



CONCORDANCE OF ACS AND ADMINISTRATIVE COUNTS OF MEDICAID/CHIP ENROLLMENT OVER TIME

**ACS DATA USERS CONFERENCE 2017
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Research Question

- Has the concordance of ACS and administrative counts of Medicaid/CHIP changed over time?

Federal population surveys play a key role in monitoring and evaluating health reform

- Often more timely/accessible than administrative sources
- Include detailed set of covariates
- Includes information on the full population (e.g., the uninsured)

Limitations

All surveys tend to undercount Medicaid/CHIP coverage and other public insurance program enrollment:

Medicaid undercount ranges across surveys

2001 CPS ASEC: -31%

2002 NHIS: -22%

Source: State Health Access Data Assistance Center, Centers for Medicare and Medicaid Services, Department of Health and Human Services Assistant Secretary for Planning and Evaluation, National Center for Health Statistics, and U.S. Census Bureau. 2009. "Phase IV Research Results: Estimating the Medicaid Undercount in the National Health Interview Survey (NHIS) and Comparing False-Negative Medicaid Reporting in NHIS to the Current Population Survey(CPS)

The Exception – The ACS

- The 2009 ACS *over counted* administrative totals by 8.5%
- Authors cite the broad scope of the ACS question which intends to capture all means tested coverage

Is this person CURRENTLY covered by any of the following types of health insurance or health coverage plans? Mark "Yes" or "No" for EACH type of coverage in items a – h.

	Yes	No
a. Insurance through a current or former employer or union (of this person or another family member)	<input type="checkbox"/>	<input type="checkbox"/>
b. Insurance purchased directly from an insurance company (by this person or another family member)	<input type="checkbox"/>	<input type="checkbox"/>
c. Medicare, for people 65 and older, or people with certain disabilities	<input type="checkbox"/>	<input type="checkbox"/>
d. Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability	<input type="checkbox"/>	<input type="checkbox"/>
e. TRICARE or other military health care	<input type="checkbox"/>	<input type="checkbox"/>
f. VA (including those who have ever used or enrolled for VA health care)	<input type="checkbox"/>	<input type="checkbox"/>
g. Indian Health Service	<input type="checkbox"/>	<input type="checkbox"/>
h. Any other type of health insurance or health coverage plan. Specify:	<input type="checkbox"/>	<input type="checkbox"/>

Source: Boudreaux, M. H., K. T. Call, J. Turner, B. Fried, and B. O'Hara. 2015. "Measurement Error in Public Health Insurance Reporting in the American Community Survey: Evidence from Record Linkage." *Health Services Research* 50(6): 1973-1995

Is the ACS still Over Counting?

- Demographics could have played a role if new enrollees were more likely to
 - have higher incomes
 - be adults
 - have been enrolled for a shorter period of time
- The ACA introduced
 - A new (and less distinct) pathway to coverage (e.g., no wrong door)
 - A new coverage option (the health insurance marketplaces) that could be conflated with Medicaid/CHIP

- Source: State Health Access Data Assistance Center, Centers for Medicare and Medicaid Services, Department of Health and Human Services Assistant Secretary for Planning and Evaluation, National Center for Health Statistics, and U.S. Census Bureau. 2009. "Phase IV Research Results"

Administrative Data – CMS Performance Indicator (PI) Project

Centers for Medicare and Medicaid Services (CMS) Performance Indicator Project (PI):

- New process started in fall 2013
- Before 2014: July-September 2013 counts
- After 2014: Monthly counts up to February 2017 (preliminary)
- State-by-month counts
- Point-in-time, unduplicated counts of full benefit coverage in Medicaid/CHIP

Source: Medicaid and CHIP Learning Foundation, Training Materials for State Staff: Overview of the Medicaid and Chip Eligibility and Enrollment Performance Indicators: September 2015

Administrative data – Medicaid Statistical Information System (MSIS) and Statistical Enrollment Data System (SEDS)

2010-2013: Tabulations from the CMS Medicaid Statistical Information System (MSIS)

- Point-in-time, unduplicated counts of full benefit coverage in Medicaid/CHIP
- Missing some data from states with separate CHIP programs
- Adjusted for missing data by using CHIP counts from the CMS Statistical Enrollment Data System

Source: U.S. Census Bureau, Center for Administrative Records, Research and Publications.

