

Poverty and Population Density: Implications for Economic Development Policy

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Abstract

Poverty measurements based on geopolitical boundaries may not accurately reflect the concentration of poverty in a given area. Building upon the findings of the Study on Persistent Poverty in the South that identified 91 persistent poverty counties in Georgia, this article argues that a new unit of analysis is needed to understand the conditions associated with poverty. By using census block groups based on population density, it is possible to perform analysis in ways that transcend traditional geopolitical jurisdictions. The article uses this new unit to present findings based on the 2000 U.S. Census results. Implications for economic development policy are also discussed.

Introduction

In 2003, a comprehensive analysis of persistent poverty in seven rural southern states was completed. The Study on Persistent Poverty in the South concluded that there is a region of persistent poverty in the rural South; in fact, the region is judged to be the poorest in the nation, with 242 counties experiencing persistent poverty among the worst in the country for at least the last three decades. Georgia is at the heart of the region, as 91 of the 242 counties are located within the state (*Carl Vinson Institute of Government 2003, 4*).

To build upon the findings of the Study on Persistent Poverty in the South, and to foster collaborative partnerships geared toward transforming public policy in Georgia, the Office of the Vice President for Public Service and Outreach at the University of Georgia is undertaking the Initiative on Poverty and the Economy. The initiative's mission is to create sustainable activities designed to address issues of persistent poverty specific to the working and nonworking poor. The intended outcome is to promote public policy that improves both individual economic well-being and community prosperity.

To that end, one specific effort of UGA's Initiative on Poverty and the Economy has been research into the determinants of poverty using the census block group as the unit of analysis. Of particular interest is the effect of population density and other socioeconomic factors on the poverty rate of a particular jurisdiction. Understanding the relationships of place and poverty has profound implications for how public policy is formulated and eventually adopted, especially public policy affecting rural, sparsely populated areas. This article presents the initial findings of the census block group analysis and discusses the potential for transforming public policy through scholarship and engagement.

Poverty in Georgia: What do we know?

The causes and consequences of poverty have long been debated in the United States and beyond. In recent decades, substantial scholarly attention has been given to areas of concentrated poverty, specifically inner city and rural poverty (*Cotter 2002, 534*). Through that scholarship, our understanding of the conditions associated with concentrated poverty has been enhanced, and we know much about poverty in terms of individuals and communities.

For example, we know that where people live matters. It is well recognized that poverty is unevenly distributed across space (e.g., poverty is concentrated primarily in inner-city America and rural places, while poverty rates are disproportionately low in suburban areas) (*Weber and Jensen 2004, 5*). In Georgia, smaller cities bear a disproportionate burden of poverty; more poor and working poor live in concentrations in and around Georgia's smaller cities than in unincorporated and rural places of the state. Compounding that, these smaller communities face a stark future as their workforce migrates to the employment centers located in the state's 15 metropolitan areas (*U.S. Census Bureau 2005c*).

These economically stressed communities represent considerable stranded investment in public infrastructure as well. The old adage that "if you build it, they will come" has not been realized in many of Georgia's communities that lack the workforce to support recruited industry. Moreover, poor communities lack the needed investment in commercial and retail establishments. For example, supermarkets and large retailers are often absent from impoverished communities, forcing the poor to purchase goods and services at much higher prices. Couple those trends with the fact that banks and investment firms do not locate in

stressed communities, and the result is predatory lending practices such as payday and title lending where interest rates for borrowing money can be as high as 400 percent (*HUD 2000, 3*).

Poor communities also face numerous challenges related to health care, housing, transportation, education, and child care. Many of the working poor are not covered by employer-sponsored health benefits. Those that are covered often face exorbitant copays and deductibles. Those that attempt to purchase private insurance do not get competitive premium rates or coverage. Consequently, the uninsured are forced to a system of health care based on a visit to the emergency room (*By the numbers 2004, 9*). This further strains the financial conditions of many hospitals outside metropolitan areas that are already faced with decreased funding from Medicaid and other state and federal programs and the increased costs of malpractice insurance.

