Applying and Evaluating Logical Coverage Edits to Health Insurance Coverage in the American Community Survey

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Introduction

This report describes an evaluation of logical editing to health insurance data collected by the American Community Survey (ACS). Logical editing is a data processing technique in which survey responses, that are likely inaccurate, are changed so that they are consistent with other information obtained in the survey. This project is part of the Census Bureau's on-going effort to identify sources of error in health insurance data and to improve methods for mitigating the problems that such errors cause (SNACC 2008, Turner et al. 2009, Pascale et al. 2009).

The ACS began gathering health insurance information in 2008. Data are gathered from a single question that asks respondents if they have any of seven types of coverage at the time of survey. It also permits respondents to provide a verbatim response if their coverage type is not listed. Respondents are asked to report for themselves and for each member in their household (Turner et al., 2009). Given the novelty of the ACS health insurance item, relatively little is known about the accuracy of the data it produces. However, like other surveys that measure health insurance coverage, response errors in the ACS likely result in problematic levels of misclassification (O'Hara 2009).

There are several types of measurement error in surveys. Item wording, the mode of survey administration, and a slew of other survey design and respondent factors can induce measurement error (Groves et al. 2004). In surveys of health insurance coverage, the most well documented form of coverage misclassification is known as the "Medicaid Undercount," a phenomenon in which survey estimates of Medicaid enrollment are lower than administrative counts. By matching individual survey records to state administrative records, researchers have found that survey respondents often do not report Medicaid coverage when administrative records indicate they are covered (SNACC 2008, Davern et al. 2009). This apparent response error leads to an underestimation of Medicaid coverage and, to a lesser degree, an overestimation of uninsurance and other coverage types (depending on the extent of misclassification to non-Medicaid coverage). Like other surveys, evidence from a record-check study of the 2006 ACS Content Test[1] found that respondents under-report Medicaid (O'Hara 2009).

In this project, we evaluate the use of logical coverage edits in the ACS as a remedy for the under-reporting of Medicaid and other types of coverage. The Census Bureau currently employs logical edits for this purpose in the Current Population Survey's Annual Social and Economic Supplement (CPS). Information, such as participation in cash transfer programs, age, and familial relationships, often imply that individuals have Medicaid, Medicare or military coverage even when such coverage is not directly reported in the CPS.[2] Logical edits assign coverage in the CPS, but do not remove it.

[1] The 2006 ACS Content Test was nationally representative survey of approximately 70,000 people that tested the viability of a health insurance item in the ACS (Nelson et al., 2007).
[2] In this report we refer to characteristics that imply coverage as "reference variables."

Therefore, logical editing may improve the sensitivity of the final coverage estimate, but not its specificity.[3]

Data from the 2008 ACS were disseminated without any logical coverage editing. To design and evaluate edit rules for future ACS years, we developed edit routines and applied them to the internal 2008 data file so that Census Bureau officials and members of their health insurance Technical Advisory Group (TAG)[4] could make informed decisions about which edits comport best with enrollment and/or eligibility policies and are feasible in the ACS survey environment. Our results also inform data users about the design and impact of the edits and any broad differences they exhibit from editing in the CPS. The following questions framed our analysis:

1) What types of edits should be applied in the ACS given what we know about the eligibility and enrollment procedures for different types of coverage?
2) What are the impacts of these edits on estimates of specific types of coverage and what is the impact on the rate of uninsurance?
3) Do the adjustments make sense given what we know about eligibility and enrollment procedures, ACS design, and reasons why survey respondents do not report true coverage?
4) How do edits developed for the ACS differ from ones used in the CPS, both in content and effect on measures of uninsurance?

Conceptual Background

The following sections address the first question outlined above by describing the conceptual background for logical editing in the ACS and CPS.

The logical coverage edits considered for the ACS were derived from recommendations by the TAG and edits that have been used for many years in the CPS. The ACS edits will be applied to the same health insurance types that are edited in the CPS because these coverage types can be logically implied by other information in the survey. In the ACS, they are three of the six types[5] of health insurance: Medicaid or other means-tested public coverage, Medicare, and TRICARE or other military health coverage. The edits impact estimates of uninsurance indirectly—only cases that are edited and report no other type of coverage will be reclassified as insured.

Readers should take note of a number of data processes and assumptions that influence the feasibility and accuracy of logical editing. They include:

[3] Sensitivity is the proportion of true positives that are classified as positive. Specificity is the proportion of true negatives that are classified as negatives.

[4] Joel Cohen, Agency for Healthcare Research and Quality; John Czajka, Mathematica Policy Research; Genevieve Kenney, Urban Institute; Don Oellerich, Office of the Assistant Secretary for Planning and Evaluation; Chris Peterson, Congressional Research Service; and Eve Powell-Griner, National Center for Health Statistics

[5] Indian Health Services (IHS) is not considered health insurance. For more information on this see State Health Access Data Assistance Center 2005.

- Logical coverage edits in the ACS would be added after all other editing and imputation.

- Edit rules vary in the degree to which they imply enrollment, ranging from characteristics that would make a person eligible if they applied, to characteristics that imply the person should have been automatically enrolled for coverage.

- We assumed that the actual response about health coverage is incorrect rather than the explicit or imputed response to the item that logically implies coverage.

- Family relationships in the ACS are often incomplete because, with the exception of subfamilies that are related to the householder, data are only collected about the relationship between the householder and other family and non-family members of the household.

- There are other conceptually viable edit rules that we do not study because of resource limitations and issues of feasibility related to the amount and complexity of reference variables required for such edits. For example, grandchildren who are under the custody of their grandparent are often eligible for Medicaid. However, the lack of family relationship details in the ACS limits our ability to implement this rule.

- Given the complexity of eligibility and enrollment rules, there are often exceptions to the rules that imply coverage. For example, in the final edit specification, citizen parents with Public Assistance income are edited to have Medicaid. However, while the eligibility rules for cash assistance and Medicaid are very similar, there is not a legislative link between public assistance and Medicaid coverage in every state. Thus, in some circumstances parents with public assistance will be misedited to have coverage when they are not actually covered.

Conceptual Definitions of Edit Rules

Below we summarize the conceptual definition of the edit rules that will be implemented beginning with the 2009 ACS. We classify them by whether they generally imply automatic enrollment or eligibility. The rules presented here are those that were agreed upon by the Census Bureau in consultation with the TAG for inclusion in the 2009 ACS. A list of the rules that were rejected after evaluation is included in the appendix.

