

## Urban Sprawl in Florida between 1990 and 2000: An Interpretation Directed toward Teachers

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*Note: This article was written primarily for Florida's teachers. It includes a general discussion of urban sprawl, information about urban sprawl within the state as a whole, and for all of its twenty metropolitan statistical areas (MSAs). It concludes with citations of units that have already been written to teach the concept of urban sprawl. The author makes no pretense that the information in this article is complete. However, the data provided by the tables, the maps of population change in the state's MSAs, as well as information within the article, should furnish the basis for the development of the theme within the context the teacher chooses. To make the unit complete the teacher and students are expected to provide the details for their community. To make them accessible to all who read this article, citations are all from the Internet. Consult the Florida Geographic Alliance web page (<http://fga.freac.fsu.edu>) for additional information about urban sprawl in Florida.*

Urban sprawl, here defined as the spread of households from established urban areas nearby onto land of much lower population density per square mile, has contributed to many of the nation's most serious social and environmental problems. An Internet search reveals approximately 126,000 sites in which the term was mentioned, most in a negative way. Despite the frequent and emotional expressions of hostility toward urban sprawl, throughout the nation the process has continued at a high intensity for the last half century, and shows few signs of abating in the near future. The focus here is on urban sprawl in Florida where urban population growth has been enormous, particularly during the last fifty years. The study is directed toward all with concern about the issue, but is most especially written with high school teachers in mind.

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Urban sprawl has become a global phenomenon brought about by advances in private transportation, most particularly the automobile. Until the twentieth century most nations, even the United States, had more rural than urban residents. The low efficiency of public transportation confined the urban population to densely populated areas near where they worked. Cities were compact, with economic activities highly concentrated in their centers. Public transportation, first powered by animals, later by steam, electric, and internal combustion engines increased mobility within cities and permitted urban expansion. Suburbs began to appear at the beginning of the twentieth century. However, it was the rapid growth in private automobile transportation that opened up the periphery of cities to urban expansion, first in the United States and now in many other nations. By the 1950s there were 32 registered vehicles (commercial and private) for every 100 people living in the United States (35 in Florida). By 2000 that figure had risen to 80 in the United States and 76 in Florida ([www.fedstats.gov](http://www.fedstats.gov)).

As the disposable income of households increased in the United States, paralleled by an increase in automobile ownership, movement from the nation's central cities to their suburbs grew dramatically. Most people, when given the choice, prefer to live in neighborhoods that are less densely populated than those common in the center of the city. Furthermore, Americans have a special attachment to the single unit detached house, which became their overwhelming residence of choice in the suburbs. The huge Interstate Highway Program begun in the 1950s, along with the limited access highway construction programs undertaken by states and cities, contributed to the migration to the suburbs since it improved automobile access between them and their central cities, and between other suburbs. This first led to a migration from the central city to the suburbs, but now movement between suburbs has become even more important.

The move to the suburbs was expensive. As the more affluent left the central cities, they left behind most of the poor, whose share within the central city population increased. This led to the central cities having lower tax bases and a consequent decline in the resources needed to fund public services, including police and schools. The deterioration of the social environment (evidenced by high crime rates and poor schools) of the central cities drove others who could afford it from them into the surrounding suburbs. Today there are many large metropolitan areas throughout the nation that have a larger population in their suburbs than their central cities. The collapse of population in the interior of some central cities,

particularly in their Black ghettos, has been so great that population densities within parts of them are now frequently lower than in the suburbs.

For many who have made the move from the central cities to the suburbs the relocation has not been an unqualified success. For one thing, to make the move usually required assuming a heavy debt for housing. Since most of the employed found themselves farther from work than when they lived in the central city, as well as from goods and services, naturally the cost of transportation, overwhelmingly the private automobile, also rose. Today in most two-parent suburban households both adults must work to meet the cost of the house mortgage and transportation. When their children reach the age when they are permitted to drive and want to own an automobile, it is often necessary for the teenager to obtain a part-time job at the least to contribute to the cost of operation. A frequent complaint of suburban residents is that their family life has deteriorated. So many family members are either working, or indulging in the freedom that their automobiles permit, that time spent with the family has diminished.

Two web sites provide excellent characteristics of urban sprawl. ([www.plannersweb.com/sprawl/define](http://www.plannersweb.com/sprawl/define) and [www.vtsprawl.org/sprawldef](http://www.vtsprawl.org/sprawldef)). These characteristics are summarized below, slightly modified in places to reflect conditions in Florida.

**Sprawl is typically characterized by:** (1) Rapid outward extension of housing and inefficient land consumption; (2) Low-density residential and commercial settlement; (3) Fragmented development with wide gaps between development and a scattered settlement appearance; (4) Dominance of private automobiles; (5) Fragmentation of powers over land use among many small localities; (6) Little to no centralized planning or control of land use; (7) Great disparities of average household income between localities; (8) Large "big box" retail establishments and shopping malls, surrounded by acres of parking or strip commercial development along major thoroughfares; (9) Scarcity of public spaces and community centers.

**Sprawl is distinct from older compact urban centers that are characterized by:** (1) Higher density than surrounding areas (2) Mixed land use; (3) More pedestrian oriented than suburbs; (4) Served by a larger number of public facilities, services and public spaces; (5) Diversity in type and scale of housing, business and industry (6) A greater number of unique historical and cultural elements.

**Among the causes of sprawl are:** (1) Public's willingness to investment in roads, public buildings, water, sewer and other infrastructure in peripheral areas and a relative lack of enthusiasm to do so in existing centers; (2) Land regulations that promote suburban style development; (3) Other public policies, including tax policies and utility rate policies; (4) Low cost fuel which encourages commuting; (5) Lower land prices in peripheral areas; (6) Higher costs of development associated with existing centers (7) Consumer desire for rural lifestyle with large homes and large yards, safe environment and less traffic congestion; (8) Preference of business and industry for easy highway access and plenty of free parking; (9) Demands of commercial tenants for particular locations and designs for buildings and sites; (10) Telecommunication advances making it unnecessary for some business to be close to each other; (11) Commercial lending practices that favor suburban development.

**Among the effects of sprawl are:** *Increased public costs:* (1) Unnecessary public costs for redundant infrastructure outside existing centers; (2) Excessive public costs for roads and utility line extensions and service delivery to dispersed development; (3) Unutilized and underutilized infrastructure in older centers; (4) Reduced opportunity for public transportation services.

