Evaluating Alternative Approaches to Incremental Health-Insurance Expansion

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After a small decline, the number of uninsured persons in the United States is on the rise again, at over 41 million (Center on Budget and Policy Priorities, 2002). This increase is likely to spur efforts to cover the uninsured through legislative action. Given the failure of the most recent attempt at massive insurance expansions (David Cutler and Gruber, 2002), the likely approach is through incremental reforms. At the same time, there remains a fundamental conflict between the right and the left over the appropriate form that such incremental reforms should take. The left advocates additional expansions of the public-insurance safety net, for example, to parents of children already publicly insured. The right advocates subsidizing the purchase of private insurance through the tax code.

In recent years, a number of analyses, both inside and outside of government, have studied the impact of these types of reforms (e.g., John Holahan et al., 1999; Gruber and Larry Levitt, 2000; Mark McClellan, 2000). These analyses have largely talked past each other, however, as there is little agreement on the "right" criteria on which to evaluate incremental reforms. Should we be concerned solely with the number of persons newly insured? What about the extent of displacement of other forms of insurance coverage, or "crowdout"? And what about the types of uninsured covered; should we count equally a low-cost child who is newly insured and a high-cost older person?

In this paper, I lay out the issues surrounding the criteria along which alternative approaches to reform can be evaluated. I then present microsimulation estimates of the impacts of three types of reforms: tax credits for individual purchase of nongroup insurance, expansions of public insurance to children and parents, and expansion of public insurance to all adults. I use the results from these simulations to contrast these reforms using the various criteria developed here.

I. Criteria for Evaluating Incremental Expansions

The fundamental problem involved in incrementally expanding insurance is that insurance status is an individual choice, so that policymakers cannot perfectly target only those individuals who would be uninsured but for the new insurance opportunity. As a result, incremental insurance expansions can have four different effects on insurance markets. First, and most directly, expansions can increase insurance coverage among the uninsured, either by providing them with public insurance, or by inducing them to purchase private coverage.

At the same time, a second effect for expansions of any type is to shift some individuals from existing private insurance coverage that is not newly subsidized (e.g., employer-provided insurance) to either the newly subsidized form of private coverage (e.g., nongroup coverage) or to public coverage. Third, expansions will cause some individuals who have existing private coverage that is not newly subsidized to become uninsured (e.g., because their firm drops insurance coverage due to the newly available outside alternative, and they are not eligible for or do not take up the outside

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alternative). Finally, for private expansions only, expansions can "buy out the base" of individuals who already have the subsidized form of private coverage.

As a result of these (potentially) unintended effects of incremental expansion, it is not at all straightforward to assess the implications of reform. First of all, it is critical to undertake a behavioral analysis of policy changes that incorporate these underlying responses. Static analyses that simply account for take-up among those uninsured eligible for expansions, and do not account for behavioral responses by the insured, may dramatically misstate the impacts of reform. Second, these variegated responses mean that there are many criteria along which any incremental reform can be evaluated.

One obvious criterion is the magnitude of the reduction in the uninsured. But this is not a useful criterion, because any incremental reform can be adjusted to reduce the size of the uninsured by different amounts, as I show below. What is more relevant, particularly now that we have reentered an era of deficit politics, is the cost of achieving any reduction in the uninsured, or the "buck for the bang." This has been the focus of much previous analysis of incremental reform.

There are at least four other criteria that might be important to policymakers. The second criterion that may be considered is the extent of erosion of the employer-provided insurance market. Employer-provided insurance is a much better insurance product than nongroup insurance, since benefits are more generous and there is less individual experience rating, either across persons or within a person over time. Employer-provided insurance is also likely to be better than public coverage; although benefits are less generous, there is much wider choice of providers. Indeed, the existence of vast numbers of persons eligible for public insurance who choose to remain in the employer-provided system reveals that the latter is a preferred product. Thus, a downside of incremental expansion is that it may "crowd out" employer-provided insurance.

The third criterion is the extent to which some individuals end up newly uninsured as a result of the expansion, for example, because they are dropped by their firm but not eligible for expanded insurance. While this is reflected in the net change in the uninsured, this subgroup is of particular concern, since they are actually suffering as a result of insurance expansions.

Fourth, there is the question of *which* uninsured are impacted by reform. Simply counting the dollars per newly insured is not satisfactory when different reforms may appeal to very different populations. For example, a reform that significantly increases insurance coverage among children will have much lower costs than one which has the bulk of its impacts in the much higher-cost adult population. But this is an unfair comparison, because the latter reform is essentially extending more valuable insurance coverage than is the former.

Finally, one must consider the income-distribution aspects of any expansion. Tax credits in particular are often sold as a tax reduction as much as an incentive for insurance increase. Thus, as with any change in taxes (or spending), an important piece of the overall evaluation will be the distributional aspects of the net new spending.

