The Slippery Slope of the Wisconsin Labor Force Participation Rate June 2012

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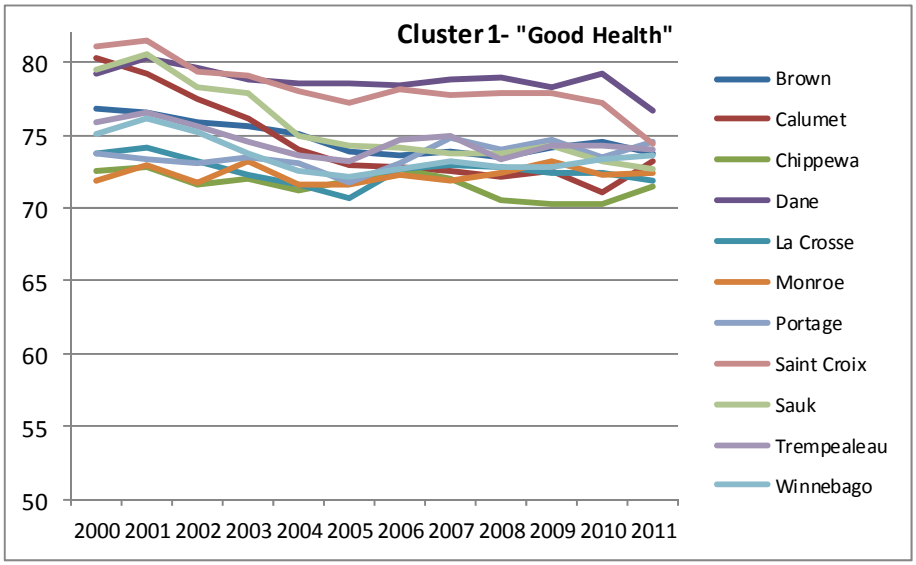
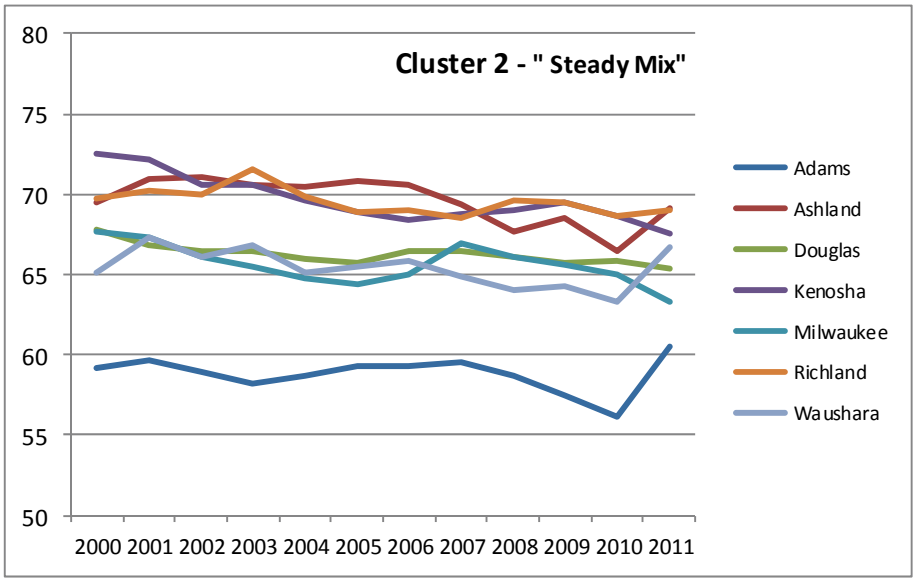
Note: 2011 data are preliminary. Not for distribution.