*Loss of sense of place and community decline:* (1) Fragmented and dispersed communities and a decline in social interaction; (2) Isolation of some populations, such as poor and elderly, in central cities; (3) Decline in vitality and economic and fiscal viability of existing urban and village centers. *Decline in environmental quality and natural resource production:* (1) Fragmented open space that reduces wildlife habitat; (2) Loss of productive farmland and forest; (3) Increase in auto dependency and increased fuel consumption; (4) Decline in water quality from increased urban runoff, shoreline development and loss of wetlands. *Decline in economic opportunity:* (1) Premature disinvestments in existing buildings, facilities and services in central cities; (2) Relocation of jobs to peripheral areas at some distance from population centers; (3) Increased commuting times and costs; (4) Decline in number of jobs in some sectors, such as retail; (5) Isolation of employees from activity centers, homes, day care and schools; (6) Inability to capitalize on unique cultural, historic and public space resources (such as waterfronts) in urban and village centers.

## **Urban Sprawl in Florida**

In 1950 Florida had approximately 2.8 million inhabitants and there was little evidence of urban sprawl. The counties that today compose the state's 20 metropolitan statistical areas (MSAs) held 86 percent of the population, and the central cities within them contained 48 percent of their total population. The situation was about to change, since between 1950 and 1970 Florida's population increased by slightly more than four million, or about 200,000 per year. In the thirty years between 1970 and 2000 growth was even more rapid, 9.2 million, or an average of 306,000 each year. In most years at least 80 percent of that increase was from in-migration, largely from other states, but following the 1959 Cuban revolution, increasingly from abroad, mainly Latin America. In 2000 the state's MSAs held 93 percent of Florida's population. However, the share living in their central cities had fallen to 26 percent. The decline would have been even greater but for the fact that a number of central cities annexed land between 1950 and 2000. Jacksonville is the most notable example, its boundary having been enlarged to include the entire county.

The combined populations of Broward County's central cities (Fort Lauderdale and Hollywood) held 60 percent of its MSA population in 1950, but only 22 percent in 2000. For Orlando the drop was from 34 percent to 11 percent; Miami-Hialeah 54 percent to 26 percent; West Palm Beach-Boca Raton 48 percent to 26 percent; and Tampa-St Petersburg-Clearwater 54 percent to 28 percent. Many smaller MSAs experienced equally large declines in the share of their populations living in the older central cities. Notable exceptions to this trend are the MSAs of Tallahassee and Gainesville, where the central cities remain very important. The presence within them of large universities, and the concentration of students on and around their campuses account for much of the continued importance of their central cities.

Migrants, who are responsible for the majority of the state's population growth since 1950, have largely chosen to settle in South or Central Florida. North Florida began to lose population share even before the 20<sup>th</sup> century, and continues to do so today. Most settlement has been along the state's coasts, particularly along the Atlantic Ocean. However, those on the peninsula's Gulf Coast also have become a popular destination, and there are indications that those along the Panhandle will become far more successful in attracting

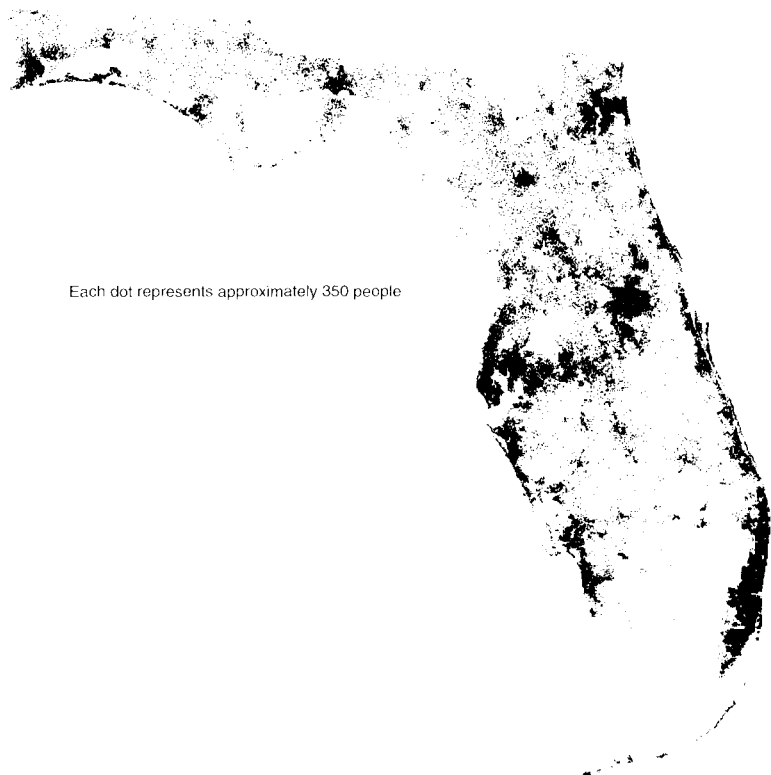
migrants than at present. As a result of jobs created by tourist developments such as Disney World, but also because retirees are finding them more economical to live in, and less congested, Florida's interior MSAs between Tampa-St. Petersburg and Daytona Beach have been growing rapidly. The state's distribution of population in 2000 (Figure 1) differs little from that of 1950 except for the fact that in 1950 cities and towns were usually separated from each other by either agricultural land or land of even less intense economic use.

What has taken place over the past 50 years is a closing of the empty space between the central cities as they filled up with people. Some central cities did annex land and grew in population by expansion. However, most growth was in villages and towns nearby,

Figure 1

### Florida Population

2000 Census



or new towns created from rural land. Towns like Boynton Beach and Delray Beach in Palm Beach County, mere villages in 1950, today have more than 50,000 inhabitants each. It is now possible to travel along the state's Atlantic Coast from Miami to Daytona Beach and be almost continually within an urban area. The same can be said from Saint Petersburg north to Crystal River and it is almost true from Tampa-St. Petersburg to Naples. A long urban ribbon is also emerging that soon will connect Tampa-St. Petersburg with Orlando, and in the not so distant future to Daytona Beach. In the more distant future we may expect another urban ribbon to run along the northern Gulf Coast from Pensacola to Panama City. It is along these urban corridors where the largest share of the state's urban sprawl has occurred.

This raises the question of just how should one interpret urban sprawl. Does it lead to a permanent condition or is it an ongoing process that evolves into true urbanization? In Florida it appears more of a process. Given the state's huge in-migration, what might have been identified as urban sprawl at the beginning of a decade could easily have become a part of a metropolitan statistical area's central city by its end. Certainly most of the land in Florida that in the 1950s and 1960s would then have been classified as "urban sprawl," has become that part of the MSA that to many is considered the old part of town. Florida is going through an urbanization process that earlier went on between Boston and Washington, and between Chicago and Milwaukee, and is taking place today between Los Angeles and San Diego, and in other parts of the nation. However in Florida, because of its rapid population growth, the process is faster than in most of the rest of the nation.

