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Tax Subsidies for Expanding Health Insurance Coverage: Selected Policy Issues for the 108th Congress

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Summary

An issue of continuing concern to Congress is the number of Americans who lack health insurance coverage. In 2001, an estimated 41.2 million Americans were uninsured for the entire year, 99% of whom were under age 65. The number of non-elderly uninsured rose each year from 1987 to 1998 and then declined in both 1999 and 2000, before increasing again in 2001.

In response to the increase in the uninsured population, policymakers at the state and federal levels of government have been searching for effective, affordable, and politically feasible ways to expand access to health insurance coverage. While a variety of proposed solutions have been examined and debated, recent Congresses have shown a growing interest in tax-based approaches. In the 107th Congress, the Trade Act of 2002 established a refundable and advanceable tax credit for the purchase of qualified health insurance by individuals who lose their jobs because of foreign trade. A number of proposals to create tax subsidies for the expansion of health insurance coverage have surfaced in the 108th Congress, including measures to create two new tax-preferred health savings accounts (H.R. 2596 as incorporated into H.R. 1) and tax credits for small employers that provide health insurance coverage for eligible employees (H.R. 450, S. 10, S. 53, S. 86, and S. 414).

This report summarizes what is known abut the factors shaping the cost-effectiveness of tax subsidies for expanding health insurance coverage. In doing so, it reviews the principal findings of recent studies assessing the cost-effectiveness of a variety of proposed subsidies, many of which have been considered in recent Congresses. The report will be updated or revised to reflect important legislative activity, or to incorporate significant new research findings on the use of tax policy to improve health insurance coverage.

Tax policy can influence the demand for health insurance by altering its after-tax cost and terms of coverage. If the principal aim of policymakers is to expand health insurance coverage at a politically acceptable cost through the use of new tax subsidies, then certain factors would be critical in designing such subsidies. One is the type of subsidy being offered. Tax deductions are more valuable to individuals in higher tax brackets than those in lower tax brackets, but the vast majority of uninsured households fall in the lower brackets. Moreover, non-refundable tax credits for the purchase of health insurance may have little impact because nearly half of uninsured households have no federal income tax liability. Another factor to consider is who would be eligible for the tax subsidy. The cost per newly insured appears to depend critically on how narrowly a subsidy is targeted. Likely targets include low-wage firms, low-income workers whose employers do not offer health insurance, and all individuals who are ineligible for public or employer-provided insurance. Other important factors shaping the efficacy of proposed tax incentives to expand health insurance coverage include the type of health insurance policies eligible for the incentives, the shares of individual and family premiums they cover, and their ultimate policy objectives.

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An issue of continuing concern to Congress is the number of Americans who lack health insurance coverage. In 2001, the most recent year for which estimates are available, 41.2 million persons were uninsured[1], 40.9 million (or 99%) of whom were under age 65. Among the non-elderly population, this is the highest total ever reported by the U.S. Census Bureau, and it marks the first time since 1998 that the number of uninsured under age 65 exceeded 40 million. The number of non-elderly uninsured rose each year from 1987 to 1998 and then declined in both 1999 and 2000, before rising again in 2001. Much of the expansion since the mid-1980s has been due to sustained increases in the cost of health care, which in turn drive up private health insurance premiums.[2]

Congressional concern about the size of the uninsured population has multiple roots. One is the adverse health effects associated with a lack of health insurance coverage. Compared to insured individuals, individuals with no or inadequate health insurance are more likely to postpone or do without needed health care, incur burdensome personal debts for care they receive, be denied access to health care, be hospitalized for preventable health problems, and have a greater likelihood of being diagnosed with late-stage breast, prostate, colorectal, or skin cancer.[3] Another source of congressional concern is the economic costs arising from being uninsured. According to recent study of the tradeoffs in using tax credits to expand health insurance coverage, the uninsured pay only 30% of the actual cost of their care.[4] The cost of uncompensated medical care received by uninsured individuals is passed on to the insured in the form of higher health insurance premiums; to local, state, and

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[1] There is some question about how many of these individuals can be considered chronically uninsured. The estimate is intended to capture those who were without health insurance during all of 2001. Nonetheless, in recent testimony before the Senate Special Committee on Aging, former Congressional Budget Office Director Dan Crippen claimed that the number of Americans who are uninsured for more than one year at a stretch "is substantially lower then 40 million, perhaps as much as 20 million lower than 40 million." (See "Ex-CBO Head Urges Focus on Uninsured Who Remain Without Coverage Over Time," *Daily Report for Executives*, Bureau of National Affairs, March 11, 2003, p. A-37.)

[2] Harvey S. Rosen, *Public Finance*, 6th edition (New York: McGraw-Hill Irwin, 2002), p. 211.

[3] Kaiser Commission on the Uninsured and Medicaid, *The Uninsured: A Primer* (Washington: Henry J. Kaiser Family Foundation, March 2002), pp. 6 and 8.

[4] Mark Pauly and Bradley Herring, "Expanding Coverage Via Tax Credits: Trade-Offs and Outcomes," *Health Affairs*, vol. 20, no. 1, Jan./Feb. 2001, p. 15.

federal governments in the form of higher subsidies for uncompensated care; and to health care providers in the form of reduced incomes.[5] Finally, congressional concern about the uninsured population also reflects a view held by many Americans that health care is a merit good. According to this view, all individuals, regardless of ability to pay, ought to have access to adequate health care. Exponents also argue that if choices must be made, they should be done so on the basis not of a patient's income or wealth but of factors related to the cost-effectiveness of recommended medical care, such as the age and sex of a patient or the appropriateness and cost of prescribed treatments.

These concerns have led policymakers at the state and federal levels of government to search for effective, affordable, and politically feasible ways to expand access to adequate health insurance coverage. While a variety of proposed solutions have been analyzed and debated – including the creation of unrestricted medical savings accounts and a single-payer health care system – recent Congresses have shown a growing interest in tax-based approaches to increase this coverage.[6] In the 107th Congress, the Trade Act of 2002 (P.L. 107-210) established a new refundable tax credit for the purchase of health insurance by individuals who receive or are eligible to receive trade adjustment assistance and who are between the ages of 55 and 64 and receive benefits from the Pension Benefits Guaranty Corporation.[7]

A number of proposals to establish new or expand existing tax incentives for health insurance coverage have surfaced in the 108th Congress.[8] For example, in late

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[5] There is some uncertainty over the amount of uncompensated care received by the uninsured. A major difficulty with many available estimates is that the data used to generate them are flawed. The latest attempt to avoid this difficulty is a study by two senior analysts from the Urban Institute. According to the study, uninsured individuals received an estimated $35 billion in uncompensated care in 2001, or about 3% of total personal health care spending. Federal, state, and local governments covered an estimated 87% of that amount through a combination of grants, direct provision of care, appropriated funds, and special payments under Medicare and Medicaid. See Jack Hadley and John Holahan, "How Much Medical Care Do the Uninsured Use, and Who Pays for It?," *Health Affairs*, Web Exclusive: [http://www.healthaffairs.org], visited Feb. 12, 2003, pp. W3-78.

[6] This is not to imply that there are no significant differences between congressional Republicans and Democrats over the use of tax subsidies to reduce the uninsured population. The two sides do not fully agree on some critical issues, such as the merits of targeting subsidies at non-group coverage and the need for reforms of the private health insurance industry to discourage rating and underwriting practices that make it difficult for high-risk, low-income individuals to obtain adequate, affordable coverage. See Robert Cunningham, "Joint Custody: Bipartisan Interest Expands Scope of Tax-Credit Proposals," *Health Affairs*, Web Exclusive [http://www.healthaffairs.org], visited Sept. 18, 2002, pp. W290-W298.

