

# Two Wrongs Do Not Make a Right

**Abstract** - This paper analyzes proposals to remedy tax-induced distortions in health care by using new tax incentives and retaining all of the existing distortionary tax incentives. In the process of remedying some distortions, this approach magnifies others—most notably increasing the total tax preference for health care. The paper considers two examples—the Bush administration’s FY 2007 budget proposal and a plan by Cogan, Hubbard and Kessler (2005)—and shows that both could result in higher health spending and reduced welfare. Finally, the paper discusses the circumstances in which tax incentives could be warranted to remedy market failures in health insurance.

## INTRODUCTION

Several recent health policy proposals have started with the premise, originally analyzed by Feldstein (1973), that the existing tax treatment of health insurance introduces major distortions that lead to inefficient levels of health spending and higher numbers of people without any health insurance at all. Instead of directly addressing the distortionary tax incentives, these proposals add new tax incentives in the hope that two wrongs will somehow make a right. For example, Health Savings Accounts (HSAs) provide tax benefits for out-of-pocket spending in conjunction with a high-deductible health insurance plan. The Bush administration’s FY 2007 budget proposes new tax incentives for HSAs and premiums for high-deductible health insurance purchased in the individual market (U.S. Department of the Treasury, 2006b). Another example is a recent proposal by John F. Cogan, R. Glenn Hubbard and Daniel P. Kessler (2005) which would make all insurance premiums and out-of-pocket health spending tax deductible for households with insurance.

A unifying theme in both of these proposals is to move the health-tax system closer to a “level playing field” with choices about health insurance and health spending less affected by taxes. The underlying philosophy is to move the health system closer to its laissez-faire state.<sup>1</sup> In critical respects, however, these recent proposals move further away from laissez-faire. In some cases, this is due to correctable design flaws; for example the administration’s plan overshoots its stated goal and provides larger tax incentives for individual

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<sup>1</sup> A similar philosophy underlies many regulatory reform proposals, like Association Health Plans. These issues are beyond the scope of this paper.

market purchase of insurance than for group purchase. In some cases, this departure is inherent in the structure of the plan: any proposal that introduces special tax preferences for high-deductible health insurance overrides consumer preferences about tradeoffs between consumption smoothing and health spending, substituting instead a government-chosen form of cost sharing.

Most fundamentally, using new tax incentives to compensate for distortions caused by existing tax incentives runs headlong into an unavoidable dilemma. The new tax incentives might reduce or eliminate some distortions, like the tax bias in favor of prepaying health spending through insurance, but only at the expense of exacerbating other distortions and inequities, most importantly the overall tax preference for health spending. As a result, the net effect on total health spending and welfare is theoretically ambiguous.

Jack and Sheiner (1997) have shown that, at least in a very basic calibrated model, it is possible that two wrongs can make things better, if not entirely right. They find that additional distortionary tax subsidies can partially remedy the welfare losses from existing subsidies—although it is not possible to achieve the first best that could be achieved by eliminating the original distortion.<sup>2</sup> Cogan, Hubbard and Kessler (2006) claim their plan increases welfare, but under reasonable parameters their model shows that making all out-of-pocket expenses tax deductible is as likely to increase health spending as to decrease it—and in either case the effect is very small.

In the case of the administration's proposal, this dilemma is compounded by the fact that enticing *additional* people into HSAs by expanding the tax benefits for health spending from HSAs will in-

crease the incentive for health spending by everyone who would have had an HSA anyway. In effect, everyone already in an HSA would have lower coinsurance (after-tax) and potentially lower deductibles as well. Even if the policy reduced spending for all the new people added to HSAs, the empirically plausible net effect is to increase total health spending and reduce welfare.

A better approach to health-tax reform would be to reduce existing distortions without magnifying other distortions. A better approach would also recognize that laissez-faire health markets would suffer from serious market failures and equity failures that can be remedied by mechanisms to pool people together and, thus, diversify risks. While tax incentives might not be the most efficient way to accomplish this, they may be better than nothing. But these tax incentives do not need to be as distortionary as they currently are.

This paper has six parts. The first part describes how the current tax system results in a health system that departs from the laissez-faire outcome. The second part describes current law and the proposals by the administration. The third part analyzes the administration's FY 2007 proposals from the perspective of the laissez-faire outcome: do they help achieve an outcome similar to what would happen in the absence of tax incentives and, to the degree the outcome departs from laissez-faire, are there good theoretical or empirical reasons for this departure. The fifth part of the paper applies the same approach to the Cogan, Hubbard and Kessler proposal. The sixth part of the paper questions whether the laissez-faire outcome is even the appropriate goal. Finally the conclusion considers some broader lessons for reforming the health-tax system.

<sup>2</sup> Considering health care alone, it would be possible to achieve the first best. But if tax subsidies are financed with distortionary taxation, then this is not possible.

### HOW THE MARKET FOR HEALTH CARE DEPARTS FROM LAISSEZ-FAIRE

The market for health care differs substantially from what it would look like in the absence of any government involvement, the “laissez-faire outcome.” In 2004 the government provided health insurance to 79 million people (U.S. Census Bureau, 2005) and was directly responsible for an estimated 45 percent of national health spending (Smith, Cowan, Heffler, Catlin and the National Health Accounts Team, 2006). Health insurance plans are regulated by the federal government under Employee Retirement Income Security Act (ERISA) or by state governments. And, the subject of this paper, \$200 billion in annual health-related tax expenditures have a pervasive effect on the level and form of health spending (Council of Economic Advisers, 2006).<sup>3</sup>

Specifically, under current law employer contributions to health insurance premiums are excluded from income and payroll taxes and self-employed workers can deduct their health insurance premiums from their income taxes. In addition, out-of-pocket health spending is also tax deductible under some circumstances, including cafeteria plans, flexible spending accounts, HSAs, and medical expenses exceeding 7.5 percent of adjusted gross income. These tax expenditures have important incentive effects:

- An incentive for more spending on health and less spending on other goods and services.
- An incentive for more spending through insurance and less spending out-of-pocket.

- A larger incentive for high-income people to purchase insurance than for low-income people to purchase insurance.
- An incentive for more insurance through employers and less insurance purchased in the individual market.

The tax preferences are structured as deductions which provides the largest assistance to people with the highest marginal rates. Very low-income families on the phase-in portion of the Earned Income Tax Credit (EITC) (i.e., earnings up to \$11,340 in tax year 2006) can get a smaller EITC if they have employer-provided health insurance rather than being paid the same amount in cash wages.