Most national environmentalist groups, as well as organizations such as the National Geographic Society ([http://magma.nationalgeographic.com/ngm/data/2001/07/01/html/fl\\_20020701.3.html](http://magma.nationalgeographic.com/ngm/data/2001/07/01/html/fl_20020701.3.html)) have long recognized urban sprawl as a process. Their concern is that federal, state, and local government should implement more rigid controls over the process. Although organizations differ over the degree and type of controls they believe government should enact, there is a consensus developing around the term "Smart Growth." The state government of Florida, through its Department of Community Affairs, to achieve "smart growth," in the 1980s required that all counties submit for its approval a "comprehensive plan" for future population growth. Many environmental, neighborhood, and other citizen advocacy groups have

complained that these comprehensive plans have not been consistently followed, and are too easily amended to serve the interests of commercial, industrial, and real estate interests.

The Sierra Club's 1998 annual report ([www.sierraclub.org/sprawl/report98/cities](http://www.sierraclub.org/sprawl/report98/cities)) identified what the organization believed were the most "sprawl-threatened cities" (by which they meant Metropolitan Statistical Areas) in the nation. In its judgment, within the category of one million or more population, Fort Lauderdale was ninth, Tampa fourteenth, and Miami eighteenth (Atlanta was first). In the category of 500,000 to one million West Palm Beach was fourth, and in the category 200,000 to 500,000, Pensacola was third and Daytona Beach fourth. If the Sierra Club had chosen to rank cities under 200,000, it is likely that Ft. Walton Beach, Ocala, Punta Gorda, and Panama City would appear. These rankings given by the Sierra Club may be disputed, but most who are familiar with the state's metropolitan statistical areas (MSAs) would acknowledge that the spread of urban land use is not tightly regulated, and has generated many environmental and social problems.

How does urban sprawl display itself on the visible landscape? Perhaps most obvious to the casual observer would be the homogeneity of the residential landscapes. Many of the homes within the so-called urban sprawl have been constructed by developers, who prefer to develop large tracts of land. There are economies of scale that can be gained by building many houses following standardized housing plans and making inexpensive modifications to individualize the appearance of each house. Furthermore, the per mile cost of roads, drainage, and utilities is more economical when installed over a large area compared to one that is small. Developers also have found that it is easier to sell homes in a subdivision where homes are somewhat uniform in price, appealing to either the rich, the middle income, or the poor, but not to all three.

To the perceptive observer there also would be an absence of people on suburban streets, especially during a weekday. Then the parents probably are at work and the children in school. Even on weekends one seldom would see pedestrians, since most people would be in their house, in their backyard, or in their automobiles running errands. Perhaps in recognition of their low utility to suburbanites, many suburbs lack sidewalks to facilitate walking. Since much of the outer periphery of central cities has been developed on large tracts of land, these subdivisions often are widely spaced from each other. Each often is separated from others by empty or lightly



populated land, often held idle by land speculators waiting for the value to increase, when it will be sold to another developer.

The commercial landscape in suburbia is totally oriented toward the motorist. Large "regional" malls with acres of parking provide the prospective customer a mix of multi-department stores and those with more specialized merchandise, as well as restaurants and other services, including movie theaters. Smaller malls generally are "anchored" by a large discount store or a supermarket, and have a variety of smaller commercial establishments, including retail stores, as well as restaurants, video stores, and other services. They also provide ample parking.

The commercial landscape within what is here designated the area of urban sprawl is at least as dynamic as the residential landscape. However, the purchasers of new homes usually sell their old homes before they move. Most could not have purchased the new one if they were unable to sell the old one. New commercial construction often leads to older commercial buildings remaining empty for long periods of time. A common sight in suburbia is a strip mall where the anchor store, be it a supermarket or a discount store, has closed and the owner of the mall has not been able to find a tenant to replace it. Usually many of the smaller stores in the mall, following the closing of the anchor store lose potential customers, and they are forced to close. It is not uncommon to see whole malls, some quite large, totally, or almost totally empty. One should think for a moment of what has happened to business in a mall when its Wal-Mart or Target, or a similar type store, is closed and replaced by a superstore that has been built nearby at a newer mall, or on a large tract of land where it stands alone. There are many examples of this throughout Florida, and elsewhere in the nation.

This is not a new phenomenon, since the downtown business districts of central cities experienced the same problems several decades ago. One by one the large downtown department stores closed, followed by smaller ones, and soon all that was left of commercial life in the central business district of many cities was a handful of stores and restaurants to serve office workers. Since after the office workers went home there were so few customers, many restaurants ceased serving dinner. If the reader lives in one of Florida's MSAs, reflect on the land use in your MSA's central business district. Today the competition between retailers and service providers mainly takes place on the periphery of large cities, a competition where there often are as many losers as winners.

The stress put on the environment by low density housing is

not limited to the local area, it creates problems for the surrounding region as well. The Florida Everglades and adjacent wetlands, one of the nation's most unique environmental habitats, located in the interior of the southern one-third of the Florida Peninsula, separates two of the state's most densely populated areas, the Gold Coast and the Sun Coast. As people flow into these coastal cities the pressure of population mounts on the already occupied land. Basically these cities have two ways to absorb the new migrants. They can pack the new arrivals into the existing urban area by building apartments or row houses that can accommodate people more densely, or the urban area can be expanded into rural area to permit the more desirable detached housing. On the Gold Coast both strategies are being practiced, but more than any of the other MSAs in Florida the three along this coast have emphasized apartments. The most recent data available, that from the 1990 census, indicate that in all three slightly less than 40 percent of the housing units were detached. At the other extreme, the percentage of the housing stock classified as detached homes in the MSAs of Daytona Beach, Ocala, and Fort Walton Beach is approximately 55 percent. Within the Pensacola MSA it reaches 66 percent, and in Punta Gorda it is 71 percent.

Through a more intensive use of existing housing units, the construction of subdivisions where homes are more densely spaced, and only to a small degree through the expansion of detached single family housing into lightly populated areas, the urban density of two of the large Gold Coast MSAs (Miami-Dade and Fort Lauderdale) increased between 1990 and 2000 (Table 1). The third, West Palm Beach, only decreased one percent. Even though urban expansion along the Gold Coast has been relatively small compared to those in other parts of Florida, between Miami and West Palm Beach expansion westward has encroached upon wetlands that have had to be drained, with its accompanying natural habitat disruption. The quantity and quality of the area's water supply has also been affected.

