not value the insurance as much), and affects workers' decisions about work and retirement (CBO 1994).

For all its imperfections, however, ESI covers three-quarters of American workers. Although some analysts believe that a better mechanism would arise in the absence of ESI, there is a risk that major tax changes could significantly reduce insurance coverage. Removing or reducing the incentive for employers to sponsor health insurance would produce countervailing effects on coverage. On the one hand, some young, healthy people might be induced to gain coverage in the individual non-group market under a different set of incentives. On the other, the loss of ESI could be particularly devastating to old and unhealthy workers who would face prohibitively high health insurance premiums in the private non-group market.

Thus, the conundrum: about 40 million Americans lack health insurance. Subsidizing the purchase of private non-group insurance for those who cannot obtain it at work seems a natural remedy for this problem. But subsidizing private non-group insurance makes employment-based

insurance less valuable to those who could enroll in subsidized private insurance. Some employers will stop sponsoring health insurance if their workers don't demand it. Not all of the workers at those firms would purchase non-group coverage. 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 how employers respond, a new coverage initiative might actually end up reducing the number of people with health insurance.

WHO BENEFITS FROM THE CURRENT TAX EXCLUSION?

The current tax exclusion for employment-based health insurance benefits some workers more than others. Clearly, the exclusion does not benefit uninsured workers or workers who purchase their insurance through the individual market. Even among workers with employer-sponsored coverage, the benefits of the tax exclusion vary widely. Individuals in low tax brackets—mostly low-income people—get little or no benefit from the tax exclusion. Those with more generous coverage, such as family coverage or insurance with low deductibles, benefit more because the premiums for their health insurance policies are higher. These also tend to be higher-income families.

Employment-based Coverage

The subsidy for ESI most benefits those with high incomes, for several reasons. First, because the subsidy is provided in the form of an exclusion from income, it is most valuable to those who face high marginal tax rates. Second, those with low incomes are much less likely to be in jobs that offer health insurance than people with higher incomes. Third, lower income people who do get health insurance at work tend to get less generous coverage than those with higher incomes do and their employers tend to pay a smaller share of the premium.

The value of the tax exclusion increases with income

Earning compensation in the form of health insurance rather than wages produces indirect tax benefits. It can reduce both income tax and payroll tax liability. For example, people in the 15-percent federal income tax bracket save \$150 in income taxes for every \$1,000 of wages that are converted to employer contributions toward health insurance premiums. They save another \$76.50 in Social Security and Medicare payroll taxes. In most states, they also pay less state income tax. Thus, the combined value of income and payroll tax exclusions can reduce the overall cost of health insurance by 25 percent or more for middle-income families.

The value of the tax exclusion increases sharply with income because income tax rates rise with income. About 28 percent of nonelderly households were in the zero tax bracket in 2000.¹⁴ They did not save anything in federal income taxes from reducing their taxable wages.¹⁵ Another 47 percent were in the 15-percent bracket. The income tax exclusion is worth 15 cents on the dollar to those households. Only one-quarter of nonelderly taxpayers were in the 28 percent or higher tax bracket.

Thus, the lowest-income taxpayers receive no benefit from the income tax exclusion. They receive a small benefit from the exclusion of Medicare payroll taxes.¹⁶ The exact amount depends on whether workers or employers ultimately pay the employer's portion of payroll taxes. Most economists believe that workers pay the tax in the form of lower wages. To see why,

¹⁴ House Committee on Ways and Means, *2000 Green Book* (Washington, D.C.: Ways and Means Committee Prints, p. 835.)

¹⁵ Some people in the zero bracket who receive ESI may benefit from the exclusion of employer-sponsored health insurance from taxable income. Some people's incomes are below the filing threshold simply *because* their health insurance premiums are excluded from income. For example, an individual earning \$7,500 in 2001 has no taxable income. However, if her employer stopped contributing \$2,000 toward health insurance and instead increased her wages by that amount, he or she would have positive taxable income and owe \$300 in tax on it. Note, though, that few people at this income level receive ESI (see table 1). There are also families in the 15-percent tax bracket who would receive no benefit from the tax exclusion because nonrefundable tax credits such as the child tax credit and the dependent care tax credit offset all of their income tax liability.

suppose that an employer is willing to pay \$20,000 to a particular worker before considering taxes. If the employer has to pay payroll taxes at a rate of 7.65 percent, the employee now costs more than he or she is worth to the employer. Either the employee will not be hired any longer, or compensation would have to decline to \$18,579 or less to make the employee attractive to the employer. (Payroll tax on \$18,579 is \$1,421, so the total after-tax cost of the employee is \$20,000.) Thus, at least in the long run, employees are likely to pay the cost of the employer portion of payroll taxes in the form of lower wages. The exception to this rule would be situations where compensation is not set freely in a competitive labor market. An obvious example would be workers earning the minimum wage whose employers are prevented by statute from passing along payroll taxes (or most other labor expenses) in the form of lower wages.¹⁷

Because the health insurance tax incentive 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 was worth about three cents on the dollar to the roughly 28 percent of workers who were in the zero tax bracket in 2000. That is, the after-tax “price” of the portion of health insurance provided by employers was 97.1

percent of the pre-tax price for employees in the zero bracket. Many of these workers earn the minimum wage, so their employers cannot pass through payroll taxes in the form of lower

The Tax Price of Health Insurance

The tax price of health insurance measures how taxes alter the price of health insurance.

If the employer pays the entire premium, the tax price of ESI is $1 - s$, where s is the subsidy rate. Thus, if there are no tax subsidies ($s = 0$), the tax price is 1. If the subsidy rate, s , is 50 percent, the tax price is 0.5. The lower the tax price, the less expensive is health insurance after tax savings are subtracted out.

If the employer pays only a fraction, a , of the cost of health insurance, the tax price increases to $1 - as$. Thus, the smaller the share paid by employers, the higher the tax price.

¹⁶ They would also save on Social Security payroll taxes, but that saving comes at the expense of lost benefits at retirement, a significant factor for low-income workers as discussed below. Very low income workers may also save unemployment insurance taxes, but those also come at the expense of lost potential benefits.

¹⁷ This is one reason why small firms and those with low-wage workers are less likely to offer ESI.

wages. Workers in this situation would face a tax price of 1, meaning that taxes have no direct effect on their cost of health insurance.

Employees in the 15-percent bracket pay a tax price of 82.4 percent; those in the 28-percent tax bracket faced a tax price of 69.5 percent. The 0.1 percent of taxpayers in the highest 39.6 percent tax bracket faced a tax price of 58.1 percent. Put differently, the subsidy rate is 14 times bigger for the richest 0.1 percent of taxpayers than it is for the poorest 28 percent.

The issue is a bit more complex in the case of Social Security taxes. If we include savings in Social Security taxes, the tax price faced by low-income workers would fall from 97.1 percent to 85.8 percent of premiums. Social Security benefits, however, are highly progressive, so 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 offsets the tax paid for people with very low earnings. If employees understand that their current taxes will produce a valuable future benefit, then it may be inappropriate to treat Social Security payroll contributions as a tax for lower-income people.¹⁸ Thus, workers with low lifetime incomes may view the tax savings from health insurance as conveying no benefit at all since they sacrifice more than a dollar of retirement benefits for every tax dollar saved now.

The connection between Social Security benefits and taxes is weaker for higher-income people. For them, it might be more appropriate to treat Social Security payroll taxes as a pure tax. Under that assumption, someone in the 15-percent federal income tax bracket faces a tax price for health insurance of as little 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

¹⁸ 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.

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.¹⁹

The Economic Growth and Taxpayer Relief Reconciliation Act of 2001 (EGTRRA) gradually reduces marginal tax rates for many taxpayers and thus will raise the tax price of ESI slightly. The subsidies for those with moderate and higher incomes will be somewhat smaller when the new tax law's rate reductions are fully phased in. Nevertheless, without a change in design of the tax subsidy, the system will remain skewed in favor of those with high incomes. For example, the top income tax rate will decline from 39.6 percent to 35 percent when the new rates are phased in, in 2006.²⁰ That will increase the tax price of health insurance for those families from 49 percent to 53 percent. (See figure 6.) The new 10-percent tax bracket that applies to low-income families increases their tax price from 72 percent to 77 percent.²¹

Effective tax subsidy rates

The tax exclusion for ESI provides a subsidy for health insurance that varies both among individuals and firms. An individual gets no benefit from the tax exclusion if his or her employer does not offer health insurance. Even if the employer offers insurance, the employee may not be eligible for it because he or she works part-time. The subsidy rate generally depends on the percentage of the health insurance premium that is paid for by the employer. One exception is if the employer offers employees access to a flexible spending account, which allows employees to pay for their own share of premiums with pre-tax income. For employees with access to ESI, the

¹⁹ On the other hand, phantom taxes caused by the phaseout of itemized deductions and other provisions can add 1 to 4 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).

²⁰ President Bush proposed in his 2004 budget to make the rate reductions fully effective in 2003.

²¹ Another effect of EGTRRA is to raise after-tax income, especially among those with high incomes (Burman, Maag, and Rohaly 2002). This will tend to increase the demand for both ESI and non-group health insurance, since the demand for insurance increases with income. But the reduction to the tax subsidy for ESI will slightly reduce the preference for ESI over non-group.

overall size of the subsidy is governed by the amount of the premiums, and the subsidy rate depends on their income and payroll tax rates.

Virtually all factors that lead to high subsidy rates on health insurance increase with income. The likelihood of having employer-sponsored insurance coverage increases dramatically with income (table 2). Only 11 percent of families with incomes below \$10,000 have health insurance through their job, compared with over 80 percent of families with incomes above \$40,000. Lower-income families are less likely to work in jobs that offer health insurance coverage (Cooper and Schone 1997). Even if their employer offers it to full-time employees, low-income people are more likely to work either part-time or part-year, and therefore be ineligible for health coverage.

Like the subsidy rate, the value of the tax exclusion also increases dramatically with income. (Appendix 2 provides details on how the health insurance premiums used in this analysis were determined.) Among families with employer-sponsored health insurance, the premiums for those with incomes below \$20,000 average less than \$2,800. Average premiums more than double for families with incomes above \$75,000. Higher-income families average higher premiums because they are more likely to be covered by multiple policies and have family rather than self-only coverage. Indeed, the average family size for those with incomes below \$20,000 is about 1.9, compared with 3.1 for those with incomes above \$75,000. In addition, lower-income families are more likely to have coverage for less than a full year, due to part-year employment.²² The average employer premium share also increases with income, from 66 percent for families with incomes less than \$10,000 to 79 percent for families with incomes of \$200,000 or higher.

²² It is probably also true that higher-income people demand more generous health insurance coverage from their employers than their lower-income counterparts, just as higher-income people are more likely to drive a Lexus than a Chevy. Unfortunately, we are not aware of any evidence on the quality and comprehensiveness of health insurance plans offered by employers to employees at different income levels.

Finally, as discussed in the previous section, the benefit of any tax exclusion is greatest for high-income families because the income tax is progressive. That is, excluding a dollar of income from tax is worth much more to someone in the 39.6-percent tax bracket than to one in the 15-percent or 0-percent tax brackets.

Putting all these factors together, the picture is of a tax subsidy that overwhelmingly favors middle- and upper-income households. Families in the lowest-income group receive an average tax subsidy (including both income and payroll taxes) worth 9 percent of their premiums, compared with a subsidy of 33 percent of premiums for the highest-income group.²³ (See table 2.) Consequently, while high-income families on average receive ESI worth three times as much as that received by low-income families, it only costs 2.3 times as much after tax savings are considered.

Assuming that health insurance premiums are paid instead of wages (so both the employer and employee share of premiums are ultimately paid by workers) then the after-tax cost of employment-based health insurance is a much larger share of income for low-income workers than for high-income workers. For families with incomes below \$10,000 who receive health insurance through work, health insurance premiums represent about 37 percent of income after including the tax advantages. For those earning more than \$100,000, the average after-tax cost is less than 5 percent of income.

