The Tax Exclusion for Employer-Sponsored Health Insurance

Jonathan Gruber, MIT and NBER
March, 2008

Prepared for NBER conference on tax expenditures. I am grateful to Jim Poterba and conference participants for helpful discussions.

Spending on health care is the largest and fastest growing element of government budgets in the United States. Despite our ostensibly private health system, almost half of medical spending is done by the government, primarily through the $xxx billion Medicare program and the $xxx billion Medicaid program. Yet the third largest government expenditure on health care is not included in this calculation: the exclusion of employer-sponsored insurance (ESI) expenditures from taxable income. In $2008 the U.S. state & federal governments will lose roughly $250 billion from the fact that expenditures by employers (and roughly …% of expenditures by employees) on ESI are not taxed as compensation. This is by far the largest of the tax expenditures by the federal government.

There are a number of coherent rationales for the ESI exclusion. In particular, in the absence of viable pooling mechanisms outside the employment setting in the U.S., the exclusion can be rationalized as the "glue" that holds employer pools together. At the same time, there are a number of problems associated with the exclusion. In particular, a number of studies document that the ESI exclusion leads to (likely inefficient) increases in insurance plan generosity. This exclusion is also highly regressive as both tax rates and ESI expenditures rise with income. As a result, economists have for years advocated reform of this tax expenditure. Recently, policy makers have taken up this charge as well. Most notably, President Bush's 2008 budget proposed to replace the ESI exclusion with an individual deduction of $7500 for individuals holding health insurance.

In this paper, I discuss the ESI exclusion and options for reform. I begin by providing background on the ESI system and its place in the larger insurance context in the United States. In Part II, I discuss the pros and cons of the ESI exclusion, and review

evidence on the impacts of the exclusion on individual and firm behavior. Part III discusses the issues in modeling reform to the ESI exclusion. Part IV presents estimates of the extent of the ESI exclusion, and presents a variety of reform options for the exclusion. Part VI concludes.

Part I: Background on ESI and Insurance Coverage in the U.S.

The goal of insurance providers it to create large pools of individuals with predictable distributions of risk. These pools can be created in many different ways; in the limit, national health insurance such as in Canada provides one national pool. The United States has long relied on the employer as the main pooling device for insurance. The growth in ESI dates back to the wage and price controls of WWII, which could be evaded through more generous provision of (untaxed) employee benefits; see … for a review of the history of the exclusion and evidence …

Table 1 shows the distribution of insurance coverage in the U.S. in 2006 (EBRI, 2007). Over 62% of the non-elderly population receives ESI, which is 72% of all privately or publicly insured and 90% of the privately insured. Those over 65 are universally covered by the Medicare program, although a major expenditure of the ESI system is retiree coverage. The major non-ESI source of coverage for those under age 65 is the Medicaid program, which provides insurance to low income families, disabled and elderly.

Only 10% of private insurance is provided outside of the employment setting in the non-group market. While there are variations in the strength and regulation of this market across states, by and large it is a market where prices are high and variable, and

where (in most states) individuals can be excluded entirely from coverage based on their health status. At a basic level there is a fundamental failure of insurance pooling in this market. Attempts to remedy this in states such as NY through community rating laws have led to excessively high premiums on average and an exit of healthy individuals from the market.

The ESI exclusion initially applied only to expenditures by employers. But over time there has been a sizeable growth in Section 125 cafeteria plans, which allow employees to shelter their contributions to ESI from taxation as well. Currently, roughly 80% of those with ESI have access to a Section 125 account, although coverage is still very incomplete among small firms.

Part II: Benefits and Costs of the ESI Exclusion

Why Have an ESI Exclusion?

In this section I review the arguments for and against an ESI exclusion. As discussed earlier, the ESI exclusion grew out of a compensation anomaly around World War II, not any coherent rationale. Nevertheless, as we consider reforming the ESI exclusion, it is important to contemplate its benefits and costs.

The main argument for continuing the ESI exclusion is that it is the glue that holds together our existing system of employer-provided insurance. Repealing the exclusion by taxing health insurance benefits, some argue, will lead employers to stop offering health insurance to their employees. This will leave employees without access to actuarially fair pooling mechanisms and at the whim of the non-group market. But the

non-group market may exclude those who are sick, leading to a large welfare cost from the reduction in insurance to those who value it most.

