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The Suburbanization of Poverty:

Trends in Metropolitan America, 2000 to 2008

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Suburbs saw by far the greatest growth in their poor population and by 2008 had become home to the largest share of the nation's poor.

Findings

An analysis of the location of poverty in America, particularly in the nation's 95 largest metro areas in 2000, 2007, and 2008 reveals that:

- **By 2008, suburbs were home to the largest and fastest-growing poor population in the country.** Between 2000 and 2008, suburbs in the country's largest metro areas saw their poor population grow by 25 percent—almost five times faster than primary cities and well ahead of the growth seen in smaller metro areas and non-metropolitan communities. As a result, by 2008 large suburbs were home to 1.5 million more poor than their primary cities and housed almost one-third of the nation's poor overall.
- **Midwestern cities and suburbs experienced by far the largest poverty rate increases over the decade.** Led by increasing poverty in auto manufacturing metro areas—like Grand Rapids and Youngstown—Midwestern city and suburban poverty rates climbed 3.0 and 2.2 percentage points, respectively. At the same time, Northeastern metros—led by New York and Worcester—actually saw poverty rates in their primary cities decline, while collectively their suburbs experienced a slight increase.
- **In 2008, 91.6 million people—more than 30 percent of the nation's population—fell below 200 percent of the federal poverty level.** More individuals lived in families with incomes between 100 and 200 percent of poverty line (52.5 million) than below the poverty line (39.1 million) in 2008. Between 2000 and 2008, large suburbs saw the fastest growing low-income populations across community types and the greatest uptick in the share of the population living under 200 percent of poverty.
- **Western cities and Florida suburbs were among the first to see the effects of the "Great Recession" translate into significant increases in poverty between 2007 and 2008.** Sun Belt metro areas hit hardest by the collapse of the housing market saw significant gains in poverty between 2007 and 2008, with suburban increases clustered in Florida metro areas—like Miami, Tampa, and Palm Bay—and city poverty increases most prevalent in Western metro areas—like Los Angeles, Riverside, and Phoenix. Based on increases in unemployment over the past year, Sun Belt metro areas are also likely to experience the largest increases in poverty in 2009.

Over the course of this decade, two economic downturns translated into a significant rise in poverty, nationally and in many of the country's metropolitan and non-metropolitan communities. Suburbs saw by far the greatest growth in their poor population and by 2008 had become home to the largest share of the nation's poor. These trends are likely to continue in the wake of the latest downturn, given its toll on traditionally more suburbanized industries and the faster pace of growth in suburban unemployment. This ongoing shift in the geography of American poverty increasingly requires regional scale collaboration by policymakers and social service providers in order to effectively address the needs of a poor population that is increasingly suburban.

Introduction

The 1990s were a time of historic economic growth for the United States, and a period when the country made remarkable strides in poverty reduction, as evidenced by near record lows in the poverty rate and considerable declines in the number of high-poverty neighborhoods throughout the country at the time of Census 2000. But 2000 marked a turning point for the economy as a whole and for American poverty.

The release of the 2005 American Community Survey provided the first look at changes in city and suburban poverty in the wake of the mild recession of the early 2000s and the jobless recovery that followed.[1] Not only did poverty significantly increase in both large cities and suburbs over this time period, but for the first time more poor lived in the suburbs of the country's largest metro areas than cities. Though primary city residents were still much more likely to be poor than their suburban counterparts in 2005, the growing presence of poor in suburbs marked a significant shift in the geography of metropolitan poverty.

The economy grew from 2005 to 2007, but then entered its deepest recession in decades. This economic plunge undoubtedly caused an increase in poverty, but the regional and metropolitan dimensions of that increase have not thus far been explored. In light of the ongoing economic challenges facing communities throughout the country, this study builds on previous Brookings research to examine how city and suburban poverty trends have changed since 2000, and whether recent events have further altered the spatial distribution of the poor. Using the most recent American Community Survey data, we update the analysis to 2008 and broaden the geographic scope to include not only cities and suburbs in the largest metro areas, but smaller metro areas and non-metropolitan areas as well, for a complete geographic picture of changes in America's poor population since 2000.

Recognizing the limitations of the official federal poverty measure, this paper also considers broader definitions of the low-income population to examine how their application might change our understanding of the spatial distribution of the poor and working poor.

Finally, in addition to studying longer term poverty trends since 2000, we also take a closer look at the impacts of the first year of the Great Recession on the poor population by examining trends between 2007 and 2008. More substantial impacts are likely to materialize in 2009, when the bulk of recession-induced job losses and increases in the unemployment rate occurred. We conclude by discussing the metropolitan dimension of likely changes in poverty in 2009 and the broader implications of America's changing geography of poverty.

Methodology

About the data

This study uses data from the 2000 U.S. Census and the 2007 and 2008 American Community Survey (ACS) to evaluate poverty trends in metropolitan and non-metropolitan America.

Not only do these data permit an analysis of poverty over the course of this decade, but the addition of 2008 ACS data, released in September, also allows the first comprehensive picture of poverty during the first year of the recession at finer geographies.

Two key differences exist between Census 2000 and the ACS that should be noted. First, the reference periods of the surveys differ. Census 2000 data were collected in April of 2000 and reflect income from the 1999 calendar year (though we refer to 2000 data throughout the analysis in reference to the census year). In contrast, the ACS is conducted on a monthly basis throughout the calendar year and asks the respondent to report income "in the past 12 months", effectively capturing 24 months of data over the course of the year. (For example, a respondent in February of 2008 would report income back to February 2007.) The results of the monthly surveys are then averaged together and adjusted for inflation to create an annual estimate of income.[2] Second, the sample sizes differ. While the Census 2000 long form surveyed 17 million households, the ACS surveys about 3 million households, and thus is susceptible to a larger sampling error.[3] Because of the larger error associated with these estimates, throughout this analysis we report whether calculated changes over time are statistically significant.[4]

Geographic Definitions

This study assesses poverty trends across metropolitan and non-metropolitan America, using metropolitan statistical areas (MSAs) as defined by the Office of Management and Budget (OMB) in 2007. We divide the United States into four geographic categories, or community types, including: *primary cities, suburbs, small metropolitan areas,* and *non-metropolitan areas*.

The report identifies primary cities and suburbs within the 100 most populous metro areas based on 2007 data from the Census Bureau's Population Estimates Program. Within these metro areas, we identify *primary cities* as cities that: 1) appear first in the official metropolitan area name, or 2) are listed second or third in the official name and contain a population of at least 100,000 (per 2007 Population Estimates).[5] *Suburbs* (also referred to here as *large suburbs*), in turn, represent the remainder of the MSA outside the primary city or cities.

Note that in five of the top 100 metro areas, the city listed first in the metro area name is not large enough to meet ACS one-year estimate reporting standards (i.e., its population is less than 65,000). These metro areas are removed from the city/suburban analysis and treated wholly as small metro areas (see below).[6] In the remaining 95 largest metro areas, we identify a total of 132 primary cities.

Small metro areas have less than 500,000 residents (with the exception noted above), and represent the remaining 266 metro areas among the 361 MSAs nationwide.[7] *Non-metro areas* include any county that is not a part of a metropolitan area.

Using these definitions, in 2008 21 percent of the population lived in primary cities, 45 percent in suburbs, 19 percent in small metro areas, and 16 percent in non-metropolitan areas.

Finally, in certain instances, trends are also reported by census regions. In these cases, metro areas are grouped according to their primary state into one of four possible regions: Northeast, Midwest, South, and West.[8]

Poverty Measures

This study measures poverty as the number and proportion of family members and individuals with incomes below the applicable federal poverty threshold, which is based on family size and age.[9]

Developed in the 1960s, the federal poverty thresholds provide a longstanding benchmark with which to measure changes in the economic wellbeing of families and individuals across the country. However, researchers have argued that this outdated measure does not adequately capture economic hardship, in part because it does not reach far enough up the income scale given the costs of basic necessities in today's economy.[10] Some research has found that setting the definition of "low-income" at twice the federal poverty line is a much more accurate reflection of the income families need to afford essentials, including food, housing, transportation, and health care.[11] Other research has used 150 percent of the poverty level, which falls more in line with international measures of the low-income population based on 50 percent of median income.[12]

In this study, we use the traditional poverty measure—or 100 percent of the federal thresholds—as the primary measure of poverty. However, in view of the varied approaches in the literature, we also explore trends using the alternative measures of 150 and 200 percent of the poverty line. Though certain limitations inherent in the 100 percent measure also apply to these alternatives (e.g., cost of living differences across regions are not taken into account in any scenario), these comparisons allow us to see the extent to which broader definitions of the low-income population affect the spatial organization of American poverty.

Projections

Finally, using pooled data from 1990, 2000, and 2005 through 2008, we estimate the relationship between unemployment and poverty at the metropolitan level with the following regression[13]:

$$P_{it} = \alpha + \sum_{t=1}^{5} \beta_t \Upsilon_t + \sum_{j=1}^{8} \chi_j D_j + \delta * UR_{it} + \Phi * F_{it} + \epsilon_{it}$$

where P is the share of individuals in poverty, and "$_t$" and "$_i$" index the year and metro area, respectively; UR_{it} is the weighted unemployment rate[14]; and F_{it} is the share of all families headed by a single parent. The regression includes two sets of dummy variables: Υ_t represents the year[15],

and D_j represents the Census Division in which the metro area is located.[16]

To estimate likely changes in metropolitan poverty rates post-2008, we take the coefficient on unemployment derived from this regression and apply it to reported unemployment data for 2009, assuming that all other inputs remain unchanged.[17]

To test this approach, we used the same method to predict 2008 poverty rates, then compared the results to reported poverty figures in that same year. The model produced an estimated poverty rate of 12.5 percent for the top 100 metro areas in 2008, compared to the observed poverty rate of 12.2 percent. Among individual metro areas, the median difference between predicted and actual poverty rates in 2008 was slightly higher at 0.4 percentage points.[18] While caution must be used with any projection method, we find this model provides a reasonable estimate of poverty rate change in the 100 largest metro areas based on unemployment.