Transportation is another challenge for communities with disproportionate numbers of poor people. As employment centers are being located further and further away from stressed communities, those with marginal incomes face transportation challenges getting to and from work. Owning an automobile is often cost-prohibitive to those living in poverty. The poor face higher rates for purchasing a car and for the insurance required to drive it due to lack of credit, bad credit histories, and even their zip codes (*Annie E. Casey Foundation 2003, 4*). Maintenance and service costs and the price of gasoline are often higher in poor communities, and ready access to public transportation is often lacking for the poor.

Poor communities do not have adequate and affordable housing for the poor. In fact, 46 counties in Georgia are considered “housing-stress” counties: 30 percent or more of the households within those counties lacked complete plumbing, lacked a complete kitchen, or were overcrowded or cost-burdened. (Cost-burdened households are those whose monthly rent or mortgage payments exceed 30 percent of gross monthly income.) Moreover, mobile homes in rural areas are the dominant source of affordable housing; however, they often are depreciating assets that do not create individual wealth or sufficient tax revenue for local governments (*Tinsley 2005, 1–2*).

Just as poor communities lack affordable housing and face health care and transportation challenges, child care is also an issue. Specifically, reliable, high-quality child care options are limited for those living in poverty, as the poor often work

multiple jobs and hours that are not consistent with traditional child care services (*Annie E. Casey Foundation 2003, 5–7*).

In addition to the challenges poverty poses for communities, the poor are also faced with the stigma of perceived personal defects. Far too often the challenges associated with acquiring marketable skills to effectively participate in the workforce center on the poor being seen as having some personal negative condition, rather than an absence of viable tools to fully participate in the economy. Consequently, some have argued that poverty is a condition of individual characteristics, traits, attitudes, and behaviors, rather than stemming from structural barriers present in the macroeconomy (*Katz 1989, 30*).

Exacerbating this problem is mass media's propensity to perpetuate the myth that the poor do not work (*Gilens 1996, 515*). The reality is that 60 percent of the poor population in Georgia work for a living. When the number of children and elderly is taken into consideration, that number increases to nearly 90 percent (*U.S. Census Bureau 2005c*). Overall, the challenges are not in the ability or willingness of the poor to work, but rather in creating circumstances that will enable them to participate more fully in the economy.

Along with the personal and community challenges poverty poses to society, one further issue is how to measure poverty itself. The federal measure used to determine poverty grossly understates the issues of the working poor and the wages necessary to make ends meet. The federal poverty threshold for a family of four in 2004 was \$19,157 (*U.S. Census Bureau 2005b*). That equates to \$4.60 an hour for a family of four with two wage earners, well below the federal minimum wage of \$5.15 an hour. However, most self-sufficiency standards place the cost of living estimate for Georgia well above \$30,000 and as high as \$42,000 for metro Atlanta (*Pearce and Brooks 2002, 53*).

What all this says about poverty in general, and poverty in Georgia specifically, is that all these conditions collectively place an enormous burden on individuals trying to make ends meet as well as the overall vitality of our state's communities. Consequently, the future prospects for Georgia's social and economic prosperity will be limited until ways of addressing the problems facing the poor from a comprehensive vantage point can be devised. Constructing a better unit of analysis is one step in that direction.

Developing a Better Unit of Analysis

To address the challenges associated with poverty from a comprehensive vantage point, one primary step is to understand where poverty exists and what it looks like. As stated above, the federal measure for determining poverty grossly understates the plight of the poor. Moreover, the federal measure does not account for geographic or cost of living differences, nor does it account for how taxes, noncash benefits, and work-related and medical expenses affect people's well-being (*Proctor and Dalaker 2003, 15–16*).