Survey Data: American Community Survey (ACS)

State level tabulations of ACS 2010-2015 public use files

- Point-in-time coverage of Medicaid/CHIP plus all other means tested coverage
- Universe is total population – Institutionalized and Non-Institutionalized

Methods

- Compare administrative counts to survey counts based on percent difference of ACS from administrative data
- No regressions and no testing of reasons
- Our goal here is to simply describe what is happening with discordance over time and across states

Changes in Concordance: 2013-2015

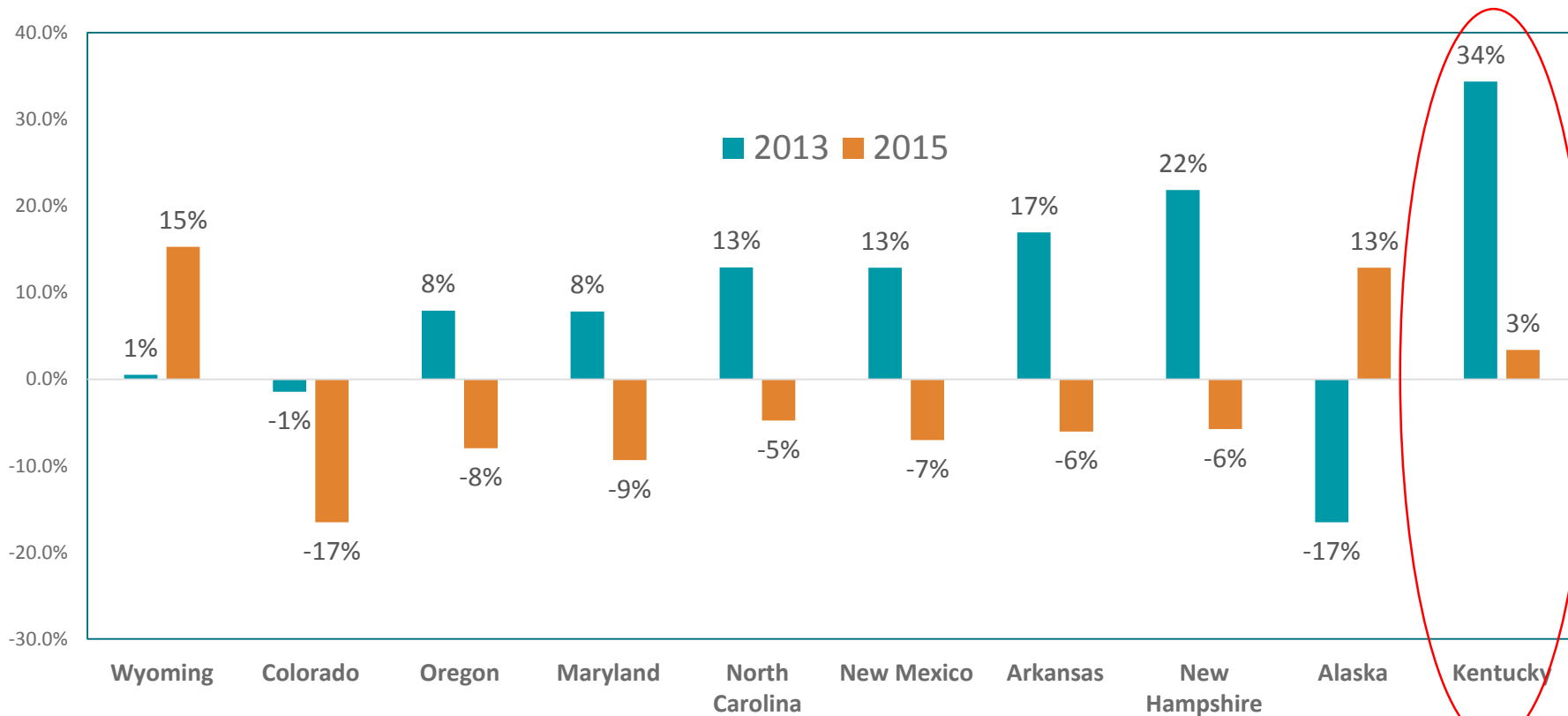
Table 1: Percent difference between ACS and PI count, 2013-2015

