
Deviations of Official Unemployment Rates from Underlying Survey Results

The U.S. Bureau of Labor Statistics develops monthly unemployment statistics by applying statistical procedures to results of the Census Bureau's Current Population Survey. These procedures are intended to compensate for random sampling error. They can be expected to make the published figures a little bit higher than the survey results in some months and a little bit lower in other months, but large and prolonged deviations are normally not expected. For several states, however, the unemployment statistics published by the U.S. Bureau of Labor Statistics in 2010 have deviated from the underlying survey results by a considerable amount.

After briefly examining these deviations, this paper suggests an alternative statistic for measuring unemployment trends. In addition to avoiding the sorts of discrepancy that occurred in 2010, this statistic is superior for purposes of identifying changes in trend and for comparing one geographic area to another. It is as timely as the initial figures that are published each month while being at least as accurate and reliable as the re-estimated figures that are published in subsequent years. However, because the proposed statistic is an indicator of trends rather than an estimate of monthly unemployment rates, it is intended to supplement existing unemployment statistics rather than to replace them.

This paper concludes by illustrating some important practical implications of using the alternative statistic instead of conventional unemployment rates to analyze trends at the state level.

Overview of official unemployment statistics. Each month, the U.S. Bureau of Labor Statistics (BLS) publishes unemployment rates for the prior month and revised figures for previous months:

- The initial monthly rates tend to be featured prominently in media reports, and they are referred to in this paper as “headline unemployment rates.” In many respects, the headline rates are the most important unemployment figures that BLS currently publishes.
- The headline rates are replaced by revised figures in the following month, and those figures are subject to further revision in immediately subsequent months. These revised statistics tend to receive much less attention in the news media.
- Unemployment statistics are further revised on annual basis through re-estimation of the statistical model. These revisions are often substantial, and each year's rates are subject to further revision when the model is re-estimated again in subsequent years.

It is common practice to use the latest available figures for each time period, i.e. a combination of re-estimated figures for historical years, revised figures for the current year, and headline figures for the most recent month.

All of the unemployment rates described above are derived from the Current Population Survey (CPS), one of the large sample surveys conducted each month by the U.S. Census Bureau. Although the CPS sample is of sufficient size to produce reliable monthly unemployment rates at the national level, the figures for individual states tend to fluctuate by a considerable amount from month to month because of random sampling error. The Bureau of Labor Statistics addresses this limitation through a “signal-noise” model: when a monthly figure deviates from prior trends and

patterns, a portion of the deviation is interpreted as statistical noise. In effect, the survey findings for the most recent month are averaged with the expected rate of unemployment. That expected rate of unemployment is subsequently revised with the benefit of hindsight. Although this is a reasonable approach for producing monthly unemployment estimates, it does have the drawback of sometimes disregarding real changes in unemployment rates and obscuring changes in trend when they occur.

Recent discrepancies between headline unemployment rates and survey findings. Table 1 shows each state’s average headline unemployment rate and CPS unemployment rate for the twelve months ending in September 2010. Relative to the CPS results, the headline statistics overstate unemployment by more than one percentage point in the District of Columbia, Michigan, and Rhode Island while understating unemployment by more than one percentage point in Utah, Arizona, and Washington. A total of fifteen states had discrepancies of over half a percentage point.

Table 1
Average of Alternative Unemployment Rates for the 12 Months Ending September 2010

Area name	CPS Rate	Headline Rate	Difference	Area name	CPS Rate	Headline Rate	Difference
District of Columbia	9.7%	10.8%	+1.19 % pts.	Nebraska	4.9%	4.8%	-0.12 % pts.
Michigan	12.8%	13.8%	+1.03 % pts.	Maine	8.2%	8.1%	-0.13 % pts.
Rhode Island	11.2%	12.2%	+1.03 % pts.	Oregon	10.9%	10.8%	-0.15 % pts.
Florida	11.2%	11.8%	+0.60 % pts.	Missouri	9.5%	9.3%	-0.16 % pts.
Iowa	6.2%	6.8%	+0.53 % pts.	North Carolina	10.6%	10.5%	-0.17 % pts.
West Virginia	8.5%	9.0%	+0.46 % pts.	Nevada	13.8%	13.6%	-0.20 % pts.
Tennessee	9.8%	10.3%	+0.42 % pts.	Connecticut	9.1%	8.9%	-0.21 % pts.
New Hampshire	6.0%	6.4%	+0.36 % pts.	Louisiana	7.5%	7.2%	-0.27 % pts.
California	12.1%	12.5%	+0.34 % pts.	Mississippi	10.8%	10.6%	-0.27 % pts.
Idaho	8.7%	9.1%	+0.33 % pts.	Hawaii	7.0%	6.7%	-0.29 % pts.
Massachusetts	8.7%	9.0%	+0.30 % pts.	South Dakota	5.0%	4.7%	-0.33 % pts.
Pennsylvania	8.7%	8.9%	+0.26 % pts.	Maryland	7.8%	7.5%	-0.34 % pts.
Texas	8.0%	8.2%	+0.25 % pts.	Minnesota	7.5%	7.2%	-0.35 % pts.
Kentucky	10.3%	10.5%	+0.17 % pts.	Colorado	8.2%	7.8%	-0.43 % pts.
Illinois	10.6%	10.8%	+0.16 % pts.	Oklahoma	7.3%	6.8%	-0.45 % pts.
Ohio	10.4%	10.6%	+0.15 % pts.	Virginia	7.5%	7.0%	-0.58 % pts.
New Jersey	9.6%	9.7%	+0.14 % pts.	Montana	7.6%	7.0%	-0.59 % pts.
North Dakota	3.8%	3.9%	+0.09 % pts.	Kansas	7.2%	6.6%	-0.64 % pts.
Alaska	8.3%	8.4%	+0.09 % pts.	Alabama	11.0%	10.3%	-0.70 % pts.
Wyoming	7.0%	7.1%	+0.08 % pts.	Wisconsin	9.0%	8.3%	-0.73 % pts.
South Carolina	11.7%	11.6%	-0.02 % pts.	Indiana	10.9%	10.0%	-0.89 % pts.
New York	8.6%	8.5%	-0.02 % pts.	Arkansas	8.6%	7.7%	-0.92 % pts.
Georgia	10.3%	10.2%	-0.05 % pts.	Washington	10.2%	9.2%	-1.01 % pts.
New Mexico	8.4%	8.3%	-0.05 % pts.	Arizona	10.5%	9.5%	-1.07 % pts.
Delaware	8.8%	8.7%	-0.06 % pts.	Utah	8.3%	7.1%	-1.17 % pts.
Vermont	6.4%	6.3%	-0.08 % pts.				

Source: U.S. Bureau of Labor Statistics

Notes: The CPS unemployment rate is derived directly from the Current Population Survey.

The "headline" unemployment rate is the preliminary monthly unemployment rate published each month in the news release "Regional and State Employment and Unemployment."

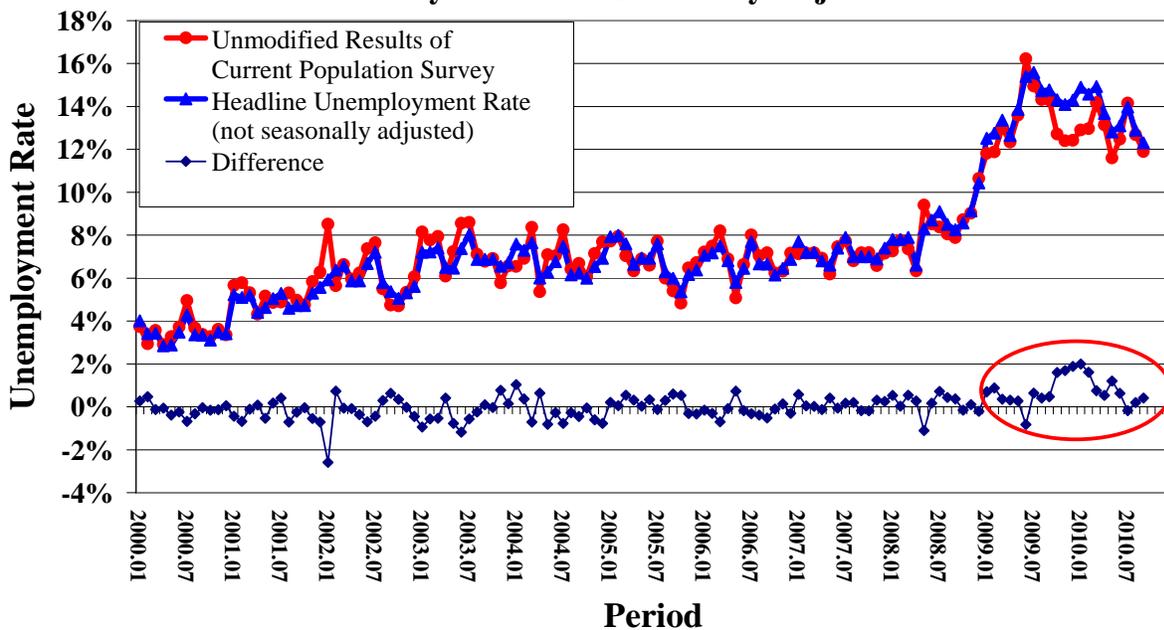
The "headline" statistics in this table are based on the data series without seasonal adjustments. However, because 12-month averages include the entire annual cycle, they are essentially identical whether they are calculated from seasonally adjusted or non-adjusted data.

