

Children at Risk: Their Health Insurance Status by State

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ABSTRACT. *Objective.* To inform policymakers and child health advocates about children's health insurance coverage in each state as Congress debates proposals to restructure the Medicaid program amidst declining employer-based dependent health insurance coverage.

Methods. Multiple years of data from the March supplement of the Current Population Surveys were pooled to yield more reliable estimates of changes in children's health insurance coverage in each state from 1987 to 1993.

Results. Overall, the number of uninsured children grew by nearly 1 million between 1987 and 1993. The proportion of infants and children <7 years old without health insurance declined; the proportion of uninsured children between the ages of 7 and 22 increased. Between 1987–1990 and 1991–1993, six states experienced a significant increase in the number of uninsured children, only two states experienced a significant decrease in the number of uninsured children, although no progress was found in reducing the number of uninsured children in 43 states. Between 1987–1990 and 1991–1993, the proportion of children covered by employer-based private insurance decreased significantly in three-fourths of the states and the proportion of children with Medicaid coverage increased significantly in four-fifths of the states.

Conclusions. In a period of fast-declining employer-based health insurance coverage for dependents, Medicaid expansions have worked to moderate the surge in the number of children without health insurance. Of the 30 million children without private health insurance in 1993, nearly 18 million were insured by Medicaid. As policymakers debate the future of the Medicaid program, they must consider seriously its role as the country's largest insurer of children's health and its efficacy as a vital safety net for the nation's children. *Pediatrics* 1997; 99(5). URL: <http://www.pediatrics.org/cgi/content/full/99/5/e2>; children, insurance, Medicaid, access, state.

ABBREVIATIONS. CPS, Current Population Survey; FPL, federal poverty level.

In this country, >12.2 million children under 22 years old do not have health insurance (Table 1). It is well documented that children who lack health insurance are less likely to have access to needed health care services such as preventive care, are less likely to use health care services, and are more vulnerable to health problems.^{1–4}

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Received for publication Aug 8, 1996; accepted Sep 12, 1996.

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The Medicaid program, a joint federal/state program that finances health care for low-income vulnerable Americans, insures more children in this country than any other public or private entity.⁵ Beginning in 1989, states were required to increase their Medicaid programs by expanding eligibility to pregnant women and children. Today, all states must cover pregnant women and children to age 6 up to 133% of the federal poverty level (FPL) and children through age 13 up to 100% of the FPL. In addition, 38 states in 1995 had adopted Medicaid eligibility expansion options that went beyond the federal mandates. Also, 36 states have medically needy programs that provide at least some Medicaid services to persons who also meet the nonfinancial standards for inclusion in one of the groups covered under Medicaid, but who do not meet the income or resource requirements for categorically needy eligibility.⁶

Today, in an effort to balance the federal budget, Congress is debating proposals that will restructure the Medicaid program as an entitlement program to children. Some estimate that proposed budget cuts could eliminate Medicaid coverage for as many as 4.4 million children nationwide and cut federal Medicaid funding by \$182 billion over 7 years, reducing funding to the states by 30% in 2002.⁷ But before any action is taken, policymakers and others should recognize the enormous impact this program has had on the pregnant women and children in each state. For example, in fiscal year 1994, more than half (54%) of Medicaid beneficiaries were children, although they only accounted for 23% of total Medicaid expenditures.⁶ Also in fiscal year 1994, Medicaid financed the health care for one-fourth of all children in the United States under 21; one-third of all US births; one-third of all children under 6; and one-half of all infants.^{6,8}

Several years ago, we developed a methodology for pooling multiple years of Current Population Survey (CPS) data to estimate the number of uninsured children in each state.⁹ Those data have been used extensively by state policymakers in assessing the effectiveness of Medicaid expansions. This article updates our previous work by 1) examining national estimates of uninsured children, by age and family income, at three points in time: 1987, 1990, and 1993; 2) analyzing changes in the number and proportion of uninsured children in each state between 1987–1990 and 1991–1993; and 3) looking at the number and proportion of children in each state with employer-based/private health insurance and Medicaid coverage.

TABLE 1. Children and Youth in the United States Without Health Insurance, by Age and Family Income, as a Percentage of the Federal Poverty Level*, 1987, 1990, and 1993

	1987		1990		1993	
	Number†	Percent	Number	Percent	Number	Percent
All children ≤21	11 248	14.4	11 871	15.0	12 240	15.3
≤100% FPL	4813	28.2	4403	24.7	4521	23.0
≤185% FPL	8100	26.9	8119	25.3	7985	23.6
>185% FPL	3149	6.6	3751	7.9	3996	9.0
Infants	523	13.9	491	12.3	414	11.0
≤100% FPL	232	20.9	200	16.0	165	13.9
≤185% FPL	365	21.1	319	16.6	254	13.4
>185% FPL	158	7.8	172	8.3	153	8.4
Ages 1–6	2660	12.2	2650	11.6	2705	11.6
≤100% FPL	1307	23.1	1139	18.3	1074	15.6
≤185% FPL	2080	22.1	2025	19.2	1915	16.9
>185% FPL	580	4.7	625	5.1	716	6.2
Ages 7–21	8066	15.4	8730	16.6	9121	17.3
≤100% FPL	3274	31.8	3064	29.6	3282	28.3
≤185% FPL	5655	29.9	5775	29.4	5816	28.2
>185% FPL	2411	7.2	2955	9.0	3126	10.1

Source: Current Population Surveys, 1988, 1991, and 1994.

* The federal poverty level (FPL) is computed by dividing total family income by each family's low income cutoff dollar amount as provided by the March Current Population Surveys.