Medicare and military health coverage (i.e. TRICARE) are federally administered programs that have a single set of rules regardless of the beneficiary's state of residence. In contrast, Medicaid is largely state administered, and eligibility and enrollment guidelines vary considerably among the states. Therefore, to avoid the over-complexity

that would result from 51 unique rule sets, we only considered rules that could be applied in every state (the sole exception to this is the assignment of Medicaid to SSI recipients, which is discussed below). Similarly, the Census Bureau only adopted rules that imply coverage in Medicaid and did not consider rules that imply coverage in any state or local coverage programs.[6] As only Medicaid coverage edit rules were modified, this paper refers to edits affecting the Medicaid or other means-tested public coverage category as "Medicaid Edits."

Medicaid Edits Adopted for the ACS Beginning in 2009

Edit	Basis in Eligibility or Enrollment Rules
• Citizen parent with public assistance.[7]	• Persons in TANF[8] are not categorically eligible [9], but many eligibility rules are similar between programs. Non-parents cannot usually qualify for TANF and the rules for non-citizens are more restrictive and complex.[10]
• Unmarried child less than 19 years old and has a parent with public assistance.	• Children of public assistance enrollees are not categorically eligible, but they normally would qualify on the basis of income.
• Unmarried child less than 19 years old and has a parent with Medicaid.	• Children with parents enrolled in Medicaid are generally eligible for coverage.
• Citizen parent married to a citizen with public assistance.	• See first bullet above for basis in public assistance rules. Spouses usually receive the same benefits and people in public assistance usually qualify for Medicaid.
• Citizen parent married to a citizen with Medicaid.[11]	• Spouses usually receive the same benefits.

[6] The item used to estimate enrollment in means-tested public coverage reads, "Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability."
[7] A parent is defined as having an own, unmarried child below the age of 19. Public assistance is defined as "any public assistance or welfare payments from the state or local welfare office?" The ACS does not gather specific TANF information.
[8] Temporary Assistance for Needy Families see http://www.hhs.gov/recovery/programs/tanf/index.html
[9] Categorical eligibility means that a person falls into one of the eligibility categories identified in the federal Medicaid statute.
[10] http://www.acf.hhs.gov/programs/ofa/law-reg/finalrule/aspesum.htm
[11] The parent restriction was not applied in this evaluation or in the 2009 ACS, but will be incorporated at the first opportunity, most likely in the 2010 estimates will be incorporated at the first opportunity, most likely in the 2010 estimates.

• Person is a foster child.	• Foster children are categorically eligible.
• SSI enrollee living in one of 40 SSI states.[12] If a person with SSI has own children (less than 18) they must also report that they are not working or report a disability. Persons with SSI that are not parents do not have to meet the work/disability test.	• SSI enrollees are automatically enrolled in 32 states and DC and in seven others they are eligible by Social Security Administration standards, so can be enrolled if they fill out a separate application for Medicaid. • Parents are instructed to report any SSI income of children, so to avoid editing parents of SSI children the edit requires that parent reporters also report other indicators of SSI eligibility, such as functional limitation.

Medicare Edits Adopted for the ACS Beginning in 2009

Edit	Basis in Eligibility or Enrollment Rules
• Person is older than age 64 and has Social Security/Railroad Retirement.	• Persons receiving Social Security or Railroad Retirement benefits automatically receive Part A coverage upon turning 65.[13]
• Person is older than 64 and has Medicaid.	• Elderly Medicaid reporters are presumed to be reporting about the financial assistance that Medicaid programs[14] provide to help low-income senior citizens pay their monthly Part B Medicare premiums.

Military Edits Adopted for the ACS Beginning in 2009

Edit	Basis in Eligibility or Enrollment Rules

[12] See the appendix for a list of the 40 SSI states.
[13] http://ssa-custhelp.ssa.gov/cgi-bin/ssa.cfg/php/enduser/std_adp.php?p_faqid=164
[14] http://www.cms.hhs.gov/apps/firststep/content/medicare_dualelig.html

• Person is active duty military.	• Active duty[15] personnel are required to enroll in TRICARE Prime.[16]
• Person is the spouse of someone who is active duty and person does not have private[17] coverage.	• Dependents may choose to enroll in one of the TRICARE options.
• Person is younger than 21 and the unmarried child of someone who is active duty and does not have private coverage.	• Dependents may choose to enroll in one of the TRICARE options.

Comparison Edits Used in CPS and ACS

The tables below describe the coverage edits applied each year to the CPS. The comparison tables are meant to show differences between the two approaches to editing, both in their motivations and in the survey characteristics that restrict or enable application of certain edits.

CPS Medicaid Edits

CPS Edit	How the ACS Edits Differ
• Person with TANF.	• Person can have other types of public assistance because the ACS questionnaire does not ask about TANF separately from other types of public assistance. However, this edit is also restricted to parents in order to exclude individuals in General Assistance and other programs that do not generally have any links to Medicaid. • Adult must also be a citizen.
• Person with SSI in an SSI state.	• Additional restrictions apply to SSI recipients who are also parents.
• Person is less than age 23 and the child of someone with Medicaid or	• Person must be younger than age 19.[18]

[15] Active duty is defined as currently in the Armed Forces or active in the military Reserves or National Guard. This does not include individuals who are in Reserve or National Guard training.
[16] http://www.gao.gov/new.items/d02935.pdf
[17] Defined as health insurance directly purchased by the individual or sponsored by an employer or union.

any public assistance.	
• Person is married to someone with Medicaid and lives in an Unemployed Father state.[19]	• Person must be a citizen parent, married to another citizen but state of residence is irrelevant.
• Person has a child, is reported as the spouse of the family reference person, and has non-TANF public assistance.	• Person must also be a citizen.
• Person is a spouse of a reference person with SSI and living in SSI state.	• Not applied because it does not comport well with current eligibility and enrollment rules.
• Person is a single parent who receives non-TANF assistance.[20]	• No distinction is made between types of public assistance for citizen single parents because the ACS questionnaire does not ask about different types of public assistance.

CPS Medicare Edits

Edit	Comparison to ACS
• Person is older than 64 and has Medicaid.	• Same.
• Person is older than 64 and has Social Security/Railroad Retirement.	• Same.

CPS Military[21] Edits

Edit	Comparison to ACS
• Person is active duty military.	• Same.
• Person is the spouse of someone	• The ACS routine assigns coverage

[18] There are some states that restrict eligibility for children to under 18 however the core group of age-eligible recipients are 0-18 year olds.
[19] See appendix for a list of the UF states.
[20] Such persons are believed to misreport other public assistance when they actually receive TANF.
[21] For bullets 2-3, the CPS edit specification assigns the coverage type that is captured in the spouse's or parent's value in the variable 'OTYP'. This variable can indicate TRICARE, CHAMPUS, CHAMPVA, VA, Indian Health Service, or other coverage. Further analysis is needed to determine if this is an error in the spec (and if so the impact it has on coverage estimates of VA and other coverage types unrelated to active duty), an error in our interpretation of the specification, or if it is the correct specification and is being implemented for unknown reasons.

with TRICARE, CHAMPUS, CHAMPVA, VA, or IHS or the spouse of active duty military.	only to non-privately covered spouses/children of active duty military.
• Person is the unmarried child of someone in the active duty military and is less than 21 or less than 23 and is a non-worker, or working only part-year because they are a student. Or a similar child of a parent with TRICARE, CHAMPUS, CHAMPVA, VA or IHS.	• The ACS routine assigns coverage only to non-privately covered children of active duty military Children are defined as all children under 21.