On the Sun Coast the growing demand for housing has largely been met by developers subdividing rural areas into detached homes. Thousands of acres between Naples and Fort Myers were drained in the 1960s and 1970s by developers who subdivided the land into small lots and built roads in the hopes of attracting buyers. Although many lots were sold, most to absentee buyers, relatively few homes were built upon them. Nonetheless today, these empty subdivisions remain, and are eerie to visit, with their dense network of streets, but just a sprinkling of homes. The state has been

**Table 1**  
**Changes in the Area, Population and Density of 1990 Urban Tracts by 2000**  
 Urban area defined as tracts of 250 inhabitants per square mile or more and rural as 249 or less

Metropolitan Statistical Area (MSA)	Urban Area in Square Miles			Percentage Change 1990-2000		Population Living in Urban Tracts			Density Per Square Mile of Urban Area		
	1990	2000	Increase 1990-2000	Urban Area Growth	Rural Area Loss	1990	2000	Percent Change	1990	2000	Percent Change
Daytona Beach	341.76	490.76	149	44	-8	297535	392589	32	871	800	-8
Fort Lauderdale	405.85	468.07	62.22	15	-6	1235465	1601142	30	3044	3421	12
Fort Myers	252.47	393.48	141.01	56	-13	269005	373237	39	1065	949	-11
Fort Pierce	228.15	241.33	13.18	6	-1	206765	254570	23	906	1055	16
Fort Walton Beach	125.19	162.03	36.84	29	-3	109103	137715	26	871	850	-2
Gainesville	112.46	150.57	38.11	34	-4	132779	168818	27	1181	1121	-5
Jacksonville	606.93	655.61	48.68	8	-2	730811	864647	18	1204	1319	10
Lakeland	390.41	453.05	62.64	16	-3	313709	375869	20	804	830	3
Melbourne	427.98	482.34	54.36	13	-4	348481	420375	21	814	872	7
Miami	509.69	556.21	46.52	9	-3	1908244	2214527	16	3744	3981	6
Naples	107.1	236.38	129.28	121	-5	104318	201727	93	974	853	-12
Ocala	92.61	276.07	183.46	198	-10	74214	143451	93	801	519	-35
Orlando	808.17	1059.38	251.21	31	-7	1050302	1442021	37	1300	1361	5
Panama City	92.42	92.42	0	0	0	88668	93577	6	959	1013	6
Pensacola	281.7	341.02	59.32	21	-3	257075	295322	15	913	866	-5
Punta Gorda	111.46	111.46	0	0	-0	81653	100873	24	733	905	23
Sarasota	331.66	417.77	86.11	26	-6	422687	517957	23	1274	1240	-3
Tallahassee	131.49	167.69	36.2	28	-3	158479	196467	24	1205	1172	-3
Tampa-St. Pete	1307.73	1587.42	279.69	21	-11	1851454	2196411	19	1416	1384	-2
W. Palm Beach	458.29	623.39	165.1	36	-7	788897	1065216	35	1721	1709	-1
Rest of Florida	388.98	488.97	99.99	26	*	207523	272072	36	534	556	4
Florida	7512.5	9455.42	1942.92	26	-3	10637167	13328583	25	1416	1410	*

\* Less than .01 percent

buying some of these properties, and is beginning to restore them to their natural state. There are many highly successful housing developments along the Sun Coast, some large, many more small. An important exception to these vacant subdivisions is Cape Coral. Population growth and development at Cape Coral has been phenomenal and by 2000 it had reached a population of nearly 100,000. Port Charlotte and Spring Hill are other examples, and held approximately 50,000, and 40,000 respectively in 2000. *(For a complete discussion of one of these developments see the article on Cape Coral which follows this article).*

Although most conspicuous in the southern part of the Florida Peninsula, there are numerous examples of large housing developments farther north within the state. The Disney Corporation has created a planned community named Celebration on the pine flatwoods and swamps in Osceola County, on land that for over a century was cattle country. It is entertaining the construction of more communities nearby. Farther to the north, in Duval and St. Johns counties, the Winn-Dixie Corporation is developing Nocatee, a community on 15,000 acres ([www.nocatee.com](http://www.nocatee.com)). It will take about 25 years to complete, and when finished will have a population of between 30,000 and 38,000 residents. In the Panhandle the St. Joe Company owns approximately 800,000 acres of land, the majority in tree farms. It presently is engaged in developing at least seven communities, most along the coast between Destin and Port St. Joe ([www.arvida.com](http://www.arvida.com)). These are only some of the important examples of Florida real estate development, just part of a huge process that has been going on for decades that has significantly reduced the state's land in agriculture, forest, swamp, and grassland. One of the state's most productive winter vegetable growing areas, the Pompano Beach Ridge in Broward and Palm Beach counties, has been engulfed by subdivisions, and today its area is only a fraction of what it was 40 years ago.

Florida's urban sprawl contributes directly to the reduction of resource reserves elsewhere in the world. Single unit housing uses far more building materials to construct than multiple family housing, and the roads and other utilities needed to serve these widely spaced homes also take vast quantities of material, most coming from outside the state. To cool and heat these homes, which in Florida usually is done with electricity, requires energy, normally petroleum, natural gas, and coal, obtained from all over the world. Finally, there is the demand for gasoline for the many private automobiles that are required by the residents of lightly populated urban areas.

## Measuring Urban Sprawl in Florida's MSAs

For the benefit of those who know at least one Florida metropolitan statistical area well, especially teachers who might want to address the issue of sprawl in their class, by using tables and maps the change in sprawl between 1990 and 2000 is here examined. This is accomplished through use of census tract data. Tracts are census units that are relatively permanent statistical divisions of a county. They usually have between 3,000 and 8,000 inhabitants, the average Florida tract having about 6,000. As the population within an existing tract increases, it may reach a point where in the next census it is subdivided. In Florida hundreds have been added each census since the first tracts were defined in 1940. Only since 1990 have tracts covered the entire state. The data used here were obtained from the Florida Senate Committee on Reapportionment ([www.leg.state.fl.us/senateredistricting](http://www.leg.state.fl.us/senateredistricting)), which with its counterpart in the Legislature, drew the new boundaries for the state's congressional and legislative districts. The fact that there were more tracts in the 2000 census than in that of 1990 would have presented a problem in the examination of population change during the ten-year period. However, for comparability, the redistricting committees converted all 2000 tracts so that those that had been subdivided during the decade were the same shape as they were in 1990. Although arbitrary, it was decided that the urban area of the state would include all tracts with a density of 250 people or more per square mile in 1990. The change in density, population, and area of all the state's tracts during the decade was then calculated.

Between 1990 and 2000 the state's urban area increased by almost 2000 square miles, roughly the area of Palm Beach County or that of Dade, which lead to a three percent decrease in the state's rural area (Table 1). Despite an urban population growth of 25 percent, or slightly over 3 million, during the decade, the total urban density of population remained essentially stable, approximately 1400 people per square mile. The tracts that have experienced the greatest growth in population during the decade had population densities of between 500 and 2000 people per square mile by the end of the decade, or 41 percent of the population growth. This would indicate that urban sprawl is mainly driven by immigration and not the desire of Floridians to live less densely.

A tract's population density is often closely related to poverty, the higher the density the higher the percentage of its population living in poverty. This is reflected in differences in the share of

specific groups living in high-density tracts. In 2000 the share of non-Hispanic whites, Hispanics and Blacks who in 2000 were living in Florida tracts with densities of 5000 or more, which for the state is a high density, was calculated. Only 18 percent of the state's non-Hispanic whites lived in these tracts, while the share was 50 percent for Hispanics and 35 percent for Blacks.