Findings

A. By 2008, suburbs were home to the largest and fastest-growing poor population in the country.

The number of poor people in the United States grew by 5.2 million from 2000 to 2008, so that by 2008 more than 39.1 million people were living in poverty (Table 1). That represents an increase of 15.4 percent in the poor population—almost twice the growth rate of the population as a whole since 2000.

Table 1. Change in the U.S. Poor Population by Community Type, 2000 to 2008

	Total Population				Population in Poverty			
	2000	2008	Difference	Percent Change	2000	2008	Difference	Percent Change
Nation	273,882,232	296,184,480	22,302,248	8.1%	33,899,812	39,108,422	5,208,610	15.4%
Primary Cities	57,856,740	60,113,999	2,257,259	3.9%	10,387,549	10,969,243	581,694	5.6%
Suburbs	117,274,086	131,989,087	14,715,001	12.5%	9,991,292	12,491,486	2,500,194	25.0%
Small Metro Areas	51,763,055	55,957,455	4,194,400	8.1%	6,579,025	7,863,914	1,284,889	19.5%
Non-Metro Areas	46,988,351	48,123,939	1,135,588	2.4%	6,941,946	7,783,779	841,833	12.1%

All change estimates are significant at the 90 percent level.

Source: Brookings Institution analysis of Census 2000 and 2008 ACS data

With this growth has come a significant shift in the geography of American poverty. In 2000, the greatest share of the poor lived in the primary cities of the country's largest metro areas. These cities were home to almost 400,000 more poor than their suburbs, and the balance of the poor population was more likely to live in non-metropolitan communities than small metro areas. However, growth rates well above average in the suburban and small metro area poor populations have re-drawn the map over the course of the decade.

Most notably, by 2008 a plurality of the nation's poor lived in large metropolitan suburbs. Between 2000 and 2008, the number of these suburban poor increased by 25 percent—10 points above the national average and close to 5 times the growth rate for the poor in primary cities. Overall, suburbs gained more than 2.5 million poor individuals, accounting for almost half of the total increase in the nation's poor population since 2000. Smaller metro areas saw their poor population increase almost 20 percent, a gain of 1.3 million poor over the eight-year period. At the same time, non-metro area and primary city poor populations also grew, but at much slower paces of 12.1 and 5.6 percent—or 842,000 and 582,000 people—respectively. As a result, by 2008 suburbs had overtaken primary cities as home to the largest share of the nation's poor (almost one-third), and small metro areas housed more poor people than non-metro areas.

Figure 1. Change in Poverty Rate by Community Type, 2000 to 2008

** Significant at the 90 percent confidence level.*

Source: Brookings Institution analysis of Census 2000 and ACS 2008 data

Along with increases in total number of poor, the *rate* of poverty—or the share of the total population living below the poverty line—also significantly increased between 2000 and 2008, both nationally and across community types (Figure 1). However, considerable variation exists in the size of these increases. Nationally, the poverty rate increased 0.8 percentage points to 13.2 percent in 2008, returning to its 1990 level and essentially offsetting the progress made in reducing poverty during the previous decade.

Among community types, primary cities experienced the smallest, though still significant, increase in the poverty rate over this time period (0.3 percentage points). Continuing a trend that began in the 1990s, large suburbs experienced an above-average increase in their poverty rate (0.9 percentage points). The largest increases, however, were seen in non-metropolitan communities and smaller metro areas, at 1.4 and 1.3 percentage points, respectively. In addition to changes in the economic situation of existing residents, other factors that might contribute to the larger poverty rate increases in these communities include greater immigration to these areas and selective out-migration of higher-income residents.

Even with sizeable increases in suburban and smaller metro area poor, primary city residents and people in non-metro areas are still more likely to be poor. In the nation's largest metro areas in 2008, the poverty rate in primary cities was almost twice that in suburbs—18.2 percent versus 9.5 percent. Non-metro areas were not far behind cities, with a poverty rate of 16.2 percent, while 14.1 percent of smaller metro area residents lived in poverty in that year. Thus, the challenges of urban and rural poverty persist even as the spatial distribution of the poor tilts increasingly toward suburbs and smaller metro areas.

B. Midwestern cities and suburbs experienced by far the largest poverty rate increases over the decade.

While poverty increased on the whole for cities and suburbs in the nation's 95 largest metro areas, wide variation exists within these aggregate trends. Clearly, certain parts of the country have faced relatively greater economic strain over the course of this decade than others (Figure 2).

Midwestern metro areas have seen the largest growth in poverty by far since 2000, and this growth has been shared across city and suburban lines. This likely reflects the longer-running challenges to the region's manufacturing sector, in which significant job losses predated the current downturn.[19] Poverty rates in Midwestern cities grew by 3.0 percentage points, while suburban poverty increased 2.2 percentage points. The South was the only other region in which both city and suburban poverty

Figure 2. City and Suburban Poverty Rate by Region, 95 Metro Areas, 2000 and 2008

Figures in parentheses represent significant change at the 90 percent confidence level.

Source: Brookings Institution analysis of Census 2000 and ACS 2008 data

Table 2. Top and Bottom Metro Areas for City and Suburban Poverty Rates, 95 Metro Areas, 2008

Primary Cities	2008	Suburbs	2008
Top 10		***Top 10***	
Hartford, CT	33.5	McAllen, TX	36.7
Youngstown, OH-PA	33.5	El Paso, TX	31.0
Detroit-Warren, MI	30.7	Bakersfield, CA	24.2
Cleveland, OH	30.5	Fresno, CA	18.8
Buffalo, NY	30.3	Lakeland, FL	15.8
Syracuse, NY	29.7	Modesto, CA	14.6
Rochester, NY	29.3	Little Rock, AR	14.2
Dayton, OH	29.2	Jackson, MS	14.0
McAllen, TX	28.3	Augusta-Richmond County, GA-SC	14.0
Provo, UT	28.2	Albuquerque, NM	13.6
Bottom 10		***Bottom 10***	
Jacksonville, FL	11.9	Worcester, MA	6.4
Colorado Springs, CO	11.8	Oxnard-Thousand Oaks-Ventura, CA	6.4
Virginia Beach-Norfolk-Newport News, VA-NC	11.1	Des Moines, IA	6.2
Raleigh-Cary, NC	10.9	Baltimore, MD	6.1
Honolulu, HI	10.8	San Jose-Sunnyvale-Santa Clara, CA	6.0
Cape Coral, FL	10.5	Washington-Arlington-Alexandria, DC-VA-MD-WV	5.8
Oxnard-Thousand Oaks-Ventura, CA	10.4	Ogden, UT	5.7
Palm Bay, FL	10.0	Minneapolis-St. Paul, MN-WI	5.6
Boise City, ID	9.9	Bridgeport-Stamford, CT	5.0
San Jose-Sunnyvale-Santa Clara, CA	8.2	Milwaukee, WI	4.9
Primary City Total, 95 Metro Areas	**18.2**	**Suburban Total, 95 Metro Areas**	**9.5**

Source: Brookings Institution analysis of 2008 ACS data

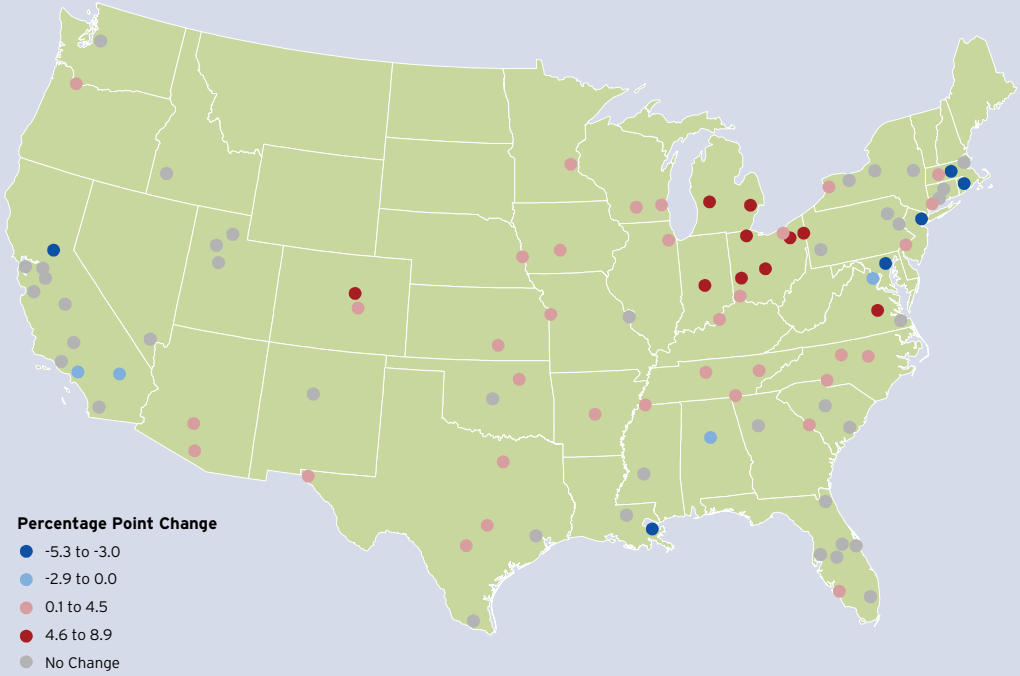
rates increased significantly between 2000 and 2008, though at a much slower pace; rates in each community type rose less than a percentage point on average.

