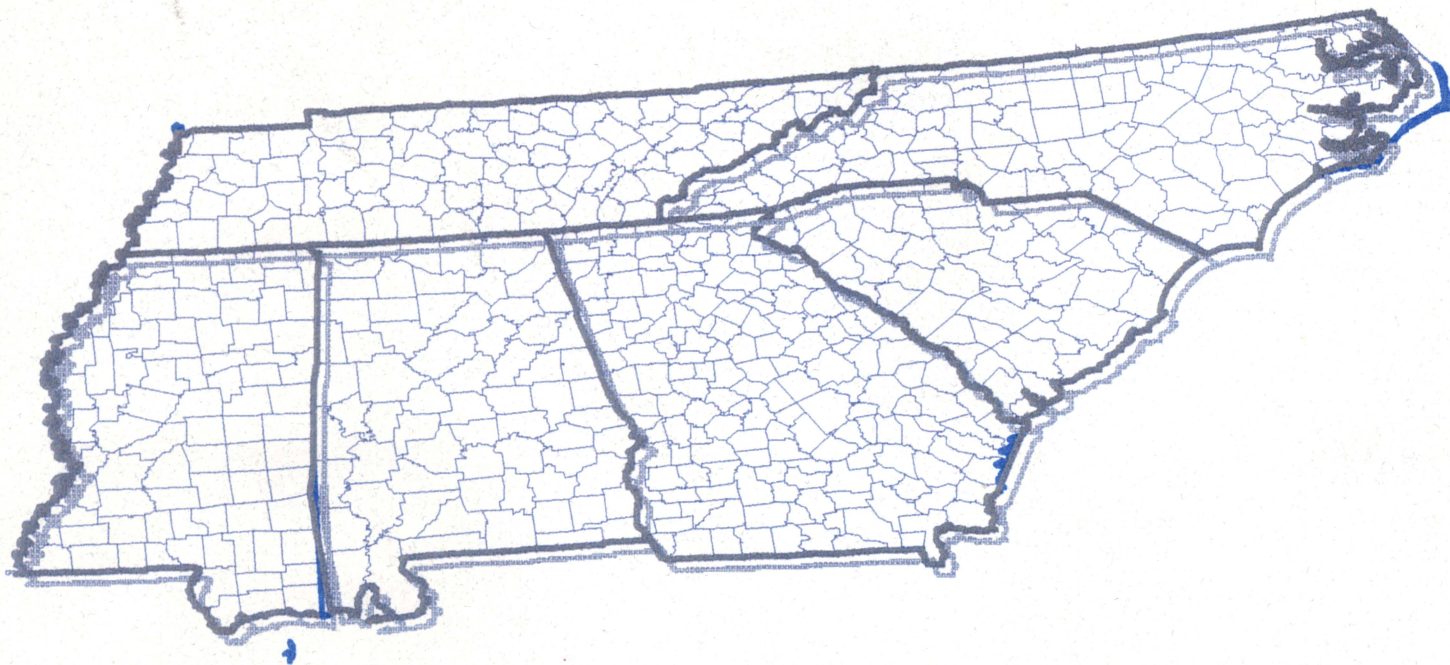


The Diverging South:



*Metropolitan Growth Versus Stagnation
Down in Dixie*

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ABSTRACT

Urban growth and prosperity in the American South has been a subject of scholarly interest since the reinvigoration of the Southern economy following World War II. The plenitude of research published concerning the less-prosperous cities of the region, however, is dramatically incomparable. A great number of Southern cities have not shared in the boom of the past twenty years, and the purpose of this research is to show their commonalities. It offers a formula, a prescription for improved prosperity based on data from the growing, prospering metropolitan areas of the region. The data for 1970 to 1990 refute, in part, the widely-held growth theories of many of the South's most widely-respected leaders.

Following the destruction of the Southern socio-economic system during the Civil War and Reconstruction, most states of the old Confederacy began rebuilding their depressed economies. This process placed the states of the South in a mutually peerless position within the American marketplace. All were rebuilding from a resounding defeat, four years of economic isolation, and almost complete disjointedness from the industrial revolution. In these respects, the Confederate states began on an even keel, unique among themselves. In the past half century, a substantial amount of research has been done concerning the economic stagnation which resulted from the labor systems and patriarchal dominance of the ante- and post-bellum South, and it was not until the 1960's that geographers and economists began to notice emerging metropolitan areas of economic prosperity within the region.