Preliminary 2011 Labor Force Participation Rate (LFPR) data show some signs of improvement for Wisconsin Counties. The purpose of this brief is to provide a mini-analysis of LFPR. LFPR is defined as the labor force (sum of employed and unemployed) divided by the civilian non-institutional population ages 16 and older. Cluster analysis is used to organize counties into like groups and then compare LFPR across groups. Linear regressions were performed on all 72 counties; the regression slopes and coefficients of variation were used as cluster variables with Wisconsin counties as observations. The graphic results for county LFPRs for a seven-cluster solution in shown in the graphs that that accompany this article. Each cluster by county is graphed along a ten-year annual trend of the labor force participation rate (LFPR).





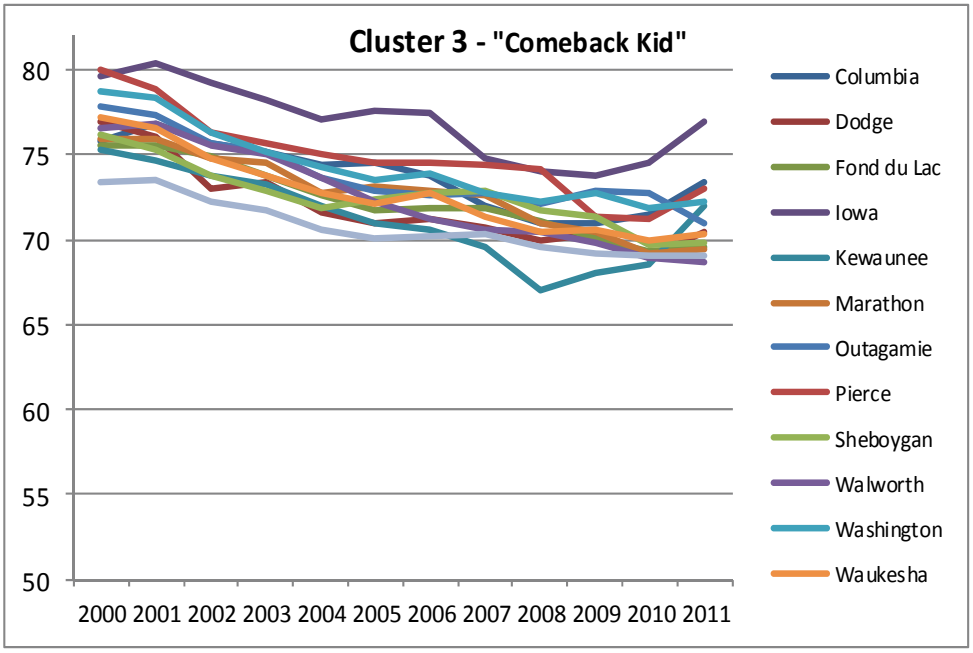
LFPR Clusters 1 & 2

Cluster 1 depicts the LFPRs as "very healthy" because the regression slope for each county did not decrease precipitously. The average change in the LFPR from 2000 to 2010 declined only three percentage points for this cluster. Dane and Saint Croix counties show a LFPR decline in 2011 (preliminary) - which may be due to an increase of persons migrating into these magnet counties to find employment. All Cluster 1 counties are above the preliminary 2011 Wisconsin LFPR average of 69.1; Wisconsin's LFPRs remained flat at 69.0 during 2010.

Cluster 2 regression slopes and coefficients of variation are similar to Cluster 1; except Cluster 2 county LFPRs are slightly below Wisconsin's average. Adams County, the bottom-most county on the graphic, has persistent low LFPRs; a function of in-migrant persons who have already left the work force. Milwaukee County continues to decline monotonically from 2008 to 2011 with an average annual reduction of one percentage point. Cluster counties are steady in labor force participation, with a slow mixed profile. However, it is a "steady mix" nonetheless.

LFPR Clusters 3 & 4

Cluster 3 is named the "comeback kid" counties. The slope is definitely steeper than Clusters 1 and 2 and has a decided direction with low variation. It seems the analyst can trust these counties to bounce back; low variation signals solid progress and shows promising signs for completing the U-Shaped recovery into 2013. Cluster 3 includes stalwart counties for helping to lead the way back to recovery (Waukesha and Washington County). The LFPR for Cluster 3, at 71, is above the statewide average of 69.