In contrast, both Western cities and suburbs held steady over this time period, with no significant change in their poverty rates compared to 2000. (As we discuss in the next section, however, the severity of the recent downturn in inland California and Intermountain West metro areas has shaken this stability in Western poverty trends.[20]) Northeastern metro areas experienced mixed results between 2000 and 2008. Large suburbs in the Northeast saw a below-average increase in their poverty rate (0.6 percentage points), while primary cities there actually experienced a significant decrease in poverty on average. However, even with this decrease—which is driven in large part by declines in New York City poverty—one in five city residents in the Northeast were poor in 2008. The only other region to exhibit a higher primary city poverty rate in 2008 was the Midwest, which overtook the Northeast over the course of this decade.

The magnitude of the poverty rates in both Northeastern and Midwestern primary cities, particularly compared to their below-average suburban poverty rates, highlights clear differences in the pattern of city and suburban poverty across regions. In Northeastern and Midwestern metro areas, city poverty rates remain more than two and a half times greater than their suburban rates. City-suburban disparities are less pronounced in the South and even narrower in the West. Metro areas in both of those regions have comparatively lower city poverty rates coupled with above-average rates of suburban poverty. Given these regional patterns, it is not surprising to see that Midwestern and Northeastern metro areas—like Hartford, Youngstown, Detroit, and Cleveland—top the list for highest 2008 primary city poverty rates, while Southern and Western metro areas—like McAllen, El Paso, Bakersfield, and Fresno—lead among suburbs (Table 2).[21]

Poverty trends within individual metro areas bear out these larger regional patterns (Maps 1 and 2). Between 2000 and 2008, primary cities in 54 metro areas experienced a significant change in their poverty rates. Fully 44 of them saw poverty increase over this time period, with the majority located

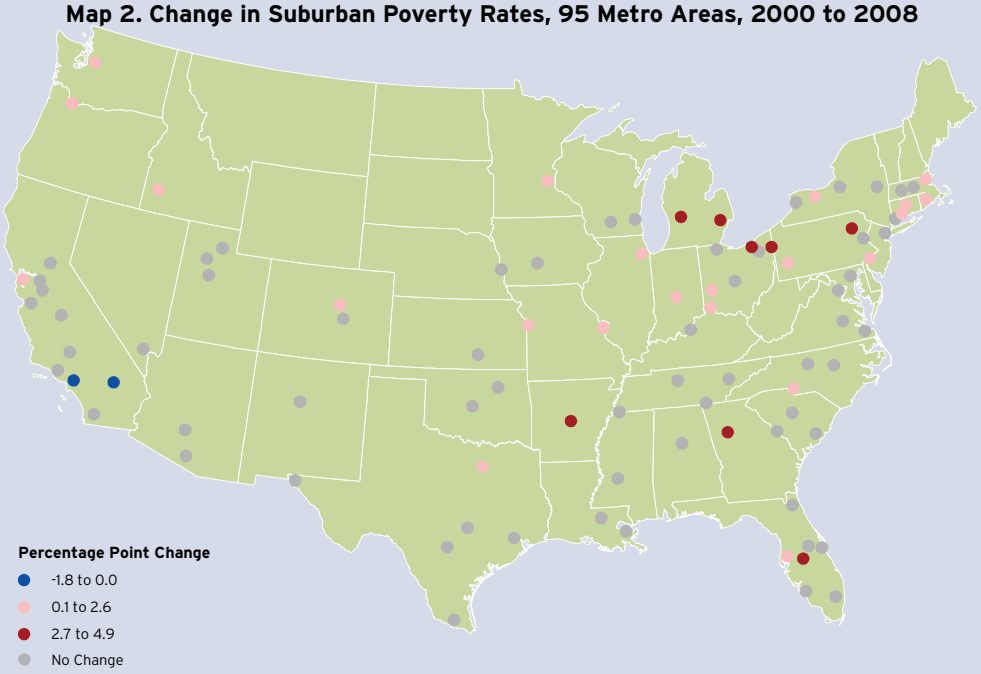
Map 1. Change in Primary City Poverty Rates, 95 Metro Areas, 2000 to 2008



All estimates of change are significant at the 90 percent confidence level.

Source: Brookings Institution analysis of Census 2000 and ACS 2008 data

Map 2. Change in Suburban Poverty Rates, 95 Metro Areas, 2000 to 2008



All estimates of change are significant at the 90 percent confidence level.

Source: Brookings Institution analysis of Census 2000 and ACS 2008 data

Table 3. Top and Bottom Metro Areas for City and Suburban Poverty Rate Change, 95 Metro Areas, 2000 to 2008

Primary Cities	Percentage Point Change	Suburbs	Percentage Point Change
Top 10		***Top 10***	
Grand Rapids, MI	8.9	Grand Rapids, MI	4.9
Youngstown, OH-PA	8.7	Youngstown, OH-PA	4.1
Detroit-Warren, MI	7.0	Lakeland, FL	3.2
Toledo, OH	6.8	Detroit-Warren, MI	3.2
Dayton, OH	6.2	Little Rock, AR	3.1
Richmond, VA	5.3	Scranton, PA	2.9
Columbus, OH	5.3	Atlanta, GA	2.7
Akron, OH	5.1	Cleveland, OH	2.7
Denver-Aurora, CO	4.9	Denver-Aurora, CO	2.6
Augusta-Richmond County, GA-SC	4.6	Dayton, OH	2.5
Bottom 10		***Bottom 10***	
Birmingham, AL	-2.4	Kansas City, MO-KS	1.5
Riverside-San Bernardino-Ontario, CA	-2.5	Hartford, CT	1.3
Washington-Arlington-Alexandria, DC-VA-MD-WV	-2.5	Pittsburgh, PA	1.2
Los Angeles-Long Beach-Santa Ana, CA	-2.7	Seattle-Tacoma-Bellevue, WA	1.2
New York-Northern New Jersey, NY-NJ-PA	-3.0	Providence, RI-MA	0.9
Worcester, MA	-3.1	Philadelphia, PA-NJ-DE-MD	0.9
Sacramento-Roseville, CA	-3.2	San Francisco-Oakland-Fremont, CA	0.9
Baltimore-Towson, MD	-3.6	Boston-Cambridge, MA-NH	0.9
Providence, RI-MA	-3.8	Riverside-San Bernardino-Ontario, CA	-1.2
New Orleans, LA	-5.3	Los Angeles-Long Beach-Santa Ana, CA	-1.8
Primary City Total, 95 Metro Areas	***0.3***	***Suburban Total, 95 Metro Areas***	***0.9***

All change estimates are significant at the 90 percent level.

Source: Brookings Institution analysis of Census 2000 and 2008 ACS data

in the Midwest and South. A smaller number of metro areas (33) saw suburban poverty rates change over this time period, with all but two experiencing increases. Again, the greatest increases in suburban poverty were seen in Midwestern metro areas.

A closer look at the metro areas that experienced the largest increases in city and suburban poverty rates underscores the economic stress in the manufacturing sector over the course of this decade (Table 3). Of the 10 metro areas leading the list for increases in poverty, seven on the city list and five on the suburban list are located in the Midwest, and almost all specialize in auto and auto-related manufacturing.[22] Two such metro areas are Grand Rapids and Youngstown, which experienced the greatest increases in city and suburban poverty rates among the 95 largest metro areas, gaining more than eight points in their primary city rates and over four points in their suburbs.

At the other end of the spectrum, it should be noted that ten metro areas saw declines in primary city poverty over this time period—including the Baltimore, New York, and Washington DC metro areas—and two—the Riverside and Los Angeles metro areas—experienced decreases in their suburban poverty rates as well. These significant decreases are especially noteworthy in light of rising poverty overall during this period. While declining city poverty may signal shifting city populations, the fact that the suburbs in these metro areas showed stable or declining poverty rates, suggests strong regional economies helped drive these decreases rather than a displacement of the city poor to suburban communities. However, as we discuss in the final section, these decreases are likely temporary given the length and depth of the downturn post-2008.

Several metro areas did see a significant change in the share of poor living in the suburbs over this time period, and in each case the change was a shift toward the suburbs (Table 4). In six metro areas—including the Midwestern metro areas of Cleveland, Detroit, and Minneapolis-St. Paul—the majority

Table 4. Metro Areas with Significant Change in the Share of Suburban Poor, 2000 to 2008

	Share of Metropolitan Poor Living in the Suburbs		
Metro Area	**2000**	**2008**	**Change**
New Orleans, LA	44.7%	57.7%	13.0%
Cleveland, OH	45.9%	55.2%	9.3%
Baltimore, MD	41.1%	50.4%	9.2%
Chicago-Naperville-Joliet, IL-IN-WI	38.9%	48.1%	9.1%
Detroit-Warren, MI	45.5%	54.6%	9.1%
Atlanta, GA	75.9%	84.5%	8.6%
Rochester, NY	47.8%	56.0%	8.3%
Minneapolis-St. Paul, MN-WI	46.0%	54.0%	8.0%
Cincinnati, OH-KY-IN	62.7%	70.2%	7.6%
Houston, TX	41.9%	49.2%	7.3%
Tampa-St. Petersburg-Clearwater, FL	62.4%	69.6%	7.2%
Washington-Arlington-Alexandria, DC-VA-MD-WV	60.9%	67.5%	6.6%
St. Louis, MO-IL	68.5%	74.4%	5.9%
San Francisco-Oakland-Fremont, CA	53.1%	59.0%	5.8%
Seattle-Tacoma-Bellevue, WA	60.7%	66.4%	5.7%
Dallas-Fort Worth-Arlington, TX	41.0%	46.6%	5.6%
Philadelphia, PA-NJ-DE-MD	43.9%	48.4%	4.5%
New York-Northern New Jersey, NY-NJ-PA	28.9%	31.8%	2.9%
95 Largest Metro Areas	**49.0%**	**53.3%**	**4.2%**
Metro Areas Above 1 Million People	*48.1%*	*52.9%*	*4.8%*
Metro Areas Below 1 Million People	*49.7%*	*53.5%*	*3.8%*

All change estimates are significant at the 90 percent confidence level.