The extent to which this concern is valid depends on two factors. The first is how large an effect removing the ESI exclusion would have on employer offering of insurance. Employees value employers as an insurance purchasing mechanism for several reasons, of which the exclusion is only one; there is also the benefits of group purchase, negotiating power from group size, and ease of plan choice and administration. These will still be present even if the ESI exclusion is ended. Indeed, virtually all medium size and large firms in the U.S. have offered health insurance continuously over the past thirty years, despite enormous swings in the effective tax price of health insurance.

Gruber and Lettau (2004) examine the impact of tax price variation on employer-provided insurance; the larger literature on this topic is reviewed in Gruber (2004). They find that medium-sized firms are only very modestly sensitive, and large firms not at all sensitive, to the tax price of ESI. They do find that small firms are price sensitive, with an elasticity of small firm offering with respect to the tax price of -0.69. Therefore, while predicting the impacts of removing the exclusion go out of sample, there is no reason to think that there will be a wholescale exit of medium and large firms from ESI. I incorporate these estimates into the modeling below.

The second unknown factor is how a major influx of individuals into the non-group market will affect pricing in that market. The non-group market may function much better when its scale is dramatically increased by individuals leaving employer-sponsored insurance. While this may lower overall costs, however, there is little reason

to think that it would reduce the enormous disparities in price and access by health status. Therefore, absent other reforms to make insurance available to all outside the employer setting, there is a reasonable second-best argument for maintaining the ESI exclusion.

Costs of an ESI Exclusion

Offsetting these benefits are the major costs of the ESI exclusion. First is the revenue cost of the exclusion, estimated below. Second, this tax expenditure is highly regressive, as documented below, as both tax rates and ESI expenditures rise with income. Finally, the ESI exclusion biases individuals towards purchasing excessively generous insurance because they are paying with after-tax dollars on the margin.

There is a sizeable literature which tries to estimate the elasticity of health spending with respect to the tax exclusion, as reviewed in Gruber (2005). Gruber and Lettau (2004) estimate a sizeable elasticity of employer-spending among those firms offering insurance with respect to tax price of -0.7. This reflects both reductions in insurance generosity, however, and reductions in employer contributions that are shifted to employee contributions. Direct evidence on plan generosity comes from Gentry and Perress (1994), who used city-level variation in tax rates to show that more "elective" elements of benefits packages, such as dental and vision coverage, were very price sensitive.

Of course, elasticity of spending with respect to the tax price doesn't necessarily imply distortion, if there is a pre-existing bias to too little health insurance spending. But this does not appear to be the case. Existing evidence, particularly from the RAND Health Insurance Experiment, is clear that the optimal health insurance plan features high

initial cost-sharing with protection against extreme out of pocket risk (Gruber, 2007). Yet, even in today's high health cost environment, the vast majority of employer-insured individuals have very modest cost sharing, with a relative paucity of high deductible plans in the ESI setting. While there are several competing explanation for this "over-insurance", a leading contender is the tax subsidy to ESI.

Part III: Modeling the ESI Exclusion

To model the cost of the existing ESI exclusion, and to consider the impacts of options to reform the exclusion, I turn to a microsimulation model that I have developed over the past decade to model health insurance reform. This model is described in great detail in Gruber (2005), so I just summarize the key elements here, focusing in particular on the newly updated matching of employer premium costs that are central to the revenue estimate for the ESI exclusion.

The model takes as its base data from the February and March, 2005 Current Population Survey, recalibrated to 2004 populations. To these data are matched to information on health insurance premiums and health costs. Data on the premiums for employer insurance, and the distribution of premiums between employers and employees, comes from the 2004 MEPS. For non-group insurance, a premium for a healthy 40 year old male is assigned based on analyses from the Community Tracking Survey and the Medical Expenditure Panel Survey (MEPS), and data on premiums collected by the Commonwealth Fund, the Health Insurance Association of America, and e-health insurance.com. This premium is then adjusted by age, sex and health status using factors provided by an actuarial consulting firm.

These data are used to develop a micro-simulation model that computes the effects of health insurance policies on the distribution of health care spending and private and public sector health care costs. This model takes as inputs both the data sources described above and the detailed parameterization of reform options. The model first turns these policy rules into a set of insurance price changes; for example, if the policy intervention is a tax credit for non-group insurance, then the model computes the implied percentage change in the price of nongroup insurance for each individual in the model. These prices changes are then run through a detailed set of behavioral assumptions about how changes in the absolute and relative price of various types of insurance affect individuals, families, and businesses.