Floridians in large numbers, especially non-Hispanic whites, continue to spread out into low population density tracts at a rapid pace. Between 1990 and 2000 only eight percent of the population increase was in tracts that in 1990 had densities of 4000 or more (Table 2). Twenty eight percent of the growth was in tracts with densities between 250 and 999 inhabitants per square mile, and a staggering 39 percent was in what in this study has been designated rural tracts (below 250 per square mile). As will be shown, there is great variation between MSAs in this movement to rural Florida, but it has been large, and suggests that Floridians are truly sprawling over the landscape. In fact between 1990 and 2000 the area in

**Table 2**  
**Percentage Distribution of Change in Population in**  
**Tracts<sup>1</sup> of Various Densities Per Square Mile**  
**Between 1990 and 2000**

Metropolitan Statistical Area (MSA)	Total Change	%4000+	1000-3999	250-999	0-249	Total %
Daytona Beach	93762	-01.9	15.6	35.6	50.7	100.00
Fort Lauderdale	367530	20.5	32.2	20.1	27.2	100.00
Fort Myers	105675	00.7	24.6	19.3	55.4	100.00
Fort Pierce	68355	-04.7	20.2	48.0	36.5	100.00
Fort Walton Beach	26722	-00.7	05.7	53.2	41.8	100.00
Gainesville	36359	01.7	31.4	24.1	42.8	100.00
Jacksonville	193764	-01.8	23.6	39.6	38.6	100.00
Lakeland	78542	-02.6	12.4	45.2	45.0	100.00
Melbourne	77252	-00.9	26.7	48.0	26.2	100.00
Miami	311188	39.5	29.0	14.8	16.7	100.00
Naples	99278	02.0	13.3	29.3	55.4	100.00
Ocala	64083	00.0	-00.3	14.5	85.8	100.00
Orlando	419709	00.9	36.5	26.9	35.6	100.00
Panama City	21223	00.0	-01.5	24.6	76.9	100.00
Pensacola	67747	00.0	02.1	31.2	66.7	100.00
Punta Gorda	30652	00.0	10.4	52.3	37.3	100.00
Sarasota	100476	01.6	22.9	39.3	36.2	100.00
Tallahassee	50943	06.2	22.7	18.4	52.7	100.00
Tampa-St. Pete	328038	04.5	32.1	38.1	25.3	100.00
W. Palm Beach	267666	06.7	42.0	27.9	23.5	100.00
Rest of Florida	235488	00.1	01.6	09.0	89.3	100.00
Florida	3044452	07.6	25.6	27.7	39.1	100.00

<sup>1</sup>2000 tracts adjusted to equal those of 1990

tracts of between 0 and 49 per square mile, essentially land that was uninhabited in 1990, declined by 4034 square miles, while the area in tracts between 50 and 249 per square mile rose by 2808 square miles. That vast empty area of Florida that is sparsely populated (Figure 1) decreased significantly during the decade, primarily from expansion landward from the peninsular Gulf and Atlantic Coasts, and south from the urban corridor between St. Petersburg and Orlando.

The population increase between 1990 and 2000 for each of the state's MSAs was calculated (Table 1) and represented cartographically (Figures 2A-S). Both the data and its cartographic representation clearly show that some metropolitan areas within the state are beginning to run out of land for urban expansion, and increasingly