Analytical Results

This section describes the empirical impact on ACS 2008 from applying the logical edits described above.[22] Tables specific to the military edit refer to the noninstitutionalized U.S. population. All other estimates refer to the civilian noninstitutionalized U.S. population because most coverage estimates exclude the active duty military and institutionalized populations. A brief description of our estimation methods is presented in the appendix of this report.

The Impact of Individual Edits to Coverage Levels in the ACS

The impact of edits on health insurance coverage levels is presented below for each type of coverage, followed by an assessment of overall coverage. Table 1 describes the effect of individual edit rules on the number and percent with coverage in various population segments that were targeted by specific edits.

Military Health Coverage

Table 1 shows that prior to editing, 90.4% of active-duty military personnel (1,067,506 people) were estimated to have TRICARE or other military health coverage. As a result of editing, the estimate increased to 100% of all active-duty military personnel. The change resulted in an additional 113,260 active duty personnel to be covered, for an overall estimate of 1,180,766 active duty personnel. The spouse edit resulted in an additional 57,055 estimated TRICARE enrollees, and the child resulted in an additional 12,944 enrollees. Not all spouses and children were covered after editing because the edit was only applied to dependents with no private coverage.

Medicare Coverage

[22] Illinois was mistakenly included as an SSI state in these analyses but it makes very little difference in the results: it reduces estimated uninsurance by 0.01%.

The middle panel of Table 1 shows that prior to editing, 93.8% of people age 65 and over with Social Security or Railroad Retirement benefits were estimated to have Medicare coverage. After editing, 100% or 33,126,899 people are estimated to be covered. The edit assigned coverage to over 2.3 million people who previously were not classified as having Medicare. Independent of the Social Security/Railroad Retirement edit, an estimated 645,282 people are assigned coverage based on their Medicaid classification. Some cases would be assigned Medicare based on either edit rule; the Age 65+ row shows the simultaneous impacts of the Medicare edits (2,333,425 additional enrollees).

Medicaid or Other Means-tested Public Coverage

The lower panel of Table 1 describes the effect of editing to the means-tested public coverage item. The edits that had the greatest absolute gain of assigned coverage include:

- SSI recipient living in SSI state, increasing from 68.6% before the edit to 95.2% after the edit (1,327,715 additional enrollees)
- SSI state and has SSI and no children increasing from 68.8% before the edit to 100.0% after the edit (1,219,196 additional enrollees)
- Child of parent with Medicaid increasing from 90.0% before the edit to 100.0% after the edit (991,582 additional enrollees)

Another measure of impact is the proportion of people assigned coverage before and after the edits. Citizen parents married to citizen public assistance recipients had the highest proportion of people assigned coverage as the result of editing (43.3% before editing to 99.5% after), despite a smaller absolute effect of 325,962 enrollees.

Detailed Impact of the Edits

Over 5 million people[23] were assigned a coverage type that they previously did not have. A portion of this number was previously classified as having another source of coverage and the remaining portion were uninsured prior to editing. Given the interest and importance of the number and percent of uninsured, we present four tables that describe the impact of editing to uninsurance. Tables 2, 3 and 4 present uninsurance by demographics before and after individual edits to each of the three coverage types. Table 5 presents results of simultaneously editing each type. Data from the CPS are also presented to give context.

Military Edits

[23] This is a conservative estimate made from summing Differences of Counts in Table 1. It is conservative because it only includes the highest count from any rows that are not mutually exclusive (or with very rare exceptions) as follows: active duty military and military spouses and children (183,259); age 65+ (2,333,425) from among other Medicare rows; foster children (53,097), SSI in SSI state (1,327,715) from among other SSI rows, citizen parents with public assistance (342,464) from among other rows for non-SSI adults edited for Medicaid, children of parents with Medicaid (991,582) from among rows for children edited for Medicaid on the basis of their parent's status.

Table 2 shows the effect of military edits to uninsurance in both surveys. Editing military coverage has less of an impact on population-wide uninsurance compared to the other coverage edits in ACS. Roughly 23,000 fewer people were estimated to be uninsured, or 0.01%. The impact of military editing was larger in the CPS, where the edit assigned coverage to about 480,000 people who would have been estimated to be uninsured. The discrepancy between the CPS and ACS military edits could be caused by two sources. First, a large number of people are affected by the military edit in the CPS because the CPS military coverage edit actually applies to TRICARE, CHAMPUS, CHAMPVA, and VA. It assigns 'military health coverage' to the spouse or child of any person that reports these coverage types, regardless of the reference person's active duty status. In contrast, the ACS edit only assigns TRICARE or other military health coverage to the spouses and children of active duty military. The other possible explanation is that military reporting is better in the ACS.

Medicare Edits

Table 3 shows the effect of Medicare edits to uninsurance in both surveys. It shows that prior to any editing, the ACS estimated that just over 45 million people, or 15.1% of the civilian noninstitutionalized population, were uninsured on an average day in 2008. Editing to Medicare resulted in a decrease of 0.1 percentage points in both surveys. As given by the edit rule itself, the decrease was only among people 65 years and older. The highest relative impact in the ACS occurred for non-Hispanic American Indians/Alaska Natives. The impact was relatively constant for every other sub-group considered. A similar pattern was found in the CPS. However, the relative decrease in uninsurance among people 65 and over was more than twice the magnitude in the CPS (1.1 versus 0.45).

Medicaid Edits

Table 4 shows the effect of Medicaid edits to uninsurance in both surveys. In the ACS, about 1.2 million or 0.4% fewer people were estimated to be uninsured. In the CPS about 2.3 million people were edited to Medicaid from uninsurance, resulting in a larger change of 0.8%. The groups that were affected the most by editing in the ACS were children under 19, non-Hispanic American Indians/Alaska Natives, people in poverty and non-citizens. A very similar pattern emerged from the CPS, however, non-Hispanic African-Americans, non-Hispanic American Indians/Alaska Natives, and Hispanics were more affected in the CPS than in the ACS. This was also true for people below 200% of the federal poverty level (FPL) and non-citizens.

Overall Impact

Table 5 describes the impact of all the coverage edits to the uninsurance estimates. In the ACS, about 1.4 million previously uninsured people were assigned coverage. This resulted in an uninsurance rate of 14.6%. The relative distribution across demographic groups remained the same before and after editing. That is, working age adults, non-

whites, males, the non-married, those in poverty, and non-citizens were all more likely to be uninsured when compared to their counterparts. Of all groups considered, the largest relative gain in coverage occurred for people below the poverty level and non-Hispanic American Indians/Alaska Natives.