II. Comparing Alternatives

To add some empirical content to this discussion, I turn to microsimulation modeling. The model I use was first developed to analyze nongroup credits (Gruber, 2000; Gruber and Levitt, 2000) and has now been extended to consider public-insurance expansions as well. This model takes as its base the February and March 2001 Current Population Surveys. I match to these surveys information on group insurance costs, nongroup insurance costs, and medical spending, all expressed in $2002. The model consists of a detailed and integrated set of behavioral equations that relate the change in the price of insurance under various reforms to behavioral responses by individuals, families, and firms. In particular, to capture the important firm responses to these changes, I have created "synthetic" firms in the CPS by drawing for each worker other "co-workers" in the CPS based on that worker's wage, industry, firm size, and health-insurance offering status.

I contrast here the effects of three alternative policies. The first is a nongroup tax credit, similar to the type that has been proposed by the Bush Administration and endorsed by both

Democrats and Republicans. This is a refundable tax credit that can be used only to purchase nongroup insurance. It is fully available to singles (or to families where only one adult takes the credit) with adjusted gross income (AGI) of up to $20,000, and eligibility then phases out by AGI of $40,000. It is fully available to families up to AGI of $40,000, and it then phases out by AGI of $80,000.

The second is an expansion of public insurance to all adults with incomes below some multiple of the poverty line. Most adults are not now eligible for public insurance, although in some states parents of eligible children are also eligible for public insurance. The third is an expansion of public insurance only to parents, excluding childless adults, with incomes below some multiple of the poverty line. These expansions also incorporate any children who are not already eligible in these families, so that children are never ineligible if their parents are eligible.

The parameters for each of these runs are chosen to yield two target net reductions in the number of uninsured: 2 million persons and 5 million persons. By pinning down a similar net reduction in the uninsured, I am able to put the credit and public expansions on similar footing in terms of comparing the other criteria noted above.

Table 1 shows the results of these simulation exercises. The first row of each table panel shows the parameters for each run, either in terms of the size of the nongroup credit (expressed as maximum dollar credit for singles/maximum dollar credit for families), or the coverage as a percentage of the federal poverty line. For example, to cover two million new persons requires a nongroup credit of $1,000 for singles and $2,250 for families; or an expansion to all adults with incomes up to 60 percent of the federal poverty line (FPL); or an expansion to all parents with incomes up to 200 percent of the poverty line. To cover five million new persons requires a nongroup credit of $2,000 for singles and $4,500 for families; an expansion to all adults with incomes up to 140 percent of the poverty line; or an expansion to all parents with incomes up to 400 percent of the poverty line.

The first criterion discussed above is the "buck for the bang," or the net cost per newly insured. This is reflected in the seventh row of each panel of the table, which shows the annual cost of a fully phased-in expansion in $2002, and the eighth row, which computes the cost per newly insured. The relative rank of the policies

TABLE 1—COMPARING OPTIONS FOR CONSTANT NET REDUCTIONS IN UNINSURED

Criteria	Tax credit	Expand to adults	Expand to parents
A. *2 Million Reduction:*			
Parameters	$1,000/2,250	0.6 × FPL	2 × FPL
Uninsured take-up (millions of persons)	3.1	2.0	2.3
Uninsured increase (millions of persons)	−1.1	0	−0.2
Net decrease in uninsured (millions of persons)	2.0	2.0	2.1
Net decrease in employer insured (millions of persons)	−3.4	−0.3	−2.0
Net change in nongroup insured (millions of persons)	6.3	−0.2	−0.1
Net change in public insured (millions of persons)	−1	2.5	4.0
Total cost ($2002 billions)	5.12	6.95	5.55
Cost per newly insured ($2002)	2,550	3,580	2,680
Average cost of formerly uninsured ($2002)	1,180	2,770	1,770
Average cost of newly uninsured ($2002)	1,745	—	1,510
Average age of formerly uninsured	25.6	39.4	32.0
Percentage of formerly uninsured in fair/poor health	2.0	23	10
Spending per dollar of insurance costs covered ($)	2.96	1.28	1.49
Percentage of dollars going to those < FPL	32	99	35
Percentage of dollars going to 100–200 percent of FPL	50	1	59
B. *5 Million Reduction:*			
Parameters	$2,000/4,500	1.4 × FPL	4 × FPL
Uninsured take-up (millions of persons)	6.8	5.2	5.6
Uninsured increase (millions of persons)	−1.9	−0.2	−0.8
Net decrease in uninsured (millions of persons)	4.9	5.0	4.8
Net decrease in employer insured (millions of persons)	−7.0	−1.6	−8.6
Net change in nongroup insured (millions of persons)	13.8	−0.6	−0.7
Net change in public insured (millions of persons)	−1.8	7.0	13.0
Total cost ($2002 billions)	22.5	16.7	14.3
Cost per newly insured ($2002)	4,570	3,300	2,980
Average cost of formerly uninsured ($2002)	1,240	2,440	1,620
Average cost of newly uninsured ($2002)	1,810	1,750	1,760
Average age of formerly uninsured	26.1	38.3	27.9
Percentage of formerly uninsured in fair/poor health	2.4	18	7.7
Spending per dollar of insurance costs covered ($)	4.52	1.34	1.88
Percentage of dollars going to those < FPL	28	67	17
Percentage of dollars going to 100–200 percent of FPL	47	33	34

