

HEALTH ECONOMICS[†]

The Effect of Medicaid Expansions on Public Insurance, Private Insurance, and Redistribution

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One of the most important changes in the health insurance marketplace in the United States over the past 30 years was the expansion of the Medicaid program for children and pregnant women from the mid-1980's through the early-1990's. Until 1986, Medicaid coverage was primarily limited to low-income female-headed families who qualified for the Aid to Families with Dependent Children (AFDC) program. In an effort to expand insurance coverage, the Medicaid expansions severed the link between AFDC and eligibility for Medicaid. Eligibility was expanded to young children and pregnant women in higher-income families, and the restrictions on family composition were eliminated.

The Medicaid expansions coincided with dramatic changes in the nature of insurance coverage in the United States. Over this time period, Medicaid coverage soared. Between 1987 and 1992, the share of the nonelderly population on Medicaid increased from 18 million to 26 million, or 40 percent, and Medicaid spending increased over 60 percent. In addition, private insurance coverage fell substantially, from 76 percent of the nonelderly population in 1987 to 72 percent in 1992. This point is illustrated for children in Figure 1. Between 1987 and 1992, Medicaid coverage for children increased by nearly 5 percentage

points, but private insurance fell by nearly the same amount. The uninsurance rate among children was essentially unchanged.

These concurrent trends raise the possibility that the increase in Medicaid eligibility was responsible for the reduction in private coverage, as eligible families chose to drop their private policies and join the (free) Medicaid program. At the same time, of course, there was both a sizable recession and a continued widening of the income distribution in the United States, both of which would lead to rising Medicaid coverage and falling private insurance coverage. In this paper, we separate the roles of Medicaid policy and macroeconomic factors in explaining the trends in Figure 1.

I. Medicaid Eligibility and Program Growth

The Medicaid program covers three distinct groups of the population: the elderly, the blind and disabled, and poor women and children. Spending is roughly evenly divided among the three groups. Spending on Medicaid rose dramatically in the late 1980's and early 1990's. In real terms (1992 dollars), Medicaid payments for medical care rose from \$55 billion in 1987 to \$91 billion in 1992, or 63 percent. Spending grew most rapidly for poor women and children (12.1 percent per year in real terms), although it also grew rapidly for the elderly (7.6 percent per year) and the blind and disabled (9.7 percent per year). Part of the increase in Medicaid spending reflects factors general to the health sector: real medical spending as a whole increased by 5.4 percent annually between 1987 and 1992. And part of the increase reflects increased eligibility for the program.

This latter component is particularly important for the nonelderly, nondisabled popula-

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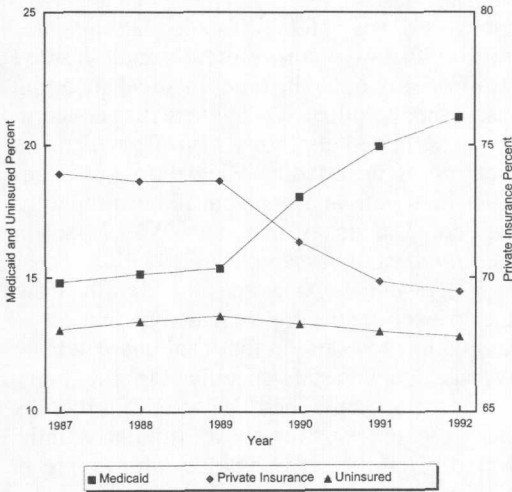


FIGURE 1. PERCENTAGES OF CHILDREN WITH DIFFERENT TYPES OF INSURANCE

Note: Based on March Current Population Surveys (CPS) through 1993.

tion. Traditionally, Medicaid coverage among the poor was limited to recipients of AFDC. This effectively limited the program to single women with children and income of roughly half the poverty line or below. Beginning in 1987, however, Medicaid eligibility was expanded beyond AFDC recipients.¹ By 1992, all pregnant women and children below age six in families with income below 133 percent of poverty were eligible for Medicaid, as were all children born after September 30, 1983, with income below 100 percent of poverty. In addition, states could expand Medicaid eligibility to 185 percent of the poverty line and still receive Federal matching money. The effect of these expansions differed dramatically by state. Many northeastern and western states had relatively generous eligibility criteria through their AFDC programs to begin with, and so the expansions were less important for them. Other states, particularly in the South, had much lower AFDC eligibility and thus correspondingly greater expansions.

¹ There was some possibility of Medicaid eligibility beyond AFDC prior to the expansions, but this was relatively rare. See Janet Currie and Gruber (1994, 1996) for descriptions of the expansions and details of the simulation procedure employed here.