† Numbers are in thousands.

We report three major findings. First, our data indicate that overall the number of uninsured children grew by nearly 1 million between 1987 and 1993. The proportion of infants and children <7 years old without health insurance declined; the proportion of uninsured children between the ages of 7 and 22 increased. Second, we observed noteworthy state variation in the number and proportion of uninsured children; between 1987 and 1990 and 1991 and 1993, six states experienced a significant increase in the number of uninsured children, only two states experienced a significant decrease in the number of uninsured children, although no progress was found in reducing the number of uninsured children in 43 states. Finally, we found a significant decrease in the proportion of children covered by employer-based private insurance in three-fourths of the states and a significant increase in Medicaid coverage in four-fifths of the states during this period.

METHODS

Pooling CPS Data

The CPS, conducted monthly for >50 years, is the source of official government statistics of employment and unemployment. Every March the CPS includes a supplement that queries subjects regarding health insurance coverage during the previous year. The March supplement provides the basis of this report.¹⁰

Although the March CPS has been a popular data source for state and national estimates of demographic and economic characteristics,^{11–14} small sample sizes pertaining to less populated states yielded estimates that vary in precision from state to state. Pooling together multiple years of CPS data is one strategy to increase state-level sample sizes. This method, however, complicates the computation of sampling errors due to two characteristics of the March CPS sample design; namely, year-to-year overlap and panel-to-panel dependence.

To facilitate the reader's interpretation of state level estimates and to conform to National Center for Health Statistics survey reporting guidelines, (Sirken MG, Shimizu I, French D, Brock D. *Manual on Standards and Procedures for Reviewing Statistical Reports*. Washington, DC: National Center for Health Statistics, Department of Health, Education, and Welfare, [unpublished information]) a method was developed to compute sampling errors for level and percent distribution estimates based on pooled CPS data.

This method, described in detail in a technical appendix (this technical appendix on computing standard errors of the state estimates is available from the authors at the American Academy of Pediatrics, 141 Northwest Point Boulevard, PO Box 927, Elk Grove Village, IL 60009–0927), adjusts for year-to-year overlap and panel-to-panel dependence in the March CPS sample to provide unbiased measures of sampling errors for state level analyses. In this report, sampling errors (measured in standard errors) are reported for all state level estimates; standard errors >20% of the estimates are noted.

Determining Insurance Status

If a child is covered by any private, employer-sponsored, or public (Medicaid) insurance, whether that insurance is provided by someone inside or outside of the household, that child is considered insured. The term “employer-based/privately insured” designates individuals who either have private insurance that they purchase themselves, private insurance received through employment, or public insurance received through employment. For example, persons who receive insurance coverage through the Civilian Health and Medical Programs of Uniformed Services are included in this group. Although the label may appear misleading, individuals are categorized in this way to distinguish between those who receive insurance from government welfare programs (in the Medicaid group) and those who receive insurance through government employment (in the employer-based/privately insured group).

Consistent with the Census Bureau, the estimates presented for the proportion of persons who are covered by Medicaid include the small percentage of nonelderly persons who are covered by Medicare (for children, generally <1%). Family income is derived from the total family income variable computed by the Census Bureau that includes all sources of income. (Total family income as computed by the Census Bureau includes all earnings, investment returns, unemployment and worker's compensation, child support, alimony, public assistance and welfare, social security, supplemental security income, disability, and retirement income. We did not adjust total family income by family size).

Interpreting Insurance Rates

The March supplement of the CPS asks individuals about their health insurance coverage throughout the entire preceding calendar year. Yet, research has shown that the percentage of the US population without insurance coverage in the CPS is quite similar to point-in-time estimates obtained from other surveys, suggesting that CPS respondents may have reported their health insurance coverage with respect to a point in time when they were interviewed, rather than in reference to an entire year.¹¹ This

TABLE 2. Number* of Uninsured, Employer-based/Private Insured, and Medicaid Covered Children and Youth in Each State, 1987–1990 and 1991–1993