here depends on the size of the reform. For the small reform, targeted to cover 2 million persons, the tax credit has the smallest buck for the bang, with a total cost of only $5.1 billion, or $2,550 per person newly insured. The parent expansion has the next highest cost, at $5.6 billion, or $2,680 per person newly insured. The adult expansion has the highest cost, at almost $7 billion, or $3,580 per newly insured.

However, the buck for the bang of the nongroup credit rises very rapidly with the size of the credit. To cover five million new persons with a nongroup credit would cost a total of $22.5 billion dollars per year, or $4,570 per newly insured. At the same time, covering that many persons with an expansion to parents would cost only $14.3 billion, or $2,980 per newly insured; and an expansion to all adults would cost $16.7 billion, or $3,300 per newly insured. The nongroup expansions see such a rapid rise in costs because there is greater take-up among those with private insurance, because there is a larger rise in the number of individuals losing coverage (which raises costs per net person insured), and because each person taking the credit is getting a much larger credit amount.

The second criterion was the erosion of the employer-provided insurance market. The fifth row of each panel of the table shows the net decrease in the number of employer-insured individuals for each policy. Along this dimension, the clearly preferred policy is the expansion to all low-income adults, regardless of the size of the policy. In each case there is a much smaller erosion of the employer insured with this alternative, for two reasons. First, at these very low income levels, relatively few adults are already covered by employer-provided insurance, so there is no opportunity to switch to public coverage. Second, the model incorporates the full distribution of worker incomes into firm decision-making. With such a low income cutoff, only a small share of employees at any given firm will be eligible for public expansions so that relatively few firms will find it attractive to drop insurance.

The relative ranking of the nongroup credit and the expansion to parents along this dimension depends on the size of the policy. For smaller expansions, nongroup credits lead to a larger erosion of the employer insurance pool, for the same reasons discussed above: the relative paucity of employer coverage among those parents below 200 percent of the poverty line, and their small share of the workforce in firms that provide insurance. However, for the much larger expansions, there is more reduction in employer-provided insurance for the parent expansions, as the cutoff of 400 percent of the poverty line rises quite high in the income distribution.

The third criterion is the number of persons who were previously insured, who become uninsured as a result of having their insurance dropped by the employer, but who are either ineligible for or do not take up the new expansion; this estimate also includes a very small number of persons who decide themselves to drop employer-provided insurance because employers increase employee contributions in reaction to the expansions. For this criterion, the ranking of the policies is clear. For expansions to all low-income adults, there is effectively no increased uninsurance among the previously insured. For expansions to parents, there is very small increased uninsurance among the previously insured. However, for nongroup credits, there is a nontrivial number of persons who move from private insurance to uninsurance, rising to 2 million for the larger nongroup credit, mostly due to firms dropping insurance coverage. This reflects the fact that the nongroup credit reaches a large share of the income distribution, so that firms will find it more likely to be in their interest to drop insurance for the entire workforce when the credit is introduced. Workers from those firms that drop may not find it attractive to take up the credit, so that they become uninsured.

The fourth criterion noted above, and the one which has received the least attention in previous discussions of insurance expansion, is *which* uninsured gain coverage. The analysis thus far, as with virtually all previous analyses, has relied on counts of those newly insured. But the population becoming newly insured is quite different under the different types of reforms. In particular, it is those who are most healthy who are likely to take up nongroup credits. Given a fixed credit amount, a higher share of medical costs are covered for the most healthy, so that there is a larger subsidy rate and a smaller

remaining out-of-pocket burden for that group; thus, they will be most likely to take up. Indeed, the very ill may be unable to benefit at all from nongroup credits without strong insurance-market reforms to guarantee access at some reasonable price.

At the other extreme, it is those who are least healthy who are most likely to take up public-insurance expansions. This is because public insurance provides comprehensive medical coverage, which will be most valuable to those who are in the most dire straits without such coverage. This adverse selection into public coverage will drive up the cost per newly insured under public-insurance expansions.