Chart 1 shows the monthly headline unemployment rates and CPS unemployment rates for Michigan, prior to seasonal adjustment. The month-to-month variation is slightly lower in the headline figures due to the statistical procedures that discount a portion of the observed variation as statistical noise. Nevertheless, both sets of figures vary considerably from month to month due to random sampling error in the underlying survey as well as seasonal fluctuations.

As can be seen in Chart 1, the headline unemployment figures for Michigan reflect a fairly consistent upward bias relative to the underlying survey results in recent years. That bias has been particularly strong since the beginning of 2009. As of September 2010, Michigan's headline unemployment rate has exceeded its CPS rate in 19 of the past 21 months and in 30 of the past 36 months.

It should not be surprising that the headline figures overstated Michigan's unemployment rate in the early months of the latest national recession. Even though economists knew that unemployment rates were increasing across the nation, a signal-noise model could easily disregard a portion of the observed increase as "noise" for other states that did not have a recent history of high unemployment. Application of national or regional controls would then further elevate the headline unemployment figures for states like Michigan for which a smaller portion of the observed increase had been interpreted as noise. However, because the unemployment rates from the CPS are presumed to be unbiased, deviations that persist for such a long period are disconcerting.

Chart 1
CPS and "Headline" Unemployment Rates:
Michigan, January 2000-September 2010
Monthly Data - Not Seasonally Adjusted



Source: U.S. Census Bureau, Current Population Survey.
 U.S. Bureau of Labor Statistics, Regional and State Employment and Unemployment.

For all large states and most small states, such biases tend to be corrected in subsequent months and years with the publication of revised and re-estimated data. Unemployment rates may be overstated or understated in media accounts based on the latest headline rates, but the new figures that become available in subsequent years are corrected to be consistent with the survey results. For a few small states, however, as will be shown below, the bias relative to the survey results can persist even after publication of re-estimated figures.

An alternative unemployment statistic. Thus, there is need for an unemployment statistic with the following characteristics:

- Unbiased relative to underlying survey results.
- As timely as the headline unemployment rates.
- Effectively controlled for seasonal fluctuations.
- Not subject to large fluctuations due to sampling error.
- Responsive to changes in trend when they occur.

Monthly CPS unemployment rates meet the first two criteria and they could potentially meet the third criterion as well. However, they are subject to very large fluctuations due to random sampling error. Those fluctuations can be difficult to distinguish from changes in trend until several months after the new trend has begun

Seasonally adjusted headline rates meet the second and third criteria, but they fall short in other respects. As shown above, they are sometimes biased relative to survey results and their fluctuations due to sampling error remain substantial even after application of the signal-noise model. Moreover, the signal-noise model itself can obscure changes in trend when they occur: Because a change in trend is a deviation from prior patterns, it tends to be initially interpreted as statistical noise.

For most states, re-estimated unemployment rates tend to meet all of the criteria except for timeliness: instead of being available in the following month, such figures cannot be produced until the following year.

Twelve-month moving averages of CPS unemployment rates meet all five criteria. A twelve month interval eliminates seasonal fluctuations¹ and it is sufficient to smooth out most random sampling error for even the smallest states. This results in providing fewer false signals that reporters can misinterpret as real changes in unemployment. This statistic is also unbiased relative to the underlying survey data, it is available to the relevant federal agencies even sooner than conventional unemployment statistics, and it reflects any changes in trend as soon as they occur.

Although twelve-month moving averages are superior to conventional unemployment figures for identifying trends and for making comparisons among geographic areas or alternative datasets, users of this statistic need to be aware of other important respects in which it differs from conventional unemployment statistics:

¹ An advantage over conventional seasonal adjustment is that a 12-month moving average only reflects events in the prior twelve months. For example, model changeover in auto factories can sometimes occur a month early or last for a longer or shorter time than usual. This disrupts a moving average only in that month and once again twelve months later when the anomalous month drops out of the moving average. Such anomalies disrupt conventional seasonal adjustments for subsequent years as well, even after the anomalous event has been forgotten by most data users.

- The new value that becomes available for this statistic each month is *not* the unemployment rate for that month. Rather, it is the unemployment rate for the twelve month period ending in that month.
- When the monthly unemployment rate reaches a peak and starts going down, a graph of the moving average changes in slope without necessarily starting to go down right away. The moving average does not actually start to go down until the survey figure for the latest month is lower than the figure for the corresponding month of the prior year. That can sometimes happen several months after the peak unemployment rate is reached. Thus, the earliest sign of improvement can sometimes appear graphically as an improvement in slope rather than a change in direction.

Chart 2 compares 12-month moving averages of CPS and headline unemployment rates for Michigan. As would be expected from figures derived from a signal-noise model, the headline rates generally understate Michigan's unemployment by a small amount while it is increasing and overstate it by a small amount while it is decreasing. However, an exception to this pattern occurred beginning in 2008 when the headline rates overstated Michigan's unemployment even while it was increasing. The deviation became very large in 2009 and 2010.

Chart 2
CPS vs. "Headline" Unemployment Rates:
Michigan, January 2000-September 2010
 12-Month Moving Averages

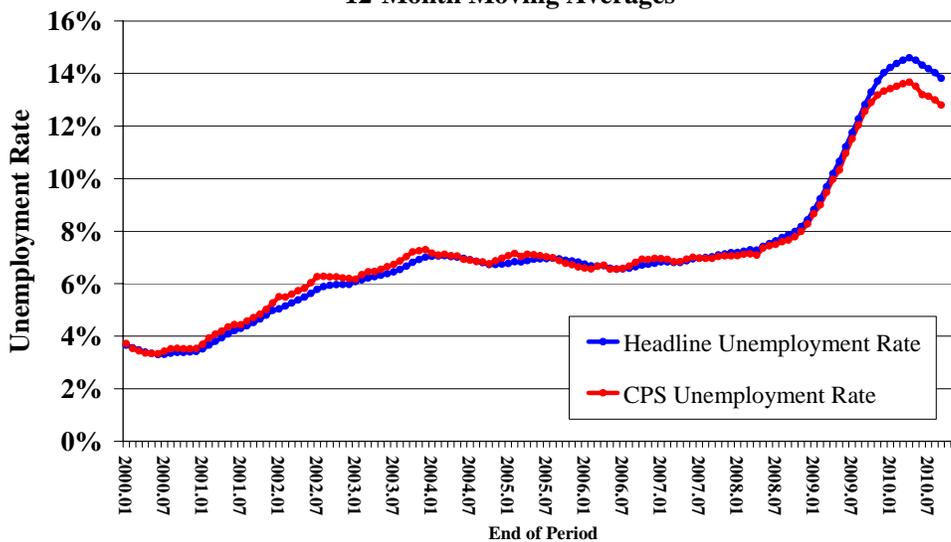


Chart 3-A uses 12-month moving averages to compare CPS unemployment rates to re-estimated unemployment rates from the Bureau of Labor Statistics. The re-estimated rates show essentially the same pattern as the CPS rates, but their peaks and valleys are slightly less pronounced. (The light blue line representing the re-estimated rates is almost completely hidden by the red line representing the CPS.) The high level of consistency between these two sets of unemployment rates confirms the validity of both sets of figures. The CPS rates reveal the same trends as the re-estimated rates, but with a time lag of less than one month instead of roughly one year.

Chart 3-B makes a similar comparison between *headline* unemployment rates and re-estimated unemployment rates. Unlike the CPS rates in Chart 3-A, the headline rates tend to be slightly biased relative to the subsequent re-estimated rates. This confirms that the headline rates are less reliable and less accurate than the CPS rates for purposes of identifying trends.