In addition, most economists believe that these tax incentives contribute to inefficiently higher health spending by those who have health insurance, although the quantitative importance of this factor is disputed.<sup>4</sup> Not only is overall health spending tax favored, but the tax incentives encourage the adoption of forms of insurance that encourage added spending. Specifically, taxes provide an incentive to have insurance plans that provide first dollar insurance with relatively low out-of-pocket costs for small and routine medical expenses. Perhaps more importantly, these incentives bias the direction of technological change, reducing the rewards to cost-saving innovations.

More disputed by economists is the role that these tax incentives have in correcting market failures that can undermine health insurance and serving other social goals, like redistribution to people with chronic health spending needs. Supporters argue

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<sup>3</sup> As discussed below, this \$200 billion figure overstates the true tax expenditure. About \$80 billion of it comes from the exclusion of premiums from taxable earnings for the purpose of computing payroll taxes. A significant portion of this \$80 billion cost is offset by a reduction in future Social Security benefits.

<sup>4</sup> The core driver of health spending increases is technology. And technologically driven increases in health spending are often enormously welfare enhancing. Policymakers' concerns should be with the component of health spending that is inefficiently high, not the overall increase in health care expenditures as a share of GDP.

that these tax incentives play a critical role in supporting the employer-sponsored health system, the source of nearly 90 percent of private insurance and America's way of minimizing adverse selection by creating large and diverse pools. They point out that the individual market functions poorly, with expensive policies and underwriting that results in expensive or even unattainable insurance for people with pre-existing conditions. Critics of the existing structure of tax incentives argue that by supporting the employer market these tax incentives undermine the individual market, contributing to job lock, reducing choice and potentially even increasing the number of Americans without insurance.

This paper's initial analysis is conducted without taking a stand on this issue, instead examining whether the administration's HSA proposal and the Cogan, Hubbard and Kessler proposal moves closer to or further away from the *laissez-faire* outcome and, to the degree they move away from it, whether this departure is justified. Subsequent sections of the paper, however, are premised on the claim that the *laissez-faire* state would suffer from serious market failures and inequities.

#### CURRENT LAW HSAS AND PROPOSALS FOR NEW HEALTH TAX INCENTIVES

HSAs were established by the Medicare Prescription Drug Improvement and Modernization Act of 2003 (the legislation that added the prescription drug benefit to Medicare) and became available starting in 2004. Under that law, households that enroll in high-deductible health plans (in 2006, plans with deductibles of at least \$1,050 for individuals or \$2,100 for families) can contribute to an HSA.

Contributions to HSAs are tax deductible, earnings on the HSA accounts accumulate tax free, and withdrawals from the accounts for qualified medical expenses or bequests also are tax free. Withdrawals for non-medical expenses are treated like a traditional IRA: subject to tax plus a penalty in the case of pre-retirement withdrawals. Both employees and employers may contribute to HSAs with annual contributions limited to the lower of the plan deductible or a fixed limit that is set at \$2,700 for individuals and \$5,450 for families in 2006.

According to industry estimates, 3.2 million people were enrolled in HSA-qualified health plans by January 2006, with this number roughly evenly divided between the individual market, small employers and large employers—although these data do not report the number of participants making contributions to savings accounts (AHIP, 2006). The Department of the Treasury estimates that there will be 14 million policies covering 25 to 30 million people by 2010 (U.S. Department of the Treasury, 2006a). The average annual deductible in 2005 was \$1,901 for single plans and \$4,070 for family coverage (Kaiser Family Foundation and Health Research and Education Trust, 2005). There is little systematic data or analysis of the actual experience with HSAs from which to draw confident conclusions about the age, health, or income profile of people with HSA policies or their impact on health spending, health outcomes, or health insurance.<sup>5</sup>

President Bush proposed several measures in his FY 2007 budget to expand HSAs and increase tax incentives for the purchase of insurance in the individual market:

- *Expanded contribution limits for HSAs.* President Bush proposes to

<sup>5</sup> For a discussion of why many of the claims about the initial data by proponents of HSAs are based on faulty reasoning, see Park and Greenstein (2006).

increase the contribution limits for HSAs to the maximum amount of out-of-pocket expenses allowed under an individual's high-deductible plan. Under current law, in 2006, qualified high-deductible insurance plans can set the cap on out-of-pocket expenses for health care services provided through the plan's "network" at any level up to \$5,250 for individuals and \$10,500 for families.

- *Expanded tax benefits for HSA contributions.* The proposal would add an additional 15.3 percent refundable income tax credit—on top of the existing deduction—for contributions to HSAs. This credit is intended to mimic the payroll tax exclusion for employer contributions to health insurance. The credit is reduced to 2.9 percent for individuals with earnings above the Social Security taxable maximum.
- *Expanded tax benefits for the purchase of high-deductible insurance plans in the individual market.* The third part of the proposal is tax benefits for people purchasing high-deductible health insurance in the individual market. For most people this would be a combination of an above-the-line tax deduction and a 15.3 percent refundable tax credit. Alternatively, low- and moderate-income families could elect to take a refundable tax credit of up to \$1,000 for an individual policy and \$3,000 for a family policy in lieu of the deduction and 15.3 percent credit.

The Treasury estimates that this package of proposals would cost \$156 billion over the ten years from FY 2007–16 and the Joint Committee on Taxation estimates it would cost \$108 billion over the same period.

## DOES EXPANDING HSAS MOVE CLOSER TO THE LAISSEZ-FAIRE OUTCOME?

The premise of HSAs and tax benefits for individual market purchase of health insurance is that health markets should be moved closer to the laissez-faire outcome by eliminating the existing biases that lead to higher spending and inefficient coverage options. But HSAs depart from the laissez-faire outcome in important ways, most notably by retaining substantial tax advantages for health spending and by providing additional incentives for policies that meet specific legislative criteria for higher deductibles and other parameters.

Many supporters of these proposals would acknowledge this and argue that although not the best approach, expanding HSAs may be a more politically feasible way to make improvements in the health system. For example, Cogan, Hubbard and Kessler write, "Although we would have preferred that the president's proposals not be limited to high-deductible insurance plans, his proposals are a marked improvement over current law" (2006). Others might prefer to cap or even eliminate the existing deduction but believe that HSAs are a second best subject to political constraints. But in important respects, current law HSAs depart significantly from laissez-faire and expanding them would move even further from laissez-faire, leading to inefficient increases in health spending.

### *HSAs Leave in Place the Existing Tax Incentives for About 85 Percent of the Population*

The administration's proposals, according to Treasury (2006a) estimates, would increase the number of HSA policies by seven million, raising the total to 21 million policies covering 40 to 45 million people. That leaves five out of every six

non-elderly Americans in the traditional tax system, with all of its divergences from the laissez-faire outcome.

