



The Distribution of Poverty in the Third District*

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It would be beneficial to examine how households in the Third District have been affected by the recent economic downturn. Thinking locally, we can examine both overall poverty rates in our three-state region of Pennsylvania, New Jersey, and Delaware and where poverty is the most severe. This report looks at county poverty rates in 2008, in the early part of the recent downturn, and compares that to rates from 2000, the peak of the last major expansion. Data for 2009, which will reflect more of the downturn's impact, will not be released until the end of 2010.

Poverty Data: What It Is and How It Is Constructed

The Census Bureau's Small Area Income and Poverty Estimates (SAIPE) program releases annual poverty estimates that are constructed from the standard census poverty measurement definitions, which are based on a set of income thresholds.¹ These thresholds are constructed from estimates of essential family needs, such as food, which vary depending on family size and structure. A family with total pre-tax income less than its given poverty threshold is considered to be in poverty, and all family members are included in the poverty count. For example, a family of four, with two children under 18, would be considered to be living in poverty if the total 2008 household income was less than \$21,834. The thresholds do not vary by region; hence, these poverty estimates do not take into account differences in the cost of living across regions.

Since 2006, SAIPE has released annual income and poverty estimates using data from the American Community Survey (ACS).² The ACS samples come from about 3 million households representing all 3,141 counties in the U.S. The volume of data makes it possible to produce annual estimates for even the smallest of counties. In the future, SAIPE intends to use ACS data to provide estimates for more localized geographies such as census tracts.

* The views expressed here are those of the author and do not necessarily reflect those of the Federal Reserve Bank of Philadelphia or of the Federal Reserve System. Jake Carr is a research associate and can be reached at Jake.Carr@phil.frb.org.

¹ See 2008 thresholds at <http://www.census.gov/hhes/www/poverty/threshld/thresh08.html>.

² In 1997, the SAIPE program released the first intercensal estimates of income and the number of people living in poverty at the state and county level. These estimates were modeled on survey data from the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS). The ASEC samples come from about 100,000 households representing around 1,100 counties. Consequently, annual estimates for counties were based on three-year averages of data.

Overall Poverty Rates

The 2008 SAIPE estimate of the poverty rate for the entire U.S. is 13.2 percent. This indicates that just over 13 percent of the U.S. population, given the composition of their households, lived on an annual income lower than their poverty threshold. Similarly, 2008 estimates of the poverty rate for the three states that comprise the Third District (Pennsylvania, New Jersey, and Delaware) were 12.1 percent, 8.7 percent, and 10.3 percent, respectively. Based on the county-level poverty estimates for the 60 counties in the District,³ the 2008 SAIPE estimate of the poverty rate for the Third District is 11.2 percent. See Table 1.

Table 1

State	Poverty Rate (%) 2008	Poverty Rate (%) 2000	Change 2000 - 2008
United States	13.2	11.3	1.9
Third District	11.2	8.9	2.3
New Jersey	8.7	7.8	0.9
Delaware	10.3	8.7	1.6
Pennsylvania	12.1	9.5	2.6

We would expect poverty rates in 2008 to be higher than normal given the deep national recession that began at the end of 2007. It would therefore be useful to compare 2008 rates to rates from a time of relative prosperity. In Table 1, we have also included national and state poverty rates from 2000, the peak of the most recent economic expansion. The U.S. poverty rate is up 1.9 percentage points from 2000 (11.3 percent). Similarly, the rates for Pennsylvania, New Jersey, and Delaware are up 2.6, 0.9, and 1.6 percentage points, respectively. The poverty rate for the Third District is up 2.3 percentage points from 2000 (8.9 percent).

County Poverty Rates

Of the Third District counties, two-thirds have a 2008 poverty rate higher than the 13.2 percent national rate. In the Third District, the counties with the lowest poverty rates were Bucks (5.1 percent) and Chester (5.8 percent) in Pennsylvania, and Burlington (5.4 percent) in New Jersey.⁴ Philadelphia County, PA, is by far the Third District county with the highest poverty rate (23.8 percent).⁵ The county with the next highest poverty rate, McKean County, PA, (17.7 percent) is a full 6.1 percentage points below Philadelphia. If we excluded Philadelphia County from our constructed estimate of the Third District poverty rate, that rate would fall dramatically, to 9.5 percent. Similarly, without Philadelphia County, the Pennsylvania estimate would drop to 10.6 percent. See Table 2 for a list of Third District counties with the lowest and highest poverty rates in 2008.⁶

³ Just as county poverty rates are calculated as the people living in poverty divided by the total number of people living in the county, Third District poverty is calculated as the total number of people living in poverty in the Third Federal Reserve District divided by the Third District population.