For low-income families, even a small tax break can be significant relative to their income. For low-income families who get health insurance coverage at work, the tax subsidy averages about 4 percent of income. By comparison, the subsidy represents less than 1 percent of income for the highest income families with ESI. However, because the likelihood of having ESI increases with income, the overall subsidy (including those without ESI) is roughly proportional

²³ The tax subsidy discussed herein reflects both the federal income tax and the payroll tax, and applies to premiums only. It does not consider any worker premiums that are paid on a pre-tax basis or other pre-tax contributions made to a flexible savings account, each of which will also favor higher-income workers relative to lower-income workers.

to income for families with incomes between \$20,000 and \$100,000. The subsidy is a smaller share of income for families with very low and very high incomes for different reasons. Most lower-income families do not have health insurance and thus pay no premiums. But even sizable premiums are small compared with the high incomes of the affluent.

The bottom line is that the subsidy is not at all targeted to those who most need help paying for health insurance. Health insurance premiums are 40 percent of income for the poorest households, but their subsidy rate is less than 10 percent. (See figure 7.) Those with incomes over \$200,000 receive subsidies equal to one-third of premiums even though premiums would amount to only 3 percent of their income without a subsidy.

Self-Employed Workers

Self-employed workers who purchase health insurance in the individual non-group market can deduct health insurance premiums from their taxes. In 1998, they could deduct 45 percent of premiums. Starting in 2003, they can deduct 100 percent.

Overall, about 3 percent of families have a self-employed worker who purchased health insurance, with an average premium of \$3,300. (See table 3.) Both the likelihood of having coverage and the premiums are much more evenly distributed across incomes among self-employed workers than among wage and salary workers. Indeed, 3 to 4 percent of families in every income group are covered by self-employed non-group insurance, with the sole exception of very high income households.

Like the tax exclusion for wage and salary workers, the deductibility of health insurance premiums for self-employed workers benefits higher-income workers more than lower-income workers. The 45-percent deduction in effect in 1998 was worth 5 percent of premiums or less to self-employed workers with incomes below \$30,000, compared with a 17 percent subsidy rate for those with incomes greater than \$200,000. (See panel 1 of table 3.) The differences will increase when the premiums qualify for full deductibility in 2003. With 100 percent

deductibility, the subsidy rate ranges from 20 percent or less for families with incomes under \$30,000 to 38 percent for those with incomes over \$200,000. (See panel 2.) Under both scenarios the tax subsidy is approximately proportional to income.

Non-Group Coverage

Unless they are able to claim the self-employed tax deduction, families purchasing health insurance coverage through the individual market generally receive no tax subsidies.²⁴ Typically, these families work for firms that do not offer coverage or they are not eligible for their employer's plan.

Overall, about 5 percent of families have health insurance through the individual market, at an average premium of about \$2,500 (in 1998). (See Table 4.) Families in the lowest income groups are slightly more likely to purchase individual insurance, because they are less likely to have access to employer-sponsored insurance. Premiums increase somewhat with income, because higher-income families are more likely to have family coverage and be older.²⁵

Aggregate Coverage and Tax Subsidies

About three-quarters of families have either employer-sponsored health insurance coverage or coverage through the individual market. The progressivity of the income tax results in lower-income families benefiting less relative to higher-income families from the tax exclusion for employer-sponsored coverage and the tax deductibility of individual market premiums for the self-employed. In addition, a higher share of lower-income workers obtain their insurance coverage through the individual market, which lacks tax subsidies altogether. As a result, among families with private health insurance coverage, tax subsidies amount to only 4 percent of premiums for the lowest-income families, assuming the full deduction for self-

²⁴ As discussed earlier, a limited exception applies to taxpayers who spend more than 7.5 percent of AGI on health expenditures (including insurance), who may deduct the excess from their taxable income.

employed. (See Table 5.) Those with the highest incomes receive tax subsidies equivalent to nearly one-third of premiums.

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 least likely to be 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. Third, individual insurance is expensive. The overhead costs (or “load”) charged to individuals who purchase insurance in the non-group market can equal 30 to 40 percent of the premium, compared with 10 percent or less for large groups (Sloan, Conover, and Hall 1999). Finally, individuals cannot fully insure against the risk of getting sick beyond the current year.²⁶

An Upside-Down Subsidy

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

In addition, 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 or to work for employers who offer ESI. 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

²⁵ They are also more likely to purchase more generous coverage, but that is not captured in our estimates. See appendix 2.

²⁶ There are numerous other issues in the market for individual insurance. They are described in a fascinating narrative by Hall (2000b).

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, because they face the highest loading costs and cannot pool risks especially well. Moreover, 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 firms that choose not to offer health insurance have 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 non-group policies, because of both underwriting costs (assessing the health status of the applicant) and many costs that are relatively fixed, such as marketing. 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 et al. 1999). Herring and Pauly (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 costs of underwriting (without spurring adverse selection) could reduce costs.

Non-Group Insurance Does Not Protect against Premium Increases due to Future Declines in Health Status

As discussed earlier, the individual insurance market does not always protect against premium increases due to unexpected declines in health status. 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. Insurance is most attractive to those who expect to have high medical expenditures.²⁷ For both these reasons, non-group health insurance is expensive for the typical uninsured person to purchase and even more expensive to maintain.

Unlike the other market failures, the inability to fully insure against the risk of future health problems is not necessarily inherent to the health insurance market. The tax exclusion might have precluded the development of long-term contracts by tying insurance to jobs rather than to people.

It is uncertain whether long-term contracts would exist in the absence of a subsidy (Pauly 1970).²⁸ 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. Although guarantee mechanisms could exist in theory, they raise serious issues in practice (CBO 1994; Pauly, Nickel, and Kunreuther 1998). For example, a long-term insurance product 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

²⁷ At the same time, insurers try to design and price their products so that they are most attractive to good risks. As a result, the people who actually have non-group health insurance turn out to be healthier than those without insurance (Hollahan 2001).

²⁸ 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.

enough to be able to cover unexpectedly high health costs or unexpectedly bad health status outcomes.

Principles for Health Insurance Tax Incentives

Based on those considerations, a set of five 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 facing individuals who purchase health insurance
- Encourage the creation of health insurance that includes protection against premium increases due to unexpected declines in health
- Encourage the purchase of efficient health insurance coverage

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

Finally, some analysts argue that many objectives would be better met by a spending program, such as an expansion of the state program that covers low-income children—SCHIP—than by additional tax incentives (Feder et al. 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 might be better suited to addressing such problems.

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

OPTIONS FOR DESIGNING A HEALTH INSURANCE TAX CREDIT

Many proposals in Congress would use refundable tax credits to try to expand health insurance coverage. Credits can be designed to be much more progressive than an income tax deduction. To reach low-income people the credit also must be refundable. “Refundable” means that taxpayers can receive the full value of the tax credit in the form of a tax refund even if they owe little or no income tax. This is crucial because about one-quarter of households are not taxable.

However, some tax credit proposals have been criticized because they could actually undermine ESI by making it even less attractive to lower-income workers. The design details of a specific tax credit are thus very important.

A Tax Credit for All Health Insurance

One option for using a tax credit to expand health insurance coverage is to provide a low-income tax credit for any qualifying insurance, including ESI. Allowing the credit to be applied to a broad range of coverage, however, would be expensive. Although many low-income people do not have health insurance, most do, and most of that coverage is through employers. Fourteen million workers with family incomes under 200 percent of the poverty level were covered by their own or their spouse’s ESI in 2001. By comparison, only three million were covered by individual non-group 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. However, credits that phase out quickly with income create implicit taxes that could discourage work, especially among second earners.²⁹

A Tax Credit for Non-Group Health Insurance

The option proposed in the 2004 budget would limit the tax credit to non-group health insurance (U.S. Department of the Treasury 2003). The President's proposal would allow a credit of \$1,000 per covered adult and \$500 per covered child (up to two children) for a maximum family credit of \$3,000. The credit rate phases out in stages between \$15,000 and \$30,000 for singles, \$25,000 and \$40,000 for single parents, and \$25,000 and \$60,000 for joint returns. In principle, the taxpayer could elect to take the credit in advance based on prior year income, producing a kind of voucher that could be transferred to an insurer, although the exact mechanism to accomplish this is unclear. 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 non-group 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 (see appendix 1 for more explanation). Looked at that way, it is apparent that this financing mechanism is likely to be counterproductive.

As shown in appendix 1, this tax on employers who offer health insurance undermines ESI in exactly the cases where it is most fragile: small firms, those with many young, healthy workers, and those with many low-income workers. 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).

²⁹ For example, a \$1,000 tax credit phased out over a \$10,000 income range is equivalent to a 10 percent surtax in that range ($1,000/10,000 = 10\%$).

The Jeffords-Breaux proposal represents a compromise approach between that offered by the administration and a universally available credit. S. 590, 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, S. 590 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 non-group 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 non-group 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 non-group 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 non-group insurance). Thus, it is uncertain whether this bipartisan alternative would increase or decrease ESI coverage.

People who are already insured would receive a windfall with the introduction of Jeffords-Breaux, thus increasing its cost. Bradley Herring and Mark Pauly (2001) have argued that avoiding windfalls should not be an objective of tax policy. In theory, 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. However, if the windfalls are financed by higher taxes, those taxes would also create economic distortions.

Herring and Pauly 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” (Herring and Pauly 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.

A Credit to Stimulate Market Reform

A problem with the tax credit proposals is that they do little to address the fundamental problems of individuals and small firms in the health insurance market. Indeed, they could even exacerbate the problems in the employer market—a risky proposition given that it covers more than two-thirds of Americans under age 65.

A better option might be to tie a new tax credit to market reforms aimed at advancing the five principles enunciated earlier. In other words, the tax credit would serve as an inducement for market participants to undertake behavior that is in their collective interests. For example, President Clinton advanced the notion of tax credits and other tax incentives to induce small employers to band together to purchase health insurance (U.S Department of the Treasury 2000). The patient’s bill of rights legislation debated in the 107th Congress would advance a similar aim by providing tax incentives for voluntary “Association Health Plans (AHPs).” The notion behind these targeted tax incentives is that by pooling risks and reducing underwriting and marketing costs, small employers would be able to achieve some of the advantages of large employers. This particular approach has proven controversial. Some contend that AHPs, for example, would just lead to more market segmentation with good risks pooling together in associations while firms with less healthy employees are left with fewer and more expensive choices for coverage than they have currently (American Academy of Actuaries 2003). Several bills have been proposed in

the 108th Congress to provide tax incentives to small employers. Bills sponsored by Senators Daschle, Durbin, Clinton, and Representative Dunn would each offer a credit to partially offset the small employers' health insurance costs (Lyke and Sroka 2003).

Another idea is to tie tax credits to reforms in the individual non-group market. Burman and Gruber (2001) proposed a tax credit for health insurance that is completely portable and renewable 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 create a common rating scheme that would allow any participating person to purchase insurance from any insurer according to the universal rating schedule.

Individuals who bought into this system, or maintained 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. Coverage arranged through a qualifying employer plan would also qualify for the credit.

There are many questions about how to implement such a system and whether insurers would find it in their interest to offer insurance products that would qualify for the tax credit. But the idea of using the tax credit dollars as a way to induce real reform is clearly worthwhile. And, if the market is slow to adopt the reforms, the cost of the tax credit will be moderated, which has some advantages in the current straitened budgetary circumstances.

SIMULATING OPTIONS FOR CHANGING THE TAX SUBSIDY

It is widely recognized that the current tax exclusion is poorly targeted. Proposals have been made to rectify that in two ways. First, some proposals would replace the ESI tax exclusion with a tax credit. A refundable tax credit can be designed to be highly progressive—that is, it is worth most to those with low incomes. Second, as discussed above, many proposals would provide tax subsidies—either in the form of a deduction or a tax credit—for the purchase of private non-group insurance. These proposals are aimed primarily at targeting subsidies to those who do not currently receive ESI.

In each of the simulations reported below, we assume no change in behavior.³⁰ That is, only currently covered families would benefit from the tax subsidies; no uninsured families would become newly insured and therefore eligible for the subsidy, and no currently covered employees would drop their employer-sponsored coverage in favor of non-group health insurance. All employers who currently sponsor employment-based coverage will continue to do so even if tax subsidies are available for non-group insurance.

