

# APPENDIX A.--CONSTRUCTING ESTIMATES OF THE NUMBER OF UNINSURED USING THE CURRENT POPULATION SURVEY: ADJUSTMENTS MADE AND INTERPRETATION OF RESULTS

---

This appendix describes the methods used to analyze Current Population Survey (CPS) data on health insurance coverage. The CPS questions changed materially in March 1988. The material below first considers the questions as they were asked from March 1980 through March 1987 and then considers the March 1988 questions.

## CPS Questions-- March 1980 to March 1987

In the March supplement to the Current Population Survey in each year from 1980 through 1987 (with the exception of 1981) respondents who were in the civilian labor force in the previous year--that is, civilians who were 15 or older and who reported at least some work during the previous year--were asked whether they were included in a group health insurance plan at any job they held during the previous year.<sup>1</sup> Respondents who reported that they were included in such a plan were asked who else was included in the plan, and responses to "who else was included" were coded into the categories: spouse only; children only; spouse and children; and other.

Additional questions about public and private coverage were asked. The question was asked whether anyone 15 or over was covered by Medicare at any time in the previous year, and if so, who was covered; whether anyone 15 or over was covered by Medicaid at any time in the previous year, and if so, who was covered; and whether anyone 15 or over was covered by CHAMPUS, VA, or military health care, and if so, who was covered. Finally, all respondents 15 and over were asked whether they had any other health insurance plan at any

time during the preceding year, and if so, who else was covered.<sup>2</sup>

It is important to recognize that the question about other health insurance was far from comprehensive. The question was asked "Did anyone in this household have any (other) health insurance plan at any time during 1986?" Although it sounds comprehensive, it left two gaps. First, the reference to "anyone" referred only to people 15 and above. If a respondent under 15 had a health insurance plan it would not be coded. Second, and more importantly, interviewers were instructed to interpret the question to mean "did anyone have a health insurance plan in their own name"? If the respondent was covered as a dependent then the respondent was not coded as "having" a health insurance plan; the respondent was only coded as "having" a health insurance plan if the respondent was the primary subscriber (U.S. Department of Commerce, Bureau of the Census, 1987).

These questions are used to define the uninsured as a residual category. Those respondents who did not report coverage from any source during the preceding year should, if they were responding accurately, have been uninsured for the entire previous year. There are, however, two reasons why this residual category will be larger than the true number of people who were uninsured for the entire previous year. The first reason is question wording difficulties: in a variety of situations (discussed further below) people with health insurance coverage will be counted as being uncovered. The second reason is recall error: some respondents appear to forget that they may have been covered at

---

<sup>1</sup>In many families a proxy respondent will respond for other family members. Thus, it would be more accurate to say that a question about employment-based coverage is asked about (not of) each family member in the labor force.

---

<sup>2</sup>In March 1981 the questions about private health insurance not related to employment were omitted from the questionnaire. Thus, March 1981 data cannot be compared to previous or subsequent years.

some point during the previous year. Both sources of error will be discussed below.

#### Question Wording Problems in the 1980-1987 CPS

There were two main problems with the wording of the health insurance questions prior to 1988: first, there was no direct question inquiring whether each individual in the household is covered by insurance, and second, dependents could only be assigned insurance coverage if the subscriber to the insurance policy resided in the household. This created a number of gaps. For one example, if a child was living with his/her mother and insured by an absent father, the CPS would count that child as uninsured. As a second example, if an adolescent was not living with his/her parents (e.g., a foster child or a grandchild, or an adolescent living in his/her own apartment), the adolescent could never be ascribed coverage as a dependent child, since using the CPS questions coverage can only be derivative of a parent's coverage if the parent lives in the same household.

Further, the fact that direct questions about coverage were not asked meant that the Census Bureau was forced to make inferences about coverage when a private insurance subscriber reports that his/her children are covered. In such circumstances the Census Bureau assumed that any children living with the subscriber who were 21 or younger were to be covered, unless the child had been married.<sup>3</sup> This is a reasonable rule, but will

almost certainly understate the extent of dependent coverage. Some family insurance policies provide for coverage of dependent children up to age 23 if they are full-time college students, some will cover dependents up to age 21 regardless of the dependent's marital status, and some provide for dependent coverage only up to age 18. Thus, for a variety of reasons the questions asked by the Current Population Survey from 1980 through 1987 should overestimate the number of people without insurance. This overestimate will be greatest for children and adolescents.

