A Comparison of the Health Insurance Coverage Estimates from Four National Surveys and Six State Surveys: A Discussion of Measurement Issues and Policy Implications

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Introduction

Health insurance coverage in the United States and the characteristics of the uninsured population are of substantial health policy importance, as demonstrated by the significant amount of research devoted to the topic (for a review of the relevant research, see Institute of Medicine 2003; 2001). Yet policy makers and researchers alike have pointed out that uninsurance estimates from various national surveys often vary, leading to confusion and potential distrust in the quality of the survey information generated (Hunter 2004; Joint Economic Committee 2004; Nelson et al. 2003; Congressional Budget Office 2003; Fronstin 2000; Lewis, Elwood, and Czajka 1998; Farley-Short 2001). The stakes are quite high for these observed differentials.

Cost estimates are required for federal legislation regarding changes to health insurance law and many states create budget estimates for legislation using these numbers. The Congressional Budget Office (CBO) "scores" legislation by estimating its cost through complicated econometric simulations that rely heavily on inputs from survey data (Glied, Remler, and Zivin 2002), and these scores can greatly influence the probability of success.   The survey data are also used by policy researchers to evaluate the impact of changes in health care policies and to simulate what is likely to happen if the health care policy were changed. In addition, estimates from national surveys are used to allocate 3 to 4 billion dollars a year in federal funds to states based, in part, on the number of uninsured low-income children in each state (Davern et al. 2003).

Several authors have offered possible reasons for differentials in estimates from various surveys (Nelson et al. 2003; Congressional Budget Office 2003; Fronstin 2000; Lewis, Elwood, and Czajka 1998; Farley-Short 2001). Reasons include differences in sample selection and population coverage, non-response bias, operationalization and measurement of the concept of health insurance coverage, survey administration and data processing (e.g., editing and imputation) (See Davern, Call, and Blewett 2006 for a review of these issues).

In this report we compare how four national surveys and six state surveys differ along these dimensions: the Current Population Survey's Annual Social and Economic Supplement (CPS), the National Health Interview Survey (NHIS), the Survey of Income and Program Participation (SIPP) the Medical Expenditure Panel Survey's Household Component (MEPS), and six state surveys. Although the CPS, NHIS, SIPP and MEPS surveys differ in how they are conducted, all produce national estimates of health insurance coverage; the CPS and six state surveys produce state level estimates. In conducting this analysis we compare each of the other three national surveys and the six state surveys to the CPS, as the CPS is the primary survey used by national and state health policy analysts (Blewett et al. 2004).

One of the major policy issues that has been raised over the years is whether CPS estimates of health insurance coverage should be viewed as a point-in-time measure of coverage or an all-year uninsured estimate (Ringel and Klerman 2005; Congressional Budget Office 2003; Farley-

Short 2001; Lewis, Elwood, and Czajka 1998; Swartz 1986). Two things are not in dispute in this debate. First, the CPS question is designed to capture whether a respondent was uninsured for the entire preceding calendar year. Second, the CPS estimated number of uninsured approximates much more closely the point-in-time uninsured estimates of the other three national surveys than it does for the surveys' all-year uninsured estimates (Congressional Budget Office 2003). What is still in dispute is whether the CPS estimate should be simply used as a point-in-time estimate, a debate that came into sharp focus once more in the summer of 2007 during the SCHIP re-authorization debate on how many kids were eligible but uninsured for SCHIP and Medicaid (for background see: Dubay 2007; Holahan, Cook and Dubay 2007; and Finegold and Giannarelli 2007; Hudson and Selden 2007).

Our assessment strategy for this report has the following components. First, we present national overall estimates of health insurance coverage from the CPS, NHIS, SIPP, MEPS, and six state surveys by key demographic characteristics, comparing the CPS estimate against each of the alternate surveys in pair-wise assessments. Second, using multivariate regression models that include economic and demographic variables known to impact the likelihood of lacking coverage that are measured in the surveys, we assess whether—and the extent to which—these overall differences across pairs of surveys can be attributable to differences in the distribution of these respondent economic and demographic characteristics across the surveys. Third and as part of this multivariate modeling process, we also present and compare the surveys' estimates of health insurance coverage for each of the "domains" defined by these economic and demographic variables included in our econometric models, controlling for all these factors. Thus we also assess whether "domain-specific" differences across pairs of surveys in estimated uninsurance rates can be attributable to differences in the distribution of these additional characteristics.

At a conceptual level, we can think of observed differences in coverage rates across surveys as arising from three major sets of factors:

- Differences in respondent characteristics that we can empirically measure and thus control for (i.e., measurable respondent heterogeneity);
- Differences in respondent characteristics that we cannot measure and thus cannot control for (i.e., unmeasured respondent heterogeneity); and
- Differences due to all the ways the surveys may differ, which includes sample selection and population coverage, non-response bias, operationalization and measurement of the concept of health insurance coverage, survey administration and data processing (i.e., what could be summarized as different "survey approach").

The issue of whether the impacts of key covariates on estimates of uninsurance differ across surveys—and how much of the differences in overall survey estimates of coverage are accounted for by differences in the distribution of these characteristics—is important for policy analysis. A central issue in developing, evaluating and funding targeted health insurance

coverage expansion programs has been the ability to assess the characteristics of the uninsured at the national and state level (Blewett et al. 2004; Glied, Remler, and Zivin 2002). Thus our analysis has utility for health policy analysts interested in gauging whether the impacts on uninsurance rates of particular characteristics in the survey data they have chosen to analyze are robust or not across surveys. It also provides another, more extended, analytic basis for assessing whether CPS estimates of uninsured are more likely to be point-in-time than all-year measures.

A number of studies have demonstrated large differences in survey point-in-time estimates of insurance coverage across these surveys (Nelson et al. 2003; Congressional Budget Office 2003; Fronstin 2000; Lewis, Elwood, and Czajka, 1998; Farley-Short 2001). Fewer studies (e.g., Nelson et al. 2003) have examined how the distribution of coverage varies by important demographic and economic covariates. However, to our knowledge no prior research has systematically examined whether domain-specific rates of uninsurance differ across the major national surveys, and the extent to which these domain-specific uninsurance rate differentials are "explainable".

The organization of this report is as follows. First we provide summaries of the four national surveys and the six state surveys included in this analysis, highlighting important elements in their overall design and operation. Second, we present our methodological approach. This includes a summary of our method of decomposing differences in overall and domain-specific rates of uninsurance into "explained" and "unexplained" components and a description of how we developed and used a set of similar survey concepts to measure respondent characteristics across the surveys for our models. Third, we present our empirical results. We discuss the policy implications of these results in the fourth section and provide a summary of our findings in our concluding section. [1]

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[1] Appendix A provides a detailed description of the econometric approach that we have used to decompose the total differences in rates of uninsurance—between pairs of national surveys— into known and unknown effects. It also presents a number of alternative econometric approaches that are used in the literature to achieve analogous decompositions and how our approach is related to these alternative approaches.

Background on the Survey Data

We use five general sources of survey data in this analysis, the CPS, SIPP, NHIS, and MEPS-HC, along with six state surveys that all used a similar survey instrument. We describe important elements in the design and operation of each below.

2003 CPS-ASEC

The CPS is a monthly survey that the Census Bureau conducts for the Bureau of Labor Statistics to provide data on labor force participation and unemployment. As the official source of government statistics on employment status and income, data on health insurance coverage is collected through the ASEC, which was initially added to the CPS in March of each year and was expanded to February through April beginning in 2001. The CPS sample is designed to be representative of each state and the District of Columbia. The CPS-ASEC is both nationally and state representative and has included approximately 78,000 households per year since 2000 (US. Census Bureau 2002; Davern et al. 2003). The CPS households represent a cross-section of the civilian non-institutionalized population of the U.S. and it is the most widely used source for estimates of health insurance coverage at both the national and state level (Blewett et al. 2004). The CPS estimates are used to compare states on changes in the number of uninsured individuals and they are also one component of the federal formula used to distribute funds for the State Children's Health Insurance Program (SCHIP). The 2003 CPS response rate was 85 percent and the data were collected through a combination of telephone and in-person modes using computer-assisted instruments (U.S. Census Bureau 2002).

SIPP: Calendar Year 2002 data from the 2001 Panel

The sample for the 2001 Survey of Income and Program Participation was drawn from the civilian non-institutionalized population residing within the U.S. The sampling frame consists primarily of the list of addresses compiled for the 1990 Census. Added to this are newly constructed living quarters (taken from building permits issued in the time between 1990 and when the sample was drawn) or, when addresses are unavailable by other methods, from lists created by field personnel. The sampling design involves stratification and clustering. The sample was drawn from 322 counties or groups of contiguous counties called Primary Sampling Units (PSUs). Large PSUs were counted as strata, and smaller sampling units were grouped with similar PSUs from the same Census region to create more strata. Some subpopulations, such as low income individuals, were over-sampled. The data represent the United States and four Census regions. They are not intended for state-level estimates.

The survey is conducted by a personal visit, with follow-up interviews often collected by telephone. SIPP interviewers use a computer-assisted instrument. Households chosen to be sampled are divided into four groups and are interviewed on a four-month rotation. Each interviewer asks the respondent to provide information for the previous four months. For the 2001 Panel of the SIPP, nine waves of interviews were conducted from February 2001 to January

2004. Interviews regarding calendar year (CY) 2002 were conducted in Waves 4 through 7, from February 2002 to March 2003. This panel survey is longitudinal but can also produce cross-sectional estimates. The Census Bureau provides weights for analysis for each wave, each calendar year, and for the whole panel. Some sample attrition occurs because of the longitudinal design. The original sample consisted of approximately 40,000 households and 90,000 individuals, although only 87 percent of those individuals sampled participated in the first wave of interviews. For calendar year 2002, approximately 58,000 individuals qualified for calendar-year weights (data was obtained for every month of the year), and there was a person non-response rate of 16.5 percent (U.S. Census Bureau 2005).

2002 NHIS

The NHIS has a target universe defined as all dwelling units in the civilian non-institutionalized population in the U.S. The NHIS consists of a Basic Module, including the Family Core, the Sample Adult Core, and the Sample Child Core, as well as several supplements that vary from year to year. The NHIS uses an area probability sample frame, based on the preceding decennial Census, with independent address lists obtained explicitly for the NHIS.

The sample for the NHIS represents the 50 states and the District of Columbia. However, the lowest level of geography available in the public-use data files is Census region. The total household response rate for the 2002 NHIS was 89.6 percent (7.1 percent of the sample were refusals and unacceptable partial interviews, and 3.3 percent represent a failure to find an eligible respondent at home after repeated calls). The final family/person (core) response rate was 88.1 percent. The NHIS data were collected through an in-person survey using computer-assisted personal interviewing (CAPI) in households.

The NHIS is conducted on an ongoing basis for 50 weeks throughout the year. In 2002, however, the NHIS household sample was reduced by approximately 10 percent due to budget constraints; thus, surveys were only conducted during 45 of the scheduled 50 weeks. The NHIS is a cross-sectional survey and has been conducted on an annual basis since 1957. There were 36,161 households with a total of 93,386 persons in 36,861 families surveyed in the 2002 NHIS. Since 1997 the NHIS health insurance coverage statuses have been edited by the NHIS staff after reviewing the data. Therefore, it is highly recommended that health insurance variables reflecting the respondents' original replies not be used in deciding various types of insurance coverage or the rate of uninsurance, as answers to some of these questions have been altered (NCHS 2002).

MEPS-HC: Calendar Year 2002 File

Since 1996 MEPS has annually selected a nationally representative sample (panel) of households from the previous year's National Health Interview Survey (NHIS) respondents. Eligibility for the survey is limited to the civilian non-institutionalized population in the U.S. Since eligibility may change after the initial sample is drawn, eligibility is confirmed during each survey round.

The initial sample frame of NHIS households was selected to include individuals from each of the 50 states and Washington DC.

MEPS data are collected during five rounds, which occur every five to six months across a two-year period using CAPI. Data for 2002 include rounds 3 to 5 of the 2001 panel and rounds 1 to 3 of the 2002 panel. The overall response rate is derived using MEPS round-specific response rates, as well as NHIS response rates. For 2002 data, the corresponding NHIS response rate was 89.6 percent and the MEPS rates were 66 percent and 64 percent, with an overall response rate of 65 percent, totaling 39,165 individuals (MEPS 2007).

State Survey Data
For the most part, the state data we present were collected as part of the HRSA State Planning Grants program. All of these states used telephone surveys and customized survey instruments to collect their state health insurance data. For this analysis we use six state surveys for which we have the micro data in order to draw conclusions between these types of surveys and the CPS-ASEC.

The six states all used a variation of the Coordinated State Coverage Survey (CSCS). The CSCS is a household telephone survey developed by staff at the State Health Access Data Assistance Center (SHADAC) for estimation of health insurance coverage, characteristics of those with and without coverage, and access to coverage (SHADAC 2006). It is modeled after the state household survey used to monitor the uninsured for the state of Minnesota since 1989. The six states include Alabama, Indiana, Minnesota, Missouri, Oklahoma and Virginia. The survey method for each of these states was a random digit telephone dialing sample that was stratified by geography, race and/or income. SHADAC worked closely with these states and vendors to produce as similar a survey as possible among these states. A description of each state's study design is below.

> **Alabama:** The 2003 Alabama Health Care Insurance and Access Survey was conducted between September 2002 and February 2003; 7,299 interviews were completed, with an AAPOR response rate #4 of 47 percent[2]. Interviews were conducted by the Survey Research Center at the University of Minnesota, School of Public Health Division of Health Services Research and Policy.

> **Indiana:** The 2003 Health Insurance for Indiana's Families Survey was conducted between February 2003 and April 2003; 9,965 interviews were completed, with a response rate of 40 percent. Interviews were conducted by the Indiana University Public Opinion Laboratory (IUPOL) at the Indiana University-Purdue University, Indianapolis.

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[2] In general, the response rate is the number of completed interviews divided by the number of units eligible for interview. AAPOR's response rate #4 calculation includes completed and partially completed interviews in the numerator and denominator. The denominator also includes non-participants (e.g., refusals, non-contacts), those of unknown eligibility, plus an estimate of the proportion of units of unknown eligibility that may be eligible. For details see AAPOR 2007.

Minnesota: The 2001 Minnesota Health Access Survey was conducted between November 2000 and May 2001; 27,315 interviews were completed, with an AAPOR response rate #4 of 65 percent. Interviews were conducted by the Survey Research Center at the University of Minnesota, School of Public Health Division of Health Policy and Management.

Missouri: The 2004 Missouri Health Care Insurance and Access Survey was conducted between March 2004 and July 2004; 6,995 interviews were completed, with a 41 percent response rate. Interviews were conducted by the Division of Behavioral and Minority Research at the University of Missouri, Columbia.

Oklahoma: The 2004 Oklahoma Health Care Insurance and Access Survey was conducted between March 2004 and June 2004; 5,601 interviews were completed, with an AAPOR response rate #4 of 45 percent. Interviews were conducted by the Survey Research Center at the University of Minnesota, School of Public Health Division of Health Services Research and Policy.

Virginia: The 2004 Virginia Health Care Insurance and Access Survey was conducted between July 2004 and November 2004; 4,041 interviews were completed, with an AAPOR response rate #4 of 35 percent. Interviews were conducted by Clearwater Research, Inc.

Analytic Methods

As noted in the introduction, at a conceptual level there are three major sets of factors that could give rise to observed differences in coverage rates across surveys:

- Differences in respondent characteristics that we can empirically measure and thus control for (i.e., measurable respondent heterogeneity);
- Differences in respondent characteristics that we cannot measure and thus cannot control for (i.e., unmeasured respondent heterogeneity); and
- Differences due to all the ways the surveys may differ, which includes sample selection and population coverage, non-response bias, operationalization and measurement of the concept of health insurance coverage, survey administration and data processing (i.e., what could be summarized as different "survey approach").

Because the surveys assessed in this analysis in general differ in multiple and complex ways, we are limited to an assessment of the relative importance of "measurable" respondent heterogeneity. We are not able to statistically identify the individual impacts of the various ways that surveys differ in their "survey approach".

Below, we provide a summary of the major elements of our analytic strategy for assessing the relative importance of our set of economic and demographic covariates. A more detailed derivation of our model and its relationship to other modeling strategies appears in Appendix A.

- We use the CPS as the 'reference' survey against which we compare the estimates from the three alternate national surveys and the combined state surveys because it is the most widely used source for estimates of health insurance coverage at both the national and state levels. We created our three analytic data sets by merging the 2003 CPS (*prima facie* covering calendar year 2002) with the MEPS-HC calendar year 2002; again the 2003 CPS with the SIPP calendar year 2002 data (from the 2001 Panel); the 2003 CPS with the NHIS calendar year 2002; and the 2003 CPS with the closest year of survey data available from the six state surveys.

- We present two sets of basic estimates of rates of uninsurance – one comparing the CPS to each alternate survey's point-in-time estimate and a second comparing the CPS to each alternate survey's all-year uninsured estimate. We present these estimates for persons 0-64 years of age; separate results for 0-17 year olds and 18-64 year olds are provided in Appendix B.

- For both reporting domain-specific rates of uninsurance and for use in our multivariate regression modeling, we identified a set of demographic and economic characteristics for which we could obtain a set of consistent survey items across all the surveys used.

These measures are summarized in Table 1, below. A household hierarchy for education and employment variables was used for respondents under 18 years of age. Details of the coding rules used are included in Table 1.

- To empirically implement our decomposition of the total differences in pairs of surveys' uninsurance rates into "explained" and "unexplained" components, we specified and estimated multivariate logistic models that were fully-interacted. Denoting a self-reported response of 'no coverage' in either survey by $Y = 1$, our demographic and economic characteristic indicator variables as Z_j $j = 1, ..., J$, and an indicator variable for a response from the CPS by $CPS = 1$ $(= 0 \ for \ Alternate \ Survey \ respondent)$, we obtained fitted models using the merged data of each pair of surveys ($N_{CPS} + N_{Alt}$) of the following form:

$$LN \ [\frac{\hat{Y}}{(1-\hat{Y})}] = \hat{\alpha} + \hat{\beta} \, CPS + \sum_j \hat{\gamma}_j \, Z_j + \sum_j \hat{\delta}_j \, (Z_j \times CPS)$$

  That is, our specifications included both an intercept adjuster for the CPS survey and an interaction of that CPS indicator variable with each of the included demographic and economic variables.

- To isolate the "explained" and "unexplained" components of the total differences in pairs of surveys' uninsurance rates, we used the method of recycled predictions, or the method of averaging the individual margin effects. Using this fully interacted model we calculate two sets of recycled predictions on the merged data set ($N_{CPS} + N_{Alt}$). In the first we assume each observation "arose" from a CPS respondent but otherwise had the characteristics of that observation, whether a "survey A" or CPS respondent. We repeat this again now assuming each observation "arose" from an alternate survey respondent but otherwise had the characteristics of that observation, whether an alternate survey or CPS respondent.

  Thus $for \ i = 1,..., N_{CPS} + N_{Alt}$ we derive:

  $predicted \ as \ if \ CPS_i =$

$$= \exp\{\hat{\alpha} + \hat{\beta} \times 1 + \sum_j \hat{\gamma}_j \, Z_{ji} + \sum_j \hat{\delta}_j \, (Z_{ji} \times 1)\} / [1 + \exp\{\hat{\alpha} + \hat{\beta} \times 1 + \sum_j \hat{\gamma}_j \, Z_{ji} + \sum_j \hat{\delta}_j \, (Z_{ji} \times 1)\}]$$

  and

  $predicted \ as \ if \ Alternate \ Survey_i =$

$$= \exp\{\hat{\alpha} + \sum_j \hat{\gamma}_j \, Z_{ji}\} / [1 + \exp\{\hat{\alpha} + \sum_j \hat{\gamma}_j \, Z_{ji}\}]$$

We then take the difference in the *means* of these two sets of simulated probabilities,

$$\frac{1}{N_{CPS} + N_{Alt}} \sum predicted \; as \; if \; Alternate \; Survey_i - \frac{1}{N_{CPS} + N_{Alt}} \sum predicted \; as \; if \; CPS_i$$

Since the distribution of these individual respondent-characteristic variables Z is identical in both sets of recycled predictions—they both make use of the entire merged data—these individual respondent-characteristic variables are being 'controlled for'. Thus this difference in mean recycled predictions measures the residual *unaccounted* for within our logistic model, or the net effect of differences in "survey approach" *and* all the unmeasured heterogeneity in our error term.

We define the "explained" component as the complement of the unadjusted difference in the two surveys' estimated rates of uninsurance; i.e., the difference in their mean uninsurance rates:

"Explained" Δ ≡ Unadjusted Δ − "Unexplained" Δ

- Since the difference in these two sets of simulated probabilities, "Unexplained" Δ, is a non-linear function of the full model's parameters, we derive standard errors and associated p-values for these differences in recycled means using the Delta method.[3]

- As derived in Appendix A, because we use a fully-interacted model, our approach to this decomposition into "explained" and "unexplained" components using the recycled prediction method yields the same result one would achieve by taking a weighted average of the two "unexplained" components obtained by applying the Peters-Belson approach to both survey data sets separately, where the weights reflect the relative sample sizes. That is, our decomposition through a fully-interacted recycled prediction approach is equivalent to the Peters-Belson approach (applied twice), an approach often used in assessing factors underlying disparities or 'discrimination' in event-rates between races/ethnic groups.[4]

- As described more fully in Appendix A, by applying this same approach to each of the "domains" (defined by the economic and demographic variables in our model), we are able to obtain an analogous decomposition of the difference in a pair of surveys' domain-specific estimates of uninsurance into "explained" and "unexplained" components. In these domain-specific assessments, we are controlling for all the remaining (J -1) economic and demographic variables in our model.

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[3] See, for example, William Greene, *Econometric Analysis, 5th Edition, 2003; page 674-5.*
[4] See, for example, Rao, Graubard, Breen and Gastwirth (2004).

- Finally, we obtained our parameter and variance estimates using the "survey" logistic regression procedure of STATA (9.0). To do so, we used the highest level of clustering (the Primary Sampling Unit) and the strata (for the sample design of these surveys) from the appropriate variables in the NHIS, SIPP and MEPS public-use data file. The state survey data include only strata variables since no clustering was employed. In order to approximate the "full" survey design with the CPS public use file, we use the procedure for identifying strata and clusters evaluated by Davern et al. (2006; 2007).

Table 1: Combined Dataset Variable Description

Concept	Variable Name	Values	Primary CPS Variable(s)	Primary NHIS Variable(s)	Primary MEPS Variable(s)	Primary SIPP Variable(s)	List survey name if not available in that survey	Notes
Unique identifier	id		h-seq, pppos	hhx, fmx, px	duid, pid	ssuid, epppnum		
Survey name	survey	1= CPS 2= NHIS 3= SIPP 4= MEPS 5= CSCS (state survey)	-	-	-	-		CSCS is a collapsed data set of six state surveys (AL, IN, MN, MO, OK, and VA).
Uninsured – point-in-time	pitunin	1= yes 0= no	-	notcov	insja02x - insde02x	ehimth, ecdmth, ecrmth	CPS	For CPS, uninsured all year is substituted for uninsured point-in-time. For MEPS and SIPP the "point-in-time" is taken from a randomly chosen month within the calendar year to match the continuous measurement of point in time status throughout the year from NHIS.
Uninsured – all-year	yrnotcov	1= yes 0= no	cov-hi, mcaid, mcare, champ	hinotyr, hilast	unins02	ehimth, ecdmth, ecrmth		
Sex	male	1= yes 0= no	a-sex	sex	sex	esex		
Age	age	1= 0-5 2= 6-17 3= 18-24 4= 25-34 5= 35-44 6= 45-54 7= 55-64	a-age	age_p	age02x	tage		Data set limited to individuals 0-64 years old
Race	race	1= white 2= black 3= other race	prdtrace	mracrp_i	racex	erace		Multiple races are included in other. White is white only and black is black only.
Ethnicity	hispanic	1= Hispanic/ Latino 0= not Hispanic /Latino	pehspnon	hiscod_i	hispanx	eorigin		
Family Structure	fstructure	1= Married adult(s) with kids 2= Single adult with kids 3= Single adult without kids 4= Married without kids	fkind, fownu18	r_maritl, frrp	marry02x, age02x	ems, errp, tage	CSCS*	
*Marital Status for CSCS	married	1= Married or separated 0= Not married	-	r_maritl	-	-		If target is under 18, use value of primary wage earner (PWE)

Concept	Variable Name	Values	Primary CPS Variable(s)	Primary NHIS Variable(s)	Primary MEPS Variable(s)	Primary SIPP Variable(s)	List survey name if not available in that survey	Notes
Education	educat	1= less than high school 2= high school grad/GED 3= some college/associate degree 4= college graduate(4 year degree) 5= more than a college degree (masters, professional, doctorate)	a-hga	educ	educyear	eeducate		If target is under 18, use value of the top in household or PWE in CSCS
US Born	usborn	1= U.S. born 0= not U.S. born	prcitshp	geobrth	usborn42	tbrstate	Only available for 18-64 year olds in the SIPP CSCS	usborn includes born in U.S. territories, but does not include born abroad to U.S. parents. This variable was used only in the model for 18-64 year olds.
Employment Status	empstatus	1= not employed 2= PT <25 employees 3= PT 25-99 employees 4= PT 100+ employees 5= FT <25 employees 6= FT 25-99 employees 7= FT 100+ employees	pemlr, hrcheck, noemp	-	empst53, hour53, hour42, hour31, numemp53, numemp42, numemp31	eptwrk, eptresn, tempall1, tempsiz1	NHIS*, CSCS**	If target is under 18, use value of the top in household. Part time work is defined as less than 35 hours per week. Full time is 35 or more hours per week. Employment in the CPS is an all year measure, which differs from the point-in-time measures of other surveys.
*Employment status for NHIS	employ_cat	1= PT 2= FT 3= not employed	-	doinglw1, wrkhrs	-	-		Use for all on tables 1 and 2, but only for NHIS_CPS for multivariate. Part time work is defined as less than 35 hours per week. Full time is 35 or more hours per week.
**Employ-ment status for CSCS	empstat	1= not employed 2= PT <100 employees 3= PT 100+ employees 4= PT <100 employees 5= FT 100+ employees	-	-	-	-		If target is under 18, use value of PWE. Part time work is defined as less than 35 hours per week. Full time is 35 or more hours per week.

Concept	Variable Name	Values	Primary CPS Variable(s)	Primary NHIS Variable(s)	Primary MEPS Variable(s)	Primary SIPP Variable(s)	List survey name if not available in that survey	Notes
Student Enrollment	student1823	1= student 0= not student	a-enrlw	majr_act	ftstu02x	renroll	CSCS	only if 18-23 CPS measures student status of last week.
Government Assistance: SSI	ssi	1= receive ssi 0= do not receive	ssi-yn	pssi	ssidis02	rcutyp03, rcutyp04	CSCS	CPS measures if received at any time in the previous calendar year.
Government Assistance: Food Stamps	fstp	1= receive food stamps 0= do not receive	hfoodsp	pfstp	foodst02	rcutyp27	CSCS	CPS measures if received at any time in the previous calendar year.
Poverty Status	Poverty_om	1= <100% 2= 100-125% 3= 126-200% 4= 201-400% 5= 401+	ftotval, fpovcut	rat_cat	povcat02	tftotinc, rfpov	CSCS*	Family income CPS measures income as reported for the entire previous calendar year.
*Poverty status for CSCS	Poverty	1= <100% 2= 100-199% 3= 200-299% 4= 300-399% 5= 400+	-	-	-	-		
State	state	use state fips codes	gestfips		-	tfipsst		Note which states were collapsed due to number of uninsured kids
Health Status	hstat	1= good, very good, or excellent 0= fair or poor	hea	phstat	rthlth53, rthlth42, rthlth31	ehltstat		Imputed for some cases in SIPP
Person Weight	psweight		marsupwt	wtfa	perwt02f	lgtcy2wt		
Strata	strata		geco, gestfips	psu	varstr	gvarstr		
Cluster/PSU	psu		h-seq	stratum	varpsu	ssuid, shhadidst, rhcalmn	No psu in CSCS	

Results

We provide the results of our approach as follows. The Table 2 series presents—for the CPS and each alternate survey—the proportion of responses (i.e., mean) for each 'domain' defined by the demographic and economic variables, the difference between the pairs of surveys in these means and the significance level for this difference. The Table 3 series provides— for the CPS and each alternate survey—the estimates of the rate of uninsurance overall and for each of the "domains" defined by the demographic and economic variables. The difference between the pairs of surveys in these estimates is presented along with the significance level for this difference. Two sets of results are provided using the point-in-time and all-year measures of uninsurance for the alternate surveys.

The Table 4 series compares the mean recycled rates of uninsurance using the logistic regression model's parameter estimates for the pairs of surveys (the logistic regression models from the pairs of pooled CPS/alternate survey data sets are shown in Appendix B). And finally, the Table 5 series contains for each of the CPS-alternate survey pairs: 1) the unadjusted estimates of the rate of uninsurance overall and by domain from the Table 3 series results above; 2) the difference in the mean recycled predictions—or the "unexplained" portion of the total difference from the Table 4 series results; and 3) the ratio of the "unexplained" to total difference.

Differences in Demographic and Economic Characteristics

Tables 2a and 2b provide the means of the two overall uninsured rates and the economic-demographic variables for each the surveys for persons 0-64 years of age (additional tables are included in Appendix B for children age 0-17 and adults age 18-64 years). All significance testing reflect comparisons of the "reference" CPS estimate to the alternate surveys' estimates.