The 2006 Treasury *Blue Book* (2006b), for example, argues that “the tax code does not treat the self-employed, unemployed, and workers for companies that do not offer health insurance (most of whom are small businesses) the same as companies that do offer health insurance.” Treasury argues that this preference leads to a range of economic and health distortions that “would be eliminated if employer insurance, individually-purchased insurance, and out-of-pocket health spending were on equal tax footing.” The “would be,” however, is a hypothetical statement: the administration’s proposal does not eliminate these arguable distortions for the 85 percent of the population that appears to prefer lower-deductible plans.

This limitation is even more puzzling from the perspective of the consumer sovereignty rationale advanced in the 2006 *Economic Report of the President* which argues, “this tax treatment has created a strong financial incentive for individuals to purchase health insurance through their employer, even if their first choice of insurance product is not offered by the employer” (Council of Economic Advisers, 2006). It is difficult to rationalize why, in particular, the tax preference for employer-sponsored insurance would be eliminated for individuals who have a preference for higher deductibles, but would be retained for individuals who have a preference for lower deductibles.

Any health plan that limits any tax changes to high-deductible health insurance would necessarily only be able to

address current tax incentives in a limited way.<sup>6</sup> For critics of the current health-tax system, this is a serious limitation.

### *Expanding HSAs Could Increase Health Spending and Reduce Welfare*

Plans to curb national health spending through additional tax incentives are intended to shift people into insurance plans with more cost sharing, reducing moral hazard and consequently reducing health spending. But in the process of reducing the incentive to spend money through insurance, these plans also expand the total tax preference for health spending. In the case of HSAs, for example, these new tax preferences would include some elective procedures and other services not typically covered by health insurance. Whether the net effect of these two forces is positive or negative for total health spending is theoretically ambiguous and depends on the specific proposal.<sup>7</sup>

Even if the initial adoption of HSAs decreased health spending, it could still be the case that policies to expand HSAs could increase total health spending. The greater the number of people already enrolled in HSAs, the more likely it is that additional tax benefits for health spending from HSAs will increase total health spending. In the extreme case, if the entire country were already enrolled in HSAs, it would clearly be the case that expanded tax benefits for health spending from HSAs would lead to higher total health spending.

Specifically, the administration’s main proposal to expand HSAs is to raise the contribution limit and add a 15.3 percent

<sup>6</sup> Note that the administration limited its FY 2007 health tax proposal. In the FY 2002 through FY 2006 budgets, the administration proposed a refundable tax credit for moderate-income families purchasing health insurance in the individual market. The FY 2007 budget proposal limited this to only the purchase of high-deductible insurance policies.

<sup>7</sup> In this case “total health spending” is a proxy for welfare, with lower health spending being indicative of higher welfare. This is theoretically appropriate when health spending is inefficiently high due to tax preferences. It may also be empirically appropriate given the range of evidence that, for many people, the marginal dollar of health spending contributes little to added health.

tax credit for HSA contributions.<sup>8</sup> For anyone in an HSA, this would lower the after-tax price of out-of-pocket spending, increasing such spending.<sup>9</sup> Using an elasticity of 0.2 and assuming a marginal income tax rate of 15 percent, this would lead to a 4.4 percent increase in out-of-pocket spending for individuals below the out-of-pocket limit. This could translate into \$75 or more in average additional spending per person already enrolled in an HSA.<sup>10</sup>

The administration's proposal would have an ambiguous effect on deductibles for people already enrolled in HSAs. Currently a person's maximum HSA contribution is limited to the annual deductible in their health plan. This is an incentive for plans to have higher deductibles. In fact, some reports suggest that financial institutions and insurance companies are marketing what are described as "investment HSAs" focused more on using them as a vehicle for savings than for health insurance. By delinking the contribution limit from the deductible, the administration's plan would tend to lower deductibles. This effect, however, could be partially or even completely offset by the fact that a lower after-tax price for out-of-pocket health expenditures would tend to lead to higher deductibles. The current analysis assumes no change in the deductible, although a reduction in deductibles appears plausible.

The administration's plan would also attract new people to HSAs who would not otherwise have had them. They will have higher deductibles (reducing spending) and greater tax benefits for their out-of-pocket spending (increasing spending).

The overall reduction in spending from new HSA enrollments is limited because 95 percent of all health spending is done by households above the deductible and who would, thus, face the same moral hazard at the margin in a high deductible plan as they would in traditional insurance (Blumberg and Burman, 2004), although it should be noted that HSAs would have more impact than static estimates indicated because they would change the distribution of expenditures by curtailing some care incidents. Furthermore, people already face substantial cost sharing in so-called "traditional" insurance. According to a Kaiser Family Foundation (2006) analysis of Medical Expenditure Panel Survey data, on average the non-elderly with private insurance in the bottom 80 percent of health spenders (who would most be affected by a switch to higher deductibles) already pay 30 percent of the cost of office-based visits and 54 percent of the cost of prescription drugs. Finally, selection effects can reduce—or even reverse—the cost savings from HSAs as the initial enrollees tend to be in high deductible, high cost sharing plans

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<sup>8</sup> The analysis in this subsection ignores the proposals for tax deductions and credits for the purchase of health insurance in the individual market, which represent less than half of the cost of the total proposal, because they appear primarily intended to increase health insurance coverage, not to reduce costs. In fact, if they succeed in increasing the number of people with insurance, they might lead to a welfare-enhancing increase in total health spending, while if they reduced the number of people with insurance, they might lead to welfare-reducing reductions in total health spending.

<sup>9</sup> The relevant change in the after-tax price of out-of-pocket spending depends on whether HSAs reduce the *marginal* or only the *inframarginal* cost of out-of-pocket health spending. If individuals know they will have total out-of-pocket spending that exceeds the amount they can contribute to HSAs, then HSAs will not lower the marginal cost of health spending and, thus, will have an income effect but no substitution effect. The administration's proposal for higher contribution limits for HSAs makes it less likely that this condition obtains. In fact, the proposal could lower the after-tax cost of health spending relative to current law HSAs by the income tax rate *plus* the new 15.3 percent tax credit. In addition, the relevant change in the marginal after-tax price depends on bequest motives.

<sup>10</sup> This is based on the conservative assumption that out-of-pocket spending for people in HSAs is about \$1,700—although precise numbers are not available.

already and, thus, would only be affected by the incentive to increase out-of-pocket spending.