	Uninsured		Employer-based/Private		Medicaid		Total Number
	Number	Standard Error	Number	Standard Error	Number	Standard Error	
United States							
1990	11 871	(163.2)	54 042	(279.1)	13 447	(172.5)	79 361
1993	12 240	(165.4)	49 870	(275.4)	17 780	(194.6)	79 891
New England							
+ Maine							
1987–1990	33.9	(3.2)	274.8	(9.2)	61.7	(4.3)	370.4
1991–1993	45.2‡	(4.5)	265.9	(10.9)	86.5§	(6.2)	397.6
– New Hampshire							
1987–1990	38.1	(3.5)	270.2	(9.3)	16.9	(2.3)	325.2
1991–1993	36.1	(4.2)	247.4	(11.1)	47.3§	(4.8)	330.8
– Vermont							
1987–1990	16.5	(1.6)	132.4	(4.6)	18.7	(1.7)	167.6
1991–1993	15.3	(1.9)	129.0	(5.6)	35.1§	(2.9)	179.4
+ Massachusetts							
1987–1990	126.3	(7.3)	1325.9	(23.3)	269.4	(10.5)	1721.6
1991–1993	181.0§	(10.4)	1154.1§	(26.0)	282.4	(12.9)	1617.5
+ Rhode Island							
1987–1990	25.4	(2.8)	221.7	(8.2)	36.4	(3.3)	283.5
1991–1993	25.9	(3.3)	178.1§	(8.6)	48.7‡	(4.5)	252.7
+ Connecticut							
1987–1990	73.3	(8.8)	768.1	(28.0)	67.4	(8.1)	908.8
1991–1993	76.6	(10.4)	783.3	(33.7)	146.6§	(14.7)	1006.5
Mid-Atlantic							
+ New York							
1987–1990	593.2	(25.1)	3738.9	(62.4)	1150.4	(34.9)	5482.5
1991–1993	657.4	(25.0)	3436.2§	(56.5)	1315.8§	(35.2)	5409.4
+ New Jersey							
1987–1990	202.3	(10.2)	1783.9	(29.9)	257.9	(11.4)	2244.1
1991–1993	268.8§	(14.0)	1690.2‡	(35.0)	343.2§	(15.8)	2302.2
– Pennsylvania							
1987–1990	334.8	(16.2)	2773.5	(46.3)	473.5	(19.3)	3581.8
1991–1993	325.6	(18.7)	2632.3‡	(53.0)	626.6§	(26.0)	3584.5
E. North Central							
+ Ohio							
1987–1990	334.2	(15.4)	2716.4	(43.9)	540.1	(19.7)	3590.7
1991–1993	369.2	(19.2)	2526.5§	(49.7)	714.8§	(26.6)	3610.5
– Indiana							
1987–1990	225.3	(18.2)	1285.6	(43.6)	174.9	(16.0)	1685.8
1991–1993	216.0	(20.9)	1244.0	(50.2)	365.2§	(27.1)	1825.2
+ Illinois							
1987–1990	377.3	(17.6)	2672.7	(46.5)	670.2	(23.3)	3720.2
1991–1993	451.4§	(22.4)	2523.0‡	(52.5)	765.3‡	(29.2)	3739.7
+ Michigan							
1987–1990	227.9	(12.0)	2211.2	(37.4)	583.2	(19.3)	3022.1
1991–1993	269.6‡	(15.4)	1972.1§	(41.2)	736.7§	(25.1)	2978.4
+ Wisconsin							
1987–1990	107.7	(11.2)	1185.7	(36.8)	163.8	(13.6)	1457.2
1991–1993	140.4	(14.5)	1243.7	(42.9)	269.8§	(20.0)	1653.9
W. North Central							
– Minnesota							
1987–1990	106.5	(11.0)	1088.5	(35.0)	224.2	(15.7)	1419.2
1991–1993	99.1	(12.3)	928.6§	(38.0)	294.3§	(21.5)	1322.0
+ Iowa							
1987–1990	66.2	(6.8)	751.6	(22.7)	97.0	(8.1)	914.8
1991–1993	82.8	(8.7)	714.0	(25.5)	128.1‡	(10.8)	924.9
+ Missouri							
1987–1990	210.8	(17.0)	1258.7	(41.4)	252.5	(18.6)	1722.0
1991–1993	227.8	(20.8)	1053.5§	(44.5)	283.8	(23.1)	1565.1
+ North Dakota							
1987–1990	17.7	(1.6)	186.8	(5.2)	18.4	(1.6)	222.9
1991–1993	21.1	(2.0)	158.5§	(5.5)	30.7§	(2.4)	210.3
– South Dakota							
1987–1990	37.1	(2.2)	179.4	(4.8)	27.8	(1.9)	244.3
1991–1993	31.7	(2.5)	163.1‡	(5.6)	39.9§	(2.8)	234.7
– Nebraska							
1987–1990	52.8	(5.8)	425.7	(16.5)	55.7	(6.0)	534.2
1991–1993	52.5	(5.1)	437.8	(14.7)	74.4‡	(6.1)	564.7
+ Kansas							
1987–1990	91.9	(7.2)	645.1	(19.2)	62.4	(6.0)	799.4
1991–1993	111.9	(9.3)	629.3	(22.3)	111.5§	(9.3)	852.7