Focusing first on the uninsured rates, as is widely known the 2002 calendar year CPS estimated rate of uninsurance—interpreted as an all-year measure—(17.2 percent) is much higher than the calculated all-year uninsured estimates from the NHIS (9.9 percent), MEPS (12.9 percent), and from SIPP (8.1 percent). And in Table 2b the CPS has an uninsured rate of 14.2 percent compared to 7.6 percent all-year estimate among the six states used for the CSCS, a significant difference of 6.5 percentage points. As others have pointed out as well, the CPS uninsured estimate is much closer to the other survey's point-in-time estimates. The point-in-time estimate for the NHIS (15.6 percent) and SIPP (15.9 percent) are significantly different than the CPS but closer. The MEPS point-in-time estimate (17.9 percent) is not significantly different form the CPS at (17.2 percent). Table 2b shows that the six state surveys that used the CSCS have a point-in-time uninsured rate of 10.6 percent, which is also much closer to the 14.2 percent uninsured rate estimated by the CPS for those six states.

There are differences between the CPS and the other surveys for the economic-demographic variables as well, but none as large as the differences in estimated rates of all-year uninsured.

The largest percentage point differences between the CPS and the NHIS occur for the proportion of students 18-24 years of age and the proportion not employed, where the CPS is higher than NHIS, and the proportion employed part time, where it is lower than in the NHIS. Some of the biggest percentage point differences between the CPS and MEPS are with respect to employer size and education. The CPS has less people without a high school diploma, and less high school graduates than the MEPS. The CPS also has a much higher number of people employed full time with employers of size 100 or more than does MEPS. Finally, some of the largest differences between the SIPP and CPS concern the proportion of the population employed full time working for small employers (under 25 employees) and also differences in the proportion of the population employed full time and not employed.

Comparing the CPS estimates from the states to the CSCS estimates in Table 2b also shows some large differences between the two surveys with respect to employment. The CSCS estimates fewer people to be employed full time with employers of size greater than 100 (45.2 percent in the CPS versus 38.6 percent in the CSCS). The CSCS also estimates more people to be not-employed (26.7 percent versus 20.9 percent). And finally the CSCS survey is more likely to have people report that they are in poor health than the CPS (10.8 percent in the CSCS versus 7.7 percent in the CPS).

Table 2a. Demographic Differences between the CPS and NHIS, MEPS, and SIPP, Ages 0-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	17.2%	9.9%	7.3%	***	12.9%	4.3%	***	8.1%	9.1%	***
Point-in-time uninsured	17.2%	15.6%	1.6%	***	17.9%	-0.7%		15.9%	1.3%	***
Individual Characteristics										
Male	49.8%	49.4%	0.4%	*	49.3%	0.5%		48.8%	1.0%	***
Female	50.2%	50.6%	-0.4%	*	50.7%	-0.5%		51.2%	-1.0%	***
Age 0-5	9.4%	10.0%	-0.6%	***	8.9%	0.5%	*	9.1%	0.3%	*
6-17	19.7%	20.4%	-0.7%	**	20.3%	-0.6%		21.1%	-1.4%	***
18-24	10.9%	10.9%	0.0%		10.5%	0.5%		11.4%	-0.5%	*
25-34	15.6%	14.9%	0.7%	**	15.9%	-0.3%		15.7%	-0.1%	
35-44	17.5%	17.7%	-0.2%		17.6%	-0.1%		17.4%	0.1%	
45-54	16.0%	15.7%	0.3%		15.9%	0.1%		15.4%	0.6%	**
55-64	10.9%	10.4%	0.5%	**	11.0%	-0.1%		10.0%	0.9%	***
Black	13.1%	12.7%	0.4%		12.7%	0.4%		13.8%	-0.7%	**
Other race	7.1%	8.5%	-1.3%	***	6.9%	0.2%		5.7%	1.4%	***
White	79.8%	78.8%	1.0%	*	80.4%	-0.6%		80.5%	-0.7%	*
Hispanic	14.8%	13.5%	1.3%	***	14.6%	0.2%		14.4%	0.4%	
Non-Hispanic	85.2%	86.5%	-1.3%	***	85.4%	-0.2%		85.6%	-0.4%	
Not born in the US	12.6%	11.7%	1.0%	***	12.2%	0.5%		N/A	---	
Born in the US	87.4%	88.3%	-1.0%	***	87.8%	-0.5%		N/A	---	
Poor health	7.9%	6.9%	1.0%	***	8.4%	-0.5%	*	8.6%	-0.7%	***
At least good health	92.1%	93.1%	-1.0%	***	91.6%	0.5%	*	91.4%	0.7%	***
Student 18-23 years old	4.5%	1.9%	2.6%	***	4.5%	0.0%		4.9%	-0.4%	**
No high school diploma^	12.9%	13.3%	-0.5%		17.0%	-4.1%	***	12.9%	-0.1%	
High school^	29.0%	27.5%	1.5%	***	31.3%	-2.3%	***	28.4%	0.6%	*
Some college^	29.5%	31.3%	-1.8%	***	24.1%	5.5%	***	31.7%	-2.2%	***
College graduate^	18.7%	18.1%	0.7%	*	16.8%	2.0%	***	17.6%	1.1%	***
Post-Bachelor's^	9.8%	9.7%	0.1%		10.9%	-1.1%	**	9.3%	0.5%	**
Not employed^	23.4%	20.1%	3.3%	***	20.1%	3.3%	***	19.3%	4.1%	***
Employed part time^	9.2%	12.7%	-3.4%	***	12.2%	-2.9%	***	10.6%	-1.4%	***
Employed full time^	67.4%	67.2%	0.1%		67.7%	-0.4%		70.0%	-2.7%	***
Empl. part time, < 25 empl.^	3.7%	N/A	---		6.7%	-3.0%	***	3.0%	0.7%	***
Empl. part time, 25-99 empl.^	1.0%	N/A	---		2.6%	-1.6%	***	1.2%	-0.2%	**
Empl. part time, 100+ empl.^	4.5%	N/A	---		2.8%	1.8%	***	6.2%	-1.6%	***
Empl. full time, < 25 empl.^	16.5%	N/A	---		22.3%	-5.8%	***	11.3%	5.2%	***
Empl. full time, 25-99 empl.^	8.3%	N/A	---		15.3%	-6.9%	***	7.9%	0.5%	**
Empl. full time, 100+ empl.^	42.5%	N/A	---		29.4%	13.1%	***	49.4%	-7.0%	***
Family Characteristics										
< 100% FPL	12.6%	13.2%	-0.7%	*	12.3%	0.2%		14.1%	-1.5%	***
100-125% FPL	4.1%	4.4%	-0.3%		4.0%	0.1%		4.5%	-0.4%	*
126-200% FPL	12.9%	13.0%	-0.1%		12.9%	0.1%		14.2%	-1.2%	***
201-400% FPL	31.2%	31.0%	0.2%		32.0%	-0.7%		33.7%	-2.5%	***
401+ % FPL	39.2%	38.4%	0.8%		38.8%	0.3%		33.6%	5.6%	***
Single with children	11.6%	12.9%	-1.3%	***	12.5%	-0.9%	*	12.4%	-0.8%	***
Married with children	48.6%	49.7%	-1.1%	*	47.6%	0.9%		48.5%	0.0%	
Single without children	17.1%	15.7%	1.4%	***	17.7%	-0.7%		16.9%	0.2%	
Married without children	22.7%	21.7%	1.0%	**	22.1%	0.6%		22.1%	0.6%	*
Receive SSI	1.5%	1.8%	-0.3%	***	1.7%	-0.3%	*	2.3%	-0.8%	***
Receive food stamps	7.1%	4.1%	3.0%	***	7.3%	-0.2%		6.7%	0.4%	*

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 2b. Demographic Differences between the CPS and CSCS, Ages 0-64, CY 2002

Variable	CPS Estimate	CSCS Estimate	Difference	
All-year uninsured	14.2%	7.6%	6.5%	***
Point-in-time uninsured	14.2%	10.6%	3.6%	***
Individual Characteristics				
Male	49.8%	48.5%	1.2%	*
Female	50.2%	51.5%	-1.2%	*
Age 0-5	9.3%	9.7%	-0.4%	
6-17	19.5%	20.1%	-0.7%	
18-24	10.8%	10.1%	0.7%	
25-34	15.2%	13.4%	1.8%	***
35-44	17.5%	17.0%	0.5%	
45-54	16.4%	17.0%	-0.6%	
55-64	11.3%	12.7%	-1.4%	***
Black	13.4%	13.7%	-0.3%	
Other race	6.0%	7.5%	-1.5%	***
White	80.7%	78.9%	1.8%	**
Hispanic	3.6%	3.0%	0.6%	*
Non-Hispanic	96.4%	97.0%	-0.6%	*
Poor health	7.7%	10.8%	-3.0%	***
At least good health	92.3%	89.2%	3.0%	***
No high school diploma^	10.2%	8.9%	1.3%	**
High school^	29.9%	28.8%	1.0%	
Some college^	30.1%	29.6%	0.5%	
College graduate^	19.9%	22.7%	-2.7%	***
Post-Bachelor's^	9.9%	10.1%	-0.1%	
Not employed^	20.9%	26.7%	-5.8%	***
Employed part time, ≤ 100 employees^	4.8%	6.2%	-1.4%	***
Employed part time, > 100 employees^	4.6%	4.1%	0.6%	*
Employed full time, ≤ 100 employees^	24.4%	24.4%	0.0%	
Employed full time, > 100 employees^	45.2%	38.6%	6.6%	***
Not married^	27.8%	30.2%	-2.4%	***
Married or separated^	72.2%	69.8%	2.4%	***
Family Characteristics				
< 100% FPL	10.5%	11.2%	-0.7%	
100-199% FPL	15.8%	16.2%	-0.4%	
200-299% FPL	16.6%	16.5%	0.1%	
300-399% FPL	16.0%	14.4%	1.6%	**
401+ % FPL	41.1%	41.7%	-0.6%	
State				
Alabama	13.7%	14.1%	-0.5%	
Indiana	19.2%	21.2%	-2.0%	***
Minnesota	16.2%	14.8%	1.3%	***
Missouri	17.5%	17.3%	0.2%	
Oklahoma	10.8%	11.0%	-0.2%	
Virginia	22.6%	21.5%	1.1%	*

Source: 2003 CPS for these six states, CSCS State Surveys for AL, IN, MN, MO, OK, VA

* p<0.05, **p<0.01, ***p<0.001

^ Employment, Education, and Marital Status for children under 18 years old are based on the adults in the family

Estimated Uninsured Rates by Demographic and Economic Characteristics

The uninsured rates by various demographic characteristics in Table 3a (all-year) and Table 3b (point-in-time) also display many expected differences. As noted for the Table 2 overall results, the magnitudes of the difference between pairs of surveys' point-in-time uninsured rates (Table 3b) are much less than those for the difference between pairs of surveys' all-year uninsured rates (Table 3a). Indeed, *all* the differences across the domains defined by these economic/demographic variables are significantly different for all pairs of CPS uninsured estimates and alternate surveys all-year uninsured estimates. Although there is considerable variability in their magnitude, these Table 3a differences reflect the large gap between the alternate surveys' estimated all-year uninsured rates and the CPS estimates.

The estimates from the CPS and the NHIS point-in-time uninsured rates (Table 3b) vary across several key dimensions. In the NHIS, for example, Blacks have a 3.7 percent lower point-in time uninsured rate than the CPS, while those in the "other race" category have a point-in-time uninsurance rate in the NHIS that is 3.5 percentage points higher than the CPS. In most other cases, the NHIS tends to have a lower point-in-time uninsured rate than the CPS uninsured rate.

The MEPS point-in-time uninsured rates and the CPS rates show very few differences across the domains we examined. The single largest difference is for people living in families where at least one person is receiving Supplemental Security Income (SSI). The MEPS has a higher estimate, likely because the CPS edits all people with SSI to have insurance coverage while MEPS does not.

For the estimates from the CPS and the SIPP point-in-time uninsured rates (Table 3b), overall, SIPP has a lower point-in-time uninsured rate than the CPS (17.2 versus 15.9), which is similar in magnitude to the difference between CPS and NHIS. However, there is somewhat more significant heterogeneity in these SIPP/CPS comparisons than was observed for the NHIS/CPS pairing. For example, among children 0-5 and 6-17 SIPP has a higher point-in-time uninsurance rate than the CPS (2.3 and 2.2 higher respectively), but the CPS uninsurance estimate for adults 25-64 years of age is considerably higher than the SIPP's point-in-time estimate (e.g., 3.7 percentage points higher for 35-44 year olds). Contrasting estimates are also present by family type. For people living in single parent families with kids the SIPP uninsurance estimate is 2.9 percentage points higher than the CPS. And for people living in married families without children the CPS estimate is 4.6 percentage points higher than the SIPP estimate.

Finally, the six state survey results using the CSCS instrument are compared to the CPS in Tables 3c using both the all-year and point-in-time metrics for these six state surveys. The all-year uninsured results also display many very large differences between the CSCS state surveys and these same-state CPS results. The CPS uninsured rate for 18-24 year olds, for example, is 27.5 percent compared to the all-year CSCS state survey rate of 13.4 percent. A similarly large difference is observed for Blacks and Hispanics who have a CPS uninsured rates of 21.3 percent and 36.8 percent, respectively, compared to the all-year six-state CSCS estimates of 9.0 percent

and 15.2 percent, respectively. Finally, we also see large differences in these survey pairings for those below 100 percent of FPL (the all-year CSCS is 14.4 percentage points lower) and for those with less than a high school education (the all-year CSCS is 12.9 percentage points lower). Clearly, differences of these magnitudes could have substantial impacts on policy simulations.

The differences of the CSCS point-in-time estimates from these six states and their CPS uninsured estimates are somewhat diminished; however, some very large differences remain. Hispanics, for example, still have a 17.7 percentage point lower rate of being uninsured in the point-in-time CSCS estimate than in the CPS, down from a 21.7 percentage point lower rate for the CSCS all-year rate and the CPS rate. The estimates for the point-in-time uninsured estimate from the CSCS are still much lower than the CPS uninsured estimates for Blacks (8.2 percentage points), people living below poverty (9.6 percentage points) and those without high school diplomas (7.3 percentage points).

Table 3a. All-year Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age 0-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	17.2%	9.9%	7.3%	***	12.9%	4.3%	***	8.1%	9.1%	***
Individual Characteristics										
Male	18.5%	11.1%	7.4%	***	14.4%	4.1%	***	9.1%	9.4%	***
Female	15.9%	8.7%	7.2%	***	11.4%	4.5%	***	7.2%	8.7%	***
Age 0-5	10.9%	4.0%	7.0%	***	5.1%	5.8%	***	3.8%	7.2%	***
6-17	12.0%	6.1%	5.8%	***	8.2%	3.8%	***	4.9%	7.1%	***
18-24	29.6%	17.2%	12.4%	***	22.0%	7.6%	***	14.2%	15.5%	***
25-34	24.9%	15.3%	9.6%	***	18.6%	6.3%	***	12.3%	12.6%	***
35-44	17.7%	11.0%	6.7%	***	14.0%	3.7%	***	8.3%	9.3%	***
45-54	13.9%	8.9%	5.0%	***	12.2%	1.7%	*	7.6%	6.3%	***
55-64	12.8%	7.2%	5.7%	***	10.4%	2.4%	***	6.0%	6.8%	***
Black	21.8%	10.9%	10.8%	***	13.2%	8.6%	***	9.7%	12.1%	***
Other race	20.1%	15.2%	4.9%	***	12.1%	8.0%	***	9.7%	10.3%	***
White	16.2%	9.1%	7.1%	***	12.9%	3.3%	***	7.7%	8.5%	***
Hispanic	34.0%	24.6%	9.3%	***	27.4%	6.6%	***	19.4%	14.6%	***
Non-Hispanic	14.3%	7.6%	6.7%	***	10.4%	3.9%	***	6.2%	8.1%	***
Not born in the US	36.0%	27.0%	9.0%	***	29.6%	6.3%	***	N/A	---	
Born in the US	14.5%	7.6%	6.9%	***	10.6%	3.9%	***	N/A	---	
Poor health	19.5%	15.3%	4.2%	***	16.0%	3.5%	***	12.4%	7.1%	***
At least good health	17.0%	9.5%	7.5%	***	12.6%	4.4%	***	7.7%	9.3%	***
Student 18-23 years old	18.4%	10.2%	8.2%	***	13.7%	4.7%	***	7.0%	11.3%	***
No high school diploma^	35.8%	26.2%	9.6%	***	26.8%	9.0%	***	21.9%	13.9%	***
High school^	21.0%	12.2%	8.8%	***	14.3%	6.7%	***	10.6%	10.4%	***
Some college^	14.3%	7.1%	7.1%	***	10.0%	4.3%	***	5.6%	8.7%	***
College graduate^	9.2%	3.4%	5.8%	***	6.3%	2.9%	***	2.3%	6.9%	***
Post-Bachelor's^	5.8%	1.9%	3.9%	***	4.1%	1.8%	**	1.1%	4.8%	***
Not employed^	24.5%	14.8%	9.7%	***	19.8%	4.7%	***	13.5%	11.0%	***
Employed part time^	21.8%	12.5%	9.2%	***	18.1%	3.6%	***	10.3%	11.4%	***
Employed full time^	14.1%	7.9%	6.1%	***	9.9%	4.1%	***	6.3%	7.8%	***
Empl. part time, < 25 empl.^	26.4%	N/A	---		21.7%	4.7%	**	15.1%	11.3%	***
Empl. part time, 25-99 empl.^	21.0%	N/A	---		14.5%	6.4%	***	9.6%	11.4%	***
Empl. part time, 100+ empl.^	18.1%	N/A	---		12.9%	5.2%	**	8.0%	10.2%	***
Empl. full time, < 25 empl.^	26.7%	N/A	---		19.1%	7.6%	***	16.6%	10.1%	***
Empl. full time, 25-99 empl.^	16.4%	N/A	---		8.1%	8.3%	***	7.6%	8.8%	***
Empl. full time, 100+ empl.^	8.7%	N/A	---		4.0%	4.6%	***	3.7%	5.0%	***
Family Characteristics										
< 100% FPL	33.6%	20.8%	12.8%	***	23.8%	9.8%	***	18.0%	15.7%	***
100-125% FPL	33.5%	23.0%	10.5%	***	24.6%	8.9%	***	17.3%	16.2%	***
126-200% FPL	28.2%	17.9%	10.3%	***	24.1%	4.1%	***	13.6%	14.6%	***
201-400% FPL	16.2%	8.8%	7.4%	***	12.4%	3.8%	***	6.7%	9.5%	***
401+ % FPL	7.4%	2.8%	4.6%	***	5.0%	2.5%	***	1.8%	5.6%	***
Single with children	20.3%	11.9%	8.4%	***	14.8%	5.5%	***	9.6%	10.8%	***
Married with children	13.7%	8.1%	5.6%	***	10.8%	2.9%	***	6.4%	7.4%	***
Single without children	26.0%	16.4%	9.6%	***	20.2%	5.8%	***	13.7%	12.3%	***
Married without children	16.5%	8.0%	8.5%	***	10.5%	6.0%	***	6.9%	9.5%	***
Receive SSI	1.5%	2.7%	-1.2%	*	2.7%	-1.3%		0.7%	0.8%	*
Receive rood stamps	19.7%	11.6%	8.1%	***	13.7%	6.0%	***	8.8%	10.9%	***

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 3b. Point-in-time Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age 0-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
Point-in-time uninsured	17.2%	15.6%	1.6%	***	17.9%	-0.7%		15.9%	1.3%	***
Individual Characteristics										
Male	18.5%	17.0%	1.5%	***	19.4%	-0.9%		16.9%	1.6%	***
Female	15.9%	14.3%	1.6%	***	16.5%	-0.6%		15.0%	0.9%	**
Age 0-5	10.9%	8.8%	2.2%	***	9.9%	1.0%		13.2%	-2.3%	***
6-17	12.0%	11.0%	1.0%	*	12.5%	-0.5%		14.1%	-2.2%	***
18-24	29.6%	27.5%	2.2%	*	30.9%	-1.3%		27.8%	1.9%	*
25-34	24.9%	22.8%	2.1%	***	26.1%	-1.2%		21.1%	3.8%	***
35-44	17.7%	16.8%	0.9%		18.7%	-1.1%		14.0%	3.7%	***
45-54	13.9%	13.0%	0.9%		15.1%	-1.2%		11.8%	2.1%	***
55-64	12.8%	10.4%	2.4%	***	12.9%	-0.1%		10.1%	2.7%	***
Black	21.8%	18.1%	3.7%	***	19.4%	2.4%	*	20.4%	1.4%	
Other race	20.1%	23.6%	-3.5%	**	17.3%	2.8%	*	18.9%	1.2%	
White	16.2%	14.4%	1.8%	***	17.7%	-1.5%	**	14.9%	1.3%	***
Hispanic	34.0%	32.5%	1.5%		34.4%	-0.4%		33.5%	0.5%	
Non-Hispanic	14.3%	13.0%	1.3%	***	15.1%	-0.8%	*	12.9%	1.4%	***
Not born in the US	36.0%	33.8%	2.2%	*	35.6%	0.3%		N/A	---	
Born in the US	14.5%	13.2%	1.3%	***	15.5%	-1.0%	*	N/A	---	
Poor health	19.5%	20.6%	-1.1%		22.6%	-3.2%	**	20.8%	-1.3%	
At least good health	17.0%	15.3%	1.7%	***	17.5%	-0.5%		15.4%	1.6%	***
Student 18-23 years old	18.4%	16.0%	2.4%		20.1%	-1.7%		15.9%	2.5%	*
No high school diploma^	35.8%	33.9%	1.9%	*	33.3%	2.5%	*	35.9%	-0.1%	
High school^	21.0%	19.1%	1.9%	***	19.8%	1.1%		19.7%	1.2%	*
Some college^	14.3%	13.3%	1.0%	*	15.5%	-1.3%		12.9%	1.4%	***
College graduate^	9.2%	7.2%	2.0%	***	9.6%	-0.4%		6.7%	2.5%	***
Post-Bachelor's^	5.8%	4.0%	1.9%	***	6.5%	-0.7%		4.1%	1.7%	***
Not employed^	24.5%	23.5%	1.0%		26.1%	-1.6%	*	24.0%	0.5%	
Employed part time^	21.8%	19.3%	2.4%	***	24.3%	-2.6%	*	19.9%	1.9%	*
Employed full time^	14.1%	12.6%	1.5%	***	14.3%	-0.3%		13.1%	1.0%	***
Empl. part time, < 25 empl.^	26.4%	N/A	---		28.7%	-2.3%		24.8%	1.6%	
Empl. part time, 25-99 empl.^	21.0%	N/A	---		19.5%	1.5%		21.0%	-0.1%	
Empl. part time, 100+ empl.^	18.1%	N/A	---		17.6%	0.5%		16.9%	1.2%	
Empl. full time, < 25 empl.^	26.7%	N/A	---		24.9%	1.8%	*	27.3%	-0.6%	
Empl. full time, 25-99 empl.^	16.4%	N/A	---		13.0%	3.4%	***	15.5%	0.8%	
Empl. full time, 100+ empl.^	8.7%	N/A	---		7.1%	1.6%	***	9.1%	-0.5%	
Family Characteristics										
< 100% FPL	33.6%	29.1%	4.6%	***	31.8%	1.8%		33.5%	0.1%	
100-125% FPL	33.5%	32.4%	1.1%		33.7%	-0.1%		31.5%	2.0%	
126-200% FPL	28.2%	26.0%	2.2%	*	32.1%	-3.8%	**	26.1%	2.2%	**
201-400% FPL	16.2%	15.3%	0.9%		17.5%	-1.3%		13.3%	2.8%	***
401+ % FPL	7.4%	5.8%	1.6%	***	7.5%	-0.1%		4.7%	2.7%	***
Single with children	20.3%	19.8%	0.5%		21.8%	-1.5%		23.3%	-2.9%	***
Married with children	13.7%	13.3%	0.5%		15.3%	-1.5%	*	13.5%	0.2%	
Single without children	26.0%	23.8%	2.2%	***	27.0%	-1.1%		22.5%	3.5%	***
Married without children	16.5%	12.6%	3.9%	***	14.1%	2.3%	**	11.9%	4.6%	***
Receive SSI	1.5%	5.1%	-3.6%	***	6.4%	-4.9%	***	3.4%	-2.0%	**
Receive food stamps	19.7%	18.5%	1.2%		21.0%	-1.4%		19.5%	0.2%	

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 3c. Uninsurance Rates by Demographic Groups: Differences between the CPS and CSCS, Age 0-64, CY 2002

Variable	All-Year Uninsured CPS Estimate	Point-in-time Uninsured CSCS Estimate	Difference		All-year Uninsured CSCS Estimate	Difference	
Total population 0-64	14.2%	10.6%	3.6%	***	7.6%	6.5%	***
Individual Characteristics							
Male	15.2%	10.8%	4.4%	***	7.8%	7.4%	***
Female	13.2%	10.4%	2.8%	***	7.5%	5.7%	***
Age 0-5	8.8%	4.6%	4.2%	***	2.5%	6.3%	***
6-17	9.5%	6.0%	3.5%	***	3.8%	5.7%	***
18-24	27.5%	20.6%	6.9%	***	13.4%	14.2%	***
25-34	20.4%	15.5%	4.9%	***	11.1%	9.3%	***
35-44	13.6%	12.0%	1.5%		9.6%	4.0%	***
45-54	11.4%	9.3%	2.0%	*	7.6%	3.8%	***
55-64	10.5%	8.9%	1.6%		7.1%	3.4%	***
Black	21.3%	13.0%	8.2%	***	9.0%	12.2%	***
Other race	17.9%	16.5%	1.4%		12.4%	5.5%	**
White	12.7%	9.6%	3.1%	***	7.0%	5.8%	***
Hispanic	36.8%	19.1%	17.7%	***	15.2%	21.6%	***
Non-Hispanic	13.3%	10.3%	3.0%	***	7.4%	5.9%	***
Poor health	18.6%	20.9%	-2.3%		17.0%	1.6%	
At least good health	13.8%	9.3%	4.5%	***	6.5%	7.3%	***
No high school diploma^	32.1%	24.8%	7.3%	***	19.2%	12.9%	***
High school^	18.5%	14.3%	4.2%	***	10.7%	7.9%	***
Some college^	11.6%	9.9%	1.7%	*	6.9%	4.7%	***
College graduate^	7.1%	4.8%	2.3%	***	2.9%	4.2%	***
Post-Bachelor's^	4.8%	2.3%	2.5%	**	1.9%	3.0%	***
Not employed^	21.3%	17.1%	4.2%	***	11.8%	9.5%	***
Empl. part time, ≤ 100 empl.^	23.7%	18.4%	5.3%	*	13.4%	10.2%	***
Empl. part time, > 100 empl.^	15.8%	10.8%	5.0%	*	7.7%	8.1%	***
Empl. full time, ≤100 empl.^	20.0%	13.0%	7.0%	***	10.3%	9.7%	***
Empl. full time, >100 empl.^	6.6%	3.3%	3.3%	***	2.2%	4.4%	***
Not married^	22.6%	18.0%	4.6%	***	12.9%	9.7%	***
Married or separated^	10.9%	8.3%	2.6%	***	6.1%	4.8%	***
Family Characteristics							
< 100% FPL	33.8%	24.2%	9.6%	***	19.4%	14.4%	***
100-199% FPL	24.5%	22.2%	2.2%		16.3%	8.2%	***
200-299% FPL	16.1%	10.6%	5.5%	***	7.7%	8.4%	***
300-399% FPL	9.4%	6.4%	3.0%	**	4.3%	5.1%	***
401+ % FPL	6.3%	3.8%	2.5%	***	2.3%	4.0%	***
State							
Alabama	14.8%	12.9%	1.8%		10.1%	4.6%	***
Indiana	14.8%	10.2%	4.6%	***	6.8%	8.0%	***
Minnesota	8.8%	4.5%	4.3%	***	2.8%	6.0%	***
Missouri	13.2%	9.6%	3.6%	**	7.5%	5.7%	***
Oklahoma	19.9%	21.5%	-1.6%		16.7%	3.1%	*
Virginia	15.2%	8.8%	6.4%	***	5.8%	9.5%	***

Source: 2003 CPS for these six states, CSCS State Surveys for AL, IN, MN, MO, OK, VA

* p<0.05, **p<0.01, ***p<0.001

^ Employment, Education, and Marital Status for children under 18 years old are based on the adults in the family

Logistic Regression Model Results

We provide the results of estimating our fully-interacted logistic regression models for the four pairs of CPS plus alternate survey data sets we assembled for our analyses in Tables 4a-4d in Appendix B. For each set of estimates from these four models, we merged all common data elements from both surveys and used them with either the all-year uninsured or point-in-time uninsured measure from the alternate survey—and the CPS uninsured measure – as our dependent variable.

Although we use these models for all our recycled prediction estimates, for this analysis the coefficients of interest—and p-values of interest—are in general those arising from the interaction of the economic-demographic variables and the CPS indicator. That is, the overall CPS intercept adjuster and the domain-specific interactions are the estimates of interest.

These models are all estimated by logistic regression, however. As recent studies have demonstrated, it is not appropriate to use their reported coefficients or their standard errors/p-values in assessing the 'true' size and significance of these interaction terms (Ai and Norton 2003; Norton, Wang and Ai 2004). Given this difficulty with the coefficients and standard errors of the interaction terms, we provide the fitted models in tabular form but do not discuss them. We present and discuss the empirical results—derived from the method of recycled predictions—of our use of these interaction terms and our other model coefficients below.

As discussed in more detail in Appendix A, the complications with interpreting the coefficients and significance of interaction terms in non-linear regression models does *not* carry over to our use of these coefficients in our recycled prediction approach. It doesn't because we are calculating the impact of these interactions on an observation-by-observation basis, and thus in a way that is analogous to the method of arriving at "corrected" interaction effects provided by Norton, Wang and Ai (2004).

Mean Recycled Uninsured Rates

Tables 4a - 4d compare the mean recycled rates of uninsurance using the logistic regression models' parameter estimates for the pairs of surveys. Specifically, for each of the four pairings of surveys, each table provides the mean of the recycled predictions when all observations are assumed to "arise" from the CPS, the mean of the recycled predictions when all observations are assumed to "arise" from the alternate survey in the pairing, and finally the difference between the mean CPS and the mean alternate survey and the significance of this difference. Each table provides these comparisons using both the all-year measure of uninsurance and the point-in-time measure for the alternate survey.