⁴ At the county level, there is a somewhat strong and significant negative correlation (-0.86) between poverty rates and median incomes.

⁵ Philadelphia County is coterminous (having the same or coincident boundary) with the city of Philadelphia.

⁶ There is a complete table of 2008 Third District county poverty rates at the end of this report.

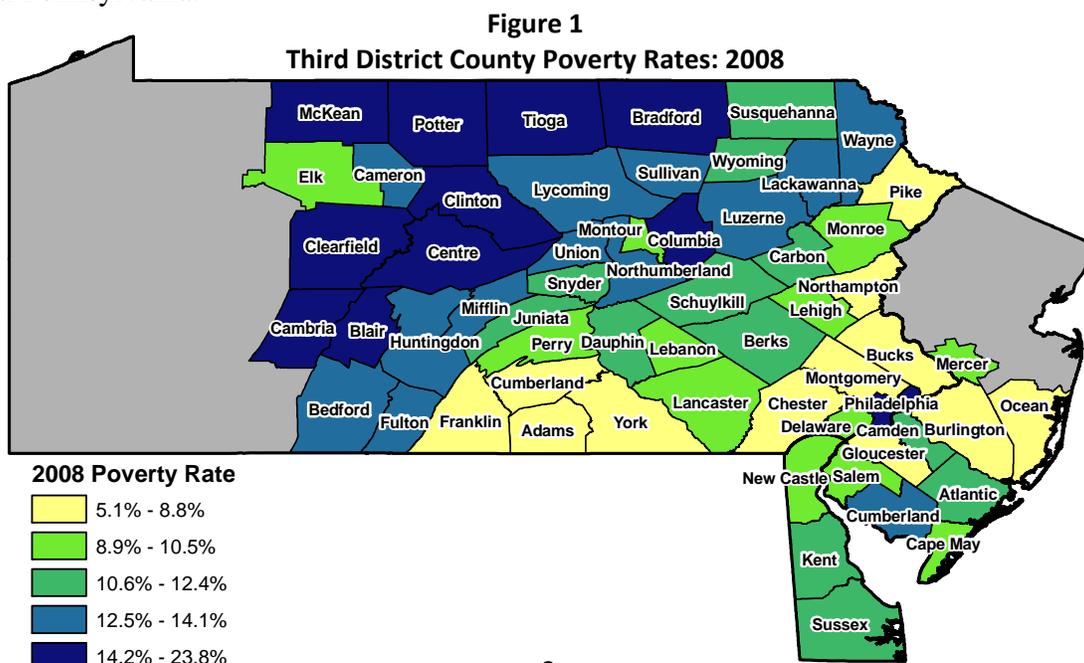
Table 2

County	Lowest			Highest			
	Poverty Rate (%) 2008	Poverty Rate (%) 2000	Change 2000-2008	County	Poverty Rate (%) 2008	Poverty Rate (%) 2000	Change 2000-2008
Bucks County, PA	5.1	4.5	0.6	Philadelphia County, PA	23.8	18.5	5.3
Burlington County, NJ	5.4	5.1	0.3	Mc Kean County, PA	17.7	11.9	5.8
Chester County, PA	5.8	4.5	1.3	Clearfield County, PA	16.0	11.9	4.1
Montgomery County, PA	6.2	4.4	1.8	Clinton County, PA	16.0	11.8	4.2
Gloucester County, NJ	6.9	5.9	1.0	Tioga County, PA	15.9	11.7	4.2
Cumberland County, PA	7.6	5.1	2.5	Cambria County, PA	15.5	11.8	3.7
Adams County, PA	7.8	6.2	1.6	Bradford County, PA	15.2	11.0	4.2

The counties with the lowest poverty rates in 2008 also had the lowest rates in 2000. In addition, the lowest poverty counties had lower increases in poverty rates from 2000 to 2008, with the greatest increase among low poverty counties occurring in Cumberland County, PA (2.5 percentage points). The highest poverty counties in 2008 had the greatest increase in poverty rates from 2000. McKean County, PA had the largest increase, 5.8 percentage points, from 2000 (up from 11.9 percent). Philadelphia County, PA had the second largest increase, 5.3 percentage points (up from 18.5 percent).