TABLE 2. Continued

	Uninsured		Employer-based/Private		Medicaid		Total Number
	Number	Standard Error	Number	Standard Error	Number	Standard Error	
South Atlantic							
+ Delaware							
1987–1990	26.7	(2.2)	155.4	(5.4)	20.9	(2.0)	203.0
1991–1993	27.8	(2.8)	154.2	(6.6)	33.0§	(3.0)	215.0
– Maryland							
1987–1990	158.1	(14.2)	1065.0	(37.1)	173.0	(14.9)	1396.1
1991–1993	144.2	(16.0)	983.1	(42.3)	217.8	(19.9)	1345.1
+ D.C.							
1987–1990	28.1	(2.2)	89.6	(3.9)	37.9	(2.5)	155.6
1991–1993	32.8	(3.0)	66.2§	(4.3)	54.3§	(3.9)	153.3
+ Virginia							
1987–1990	267.0	(17.9)	1451.1	(41.8)	228.0	(16.6)	1946.1
1991–1993	271.0	(21.1)	1404.4	(48.3)	244.2	(20.2)	1919.6
+ W. Virginia							
1987–1990	90.8	(6.8)	384.7	(14.0)	99.8	(7.1)	575.3
1991–1993	99.3	(7.9)	302.8§	(13.7)	131.3§	(9.1)	533.4
+ N. Carolina							
1987–1990	292.1	(11.2)	1377.6	(24.2)	206.6	(9.3)	1876.3
1991–1993	303.1	(13.3)	1294.2†	(27.5)	403.0§	(15.5)	2000.3
– S. Carolina							
1987–1990	180.8	(11.4)	767.0	(23.5)	118.6	(9.2)	1066.4
1991–1993	165.3	(12.7)	725.8	(26.6)	297.7§	(17.1)	1188.8
– Georgia							
1987–1990	332.1	(21.4)	1355.4	(42.9)	322.2	(20.9)	2009.7
1991–1993	331.8	(26.7)	1189.6†	(50.1)	419.1§	(29.8)	1940.5
+ Florida							
1987–1990	775.2	(23.3)	2371.4	(40.5)	499.9	(18.6)	3646.5
1991–1993	823.5	(29.8)	2178.7§	(48.2)	923.9§	(31.6)	3926.1
E. South Central							
– Kentucky							
1987–1990	194.1	(13.7)	787.9	(27.6)	159.3	(12.4)	1141.3
1991–1993	163.5	(14.5)	690.4†	(29.7)	288.4§	(19.0)	1142.3
– Tennessee							
1987–1990	215.7	(16.1)	1003.8	(34.6)	292.5	(18.6)	1512
1991–1993	180.4	(16.7)	926.8	(37.7)	397.6§	(24.8)	1504.8
– Alabama							
1987–1990	275.1	(17.4)	852.3	(30.7)	216.6	(15.4)	1344.0
1991–1993	250.1	(18.6)	885.7	(34.9)	233.1	(17.9)	1368.9
– Mississippi							
1987–1990	185.3	(10.8)	531.1	(18.2)	220.8	(11.7)	1037.2
1991–1993	175.0	(11.8)	516.1	(20.2)	263.2†	(14.4)	954.3
W. South Central							
– Arkansas							
1987–1990	186.8	(10.5)	515.7	(17.5)	138.2	(9.0)	840.7
1991–1993	178.4	(11.9)	492.0	(19.7)	154.1	(11.0)	824.5
+ Louisiana							
1987–1990	317.3	(19.0)	807.4	(30.1)	305.1	(18.6)	1429.8
1991–1993	323.8	(22.5)	794.8	(35.3)	360.8	(23.7)	1479.4
+ Oklahoma							
1987–1990	232.7	(13.6)	671.1	(22.9)	123.7	(9.8)	1027.5
1991–1993	250.4	(16.3)	627.4	(25.8)	190.7§	(14.3)	1068.5
– Texas							
1987–1990	1543.4	(40.2)	3795.5	(62.2)	708.1	(27.1)	6047.0
1991–1993	1408.4	(45.8)	3336.9§	(70.1)	1124.5§	(41.1)	5869.8
Mountain							
– Montana							
1987–1990	46.5	(3.1)	186.5	(6.1)	44.6	(3.0)	277.6
1991–1993	33.0§	(2.9)	183.4	(7.0)	60.0§	(4.0)	276.4
+ Idaho							
1987–1990	64.4	(3.9)	283.2	(8.2)	29.1	(2.6)	376.7
1991–1993	65.9	(4.6)	267.7	(9.2)	52.0§	(4.0)	385.6
+ Wyoming							
1987–1990	19.6	(1.7)	125.7	(4.4)	14.3	(1.5)	159.6
1991–1993	21.9	(2.1)	126.3	(5.2)	21.6§	(2.2)	169.8
– Colorado							
1987–1990	164.2	(12.1)	751.6	(25.9)	123.2	(10.5)	1039.0
1991–1993	97.6§	(11.2)	752.4	(30.9)	167.8†	(14.6)	1017.8
– New Mexico							
1987–1990	135.3	(6.6)	311.0	(10.0)	76.2	(4.9)	522.5
1991–1993	119.3	(7.6)	304.9	(12.3)	120.5§	(7.7)	544.7

TABLE 2. Continued

	Uninsured		Employer-based/Private		Medicaid		Total Number
	Number	Standard Error	Number	Standard Error	Number	Standard Error	
- Arizona							
1987-1990	221.6	(14.1)	764.6	(26.1)	112.2	(10.1)	1098.4
1991-1993	207.3	(16.1)	710.2	(30.1)	218.2§	(16.7)	1135.7
+ Utah							
1987-1990	73.8	(5.4)	604.1	(15.5)	65.7	(5.1)	743.6
1991-1993	93.3	(7.2)	570.5	(17.8)	95.2§	(7.3)	759.0
+ Nevada							
1987-1990	64.7	(4.5)	252.5	(8.8)	28.4	(2.9)	345.6
1991-1993	86.4§	(6.2)	267.2	(10.7)	41.9§	(4.2)	395.5
Pacific							
+ Washington							
1987-1990	166.8	(14.1)	1133.3	(37.0)	185.3	(15.0)	1485.4
1991-1993	179.4	(17.2)	1165.3	(43.7)	215.7	(18.8)	1560.4
- Oregon							
1987-1990	143.2	(11.0)	664.5	(23.6)	104.3	(9.3)	912.0
1991-1993	114.9	(11.3)	635.8	(26.8)	152.6§	(13.2)	903.3
+ California							
1987-1990	1864.2	(56.9)	5833.1	(99.1)	1794.1	(55.8)	9491.4
1991-1993	1999.8	(54.5)	5687.8	(90.7)	2597.8§	(61.9)	10 285.4
- Alaska							
1987-1990	27.1	(1.8)	118.9	(3.8)	33.4	(2.0)	179.4
1991-1993	19.1§	(1.7)	125.2	(4.4)	43.6§	(2.6)	187.9
+ Hawaii							
1987-1990	26.4	(2.7)	272.7	(8.7)	34.8	(3.1)	333.9
1991-1993	27.3	(3.4)	262.3	(10.5)	61.6§	(5.1)	351.2

Source: Current Population Surveys, 1988 through 1994.

* Numbers are in thousands.

Standard errors are in parentheses.

+ Denotes an increase in the number of uninsured children between 1987-1990 and 1991-1993.