As noted, since the distribution of our models' economic and demographic characteristic variables Z is identical in both sets of recycled predictions—they both make use of the entire merged data for each survey pairing—these individual respondent-characteristic variables are being 'controlled for'. Thus the difference in mean recycled predictions measures the residual *unexplained* by our logistic model, or the net effect of differences in "survey approach" *and* all the unmeasured heterogeneity that may remain in our error term.

Finally, we present these comparisons for each survey's overall estimate of uninsurance and individually for each survey's estimate of uninsurance in each "domain" defined by our model's economic and demographic variables. Because we make extended use of these differences in recycled means—along with the unadjusted differences from Table 2—in the next set of tables (Table 5 series), we comment only briefly on these differences here.

As expected, over all four of the survey pairings, the point-in-time comparison to the CPS produces fewer significant differences in recycled means than the all-year uninsured comparison. This is expected—although not guaranteed—because we observe fewer significant differences in the unadjusted mean uninsurance rates in point-in-time comparisons in Table 2b than the universally significant differences in the unadjusted mean uninsurance rates in all-year comparisons in Table 2a.

There remains a very large *unexplained* differential between the overall recycled CPS mean and the all-year NHIS mean uninsurance rate of 7.3 percentage-points, and an *unexplained* differential of this magnitude or larger is seen across many of the domains for the all-year metric (Table 4a). The point-in-time *unexplained* differentials are in general much smaller, with a difference for the overall estimates of 1.8 percentage points. In all cases except one, the NHIS recycled all-year mean estimates are lower than the corresponding CPS recycled mean estimate. The one exception is the SSI estimate, in which the CPS has a lower estimate of uninsurance. This is due the CPS editing all people with SSI to have insurance coverage, and exists even for the case of the point-in-time metric.

As has been the case all along, the CPS recycled mean uninsured rates continue to show many significant differences when compared to the MEPS all-year uninsured estimates (Table 4b). All

the significant *unexplained* differentials for the all-year uninsured estimates show the MEPS estimates to be significantly lower than the CPS estimates. However, only three of the point-in-time comparisons are significant.

As is the case with the other surveys, the *unexplained* differentials for CPS recycled means and the SIPP all-year recycled mean uninsured are substantial in magnitude in all but the case of SSI (Table 4c). However, the point-in-time comparisons produce very few significant *unexplained* differences, in contrast to the results for the unadjusted differences (Table 3b). Like those unadjusted differences of the CPS and SIPP point-in-time estimates (Table 3b), these *unexplained* differences reflect cases where the SIPP estimates are sometimes lower and sometimes higher than the CPS estimates.

Comparing the CSCS and the same-state CPS recycling results from the all-year uninsured all the difference remains significant and large. With the CSCS point-in-time uninsured recycled differences there are still large differences as well.

Table 4a: Recycled Uninsurance Rates from the CPS and NHIS by Different Measurements of Uninsurance, Age 0-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	NHIS	Difference		CPS	NHIS	Difference	
Uninsured	17.2%	9.9%	7.3%	***	17.2%	15.4%	1.8%	**
Individual Characteristics								
Male	18.7%	11.2%	7.5%	***	18.7%	17.0%	1.7%	*
Age 0-5	11.4%	3.8%	7.6%	***	11.4%	8.4%	3.0%	***
6-17	12.3%	6.0%	6.3%	***	12.3%	10.7%	1.6%	*
18-24	31.6%	16.2%	15.4%	***	31.6%	25.5%	6.1%	***
25-34	24.2%	16.2%	8.1%	***	24.3%	23.7%	0.6%	
35-44	17.6%	11.1%	6.4%	***	17.6%	17.0%	0.6%	
45-54	14.0%	8.8%	5.2%	***	14.1%	12.9%	1.1%	
Black	22.0%	10.9%	11.1%	***	22.0%	18.0%	4.0%	***
Other race	24.0%	12.6%	11.4%	***	24.1%	20.5%	3.6%	*
Hispanic	34.6%	24.6%	10.1%	***	34.7%	32.1%	2.6%	
Poor health	20.1%	14.8%	5.3%	***	20.1%	20.1%	-0.1%	
Student 18-23	19.9%	8.0%	11.9%	***	19.9%	12.4%	7.5%	***
Employed part time^	23.0%	12.0%	11.0%	***	23.0%	18.2%	4.8%	***
Not employed^	24.3%	15.2%	9.1%	***	24.3%	23.8%	0.5%	
No high school diploma^	36.1%	26.3%	9.8%	***	36.1%	33.8%	2.3%	
High school^	20.9%	12.5%	8.4%	***	20.9%	19.3%	1.6%	
Some college^	14.8%	6.9%	7.9%	***	14.9%	12.8%	2.0%	**
College graduate^	9.2%	3.5%	5.7%	***	9.2%	7.3%	2.0%	***
Family Characteristics								
Below 100% FPL	34.0%	21.0%	13.0%	***	34.0%	29.1%	4.9%	***
100-125% FPL	34.6%	22.5%	12.1%	***	34.6%	31.6%	3.1%	*
126-200% FPL	28.2%	18.3%	9.9%	***	28.2%	26.2%	2.0%	
201-400% FPL	16.1%	9.0%	7.1%	***	16.1%	15.4%	0.7%	
Single with children	21.3%	11.3%	10.0%	***	21.4%	19.0%	2.4%	*
Single without children	25.7%	17.2%	8.5%	***	25.8%	24.5%	1.3%	
Married without children	16.7%	8.1%	8.6%	***	16.7%	12.6%	4.1%	***
Receive SSI	1.5%	2.7%	-1.2%		1.5%	5.0%	-3.4%	***
Receive food stamps	19.7%	11.7%	7.9%	***	19.7%	18.6%	1.1%	
State								
Alabama	16.2%	8.8%	7.4%	***	16.3%	13.4%	2.9%	*
Arizona	20.0%	16.9%	3.1%		20.0%	23.3%	-3.3%	
California	21.1%	12.3%	8.7%	***	21.1%	17.9%	3.2%	**
Colorado	16.5%	12.0%	4.5%	*	16.5%	17.0%	-0.5%	
Connecticut	11.4%	4.6%	6.9%	***	11.4%	9.3%	2.2%	*
Florida	21.1%	14.3%	6.8%	***	21.1%	21.8%	-0.7%	
Georgia	18.7%	10.1%	8.6%	***	18.7%	18.1%	0.6%	
Illinois	15.9%	8.7%	7.1%	***	15.9%	12.9%	3.0%	**
Indiana	16.0%	7.8%	8.1%	***	16.0%	13.9%	2.0%	
Iowa	11.0%	5.2%	5.8%	***	11.0%	10.9%	0.1%	
Kentucky	16.5%	10.1%	6.4%	***	16.6%	16.8%	-0.3%	
Louisiana	21.4%	16.2%	5.2%	*	21.5%	19.4%	2.1%	
Maryland	15.1%	8.4%	6.6%	***	15.1%	12.9%	2.2%	
Massachusetts	11.3%	3.5%	7.8%	***	11.3%	8.1%	3.2%	
Michigan	12.8%	5.4%	7.5%	***	12.9%	9.8%	3.1%	*
Minnesota	9.3%	3.5%	5.8%	***	9.3%	7.3%	2.1%	
Missouri	14.5%	6.4%	8.1%	***	14.5%	12.0%	2.5%	

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	NHIS	Difference		CPS	NHIS	Difference	
New Jersey	15.8%	7.2%	8.6%	***	15.8%	12.7%	3.1%	*
New York	17.4%	8.2%	9.2%	***	17.4%	13.9%	3.5%	***
North Carolina	19.1%	10.9%	8.2%	***	19.1%	15.5%	3.6%	*
Ohio	13.7%	6.9%	6.8%	***	13.7%	10.7%	3.0%	*
Oklahoma	20.4%	13.7%	6.7%	*	20.4%	25.1%	-4.7%	
Oregon	16.2%	10.5%	5.7%	**	16.2%	17.4%	-1.2%	
Pennsylvania	13.9%	7.0%	6.9%	***	13.9%	11.1%	2.9%	*
South Carolina	15.2%	11.3%	3.9%	*	15.2%	16.8%	-1.5%	
Tennessee	12.1%	5.4%	6.7%	***	12.1%	10.8%	1.3%	
Virginia	15.7%	8.1%	7.6%	***	15.8%	12.6%	3.2%	*
Washington	15.2%	5.7%	9.6%	***	15.3%	13.4%	1.9%	
Wisconsin	11.5%	5.5%	6.0%	***	11.5%	10.4%	1.1%	
Other States	16.4%	9.2%	7.2%	***	16.4%	15.4%	1.1%	

Source: 2003 CPS, 2002 NHIS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4b: Recycled Uninsurance Rates from the CPS and MEPS by Different Measurements of Uninsurance, Age 0-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	MEPS	Difference		CPS	MEPS	Difference	
Uninsured	17.2%	12.7%	4.5%	***	17.2%	17.8%	-0.6%	
Individual Characteristics								
Male	18.6%	14.5%	4.1%	***	18.6%	19.5%	-0.9%	
Age 0-5	10.9%	5.2%	5.7%	***	10.9%	10.0%	0.8%	
6-17	12.0%	8.1%	3.9%	***	12.0%	12.4%	-0.4%	
18-24	30.2%	21.7%	8.5%	***	30.2%	30.7%	-0.5%	
25-34	25.1%	18.6%	6.5%	***	25.1%	26.0%	-0.9%	
35-44	17.8%	14.0%	3.7%	***	17.8%	18.8%	-1.0%	
45-54	14.0%	12.0%	1.9%	**	14.0%	15.0%	-1.1%	
Black	21.6%	13.6%	8.0%	***	21.6%	19.8%	1.8%	
Other race	19.6%	12.5%	7.1%	***	19.6%	17.8%	1.8%	
Hispanic	34.1%	27.5%	6.6%	***	34.1%	34.6%	-0.4%	
Poor health	19.9%	15.8%	4.1%	***	19.9%	22.3%	-2.4%	
Student 18-23	19.1%	13.6%	5.5%	***	19.1%	19.9%	-0.8%	
Employed part time^	22.2%	18.3%	3.9%	***	22.2%	24.6%	-2.4%	
Not employed^	24.6%	19.5%	5.1%	***	24.6%	25.9%	-1.3%	
No high school diploma^	34.7%	27.6%	7.1%	***	34.7%	34.2%	0.5%	
High school^	20.3%	14.9%	5.5%	***	20.3%	20.6%	-0.2%	
Some college^	14.2%	10.2%	3.9%	***	14.2%	15.8%	-1.7%	
College graduate^	9.1%	6.4%	2.8%	***	9.1%	9.7%	-0.6%	
Family Characteristics								
Below 100% FPL	33.6%	24.1%	9.5%	***	33.6%	32.2%	1.4%	
100-125% FPL	34.2%	24.3%	9.8%	***	34.2%	33.2%	0.9%	
126-200% FPL	28.6%	24.0%	4.6%	***	28.6%	32.2%	-3.6%	*
201-400% FPL	16.4%	12.4%	4.0%	***	16.4%	17.6%	-1.2%	
Single with children	21.2%	14.3%	6.9%	***	21.2%	21.4%	-0.2%	
Single without children	25.3%	20.7%	4.5%	***	25.3%	27.8%	-2.5%	
Married without children	16.6%	10.6%	6.0%	***	16.6%	14.3%	2.3%	**
Receive SSI	1.5%	2.6%	-1.1%		1.5%	6.2%	-4.7%	***
Receive food stamps	19.7%	14.0%	5.7%	***	19.7%	21.4%	-1.7%	
State								
Alabama	16.2%	8.9%	7.3%	***	16.2%	13.1%	3.1%	*
Arizona	18.3%	11.7%	6.6%	**	18.3%	19.5%	-1.1%	
California	21.0%	15.4%	5.7%	***	21.0%	20.2%	0.8%	
Colorado	16.2%	13.6%	2.6%		16.2%	20.2%	-4.0%	**
Connecticut	12.8%	5.5%	7.3%	***	12.8%	8.6%	4.2%	***
Florida	21.2%	19.2%	2.0%		21.2%	24.5%	-3.2%	*
Georgia	17.9%	20.1%	-2.2%		17.9%	27.3%	-9.4%	***
Illinois	16.2%	14.0%	2.2%		16.2%	18.7%	-2.5%	
Indiana	16.2%	9.9%	6.3%	***	16.2%	14.6%	1.6%	
Iowa	10.9%	7.5%	3.4%	*	10.9%	10.0%	0.8%	
Kentucky	15.1%	11.5%	3.6%		15.1%	15.2%	-0.1%	
Louisiana	21.8%	18.2%	3.6%		21.8%	24.3%	-2.5%	
Maryland	14.3%	10.3%	4.0%		14.3%	13.9%	0.4%	
Massachusetts	10.9%	5.5%	5.4%	**	10.9%	7.3%	3.6%	
Michigan	12.8%	10.1%	2.8%		12.8%	15.2%	-2.3%	
Minnesota	9.1%	7.6%	1.5%		9.1%	10.7%	-1.5%	
Missouri	13.5%	10.4%	3.1%		13.5%	15.2%	-1.7%	
New Jersey	16.0%	7.9%	8.1%	***	16.0%	12.2%	3.8%	*

Variable	All-year Uninsured				Point-in-time Uninsured		
	CPS	MEPS	Difference		CPS	MEPS	Difference
New York	17.5%	12.9%	4.6%	***	17.5%	17.1%	0.4%
North Carolina	18.4%	15.2%	3.2%	*	18.4%	21.4%	-2.9%
Ohio	13.4%	9.2%	4.2%		13.4%	14.0%	-0.6%
Oklahoma	21.7%	23.1%	-1.3%		21.7%	28.5%	-6.8%
Oregon	16.3%	13.6%	2.7%		16.3%	19.2%	-2.9%
Pennsylvania	13.8%	9.0%	4.9%	**	13.8%	12.6%	1.2%
South Carolina	15.1%	9.7%	5.4%	**	15.1%	14.5%	0.6%
Tennessee	12.0%	6.3%	5.7%	***	12.0%	10.7%	1.3%
Virginia	14.8%	7.6%	7.2%	***	14.8%	13.5%	1.3%
Washington	15.1%	10.0%	5.1%	**	15.1%	17.0%	-1.9%
Wisconsin	10.8%	6.4%	4.5%	**	10.8%	9.7%	1.1%
Other States	16.4%	12.9%	3.5%	***	16.4%	17.8%	-1.4%

Source: 2003 CPS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4c. Recycled Uninsurance Rates from the CPS and SIPP by Different Measurements of Uninsurance, Age 0-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	SIPP	Difference		CPS	SIPP	Difference	
Uninsured	17.2%	8.1%	9.1%	***	17.2%	15.6%	1.6%	***
Individual Characteristics								
Male	18.6%	9.1%	9.5%	***	18.6%	16.8%	1.8%	***
Age 0-5	10.9%	3.9%	7.0%	***	10.9%	13.4%	-2.5%	***
6-17	12.2%	4.8%	7.4%	***	12.2%	13.8%	-1.6%	**
18-24	29.0%	14.7%	14.3%	***	29.0%	28.5%	0.5%	
25-34	24.9%	12.4%	12.6%	***	24.9%	21.1%	3.8%	***
35-44	17.9%	8.3%	9.6%	***	17.9%	13.8%	4.1%	***
45-54	14.2%	7.4%	6.8%	***	14.2%	11.5%	2.7%	***
Black	21.9%	9.6%	12.3%	***	21.9%	20.2%	1.8%	*
Other race	20.1%	9.9%	10.2%	***	20.1%	19.0%	1.1%	
Hispanic	33.8%	19.6%	14.2%	***	33.8%	33.6%	0.3%	
Poor health	19.6%	12.3%	7.3%	***	19.6%	20.5%	-0.9%	
Student 18-23	18.2%	7.1%	11.1%	***	18.2%	16.1%	2.2%	
Employed part time^	21.6%	10.5%	11.1%	***	21.6%	20.0%	1.7%	
Not employed^	24.5%	13.4%	11.1%	***	24.5%	23.9%	0.6%	
No high school diploma^	35.1%	22.5%	12.6%	***	35.1%	36.4%	-1.3%	
High school^	21.1%	10.5%	10.6%	***	21.1%	19.6%	1.5%	**
Some college^	14.5%	5.5%	9.0%	***	14.5%	12.7%	1.8%	***
College graduate^	9.4%	2.3%	7.2%	***	9.4%	6.5%	2.9%	***
Family Characteristics								
Below 100% FPL	32.5%	18.9%	13.6%	***	32.5%	34.8%	-2.3%	*
100-125% FPL	33.3%	17.6%	15.8%	***	33.3%	31.8%	1.6%	
126-200% FPL	27.8%	14.0%	13.8%	***	27.8%	26.4%	1.4%	
201-400% FPL	15.8%	7.0%	8.8%	***	15.8%	13.8%	2.0%	***
Single with children	20.6%	9.4%	11.2%	***	20.6%	23.0%	-2.4%	**
Single without children	25.5%	14.0%	11.5%	***	25.5%	23.1%	2.4%	**
Married without children	16.8%	6.7%	10.0%	***	16.8%	11.5%	5.2%	***
Receive SSI	1.5%	0.6%	0.9%	*	1.5%	3.3%	-1.8%	*
Receive food stamps	19.3%	9.0%	10.3%	***	19.3%	19.8%	-0.5%	
State								
Alabama	16.0%	10.7%	5.3%	**	16.0%	18.5%	-2.5%	
Arizona	19.6%	8.3%	11.3%	***	19.6%	17.4%	2.2%	
California	20.1%	9.1%	11.0%	***	20.1%	18.7%	1.3%	
Colorado	17.2%	9.6%	7.6%	***	17.2%	17.0%	0.2%	
Connecticut	12.6%	3.9%	8.8%	***	12.6%	10.4%	2.2%	
Florida	21.3%	9.8%	11.5%	***	21.3%	20.6%	0.7%	
Georgia	18.1%	8.7%	9.4%	***	18.1%	17.2%	0.9%	
Illinois	15.8%	6.9%	9.0%	***	15.8%	14.6%	1.2%	
Indiana	15.1%	4.5%	10.6%	***	15.1%	10.3%	4.9%	***
Iowa	10.5%	4.9%	5.6%	***	10.5%	10.0%	0.5%	
Kentucky	16.1%	8.6%	7.5%	**	16.1%	14.9%	1.1%	
Louisiana	21.6%	12.0%	9.6%	***	21.6%	20.2%	1.4%	
Maryland	14.1%	6.7%	7.5%	***	14.1%	10.7%	3.5%	
Massachusetts	11.1%	2.3%	8.8%	***	11.1%	6.7%	4.4%	**
Michigan	12.5%	6.1%	6.5%	***	12.5%	12.0%	0.6%	
Minnesota	8.9%	4.5%	4.4%	***	8.9%	8.2%	0.7%	
Missouri	13.4%	5.9%	7.5%	***	13.4%	11.8%	1.5%	

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	SIPP	Difference		CPS	SIPP	Difference	
New Jersey	15.8%	5.9%	9.9%	***	15.8%	11.9%	3.9%	**
New York	17.6%	7.8%	9.7%	***	17.6%	15.0%	2.6%	*
North Carolina	18.7%	8.4%	10.3%	***	18.7%	15.8%	2.9%	
Ohio	13.6%	5.0%	8.6%	***	13.6%	10.7%	3.0%	*
Oklahoma	19.1%	7.7%	11.4%	***	19.1%	19.1%	0.1%	
Oregon	15.9%	6.3%	9.6%	***	15.9%	16.1%	-0.2%	
Pennsylvania	13.5%	4.8%	8.7%	***	13.5%	9.2%	4.3%	***
South Carolina	14.7%	6.3%	8.4%	***	14.7%	15.4%	-0.8%	
Tennessee	12.4%	4.7%	7.6%	***	12.4%	12.1%	0.3%	
Virginia	15.1%	6.2%	8.9%	***	15.1%	13.0%	2.1%	
Washington	16.1%	6.0%	10.1%	***	16.1%	14.1%	2.0%	
Wisconsin	11.8%	4.7%	7.1%	***	11.8%	9.5%	2.3%	
Other States	16.4%	9.3%	7.1%	***	16.4%	16.5%	-0.1%	

Source: 2003 CPS, 2001 SIPP

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4d. Recycled Uninsurance Rates from the CPS and CSCS by Different Measurements of Uninsurance, Age 0-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	CSCS	Difference		CPS	CSCS	Difference	
Uninsured	14.2%	7.8%	6.4%	***	14.2%	10.7%	3.5%	***
Individual Characteristics								
Male	14.9%	8.2%	6.8%	***	14.9%	11.1%	3.8%	***
Age 0-5	8.8%	2.5%	6.3%	***	8.8%	4.6%	4.2%	***
6-17	10.0%	3.6%	6.4%	***	10.0%	5.6%	4.4%	***
18-24	28.1%	13.5%	14.7%	***	28.1%	20.4%	7.7%	***
25-34	19.9%	11.9%	7.9%	***	19.9%	16.3%	3.5%	*
35-44	13.4%	9.7%	3.6%	***	13.4%	12.2%	1.2%	
45-54	11.6%	7.3%	4.3%	***	11.6%	9.0%	2.6%	**
Black	20.6%	9.5%	11.1%	***	20.6%	13.5%	7.0%	***
Other race	21.4%	12.2%	9.2%	***	21.4%	16.2%	5.1%	
Hispanic	35.1%	17.2%	17.9%	***	35.1%	20.4%	14.7%	***
Poor health	19.5%	16.6%	3.0%		19.5%	20.5%	-1.0%	
No high school diploma^	31.8%	19.4%	12.4%	***	31.8%	24.9%	6.9%	**
High school^	18.5%	10.8%	7.7%	***	18.5%	14.4%	4.1%	***
Some college^	12.2%	6.6%	5.6%	***	12.2%	9.5%	2.7%	***
College graduate^	7.2%	2.8%	4.4%	***	7.2%	4.8%	2.4%	***
Not employed^	20.5%	12.5%	8.0%	***	20.5%	17.9%	2.6%	*
Employed part time, ≤ 100 employees^	23.5%	14.3%	9.1%	***	23.5%	19.2%	4.2%	
Employed part time, > 100 employees^	15.0%	8.8%	6.2%	**	15.0%	12.2%	2.8%	
Employed full time, ≤ 100 employees^	19.2%	11.3%	8.0%	***	19.2%	14.2%	5.1%	***
Not married^	22.2%	13.0%	9.2%	***	22.2%	17.8%	4.4%	***
Family Characteristics								
< 100% FPL	33.5%	19.1%	14.4%	***	33.5%	24.1%	9.4%	***
100-199% FPL	23.9%	16.9%	7.0%	***	23.9%	22.9%	1.0%	
200-299% FPL	15.7%	8.2%	7.5%	***	15.7%	11.2%	4.5%	***
300-399% FPL	9.3%	4.6%	4.7%	***	9.3%	6.6%	2.7%	**
State								
Alabama	15.1%	9.8%	5.3%	***	15.1%	12.5%	2.6%	
Indiana	15.1%	6.7%	8.4%	***	15.1%	10.0%	5.1%	***
Missouri	13.7%	7.0%	6.6%	***	13.7%	9.0%	4.6%	***
Oklahoma	20.5%	16.0%	4.6%	**	20.5%	20.8%	-0.2%	
Virginia	13.8%	7.5%	6.3%	***	13.8%	10.8%	3.0%	*

Source: 2003 CPS for these six states, CSCS State Surveys for AL, IN, MN, MO, OK, VA

* p<0.05, **p<0.01, ***p<0.001

^ Employment, Education, and Marital Status for children under 18 years old are based on the adults in the family

Unadjusted, Adjusted, and Unexplained Ratio of Uninsurance Rates

To better summarize the main findings of our analyses, we provide in Tables 5a – 5c the comparisons of unadjusted (total) differences in uninsured rates (Tables 3a-3c), the adjusted or *unexplained* differentials (Tables 4a – 4d), and the ratio of the *unexplained* to total differences. Once again we do so for each of the four pairings of surveys and using both the all-year measure of uninsurance and the point-in-time measure for the alternate surveys. We begin with an assessment of the point-in-time results for the alternate surveys and the CPS estimates.

Using whatever the CPS measure of coverage is tracking, when we compare it to MEPS' point-in-time estimates we observe:

- No significant difference in the *overall* unadjusted difference.
- At the level of domain-specific differences, 67 percent of these 27 unadjusted domain differences are insignificant, and thus there is nothing to "explain".
- In another 26 percent of the total domains, the unadjusted difference is significantly different but the *unexplained* difference is no longer significant. On average in these domain-specific cases, our model explains 23 percent of the total differential, but since this *unexplained* difference is no longer significant we can't rule out the possibility that our model's covariates explain *all* the difference.
- In only two domains is the unadjusted difference significantly different and the *unexplained* difference remains insignificant. For these two domains, our model is explaining almost nothing (5 percent).

A reasonable conclusion is that these two surveys do not materially differ in any empirical sense.

Using whatever the CPS measure of coverage is tracking, when we compare it to SIPPS point-in-time estimates we observe:

- A modest but significant *overall* unadjusted difference of 1.3 percent that is not only not explained, but for which our *unexplained* differential widens modestly by 23 percent.
- At the level of domain-specific differences, for a combined 45 percent of these domain-specific results we either have that unadjusted domain differences are insignificant—and thus there is nothing to "explain"—or that the unadjusted difference is significantly different but the *unexplained* difference is no longer significant—on average explaining 48 percent of the total differential and perhaps all the difference.
- Finally, in 55 percent of the domain-specific results we observe that the unadjusted difference is significantly different and the *unexplained* difference remains insignificant. Again for these more numerous domains in the CPS/SIPP comparison, our model is explaining nothing (- 2 percent).

A reasonable conclusion is that these two surveys do differ in an empirical sense. It is a relatively modest differential but it cannot be explained as the result of imbalances in the distribution of covariates included in our model.

Using whatever the CPS measure of coverage is tracking, when we compare it to NHIS point-in-time estimates, we get:

- Again, a modest but significant *overall* unadjusted difference of 1.6 percent that is not only not explained, but for which our *unexplained* differential widens modestly by 13 percent.
- At the level of domain-specific differences, for a combined 55 percent of these domain-specific results we either have that unadjusted domain differences are insignificant—and thus there is nothing to "explain"—or that the unadjusted difference is significantly different but the *unexplained* difference is no longer significant—on average explaining 23 percent of the total differential and perhaps all the difference.
- Finally, in 45 percent of the domain-specific results we observe that the unadjusted difference is significantly different and the *unexplained* difference remains insignificant. In these domains, however, our *unexplained* difference expands on average by 46 percent.

Again, a reasonable conclusion is that these two surveys do differ in an empirical sense. It is a relatively modest differential but again it cannot be explained as the result of imbalances in the distribution of covariates and in fact making the distribution of the covariates balanced reveals heterogeneity in these domain-specific results that was being 'masked' by the covariate imbalances embedded in the overall differences.

Using whatever the CPS measure of coverage is tracking, when we compare it to six-state CSCS point-in-time estimates we get:

- A considerably larger, significant *overall* unadjusted difference of 3.6 percent that once again is not explained.
- At the level of domain-specific differences, for only a combined 25 percent of these domain-specific results we either have that unadjusted domain differences are insignificant—and thus there is nothing to "explain"—or that the unadjusted difference is significantly different but the *unexplained* difference is no longer significant—on average explaining 32 percent of the total differential and perhaps all the difference.
- In fully 75 percent of the domain-specific results we observe that the unadjusted difference is significantly different and the *unexplained* difference remains insignificant, and for the CSCS estimates our model is again explaining nothing (3 percent).

A reasonable conclusion is that these two surveys do differ in an empirical sense and in this case the differential extends beyond being merely modest. Again it cannot be explained as the result of imbalances in the distribution of covariates in fully 75% of the domain-specific cases, which again indicates the substantial nature of the difference in these six-state CSCS point-in-time estimates and whatever the CPS' measure of coverage is tracking.

With the all-year comparisons we observe only one story. The differences between whatever the CPS measure of coverage is tracking and the all-year metrics for these alternate surveys results in such large differentials—overall and at the domain-specific levels—that nothing is explained away. Put another way, these differentials are so large that the slight adjustments from balancing covariates does nothing and are in fact as apt to slightly increase the width of these the differentials as to shorten them.

We discuss the implications of these summary conclusions in the next section.