Replace the Tax Exclusion with a Tax Credit

One option to retarget the tax subsidy for employment-based insurance is to replace it with a refundable tax credit. As an illustration, we designed a progressive tax credit that would have approximately the same overall revenue cost to the federal government (including both income and payroll taxes) as the current tax exclusion. This option is probably not politically

³⁰ This assumption of no behavioral response is the convention used in official distribution tables produced by government agencies (Joint Committee on Taxation 1993). It is a reasonable benchmark for the distribution of benefits and costs from changes in the tax treatment of health insurance because there is so much uncertainty about the effect of policy changes on health insurance coverage and premiums. (See, e.g., Blumberg and Nichols 2000.) Official revenue estimates would, however, account for behavioral responses. But even the official estimates reflect tremendous uncertainty about those responses. For example, the U.S. Department of the Treasury (2003) estimated that the President's proposal for refundable tax credits for non-group health insurance would cost \$89 billion from 2004 to 2013. The Joint Committee on Taxation (2003) estimated the cost at \$64 billion—28 percent less. As the behavioral assumptions have clearly not been resolved by the experts, we choose not to attempt to resolve them here. However, we discuss later the ways in which economic behavior might alter the conclusions of this analysis.

feasible because it would raise taxes on many middle- and upper-income taxpayers, but it illustrates what a more progressive subsidy structure could look like.

The tax credit would equal 90 percent of premiums up to \$2,000 for single returns, \$4,000 for head of household returns, and \$5,000 for joint returns. The credit rate would be phased down from 90 percent to 15 percent for incomes between one and three times the lowest level of income that is subject to federal income tax. Thus, the phasedown ranges would be \$6,950 to \$20,850 for single returns, \$14,350 to \$43,050 for head of household returns, and \$17,900 to \$53,700 for joint returns.³¹ Higher-income households could claim a tax credit of 15 percent of premiums. These credits would offset a substantial portion of health insurance premiums for lower-income households. In 1998, the average combined employer and employee premium was \$2,170 for single coverage and \$5,590 for family coverage (AHRQ 2001).

In contrast to the tax exclusion, the tax credit favors lower-income families. Families with incomes below \$50,000 would see their taxes reduced by an average of \$655 if this tax credit replaced the tax exclusion; families with incomes above \$50,000 would see their taxes increased by \$583 on average (see table 6). Among families with incomes below \$50,000, the tax subsidy as a percent of premiums would range from over 80 percent for the lowest-income households to about 30 percent for the higher-income families. Average tax subsidies as a percent of premiums fall below 20 percent for families with incomes greater than \$50,000.

As mentioned, these estimates do not account for any changes in behavior. In other words, the analysis assumes any workers not covered by employment-based coverage will continue to go without that coverage and no one with ESI will lose their coverage. Nearly one-quarter of low wage workers who are offered coverage decline to participate, many presumably

³¹ Simulations are based on data from the 1999 CPS, which has data for 1998, and 1998 tax law. The phase-out thresholds range from one to three times the filing threshold for each filing status—that is, the income level at which a single or family would begin to owe tax (before credits) if they claimed the standard deduction. The filing thresholds for head of household and joint returns assume two children (three and four personal exemptions, respectively). This approach is similar to that adopted by the CBO in its 1994 study. See appendix 2 for more detail on the data and simulation methodology.

due to affordability problems (Cooper and Schone 1997). The tax credit would make this coverage more affordable, likely resulting in an increase in coverage rates, especially among those qualifying for the full credit. In contrast, the elimination of the tax exclusion will make coverage relatively more expensive for workers with higher incomes, perhaps causing some of them to drop coverage. The first effect will increase the revenue loss; the second will increase revenues. The net effect is thus ambiguous. Thus, the tax credits may not be revenue neutral when behavioral effects are considered.

Over the long run, replacing the deduction with a tax credit would elicit a response from some employers. Gruber and Lettau (2000) estimate that eliminating the tax exclusion from income and payroll taxes would reduce insurance offerings by 17 to 30 percent, and would decrease employer premium shares for those who continue to offer by 30 to 42 percent. Replacing the tax exclusion with a tax credit would likely result in much more modest behavioral responses among firms, because total subsidies remain unchanged. Nevertheless, some employers may drop coverage; Gruber and Lettau find that higher-income workers, whose subsidies would decrease under this scenario, have more influence on firms' health insurance decisions. However, since those employees tend to be older and have high incomes, their demand for insurance is likely to be least sensitive to price, so it is not clear that scaling back their tax subsidies would have much effect on coverage.

Finally, it should be noted that replacing the exclusion from both income and payroll taxes with an income tax credit alone would change the composition of tax revenues. Revenues earmarked for Social Security and Medicare would increase relative to general tax revenues. Payroll taxes would increase by about \$26 billion per year and income tax revenues would decline by a similar amount. This change would improve the long-run fiscal balance for Social Security and Medicare, but would also increase the non-Social Security deficits or reduce future surpluses.

Deductibility of Non-Group Premiums

Families with non-group coverage currently receive no tax subsidies for their premiums, unless they claim the self-employed tax deduction. Some have proposed to allow for the tax deductibility of non-group premiums as a way to reduce the disparity with employment-based coverage and increase coverage.³²

We examined the effects of allowing individuals to deduct the cost of their non-group premiums, regardless of whether the family had access to employer-subsidized health plans. We assume the tax deduction would be available for itemizers and non-itemizers alike, with no limits on income eligibility. Assuming no new purchases of non-group coverage, such a subsidy would have cost the government \$1.6 billion in 1998. (See table 7.) Jon Gruber (2000) estimated a similar loss of revenues of \$1.4 billion from those who already have non-group coverage. However, he estimates that the cost to the government is reduced to \$0.9 billion because some firms would no longer offer ESI, and some of their employees would not purchase insurance elsewhere.

Not surprisingly, high-income households would benefit more from tax deductibility than would those with lower incomes. The average tax subsidy for households with incomes from \$20,000 to \$30,000 would be 12 percent, compared with over 26 percent for households with incomes of \$75,000 or more. Households with incomes under \$20,000 would see even lower tax subsidy rates, because they are in the lowest tax bracket and many have no income tax liability at all.

These estimates do not account for any increase in non-group coverage arising from the tax deductibility, nor any possible employer dropping. Previous research has found that such a deductible would have only very modest effects on participation (Feder, Uccello, and O'Brien 1999; Gruber 2000).

Add-on Refundable Tax Credits for Non-Group Coverage

Many policymakers have proposed refundable tax credits for individual non-group health insurance. For instance, as discussed above, President Bush proposed refundable tax credits up to \$1,000 for individuals and up to \$3,000 for families to purchase insurance in the individual market.

We examined the implications of providing refundable tax credits for families with health insurance coverage. We designed a tax credit equal to \$1,000 per covered adult plus \$500 per covered child, up to a maximum credit per household of \$2,500.³³ Similar to the President's plan, the credit is limited to 90 percent of the premium and would be phased out for incomes between \$15,000 and \$30,000 for single returns, \$22,500 to \$45,000 for head of household returns, and \$30,000 to \$60,000 for joint returns.

Because proposals differ on what the tax credit can be used toward, we model three alternative scenarios. In the first, eligibility for the tax credit is limited to coverage purchased in the individual market. The president's proposal and several congressional proposals would be limited to private non-group health insurance. In the second, eligibility for the full tax credit is extended to employment-based coverage in which the worker pays at least half of the premium. The proposal made by Nancy Johnson, H.R. 1181 of the 107th Congress, adopts this approach. In the third, a smaller tax credit is available for use toward employment-based coverage. Senators Jeffords and Breaux adopted this approach, designed to equalize the overall subsidies for employer and nonemployer health insurance.

Scenario 1: Credits Available for Purchase in the Individual Market Only. In this scenario, tax credits are available only for health coverage purchased through the individual market. On average, tax credits would reduce taxes for four million families with non-group

³² For instance, the Health Care Tax Deduction Act (H.R. 198, introduced by Rep. Stearns) would allow all individuals to deduct 100 percent of their insurance premiums, regardless of whether they itemize.

³³ This is similar to the President's 2001 plan. Later revisions would allow a credit up to \$3,000.

health insurance by an average of a little over \$800, reducing the effective price of privately purchased coverage by almost one-third (see table 8). Low-income families would benefit most from the tax subsidy. Families with incomes less than \$30,000 would receive tax subsidies of over 50 percent, compared with subsidies of under 15 percent for families with incomes of \$50,000 or more. Nevertheless, low-income families would continue to pay a higher share of their after-tax income toward health insurance premiums compared with higher-income families.

According to these estimates, the tax credit plan would cost the federal government \$3.3 billion annually. If behavioral responses were considered, however, costs could be substantially higher because more families will purchase insurance when the costs are subsidized. At the same time, some additional revenues would be garnered because some employers would stop sponsoring health insurance policies and some of their employees would not purchase insurance in the non-group market. The overall effect on revenues of these conflicting responses is uncertain.

Scenario 2: Credits Extended to Non-Subsidized Employer Coverage. In this scenario, we assume that in addition to the tax credits available for coverage in the individual market, tax credits are also available to families who have employer coverage that is not fully subsidized. In particular, we assume that workers who pay at least half of the premium for employment-based coverage are also eligible for the tax credit. The tax credit is limited to 90 percent of the worker's share of the premium, up to the maximum allowable credit based on income level and family size.

The results for families with non-group coverage are identical to those under the first scenario (see table 9). Among families with employment-based coverage, the tax credits increase the tax subsidies among those with lower incomes, resulting in more uniform tax subsidies by income. Tax subsidies for families with ESI and incomes less than \$10,000 increase from 9

percent of premium under current law to 23 percent when they receive additional tax credits for their share of the employment-based premium.

Providing tax credits for both non-group coverage and employment-based coverage for workers who pay at least half of the premium would cost about \$10 billion. Again, because this estimate does not account for any changes in behavior, it does not adjust for families who newly purchase non-group coverage. Offering tax credits to workers for their employment-based coverage could also increase coverage among workers who previously declined coverage because they could not afford it.

However, the proposal also runs the risk of encouraging some firms to reduce their premium share to less than 50 percent of premiums, especially if they have many low-income workers. The incentive would be strongest for firms that currently pay only slightly more than 50 percent. For example, consider a firm that currently pays 60 percent of a \$4,000 premium for family coverage. The worker's share is \$1,600. If the firm reduces its share to 40 percent, the worker's share increases to \$2,400. A married worker with income of \$30,000 could claim a tax credit for 90 percent of \$2,400 (its share of the premium) or \$2,160, so the worker's net cost of health insurance would decline from \$1,600 to \$240 if the firm cuts its contribution. In addition, the firm could increase the employee's wages by the amount it reduces its premium contribution. Thus, low-income workers would strongly prefer that the firm pay less than half of premiums—even if the firm had been paying almost the entire premium before. Indeed, if workers pay the cost of health insurance in the form of lower wages, low-income employees would prefer for the firm to pay none of the premium than for it to pay more than 50 percent. Even those with modestly higher incomes wouldn't care much if the employer contributes 100 percent or 40 percent of the premium, because the tax credits could offset all or most of the tax advantage of employer contributions.

If employers reduce their contributions to less than 50 percent of premiums, the revenue cost of the program could increase because the tax credits are larger than the value of the tax exclusion for many workers. However, some workers would choose to drop their employer coverage if they had to pay more for it. That would tend to reduce the revenue loss, but it also could mean that fewer people would have health insurance coverage. Moreover, since lower-income employees can garner the same tax benefit for insurance purchased in the individual non-group market as at work, health insurance would become a much less valuable fringe benefit for them. In response, some employers may stop sponsoring insurance altogether, which could further erode coverage.

Scenario 3: Lower Credits Available for Employer Coverage. In this scenario, we assume that in addition to the tax credits available for coverage in the individual market, smaller tax credits are available for workers with employment-based coverage. The tax credit for group coverage is equal to \$400 per covered adult plus \$200 per covered child, up to a maximum credit per household of \$1,000. These lower tax credits are available for employment-based coverage, regardless of whether the worker pays at least half of the premium. The tax credit is limited to 90 percent of the worker's share of the premium, up to the maximum allowable credit based on income level and family size.