Conclusions

This analysis showed that roughly 5 million people would be edited to have health insurance coverage types that were previously absent. Approximately 1.4 million people were reclassified as insured from uninsured, or about 20% of all edited cases. We believe these adjustments comport broadly with what we know about eligibility and enrollment procedures, the ACS design, and the known presence and causes of response error in other health insurance surveys (Eberly et al. 2009, Lynch 2008, Lynch 2009, Pascale 2009). Eligibility and enrollment procedures can best be summarized as complex, so the edit specifications selected for inclusion in the ACS were purposefully conservative and limited to rules that implied a high probability of enrollment. The Census Bureau and the TAG only adopted rules that could be implemented using a minimal number of assumptions.

Health insurance coverage is a complex concept that is difficult to measure (ASPE 2005, Blumberg and Cynamon 1999, Pascale 2009). While the error from response may be preferred to the systematic error introduced by editing, the Census Bureau, in consultation with an independent Technical Advisory Group, concluded that the total error of estimates for large population groups is lower after logically assigning coverage. This conclusion was largely driven by what is known about eligibility and enrollment in public programs and the tendency of respondents to under-report coverage.

The edited data also compare well to other sources of information. For example, after applying edits to the 2008 ACS, the 14.6% uninsurance rate is nearly identical to the 14.8% estimate from the 2008 National Health Interview Survey (NHIS). The NHIS uses a very similar point-in-time coverage measure (Turner et al. 2009). Therefore, the Census Bureau will implement the logical edits described in this report beginning with the 2009 ACS. All online summary data products will report coverage rates after editing has been applied. However, in recognition that analysts may be interested in analyzing small subgroups that may be disproportionately affected by errors introduced by editing, the 2009 ACS PUMS files will include a flag to identify when a coverage value has been obtained from editing. The 2008 ACS will not be edited for public dissemination by the Census Bureau.

References

ASPE (Office of the Assistant Secretary for Planning and Evaluation), Health and Human Services. 2005. "Understanding Estimates of the Uninsured: Putting the Differences in Context." Updated September 5.

Blumberg, S. J., and Cynamon, M. 1999. Misreporting Medicaid Enrollment: Results of Three Studies Linking Telephone Surveys to State Administrative Records. Proceedings of the Seventh Conference on Health Survey Research Methods, DHHS Publication No. (PHS) 01-1013. Hyattsville, MD.

Davern M, Klerman JA, Baugh DK, Call KT, Greenberg GD. 2009. "An Examination of the Medicaid Undercount in the Current Population Survey: Preliminary Results from Record Linking." *Health Services Research* 44(3): 965-87.

Eberly, T., Pohl, M. and Davis, S. 2009. "Undercounting Medicaid Enrollment in Maryland: Testing the accuracy of the Current Population Survey." Population Research Policy Review 28: 221-236.

Groves, R.M., F.J. Fowler Jr., M.P. Couper, J.M. Lepkowski, E. Singer, and R. Tourangeau. 2004. "Survey Methodology." Hoboken NJ: John Wiley & Sons.

Lynch, V. 2009. "Misreporting Health Insurance Status: Medicaid Enrollees in the Medical Expenditure Panel Survey, 2003." In American Association of Public Opinion 2009 Research Conference Proceedings. Also available at http://www.census.gov/did/www/snacc/publications/papers.html.

Lynch, V. 2008 "Medicaid Enrollment: The Relationships between Survey Design, Enrollee Characteristics, and False-Negative Reporting." In American Statistical Association 2008 Proceedings of the Section on Survey Research Methods. Also available at http://www.census.gov/did/www/snacc/publications/papers.html.

Nelson, C.T. and R.J. Mills. 2001. "The March CPS Health Insurance Verification Question and Its Effect on Estimates of the Uninsured." Available at: http://www.census.gov/hhes/www/hlthins/verif.html.

Pascale, J. Roemer, M. Resnick, D. 2009. "Medicaid Underreporting in the CPS: Results from a Record Check Study." Public Opinion Quarterly 73(3): 497-520.

O'Hara, B. 2009. "Is there an Undercount of Medicaid Participants in the ACS Field Test?" Paper Presented at the Joint Statistical Meetings, 2009.

SNACC Research Project to Understand the Medicaid Undercount: The University of Minnesota's State Health Access Data Assistance Center, the Centers for Medicare and Medicaid Services, the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation, the National Center for Health Statistics, and the U.S. Census Bureau. 2008. "Phase II Research Results: Examining Discrepancies

between the National Medicaid Statistical Information System (MSIS) and the Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)" http://www.census.gov/did/www/snacc/docs/SNACC Phase II Full Report.pdf.

State Health Access Data Assistance Center. 2005. "Reclassifying Health Insurance Coverage for the Indian Health Service in the Current Population Survey: Impact on State Uninsurance Estimates." Issue Brief #11. Minneapolis, MN: University of Minnesota. Available at: http://www.shadac.org/files/IssueBrief11.pdf.

Turner, J. Boudreaux, M. Lynch, V. 2009. "A Preliminary Evaluation of Health Insurance Coverage in the 2008 American Community Survey." U.S. Census Bureau, Housing and Household Economic Statistics Division. Available at http://www.census.gov/hhes/www/hlthins/data/acs/2008/2008ACS_healthins.pdf.

Table 1. Percent and Number of People with Coverage for Populations Targeted by the Edit, 2008 ACS

	Before				After				
	Percent	**SE**	**Count**	**SE**	**Percent**	**SE**	**Count**	**SE**	**Difference of Counts**
TRICARE/Military Health Coverage									
Active Duty	90.4	0.3	1,067,506	11,839	100.0	0.0	1,180,766	12,091	113,260
Spouse of Active Duty	88.3	0.4	437,169	5,845	99.9	0.0	494,224	6,381	57,055
Child of Active Duty	90.2	0.6	746,095	11,531	91.7	0.5	759,039	11,675	12,944
Medicare									
Age 65+	90.6	0.1	34,186,197	25,942	96.8	0.0	36,519,622	18,942	2,333,425
Age 65+ and Social Security/Railroad Retirement	93.8	0.0	31,065,409	27,263	100.0	0.0	33,126,899	22,831	2,061,490
Age 65+ and has Unedited Medicaid	87.8	0.2	4,646,904	23,644	100.0	0.0	5,292,186	23,374	645,282
Medicaid or Other Means-tested Public Coverage									
Foster Child	80.8	0.9	223,998	5,749	100.0	0.0	277,095	7,001	53,097
SSI Recipient Living in SSI State	68.6	0.2	3,425,963	22,894	95.2	0.1	4,753,678	24,856	1,327,715
SSI State and has SSI and No Children	68.8	0.3	2,683,159	21,233	100.0	0.0	3,902,355	24,596	1,219,196
SSI State and has SSI and Children and Either Zero Weeks Worked or a Disability	73.3	0.7	284,830	6,629	100.0	0.0	388,321	7,543	103,491
Citizen Parent Married to Citizen Medicaid Enrollee	77.3	0.2	1,968,821	18,134	89.2	0.2	2,273,557	20,176	304,736
Child of Parent with Medicaid	90.0	0.2	8,891,864	50,051	100.0	0.0	9,883,446	50,215	991,582
Citizen Parent with Public Assistance	67.6	0.5	806,680	9,911	96.3	0.2	1,149,144	11,663	342,464
Citizen Parent Married to Citizen with Public Assistance	43.3	0.8	251,413	6,148	99.5	0.1	577,375	10,580	325,962
Child of Parent with Public Assistance	82.2	0.3	2,299,393	23,738	100.0	0.0	2,796,860	26,521	497,467