[7] The credit is equal to 65% of health insurance premiums paid by eligible persons for policies covering themselves and qualifying family members. It can be paid in one of two ways. First, the Internal Revenue Service can pay the credit directly to taxpayers when they file their annual tax returns. Second, the IRS can pay the credit directly to a health insurer on a monthly basis, provided the eligible taxpayers first pay their 35% share of the premium.

[8] For a brief overview of legislative proposals in the 108th Congress to expand tax benefits for health insurance, see CRS Issue Brief IB98037, *Tax Benefits for Health Insurance:*

June, the House passed a bill (H.R. 2596 as incorporated into the version of H.R. 1 passed by the House) that, among other things, would create two new personal savings accounts to pay for medical expenses not reimbursed under health insurance plans with tax advantages similar to those available to current holders of Archer medical savings accounts: health savings accounts (HSAs) and health savings security accounts (HSSAs).[9] The former would apply to individuals covered under health plans with an annual deductible of at least $1,000 for individual coverage and at least $2,000 for family coverage; the latter would apply to uninsured individuals or to individuals covered under health plans with an annual deductible of at least $500 for individual coverage and at least $1,000 for family coverage. For both accounts, individual contributions would be tax-deductible, even if the taxpayer does not itemize; employer contributions would be tax-exempt; family member contributions would be made on an after-tax basis; investment earnings would accrue free of tax; and distributions would be tax-exempt if they are used for qualified medical expenses. H.R. 2596 (as incorporated into the version of H.R. 1 passed by the House) also would permit up to $500 in unused health care flexible spending accounts to be carried over, contributed to a qualified retirement or deferred compensation plan, or contributed to a HSA.

In addition, Representative Cliff Stearns has introduced a bill (H.R. 198) to permit individuals to deduct 100% of out-of-pocket payments for health insurance coverage and prescription drugs, regardless of whether they itemize. H.R. 583, introduced by Representative Mark Kennedy, would establish a refundable, advanceable tax credit for the purchase of qualified health insurance by individuals not covered by public insurance programs or subsidized employer health plans. And at least five bills (S. 10, S. 53, S. 86, S. 414, and H.R. 450) to establish tax credits for small firms that offer health insurance to employees have been introduced; in each case, the credit would equal a certain percentage of the cost incurred by an eligible employer in providing health insurance coverage to employees.

The Bush Administration also favors a tax-based approach to reducing the uninsured population. In his budget request for FY2004, President Bush proposes that Congress pass a limited, means-tested refundable tax credit for the purchase of non-group health insurance by individuals not covered under employer or public health plans.[10]

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[8] (...continued)
Current Legislation, by Bob Lyke, pp. 9-13.

[9] For more details on the design of the two proposed health savings accounts and the similarities and differences between them and existing health savings accounts, see CRS Report, *Tax-Advantaged Accounts for Health Care Expenses: Side-by-Side Comparison*, by Bob Lyke and Chris L. Peterson.

[10] More specifically, the Bush Administration wants to establish a refundable tax credit for the purchase of health insurance by individuals under age 65 who are not covered under public or employer health plans. The credit would subsidize up to 90% of the health insurance premium and would be capped at $1,000 per adult and $500 per child for up to two children. Single filers with no dependents and a modified adjusted gross income (MAGI) of up to $15,000 would be eligible for the maximum credit; the credit phases out

(continued...)

The use of tax policy to shrink the uninsured population appeals to some for a variety of reasons – although proponents of tax subsidies to expand health insurance coverage do not necessarily agree on which reasons are paramount. Foremost among them are a preference for tax incentives to government spending in achieving important social goals; a recognition that existing federal tax subsidies for health insurance coverage are inequitable in that they exclude the non-elderly who are unemployed or drop out of the workforce; and the belief that private insurance companies would be more efficient and effective than government agencies in providing Americans with a range of desirable health insurance plans. Others, however, doubt that tax subsidies are an efficient or effective way to achieve substantial reductions in the size of the uninsured population. They tend to favor more direct solutions, such as public health insurance programs targeted at the uninsured.

This report summarizes what is known about the key factors shaping the cost-effectiveness of tax subsidies for expanding health insurance coverage. It opens with an examination of the economic justification for government intervention in the market for health insurance. The report then moves on to discuss important considerations in designing tax subsidies for expanding health insurance coverage and concludes with a review of the principal findings of recent studies assessing the cost-effectiveness of a variety of proposed tax subsidies, many of which mirror proposals considered in recent Congresses. The report will be updated or revised to reflect legislation to expand federal tax incentives for health insurance passed by a full committee in the House or Senate, or to incorporate the findings of significant new studies of the cost-effectiveness of such incentives.

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[10] (...continued)
completely at a MAGI of $30,000. All other filers with a MAGI up to $25,000 would be eligible for the maximum credit. In the case of a household consisting of two adults and two children, the credit would phase out completely at a MAGI of $60,000. Taxpayers could claim the credit either on their federal tax returns or through reductions in their premium payments equal to the credit they are due. If they choose the second option, health insurers would receive reimbursements from the Treasury Department equal to the amount of the credit. Eligibility for the advance credit would be based on an individual's tax return for the previous year. Health plans eligible for the credit would need to meet minimum coverage criteria. Individuals could purchase these plans through the non-group market, private purchasing groups, state-sponsored purchasing pools, or state high-risk pools.

Rationale for Government Intervention in the Market for Health Insurance

Mainstream economic theory holds that markets are most likely to achieve their best possible outcomes when governments refrain from intervening in their operations. Yet one of the defining characteristics of the U.S. health insurance market is the dominant role played by state and federal health insurance programs and tax subsidies for health insurance.[11] In 2001, for example, spending on Medicare and Medicaid (which provide health insurance for the elderly and a large number of the poor and disabled) and the State Children's Health Insurance Program totaled $454.8 billion; and the federal government lost an estimated $65.7 billion in tax revenues because of the tax exclusion for employer-provided health insurance, according to the Joint Committee on Taxation. On what economic grounds can such involvement be justified?

Conventional economic analysis suggests two possible grounds. On the one hand, mainstream economic theory holds that social welfare is enhanced by the widespread availability of actuarially fair insurance. Most individuals are risk-averse to some degree, and risk-averse individuals are thought to be better off when they can reduce their financial risks by transferring them to entities with a comparative advantage in risk bearing because of their capacity for risk pooling and diversification (e.g., private insurance companies). Thus, most individuals would want to buy enough health insurance, provided the cost reflects their expected annual losses from health problems. Health economists seem to agree that health insurance is likely to yield maximum social welfare gains when coverage is widespread among all risk groups, the potential losses from health problems are large, and the probabilities of suffering such problems cannot be known for specific individuals.

On the other hand, if the market for health insurance were left to its own devices, there would be no certainty that health insurance coverage would produce a net welfare gain. Instead of the emergence of broad, actuarially fair insurance coverage, one might find that available coverage would be excessive in many cases, and too few individuals would have adequate and affordable insurance coverage. Undesirable outcomes such as these may arise because the provision of health care is vulnerable to four market failures: adverse selection, moral hazard, incompleteness, and the existence of free riders in the utilization of medical care.[12]

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[11] For an overview of existing federal tax subsidies for health insurance, see CRS Issue Brief IB98037, *Tax Benefits for Health Insurance: Current Legislation*, by Bob Lyke, pp. 2-7.