TABLE 1—SOURCES OF INCREASE IN MEDICAID COVERAGE OF CHILDREN (MILLIONS)

Basis of eligibility	1987		1992		Changes in coverage
	Eligibility	Coverage	Eligibility	Coverage	
Means-tested programs	11.8	7.3	12.9	9.2	1.9
Expansions	—	—	5.9	2.1	2.1
Total	11.8	7.3	18.8	11.3	4.0
Part-year eligibles	—	2.6	—	3.4	0.8
Total	—	9.9	—	14.7	4.8

Note: Data are based on March CPS for 1988 and 1993.

To measure the effect of these expansions on Medicaid eligibility, we use data from the March Current Population Surveys (CPS) from 1984 through 1993. Since the CPS asks about insurance and income with a one-year lag, the data are for 1983 through 1992. Because the CPS does not indicate whether a woman is pregnant, we impute eligibility for all women of childbearing age (15–44).

Medicaid eligibility among children rose by 3 percentage points from 1983 to 1987 and then rose by nearly 10 percentage points in the next five years. Eligibility increases for women of child-bearing age were even larger. By 1992, nearly half of women and over a quarter of children were eligible for some Medicaid coverage.

To break out the effects of these expansions in more detail, Table 1 reports eligibility and coverage under Medicaid for children in 1987 and 1992. We focus on children rather than women because women were covered for pregnancy-related services only and thus would not be continuously enrolled in Medicaid (an issue to which we return below). Our eligibility measure is based on annual income data, while program eligibility is based on monthly data. Thus, some children are reported as receiving Medicaid but are not eligible for it on an annual basis. We show these “part-year eligible” children separately in the bottom panel of the table, but we exclude them from our decomposition of the sources of program growth.²

² These children are excluded from the calculation because we do not know the reason why they are eligible for Medicaid.

Between 1987 and 1992, Medicaid coverage of children rose by 4 million, or 55 percent. About half of this increase was among the traditional means-tested population. Part of this increased coverage reflects changes in the income distribution and the size of the population, which together added 1.1 million children to the eligible group. At the 1987 take-up rate, this would increase Medicaid coverage by 0.7 million. In addition, there was a dramatic increase in take-up rates, from 62 percent in 1987 to 71 percent in 1992. This increase in take-up rates accounted for an additional increase of 1.2 million persons in Medicaid coverage.

More important than the increase in traditional coverage, however, was coverage through the Medicaid expansions. The expansions added 5.9 million children to the eligibility roles and 2.1 million children to Medicaid coverage. The expansions therefore explain roughly half of the total increase in Medicaid coverage.

An alternative measure of the importance of the Medicaid expansions is their effect on Medicaid spending. To examine this, we use data on hospital, physician, and clinic spending for children and women of childbearing age in the 1983–1992 period. In 1987, Medicaid spending for this group was about \$8.4 billion. Three-quarters of this was hospital spending; most of the remainder was for physicians. We relate this spending to data on the dollar value of Medicaid eligibility. We form the dollar value of eligibility as the weighted sum of our individual eligibility data, using age- and sex-specific medical spending as weights.³

Because the Medicaid expansions differed so much by state, it is natural to identify the cost of the expansions using within-state differences in the growth of the eligible population. A first-pass regression would therefore explain state per capita spending on Medicaid with per capita Medicaid eligibility, controlling for state and year effects. This regression is problematic, however, because of omitted-variables bias. Eligibility will be highest in those states and years that have the lowest in-

comes or the most female-headed families. But those with low incomes or in female-headed families may have different medical spending than other families. To address this concern, we construct an eligibility measure which is a function of the Medicaid legislative environment in a state and year but is not related to the demographics of that state. We first select a *national* random sample of 300 children of each age and 3,000 women of child-bearing age in each year. We then assign that same sample to each state in that year and calculate average age- and state-specific eligibility rates. We form a “simulated dollar eligibility” as the weighted sum of these simulated individual eligibility rates. Since our sample is national, it is unaffected by state-level demographic differences or differences in local economic conditions; it thus purges omitted-variable bias from our measure of eligibility.

Our instrumental-variables estimate of the cost of the Medicaid expansions is:⁴

$$\begin{aligned} (1) \quad & (\text{Medicaid/capita})_{s,t} \\ & = 0.295 (\text{Eligibility/capita})_{s,t} \\ & \quad (0.050) \\ & \quad + (\text{state})_s + (\text{year})_t + \varepsilon_{s,t} \end{aligned}$$

($N = 490$, $R^2 = 0.857$). Each dollar of eligibility increase leads to increased Medicaid spending of 30 cents; this estimate is highly statistically significant. Since the increase in per capita eligibility due to the Medicaid expansions was about \$14 billion, the regression suggests that the expansions cost about \$4 billion. This is roughly one-third of the increase in Medicaid costs for the poor. Thus, using either spending or coverage, the Medicaid expansions can explain $1/3$ to $1/2$ of the increase in Medicaid coverage of the poor over this era.