- Denotes a decrease in the number of uninsured children between 1987-1990 and 1991-1993.

† Significant ($P < .05$) change between 1987-1990 and 1991-1993.

§ Significant ($P < .01$) change between 1987-1990 and 1991-1993.

|| Significant ($P < .01$) change between 1990 and 1993.

hypothesis is consistent with the observation that the number of persons on the CPS files reporting Medicaid coverage (a point-in-time estimate) is significantly lower than the number of Medicaid participants reported by the states to HCFA annually on 2082 forms, a more inclusive annual estimate.¹⁵ If the point-in-time hypothesis is true, then estimates of the insurance coverage in this report should be interpreted as reflecting insurance coverage at one point in time—in March of the survey year rather than for the entire year preceding the March survey.

RESULTS

The number of uninsured children in the United States rose from 11.2 million in 1987 to 12.2 million in 1993 (Table 1). This increase was seen almost exclusively among children between the ages of 7 and 22 at all income levels. Infants and children between the ages of 1 and 6, with family incomes that were $\leq 185\%$ of the FPL saw a significant decline in their uninsured rates.

Table 2 and Table 3 describe the number and proportion of uninsured, employer-based/private insured and Medicaid covered children in each state from 1987 to 1990 and 1991 to 1993. We have chosen to report both numbers and proportions for the following reasons: 1) by reporting the number of uninsured children, the reader is given a sense of the actual magnitude of the child population at risk, and 2) by reporting proportions, the reader is able to compare state-by-state variations in child health insurance coverage.

Six states saw a significant increase in the number

of uninsured children, two states experienced a significant decrease in the number of uninsured children, and 43 states showed no significant change in the number of uninsured children during this period (Table 2). The proportion of uninsured children changed significantly in nine states during the period under study, rising in five states and declining in four (Table 3). However, the dynamics driving the rise and fall of the uninsured child population lie in the changing employer-based/private and Medicaid insured populations.

In 37 states, the proportion of children with employer-based/private health insurance declined significantly during the period under study (Table 3). In 41 states, the proportion of children with Medicaid coverage increased significantly during this same period. No states experienced a significant increase in employer-based insurance and no states experienced a significant decrease in Medicaid coverage during this time.

Seventeen of 19 states suffering from a significant decrease in the number of employer-based/private insured children, experienced simultaneously a significant increase in their Medicaid coverage (Table 2). Subsequently, 14 of those 17 states reported no significant increase in the number of uninsured children despite significant drops in employer-based/private health insurance for children. Although we are not implying that the Medicaid program picked

TABLE 3. Percentage of Uninsured, Employer-based/Private Insured, and Medicaid Covered Children and Youth in Each State, 1987–1990 and 1991–1993

	Uninsured		Employer-based/Private		Medicaid		Total Percent
	Percent	Standard Error	Percent	Standard Error	Percent	Standard Error	
United States							
1990	15.0	(0.5)	68.1	(0.3)	16.9	(0.5)	100%
1993	15.3	(0.5)	62.4§	(0.3)	22.3§	(0.5)	100%
New England							
+ Maine							
1987–1990	9.2	(0.9)	74.2	(1.4)	16.7	(1.2)	100%
1991–1993	11.4	(1.2)	66.9‡	(1.7)	21.8‡	(1.5)	100%
– New Hampshire							
1987–1990	11.7	(1.1)	83.1	(1.3)	5.2	(.8)	100%
1991–1993	10.9	(1.3)	74.8‡	(1.8)	14.3‡	(1.5)	100%
– Vermont							
1987–1990	9.8	(1.0)	79.0	(1.4)	11.2	(1.1)	100%
1991–1993	8.5	(1.1)	71.9‡	(1.8)	19.6‡	(1.6)	100%
+ Massachusetts							
1987–1990	7.3	(.4)	77.0	(.7)	15.6	(.6)	100%
1991–1993	11.2‡	(.7)	71.3‡	(.9)	17.5	(.8)	100%
+ Rhode Island							
1987–1990	9.0	(1.0)	78.2	(1.5)	12.9	(1.2)	100%
1991–1993	10.2	(1.3)	70.5‡	(2.0)	19.3‡	(1.7)	100%
– Connecticut							
1987–1990	8.1	(1.0)	84.5	(1.4)	7.4	(1.0)	100%
1991–1993	7.6	(1.1)	77.8‡	(1.7)	14.6‡	(1.4)	100%
Mid-Atlantic							
+ New York							
1987–1990	10.8	(.5)	68.2	(.7)	21.0	(.6)	100%
1991–1993	12.2*	(.5)	63.5‡	(.7)	24.3‡	(.6)	100%
+ New Jersey							
1987–1990	9.0	(.5)	79.5	(.7)	11.5	(.5)	100%
1991–1993	11.7‡	(.6)	73.4‡	(.8)	14.9‡	(.7)	100%
~ Pennsylvania							
1987–1990	9.3	(.5)	77.4	(.7)	13.2	(.6)	100%
1991–1993	9.1	(.5)	73.4‡	(.8)	17.5‡	(.7)	100%
E. North Central							
+ Ohio							
1987–1990	9.3	(.5)	75.6	(.7)	15.0	(.6)	100%
1991–1993	10.2	(.5)	70.0‡	(.8)	19.8‡	(.7)	100%
– Indiana							
1987–1990	13.4	(1.1)	76.3	(1.4)	10.4	(1.0)	100%
1991–1993	11.8	(1.2)	68.2‡	(1.7)	20.0‡	(1.4)	100%
+ Illinois							
1987–1990	10.1	(.5)	71.8	(.7)	18.0	(.6)	100%
1991–1993	12.1*	(.6)	67.5‡	(.9)	20.5*	(.8)	100%
+ Michigan							
1987–1990	7.5	(.4)	73.2	(.7)	19.3	(.6)	100%
1991–1993	9.1*	(.5)	66.2‡	(.9)	24.7‡	(.8)	100%
+ Wisconsin							
1987–1990	7.4	(.8)	81.4	(1.2)	11.2	(1.0)	100%
1991–1993	8.5	(.9)	75.2‡	(1.4)	16.3‡	(1.2)	100%
W. North Central							
~ Minnesota							
1987–1990	7.5	(0.8)	76.7	(1.3)	15.6	(1.1)	100%
1991–1993	7.5	(1.0)	70.2‡	(1.7)	22.3‡	(1.6)	100%
+ Iowa							
1987–1990	7.2	(.8)	82.2	(1.2)	10.6	(.9)	100%
1991–1993	8.9	(1.0)	77.2‡	(1.4)	13.9*	(1.2)	100%
+ Missouri							
1987–1990	12.2	(1.0)	73.1	(1.4)	14.7	(1.1)	100%
1991–1993	14.6	(1.3)	67.3*	(1.8)	18.1	(1.4)	100%
+ North Dakota							
1987–1990	7.9	(0.8)	83.8	(1.0)	8.2	(.8)	100%
1991–1993	10.0	(1.0)	75.4‡	(1.4)	14.6‡	(1.2)	100%
– South Dakota							
1987–1990	15.2	(0.9)	73.5	(1.1)	11.4	(.8)	100%
1991–1993	13.5	(1.1)	69.5‡	(1.4)	17.0‡	(1.2)	100%
– Nebraska							
1987–1990	9.9	(1.1)	79.7	(1.5)	10.4	(1.2)	100%
1991–1993	9.3	(.9)	77.5	(1.3)	13.2	(1.1)	100%
+ Kansas							
1987–1990	11.5	(1.0)	80.7	(1.2)	7.8	(.8)	100%
1991–1993	13.1	(1.1)	73.8‡	(1.4)	13.1‡	(1.1)	100%