#### Recall Error: Full-Year or Point-in-Time Estimates?

If respondents were answering without recall error, respondents who report not being covered by either private or public sources should have been uninsured for the entire previous year. However, as argued by Swartz, CPS estimates of the number of uninsured people are approximately the same as estimates from other surveys of the number of people uninsured at a given point in time (Swartz, 1986). Swartz argues that the CPS estimates can be reconciled with estimates from other surveys if we assume that CPS respondents are responding to health insurance questions with reference to their insurance status at the point in time at which the questions were asked (March of the given year), and not with reference to the entire previous calendar year as the questions were intended.

This argument is partially correct, but the case appears to be overstated. There are a number of potentially anomalous findings if people are really responding to the CPS questions with respect to their health insurance status at the point in time at which the questions were fielded. First, for those people for whom we might expect a difference in insurance status from the previous year to March--namely for those people who were employed in the previous year but unemployed in March or vice-versa--insurance status is more closely aligned with employment status during the previous year than it is with

<sup>3</sup> On the March 1982 and March 1983 Public Use Files the Census Bureau did not apply the editing routine that assigns coverage to spouses and dependent children for private insurance coverage. The public use files indicate whether or not an individual has a private insurance plan in his/her own name, and who else is covered (spouse only, children only, spouse and children, or other), but in 1982 and 1983 the census bureau did not follow the conventions it followed in 1980 and in subsequent years of editing the records for the spouses and children to show coverage where it existed. For this paper the Census Bureau's standard editing rules were applied to assign dependent coverage, where appropriate, to spouses and children. Thus, the data used here for 1982 and 1983 are consistent with data for 1980 and 1984-1987.

employment status during March (Enthoven and Kronick, 1988). This suggests that many people are answering the health insurance questions with reference to their health insurance status in the preceding year, as requested, and not with reference to the point in time at which the questions were asked. Second, preliminary estimates from the 1987 National Medical Care Expenditure survey show that 37 million people were uninsured during early 1987 (Short, et al., 1988). This is 6 million more people uninsured than one preliminary estimate from the March 1988 CPS (Moyer, 1989). One plausible explanation for a smaller number of uninsured on the CPS compared to NMES is that NMES is measuring the number of uninsured at a point in time, while CPS is, at least for some people, measuring the number of people who were **uninsured for the entire previous year**. **If this is the case, then, we would expect that the CPS would show a smaller number of people uninsured than the NMES, as it apparently does.**<sup>4</sup> Third, it makes sense that when people are asked whether they were covered by insurance during the previous calendar year that some who are currently uninsured might forget that they were covered at some point during the preceding year, but it does not make sense to think that all (or even most) respondents will forget to report such coverage.

In summary, because of question wording difficulties, CPS estimates from 1980 through 1987 certainly overestimate the number of people who were uninsured for the entire previous year. As will be discussed below, the question wording problems were largely corrected in the March 1988 CPS; however, because of recall error problems it is likely

**that the March 1988 estimates will also overestimate the number of people who were uninsured for the entirety of 1987. The safest conclusion is that the 1988 estimates will overestimate the number of people who were uninsured for the entirety of 1987, but underestimate the number of people who were uninsured at any point in time during 1987.**

**Despite the question wording problems from March 1980 to March 1987 the CPS provides a valuable data source for the analysis of the health insurance status of adolescents. It is the only data source that provides annual measurements to support trend analysis. The CPS has a large sample of respondents, which facilitates analysis of subpopulations. Further, the CPS has a variety of questions about labor force participation, which facilitates analysis of the effects of employer mandates.**

#### **Question Wording Changes in March 1988**

In an attempt to correct the underestimation of health insurance coverage, the March 1988 CPS asked different questions about health insurance from those in previous years. There are two major changes. First, for each person in the household age 15 and above, the March 1988 questionnaire asks directly whether the respondent was 'covered by' a health insurance plan. Anyone covered by a health insurance plan is then asked whether the plan is in his/her own name or not. Thus, a 16-year-old who is covered by the health insurance of an absent father should be reported as covered by the March 1988 questions, while the same person would be reported as uncovered by the March 1987 questions (since such a person did not "have" a health insurance plan). Second, a set of "cover sheet" questions ask directly whether any children in the household under 15 were covered by health insurance during the preceding year.