Source: Brookings Institution analysis of Census 2000 and 2008 ACS data

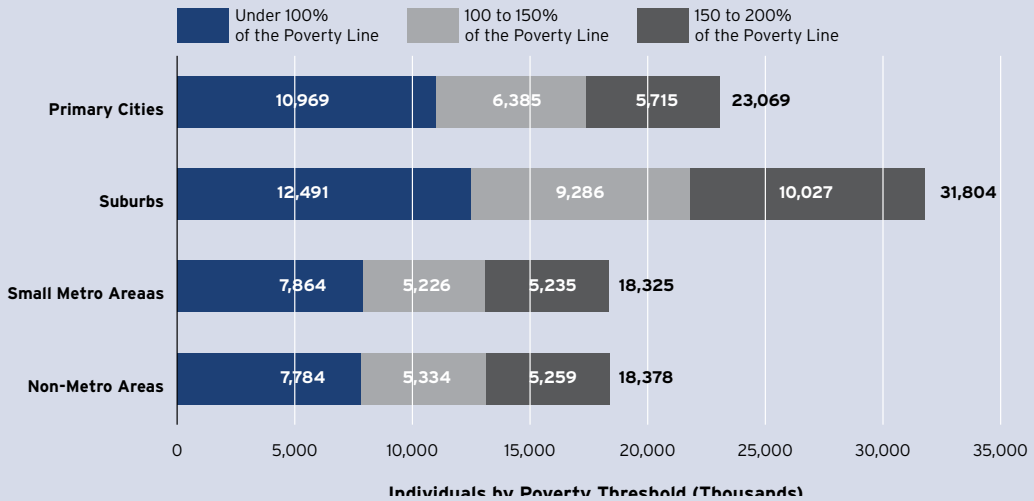
of the poor actually "tipped" from the cities to the suburbs.[23] Among the top 95 metro areas, larger metro areas—those with population over 1 million—saw greater increases in the suburban poor population than those below 1 million residents. However, metro areas below 1 million had a relatively higher share of their poor populations in the suburbs in both 2000 and 2008, suggesting that they experienced a "suburbanization" of poverty even before their larger counterparts.

C. In 2008, 91.6 million people—more than 30 percent of the nation's population—fell below 200 percent of the federal poverty level.

If we adopt a broader definition of "low-income" and raise the threshold to twice the federal poverty line, the number of low-income individuals in the nation more than doubles. All in all, according to this expanded measure 91.6 million Americans were low income in 2008, with 57.3 percent of those individuals—or 52.5 million—living between 100 and 200 percent of the poverty line.

The same pattern holds to varying degrees across community types, with a greater share of low-income residents concentrated between 100 and 200 percent of poverty rather than below the poverty line (Figure 3). Large suburbs exhibit the highest share of low-income residents above the poverty line (60.7 percent), while a smaller-than-average share of low-income primary city residents fall in that income range (52.4 percent).

Figure 3. Individuals by Poverty Threshold and Community Type, 2008



Source: Brookings Institution analysis of ACS 2008 data

Taken together, these 91.6 million low-income individuals represented 30.9 percent of the nation's population in 2008. Across community types, as much as 38 percent of Americans in primary cities and non-metropolitan areas were low income in that year compared to roughly 24 percent of suburban residents (Figure 4).

Moreover, it is notable that the differences across community types in the share of residents within each income category become less stark with each step up the income scale. For instance, the official primary city poverty rate exceeds the suburban poverty rate by 8.8 percentage points, but the difference between the share of city and suburban residents in the 150 to 200 percent category narrows to just 1.9 percentage points.

Whatever definition is used, the share of the population considered low-income has grown significantly over this decade (Table 5). The largest increases recorded occurred under the most inclusive definition, with the share of the population under twice the poverty line growing by 1.3 percentage points nationally between 2000 and 2008.

Figure 4. Share of Individuals by Poverty Threshold and Community Type, 2008

Source: Brookings Institution analysis of ACS 2008 data

Table 5. Change in Poverty Rate by Threshold and Community Type, 2000 to 2008

	Share Under 100% of Poverty			Share Under 150% of Poverty			Share Under 200% of Poverty		
	2000	2008	Percentage Point Change	2000	2008	Percentage Point Change	2000	2008	Percentage Point Change
National	12.4	13.2	0.8*	20.9	22.1	1.1*	29.6	30.9	1.3*
Primary Cities	18.0	18.2	0.3*	28.2	28.9	0.6*	37.6	38.4	0.7*
Suburbs	8.5	9.5	0.9*	15.0	16.5	1.4*	22.3	24.1	1.8*
Small Metro Areas	12.7	14.1	1.3*	21.8	23.4	1.6*	31.1	32.7	1.7*
Non-Metro Areas	14.8	16.2	1.4*	25.7	27.3	1.6*	36.7	38.2	1.5*

**Significant at the 90 percent confidence level.*

Source: Brookings Institution analysis of Census 2000 and 2008 ACS data

Interestingly, among community types, small metro areas and non-metropolitan communities led for increases in the share of individuals below 100 and 150 percent of the poverty line over this time period; however, under the 200 percent threshold, suburbs exhibit the greatest increase in the share of low-income residents (1.8 percentage points).

D. Western cities and Florida suburbs were among the first to see the effects of the Great Recession translate into significant increases in poverty between 2007 and 2008.

In December of 2007, the nation officially entered what was to become the worst economic downturn in the post-World War II era. As the recession lengthened and deepened in its severity, it spread to almost every major industry and touched communities throughout the country, lasting well into 2009. A discussion of this decade's poverty trends would not be complete without considering the early and projected impacts of what is now known as the Great Recession on the poor in America.

Table 6. Change in Poverty in the First Year of the Recession by Community Type, 2007 to 2008

	2007		2008		Change	
	Poor Individuals	Poverty Rate	Poor Individuals	Poverty Rate	Poor Individuals	Poverty Rate
National	38,052,247	13.0	39,108,422	13.2	2.8% *	0.2 *
Primary Cities	10,748,398	18.0	10,969,243	18.2	2.1% *	0.2 *
Suburbs	11,941,943	9.1	12,491,486	9.5	4.6% *	0.3 *
Small Metro Areas	7,766,377	14.0	7,863,914	14.1	1.3% *	0.1
Non-Metro Areas	7,595,529	15.8	7,783,779	16.2	2.5%	0.3

**Significant at the 90 percent confidence level.*

Source: Brookings Institution analysis of 2007 and 2008 ACS data

Not surprisingly, ACS data on the first year of the recession reveal that American poverty increased significantly during this time period (Table 6). Between 2007 and 2008, the nation's poor population grew by more than 1 million, a roughly 3 percent increase that also translated into a small but significant uptick in the national poverty rate. What is more, because the ACS income estimates are an average of 24 months of data—as discussed in the Methodology section—the reported increase in poverty, while significant, may appear more muted than the actual economic hardship experienced during the calendar year of 2008.

Over this time period, the growth in poverty was not shared equally across the country, but instead concentrated in the cities and suburbs of the nation's largest metro areas. Suburbs, in particular, were home to the largest increases in poverty between 2007 and 2008. The suburban poor population grew by almost 5 percent, outpacing both national and primary city growth rates. The poverty rate in suburbs also grew by a slightly larger margin (0.3 percentage points) than that in cities (0.2 percentage points). At the same time, the poverty rates in smaller metro areas and non-metropolitan communities held steady (though smaller metro areas did experience a significant increase in the number of poor).

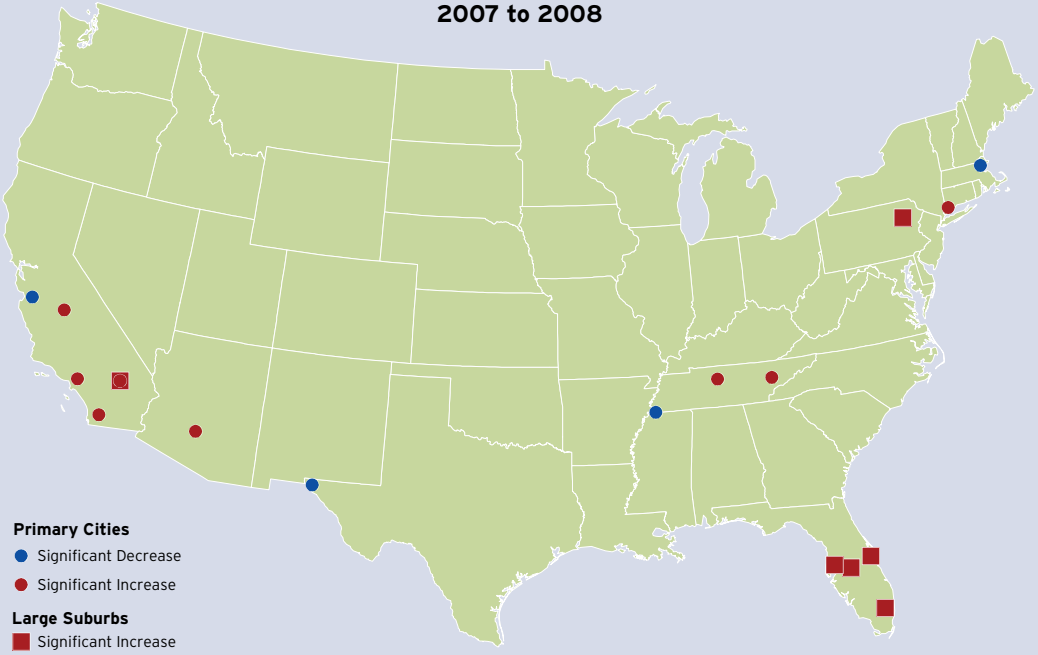
Looking beneath the aggregate city and suburban trends further illustrates the varied regional impacts of the recession over its first year. Contrary to trends since 2000, metro areas in the West saw both city and suburban poverty rates increase between 2007 and 2008, while rates in the other three regions remained statistically unchanged. This likely reflects the early timing of the housing market collapse, which hit many Sun Belt metro areas—which tended to be more reliant upon the construction and real estate industries—particularly hard.