The results of this simulation are similar to those of the second scenario. However, overall subsidy rates are slightly higher under this simulation, because the tax credits are extended to all income-eligible workers with employment-based coverage. Wider eligibility makes up for the smaller credit. (See table 10.) Consequently, the total costs of the tax subsidies, \$14 billion, exceed those of scenario 2.

In response to the tax credit, employees may be willing to pay a larger share of premiums than they do at present. Low-income workers, especially, might be better off paying more of their premium in exchange for higher wages since the tax exclusion is worth much less than the

tax credit to them. Because tax credits under this scenario are available regardless of employer share of the premium, however, firms would engage in less cost shifting in this scenario than in scenario 2. Also, because the credit applies to all ESI, fewer employees would prefer to purchase insurance in the individual non-group market than under scenario 2, so there would be less employer dropping.

BEHAVIORAL RESPONSES

The simulation results above assume no changes in behavior, either among individuals or among firms. This follows standard practice for measuring the distribution of tax changes, under the logic that the “static” estimates represent a lower bound on the benefits of a tax cut because people would respond in ways that would make them better off. However, in the health insurance market, the responses of some participants (e.g., employers) could make others (e.g., some employees) worse off. Therefore, it is important to consider how behavioral responses might change some of the implications of our analysis.

Individual Response

Faced with new or different tax subsidies, individuals will revisit their health insurance decisions. Providing a new tax credit for non-group health insurance will cause some uninsured individuals to purchase non-group coverage. The magnitude of this effect depends on the size of the subsidy and how sensitive individuals are to the price of health insurance. Empirical studies have generally found that individuals are not very sensitive to price in their health insurance decisions.³⁴ As a result, fairly sizeable subsidies may be required to induce large take-up rates among the previously uninsured. Those with low incomes, in particular, may require very large subsidies.

³⁴ Estimates of the price elasticity of demand for health insurance vary widely, ranging from -0.3 to -0.4 in Marquis and Long (1995) to larger than -1.5 in Gruber and Poterba (1994). These studies are based on selective populations and the validity of the results often rests on strong assumptions, so the finding may not be generally applicable to the

New non-group purchasers will include not only those who previously were uninsured, but also some who were covered by employment-based coverage and chose to drop that coverage to take advantage of the non-group tax credit. Many in this group would be workers who paid all or most of the premium for their employment coverage, and therefore received little or no tax subsidy for this coverage. Switching to non-group coverage would allow them to take advantage of the non-group tax credit. Some workers who are healthier than average may find non-group health insurance attractive because the premium can be lower than what they would pay at work.

Allowing the tax credit to also be used toward the worker share of employment-based insurance premiums would reduce the number of workers who choose to replace their ESI coverage with non-group coverage. In addition, workers who declined employment-based coverage because of its cost may be more inclined to take it up with a tax credit. The net effect of tax credits on employment-based coverage is unclear, and depends, in part, on the amount of credits available for ESI relative to those for non-group coverage. If smaller credits are available for ESI, then tax credits reduce the costs of non-group coverage by more than they reduce the cost of ESI. Therefore, it might encourage some employees to forgo employer coverage in favor of individual non-group insurance.

Employer Response

Because the current employment-based health insurance system covers more than two-thirds of nonelderly Americans, it is especially important to consider how employers would respond to alternative tax subsidy scenarios. Small changes in employer behavior could affect large numbers of insured.

Changes in the tax subsidization of health insurance could impact firms' decisions to offer insurance. If workers become eligible for tax subsidies outside the employment-based

whole population. When simulating the impact of a health insurance tax credit, both Gruber (2000) and Blumberg and Nichols (2002) assume an average elasticity of about -0.5.

system, the relative value of ESI will decrease, causing some workers to prefer wages to health insurance benefits. Taking into account their workers' preferences, therefore, some employers will stop offering insurance. Blumberg and Nichols (2000) explored the effects of various tax credit scenarios on employer offer decisions. They found that the extent to which employers would drop health insurance coverage depends on several factors.

Clearly, the size of the tax credit matters. The larger the tax credits for non-group coverage relative to group coverage, the more employers will drop coverage. But eligibility for the tax credit is also important. If eligibility is limited to families with lower incomes, fewer employers will drop coverage, since the higher-income workers in the same firm will prefer to continue receiving tax-subsidized health insurance benefits through employment. Also important is whether the tax credit is available for group coverage. Even the availability of partial credits for group coverage can reduce the likelihood that firms will drop coverage.

In addition to these considerations, Blumberg and Nichols (2000) also find that perhaps the most important factor is how workers value access to the group insurance market. If workers do not strongly prefer the group market to the non-group market, considerable numbers of firms will drop their health insurance coverage. This would likely result in higher numbers of uninsured, because not all of those who no longer have access to group insurance would purchase non-group coverage, even with the tax credit. In contrast, if workers have a strong attachment to the group insurance market, perhaps because they fear underwriting in the non-group market, fewer firms would drop coverage, thus increasing the likelihood that tax credits would result in net increases in the number of insured.

Not only do tax credits have the potential to affect firms' decisions to offer insurance, they will also affect firms' contribution decisions among those who continue to offer coverage. Indeed, Gruber and Lettau (2000) find that firms' contribution decisions are more sensitive to

after-tax prices than are their offer decisions. If tax credits can be used toward the employee ESI contributions, firms may shift more of the premium burden to employees.

CONCLUSION

The government provides over \$100 billion per year in tax subsidies for employment-based health insurance. Consequently, over two-thirds of nonelderly Americans are insured through an employer. However, there are significant gaps in coverage, especially among small firms and low-income workers. Current tax subsidies are particularly poorly suited to addressing those gaps, because they favor higher-income workers and large firms that face the lowest costs of insurance.

Proposals have been made to provide tax credits or deductions for the purchase of insurance outside of work. Those could improve equity between people who are and aren't currently covered by ESI. Tax credits would be more progressive than the tax exclusion, but the new subsidies could have undesirable consequences if they encouraged some employers to stop offering coverage and private insurers were not able to develop new institutional arrangements to mitigate the market failures inherent in the individual non-group insurance market. For that reason, policymakers should consider designing any new tax subsidy so that it does not effectively penalize ESI. Beyond that, they might consider using the tax subsidy as a way to induce insurance providers to offer better products in the non-group market, such as the proposal for renewable insurance put forward by Burman and Gruber (2001).

We have not estimated the number of uninsured people that might benefit from the health insurance tax credit options discussed 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 non-group market

could 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 non-group 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.

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APPENDIX 1. Why a Discriminatory Health Insurance Credit Is Equivalent to a Tax on ESI

A discriminatory credit is equivalent to a generally available tax credit partially financed by a tax on employers who currently provide health insurance. 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 credit. 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.³⁵ 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 non-group 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

³⁵ The tax price, t , solves $1 - t \equiv \frac{1 - t - t_p}{1 + t_p}$, where τ is the marginal income tax rate and τ_p is the employer's (or employee's) payroll tax rate. Solving for t yields the following expression: $t = \frac{t + 2t_p}{1 + t_p}$.

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

Then the difference is

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

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

$$(4) \quad \Delta' = ((d - r)(1 - t) + t)P - c.$$

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

When is Δ' 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)

APPENDIX 2. Data and Simulation Methodology

We simulate the distributional effects of the current system of tax subsidies for health insurance as well as options for changing the tax subsidy using the Urban Institute's Transfer Income Model, version 3 (TRIM3). TRIM3 is a comprehensive microsimulation model of the tax and transfer programs affecting individuals and households. The primary dataset underlying TRIM3 is the March Current Population Survey (CPS), a nationally representative sample of the U.S. population. In this analysis, we use the version of TRIM3 based on the March 1999 CPS, which reflects data from 1998.

The effects of current and alternative tax treatment of health insurance premiums are distributed among families, who are divided into categories by income. Families are groups of related people who live together; people not living with relatives are considered one-person families. Families are classified by adjusted gross income (AGI) as calculated by TRIM3.³⁶ Family incomes are not adjusted for differences in family size.

TRIM3 simulates federal income taxes for persons in the CPS. The CPS contains most of the income variables used in the calculation of federal income taxes, but capital gains, deductible IRA contributions, and itemized deductions are obtained through a statistical match with the Internal Revenue Service's 1995 Statistics of Income Public Use File. TRIM3 also simulates employee and employer payroll taxes for social insurance programs, including Social Security, Medicare, and the Unemployment Insurance Program. Baseline tax simulations are performed using current law as of the CPS data year. We made an exception for this paper in modeling the self-employed health insurance deduction as fully phased in, rather than the 45-percent deduction that applied in 1998. Alternative simulations can also be run that change the tax calculations (e.g., by changing the tax rate, altering the definition of taxable income, etc.).

³⁶ AGI excludes any employer contributions to the cost of health insurance premiums, regardless of whether alternative tax subsidy simulations would include employer contributions as part of AGI.

The CPS does not contain health insurance premium information. TRIM3 assigns premiums for employment-based coverage primarily based on KPMG's 1996 survey of health benefits.³⁷ The KPMG data set includes information on both total premiums as well as the premium share required from workers. Premiums are assigned to workers based on type of policy (self only or family), industry, region of residence, firm size, and premium share.³⁸ Workers who are employed only part of the year are assigned full-year insurance premiums, prorated for the fraction of the year that they work. Premiums are adjusted to reflect premium growth between 1996 and 1998. A family's premiums for employment-based coverage are the sum of premiums paid for all employment-based policies held by members of the family.

Because TRIM3 does not contain up-to-date non-group premium information, we collected non-group premium data reported on the internet in 2001. The premiums come primarily from the web site <http://www.insweb.com>, which contains premium data for many insurance providers. Premiums are assigned to individuals and families in the CPS with non-group coverage by gender and age of contract holder, family size, and state of residence. In general, premiums reflect a PPO plan with a \$500 deductible, 20 percent coinsurance, and \$5,000 stop loss limit. Premiums do not vary by health status, but instead reflect the standard premium, normally reserved for healthy applicants. As a result, imputed premiums may understate premiums for those in poor health. However, less healthy insureds may offset higher premium rates with less generous plan provisions, reducing this understatement.³⁹ Nevertheless,

³⁷ The KPMG data set provides premium information for a sample of private sector and local government employers. Premiums for state government employees are obtained from the Segal Company's Survey of State Employee Health Benefit Plans, and representative premiums for federal government employees are obtained from the Office of Personnel Management.

³⁸ Because self-employed unincorporated workers are much less likely to have access to employment-based health insurance, self-employed unincorporated workers in the CPS who report having employment-based insurance coverage are assigned non-group coverage and premiums.

³⁹ We examined non-group premiums in the 1999 and 2000 National Health Interview Survey (NHIS) and found that differences in non-group premiums by age exceed those by self-reported health status. This suggests that our manner of assigning non-group premiums captures much of the variation across premiums. We also found that premiums vary substantially by income, even after controlling for family size, providing evidence that higher

the premiums assigned reflect the cost of coverage for those with non-group coverage, and are not necessarily applicable to those without coverage. For instance, some uninsured individuals may have health conditions that would result in very high premiums, even for less generous coverage.

Non-group premiums are adjusted downward to reflect premium growth between 1998 and 2001.⁴⁰ A family's premiums for non-group coverage are the sum of premiums paid for all non-group policies held by members of the family.

Baseline Simulation

We first determine the level of tax subsidies for health insurance coverage under current law. Currently, employer contributions toward health insurance coverage are not counted as income for tax purposes. To determine the level of tax subsidy arising from this tax exclusion, we use TRIM3 to compare the amount of federal income and payroll taxes each household would pay under current law to the taxes that would be due if employer premium contributions were included in taxable income.⁴¹

Those with non-group coverage currently receive no tax subsidies, unless they are self-employed. We assume that self-employed unincorporated workers claim the tax deduction if they report non-group or employment-based coverage in their own name, and do not also have

income families choose more generous plans. To some extent, however, this finding could also reflect the correlation between age and income.

⁴⁰ We initially set the 1998 non-group premiums equal to 82 percent of the value of the 2001 premiums in order to account for premium growth between 1998 and 2001. However, we found that when we simulated the self-employment health insurance deduction using these premiums, we exceeded the total amount of the deduction reported by the IRS for 1998, while remaining close to target for the number of tax units claiming the deduction. We suspect, based on these results, that many of the self-employed opt for less expensive plans with higher deductibles than those assigned to the CPS (comprehensive plans with low deductibles). To compensate, we reduced the 1998 non-group premiums by 23 percent in order to produce results consistent with 1998 IRS data. For consistency, we adjusted all non-group premiums, not just those of the self-employed.