Cluster 4 was hit very hard by the Great Recession. All counties are below the statewide average and have dropped over 10% from the base year in 2000. Most of these counties are showing signs of improvement but will need local intervention to promote economic growth and connect job seekers with jobs. Both Jefferson and Rock counties are not making much employment progress, while the remaining counties are showing signs of improvement.

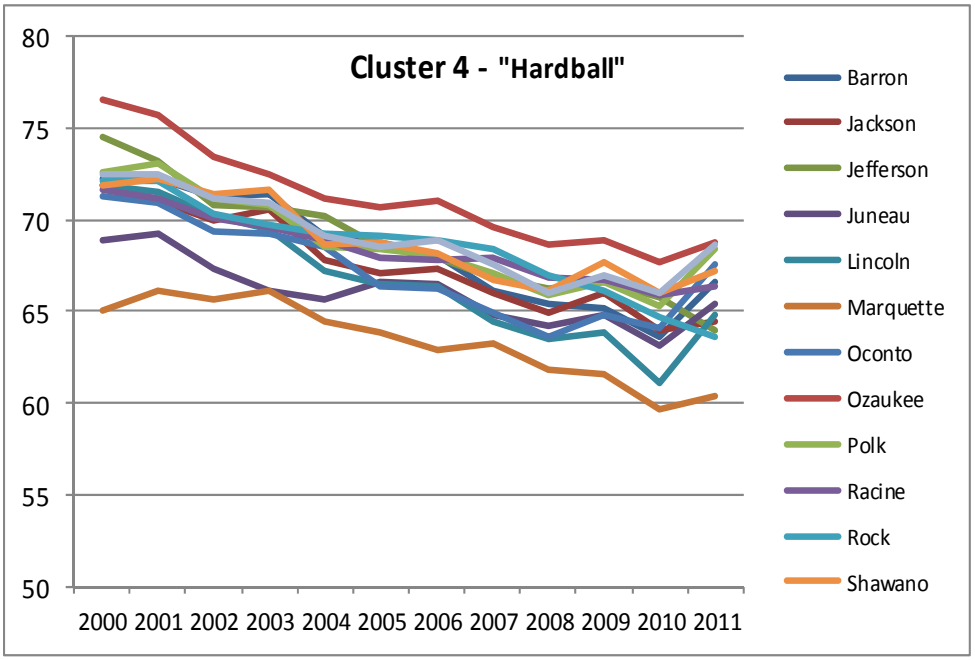


Table 1 below compares six descriptive statistics for each Cluster: The regression slope and Coefficient of Variation, LFPR percent change, 2011 preliminary LFPR and the average labor force.

Table 1 Performance Metrics by Cluster

Cluster	1	2	3	4	5	6	7
Number of Counties	11	7	12	13	7	15	7
Slope	-2.7	-2.3	-6.5	-7.4	-2.3	-8.8	-8.0
Coefficient of Variation	11.3	12.2	9.9	9.9	21.8	16.9	27.2
LFPR 2000 to 2010 % Change	-3.2%	-3.68	-8.3%	-10.2%	-3.4%	-12.1%	-9.4%
2011 LFPR (prelim)	74.5	64.1	70.6	65.9	70.6	66.2	63.2
2011 Average Laborforce	101,114	136,071	82,766	50,094	35,769	19,366	14,482