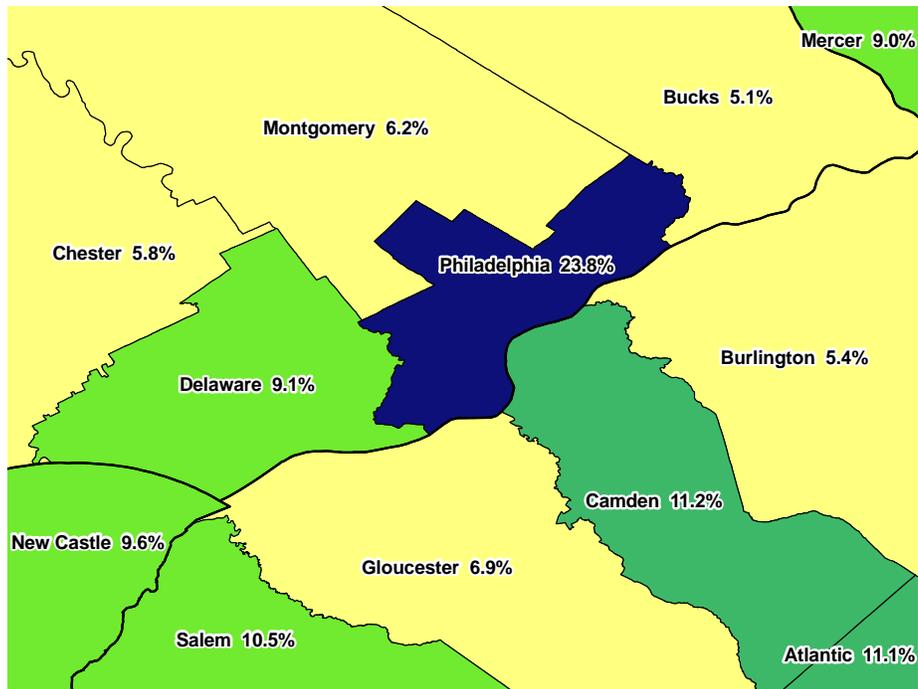
Poverty Rate Distribution

Figure 1 presents a map of Third District counties and their respective poverty rates. Counties with the highest poverty rates are dark blue and counties with the lowest rates are yellow. There is an obvious spatial persistence of poverty rates across counties in the Third District: For the most part, counties near each other had similar poverty rates. High poverty rates are mostly found in counties in the northwestern part of the District, while, with the exception of Philadelphia County, low poverty rates are found in the southeastern counties. Apart from Philadelphia County, the six counties with a poverty rate over 15 percent are all located in central Pennsylvania.



The five District counties with the lowest poverty rates are considered suburbs of Philadelphia County, and in fact, four of them are contiguous with Philadelphia. The stark contrast between the high poverty in Philadelphia County and the low poverty in the surrounding suburban counties only highlights the magnitude of poverty in Philadelphia. See Figure 2.

Figure 2
Philadelphia Area County Poverty Rates: 2008



County poverty rates from 2000 are presented in Figure 3. The counties with the highest poverty rates are dark blue and counties with the lowest rates are yellow.⁷ The spatial persistence of poverty rates across counties in the Third District is again apparent. Higher poverty rates are mostly found in counties in the northwestern part of the District, while low poverty rates are generally found in the southeastern counties. The difference in poverty rates from 2000 to 2008 is evidenced by the lack of counties with a poverty rate above 12.5 percent in 2000. While Figure 3 shows only two such counties, Figure 1 shows 24.

Figure 4 presents the distribution of poverty rate changes from 2000 to 2008. The counties that experienced the greatest increase in poverty rates during those years are shaded dark brown, while the counties that had the least change in poverty rates are shaded yellow. Of Third District counties, 15 percent saw an increase of four percentage points or higher. The spatial distribution of poverty rate change is consistent with the distribution of poverty found in both Figure 1 and Figure 3. Higher changes are mostly found in counties in the northwestern part of the District, while, with the exception of Philadelphia County, lower changes are found in the southeastern counties. This suggests that central Pennsylvania counties were especially affected by the downturn.

⁷ Note that the color intervals in the legend in Figure 3 are the same as in Figure 1 to allow for direct comparison.