In addition, behavioral effects associated with the mechanics of HSAs would increase health spending. Many HSAs come with a pre-paid debit card. Eventually these debit cards could accumulate tens of thousands or even hundreds of thousands of dollars. It is not hard to imagine that this would make out-of-pocket spending appear more like “free” money.

Nevertheless, studies have found that HSAs—absent selection effects or behavioral factors—can lead to a modest reduction in spending.<sup>11</sup> Keeler, Malkin, Goldman and Buchanan (1996) estimated that Medical Savings Accounts (MSAs) in conjunction with health plans with a \$1,500 deductible for individuals and \$3,000 deductible for families (in 1993) would reduce health spending by an average of three percent.

This estimate substantially overstates the savings from the administration’s proposal because coinsurance in “traditional” plans is much higher than it was in 1993, the administration’s proposal has much lower deductibles (in inflation-adjusted terms), and it includes an additional 15.3 percent tax credit that would stimulate additional out-of-pocket spending.<sup>12</sup> Taken together, a generous estimate would be that the proposal reduced spending by two percent for people switching to HSAs, or about \$100 per person.<sup>13</sup>

The net effect on spending depends on the ratio of people already in HSAs

to people added by the proposal. In total, Treasury estimates that there would be 25 to 30 million people covered by HSA-qualified plans in 2010 and that the President’s proposal to expand HSAs would add substantially less than half as many people to this total.<sup>14</sup> As a result, these very rough back-of-the-envelope estimates suggest that HSA expansion might conceivably lower health care spending, probably by undetectable amounts, but is more likely to increase total health spending.

### *The Administration’s Proposal Creates a Bias Towards the Individual Market*

A stated goal of President Bush’s plan is to move closer to the *laissez-faire* outcome by leveling the playing field between the group market and the individual market. As designed it overshoots this goal, conferring greater tax advantages for the purchase of insurance through the individual market.

There are two reasons for this. First, only the employer portion of the premiums for employer-sponsored insurance (which averages 75 percent of the total premium for a family plan) would be excludable, while the entire premium for insurance purchased in the individual market would be eligible for an income tax deduction and a 15.3 percent tax credit.

Second, although the 15.3 percent tax credit for insurance purchased in the individual market is intended to “level the playing field,” it is actually significantly

<sup>11</sup> The assumption of no selection effects means that the people enrolled in HSAs are representative of the population as a whole. This is implausible for the first set of HSAs since they likely attracted people that would have been in high deductible health insurance policies anyway. It is more plausible for the expansion of HSAs since the seven million households added to HSAs are likely to be more representative of the population as a whole.

<sup>12</sup> The tax credit, by itself, would result in a one percent increase in total health spending relative to the assumptions in Keeler et al. (1996). Out-of-pocket expenses are 17.4 percent of total spending for the average non-elderly person. The tax credit would increase this spending by 5.4 percent, or a one percent increase total spending.

<sup>13</sup> As noted above, this estimate conditions on the number of the uninsured.

<sup>14</sup> The total proposal, including provisions aimed at expanding coverage, would add 15 million people. Treasury has not released an estimate of the number of people added by the HSA expansions alone.

more valuable than the exclusion from payroll taxes for employer contributions to health insurance.<sup>15</sup> This is because in the former case, the compensation devoted to premium payments would be credited towards Social Security benefits, while in the later case, they would not. The effective payroll tax is well below the statutory rate for most workers, ranging from negative numbers to 12.4 percent—with the typical worker facing an effective rate of about three or four percent.

Taken together, a worker in the 15 percent income tax bracket would get a 31.3 percent subsidy for insurance in the individual market and about a 16 percent subsidy for insurance in the employer-sponsored market.<sup>16</sup> If health markets did not suffer from market failure, this would create inefficient under-consumption of employer policies, which many people prefer for their convenience and administrative advantages. If health markets suffer from market failures that impede pooling, as discussed in the next section, this bias would be even more problematic. Either way, there is no coherent rationale for departing from the *laissez-faire* outcome in favor of individual market purchase of insurance.<sup>17</sup>

### *HSA's Override Consumer Preferences About Consumption and Risk*

HSAs depart even more substantially from *laissez-faire* by conferring large advantages on out-of-pocket health spending versus payments through insurance. In part, this is because tax-free

HSA withdrawals can only be used for out-of-pocket payments, not for insurance premiums. As a result, it is cheaper to set aside money for future out-of-pocket expenses than for future health insurance premiums. As HSA balances accumulate over time, this could be a powerful inducement to purchase health plans with higher deductibles and lower premiums. In addition, the administration's FY 2007 budget proposal adds a new distortion favoring out-of-pocket spending by applying a 15.3 percent tax credit, exceeding the effective benefit of the payroll tax exclusion for employer premium contributions.

Both of these biases could be addressed in a revised plan. But the most fundamental bias introduced by HSAs is inherent in the concept itself: as Cannon (2006) argues, "HSAs unnecessarily restrict consumer choice. Current law requires enrollees to accept a government-designed health insurance policy in order to save tax-free for their medical needs." In this case, the departure from the *laissez-faire* outcome is not accidental, but a central feature of the plan. Health spending choices may be "consumer driven," but choices about which type of health insurance plan to purchase are not.

Is it justified? If one believes in consumer sovereignty and rational optimizing consumers, the answer is no. The government should remove the tax biases that favor overinsurance and then allow consumers to pick insurance plans according to their own tastes, both in terms of the levels of cost sharing and also the degree

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<sup>15</sup> Low- and moderate-income families purchasing insurance in the individual market have the option of taking this or a refundable tax credit, whichever is larger. This increases the bias towards individual market purchase still further. Individuals above the Social Security payroll tax cap would only get a 2.9 percent credit.

<sup>16</sup> The individual market subsidy is their 15 percent income tax rate plus the 15.3 percent credit. The subsidy for employer-provided insurance is 75 percent of the 15 percent income tax rate plus the 2.9 percent Medicare rate plus the four percent effective Social Security rate.

<sup>17</sup> Even if the bias towards individual-market purchase of insurance did not lead to welfare-reducing behavioral changes, it would still be unfair. Consider two workers who both have average compensation, but one buys insurance, in the individual market and the other gets it from her employer. At retirement, the worker who had employer-sponsored health insurance would have Social Security benefits that are about 15 percent lower than the other worker.

to which care is managed. Although cost sharing would likely go up relative to today's levels, many consumers would continue to choose more comprehensive plans and/or plans that used managed care or evidence-based coinsurance that varied for different conditions and treatments.

