

Deconstruction of the Time Trend in Health Insurance: A look inside SIPP 2008 health insurance rates

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Background

The Survey of Income and Program Participation (SIPP) provides monthly health insurance information using a complex system of survey administration and data processing. It is important to understand the construction of SIPP health insurance estimates in order to manage data quality, and to discern the true contours of health insurance coverage within the United States.

Data and Methods

Waves (interviews) occur every 4 months, collecting data about the 4 months prior to the interview. **Rotation Groups** are sample subsets with each group interviewed during different months of the interview period.

Figure 1. Interview Calendar for SIPP 2008 Panel, Waves 1-5

Wave	Year	Month	1	2	3	4
1	2008	Sept	May	June	July	Aug
1	2008	Oct	June	July	Aug	Sept
1	2008	Nov	July	Aug	Sept	Oct
1	2008	Dec	Aug	Sept	Oct	Nov
2	2009	Jan	Sept	Oct	Nov	Dec
3	2009	Feb	Oct	Nov	Dec	Jan
4	2009	Mar	Nov	Dec	Jan	Feb
5	2010	Apr	Dec	Jan	Feb	Mar

2/3rds of the monthly estimates are produced using all 4 rotation groups, and nearly 1/2 combine data from 2 different waves.

Figure 2. Structure of Calendar Month Estimates by Wave and Rotation Group

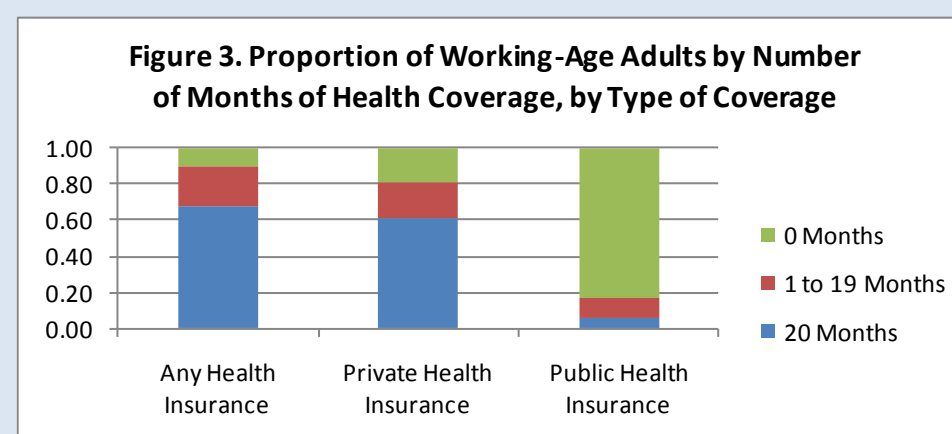
Reference Period	Year	Month	2008	2010
1	2008	May	w1	w1
1	2008	Jun	w1	w2
1	2008	Jul	w1	w2
1	2008	Aug	w1	w2
1	2008	Sep	w1	w2
1	2008	Oct	w1	w2
1	2008	Nov	w1	w2
1	2008	Dec	w1	w2
2	2009	Jan	w1	w2
2	2009	Feb	w1	w2
2	2009	Mar	w1	w2
2	2009	Apr	w1	w2
2	2009	May	w1	w2
2	2009	Jun	w1	w2
2	2009	Jul	w1	w2
2	2009	Aug	w1	w2
2	2009	Sep	w1	w2
2	2009	Oct	w1	w2
2	2009	Nov	w1	w2
2	2009	Dec	w1	w2
2	2010	Jan	w1	w2
2	2010	Feb	w1	w2
2	2010	Mar	w1	w2

This analysis provides:

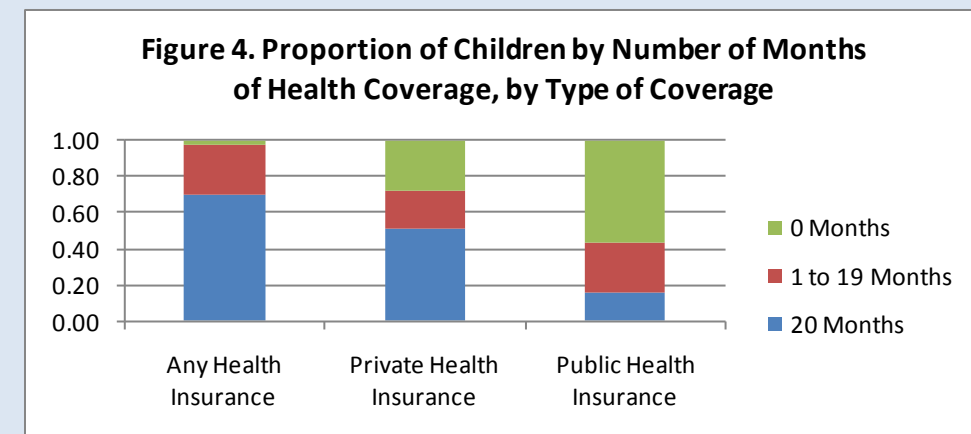
- The number of months of health insurance by type and age group (across 20 months).
- Monthly estimates for uninsurance, private coverage, Medicaid, and Medicare*, by age group.
- A decomposition of these estimates by
 - Waves, and
 - Waves by rotation groups.

Results

Months of Health Insurance Coverage



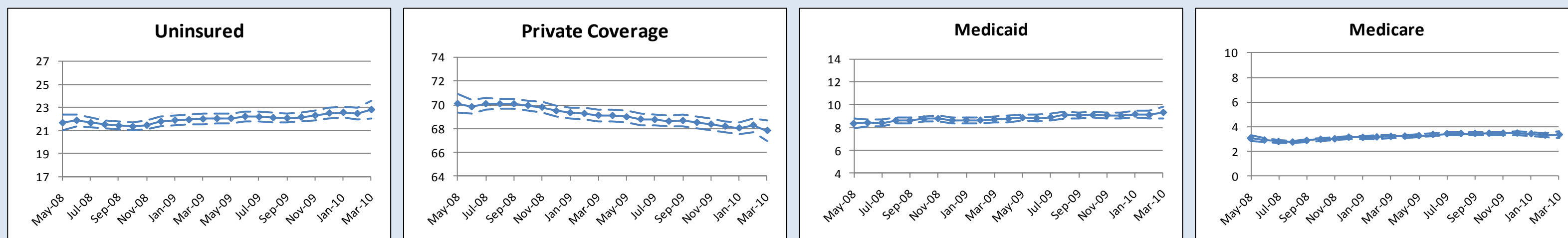
Working-Age Adults:
 • 3/5ths of adults had continuous **private coverage**.
 • 5.7% had continuous **public coverage**.



Children:
 • About half had continuous **private coverage**.
 • 15.6% had continuous **public coverage**.

Trends in Calendar Month Estimates

Figure 5. Percentage of Working-Age Adults by Health Insurance Coverage Type



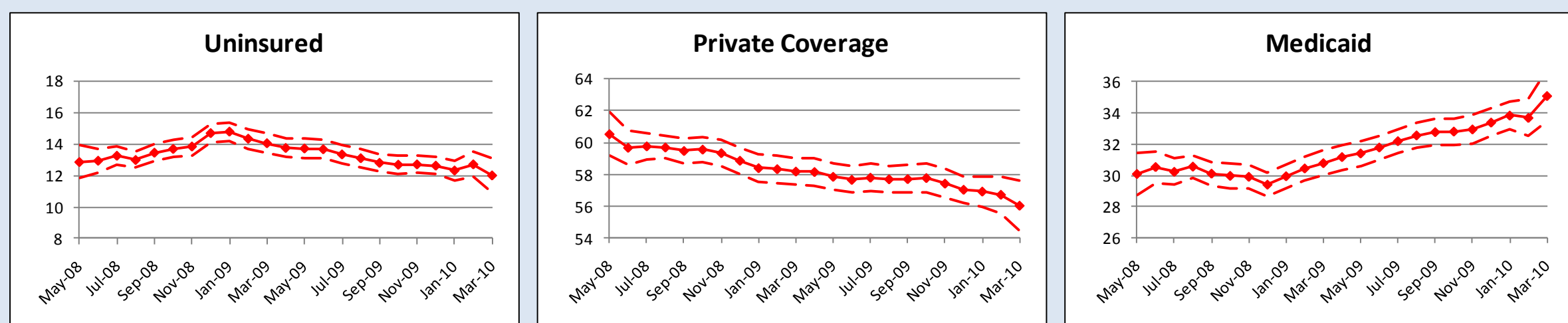
Uninsurance increased from 21.4% to 22.8% (September 2008 to March 2010)

Private coverage decreased from 70.1% to 67.8% (May 2008 to March 2010).