This conclusion can be demonstrated empirically in the following manner. I assign to each individual in my data the average amount of health-care spending of someone with the same age, sex, and health status. I call this their true insurance "cost." I then compute the average insurance cost for those who were formerly uninsured but who now have insurance under the expansion. This summarizes the health status of this population of insurance "gainers." I also compute the insurance cost for health-insurance "losers," those who were formerly insured but who are now uninsured due to the expansion.

Finally, I compute the aggregate insurance cost of the uninsured, both before and after the expansions; that is, for each uninsured person, I multiply by their insurance cost. The difference in this quantity from before to after expansion is the insurance cost that is covered by the expansion. By dividing the total spending by this change in the cost of the uninsured, I can compute government spending per dollar of insurance cost covered. This is akin to a cost per newly insured that is weighted by the cost of those who are gaining insurance on net.

The results of this exercise are striking. The nongroup expansions clearly cover a much healthier population on average. The average cost of a person newly insured under nongroup expansions is only about $1,200. In contrast, for the expansions to low-income adults, the average cost is roughly twice as large, and for expansions to low-income parents the average cost is roughly 50 percent larger. Strikingly, for the nongroup expansions, the average cost of those losing insurance is much higher than the average cost of those gaining it; that is, the population displaced from insurance coverage due to nongroup expansions is less healthy, on average, than those uninsured who gain coverage.

The reason for this discrepancy can be easily seen in the next two rows of the table. The average age of those uninsured taking up coverage under the nongroup expansions is about 26 years, while it is almost 40 years for those adults taking up the low-income adult expansion. Similarly, only about 2 percent of those gaining insurance under the nongroup expansion are in fair or poor health, while between one-fifth and one-quarter of those gaining insurance under the adult expansion are in fair or poor health.

As a result, nongroup credits, even when they have a lower cost per newly insured, always have much higher spending per dollar of insurance costs covered. For example, for the smaller expansions, each dollar of net new insurance cost that is covered by nongroup expansions costs the government almost $3; for the larger expansions, this rises to over $4.60. But for expansions to low-income adults, the government only spends about $1.30 for each $1 in uninsured costs that are covered. For expansions to parents, the spending is somewhat higher, but even for the large expansions the government spends less than $2 for each $1 of costs that are covered.

The final criterion is distributional equity. This is explored in the final two rows of each panel of the table, which show the share of public spending under each expansion going to those below the poverty line, and those between 100 and 200 percent of the poverty line. Here, once again, the clearly preferred option is the expansion to very low-income adults. Expansion to adults with income up to 60 percent of the poverty line delivers virtually all the benefits to those below the poverty line; the small amount to those above the poverty line arises because public-insurance expansions use a "countable income" definition that excludes some items from income when computing eligibility. But the other policy options are also very progressive; even for the largest expansions, the majority of the dollars under each option are delivered to those below 200 percent of the poverty line. For these larger expansions,

TABLE 2—COMPARING OPTIONS ALONG FIVE CRITERIA

Criteria	Tax credit	Expand to adults	Expand to parents
A. *2 Million Reduction:*			
Cost per newly insured	1	3	2
Erosion of employer-provided insurance	3	1	2
Number of persons newly uninsured	3	1	2
Spending per dollar of insurance costs covered	3	1	2
Distributional equity	3	1	2
B. *5 Million Reduction:*			
Cost per newly insured	3	2	1
Erosion of employer-provided insurance	2	1	3
Number of persons newly uninsured	3	1	2
Spending per dollar of insurance costs covered	3	1	2
Distributional equity	2	1	3

the nongroup credit is considerably more distributionally attractive than the expansion to parents.

III. Conclusions

The net comparison of these policies along the five criteria discussed in this paper is summarized in Table 2. One conclusion seems clear: along virtually every criterion, expanding insurance coverage through covering low-income adults is the dominant strategy. The only exception to this conclusion is for small expansions, where the cost per newly insured is highest for low-income adults. At the same time, however, there is an overwhelming advantage for expansions to adults in terms of spending per dollar of insurance costs covered that offsets this disadvantage.

Contrasting expansions to parents and nongroup credits is more difficult. I would suggest that the most important criterion is the cost per dollar of new insurance, since an unweighted cost per newly insured person misstates the larger value of the insurance provided to less-healthy persons. Along this dimension, the expansions to parents do particularly well relative to nongroup credits. On the other hand, the nongroup credits are more distributionally attractive and involve a smaller erosion of the employer-provided insurance base; at the same time, the erosion that does occur is more likely to lead to persons becoming newly uninsured in the case of nongroup credits. Thus, contrasting these options requires explicit value judgments about which criteria are most important.

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