Pannell theorized that the growth of the South's MSA's, much like that of the nation's, occurs in a rank-size systemic ordering-- the larger the city, the greater the growth, with virtually all cities experiencing growth in proportion to their size. Based on his models of urban growth, Pannell went so far as to say "urban growth patterns in the South suggest an even diffusion of economic benefits throughout the region" (Pannell 1974). The past two decades since his theory have not proved his postulations correct.

What exactly is "growth", and how are cities ranked accordingly? It is imprecise and problematic to define growth as merely an increase in population or an increase in mean personal income. As Shaw has shown, simple population growth has, in certain cases, proved detrimental to an MSA as a whole and to the socio-economic conditions of a majority of its residents. Pure population growth, without accompanying

increases in personal income, business development, and other related factors can lead to higher taxes to support a dependent population, white flight, and a stalled or recessionary economy (Shaw 1994). Other factors must be included to equate growth with prosperity. Facilitating the greatest good for the greatest number of citizens is one of the purposes of government and, therefore, the goal of city planners and leaders seeking to stimulate "prosperous growth".

PURPOSE

The purpose of this study is to determine systematically which Metropolitan Statistical Areas actually are the "boom towns" of the South and which are lagging behind. A second goal is to determine what common variables operated to facilitate the growth of the South's booming MSA's, whether these variables are matters of public policy or inherent condition. Such a determination will establish the possibility of an urban growth formula with common variables that combine to create a prescription for prosperity. The study concludes that the study area does not grow with an even diffusion of economic benefits across the region, but that a proactive approach must be taken by cities to compete for their share of the wealth.

Modern economic theory has established that market economies have the potential for unlimited growth and do not operate along a zero-sum gain-- economic growth in one area does not necessarily mean economic recession or stagnation in another. The South, however, is unique and perhaps an exception. Because the South remained essentially agrarian while the rest of the nation converted to an industrial economy and that agricultural economy was devastated by the Civil War, the South has not had the financial resources to grow at a rate comparable to the American economy as a whole. The South was, and still is to a degree, like a lesser-developed nation struggling to compete with a dominating, developed one and having little trade, immigration, or

regulatory authority. The South still must be able to import capital, and herein lies the basis for competition among MSA's.

There have developed over the past two decades two popular theories of Southern growth, education and transportation. Though both generally recognize the value of education to economic development, the most fervent supporters of education tend to overlook the relationship of transportation systems to education and its benefits. Political leaders, in particular, find the education theory attractive because the involvement of children often eases the public backlash from tax increases. A series of major studies was conducted in the early 1970's which confirmed the pivotal role played by transportation in directing economic growth in the South.

In 1974, the Commission on the Future of the South published a report detailing the problems of growth in the region, including the unequal distribution of rising economic prosperity. This commission, comprised of civic and economic leaders from fifteen Southern states, also reported that cities and states have within their power the ability to influence growth and that coordinated policies among the Southern states should be developed "to influence the distribution of growth." Though the Commission recognized the development of human resources through education as the key factor in achieving Southern growth in the aggregate, it noted that in "planning affirmatively for the provision of low and moderate income housing, employment, and public services in areas where growth is desired... transportation systems [are] the primary tools for shaping the *patterns* of development" (Commission on the Future of the South 1974). Thus the commission predicted that the South's future growth potential depended on human resource development, but it recognized that that growth would be directed by state and local transportation development policies. The Southern Growth Policies Board went so far as to recommend the development of "a transportation system which provides more equitable access for all citizens of the region to economic opportunities, public services, and other societal resources." It

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five largest MSA's in the study area, only two are in the list's top five and two are actually among the bottom ten. Certainly prosperous growth does not appear to occur in a rank-size ordering. Raleigh, which outpaced both Atlanta and Charlotte by a wide margin in every category, was a medium-sized, relatively inconsequential city only a few years ago. Today it serves as a model for directed growth. Memphis and Birmingham, however, have fallen from their former status as peers and competitors with Atlanta. Just thirty years ago, the three cities were relatively equal regional centers. Atlanta, which is number five on the index has national and international reputations as a boom town. Birmingham and Memphis have been left behind, struggling to compete within the second tier of Southern cities.