Medicaid increased from 8.3% to 9.3% (May 2008 to March 2010).

Medicare declined from 3.1% to 2.8%, (May to August 2008), then increased from 2.8% to 3.3% (August 2008 to March 2010)

Figure 6. Percentage of Children by Health Insurance Coverage Type



Uninsurance went in two different directions:

- Increased** between May 2008 and Jan 2009 (12.9% to 14.8%)
- Decreased** from Jan 2009 to March 2010 (14.8% to 12.0%).

Private coverage decreased during the reference period from 60.5% to 56.0%.

Medicaid increased from 29.9% to 35.1% of children, between January 2009 and March 2010.

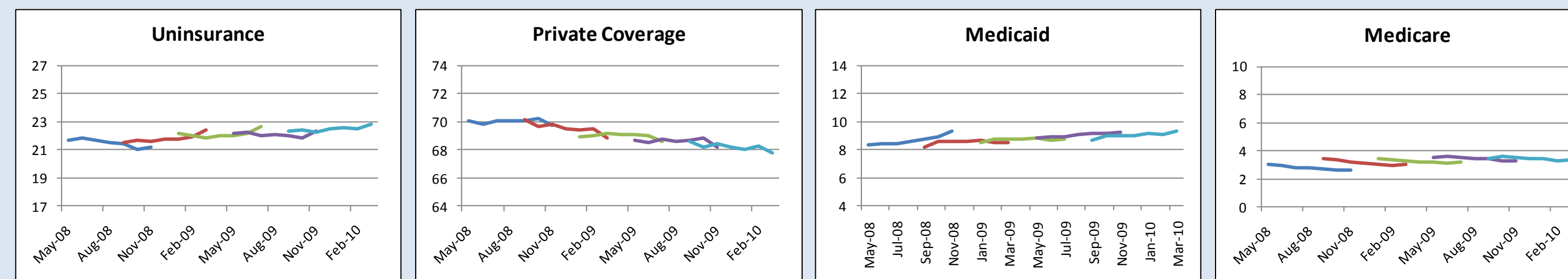
Source of All Figures: U.S. Census Bureau, Survey of Income and Program Participation (SIPP), 2008 Panel Wave 1 to Wave 5.

*Medicare estimates not produced for children.

The most recent Source and Accuracy Statement for SIPP 2008 Panel can be found at: http://www.census.gov/sipp/source/ac/S&A08_W1toW3%28S&A-12%29.pdf

Deconstruction by Wave

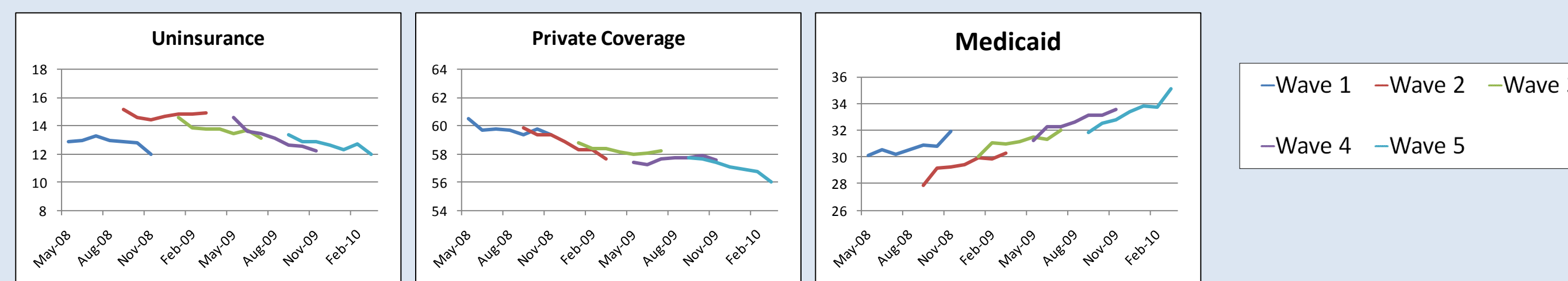
Figure 7. Percentage of Working-Age Adults by Health Insurance Coverage Type, by Wave