Chart 3-A
CPS vs. Re-Estimated Unemployment Rates:
Michigan, January 2000-September 2010
12-Month Moving Averages

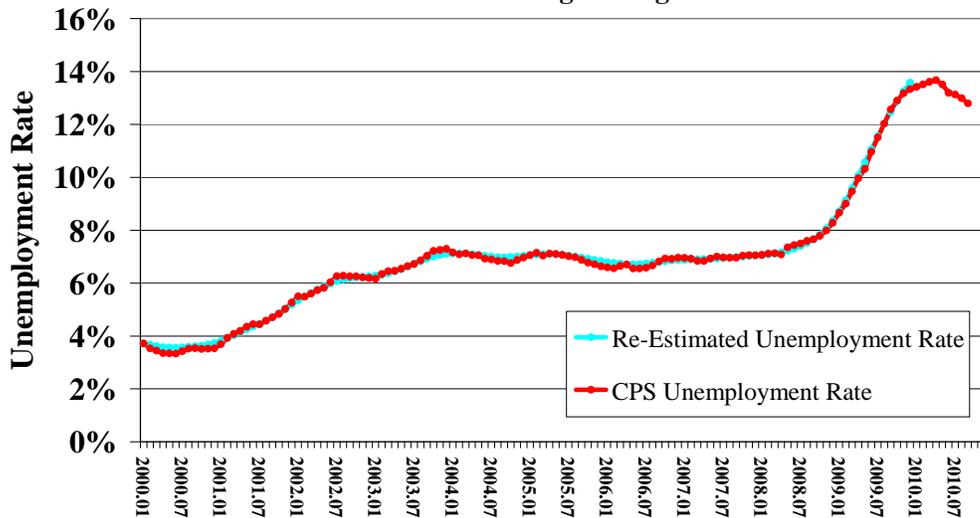
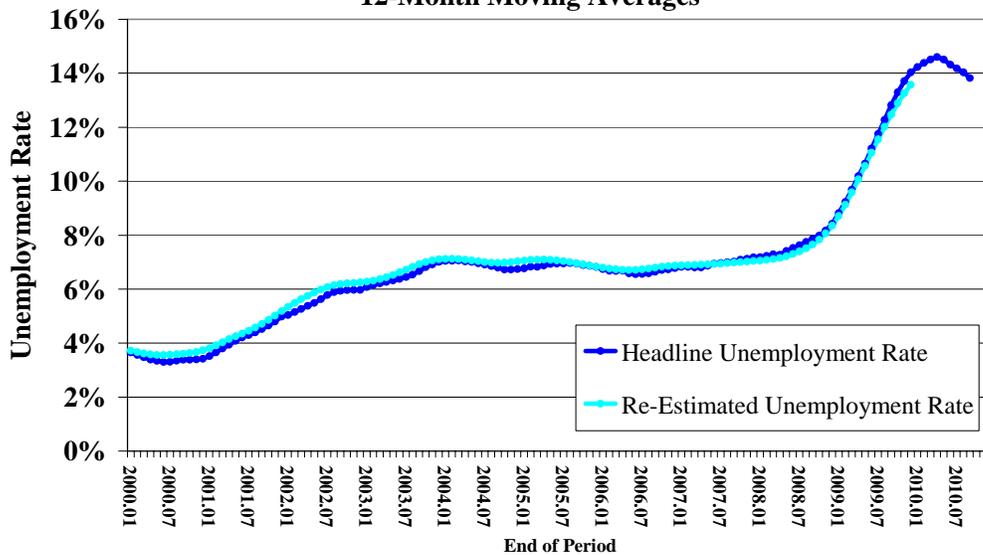


Chart 3-B

Headline vs. Benchmarked Unemployment Rates:
Michigan, January 2000-September 2010
12-Month Moving Averages



Illustrations of practical implications. Using CPS unemployment rates instead of conventional unemployment rates can have a substantial impact upon analytical results.

Analysis of Michigan's Share of U.S. Unemployment. The CPS figures in Chart 4-A indicate that Michigan's share of the nation's unemployment has decreased considerably over the past three years. Aside from a brief increase after General Motors and Chrysler entered bankruptcy, there has been a fairly strong downward trend since the middle of 2007.

Chart 4-A
Michigan Share of U.S. Unemployment and Population
 (12-month moving average of CPS data, 1976-2010)
 (updated through September, 2010)

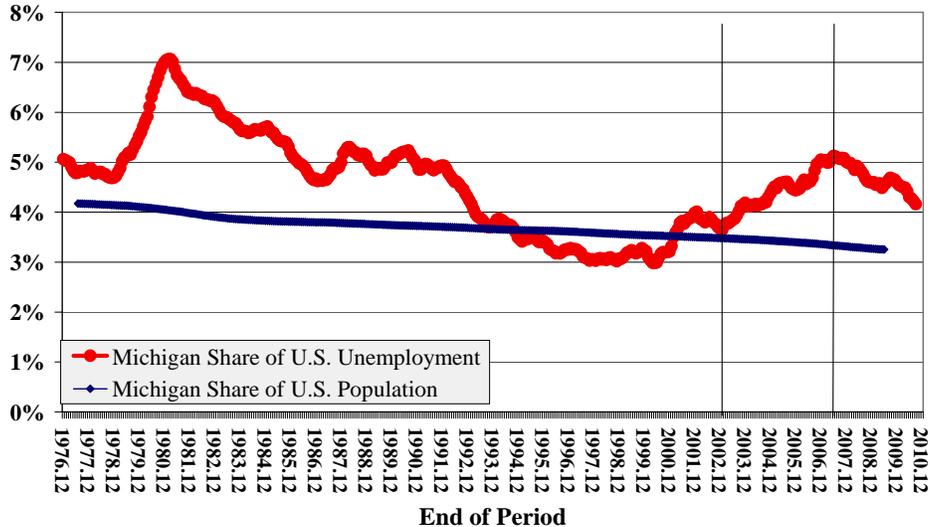


Chart 4-B focuses on the period from 2007 through 2010. It shows that the pattern looks quite different if headline rates are used or if (consistent with usual practice) the latest available figure from the Bureau of Labor Statistics is used for each time period.

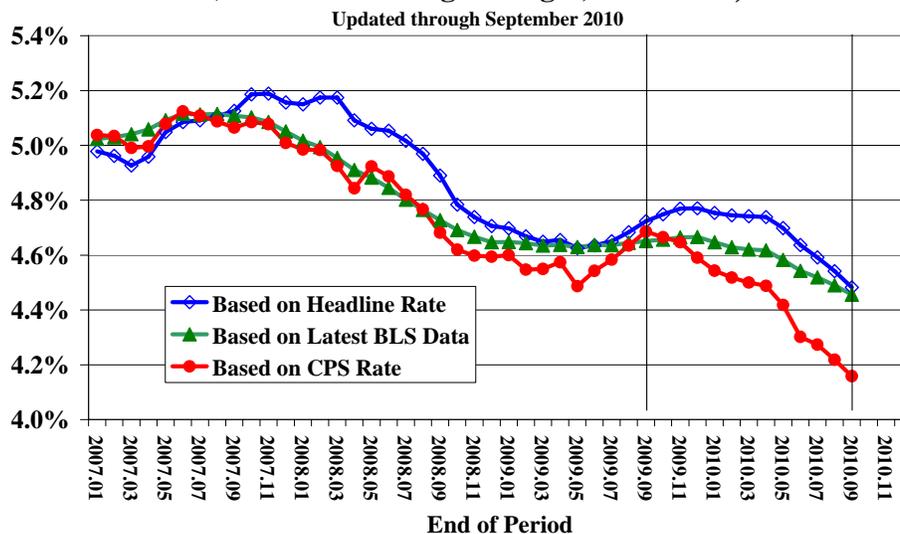
The CPS data series immediately showed signs of improvement after Michigan's share of the nation's unemployment peaked in the twelve-month period ending June 2007. The improvement became more evident with each passing month. The headline statistics did not reach a peak until five months later, however, and they did not show any clear sign of improvement until ten months later. The re-estimated data that was eventually released for 2007 confirmed the pattern that had already been revealed by the CPS data series.

The CPS data series indicates that Michigan's share of the nation's unemployment dropped from 4.69% in the twelve months ending in September 2009 to 4.16% percent in the twelve months ending in September 2010. The first sign of this improvement appeared in the data released for October 2009 and the improvement became more evident with each passing month. The first sign of an improved trend was not seen in the headline statistics until seven months later. Over the most recent twelve months, the improvement in the CPS data series is more than twice as large as the improvement seen in the headline figures and more than two and a half times as large as the improvement seen in the composite figures. (Because the composite figures correct the bias in the headline figures for 2009 but do not yet correct the bias for 2010, they understate the improvement from 2009 to 2010 even more than the headline figures themselves.) If past experience is any

indication, the re-estimated figures that will be released in 2011 and revised in subsequent years should eventually confirm the improvement already revealed by the CPS data series.

Although re-estimated unemployment rates tend to show the same patterns over time as CPS rates, two interesting differences can be seen in Chart 4-B. On the one hand, the re-estimated series appropriately smooths out an anomaly in Michigan’s monthly CPS results for May 2008. On the other hand, it also smooths out the impact on Michigan’s economy of General Motors and Chrysler entering and emerging from bankruptcy in the second half of 2009.

Chart 4-B
Michigan Share of U.S. Unemployment
 (12-month moving averages, 2007-2010)



Persistent biases in re-estimated BLS unemployment rates for some states. The remainder of this paper refers to the appendix charts. Those charts use 12-month moving averages to compare each state’s CPS unemployment rates to the latest rates available from the Bureau of Labor Statistics in mid-November of 2010 (i.e. re-estimated rates for 2000 through 2009, revised rates for the first eight months of 2010, and headline rates for September 2010.) Vertical lines are used in those charts to separate data for the current year, data for 2009 that have been re-estimated once, and data for prior years that have been re-estimated more than once.