Map 3 illustrates this recent strain on the Sun Belt and highlights a regional divergence in city and suburban trends. Six of the nine metro areas experiencing significant increases in their primary city poverty rates between 2007 and 2008 are located in the West, including two California metro areas—Los Angeles and Riverside—that had experienced overall declines in poverty before the latest downturn. In contrast, significant suburban poverty increases are almost all found in Florida metro areas.

Surprisingly, a few metro areas—including Boston, El Paso, Memphis, and San Jose—actually saw their primary city poverty rates decline during the first year of the recession. The underlying industry structure and mix in these metro areas may help account for their relatively better outcomes during the first year of the downturn. For instance, Boston's specialization in banking and the fact that San Jose's manufacturing jobs are concentrated outside of the auto industry may play a role here.[24] These declines represent an impressive achievement during a period of economic decline that saw city and suburban poverty rise overall.

Unfortunately, our regression analyses suggest that these metro areas are not likely to see such decreases in 2009, a year in which no metro area proved exempt from increased unemployment rates. Although the Census will not officially release poverty rates for 2009 until fall of next year, job losses alone foretell a substantially larger increase in the metropolitan poverty rate than the 0.3 percent reported from 2007 to 2008, when unemployment increases were just beginning to accelerate.

Map 3. Metro Areas with Significant Change in City and Suburban Poverty Rates, 2007 to 2008



All estimates of change are significant at the 90 percent confidence level.

The primary city of Honolulu, not depicted, experienced a significant change (red dot) in poverty.

Source: Brookings Institution analysis of Census 2000 and ACS 2008 data

As specified in the Methodology section, we modeled the historical relationship between metropolitan unemployment and poverty, and used the results of that analysis to estimate 2009 metropolitan poverty rates based on observed changes in unemployment. Consistent with a recent analysis by Monea and Sawhill—who use results from Blank's analysis to project national poverty rates in the coming years—we multiply the change in the unemployment rate between 2008 and 2009 by the coefficient on the unemployment rate, holding all else equal.[25] Increases in unemployment have proven highly variable across the top 100 metro areas throughout the course of the recession.[26] But taken together, our model estimates that a 1 percentage point increase in the unemployment rate in the top 100 metro areas will mean a 0.93 percentage point increase in the metropolitan poverty rate, all else equal.

Based on increases in unemployment in these metropolitan areas in 2009, we estimate that poverty rates are likely to rise roughly 2.2 percentage points on average in the top 100 metro areas in 2009. At the individual metropolitan level, these increases will likely range from less than 0.7 percentage points (in places like Omaha and Des Moines—metro areas that have weathered the recession relatively well and experienced below-average job losses) to over 3.5 percentage points (in Sun Belt metro areas like Cape Coral, Stockton, and Modesto and auto manufacturing metro areas like Youngstown and Detroit).[27]

As examined above, significant increases in poverty were seen in the first year of the recession in the West—and are projected to continue. In general, these trends are driven by high unemployment increases in both cities (e.g., Stockton, CA) and suburbs (e.g., Modesto, CA) between 2008 and 2009.[28] Altogether, we estimate that more than half of metropolitan areas studied may see a hike of 2 percentage points or more in their poverty rate in 2009. (See Appendix B, Table 2 for metro-level estimates.)

Conclusion

The latest data confirm that, since 2000 and in the wake of two national economic downturns, poverty has increased significantly in metropolitan and non-metropolitan communities alike. However, while poverty has grown on the whole, the most recent data also make clear that American poverty is becoming an increasingly suburban phenomenon. Suburbs in the nation's largest metro areas are now home to the fastest-growing and largest poor population in the country—a reality that is not likely to change in the coming years given both the longer run and more near term factors that have contributed to this shift in the geography of American poverty.

Among these factors, not surprisingly, jobs play an important role in shaping these trends. Since the late 1990s jobs in almost every major metro area have continued to shift away from the urban core toward the metropolitan fringe, regardless of industry or whether the regional job market was expanding or contracting.[29] Forthcoming research finds that metro areas with higher levels of employment decentralization over this decade also tend to exhibit a greater "suburbanization" of poverty, but that on average the suburban poor are slightly less likely than their non-poor counterparts to live in jobs-rich neighborhoods.[30] As employment opportunities increasingly locate in the outer reaches of metropolitan areas, it makes sense that low-wage workers would also make up a growing presence outside primary cities. However, not all suburbs are the same or offer similar opportunities. The variation in housing affordability across suburban communities may limit the extent to which these workers can live near where they work just as transportation availability can determine the accessibility of distant job centers. Thus, certain metro areas may find that these decentralizing trends exacerbate challenges associated with connecting low-income workers, and particularly minority workers, to the local labor market.

Though the economy has shed almost 7.2 million jobs since the start of Great Recession in December 2007, the magnitude of these job losses is unlikely to alter the longer run employment decentralization trend. Rather, the fact that some of the largest employment declines during the downturn occurred in suburbanized industries—like real estate, retail, construction, and manufacturing—suggests that the economic fallout from the latest recession will further increase economic hardship in the suburbs in the near term. In fact, the pace of unemployment increases and upticks in new Unemployment Insurance claims across metro areas over the past year indicate this is already the case; large suburbs have borne the brunt of this downturn alongside cities, more so than was the case in the first downturn of the decade.[31]

The growing presence of poor in the suburbs over the longer term coupled with recent economic challenges should raise questions for policymakers and service providers as to how well-connected these residents are to safety net services and work supports that have traditionally located in urban centers. For instance, lower-density "exurbs" have been particularly hard hit by unemployment over the past year, but these communities lag behind cities and other types of suburbs for upticks in safety net services like food stamps.[32] In fact, suburbs in general, though home to more poor than their primary cities, showed lower rates of food stamp receipt than their city counterparts in 2008—39.2 percent of poor families in cities used food stamps in that year compared to 32 percent of suburban poor families.[33] While some differences in the take up rate of services may be due to real differences in eligibility, a lack of knowledge, access, or capacity may also affect the ability of low-income suburban residents to connect to benefits and programs for which they are eligible.

Clearly, the balance of metropolitan poverty has passed a tipping point. Recent economic hardship is only likely to spur the growth of the poor population through the end of this decade, if not beyond, and reinforce the suburbanizing trend. While primary city poverty remains an ongoing challenge, policymakers, service providers, and other stakeholders must also adapt their strategies to address the needs of a poor population that is increasingly suburban. The shifting geography of American poverty underscores the need for policies that foster balanced growth across metropolitan regions and labor markets, and that link up affordable housing, transit, workforce, and economic development strategies to help reduce the mismatch between low-income residents and job opportunities. Public agencies and non-profit providers can also work toward a greater degree of collaboration at the regional level, re-aligning existing services to meet the growing need in both cities and suburbs in these difficult economic times.

Appendix A. City and Suburban Poverty Rates, 95 Metro Areas, 2000, 2007, and 2008