Working-Age Adults:
 • **Medicaid** in September and November of 2008 are higher in wave 2 than in wave 1.
 • **Medicare** trends within waves 1 and 2 are decreasing.

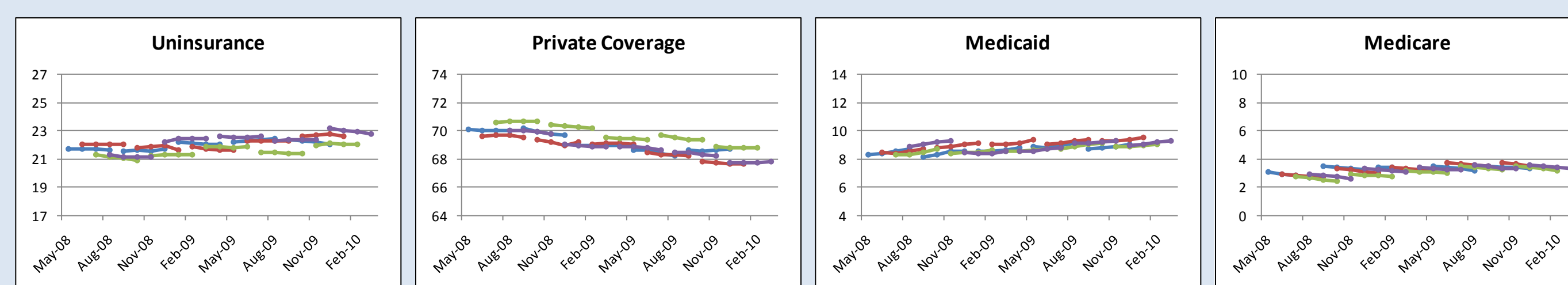
Children:
 • **Uninsurance** is lower in wave 1 than in overlapping months of wave 2.
 • **Medicaid** is higher in wave 1 than in overlapping months of wave 2.

Figure 8. Percentage of Children by Health Insurance Coverage Type, by Wave



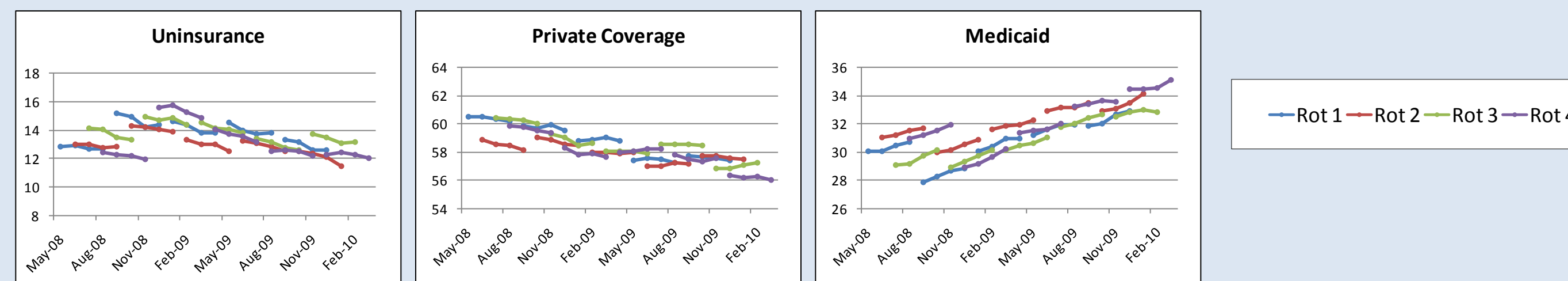
Deconstruction by Rotation Group

Figure 9. Percentage of Working-Age Adults by Health Insurance Coverage Type, by Rotation Group



Working-Age Adults:
 • **Uninsurance** differs between rotation groups for 5 months.
 • **Private Coverage** and **Medicare** differ for 7 months each.
 • **Medicaid** differs for 2 calendar months.