As noted earlier, BLS unemployment statistics for the current year can differ considerably from the underlying survey results. For all states, however, the upward and downward trends of the *re-estimated* unemployment rates have been very consistent with those of the underlying CPS rates upon which they are based. The magnitude of re-estimated unemployment rates is also virtually identical to the magnitude of underlying CPS rates for most states, particularly for years that have been re-estimated more than once. That is to be expected, since the CPS is considered an unbiased indicator of unemployment rates.

However, there are five small states for which even the re-estimated unemployment rates are consistently lower than the CPS rates. (See Table 2 and the appendix charts for Alabama, Louisiana, Montana, Idaho, Hawaii.) In the absence of a rationale for the CPS to be biased for these states and not for others, this suggests a bias in the BLS methodology. This bias may be related to using regional benchmarks instead of state benchmarks in re-estimating the model for small states.

Table 2

Discrepancies between CPS Unemployment Rates and Re-Estimated Unemployment Rates

State	Average Discrepancy (2000 through 2008)
Alabama	- 0.5 % pts.
Louisiana	- 0.5 % pts.
Montana	- 0.4 % pts.
Idaho	- 0.3 % pts.
Hawaii	- 0.3 % pts.
Alaska	- 0.2 % pts.
West Virginia	- 0.2 % pts.
Arkansas	- 0.2 % pts.
Delaware	- 0.1 % pts.
North Dakota	- 0.1 % pts.
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Florida	+ 0.1 % pts.
Colorado	+ 0.1 % pts.
Mississippi	+ 0.1 % pts.
Tennessee	+ 0.1 % pts.
Kentucky	+ 0.1 % pts.
Nevada	+ 0.2 % pts.

Source: U.S. Bureau of Labor Statistics; based on latest figures available in October 2011. CPS unemployment rates are derived directly from the Current Population Survey.

Note: This table includes only states with discrepancies larger than 0.10 percentage points.

Unemployment trends in 2010. Table 1, which is discussed above, indicates that the latest official statistics overstate the level of unemployment for some states while understating it for others relative to the underlying survey data. The discussion below focuses primarily on upward and downward trends rather than the absolute level of unemployment.

As of September 2010, the Current Population Survey indicates that unemployment has peaked in some states but that it is remaining steady or increasing in others. Although the same conclusion can be drawn from official unemployment statistics produced by the Bureau of Labor Statistics, the states that fall into each category are quite different.

Table 3 divides states into four categories based on recent trends in their CPS unemployment rates:

- states with decreases of 0.5 percentage points or more from their peak level;²
- states with decreases of 0.3 to 0.4 percentage points from their peak level;
- other states with changes of 0.2 percentage points or less between the 12 months ending March 2010 and the 12 months ending September 2010;
- States with increases of 0.3 percentage points or more over that time period.

Each of the twenty-five states appearing in capital letters in Table 3 would fall into a different category if classified according to the latest BLS unemployment statistics instead of CPS statistics. (Confidence intervals are not provided for these differences because the relevant statistical variances have not been published. The differences highlighted in capital letters are not necessarily statistically significant.)

² Measured from the state's highest 12-month period to the 12 month period ending September 2010.

Table 3

Recent Unemployment Trends Based on CPS and BLS Data

(Updated through September, 2010)

Area Name	Based on CPS Data Series			Based on BLS Data Series		
	Highest unemployment rate was observed in 12-month period ending in:	Change from peak period to the 12 months ending in Sept. 2010:	Change from 12 months ending March 2010 to 12 months ending Sept. 2010	Highest unemployment rate was estimated for 12-month period ending in:	Change from peak period to the 12 months ending in Sept. 2010:	Change from 12 months ending March 2010 to 12 months ending Sept. 2010
States with substantial decreases from peak unemployment:						
Tennessee	February 2010	- 1.0 % pts.	- 1.0 % pts.	April 2010	- 0.5 % pts.	- 0.5 % pts.
MICHIGAN	April 2010	- 0.9 % pts.	- 0.8 % pts.	April 2010	- 0.4 % pts.	- 0.3 % pts.
ALABAMA	April 2010	- 0.8 % pts.	- 0.6 % pts.	May 2010	- 0.4 % pts.	- 0.3 % pts.
NEW HAMPSHIRE	February 2010	- 0.6 % pts.	- 0.6 % pts.	April 2010	- 0.3 % pts.	- 0.3 % pts.
Oregon	January 2010	- 0.5 % pts.	- 0.2 % pts.	January 2010	- 0.5 % pts.	- 0.4 % pts.
States with smaller decreases from peak unemployment:						
Hawaii	December 2009	- 0.4 % pts.	- 0.3 % pts.	March 2010	- 0.3 % pts.	- 0.3 % pts.
Kentucky	February 2010	- 0.4 % pts.	- 0.3 % pts.	April 2010	- 0.3 % pts.	- 0.3 % pts.
ARIZONA	May 2010	- 0.4 % pts.	- 0.2 % pts.	September 2010	0	+ 0.2 % pts.
North Dakota	December 2009	- 0.4 % pts.	- 0.3 % pts.	December 2009	- 0.4 % pts.	- 0.3 % pts.
MASSACHUSETTS	May 2010	- 0.4 % pts.	- 0.1 % pts.	July 2010	- 0.1 % pts.	+ 0.1 % pts.
IOWA	April 2010	- 0.4 % pts.	- 0.3 % pts.	September 2010	0	+ 0.4 % pts.
RHODE ISLAND	March 2010	- 0.4 % pts.	- 0.4 % pts.	August 2010	- 0.1 % pts.	+ 0.3 % pts.
South Carolina	February 2010	- 0.3 % pts.	- 0.2 % pts.	March 2010	- 0.4 % pts.	- 0.4 % pts.
NEW JERSEY	July 2010	- 0.3 % pts.	- 0.1 % pts.	July 2010	- 0.1 % pts.	+ 0.1 % pts.
MINNESOTA	December 2009	- 0.3 % pts.	- 0.3 % pts.	December 2009	- 0.8 % pts.	- 0.6 % pts.
WYOMING	May 2010	- 0.3 % pts.	- 0.1 % pts.	June 2010	- 0.1 % pts.	+ 0.2 % pts.
MAINE	July 2010	- 0.3 % pts.	- 0.1 % pts.	April 2010	- 0.1 % pts.	- 0.1 % pts.
VERMONT	March 2010	- 0.3 % pts.	- 0.3 % pts.	January 2010	- 0.6 % pts.	- 0.5 % pts.
DISTRICT OF COLUMBIA	July 2010	- 0.3 % pts.	- 0.2 % pts.	April 2010	- 0.2 % pts.	- 0.1 % pts.
IDAHO	April 2010	- 0.3 % pts.	- 0.2 % pts.	September 2010	0	+ 0.4 % pts.
Texas	May 2010	- 0.3 % pts.	+ 0.0 % pts.	August 2010	- 0.0 % pts.	+ 0.2 % pts.
States with relatively steady moving averages:						
Ohio	March 2010	- 0.2 % pts.	- 0.2 % pts.	May 2010	- 0.2 % pts.	- 0.1 % pts.
Missouri	April 2010	- 0.2 % pts.	- 0.2 % pts.	April 2010	- 0.2 % pts.	- 0.1 % pts.
Georgia	May 2010	- 0.1 % pts.	- 0.1 % pts.	August 2010	- 0.0 % pts.	+ 0.2 % pts.
Illinois	April 2010	- 0.1 % pts.	- 0.1 % pts.	June 2010	- 0.1 % pts.	- 0.0 % pts.
WEST VIRGINIA	March 2010	- 0.1 % pts.	- 0.1 % pts.	September 2010	0	+ 0.3 % pts.
NEW MEXICO	July 2010	- 0.1 % pts.	- 0.0 % pts.	September 2010	0	+ 0.5 % pts.
WISCONSIN	August 2010	- 0.0 % pts.	+ 0.0 % pts.	March 2010	- 0.4 % pts.	- 0.4 % pts.
New York	May 2010	- 0.1 % pts.	+ 0.0 % pts.	April 2010	- 0.2 % pts.	- 0.1 % pts.
Nebraska	June 2010	- 0.1 % pts.	+ 0.0 % pts.	April 2010	- 0.0 % pts.	- 0.0 % pts.
Delaware	April 2010	- 0.1 % pts.	+ 0.1 % pts.	September 2010	0	+ 0.2 % pts.
South Dakota	August 2010	- 0.1 % pts.	+ 0.1 % pts.	February 2010	- 0.2 % pts.	- 0.2 % pts.
Alaska	September 2010	0	+ 0.1 % pts.	May 2010	- 0.1 % pts.	- 0.1 % pts.
KANSAS	May 2010	- 0.0 % pts.	+ 0.1 % pts.	April 2010	- 0.3 % pts.	- 0.3 % pts.
NORTH CAROLINA	August 2010	- 0.0 % pts.	+ 0.2 % pts.	March 2010	- 0.5 % pts.	- 0.5 % pts.
Louisiana	September 2010	0	+ 0.2 % pts.	September 2010	0	+ 0.1 % pts.
Arkansas	September 2010	0	+ 0.2 % pts.	September 2010	0	+ 0.1 % pts.
States for which moving average is still rising:						
VIRGINIA	August 2010	- 0.1 % pts.	+ 0.3 % pts.	August 2010	- 0.0 % pts.	+ 0.0 % pts.
Florida	September 2010	0	+ 0.3 % pts.	September 2010	0	+ 0.6 % pts.
Utah	August 2010	- 0.1 % pts.	+ 0.3 % pts.	September 2010	0	+ 0.3 % pts.
MARYLAND	September 2010	0	+ 0.3 % pts.	September 2010	0	+ 0.1 % pts.
INDIANA	September 2010	0	+ 0.4 % pts.	February 2010	- 0.2 % pts.	- 0.1 % pts.
California	September 2010	0	+ 0.4 % pts.	September 2010	0	+ 0.4 % pts.
CALIFORNIA	September 2010	0	+ 0.4 % pts.	September 2010	0	+ 0.0 % pts.
Montana	August 2010	- 0.0 % pts.	+ 0.4 % pts.	September 2010	0	+ 0.5 % pts.
Pennsylvania	August 2010	- 0.0 % pts.	+ 0.4 % pts.	August 2010	- 0.0 % pts.	+ 0.4 % pts.
Connecticut	September 2010	0	+ 0.5 % pts.	September 2010	0	+ 0.3 % pts.
WASHINGTON	September 2010	0	+ 0.6 % pts.	May 2010	- 0.1 % pts.	- 0.0 % pts.
Mississippi	September 2010	0	+ 0.6 % pts.	July 2010	- 0.1 % pts.	+ 0.4 % pts.
OKLAHOMA	September 2010	0	+ 0.7 % pts.	August 2010	- 0.0 % pts.	+ 0.1 % pts.
Nevada	September 2010	0	+ 1.4 % pts.	September 2010	0	+ 1.1 % pts.