Compounding the problems of measuring poverty is the use of county or municipal boundaries as the basis for most public policy. Data gathered at the city and county level essentially mask concentrations of poverty within jurisdictions. For example, County X might have a 10 percent poverty rate, when in fact 90 percent of the population is poor in certain neighborhoods of the county.

One way to more accurately reflect the true conditions of poverty for individuals and communities is to move beyond traditional geopolitical boundaries (e.g., state, county, and city boundaries) and use census block groups as the unit of analysis. Census block groups essentially reflect neighborhoods, provide a good basis for measuring population density, and reflect connected populations outside traditional city and county lines. In addition, census block groups typically comprise 600 to 3,000 people and are the smallest geographic unit for which the Census Bureau tabulates sample data (*Iceland and Steinmetz 2003*).

Census block group data from the Census Bureau was used to construct a typology for understanding poverty within the state of Georgia based on population mass and density. The typology follows a rural-urban continuum and establishes five broad geographic categories for understanding poverty across census block groups. These five categories are defined using the Census Bureau's definitions for rural and urban. The Census Bureau further delineates "urban" into urbanized areas and urban clusters. The categories are based on where the majority of the population resides within a particular census block group. Table 1 describes the five categories, and they are visually represented in map 1.

Because it is based on population mass and density—where people live, rather than generic geopolitical boundaries—this typology allows for a better understanding of poverty in Georgia.

Table 1. Population Density Categories and Descriptions

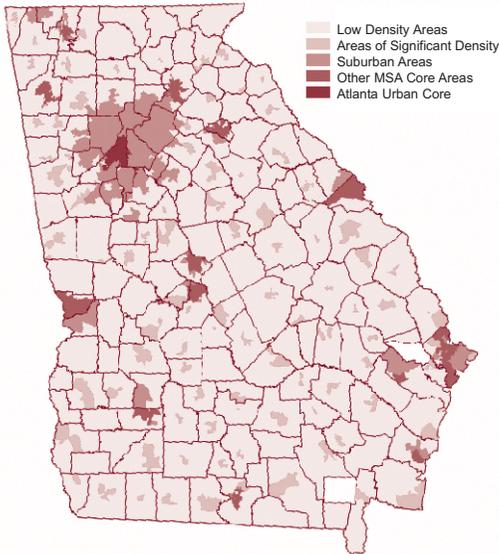
Density Category	Description
Low Density Areas	Those places where the majority of the population within the census block group is considered “rural.” Population density is less than 1,000 people per square mile.
Areas of Significant Density	Those places where the majority of the population lives in census block groups that are defined as “urban clusters.” Urban clusters are areas that consist of a central place(s) and adjacent densely settled territory that together contain at least 2,500 people, but fewer than 50,000 people. Density is at least 1,000 people per square mile in these places. Areas of significant density can be thought of as the places in the state that make up “small town” Georgia.
Suburban Areas	Those places where the majority of the population lives in census block groups that are “urbanized areas” but are not part of census block groups that are defined as the urbanized area’s central place(s).
Other Metropolitan Core Areas	Those places where the majority of the population lives in census block groups that are defined as the central place(s) of an “urbanized area” excluding the Atlanta urban core. An “urbanized area” consists of a central place(s) and adjacent densely settled territory that together contain at least 50,000 people and a population density of at least 1,000 people per square mile.
Atlanta Urban Core	A Metropolitan Core Area, as defined above, distinguished by the municipal boundaries of Atlanta.

Source: Categories were generated using Census 2000 data.

Findings: Poverty and Place in Georgia

In the aggregate, in 2000 more than 1 million Georgians were living in poverty, about 13 percent of the population. Statewide, 50.2 percent of persons in poverty were African American, 41.5 percent white, and 8.8 percent Hispanic. (Census data generating statistics for white, black, and Hispanic are compiled from two separate questions: race for white and black and ethnicity for Hispanic. Hispanic ethnicity and white and black races are not mutually exclusive, so responses total more than 100%.) Compared to the general population, African Americans and

Map 1. Where People Live in Georgia



Source: Categories were generated using U.S. Census 2000 data.