Source: 2008 American Community Survey, U.S. Census Bureau

SE: Standard Error

Note: The population in panel 1 is the U.S. noninstitutionalized population. The population in panels 2 and 3 is the U.S. civilian noninstitutionalized population.

Table 2. Estimated Uninsurance, Before and After Editing for Assumed Coverage in Military Coverage, 2008 ACS and CPS 2009

	ACS							CPS						
	No Edits			After Military Edit			Diff	No Edits			After Military Edit			Diff
	Number	Percent	SE (%)	Number	Percent	SE (%)		Number	Percent	SE (%)	Number	Percent	SE (%)	
Total	45,092,347	15.04	0.05	45,069,618	15.04	0.05	0.01	49,482,808	16.4	0.1	49,004,344	16.3	0.1	0.2
Age														
0-5	2,136,302	8.60	0.07	2,134,641	8.59	0.07	0.01	2,615,593	10.3	0.3	2,565,193	10.2	0.3	0.2
6-18	6,010,605	11.20	0.07	6,007,265	11.20	0.07	0.01	6,355,675	11.9	0.2	6,281,773	11.8	0.2	0.1
19-64	36,420,279	19.79	0.06	36,402,551	19.78	0.06	0.01	39,413,287	21.3	0.2	39,072,551	21.1	0.2	0.2
65+	525,161	1.41	0.02	525,161	1.41	0.02	0.00	1,098,253	2.9	0.1	1,084,827	2.9	0.1	0.0
Race/Ethnicity														
White NH Alone	20,753,049	10.56	0.04	20,739,269	10.55	0.04	0.01	22,773,568	11.6	0.1	22,469,801	11.4	0.1	0.2
Black NH Alone	6,358,842	17.88	0.10	6,354,693	17.87	0.10	0.01	7,629,355	20.8	0.4	7,549,379	20.6	0.4	0.2
AI/AN NH Alone	611,409	31.42	0.48	611,367	31.41	0.48	0.00	535,281	28.2	1.5	532,814	28.1	1.5	0.1
NH/PI NH Alone	62,790	15.80	0.82	62,625	15.76	0.82	0.04	132,497	17.5	2.5	128,544	17.0	2.5	0.5
Asian NH Alone	1,914,320	14.51	0.16	1,913,206	14.51	0.16	0.01	2,383,005	18.3	0.7	2,358,660	18.2	0.7	0.2
Other NH Alone	144,798	20.76	0.68	144,746	20.75	0.68	0.01	NA	NA	NA	NA	NA	NA	NA
Multiple NH	692,206	13.54	0.22	691,843	13.53	0.22	0.01	647,066	14.1	0.8	641,764	14.0	0.8	0.1
Hispanic	14,554,933	31.41	0.13	14,551,869	31.40	0.13	0.01	15,382,035	32.4	0.4	15,323,382	32.3	0.4	0.1
Gender														
Male	24,297,445	16.52	0.06	24,284,095	16.51	0.06	0.01	26,606,116	18.0	0.2	26,432,714	17.8	0.2	0.1
Female	20,794,902	13.62	0.04	20,785,523	13.62	0.04	0.01	22,876,692	14.9	0.2	22,571,630	14.7	0.2	0.2
Marital Status														0.0
Married	13,652,147	11.37	0.04	13,641,440	11.36	0.04	0.01	15,273,264	12.2	0.2	14,979,007	12.0	0.2	0.2
Not Married	31,440,200	17.50	0.06	31,428,178	17.49	0.06	0.01	34,209,543	19.4	0.2	34,025,337	19.3	0.2	0.1
Poverty Status														
0-99%	11,363,379	29.06	0.11	11,362,502	29.06	0.11	0.00	13,342,140	33.5	0.5	13,280,321	33.3	0.5	0.2
100-199%	13,589,768	25.90	0.10	13,584,486	25.89	0.10	0.01	14,715,152	26.2	0.4	14,547,256	25.9	0.4	0.3
200%+	19,841,874	9.70	0.04	19,826,957	9.69	0.04	0.01	21,331,283	10.4	0.1	21,082,533	10.3	0.1	0.1
U.S. Citizen														
No	9,893,074	46.17	0.15	9,891,653	46.16	0.15	0.01	9,888,484	46.5	0.7	9,870,889	46.4	0.7	0.1
Yes	35,199,273	12.65	0.04	35,177,965	12.64	0.04	0.01	39,594,323	14.1	0.1	39,133,455	14.0	0.1	0.2

Source: 2008 American Community Survey, and the Annual Social and Economic Supplement of the Current Population Survey 2009, U.S. Census Bureau

SE: Standard Error

Diff: Difference in Percents

NH: non-Hispanic. AI/AN: American Indian and Alaska Native. NH/PI: Native Hawaiian and Other Pacific Islander. Other: Some Other Race. Multiple: Two or More Races

Note: The Military Edit in the CPS is much broader than that employed in the ACS

Note: The ACS population is the U.S. noninstitutionalized (including active duty personnel) population. The CPS population is the U.S. civilian noninstitutionalized population.