Source: U.S. Bureau of Labor Statistics; based on latest figures available in October 2011. CPS unemployment rates are derived directly from the Current Population Survey.

Note: Capital letters are used to indicate states that fall into different categories when official BLS unemployment rates are used instead of CPS unemployment rates. See appendix charts for graphical depictions of the data in this table.

Table 3 shows that 25 out of 51 geographic areas fall into different categories when they are classified on the basis of the conventional BLS data series instead of the CPS data series, including 3 out of 5 states for which the CPS moving average has declined substantially, 11 out of 16 states with smaller declines, 5 out of 16 states for which the moving average is fairly steady, and 6 out of 14 states for which the moving average is rising.³ For example, the CPS suggests downward trends for Iowa, Rhode Island and Idaho and little change for North Carolina; the current BLS data series, on the other hand, suggests upward trends for Iowa, Rhode Island and Idaho and a fairly strong downward trend for North Carolina.

It is also pertinent to note that the CPS data series tends to identify changes in trend earlier than the conventional data series. For example, the CPS data series produced peak levels of the moving average from one to six months earlier in 19 of the 31 states that reached peak levels before August 2010.

If past experience is any guide, the BLS unemployment rates for 2010 should eventually become consistent with the underlying CPS results when they are re-estimated in 2011 and subsequent years. Thus, the alternative statistic proposed in this paper can correctly identify trends as they develop that will not be apparent to users of conventional unemployment statistics until months or years later.

Please address comments to:

Kenneth Darga, State Demographer
Michigan Department of Technology, Management, and Budget / CSSTP
dargak@michigan.gov

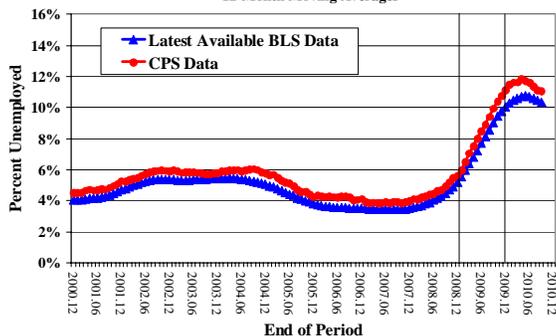
³ As noted earlier in this paper, a 12-month moving average does not begin to decline until the figure for the latest month is lower than the figure for the corresponding month of the previous year. Thus, it is possible that peak monthly unemployment rates may have already been reached in some of the states for which the moving average is relatively steady and even in some of the states for which the moving average rising at a lower rate than before.

Alternative Indicators of Unemployment Trends

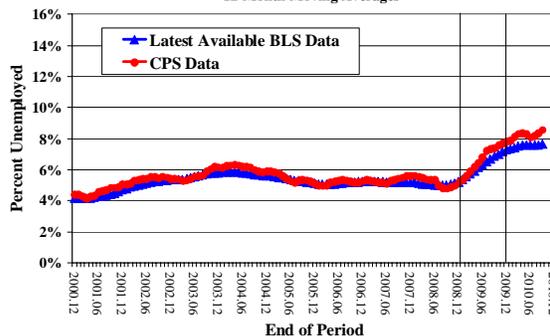
12-Month Moving Averages of CPS Unemployment Rates
and the Latest Available BLS Unemployment Rates

(Updated through September 2010)

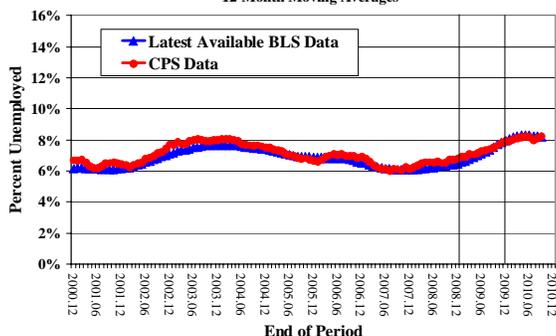
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12-Month Moving Averages