[12] The health care market appears riddled with imperfections. In addition to the three problems discussed here, consumers and health insurance companies face imperfect information relating to the skills of doctors, health profiles of patients, and the benefits of treatments and procedures; competition in the provision of health care services is limited; and providers whose principal objective goes beyond the minimization of costs or maximization of profits play a large role in the delivery of health care. For more details on these market failures, see Joseph E. Stiglitz, *Economics of the Public Sector*, 3rd edition (New York: W.W. Norton, 2000), pp. 308-311.

Adverse selection refers to a process which is likely to emerge in the health insurance market when buyers of particular policies have greater risks of illness and injury than the average potential buyer. It is most likely to materialize when participation in health insurance coverage is voluntary, risk pools are small and dominated by experience rating, and a multitude of insurers vie for market share by offering consumers a range of plans with varying benefits. In general, the average buyer of a health insurance plan has an above-average risk of developing serious health problems. Such a tendency is rooted in the fact that a very small share of the U.S. population accounts for a large share of spending on health care in a given year.[13] This disparity, if uncorrected by policy intervention, can touch off an upward spiral in insurance premiums driven by efforts by insurers to raise rates to cover losses from unanticipated claims. In response, individuals with relatively low risks (e.g., young, healthy adults) may choose to become uninsured or switch to cheaper policies offering less coverage, while individuals with relatively high risks (e.g., middle-aged adults who smoke, do not exercise regularly, and are overweight) face the choice of paying premiums far above their expected losses, switching to cheaper policies offering inadequate coverage, or becoming uninsured and relying on charity care as needed. The prevalence of adverse selection in non-group markets gives insurance companies an incentive to engage in a practice known as "cherry picking," where they focus on selling health insurance to those with relatively low risks.

Among health economists, moral hazard refers not to a character defect but to the excessive utilization of health care fostered by having health insurance and the associated efficiency losses. Health insurance can have this effect mainly because insured individuals bear only a fraction of the actual cost of the health care they receive, weakening their incentive to avoid behaviors that are known to contribute to health problems and dulling their awareness of the relationship between the marginal costs and benefits of the care they receive. In theory, insured individuals will consume health care until the marginal benefits match the marginal out-of-pocket costs, which under most policies are equivalent to deductibles and co-payments. Generous health insurance coverage can push these costs far below the actual marginal costs of the medical services. Of course, insurance companies are well aware of the damage moral hazard can inflict on their financial viability; so they try to contain or limit it through the imposition of deductibles, co-payments, coverage limits and exclusions, managed care plans, mandatory prior approvals of certain treatments and procedures, and financial incentives for health-care providers to restrict the use of costly procedures.

Moreover, it appears that the health insurance market fails to satisfy a necessary condition of economic efficiency: the existence of what economists call "complete markets." When a market fails to provide a good or service even though individuals would be willing to pay more than the average cost of providing it, economists consider the market to be incomplete. And they regard the lack of completeness as a market failure. Some argue that the private health insurance market is incomplete because it usually does not provide guaranteed renewability or insurance against

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[13] In 1992, for example, 10% of Americans accounted for 72% of personal health expenditures.

future health risks, only current ones.[14] Most individuals cannot purchase health insurance at fixed rates and under fixed terms for more than one year in advance. Yet it is thought that many individuals would be willing to purchase insurance against future health risks at a reasonable cost, if it were provided.

Finally, in every state, certain health care providers – mainly public hospitals – have a legal obligation to provide treatment to someone suffering from a life-threatening or serious health problem, irrespective of his or her ability to pay. Although these mandatory-care laws can enhance social welfare by ensuring that everyone receives at least a modicum of health care when it is urgently needed, they can also undermine welfare by diluting the incentive to purchase actuarially fair health insurance, especially for low-income individuals with few financial assets to protect. As a result, mandatory-care laws have the unintended effect of laying the foundation for a classic market failure known as the free rider problem. In general, this problem can be seen as a byproduct of the existence of public goods, one of whose defining traits is the impossibility of excluding anybody from consuming them. Laws granting everyone the right to receive emergency care, regardless of ability to pay, effectively endow health care with this trait, thereby giving rise to a free-rider problem. It is not clear how the welfare gains from these laws compare with the welfare losses.

For most health economists, the presence of these market failures provides ample justification for government intervention in the health insurance market. In their view, a central issue for policymakers is not whether to intervene.   Rather, it is to devise politically acceptable policy measures that attempt to strike a balance between the welfare losses arising from moral hazard and the welfare gains inherent in the risk spreading provided by actuarially fair health insurance coverage.

Important Considerations in Designing Tax Incentives to Expand Health Insurance Coverage

If the policy objective is to achieve a sizable reduction in the uninsured population and the preferred policy instrument is tax policy, then a critical task for policymakers is to devise tax subsidies that accomplish the goal at an acceptable budgetary cost. Recent research into the probable effects of tax policy on health insurance coverage sheds light on several factors that should be carefully considered in designing such subsidies. Each is examined in some detail below.

Current Federal Tax Subsidies for Health Insurance

This may seem obvious, but one important factor to weigh in devising a tax-based approach to expanding health insurance coverage is the current mix of federal tax subsidies for health insurance coverage. Any such approach cannot avoid being constructed around a decision about whether to jettison, modify, or retain these

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[14] See Leonard E. Burman and Amelia Gruber, "First, Do No Harm: Designing Tax Incentives for health Insurance," *National Tax Journal*, vol. 59, no. 3, Sept. 2001, p. 480.

subsidies. The reason lies in the central role they play in the current system of health insurance coverage for the non-elderly.

Although the present tax code contains a variety of subsidies for health insurance, three in particular have facilitated the emergence of this system: the tax exclusions for employer-paid health insurance premiums, so-called cafeteria plans, and flexible spending accounts.[15] They are related in that each pertains to health insurance coverage obtained through employers. Under these exclusions, it is possible for individuals who receive health insurance through employers to pay no federal or state income and payroll taxes on their own and their employers' contributions for the premiums. In combination, the exclusions substantially lower the after-tax price of health insurance relative to other goods and services workers may consume and subsidize the purchase of employment-based group health insurance relative to non-group coverage.[16] These exclusions are so deeply embedded in the current structure of health insurance coverage for the non-elderly that their removal could trigger a significant increase in the uninsured population. In a recent study, Jonathan Gruber, an economist at MIT who has written extensively on the impact of tax policy on health insurance coverage among the non-elderly, estimated that the elimination of the exclusions at the federal and state levels would lead to a 14% drop in the number of employers offering health insurance to employees, which in turn would result in a decrease in the number of individuals covered under employment-based health plans of over 22 million and a 50% decline in total spending on these plans.[17]

Relevant Characteristics of the Non-Elderly Uninsured Population

Policymakers seeking to craft cost-effective tax subsidies to expand health insurance coverage should also take into account characteristics of the non-elderly uninsured population that are relevant to tax policy.

Several such characteristics deserve mention. First, the non-elderly uninsured are disproportionately concentrated in low-income households: in 2001, nearly 38% of uninsured individuals resided in households with annual incomes below $20,000. It comes as no surprise, then, that a very high proportion of uninsured taxpayers fall in lower tax brackets, and that a significant proportion have no federal income tax liability.[18] Second, while most uninsured individuals under age 65 live in households

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[15] For an overview of current federal tax benefits for health insurance, see CRS Issue Brief IB98037, *Tax Benefits for Health Insurance: Current Legislation*, pp. 1-8.