Table 5a. Comparison of the Difference in All-year Uninsured Estimates (Unadjusted) between the CPS and NHIS, MEPS and SIPP and the Recycled (Adjusted) Estimates, Age 0-64, CY 2002

Variable	Difference Between CPS and NHIS					Difference Between CPS and MEPS					Difference Between CPS and SIPP				
	Difference in Raw Survey Estimates		Recycled Differences		Ratio of the Differences	Difference in Raw Survey Estimates		Recycled Differences		Ratio of the Differences	Difference in Raw Survey Estimates		Recycled Differences		Ratio of the Differences
All-year uninsured	7.30%	***	7.30%	***	1.00	4.30%	***	4.50%	***	1.05	9.10%	***	9.10%	***	1.00
Individual Characteristics															
Male	7.40%	***	7.50%	***	1.01	4.10%	***	4.10%	***	1.00	9.40%	***	9.50%	***	1.01
Age 0-5	7.00%	***	7.60%	***	1.09	5.80%	***	5.70%	***	0.98	7.20%	***	7.00%	***	0.97
6-17	5.80%	***	6.30%	***	1.09	3.80%	***	3.90%	***	1.03	7.10%	***	7.40%	***	1.04
18-24	12.40%	***	15.40%	***	1.24	7.60%	***	8.50%	***	1.12	15.50%	***	14.30%	***	0.92
25-34	9.60%	***	8.00%	***	0.83	6.30%	***	6.50%	***	1.03	12.60%	***	12.50%	***	0.99
35-44	6.70%	***	6.50%	***	0.97	3.70%	***	3.80%	***	1.03	9.30%	***	9.60%	***	1.03
45-54	5.00%	***	5.20%	***	1.04	1.70%	*	2.00%	**	1.18	6.30%	***	6.80%	***	1.08
Black	10.80%	***	11.10%	***	1.03	8.60%	***	8.00%	***	0.93	12.10%	***	12.30%	***	1.02
Other race	4.90%	***	11.40%	***	2.33	8.00%	***	7.10%	***	0.89	10.30%	***	10.20%	***	0.99
Hispanic	9.30%	***	10.00%	***	1.08	6.60%	***	6.60%	***	1.00	14.60%	***	14.20%	***	0.97
Poor health	4.20%	***	5.30%	***	1.26	3.50%	***	4.10%	***	1.17	7.10%	***	7.30%	***	1.03
Student 18-23 years old	8.20%	***	11.90%	***	1.45	4.70%	***	5.50%	***	1.17	11.30%	***	11.10%	***	0.98
No high school diploma^	9.60%	***	9.80%	***	1.02	9.00%	***	7.10%	***	0.79	13.90%	***	12.60%	***	0.91
High school^	8.80%	***	8.40%	***	0.95	6.70%	***	5.40%	***	0.81	10.40%	***	10.60%	***	1.02
Some college^	7.10%	***	7.90%	***	1.11	4.30%	***	4.00%	***	0.93	8.70%	***	9.00%	***	1.03
College graduate^	5.80%	***	5.70%	***	0.98	2.90%	***	2.70%	***	0.93	6.90%	***	7.10%	***	1.03
Not employed^	9.70%	***	9.10%	***	0.94	4.70%	***	5.10%	***	1.09	11.00%	***	11.10%	***	1.01
Employed part time^	9.20%	***	11.00%	***	1.20	3.60%	***	3.90%	***	1.08	11.40%	***	11.10%	***	0.97
Family Characteristics															
< 100% FPL	12.80%	***	13.00%	***	1.02	9.80%	***	9.50%	***	0.97	15.70%	***	13.60%	***	0.87
100-125% FPL	10.50%	***	12.10%	***	1.15	8.90%	***	9.90%	***	1.11	16.20%	***	15.70%	***	0.97
126-200% FPL	10.30%	***	9.90%	***	0.96	4.10%	***	4.60%	***	1.12	14.60%	***	13.80%	***	0.95
201-400% FPL	7.40%	***	7.10%	***	0.96	3.80%	***	4.00%	***	1.05	9.50%	***	8.80%	***	0.93
Single with children	8.40%	***	10.00%	***	1.19	5.50%	***	6.90%	***	1.25	10.80%	***	11.20%	***	1.04
Single without children	9.60%	***	8.50%	***	0.89	5.80%	***	4.60%	***	0.79	12.30%	***	11.50%	***	0.93
Married without children	8.50%	***	8.60%	***	1.01	6.00%	***	6.00%	***	1.00	9.50%	***	10.10%	***	1.06
Receive SSI	-1.20%	*	-1.20%		1.00	-1.30%		-1.10%		N/A	0.80%	*	0.90%	*	1.13
Receive food stamps	8.10%	***	8.00%	***	0.99	6.00%	***	5.70%	***	0.95	10.90%	***	10.30%	***	0.94

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Note: Ratios are N/A for those cases where the original survey differences were insignificant.

Table 5b. Comparison of the Difference in Point-in-time Estimates (Unadjusted) between the CPS and NHIS, MEPS and SIPP and the Recycled (Adjusted) Estimates, Age 0-64, CY 2002

Variable	Difference Between CPS and NHIS			Difference Between CPS and MEPS			Difference Between CPS and SIPP		
	Difference in Raw Survey Estimates	Recycled Differences	Ratio of the Differences	Difference in Raw Survey Estimates	Recycled Differences	Ratio of the Differences	Difference in Raw Survey Estimates	Recycled Differences	Ratio of the Differences
Point-in-time uninsured	1.60% ***	1.80% **	1.13	-0.70%	-0.60%	N/A	1.30% ***	1.60% ***	1.23
Individual Characteristics									
Male	1.50% ***	1.70% *	1.13	-0.90%	-0.90%	N/A	1.60% ***	1.80% ***	1.13
Age 0-5	2.20% ***	3.00% ***	1.36	1.00%	0.80%	N/A	-2.30% ***	-2.50% ***	1.09
6-17	1.00% *	1.60% *	1.60	-0.50%	-0.40%	N/A	-2.20% ***	-1.60% **	0.73
18-24	2.20% *	6.10% ***	2.77	-1.30%	-0.50%	N/A	1.90% *	0.50%	0.26
25-34	2.10% ***	0.60%	0.29	-1.20%	-0.90%	N/A	3.80% ***	3.80% ***	1
35-44	0.90%	0.60%	N/A	-1.10%	-1.00%	N/A	3.70% ***	4.10% ***	1.11
45-54	0.90%	1.10%	N/A	-1.20%	-1.10%	N/A	2.10% ***	2.70% ***	1.29
Black	3.70% ***	4.00% ***	1.08	2.40% *	1.80%	0.75	1.40%	1.80% *	1.29
Other race	-3.50% **	3.60% *	-1.03	2.80% *	1.80%	0.64	1.20%	1.10%	N/A
Hispanic	1.50%	2.60%	N/A	-0.40%	-0.40%	N/A	0.50%	0.30%	N/A
Poor health	-1.10%	-0.10%	N/A	-3.20% **	-2.40%	0.75	-1.30%	-0.90%	N/A
Student 18-23 years old	2.40%	7.50% ***	N/A	-1.70%	-0.80%	N/A	2.50% *	2.20%	0.88
No high school diploma^	1.90% *	2.30%	1.21	2.50% *	0.50%	0.20	-0.10%	-1.30%	N/A
High school^	1.90% ***	1.60%	0.84	1.10%	-0.20%	N/A	1.20% *	1.50% **	1.25
Some college^	1.00% *	2.00% **	2.00	-1.30%	-1.70%	N/A	1.40% ***	1.80% ***	1.29
College graduate^	2.00% ***	2.00% ***	1.00	-0.40%	-0.60%	N/A	2.50% ***	2.90% ***	1.16
Not employed^	1.00%	0.50%	N/A	-1.60% *	-1.30%	0.81	0.50%	1.70%	N/A
Employed part time^	2.40% ***	4.80% ***	2.00	-2.60% *	-2.40%	0.92	1.90% *	0.60%	0.32
Family Characteristics									
< 100% FPL	4.60% ***	4.90% ***	1.07	1.80%	1.40%	N/A	-2.30% *	-2.30% *	1.00
100-125% FPL	1.10%	3.10% *	N/A	-0.10%	0.90%	N/A	2.00%	1.60%	N/A
126-200% FPL	2.20% *	2.00%	0.91	-3.80% **	-3.60% *	0.95	2.20% **	1.40%	0.64
201-400% FPL	0.90%	0.70%	N/A	-1.30%	-1.20%	N/A	2.80% ***	2.00% ***	0.71
Single with children	0.50%	2.40% *	N/A	-1.50%	-0.20%	N/A	-2.90% ***	-2.40% **	0.83
Single without children	2.20% ***	1.30%	0.59	-1.10%	-2.50%	N/A	3.50% ***	2.40% **	0.69
Married without children	3.90% ***	4.10% ***	1.05	2.30%	2.30% **	N/A	4.60% ***	5.20% ***	1.13
Receive SSI	-3.60% ***	-3.40% ***	0.94	-4.90% **	-4.70% ***	0.96	-2.00% **	-1.80% *	0.90
Receive food stamps	1.20%	1.10%	N/A	-1.40% ***	-1.70%	1.21	0.20%	-0.50%	N/A

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Note: Ratios are N/A for those cases where the original survey differences were insignificant

Table 5c. Comparison of the Difference in All-year Uninsured and Point-in-time Estimates (Unadjusted) between the CPS and CSCS and the Recycled (Adjusted), Age 0-64, Selected States, CY 2002

Variable	Difference Between CPS and CSCS All Year Uninsured					Difference Between CPS and CSCS Point-in-time Uninsured				
	Difference in Raw Survey Estimates		Recycled Differences		Ratio of the Differences	Difference in Raw Survey Estimates		Recycled Differences		Ratio of the Differences
Uninsured	6.5%	***	6.4%	***	0.98	3.6%	***	3.5%	***	0.97
Individual Characteristics										
Male	7.4%	***	6.8%	***	0.91	4.4%	***	3.8%	***	0.85
Age 0-5	6.3%	***	6.3%	***	0.99	4.2%	***	4.2%	***	1.00
6-17	5.7%	***	6.4%	***	1.13	3.5%	***	4.4%	***	1.26
18-24	14.2%	***	14.7%	***	1.04	6.9%	***	7.7%	***	1.12
25-34	9.3%	***	7.9%	***	0.85	4.9%	***	3.5%	*	0.72
35-44	4.0%	***	3.6%	***	0.92	1.5%		1.2%		N/A
45-54	3.8%	***	4.3%	***	1.14	2.0%	*	2.6%	**	1.29
Black	12.2%	***	11.1%	***	0.91	8.2%	***	7.0%	***	0.86
Other Race	5.5%	**	9.2%	***	1.67	1.4%		5.1%		N/A
Hispanic	21.6%	***	17.9%	***	0.83	17.7%	***	14.7%	***	0.83
Poor Health	1.6%		3.0%		N/A	-2.3%		-1.0%		N/A
No High School Diploma^	12.9%	***	12.4%	***	0.96	7.3%	***	6.9%	**	0.94
High School^	7.9%	***	7.7%	***	0.98	4.2%	***	4.1%	***	0.97
Some College^	4.7%	***	5.6%	***	1.18	1.7%	*	2.7%	***	1.60
College Graduate^	4.2%	***	4.4%	***	1.05	2.3%	***	2.4%	***	1.08
Not employed^	9.5%	***	8.0%	***	0.84	4.2%	***	2.6%	*	0.61
Emp. part time, 100 or fewer employees^	10.2%	***	9.1%	***	0.89	5.3%	*	4.2%		0.81
Empl. part time, > 100 employees^	8.1%	***	6.2%	**	0.76	5.0%	*	2.8%		0.56
Empl. full time, 100 or Fewer employees^	9.7%	***	8.0%	***	0.82	7.0%	***	5.1%	***	0.73
Family Characteristics										
< 100% FPL	14.4%	***	14.4%	***	1.00	9.6%	***	9.4%	***	0.98
100-199% FPL	8.2%	***	7.0%	***	0.86	2.2%		1.0%		N/A
200-299% FPL	8.4%	***	7.5%	***	0.89	5.5%	***	4.5%	***	0.81
300-399% FPL	5.1%	***	4.7%	***	0.92	3.0%	**	2.7%	**	0.87
Not married^	9.7%	***	9.2%	***	0.95	4.6%	***	4.4%	***	0.95

Source: 2003 CPS for these six states, CSCS State Surveys for AL, IN, MN, MO, OK, VA

* p<0.05, **p<0.01, ***p<0.001

^ Employment, Education, and Marital Status for children under 18 years old are based on the adults in the family

Note: Ratios are N/A for those cases where the original survey differences were insignificant.

Discussion and Policy Implications

Our analysis of these survey data has led us to the following conclusions, grouped into four categories. We discuss plausible explanations for our observations and finally we discuss the policy implications of each.

Results from Our Fully-Interacted Model Comparing Surveys

Our results in Tables 2a and 2b show there are some differences between the CPS and the other surveys in the demographic and economic variables related to health insurance coverage. For a few of what we would call key demographic and economic variables related to health insurance coverage—the percentage of the population in poverty, percent working for different types of companies, percent of the population with various types of education attainment—we observe significant differences between the CPS and our alternate surveys.

A natural question—and a major motivation for the analyses undertaken in this study--is whether these imbalances in measurable determinants of coverage explain some or all of the differentials in the overall estimates of uninsured between the CPS and our alternate surveys, for either the all-year or point-in-time metrics. We emphasize that this question is relevant for covariates not significantly different across surveys as well as for the demographic and economic variables with significant differences since even insignificant deviations in economic and demographic variables between the CPS and the alternate surveys could, in theory, be distributed in such a way as to bring about a large difference when aggregated.

We undertook our fully-interacted recycled prediction modeling approach to these four pairings of CPS and alternative-surveys to allow us to answer this policy-relevant question.

At the *overall* survey level—i.e. national estimates of uninsurance for the CPS vs. the alternate national survey, and state-level estimates for the CPS vs. CSCS state surveys—we observe empirically that these differences in estimates of uninsurance are *not* reduced when we statistically 'balance' the distributions of respondents by the explanatory variables we were able to measure and include in our models across all surveys.

This finding has importance for policy since it effectively excludes heterogeneity in these measured characteristics of respondents as a possible cause of the surveys' differentials in estimates of the number uninsured.

One interesting way of interpreting these results follows from the question: Are these important national surveys getting it "differently" at the basic level of things *that we can all measure* and thus one could argue should not be making these surveys differ? From our analysis we are able to comfortably conclude that they are not making much of a difference. Again, this is reassuring.

Finally, in addition to finding that imbalances in measured characteristics of respondents are unimportant for *overall* estimates of uninsurance, these imbalances explain very modest amounts of the domain-specific differentials in uninsured rates as well. For purposes of summary, the point-in-time comparisons across the four pairings of CPS/alternate surveys can be combined to form a total of 105 domain-comparisons. In only 17 of these 105 domain-comparisons are there significant unadjusted differences in the two surveys' point-in-time estimates that are partially explained by balancing the distribution of the remaining covariates. And the average percent explained among these 17 is a relatively modest 30 percent points.

Of course, this is not to say that the differentials in these surveys' estimates of the number uninsured are unimportant for policy uses such as developing cost estimtes for public program proposals.   Estimates of the number deemed to be uninsured and eligible for public programs and the estimated number of eligible people who will enroll (or take up) the program are in general very sensitive to assumptions about the 'true' number of uninsured and which survey estimates one chooses to sue and how they are interpreted (for example interpreting the CPS as a point in time estimate or an all year uninsured estimate).

What is the CPS measuring?

An important policy issues that follows from this is the question of what factors are contributing to these survey differences and in particular whether our analyses provide support for the hypothesis that the CPS *is* a point-in-time measure as has been widely discussed by many other authors (e.g., Ringel and Klerman 2005; Congressional Budget Office 2003; Farley-Short 2001; Lewis, Elwood, and Czajka 1998; Swartz 1986).

As noted from our analysis of overall differences and domain-specific ones, a reasonable conclusion is that the MEPS point-in-time and the CPS estimates do not differ materially in any empirical sense. However, the results of our analysis of overall differences and domain-specific ones for the NHIS and SIPP point-in-time provide a mixed message for what the CPS measure of coverage is tracking. Put another way, we can say that empirically the CPS *can* look very much like a point-in-time survey (CPS vs. MEPS), but that it doesn't always do so completely (CPS vs. SIPP and CPS vs. NHIS). This inconsistency among the surveys clearly points out that the point-in-time estimates from SIPP NHIS and MEPS do not align with each other. These differences are likely due to survey design and measurement issues. For example the surveys are in the field measuring point in time status at various times in the year using different lengths of time for the recall period.   So there is uncertainty about what the actual "point-in-time" estimate is, in addition to whether the CPS should be interpreted as a point-in-time estimate.

Why does this the CPS measure result in a measure that resembles other surveys point in time measure? One plausible explanation can be illustrated by breaking the population into three

distinct sub-groups and assigning rough approximations to population size. The first group representing roughly 80 percent of the population will answer all surveys as having continuous insurance coverage all year (continuous coverage group). The second group representing 10 percent of the population will answer all the surveys as being uninsured all year long (continuously uninsured group). The final group representing 10 percent of the population experienced gaps in coverage over the year (intermittent coverage group).

The question then becomes why does the CPS all year estimate look like a point in time uninsured estimate? Theoretically only 10 percent of the population should answer the survey as those they lacked insurance coverage last year. A plausible answer to this problem is the survey methods concepts of recall loss and telescoping (Kalton and Schuman 1982). When asking about something that is not very salient the longer the reference period the more likely it is that recall loss will overtake any corresponding telescoping (Kalton and Schuman 1982). Recall loss is failing to report an event that occurred within the reference period (in this case a spell of intermittent insurance coverage) and telescoping is placing an event that did not occur in the reference period into the reference period (e.g., reporting coverage at the point in time of the survey that the respondent did not have actually have during the last year).

The CPS employs a long recall period for insurance coverage of up to 14-16 months long.[5] Of the intermittent insured group if a high percentage fail to report coverage they had during the reference period due to recall loss, then the uninsured estimate would be expected to be much higher than 10 percent continuously uninsured group and closer to a point in time estimate. Recent evidence from a matched sample of CPS respondents to Medicaid enrollment records shows that a very large percentage of those respondents who had intermittent coverage failed to report having Medicaid and were very likely to report being uninsured (Davern 2007). There are other likely reasons why the CPS could result in a higher uninsured rate than the just the expected number of people who continually lacked coverage as well. Two separate analysis have documented significant imputation/editing bias in the CPS resulting in many more people being coded as uninsured than should have been (Lee and Stern June 2007; Davern, Rodin, et al. 2007).

The main policy problem in treating the CPS as a point in time measure is that its currently just a set of confounding errors (for example recall loss and editing and imputation) that leads to the current similarity and this could change if there were an abrupt change in insurance coverage/uninsurance. For example a sudden expansion in public coverage due to a new program (SCHIP expansion) or loss due to lost eligibility like in Tennessee with TennCare in 2005. This presents problems for researchers interested in studying large expansions and contractions when using the CPS.

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[5] Note that the CPS asks for spells of insurance coverage and not for spells of uninsurance. As a result the item being recalled (insurance coverage) will have a tendency to increase along with the length of the recall period. If, on the other hand, the survey asked people for spells of "uninsurance" over the past year, as the NHIS does, the recall loss would work in the opposite direction with less people reporting spells of uninsurance due to recall loss.

Given this, we offer a perspective that may prove of some use for policy.

We propose an approach that may allow what could be called a *functional identification* for the point-in-time 'orientation' of the CPS. It has two conditions. First, does the CPS estimate of the enrollment of Medicaid and SCHIP achieve close proximity to the estimates of Medicaid/SCHIP enrollment in such point-in-time oriented surveys as MEPS —when the CPS count is suitably adjusted upwards for its "Medicaid under-count" *assuming it is a point-in-time oriented survey* and using parameters from studies that have been conducted? Second, and if this first condition is satisfied, does the CPS estimate of the number uninsured and eligible for some program expansion of Medicaid and/or SCHIP achieve close proximity to the number uninsured and eligible for that program expansion in such point-in-time oriented surveys as MEPS—when suitably adjusted downward due to the "Medicaid under-count" adjustment?

If both conditions are satisfied, then the CPS *functions* like a point-in-time survey for the bottom-line issue of program eligibility estimation. This proposed approach to functional identification is simply a formalization of the argument provided by Dubay (2007). Importantly, and if these two conditions were found to hold, this would provide justification for rejecting any use of an 'all-year' orientation for the CPS, including adjustments to the Medicaid undercount.

State Surveys and the CPS

We note that the comparisons between the CPS uninsured rates and the all-year and point-in-time uninsured rates for the six states with CSCS data tend to produce very large differences in the overall and domain-specific uninsured rates. As was the case for the CPS/alternative national surveys, the point-in-time differences were smaller than the all-year differences in these CSCS comparisons. However, the magnitude of some of the differences (e.g., for Hispanics, those without a high school degree, those in poverty, and those 18-34 years of age) remained quite large in the point-in-time comparisons as well, which was not seen in the three national survey comparisons with the CPS (NHIS, SIPP, and MEPS).

Several considerations may explain this differential finding. First, the CSCS approach to surveying may not be as effective at fully 'enumerating' people more likely to be uninsured (Hispanics, low income, and 18-34 year olds) as that used in the four national surveys (CPS, NHIS, SIPP, and MEPS). Specifically, this inability to fully enumerate certain groups could arise from the use in these state CSCS surveys of the Random Digit Dial (i.e. RDD telephone survey) approach, which some believe may not always achieve as high population coverage levels as in-person interviews. In addition, an RDD approach yields higher non-response rates that could result in lower quality data (see Davern, Call and Blewett 2006 for a review of these issues).

A second possible explanation for this differential finding for the CPS/CSCS comparison may lie in differences in how the CPS and CSCS survey instruments elicit information on household

members' coverage. Specifically, in the CSCS surveys a 'target person' is selected in each household to answer specific health insurance questions in a "person-centered" manner in which all questions are asked about each person's coverage type. This approach contrasts with that used in the CPS survey instrument where "household-level" questions are asked the 'target person' concerning whether anyone in the household has specific types of coverage. Research indicates that—compared to surveys that use a "household-level" approach—surveys using a "person-centered" approach result in higher rates of coverage (Hess et. al. 2002).

As a final consideration, there may be important differences between the CPS and the CSCS surveys in how and when translation is provided. Specifically, translations may not be provided as systematically and as broadly in some of the state CSCS surveys as is done with the CPS and other national surveys.

In summary, we believe that these much larger differentials between the CPS/CSCS point-in-time comparisons than were found in the CPS/alternative national survey comparisons are most likely due to one or more of these considerations affecting the CSCS, rather than problems with the CPS *per se.* Of importance for policy, state surveys may have been—and may continue to be—a reliable measure of *change* in population health insurance coverage (especially given the very high rates of reliable reporting demonstrated by Call et al (2008).[6] However, these state survey data may be of somewhat poorer quality at estimating the absolute size of the uninsured population and the level of disparities among demographic groups. Since much of health policy is concerned with both of these issues, however, researchers who use state survey data for these purposes should be aware that estimates of the number uninsured may be biased downward and disparities may be greater than those observed in the survey.

CPS and SIPP comparisons

In the comparison between the CPS estimated uninsurance rate and the point-in-time uninsured in SIPP, we observe that for two age groups the SIPP shows higher point-in-time uninsurance rates than the CPS even though overall the SIPP point-in-time estimated uninsurance was lower than the CPS. This is also the case with family type (e.g., single adult with children versus married without children), and health status.
There does not appear to be a discernable pattern for when this type of difference occurs in comparisons between the CPS and the SIPP. There does appear to be something different about the SIPP point-in-time estimates and more research should be conducted to determine why it shows relationships not seen with the NHIS or MEPS.

In conclusion, what seems clear—from this report, as well as our earlier the earlier report (Davern, Call and Blewett 2006), and a great deal of literature we reference—is that the

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[6] This could change with erosion of the state survey sample frame coverage that is occurring with substation of wireless telephones for landline telephones (see Davern, Call and Blewett 2006 for a review).

measurement of health insurance coverage in surveys is sensitive to differences in methodological approaches. The data in Table 2a and 2b clearly show that comparisons across the survey estimates of uninsurance display far greater differences than those for the economic and demographic variables, and this occurs even though there are real differences across these surveys in how they measure many of these variables, such as poverty and employment.   This suggests the importance of continued research into the causes of these differences as well as of identifying 'best practices' in survey measurement of health insurance coverage to better inform health policy.

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Appendix A: Approaches to Decomposing Impacts in Linear and Logistic Regression Models

In this appendix we describe in detail the econometric approach that we have developed and used for the analyses undertaken for this report to decompose the total differences in rates of uninsurance—between pairs of national surveys—into known and unknown effects. We also present a number of alternate econometric approaches that are used in the literature to achieve analogous decompositions and use these to show how our approach is related to these alternate approaches.

I. Single-Sample, Simple Decomposition

We begin by introducing the simplest approach to decomposition in order to more clearly illustrate the method of recycled-predictions and why is it used in nonlinear models.

Consider a simple linear probability model (LPM) specification when we have data on self-reports of respondents being uninsured at the time of the survey $Y = 1$ and a handful of characteristics of each respondent including a gender dummy, Male, and several indicator variables for age ranges, poverty ranges, education levels and self-reported excellent/good health status. We denote the latter, non-gender respondent-characteristic variables generically by Z_j for ease of presentation. That is, we have the following fitted model:

$$\hat{Y} = \hat{\alpha} + \hat{\beta}_{male} \; Male \; + \sum_j \hat{\gamma}_j \; Z_j$$

If we start with a model with only the Male dummy included, we would get the well-known result that:

$$for \; Y = \hat{\alpha} + \hat{\beta}_{male} \; Male, \quad \hat{\alpha} = \overline{Y}_{female} \quad and \quad \hat{\alpha} + \hat{\beta}_{male} = \overline{Y}_{male}$$

That is,

$$\hat{\beta}_{male} = \overline{Y}_{male} - \overline{Y}_{female}$$

so that we can say that in this simple specification of only Male, $\hat{\beta}_{male}$ represents the 'full' amount of difference that we would like to account for—in part or entirely—with our vector of indicator variables Z.

And as we add these Z respondent-characteristic variables we expect—and usually but not always get—that $\left| \hat{\beta}_{male} \right|$ becomes smaller, reflecting the fact that our Z respondent-characteristic variables have indeed accounted for some of the difference in $\overline{Y}_{male} - \overline{Y}_{female}$.

Importantly, this $\left|\hat{\beta}_{male}\right|$ from the specification with the Z respondent-characteristic variables included now reflects the remaining or 'residual' difference *unaccounted* for. As such, it reflects our residual 'ignorance' about what is causing the uninsurance rate between males and females to differ, or technically it represents the net impact of all the unmeasured heterogeneity embedded in our error term.

We have from the first-order conditions of OLS that the regression line goes through the means of all the covariates:

$$\overline{Y} = \hat{\alpha} + \hat{\beta}_{male}\,\overline{Male} + \sum_j \hat{\gamma}_j\,\overline{Z}_j$$

It is also the case that[7]:

$$\overline{Y}_{male} = \hat{\alpha} + \hat{\beta}_{male}\times 1 + \sum_j \hat{\gamma}_j\,\overline{Z}_{j,male}$$

$$\overline{Y}_{female} = \hat{\alpha} + \hat{\beta}_{male}\times 0 + \sum_j \hat{\gamma}_j\,\overline{Z}_{j,female}$$

Consequently,

$$\overline{Y}_{male} - \overline{Y}_{female} = \hat{\beta}_{male} + \sum_j \hat{\gamma}_j\,\{\overline{Z}_{j,male} - \overline{Z}_{j,female}\}$$

And we have the natural decomposition that the total difference in mean uninsurance rates can be calculated as the portion accounted for by the *net* impact of our Z respondent-characteristic variables, $\sum_j \hat{\gamma}_j\,\{\overline{Z}_{j,male} - \overline{Z}_{j,female}\}$, and the portion that remains, or our residual ignorance, $\hat{\beta}_{male}$. One could go further and single out the impacts due to individual characteristics. We return to this below, but notice for now that, for example, if

$$\overline{Y}_{male} - \overline{Y}_{female} > 0, \quad not\ all\ \hat{\gamma}_j\,\{\overline{Z}_{j,male} - \overline{Z}_{j,female}\}\ need > 0.$$

And given the possible existence of "negative" individual characteristic impacts, it is also conceivable for a given characteristic to have a "positive" impact that exceeds the total difference in mean uninsurance rates. From these considerations it's clearly not meaningful to say when you do have any "positive" impact that

some $\hat{\gamma}_j\,\{\overline{Z}_{j,male} - \overline{Z}_{j,female}\} > 0$ *accounts for* $[\hat{\gamma}_j\,\{\overline{Z}_{j,male} - \overline{Z}_{j,female}\}]/[\overline{Y}_{male} - \overline{Y}_{female}]$

percentage of the total differential. Of course, this isn't to say that the identification and discussion of the relative sizes of these individual respondent-characteristic variables might not be an interesting, insightful exercise for policy. We return to this below.

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[7] See, for example, Graubard and Korn (1999).

Now consider running the same specification as a logistic regression

$$LN \ [\frac{Y}{(1-Y)}] = \alpha^* + \beta^*_{male} \ Male + \sum_j \gamma^*_j \ Z_j + \varepsilon$$

Once again let's start with the simple model of only Male included:

$$LN \ [\frac{Y}{(1-Y)}] = \hat{\alpha}^* + \hat{\beta}^*_{male} \ Male \ \ .$$

And we have—when we transform these coefficients from the metric of the ln [odd-ratios] to the metric of probabilities—that the first-order conditions for the likelihood equations for a logistic regression model require[8]:

$$\exp\{\hat{\alpha}^*\} / [1 + \exp\{\hat{\alpha}^*\}] = \overline{Y}_{female} \ and \ \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male}\} / [1 + \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male}\}] = \overline{Y}_{male}$$

Thus,

$$\overline{Y}_{male} - \overline{Y}_{female} = \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male}\} / [1 + \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male}\}] - \exp\{\hat{\alpha}^*\} / [1 + \exp\{\hat{\alpha}^*\}]$$

That is, $\hat{\beta}^*_{male}$ —in this nonlinear expression for the difference in total uninsurance rates between males and females—'represents' the differential between the two genders.

Analogously, when we add our Z respondent-characteristic variables we expect—and usually get—that $\left|\hat{\beta}^*_{male}\right|$ becomes smaller, reflecting the fact that our Z respondent-characteristic variables have indeed accounted for some of the difference in $\overline{Y}_{male} - \overline{Y}_{female}$.

Now, however, we cannot use a simple pair of equations to solve for the impact of $\hat{\beta}^*_{male}$ within this fuller specification. We *could* do so by the so-called method of "inserting the means of the $\overline{Z}_j$", namely:

Impact of $\hat{\beta}^*_{male}$ in the metric of probabilities via the method of "inserting the means of the $\overline{Z}_j$":

$$\exp\{\hat{\alpha}^* + \hat{\beta}^*_{male} + \sum_j \hat{\gamma}_j \ \overline{Z}_j\} / [1 + \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male} + \sum_j \hat{\gamma}_j \ \overline{Z}_j\}] -$$
$$\exp\{\hat{\alpha}^* + \sum_j \hat{\gamma}_j \ \overline{Z}_j\} / [1 + \exp\{\hat{\alpha}^* + \sum_j \hat{\gamma}_j \ \overline{Z}_j\}]$$

However, due to the nonlinear nature of this 'anti-logit' transformation, this approach in general provides a poor approximation—sometimes quite poor—and so we turn to the method of recycled-predictions, or the average of the individual marginal effects.