⁴¹ We assume that if the employer portion of health insurance premiums were taxable, employers would reduce their premium contribution such that the total amount paid in premiums plus additional payroll taxes would equal the value of the original premium contribution. We calculate the reduced employer contribution by dividing the current contribution by one plus the marginal tax rate on the employer payroll taxes for the worker. We then rerun the payroll tax and federal income tax simulations, adding the reduced employer contribution to wages. We calculate the

employment-based coverage as a dependent.⁴² To determine the value of the tax deduction for claimants, we compare the amount of federal income and payroll taxes each household would pay under current law to the taxes payable if no deduction were available.

Alternative Simulations

We simulate many alternative tax subsidy scenarios. First, we examine the effects of replacing the tax exclusion of employer health insurance contributions with a tax credit. The tax credit is designed to be revenue neutral among workers currently covered by employment-based coverage. Second, we examine the effects of making non-group premiums deductible to families who cannot claim the self-employed tax deduction. Third, we examine several options for providing refundable tax credits for non-group coverage. In each of these scenarios, we compute the change in tax liability as the tax liability under current law minus that under the alternative scenario.

Sample Sizes by Type of Coverage, 1998

Income	Employment-Based Health Insurance	Self-Employed Families with Nongroup Insurance	Non-Self-Employed Families with Nongroup Coverage	All Families with Coverage
1 to 9,999	427	136	292	836
10,000 to 19,999	2,065	170	338	2509
20,000 to 29,999	4,077	188	299	4476
30,000 to 39,999	4,419	192	255	4776
40,000 to 49,999	3,871	160	199	4123
50,000 to 74,999	7,671	251	330	8078
75,000 to 99,999	4,238	135	159	4421
100,000 to 199,999	3,905	155	167	4084
200,000 or More	832	86	62	949
All Incomes	31,505	1473	2101	34252

tax subsidy by subtracting the resulting payroll and federal income taxes from the original simulation in which the employer contribution is not taxed.

⁴² In addition, self-employed incorporated workers who report non-group coverage are simulated to take the self-employed health insurance deduction, unless they also have employment-based coverage as a dependent. Self-employed incorporated workers who report employment-based coverage are assigned employer-based premiums and are treated the same as employees.

Table 1.
Primary Source of Health Insurance for Workers Age 18 to 64,
by Demographic Category, 2001

Category	Number of Workers ^a (Millions)	Percentage Distribution by Source of Insurance ^b				
		Own Employer	Other Employer	Private Non-group	Public Insurance	No Insurance
All Workers	139.1	57.4	18.3	3.9	3.5	16.8
Industry						
Agriculture	2.9	25.9	18.5	11.9	4.8	38.9
Construction	10.1	45.1	15.1	5.3	2.9	31.6
Finance	8.8	65.2	19.5	4.7	1.7	9.0
Government	6.8	77.9	9.6	1.2	7.1	4.2
Manufacturing	19.9	74.4	10.5	1.8	1.7	11.6
Mining	0.6	71.5	9.9	4.6	0.9	13.2
Retail Trade	22.6	38.5	25.2	4.4	5.9	25.9
Services						
Professional	35.0	61.6	21.8	3.7	2.9	10.0
Other	17.1	43.4	21.4	5.8	5.0	24.5
Transportation	10.3	71.7	11.6	2.3	1.9	12.5
Wholesale Trade	5.2	65.5	15.1	3.8	1.8	13.9
Wage Rate^c						
Below \$5.00	8.9	19.1	28.2	6.6	10.5	35.7
\$5.00 to \$9.99	34.2	36.3	23.6	4.5	6.3	29.3
\$10.00 to \$14.99	33.3	60.2	17.9	3.4	2.8	15.8
\$15.00 or more	62.7	73.0	14.3	3.6	1.4	7.7
HIU Income As Percentage of Poverty Level						
Under 100	10.4	17.2	13.2	4.9	15.3	49.4
100 to 199	21.6	40.1	11.1	4.6	7.7	36.5
200 to 299	23.1	58.4	15.0	4.2	3.0	19.4
300 and over	84.1	66.6	21.8	3.6	1.1	6.9
Firm Size (Number of employees)						
Fewer than 10	25.3	27.0	26.5	11.7	4.5	30.3
10 to 24	13.5	42.2	23.5	4.5	3.9	25.8
25 to 99	17.8	57.7	17.7	2.7	3.2	18.7
100 to 499	18.7	65.9	16.3	2.1	2.8	12.9
500 to 999	8.1	68.4	16.2	2.1	2.3	11.0
1,000 or more	55.8	70.4	14.6	1.5	3.5	10.0
Age (Years)						
Under 30	35.4	40.9	24.0	3.6	5.8	25.6
30 to 39	35.3	60.8	16.1	2.9	3.5	16.6
40 to 49	36.7	62.8	17.8	3.9	2.4	13.1
50 to 64	31.7	65.9	15.1	5.4	2.3	11.3

Source: Urban Institute estimates based on the March 2002 Current Population Survey (CPS).

Notes:

- a. Includes permanent and temporary workers with annual earnings of at least \$1,000.
- b. 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.
- c. Defined as the worker's annual earnings divided by the product of number of weeks worked and estimated number of hours worked per week.

Table 2.
Tax Subsidies for Families with Employment-Based Health Insurance in 1998, by Income

(1) only income tax considered

Income	Percentage of families with ESI	Average Premium (\$)	Avg Employer Share of Premiums (%)	Average Subsidy (\$)	Tax Subsidy as a % of Premiums	Average After-Tax Premium (\$)	Tax Subsidy as a % of	
							Families with ESI	All Taxpayers
1 to 9,999	11%	1,884	66%	-12	-1%	1,896	-0.2%	0.0%
10,000 to 19,999	37%	2,725	68%	255	9%	2,470	1.8%	0.7%
20,000 to 29,999	63%	3,215	73%	426	13%	2,790	2.0%	1.2%
30,000 to 39,999	75%	3,685	75%	486	13%	3,199	1.7%	1.2%
40,000 to 49,999	81%	4,315	76%	555	13%	3,761	1.5%	1.2%
50,000 to 74,999	88%	5,008	76%	737	15%	4,272	1.4%	1.2%
75,000 to 99,999	90%	5,810	78%	1,129	19%	4,681	1.6%	1.4%
100,000 to 199,999	91%	6,173	78%	1,329	22%	4,844	1.3%	1.1%
200,000 or More	82%	5,846	79%	1,665	28%	4,181	0.7%	0.6%
All Incomes	70%	4,625	76%	760	16%	3,865	1.4%	1.0%

(2) income and payroll taxes

Income	Percentage of families with ESI	Average Premium (\$)	Avg Employer Share of Premiums (%)	Average Subsidy (\$)	Tax Subsidy as a % of Premiums	Average After-Tax Premium (\$)	Tax Subsidy as a % of	
							Families with ESI	All Taxpayers
1 to 9,999	11%	1,884	66%	177	9%	1,707	3.8%	0.4%
10,000 to 19,999	37%	2,725	68%	515	19%	2,210	4.3%	1.6%
20,000 to 29,999	63%	3,215	73%	747	23%	2,468	4.1%	2.6%
30,000 to 39,999	75%	3,685	75%	863	23%	2,822	3.5%	2.6%
40,000 to 49,999	81%	4,315	76%	1,005	23%	3,311	3.2%	2.6%
50,000 to 74,999	88%	5,008	76%	1,251	25%	3,758	2.9%	2.5%
75,000 to 99,999	90%	5,810	78%	1,648	28%	4,162	2.7%	2.5%
100,000 to 199,999	91%	6,173	78%	1,770	29%	4,404	1.9%	1.8%
200,000 or More	82%	5,846	79%	1,926	33%	3,920	0.9%	0.7%
All Incomes	70%	4,625	76%	1,188	26%	3,438	2.5%	1.8%

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Note: The first panel calculates income tax subsidies; the second adds the avoided Social Security and Medicare payroll taxes including both the employer and employee shares.

Table 3.
Tax Subsidies for Self-Employed Families with Nongroup Insurance in 1998, by Income

(1) self-employed deduction = 45% of premium

Income	Percentage of Families with Self-employed Nongroup (col 1)	Average Premium (\$) (col 2)	Average Subsidy (\$) (col 3)	Tax Subsidy as a % of Premiums (col 4)	Average After-Tax Premium (\$) (col 5)	Tax Subsidy as a % of After-Tax Income		After-Tax Premium as a % of After-Tax Income (col 8)
						Families with Self (col 6)	All Taxpayers (col 7)	
1 to 9,999	4%	2,966	26	1%	2,941	0.5%	0.0%	62%
10,000 to 19,999	3%	2,513	102	4%	2,411	0.8%	0.0%	19%
20,000 to 29,999	3%	3,170	159	5%	3,011	0.8%	0.0%	15%
30,000 to 39,999	3%	3,303	208	6%	3,095	0.8%	0.0%	11%
40,000 to 49,999	3%	3,378	246	7%	3,132	0.7%	0.0%	9%
50,000 to 74,999	3%	3,549	321	9%	3,229	0.7%	0.0%	7%
75,000 to 99,999	3%	3,524	391	11%	3,133	0.6%	0.0%	5%
100,000 to 199,999	4%	3,819	496	13%	3,323	0.5%	0.0%	3%
200,000 or More	9%	4,043	690	17%	3,353	0.3%	0.0%	1%
All Incomes	3%	3,344	278	8%	3,066	0.5%	0.0%	6%

(2) self-employed deduction = 100% of premium

Income	Percentage of Families with Self-employed Nongroup (col 1)	Average Premium (\$) (col 2)	Average Subsidy (\$) (col 3)	Tax Subsidy as a % of Premiums (col 4)	Average After-Tax Premium (\$) (col 5)	Tax Subsidy as a % of After-Tax Income		After-Tax Premium as a % of After-Tax Income (col 8)
						Families with Self (col 6)	All Taxpayers (col 7)	
1 to 9,999	4%	2,966	46	2%	2,920	1.2%	0.0%	75%
10,000 to 19,999	3%	2,513	191	8%	2,322	1.7%	0.1%	20%
20,000 to 29,999	3%	3,170	328	10%	2,842	1.8%	0.0%	15%
30,000 to 39,999	3%	3,303	448	14%	2,855	1.7%	0.1%	11%
40,000 to 49,999	3%	3,378	534	16%	2,844	1.6%	0.1%	9%
50,000 to 74,999	3%	3,549	689	19%	2,861	1.5%	0.0%	6%
75,000 to 99,999	3%	3,524	836	24%	2,688	1.4%	0.0%	4%
100,000 to 199,999	4%	3,819	1,080	28%	2,738	1.1%	0.0%	3%
200,000 or More	9%	4,043	1,536	38%	2,507	0.6%	0.1%	1%
All Incomes	3%	3,344	597	18%	2,746	1.2%	0.0%	5%

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Note: After-tax income is net of federal income and payroll taxes.

Table 4.
Premiums for Non-Self-Employed Families
with Nongroup Coverage in 1998, by Income

Income	Percentage of Families with Nongroup (col 1)	Average Premium (\$) (col 2)	Premium as a % of After-Tax Income (col 3)
1 to 9,999	8%	2,201	54%
10,000 to 19,999	6%	2,244	18%
20,000 to 29,999	5%	2,184	11%
30,000 to 39,999	4%	2,820	11%
40,000 to 49,999	4%	2,726	8%
50,000 to 74,999	3%	2,829	6%
75,000 to 99,999	4%	2,911	5%
100,000 to 199,999	4%	2,950	3%
200,000 or More	6%	2,732	1%
All Incomes	5%	2,562	7%

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Note: Premiums for health insurance purchased on the nongroup market are not deductible for those who are not self-employed, thus there are no tax subsidies in this case.