Table 1.
Index scores for Southern Metropolitan Statistical Areas

	POPULATION RATE	INCOME RATE	POVERTY RATE	BUSINESS RATE	TOTAL RATE
Raleigh	1.000	1.000	0.827	0.980	0.952
Charleston	0.301	0.910	1.000	0.862	0.768
Charlotte	0.829	0.804	0.649	0.787	0.767
Columbia	0.182	0.939	0.912	0.704	0.684
Atlanta	0.468	0.863	0.361	1.000	0.673
Wilmington	0.055	0.976	0.770	0.779	0.645
Huntsville	0.021	0.920	0.832	0.780	0.638
Greenville	0.514	0.849	0.604	0.581	0.637
Nashville	0.370	0.865	0.521	0.708	0.616
Montgomery	0.204	0.903	0.824	0.479	0.603
Augusta	0.255	0.904	0.550	0.594	0.576
Fayetteville	0.133	0.875	0.704	0.559	0.568
Greensboro	0.252	0.830	0.602	0.554	0.560
Asheville	0.092	0.892	0.724	0.509	0.554
Knoxville	0.230	0.810	0.491	0.656	0.547
Jackson	0.238	0.860	0.527	0.513	0.535
Tuscaloosa	0.134	0.911	0.548	0.540	0.533
Birmingham	0.103	0.836	0.534	0.478	0.488
Mobile	0.120	0.790	0.362	0.565	0.459
Memphis	0.124	0.825	0.408	0.440	0.449
Chattanooga	0.190	0.771	0.424	0.401	0.447
Columbus	0.008	0.797	0.466	0.279	0.388
Biloxi	0.209	0.768	0.086	0.420	0.371
Gadsden	0.027	0.759	0.484	0.206	0.369
Albany	0.115	0.814	0.032	0.345	0.327

Source: U.S. Bureau of the Census

The geographic distribution of prosperous Southern cities occurs in two distinct zones: the Atlantic Coastal Plain and Piedmont from Raleigh to Atlanta and the Interstate 65 corridor from Nashville to Montgomery, with the exclusion of