[16] Jonathan Gruber, an economist at MIT, has estimated that the typical worker in the 15% federal income tax bracket, facing a state income tax rate of 5% and a combined payroll tax rate of 15.3%, pays $0.65 after taxes for $1 of health insurance, meaning that the tax price is 0.65. See Jonathan Gruber, *Taxes and Health Insurance*, Working Paper 8657 (Cambridge, MA: National Bureau of Economic Research, Dec. 2001), p. 4.

[17] Ibid., pp. 26-27.

[18] Gruber has also estimated that in 1997, 90% of uninsured taxpayers with tax liabilities
(continued...)

headed by individuals holding full- or part-time jobs, over 75% of uninsured workers are not offered health insurance by their employers.[19] Third, many uninsured workers are employed by small firms: in 2001, over 50% of uninsured workers held jobs with firms having fewer than 100 employees.[20] Finally, the previous characteristics notwithstanding, the uninsured under age 65 do not constitute an isolated, easily identified or targeted, and stable population group. Rather, they are scattered in varying and shifting degrees throughout all income groups and firm sizes. For instance, in 2001, 24% of uninsured individuals lived in households with annual incomes of $50,000 or more, and 23% of uninsured workers were employed by firms with 500 or more employees.[21]

Relevant Features of Health Insurance Market for the Non-Elderly

It is also useful to consider certain features of the existing structure of health insurance coverage for the non-elderly in designing tax-based subsidies to expand health insurance coverage. Of particular interest for policymakers are the dominant role of employers as sources of health insurance coverage, the advantages and disadvantages of group coverage provided through the workplace, and the limitations of coverage provided in the non-group market.

In 2001, nearly 66% of non-elderly Americans received health insurance coverage through employers; another 15% were covered through public health insurance programs; and about 7% obtained coverage through insurance plans purchased in the non-group or individual market. Gruber has noted that in recent decades, more than nine out of 10 privately insured non-elderly individuals received their coverage from an employer, either their own, their spouse's or their parents'. Most workers who are offered insurance by their employers, regardless of wage and salary income, decide to take it, although the take-up rate appears to have declined somewhat in recent years as employers have passed on to employees increases in the cost of enrolling in health plans.[22] The offering of insurance varies considerably by firm size. In general, smaller firms are much less likely to offer coverage: in 2001, a worker in a firm with fewer than 10 employees was almost three times as likely to be uninsured as a worker in a firm with 1,000 or more employees. Nevertheless, small firms paying high average wages are as likely to offer coverage as large firms;

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[18] (...continued)
belonged to the 15% tax bracket, and 50% had no federal tax liability. See Jonathan Gruber, *Tax Subsidies for Health Insurance: Evaluating the Costs and Benefits*, Working Paper 7553 (Cambridge, MA: National Bureau of Economic Research, Feb. 2000), p.7.

[19] Gruber, *Taxes and Health Insurance*, p. 7.

[20] CRS Report 96-891, p. 6.

[21] EBRI, pp. 11 and 12.

[22] David M. Cutler, *Employee Costs and the Decline in Health Insurance Coverage*, Working Paper 9036 (Cambridge, MA: National Bureau of Economic Research, July 2002), pp. 25-27.

and eligibility, coverage, and take-up rates are similar among employees in small and large firms that offer health insurance coverage.[23]

There are noteworthy advantages and disadvantages to tying health insurance coverage to employment. On the one hand, the work place serves as a convenient, almost logical way to pool health insurance risks, since most individuals choose their employers for reasons other than expected usage of medical care in coming years. In general, the larger the employment group, the greater the scope for the risk sharing and community rating that enhances social welfare. Seen from this perspective, employment-based insurance has the potential to preclude the adverse selection prevailing in the non-group insurance market. Furthermore, insurance administrative, underwriting, and marketing costs are lower for large groups than individuals.[24] Large groups also have greater bargaining power in extracting price and other concessions from insurers and health-care providers.

On the other hand, employer-based health insurance serves as an imperfect risk-pooling mechanism in the case of small firms. In a firm with 20 employees, for instance, if two individuals suffer a serious illness, the average cost of health insurance can rise markedly the following year. In addition, making employers the primary source of health insurance coverage for the non-elderly can contribute to efficiency losses by retarding job mobility. Insured workers may be disinclined to work for another employer out of fear of losing their coverage or having less desirable options for coverage. Another drawback to employer-provided health insurance is that it offers limited renewability. Those who become unemployed may lose their coverage, and there are no federal laws to keep employers from dropping coverage when faced with huge premium increases. Finally, a system of employment-based health insurance coverage can foster production inefficiencies by implicitly favoring large firms over small firms. The source of the inefficiencies is the considerable cost advantages that large firms typically enjoy over small firms in offering the same package of health benefits to employees.[25]

Some proposals to establish new tax subsidies to expand health insurance coverage would rely on the non-group market to achieve their objectives. In 2001, 16.4 million individuals were covered under non-group policies. Coverage under these policies declined gradually between 1993 – when it reached 17.5 million

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[23] Jason Lee, *Are Health Insurance Premiums Higher for Small Firms?*, Research Synthesis Report No. 2 (Princeton, NJ: Robert Wood Johnson Foundation, Sept. 2002), pp. 4-6.

[24] According to one authoritative estimate, health insurance loading fees as a percent of benefits paid fall in the range of 60% to 80% for individual policies, compared to 8% to 15% for groups of 201 to 1,000 persons. These fees cover the operating costs of insurance companies and represent a mark-up over the expected payout of benefits under a policy. See Charles E. Phelps, *Health Economics*, 3rd Edition (Boston: Addison Wesley, 2003), pp. 342-343.

[25] Small firms pay more than large firms for the same health insurance coverage because the costs of marketing and administration are spread over fewer workers in small firms and underwriting costs typically are greater for small firms. See U.S. Congressional Budget Office, *The Tax Treatment of Employment-Based Health Insurance* (Washington: March 1994), pp. 21-22.

persons – and 2000. Many of those who purchase insurance in the non-group market are self-employed, retired but not yet eligible for Medicare, working part-time, or divorced or widowed.[26] Access to and the cost of non-group coverage depend critically on a person's health status, age, and place of residence. For young adults in good health, premiums can be lower than in the employer-based group market; but for older adults with chronic health problems, premiums tend to be much higher. Generally, individuals in poor health can face formidable obstacles to obtaining adequate and affordable coverage. Insurers often decline to cover persons with pre-existing conditions, impose severe limits on the coverage they will provide for those conditions, or add high premium surcharges to cover those conditions.[27] Many states have responded to these practices by establishing high-risk insurance pools; and some have enacted law barring insurers from excluding coverage of pre-existing conditions. But they seem to have had little impact on trends in the uninsured population in the past 10 to 15 years.

Price Sensitivity of the Demand for Health Insurance

Tax subsidies attempt to boost the demand for health insurance by reducing its tax price (or after-tax cost). This relationship implies that in designing tax subsidies to shrink the uninsured population, it is useful to know how sensitive the decision to purchase health insurance is to reductions in its tax price. Given the structure of the health insurance coverage for the non-elderly, tax policy can work through three basic channels to expand coverage: (1) subsidies to employers to offer coverage; (2) subsidies to employees to accept coverage that is offered; and (3) subsidies to uninsured individuals to purchase non-group coverage. These options suggest that policymakers might consider the responsiveness to tax price changes of the decision by employers to offer coverage, the decision by employees to take up coverage if it is offered, and the decision of uninsured individuals to purchase non-group coverage, together with the ways in which these decisions may feed back on one another.