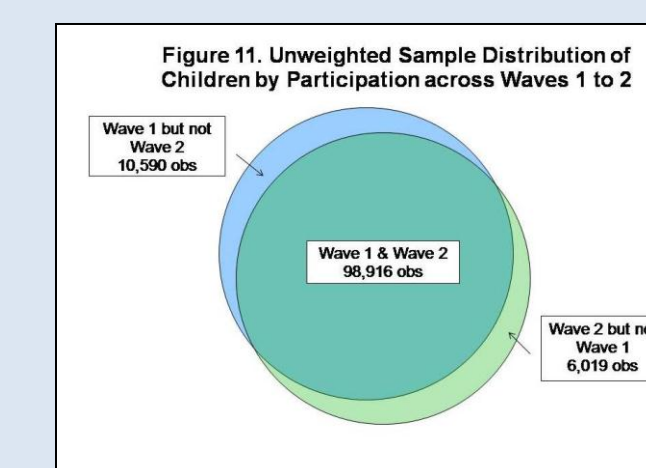
Figure 10. Percentage of Children by Health Insurance Coverage Type, by Rotation Group



Children:
 • **Uninsurance** differs between rotation groups for 5 months.
 • **Private coverage** differs for only 1 month.
 • **Medicaid** differs for 2 calendar months.

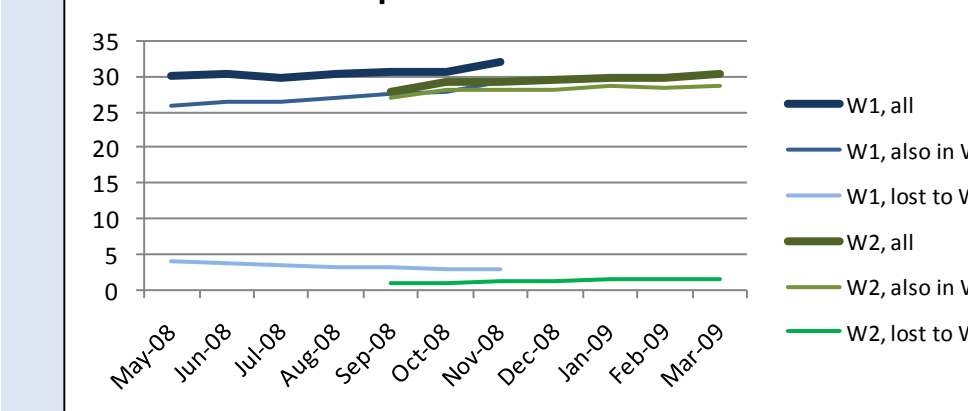
Discussion

The analyses provided reassurance that generally rotation groups and waves do not display unintended heterogeneity between them. However, this raised two issues to investigate further: 1) elevated wave 1 Medicaid rates for children, and 2) decreasing Medicare rates for adults in waves 1 and 2. The Medicaid issue appears to be due to attrition. In the 2008 panel we lose nearly 10% of our child sample between waves 1 and 2. We also gain about 6,000 new children in wave 2.



In wave 1, the children that left contributed about 3% to the Medicaid coverage estimate. The children that entered in wave 2 contributed only about 1%. Thus we observe a net decrease of about a 2% in Medicaid coverage.

Figure 12. Contribution to Weighted Percentage of Children covered by Medicaid, by Sample Participation across Waves 1 and 2



The Medicare issue requires further evaluation as to the source of the pattern and possible editing solutions. However, data users can know that the downward trend in Medicare between May and August 2008 may be due to data error, rather than a true population trend.

This poster is released to inform interested parties of ongoing research and to encourage discussion. Any views expressed are those of the author and not necessarily those of the U.S. Census Bureau.