The key concept behind this modeling is that the impact of tax reforms on the price of insurance continuously determines behaviors such as insurance take-up by the uninsured and insurance offering by employers. The model assiduously avoids "knife-edge" type behavior, where some critical level is necessary before individuals respond, and beyond which responses are very large. Instead, behavior is modeled as a continuous function of how policy changes (net of tax) insurance prices.

In doing this type of analysis, a number of assumptions must be made about how individuals will respond to tax subsidies, through their effect on the price of insurance. These assumptions have been developed based on the available empirical evidence reviewed above, although there are many holes in this literature that must be filled in order to fully simulate policy effects. These assumptions are reviewed in detail in Gruber (2005).

A key aspect of modeling health insurance policy is appropriately reflecting the

decisions of firms.. Economists tend to model firm decision-making as reflecting the aggregation of worker preferences within the firm. The exact aggregation function is unclear, as reviewed in Gruber (2002); in my model I assume that the mean incentives for the firm (e.g. the average subsidy rate for non-group insurance) is what matters for firm decision-making.

The fundamental problem faced by individual-based micro-simulation models is that data on individuals does not reflect the nature of their co-workers, so that it is impossible to exactly compute concepts such as the average non-group subsidy in a worker's firm. I address this problem by building "synthetic firms" in the CPS, assigning each CPS worker a set of co-workers selected to represent the likely true set of co-workers in that firm. The core of this computation is data from the Bureau of Labor Statistics that show, for workers of any given earnings level, the earnings distribution of their co-workers, separately by firm size, region of the country, and health insurance offering status. Using these data, I randomly select 99 individuals in the same firm size/region/health insurance offering cell as a given CPS worker in order to statistically replicate the earnings distribution for that worker's earnings level. These 99 workers then become the co-workers in a worker's synthetic firm.

These synthetic firms then face three decisions about insurance: offering (whether to offer if now not offering, or whether to drop if now offering); the division of costs between employer and employees; and the level of insurance spending. Each of these is influenced by the tax treatment of ESI expenditures. For example, if both employer and employee ESI expenditures are subjected to taxation, this will lower offering; will lead to some shifting of premiums to individuals, since there was much less than full Section 125

coverage so the existing exclusion led to a bias in aggregate to employer spending; and will lead to a reduction in the generosity of ESI. Taxing just employer spending on ESI (while leaving employee contributions untaxed if through a Section 125 plan), however, will lead to a small reduction in offering and plan generosity, but a much larger shift from employer to employee financing of the premiums. Likewise, removing the Section 125 tax shield but retaining the exclusion for employer spending will lead to a smaller reduction in offering and plan generosity, but a shift from employee to employer financing of premiums.

A key assumption for this type of modeling is the assumption on the wage incidence of changes in employer-insurance spending. Gruber (2001) reviews the literature on incidence, and concludes that there is strong evidence for full shifting to wages of firm-wide changes in insurance costs, with some evidence of shifting to sub-groups within the workplace as well. I make a mixed incidence assumption for this model. Any firm-wide reaction, such as dropping insurance or lowering employee contributions, is directly reflected in wages. Yet any individual's decision, such as switching from group to non-group insurance, is not reflected in that individual's wages; rather, the savings to the firm (or the cost to the firm) is passed along on average to all workers in the firm.

Finally, a key limitation of the analysis is that I measure the tax expenditure associated only with workers, and not with retirees that receive tax favored employer spending. It is difficult to estimate the cost of this element of the tax expenditure, but a reasonable approximation is $20 billion/year. This will not be included in the analyses below.

All figures in the analysis are in $2004. Moreover, the tax law that is used for analyzing the tax expenditures and reforms is the tax law as of 2004, with two changes: the tax cuts of 2001 and 2003 are assumed to have be phased out, and the AMT "patch" for 2004 is not assumed to have been in place.

Part IV: The ESI Exclusion: Costs and Reform Options

Base Case

The base results for the cost and distributional impacts of the ESI exclusion are presented in Table 2. The first row provides the total revenue cost of the ESI exclusion, which is $165 billion. The next few rows divides that into federal income tax, federal payroll tax, and state income tax components; roughly 60% of the revenue cost of the exclusion is through federal income taxes.

The remaining rows of the table display the distribution of the benefits of the ESI exclusion. Less than 25% of the benefits of the exclusion go to those in the lower half of the income distribution; over half of the benefits go to the top three income deciles. As noted earlier, this skewed distribution reflects both rising tax rates and rising ESI expenditures with income. Roughly speaking, about 60% of the differential between the top and bottom half of the income distribution is due to higher spending, and about 40% is due to higher tax rates.