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[8] See, for example, Greene (2003), page 671.

Here we compute two sets of simulated estimates, first assuming each observation came from a male respondent but otherwise had the characteristics of that observation, whether male or female. We repeat this again now assuming each observation came from a female respondent but otherwise had the characteristics of that observation, whether male or female. Thus *for i* = 1,..., *N* we derive:

$$\textit{predicted as if } Male_i = \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male} + \sum_j \hat{\gamma}_j \ Z_{ji}\}/[1 + \exp\{\hat{\alpha}^* + \hat{\beta}^*_{male} + \sum_j \hat{\gamma}_j \ Z_{ji}\}] \quad \text{and}$$

$$\textit{predicted as if } Female_i = \exp\{\hat{\alpha}^* + \sum_j \hat{\gamma}_j \ Z_{ji}\}/[1 + \exp\{\hat{\alpha}^* + \sum_j \hat{\gamma}_j \ Z_{ji}\}] \quad .$$

That is, the impact of $\hat{\beta}^*_{male}$ in the metric of probabilities via the method of recycled predictions is equal to:

$$\frac{1}{N}\sum \textit{predicted as if } Male_i - \frac{1}{N}\sum \textit{predicted as if } Female_i$$

Since the distribution of these individual respondent-characteristic variables Z is identical in both sets of recycled predictions—they both make use of the entire set of data—these individual respondent-characteristic variables are being 'controlled for'. Thus this difference in mean recycled predictions measures the residual unaccounted for within our logistic model, or the net effect of all the unmeasured heterogeneity in our error term.

Although the method of recycled predictions—or the average of the individual marginal effects—may appear to be a major complication, it is in fact simply the way one appropriately estimates the analogous two components—the *net* impact of our Z respondent-characteristic variables, $\sum_j \hat{\gamma}_j \ \{\overline{Z}_{j,male} - \overline{Z}_{j,female}\}$, and the portion that remains, or our residual ignorance,

$\hat{\beta}_{male}$. And this complication arises due simply to the nonlinear nature of the logistic regression model with its coefficients measuring the impacts in terms of the ln(OR). That is, recycled predictions is simply another method of expressing the impact of coefficients when you desire to provide policy-makers with impacts in the metric of *differences in probabilities* that they can readily understand. The more conventional use of odds-ratios provide too vague an idea of impacts of meaning for policy, as many statisticians have argued, and when used in models with interaction effects their values are also incorrect.[9]

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[9] Norton (2004) makes the following points concerning logistic regression models:
- Probabilities are scale of interest
- *Not* log odds
- No one has ever given me a clear interpretation of log odds
- Ultimately, we care about probabilities
- Paraphrase Emmett Keeler

II. Single-Sample, Decomposition through Sub-population Estimators

An alternative approach to decomposition of overall differences into known and unknown components is the Peters-Belson method. The Peters-Belson method is often used in assessing factors underlying disparities or 'discrimination' in events between races/ethnic groups.[10]

For ease of presentation and without loss of generality, let's assume we have a survey of just non-Hispanic whites and non-Hispanic blacks.

Instead of using the entire survey data set to estimate a model with the indicator Black as an intercept offset,

$$\hat{Y} = \hat{\alpha} + \hat{\beta}\ Black\ + \sum_{j} \hat{\gamma}_j\ Z_j \ \ ,$$ the model is estimated on the white data only, with the Black dummy variable of course omitted:

$$\hat{Y} = \hat{\alpha} + \sum_{j} \hat{\gamma}_j\ Z_j$$

Using the notation of Rau et al. (2004), we have:

O_W = the observed white rate

O_B = the observed black rate

and finally, if we ran all the black survey observations through the white equation and took the average of these predicted probabilities of being uninsured, we would have:

E_B = the "expected" black rate if they were put through the white equation

The schematic below depicts these various Observed and Expected values along a line that is higher at the right.

```
O_W                    E_B          O_B
 |                      |            |
----------------------------------------------
```
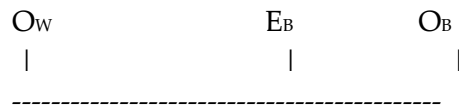
First, if you run all the white observations through the white equation and take their mean, you obtain the white Observed rate back, O_W. When we run the black observations through the white equation, we are in effect substituting the black means of the covariates into this white equation, and that substitution moves the estimate from O_W to E_B. That is, the distance O_W to

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[10] See, for example, Rao et al. (2004).

E_B could be said to be "explained" by the different means—or distributions—of the covariates between blacks and whites. Thus the remainder, or residual, of the full observed difference [O_W - O_B] can be said to be the *un*explained part, [E_B -O_B]. When used in the discrimination studies this is referred to as a measure of *possible* societal inequality or discrimination, since it arises from unmeasured heterogeneity in the error terms as well as differences in "discriminatory treatment" as imbedded in the model's coefficients.

Finally, the ratio (E_B - O_W) / (O_B - O_W) is used to measure the percentage of the disparity "explained" by the covariates in the model.

III. <u>Two-Sample, Decomposition through Sub-population Estimators</u>

Now imagine having two very large, roughly equal-sized survey data sets,[11] where the surveys differ in various known technical aspects—which for convenience we will shorten to differences in "survey approach"—and we suspect that they may have non-trivial differences in the distribution of their completed respondents with regard to measured and unmeasured characteristics.

For convenience, we will simply call them survey C and survey H. And, of course, we change our focus of interest from trying to explain racial/ethnic disparities to trying to explain differences in estimates of uninsurance from the two surveys (assumed to exist).

One could simply merge the two data sets and estimate a single model as follows, assuming we make survey H the reference category:

$$\hat{Y} = \hat{\alpha} + \hat{\beta}\ Survey\ C\ + \sum_j \hat{\gamma}_j\ Z_j\ .$$

This is a very restrictive specification since it constrains the effects of all differences due to survey approach and respondent heterogeneity to a simple intercept adjusting role.

Using the Peters-Belson method we could instead estimate a model on the survey C data only, realizing the fitted equation:

$$\hat{Y}_c = \hat{\alpha}_c + \sum_j \hat{\gamma}_{c,j}\ Z_{c,j}$$

And inserting the survey H data into this survey C fitted model we would obtain our E_H to go along with our O_C and O_H, related values, all provided visually in the schematic below.

```
   O_C              E_H        O_H
    |                |          |
```

---

[11] With our survey comparisons the weighted sample size is roughly the same.

```
-----------------------------------------------
```

And we would find our "explained" ratio ($E_H - O_C$) / ($O_H - O_C$) and its complement for the "unexplained" portion attributable to differences in survey approach and respondent heterogeneity.

Of course, there is no reason why we wouldn't also want to estimate our model on survey H data and then recycle our survey C data through it, since both are by assumption very large surveys and by assumption the surveys are deemed to be simply "different".
So we would realize the fitted equation:

$$\hat{Y}_h = \hat{\alpha}_h + \sum_j \hat{\gamma}_{h,j} \ Z_{h,j}$$

And inserting the survey C data into this survey H fitted model we would obtain our E_C to go along with our O_C and O_H, again provided visually in the schematic below.

```
        Oc  Ec                          OH
        |    |                           |
-----------------------------------------------
```

And we would find our "explained" ratio ($E_C - O_H$) / ($O_C - O_H$) and its complement for the "unexplained" portion attributable to differences in survey approach and respondent heterogeneity.

Of course, there is nothing to keep these two "explained" ratios from having different magnitudes from these two applications of the Peters-Belson method, as they have been drawn in these two schematics. And importantly, we have no *a priori* reason for choosing one over the other. As both are assumed not to be biased, we could note their difference and take their mean as our best estimate of these "explained" and "unexplained" components.

IV. <u>Two-Sample, Decomposition through Fully-Interacted Recycled Prediction Method</u>

Finally we consider a two-sample decomposition through a fully-interacted recycled prediction method, the approach used in our analyses presented in the accompanying report.

Again consider the two surveys, survey C and survey H, with a significant difference in their estimates of uninsurance assumed to exist.

Consider our fully-interacted model estimated on the merged data sets, with survey H the reference category:

$$\hat{Y} = \hat{\alpha} + \hat{\beta} \ Survey \ C + \sum_j \hat{\gamma}_j \ Z_j + \sum_j \hat{\delta}_j \ (Z_j \times Survey \ C)$$

Using this fully-interacted model we calculate two sets of recycled predictions on the merged data set ($N_C + N_H$). In the first we assume each observation "arose" from a survey C respondent but otherwise had the characteristics of that observation, whether a survey C or survey H respondent. We repeat this again now assuming each observation "arose" from a survey H respondent but otherwise had the characteristics of that observation, whether survey C or survey H.

Thus *for* $i = 1,..., N_C + N_H$ we derive:

predicted as if Survey C$_i$ =
$$= \exp\{\hat{\alpha} + \hat{\beta} \times 1 + \sum_j \hat{\gamma}_j \ Z_{ji} + \sum_j \hat{\delta}_j \ (Z_{ji} \times 1)\} / [1 + \exp\{\hat{\alpha} + \hat{\beta} \times 1 + \sum_j \hat{\gamma}_j \ Z_{ji} + \sum_j \hat{\delta}_j \ (Z_{ji} \times 1)\}]$$
and

predicted as if Survey H$_i$ =

$$= \exp\{\hat{\alpha} + \sum_j \hat{\gamma}_j \ Z_{ji}\} / [1 + \exp\{\hat{\alpha} + \sum_j \hat{\gamma}_j \ Z_{ji}\}]$$

We then take the difference in the means of these two sets of simulated probabilities,

$$\frac{1}{N_C + N_H} \sum \text{predicted as if Survey C}_i - \frac{1}{N_C + N_H} \sum \text{predicted as if Survey H}_i$$

Notice again that since the distribution of these individual respondent-characteristic variables Z is identical in both sets of recycled predictions—they both make use of the entire merged data— these individual respondent-characteristic variables are being 'controlled for'. Thus analogously with our recycled prediction method—when applied to a simple logistic regression model in the first section—this difference in mean recycled predictions measures the residual *unaccounted* for within our logistic model, or the net effect of all the unmeasured heterogeneity in our error term and differences in "survey approach".

Consider the first of these two sets of simulated probabilities, namely

$$\text{Overall Survey C predicted mean} = \frac{1}{N_C + N_H} \sum \text{predicted as if Survey C}_i$$

Since it makes use of all the merged observations, it can be expressed as a weighted average of the mean of the "predicted" Survey C observations and the mean of the predicted Survey H observations. By the first-order conditions for the likelihood equations for a logistic regression model, the mean of the "predicted" Survey C observations must equal the observed rate for

Survey C respondents, O_C. And since this is a fully-interacted model, it follows that the mean of the predicted Survey H observations is exactly the estimate one would achieve if one estimated a Survey C-only model on only the Survey C data and recycled the Survey H data through it, which we denote as E_H.

Analogously, the second set of these two sets of simulated probabilities, namely

$$Overall\ Survey\ H\ predicted\ mean = \frac{1}{N_C + N_H}\sum predicted\ as\ if\ Survey\ H_i$$

can be expressed as a weighted average of the mean of the "predicted" Survey H observations and the mean of the predicted Survey C observations. That is, by the first-order conditions for the likelihood equations for a logistic regression model, the mean of the "predicted" Survey H observations must equal the observed rate for Survey H respondents, O_H. And since this is a fully-interacted model, it follows that the mean of the predicted Survey C observations is exactly the estimate one would achieve if one estimated a Survey H-only model on only the Survey H data and recycled the Survey C data through it, which we denote as E_C.

That is, we have

$$Overall\ Survey\ C\ predicted\ mean = \theta \times O_C + (1 - \theta) \times E_H$$

where $\quad \theta \quad = \quad$ % of observations that are from Survey C, $\dfrac{N_C}{N_C + N_H}$

And we also have that

$$Overall\ Survey\ H\ predicted\ mean = \theta \times E_C + (1 - \theta) \times O_H$$

Consequently, the difference in the means of these two sets of simulated probabilities,

$$\frac{1}{N_C + N_H}\sum predicted\ as\ if\ Survey\ C_i - \frac{1}{N_C + N_H}\sum predicted\ as\ if\ Survey\ H_i$$

$$= \quad \theta \times (O_C - E_C) + (1 - \theta) \times (E_H - O_H)$$

$\quad = \quad$ what we *cannot* explain by differences in the covariates since they are the same by virtue of the recycled prediction approach.

Consider the schematic below where we assume $O_C > O_H$. When we insert the Survey H observations into the Survey C fitted model, we obtain E_H, and the segment (O_C - E_H) is *explained* and thus the segment (E_H - O_H) is *unexplained*. Analogously, when we insert the Survey C observations in the Survey H fitted model, we obtain E_C, and the segment (E_C - O_H) is *explained* and thus (O_C - E_C) is *unexplained*.

As a consequence we come to the important point that in our fully-interacted logistic regression model approach, *our estimate of the "unexplained" component is calculated as the weighted average of the two "unexplained" segments as they would be derived from the application of the Peters-Belson method twice,* namely $(O_C - E_C)$ and $(E_H - O_H)$. And given that the samples are of approximately equal size, this weighted average approximates the simple average of the two Peters-Belson method estimates.

```
     Oc    Ec              EH          OH
      |     |               |           |
     ---------------------------------------------
```

There are several advantages of this fully-interacted recycled prediction method.

First, since we have in effect estimated the two 'separate' regression models in one overall fully-interacted model, we have a variance-covariance matrix to use in calculating standard errors and assessing significance for any function of the parameters of this fully-interacted model. Since these two sets of simulated probabilities,

$$\frac{1}{N_C + N_H} \sum predicted \ as \ if \ Survey \ C_i - \frac{1}{N_C + N_H} \sum predicted \ as \ if \ Survey \ H_i$$

form a non-linear function of the full model's parameters, we derive standard errors and associated p-values for these differences in recycled means using the Delta method.[12] For simpler models with a smaller number of parameters, Delta method results could be obtained simply from running the Stata post-estimation command, 'testnl'. Our model is too large to be accommodated by 'testnl', however.[13] Consequently, we wrote our own program in a 'do-file' and verified that we obtained the same results with a smaller test model for which 'testnl' could be used to obtain standard errors and p-values. We also had a Stata Corp. technical consultant (Ph.D. in economics) review our program.

To more easily appreciate the second benefit from our approach, imagine that we sorted all the data in our merged file ($N_C + N_H$) so that all the observations from either survey C or survey H that had Hispanic respondents were grouped together and ordered by survey C first and then survey H, giving us $N_C^{hisp} + N_H^{hisp}$ observations.

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[12] See, for example, Greene (2003), page 674-5.

[13] 'testnl' has a built-in maximum number of operators that it will accommodate.

Consider the first of our two sets of simulated probabilities. Restricting ourselves to just this group of $N_C^{hisp} + N_H^{hisp}$ observations, we compute a Survey C predicted mean restricted to Hispanics as:

$$\text{Hispanic Survey C predicted mean} = \frac{1}{N_C^{hisp} + N_H^{hisp}} \sum \text{predicted as if Survey } C_i$$

Notice first that this makes use of all the merged Hispanic observations, $N_C^{hisp} + N_H^{hisp}$, and thus it has the distribution for the individual respondent-characteristic variables Z of the "full" set of Hispanic observations from both surveys.

Second and again since this makes use of all the merged Hispanic observations, $N_C^{hisp} + N_H^{hisp}$, it can be expressed as a weighted average of the mean of the "predicted" Survey C Hispanic observations and the mean of the predicted Survey H Hispanic observations. By the first-order conditions for the likelihood equations for a logistic regression model, the mean of the "predicted" Survey C Hispanic observations must equal the observed rate for Survey C Hispanic respondents, O_C^{hisp}. And since this is a fully-interacted model, it follows that the mean of the predicted Survey H observations is the same as the estimate one would achieve if one estimated a Survey C-only model on only the Survey C data and recycled the Survey H Hispanic data through it, which we denote as E_C^{hisp}.

Analogously, we calculate the Hispanic Survey H predicted mean as:

$$\text{Hispanic Survey H predicted mean} = \frac{1}{N_C^{hisp} + N_H^{hisp}} \sum \text{predicted as if Survey } H_i$$

And since this makes use of all the merged Hispanic observations it has the same distribution for the individual respondent-characteristic variables Z as the Survey C predicted mean restricted to Hispanics of the "full" set of Hispanic observations. Thus we are "controlling" for all these individual respondent-characteristic variables Z in this case as we did with our overall model results.

And again we have that the mean of the "predicted" Survey H Hispanic observations must equal the observed rate for Survey H respondents, O_H^{hisp}. And the mean of the predicted Survey C observations is exactly the estimate one would achieve if one estimated a Survey H-only model on only the Survey H data and recycled the Survey C Hispanic data through it, denoted as E_H^{hisp}.

Consequently, the difference in the recycled means restricted to the Hispanic sub-group from both surveys

$$\frac{1}{N_C^{hisp} + N_H^{hisp}} \sum predicted \ as \ if \ Survey \ C_i - \frac{1}{N_C^{hisp} + N_H^{hisp}} \sum predicted \ as \ if \ Survey \ H_i$$

is equal to a weighted average of the two "unexplained" components you would obtain if you used the Peters-Belson model and if you had estimated your model *with the full data set* from each survey separately but then restricted your estimates in both cases to just the Hispanic respondents in each survey:

$$= \quad \theta^{hisp} \times (O_C^{hisp} - E_C^{hisp}) + (1 - \theta^{hisp}) \times (E_H^{hisp} - O_H^{hisp})$$

where $\quad \theta^{hisp} = $ % of Hispanic observations from Survey C, $\dfrac{N_C^{hisp}}{N_C^{hisp} + N_H^{hisp}}$.

That is, our fully-interacted recycled prediction approach gives us estimates of the "unexplained" component of the total difference in estimated Uninsurance rates between the two surveys *when we restrict our focus to each "domain"*—in this example, Hispanics—represented in our model.

We again use the Delta method to find the standard error and associated p-values for this estimate of the "unexplained" component when we restrict our focus to each "domain" represented in our model.

A final technical issue arises in our approach to decomposition through a fully-interacted recycled prediction method, namely its use of interaction terms in nonlinear models. In a series of articles (Ai and Norton 2003; Norton, Wang and Ai 2004), these researchers have demonstrated that the coefficients of interaction terms in nonlinear models do not have the same easy interpretation as they do in linear models. For an interaction term in a logistic regression model formed by two indicator variables like all the interaction terms in our model, to obtain the 'true' interaction effect one needs to calculate the four terms involved, with each term being conditional on the other independent variables in the model. Moreover, the z-statistics on the interaction coefficients provided in statistical packages do not reflect their true significance. To obtain the correct significance one needs to use the Delta method.

While our models are massively interacted, they avoid the problems associated with what could be called the *summary* measures and significance given for interaction terms in statistical software packages. And they do so by their very use of recycling *through each observation* to obtain our estimates of interests. Thus the estimates of "unexplained" differences between surveys using our approach take into account all the conditioning on all the covariates in the model. Moreover, we do not use the p-values for the coefficients for assessing the significance of

our differences in mean recycled predictions. Our reported significance levels are based on the standard errors derived from the Delta method as applied to these nonlinear expressions of the difference in mean recycled predictions.

Appendix B: Additional Results

List of Tables

Table 2a2. Demographic Differences between the CPS and NHIS, MEPS, and SIPP, Age 0-17, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	11.6%	5.4%	6.2%	***	7.2%	4.4%	***	4.5%	7.1%	***
Point-in-time uninsured	11.6%	10.2%	1.4%	***	11.7%	-0.1%		13.9%	-2.2%	***
Individual Characteristics										
Male	51.1%	51.0%	0.1%		51.1%	-0.1%		51.0%	0.0%	
Female	48.9%	49.0%	-0.1%		48.9%	0.1%		49.0%	0.0%	
Age 0-5	32.3%	32.9%	-0.6%		30.5%	1.8%	**	30.1%	2.2%	***
6-17	67.7%	67.1%	0.6%		69.5%	-1.8%	**	69.9%	-2.2%	***
Black	15.6%	14.8%	0.8%		15.2%	0.4%		16.2%	-0.7%	
Other race	7.9%	9.4%	-1.5%	***	7.5%	0.4%		5.8%	2.0%	***
White	76.6%	75.8%	0.8%		77.3%	-0.7%		77.9%	-1.3%	**
Hispanic	18.2%	17.4%	0.9%		18.4%	-0.2%		17.7%	0.6%	
Non-Hispanic	81.8%	82.6%	-0.9%		81.6%	0.2%		82.3%	-0.6%	
Not born in the US	4.6%	4.5%	0.1%		4.4%	0.2%		N/A	---	
Born in the US	95.4%	95.5%	-0.1%		95.6%	-0.2%		N/A	---	
Poor health	2.2%	1.9%	0.3%		2.4%	-0.2%		2.5%	-0.3%	
At least good health	97.8%	98.1%	-0.3%		97.6%	0.2%		97.5%	0.3%	
No high school diploma^	10.0%	11.6%	-1.6%	***	12.2%	-2.2%	***	10.8%	-0.8%	*
High school^	24.5%	23.5%	1.0%		29.5%	-5.0%	***	23.9%	0.7%	
Some college^	31.1%	32.6%	-1.4%	*	25.9%	5.2%	***	32.4%	-1.3%	*
College graduate^	21.1%	19.5%	1.6%	**	19.0%	2.1%	**	20.2%	0.9%	
Post-Bachelor's^	13.2%	12.8%	0.5%		13.3%	-0.1%		12.7%	0.5%	
Not employed^	9.9%	9.0%	0.9%	*	6.6%	3.4%	***	7.4%	2.6%	***
Employed part time^	5.0%	7.4%	-2.4%	***	6.2%	-1.2%	*	6.4%	-1.3%	***
Employed full yime^	85.1%	83.6%	1.5%	**	87.2%	-2.2%	**	86.3%	-1.2%	**
Empl. part- time, < 25 empl.^	1.9%	N/A	---		3.0%	-1.1%	**	1.4%	0.5%	***
Empl. part time, 25-99 empl.^	0.5%	N/A	---		1.2%	-0.7%	***	0.6%	-0.1%	
Empl. part time, 100+ empl.^	2.5%	N/A	---		1.6%	1.0%	***	3.7%	-1.2%	***
Empl. full time,< 25 empl.^	16.9%	N/A	---		22.8%	-5.9%	***	10.9%	6.0%	***
Empl. full time, 25-99 empl.^	9.2%	N/A	---		19.5%	-10.3%	***	7.5%	1.7%	***
Empl. full time, 100+ empl.^	58.9%	N/A	---		42.4%	16.6%	***	63.1%	-4.2%	***
Family Characteristics										
< 100% FPL	17.4%	17.6%	-0.2%		16.4%	0.9%		19.1%	-1.7%	***
100-125% FPL	5.6%	5.8%	-0.2%		5.4%	0.2%		5.9%	-0.3%	
126-200% FPL	15.8%	15.9%	-0.1%		16.1%	-0.3%		17.2%	-1.4%	***
201-400% FPL	32.2%	32.6%	-0.4%		34.7%	-2.5%	**	33.7%	-1.5%	**
401+ % FPL	29.0%	28.2%	0.9%		27.4%	1.7%		24.1%	5.0%	***
Single with children	23.1%	22.9%	0.2%		23.0%	0.0%		23.9%	-0.8%	
Married with children	76.9%	77.1%	-0.2%		77.0%	0.0%		76.1%	0.8%	
Receive SSI	0.1%	1.2%	-1.1%	***	0.8%	-0.6%	***	1.1%	-0.9%	***
Receive rood stamps	11.6%	5.3%	6.3%	***	11.7%	-0.1%		10.7%	0.9%	*

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 2a3. Demographic Differences between the CPS and NHIS, MEPS, and SIPP, Age 18-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	19.5%	11.8%	7.7%	***	15.3%	4.2%	***	9.7%	9.8%	***
Point-in-time uninsured	19.5%	18.0%	1.5%	***	20.5%	-1.0%		16.8%	2.7%	***
Individual Characteristics										
Male	49.3%	48.6%	0.6%	**	48.5%	0.8%	*	47.8%	1.5%	***
Female	50.7%	51.4%	-0.6%	**	51.5%	-0.8%	*	52.2%	-1.5%	***
Age 18-24	15.4%	15.7%	-0.3%		14.8%	0.6%		16.3%	-0.9%	***
25-34	22.0%	21.4%	0.6%		22.4%	-0.4%		22.4%	-0.4%	
35-44	24.7%	25.5%	-0.8%	*	24.9%	-0.2%		24.9%	-0.2%	
45-54	22.6%	22.5%	0.0%		22.4%	0.1%		22.0%	0.5%	
55-64	15.4%	14.9%	0.5%		15.5%	-0.2%		14.4%	1.0%	***
Black	12.1%	11.8%	0.3%		11.6%	0.4%		12.7%	-0.7%	**
Other race	6.8%	8.0%	-1.2%	***	6.7%	0.1%		5.7%	1.1%	***
White	81.1%	80.2%	1.0%	*	81.7%	-0.5%		81.6%	-0.5%	
Hispanic	13.4%	11.8%	1.6%	***	13.0%	0.4%		13.0%	0.5%	
Non-Hispanic	86.6%	88.2%	-1.6%	***	87.0%	-0.4%		87.0%	-0.5%	
Not born in the US	16.0%	14.8%	1.2%	***	15.4%	0.6%		17.5%	-1.5%	***
Born in the US	84.0%	85.2%	-1.2%	***	84.6%	-0.6%		82.5%	1.5%	***
Poor health	10.2%	9.0%	1.2%	***	10.9%	-0.7%	*	11.3%	-1.1%	***
At least good health	89.8%	91.0%	-1.2%	***	89.1%	0.7%	*	88.7%	1.1%	***
Student 18-23 years old	6.4%	2.8%	3.6%	***	6.4%	-0.1%		7.0%	-0.7%	***
No high school diploma^	14.0%	14.1%	0.0%		18.9%	-4.9%	***	13.9%	0.2%	
High school^	30.9%	29.2%	1.7%	***	32.1%	-1.2%	*	30.4%	0.5%	
Some college^	28.9%	30.8%	-1.9%	***	23.3%	5.6%	***	31.4%	-2.5%	***
College graduate^	17.8%	17.4%	0.3%		15.8%	1.9%	***	16.5%	1.3%	***
Post-Bachelor's^	8.4%	8.4%	0.0%		9.9%	-1.5%	***	7.8%	0.6%	**
Not employed^	28.9%	24.9%	4.0%	***	25.6%	3.3%	***	24.5%	4.4%	***
Employed part time^	11.0%	15.0%	-4.0%	***	14.6%	-3.7%	***	12.5%	-1.5%	***
Employed full time^	60.1%	60.1%	0.0%		59.7%	0.4%		63.0%	-2.9%	***
Empl. part time, < 25 empl.^	4.4%	N/A	---		8.2%	-3.7%	***	3.8%	0.7%	***
Empl. part time, 25-99 empl.^	1.2%	N/A	---		3.2%	-2.0%	***	1.5%	-0.3%	**
Empl. part time, 100+ empl.^	5.3%	N/A	---		3.3%	2.1%	***	7.2%	-1.9%	***
Empl. full time, < 25 empl.^	16.4%	N/A	---		22.1%	-5.7%	***	11.5%	4.9%	***
Empl. full time, 25-99 empl.^	8.0%	N/A	---		13.5%	-5.6%	***	8.0%	0.0%	
Empl. full time, 100+ empl.^	35.7%	N/A	---		24.1%	11.7%	***	43.5%	-7.8%	***
Family Characteristics										
< 100% FPL	10.6%	11.3%	-0.7%	*	10.6%	0.0%		11.9%	-1.3%	***
100-125% FPL	3.5%	3.8%	-0.4%	*	3.5%	0.0%		3.8%	-0.4%	*
126-200% FPL	11.8%	11.7%	0.0%		11.5%	0.2%		12.8%	-1.1%	***
201-400% FPL	30.9%	30.3%	0.5%		30.8%	0.0%		33.7%	-2.8%	***
401+ % FPL	43.3%	42.8%	0.5%		43.5%	-0.2%		37.7%	5.6%	***
Single with children	6.9%	8.5%	-1.6%	***	8.1%	-1.2%	***	7.4%	-0.5%	**
Married with children	36.9%	37.7%	-0.8%		35.6%	1.4%	*	36.7%	0.3%	
Single without children	24.1%	22.6%	1.5%	***	25.1%	-1.0%		24.2%	-0.1%	
Married without children	32.1%	31.2%	0.9%		31.3%	0.8%		31.7%	0.4%	
Receive SSI	2.0%	2.0%	0.0%		2.1%	-0.1%		2.8%	-0.8%	***
Receive food stamps	5.3%	3.6%	1.7%	***	5.5%	-0.2%		5.0%	0.3%	