**Figure 2A**

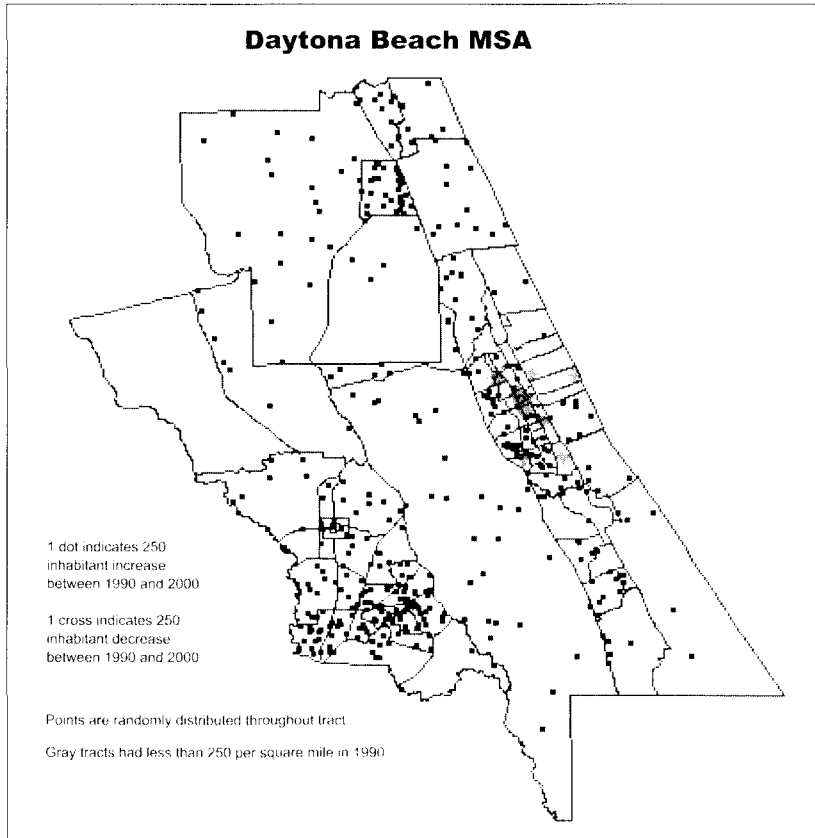


Figure 2C

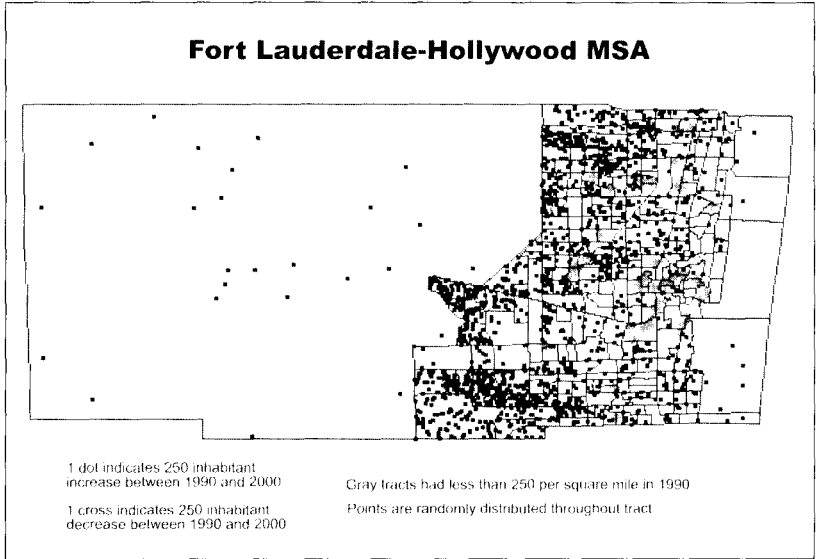


Figure 2C

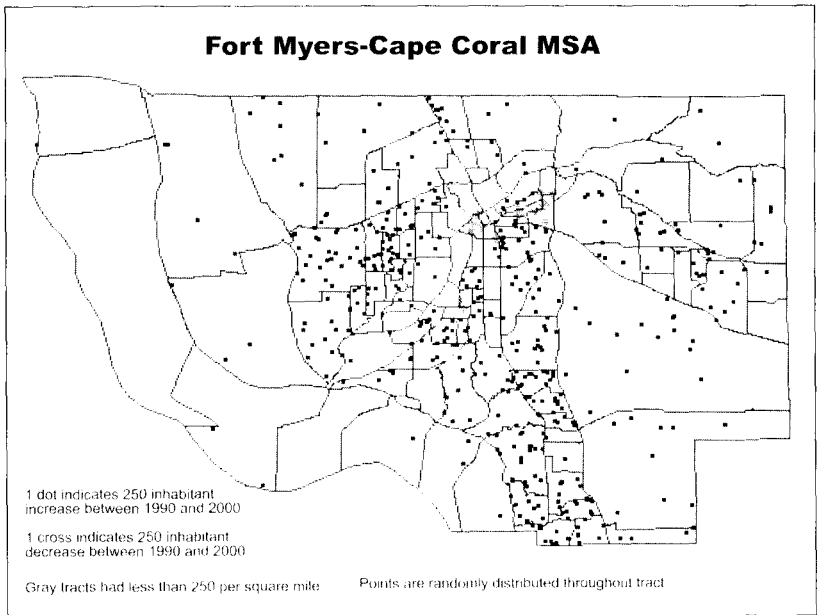




Figure 2D

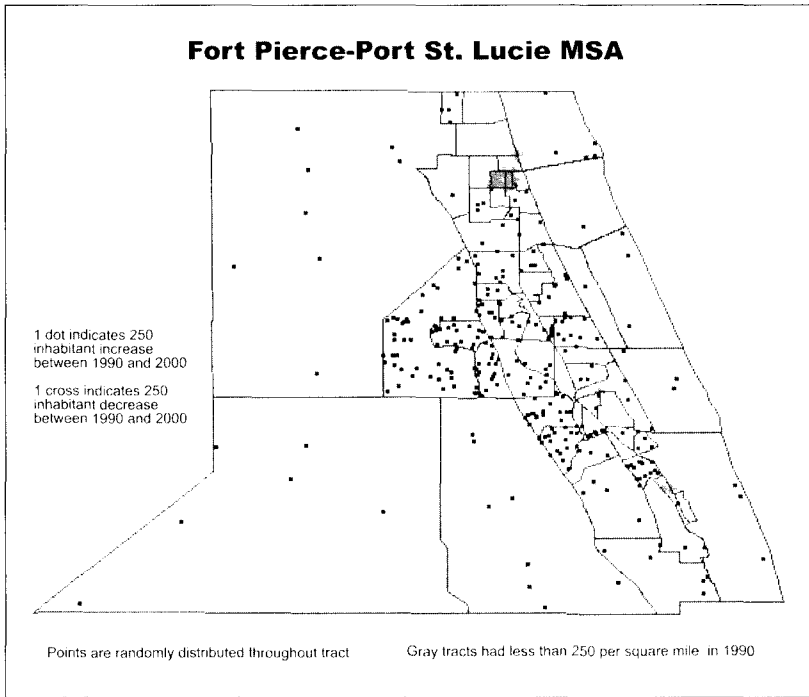