Table 3. Estimated Uninsurance, Before and After Editing for Assumed Coverage in Medicare, 2008 ACS and CPS 2009

	ACS							CPS						
	No Edits			After Medicare Edit			Diff	No Edits			After Medicare Edit			Diff
	Number	Percent	SE (%)	Number	Percent	SE (%)		Number	Percent	SE (%)	Number	Percent	SE (%)	
Total	45,080,009	15.10	0.05	44,912,366	15.04	0.05	0.06	49,482,808	16.4	0.1	49,048,883	16.3	0.1	0.1
Age														
0-5	2,136,302	8.60	0.07	2,136,302	8.60	0.07	0.00	2,615,593	10.3	0.3	2,615,593	10.3	0.3	0.0
6-18	6,010,264	11.21	0.07	6,010,264	11.21	0.07	0.00	6,355,675	11.9	0.2	6,355,675	11.9	0.2	0.0
19-64	36,408,282	19.91	0.06	36,408,282	19.91	0.06	0.00	39,413,287	21.3	0.2	39,413,287	21.3	0.2	0.0
65+	525,161	1.41	0.02	357,518	0.96	0.02	0.45	1,098,253	2.9	0.1	664,329	1.8	0.1	1.1
Race/Ethnicity														
White NH Alone	20,745,937	10.60	0.04	20,654,677	10.55	0.04	0.05	22,773,568	11.6	0.1	22,464,734	11.4	0.1	0.2
Black NH Alone	6,355,954	17.96	0.10	6,325,706	17.87	0.10	0.08	7,629,355	20.8	0.4	7,583,682	20.7	0.4	0.1
AI/AN NH Alone	611,409	31.54	0.48	605,688	31.24	0.47	0.30	535,281	28.2	1.5	528,514	27.9	1.5	0.4
NH/PI NH Alone	62,625	15.96	0.83	62,465	15.92	0.83	0.04	132,497	17.5	2.5	130,903	17.3	2.5	0.2
Asian NH Alone	1,913,676	14.55	0.16	1,904,893	14.48	0.16	0.07	2,383,005	18.3	0.7	2,370,253	18.3	0.7	0.1
Other NH Alone	144,798	20.85	0.69	144,460	20.81	0.69	0.05	NA	NA	NA	NA	NA	NA	NA
Multiple NH	692,111	13.61	0.22	690,466	13.58	0.22	0.03	647,066	14.1	0.8	641,851	14.0	0.8	0.1
Hispanic	14,553,499	31.50	0.13	14,524,011	31.44	0.13	0.06	15,382,035	32.4	0.4	15,328,946	32.3	0.4	0.1
Gender														
Male	24,286,949	16.62	0.06	24,213,058	16.57	0.06	0.05	26,606,116	18.0	0.2	26,431,664	17.8	0.2	0.1
Female	20,793,060	13.64	0.04	20,699,308	13.58	0.04	0.06	22,876,692	14.9	0.2	22,617,220	14.7	0.2	0.2
Marital Status							0.00							0.0
Married	13,647,305	11.42	0.04	13,580,285	11.37	0.04	0.06	15,273,264	12.2	0.2	15,114,173	12.1	0.2	0.1
Not Married	31,432,704	17.55	0.06	31,332,081	17.49	0.06	0.06	34,209,543	19.4	0.2	33,934,711	19.2	0.2	0.2
Poverty Status														
0-99%	11,362,599	29.07	0.11	11,326,251	28.98	0.11	0.09	13,342,140	33.5	0.5	13,255,416	33.3	0.5	0.2
100-199%	13,587,749	25.96	0.10	13,534,554	25.86	0.09	0.10	14,715,152	26.2	0.4	14,532,848	25.9	0.4	0.3
200%+	19,833,988	9.73	0.04	19,755,888	9.69	0.04	0.04	21,331,283	10.4	0.1	21,166,386	10.3	0.1	0.1
U.S. Citizen														
No	9,892,523	46.20	0.15	9,871,775	46.10	0.15	0.10	9,888,484	46.5	0.7	9,870,526	46.4	0.7	0.1
Yes	35,187,486	12.70	0.04	35,040,591	12.64	0.04	0.05	39,594,323	14.1	0.1	39,178,357	14.0	0.1	0.1

Source: 2008 American Community Survey, and the Annual Social and Economic Supplement of the Current Population Survey 2009, U.S. Census Bureau

SE: Standard Error

Diff: Difference in Percents

NH: non-Hispanic. AI/AN: American Indian and Alaska Native. NH/PI: Native Hawaiian and Other Pacific Islander. Other: Some Other Race. Multiple: Two or More Races

Note: The population is the U.S. civilian noninstitutionalized population

Table 4. Estimated Uninsurance, Before and After Editing for Assumed Coverage in Medicaid, 2008 ACS and CPS 2009

	ACS							CPS						
	No Edits			After Medicaid Edit			Diff	No Edits			After Medicaid Edit			Diff
	Number	Percent	SE (%)	Number	Percent	SE (%)		Number	Percent	SE (%)	Number	Percent	SE (%)	
Total	45,080,009	15.10	0.05	43,857,085	14.69	0.05	0.41	49,482,808	16.4	0.1	47,219,648	15.7	0.1	0.8
Age														
0-5	2,136,302	8.60	0.07	1,994,649	8.03	0.07	0.57	2,615,593	10.3	0.3	2,253,334	8.9	0.3	1.4
6-18	6,010,264	11.21	0.07	5,673,657	10.58	0.07	0.63	6,355,675	11.9	0.2	5,940,673	11.1	0.2	0.8
19-64	36,408,282	19.91	0.06	35,682,874	19.51	0.06	0.40	39,413,287	21.3	0.2	37,952,988	20.5	0.2	0.8
65+	525,161	1.41	0.02	505,905	1.36	0.02	0.05	1,098,253	2.9	0.1	1,072,653	2.8	0.1	0.1
Race/Ethnicity														
White NH Alone	20,745,937	10.60	0.04	20,204,986	10.32	0.04	0.28	22,773,568	11.6	0.1	21,912,265	11.1	0.1	0.4
Black NH Alone	6,355,954	17.96	0.10	6,104,319	17.25	0.10	0.71	7,629,355	20.8	0.4	7,082,772	19.3	0.4	1.5
AI/AN NH Alone	611,409	31.54	0.48	580,189	29.93	0.47	1.61	535,281	28.2	1.5	501,151	26.4	1.5	1.8
NH/PI NH Alone	62,625	15.96	0.83	58,725	14.96	0.84	0.99	132,497	17.5	2.5	121,105	16.0	2.4	1.5
Asian NH Alone	1,913,676	14.55	0.16	1,877,590	14.27	0.16	0.27	2,383,005	18.3	0.7	2,324,884	17.9	0.7	0.4
Other NH Alone	144,798	20.85	0.69	141,432	20.37	0.70	0.48	NA	NA	NA	NA	NA	NA	NA
Multiple NH	692,111	13.61	0.22	665,830	13.10	0.22	0.52	647,066	14.1	0.8	616,091	13.4	0.8	0.7
Hispanic	14,553,499	31.50	0.13	14,224,014	30.79	0.13	0.71	15,382,035	32.4	0.4	14,661,380	30.9	0.4	1.5
Gender														
Male	24,286,949	16.62	0.06	23,660,366	16.19	0.06	0.43	26,606,116	18.0	0.2	25,533,253	17.2	0.2	0.7
Female	20,793,060	13.64	0.04	20,196,719	13.25	0.04	0.39	22,876,692	14.9	0.2	21,686,395	14.1	0.1	0.8
Marital Status														
Married	13,647,305	11.42	0.04	13,136,141	11.00	0.04	0.43	15,273,264	12.2	0.2	14,419,972	11.5	0.2	0.7
Not Married	31,432,704	17.55	0.06	30,720,944	17.15	0.06	0.40	34,209,543	19.4	0.2	32,799,675	18.6	0.2	0.8
Poverty Status														
0-99%	11,362,599	29.07	0.11	10,830,356	27.71	0.11	1.36	13,342,140	33.5	0.5	12,266,243	30.8	0.5	2.7
100-199%	13,587,749	25.96	0.10	13,181,063	25.18	0.10	0.78	14,715,152	26.2	0.4	13,992,359	24.9	0.4	1.3
200%+	19,833,988	9.73	0.04	19,559,446	9.60	0.04	0.14	21,331,283	10.4	0.1	20,866,813	10.2	0.1	0.2
U.S. Citizen														
No	9,892,523	46.20	0.15	9,759,559	45.58	0.16	0.62	9,888,484	46.5	0.7	9,543,711	44.9	0.7	1.6
Yes	35,187,486	12.70	0.04	34,097,526	12.30	0.04	0.39	39,594,323	14.1	0.1	37,675,937	13.4	0.1	0.7