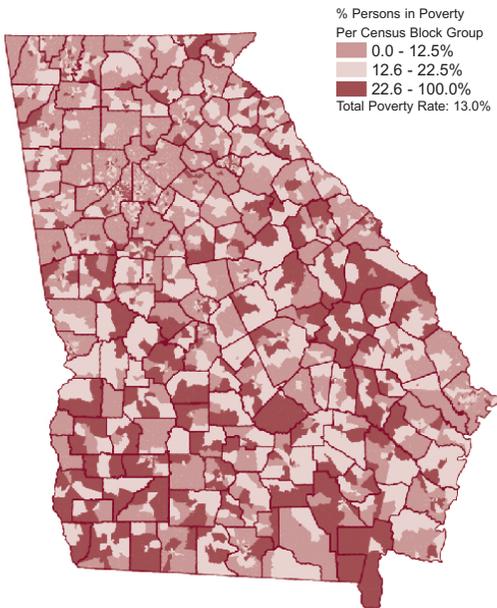
Hispanics are overrepresented in the poverty population, while whites are underrepresented. The largest number of persons in poverty were black. Children represented about 35 percent of the poverty population. As expected, the majority of families in poverty (57.2%) were headed by single mothers.

Using the census block group as the unit of analysis, the median poverty rate for the state of Georgia in 2000 was 12.5 percent. Consistent with the Study on Persistent

Poverty in the South, a quartile analysis was used to analyze the geographic distribution of high and low poverty rates. Ranking all census block groups in descending order based on the percentage of residents in poverty, the list was divided equally into four groups. The bottom two quartiles (0–12.5 percent), represented in gray on map 2, contain block groups with poverty rates at or lower than the state median, while the top two quartiles (12.6–100 percent) include those with rates greater than the median. The top quartile, represented in red on map 2, contains block groups with the highest poverty rates in the state.

This analysis shows that block groups vary widely with respect to poverty. Numerous block groups have virtually no people in poverty; some even have none. At the other extreme, there are neighborhoods in Georgia where every person lives in poverty.

The typology described in the previous section classifies census block groups in Georgia into one of five categories. The incidence of poverty varies across the five geographic categories, and not surprisingly, it is the highest in the Atlanta urban core (23.2%) and the lowest in the suburban areas (7.6%). Predictably,

Map 2. Poverty in Georgia by Census Block Group

Source: U.S. Census Bureau 2005c.

the poverty rate in the other metropolitan core areas is also high, 20.0 percent. More than one-fifth of the residents in the areas of significant density were in poverty as well. Bringing into question previous research (*Rural Poverty Research Center 2004, 3*) that contends that poverty is a rural issue, the poverty rate in Georgia's low density areas is 12.9 percent, higher than only the suburban areas and nearly equal the state average.

As poverty rates differ across categories based on population

density and mass, so do the characteristics of the poverty population. (See table 2 for a summary of findings.) The Atlanta urban core has the highest proportion of persons in poverty, and 82.7 percent of those are African American. Three-quarters of families in poverty are headed by single mothers, and almost all are African American. The average income deficit for a family in poverty in the Atlanta urban core is \$8,749—that is, the average family in poverty would need an additional \$8,749 per year just to achieve the poverty threshold. No population density category has a larger income deficit. This is particularly troublesome given the high cost of living in Atlanta. This region is the most diverse with respect to income levels. The Atlanta urban core has the highest poverty rate, but it also has the highest per capita income. More than three-quarters of adults at least 25 years old in Georgia, and in the Atlanta urban core, have a high school diploma or equivalent. With nearly 22 percent of the adults having a bachelor's degree, adults in the Atlanta urban core are well educated. The Atlanta urban core has the highest housing costs in the state and the largest percentage of cost-burdened households (those whose monthly rent or mortgage payments exceed 30 percent