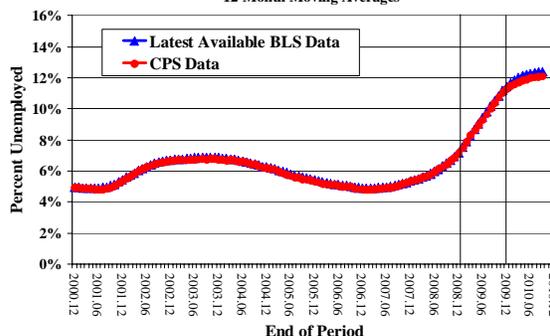
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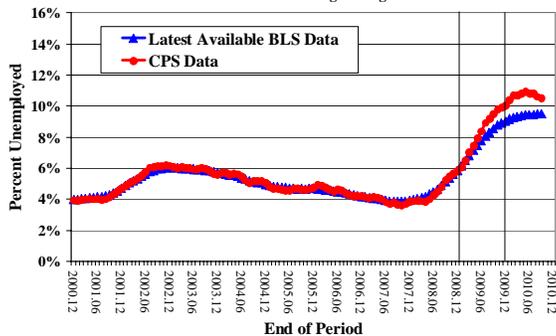
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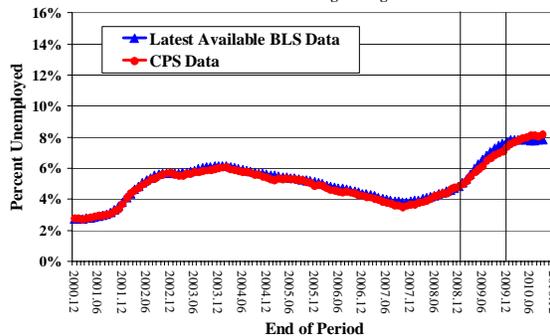
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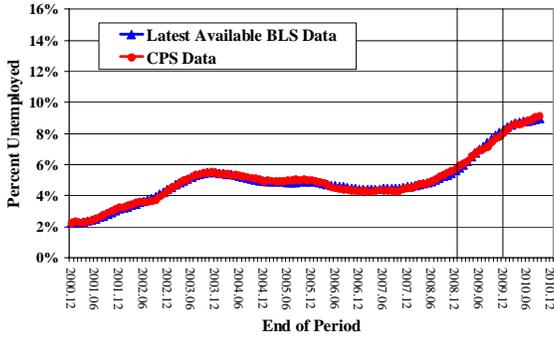
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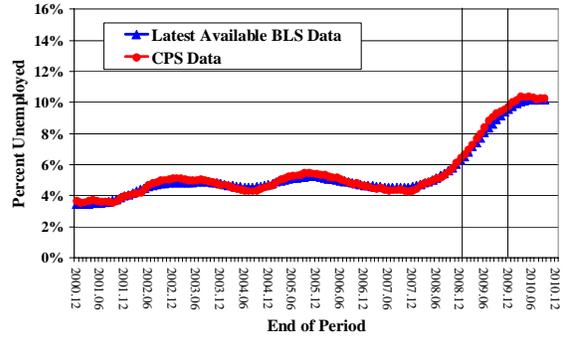
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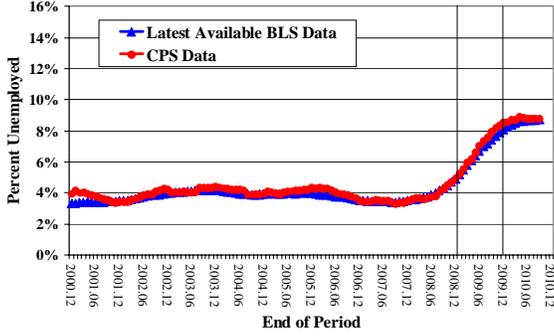
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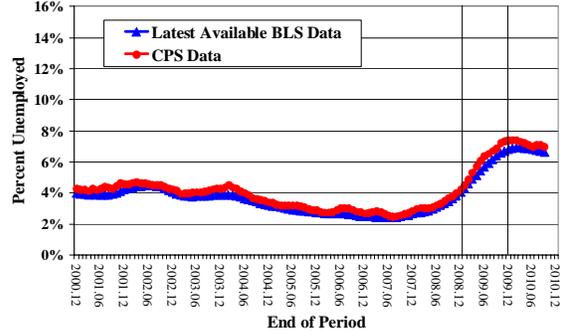
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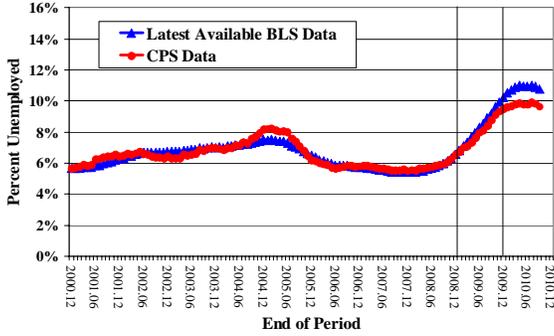
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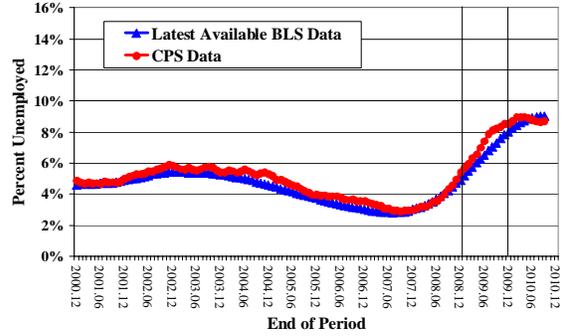
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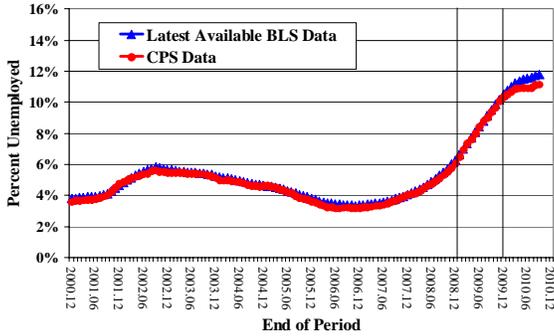
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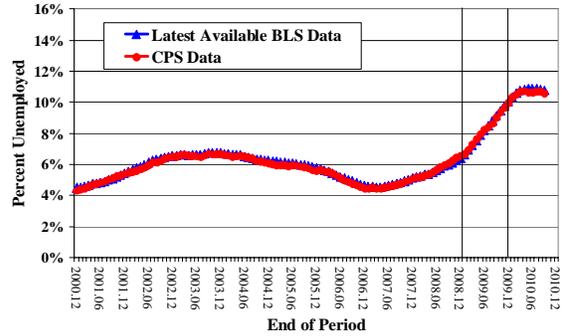
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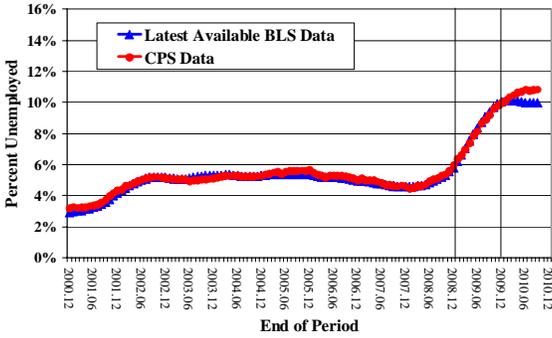
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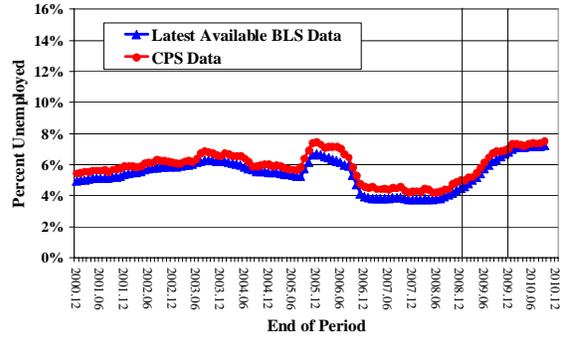
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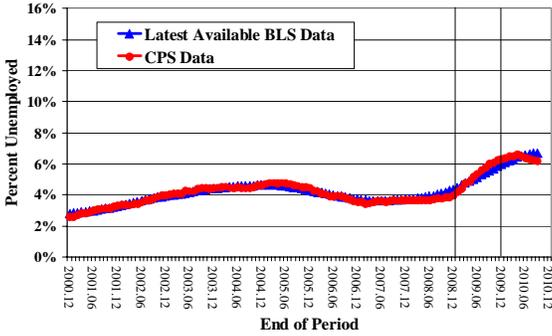
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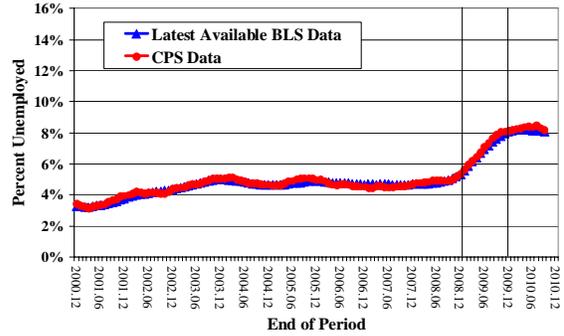
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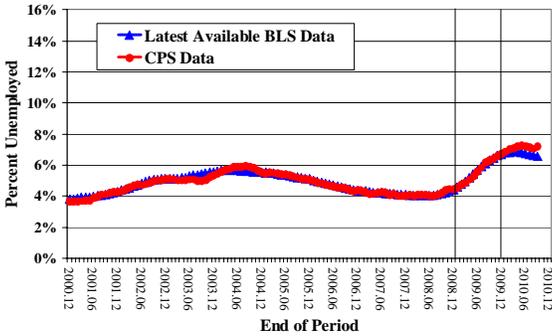