Options for Repeal

Table 3 extends the analysis to consider various forms of repeal of the ESI exclusion. The second column of Table 3 shows the results of repeal of the ESI

exclusion. The financial results are identical to Table 2, but I also show impacts on insurance spending and coverage; the first column provides the ex-ante means of these variables. Recall that these findings must be interpreted with considerable caution, as they are using the price elasticity estimated from existing variations in the tax price to estimate the impact of a much more radical change in policy.

I find that this policy leads to a reduction in employer insurance spending of almost $116 billion, or about 30% of ex-ante employer spending. I also find that employee insurance spending falls by $16 billion, or about 14% of ex-ante employee spending. The fall in employer spending is disproportionately large because there is an ex-ante tax bias to employer spending due to partial coverage of Section 125 accounts, so the tax removal has a larger impact there.

I estimate that the removal of the ESI exclusion leads to a reduction in the number of individuals with ESI of 15 million, which is roughly 10% of the number of ex-ante employer insured. This is a large number relative to the ex-ante stock of uninsured, 45 million, but is modest relative to the ex-ante stock of employer insured. I also estimate that a number of those losing employer insurance will gain insurance through other channels; roughly 43% of those losing ESI will choose to purchase non-group insurance, and another 15% move to public coverage. So only about 40% of those losing ESI become uninsured according to these estimates.

Nevertheless, the policy leads to an increase in uninsurance of roughly 15% of the ex-ante number of uninsured. Moreover, the set of individuals who remain uninsured are the least healthy individuals losing group coverage. This is illustrated in Table 4, which shows the age and health characteristics of those ex-ante uninsured and group insured,

and then for each run in Table 3 shows the comparable characteristics of those become uninsured and who move to non-employer insurance (non-group or public). Ex-ante, the uninsured are somewhat younger than the employer-insured, but in significantly worse health: 75% of those on ESI are in excellent or very good health, while only 60% of the uninsured are; and only 6% of those with ESI are in fair or poor health, while over 10% of the uninsured are.

When the exclusion is repealed, those becoming uninsured are much older than either of these groups ex-ante; the average age of those who becomes uninsured is almost 40. The group becoming uninsured is in better health than the ex-ante uninsured, but is drawn from a poor part of the health distribution of those who are ex-ante group insured. Interestingly, when we compare those becoming newly uninsured to those who leave ESI for non-group or Medicaid coverage, their health status looks similar, but the latter group is much younger. Thus, at least up to the accuracy of this modeling exercise, the major discriminatory factor between those who lose coverage and those who move to other forms of coverage is age, not health status.

The third column of Table 3 (and the third set of columns of Table 4) considers the impact of removing the subsidy to employer spending only, maintaining the deductibility of section 125 accounts. Such a policy raises only $119 billion in new revenues, or about 72% of the total from removing the exclusion on both employer and employee spending. This is lower than the ex-ante proportion of insurance spending that is done by employers, 75%, because of a shift of spending from newly taxed employer spending to tax-sheltered employee spending. Indeed, employer insurance spending falls by almost as much as in the previous column, while employee insurance spending rises

by $48 billion. This highlights the leakages in revenue raising that can arise from partial reform. Moreover, this is likely an underestimate of such leakage, since my model does not endogenize adoption of Section 125 accounts. Such a policy would likely lead to a dramatic expansion of use of Section 125 accounts, and thereby even further shifting to employee contributions (and out of taxable employer contributions).

Column (4) shows the impact of the complementary policy: retaining the exclusion for employer spending but removing the tax deductibility of employee contributions through Section 125 account. This policy change raises $24 billion in revenues, or only 20% as much as the full removal of the subsidy despite employee contributions being 25% of employer spending ex ante. Once again, the reason is an endogenous shift from employee to employer spending under this policy; employer spending actually rises while employee spending falls by $25 billion, or 50% more than in the case where the exclusion is fully repealed.

The distribution of impacts is fairly similar in these two runs to the base case run in column (2). There is a slight decrease in progressivity, with a slightly smaller share of revenues coming from top income groups, when we exclude the employee share, suggesting that the availability of tax-favored premium payments is higher at the higher end of the income scale.

Columns (5)-(7) repeat the analysis, considering only the removal of the tax exclusion for income tax purposes, but retaining the exclusion for payroll tax purposes. If employer and/or employee spending on insurance was included in the wage base and taxed for payroll tax purposes, there would be pressure for least some offsetting increase in the social insurance benefits financed by those taxes. We therefore overstate the net

revenue gain by considering the revenues raised by inclusion of ESI spending in both the income and payroll tax bases.