Source: 2008 American Community Survey, and the Annual Social and Economic Supplement of the Current Population Survey 2009, U.S. Census Bureau

SE: Standard Error

Diff: Difference in Percents

NH: non-Hispanic. AI/AN: American Indian and Alaska Native. NH/PI: Native Hawaiian and Other Pacific Islander. Other: Some Other Race. Multiple: Two or More Races

Note: Both surveys use a broad definition of Medicaid that encompasses any means-tested public program

Note: The population is the U.S. civilian noninstitutionalized population

Table 5. Estimated Uninsurance, Before and After Editing for Assumed Coverage in Medicare, Medicaid, and Military, 2008 ACS and CPS 2009

	ACS							CPS						
	No Edits			After Edits			Diff	No Edits			After Edits			Diff
	Number	Percent	SE (%)	Number	Percent	SE (%)		Number	Percent	SE (%)	Number	Percent	SE (%)	
Total	45,080,009	15.10	0.05	43,685,705	14.63	0.05	0.47	49,482,808	16.4	0.1	46,339,519	15.37	0.14	1.03
Age														
0-5	2,136,302	8.60	0.07	1,992,988	8.02	0.07	0.58	2,615,593	10.3	0.3	2,209,034	8.74	0.30	1.56
6-18	6,010,264	11.21	0.07	5,670,658	10.57	0.07	0.63	6,355,675	11.9	0.2	5,867,347	10.99	0.24	0.91
19-64	36,408,282	19.91	0.06	35,677,143	19.51	0.06	0.40	39,413,287	21.3	0.2	37,616,946	20.33	0.18	0.97
65+	525,161	1.41	0.02	344,916	0.93	0.02	0.48	1,098,253	2.9	0.1	646,192	1.71	0.10	1.19
Race/Ethnicity														
White NH Alone	20,745,937	10.60	0.04	20,109,950	10.28	0.04	0.33	22,773,568	11.6	0.1	21,321,659	10.81	0.14	0.79
Black NH Alone	6,355,954	17.96	0.10	6,073,994	17.16	0.10	0.80	7,629,355	20.8	0.4	6,957,122	19.00	0.41	1.80
AI/AN NH Alone	611,409	31.54	0.48	575,256	29.67	0.47	1.87	535,281	28.2	1.5	491,917	25.94	1.50	2.26
NH/PI NH Alone	62,625	15.96	0.83	58,565	14.92	0.84	1.03	132,497	17.5	2.5	115,558	15.30	2.43	2.20
Asian NH Alone	1,913,676	14.55	0.16	1,868,694	14.21	0.16	0.34	2,383,005	18.3	0.7	2,289,526	17.63	0.70	0.67
Other NH Alone	144,798	20.85	0.69	141,042	20.31	0.70	0.54	NA	NA	NA	NA	NA	NA	NA
Multiple NH	692,111	13.61	0.22	663,987	13.06	0.22	0.55	647,066	14.1	0.8	606,233	13.22	0.83	0.88
Hispanic	14,553,499	31.50	0.13	14,194,217	30.72	0.13	0.78	15,382,035	32.4	0.4	14,557,505	30.66	0.44	1.74
Gender														
Male	24,286,949	16.62	0.06	23,586,396	16.14	0.06	0.48	26,606,116	18.0	0.2	25,208,066	17.02	0.18	0.98
Female	20,793,060	13.64	0.04	20,099,309	13.18	0.04	0.46	22,876,692	14.9	0.2	21,131,453	13.78	0.15	1.12
Marital Status														
Married	13,647,305	11.42	0.04	13,066,570	10.94	0.04	0.49	15,273,264	12.2	0.2	13,990,144	11.19	0.17	1.02
Not Married	31,432,704	17.55	0.06	30,619,135	17.10	0.06	0.45	34,209,543	19.4	0.2	32,349,375	18.34	0.18	1.06
Poverty Status														
0-99%	11,362,599	29.07	0.11	10,795,534	27.62	0.11	1.45	13,342,140	33.5	0.5	12,121,993	30.44	0.47	3.07
100-199%	13,587,749	25.96	0.10	13,127,457	25.08	0.10	0.88	14,715,152	26.2	0.4	13,660,206	24.31	0.37	1.89
200%+	19,833,988	9.73	0.04	19,476,494	9.56	0.04	0.18	21,331,283	10.4	0.1	20,463,087	9.98	0.13	0.42
U.S. Citizen														
No	9,892,523	46.20	0.15	9,738,817	45.48	0.15	0.72	9,888,484	46.5	0.7	9,511,486	44.71	0.68	1.79
Yes	35,187,486	12.70	0.04	33,946,888	12.25	0.04	0.45	39,594,323	14.1	0.1	36,828,033	13.14	0.13	0.96

Source: 2008 American Community Survey, and the Annual Social and Economic Supplement of the Current Population Survey 2009, U.S. Census Bureau

SE: Standard Error

Diff: Difference in Percents

NH: non-Hispanic. AI/AN: American Indian and Alaska Native. NH/PI: Native Hawaiian and Other Pacific Islander. Other: Some Other Race. Multiple: Two or More Races

Note: The population is the U.S. civilian noninstitutionalized population

Appendix 1. Edit Rules Considered but Rejected for ACS

Medicare

Rule	Basis for Rejection
• Person is a citizen as well as being older than age 64 and having Social Security/Railroad Retirement or person is a citizen as well as being older than 64 and having Medicaid.	• Person does not need to be a citizen if they a long enough history employment in the US and meet certain other legal requirements.
• Person is older than age 64 and has Social Security/Railroad Retirement and adequate work history.	• The ACS does not have enough information on work history to determine if the sample case meets the legal minimum for eligibility.