**As of this writing, the public use files of the March 1988 data contain responses to the new questions for those 15 and above, but do**

---

**4** A large remaining puzzle is **why** the point in time estimate from NMES of the **number** of people who are uninsured is approximately 6 million greater than the point in time estimates from either the Health Interview Survey or from the Survey of Income and Program Participation (USDHHS, 1987; McNeil, 1988). Further **work** is needed to understand these differences, and to further clarify to **what** extent CPS provides an estimate of the full-year versus **point-in-time** estimate of the **number** of uninsured.

not yet contain responses to the new cover sheet questions.

As can be seen in table A-1, the new questions appear to have had a dramatic effect on the reported coverage rates for 15- to 18-year-old adolescents. From 1983-1986 approximately 21 to 21.5 percent of this group were estimated to be uninsured; the estimated percentage uninsured drops dramatically to 15.2 percent in the March 1988 survey. Since the estimated percentage uninsured changes hardly at all for adults (data not shown) there is every reason to believe that the change in estimate in 1988 is due to question wording changes and not to any real change in the proportion of 15- to 18-year-old adolescents who were uninsured.

Almost all of the reported decrease in the proportion of 15- to 18-year-olds who are reported as uninsured is accounted for by an increase in the proportion with "other private insurance." The meaning of this category changes in 1988 compared to previous years. Prior to the March 1988 survey, "other private insurance" was equivalent to nongroup health insurance--that is, it measured the number of people covered by insurance that was not employment-based. However, in the March 1988 survey this category also includes employment-based insurance in which the policyholder was not a household member--e.g., if a 16-year-old child is covered by the employment-based policy of an absent father, this coverage will be counted as "other private insurance," and not as employment-based.

Further confirmation of the role of question wording change comes from an examination of changes in coverage rates for those in single-parent households and those who do not live with either of their parents. The 1988 questions ask such people directly whether they are covered, rather than relying on assigning coverage for such people as the dependents of other policyholders. Thus, if these adolescents are covered by a parent living in another household they will be reported as uncovered in 1987, but should be counted as insured in the March 1988 CPS.

As can be seen in table A-2, coverage rates for 15- to 18-year-old adolescents either living without a parent or living with only one parent do increase by much more than coverage rates for adolescents living with both parents: from 64 percent uninsured to 43 percent uninsured for those living alone, from 30-percent to 18-percent for those living with one parent, but just from 12.5-percent to 10-percent for those living with both parents. This is further evidence that the changes are a result of question wording changes and not of any real change in the number of adolescents who are uninsured.<sup>5</sup>

As mentioned above, the public use files that are currently available from the March 1988 CPS contain the pre-1987 question wording for adolescents who are 14 or younger. As such, estimates of the number of uninsured people age 14 and younger are certainly overestimates of the true number of such people who are uninsured.

An approximation of the size of the estimation error can be obtained from examination of the data in table A-3, which shows the estimated percentage of adolescents uninsured, by age group, in each survey from 1980 through 1988. As can be seen there, for most of the 1980s the proportion of 10- to 14-year-olds who were uninsured was slightly lower than the proportion of 15- to 18-year-olds who were uninsured. However, in March 1988 the estimated proportion of 15- to 18-year-olds who were uninsured decreased dramatically but the estimated proportion of 10- to 14-year-olds who were uninsured actually increased slightly.

---

<sup>5</sup> A somewhat surprising result in table A-2 is that coverage appears to increase among 15- to 18-year-olds living in two-parent households -- from 12.5 percent in 1983-1986 to 9.9 percent in 1987. The increase occurs primarily in the percentage with "other private" suggesting that some 15- to 18-year-olds report being covered as a dependent when neither parent in the household reports covering the adolescent. Some explanations are plausible, e.g., perhaps these are households with a step-parent and the coverage of the adolescent is coming from an absent parent, but further investigation is warranted here.