	2013	2014	2015
ACS Count (in millions)	56.2	60.7	65.4
PI Count (in millions)	57.8	66.1	71.6
Difference (in millions)	-1.6	-5.4	-6.2
% Difference	-2.8%	-8.2%	-8.7%

Source: Administrative counts are from the Performance Indicator Project and reflect point-in-time enrollment in comprehensive Medicaid/CHIP benefits. All ACS counts are from the Public Use Microdata files. Estimates for 2013-2015 omit CT and ME

Percent discordance between 2013 & 2015 is large in some states

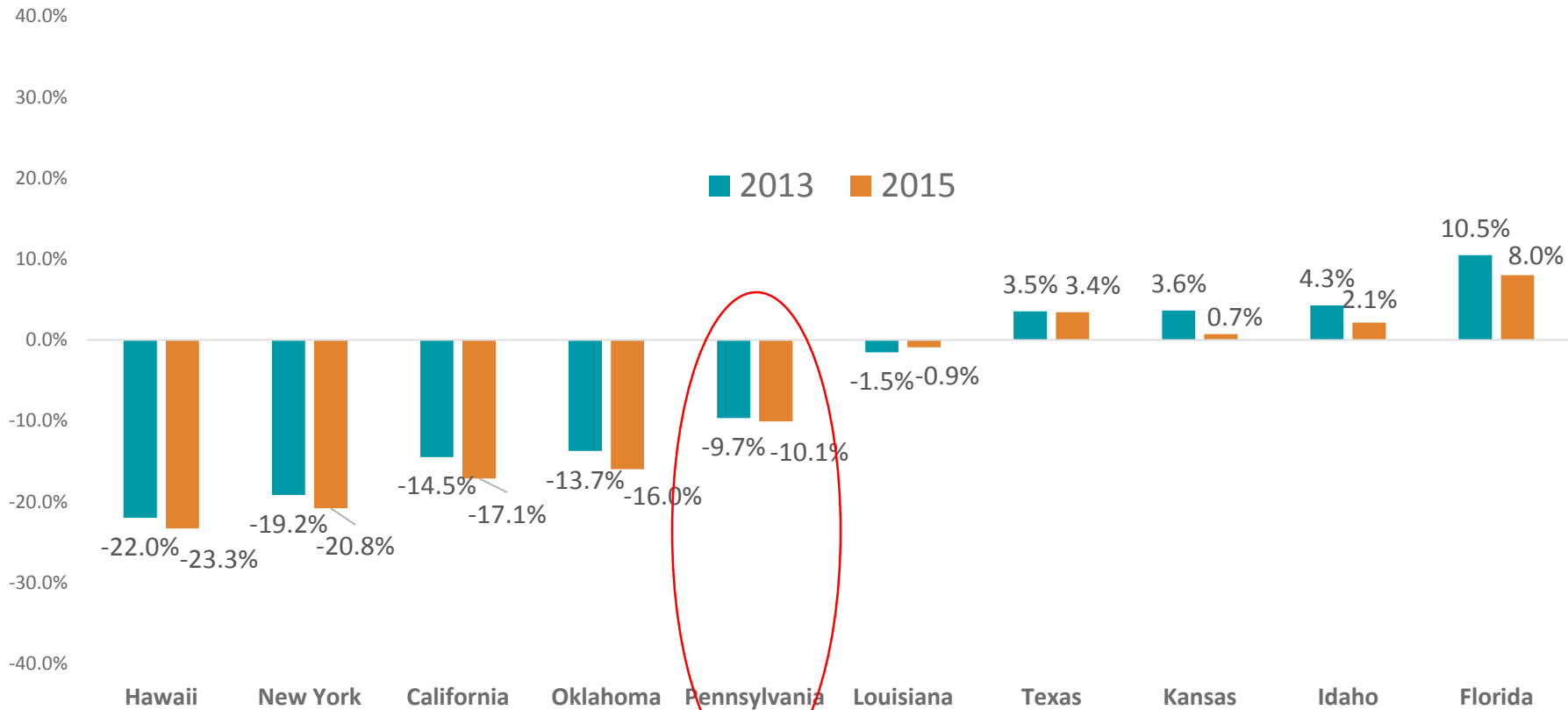
Figure 1: Percent difference between ACS and PI count for Top Ten States, 2013 & 2015