Table 5.
Tax Subsidies under Fully Phased in Current Law for All Families with Coverage in 1998, by Income

(1) only income tax considered

Income	Percentage of Families with Coverage (col 1)	Average Premium (\$) (col 2)	Average Subsidy (\$) (col 3)	Tax Subsidy as a % of Premiums (col 4)	Average After-Tax Premium (\$) (col 5)	Tax Subsidy as a % of		After-Tax Premium as a % of After-Tax Income (col 8)
						Families with Covg (col 6)	All Taxpayers (col 7)	
1 to 9,999	23%	2,239	2	0%	2,237	0.0%	0.0%	44%
10,000 to 19,999	45%	2,713	222	8%	2,491	1.6%	0.7%	18%
20,000 to 29,999	69%	3,211	402	13%	2,808	1.9%	1.3%	13%
30,000 to 39,999	81%	3,696	468	13%	3,227	1.6%	1.3%	11%
40,000 to 49,999	86%	4,315	541	13%	3,774	1.4%	1.2%	10%
50,000 to 74,999	92%	4,991	724	15%	4,267	1.4%	1.3%	8%
75,000 to 99,999	95%	5,793	1,108	19%	4,686	1.5%	1.5%	7%
100,000 to 199,999	95%	6,164	1,313	21%	4,851	1.2%	1.2%	5%
200,000 or More	94%	5,674	1,600	28%	4,075	0.7%	0.6%	2%
All Incomes	76%	4,561	726	16%	3,835	1.3%	1.0%	7%

(2) income and payroll taxes

Income	Percentage of Families with Coverage (col 1)	Average Premium (\$) (col 2)	Average Subsidy (\$) (col 3)	Tax Subsidy as a % of Premiums (col 4)	Average After-Tax Premium (\$) (col 5)	Tax Subsidy as a % of		After-Tax Premium as a % of After-Tax Income (col 8)
						Families with Covg (col 6)	All Taxpayers (col 7)	
1 to 9,999	23%	2,239	94	4%	2,145	2.2%	0.5%	50%
10,000 to 19,999	45%	2,713	435	16%	2,278	3.6%	1.6%	19%
20,000 to 29,999	69%	3,211	696	22%	2,515	3.8%	2.7%	14%
30,000 to 39,999	81%	3,696	818	22%	2,878	3.3%	2.7%	12%
40,000 to 49,999	86%	4,315	964	22%	3,351	3.1%	2.6%	11%
50,000 to 74,999	92%	4,991	1,214	24%	3,777	2.8%	2.6%	9%
75,000 to 99,999	95%	5,793	1,605	28%	4,189	2.7%	2.5%	7%
100,000 to 199,999	95%	6,164	1,733	28%	4,431	1.9%	1.8%	5%
200,000 or More	94%	5,674	1,828	32%	3,847	0.8%	0.8%	2%
All Incomes	76%	4,561	1,119	25%	3,441	2.4%	1.8%	7%

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Note: The fully phased in current law provides 100% deductibility for self-employed premiums.

Table 6.
Tax Subsidies for ESI Coverage when Replacing the Tax Exclusion with a Tax Credit in 1998

Income	Number of families with ESI (millions) (col 1)	Change in Tax Liability		Average (\$ (col 5))	Tax Subsidy as a % of		After-Tax Premium as a % of After-Tax Income (col 8)
		Income tax (\$ millions) (col 2)	Payroll tax (\$ millions) (col 3)		Premiums (col 6)	After-Tax Income (col 7)	
1 to 9,999	0.8	-1,210	149	-1,061	-1,349	81%	21.3%
10,000 to 19,999	3.7	-5,336	976	-4,360	-1,163	62%	11.3%
20,000 to 29,999	7.5	-7,943	2,420	-5,524	-734	46%	7.1%
30,000 to 39,999	8.4	-8,111	3,167	-4,944	-588	39%	5.2%
40,000 to 49,999	7.4	-5,712	3,346	-2,366	-318	31%	3.8%
50,000 to 74,999	14.9	-2,486	7,673	5,186	348	18%	2.0%
75,000 to 99,999	8.2	1,516	4,282	5,798	703	16%	1.5%
100,000 to 199,999	8.1	2,907	3,559	6,466	800	16%	1.0%
200,000 or More	1.7	1,316	449	1,765	1,024	16%	0.4%
All Incomes	60.9	-25,059	26,020	960	16	25%	2.3%

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

**Table 7.
Tax Subsidies for Nongroup Coverage where Nongroup Coverage Is Deductible in 1998**

Income	Number of families with Nongroup (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$)(col 3)			
1 to 9,999	0.6	-14	-23	1%	0.6%	53%
10,000 to 19,999	0.6	-94	-150	7%	1.2%	17%
20,000 to 29,999	0.5	-138	-251	11%	1.3%	10%
30,000 to 39,999	0.5	-201	-416	15%	1.5%	9%
40,000 to 49,999	0.4	-167	-430	16%	1.3%	7%
50,000 to 74,999	0.6	-301	-519	18%	1.1%	5%
75,000 to 99,999	0.3	-260	-746	26%	1.2%	3%
100,000 to 199,999	0.3	-260	-779	26%	0.8%	2%
200,000 or More	0.1	-116	-871	32%	0.4%	1%
All Incomes	4.0	-1,550	-385	15%	1.0%	6%

Note: Excludes self-employed with nongroup.

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Table 8.
Scenario 1: Tax Subsidies for Nongroup Coverage when Providing Tax Credits for Nongroup Coverage in 1998

Income	Number of families with Nongroup (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$)(col 3)			
1 to 9,999	0.6	-676	-1,147	52%	21.9%	20%
10,000 to 19,999	0.6	-752	-1,205	54%	8.8%	8%
20,000 to 29,999	0.5	-583	-1,062	49%	5.1%	5%
30,000 to 39,999	0.5	-523	-1,082	38%	3.9%	6%
40,000 to 49,999	0.4	-359	-925	34%	2.7%	5%
50,000 to 74,999	0.6	-236	-407	14%	0.9%	5%
75,000 to 99,999	0.3	-77	-220	8%	0.3%	4%
100,000 to 199,999	0.3	-52	-157	5%	0.2%	3%
200,000 or More	0.1	-13	-100	4%	0.0%	1%
All Incomes	4.0	-3,272	-812	32%	2.1%	4%

Note: Nongroup tax credits are \$1000 per adult and \$500 per child with a \$2500 family maximum; the credit is limited to 90% of the premium. Excludes self-employed with non-group.

Source: TRIM3 model, developed by the Urban Institute based on data from the 1999 March Current Population Survey.

Table 9.
Scenario 2: Distributional Effects of Providing Tax Credits to Families with Nongroup Coverage and to Some Families (dependent on income) with ESI, by Type of Coverage, 1998

(1) Families with Nongroup Coverage

Income	Number of families with Nongroup (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	0.6	-676	-1,147	52%	21.9%	20%
10,000 to 19,999	0.6	-752	-1,205	54%	8.8%	8%
20,000 to 29,999	0.5	-583	-1,062	49%	5.1%	5%
30,000 to 39,999	0.5	-523	-1,082	38%	3.9%	6%
40,000 to 49,999	0.4	-359	-925	34%	2.7%	5%
50,000 to 74,999	0.6	-236	-407	14%	0.9%	5%
75,000 to 99,999	0.3	-77	-220	8%	0.3%	4%
100,000 to 199,999	0.3	-52	-157	5%	0.2%	3%
200,000 or More	0.1	-13	-100	4%	0.0%	1%
All Incomes	4.0	-3,272	-812	32%	2.1%	4%

(2) Families with ESI Coverage

Income	Number of families with ESI (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	0.8	-194	-247	23%	8.6%	30%
10,000 to 19,999	3.7	-1,065	-284	29%	6.5%	16%
20,000 to 29,999	7.5	-1,667	-221	30%	5.3%	12%
30,000 to 39,999	8.4	-1,602	-191	29%	4.3%	11%
40,000 to 49,999	7.4	-1,276	-172	27%	3.7%	10%
50,000 to 74,999	14.9	-883	-59	26%	3.0%	9%
75,000 to 99,999	8.2	-160	-19	29%	2.8%	7%
100,000 to 199,999	8.1	-113	-14	29%	2.0%	5%
200,000 or More	1.7	-11	-6	33%	0.9%	2%
All Incomes	60.9	-6,972	-115	28%	2.7%	7%

(3) All Families

Income	Number of Families (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	1.3	-870	-647	36%	14.8%	26%
10,000 to 19,999	4.3	-1,816	-425	32%	7.1%	15%
20,000 to 29,999	8.0	-2,249	-282	31%	5.4%	12%
30,000 to 39,999	8.8	-2,125	-242	29%	4.3%	10%
40,000 to 49,999	7.7	-1,634	-212	28%	3.7%	10%
50,000 to 74,999	15.3	-1,119	-73	26%	3.0%	9%
75,000 to 99,999	8.4	-237	-28	28%	2.7%	7%
100,000 to 199,999	8.3	-165	-20	29%	1.9%	5%
200,000 or More	1.8	-24	-13	32%	0.8%	2%
All Incomes	63.9	-10,240	-160	28%	2.8%	7%

Notes: Nongroup tax credits are \$1000 per adult and \$500 per child with a \$2500 family maximum. The same credits are available for ESI coverage if the employer pays less than half the premium. Credits are limited to 90% of the premium.

Families with both nongroup and ESI coverage are included in each panel; thus, the total number of families in the final panel is greater than the combined number of families from the other panels.

Excludes self-employed.

Table 10.
Scenario 3: Distributional Effects of Providing Tax Credits to Some Families (Dependent on Income)
with Nongroup or ESI Coverage, by Type of Coverage, 1998

(1) Families with Nongroup Coverage

Income	Number of families with Nongroup (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	0.6	-676	-1,147	52%	21.9%	20%
10,000 to 19,999	0.6	-752	-1,205	54%	8.8%	8%
20,000 to 29,999	0.5	-583	-1,062	49%	5.1%	5%
30,000 to 39,999	0.5	-523	-1,082	38%	3.9%	6%
40,000 to 49,999	0.4	-359	-925	34%	2.7%	5%
50,000 to 74,999	0.6	-236	-407	14%	0.9%	5%
75,000 to 99,999	0.3	-77	-220	8%	0.3%	4%
100,000 to 199,999	0.3	-52	-157	5%	0.2%	3%
200,000 or More	0.1	-13	-100	4%	0.0%	1%
All Incomes	4.0	-3,272	-812	32%	2.1%	4%

(2) Families with ESI Coverage

Income	Number of families with ESI (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	0.8	-199	-253	23%	8.7%	30%
10,000 to 19,999	3.7	-1,220	-325	31%	6.9%	15%
20,000 to 29,999	7.5	-2,282	-303	33%	5.7%	12%
30,000 to 39,999	8.4	-2,342	-279	31%	4.6%	10%
40,000 to 49,999	7.4	-2,373	-319	31%	4.2%	9%
50,000 to 74,999	14.9	-2,279	-153	28%	3.2%	8%
75,000 to 99,999	8.2	-315	-38	29%	2.8%	7%
100,000 to 199,999	8.1	-177	-22	29%	2.0%	5%
200,000 or More	1.7	-23	-13	33%	0.9%	2%
All Incomes	60.9	-11,210	-184	30%	2.9%	7%