TABLE 3. Continued

	Uninsured		Employer-based/Private		Medicaid		Total Percent
	Percent	Standard Error	Percent	Standard Error	Percent	Standard Error	
South Atlantic							
~ Delaware							
1987-1990	13.2	(1.1)	76.6	(1.4)	10.3	(1.0)	100%
1991-1993	13.0	(1.3)	71.7*	(1.8)	15.4‡	(1.4)	100%
- Maryland							
1987-1990	11.3	(1.1)	76.3	(1.4)	12.4	(1.1)	100%
1991-1993	10.7	(1.2)	73.1	(1.8)	16.2*	(1.5)	100%
+ D.C.							
1987-1990	18.1	(1.4)	57.6	(1.8)	24.4	(1.6)	100%
1991-1993	21.4	(1.9)	43.2‡	(2.3)	35.4‡	(2.2)	100%
+ Virginia							
1987-1990	13.7	(1.0)	74.6	(1.2)	11.7	(.9)	100%
1991-1993	14.1	(1.1)	73.2	(1.4)	12.7	(1.1)	100%
+ W. Virginia							
1987-1990	15.8	(1.2)	66.9	(1.6)	17.4	(1.3)	100%
1991-1993	18.6	(1.4)	56.8‡	(1.8)	24.6‡	(1.6)	100%
~ N. Carolina							
1987-1990	15.6	(.6)	73.4	(.7)	11.0	(.5)	100%
1991-1993	15.2	(.7)	64.7‡	(.9)	20.1‡	(.8)	100%
- S. Carolina							
1987-1990	17.0	(1.1)	71.9	(1.3)	11.1	(.9)	100%
1991-1993	13.9	(1.1)	61.1‡	(1.5)	25.0‡	(1.3)	100%
+ Georgia							
1987-1990	16.5	(1.1)	67.4	(1.4)	16.0	(1.1)	100%
1991-1993	17.1	(1.3)	61.3‡	(1.8)	21.6‡	(1.5)	100%
~ Florida							
1987-1990	21.3	(.6)	65.0	(.7)	13.7	(.5)	100%
1991-1993	21.0	(.7)	55.5‡	(.9)	23.5‡	(.8)	100%
E. South Central							
- Kentucky							
1987-1990	17.0	(1.2)	69.0	(1.5)	14.0	(1.1)	100%
1991-1993	14.3	(1.3)	60.4‡	(1.8)	25.2‡	(1.6)	100%
- Tennessee							
1987-1990	14.3	(1.1)	66.4	(1.5)	19.3	(1.2)	100%
1991-1993	12.0	(1.1)	61.6*	(1.7)	26.4‡	(1.5)	100%
- Alabama							
1987-1990	20.5	(1.3)	63.4	(1.5)	16.1	(1.2)	100%
1991-1993	18.3	(1.3)	64.7	(1.6)	17.0	(1.3)	100%
- Mississippi							
1987-1990	19.8	(1.1)	56.7	(1.4)	23.6	(1.2)	100%
1991-1993	18.3	(1.2)	54.1	(1.6)	27.6	(1.4)	100%
W. South Central							
- Arkansas							
1987-1990	22.2	(1.2)	61.3	(1.4)	16.4	(1.1)	100%
1991-1993	21.6	(1.4)	59.7	(1.6)	18.7	(1.3)	100%
~ Louisiana							
1987-1990	22.2	(1.3)	56.5	(1.6)	21.3	(1.3)	100%
1991-1993	21.9	(1.5)	53.7	(1.8)	24.4	(1.5)	100%
+ Oklahoma							
1987-1990	22.6	(1.3)	65.3	(1.5)	12.0	(1.0)	100%
1991-1993	23.4	(1.4)	58.7‡	(1.7)	17.8‡	(1.3)	100%
- Texas							
1987-1990	25.5	(.6)	62.8	(.7)	11.7	(.5)	100%
1991-1993	24.0	(.7)	56.8*	(.9)	19.2‡	(.7)	100%
Mountain							
- Montana							
1987-1990	16.8	(1.1)	67.2	(1.4)	16.1	(1.1)	100%
1991-1993	11.9‡	(1.1)	66.4	(1.6)	21.7‡	(1.4)	100%
~ Idaho							
1987-1990	17.1	(1.1)	75.2	(1.2)	7.7	(.7)	100%
1991-1993	17.1	(1.2)	69.4‡	(1.4)	13.5‡	(1.0)	100%
+ Wyoming							
1987-1990	12.3	(1.1)	78.7	(1.4)	9.0	(1.0)	100%
1991-1993	12.9	(1.3)	74.4	(1.7)	12.7*	(1.3)	100%
- Colorado							
1987-1990	15.8	(1.2)	72.3	(1.5)	11.9	(1.1)	100%
1991-1993	9.6‡	(1.1)	73.9	(1.7)	16.5‡	(1.4)	100%
- New Mexico							
1987-1990	25.9	(1.2)	59.5	(1.4)	14.6	(1.0)	100%
1991-1993	21.9*	(1.3)	56.0	(1.6)	22.1‡	(1.4)	100%