Leading and Lagging Metropolitan Areas of the Deep & Middle South

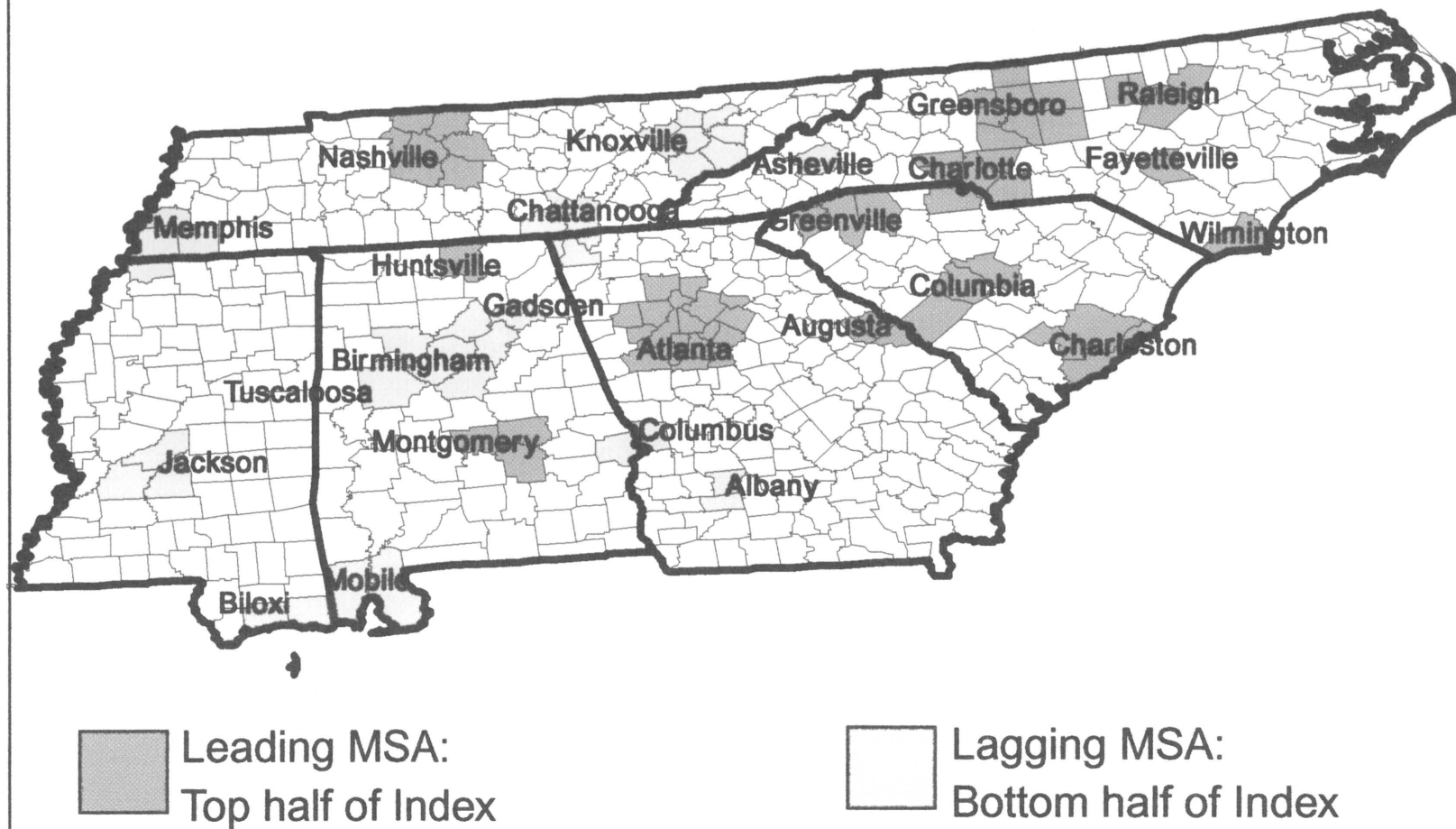


Figure 1.

Birmingham (Figure 1). In contrast, the lagging economies of the region include the Ridge and Valley and Blue Ridge of Appalachia and parts of the Coastal Plain. The eastern South appears to be experiencing more rapid economic growth than the central South. Charleston, for example, is in a leading position on the index due in part to its port. The ports of Mobile and Biloxi, in contrast, continue to lag with most of their central South peers.

It is possible that historical factors play a prominent role in current economic development. Commonalities are found among the cities of both groups. Metropolitan areas located in the traditional dependent agriculture areas tend to lag (Memphis, Jackson, Albany) as do cities with heavy industrial bases such as textiles, steel, and shipbuilding (Columbus, Mobile, Biloxi, Birmingham, Knoxville, Chattanooga, Asheville). The first cities that aggressively began the conversion to a modern service economy appear to have maintained an advantage. Shaw suggests that this early lead in the conversion is significant to future growth advantage. "Once economic growth is established [in the modern service sector], a city increases its competitiveness and thus attracts even more investment, rising in prosperity above its neighbors." Banking, health care, transportation, and general services have helped spur economic growth in Charlotte, Nashville, and Atlanta. Research and development have contributed to growing economies in Huntsville and the Carolina Metropolitan Statistical Areas. Five of the six state capitals in the study area are experiencing booming economies. Only Jackson is not included in that group. Shaw also notes "In particular, the presence of an adequate service sector is important as a provider of employment" (Shaw 1994).

METHOD

The following analysis attempts to explain, in part, the differences in growth rates. For each MSA on the index, data from several categories of public policy and inherent community characteristics were correlated with the SMSA's total index score. Using a

linear regression analysis, a coefficient was assigned to each variable, indicating the strength of its relationship with the metropolitan index. Table 2 lists the fourteen growth variables and their correlation with the metropolitan index. A coefficient of .30 and above is considered significant. The variables are:

Welfare recipients: The percentage of persons within an MSA receiving a portion of income from transfer payments.

College Graduates: The percentage of persons in an MSA who have attained a bachelor's degree or higher.

Education Ranking: The ranking assigned to an MSA by the *Places Rated Almanac*. This score indicates the quality and availability of post-secondary education within that metropolitan area.

Retirees: The percentage of persons within an MSA receiving a portion of income from pensions.

Major Employers: The number of keystone businesses in an MSA employing 1000 or more persons.

Immigration Rate: The percentage of persons who moved into an MSA between 1970 and 1990.

Air Traffic: The number of commercial flights departing the airport of an MSA.