**Table A-1.--Health Insurance Status of Adolescents,  
Age 15-18, by Year, 1979-1987**

Year <sup>a</sup>	Total population, age 15-18	Total	No health insurance coverage	Insured: public and private <sup>b</sup>				
				Employment-based	Other private	Medicaid	Other public	Public and private
1979	16,252,304	100.0%	17.4%	58.8%	9.0%	8.3%	2.2%	4.3%
1981	15,522,802	100.0	18.5	58.4	7.3	8.4	2.5	5.0
1982	15,054,670	100.0	19.5	58.5	7.1	8.4	2.6	3.8
1983	14,655,516	100.0	20.9	56.7	7.5	9.0	2.4	3.5
1984	14,581,461	100.0	21.6	56.7	6.8	9.2	2.2	3.5
1985	14,733,076	100.0	21.5	57.7	6.4	8.7	2.2	3.6
1986	14,716,502	100.0	21.5	57.2	7.0	8.3	2.2	3.8
1987	14,492,077	100.0	15.2	57.3	12.7	8.4	2.4	4.0

<sup>a</sup>1980 data are not available.

<sup>b</sup>Employment-based includes all with employment-based insurance from someone in the household, and without public coverage; other private includes nongroup insurance from household members and employment-based insurance from nonhousehold members, without public coverage; Medicaid includes all those with Medicaid but without private coverage; other public is primarily CHAMPUS, and includes Medicare; public and private includes all those with both public and private coverage.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1980 through March 1988 Current Population Surveys.

**Table A-2.--Health Insurance Status of Adolescents,  
Age 15-18, by Type of Family and Year, 1987 vs. 1984-1986**

Type of family	Year	Total	No health insurance coverage	Insured: public and private <sup>b</sup>				
				Employment-based	Other private	Medicaid	Other public	Public and private
Two-parent	1984-1986	100.0%	12.5%	71.9%	6.5%	2.9%	2.2%	4.0%
	1987	100.0	9.9	72.1	8.8	2.4	2.5	4.4
One-parent	1984-1986	100.0	30.2	33.9	8.0	22.6	2.0	3.3
	1987	100.0	18.8	36.0	17.4	22.4	1.6	3.7
No Parent <sup>b</sup>	1984-1986	100.0	64.6	8.6	5.5	17.0	2.8	1.4
	1987	100.0	42.6	6.5	28.2	16.6	3.4	2.6

<sup>a</sup>Employment-based includes all with employment-based insurance from someone in the household, and without public coverage; other private includes nongroup insurance from household members and employment-based insurance from nonhousehold members, without public coverage; Medicaid includes all those with Medicaid but without private coverage; other public is primarily CHAMPUS, and includes Medicare; public and private includes all those with both public and private coverage.

<sup>b</sup>No parent in family includes those adolescents who do not live with their parents and married adolescents living with their parents.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1985 through March 1988 Current Population Surveys.

**Table A-3.--Trend in the Proportion of Adolescents  
With and Without Health Insurance  
by Age Group, 1979-1987, Unadjusted Data**

Year <sup>a</sup>	Age Group			
	10-14 Years		15-18 Years	
	Uninsured	Insured <sup>b</sup>	Uninsured	Insured <sup>b</sup>
1979	16.0%	84.0%	17.4%	82.6%
1981	17.9	82.1	18.5	81.5
1982	17.3	82.7	19.5	80.5
1983	19.0	81.0	20.9	79.1
1984	20.1	79.9	21.6	78.4
1985	19.8	80.2	21.5	78.5
1986	20.2	79.8	21.5	78.5
1987	21.9	78.1	15.2	84.8

<sup>a</sup>1980 data are not available.

<sup>b</sup>Includes adolescents with health coverage from any source, public or private.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1980 through March 1988 Current Population Surveys.

It seems likely that when the additional "cover sheet" questions from the March 1988 survey are available, that the estimated proportion of uninsured 10- to 14-year-olds will be similar to the estimated proportion for 15- to 18-year-olds. To anticipate this result, all analyses of March 1988 CPS data in the body of this paper use adjusted data for 10- to 14-year-olds. The adjustment process is described below.

One method of adjustment would be to simply assume that 15.2 percent of 10- to 14-year-olds should be uninsured (the same proportion as 15- to 18-year-olds), and that 30.6 percent (i.e.,  $1 - 15.2/21.9$ ) of those who currently are counted as uninsured should instead be counted as insured. This change in count could be accomplished by randomly changing the health insurance status of 30.6 percent of the currently uninsured 10- to 14-year-olds from uninsured to "other private insurance."<sup>6</sup>

The data are adjusted using a process similar to the process described above, but one slightly more refined. As noted above the reported increase in coverage in the March 1988 survey for 15- to 18-year-olds was larger for adolescents living without their parents and for adolescents living with one parent than for adolescents living with both parents. Further, as shown in table A-4, parental insurance status and the size of family income also are related to the effect of the new questions on the estimated percentage uninsured.