TABLE 3. Continued

	Uninsured		Employer-based/Private		Medicaid		Total Percent
	Percent	Standard Error	Percent	Standard Error	Percent	Standard Error	
- Arizona							
1987-1990	20.2	(1.3)	69.6	(1.5)	10.2	(1.0)	100%
1991-1993	18.3	(1.4)	62.5‡	(1.8)	19.2‡	(1.4)	100%
+ Utah							
1987-1990	9.9	(.8)	81.2	(1.0)	8.8	(.7)	100%
1991-1993	12.3	(1.0)	75.2‡	(1.3)	12.5‡	(1.0)	100%
+ Nevada							
1987-1990	18.7	(1.3)	73.1	(1.5)	8.2	(.9)	100%
1991-1993	21.8	(1.5)	67.6*	(1.7)	10.6	(1.1)	100%
Pacific							
~ Washington							
1987-1990	11.2	(1.0)	76.3	(1.4)	12.5	(1.1)	100%
1991-1993	11.5	(1.1)	74.7	(1.5)	13.8	(1.2)	100%
- Oregon							
1987-1990	15.7	(1.2)	72.9	(1.5)	11.4	(1.1)	100%
1991-1993	12.7	(1.3)	70.4	(1.8)	16.9‡	(1.4)	100%
~ California							
1987-1990	19.6	(.6)	61.5	(.7)	18.9	(.6)	100%
1991-1993	19.4	(.5)	55.3‡	(.6)	25.3‡	(.6)	100%
- Alaska							
1987-1990	15.1	(1.0)	66.3	(1.4)	18.6	(1.1)	100%
1991-1993	10.2‡	(.9)	66.6	(1.5)	23.2‡	(1.3)	100%
~ Hawaii							
1987-1990	7.9	(.9)	81.7	(1.2)	10.4	(1.0)	100%
1991-1993	7.8	(1.0)	74.7‡	(1.6)	17.5‡	(1.4)	100%

Source: Current Population Surveys, 1988 through 1994. Standard errors are in parentheses.

- + Denotes an increase in the percentage of uninsured children between 1987-1990 and 1991-1993.
- Denotes a decrease in the percentage of uninsured children between 1987-1990 and 1991-1993.
- ~ Denotes no change in the percentage of uninsured children between 1987-1990 and 1991-1993.
- * Significant ($P < .05$) change between 1987-1990 and 1991-1993.
- ‡ Significant ($P < .01$) change between 1987-1990 and 1991-1993.
- § Significant ($P < .01$) change between 1990 and 1993.

up the health care coverage of those individuals who lost their dependent health insurance from an employer, the Medicaid expansions were effective in stabilizing the number of uninsured children in the states with two exceptions; 1) where the loss of employer-based/private insurance outpaced the Medicaid expansions or 2) where child population growth outpaced the increase in Medicaid coverage. Of the six states experiencing a significant increase in their uninsured child population, three states (New Jersey, Illinois, and Michigan) experienced significant drops in employer-based/private health insurance coverage for children and suffered a concurrent increase in their uninsured child population, despite significantly higher Medicaid coverage. Massachusetts was the only state to experience a significant drop in employer-based/private health insurance without a simultaneous increase in Medicaid coverage. Maine and Nevada, on the other hand, experienced simultaneously a significant increase in Medicaid coverage and substantial growth in their uninsured child population.

CONCLUSIONS

This study reports three major findings. First, the number of uninsured children in this country grew by nearly 1 million in the past 7 years; most of that increase is seen among children between the ages of 7 and 22.

Second, we observed noteworthy state variation in

the number and proportion of uninsured children; between 1987-1990 and 1991-1993, six states experienced a significant increase in the number of uninsured children, only two states experienced a significant decrease in the number of uninsured children, although no progress was found in reducing the number of uninsured children in 43 states.