Education Budget: The dollars spent per pupil in public primary and secondary education in an MSA.

Highway System: The number of multi-lane, interstate-type highways leading to/from an SMSA.

Public Education: The percentage of students in an MSA attending public, rather than private or parochial, schools.

Minority Concentration: The percentage of an MSA's population comprised of minorities.

Suburban Flight: The percentage of the total population of an MSA which migrated from the central city to a suburb, 1970 to 1990.

Isolation: The distance from an MSA to the nearest other MSA.

Government Employment: The percentage of the workforce of an MSA employed by federal, state, and local governments.

In the initial computation, each variable was considered independently. Its correlation with the metropolitan index score was then calculated. In this bivariate analysis both the strength of the correlation and the standard error coefficient were computed using the standard bivariate regression formula:

$$Y_i = a_{yx} + b_{yx}X_i$$

where Y_i is the dependent variable, in this case the metropolitan index score;

X_i is the independent variable;

a is the intercept point on the slope of the relationship; and

b is the slope.

Table 2.
Correlation of variables to the metropolitan index

Variable	Correlation
Welfare recipients	-0.755
College graduates	0.736
Education ranking	0.731
Retirees	-0.477
Major employers	0.427
Immigration rate	0.407
Air traffic	0.404
Education budget	0.391
Highway system	0.311
Public education	0.184
Minority concentration	0.116
Suburban flight	0.091
Isolation	0.078
Government employment	0.003

The results are significant in that they superficially tend to lend validity to pre-existing theories of economic growth (e.g., relatively high education spending

correlates strongly with successful cities). Several variables showed no substantive correlation to urban growth as defined in this study. Government employment, public school enrollment, minority concentration, suburban flight, and geographic isolation had little statistical relationship to a city's prosperous growth, and they are omitted from the remainder of the analysis. Though one of these variables may be correlated to prosperous growth in a particular MSA, such a relationship is by no means common.

The results of the bivariate analysis show that, with the exception of transfer payments, education is the most important single factor related to economic prosperity. Southern cities with the highest rates of prosperous growth have high numbers of college graduates per capita and rank high on the *Places Rated Almanac's* education index. The high priority given education in the South recently has yielded booming economies in places like Charlotte and Charleston. However, Jackson and Tuscaloosa, which outrank both in terms of college graduates per capita, remain far below these cities in prosperous growth. Evidence indicates that one or more other variables must exist which *direct* growth to particular areas within the South.

The effects of welfare drain have a major influence on prosperous growth in metropolitan areas. The most highly correlated variable in the study is the negative impact of a large number of citizens receiving transfer payments. Again, this is not true in every MSA, but the correlation is strong, and the impact is significant. Another variable showing a surprising *negative* correlation to prosperous growth is the presence of a large number of retirees in an area. A trend in recent years is for cities to actively court retirees to planned communities because it is believed that they will be contributors to the economy. However, as a rule, booming economies do not typically contain a large number retirees.

To determine the variables which may work in conjunction with each other to facilitate prosperous growth and correlate strongly together with the metropolitan

index, the eight variables which showed a substantial correlation with the index in the bivariate analysis were entered into a multiple regression. Analysis shows that when these eight variables are all integrated into urban growth planning, they correlate highly with the metropolitan index in the following priority: (1) improving the highway system; (2) increasing the education budget; (3) increasing college graduates as a percentage of population; (4) reducing the number of welfare recipients per capita; (5) increasing in-migration rates; (6) increasing airport activity; (7) improving the overall education ranking; and (8) attracting major employers. With a correlation coefficient of .929 and an R^2 (accuracy) level of .86, it appears that these variables in this order of priority are characteristic of Southern metropolitan areas experiencing prosperous growth. If proactive steps are taken to improve a city's status in each of these areas, perhaps this is a prescription for prosperous growth.

CONCLUSIONS

This study provides a framework for discourse concerning future directed growth in the South by systematically determining which metropolitan areas are experiencing prosperous growth and which are performing below the average. Common variables characteristic of prosperous MSA's are outlined, however, this study cannot confirm a cause and effect relationship. Do the "boom" economies of the South exhibit certain common characteristics because they are economically successful, or are they experiencing prosperous growth because they have these characteristics? This study does identify the traits which are characteristic of prosperous metropolitan areas, and these traits can be created through effective public policy. A better educational system, a sound and integrated transportation infrastructure, and a reduction in the number of welfare recipients are all goals which may be achieved through directed policy. If Governor Winter is correct that we are "half way home with a long way to go," we now know the destination and must simply choose the correct route.