Including ESI expenditures in the income tax base only leads to an increase in Federal revenues of almost $108 billion, which is roughly 65% of the revenues from including payroll taxes as well. The impacts on insurance coverage, employer spending, and employee spending are likewise proportionately smaller. Including ESI spending in the income tax base only leads to an erosion of ESI of almost 10 million persons, and a rise in the uninsured of almost 4 million, or somewhat less than 10% of the ex-ante stock of uninsured. Employer insurance spending falls by over $70 billion, and employee insurance spending falls by almost $11 billion.

The distributional impacts of this policy differ significantly, however, from including ESI in both the payroll and income tax bases. While those in the bottom half of the income distribution pay about 60% as much in taxes under this option, those in the top half of the income distribution pay roughly 66% as much in taxes under this option, since the lower income group benefits more from removing the proportional payroll tax.

Column (6) shows the effects of including only employer spending in the tax base, and Column (7) the effects of including tax-sheltered employee spending (e.g. repealing section 125 for these purposes). Once again, each of these partial reforms is somewhat blunted by the shift across types of insurance spending. The sum of the revenues raised by these partial reforms, $97 billion, is about 10% less than the revenue raised from full repeal, or $108 billion.

Options for Capping the Exclusion

Full repeal of the ESI exclusion would be a radical policy prescription that would face enormous political opposition. A natural alternative is to cap the ESI exclusion at some level, perhaps high at first, and then gradually tightening. This was the approach endorsed by the President's Panel on Tax Reform, which proposed that ESI spending above the typical cost of a Federal Employee Plan (at the time, $11,500 for a family) be included in the base of taxable income. And 2008 Presidential candidate Hilary Clinton included a cap on the exclusion of ESI premiums from taxation at the average premium level for families making more than $200,000 per year.

In Table 5, I examine the impact of proposals to cap the exclusion rather than remove it all together. I assume initially that there is a total cap on employer plus employee spending, and vary this below. There are many possible levels at which the exclusion could be capped, and for this exercise I choose the median national level of premiums; using the mean instead of the median yields similar results but about 17% less revenues. In this table I show paired results for (a) capping for both income and payroll tax purposes and (b) capping just for income tax purposes.

I estimate that capping the ESI exclusion at the median level would raise about $46 billion if the cap were applied to both income and payroll taxes, and about $30 billion if the cap were applied just to income taxes. This is about 30% of the amount raised from full repeal. On the other hand, capping the exclusion is much more progressive than removing it: for example, while about one-quarter of the revenues from repeal for both income and payroll tax purposes are raised from the lower half of the income distribution, only one-fifth of revenues from capping are raised from the lower

half of the income distribution. Capping does lead to a large reduction in employer and employee spending, but it is only a fraction of the earlier amounts.

Capping also has the virtue of being much less disruptive to existing insurance arrangements. Modeling the impact of the cap on insurance coverage is challenging, of course, because in principle capping at the median should not cause any firm to not offer insurance, but in practice some firms will be uninterested in offering insurance unless it is very generous – and some firms won't be able to find an insurance policy that will be taken up by their employees unless it is very generous. In those cases capping the exclusion could lead firms to drop insurance coverage. I model the impact of a cap as proportional to the impact of full repeal; that is, I compute the impact of the cap on the effective tax subsidy facing firms and have firms react to the effective reduction in their tax subsidy. Doing so, I find a fairly modest impact of capping on insurance arrangements: 2.6 to 3.6 million individuals lose ESI, and the rolls of the uninsured rise by only 0.9 to 1.4 million.

In the next set of columns in the Table I show the impact of capping the exclusion solely for employer spending; this may be the more realistic policy option. Capping only employer spending raises only two-thirds as much as capping total spending, due to a large evasion of the cap through shifting to employee contributions. As noted above, this estimate likely understates the shifting since I do not endogenize the Section 125 decision.

A major controversy with such tax caps, however, would arise around the issue of who is hit by the caps. Taxing the highest levels of insurance spending will reduce the incentives for excessively generous insurance – but it will also lead to the largest burdens

in high cost states and for firms with high cost workers. This is both inequitable and could be a major political burden even to a capped exclusion.

One way to address this issue would be to use the cap to target directly plan generosity, rather than total insurance spending. For example, every insurance plan could be given an actuarial score by an independent agency, based on its plan generosity (e.g. copayments, deductibles, benefits included, etc.). This could then be compared to some benchmark value of plan generosity. Firms whose plans exceeded that benchmark level would be taxed on the differential generosity, times some benchmark cost tied to actuarial value.