Finally, the proportion of children with employer-based health insurance declined significantly in three-fourths of the states, although the proportion of children with Medicaid coverage increased significantly in more than four-fifths of the states during the study period. In light of current proposals to reduce and restructure the Medicaid program, it is no longer possible to expect the Medicaid program to decelerate the growth in the uninsured population.

Newacheck et al pointed to an alarming trend of children losing private health insurance coverage at an accelerating rate, due to reductions in employer-based dependent health insurance coverage.¹⁶ Employer-based health insurance coverage of children aged 0 to 18 declined 11.5% in the 15 years between 1977 and 1992, from 67.7% to 56.2%. In the same article, they found that between 1988 and 1992, Medicaid expansions worked to offset the contraction in employer-based coverage during the same period, resulting in relative stability of the proportion of the uninsured child population. Based on the trends mentioned above, the authors observed that families losing private coverage because of the changing

economy or employer cutbacks in benefits for dependents will increasingly rely on Medicaid as a coverage of last resort. They went on to suggest that policymakers should consider these trends as they debate the future of the Medicaid program.

By pooling together March 1988 to 1994 CPS Surveys, we were able to examine the pervasiveness of these trends, namely eroding employer-based/private insurance coverage for children being offset by Medicaid expansions, in the individual states. This analysis also enables us to examine the consequences proposals being debated by Congress may have on the nation's different regions and states. With employer-based/private health insurance declining significantly in three-fourths of the states and Medicaid coverage significantly increasing in four-fifths of the states, our findings clearly point to 1) Medicaid's role as a vital safety net and 2) the fact that the Medicaid expansions are working. Since 1989, >4.3 million children have enrolled in the Medicaid program as a result of the expansions, bringing to 17.6 million the total number of children enrolled in the program.

But even with increased Medicaid enrollment, the number of uninsured children still grew by nearly 1 million in the past 7 years. As many as 30 million children in this country are at risk of either losing their current coverage or remaining uninsured. Three elements are at work here: 1) absent a reversal in the decline of employer-based private insurance coverage for dependents, millions of children will continue to lose coverage; 2) if Congress does indeed decide to cut Medicaid funding and shrink the entire program, millions of children will continue to lose coverage; and 3) if the Medicaid program is restructured through block grants to the states, the scope of benefits offered and services provided will be reduced and millions of children will continue to lose coverage. As policymakers debate the future of the Medicaid program, they must consider seriously its role as the country's largest insurer of children's health and its efficacy as a vital safety net for the nation's children.

As our earlier study stated, our data can be used to provide states with comparable baseline information from which states' progress in reducing uninsured rates among children can be measured. As this study

shows, children in many states are at greater risk today than they were between 1987 and 1990, despite the laudable efforts made by states to expand their Medicaid programs. If this country's largest insurer of children's health care is jeopardized, then our country's future is also at risk.

REFERENCES

1. Holl JL, Szilagyi PG, Rodewald LE, Byrd RS, Weitzman ML. Profile of uninsured children in the United States. *Arch Pediatr Adolesc Med.* 1995; 149:398-406
2. Wood DL, Hayward RA, Corey CR, Freeman HE, Shapiro MF. Access to medical care for children and adolescents in the United States. *Pediatrics.* 1990;86:666-673
3. Butler J, Winter WD, Singer JD, Wenger M. Medical care use and expenditure among children and youth in the US: analysis of a national probability sample. *Pediatrics.* 1985;76:495-507
4. Braveman P, Oliva G, Miller MG, Reiter R, Egarter S. Adverse outcomes and lack of health insurance among newborns in an eight-county area of California, 1982 to 1986. *N Engl J Med.* 1989;321:508-513
5. Perry D. *Children's Health Insurance: Beyond Medicaid Coverage.* Washington, DC: George Washington University Center for Health Policy Research; 1995;2:(3)
6. Yudkowsky BK, Tang SS. *Medicaid State Reports, FY 1994.* Elk Grove Village, IL: American Academy of Pediatrics, Division of Health Policy Research; 1996
7. *Impact of the Republican Budget Cuts on Children: A State-by-State Analysis.* Washington, DC: White House Office of Public Liaisons; October 1995
8. Holahan J, Liska D. *The Impact of the House and Senate Budget Committees' Proposals on Medicaid Expenditures.* Washington, DC: Kaiser Commission on the Future of Medicaid; May 1995
9. Cartland JDC, Yudkowsky BK. State estimates of uninsured children. *Health Aff.* 1993;(Spring):144-151
10. US Census Bureau. *Current Population Survey Technical Documentation.* March 1991-1993 on CD-ROM and March 1994. Washington, DC: US Census Bureau; 1993 and 1994
11. *Sources of Health Insurance and Characteristics of the Uninsured: Analysis of the March 1994 Current Population Survey.* Washington, DC: Employee Benefit Research Institute; Special Report and Issue Brief Number 158. February 1995
12. Fronstin P. Children without health insurance: an analysis of the increase of uninsured children between 1992 and 1993. *Inquiry.* 1995; 353-359
13. Winterbottom C, Liska DW, Obremaier KM. *State-Level Databook on Health Care Access and Financing.* Washington, DC: The Urban Institute; 1995
14. *Kids Count Data Book: State Profiles of Child Well-Being.* Baltimore, MD: The Annie E. Casey Foundation; 1996
15. Medicaid Statistical File, FY 1993. Health Care Financing Administration. Bureau of Data Management and Strategy. Based on data from the HCFA-2082
16. Newacheck PW, Hughes DC, Cisternas M, et al. Children and health insurance: an overview of recent trends. *Health Aff.* 1995;244-254

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Pediatrics 1997;99:e2

DOI: 10.1542/peds.99.5.e2

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