HSAs might be the right answer if one rejects the notion of consumer sovereignty and rational optimizing consumers. In this case, one loses the theoretical presumption that individual behavioral changes are optimal—a premise that underlies much of the case for letting individuals bear more of the marginal costs associated with their health treatments—and instead the question is a psychological and empirical one.

The psychological premise behind HSAs appears to be that consumers do not understand insurance and cannot be trusted to make choices that entail tradeoffs between consumption smoothing and the level of health spending or between alternative methods of rationing care, but that consumers do understand the value of health care and can be trusted to balance the marginal value of their care against its marginal cost. This premise is not impossible, but the evidence for it is far from clear.

The main evidence on this question is the RAND Health Insurance Experiment which found that higher co-insurance led to lower health spending without measurably lower health outcomes, except for low-income and chronically ill individuals who appeared to skip some high-value care as a result of greater cost sharing (Newhouse, 1993).<sup>18</sup> Although the results from this experiment continue to provide valuable insights into the demand for health care, they do not provide a very confident basis for believing that the government has chosen the right structure

for HSA-eligible insurance policies. The RAND experiment ended 25 years ago when the health system was very different and has no bearing on the first premise of HSAs: that consumers cannot rationally pick their own insurance plans.

More importantly, the RAND Health Insurance Experiment does not provide any support for the current structure of HSAs. The experiment examined income-related coinsurance, not the fixed deductibles/out-of-pocket limits that characterize HSAs. Specifically, the plans capped out-of-pocket payments at 5, 10 or 15 percent of income or \$1,000 dollars (the amount was fixed in nominal terms for the duration of the experiment from 1974 to 1981). In contrast, HSAs have out-of-pocket limits of up to \$10,500 for families, well above even 15 percent of income for low- and moderate-income households.

If the government were to regulate deductibles and out-of-pocket limits, the available empirical and theoretical evidence suggests that a single level for all incomes is not appropriate. A \$2,000 deductible might be too high for a low-income family, resulting in less than optimal consumption smoothing and adverse health outcomes. And this same deductible could be too low for higher-income families, having little or no effect on their health spending. This conclusion is consistent with both the theory of optimal insurance and empirical simulations (Feldstein and Gruber, 1995). The Council of Economic Advisers (2006) appears to agree with at least some income relating for coinsurance, writing in the *Economic Report of the President* that "care should be taken not to expose lower-income families to excessively high cost sharing relative to their income."

The administration's FY 2007 budget proposal actually moves further away

<sup>18</sup> Some subsequent studies have found potential health effects for middle-income families, including reduced compliance with prescription drug regimens.

from the evidence from the RAND studies. In previous budgets the administration proposed a credit for moderate-income families to buy insurance in the individual market. In the FY 2007 budget this proposal was revised to be limited to the purchase of high-deductible health insurance policies, with the same deductibles and out-of-pocket limits that apply to current law HSAs.

### *HSAs Make the Overall System More Regressive*

The current health-tax incentives are regressive and the administration's proposal would make them still more regressive. Rather than limit the deductibility that is responsible for much of the regressivity in the current system, the administration's proposal extends this financing mechanism to new areas, including individual market purchase of insurance and out-of-pocket payments made through HSAs. There is little theoretical or empirical rationale for using deductions rather than tax credits for health insurance; instead it is largely the result of a historical accident. It is not clear why this sub-optimal and unfair historical accident should be extended into new areas of health financing.

In addition, much of the high-income tax reduction in savings account proposals are irrelevant for the distortions they diagnose in the current health-tax system. Moving closer to the laissez-faire outcome could be accomplished with tax deductions and credits for out-of-pocket spending; it does not require savings accounts, and certainly not uncapped savings accounts that could have hundreds of thousands or even more than a million dollars growing tax free.

Raising the maximum contribution limit for families from \$5,450 to \$10,500 would largely benefit people already saving at the limit, conferring a substantial windfall on families that are already saving substantial amounts in non-tax advantaged forms. Whether or not this is sensible tax policy is debatable,<sup>19</sup> but it is indisputable that it has nothing to do with improving the efficiency of the health system. In fact, as mentioned above, uncapped savings accounts could have counterproductive economic or behavioral effects, including a lower *marginal* cost of out-of-pocket spending, leading to higher health spending and less cost consciousness relative to other methods of leveling the playing field.

### *Additional Distortions From the Fiscal Cost of HSAs*

Finally, any plan that provides new tax incentives has a fiscal cost. The administration's proposal would cost an estimated \$156 billion in their first decade. This cost masks the proposals' long-term fiscal cost. If an individual would have contributed to a 401(k) but shifts the money to a HSA instead, the official budget scoring will show little cost in the next five or ten years. (There will be some cost because the HSA contributions would carry with them a tax credit as well as a deduction, while 401(k) contributions enjoy only a deduction.) But over time, if the HSA withdrawals are used for health care expenses or left as bequests, they will be entirely tax free. In contrast, the 401(k) withdrawals they displace would have been taxed. As a result, these proposals would cause substantial revenue losses in future decades. To the degree that these costs were financed by higher taxes, distortions elsewhere in the tax system would be magnified.

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<sup>19</sup> I would argue that expanding tax-free savings opportunities without a broader and more coherent tax reform that, among other items, ended the deductibility of interest, could result in more sheltering opportunities and economic distortions, including providing windfall gains to old capital and, thus, necessitating higher distortionary taxes.

## WOULD MAKING ALL HEALTH EXPENDITURES TAX DEDUCTIBLE BE BETTER?

The Cogan, Hubbard, and Kessler (2005) proposal represents another approach to removing existing tax distortions. The centerpiece of their tax proposal is to make all health spending—whether out-of-pocket or for insurance premiums—tax deductible for anyone with health insurance.<sup>20</sup>

In important respects, their proposal moves closer to a *laissez-faire* system than HSAs. It would affect everyone with private health insurance. The core premise—that individuals can make rational choices about insurance and health spending—is coherent and consistent (although that does not necessarily make it correct).

Cogan et al. maintain one explicit deviation from *laissez-faire*. In contrast to the administration's plan, which aims to level the playing field but actually creates a tax advantage for individual market purchase of insurance, Cogan et al. keep a diminished tax advantage for employer-sponsored insurance. As they explain,

Our policy of full deductibility retains a significant tax incentive for purchase of employer-provided insurance, so that any transition to a new mix of individual versus employer-sponsored insurance would be gradual. In particular, our proposal only allows the deduction of the cost of individual insurance from the income-tax base, not from the payroll-tax base. Expenditures on insurance purchased through an employer would, as under current law, still be excludable from both the income- and payroll-tax bases. (73)

Even this well-motivated deviation from *laissez-faire* would not be enough to prevent some dropping, and the

upside in terms of reducing the number of uninsured would be limited because the proposal includes only a modest tax credit for the roughly half of the uninsured who do not pay taxes and most of the other uninsured are in the 15 percent bracket and would, thus, get a limited benefit from this proposal (Gruber and Levitt, 2000).