To adjust the data a three-dimensional table is constructed, where the dimensions and cell definitions are (i) living arrangement (alone, one-parent, two-parent), (ii) parental insurance status (uninsured, privately insured,

Medicaid, CHAMPUS, Medicare), and (iii) family income relative to the poverty level (below 150 percent of poverty, between 150 percent and 300 percent of poverty, and 300 percent and above). For each cell the proportion of 15- to 18-year-olds who are reported as uninsured is computed, and the assumption is made that, when adjusted, the same proportion of 10- to 14-year-olds will be uninsured.

**Define:**

**P10-14,i,j,k** = the reported proportion of 10-14 year olds who are uninsured in the March 1988 CPS among adolescents with living arrangement "i" (either no parents, one parent, Or two parents), parental insurance status "j" (either uninsured, private insurance, Medicaid, CHAMPUS, or Medicare), and family income "k" (either below 150% of poverty, 150-300% of poverty, or 300%+ of poverty); and

**P15-18,i,j,k** = the same quantity for 15- to 18-year-olds.

The data are adjusted by picking a random number from the uniform distribution from 0 to 1 for each uninsured 10- to 14-year-old, and changing that individual's insurance status from uninsured to insured if the random number is greater than  $P15-18,i,j,k/P10-14,i,j,k$ . The result of this process will be, on average, that the adjusted  $P10-14,i,j,k$  will be equal to  $P15-18,i,j,k$  for all combinations of living arrangement, parental insurance status, and family income levels.

This adjustment reduces the estimated number of uninsured 10- to 14-year-olds by 1.2 million people: the unadjusted estimate is that there were 3.6 million uninsured 10- to 14-year-olds in the March 1988 survey, or 21.9 percent of the 10- to 14-year-old age group. The adjusted estimate is that there were 2.4 million, or 14.6 percent of the 10- to 14-year-olds in the survey.

If a similar adjustment were performed for 0- to 9-year-olds, the adjusted estimate of the number of 0- to 9-year-olds would be approximately 2.2 million less than the unadjusted estimate; thus, analysis of the new "cover sheet" questions

---

<sup>6</sup> Alternatively, the file could be reweighed to increase the weights on 10- to 14-year-olds who are reported as insured and decrease the weights on 10- to 14-year-olds who are reported as uninsured. This might be slightly preferable to randomly changing responses for some, but is more complicated and not worth the effort for current purposes.

**Table A-4.--Health Insurance Status of Adolescents  
by Age Group, Type of Family, Parental Insurance Status,  
and Family Income as a Percentage of Poverty, 1987, Unadjusted Data**