II. Medicaid and Private Insurance Coverage

The Medicaid expansions clearly had an enormous effect on Medicaid coverage and spending. They may also have had an important effect on private insurance coverage. To

³ We break out the costs of pregnancy separately for women eligible for only pregnancy-related services. In Cutler and Gruber (1996), we discuss spending measures of eligibility in more detail.

⁴ Spending is in real terms. The regression is weighted by state population to correct for heteroscedasticity.

TABLE 2—MEDICAID ELIGIBILITY STATUS FOR CHILDREN AND WOMEN OF CHILDBEARING AGE, 1987

Characteristic	Eligibility status		
	Eligible in 1987	Made eligible between 1987 and 1992	Not eligible in 1992
Share of population (percentage)	19	14	67
Insurance coverage (percentage)			
Private	31	63	89
Public	50	15	7
Uninsured	25	25	8
Demographics (percentages)			
Female headed	58	33	16
High school dropout	43	26	13
High school graduate only	38	45	37
Head works	58	87	95
Family in poverty	76	16	2
Mean family income	\$12,071	\$19,577	\$42,608

Note: Data are from the March 1988 CPS and are weighted to national totals.

assess the incidence of these expansions, we divide children and women of child-bearing age into three groups: those who were eligible for Medicaid in 1987, those who were made eligible for Medicaid between 1987 and 1992, and those who were not eligible in 1992.⁵ Table 2 shows characteristics of each of these groups.

The first column shows the characteristics of the population eligible for Medicaid in 1987: roughly 19 percent of the child and 15–44-year-old female population. As the middle set of rows shows, this group was much less likely to have private insurance (only 31 percent) than to have public coverage (about 50 percent). About a quarter were uninsured. In terms of demographics, the Medicaid eligible were the “hard core” poor: they were predominantly female-headed families with low income and high poverty rates. Eighty percent

⁵ To measure 1992 eligibility, we inflate 1987 incomes to 1992 levels using the CPI. This method ignores changes in eligibility because of changes in the distribution of income or changes in family circumstances. We can thus focus on those covered solely by the expansions.

had a high-school degree or less, with most of those being high-school dropouts. Forty-two percent were in families where the head did not work.

The middle column shows characteristics of those made eligible for Medicaid between 1987 and 1992. This group is largely the “working poor.” Only a third of the families are female-headed. While 70 percent had no education above high school, most were high-school graduates. Nearly 90 percent of the family heads worked. As the middle rows show, this group was much more likely to have private coverage than to be uninsured. Almost three times as many people in this group had private insurance as were uninsured.

The pervasiveness of private insurance among the expansion population suggests the potential importance of crowding out. If everyone eligible for the expansions took up this coverage, those crowded out would be over two-thirds of the new Medicaid population. Of course, many people value private insurance more than Medicaid, and thus crowding out will be smaller.

Direct evidence on the extent of crowding out due to the expansions is presented in Cutler and Gruber (1996). In that paper, we exploit the cross-state and cross-age variation in the size of the expansions to estimate crowding out. As noted above, the expansions differed in different states and for children of different ages. As a result, there is extensive variation in the legislative environment within and across states, independent of individual tastes for insurance.

Table 3 summarizes our estimates of the effect of the Medicaid expansions on Medicaid and private coverage. We estimate that total Medicaid coverage rose by 2.2 million persons as a result of the expansions, while private coverage fell by 1.7 million persons, for an initial crowding-out estimate of 77 percent. A key issue in the expansions, however, is the notion of *conditional coverage*. The Medicaid expansions explicitly *did not* give continuous coverage to women. Rather, they created a form of conditional coverage; women are covered, but only for some expenses. As a result, women who are eligible for Medicaid in the event of pregnancy but who report themselves to be uninsured actually have some partial (conditional) insurance coverage. In particular, these women will have their hospital bills

TABLE 3—THE EFFECT OF MEDICAID EXPANSIONS
ON INSURANCE COVERAGE

Measure	Change in coverage (millions)	
	Medicaid	Private
Coverage of:		
Children	1.5	-0.6
Women 15-44	0.7	-0.8
Other adults	—	-0.3
Total:	2.2	-1.7
Percentage change:		(-77)
Conditional coverage of women	0.9	—
Conditional coverage of children	0.4	—
Total:	3.5	-1.7
Percentage change:		(-49)
Source of coverage change		
Formerly uninsured	2.8	—
Formerly insured	0.7	-1.7

Note: See Cutler and Gruber (1996) for details.

for delivery covered, since hospitals have developed detailed systems to insure that uninsured persons who are eligible for Medicaid get signed up for the program.

In the same vein, Medicaid also provides a form of conditional coverage for uninsured children. The fact that these children are not continuously covered by Medicaid suggests that they are not availing themselves of the insurance for the purpose of their primary medical care. Once again, however, when these children need hospital services, they may be signed up for Medicaid, so that they have conditional coverage for their hospital spending.