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

Table 3a2. All-year Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age 0-17, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	11.6%	5.4%	6.2%	***	7.2%	4.4%	***	4.5%	7.1%	***
Individual Characteristics										
Male	11.9%	5.6%	6.3%	***	7.7%	4.2%	***	4.6%	7.3%	***
Female	11.4%	5.3%	6.1%	***	6.7%	4.7%	***	4.5%	6.9%	***
Age 0-5	10.9%	4.0%	7.0%	***	5.1%	5.8%	***	3.8%	7.2%	***
6-17	12.0%	6.1%	5.8%	***	8.2%	3.8%	***	4.9%	7.1%	***
Black	13.9%	4.3%	9.7%	***	4.4%	9.6%	***	4.6%	9.4%	***
Other race	12.0%	8.4%	3.6%	**	5.5%	6.5%	***	5.4%	6.6%	***
White	11.1%	5.3%	5.8%	***	8.0%	3.2%	***	4.5%	6.7%	***
Hispanic	22.7%	14.6%	8.0%	***	14.6%	8.1%	***	10.6%	12.0%	***
Non-Hispanic	9.2%	3.5%	5.7%	***	5.6%	3.6%	***	3.2%	6.0%	***
Not born in the US	34.6%	29.4%	5.2%	*	31.5%	3.1%		N/A	---	
Born in the US	10.5%	4.3%	6.2%	***	6.1%	4.4%	***	N/A	---	
Poor health	8.8%	8.1%	0.7%		4.8%	4.0%	*	4.6%	4.1%	*
At least good health	11.7%	5.4%	6.3%	***	7.3%	4.4%	***	4.5%	7.2%	***
Student 18-23 years old	26.8%	16.5%	10.2%	***	14.6%	12.2%	***	12.6%	14.2%	***
No high school diploma^	15.1%	6.7%	8.4%	***	8.6%	6.5%	***	5.8%	9.3%	***
High school^	10.7%	4.2%	6.6%	***	6.4%	4.3%	***	4.1%	6.6%	***
Some college^	6.1%	2.3%	3.8%	***	4.0%	2.1%	**	1.8%	4.3%	***
College graduate^	4.7%	1.0%	3.7%	***	3.5%	1.2%		0.6%	4.1%	***
Post-Bachelor's^	14.2%	6.9%	7.3%	***	6.6%	7.6%	***	6.2%	8.0%	***
Not employed^	13.6%	6.4%	7.2%	***	11.4%	2.3%		6.8%	6.8%	***
Employed part time^	11.2%	5.2%	6.0%	***	7.0%	4.2%	***	4.2%	7.0%	***
Employed full time^	16.6%	N/A	---		13.9%	2.7%		10.3%	6.3%	*
Empl. part time, < 25 empl.^	10.9%	N/A	---		5.1%	5.7%		4.6%	6.2%	
Empl. part time, 25-99 empl.^	11.9%	N/A	---		9.3%	2.6%		4.8%	7.1%	***
Empl. part time, 100+ empl.^	20.6%	N/A	---		12.8%	7.8%	***	9.2%	11.4%	***
Empl. full time, < 25 empl.^	13.9%	N/A	---		7.2%	6.7%	***	5.3%	8.6%	***
Empl. full time, 25-99 empl.^	8.1%	N/A	---		3.8%	4.3%	***	2.9%	5.2%	***
Family Characteristics										
< 100% FPL	20.7%	10.3%	10.3%	***	8.3%	12.3%	***	7.7%	13.0%	***
100-125% FPL	22.2%	12.2%	10.0%	***	7.5%	14.7%	***	10.5%	11.7%	***
126-200% FPL	17.0%	8.2%	8.8%	***	11.8%	5.2%	**	6.4%	10.6%	***
201-400% FPL	9.1%	3.9%	5.2%	***	7.2%	2.0%	**	3.2%	6.0%	***
401+ % FPL	4.0%	1.2%	2.9%	***	3.9%	0.1%		1.2%	2.9%	***
Single with children	15.2%	5.9%	9.3%	***	8.1%	7.2%	***	5.9%	9.3%	***
Married with children	10.6%	5.3%	5.3%	***	7.0%	3.6%	***	4.1%	6.5%	***
Receive SSI	2.1%	1.5%	0.5%		2.4%	-0.3%		1.5%	0.6%	
Receive food stamps	8.6%	2.1%	6.5%	***	2.2%	6.4%	***	2.1%	6.4%	***

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 3a3. All-year Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age18-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
All-year uninsured	19.5%	11.8%	7.7%	***	15.3%	4.2%	***	9.7%	9.8%	***
Individual Characteristics										
Male	21.4%	13.6%	7.7%	***	17.3%	4.0%	***	11.2%	10.2%	***
Female	17.7%	10.1%	7.6%	***	13.3%	4.4%	***	8.3%	9.4%	***
Age 18-24	29.6%	17.2%	12.4%	***	22.0%	7.6%	***	14.2%	15.5%	***
25-34	24.9%	15.3%	9.6%	***	18.6%	6.3%	***	12.3%	12.6%	***
35-44	17.7%	11.0%	6.7%	***	14.0%	3.7%	***	8.3%	9.3%	***
45-54	13.9%	8.9%	5.0%	***	12.2%	1.7%	*	7.6%	6.3%	***
55-64	12.8%	7.2%	5.7%	***	10.4%	2.4%	***	6.0%	6.8%	***
Black	25.9%	14.6%	11.3%	***	18.0%	7.9%	***	12.5%	13.4%	***
Other race	23.9%	18.7%	5.2%	***	15.1%	8.8%	***	11.6%	12.3%	***
White	18.2%	10.7%	7.4%	***	14.9%	3.3%	***	9.1%	9.1%	***
Hispanic	40.3%	31.1%	9.2%	***	34.9%	5.4%	***	24.5%	15.8%	***
Non-Hispanic	16.3%	9.3%	7.0%	***	12.3%	4.0%	***	7.4%	8.8%	***
Not born in the US	36.1%	26.6%	9.5%	***	29.4%	6.7%	***	19.4%	16.7%	***
Born in the US	16.3%	9.3%	7.1%	***	12.7%	3.7%	***	7.6%	8.8%	***
Poor health	20.4%	15.9%	4.5%	***	17.0%	3.4%	***	13.1%	7.3%	***
At least good health	19.4%	11.4%	8.0%	***	15.0%	4.4%	***	9.2%	10.2%	***
Student 18-23 years old	18.4%	10.2%	8.2%	***	13.7%	4.7%	***	7.0%	11.4%	***
No high school diploma^	38.4%	29.6%	8.8%	***	30.0%	8.4%	***	25.0%	13.5%	***
High school^	22.9%	14.1%	8.7%	***	16.4%	6.5%	***	12.2%	10.7%	***
Some college^	15.9%	8.5%	7.3%	***	11.6%	4.3%	***	6.2%	9.6%	***
College graduate^	10.7%	4.0%	6.7%	***	7.4%	3.3%	***	2.6%	8.1%	***
Post-Bachelor's^	6.6%	2.5%	4.1%	***	4.4%	2.2%	**	1.4%	5.2%	***
Not employed^	25.9%	16.1%	9.9%	***	21.1%	4.8%	***	14.5%	11.5%	***
Employed part time^	23.3%	13.8%	9.4%	***	19.3%	3.9%	***	11.1%	12.2%	***
Employed full time^	15.7%	9.6%	6.1%	***	11.7%	4.0%	***	7.5%	8.2%	***
Empl. part time, < 25 empl.^	28.2%	N/A	---		22.9%	5.3%	***	15.9%	12.3%	***
Empl. part time, 25-99 empl.^	22.8%	N/A	---		16.0%	6.7%	**	10.4%	12.3%	***
Empl. part time, 100+ empl.^	19.3%	N/A	---		13.6%	5.7%	**	8.7%	10.7%	***
Empl. full time, < 25 empl.^	29.3%	N/A	---		21.8%	7.5%	***	19.7%	9.6%	***
Empl. full time, 25-99 empl.^	17.6%	N/A	---		8.6%	9.0%	***	8.5%	9.1%	***
Empl. full time, 100+ empl.^	9.0%	N/A	---		4.2%	4.9%	***	4.1%	4.9%	***
Family Characteristics										
< 100% FPL	42.4%	27.9%	14.4%	***	33.7%	8.7%	***	25.1%	17.3%	***
100-125% FPL	41.0%	30.1%	10.9%	***	35.6%	5.4%	*	21.8%	19.2%	***
126-200% FPL	34.4%	23.6%	10.8%	***	31.2%	3.2%	*	17.9%	16.6%	***
201-400% FPL	19.2%	11.1%	8.1%	***	14.8%	4.4%	***	8.3%	10.9%	***
401+ % FPL	8.4%	3.2%	5.1%	***	5.2%	3.1%	***	2.0%	6.3%	***
Single with children	27.3%	18.9%	8.4%	***	22.7%	4.6%	**	14.6%	12.7%	***
Married with children	16.5%	10.7%	5.8%	***	14.3%	2.2%	**	8.4%	8.1%	***
Single without children	26.0%	16.4%	9.6%	***	20.2%	5.8%	***	13.7%	12.3%	***
Married without children	16.5%	8.0%	8.5%	***	10.5%	6.0%	***	6.9%	9.5%	***
Receive SSI	1.4%	3.0%	-1.6%	*	2.8%	-1.3%		0.5%	0.9%	*
Receive food stamps	29.8%	17.7%	12.0%	***	23.8%	6.0%	***	14.9%	14.8%	***

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

Table 3b2. Point-in-time Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age 0-17, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
Point-in-time uninsured	11.6%	10.2%	1.4%	***	11.7%	-0.1%		13.9%	-2.2%	***
Individual Characteristics										
Male	11.9%	10.5%	1.4%	**	12.6%	-0.7%		14.2%	-2.3%	***
Female	11.4%	10.0%	1.4%	**	10.8%	0.6%		13.5%	-2.1%	***
Age 0-5	10.9%	8.8%	2.2%	***	9.9%	1.0%		13.2%	-2.3%	***
6-17	12.0%	11.0%	1.0%	*	12.5%	-0.5%		14.1%	-2.2%	***
Black	13.9%	9.7%	4.2%	***	9.4%	4.6%	***	15.4%	-1.5%	
Other race	12.0%	16.0%	-4.0%	**	9.4%	2.6%		17.2%	-5.2%	**
White	11.1%	9.6%	1.5%	***	12.4%	-1.3%	*	13.3%	-2.1%	***
Hispanic	22.7%	21.7%	1.0%		21.3%	1.4%		25.5%	-2.9%	*
Non-Hispanic	9.2%	7.8%	1.3%	***	9.5%	-0.4%		11.3%	-2.2%	***
Not born in the US	34.6%	36.5%	-1.9%		38.7%	-4.1%		N/A	---	
Born in the US	10.5%	9.0%	1.5%	***	10.5%	0.1%		N/A	---	
Poor health	8.8%	11.2%	-2.4%		10.8%	-2.0%		15.0%	-6.2%	**
At least good health	11.7%	10.2%	1.5%	***	11.7%	0.0%		13.8%	-2.1%	***
Student 18-23 years old	26.8%	23.8%	3.0%		21.2%	5.5%	*	29.0%	-2.2%	
No high school diploma^	15.1%	12.4%	2.7%	***	14.0%	1.1%		17.3%	-2.2%	**
High school^	10.7%	9.6%	1.1%		11.2%	-0.5%		13.4%	-2.7%	***
Some college^	6.1%	5.3%	0.8%		6.8%	-0.6%		7.7%	-1.6%	*
College graduate^	4.7%	3.0%	1.7%	**	5.9%	-1.2%		5.4%	-0.7%	
Post-Bachelor's^	14.2%	14.6%	-0.4%		10.5%	3.7%	*	20.0%	-5.8%	***
Not employed^	13.6%	12.4%	1.2%		18.1%	-4.5%		19.8%	-6.2%	***
Employed part time^	11.2%	9.6%	1.6%	***	11.3%	-0.1%		12.9%	-1.7%	***
Employed full time^	16.6%	N/A	---		20.8%	-4.2%		25.5%	-8.9%	*
Empl. part time, < 25 empl.^	10.9%	N/A	---		10.3%	0.6%		23.6%	-12.7%	*
Empl. part time, 25-99 empl.^	11.9%	N/A	---		13.2%	-1.3%		15.3%	-3.4%	
Empl. part time, 100+ empl.^	20.6%	N/A	---		18.3%	2.3%		22.1%	-1.5%	
Empl. full time, < 25 empl.^	13.9%	N/A	---		13.1%	0.9%		15.3%	-1.4%	
Empl. full time, 25-99 empl.^	8.1%	N/A	---		6.7%	1.4%	**	10.4%	-2.2%	***
Family Characteristics										
< 100% FPL	20.7%	16.5%	4.2%	***	14.5%	6.2%	***	23.0%	-2.4%	*
100-125% FPL	22.2%	19.1%	3.1%		16.4%	5.8%	*	23.4%	-1.2%	
126-200% FPL	17.0%	15.4%	1.5%		18.7%	-1.8%		18.9%	-1.9%	
201-400% FPL	9.1%	8.8%	0.4%		11.2%	-2.0%	*	10.4%	-1.3%	*
401+ % FPL	4.0%	3.2%	0.8%		5.7%	-1.6%	*	5.5%	-1.4%	**
Single with children	15.2%	11.9%	3.3%	***	14.1%	1.2%		19.2%	-3.9%	***
Married with children	10.6%	9.7%	0.8%		11.0%	-0.4%		12.2%	-1.6%	***
Receive SSI	2.1%	4.0%	-1.9%		4.0%	-1.9%		9.4%	-7.3%	**
Receive food stamps	8.6%	6.2%	2.3%	*	6.5%	2.1%	*	9.7%	-1.2%	

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 3b3. Point-in-time Uninsurance Rates by Demographic Groups: Differences between the CPS and NHIS, MEPS, and SIPP, Age 18-64, CY 2002

Variable	CPS Estimate	NHIS Estimate	Difference		MEPS Estimate	Difference		SIPP Estimate	Difference	
Point-in-time uninsured	19.5%	18.0%	1.5%	***	20.5%	-1.0%		16.8%	2.7%	***
Individual Characteristics										
Male	21.4%	20.0%	1.4%	***	22.4%	-1.0%		18.1%	3.2%	***
Female	17.7%	16.1%	1.6%	***	18.7%	-1.0%		15.6%	2.1%	***
Age 18-24	29.6%	27.5%	2.2%	*	30.9%	-1.3%		27.8%	1.9%	*
25-34	24.9%	22.8%	2.1%	***	26.1%	-1.2%		21.1%	3.8%	***
35-44	17.7%	16.8%	0.9%		18.7%	-1.1%		14.0%	3.7%	***
45-54	13.9%	13.0%	0.9%		15.1%	-1.2%		11.8%	2.1%	***
55-64	12.8%	10.4%	2.4%	***	12.9%	-0.1%		10.1%	2.7%	***
Black	25.9%	22.7%	3.2%	***	24.8%	1.2%		23.1%	2.8%	**
Other race	23.9%	27.4%	-3.5%	**	20.9%	3.0%		19.6%	4.3%	***
White	18.2%	16.3%	1.8%	***	19.8%	-1.7%	**	15.6%	2.6%	***
Hispanic	40.3%	39.4%	0.9%		42.0%	-1.8%		38.2%	2.1%	*
Non-Hispanic	16.3%	15.1%	1.2%	***	17.2%	-1.0%	*	13.6%	2.7%	***
Not born in the US	36.1%	33.4%	2.7%	**	35.3%	0.8%		29.9%	6.2%	***
Born in the US	16.3%	15.3%	1.0%	***	17.8%	-1.4%	**	14.0%	2.3%	***
Poor health	20.4%	21.5%	-1.1%		23.7%	-3.3%	**	21.3%	-0.9%	
At least good health	19.4%	17.6%	1.8%	***	20.1%	-0.7%		16.2%	3.2%	***
Student 18-23 years old	18.4%	16.0%	2.4%		20.1%	-1.7%		15.9%	2.5%	*
No high school diploma^	38.4%	37.6%	0.9%		36.5%	1.9%		38.2%	0.2%	
High school^	22.9%	21.4%	1.5%	**	22.0%	0.9%		20.6%	2.3%	***
Some college^	15.9%	15.0%	0.9%	*	17.5%	-1.7%	*	12.6%	3.3%	***
College graduate^	10.7%	8.1%	2.6%	***	11.0%	-0.3%		6.2%	4.6%	***
Post-Bachelor's^	6.6%	4.6%	2.0%	***	6.8%	-0.3%		3.2%	3.4%	***
Not employed^	25.9%	24.9%	1.1%		27.7%	-1.7%	*	24.5%	1.4%	*
Employed part time^	23.3%	20.8%	2.5%	***	25.4%	-2.1%		19.9%	3.4%	***
Employed full time^	15.7%	14.4%	1.3%	***	16.2%	-0.5%		13.1%	2.6%	***
Empl. part time, < 25 empl.^	28.2%	N/A	---		29.9%	-1.8%		24.7%	3.4%	*
Empl. part time, 25-99 empl.^	22.8%	N/A	---		20.9%	1.8%		20.6%	2.2%	
Empl. part time, 100+ empl.^	19.3%	N/A	---		18.5%	0.9%		17.2%	2.1%	*
Empl. full time, < 25 empl.^	29.3%	N/A	---		27.7%	1.6%		29.5%	-0.1%	
Empl. full time, 25-99 empl.^	17.6%	N/A	---		13.0%	4.6%	***	15.6%	1.9%	*
Empl. full time, 100+ empl.^	9.0%	N/A	---		7.3%	1.7%	***	8.4%	0.7%	*
Family Characteristics										
< 100% FPL	42.4%	37.6%	4.8%	***	42.8%	-0.5%		40.7%	1.7%	
100-125% FPL	41.0%	41.1%	-0.1%		44.7%	-3.7%		36.8%	4.2%	*
126-200% FPL	34.4%	32.2%	2.2%	*	39.7%	-5.3%	***	30.2%	4.2%	***
201-400% FPL	19.2%	18.3%	0.9%		20.4%	-1.2%		14.6%	4.6%	***
401+ % FPL	8.4%	6.5%	1.8%	***	8.0%	0.3%		4.5%	3.8%	***
Single with children	27.3%	29.1%	-1.7%		30.9%	-3.6%	*	28.9%	-1.6%	
Married with children	16.5%	16.4%	0.0%		19.1%	-2.6%	***	14.8%	1.7%	***
Single without children	26.0%	23.8%	2.2%	***	27.0%	-1.1%		22.5%	3.5%	***
Married without children	16.5%	12.6%	3.9%	***	14.1%	2.3%	**	11.9%	4.6%	***
Receive SSI	1.4%	5.3%	-3.9%	***	6.7%	-5.3%	***	2.4%	-1.0%	
Receive food stamps	29.8%	26.3%	3.4%	*	33.8%	-4.0%	*	28.5%	1.3%	

Source: 2003 CPS, 2001 SIPP, 2002 NHIS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

Table 4a2: Recycled Uninsurance Rates from the CPS and NHIS by Different Measurements of Uninsurance, Age 0-17, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	NHIS	Difference		CPS	NHIS	Difference	
Uninsured	11.6%	4.9%	6.8%	***	11.6%	9.3%	2.4%	***
Individual Characteristics								
Male	12.4%	5.3%	7.1%	***	12.4%	10.0%	2.5%	***
Age 6-17	12.4%	5.8%	6.6%	***	12.4%	10.4%	2.0%	***
Black	14.8%	3.9%	10.9%	***	14.9%	8.9%	6.0%	***
Other race	15.7%	6.5%	9.2%	***	15.8%	13.1%	2.7%	
Hispanic	23.9%	13.8%	10.1%	***	23.9%	20.3%	3.6%	**
Poor health	10.0%	6.8%	3.2%		10.1%	9.4%	0.6%	
Employed part time^	16.0%	5.8%	10.2%	***	16.0%	13.0%	3.0%	*
Not employed^	14.4%	6.1%	8.3%	***	14.4%	11.8%	2.5%	
No high school diploma^	28.2%	15.8%	12.3%	***	28.2%	22.5%	5.7%	***
High school^	15.6%	6.5%	9.1%	***	15.6%	12.0%	3.6%	***
Some college^	11.0%	4.0%	7.0%	***	11.0%	9.2%	1.8%	**
College graduate^	6.1%	2.3%	3.9%	***	6.1%	5.2%	0.9%	
Family Characteristics								
Below 100% FPL	22.5%	9.2%	13.3%	***	22.6%	14.8%	7.8%	***
100-125% FPL	23.5%	11.3%	12.3%	***	23.5%	17.8%	5.7%	**
126-200% FPL	17.2%	8.1%	9.1%	***	17.2%	15.0%	2.2%	*
201-400% FPL	9.2%	3.9%	5.3%	***	9.2%	8.7%	0.5%	
Single with children	16.1%	5.6%	10.5%	***	16.1%	11.2%	4.9%	***
Receive SSI	3.2%	1.5%	1.8%		3.2%	3.9%	-0.6%	
Receive food stamps	8.8%	1.9%	6.8%	***	8.8%	6.0%	2.8%	*
States								
Arizona	16.3%	13.2%	3.0%		16.3%	18.6%	-2.3%	
California	15.3%	6.9%	8.4%	***	15.3%	12.1%	3.1%	*
Colorado	14.3%	7.9%	6.4%		14.3%	13.3%	1.0%	
Florida	15.2%	8.5%	6.7%	***	15.2%	15.4%	-0.1%	
Georgia	13.3%	4.8%	8.5%	***	13.5%	9.7%	3.7%	
Illinois	11.7%	5.1%	6.6%	***	11.7%	7.7%	3.9%	**
Kentucky	13.7%	1.7%	12.0%	***	13.7%	5.7%	8.0%	***
Louisiana	12.3%	7.7%	4.6%		12.3%	8.4%	4.0%	
Maryland	10.8%	2.0%	8.7%	***	10.8%	5.5%	5.2%	**
Michigan	7.2%	1.4%	5.8%	***	7.2%	3.5%	3.6%	***
Minnesota	6.2%	0.8%	5.4%	***	6.2%	3.0%	3.3%	*
Missouri	5.7%	1.9%	3.7%	**	5.7%	6.3%	-0.6%	
New Jersey	10.1%	2.2%	8.0%	***	10.1%	7.0%	3.2%	
New York	10.0%	2.4%	7.6%	***	10.0%	7.0%	3.0%	***
North Carolina	13.6%	6.3%	7.3%	***	13.6%	8.8%	4.8%	*
Ohio	9.0%	4.2%	4.8%	***	9.0%	6.7%	2.3%	
Oklahoma	12.1%	7.1%	5.0%		12.1%	20.2%	-8.1%	*
Oregon	11.3%	7.5%	3.8%		11.3%	13.4%	-2.0%	
Pennsylvania	10.7%	3.9%	6.8%	***	10.7%	6.6%	4.1%	**
South Carolina	7.6%	3.7%	3.9%	*	7.6%	7.5%	0.0%	
Tennessee	6.8%	0.9%	5.9%	***	6.8%	7.0%	-0.2%	
Virginia	13.1%	3.9%	9.1%	***	13.1%	9.3%	3.8%	
Washington	9.2%	0.9%	8.3%	***	9.2%	8.6%	0.5%	
Wisconsin	5.2%	2.1%	3.1%	*	5.2%	7.1%	-2.0%	
Other States	9.8%	3.4%	6.4%	***	9.8%	7.7%	2.1%	*

Source: 2003 CPS, 2002 NHIS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4a3: Recycled Uninsurance Rates from the CPS and NHIS by Different Measurements of Uninsurance, Age 18-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	NHIS	Difference		CPS	NHIS	Difference	
Uninsured	19.5%	12.1%	7.4%	***	19.5%	18.0%	1.5%	***
Individual Characteristics								
Male	21.3%	13.9%	7.5%	***	21.4%	20.2%	1.2%	**
Age 18-24	31.5%	16.3%	15.2%	***	31.5%	25.6%	5.9%	***
25-34	24.1%	16.3%	7.7%	***	24.1%	24.1%	0.0%	
35-44	17.4%	11.3%	6.2%	***	17.5%	17.2%	0.3%	
45-54	14.0%	8.9%	5.1%	***	14.0%	13.1%	0.9%	
Black	25.9%	14.8%	11.1%	***	25.9%	22.9%	3.0%	***
Other race	27.5%	16.0%	11.5%	***	27.6%	24.5%	3.1%	*
Hispanic	40.5%	31.4%	9.1%	***	40.5%	39.7%	0.8%	
Not born in US	36.1%	27.1%	9.0%	***	36.2%	34.1%	2.0%	*
Poor health	20.8%	15.6%	5.2%	***	20.8%	21.3%	-0.5%	
Student 18-23	20.0%	7.7%	12.3%	***	20.1%	12.1%	8.0%	***
Employed part time^	25.4%	16.7%	8.7%	***	25.4%	25.7%	-0.2%	
Not employed^	24.8%	13.1%	11.7%	***	24.8%	19.4%	5.4%	***
No high school diploma^	38.3%	30.0%	8.4%	***	38.3%	37.8%	0.6%	
High school^	22.6%	14.6%	8.0%	***	22.6%	21.9%	0.7%	
Some college^	16.6%	8.2%	8.5%	***	16.7%	14.4%	2.3%	***
College graduate^	10.7%	4.1%	6.6%	***	10.7%	8.3%	2.4%	***
Family Characteristics								
Below 100% FPL	41.7%	28.9%	12.8%	***	41.8%	38.8%	2.9%	*
100-125% FPL	41.8%	29.9%	11.8%	***	41.8%	40.6%	1.2%	
126-200% FPL	34.2%	24.3%	10.0%	***	34.3%	32.7%	1.6%	
201-400% FPL	19.1%	11.4%	7.7%	***	19.1%	18.6%	0.6%	
Single with children	28.2%	18.2%	10.0%	***	28.2%	28.1%	0.2%	
Single without children	25.7%	17.2%	8.5%	***	25.7%	24.7%	1.1%	
Married without children	16.6%	8.2%	8.4%	***	16.6%	12.8%	3.8%	***
Receive SSI	1.5%	2.9%	-1.4%	*	1.5%	5.1%	-3.6%	***
Receive food stamps	28.9%	19.3%	9.6%	***	28.8%	27.9%	0.9%	
State								
Alabama	18.2%	11.0%	7.2%	***	18.4%	16.7%	1.6%	
Arizona	21.6%	18.5%	3.0%		21.6%	25.6%	-4.0%	*
California	23.5%	14.9%	8.6%	***	23.6%	20.8%	2.8%	**
Colorado	17.3%	13.6%	3.7%	*	17.4%	18.5%	-1.1%	
Connecticut	13.0%	5.3%	7.7%	***	13.0%	10.9%	2.0%	
Florida	23.4%	16.6%	6.8%	***	23.5%	24.5%	-1.0%	
Georgia	20.9%	12.2%	8.6%	***	20.9%	21.2%	-0.3%	
Illinois	17.7%	10.3%	7.4%	***	17.7%	15.2%	2.5%	
Indiana	18.3%	10.5%	7.9%	***	18.4%	17.4%	1.0%	
Iowa	13.0%	6.9%	6.1%	**	13.0%	12.8%	0.2%	
Kentucky	17.7%	13.1%	4.6%	*	17.8%	20.7%	-2.9%	
Louisiana	25.6%	19.9%	5.7%	*	25.7%	24.3%	1.3%	
Maryland	16.8%	11.8%	5.0%	**	16.8%	16.8%	0.0%	
Massachusetts	13.0%	4.9%	8.1%	***	13.0%	10.1%	2.9%	
Michigan	15.1%	7.1%	8.0%	***	15.1%	12.5%	2.6%	
Minnesota	10.7%	4.7%	6.0%	***	10.7%	9.1%	1.6%	
Missouri	17.9%	8.2%	9.8%	***	17.9%	14.2%	3.7%	*
New Jersey	18.0%	9.4%	8.7%	***	18.1%	15.1%	3.0%	

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	NHIS	Difference		CPS	NHIS	Difference	
New York	20.3%	10.8%	9.5%	***	20.3%	16.9%	3.4%	**
North Carolina	21.4%	12.9%	8.5%	***	21.4%	18.5%	2.9%	
Ohio	15.6%	8.2%	7.5%	***	15.6%	12.6%	3.0%	*
Oklahoma	24.1%	16.4%	7.7%	**	24.2%	27.2%	-3.0%	
Oregon	18.1%	11.5%	6.6%	*	18.2%	18.9%	-0.7%	
Pennsylvania	15.3%	8.1%	7.2%	***	15.4%	12.7%	2.7%	
South Carolina	18.2%	14.4%	3.8%		18.2%	20.6%	-2.4%	
Tennessee	14.0%	7.2%	6.8%	***	14.0%	12.4%	1.7%	
Virginia	16.7%	9.7%	7.0%	***	16.7%	13.9%	2.8%	
Washington	17.7%	7.8%	9.9%	***	17.8%	15.2%	2.6%	
Wisconsin	14.1%	6.9%	7.2%	***	14.1%	11.7%	2.3%	
Other States	18.8%	11.1%	7.7%	***	18.8%	17.7%	1.1%	

Source: 2003 CPS, 2002 NHIS

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

Table 4b2: Recycled Uninsurance Rates from the CPS and MEPS by Different Measurements of Uninsurance, Age 0-17, 2002