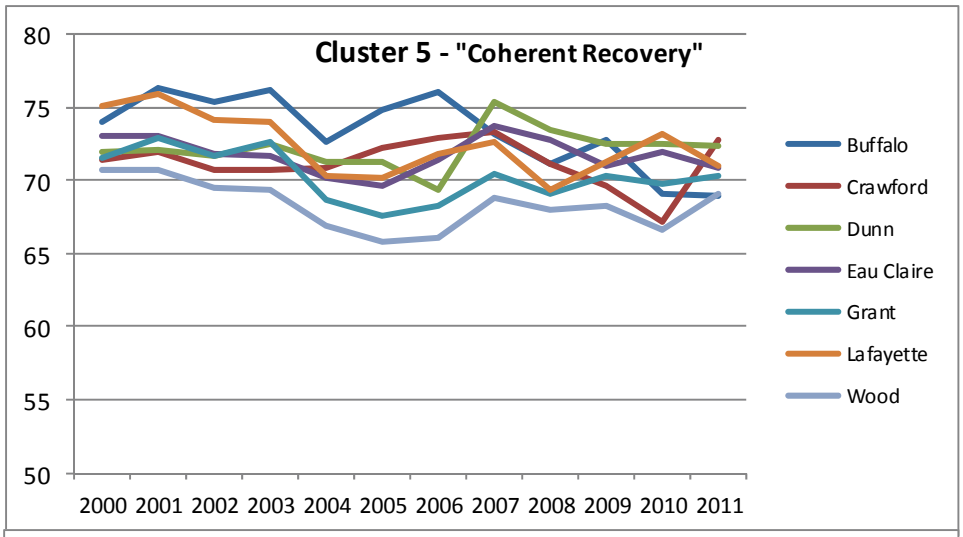
Clusters 5, 6 & 7

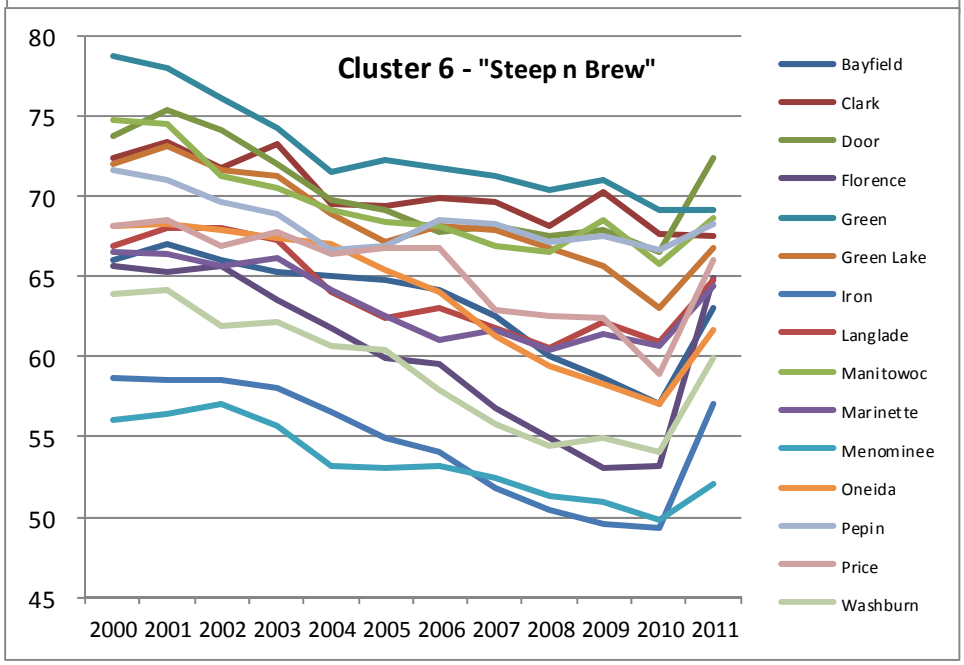
The last three Clusters have significant variation in declines of the labor force participation rate.