We proxy for this conditional coverage by valuing it at the share of medical spending that is accounted for by hospital expenses for pregnancy (25 percent) and hospital spending for children (44 percent). Doing so, shown in the next set of rows in Table 3, increases the estimated coverage increase to 3.5 million people. Accounting for conditional coverage, our bottom-line estimate is that 49 percent of the increase in Medicaid eligibility was associated with a reduction in private insurance coverage.

While our estimates suggest substantial crowding out, they do *not* suggest that most

of the reduction in private insurance coverage over this period is because of crowding out due to Medicaid. Relative to the percentage of the population with private health insurance in 1987, there was a decline of 9.9 million persons in private coverage by 1992. Of this reduction, about 17 percent was due to crowding out. The remainder was due to macroeconomic factors, changes in the demographic mix of the population, or changes in employer or worker behavior unrelated to Medicaid generosity.

III. Implications of Crowding Out for Program Costs and Redistribution

This crowding out of private insurance has two effects. First, it reduces the “bang for the buck” from the expansion of public coverage; that is, the cost to the government of reducing the number of uninsured is higher than it otherwise would have been, since some of the increased spending is on individuals who are simply changing their form of insurance. As noted above, for every two people covered by the expansions, one person lost private insurance. A quick estimate of “excess spending” is therefore 50 percent of total cost.

This figure is too high, however, since not everyone who dropped private insurance coverage was eligible for Medicaid. As we show in Cutler and Gruber (1996), a large share of the reduction in private coverage resulted from families dropping employer-based insurance entirely. Within a family, some members will be eligible for Medicaid, but others will not. For example, adult males and older children are less likely to be eligible for Medicaid than women and younger children. We estimate that for those families that were crowded out, only 40 percent of the persons in the family were subsequently eligible for Medicaid.⁶ Assuming that all these eligible individuals then

⁶ This number is computed as follows. We begin with the sample of families in 1987 that was made eligible for the expansions. We then form a predicted probability that they drop insurance: the family's share of dollars eligible for Medicaid times our overall crowdout coefficient. We then add up the share of people eligible for Medicaid, weighted by the probability that the person lost private insurance coverage.

take up Medicaid,⁷ we estimate that 0.7 million (1.7 million \times 40 percent) of the 3.5-million-person increase in Medicaid coverage was due to those who were crowded out of private insurance. This is 20 percent of the total Medicaid increase from the expansions. The remaining 80 percent of the increase in Medicaid, or 2.8 million people, was from those who were formerly uninsured. We present these results in the bottom of Table 3.

Beyond affecting the "bang for the buck" from Medicaid expansions, crowding out also results in large income transfers to those who are crowded out. As noted above, the expansion population is largely the working poor; dual-parent families with high-school degrees but only moderate income. For this group, other public transfers are relatively low. On average, 83 percent of income for this group is wage and salary income.

We can evaluate the impact of this transfer on family income using the same methodology as with the crowding-out calculation. We estimate that, on average, families that were crowded out of private insurance received an income transfer of \$1,523.⁸ Relative to their mean income of \$18,302, this is an 8-percent increase in income, a nontrivial amount for this working-poor population.

IV. Conclusions

Our results raise a number of important policy questions. First, how should future insurance expansions be structured to minimize the extent of crowding out? The Medicaid expansions had an exclusionary structure, whereby individuals were either entirely eligible for public insurance or not eligible at all. An al-

ternative would be to subsidize the purchase of private insurance by low-income people, with a sliding scale that offers high subsidies for the very poor and lower subsidies as income increases. In this case, there would be no crowding out, although more families would be eligible for a subsidy. Alternatively, a waiting period could be imposed between when an individual loses private coverage and when the family becomes eligible for Medicaid, or individuals could be excluded from Medicaid coverage entirely if they are offered but decline private coverage.

Second, how does Medicaid policy compare to alternative means of redistributing income to the working poor? Medicaid induces distortions in insurance choice that society would like to minimize. Other redistributive programs induce different types of distortions, however, particularly in the labor-leisure choice. This has not been a problem for the Medicaid expansions, where most of the evidence suggests that the expansions increase labor-force participation rates (Aaron Yelowitz, 1995). Thus, comparing across alternative redistributive systems involves weighing these other factors as well, which could be a fruitful topic for future research.

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⁷ This estimate is an upper bound. Without panel data, we have no way of knowing what share of people crowded out of private insurance subsequently received Medicaid coverage.

⁸ This is the average employer cost of employee health-insurance benefits in 1987. This calculation assumes that families receive all of the savings from choosing not to purchase employer-provided health insurance (see Gruber [1994] for evidence on this point), and that for those family members who remain uninsured there is no net financial consequences from dropping insurance.