The Cogan et al. plan also entails substantial and unambiguously problematic deviations from *laissez-faire*, including the extension of the regressive treatment of health spending and a fiscal cost that would require adjustments, including higher distortionary taxes, elsewhere.

Finally, like any plan to remedy distortions with new tax incentives, making all out-of-pocket expenses tax deductible runs into the dilemma that while shifting people into plans with greater cost sharing, it would also increase the overall tax preference for health care. Although the net effect is theoretically ambiguous, their empirical estimate is that full deductibility will reduce private health spending by \$43 billion, or 6.2 percent, annually. This, however, is based on overly favorable parameters that are outside the standard range in the health literature and are not found in the sources that Cogan, Hubbard and Kessler cite as the basis for their assumptions. Furthermore, Cogan, Hubbard and Kessler do not present any meaningful robustness checks on their results.

Cogan, Hubbard and Kessler's estimates depend on two parameters: one that concerns the amount that coinsurance increases as a result of a more level playing field and one that concerns the amount that health spending will fall as a result of more coinsurance. The first parameter is the percentage increase in coinsurance if the exclusion for employer contributions to premiums was eliminated. This hypotheti-

<sup>20</sup> They propose tax credits for low-income families' insurance premiums, modifications to HSAs to make them available to anyone with health insurance and lowering the contribution limits, and additional proposals not analyzed here.

cal case is used as a benchmark to derive an elasticity needed to estimate the impact of the proposal on health costs. The smaller the increase in coinsurance, the smaller is the reduction in spending from their proposal. If the percentage increase in coinsurance is below 43 percent, then the proposal would result in higher spending.

As Cogan, Hubbard and Kessler acknowledge, there are no standard estimates for this critical parameter. Their main source is Feldstein and Friedman's (1977) analysis of individual insurance claims by Federal employees in 1970. Cogan et al. write, "According to simulations by Feldstein and Friedman, revoking the tax preference for employer provided insurance would lead to a doubling of the coinsurance rate (from approximately 25 to 50 percent)." But Feldstein and Friedman found no such thing: Table 2 of their paper shows increases in the average effective coinsurance ranging from 28 to 57 percent, depending on the parameters.<sup>21</sup> The two other sources Cogan et al. cite, an unpublished paper by Phelps (1986) that uses data from 1948–1982 and a very stylized theoretical calibration by Jack and Sheiner (1997), also do not appear to support the parameter assumptions made by Cogan et al.<sup>22</sup>

Furthermore, even if these estimates were accurate at the time and were correctly interpreted by Cogan et al., they would still overstate the relevant parameter for today. Marginal tax rates today are lower than the values used by Feldstein and Friedman and Phelps. Also, more out-of-pocket health expenses are

deductible today. Flexible Spending Accounts (FSAs) that allow tax deductions for some out-of-pocket expenses, for example, did not exist when Feldstein and Friedman performed their estimates and have grown dramatically in recent years. As a result, eliminating the employer exclusion would have a smaller impact relative to estimates made in the 1970s and 1980s.

The second critical parameter in the Cogan, Hubbard and Skinner model is the elasticity of demand for medical care. This affects the magnitude but not the sign of the impact on health spending (i.e., a larger elasticity results in larger increases or decreases in health spending—depending on the change in coinsurance parameter). The standard elasticity for the relevant coinsurance range is  $-0.2$ , derived from the RAND Health Insurance Experiment (Newhouse, 1993). This is the elasticity featured in the chapters of the *Handbook of Health Economics* on moral hazard and the anatomy of health insurance (Zweifel and Manning, 2000; Cutler and Zeckhauser, 2000) and in health economics textbooks (Phelps, 2003; Henderson, 2005).

Cogan et al. use  $-0.45$ , which they describe as the mid-point between the RAND estimate and a  $-0.7$  estimate by Eichner (1998). But that later estimate is from an illustrative regression in a short *American Economic Review Papers and Proceedings* volume, which assumed that people have perfect foresight about their complete health spending up to a year in advance. Eichner (1998) argues that elasticities ranging from  $-0.22$  to  $-0.32$ ,

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<sup>21</sup> Cogan, Hubbard and Kessler appear to have mistakenly used an illustrative example of a family of four on page 170–1 of Feldstein and Friedman (1977), not the estimated results based on actual data for the population as a whole in Table 2.

<sup>22</sup> Phelps (1986) shows estimates of the increase in coinsurance ranging from 25 to 140 percent, with a median estimate of 60 percent. Jack and Sheiner (1997) use a very simple calibration with no deductible and no out-of-pocket limit to estimate optimal coinsurance rates with and without tax preferences. Their estimates range from 24 percent to 195 percent with a featured estimate of 65 percent. Jack and Sheiner also show that the coinsurance increase falls when the magnitude of the demand elasticity rises. For a demand elasticity of  $-0.3$ , Jack and Sheiner find coinsurance rates would increase by 24 to 91 percent depending on the coefficient of relative risk aversion. Cogan et al. assume a demand elasticity of  $-0.45$ , which means that the relevant estimates from the Jack and Sheiner model would be even lower.

as estimated in a more complete Eichner (1997) model, which assumed rational expectations about future health spending, are more reasonable estimates.

Table 1 uses the formula derived by Cogan, Hubbard and Kessler to estimate the percentage change in private health spending resulting from making all out-of-pocket spending tax deductible using the parameters in the papers they cite and the parameters commonly used in the health literature. The Cogan, Hubbard and Kessler estimate of a 6.2 percent reduction in health spending is both very fragile and, given current knowledge about the parameters, very unlikely. It is hard to even be confident about the sign of the impact of the proposal on health spending because it depends critically on a parameter that has not been well estimated. But given the RAND elasticity, estimates of anything from about a 1.5 percent increase in health spending to about a 1.2 percent reduction in spending appear reasonable.

Furthermore, if the revenue losses from the proposal are replaced with distortionary taxation, then health spending reductions are a necessary but not sufficient condition for welfare improvements. The welfare benefits of shifting to higher marginal value non-health spending would have to exceed the deadweight loss associated with the additional tax revenue. Cogan, Hubbard and Kessler estimate this at \$6 billion annually, but this estimate is based on the assumption of a 6.2 percent

reduction in private health spending. With smaller reductions—or even increases in health spending—the revenue loss would be much greater.