Figure 2E

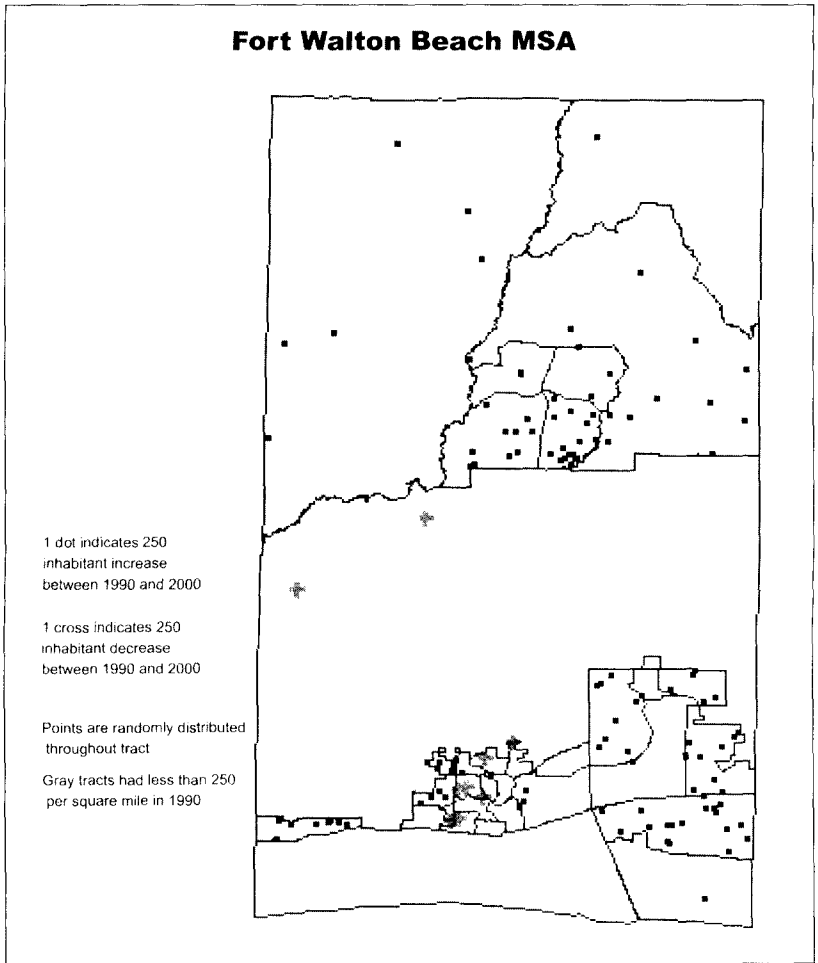


Figure 2F

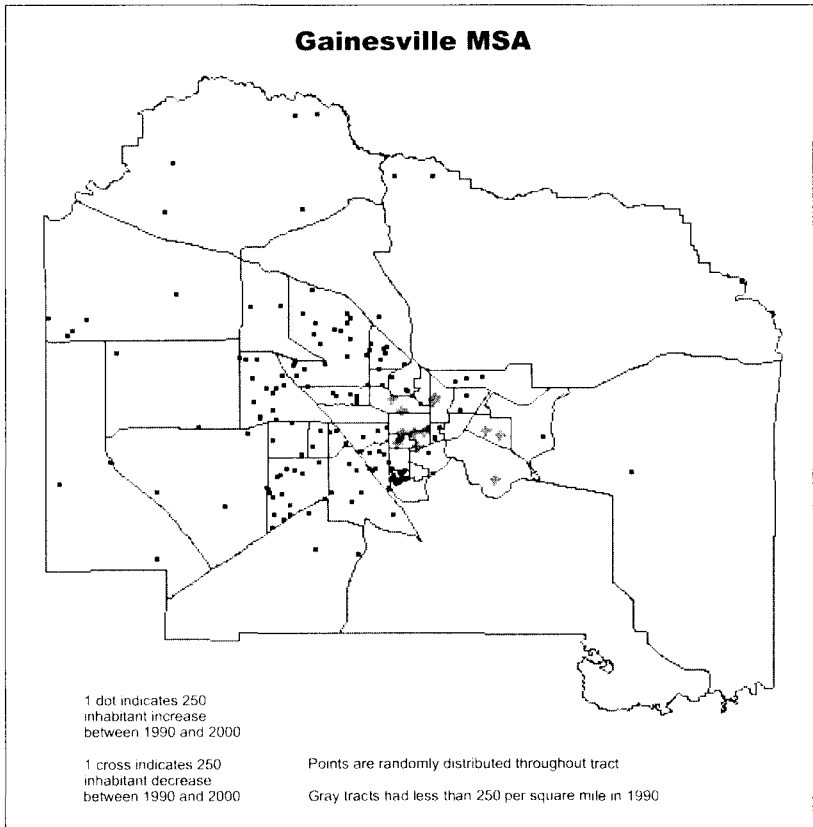


Figure 2G

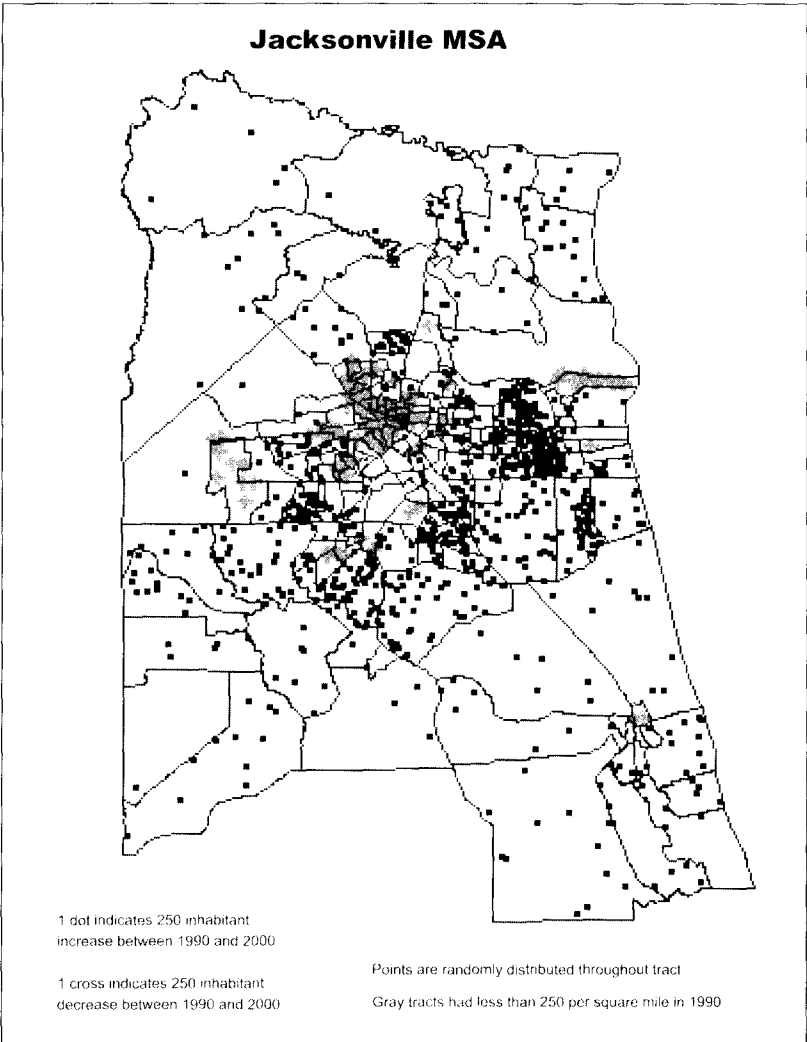


Figure 2H