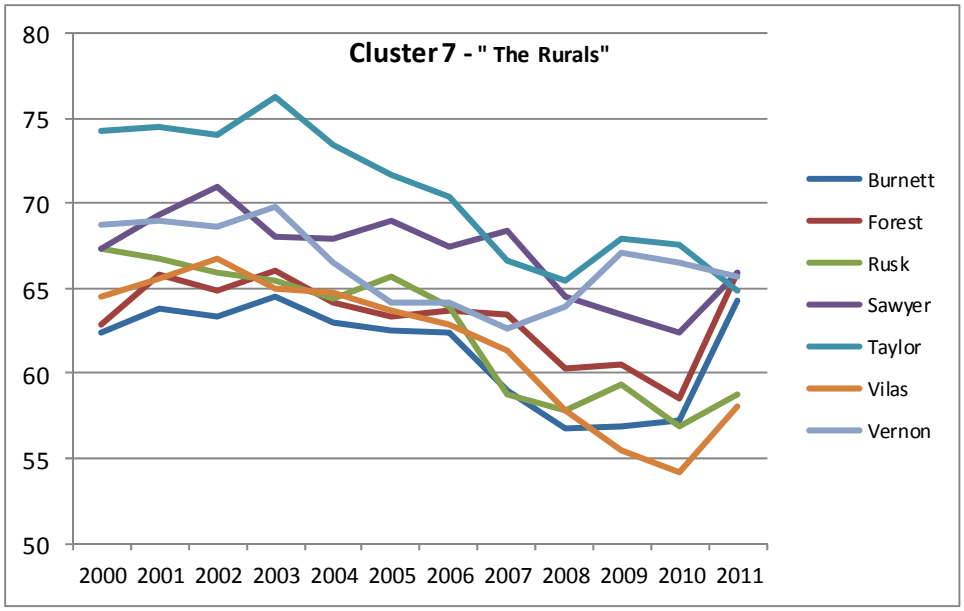
Cluster 5 counties show increased variation, especially with Dunn county. It is difficult to see a "coherent pattern" — but there are signs that most counties recovered from the 2001 recession and are trying to achieve recovery from the Great Recession of 2008.

Cluster 6 counties show the largest decline in the LFPR (-12 percentage points) since 2000. All Cluster 6 counties, however, show a potential brewing recovery. The average county workforce, in Cluster 6 is 19,336. It is noted that Florence and Menominee counties have significant outliers (z-scores > 1.96) for the preliminary LFPRs in 2011. Cluster 6 counties have high coefficients of variation and several county preliminary LFPRs should be viewed with caution.

Cluster 7 has the lowest average LFPR in Wisconsin, at 63.3, and the highest variation. These are low population density counties with an average of 14,000 persons in the workforce. Cluster 7 counties are very rural, with seasonal employment and high unemployment rates. Increased tourism is key to recovery in Cluster 7.