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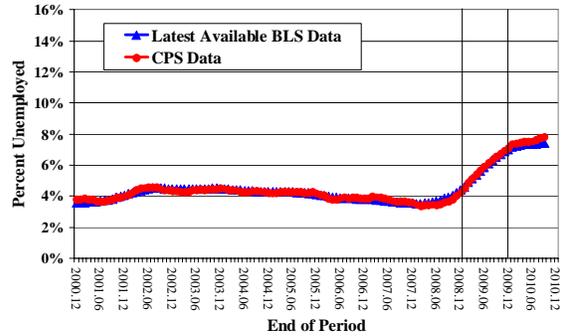
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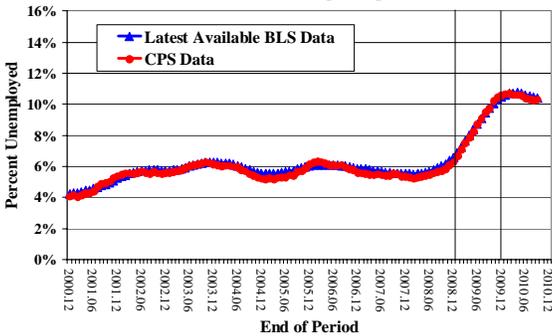
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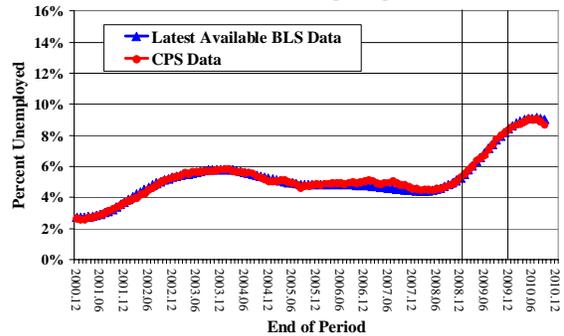
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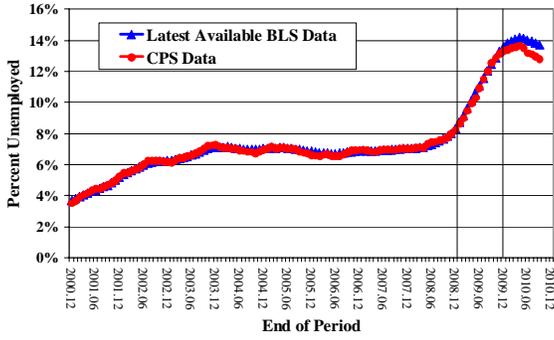
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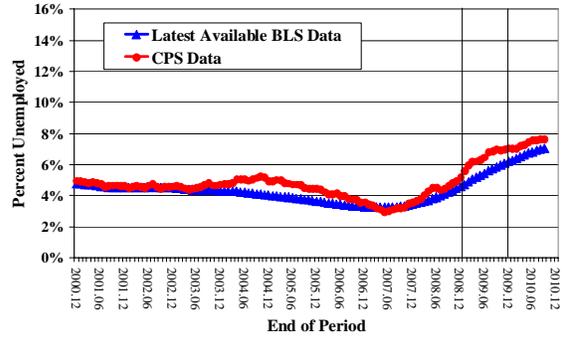
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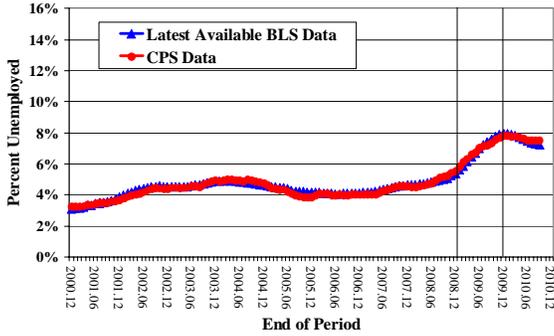
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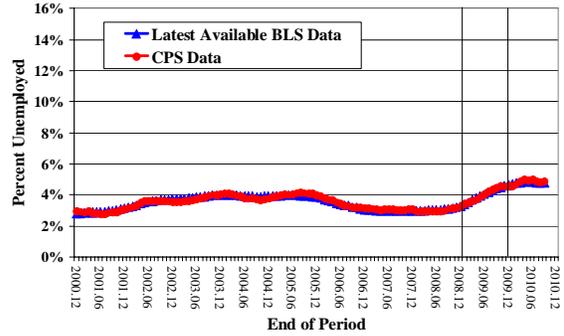
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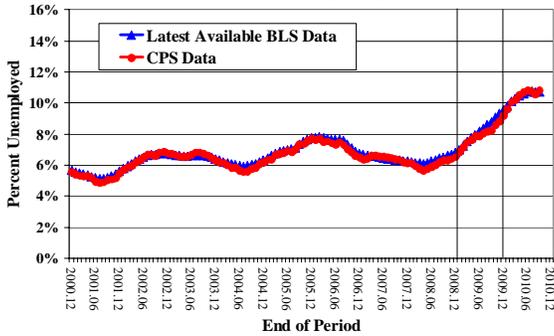
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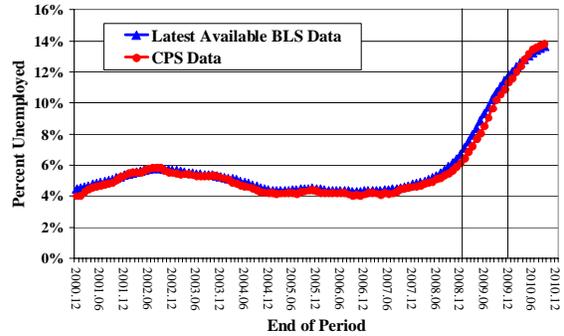
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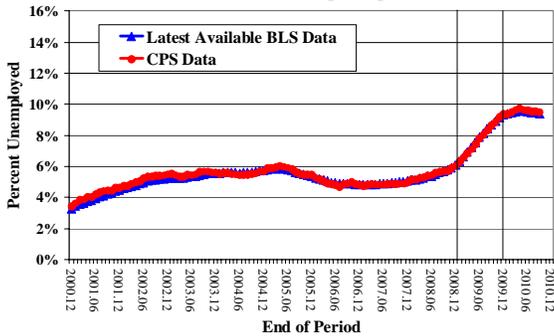
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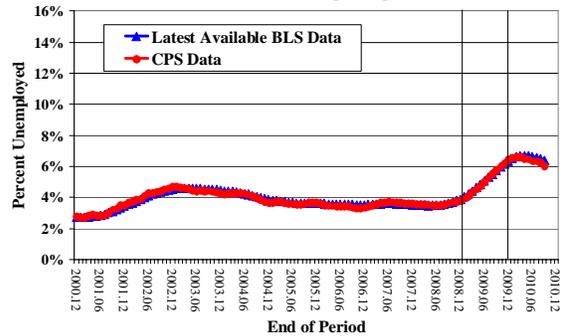
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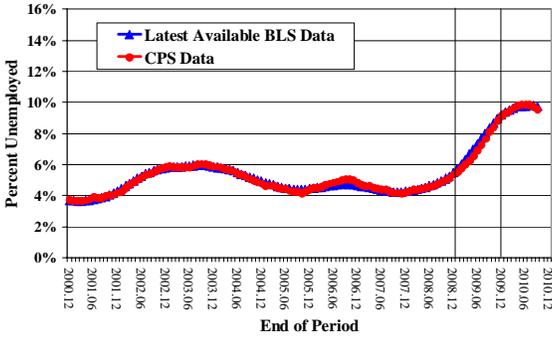
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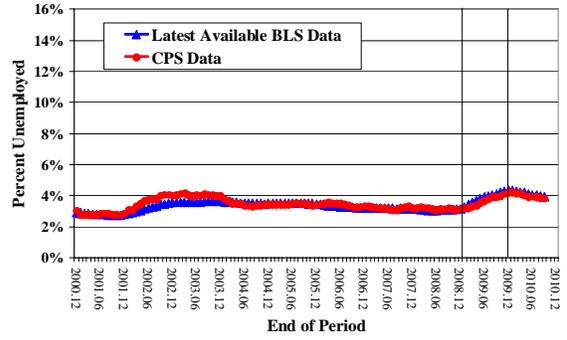
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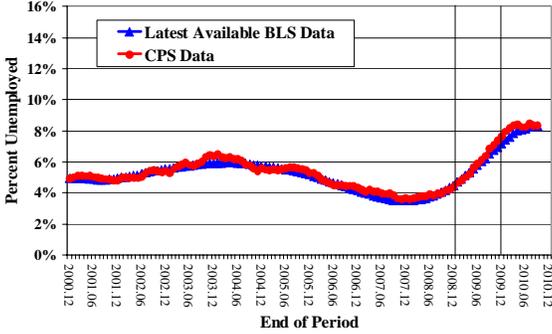
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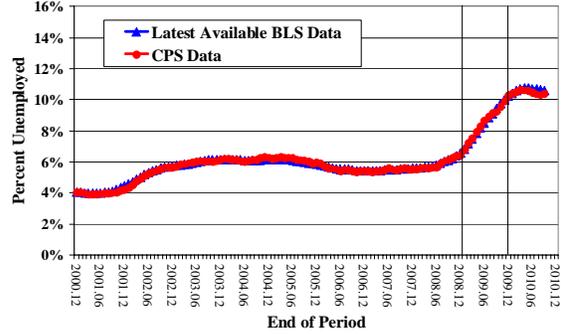
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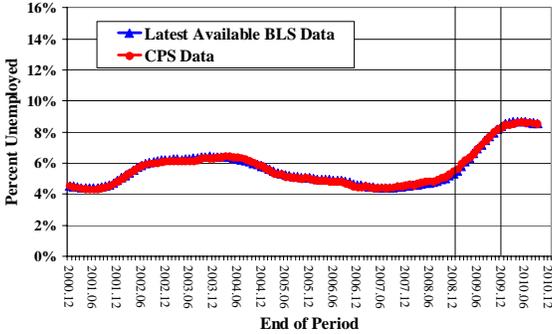