Considerable research has been done on the behavioral responses of firms and individuals to changes in the cost of health insurance. A recent study by Gruber reviewed this literature.[28] One of his findings was a striking lack of consensus on the price sensitivity of the three decisions shaping the efficacy of tax subsidies as a policy tool to expand health insurance coverage. But such a lack was not as problematic for policymakers as it may have seemed upon first glance because of important differences in focus, methodology, data, and applicability of results among the studies considered by Gruber. He compared the strengths and weaknesses of available estimates of price sensitivity and identified those he thought were useful for the purpose of forecasting the impact of proposed tax subsidies on health insurance coverage.

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[26] Karen Pollitz, Richard Sorian, and Kathy Thomas, *How Accessible is Individual Health Insurance for Consumers in Less-Than-Perfect Health?* (Washington: Kaiser Family Foundation, June 2001), p. 1.

[27] Ibid., p. iv.

[28] See Gruber, *Taxes and Health Insurance*, pp. 12-25.

On the question of how responsive the decision by firms to offer health insurance to employees was to changes in its tax price, Gruber concluded that the best available estimate of this responsiveness was one of his own. In a 2000 study done with Michael Lettau, he estimated that the price elasticity of employer offering of health insurance fell between -0.3 and -0.4. This implied that a 10% rise in the tax price of health insurance could lead to a decline in the number of firms offering coverage to employees of three to four percentage points.[29]

On the question of how responsive the decision of employees to accept health insurance coverage offered by their employers was to changes in its tax price, Gruber found that the decision seemed to be independent of such changes. In other words, available evidence indicated that employees did not measurably alter their take up of employer health plans in response to changes in their tax price. He noted that this finding was consistent with "a growing body of evidence" that the decisions of employers appear to have much more influence than the preferences of employees over the availability of fringe benefits like health insurance.[30]

And on the question of how responsive the decision of individuals who lack public or employer-provided health insurance coverage to purchase non-group coverage was to changes in its tax price, Gruber noted that only one meaningful study had been done, and that it was too flawed to provide helpful guidance for policymakers. The study estimated a tax-price elasticity of non-group coverage of -0.3, implying that a 10% drop in the after-tax cost of non-group health insurance would lead to a 3% increase in the number of individuals covered under such policies. In his view, the study's shortcomings meant that the estimate should be construed as a "lower bound" on the tax-price sensitivity of the demand for non-group coverage among those not eligible for public or employer health insurance.[31]

Gruber's study indicated that neither firms nor individuals were especially sensitive to reductions in the tax price of health insurance. But it did offer fresh evidence that the offering decisions of firms tended to be more responsive to such reductions than the acceptance decisions of employees. The study also served the purpose of highlighting some of the significant gaps in our understanding of the forces shaping behavioral responses to tax subsidies for health insurance coverage. Of particular interest was a paucity of conclusive evidence on the price elasticity of demand for non-group insurance among those currently lacking public or employer health insurance. Little is also known about the price sensitivity of the uninsured who are not offered health insurance by their employers.

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[29] Ibid., p. 16.

[30] Ibid., p. 19.

[31] Ibid., p. 22.

Potential Effectiveness and Cost of Some Proposed Tax Subsidies To Expand Health Insurance Coverage

Recent proposals to use tax subsidies to achieve substantial reductions in the uninsured population raise the question of what approach is likely to be most cost-effective. Several recent studies have addressed this question. Among other things, they shed light on the critical factors determining the cost-effectiveness of tax subsidies to expand health insurance coverage. The principal findings of these studies are reviewed below.

Lewin Group Study

In 1999, Lewin Group issued a study which assessed the effectiveness and revenue cost of nine proposed tax subsidies for the purchase of health insurance. The proposals ranged from something as simple as a tax deduction for the purchase of non-group health insurance to something as complex as the replacement of current federal tax subsidies for health insurance with individual insurance mandates and refundable tax credits for the purchase of non-group health insurance. Some were modeled after legislative initiatives then being considered in Congress. For each proposal, the Lewin Group used a micro-simulation model of the U.S. health care system (known as the Lewin Group Health Benefits Simulation Model) to estimate the number of persons who would be eligible for the proposed tax subsidy, the change in the number of insured persons in response to its adoption, and its federal revenue cost in 2000 dollars. These estimates then were used to compute the percentage change in the uninsured population relative to 1997 – the most recent year at the time for which figures on the uninsured population were available – and the revenue cost per newly insured person.

The micro-simulation model generated these estimates on the basis of several key assumptions. Two are worth mentioning here.

One assumption addressed the sensitivity of consumers in general to changes in the after-tax price of health insurance – or the tax-price elasticity of demand for health insurance. The proposed tax subsidies lowered the after-tax price of health insurance for eligible individuals, which in turn sparked an overall increase in health insurance coverage among these individuals. Naturally, the magnitude of the increase depended critically on the price elasticity of demand. The study used an elasticity of -0.2, which implied that a 10% decrease in the after-tax price of insurance would trigger a 2% rise in coverage nationwide. Nonetheless, considerable uncertainty surrounded the actual price elasticity. Health economists who had studied the issue came up with estimates ranging from 0.0 to -2.7.[32]

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[32] The coefficient for the price elasticity used in the Lewin Group study came from a 1998 analysis by the same organization that analyzed the effect of changes in employee contributions to employer health insurance on the number of workers and dependents purchasing employer-provided health insurance. Other studies have come up with different

Another important assumption concerned the number of individuals who would claim or take up the proposed tax subsidies. For subsidies supplementing existing federal tax subsidies for health insurance, the study assumed every eligible individual currently covered by non-group insurance would claim them, whether a deduction or refundable tax credit. The rate at which a tax subsidy was taken up mattered because its revenue cost and overall efficacy depended in part on how many individuals actually took advantage of it. Available evidence in 1999 suggested, however, that the take-up rate for these individuals was significantly less than 100%.[33]

Several of the study's findings have important implications for the potential cost and effectiveness of tax subsidies to expand health insurance coverage. They are highlighted below.

Lewin Group's Findings on Cost-Effectiveness.[34]

- The most cost-effective subsidy was a refundable tax credit for the purchase of non-group insurance by taxpayers not covered by employment-based health insurance, Medicare, or Medicaid that was capped at $500 for single persons and $1,000 for families; the cost per newly insured person was $1,246 (2000 dollars).

- The least cost-effective subsidy was one that scrapped existing federal tax subsidies for the purchase of health insurance – except for medical savings accounts – and substituted a fixed refundable tax credit of $800 per adult and $400 per child (capped at $2,400 per family) for the purchase of health insurance by all taxpayers except those who are covered under Medicare or Medicaid; the cost per newly insured person was $10,541 (2000 dollars).

- Refundable tax credits for the purchase of health insurance by low-income working and non-working individuals were more effective but more costly (per newly insured person) than an above-the-line tax deduction for the purchase of non-group health insurance by

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[32] (...continued)
estimates of the price elasticity of demand for health insurance, but in doing so they employed different estimation methods, for the most part. For a discussion of these studies, see Gruber and Poterba, "Fundamental Tax Reform and Employer-Provided Health Insurance," pp. 159-162.