Part V: Spending the Revenues to Increase Insurance Coverage

The major problem with repealing the ESI exclusion, as noted earlier, is the potentially sizeable increase in uninsurance that could result – particularly since those becoming uninsured have been shown to be much older and more expensive on average to insure than those remaining in the group insurance pool. This problem could be addressed directly if the revenues raised from reform were used to expand health insurance coverage in the U.S. In Gruber (forthcoming), I discuss at length a plan for universal coverage in the U.S. and its financing through repeal of the ESI exclusion. In this section I summarize that discussion.

In particular, I consider the following proposal for universal coverage; this proposal shares many features with the ambitious health care reform passed in Massachusetts in 2006 (and considered by other states as well, most prominently

California), as well as many of the proposals of the leading Democratic candidates in the 2006 Presidential election.

- Public insurance entitlements would be frozen at their current level, which is typically around 200% of poverty for children in most states, and 100% of poverty for parents in many states.
- The remainder of low income individuals in the U.S. would be enrolled in new state-specific pools.
- Insurance would be subsidized in these pools by setting a progressive limit as a share of income that individuals must pay for their insurance. Insurance would be free for those below the poverty line, and the income limit would then rise to 2% between 100 and 150% of the poverty line, 4% between 150% and 200% of the poverty line, and so on until reaching 12% between 350% and 400% of the poverty line.
- For middle and high income families (above 400% of poverty), states would set up a new pooling mechanism which would replace the existing non-group insurance market. This new pool would be guaranteed issue (insurers cannot reject any applicants), and there would be no health rating
- I consider policies with and without a mandate that all persons in the U.S. obtain health insurance; I assume that this mandate would be highly effective

The effect of such a plan in isolation is shown in the first column of Table 6, both with and without a mandate. The plan costs about $74 billion/year without a mandate, and $96 billion/year with a mandate, net of savings from reduced use of public insurance.

As emphasized in Gruber (forthcoming), the plan without the mandate covers only about half the uninsured; even these extensive subsidies are not enough to attract many uninsured. Without the mandate, there is a reduction in ESI coverage of 12 million persons, almost as many as from repealing the ESI exclusion. But in this case those losing ESI are almost all moving to the newly subsidized government pool, and as noted on net there is a reduction, not an increase in uninsured. With a mandate, the reduction in ESI is smaller (due to offsetting decisions to take up ESI by those forced to through the mandate), and there is (by assumption) virtually 100% coverage of the uninsured. These plans are highly progressive, with even small losses in the top income groups due to wage adjustments.

The next two columns show the impact of combining such a plan with repeal of the ESI exclusion (for both income and payroll tax purposes, and repealing both the employer and employee exclusions). Without a mandate, a repeal of the employer exclusion would lead to a net gain of over $70 billion/year for the government. There is a very large reduction in ESI and in employer and employee spending, but there is on net a fall in the number of uninsured of 17 million. With a mandate, the savings is lower but still positive. ESI erodes somewhat less, and virtually all the uninsured are covered (by assumption).

These reforms are even more highly progressive than simple repeal of the exclusion, since there is both a reduction in tax expenditure on the rich and an increase in subsidy expenditure on low income groups. In both cases there are enormous gains to the bottom 30% of the income distribution, and losses for the top 70%. Of course, if the excess revenues could be recycled in a targeted fashion, it would be possible to wipe out

much of the losses to the 4th through 6th deciles, creating a majority of winners from this policy.

Part VI: Conclusions

While public policy debates around the structure of the two largest government expenditure programs for health care, Medicare and Medicaid, there has traditionally been little discussion of the third largest government (tax) expenditure, the exclusion of ESI premiums from income and payroll taxation. Yet discussion about reform of the ESI exclusion has heated up in recent years. In this paper I discuss the implications of the existing exclusion and the impacts of reform (albeit from the perspective of 2004).

I conclude that the existing ESI exclusion is both very expensive and highly regressive, with three-quarters of the benefits flowing to the top half of the income distribution. Repealing or capping the exclusion could result in significant increases in government revenues and an improvement in revenue raising progressivity. Yet it would also lead to a significant reduction in insurance coverage. Thus, repeal in the exclusion would make the most sense in the context of a system-wide reform that provided broader non-ESI options for insurance coverage.

References

Employee Benefits Research Institute (2007). "Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 2007 Current Population Survey". Washington, D.C: EBRI

Gentry, William and Eric Peress (1994). "Taxes and Fringe Benefits Offered by Employers," NBER Working Paper #4764.