Type of family	Parental insurance status	Family income as a percentage of poverty <sup>a</sup>	Age Group					
			10-14 years			15-18 years		
			All	Uninsured	Insured <sup>b</sup>	All	Uninsured	Insured <sup>b</sup>
Two-parent	uninsured	less than 150%	664,105	100.0%	--	395,649	92.2%	7.8%
		150 to 300%	396,771	100.0	--	303,342	82.1	17.9
		300% and above	177,521	100.0	--	163,605	69.1	30.9
	private	less than 150%	936,309	9.8	90.2%	564,070	5.5	94.5
		150 to 300%	3,282,186	4.0	96.0	2,152,360	3.5	96.5
		300% and above	5,276,342	2.9	97.1	5,218,866	1.2	98.8
	CHAMPUS	less than 150%	92,177	--	100.0	50,451	--	100.0
		150% to 300%	179,671	--	100.0	176,231	--	100.0
		300% and above	224,273	--	100.0	259,729	--	100.0
	Medicaid	less than 150%	434,750	--	100.0	238,895	--	100.0
		150 to 300%	63,221	--	100.0	45,909	--	100.0
		300% and above	15,372	--	100.0	17,674	--	100.0
	Medicare	less than 150%	62,582	90.3	9.7	61,849	64.8	35.2
		150 to 300%	40,643	58.9	41.1	40,035	39.3	60.7
		300% and above	5,118	49.5	50.5	28,239	30.3	69.7
	one-parent	less than 150%	738,309	100.0	--	482,351	67.9	32.1
		150 to 300%	182,513	100.0	--	182,891	54.6	45.4
		300% and above	53,897	100.0	--	110,759	57.6	42.4
	private	less than 150%	469,140	27.5	72.5	266,489	18.0	82.0
		150 to 300%	674,814	23.6	76.4	712,547	7.4	92.6
		300% and above	527,633	15.4	84.6	696,060	2.7	97.3
	CHAMPUS	less than 150%	22,081	--	100.0	20,944	--	100.0
		150 to 300%	20,525	--	100.0	31,806	--	100.0
		300% and above	10,584	--	100.0	12,112	--	100.0
	Medicaid	less than 150%	1,319,018	0.1	99.9	774,775	--	100.0
		150 to 300%	31,607	--	100.0	15,430	--	100.0
		300% and above	8,329	--	100.0	10,767	--	100.0
	Medicare	less than 150%	20,190	86.2	13.8	18,418	69.6	30.4
		150 to 300%	11,917	69.3	30.7	18,537	39.0	61.0
		300% and above	1,597	100.0	--	2,570	--	100.0
No parent <sup>c</sup>	uninsured	less than 150%	139,901	100.0	--	610,411	57.8	42.2
		150 to 300%	15,149	100.0	--	81,317	57.0	43.0
		300% and above	18,604	100.0	--	32,953	41.2	58.8
	private	less than 150%	53,204	100.0	--	71,373	36.5	63.5
		150 to 300%	79,656	97.5	2.5	135,200	36.7	63.2
		300% and above	89,972	100.0	--	106,055	34.2	65.8
	CHAMPUS	less than 150%	4,592	100.0	--	22,750	--	100.0
		150 to 300%	4,632	100.0	--	11,341	--	94.4
		300% and above	2,205	100.0	--	7,933	38.4	61.6
	Medicaid	less than 150%	90,936	88.6	11.4	206,307	--	90.6
		150 to 300%	14,379	51.9	48.1	14,841	32.7	67.3
		300% and above	2,931	74.6	25.4	--	--	--
	Medicare	less than 150%	36,963	100.0	--	63,236	64.0	36.0
		150 to 300%	4,790	100.0	--	33,751	22.7	77.3
		300% and above	12,996	100.0	--	20,669	17.4	82.6

<sup>a</sup>In 1987, the Federal poverty level was \$9,056 for a family of three.

<sup>b</sup>Includes adolescents with health coverage from any source, public or private.

<sup>c</sup>No parent in family includes those adolescents who do not live with their parents and married adolescents living with their parents.

SOURCE: Office of Technology Assessment, 1989, based on estimates from the March 1988 Current Population Survey.



from the March 1988 survey should reduce the estimate of the number of people uninsured from the 35.5 million estimate based on the currently used public use files to approximately 32 million.<sup>7</sup>

#### Respondents Excluded from Analysis

Due to hardware problems, a small number of records were omitted from the analysis of each March CPS. The omitted records are never more than 0.001 percent of the total (that is, one-tenth of one percent), and for most years are below 0.0005 percent. Nevertheless, tabulations reported here will be marginally different from tabulations of the complete data sets.

Further, all unrelated individuals age 14 or below have been excluded from the analysis because it is likely that the health insurance status for many is incorrectly classified. In the pre-1988 surveys all

**such individuals were reported as being uninsured (since there was no adult present in the household from whom they could derive coverage), even though many are probably foster children and likely are covered by Medicaid.** There were 217,000 such individuals in the March 1982 survey, 240,000 in March 1984 and 265,000 in March 1988.

#### **Analysis of Uninsured Adolescents by Size of Firm of Parent's Employer**

Finally, a note on methods used to analyze the May/March merged data in 1983. The March 1988 survey gathers information on the number of workers in the firm of each respondent in the labor force, but this information, like the "cover sheet" health insurance questions for 10- to 14-year olds has not yet been released on public use files. The only other CPS source for such information is the May 1983 CPS which asked questions on firm size. The Census Bureau has merged the May 1983 data with March 1983 data to form the so-called May/March merge; this file is used to create tabulations of health insurance coverage by firm size.

---

<sup>7</sup> Moyer has analyzed a preliminary March 1988 CPS file that contains the cover sheet questions and finds 31.1 million uninsured (Moyer, 1989). The differences between this 31.1 million and the 32 million suggested here are relatively small but deserve further scrutiny.