Table 2. Summary of Findings

	State of Georgia	Low Density Areas	Areas of Significant Density	Suburban Areas	Other Metropolitan Core Areas	Atlanta Urban Core
Total Population	8,186,453	2,210,738	861,308	3,492,151	1,170,213	452,043
% White	65.1%	80.5%	59.5%	65.3%	51.2%	34.7%
% African American	28.6%	16.5%	36.7%	25.7%	42.2%	59.7%
% Hispanic	5.3%	2.6%	3.7%	7.0%	6.3%	4.7%
% Children (younger than 18)	26.5%	26.6%	26.4%	27.2%	26.0%	22.3%
% Elderly (older than 64)	9.6%	11.0%	13.1%	7.2%	11.3%	9.7%
% Female-headed families	19.9%	14.4%	27.9%	17.0%	28.2%	39.7%
Population for whom poverty is determined	7,959,649	2,165,641	807,926	3,440,689	1,118,025	427,368
Poverty rate	13.0%	12.9%	21.3%	7.6%	19.7%	23.2%
Poverty population	1,033,793	279,276	172,166	262,642	220,687	99,022
% White	41.5%	60.8%	34.5%	45.1%	31.5%	12.2%
% African American	50.2%	33.9%	60.8%	38.6%	61.6%	82.7%
% Hispanic	8.8%	5.3%	5.5%	16.8%	8.0%	4.6%
% Children (younger than 18)	35.3%	34.2%	37.5%	33.7%	36.4%	37.0%
% Elderly (older than 64)	9.9%	13.3%	11.3%	7.3%	8.1%	8.7%
% Female-headed families	57.2%	43.8%	66.2%	51.2%	68.3%	75.0%
Per capita income	\$21,154	\$17,777	\$15,507	\$25,283	\$17,333	\$26,433
Aggregate income deficit (thousands)	\$1,546,913	\$421,486	\$265,399	\$369,871	\$327,462	\$162,696
Average family income deficit	\$7,361	\$6,766	\$7,359	\$7,481	\$7,486	\$8,749
Educational attainment						
% HS diploma or greater	78.6%	71.8%	68.9%	86.1%	76.0%	78.0%
% Bachelor's degree or greater	24.3%	12.9%	15.0%	33.5%	20.6%	36.0%
Housing						
% Housing units that are mobile home	12.0%	29.5%	13.2%	3.7%	5.8%	0.4%
% of Renters, cost-burdened	38.7%	34.2%	39.8%	37.4%	41.6%	42.5%
% of Homeowners, cost-burdened	24.7%	25.4%	25.7%	23.3%	26.4%	33.0%

Source: U.S. Census Bureau 2005c.

of gross monthly income). In this area, 42.5 percent of renters and 33 percent of homeowners are cost-burdened.

As with the Atlanta urban core, a relatively high poverty rate characterizes the other metropolitan core areas. While the per capita income in the Atlanta urban core is \$26,433, it is only \$17,333 in the other metropolitan core areas, almost \$4,000 less than the state per capita income. In these areas, 76 percent of adults at least 25 years old have a high school diploma (just below the state rate of 78.6%) and 20.6 percent have a bachelor's degree. The other metropolitan core areas have a similar incidence of cost-burdened renters to the Atlanta urban core (41.6%) but a lower incidence of cost-burdened owners (26.4%). In these areas, 61.6 percent of the poverty population is African American and 68.3 percent of families in poverty are headed by single mothers.

In stark contrast to the Atlanta urban core and the other metropolitan core areas, the poverty rate in the suburban areas is the lowest in the state, 7.6 percent. The composition of the poverty population in this area includes 45.1 percent white and 38.6 percent African American persons. Of particular significance is the substantially higher percentage of Hispanics in poverty in suburban areas than in the other geographic categories; 16.8 percent of the poverty population in the suburbs is Hispanic. Per capita income is \$25,283 in the suburban areas, slightly lower than in the Atlanta urban core. Presumably this is an indication of larger families in the suburban areas. As expected, educational attainment measures are most favorable in this area: 86.1 percent of adults at least 25 years old have a high school diploma and 33.5 percent have a bachelor's degree. Of the five categories, this has the lowest percentage of cost-burdened homeowners, 23.3 percent. Renters in this area do not fare as well, as 37.4 percent are cost burdened.