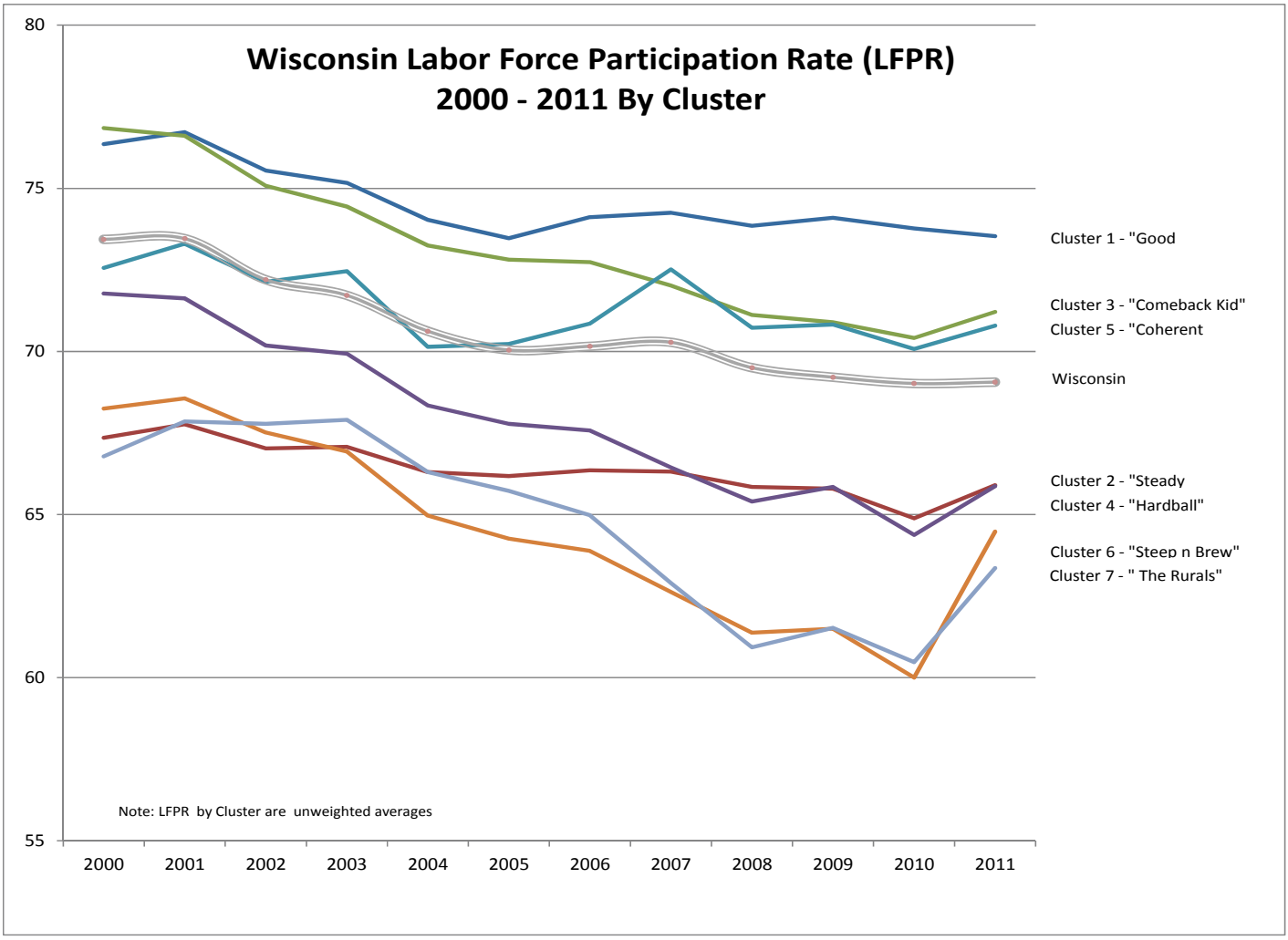




The Final chart is a summary of Labor Force Participation rates by cluster. As mentioned previously Cluster 1, 3 and 5 are above the Statewide average and the remaining Clusters are below the statewide average. The summary of LFPRs in the chart show signs of improvement. The differences in LFPRs among clusters are caused by a combination of labor economics and demographic covariates including education and age. As might be expected, persons over 65 years of age have the lowest labor participation rates of any age group. The weighted median age in Cluster 1 is 37.4 years, while the median age in Cluster 7 is 43.1. Likewise, the percentage of persons over the age of 65 years of age is 11.8 percent in Cluster 1 and 20.1 percent in Cluster 7. A similar association is found between higher education and the LFPR. The percent of county residents with higher education is 34.5 percent for Cluster 1 and 18.9 percent for both Clusters (6 and 7).

Summary

This brief provides preliminary 2011 labor force participation rates for counties within seven Wisconsin LFPR Clusters. The data show that three of the seven clusters (1,3 and 5) show good potential for a sustained recovery in 2012 and Cluster 2 is poised to improve labor force participation. However, there are two clusters (6 and 7), hardest hit by the Great Recession, that may require local intervention to produce gains by 2013. As previously noted counties in Clusters 6 and 7 have high levels of variation and should be viewed with caution. Milwaukee County and Cluster 4 counties need immediate attention to increase and sustain the momentum to connect job seekers with jobs. Final 2011 LFPR estimate are expected during the Summer of 2012 and will be posted on the DWD OEA Website.



Thanks to Eric Grosso (DWD-OEA Senior Economist) for providing preliminary 2011 Data and Dennis Winters for support . — dmc