Medicaid

Rule	Basis for Rejection
• Person is a non-parent citizen with any public assistance.	• Medicaid is generally not available to non-disabled persons who do not have children.
• Person is a citizen foster child with no private insurance.	• *All* foster children are categorically eligible.
• Person is an unemployed parent with a spouse in Medicaid.	• Not consistent with current policy.
• Person is the grandchild of someone who reports being responsible for the daily needs of the child.	• The ACS question is not specific enough to readily exclude children who are still the legal responsibility of their parents (and so not eligible for Medicaid on any basis of being in the guardianship of a grandparent).
• Person has SSI.	• In the ACS the person enrolled in SSI is not necessarily the person who is supposed to report this income (the ACS does not ask about SSI income for children under age 15).

Military/TRICARE

Rule	Basis for Rejection
• Person is the spouse of an active duty military and has no military coverage.	• Dependents do not have to enroll in TRICARE and spouse may have employer-based or other coverage.
• Person is the never married child (less than 21) of a person in the active duty military and has no military coverage.	• Same.

Appendix 2. Methodology

CPS

Data: All estimates come from the CPS-ASEC 2009 public use microdata.

Source Material: Documentation that informed this analysis came from the CPS Health Insurance Edit Spec (provided by the Poverty and Health Statistics Branch, U.S. Census Bureau) and CPS Technical Documentation.[24]

SE estimates: Standard errors were estimated with a design based Taylors series linearization method using pseudo geographic variables. This method is described in Davern, et al 2006.[25]

Assumptions:

The edit spec implies the following:

- Logical Edits are applied to CAID, CARE, OTH and OTYP variables after hot-deck allocation.
- Edited cases are flagged with I_CAID, I_CARE, I_OTH, and I_OTYP equal to 2.
- Because OTYP is triggered by OTH, it can be ignored in de-editing – ie, if I-OTYP=2 then I-OTH=2.
- Other variables that indicate coverage (e.g. othstype1-6) are not logically edited.

De-Edit Method

This section describes how the logical edited values were restored to their previous values. MCARE, MCAID and CHAMP were considered to be edited if their edit flag was set and if the record did not achieve MCARE, MCAID or CHAMP through any other source (i.e. through OTHSTYP(1-6) , AHITYP(1-6), PCHIP, etc). To de-edit the coverage variables, a new unedited variable was created and set equal to the edited variable unless it met the edit definition, in which case it was forced into 'No Coverage." Since our definition of editing was stricter than that defined in the edit flags, some cases were considered unedited even when their edit flag was set.

[24] http://www.census.gov/apsd/techdoc/cps/cps-main.html

[25] Davern, M. Jones, A. Lepkowski, J. Davidson, G. Blewett, L. "Unstable Inferences? An Examination of Complex Survey Sample Design Adjustments Using the Current Population Survey for Health Services Research" Inquiry 43:283-297, 2006.

The overall coverage status of people under the 'no edit' scenario was defined as any coverage from COV_HI, unedited MCARE, unedited MCAID, or unedited CHAMP. 'After edit' was defined if the variable under consideration was edited and all other variables contributing to (un)insured were unedited. For example, 'uninsured, after edit' in the Medicare table was defined if a person did not obtain coverage through COV_HI, MCARE, unedited MCAID, or unedited CHAMP.

ACS

Data: All estimates come from ACS 2008 internal-use microdata.

Source Material: Documentation that informed this analysis came from the CPS Health Insurance Edit Spec, a summary of previous TAG discussions, personal communication with TAG members, and the 2008 Accuracy of ACS Data.[26]

SE estimates: Standard errors were estimated using the replicate weight methodology described in 2008 Accuracy of ACS Data.

Process and Assumptions:

The edit spec implies the following:

- Logical Edits are applied to HINS3, HINS4, and HINS5 variables after all other editing and imputation.
- For purposes of this evaluation, edited cases are given a flag to indicate what coverage type should be set and a flag (or flags) to indicate what logic caused the flagging.
- If an edit rule references another coverage variable that is eligible for edit, it references the pre-edited version of the variable.
- In the edit rules, families are defined as both primary and secondary families.

[26] http://www.census.gov/acs/www/Downloads/ACS/accuracy2008.pdf

Appendix 3. State Classifications

Legislative Rules for SSI, "Unemployed Fathers", and Spouses of People in Public Assistance

State	SSI Medicaid Enrollment Rule	"Unemployed Father"	Finances Only
AL	1634	Y	Y
AK	Criteria	Y	Y
AZ	1634	Y	Y
AR	1634		
CA	1634	Y	Y
CO	1634	Y	Y
CT		Y	Y
DE	1634	Y	Y
DC	1634	Y	Y
FL	1634	Y	
GA	1634	Y	Y
HI			Y
ID	Criteria	Y	Y
IA	1634	Y	Y
IL	--	Y	Y
IN	--	Y	Y
KS	Criteria	Y	Y
KY	1634	Y	
LA	1634		
MA	1634	Y	Y
ME	1634	Y	
MD	1634	Y	Y
MI	1634	Y	Y
MS	1634	Y	Y
MN		Y	Y
MO		Y	Y
MT	1634	Y	Y
ND			
NE	Criteria		
NH			
NV	Criteria	Y	Y
NJ	1634	Y	Y
NM	1634	Y	Y
NY	1634	Y	Y
NC	1634	Y	Y
OH		Y	Y
OK		Y	
OR	Criteria	Y	
PA	1634	Y	
RI	1634	Y	Y

SC	1634	Y	Y
SD	1634	Y	Y
TN	1634		
TX	1634		Y
UT	Criteria		
VA		Y	Y
VT	1634	Y	Y
WA	1634	Y	Y
WV	1634		
WI	1634		
WY	1634	Y	

NOTES:

People living states listed as 1634 or Criteria can be edited to Medicaid on the basis of their reported SSI status. In 1634 states, SSA determines Medicaid eligibility on the basis of SSI determination rules and automatically enrolls people that meet eligibility requirements. No separate application for Medicaid is required. In Criteria states, SSI beneficiaries qualify for Medicaid based on SSI determination rules, but must fill out a separate application. Depending on the state, either SSA or the state is responsible for Medicaid determination.

Finances Only: States that determine (as of 2002) Medicaid eligibility for two-parent families solely on financial circumstances (without regard to marital status). Note that states that do consider marital status may have waivers and other rules that may in practice mean that some classes of individuals are eligible without regard to their marital status. http://aspe.hhs.gov/hsp/marriage02f/report.htm