Appendix 1.

	SUBURB FLIGHT	% GOVT EMPL	EDUC SPENDING	AIRPORT	INT.HWYS	ISOLATION
Raleigh	12.7%	0.198766954	3153	277833	4	59
Charleston	2.8%	0.248528746	3143	94431	2	113
Charlotte	7.7%	0.098566308	3153	452436	3	89
Columbia	3.9%	0.24580759	3143	92575	4	68
Atlanta	2.3%	0.131245836	3195	778390	7	108
Wilmington	0.0%	0.144758735	3153	48779	1	100
Huntsville	0.0%	0.2213868	2569	72685	4	70
Greenville	1.9%	0.105114528	3143	47848	3	60
Nashville	9.2%	0.132522917	2855	257559	6	110
Montgomery	5.3%	0.237947123	2569	74332	3	55
Augusta	2.6%	0.225440091	3195	47981	2	68
Fayetteville	0.0%	0.253638254	3153	49298	2	59
Greensboro	2.4%	0.111665005	3153	125925	4	79
Asheville	0.0%	0.136682243	3153	56233	3	62
Knoxville	3.6%	0.170689052	2855	130054	5	111
Jackson	8.7%	0.209623894	2416	55346	3	115
Tuscaloosa	0.0%	0.233687405	2569	38469	2	50
Birmingham	3.6%	0.135994087	2569	161522	5	50
Mobile	3.3%	0.137373737	2579	66678	2	40
Memphis	12.7%	0.162628982	2855	328321	4	137
Chattanooga	2.4%	0.146401985	2855	87213	3	111
Columbus	4.5%	0.208333333	3195	47466	1	108
Biloxi	1.4%	0.235924933	2416	46423	2	87
Gadsden	0.0%	0.130806846	2569	0	1	60
Albany	14.0%	0.218614719	3195	42042	1	87

	MAJOR EMPLOY	IN MIGRATION	RETIRES	WELFARE	COLL.GRAD	MINORITY
Raleigh	27	28.5%	11.7%	4.6%	34.8%	27.6%
Charleston	5	24.4%	16.4%	6.2%	18.9%	32.2%
Charlotte	37	17.9%	12.4%	5.2%	19.6%	21.6%
Columbia	18	22.6%	14.7%	4.9%	25.3%	32.2%
Atlanta	69	21.8%	11.4%	5.3%	26.8%	28.7%
Wilmington	4	27.4%	15.2%	7.0%	21.2%	21.2%
Huntsville	7	24.9%	16.8%	4.6%	30.1%	23.0%
Greenville	23	16.6%	12.9%	5.4%	18.0%	18.4%
Nashville	31	17.5%	12.5%	5.9%	21.4%	17.0%
Montgomery	3	18.5%	16.5%	8.2%	21.1%	37.0%
Augusta	13	20.8%	16.5%	8.5%	18.0%	33.3%
Fayetteville	4	37.3%	16.1%	8.1%	16.6%	38.1%
Greensboro	30	15.5%	13.0%	5.0%	19.2%	20.7%
Asheville	4	19.6%	17.3%	5.7%	19.1%	8.1%
Knoxville	11	15.7%	15.6%	7.2%	19.2%	7.1%
Jackson	9	14.2%	12.1%	9.5%	25.1%	43.0%
Tuscaloosa	5	22.7%	15.1%	8.0%	20.0%	27.3%
Birmingham	31	10.8%	15.7%	7.0%	18.7%	27.8%
Mobile	5	13.0%	16.1%	7.5%	15.8%	28.8%
Memphis	17	15.3%	12.7%	9.8%	19.0%	41.9%
Chattanooga	10	13.4%	14.5%	7.2%	15.7%	14.5%
Columbus	7	26.0%	18.3%	9.8%	15.1%	40.7%
Biloxi	3	21.5%	18.5%	9.0%	16.0%	20.8%
Gadsden	3	11.2%	18.4%	8.9%	10.2%	14.6%
Albany	1	18.4%	14.3%	13.0%	16.5%	46.7%

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*Uncited reference, background, and statistical information.