Figure 3
Third District County Poverty Rates: 2000

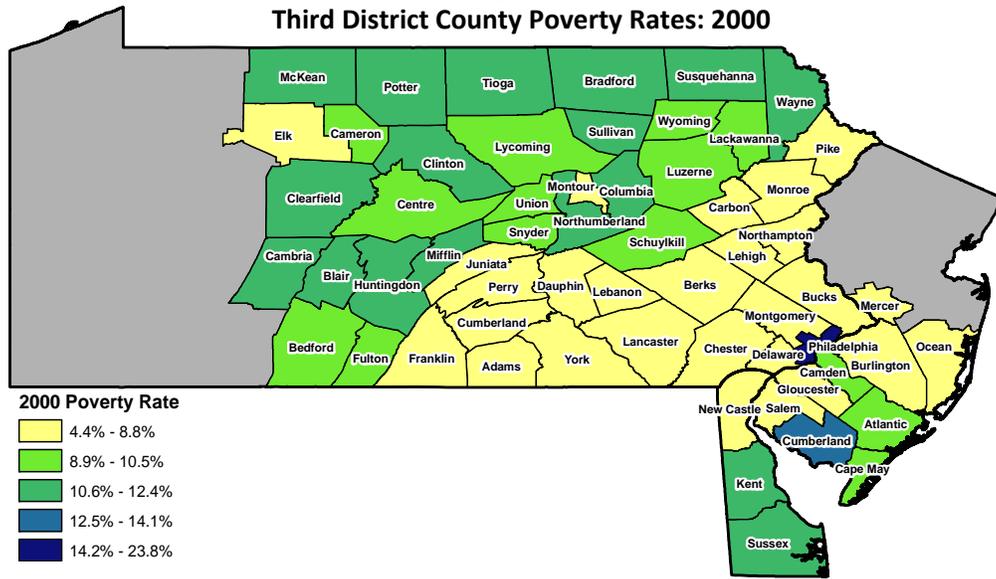
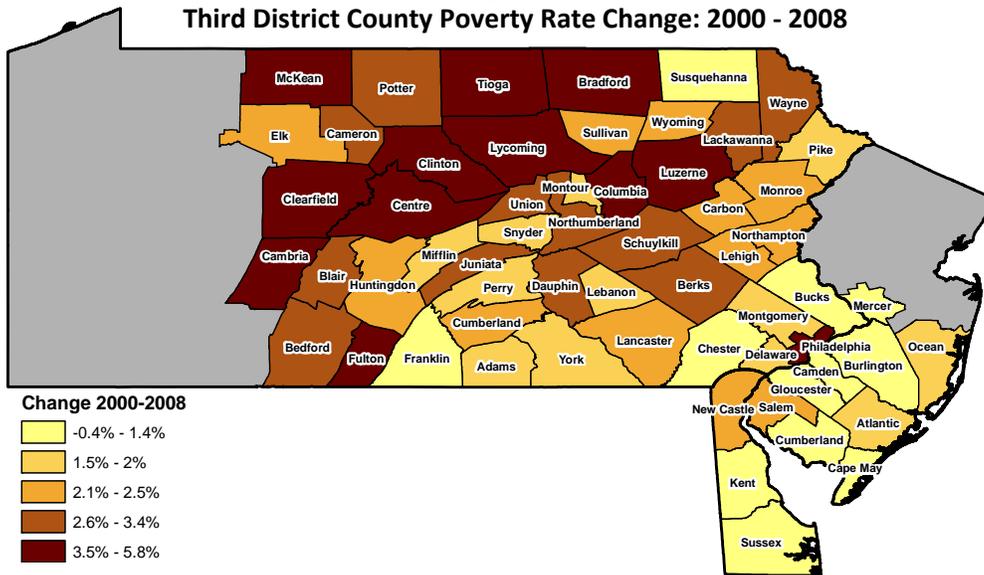


Figure 4
Third District County Poverty Rate Change: 2000 - 2008



National County Comparisons

Philadelphia County is the 24th largest county in the U.S. in terms of population and has the 28th highest poverty rate. Of the 27 counties that have a higher poverty rate than Philadelphia County, only one has a population over 1 million: Bronx County, NY, which has a poverty rate of 27.3 percent.

Of the 25 most populous counties, Philadelphia has the highest poverty rate (23.8 percent).⁸ The next highest counties in that group include Kings County, NY (Brooklyn), with a rate of 21.1 percent, and Wayne County, MI (Detroit), with a rate of 20.5 percent. These three counties are the only counties in the top 25 with a poverty rate over 20 percent.

An examination of poverty rates for the counties that contain the 11 largest U.S. cities reveals that Philadelphia County, PA has the highest poverty rate. See Table 3. Detroit, MI (Wayne County, MI) is second, with a rate of 20.5 percent. New York, NY, comes in third, with a poverty rate of 18.2 percent.⁹

If we look at just consolidated city-counties, again, Philadelphia has the highest poverty rate (23.8 percent).¹⁰ None of the other city-counties in Table 4 have a poverty rate above 20 percent. Second highest on this list is New York, NY (18.2 percent), which is just ahead of Denver, CO at 18.0 percent.

