Employment Impact of Hurricane Katrina on South Mississippi: The 5-Year Anniversary

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Summary: The economic impact of Hurricane Katrina on the three southern counties of Mississippi was significant. Using a variety of measures our research indicates that the region that contains Harrison, Hancock and Jackson counties never fully recovered employment before the recession of 2008 began.

Background: On August 29, 2005, Hurricane Katrina made landfall near Waveland, Mississippi, with storm impacts being felt eastward throughout the state of Mississippi, Alabama and into Florida and westward throughout Louisiana. The research team examined employment and unemployment in the three southernmost counties of Mississippi (Hancock, Harrison, and Jackson) from January 2001 to December 2009 to determine the economic impact associated with Hurricane Katrina.

Employment: The service sector dominates total private employment in this region with over 50% of the employed. Furthermore, service sector employment is derived from the overall level of economic activity meaning that it provides a good measure of overall economic activity before other data is available and without the typical month-to-month seasonality of construction employment. We examined both the change in employment up until the current recession (2008 onward) and the employment through 2009 to provide a measure of the degree of economic recovery to date.

Findings: Immediately following Hurricane Katrina there was a large drop in all employment in the study area as businesses were destroyed and business owners left the area. Residents began the difficult task of taking inventory of lost people, items, and securing food, water, shelter and security. Construction employment increased significantly. This spike was not surprising given the need to rebuild structures, clear debris, and replace lost items. Service employment, however, significantly lagged behind construction and goods. Hancock County lost over 40% of its service employment after Hurricane Katrina only recovering to pre-Katrina levels of employment in June 2007. Harrison County followed a similar pattern to Hancock with the loss of 30% of its service sector labor force but never recovered to pre-Katrina levels of employment. Jackson County, furthest from the landfall, also saw immediate losses in service sector employment but at a lower rate than the other two counties, losing only 10% of service jobs. Jackson County recovered service employment to pre-Katrina levels in March 2006 (Figure 1).
Recovering to pre-Katrina levels is not an accurate measure since areas outside the Hurricane Katrina influence area continued to grow employment during the economic expansion. A more accurate measure is to determine what the level of employment would have been if Hurricane Katrina did not hit South Mississippi. Using the employment growth estimates in each county from 2001-2005 we projected what employment should have been in 2007 in the service sector. Using these growth projections, we estimate that Harrison County never recovers from Hurricane Katrina (employment is 9.9% lower than projected) in service sector employment and neither does Hancock County (1.0% lower than projected) before the recession begins. Jackson County alone recovers using this better measure, but the recovery is shown to be less robust than previously calculated when comparing to the pre-Katrina levels (Figure 2).

Source: Authors calculations of Quarterly Census of Employment and Work data from the US Department of Labor
The final method of measuring employment recovery is to find three counties in the United States that have similar employment sizes and mixes as Hancock, Harrison and Jackson Counties and measure these three county’s employment growth as a counter-factual. We use three coastal counties in Texas (Nueces, San Patricio and Aransas), and found that employment in these counties grew five percent in the service sector during this period. Adjusting for an anticipated five percent growth in the three Mississippi coastal counties during the recovery period shows that none of the three counties fully recovered before the recession begins in 2008. Using this counter-factual measure, Harrison County is down 11.4%, Hancock County is down 2.5% and Jackson County down 0.6% (Figure 3).
On aggregate, the three coastal counties of Mississippi employed 123,000 workers in the private sector prior to Hurricane Katrina. To date, the number of employed coastal Mississippians has not recovered to this pre-storm level. Jackson County has had fairly robust growth, especially prior to the most current recession when employment was 12% higher than prior to the storm. However, the heavy employment loss in Harrison County, which accounts for over half of all coastal employment, implies that the coast has not fully recovered. As of December 2009, employment levels on the coast were seven percent lower than the employment level of August 2005 (Figures 4 and 5).
Figure 4

Scaled Service Sector Employment for 3 Coastal MS Counties: 2001-2009

Source: Quarterly Census of Employment and Work data, US Department of Labor

Figure 5

Scaled All Employment for 3 Coastal Mississippi Counties: 2001-2009

Source: Quarterly Census of Employment and Work data, US Department of Labor

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Methods: This paper analyzes data from the Department of Labor’s Quarterly Census on Employment and Wages to highlight the change in the economy of the Mississippi Gulf Coast counties following Hurricane Katrina. The Current Population Survey was used for estimates of demographic factors that occurred between censuses. The Local Area Unemployment records from the Bureau of Labor Statistics and the Quarterly Census of Employment and Wages from the Bureau of Labor Statistics were also used in this report.

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