[33] In a 1993 study of the response of self-employed individuals to the creation of a partial tax deduction for their health insurance expenditures by the Tax Reform Act of 1986, economists Jonathan Gruber and James Poterba found that from 1986 to 1989, between 15% and 20% of the self-employed with incomes below $20,000 and about 50% of those with incomes above $50,000 claimed the deduction. From these response rates, they concluded that a lack of awareness of the presence of the subsidy undercut its effectiveness. See U.S. Congress, House Committee on Ways and Means, Subcommittee on Health, *Health Insurance Premium Deductions for the Self-Employed,* hearing, 104th Cong., 1st sess., Jan. 27, 1995 (Washington: GPO,1996), pp. 42-43.

[34] Cost-effectiveness in this context denotes the revenue cost per newly insured person.

taxpayers who were not covered by employment-based insurance, Medicare, or Medicaid.

Lewin Group's Findings on Effectiveness.[35]

- The most effective subsidy was a plan developed by the Heritage Foundation which would make sweeping changes in the structure of health insurance coverage for the non-elderly. Among other things, it abolished existing federal tax subsidies for health insurance, substituted a refundable tax credit for health insurance and medical care expenditures, and required all individuals to purchase a minimum level of health benefits and all employers to convert their health benefit plans to wages. The plan resulted in the elimination of the entire uninsured population, which was assumed to total 43.3 million in 2000.

- The least effective subsidy was a 30% refundable, means-tested tax credit for non-group health insurance purchased by taxpayers without access to employment-based health insurance and not covered under Medicare or Medicaid. The credit phased out for single persons with adjusted gross incomes between $25,000 and $35,000, and for married couples with adjusted gross incomes between $40,000 and $50,000. It reduced the uninsured population by 1.5 million persons.

Lewin Group's Findings on Cost.

- The most costly subsidy was the Heritage Foundation plan: its net revenue cost was $55.3 billion (2000 dollars).

- The least costly subsidy was the 30% refundable tax credit for the purchase of non-group health insurance by individuals without access to employment-based health insurance and not covered by Medicare or Medicaid: its net revenue cost was $3.3 billion (2000 dollars).

Gruber 2000 Analysis

Gruber's 2000 study and the Lewin Group study had much in common. The Gruber study had a similar focus: the potential effects of alternative tax subsidies for health insurance on the number of uninsured and the federal budget. Like the Lewin Group study, many of the tax subsidies Gruber evaluated were modeled after legislative proposals stirring interest in recent Congresses. And the Gruber study also employed a computerized model of the links between tax policy and the U.S. health insurance market to analyze these effects.

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[35] Effectiveness in this context denotes the total decrease in the uninsured population, if any.

But the Gruber study went beyond the Lewin Group study in that it addressed two important issues raised by tax-based approaches to expanding health insurance coverage which were excluded or given marginal treatment in the Lewin Group study. One issue was the extent to which different income groups benefitted from the proposed subsidies; and the second concerned the impact of the subsidies on the market for group health insurance. The Gruber analysis also differed somewhat in approach (but not in basic methodology). It simulated the effects of a "base case" along a number of dimensions, including the federal revenue cost, the size of the uninsured population, the number of individuals with employment-based health insurance, and the distribution of the net cost of the subsidy among major income groups.[36] Gruber then simulated the effects of other proposed tax subsidies (e.g., a non-refundable tax credit for the purchase of non-group insurance and an above-the-line tax deduction for the same purpose) on the same variables and compared the results to those of the base case.

For each proposed tax subsidy, Gruber estimated the revenue cost to the federal government, how many individuals would become insured, how the benefits would be distributed among income groups, and how many individuals with employment-based health insurance would drop it or lose it in response to the subsidy.[37] In simulating these effects, he had to make assumptions about a number of key behavioral variables, including the extent to which those who were uninsured took up the subsidies to purchase non-group coverage, the extent to which those already covered by non-group health insurance claimed the proposed subsidies, and the extent to which firms reacted to the subsidies by eliminating or cutting health benefits for employees. Not surprisingly, the results of Gruber's analysis hinged on the sensitivity of the demand for health insurance coverage to declines in its after-tax price. Gruber assumed a higher price elasticity than the Lewin Group study: -0.53 compared to -0.2. This difference was hardly trivial: a 1% fall in the after-tax price of health insurance in both studies led to an increase in insurance coverage among the uninsured that was 2.6 times greater in Gruber's analysis. While the validity of Gruber's assumed price elasticity is open to question, it should be noted that it was closer to the middle of the range of available elasticity estimates than the one used in the Lewin Group study.

Several results of Gruber's analysis also should be highlighted because they have important implications for the effectiveness and cost of tax subsidies to expand health insurance coverage:

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[36] The base case involved a refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance. The credit was limited to $1,000 for single filers and $2,000 for joint filers and head-of-household filers, and it phased out for single filers with adjusted gross incomes between $45,000 and $60,000 and for joint and head-of-household filers with adjusted gross incomes between $75,000 and $100,000.

[37] Gruber, *Tax Subsidies for Health Insurance: Evaluating the Costs and Benefits,* p. 9.

Gruber's Findings on Cost-Effectiveness.[38]

- The most cost-effective subsidy was a means-tested refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance. Under terms specified by Gruber, the credit could not exceed $500 for single filers and $1,000 for joint and head-of-household filers; and it phased out for single filers with adjusted gross incomes between $45,000 and $60,000 and for joint and head-of-household filers with adjusted gross incomes between $75,000 and $100,000. The cost per newly insured person was $2,239 (1999 dollars).

- The least cost-effective subsidy was a refundable tax credit for out-of-pocket health insurance expenditures by individuals not covered by Medicare: the cost per newly insured person was $5,003 (1999 dollars).

Gruber's Findings on Effectiveness.[39]

- The most effective tax subsidy was a refundable tax credit for all out-of-pocket health insurance expenditures by individuals not covered by Medicare that was limited to $1,000 for single filers and $2,000 for joint and head-of-household filers: it reduced the uninsured population by 12.4 million.

- Running a close second was a refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance. The credit was limited to $2,000 for single filers and $4,000 for joint and head-of-household filers and was paid directly to insurers when premium payments were due. It reduced the uninsured population by 12.1 million.

- The least effective subsidy was an above-the-line tax deduction for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based insurance: it lowered the uninsured population by 250,000.

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[38] In a 1993 study of the response of self-employed individuals to the creation of a partial tax deduction for their health insurance expenditures by the Tax Reform Act of 1986, economists Jonathan Gruber and James Poterba found that from 1986 to 1989, between 15% and 20% of the self-employed with incomes below $20,000 and about 50% of those with incomes above $50,000 claimed the deduction. From these response rates, they concluded that a lack of awareness of the presence of the subsidy undercut its effectiveness. See U.S. Congress, House Committee on Ways and Means, Subcommittee on Health, *Health Insurance Premium Deductions for the Self-Employed,* hearing, 104th Cong., 1st sess., Jan. 27, 1995 (Washington: GPO,1996), pp. 42-43.

[39] Cost-effectiveness in this context denotes the revenue cost per newly insured person.

Gruber's Findings on Cost.

- The most costly subsidy was a refundable tax credit for out-of-pocket health insurance expenditures by individuals not covered by Medicare that was limited to $1,000 for single filers and $2,000 for joint and head-of-household filers: its net revenue cost was $62.2 billion (1999 dollars).

- The least costly subsidy was the above-the-line tax deduction for the same expenditures: it carried a net revenue cost of $0.9 billion (1999 dollars).

Gruber's Findings on Equity.