Philadelphia County's poverty rate is not only high relative to other Third District counties, but as we see here, it is high compared to other large metropolitan counties across the country.

Table 3

City	Size Rank	Poverty Rate
New York, NY*	1	18.2
Los Angeles, CA	2	15.3
Chicago, IL	3	14.8
Houston, TX	4	15.3
Philadelphia, PA	5	23.8
Phoenix, AZ	6	13.4
San Antonio, TX	7	17.1
San Diego, CA	8	12.6
Dallas, TX	9	17.3
San Jose, CA	10	7.6
Detroit, MI	11	20.5

*New York, NY is made up of five counties: New York County, Bronx County, Queens County, Kings County, and Richmond County.

Table 4

County	Size Rank	Poverty Rate
New York, NY*	1	18.2
Philadelphia, PA	5	23.8
San Francisco, CA**	12	11.2
Marion, IN** (Indianapolis, IN)	14	16.5
Denver, CO**	24	18.0
Davidson, TN** (Nashville, TN)	26	16.9
Washington, DC	27	16.9

*New York, NY is made up of five counties: New York County, Bronx County, Queens County, Kings County, and Richmond County.

**These counties are considered consolidated city-counties.

⁸ At the county level, there is a weak but significant negative correlation (-0.18) between poverty rates and population nationally. For Third District counties there is a somewhat stronger correlation (-.47).

⁹ New York, NY is made up of five counties: New York County, Bronx County, Queens County, Kings County, and Richmond County.

¹⁰ Consolidated city-counties are merged city and county governments into a unified municipality, often because the city and county share the same geographic boundary.

Concluding Remarks

The Third Federal Reserve District is faring better than the U.S. in terms of poverty, with two-thirds of Third District counties having a poverty rate that is lower than the national rate. In addition, while there is considerable variation in poverty rates across Third District counties, high poverty rates tend to cluster in the northwestern counties, and low poverty rates tend to cluster in the southeastern counties.

Compared to 2000, almost all Third District counties are now worse off. In general, lower poverty counties had the lowest increases in poverty rates, while higher poverty counties had the highest increases in rates. The counties that have seen the greatest increase in poverty rates are generally located in central Pennsylvania.

The comparison of Philadelphia County both with other Third District counties and with counties with large metropolitan populations warrants further investigation of the issues related to the high level of poverty found in Philadelphia.

Sources

Bell, William, Wesley Basel, Craig Cruse, Lucinda Dalzell, Jerry Maples, Brett O'Hara, and David Powers. "Use of ACS Data to Produce SAIPE Model-Based Estimates of Poverty for Counties," U. S. Census Bureau, December 2007.

<http://www.census.gov/did/www/saipe/publications/files/report.pdf>. Accessed April 23, 2010.

Table of County Poverty Rates

Pennsylvania		New Jersey		Delaware			
County	Poverty Rate (%)	County	Poverty Rate (%)	County	Poverty Rate (%)		
Adams County	7.8	Lebanon County	9.3	Atlantic County	11.1	Kent County	10.7
Bedford County	13.2	Lehigh County	10.2	Burlington County	5.4	New Castle County	9.6
Berks County	11.3	Luzerne County	14.1	Camden County	11.2	Sussex County	12.0
Blair County	14.3	Lycoming County	13.8	Cape May County	8.9		
Bradford County	15.2	Mc Kean County	17.7	Cumberland County	13.4		
Bucks County	5.1	Mifflin County	13.1	Gloucester County	6.9		
Cambria County	15.5	Monroe County	10.1	Mercer County	9.0		
Cameron County	13.0	Montgomery County	6.2	Ocean County	8.6		
Carbon County	11.0	Montour County	10.5	Salem County	10.5		
Centre County	14.8	Northampton County	8.7				
Chester County	5.8	Northumberland County	13.3				
Clearfield County	16.0	Perry County	9.3				
Clinton County	16.0	Philadelphia County	23.8				
Columbia County	14.4	Pike County	8.8				
Cumberland County	7.6	Potter County	14.4				
Dauphin County	10.8	Schuylkill County	12.4				
Delaware County	9.1	Snyder County	11.2				
Elk County	9.4	Sullivan County	14.1				
Franklin County	8.5	Susquehanna County	12.2				
Fulton County	12.9	Tioga County	15.9				
Huntingdon County	13.5	Union County	13.6				
Juniata County	10.7	Wayne County	13.4				
Lackawanna County	13.1	Wyoming County	11.9				
Lancaster County	9.2	York County	8.0				