Gruber, Jonathan (2002). "Taxes and Health Insurance," in James Poterba, ed., *Tax Policy and the Economy 16*, Cambridge: MIT Press, 2002, p. 37-66.

Gruber, Jonathan (2005). "Tax Policy for Health Insurance," in James Poterba, ed., *Tax Policy and the Economy 19*. Cambridge, MA: MIT Press, 2005, p. 39-63.

Gruber, Jonathan (2006). "The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond". Report for the Kaiser Family Foundation, October 2006. Available at http://www.kff.org/insurance/7566.cfm

Gruber, Jonathan (forthcoming). "Covering the Uninsured in the U.S.," *Journal of Economic Literature*, forthcoming.

Gruber, Jonathan and Michael Lettau (2004). "How Elastic is the Firm's Demand for Health Insurance?," *Journal of Public Economics*, 88, p. 1273-1294

Table 1: Non-Elderly Americans' Source of Health Insurance Coverage

	People (Millions)	Percentage of Population
Total Population	260.0	100.0%
Private	179.4	69.0%
Employment-based	161.7	62.2%
Individually purchased	17.7	6.8%
Public	45.5	17.5%
Medicare	6.5	2.5%
Medicaid	34.9	13.4%
TRICARE/CHAMPVA	7.1	2.7%
Uninsured	46.5	17.9%

Table 2: The Cost and Distributional Implications of the ESI Exclusion		
(all figures in $millions)		
New Revenue Raised		$165,000
State Income		$5,000
Federal Income		$95,000
Federal Payroll		$65,000
Revenue Burden	**Dollars**	**Percentage**
Decile 1	$1,000	1%
Decile 2	$3,000	2%
Decile 3	$8,000	5%
Decile 4	$12,000	7%
Decile 5	$15,000	9%
Decile 6	$18,000	11%
Decile 7	$22,000	13%
Decile 8	$26,000	16%
Decile 9	$29,000	18%
Decile 10	$31,000	19%

Table 3

		Income & Payroll Taxes		
	Ex Ante	Total Repeal	Boss Repeal	Worker Repeal
`	$1,369,000	$165,000	$119,000	$24,000
State Income	$152,000	$5,000	$5,000	($1,000)
Federal Income	$660,000	$95,000	$67,000	$15,000
Federal Payroll	$557,000	$65,000	$47,000	$10,000
Change in ESI	156	-15	-12	-3
Change in Uninsured	46	6	6	1
Total Employer Spending	$389,000	($116,000)	($114,000)	$17,000
Total Employee Spending	$117,000	($16,000)	$48,000	($26,000)
Revenue Burden				
Decile 1 Cutoff:	0%	0%	1%	0%
Decile 2 Cutoff:	0%	2%	2%	2%
Decile 3 Cutoff:	2%	5%	5%	6%
Decile 4 Cutoff:	4%	7%	7%	8%
Decile 5 Cutoff:	6%	9%	10%	8%
Decile 6 Cutoff:	8%	11%	11%	11%
Decile 7 Cutoff:	10%	13%	13%	14%
Decile 8 Cutoff:	13%	16%	15%	15%
Decile 9 Cutoff:	18%	18%	17%	18%
Decile 10 Cutoff:	39%	19%	19%	19%

		Income Taxes Only		
	Ex Ante	Total Repeal	Boss Repeal	Worker Repeal
New Government Revenue	$0	$0	$0	$0
State Income	$1,369,000	$108,000	$83,000	$15,000
Federal Income	$152,000	$3,000	$3,000	$0
Federal Payroll	$660,000	$95,000	$71,000	$17,000
Change in ESI	557000	10000	9000	-1000
Change in Uninsured	156	-10	-7	-3
Total Employer Spending	$0	$0	$0	$0
Total Employee Spending	$389,000	($71,000)	($68,000)	$9,000
Revenue Burden				
Decile 1 Cutoff:	0%	0%	0%	0%
Decile 2 Cutoff:	0%	0%	0%	0%
Decile 3 Cutoff:	0%	2%	2%	0%
Decile 4 Cutoff:	2%	5%	5%	0%
Decile 5 Cutoff:	4%	6%	7%	0%
Decile 6 Cutoff:	6%	9%	9%	0%
Decile 7 Cutoff:	8%	10%	11%	0%
Decile 8 Cutoff:	10%	13%	13%	0%