Variable	All-Year Uninsured				Point-in-Time Uninsured			
	CPS	MEPS	Difference		CPS	MEPS	Difference	
Uninsured	11.6%	6.8%	4.8%	***	11.6%	11.2%	0.4%	
Individual Characteristics								
Male	11.9%	7.5%	4.4%	***	11.9%	12.3%	-0.4%	
Age 6-17	12.0%	7.9%	4.1%	***	12.0%	12.2%	-0.2%	
Black	13.6%	4.3%	9.3%	***	13.6%	9.2%	4.4%	***
Other race	11.9%	5.6%	6.3%	***	11.9%	9.4%	2.5%	
Hispanic	22.9%	14.1%	8.8%	***	22.9%	20.9%	2.0%	
Poor health	9.1%	4.7%	4.5%	*	9.1%	10.6%	-1.5%	
Employed part time^	14.0%	6.7%	7.3%	***	14.0%	10.9%	3.2%	
Not employed^	14.3%	11.0%	3.3%		14.3%	17.8%	-3.6%	
No high school diploma^	25.8%	14.5%	11.4%	***	25.8%	21.2%	4.6%	*
High school^	14.7%	8.7%	6.0%	***	14.7%	14.1%	0.6%	
Some college^	10.4%	6.3%	4.1%	***	10.4%	11.2%	-0.8%	
College graduate^	6.0%	4.0%	2.1%	**	6.0%	6.7%	-0.6%	
Family Characteristics								
Below 100% FPL	20.5%	8.3%	12.3%	***	20.5%	14.4%	6.1%	***
100-125% FPL	22.5%	7.0%	15.6%	***	22.5%	15.6%	7.0%	**
126-200% FPL	17.0%	11.6%	5.4%	**	17.0%	18.6%	-1.6%	
201-400% FPL	9.2%	6.9%	2.3%	**	9.2%	10.9%	-1.7%	*
Single with children	15.4%	7.8%	7.6%	***	15.4%	13.8%	1.7%	
Receive SSI	2.2%	2.4%	-0.2%		2.2%	4.0%	-1.8%	
Receive food stamps	8.4%	2.2%	6.2%	***	8.4%	6.6%	1.8%	
State								
Arizona	13.8%	10.5%	3.3%		13.8%	18.4%	-4.5%	
California	14.9%	8.0%	6.9%	***	14.9%	13.2%	1.7%	
Colorado	12.5%	5.3%	7.3%		12.5%	12.1%	0.4%	
Florida	14.8%	10.2%	4.7%		14.8%	13.7%	1.2%	
Georgia	12.4%	11.2%	1.3%		12.4%	21.9%	-9.5%	*
Illinois	11.7%	8.1%	3.7%		11.7%	10.7%	1.0%	
Kentucky	11.7%	10.4%	1.3%		11.7%	14.8%	-3.1%	
Louisiana	11.9%	2.3%	9.6%	***	11.9%	5.8%	6.1%	*
Maryland	9.9%	6.2%	3.7%		9.9%	8.3%	1.6%	
Michigan	6.8%	6.7%	0.0%		6.8%	8.5%	-1.7%	
Minnesota	6.0%	5.1%	0.9%		6.0%	8.9%	-2.9%	
Missouri	5.3%	5.2%	0.0%		5.3%	9.5%	-4.2%	
New Jersey	9.5%	1.0%	8.6%	***	9.5%	3.6%	5.9%	***
New York	9.6%	7.4%	2.2%		9.6%	10.7%	-1.1%	
North Carolina	12.8%	12.1%	0.7%		12.8%	17.6%	-4.8%	
Ohio	8.3%	7.9%	0.4%		8.3%	11.9%	-3.6%	
Oklahoma	11.7%	10.8%	0.9%		11.7%	15.9%	-4.2%	
Oregon	9.9%	11.1%	-1.1%		9.9%	15.9%	-6.0%	
Pennsylvania	11.0%	6.7%	4.3%	**	11.0%	9.6%	1.4%	
South Carolina	7.5%	4.0%	3.5%		7.5%	8.4%	-0.9%	
Tennessee	6.9%	2.6%	4.3%	*	6.9%	3.6%	3.3%	
Virginia	12.5%	1.5%	11.0%	***	12.5%	4.9%	7.6%	**
Washington	8.7%	3.5%	5.3%	**	8.7%	9.1%	-0.4%	
Wisconsin	4.8%	3.3%	1.6%		4.8%	5.2%	-0.4%	
Other States	9.5%	4.0%	5.5%	***	9.5%	7.9%	1.6%	

Source: 2003 CPS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4b3: Recycled Uninsurance Rates from the CPS and MEPS by Different Measurements of Uninsurance, Age 18-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	MEPS	Difference		CPS	MEPS	Difference	
Uninsured	19.5%	15.2%	4.3%	***	19.5%	20.3%	-0.8%	
Individual Characteristics								
Male	21.5%	17.4%	4.0%	***	21.5%	22.3%	-0.9%	
Age 18-24	30.1%	22.0%	8.1%	***	30.1%	30.8%	-0.7%	
25-34	25.0%	18.7%	6.3%	***	25.0%	25.9%	-0.9%	
35-44	17.8%	14.0%	3.8%	***	17.8%	18.6%	-0.8%	
45-54	14.0%	12.0%	2.0%	*	14.0%	14.9%	-0.9%	
Black	25.6%	18.4%	7.2%	***	25.6%	25.2%	0.4%	
Other race	23.1%	15.7%	7.4%	***	23.1%	21.2%	1.9%	
Hispanic	40.5%	34.7%	5.8%	***	40.5%	41.3%	-0.8%	
Not born in US	35.4%	30.1%	5.3%	***	35.4%	35.1%	0.3%	
Poor health	21.0%	16.7%	4.3%	***	21.0%	23.1%	-2.1%	
Student 18-23	19.0%	13.8%	5.2%	***	19.0%	20.0%	-1.0%	
Employed part time^	26.0%	21.1%	4.9%	***	26.0%	27.5%	-1.5%	
Not employed^	23.7%	19.6%	4.1%	***	23.7%	25.7%	-2.0%	
No high school diploma^	37.0%	31.2%	5.7%	***	37.0%	37.4%	-0.4%	
High school^	22.2%	17.0%	5.2%	***	22.2%	22.6%	-0.4%	
Some college^	15.9%	11.8%	4.1%	***	15.9%	17.6%	-1.7%	*
College graduate^	10.6%	7.6%	3.0%	***	10.6%	11.1%	-0.6%	
Family Characteristics								
Below 100% FPL	42.2%	34.3%	7.9%	***	42.2%	43.2%	-1.0%	
100-125% FPL	41.4%	35.4%	6.0%	*	41.4%	44.1%	-2.7%	
126-200% FPL	34.9%	30.8%	4.2%	**	34.9%	39.3%	-4.3%	**
201-400% FPL	19.4%	14.8%	4.5%	***	19.4%	20.4%	-1.0%	
Single with children	28.6%	21.8%	6.8%	***	28.6%	30.0%	-1.4%	
Single without children	25.2%	20.9%	4.3%	***	25.2%	27.8%	-2.6%	**
Married without children	16.6%	10.7%	5.9%	***	16.6%	14.3%	2.3%	**
Receive SSI	1.5%	2.6%	-1.1%		1.5%	6.3%	-4.8%	***
Receive food stamps	30.1%	23.8%	6.4%	**	30.1%	33.5%	-3.3%	
State								
Alabama	18.3%	11.7%	6.6%	***	18.3%	16.9%	1.4%	
Arizona	19.9%	12.4%	7.4%	***	19.9%	20.0%	-0.1%	
California	23.7%	18.5%	5.2%	***	23.7%	22.8%	1.0%	
Colorado	17.8%	17.2%	0.6%		17.8%	23.5%	-5.7%	
Connecticut	14.9%	6.5%	8.5%	***	14.9%	9.9%	5.1%	*
Florida	23.8%	22.9%	1.0%		23.8%	28.5%	-4.7%	
Georgia	20.3%	23.6%	-3.3%		20.3%	29.4%	-9.0%	**
Illinois	17.7%	16.5%	1.2%		17.7%	21.9%	-4.2%	
Indiana	18.4%	12.1%	6.3%	**	18.4%	16.0%	2.4%	
Iowa	12.6%	10.5%	2.0%		12.6%	14.0%	-1.4%	
Kentucky	16.5%	11.9%	4.6%	*	16.5%	15.2%	1.3%	
Louisiana	26.1%	24.6%	1.5%		26.1%	31.6%	-5.5%	
Maryland	15.7%	12.3%	3.4%		15.7%	16.3%	-0.6%	
Massachusetts	12.8%	7.2%	5.5%	*	12.8%	8.8%	4.0%	
Michigan	15.2%	11.5%	3.8%	*	15.2%	17.9%	-2.7%	
Minnesota	10.3%	8.7%	1.6%		10.3%	11.2%	-1.0%	
Missouri	16.8%	12.5%	4.3%	*	16.8%	17.4%	-0.6%	
New Jersey	18.8%	10.7%	8.1%	***	18.8%	15.3%	3.5%	

	All-year Uninsured				Point-in-time Uninsured		
Variable	**CPS**	**MEPS**	**Difference**		**CPS**	**MEPS**	**Difference**
New York	20.4%	15.0%	5.4%	***	20.4%	19.2%	1.2%
North Carolina	20.7%	16.4%	4.3%	**	20.7%	22.6%	-2.0%
Ohio	15.3%	9.8%	5.5%	**	15.3%	14.9%	0.4%
Oklahoma	25.7%	27.6%	-1.8%		25.7%	33.1%	-7.4%
Oregon	18.3%	14.8%	3.4%		18.3%	20.5%	-2.2%
Pennsylvania	15.1%	9.7%	5.4%	**	15.1%	13.5%	1.6%
South Carolina	18.0%	11.8%	6.2%	**	18.0%	16.8%	1.2%
Tennessee	14.1%	7.9%	6.2%	***	14.1%	13.8%	0.2%
Virginia	15.6%	9.9%	5.7%	*	15.6%	16.5%	-0.9%
Washington	18.0%	12.8%	5.2%		18.0%	20.2%	-2.2%
Wisconsin	13.6%	7.6%	6.0%	**	13.6%	11.5%	2.1%
Other States	18.9%	15.8%	3.1%	*	18.9%	20.7%	-1.8%

Source: 2003 CPS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

Table 4c2. Recycled Uninsurance Rates from the CPS and SIPP by Different Measurements of Uninsurance, Age 0-17, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	SIPP	Difference		CPS	SIPP	Difference	
Uninsured	11.6%	4.3%	7.3%	***	11.6%	13.4%	-1.8%	***
Individual Characteristics								
Male	12.1%	4.5%	7.5%	***	12.1%	14.1%	-2.0%	***
Age 6-17	12.3%	4.7%	7.6%	***	12.3%	13.8%	-1.5%	**
Black	14.2%	4.4%	9.8%	***	14.2%	15.2%	-1.0%	
Other race	12.2%	5.5%	6.7%	***	12.2%	17.2%	-5.0%	**
Hispanic	22.8%	10.6%	12.2%	***	22.8%	25.4%	-2.7%	*
Poor health	9.4%	4.3%	5.0%	**	9.4%	14.2%	-4.8%	*
Employed part time^	13.4%	6.9%	6.5%	***	13.4%	20.0%	-6.6%	***
Not employed^	14.5%	6.0%	8.6%	***	14.5%	19.4%	-4.9%	**
No high school diploma^	26.0%	13.0%	13.0%	***	26.0%	29.7%	-3.8%	*
High school^	15.3%	5.7%	9.7%	***	15.3%	17.1%	-1.8%	*
Some college^	11.1%	4.0%	7.0%	***	11.1%	13.1%	-2.1%	**
College graduate^	6.4%	1.8%	4.7%	***	6.4%	7.5%	-1.1%	
Family Characteristics								
Below 100% FPL	20.4%	7.9%	12.6%	***	20.4%	23.5%	-3.1%	*
100-125% FPL	22.6%	10.2%	12.4%	***	22.6%	23.0%	-0.3%	
126-200% FPL	17.1%	6.3%	10.8%	***	17.1%	18.7%	-1.6%	
201-400% FPL	9.0%	3.2%	5.8%	***	9.0%	10.6%	-1.6%	**
Single with children	15.5%	5.7%	9.8%	***	15.5%	18.9%	-3.4%	***
Receive SSI	2.5%	1.5%	1.1%		2.5%	9.2%	-6.7%	*
Receive food stamps	8.6%	2.1%	6.5%	***	8.6%	9.7%	-1.1%	
State								
Arizona	15.7%	5.8%	10.0%	***	15.7%	15.1%	0.6%	
California	14.1%	4.8%	9.3%	***	14.1%	16.5%	-2.4%	
Colorado	13.9%	8.7%	5.2%		13.9%	18.4%	-4.5%	
Florida	15.1%	6.0%	9.2%	***	15.1%	16.9%	-1.8%	
Georgia	12.8%	4.8%	8.0%	***	12.8%	18.1%	-5.3%	*
Illinois	11.2%	3.6%	7.6%	***	11.2%	12.0%	-0.8%	
Kentucky	11.9%	1.5%	10.4%	***	11.9%	9.2%	2.7%	
Louisiana	12.5%	1.8%	10.6%	***	12.5%	9.6%	2.9%	
Maryland	9.4%	0.9%	8.5%	***	9.4%	7.4%	2.0%	
Michigan	7.2%	6.0%	1.2%		7.2%	11.4%	-4.2%	*
Minnesota	6.1%	3.1%	3.0%	*	6.1%	6.1%	0.0%	
Missouri	5.3%	6.0%	-0.8%		5.3%	13.6%	-8.4%	***
New Jersey	10.0%	3.7%	6.3%	***	10.0%	11.6%	-1.6%	
New York	9.4%	2.3%	7.1%	***	9.4%	11.6%	-2.2%	*
North Carolina	13.1%	3.6%	9.6%	***	13.1%	14.2%	-1.1%	
Ohio	8.5%	2.0%	6.5%	***	8.5%	8.8%	-0.3%	
Oklahoma	11.5%	3.1%	8.4%	***	11.5%	17.6%	-6.1%	
Oregon	10.7%	5.5%	5.2%	*	10.7%	16.9%	-6.2%	
Pennsylvania	10.5%	2.6%	7.9%	***	10.5%	8.9%	1.6%	
South Carolina	7.5%	1.2%	6.4%	***	7.5%	13.1%	-5.6%	
Tennessee	7.1%	1.6%	5.5%	***	7.1%	11.3%	-4.2%	
Virginia	12.8%	4.0%	8.8%	***	12.8%	13.4%	-0.6%	
Washington	9.2%	1.6%	7.6%	***	9.2%	7.3%	1.9%	
Wisconsin	4.9%	1.3%	3.6%	**	4.9%	7.0%	-2.1%	
Other States	9.8%	3.8%	6.0%	***	9.8%	10.9%	-1.1%	

Source: 2003 CPS, 2001 SIPP

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 4c3. Recycled Uninsurance Rates from the CPS and SIPP by Different Measurements of Uninsurance, Age 18-64, 2002

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	SIPP	Variable		CPS	SIPP	Variable	
Uninsured	19.5%	9.5%	10.0%	***	0.195	16.9%	2.6%	***
Individual Characteristics								
Male	21.5%	11.1%	10.4%	***	21.5%	18.4%	3.1%	***
Age 18-24	29.2%	14.5%	14.6%	***	29.2%	28.9%	0.3%	
25-34	24.9%	12.4%	12.6%	***	24.9%	21.7%	3.2%	***
35-44	17.8%	8.3%	9.6%	***	17.8%	14.2%	3.6%	***
45-54	14.2%	7.4%	6.8%	***	14.2%	11.8%	2.4%	***
Black	26.3%	12.2%	14.0%	***	26.3%	23.0%	3.3%	**
Other race	23.8%	11.8%	12.1%	***	23.8%	21.0%	2.9%	
Hispanic	39.9%	25.0%	14.9%	***	39.9%	40.3%	-0.4%	
Not born in US	35.6%	20.1%	15.5%	***	35.6%	33.0%	2.5%	*
Poor health	20.6%	12.9%	7.7%	***	20.6%	21.5%	-0.8%	
Student 18-23	18.4%	6.9%	11.5%	***	18.4%	16.2%	2.2%	
Employed part time^	23.4%	11.2%	12.2%	***	23.4%	20.3%	3.1%	**
Not employed^	26.0%	14.3%	11.7%	***	26.0%	24.9%	1.1%	
No high school diploma^	37.8%	25.5%	12.3%	***	37.8%	39.9%	-2.1%	
High school^	23.1%	12.0%	11.2%	***	23.1%	20.6%	2.5%	***
Some college^	16.2%	6.1%	10.1%	***	16.2%	12.6%	3.6%	***
College graduate^	11.0%	2.5%	8.5%	***	11.0%	6.2%	4.8%	***
Family Characteristics								
Below 100% FPL	41.1%	26.2%	14.9%	***	0.4107	43.0%	-1.9%	
100-125% FPL	40.4%	22.4%	18.0%	***	40.4%	38.4%	2.0%	
126-200% FPL	34.0%	18.3%	15.7%	***	34.0%	31.6%	2.3%	*
201-400% FPL	18.8%	8.6%	10.2%	***	18.8%	15.6%	3.2%	***
Single with children	27.8%	14.4%	13.5%	***	27.8%	28.8%	-1.0%	
Single without children	25.7%	13.9%	11.8%	***	25.7%	23.3%	2.4%	**
Married without children	16.7%	6.8%	10.0%	***	16.7%	11.9%	4.8%	***
Receive SSI	1.6%	0.5%	1.1%	**	1.6%	2.3%	-0.8%	
Receive food stamps	29.2%	15.2%	13.9%	***	29.2%	29.6%	-0.5%	
State								
Alabama	18.0%	13.4%	4.7%	*	18.0%	19.7%	-1.6%	
Arizona	21.2%	9.9%	11.3%	***	21.2%	19.5%	1.7%	
California	22.9%	11.0%	11.8%	***	22.9%	20.7%	2.2%	
Colorado	18.6%	9.9%	8.7%	***	18.6%	16.6%	2.0%	
Connecticut	14.3%	5.2%	9.2%	***	14.3%	12.1%	2.2%	
Florida	24.1%	11.3%	12.8%	***	24.1%	22.6%	1.5%	
Georgia	20.5%	10.3%	10.2%	***	20.5%	17.1%	3.4%	
Illinois	17.7%	8.3%	9.4%	***	17.7%	16.1%	1.6%	
Indiana	17.3%	4.8%	12.5%	***	17.3%	10.7%	6.6%	***
Iowa	12.3%	6.5%	5.8%	**	12.3%	11.4%	0.9%	
Kentucky	17.7%	11.0%	6.7%	*	17.7%	17.0%	0.7%	
Louisiana	25.8%	16.4%	9.4%	***	25.8%	24.8%	1.0%	
Maryland	16.2%	8.8%	7.4%	**	16.2%	12.2%	4.0%	
Massachusetts	13.0%	3.0%	10.0%	***	13.0%	7.6%	5.4%	**
Michigan	14.8%	5.9%	8.9%	***	14.8%	12.4%	2.4%	
Minnesota	10.0%	5.0%	5.0%	***	10.0%	9.2%	0.8%	
Missouri	16.5%	5.7%	10.8%	***	16.5%	11.1%	5.4%	**
New Jersey	18.1%	6.8%	11.2%	***	18.1%	12.5%	5.6%	**

Variable	All-year Uninsured				Point-in-time Uninsured			
	CPS	SIPP	Variable		CPS	SIPP	Variable	
New York	20.7%	10.0%	10.7%	***	20.7%	16.9%	3.8%	**
North Carolina	20.9%	10.1%	10.8%	***	20.9%	16.5%	4.4%	*
Ohio	15.8%	6.2%	9.6%	***	15.8%	11.5%	4.3%	**
Oklahoma	22.9%	9.5%	13.4%	***	22.9%	19.6%	3.4%	
Oregon	18.1%	6.6%	11.5%	***	18.1%	16.0%	2.0%	
Pennsylvania	14.9%	5.6%	9.3%	***	14.9%	9.4%	5.6%	***
South Carolina	17.6%	8.6%	8.9%	***	17.6%	16.7%	0.9%	
Tennessee	14.5%	5.9%	8.6%	***	14.5%	12.6%	2.0%	
Virginia	16.3%	6.9%	9.3%	***	16.3%	12.9%	3.3%	
Washington	18.9%	7.6%	11.3%	***	18.9%	16.9%	1.9%	
Wisconsin	14.6%	6.1%	8.5%	***	14.6%	10.8%	3.9%	*
Other States	19.1%	11.1%	8.0%	***	19.1%	18.5%	0.6%	

Source: 2003 CPS, 2001 SIPP

* p<0.05, **p<0.01, ***p<0.001

Table 7a: Logistic Regression Coefficients for CPS and NHIS, All-year Uninsured and Point-in-time Uninsured, Age 0-64

Variable	All-year Uninsured Main Effect		All-year Uninsured Interaction		Point-in-time Uninsured Main Effect		Point-in-time Uninsured Interaction	
CPS	1.209	***			0.519	***		
Intercept	-4.822	***			-4.132	***		
Individual Characteristics								
Male	0.352	***	-0.115	***	0.307	***	-0.071	**
Age 0-5	-0.714	***	0.626	***	-0.191	*	0.103	
6-17	-0.079		0.184	*	0.198	**	-0.093	
18-24	0.801	***	0.322	***	1.076	***	0.047	
25-34	1.044	***	-0.141		1.126	***	-0.223	**
35-44	0.717	***	-0.100		0.809	***	-0.192	**
45-54	0.523	***	-0.173	*	0.540	***	-0.190	**
Black	-0.016		0.287	***	0.064		0.207	***
Other race	0.149	*	0.219	**	0.268	***	0.099	
Hispanic	0.790	***	-0.134	*	0.645	***	0.011	
Poor health	-0.024		-0.172	**	-0.119	*	-0.078	
Student 18-23	-1.050	***	0.120		-1.339	***	0.409	***
Employed part time^	0.261	***	0.088		0.276	***	0.072	
Not employed^	0.312	***	-0.049		0.534	***	-0.272	***
No high school diploma^	1.645	***	-0.530	***	1.396	***	-0.281	*
High school^	1.153	***	-0.428	***	1.006	***	-0.281	*
Some college^	0.675	***	-0.227		0.675	***	-0.228	*
College graduate^	0.235		-0.039		0.295	**	-0.098	
Family Characteristics								
Below 100% FPL	1.901	***	-0.169		1.556	***	0.176	*
100-125% FPL	1.959	***	-0.233	*	1.683	***	0.043	
126-200% FPL	1.684	***	-0.305	***	1.415	***	-0.036	
201-400% FPL	0.968	***	-0.246	***	0.856	***	-0.133	*
Single with children	0.157	**	0.005		0.181	***	-0.019	
Single without children	0.815	***	-0.161	**	0.693	***	-0.039	
Married without children	0.394	***	0.230		0.308	***	0.317	***
Receive SSI	-2.546	***	-1.055	***	-2.350	***	-1.251	***
Receive food stamps	-0.724	***	-0.053		-0.681	***	-0.096	
State								
Alabama	-0.684	***	0.101		-0.679	***	0.097	
Arizona	-0.145		-0.338	*	-0.117		-0.366	**
California	-0.634	***	0.184		-0.560	***	0.110	
Colorado	-0.233		-0.206		-0.257	*	-0.182	
Connecticut	-1.081	***	0.461		-0.754	***	0.134	
Florida	-0.164		-0.103		-0.049		-0.217	*
Georgia	-0.551	***	0.151		-0.267	***	-0.133	
Illinois	-0.648	***	0.112		-0.665	***	0.129	
Indiana	-0.742	***	0.276		-0.528	***	0.063	
Iowa	-1.092	***	0.245		-0.731	***	-0.116	
Kentucky	-0.542	***	0.029		-0.382	*	-0.130	
Louisiana	0.109		-0.324		-0.192		-0.023	
Maryland	-0.371	*	0.004		-0.380	**	0.014	
Massachusetts	-1.542	***	0.759	*	-1.066	***	0.283	
Michigan	-1.051	***	0.391	*	-0.875	***	0.214	

Variable	All-year Uninsured			Point-in-time Uninsured		
	Main Effect		Interaction	Main Effect		Interaction
Minnesota	-1.399	***	0.438 *	-1.113	***	0.151
Missouri	-0.913	***	0.331 *	-0.657	***	0.075
New Jersey	-0.648	***	0.323 *	-0.456	***	0.131
New York	-0.772	***	0.338 **	-0.589	***	0.155
North Carolina	-0.436	***	0.079	-0.487	***	0.131
Ohio	-0.792	***	0.199	-0.778	***	0.185
Oklahoma	-0.143		-0.136	0.198		-0.477 *
Oregon	-0.417	*	-0.049	-0.258		-0.208
Pennsylvania	-0.781	***	0.187	-0.745	***	0.151
South Carolina	-0.323	*	-0.314	-0.330	*	-0.307
Tennessee	-1.247	***	0.344	-0.916	***	0.013
Virginia	-0.609	***	0.161	-0.577	***	0.128
Washington	-1.049	***	0.586 *	-0.520	***	0.056
Wisconsin	-1.091	***	0.254	-0.828	***	-0.009
Other States	-0.598	***	0.104	-0.439	***	-0.055

Source: 2003 CPS, 2002 NHIS

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 7a2: Logistic Regression Coefficients for CPS and NHIS, All-year Uninsured and Point-in-time Uninsured, Age 0-17

Variable	All-year Uninsured Main Effect		All-year Uninsured Interaction		Point-in-time Uninsured Main Effect		Point-in-time Uninsured Interaction	
CPS	1.821	***			0.643	*		
Intercept	-4.817	***			-3.639	***		
Individual Characteristics								
Male	0.076		-0.027		0.064		-0.016	
Age 6-17	0.635	***	-0.468	***	0.358	***	-0.191	**
Black	-0.214		0.463	**	-0.076		0.326	**
Other race	0.070		0.169		0.234	*	0.005	
Hispanic	0.730	***	-0.247		0.540	***	-0.056	
Poor health	0.073		-0.639	**	-0.307		-0.259	
Employed part time^	-0.118		-0.028		0.197		-0.343	*
Not employed^	0.023		-0.126		0.136		-0.240	
No high school diploma^	1.736	***	-0.741	*	1.298	***	-0.302	
High school^	1.111	***	-0.544		0.821	***	-0.254	
Some college^	0.789	**	-0.434		0.664	***	-0.308	
College graduate^	0.554	*	-0.492		0.345		-0.283	
Family Characteristics								
Below 100% FPL	1.686	***	0.023		1.277	***	0.432	*
100-125% FPL	1.735	***	-0.120		1.416	***	0.199	
126-200% FPL	1.385	***	-0.183		1.223	***	-0.021	
201-400% FPL	0.856	***	-0.214		0.788	***	-0.146	
Single with children	-0.081		0.201		-0.022		0.142	
Receive SSI	-1.769	***	-0.183		-1.422	***	-0.531	
Receive food stamps	-1.985	****	0.585		-1.352	***	-0.049	
State								
Arizona	0.073		-0.493		0.056		-0.476	*
California	-0.882	***	0.272		-0.616	***	0.006	
Colorado	-0.217		-0.070		-0.123		-0.165	
Florida	-0.113		-0.229		0.025		-0.367	
Georgia	-0.705	*	0.194		-0.484		-0.026	
Illinois	-0.647	***	0.056		-0.744	***	0.153	
Kentucky	-1.766	**	1.419	*	-1.065	***	0.718	*
Louisiana	0.059		-0.576		-0.529		0.013	
Maryland	-1.233	**	0.783		-0.813	***	0.362	
Michigan	-1.736	**	0.759		-1.410	***	0.433	
Minnesota	-2.152	***	1.192	**	-1.496	***	0.536	
Missouri	-1.432	***	0.193		-0.783	*	-0.456	
New Jersey	-1.382	***	0.831	*	-0.678	*	0.127	
New York	-1.428	***	0.632	*	-0.841	***	0.045	
North Carolina	-0.335		-0.107		-0.583	*	0.140	
Ohio	-0.608	*	-0.127		-0.736	***	0.001	
Oklahoma	-0.230		-0.328		0.401		-0.959	***
Oregon	-0.135		-0.379		-0.052		-0.462	
Pennsylvania	-0.789		0.218		-0.829	**	0.259	
South Carolina	-0.746	**	-0.278		-0.643	*	-0.381	
Tennessee	-2.248	***	1.105	**	-0.749	**	-0.394	
Virginia	-0.679	*	0.368		-0.368		0.057	
Washington	-2.403	***	1.695	**	-0.523		-0.185	
Wisconsin	-1.438	*	0.038		-0.716	***	-0.684	*
Other States	-0.971	***	0.267		-0.671	***	-0.033	

Source: 2003 CPS, 2002 NHIS

^ Employment and Education for children under 18 years old are based on the adults in the family.