- The subsidy engendering the largest share of benefits for low-income households was a refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance. It was limited to $1,000 for single filers and $2,000 for joint and head-of-household filers and phased out for single filers with adjusted gross incomes between $18,000 and $25,000 and for joint and head-of-household filers with adjusted gross incomes between $30,000 and $50,000. Households with incomes below 200% of the federal poverty level in 1999 received 69% of the net revenue cost of the subsidy.
- The subsidy granting the lowest share of its benefits to low-income households was a non-refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance. It was limited to $1,000 for single filers and $2,000 for joint and head-of-household filers. Households with incomes below 200% of the federal poverty level in 1999 received 22% of the net revenue cost of the subsidy.
- On the whole, refundable tax credits for the purchase of non-group health insurance were of much greater benefit to low-income households than either a non-refundable tax credit or a tax deduction.

Gruber's Findings on Employer Health Insurance Coverage.

- Only one subsidy engendered an increase (6.6%) in the number of individuals covered by employment-based health insurance: a refundable tax credit for out-of-pocket health insurance expenditures by all individuals not covered by Medicare. Those already covered by employer plans were eligible for the credit.

- The subsidy leading to the smallest decline (-0.9%) in the number of individuals covered by employment-based insurance was a tax deduction for the purchase of non-group health insurance.

- Two almost identical subsidies generated the largest decline (-9.6%) in the number of individuals covered by employment-based

insurance: (1) a refundable tax credit for the purchase of non-group health insurance by individuals not covered by Medicare or employment-based health insurance that was limited to $2,000 for single filers and $4,000 for joint and head-of-household filers and phased out for single filers with adjusted gross incomes between $45,000 and $60,000 and for joint and head-of-household filers with adjusted gross incomes between $75,000 and $100,000; (2) a version of the same credit which could be paid directly to insurers in advance of the tax year in which it was claimed.

Gruber's Findings on Key Administrative Issues.

- Avoiding mismatches between the timing of health insurance premium payments and the timing of subsidy transfers to eligible individuals with minimal or no household savings had a significant impact on the efficacy of the base case. The reduction in the uninsured population was 37% greater when the base case was simulated on the assumption that such mismatches were prevented than when it was simulated without such an assumption.

Gruber 2001 Analysis

In a follow-up to his 2000 study, Gruber explored the potential cost and effectiveness of what he viewed as three likely directions for the use of tax policy to enlarge the insured population.[40] The directions involved offering new tax subsidies to employers; offering new tax subsidies to employees; and offering new tax subsides for the purchase of non-group insurance to individuals not eligible for public or employer-provided insurance coverage. Gruber assessed and compared the efficiency – as measured by the estimated revenue cost per newly insured individual – of these basic options. His key findings are summarized below.

New Subsidies to Employers.

As Gruber has noted, many firms already offer health insurance to employees. So an important consideration in devising new tax subsidies for employers to expand health insurance coverage is which firms would be eligible. If the subsidies are not narrowly or properly targeted, the cost per newly insured individual could quickly reach unsustainably high levels. Available data on the links between the uninsured and the workplace suggest a relatively simple and efficient solution: offering the largest tax subsidy to the smallest firms paying the lowest wages and phasing it out as firm sizes and average wages rise.

Gruber simulated the effects of just such an approach. He assumed a maximum tax subsidy rate of 0.4 for firms with 10 or fewer employees and average annual wages of $10,000 or less. Such a rate was equivalent to a tax credit for 40% of the cost to the firm of providing health insurance to each employee. In addition, he assumed that the amount of the subsidy was reduced by 2.5% for every additional

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[40] See Gruber, *Taxes and Health Insurance*.

employee beyond 10, so that it reached zero at 50 employees; and that it was also reduced by any increase in average annual wages beyond $10,000. Gruber found that such a tax subsidy added 2.3 million individuals to the ranks of the non-elderly insured at an annual cost of $4.7 billion, or $2,005 (2000 dollars) per newly insured individual.[41] He also found that by increasing the subsidy rate to 0.6, the annual cost rose by 70% (to $8 billion per year) but coverage expanded by 50%, resulting in a higher cost per newly insured individual: $2,300.[42]

New Subsidies to Employees.

Another policy option for expanding health insurance coverage among the non-elderly analyzed by Gruber consisted of a new tax subsidy to employees to take up coverage offered by employers. He determined that it would have little effect on coverage rates and would be relatively inefficient.[43] There were two reasons for this outcome. First, only 5% of those who are offered insurance by employers were uninsured. Second, the decision to take up coverage was insensitive to changes in its tax price. Gruber did note that this option offered the advantage of targeting low-income workers; but it had the disadvantage of not being able to target low-wage firms, as many low-wage workers are employed by firms that pay relatively high average wages and already offer insurance.

New Subsidies for Non-Group Coverage.

The final alternative analyzed by Gruber consisted of a new tax subsidy for the purchase of non-group insurance by individuals not covered under public or employment-based insurance. He identified three major hurdles lying in the path of such an approach. One was that about half of uninsured households pay no income taxes. This fact suggested that if the subsidy were a tax credit, it should be made refundable. A second hurdle was that most uninsured households lack access to the liquid assets required to pay insurance premiums before receiving a tax subsidy such as a refundable tax credit. As a result, the effectiveness of a tax subsidy would be greatly enhanced if it were made payable in advance. Finally, non-group coverage was costly; so any tax subsidy would need to cover a large share of premiums if it were to be highly effective.

Gruber simulated the effects of a tax subsidy similar to what the Bush Administration proposed in its budget request for FY2002. He assumed that the subsidy involved a refundable credit of $1,000 for single filers with incomes up to $75,000, and $2,000 for joint and head-of-household filers with incomes up to $100,000. In addition, he assumed that it was not payable in advance. Swayed by such a subsidy, the uninsured population shrank by 4 million persons, and the estimated cost per newly insured came to $3,300 (2000 dollars).[44] Gruber performed another simulation under the assumption that the credit was payable in advance and

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[41] Ibid., p. 29.

[42] Ibid., p. 30.

[43] Ibid., p. 31.

[44] Ibid., p. 33.

found that the cost per newly insured fell to about $2,500. Both estimates were well above his estimated cost of a new tax subsidy for employers.

Gruber 2002 Analysis

Still another recent study by Gruber is worth considering, since it focused on the cost and effectiveness of the tax credit for health insurance coverage proposed by the Bush Administration in its budget request for FY2003. He presented his findings in a statement made to the House Ways and Means Committee in connection with a hearing on tax credits for expanding health insurance coverage it held on February 13, 2002.[45] The credit had the following features: it was refundable, available only for the purchase of non-group insurance by those not covered under public or employer-provided health insurance, payable in advance, and limited to $1,000 for single individuals with adjusted gross incomes of up to $30,000 and to $3,000 for families with adjusted gross incomes of either $40,000 (if only one adult purchased insurance) or $60,000 (if more than one adult purchased insurance).

Gruber's analysis again involved the use of a micro-simulation model. This one was similar in design to the one he employed in his 2000 analysis and took into account what was known about the behavioral responses of non-elderly individuals, firms, and insurance companies to changes in the tax price of health insurance. One of his assumptions was that individuals and families who purchased non-group coverage in response to the credit paid average market prices for that insurance.