As previously mentioned, block groups that make up the areas of significant density are essentially "small town" Georgia. The poverty rate here is 21.3 percent, second highest after the Atlanta urban core. Most people in poverty (60.8%) are African American, while 66.2 percent of families in poverty are headed by single mothers. Significantly, 11.3 percent of the poverty population in these small towns consists of people over 64 years old. If the definition of poor is expanded to include all families with incomes at or below 150 percent of the poverty threshold, one in three families in small-town Georgia would be considered poor.

As this measure is seen as a more accurate reflection of being able to meet basic needs while working, this is especially troubling. Per capita income is the lowest in the state, at \$15,507. Less than 70 percent of persons at least 25 years old have a high school diploma, the lowest rate in the state. Only 15 percent of adults have a bachelor's degree, almost 10 percentage points below the state rate. At a rate second only to the low density areas, 13.2 percent of households live in mobile homes.

Surprisingly, the poverty rate in the low density areas is the second lowest of the five categories, at 12.9 percent. A majority of the poverty population is white (60.8%). In addition, only 43.8 percent of families in poverty in the low density areas are headed by single mothers. This rate is much lower than the state average of 57.2 percent. Of significance, however, is that people over 64 years old constitute 13.3 percent of the impoverished population. The low density areas have the lowest percentage of adults with a bachelor's degree, only 12.9 percent. Mobile homes are commonplace in the low density areas. Nearly 30 percent of households live in mobile homes, a rate that is far greater than the overall state of Georgia rate of 12 percent.

The income deficit for those in poverty is \$1.5 billion. That is, collectively, Georgia's residents in poverty would need \$1.5 billion just to raise their incomes to the poverty threshold. There were 210,000 families living in poverty in Georgia in 2000, with an average income deficit of \$7,361 per family. What is most troubling is that nearly half a million Georgians have incomes that are less than 50 percent of the poverty threshold.

These findings suggest that indeed the characteristics associated with poverty across Georgia differ on the basis of population density (e.g., what poverty looks like in the Atlanta urban core is very different from the poverty in suburban areas). These differences have implications for how policy is developed and implemented to address the issues of poverty in Georgia.

Policy Implications

A primary policy implication for using the census block group as the basic unit of analysis is the development of targeted economic development policy. Georgia's economic development policy has traditionally been geared toward cities and counties. The state, through executive branch agencies, typically uses incentive programs, tax credits, and grants and low-interest loans to assist local governments and their instruments (e.g., local

development authorities, chambers of commerce, and other pseudogovernmental entities) with economic development initiatives. These development efforts, although well-meaning and relatively successful, have not produced the long-term impacts necessary for sustainable development in general, and reducing poverty rates specifically, because they have tended to focus on aggregate county and city phenomena, not the unique circumstances contributing to the conditions associated with poverty within the local jurisdiction.

Using the census block group to target economic development policy allows the state to pinpoint where poverty exists and has persisted over time; it also avoids excessive use of the aggregate county and city data that mask concentrations within jurisdictions. Moreover, as we have seen from the findings above, census block groups allow policymakers to focus attention on where people live rather than generic geopolitical boundaries. In this sense, policymakers are better able to understand how both poverty and prosperity are distributed throughout Georgia, which enables the development of targeted public policy.

The next step in this line of research is to analyze the correlates of poverty within these new categories and to study how these may differ. Also, as previously mentioned, 150 percent of the poverty threshold is probably a better indication of who is poor, as it is a more accurate reflection of a family's ability to meet basic needs while working. Using this measure, together with this new unit of analysis, one can learn about where the working poor live and the associated characteristics.

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