(3) All Families

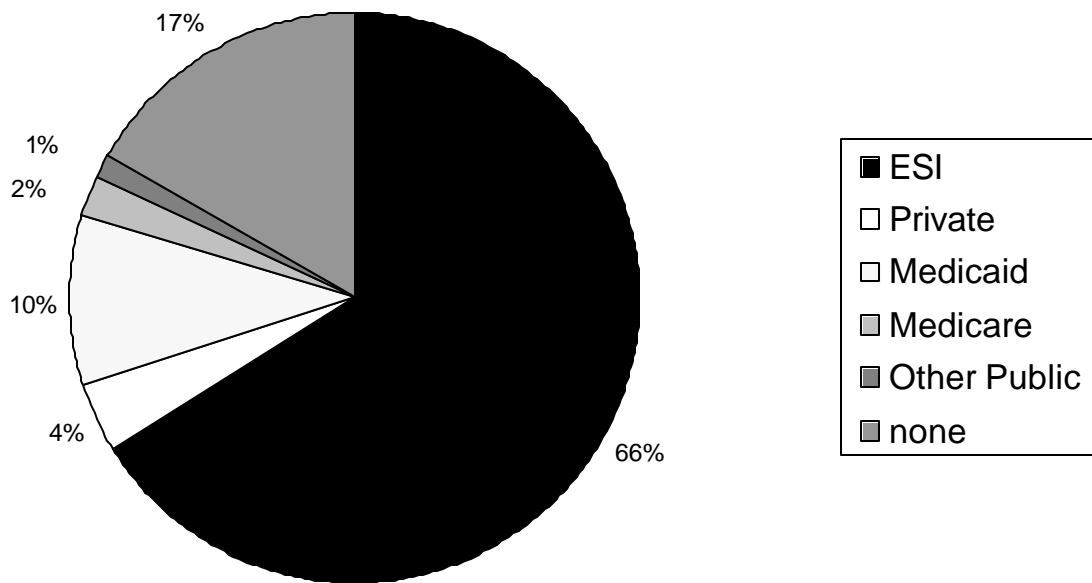
Income	Number of families (millions) (col 1)	Change in Tax Liability		Tax Subsidy as a % of Premiums (col 4)	Tax Subsidy as a % of After-Tax Income (col 5)	After-Tax Premium as a % of After-Tax Income (col 6)
		Total (\$ millions) (col 2)	Average (\$) (col 3)			
1 to 9,999	1.3	-875	-650	36%	14.9%	26%
10,000 to 19,999	4.3	-1,970	-461	34%	7.3%	14%
20,000 to 29,999	8.0	-2,864	-359	33%	5.8%	11%
30,000 to 39,999	8.8	-2,865	-326	31%	4.6%	10%
40,000 to 49,999	7.7	-2,731	-355	31%	4.2%	9%
50,000 to 74,999	15.3	-2,515	-164	28%	3.2%	8%
75,000 to 99,999	8.4	-392	-46	29%	2.8%	7%
100,000 to 199,999	8.3	-230	-28	29%	2.0%	5%
200,000 or More	1.8	-36	-20	33%	0.8%	2%
All Incomes	63.9	-14,478	-227	30%	2.9%	7%

Notes: Nongroup tax credits are \$1000 per adult and \$500 per child with a \$2500 family maximum. Tax credits for ESI coverage are provided regardless of what the employer pays and are \$400 per adult and \$200 per child with a \$1000 family maximum. Credits are limited to 90% of the premium.

Families with both nongroup and ESI coverage are included in each panel; thus, the total number of families in the final panel is greater than the combined number of families from the other panels.

Excludes self-employed.

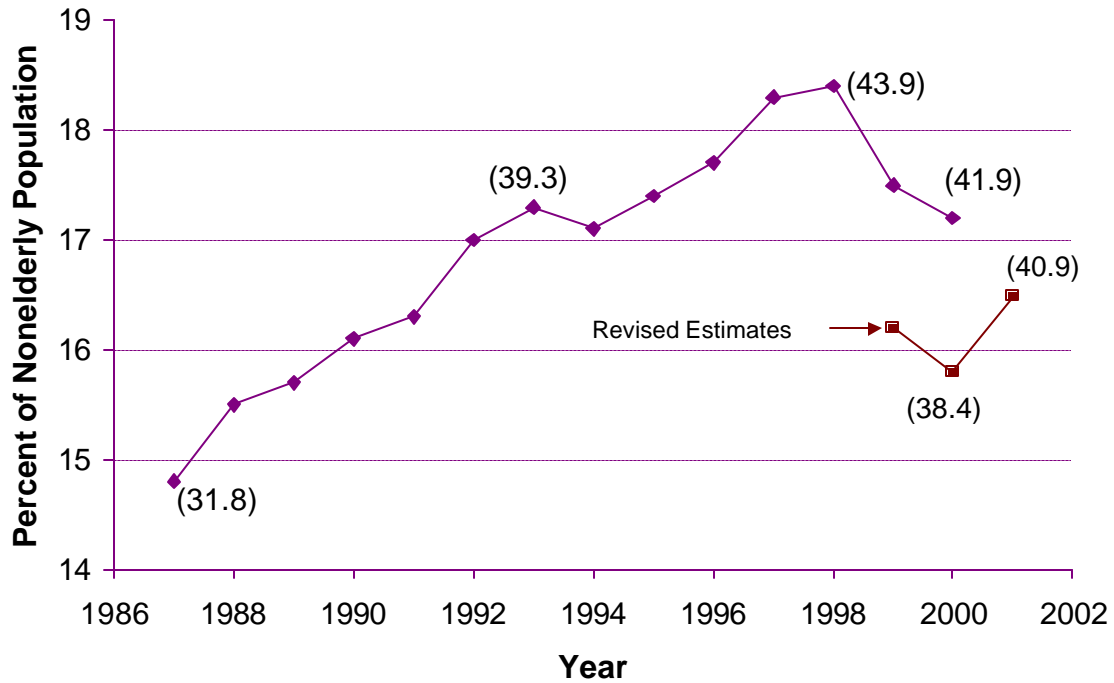
Figure 1.
Primary Source of Insurance for Nonelderly Americans in 2001



Source: Urban Institute Estimates based on data from the March 2002 Current Population Survey (CPS).

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

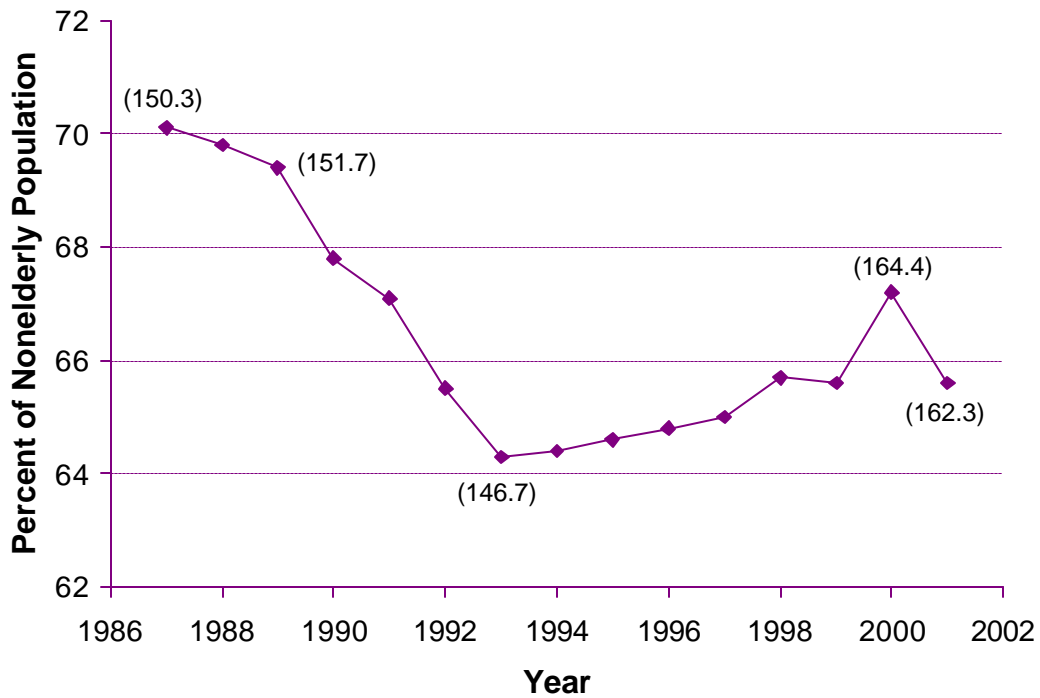
Figure 2.
Nonelderly Uninsured, 1987–2001



Source: Urban Institute calculations of Census Bureau Historical Health Insurance tables based on data from the 1988-2001 Current Population Survey (CPS) available at <http://www.census.gov/hhes/hlthins/historic/hihist2.html>, and Nelson and Mills (2001).

Notes: Numbers in parentheses represent millions of uninsured, for selected years. Revised estimates include as insured those who did not report having insurance on the CPS but then said that they were not uninsured in response to a verification question.

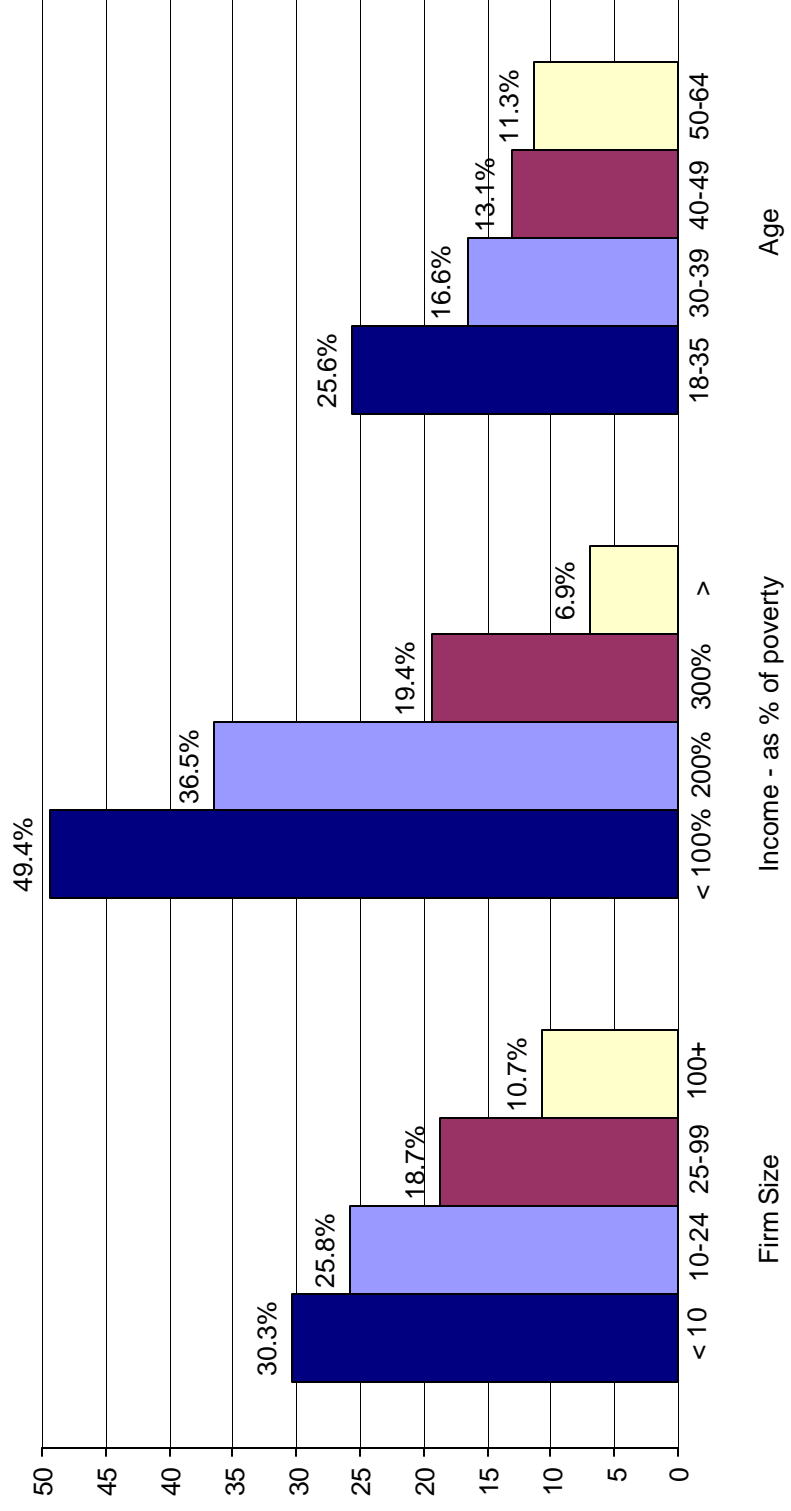
Figure 3.
Percent Covered by ESI, 1987-2001



Source: Fronstin (2002), Table 1, page 4.