He estimated that the subsidy would have a total annual cost of $5.2 billion (2001 dollars) and result in a net decline in the uninsured population of 1.9 million, yielding a cost per newly insured individual of nearly $2,800.[46] In addition, an estimated 10.5 million individuals took up the new credit, 3.3 million of whom were previously uninsured. Nearly 2.5 million of the individuals taking up the credit had been covered by employment-based coverage. Of these, 1.5 million persons voluntarily switched to non-group coverage because they found it to be a better deal with the credit, and 1.0 million persons involuntarily switched because their employers dropped health insurance coverage in response to the credit. Some of the individuals who lost employer-provided insurance ended up uninsured, which explained why the net decrease in the uninsured population was 1.9 million persons and not 3.3 million. For these newly uninsured, the cost of non-group coverage proved too high even with the credit.

Some analysts have contended that the adoption of a tax credit for health insurance coverage modeled on the President's proposal but somewhat more generous would trigger a major overhaul of the non-group market, leading to the emergence of new low-cost plans with fewer gaps in coverage and less premium

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[45] U.S. Congress, House Ways and Means Committee, *Health Care Tax Credits to Decrease the Number of Uninsured*, hearing, 107th Cong., 2nd sess., Feb. 13, 2002 (Washington: GPO, 2002), pp. 123-128.

[46] Ibid., p. 125.

variation by age and geographic location.[47] To explore the cost and efficacy of plans such as these, Gruber performed another two simulations. In one, he assumed that half of all persons buying non-group coverage with the credit were able to do so at prices 25% below average market prices; and in the other, he assumed that the same group of individuals were able to obtain coverage at prices 50% below average market prices. His results suggested that the greater the decrease in non-group premiums under the credit, the larger the decline in the uninsured population and the greater the displacement of those previously covered by employment-based insurance.[48] Specifically, with a 25% reduction in non-group premiums, the total cost per year was $5.4 billion (2001 dollars), and the uninsured population fell by 2.2 million persons at a cost per newly insured of $2,503. By contrast, with a 50% reduction in premiums, the total annual cost came to $6.0 billion (2001 dollars), and the uninsured population declined by 3.6 million persons at a cost per newly insured of $1,663.

Conclusions

A central challenge for policymakers interested in using tax policy to achieve a substantial and lasting reduction in the uninsured population is to devise a tax subsidy that can accomplish this goal without having undesirable effects on the allocation of economic resources, the distribution of disposable income among households, and the cost of tax administration. Generally, tax policy can and does affect the price and terms of health insurance coverage. The material examined here has important implications for the use of tax policy to expand this coverage. Its significance can be illuminated in a series of questions focusing on factors to consider in designing tax subsidies to expand health insurance coverage.

- **Is the subsidy a tax deduction or a tax credit?** Many uninsured individuals reside in low-income households. Gruber has estimated that up to 90% of uninsured taxpayers with tax liabilities belonged to the 15% income tax bracket in 1997. Tax deductions become more valuable as a taxpayer's marginal tax rate increases. But generally, one dollar of a tax deduction has a lower revenue cost than one dollar of a tax credit.

- **If the subsidy is a tax credit, is it refundable?** Gruber has also estimated that 50% of uninsured taxpayers have no tax liability – though the proportion may be smaller today owing to the reduction in marginal tax rates and the creation of 10% bracket under the Economic Growth and Tax Relief Reconciliation Act of 2001 and the increase in wages and salaries since 1997, the year to which Gruber's estimate applies. Non-refundable tax credits are valuable

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[47] For a discussion of policy debate over this possible outcome, see Mark V. Pauly and Len M. Nichols, "The Nongroup Health Insurance Market: Short on Facts, Long on Opinions and Policy Disputes," *Health Affairs*, Web exclusive [http://www.healthaffairs.org], Oct. 23, 2002, pp. W325-W344.

[48] Gruber, *Health Care Tax Credits to Decrease the Number of Uninsured*, pp. 127-128.

only if a taxpayer has a tax liability against which it can be claimed. Refundable tax credits, by contrast, are valuable to all low-income taxpayers because they can be claimed regardless of whether there is a current tax liability.

- **If the subsidy is a refundable tax credit, is it fixed or proportional in amount?** Another factor shaping the effectiveness of a tax subsidy to expand health insurance coverage is the share of premiums it covers. As many uninsured individuals reside in low-income households, the greater the share of individual and family premiums met by the subsidy, the greater the rate at which the subsidy is likely to be taken up by the uninsured. Fixed refundable tax credits may cover smaller and smaller portions of premiums as health care costs rise over time. In addition, premiums in the non-group market vary by age, sex, and geographic location, and in the group market by size of employer or risk pool. And premiums in the non-group market tend to be lower for young adults in good health and higher for older adults in poor health.

- **Who is eligible for the subsidy?** Recent studies suggest that the most cost-effective subsidies are apt to be ones which are narrowly targeted at groups with large proportions of uninsured individuals. Tax subsidies targeted at low-income households headed by someone not covered by employer-provided or public insurance are likely to have a lower revenue cost per newly insured individual than subsidies with a broader reach, such as a tax deduction for all out-of-pocket expenditures for health insurance. But there is some evidence that targeting firms in the hope of inducing them to offer coverage to employees may be more effective than targeting individuals who lack coverage. Gruber has estimated that over three-quarters of uninsured workers are not offered health insurance by their employers. In addition, eligibility matters because of the different ways that firms, individuals, and private insurers can respond to tax subsidies for health insurance.

- **Does the subsidy address key administrative issues?** Yet another factor affecting the cost and efficacy of proposed tax subsidies to expand health insurance coverage is administrative issues that could impede their smooth implementation. At least three can be mentioned here. One concern is possible mismatches between the timing of health insurance premium payments and the timing of subsidy transfers to eligible individuals. Because relatively few uninsured households appear to have sufficient liquid assets to draw upon in paying health insurance premiums, making the subsidies payable in advance of the due date for filing tax returns may enhance their efficacy. A related concern is the rate at which eligible individuals might take up tax subsidies that are payable in advance. Experience with the federal earned income tax credit suggests that low-income taxpayers are reluctant to claim advanceable tax credits because many fear they will end up facing a tax liability when they

file their tax returns.[49] Finally, there is some concern that the IRS lacks the resources to efficiently administer any advanceable tax subsidy for health insurance coverage.[50] It should also be kept in mind that there appear to be significant trade-offs between ease of administration and precision of targeting in tax subsidies to expand health insurance coverage.

- **Does the subsidy address barriers to coverage of high-risk groups in the private insurance market?** Persons with relatively high risks of certain health problems are likely to find it difficult to obtain affordable and adequate coverage in the non-group market. Premiums vary widely by age, sex, and region. And in many states, insurers are free to exclude pre-exiting conditions from coverage or to severely restrict coverage for these conditions. These underwriting practices raise the question of whether a tax subsidy to expand health insurance coverage should include regulations aimed at curbing these practices.

- **What is the ultimate policy objective of the tax subsidy?** The design of cost-effective tax subsidies to expand health insurance coverage also depends in part on the ultimate policy objective. If the main goal is to improve equity in access to federal tax subsidies for health insurance, a tax deduction for personal expenditures on health insurance by those ineligible for existing subsidies may suffice. Or if the main goal is to reduce substantially the uninsured population, then a proportional, advanceable, refundable tax credit targeted at uninsured workers not offered health insurance coverage by their employers may suffice. But if the main goal is to achieve universal coverage, then it may be necessary to couple a subsidy such as a refundable, advanceable, means-tested tax credit with reforms of the private health insurance market and a requirement that all individuals purchase health insurance or all firms provide health insurance to their employees.

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[49] Gruber, *Taxes and Health Insurance*, p. 32.

[50] See George Guttman, "Another IRS Burden: The New Health Insurance Credit," *Tax Notes*, March 3, 2003, pp. 1322-1324.