	Primary Cities					Suburbs				
Metro Area	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change
Akron, OH	17.5	23.6	22.5	5.1 *	-1.1	6.3	9.4	7.9	1.6	-1.5
Albany, NY	21.7	24.4	24.9	3.1	0.5	7.8	8.5	8.9	1.1	0.4
Albuquerque, NM	13.5	15.8	15.0	1.5	-0.7	14.5	12.8	13.6	-0.9	0.8
Allentown, PA-NJ	18.5	18.9	20.4	1.9	1.5	6.6	6.4	7.2	0.6	0.8
Atlanta, GA	24.4	21.1	22.4	-2.0	1.3	8.0	10.4	10.7	2.7 *	0.4
Augusta-Richmond County, GA-SC	19.6	24.6	24.1	4.6 *	-0.5	12.8	13.2	14.0	1.2	0.8
Austin, TX	14.4	17.5	17.0	2.6 *	-0.5	7.4	8.4	9.1	1.7	0.6
Bakersfield, CA	18.0	15.5	16.7	-1.2	1.2	22.5	20.0	24.2	1.7	4.2
Baltimore, MD	22.9	20.0	19.3	-3.6 *	-0.6	5.4	5.9	6.1	0.7	0.2
Baton Rouge, LA	24.0	24.9	25.5	1.6	0.6	13.9	12.4	12.2	-1.7	-0.1
Birmingham, AL	24.7	25.3	22.3	-2.4 *	-3.0	10.3	11.1	9.7	-0.6	-1.4
Boise City, ID	8.4	8.8	9.9	1.5	1.1	10.0	11.1	12.2	2.2 *	1.1
Boston-Cambridge, MA-NH	18.6	20.2	18.0	-0.6	-2.2 *	6.7	7.2	7.6	0.9 *	0.4
Bridgeport-Stamford, CT	13.6	13.3	17.0	3.4 *	3.7 *	4.2	4.1	5.0	0.8	1.0
Buffalo, NY	26.6	28.7	30.3	3.7 *	1.6	7.0	8.9	8.2	1.2	-0.7
Cape Coral, FL	7.0	7.4	10.5	3.5 *	3.1	10.6	11.3	10.6	0.1	-0.7
Charleston, SC	19.1	17.3	20.3	1.1	3.0	13.0	11.5	12.6	-0.4	1.1
Charlotte, NC-SC	10.6	12.4	12.0	1.4 *	-0.3	8.5	10.8	10.7	2.2 *	0.0
Chattanooga, TN-GA	17.9	18.6	21.2	3.3 *	2.6	9.2	11.8	9.4	0.2	-2.3
Chicago-Naperville-Joliet, IL-IN-WI	18.6	19.1	19.4	0.8 *	0.3	6.2	7.7	8.3	2.1 *	0.6
Cincinnati, OH-KY-IN	21.9	23.5	25.1	3.2 *	1.6	7.1	9.1	9.1	2.0 *	0.0
Cleveland, OH	26.3	29.5	30.5	4.2 *	0.9	6.3	8.8	9.1	2.7 *	0.3
Colorado Springs, CO	8.7	11.8	11.8	3.1 *	0.0	6.3	6.6	8.4	2.1	1.8
Columbia, SC	22.1	20.1	23.2	1.2	3.2	10.6	11.2	11.4	0.8	0.3
Columbus, OH	14.8	21.0	20.1	5.3 *	-0.8	6.0	8.0	7.4	1.3	-0.6
Dallas-Fort Worth-Arlington, TX	16.0	18.4	19.0	3.0 *	0.6	7.3	9.4	9.2	1.9 *	-0.2
Dayton, OH	23.0	30.2	29.2	6.2 *	-1.0	7.0	9.2	9.5	2.5 *	0.3
Denver-Aurora, CO /1	12.5	17.9	17.4	4.9 *	-0.5	5.2	7.8	7.8	2.6 *	0.0
Des Moines, IA	11.4	15.4	14.5	3.2 *	-0.9	4.8	5.1	6.2	1.4	1.1
Detroit-Warren, MI	23.7	30.6	30.7	7.0 *	0.1	6.4	9.6	9.5	3.2 *	0.0
El Paso, TX	22.2	27.4	24.3	2.1 *	-3.1 *	32.0	35.1	31.0	-1.0	-4.1
Fresno, CA	26.2	21.9	25.5	-0.7	3.6 *	19.1	17.9	18.8	-0.3	0.9
Grand Rapids, MI	15.7	22.7	24.7	8.9 *	1.9	6.3	10.1	11.2	4.9 *	1.2
Greensboro-High Point, NC	12.5	18.8	16.2	3.6 *	-2.6	8.9	14.2	12.2	3.3	-2.0
Hartford, CT	30.6	31.2	33.5	2.9	2.3	5.6	6.1	6.9	1.3 *	0.8
Honolulu, HI	11.8	8.6	10.8	-0.9	2.2 *	8.5	7.0	6.8	-1.7	-0.1
Houston, TX	19.2	20.7	19.5	0.4	-1.2	9.8	11.0	10.4	0.6	-0.6
Indianapolis, IN	11.9	16.0	16.4	4.5 *	0.4	5.0	6.1	7.3	2.4 *	1.2

Appendix A. City and Suburban Poverty Rates, 95 Metro Areas, 2000, 2007, and 2008 (continued)

	Primary Cities					Suburbs				
Metro Area	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change
Jackson, MS	23.5	28.1	26.9	3.3	-1.3	13.2	11.0	14.0	0.8	3.0
Jacksonville, FL	12.2	12.6	11.9	-0.3	-0.7	8.0	8.2	8.6	0.6	0.4
Kansas City, MO-KS	15.0	18.4	17.5	2.5 *	-0.9	5.5	6.9	7.0	1.5 *	0.1
Knoxville, TN	20.8	20.7	24.5	3.7 *	3.9 *	9.0	10.5	9.7	0.7	-0.8
Lakeland, FL	15.0	11.8	13.3	-1.7	1.5	12.5	12.9	15.8	3.2 *	2.9*
Las Vegas, NV	11.9	11.9	12.6	0.7	0.7	10.2	9.7	10.0	-0.2	0.2
Little Rock, AR	14.3	18.0	18.6	4.3 *	0.6	11.1	12.8	14.2	3.1 *	1.5
Los Angeles-Long Beach-Santa Ana, CA	22.0	18.4	19.3	-2.7 *	0.9 *	12.8	10.5	11.1	-1.8 *	0.5
Louisville/Jefferson County, KY-IN	12.4	14.5	14.4	2.0 *	-0.1	8.8	11.4	10.7	2.0	-0.7
Madison, WI	15.0	18.5	17.7	2.7 *	-0.8	4.8	5.1	6.6	1.8	1.5
McAllen, TX	23.8	27.3	28.3	4.6	1.0	38.7	35.8	36.7	-2.0	0.9
Memphis, TN-MS-AR	20.6	26.2	23.1	2.6 *	-3.0 *	9.9	11.6	11.7	1.8	0.0
Miami-Fort Lauderdale-Pompano Beach, FL	24.2	22.1	22.6	-1.6	0.5	12.7	11.6	12.6	-0.1	1.0
Milwaukee, WI	21.3	24.4	23.4	2.0 *	-1.0	3.6	5.6	4.9	1.3	-0.7
Minneapolis-St. Paul-, MN-WI	16.4	19.7	20.1	3.7 *	0.3	4.0	5.8	5.6	1.6 *	-0.2
Modesto, CA	15.7	15.5	13.5	-2.2	-2.0	16.2	12.1	14.6	-1.5	2.5
Nashville, TN	13.3	15.3	17.5	4.2 *	2.2 *	8.3	9.6	9.0	0.7	-0.6
New Haven, CT	24.4	22.1	27.3	2.9	5.2	7.0	7.7	8.6	1.6 *	1.0
New Orleans, LA	27.9	20.6	22.6	-5.3 *	2.0	12.9	13.1	11.4	-1.5	-1.7
New York-Northern New Jersey, NY-NJ-PA	21.5	18.7	18.5	-3.0 *	-0.2	7.2	6.8	7.2	0.0	0.3
Ogden-Clearfield, UT	16.5	19.4	18.4	2.0	-1.0	5.0	5.8	5.7	0.8	-0.1
Oklahoma City, OK	16.0	16.2	16.4	0.3	0.1	11.3	11.2	12.7	1.4	1.5
Omaha, NE-IA	11.3	14.7	15.0	3.7 *	0.3	5.3	7.3	7.0	1.7	-0.3
Orlando, FL	15.9	15.0	18.9	3.0	3.9	10.0	10.0	11.0	1.0	1.0
Oxnard-Thousand Oaks-Ventura, CA	10.5	9.6	10.4	-0.1	0.8	7.9	7.4	6.4	-1.6	-1.1
Palm Bay, FL	9.5	10.3	10.0	0.5	-0.3	9.5	7.8	10.5	1.0	2.7
Philadelphia, PA-NJ-DE-MD	22.9	23.8	24.1	1.2 *	0.3	6.5	7.4	7.4	0.9 *	-0.1
Phoenix-Mesa-Scottsdale, AZ	13.3	14.9	16.2	2.9 *	1.2 *	10.1	10.9	10.5	0.4	-0.4
Pittsburgh, PA	20.4	21.0	21.2	0.8	0.3	9.4	9.9	10.6	1.2 *	0.7
Portland-Vancouver, OR-WA	12.9	14.6	14.3	1.5 *	-0.2	7.7	9.5	9.8	2.1 *	0.3
Providence, RI-MA	29.1	28.5	25.4	-3.8 *	-3.2	9.2	9.1	10.1	0.9 *	1.1
Provo-Orem, UT	26.8	30.4	28.2	1.4	-2.2	6.5	5.7	7.7	1.2	2.0
Raleigh-Cary, NC	9.3	10.0	10.9	1.6 *	0.9	8.5	8.6	9.0	0.5	0.4
Richmond, VA	21.4	22.9	26.7	5.3 *	3.8	6.8	8.0	7.5	0.7	-0.5
Riverside-San Bernardino-Ontario, CA	19.3	14.7	16.8	-2.5 *	2.1 *	14.1	11.2	12.9	-1.2 *	1.7
Rochester, NY	25.9	29.1	29.3	3.4	0.2	6.4	9.1	8.5	2.1 *	-0.6
Sacramento-Roseville, CA	17.5	12.6	14.3	-3.2 *	1.7	11.0	10.6	11.1	0.1	0.5

Appendix A. City and Suburban Poverty Rates, 95 Metro Areas, 2000, 2007, and 2008 (continued)