Decile 9 Cutoff:	13%	16%	16%	0%
Decile 10 Cutoff:	18%	18%	18%	0%

Table 4

	Ex Ante Uninsured	Ex Ante ESI	Income & Payroll Tax					
			Complete Repeal		Boss Share Only		Worker Share Only	
			Moving Unins	Moving NG/Public	Moving Unins	Moving NG/Public	Moving Unins	Moving NG/Public
Total Number (M)	46	156	6	8	6	6	1	2
Average Age	32	33	39	27	39	39	36	26
% in Excellent Health	29	40	32	38	32	37	39	39
% in Very Good Health	33	35	36	35	36	35	32	35
% in Good Health	29	20	26	22	25	22	23	22
% in Fair Health	8	4	6	5	6	5	5	4
% in Poor Health	3	1	1	1	1	1	0	1

	Ex Ante Uninsured	Ex Ante ESI	Income Tax Only					
			Complete Repeal		Boss Share Only		Worker Share Only	
			Moving Unins	Moving NG/Public	Moving Unins	Moving NG/Public	Moving Unins	Moving NG/Public
Total Number (M)	46	156	3	3	4	5	1	2
Average Age	32	33	39	29	38	26	35	25
% in Excellent Health	29	40	33	37	33	39	41	39
% in Very Good Health	33	35	36	35	36	35	32	34
% in Good Health	29	20	25	22	25	21	21	21
% in Fair Health	8	4	6	5	5	4	6	4
% in Poor Health	3	1	1	1	1	1	0	1

Table 5

	Income and Payroll Tax		Income Tax Only	
	Both Capped	Boss Cap Only No Worker Repeal	Both Capped	Boss Cap Only No Worker Repeal
New Government Revenue	$ 46,000	$ 29,000	$ 30,000	$ 20,000
State Income	$ 1,000	$ 1,000	$ 1,000	$ 1,000
Federal Income	$ 27,000	$ 17,000	$ 27,000	$ 17,000
Federal Payroll	$ 18,000	$ 11,000	$ 3,000	$ 2,000
Change in ESI	-3.6	-2	-2.6	-1.2
Change in Uninsured	1.4	1	0.9	0.7
Total Employer Spending	$ (29,000)	$ (28,000)	$ (18,000)	$ (17,000)
Total Employee Spending	$ (7,000)	$ 13,000	$ (5,000)	$ 8,000
Revenue Burden				
Decile 1 Cutoff:	0%	0%	0%	0%
Decile 2 Cutoff:	1%	1%	1%	1%
Decile 3 Cutoff:	4%	3%	3%	3%
Decile 4 Cutoff:	6%	5%	5%	5%
Decile 5 Cutoff:	8%	8%	7%	8%
Decile 6 Cutoff:	10%	10%	9%	10%
Decile 7 Cutoff:	13%	13%	13%	13%
Decile 8 Cutoff:	17%	17%	17%	17%
Decile 9 Cutoff:	20%	20%	21%	20%
Decile 10 Cutoff:	22%	23%	24%	23%

Table 6: Full Policies with Spending Options

Tax Subsidies	No Repeal		Repeal	
Mandate	**No**	**Yes**	**No**	**Yes**
Net New Spending	$82,000	$105,000	$92,000	$118,000
New Revenue Raised	$8,000	$8,000	$164,000	$164,000
Net Government Cost	$73,000	$96,000	($71,000)	($45,000)
Change in ESI	-12	-4	-28	-22
Change in Uninsured	-22	-45	-17	-45
Change in Employer Spending	($31,000)	($22,000)	($145,000)	($139,000)
Change in Employee Spending	$0	$4,000	($2,000)	$2,000
Net Government Cost				
Decile 1 Cutoff:	$29,000	$39,000	$29,000	$39,000
Decile 2 Cutoff:	$25,000	$30,000	$24,000	$30,000
Decile 3 Cutoff:	$14,000	$19,000	$9,000	$14,000
Decile 4 Cutoff:	$5,000	$7,000	($5,000)	($2,000)
Decile 5 Cutoff:	$2,000	$3,000	($10,000)	($9,000)
Decile 6 Cutoff:	$1,000	$1,000	($14,000)	($14,000)
Decile 7 Cutoff:	$0	$0	($18,000)	($18,000)
Decile 8 Cutoff:	($1,000)	$0	($22,000)	($22,000)
Decile 9 Cutoff:	($1,000)	($1,000)	($29,000)	($29,000)
Decile 10 Cutoff:	($1,000)	($1,000)	($35,000)	($35,000)