Source: Administrative counts are from the Performance Indicator Project and reflect point-in-time enrollment in comprehensive Medicaid/CHIP benefits. All ACS counts are from the Public Use Microdata files. Estimates for 2013-2015 omit CT and ME

Percent discordance between 2013 and 2015 is small in some states

Figure 2: Percent difference between ACS and PI counts for Bottom Ten States, 2013 & 2015



Source: Administrative counts are from the Performance Indicator Project and reflect point-in-time enrollment in comprehensive Medicaid/CHIP benefits. All ACS counts are from the Public Use Microdata files. Estimates for 2013-2015 omit CT and ME

Are there differences in discordance between expansion and non-expansion states?

Table 2: Percent difference between ACS and PI counts, 2013 & 2015

	2013	2015	2013	2015	2013	2015
	U.S.		Medicaid Expansion		Non-Expansion	
ACS Count (in millions)	56.2	65.4	31.4	38.9	24.8	26.5
PI Count (in millions)	57.8	71.6	33.9	44.9	23.9	26.7
Difference	-1.6	-6.2	-2.4	-6.0	-0.9	-0.3
% Difference	-2.7%	-8.7%	-7.1%	-13.4%	-3.8%	-1.1%

Source: 2013-2015 ACS PUMS and Performance Indicator Project. See Table 1 notes for more details. Expansion states include all states that expanded by the end of 2014.

Implications : Medicaid Expansion Research

- The administrative data suggest that there is a growth in enrollment of **11.0 million** from 2013 to 2015 in Medicaid Expansion states
 - Based on available states
- The ACS estimate is **7.5 million**
 - 31.8% downward bias

Long(er) run historical change

- We were also interested in how concordance changed overtime in the prior to 2013
- We have reasonably high quality tabulations of Medicaid
- Less reliable estimates of CHIP from SEDS where we have no control over the definitions used for full benefit, duplication, etc.
 - Adjust using the relationship observed between MSIS and SEDS in the handful of M-CHIP states with overlap

Historical Changes: Adjusted and Unadjusted SEDS

Table 3: Percent difference between ACS and MSIS/SEDS counts, 2010-2013

	2010	2011	2012	2013
Unadjusted SEDS % Difference	-0.4%	-1.1%	-1.3%	-1.9%
Adjusted SEDS % Difference	3.4%	2.7%	2.4%	1.8%

Source: 2010-2013 American Community Survey, Kaiser Family Foundation Surveys (various years), MSIS State Summary Tables (various years), and SEDS Reports (various years)

Note: . The following states were excluded from the unadjusted analysis due to missing data (CO, ID, KS & RI). For the adjusted SEDS we report estimates that adjust the CHIP count by the average ratio of the MSIS count to the SEDS based count of CHIP enrollment in states that operate CHIP solely via CHIP expansion. This ratio was approximately 0.75. The following states were excluded from the analysis due to missing data (CO, CT, KS, ID, ME & RI)

Expenditure Estimates Defined

- Good News
 - 2001 CPS ASEC: -31%
 - 2002 NHIS: -22%
 - 2009 ACS: 8.5%
 - 2015 ACS: -8.6%
- Bad News
 - Concordance is changing over-time
 - Temporal pattern not consistent by state
 - Pattern apparent by expansion status

Thank you!

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