IS LAISSEZ-FAIRE THE APPROPRIATE GOAL?

Both the administration’s proposal and Cogan, Hubbard and Kessler would be very far from the laissez-faire outcome, retaining significant tax biases in the health system. In important respects, both plans would move even further from laissez-faire than current law and these deviations are generally not justified by any theory or evidence. But is laissez-faire itself the right goal?

Since Arrow (1963), health insurance has been the leading example of market failure due to asymmetric information. Adverse selection will lead riskier individuals to seek out more generous health insurance, driving up prices and driving healthier people away. The market solution, a Rothschild–Stiglitz (1976) separating equilibrium, entails sub-optimal underinsurance for healthier types.

Even if the information were perfect, the fact that society is unwilling to completely deny subsidized health treatments for uninsured people would introduce distortions. Younger, healthier people can free ride by not purchasing insurance, knowing that if necessary they can get inferior but subsidized treatment in an emergency room. This not only takes healthier people

TABLE 1  
CHANGE IN PRIVATE HEALTH SPENDING RESULTING FROM TAX DEDUCTIBILITY

Increase in Coinsurance Rate	Demand Elasticity			
	0.1	0.2	0.3	0.45
20%	0.7%	1.5%	2.2%	3.3%
41% (Feldstein and Friedman, 1977)	0.1%	0.1%	0.2%	0.2%
65% (Jack and Sheiner, 1997)	-0.6%	-1.2%	-1.8%	-2.6%
100%	-1.3%	-2.7%	-4.0%	-6.2%*

\*The formula produces an estimate of 6.0 percent, but Cogan, Hubbard and Kessler round at intermediate stages of the calculation and, thus, report 6.2 percent.

Source: Author’s calculations using the model developed in Appendix A of Cogan, Hubbard and Kessler (2005).

out of the insurance pool, but also passes some of these uncompensated costs onto people who purchase insurance—further reducing insurance relative to the efficient level.

In addition, it may be difficult or impossible—for administrative or behavioral reasons—to write contracts that would provide genuine insurance for someone from birth or, say, age 18. Ideally, a person would like to write an insurance contract that is valid over several decades or even a lifetime, insuring against the possibility of developing chronic conditions that would require predictable and large annual outlays before their full health status is known. Due to informational limitations, contracts are only annual—making it impossible for a person to genuinely insure against persistent changes in health status.

Finally, a completely free market in health insurance would violate widely shared notions of equity. Society broadly appears to believe that some form of redistribution from healthier people to people with more chronic conditions with predictably higher levels of spending is warranted—even if those health differences are apparent at birth and, thus, the redistribution is not genuine “insurance.” Pooling arrangements are one way to accomplish this cross-subsidization. Risk-adjusted vouchers are another.

The employer-sponsored system is the accidental way that the American health system has evolved to mitigate these market failures and encourage redistributive transfers to the persistently ill. Employers pool people together based on non-health characteristics, making it possible to purchase insurance that efficiently spreads risks. In addition, for many workers this is a convenient system for administering insurance and an effective way to bargain for better prices. Although far from perfect, the employer-sponsored system is just about the only private system Amer-

ica has, providing nearly 90 percent of all private insurance. Any changes to this system should recognize the importance of path dependence and the potentially large—and uncertain—costs of adjusting to a new system.

Individual markets for health insurance function poorly. Premiums are substantially more expensive than in group markets, with higher administrative costs and pervasive adverse selection. People with pre-existing conditions are generally offered very expensive insurance, insurance that covers everything but what ails them, or are underwritten out of insurance altogether. And individual markets, with individually risk-adjusted premiums, generally only provide insurance against annual uncertainty in health spending but not against persistently costly health conditions.

The employer-sponsored system is supported by tax incentives that are not available in the individual market. This limits the ability of healthier people to opt out of pools and into their own individual insurance market arrangements. Even if other pooling arrangements, like voluntary associations, trade unions or churches, might be more efficient pooling mechanisms, there would be substantial costs and risks associated with transitioning to these arrangements.

Empirical estimates show that eliminating the tax incentive for employer-provided insurance, without creating another pooling arrangement, could increase the number of people without insurance—even in a relatively limited proposal like that of President Bush. Jonathan Gruber estimates that the administration’s proposal would lead nine million people to leave or be dropped from employer-sponsored coverage, many of them sicker-than-average. A number of people would become newly insured, many of them healthier-than-average. In total, Gruber (2006) estimates that the number of uninsured would increase

by 600,000.<sup>23</sup> In contrast, the Treasury assumes a 2.8 million reduction in the number of uninsured (in 2010), seemingly because it assumes less employer dropping. In either case, the impact on the number of uninsured is relatively limited despite spending \$15 billion annually.

## LESSONS FOR HEALTH-TAX POLICY

This analysis contains two lessons for health tax policy.

First, taxes have pervasive and important impacts—for good and for ill—on the delivery of health care. Outside of the health-tax community, it is sometimes not sufficiently appreciated how much taxes shape the form of insurance contracts, the extent of health insurance coverage, and the level of spending.

But, “two wrongs make a right” tax policies that use new tax incentives to correct existing tax distortions are complicated and often counterproductive. In the process of solving some tax distortions, this approach exacerbates others. The claim that this approach results in welfare improvements is fragile and dependent on specific assumptions about the model and key parameters. With reasonable assumptions, both President Bush’s proposal to expand HSAs and the Cogan, Hubbard and Kessler proposal could actually increase health spending.

In contrast, addressing the first wrong directly would unambiguously reduce health spending. According to the President’s Advisory Panel on Federal Tax Reform (2005), “Estimates are imprecise, but removing subsidies for employer-provided health insurance could lower private spending on healthcare by 5 to 20 percent.” If this reduction is accomplished without increasing the number of uninsured, it is likely to be welfare enhancing.

Most or all of the increase in coinsurance from eliminating the employer exclusion could be accomplished by capping the exclusion or converting it to a credit, eliminating the incentive for shifting out-of-pocket expenses to insurance at the margin. In addition these approaches, designed correctly, would have a limited impact on employer-sponsored coverage—and would raise revenue that could be used to expand health insurance coverage.

Second, taxes are not all important. Inside some parts of the health tax community, this is not sufficiently appreciated. In particular, most fixes that place a central role on taxes also believe that laissez-faire is the appropriate goal for the health system. Because market failures in health insurance are pervasive, some tax preferences or, ideally, other instruments to solve the inevitable market failures are an essential part of any solution to the challenges confronting health insurance.