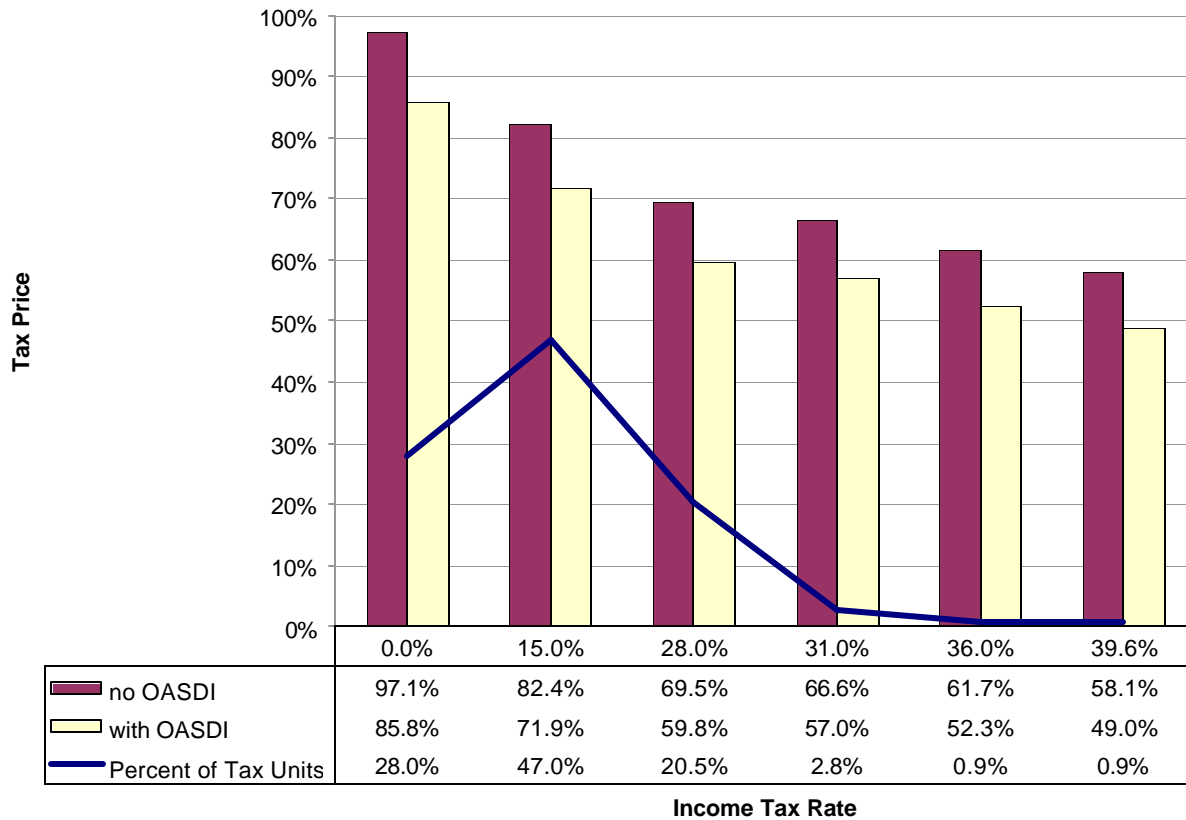
Notes: Percentages do not match exactly those in figure 1 because Urban Institute assigns coverage categories slightly differently than Fronstin. Numbers in parentheses represent millions covered by ESI, for selected years. Census 2000 weights are used for 2000 and 1990 weights are used for previous years.

Figure 4.
Percentage of Uninsured Workers Age 18–64
by Certain Demographic Characteristics, 2001



Source: Urban Institute estimates based on the March 2002 Current Population Survey (CPS).

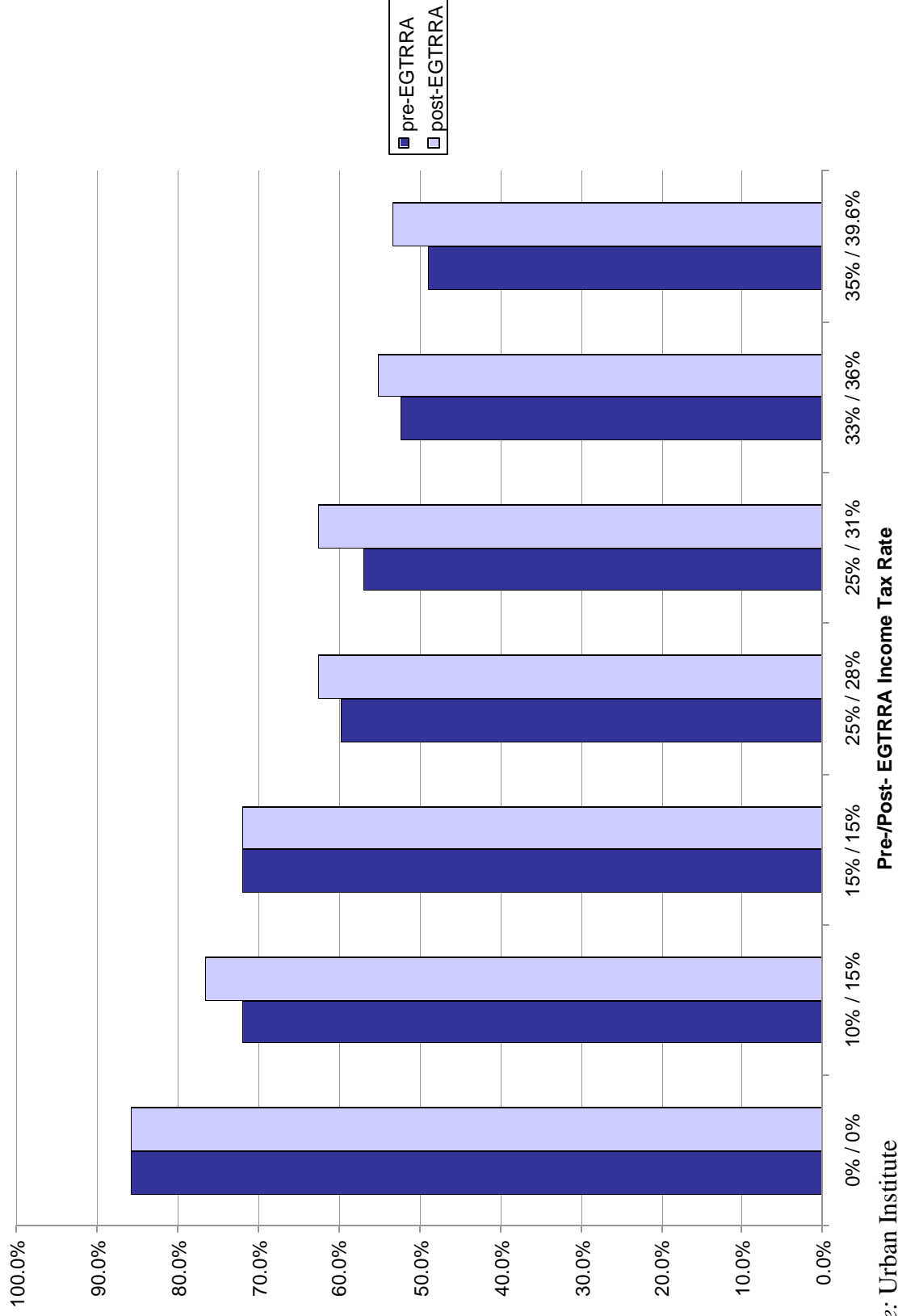
Figure 5.
Tax Price of Health Insurance by Income Tax Bracket, 2000



Source: Urban Institute.

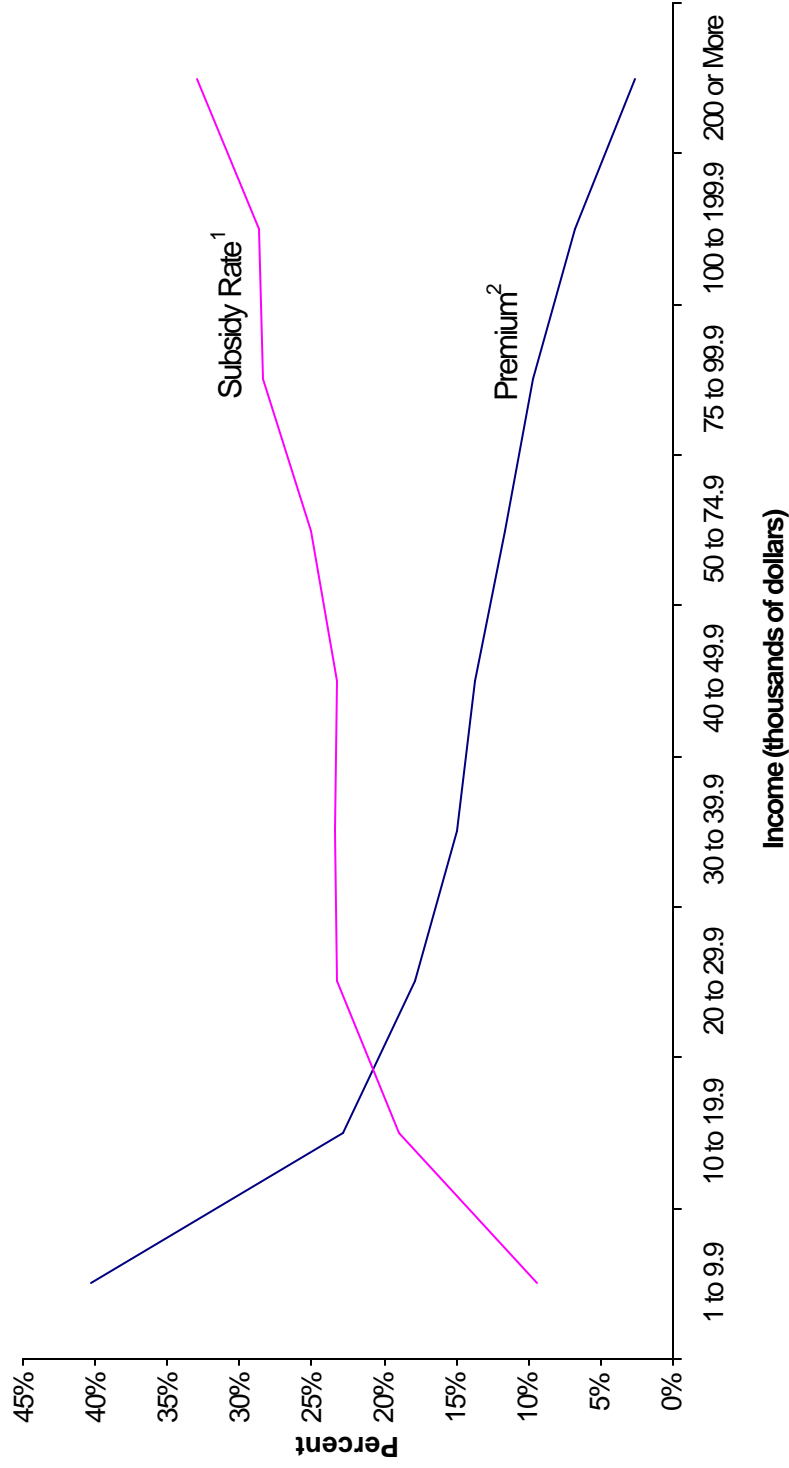
Note: Chart shows after-tax price for health insurance assuming that entire premium is paid out of before tax income. The first bar includes the effect of income and Medicare payroll tax. The second includes the effect of Social Security (OASDI) payroll taxes. The formula for the tax price is $(1 - \tau - \tau_p)/(1 + \tau_p)$, where τ is the marginal income tax rate and τ_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.) The subsidy rate on employer contributions toward health insurance (not shown in the figure) is $(\tau + 2\tau_p)/(1 + \tau_p)$ —that is, income tax plus both the employer and employee portion of payroll taxes, grossed up by the employer’s share of payroll tax.

Figure 6.
Tax Price of Health Insurance before and after EGTRRA (fully phased in)



Source: Urban Institute

**Figure 7.
Health Insurance Subsidy Rate Compared with Premium Burden, by Income, 1998**



Source: TRIM3 model, developed by the Urban Institute, using data from the March 1999 CPS.

¹The subsidy rate is defined as the tax subsidy as a percent of premiums.

²The premium burden is calculated as the pre-tax premium as a percent of after-tax income.

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