* p<0.05, **p<0.01, ***p<0.001

Table 7a3: Logistic Regression Coefficients for CPS and NHIS, All-year Uninsured and Point-in-time uninsured, Age 18-64

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
CPS	1.248	***			0.561	***		
Intercept	-5.278	***			-4.592	***		
Individual Characteristics								
Male	0.477	***	-0.137	***	0.438	***	-0.097	***
Age 18-24	0.819	***	0.290	***	1.090	***	0.020	
25-34	1.053	***	-0.163	*	1.161	***	-0.271	***
35-44	0.727	***	-0.110		0.848	***	-0.231	***
45-54	0.541	***	-0.179	*	0.576	***	-0.214	**
Black	0.019		0.244	***	0.097	*	0.166	**
Other race	-0.087		0.231	**	0.079		0.065	
Hispanic	0.463	***	-0.007		0.475	***	-0.019	
Not born in US	0.874	***	-0.226	***	0.615	***	0.033	
Poor health	-0.043		-0.167	*	-0.158	**	-0.052	
Student 18-23	-1.138	***	0.201		-1.444	***	0.507	***
Employed part time^	0.392	***	0.134	*	0.400	***	0.125	*
Not employed^	0.444	***	-0.058		0.680	***	-0.294	***
No high school diploma^	1.729	***	-0.517	***	1.528	***	-0.316	**
High school^	1.350	***	-0.437	***	1.221	***	-0.309	**
Some college^	0.816	***	-0.200		0.819	***	-0.203	*
College graduate^	0.252	*	0.068		0.369	***	-0.050	
Family Characteristics								
Below 100% FPL	1.850	***	-0.180	*	1.598	***	0.072	
100-125% FPL	1.871	***	-0.222	*	1.669	***	-0.021	
126-200% FPL	1.635	***	-0.302	***	1.369	***	-0.036	
201-400% FPL	0.921	***	-0.241	***	0.809	***	-0.130	*
Single with children	0.475	***	-0.087		0.499	***	-0.112	
Single without children	0.945	***	-0.179	**	0.819	***	-0.053	
Married without children	0.499	***	0.201	**	0.421	***	0.279	***
Receive SSI	-2.619	***	-1.118	***	-2.548	***	-1.189	***
Receive food stamps	-0.378	***	0.036		-0.409	***	0.066	
State								
Alabama	-0.600	***	0.064		-0.577	***	0.040	
Arizona	-0.290	***	-0.265	*	-0.222	**	-0.334	**
California	-0.706	***	0.221	*	-0.645	***	0.159	
Colorado	-0.232		-0.244		-0.300	**	-0.176	
Connecticut	-1.164	***	0.548	*	-0.772	***	0.155	
Florida	-0.259	*	-0.050		-0.144	*	-0.166	
Georgia	-0.545	***	0.167		-0.265	**	-0.114	
Illinois	-0.731	***	0.168		-0.707	***	0.144	
Indiana	-0.593	***	0.170		-0.443	***	0.021	
Iowa	-0.974	**	0.180		-0.720	**	-0.073	
Kentucky	-0.383	*	-0.152		-0.266		-0.270	
Louisiana	0.165		-0.258		-0.087		-0.007	
Maryland	-0.240		-0.168		-0.288	*	-0.121	
Massachusetts	-1.401	***	0.641		-1.019	***	0.258	
Michigan	-0.958	***	0.351	*	-0.788	***	0.182	
Minnesota	-1.372	***	0.383		-1.098	***	0.108	
Missouri	-0.835	***	0.393	**	-0.646	***	0.205	

Variable	All-year Uninsured			Point-in-time Uninsured		
	Main Effect		Interaction	Main Effect		Interaction
New Jersey	-0.640	***	0.294	-0.496	***	0.150
New York	-0.767	***	0.340 **	-0.623	***	0.196 *
North Carolina	-0.442	***	0.130	-0.451	***	0.139
Ohio	-0.797	***	0.243	-0.775	***	0.221
Oklahoma	-0.085		-0.065	0.138		-0.287
Oregon	-0.550	*	0.068	-0.367		-0.115
Pennsylvania	-0.798	***	0.210	-0.755	***	0.166
South Carolina	-0.217		-0.311	-0.241		-0.288
Tennessee	-1.101	***	0.260	-0.953	***	0.112
Virginia	-0.630	***	0.107	-0.676	***	0.152
Washington	-0.915	***	0.494 *	-0.575	***	0.155
Wisconsin	-1.011	***	0.308	-0.866	***	0.163
Other States	-0.554	***	0.124	-0.440	***	0.009

Source: 2003 CPS, 2002 NHIS

* p<0.05, **p<0.01, ***p<0.001

Table 7b: Logistic Regression Coefficients for CPS and MEPS, All-year Uninsured and Point-in-time Uninsured, Age 0-64

Variable	All-year Uninsured Main Effect		Interaction		Point-in-time Uninsured Main Effect		Interaction	
CPS	0.353				-0.153			
Intercept	-3.978	***			-3.472	***		
Individual Characteristics								
Male	0.404	***	-0.168	***	0.319	***	-0.084	*
Age 0-5	-0.893	***	0.815	***	-0.372	**	0.293	*
6-17	-0.312	**	0.426	***	-0.040		0.155	
18-24	0.634	***	0.493	***	0.993	***	0.134	
25-34	0.544	***	0.365	***	0.794	***	0.114	
35-44	0.380	***	0.244	*	0.519	***	0.104	
45-54	0.358	***	-0.006		0.363	***	-0.011	
Black	-0.059		0.332	***	-0.032		0.305	***
Other race	0.113		0.255	*	0.121		0.247	*
Hispanic	0.755	***	-0.099		0.658	***	-0.002	
Poor health	-0.245	***	0.047		-0.089		-0.109	
Student 18-23	-0.831	***	-0.098		-0.896	***	-0.033	
Employed part time^	0.624	***	-0.276	***	0.556	***	-0.208	**
Not employed^	0.450	***	-0.187	**	0.408	***	-0.145	*
No high school diploma^	1.149	***	-0.031		0.938	***	0.179	
High school^	0.736	***	-0.009		0.616	***	0.111	
Some college^	0.481	**	-0.033		0.468	***	-0.019	
College graduate^	0.231		-0.034		0.171		0.026	
Family Characteristics								
Below 100% FPL	1.583	***	0.152		1.548	***	0.187	
100-125% FPL	1.573	***	0.156		1.596	***	0.133	
126-200% FPL	1.530	***	-0.148		1.521	***	-0.140	
201-400% FPL	0.800	***	-0.076		0.779	***	-0.055	
Single with children	0.094		0.059		0.128		0.024	
Single without children	0.599	***	0.056		0.614	***	0.041	
Married without children	0.160	*	0.468	***	0.174	*	0.454	***
Receive SSI	-2.715	***	-0.888	*	-2.176	***	-1.427	***
Receive food stamps	-0.677	***	-0.097		-0.581	***	-0.193	
State								
Alabama	-0.676	***	0.095		-0.745	***	0.165	
Arizona	-0.558	**	0.078		-0.367		-0.113	
California	-0.359	***	-0.089		-0.460	***	0.012	
Colorado	-0.111		-0.328		-0.087		-0.352	
Connecticut	-1.118	***	0.498		-1.094	***	0.474	*
Florida	0.191		-0.456	**	0.020		-0.285	
Georgia	0.454	**	-0.851	***	0.375	*	-0.771	***
Illinois	-0.138		-0.396	*	-0.269	*	-0.265	
Indiana	-0.518	**	0.054		-0.562	***	0.098	
Iowa	-0.738	***	-0.107		-0.939	***	0.094	
Kentucky	-0.278		-0.232		-0.483	**	-0.028	
Louisiana	0.217		-0.430	*	0.065		-0.278	
Maryland	-0.140		-0.224		-0.302		-0.063	
Massachusetts	-1.063	**	0.280		-1.267	***	0.484	
Michigan	-0.369	*	-0.289		-0.399	**	-0.259	
Minnesota	-0.636		-0.327		-0.769	*	-0.193	

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
Missouri	-0.298		-0.282		-0.367	*	-0.213	
New Jersey	-0.644	***	0.319	*	-0.629	***	0.305	
New York	-0.243	*	-0.193		-0.401	***	-0.034	
North Carolina	0.029		-0.385	**	-0.041		-0.315	*
Ohio	-0.483		-0.110		-0.502	**	-0.090	
Oklahoma	0.456	*	-0.735	***	0.229		-0.508	*
Oregon	-0.166		-0.298		-0.239		-0.224	
Pennsylvania	-0.551	**	-0.045		-0.660	***	0.065	
South Carolina	-0.552	**	-0.085		-0.585	***	-0.052	
Tennessee	-1.041	***	0.141		-0.958	***	0.058	
Virginia	-0.657	*	0.212		-0.473	*	0.028	
Washington	-0.440	*	-0.020		-0.297		-0.164	
Wisconsin	-0.936	***	0.100		-0.972	***	0.137	
Other States	-0.226		-0.267	*	-0.338	***	-0.155	

Source: 2003 CPS, 2001 MEPS

* $p<0.05$, **$p<0.01$, ***$p<0.001$

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 7b2: Logistic Regression Coefficients for CPS and MEPS, All-year Uninsured and Point-in-time Uninsured, Age 0-17

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
CPS	0.616	*			-0.085			
Intercept	-3.613	***			-2.912	***		
Individual Characteristics								
Male	0.170		-0.121		0.197	*	-0.111	
Age 6-17	0.518	***	-0.351	**	0.278	**	0.580	***
Black	-0.550	**	0.801	***	-0.329	*	0.367	*
Other race	-0.092		0.332		-0.128		0.017	
Hispanic	0.647	***	-0.164		0.465	***	-0.358	
Poor health	-0.553	*	-0.014		-0.209		-0.459	
Employed part time^	0.594	*	-0.698	*	0.478	*	-0.124	
Not employed^	0.245		-0.391		-0.022		0.117	
No high school diploma^	1.148	***	-0.152		0.879	***	0.008	
High school^	0.701	*	-0.134		0.559	*	-0.033	
Some college^	0.407		-0.051		0.389		0.043	
College graduate^	0.064		-0.001		0.019		-0.662	
Family Characteristics								
Below 100% FPL	0.523	*	1.189	***	0.883	***	0.814	***
100-125% FPL	0.112		1.504	***	0.802	***	0.179	
126-200% FPL	0.732	**	0.471		1.023	***	0.137	
201-400% FPL	0.328		0.315		0.505	***	-0.060	
Single with children	0.137		-0.026		0.172		-0.582	*
Receive SSI	-1.182		-0.770		-1.289		-0.162	
Receive food stamps	-1.868	***	0.468		-1.238	***	-0.148	
State								
Arizona	-0.047		-0.372		0.041		-0.037	
California	-0.605	***	-0.004		-0.573	***	-0.050	
Colorado	-0.584		0.297		-0.238		-0.094	
Florida	0.080		-0.423		-0.249		-0.997	***
Georgia	0.331		-0.842	*	0.487		-0.039	
Illinois	-0.226		-0.365		-0.553	*	-0.331	
Kentucky	0.285		-0.632		-0.016		0.579	
Louisiana	-1.343	*	0.827		-1.096	***	0.057	
Maryland	-0.162		-0.288		-0.507		-0.374	
Michigan	-0.152		-0.824	*	-0.602	*	-0.411	
Minnesota	-0.542		-0.418		-0.549		-0.802	
Missouri	-0.391		-0.847		-0.436		0.965	**
New Jersey	-2.271	***	1.719	***	-1.516	***	-0.321	
New York	-0.231		-0.565		-0.476	*	-0.590	*
North Carolina	0.382		-0.826	***	0.146		-0.481	
Ohio	-0.031		-0.704		-0.254		-0.545	*
Oklahoma	0.218		-0.776	**	-0.013		-0.637	
Oregon	0.388		-0.901		0.124		0.030	
Pennsylvania	-0.336		-0.236		-0.601	*	-0.385	
South Carolina	-0.697		-0.327		-0.640		0.453	
Tennessee	-1.179	*	0.036		-1.596	***	0.899	
Virginia	-1.825	**	1.514	*	-1.210	*	-0.095	
Washington	-1.029	*	0.321		-0.612		-0.155	
Wisconsin	-1.098	*	-0.302		-1.245	***	0.086	
Other States	-0.855	***	0.151		-0.790	***	0.046	

Source: 2003 CPS, 2001 MEPS

^ Employment and Education for children under 18 years old are based on the adults in the family.

* p<0.05, **p<0.01, ***p<0.001

Table 7b3: Logistic Regression Coefficients for CPS and MEPS, All-year Uninsured and Point-in-time Uninsured, Age 18-64

Variable	All-year Uninsured		All-year Uninsured		Point-in-time Uninsured		Point-in-time Uninsured	
	Main Effect		Interaction		Main Effect		Interaction	
CPS	0.432	*			-0.127			
Intercept	-4.478	***			-3.919	***		
Individual Characteristics								
Male	0.504	***	-0.165	**	0.397	***	-0.057	
Age 18-24	0.643	***	0.471	***	1.000	***	0.113	
25-34	0.531	***	0.364	***	0.797	***	0.099	
35-44	0.372	***	0.252	*	0.522	***	0.102	
45-54	0.369	***	-0.006		0.377	***	-0.014	
Black	0.029		0.236	**	0.046		0.219	**
Other race	-0.138		0.283	*	-0.082		0.228	*
Hispanic	0.447	***	0.010		0.427	***	0.029	
Not born in US	0.787	***	-0.140		0.705	***	-0.058	
Poor health	-0.307	***	0.096		-0.158	*	-0.053	
Student 18-23	-0.813	***	-0.122		-0.891	***	-0.044	
Employed part time^	0.741	***	-0.215	*	0.672	***	-0.147	*
Not employed^	0.509	***	-0.123		0.485	***	-0.099	
No high school diploma^	1.303	***	-0.088		1.076	***	0.138	
High school^	0.973	***	-0.058		0.823	***	0.092	
Some college^	0.684	***	-0.067		0.647	***	-0.030	
College graduate^	0.394	*	-0.074		0.314	*	0.006	
Family Characteristics								
Below 100% FPL	1.732	***	-0.060		1.669	***	0.003	
100-125% FPL	1.800	***	-0.149		1.746	***	-0.095	
126-200% FPL	1.580	***	-0.243	*	1.545	***	-0.209	*
201-400% FPL	0.813	***	-0.132		0.772	***	-0.090	
Single with children	0.312	**	0.071		0.324	***	0.059	
Single without children	0.737	***	0.032		0.745	***	0.024	
Married without children	0.288	***	0.418	***	0.292	***	0.414	***
Receive SSI	-2.895	***	-0.845	*	-2.345	***	-1.396	***
Receive food stamps	-0.343	***	0.003		-0.237	*	-0.103	
State								
Alabama	-0.595	***	0.061		-0.618	***	0.084	
Arizona	-0.785	***	0.233		-0.566	**	0.015	
California	-0.443	***	-0.040		-0.553	***	0.070	
Colorado	-0.028		-0.448		-0.057		-0.419	
Connecticut	-1.262	***	0.644	*	-1.183	***	0.565	*
Florida	0.110		-0.418	*	0.000		-0.309	
Georgia	0.425	**	-0.799	***	0.278	*	-0.652	***
Illinois	-0.166		-0.395	*	-0.234		-0.328	
Indiana	-0.507	**	0.087		-0.635	***	0.216	
Iowa	-0.546	*	-0.245		-0.692	***	-0.099	
Kentucky	-0.467	*	-0.065		-0.671	***	0.138	
Louisiana	0.376	*	-0.466	*	0.265		-0.356	
Maryland	-0.196		-0.210		-0.301		-0.106	
Massachusetts	-1.029	**	0.270		-1.274	***	0.515	
Michigan	-0.481	**	-0.123		-0.396	**	-0.208	
Minnesota	-0.728		-0.262		-0.909	*	-0.081	
Missouri	-0.329		-0.111		-0.393	*	-0.047	

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
New Jersey	-0.647	***	0.303	*	-0.620	***	0.276	
New York	-0.385	**	-0.044		-0.505	***	0.076	
North Carolina	-0.106		-0.205		-0.131		-0.179	
Ohio	-0.638	**	0.087		-0.608	***	0.057	
Oklahoma	0.517	*	-0.666	**	0.306		-0.455	*
Oregon	-0.312	*	-0.166		-0.366	*	-0.113	
Pennsylvania	-0.671	***	0.082		-0.738	***	0.149	
South Carolina	-0.567	**	0.040		-0.598	***	0.071	
Tennessee	-1.046	***	0.209		-0.851	***	0.013	
Virginia	-0.597	*	0.078		-0.403	*	-0.116	
Washington	-0.422		0.004		-0.287		-0.131	
Wisconsin	-1.001	***	0.300		-0.975	***	0.274	
Other States	-0.185		-0.244		-0.306	**	-0.123	

Source: 2003 CPS, 2001 MEPS

* p<0.05, **p<0.01, ***p<0.001

Table 7c: Logistic Regression Coefficients for CPS and SIPP, All-year Uninsured and Point-in-time Uninsured, Age 0-64

Variable	All-year Uninsured Main Effect		Interaction		Point-in-time Uninsured Main Effect		Interaction	
CPS	2.102	***			0.708	***		
Intercept	-5.727	***			-4.333	***		
Individual Characteristics								
Male	0.356	***	-0.120	**	0.230	***	0.005	
Age 0-5	-0.274	*	0.195		0.507	***	-0.585	***
6-17	0.015		0.099		0.592	***	-0.477	***
18-24	1.096	***	0.032		1.510	***	-0.383	***
25-34	0.952	***	-0.043		1.028	***	-0.119	
35-44	0.640	***	-0.017		0.614	***	0.009	
45-54	0.601	***	-0.249	*	0.480	***	-0.127	
Black	0.071		0.202	**	0.159	***	0.114	*
Other race	0.504	***	-0.136		0.442	***	-0.074	
Hispanic	0.747	***	-0.091		0.665	***	-0.009	
Poor health	0.018		-0.215	**	0.059		-0.257	***
Student 18-23	-1.126	***	0.197		-1.177	***	0.249	*
Employed part time^	0.485	***	-0.137		0.452	***	-0.103	
Not employed^	0.387	***	-0.124	*	0.409	***	-0.146	**
No high school diploma^	2.165	***	-1.047	***	1.546	***	-0.429	***
High school^	1.618	***	-0.891	***	1.037	***	-0.310	**
Some college^	1.126	***	-0.678	***	0.676	***	-0.228	*
College graduate^	0.460	**	-0.262		0.224	*	-0.026	
Family Characteristics								
Below 100% FPL	2.124	***	-0.389	***	1.964	***	-0.228	**
100-125% FPL	1.970	***	-0.241	*	1.769	***	-0.040	
126-200% FPL	1.640	***	-0.259	**	1.471	***	-0.089	
201-400% FPL	1.043	***	-0.319	***	0.842	***	-0.117	
Single with children	0.184	**	-0.032		0.289	***	-0.137	*
Single without children	0.756	***	-0.100		0.665	***	-0.010	
Married without children	0.432	***	0.196	**	0.319	***	0.309	***
Receive SSI	-3.861	***	0.259		-2.838	***	-0.764	**
Receive food stamps	-0.973	***	0.199		-0.999	***	0.224	**
State								
Alabama	-0.162		-0.419	*	-0.264	*	-0.317	*
Arizona	-0.812	***	0.332		-0.623	***	0.143	
California	-0.725	***	0.277	**	-0.506	***	0.057	
Colorado	-0.316		-0.123		-0.334	*	-0.105	
Connecticut	-1.140	***	0.520		-0.768	***	0.147	
Florida	-0.426	***	0.161		-0.190	*	-0.074	
Georgia	-0.419	***	0.022		-0.344	***	-0.053	
Illinois	-0.721	***	0.187		-0.554	***	0.020	
Indiana	-1.038	***	0.574	**	-0.864	***	0.400	**
Iowa	-0.826	**	-0.019		-0.768	***	-0.077	
Kentucky	-0.466		-0.045		-0.526	**	0.015	
Louisiana	-0.059		-0.154		-0.199		-0.014	
Maryland	-0.291		-0.074		-0.540	**	0.175	
Massachusetts	-1.730	***	0.948	***	-1.298	***	0.516	**
Michigan	-0.593	***	-0.066		-0.601	***	-0.057	

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
Minnesota	-0.813	***	-0.149		-0.907	***	-0.055	
Missouri	-0.653	***	0.073		-0.605	***	0.024	
New Jersey	-0.637	***	0.313		-0.566	***	0.241	
New York	-0.599	***	0.163		-0.550	***	0.115	
North Carolina	-0.497	***	0.141		-0.469	***	0.113	
Ohio	-0.900	***	0.307		-0.785	***	0.193	
Oklahoma	-0.585	**	0.307		-0.185		-0.094	
Oregon	-0.742	***	0.278		-0.316	*	-0.147	
Pennsylvania	-0.932	***	0.336	*	-0.981	***	0.385	**
South Carolina	-0.741	***	0.104		-0.432	**	-0.205	
Tennessee	-1.179	***	0.279		-0.849	***	-0.051	
Virginia	-0.607	***	0.162		-0.502	***	0.057	
Washington	-0.849	***	0.389	*	-0.540	***	0.080	
Wisconsin	-1.095	***	0.259		-1.031	***	0.195	
Other States	-0.336	***	-0.156		-0.394	***	-0.098	

Source: 2003 CPS, 2001 SIPP

* p<0.05, **p<0.01, ***p<0.001

^ Employment and Education for children under 18 years old are based on the adults in the family

Table 7c2: Logistic Regression Coefficients for CPS and SIPP, All-year Uninsured and Point-in-time Uninsured, Age 0-17

Variable	All-year Uninsured Main Effect		All-year Uninsured Interaction		Point-in-time Uninsured Main Effect		Point-in-time Uninsured Interaction	
CPS	2.231	***			-0.101			
Intercept	-5.227	***			-2.895	***		
Individual Characteristics								
Male	0.065		-0.016		0.099		-0.050	
Age 6-17	0.274	**	-0.107		0.068		0.099	
Black	0.165		0.086		0.101		0.149	
Other race	0.592	**	-0.352		0.532	***	-0.292	*
Hispanic	0.670	***	-0.187		0.492	***	-0.010	
Poor health	-0.320		-0.247		-0.266		-0.301	
Employed part time^	0.436	**	-0.540	**	0.376	***	-0.479	***
Not employed^	0.180		-0.326		0.212	*	-0.358	**
No high school diploma^	2.435	***	-1.439	***	1.292	***	-0.296	
High school^	1.755	***	-1.188	***	0.789	***	-0.222	
Some college^	1.541	***	-1.185	***	0.625	***	-0.268	
College graduate^	0.971	**	-0.908	**	0.250		-0.188	
Family Characteristics								
Below 100% FPL	1.456	***	0.255		1.420	***	0.291	*
100-125% FPL	1.563	***	0.053		1.213	***	0.403	*
126-200% FPL	0.990	***	0.213		0.904	***	0.299	*
201-400% FPL	0.631	**	0.012		0.472	***	0.171	
Single with children	0.052		0.060		0.255	***	-0.143	
Receive SSI	-1.389	*	-0.563		-0.751	*	-1.201	
Receive food stamps	-1.940	***	0.540	*	-1.595	***	0.195	
State								
Arizona	-0.727	*	0.308		-0.669	***	0.250	
California	-1.000	***	0.391	*	-0.584	***	-0.025	
Colorado	0.118		-0.405		-0.116		-0.172	
Florida	-0.429	*	0.087		-0.335	*	-0.007	
Georgia	-0.571	*	0.061		-0.172		-0.339	
Illinois	-0.889	***	0.298		-0.677	***	0.085	
Kentucky	-1.503	*	1.156		-0.807	**	0.460	
Louisiana	-1.541	**	1.024		-0.949	***	0.432	
Maryland	-1.766		1.315		-0.856	*	0.406	
Michigan	-0.087		-0.889	**	-0.594	***	-0.382	
Minnesota	-0.561		-0.398		-1.113	***	0.154	
Missouri	0.001		-1.239	***	-0.286		-0.952	***
New Jersey	-0.632	*	0.081		-0.550	**	-0.001	
New York	-1.326	***	0.530		-0.720	***	-0.076	
North Carolina	-0.912	**	0.468		-0.506	**	0.063	
Ohio	-1.211	***	0.476		-0.842	***	0.108	
Oklahoma	-1.009	*	0.451		-0.201		-0.356	
Oregon	-0.293		-0.220		-0.115		-0.398	
Pennsylvania	-1.031	***	0.460		-0.921	***	0.350	
South Carolina	-1.914	*	0.889		-0.483		-0.541	
Tennessee	-1.654	**	0.511		-0.732	**	-0.411	
Virginia	-0.581		0.270		-0.396	*	0.085	
Washington	-1.687	***	0.980		-1.206	***	0.498	
Wisconsin	-1.807	***	0.407		-1.208	***	-0.193	
Other States	-0.745	***	0.041		-0.750	***	0.046	

Source: 2003 CPS, 2001 SIPP

^ These characteristics are ascribed to children under 18 years old and are based on the employment and educational attainment of the adult with the highest standing in the family. * p<0.05, **p<0.01, ***p<0.001

Table 7c3: Logistic Regression Coefficients for CPS and SIPP, All-year Uninsured and Point-in-time Uninsured, Age18-64

Variable	All-year Uninsured Main Effect		All-year Uninsured Interaction		Point-in-time Uninsured Main Effect		Point-in-time Uninsured Interaction	
CPS	2.059	***			1.072	***		
Intercept	-6.105	***			-5.118	***		
Individual Characteristics								
Male	0.485	***	-0.146	**	0.351	***	-0.012	
Age 18-24	1.058	***	0.056		1.487	***	-0.374	***
25-34	0.932	***	-0.036		1.047	***	-0.151	
35-44	0.637	***	-0.013		0.642	***	-0.018	
45-54	0.614	***	-0.250	*	0.522	***	-0.158	
Black	0.031		0.234	**	0.171	**	0.094	
Other race	0.274	*	-0.128		0.243	**	-0.097	
Hispanic	0.571	***	-0.114		0.617	***	-0.161	*
Not born in US	0.584	***	0.063		0.478	***	0.169	**
Poor health	-0.007		-0.204	*	0.008		-0.219	**
Student 18-23	-1.111	***	0.176		-1.185	***	0.250	*
Employed part time	0.611	***	-0.086		0.600	***	-0.075	
Not employed	0.464	***	-0.078		0.500	***	-0.113	*
No high school diploma	2.177	***	-0.963	***	1.924	***	-0.710	***
High school	1.704	***	-0.790	***	1.443	***	-0.528	***
Some college	1.140	***	-0.523	**	0.994	***	-0.377	**
College graduate	0.381		-0.061		0.413	**	-0.092	
Family Characteristics								
Below 100% FPL	2.180	***	-0.508	***	2.104	***	-0.432	***
100-125% FPL	1.928	***	-0.277	*	1.883	***	-0.233	*
126-200% FPL	1.674	***	-0.338	***	1.574	***	-0.238	**
201-400% FPL	1.064	***	-0.382	***	0.889	***	-0.208	**
Single with kids	0.430	***	-0.047		0.555	***	-0.172	*
Single without kids	0.858	***	-0.088		0.811	***	-0.042	
Married without kids	0.542	***	0.164	*	0.490	***	0.216	***
Receive SSI	-4.294	***	0.553		-3.492	***	-0.248	
Receive food stamps	-0.590	***	0.250	*	-0.493	***	0.153	
State								
Alabama	-0.003		-0.531	**	-0.209		-0.324	
Arizona	-0.842	***	0.290		-0.594	***	0.042	
California	-0.745	***	0.262	*	-0.544	***	0.061	
Colorado	-0.464	*	-0.012		-0.458	*	-0.019	
Connecticut	-0.985	***	0.367		-0.621	**	0.004	
Florida	-0.507	***	0.199		-0.205	*	-0.103	
Georgia	-0.387	**	0.013		-0.444	***	0.070	
Illinois	-0.706	***	0.144		-0.529	***	-0.032	
Indiana	-1.162	***	0.742	***	-0.886	***	0.466	**
Iowa	-0.649	*	-0.141		-0.660	**	-0.130	
Kentucky	-0.338		-0.195		-0.446	*	-0.087	
Louisiana	0.191		-0.282		0.060		-0.150	
Maryland	-0.178		-0.228		-0.504	*	0.098	
Massachusetts	-1.645	***	0.886	**	-1.271	***	0.512	*
Michigan	-0.821	***	0.218		-0.622	***	0.019	
Minnesota	-0.883	***	-0.108		-0.856	***	-0.134	
Missouri	-0.852	***	0.412		-0.757	***	0.317	

Variable	All-year Uninsured			Point-in-time Uninsured		
	Main Effect		Interaction	Main Effect		Interaction
New Jersey	-0.710	***	0.366	-0.654	***	0.310
New York	-0.545	***	0.116	-0.558	***	0.129
North Carolina	-0.407	**	0.097	-0.452	***	0.141
Ohio	-0.830	***	0.279	-0.771	***	0.220
Oklahoma	-0.493	*	0.344	-0.199		0.050
Oregon	-0.916	***	0.438	-0.445	*	-0.033
Pennsylvania	-0.913	***	0.324	-1.024	***	0.435 **
South Carolina	-0.520	*	-0.007	-0.382	*	-0.145
Tennessee	-1.104	***	0.267	-0.898	***	0.060
Virginia	-0.678	***	0.159	-0.611	***	0.092
Washington	-0.749	***	0.332	-0.376	*	-0.041
Wisconsin	-0.966	***	0.264	-0.961	***	0.259
Other States	-0.289	**	-0.140	-0.293	***	-0.136

Source: 2003 CPS, 2001 SIPP

* p<0.05, **p<0.01, ***p<0.001

Table 7d: Logistic Regression Coefficients for CPS and CSCS, All-year Uninsured and Point-in-time Uninsured, Age 0-64

Variable	All-year Uninsured				Point-in-time Uninsured			
	Main Effect		Interaction		Main Effect		Interaction	
CPS	2.049	***			1.688	***		
Intercept	-6.474	***			-6.114	***		
Individual Characteristics								
Male	0.201	**	-0.008		0.216	***	-0.022	
Age 0-5	-1.275	***	0.738	*	-0.804	***	0.267	
6-17	-0.779	***	0.508	**	-0.487	***	0.217	
18-24	0.352	**	0.447	*	0.652	***	0.148	
25-34	0.592	***	0.027		0.781	***	-0.162	
35-44	0.520	***	-0.263		0.574	***	-0.316	*
45-54	0.277	*	-0.057		0.287	**	-0.067	
Black	-0.205		0.482	**	-0.136		0.413	**
Other race	0.196		0.094		0.234		0.056	
Hispanic	0.382	*	0.479	*	0.211		0.649	**
Poor health	0.240	*	-0.404	**	0.183	*	-0.347	*
No high school diploma^	1.055	***	-0.190		1.193	***	-0.328	
High school^	0.876	***	-0.253		1.008	***	-0.385	
Some college^	0.583	**	-0.270		0.750	***	-0.437	
College graduate^	0.126		-0.021		0.438	*	-0.334	
Not employed^	0.955	***	-0.345	*	1.054	***	-0.444	**
Employed part time, ≤ 100 employees^	1.522	***	-0.425	*	1.494	***	-0.397	*
Employed part time, > 100 employees^	1.027	***	-0.551	*	0.946	***	-0.469	*
Employed full time, ≤ 100 employees^	1.433	***	-0.391	**	1.282	***	-0.239	
Not married^	0.497	***	-0.160		0.507	***	-0.169	
Family Characteristics								
< 100% FPL	1.721	***	-0.250		1.473	***	-0.002	
100-199% FPL	1.765	***	-0.628	***	1.673	***	-0.536	***
200-299% FPL	1.067	***	-0.309		0.940	***	-0.182	
300-399% FPL	0.587	***	-0.316		0.507	***	-0.236	
State								
Alabama	1.137	***	-0.750	***	0.923	***	-0.536	**
Indiana	0.758	***	-0.230		0.701	***	-0.173	
Missouri	0.824	***	-0.439	**	0.599	***	-0.213	
Oklahoma	1.632	***	-0.940	***	1.494	***	-0.802	***
Virginia	1.194	***	-0.631	***	1.110	***	-0.546	**

Source: 2003 CPS for these six states, CSCS State Surveys for AL, IN, MN, MO, OK, VA

* p<0.05, **p<0.01, ***p<0.001

^ Employment, Education, and Marital Status for children under 18 years old are based on the adults in the family