Tax preferences for employer-sponsored insurance are one instrument for solving the market failures in health insurance, pooling people together in an efficiency and equity improving manner. Abandoning this instrument without an adequate replacement would likely create serious problems. But it makes little sense to restrict the solution to market failures in health insurance only to tax policy. Individual mandates with income- and health-related subsidies, new subsidized pooling arrangements, expanded public programs like Medicaid, and government reinsurance for catastrophic or chronic health expenses are all important instruments to complement—or even replace—tax incentives to rectify the health insurance market failures that would otherwise plague a laissez-faire health system.

<sup>23</sup> As Cannon (2006) has pointed out, this is a “static” estimate in the sense that it assumes no change in the underlying cost of healthcare. This factor, however, could lead Gruber to *understate* the increase in the number of uninsured if the administration’s proposal, as discussed above, actually increases health spending.

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### REFERENCES

- America's Health Insurance Plans (AHIP). "January 2006 Census Shows 3.2 Million People Covered By HSA Plans." Washington, D.C., 2006.
- Arrow, Kenneth J. "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review* 53 No. 5 (December, 1963): 941–73.
- Blumberg, Linda, and Leonard Burman. "Most Households' Medical Expenses Exceed HSA Deductibles" *Tax Notes* 104 No. 7 (August 16, 2004): 759.
- Cannon, Michael. "Health Savings Accounts: Do the Critics Have a Point?" CATO Paper No. 569. Washington, D.C.: CATO Institute, 2006.
- Cogan, John F., R. Glenn Hubbard, and Daniel P. Kessler. *Healthy, Wealthy and Wise*. Washington, D.C. and Stanford, California: The AEI Press and The Hoover Institution, 2005.
- Cogan, John F., R. Glenn Hubbard, and Daniel P. Kessler. "Not a Panacea." *The Wall Street Journal*. (February 9, 2006): A12.
- Council of Economic Advisers. *Economic Report of the President*. Washington, D.C.: Government Printing Office, 2006.
- Cutler, David M., and Richard J. Zeckhauser. "The Anatomy of Health Insurance." In *Handbook of Health Economics Volume 1A*, edited by Anthony J. Cuyler and Joseph P. Newhouse, 563–644. Amsterdam: Elsevier North Holland, 2000.
- Eichner, Matthew. "The Demand for Medical Care: What People Pay Does Matter." *American Economic Review Papers and Proceedings* 88 No. 2 (May, 1998): 117–21.
- Eichner, Matthew. "Incentives, Price Expectations, and Medical Expenditures: An Analysis of Claims Under Employer–Provided Health Insurance." Massachusetts Institute of Technology. Mimeo, 1997.
- Feldstein, Martin. "The Welfare Loss of Excess Health Insurance." *Journal of Political Economy* 81 No. 2 (March–April, 1973): 251–80.
- Feldstein, Martin, and Bernard Friedman. "Tax Subsidies, the Rational Demand for Insurance and the Health Care Crisis." *Journal of Public Economics* 7 No. 2 (April, 1977): 155–78.
- Feldstein, Martin, and Jonathan Gruber. "A Major Risk Approach to Health Insurance Reform." In *Tax Policy and the Economy*, edited by James Poterba, 103–30. Chicago: University of Chicago Press, 1995.
- Gruber, Jonathan. "The Cost and Coverage Impact of the President's Health Insurance Budget Proposals." Washington, D.C.: Center on Budget and Policy Priorities, February 15, 2006.
- Gruber, Jonathan, and Larry Levitt. "Tax Subsidies for Health Insurance: Costs and Benefits." *Health Affairs* 19 No. 1 (January–February, 2000): 72–85.
- Jack, William, and Louise Sheiner. "Welfare–Improving Health Expenditure Subsidies." *American Economic Review* 87 No. 1 (March, 1997): 206–21.
- Henderson, James W. *Health Economics and Policy*. Mason, Ohio: Thomson South–Western, 2005.
- Kaiser Family Foundation and Health Research and Educational Trust. *Employer Health Benefits 2005*. Washington, D.C., 2005.
- Kaiser Family Foundation. "Distribution of Out–of–Pocket Spending for Health Care Services." Kaiser Family Foundation Snapshots, Washington, D.C., 2006.

- Keeler, Emmett, Jesse Malkin, Dana Goldman, and Joan Buchanan.  
 "Can Medical Savings Accounts for the Non-elderly Reduce Health Care Costs." *Journal of the American Medical Association* 275 No. 21 (June 5, 1996): 1666–71.
- Newhouse, Joseph, and the RAND Health Insurance Experiment Group.  
*Free For All*. Cambridge, MA: Harvard University Press, 1993.
- Park, Edwin, and Robert Greenstein.  
 "Latest Enrollment Data Still Fail To Dispel Concerns about Health Savings Accounts." Washington, D.C.: Center on Budget and Policy Priorities, January 30, 2006.
- Phelps, Charles E.  
 "Large-Scale Tax Reform: The Example of Employer-Paid Health Insurance Premiums." Rochester Center for Economic Research Working Paper No. 37. Rochester, NY: University of Rochester, March 26, 1986.
- Phelps, Charles E.  
*Health Economics*. Boston: Addison Wesley, 2003.
- President's Advisory Panel on Federal Tax Reform.  
*Simple, Fair & Pro-Growth*. Washington, D.C., November, 2005.
- Rothschild, Michael, and Joseph E. Stiglitz.  
 "Equilibrium in Competitive Insurance Markets: An Essay on the Economics of Imperfect Information." *Quarterly Journal of Economics* 90 No. 4 (November, 1976): 629–49.
- Smith, Cynthia, Cathy Cowan, Stephen Heffler, Aaron Catlin, and the National Health Accounts Team.  
 "National Health Spending in 2004." *Health Affairs* 25 No. 1 (January/February, 2006): 186–96.
- U.S. Census Bureau.  
*Income, Poverty and Health Insurance Coverage in the United States: 2004*. Washington, D.C., August, 2005.
- U.S. Department of the Treasury.  
 "Dramatic Growth of Health Savings Accounts (HSAs)." Washington, D.C., March 17, 2006a.
- U.S. Department of the Treasury.  
*General Explanations of the Administration's Fiscal Year 2007 Revenue Proposals*. Washington, D.C., February, 2006b.
- Zweifel, Peter, and Willard G. Manning.  
 "Moral Hazard and Consumer Incentives in Health Care." In *Handbook of Health Economics*, edited by Anthony J. Culyer and Joseph P. Newhouse, 409–59. Amsterdam: Elsevier, 2000.