	Primary Cities					Suburbs				
Metro Area	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change	2000	2007	2008	2000 to 2008 Change	2007 to 2008 Change
Salt Lake City, UT	15.3	15.9	14.3	-1.0	-1.6	6.1	6.9	7.3	1.1	0.4
San Antonio, TX	17.3	18.2	19.2	1.9 *	1.0	10.7	10.2	10.5	-0.2	0.3
San Diego, CA	14.6	12.1	14.4	-0.2	2.3 *	10.8	10.4	11.3	0.6	0.9
San Francisco-Oakland-Fremont, CA	12.8	11.4	12.0	-0.8	0.5	7.3	8.2	8.2	0.9 *	-0.1
San Jose-Sunnyvale-Santa Clara, CA	8.3	9.5	8.2	-0.1	-1.3 *	6.2	6.6	6.0	-0.3	-0.7
Scranton, PA	15.0	20.3	17.7	2.7	-2.6	10.2	10.6	13.1	2.9 *	2.5
Seattle-Tacoma-Bellevue, WA	11.9	12.6	11.9	0.0	-0.7	7.2	8.8	8.4	1.2 *	-0.3
Springfield, MA	23.1	25.8	27.0	3.9 *	1.1	10.1	12.1	10.4	0.3	-1.8
St. Louis, MO-IL	24.6	22.4	22.9	-1.7	0.4	7.9	9.3	9.6	1.7 *	0.3
Stockton, CA	23.9	17.6	21.6	-2.3	4.0	13.0	11.4	13.4	0.4	2.0
Syracuse, NY	27.3	31.0	29.7	2.4	-1.3	8.1	7.8	8.6	0.6	0.8
Tampa-St. Petersburg-Clearwater, FL	15.3	15.2	15.3	-0.1	0.1	9.6	10.0	11.7	2.1 *	1.7
Toledo, OH	17.9	22.6	24.7	6.8 *	2.0	6.8	8.8	8.9	2.1	0.1
Tucson, AZ	18.4	18.4	20.9	2.4 *	2.5	9.7	11.1	9.6	-0.1	-1.5
Tulsa, OK	14.1	19.1	18.3	4.2 *	-0.8	9.8	10.5	9.6	-0.2	-0.9
Virginia Beach-Norfolk-Newport News, VA-NC	11.5	11.2	11.1	-0.4	-0.1	9.7	9.7	9.6	0.0	0.0
Washington-Arlington-Alexandria, DC-VA-MD-WV	15.8	12.8	13.3	-2.5 *	0.5	5.5	5.5	5.8	0.3	0.3
Wichita, KS	11.2	14.7	14.3	3.1 *	-0.4	6.0	8.4	8.5	2.5	0.1
Worcester, MA	17.9	18.0	14.8	-3.1 *	-3.3	6.7	7.2	6.4	-0.3	-0.8
Youngstown, OH-PA	24.8	32.6	33.5	8.7 *	0.8	9.5	12.6	13.6	4.1 *	0.9
95 Metro Area Total	**18.0**	**18.0**	**18.2**	**0.3 ***	**0.2***	**8.5**	**9.1**	**9.5**	**0.9 ***	**0.3**

**Significant at the 90 percent confidence level.*
Source: Brookings Institution analysis of Census 2000 and 2007 and 2008 ACS data

Appendix B. Model Results
Table 1. Relationship between Poverty, Unemployment, and Single-Parent Families, 2007 and 2008

Variables	Coefficient through 2007	Coefficient through 2008
Unemployment Rate*	0.903	0.929
Single-Parent Families*	0.495	0.521
Constant	0.707	0.008

**Significant at the 1 percent level*

Source: Brookings Institution analysis of BLS data, 1990 and 2000 Census data, and 2005 through 2008 ACS data

Appendix B. Model Results
Table 2. Change in Projected Poverty Rates, Top 100 Metro Areas, 2008 to 2009

Metropolitan Area	Percentage Point Change, 2008 to 2009	Metropolitan Area	Percentage Point Change, 2008 to 2009
Akron, OH	2.2	Greensboro-High Point, NC	3.3
Albany-Schenectady-Troy, NY	1.5	Greenville-Mauldin-Easley, SC	2.5
Albuquerque, NM	1.6	Harrisburg-Carlisle, PA	1.7
Allentown-Bethlehem-Easton, PA-NJ	2.1	Hartford-West Hartford-East Hartford, CT	1.5
Atlanta-Sandy Springs-Marietta, GA	2.5	Honolulu, HI	1.4
Augusta-Richmond County, GA-SC	2.0	Houston-Sugar Land-Baytown, TX	1.5
Austin-Round Rock, TX	1.5	Indianapolis-Carmel, IN	2.3
Bakersfield, CA	3.0	Jackson, MS	1.2
Baltimore-Towson, MD	1.8	Jacksonville, FL	2.9
Baton Rouge, LA	1.5	Kansas City, MO-KS	1.6
Birmingham-Hoover, AL	2.4	Knoxville, TN	1.9
Boise City-Nampa, ID	2.9	Lakeland-Winter Haven, FL	3.3
Boston-Cambridge-Quincy, MA-NH	1.7	Las Vegas-Paradise, NV	3.5
Bradenton-Sarasota-Venice, FL	3.3	Little Rock-North Little Rock-Conway, AR	0.8
Bridgeport-Stamford-Norwalk, CT	1.6	Los Angeles-Long Beach-Santa Ana, CA	3.0
Buffalo-Niagara Falls, NY	1.9	Louisville/Jefferson County, KY-IN	2.3
Cape Coral-Fort Myers, FL	3.8	Madison, WI	1.1
Charleston-North Charleston-Summerville, SC	2.5	McAllen-Edinburg-Mission, TX	2.1
Charlotte-Gastonia-Concord, NC-SC	3.4	Memphis, TN-MS-AR	2.1
Chattanooga, TN-GA	2.0	Miami-Fort Lauderdale-Pompano Beach, FL	2.5
Chicago-Naperville-Joliet, IL-IN-WI	2.3	Milwaukee-Waukesha-West Allis, WI	1.8
Cincinnati-Middletown, OH-KY-IN	2.1	Minneapolis-St. Paul-Bloomington, MN-WI	1.7
Cleveland-Elyria-Mentor, OH	1.5	Modesto, CA	3.8
Colorado Springs, CO	1.9	Nashville-Davidson-Murfreesboro--Franklin, TN	2.1
Columbia, SC	2.2	New Haven-Milford, CT	1.7
Columbus, OH	1.8	New Orleans-Metairie-Kenner, LA	1.6
Dallas-Fort Worth-Arlington, TX	1.6	New York-Northern New Jersey-Long Island, NY-NJ-PA	2.0
Dayton, OH	2.8	Ogden-Clearfield, UT	1.1
Denver-Aurora, CO /1	1.9	Oklahoma City, OK	0.9
Des Moines-West Des Moines, IA	0.7	Omaha-Council Bluffs, NE-IA	0.7
Detroit-Warren-Livonia, MI	3.7	Orlando-Kissimmee, FL	3.2
El Paso, TX	1.7	Oxnard-Thousand Oaks-Ventura, CA	2.3
Fresno, CA	3.5	Palm Bay-Melbourne-Titusville, FL	3.0
Grand Rapids-Wyoming, MI	2.8	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	2.0

Table 2. Change in Projected Poverty Rates, Top 100 Metro Areas, 2008 to 2009 (continued)

Metropolitan Area	Percentage Point Change, 2008 to 2009
Phoenix-Mesa-Scottsdale, AZ	2.3
Pittsburgh, PA	1.5
Portland-South Portland-Biddeford, ME	1.6
Portland-Vancouver-Beaverton, OR-WA	2.9
Poughkeepsie-Newburgh-Middletown, NY	1.8
Providence-New Bedford-Fall River, RI-MA	3.2
Provo-Orem, UT	1.0
Raleigh-Cary, NC	2.4
Richmond, VA	2.1
Riverside-San Bernardino-Ontario, CA	3.7
Rochester, NY	1.7
Sacramento-Arden-Arcade-Roseville, CA	2.8
Salt Lake City, UT	1.1
San Antonio, TX	1.2
San Diego-Carlsbad-San Marcos, CA	2.3
San Francisco-Oakland-Fremont, CA	2.4
San Jose-Sunnyvale-Santa Clara, CA	2.8
Scranton—Wilkes-Barre, PA	2.0
Seattle-Tacoma-Bellevue, WA	2.0
Springfield, MA	1.9
St. Louis, MO-IL	1.9
Stockton, CA	3.8
Syracuse, NY	2.0
Tampa-St. Petersburg-Clearwater, FL	3.2
Toledo, OH	3.3
Tucson, AZ	2.0
Tulsa, OK	1.3
Virginia Beach-Norfolk-Newport News, VA-NC	1.8
Washington-Arlington-Alexandria, DC-VA-MD-WV	1.4
Wichita, KS	1.6
Worcester, MA	2.0
Youngstown-Warren-Boardman, OH-PA	3.6
100 Metro Area Total	***2.2***

Source: Brookings Institution analysis of BLS data, 1990 and 2000 Census data, and 2005 through 2008 ACS data

Endnotes

1. Alan Berube and Elizabeth Kneebone, "Two Steps Back: City and Suburban Poverty Trends, 1999–2005" (Washington: Brookings Institution, 2006).

2. The estimates are then compared to a poverty threshold based on corresponding family type, and individuals are identified as below (or above) the official poverty threshold. While these time period differences may introduce some error into the analysis, Census Bureau tests reveal that differences in estimates of median income from Census 2000 and the ACS test survey were not statistically different.

3. Sampling error is the deviation of an estimate from the mean of *all possible samples.* ACS data are estimates of the actual figures that would have been obtained by interviewing the entire population using the same methodology (see *2008 ACS Accuracy of the Data*, **http://www.census.gov/acs/www/Downloads/ACS/accuracy2008.pdf**).

4. In order to calculate the Z score for the reported trends and determine statistical significance, we need standard errors for both 2007/2008 and 2000. While the ACS reports margins of errors, standard errors are not reported in Census 2000, so we first construct them based on methodology found in the Technical Documentation for 2000 Census of Population and Housing, Summary File 3 (see **http://www.census.gov/prod/cen2000/doc/sf3.pdf**).