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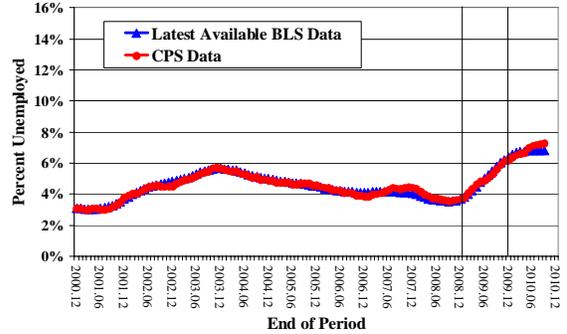
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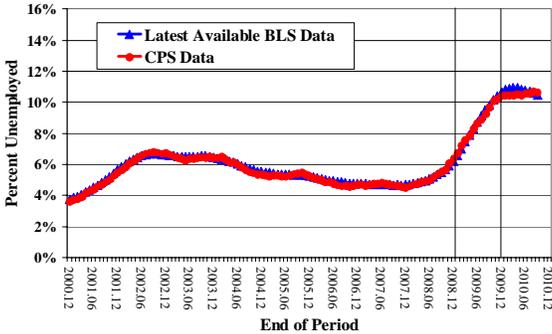
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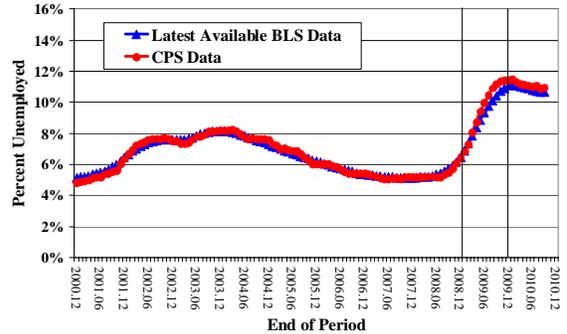
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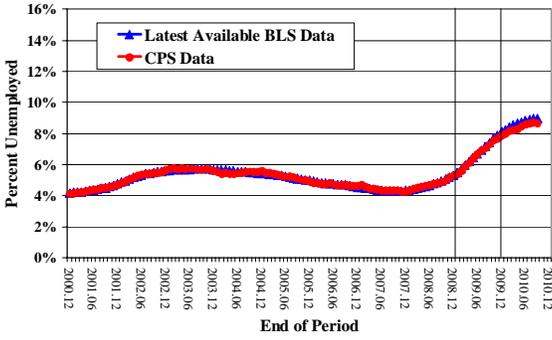
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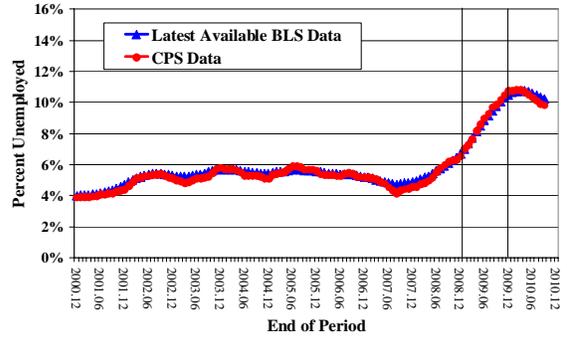
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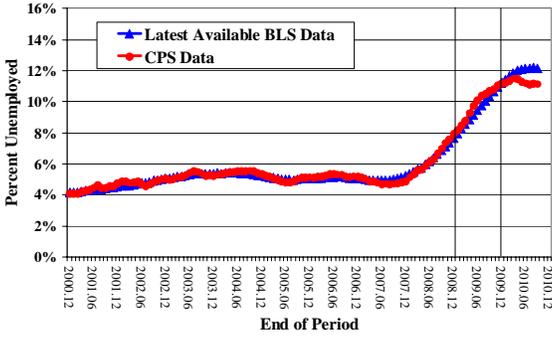
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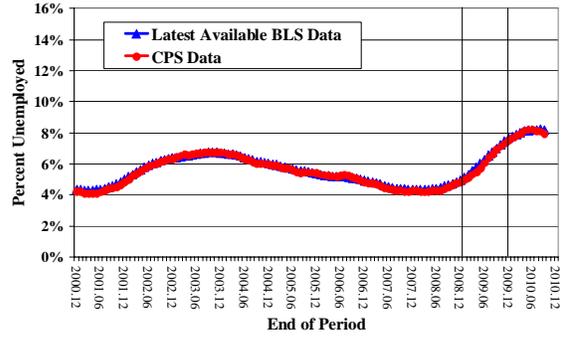
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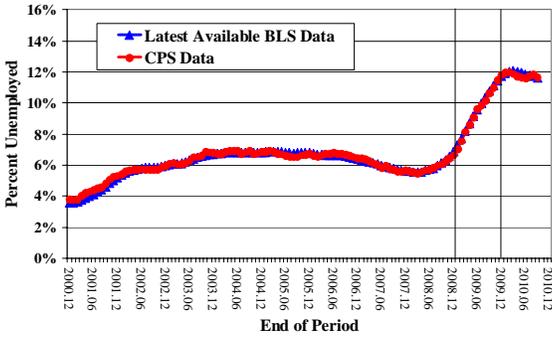
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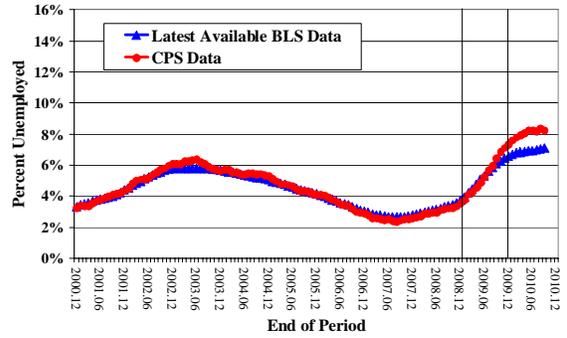
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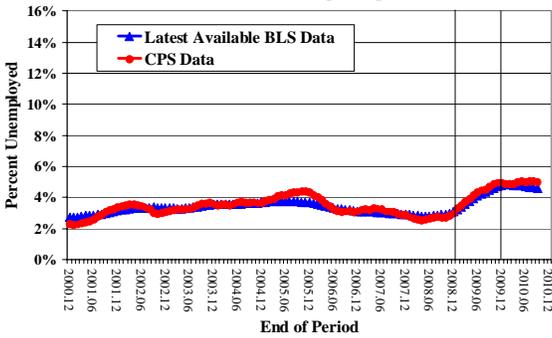
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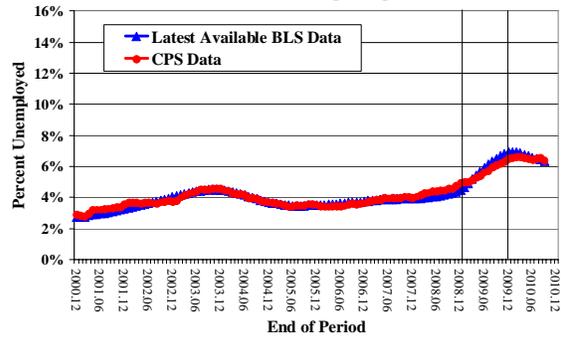
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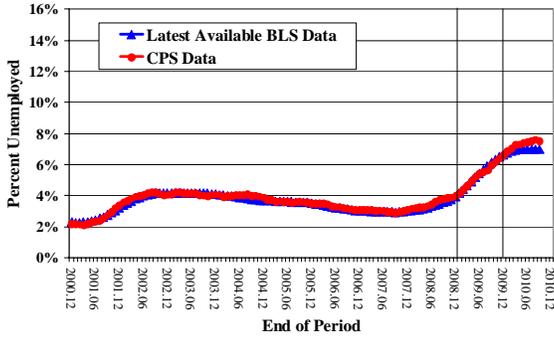
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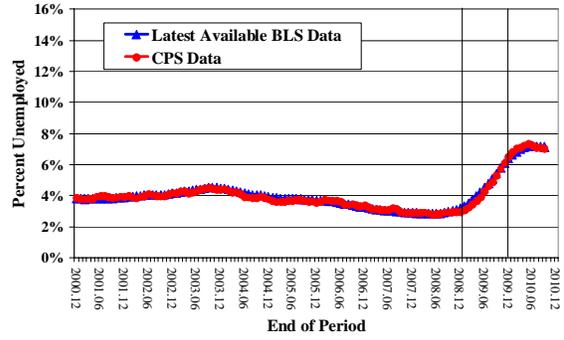
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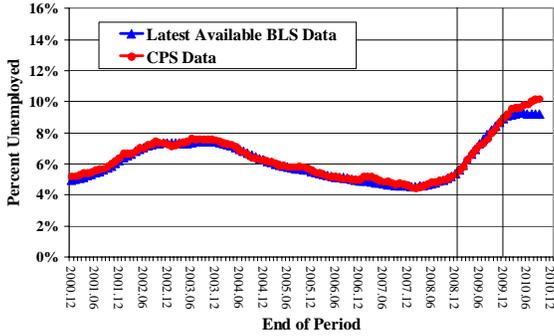
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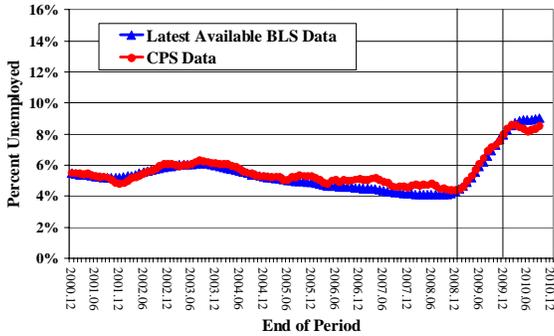
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Wisconsin
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