5. We consider Newark, NJ to be the primary city for the "Northern New Jersey" segment of the New York-Northern New Jersey-Long Island, NY-NJ-PA Metro Area. For purposes of data comparison over time, and to be consistent with other analyses, we also substitute Jefferson County, KY for Louisville-Jefferson County consolidated government and Richmond County, GA for the Augusta-Richmond County consolidated government for each year of analysis. As the consolidated governments in both cases represent slightly less area than the county as a whole, in 2008 this substitution translated into a poverty rate that was .2 percentage points higher for Richmond County than it was for the Augusta-Richmond consolidated government (24.1 percent versus 23.9 percent). The difference between Jefferson County and Louisville was slightly larger (14.4 percent versus 16.1 percent respectively).

6. The following five metros are reclassified as small metro areas due to data limitations: Portland, ME; Poughkeepsie, NY; Greenville, SC; Harrisburg, PA; and Bradenton, FL.

7. ACS one-year estimates are published only for geographies with populations of 65,000 or more, which restricts this analysis to 361 MSAs. The two small metro areas that do no meet ACS reporting standards are Carson City, NV and Lewiston, ID-WA. Therefore, because of data limitations, these metro areas are included in the non-metro area analysis.

8. Census regions include: Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT); Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI); South (AL, AR, DE, DC, FL, GA, KY, LA, MD, MS, NC, OK, SC, TN, TX, VAWV); and West (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY).

9. The official poverty definition uses money income before taxes and does not include capital gains or noncash benefits (such as public housing, Medicaid, and food stamps). For an individual under 65 in 2008, the official poverty threshold translates into $11,201 annually (i.e. if a single individual's income exceeded that amount, he or she would not be considered poor). For a family of two parents and two children in 2008, the threshold was $21,834 (compared to NAS measure of $27,601, for example).

10. The National Academy of Sciences (NAS) documented the shortcomings of the federal poverty measure in a 1995 report. Some of the limitations identified include the failure of the traditional measure to recognize work-related expenses (including child care costs) and out-of-pocket medical expenses, and its exclusion of benefits like refundable tax credits (e.g., the Earned Income Tax Credit) and cash/in-kind government transfers (e.g., housing subsidies). See National Academy of Sciences, *Measuring Poverty: A New Approach* (Washington: National Academy Press, 1995). Though the NAS recommendations have not yet been enacted, they are currently under consideration in legislation introduced by Representative Jim McDermott.

11. See e.g., Sylvia Allegretto, "Basic Family Budgets: Working Families' Budgets Often Fail to Meet Living Expenses Around the U.S." (Washington: Economic Policy Institute, 2005). Jared Bernstein, Chauna Brocht, and Maggie Spade-Aguilar, *How Much Is Enough? Basic Family Budgets For Working Families* (Washington: Economic Policy Institute, 2000). The Working Poor Families Project, "Still Working Hard, Still Falling Short: New Findings on the Challenges Confronting America's Working Families"

(Washington, 2008). Gregory Acs and Pamela Loprest, "Who Are Low-Income Working Families?" (Washington: Urban Institute Press, 2005.)

12. Alan Berube, David Park, and Elizabeth Kneebone, "Metro Raise: Boosting the Earned Income Tax Credit to Help Metropolitan Workers and Families" (Washington: Brookings Institution, 2008).

13. This model is adapted from Blank, who finds unemployment to have significant effects on national poverty. See Rebecca Blank, "Economic Change and the Structure of Opportunity for Less-Skilled Workers." In *Changing Poverty, Changing Policies,* Maria Cancian and Sheldon H. Danziger, eds. (New York: Russell Sage Press, 2009). Blank finds that for every 2 point rise in unemployment nationally, poverty increases 0.9 points for all persons in the long-term. Because she estimates the effect of national unemployment on national poverty, we expected our results for metropolitan data to differ from hers. Other explanations for the more modest effects of unemployment on poverty in Blank's analysis may be explained by: a) a stronger effect of unemployment on poverty in metropolitan areas than in the nation as a whole; b) the inclusion of the 1980s in her analysis, when unemployment's effect on poverty was relatively weak compared to other decades; c) coefficients derived from one observation per year and not 100 distinct metros; and d) omitted variables in our model, particularly the lagged poverty rate. Blank is able to control for lagged poverty, wage inequality (Log 50/10 wage ratio), the CPI, Public Assistance, and a measure of where the poverty line sits on the overall income distribution (poverty line divided by median income) as far back as 1959; however, lack of data inhibits our ability to control for all of the above at the metropolitan level, particularly over time.

14. Weighted unemployment refers to monthly unemployment data (not seasonally adjusted) that are recalculated to coincide with the time period for which ACS respondents report their income and family structure, beginning in 2005 (the first year that ACS data are used). The calculation is made by averaging the unemployment levels in any 12-month period, during the course of each calendar year (as in the ACS; see methodology discussion). Note that due to the availability of data at the time of writing, 2009 unemployment is based on data only through September.

15. There are only six years for which 1) either Census or ACS data and 2) BLS unemployment data are available at the metro level: 1990, 2000, and 2005 to 2008. The variable Υ_t controls for any changes from one year to another that may affect poverty in a metro area in a given year.

16. The variable D_x controls for variation across the nine geographic divisions, as designated by the Census. It is used as a proxy for geographic differences that affect poverty- most notably the cost of living. Census divisions include: New England (CT, ME, MA, NH, RI, VT); Middle Atlantic (NJ, NY, PA); East North Central (IN, IL, MI, OH, WI); West North Central (IA, KS, MN, MO, NE, ND, SD); South Atlantic (DE, DC, FL, GA, MD, NC, SC, VA, WV); East South Central (AL, KY, MS, TN,); West South Central (AR, LA, OK, TX), Mountain (AZ, CO, ID, NM, MT, UT, NV, WY); and Pacific (AK, CA, HI, OR, WA).

17. Variables that might otherwise make a metro's poverty rate more or less sensitive to changes in unemployment include: state and local wage laws, housing prices, demographic shifts, and pre-tax, noncash public assistance that the official poverty measure does not capture, including the Earned Income Tax Credit (EITC), the Supplemental Nutrition Assistance Program (SNAP, formerly known as the Food Stamp Program), housing assistance, and government or employer-sponsored health insurance. The coefficients which resulted from the regression are in Appendix B, Table 1. The model is significant at the 1 percent level, and has an R^2 of 0.48.

18. In a selection of metro areas representing unique cases within their census divisions, the model produced projected poverty rates more than 3 points higher (e.g., Las Vegas, Washington DC) or lower (e.g., McAllen, El Paso, Provo) than actual poverty rates in 2008. Thus, when we calculate expected changes in the poverty rate between 2008 and 2009, we take the difference between the model's estimates of poverty rates for both 2009 and 2008 (rather than using the actual rate for 2008) to avoid skewing the projections of change in these regions and in the overall metro area total.

19. Howard Wial and Alec Friedhoff, "Bearing the Brunt: Manufacturing Job Loss in the Great Lakes Region, 1995–2005" (Washington: Brookings Institution, 2006).

20. The Metropolitan Policy Program at Brookings, "MetroMonitor: Tracking Economic Recession and Recovery in America's 100 Largest Metro Areas" (Washington, September 2009).

21. The city of Provo is unique, namely because of Brigham Young University's sizeable presence. Nationally, 9 percent of the poor are college students, but in Provo that share reaches 64 percent.

22. Here, "specialization" means that these metro areas have at least twice the U.S. share of employment in auto and auto parts manufacturing.

23. While the New Orleans metro area leads this list, the spatial shift that has taken in this region's poor population still largely reflects the atypical and dramatic effects of Hurricane Katrina in 2005.

24. Brookings, "Metro Monitor," (September 2009, pp.2-3).

25. Because they focus on national estimates, Monea and Sawhill are also able to include the lagged poverty rate coefficient in their analysis, which our model excludes due to data limitations. They find that, based on official unemployment projections, the national poverty rate will peak around 14.4 percent in 2011. This estimate is based on unemployment projections made in August 2009. Unemployment increases since that time have not been as severe as originally estimated. It should also be noted that their use of the Current Population Survey March Supplement (ASEC) as opposed to the ACS produces slightly lower poverty rates year to year at the national level (12.5 percent in 2007, as opposed to 13.0 percent reported by the ACS for the same year). See Emily Monea and Isabel Sawhill, "Simulating the Effect of the 'Great Recession' on Poverty" (Washington: Brookings Institution, 2009).

26. Brookings, "Metro Monitor."

27. The change in poverty for *each metro* is the difference between the poverty rate that the model would have projected for 2008 absent current data, and the its projected value in 2009. (See endnote 18.) The projected value for *all metros* is obtained by recalculating the poor population in each metro according to the projected rates, and dividing the total by those for whom poverty status was determined in 2008.

28. See Elizabeth Kneebone and Emily Garr, "The Landscape of Recession: Unemployment and Safety Net Service Across Urban and Suburban America" (Washington: Brookings Institution, 2009).

29. Elizabeth Kneebone, "Job Sprawl Revisited: The Changing Geography of Metropolitan Employment" (Washington: Brookings Institution, 2009).

30. Stephen Raphael and Michael Stoll, "Job Sprawl and the Suburbanization of Poverty" (Washington: Brookings Institution, *forthcoming*).

31. Kneebone and Garr, "Landscape of Recession."

32. Ibid.

33. Brookings Institution analysis of 2008 ACS data.

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