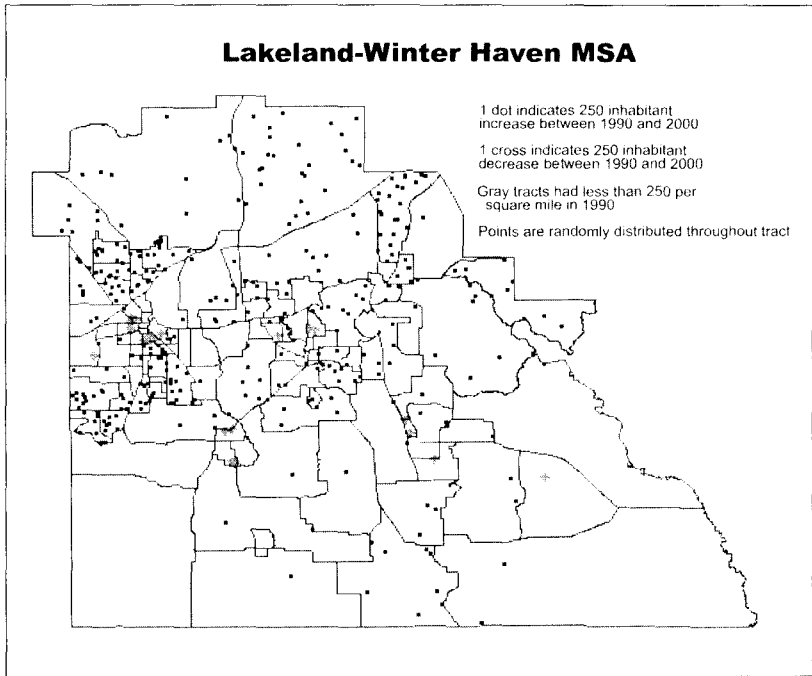


Figure 2I

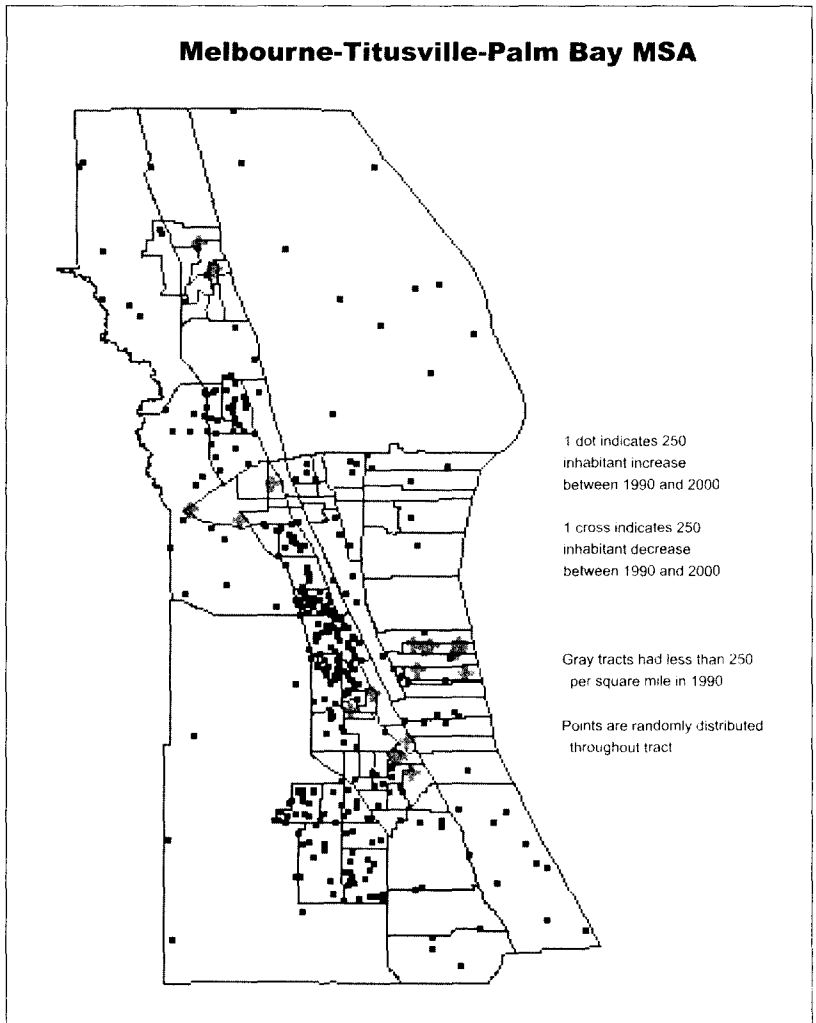


Figure 2J

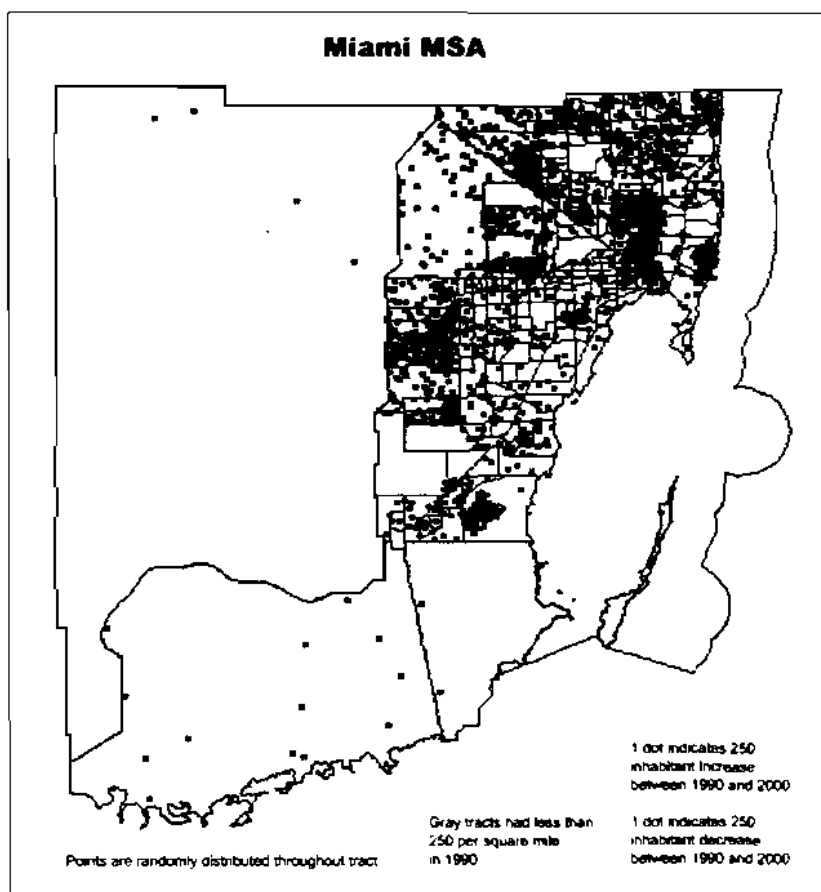


Figure 2K

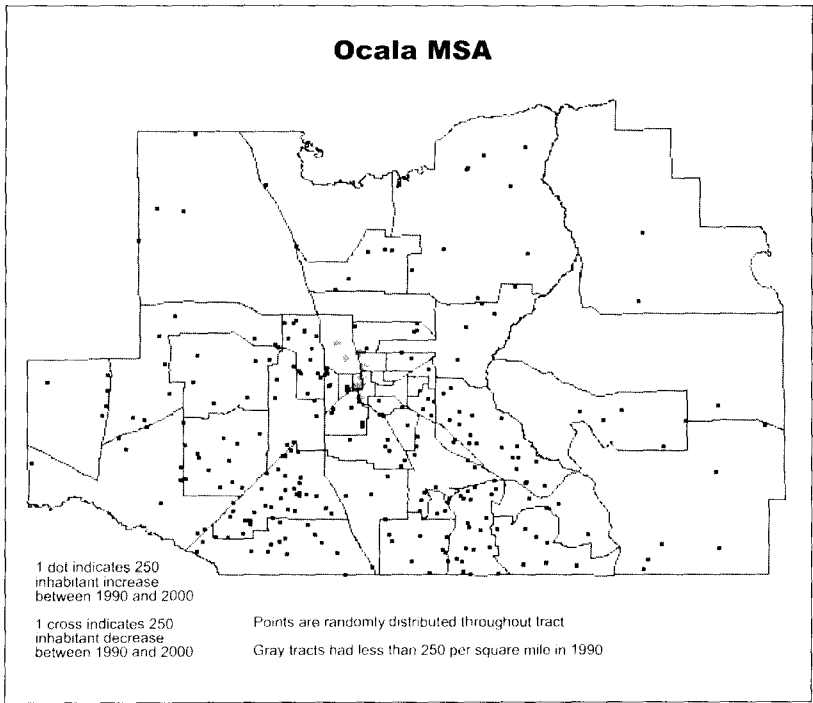




Figure 2L

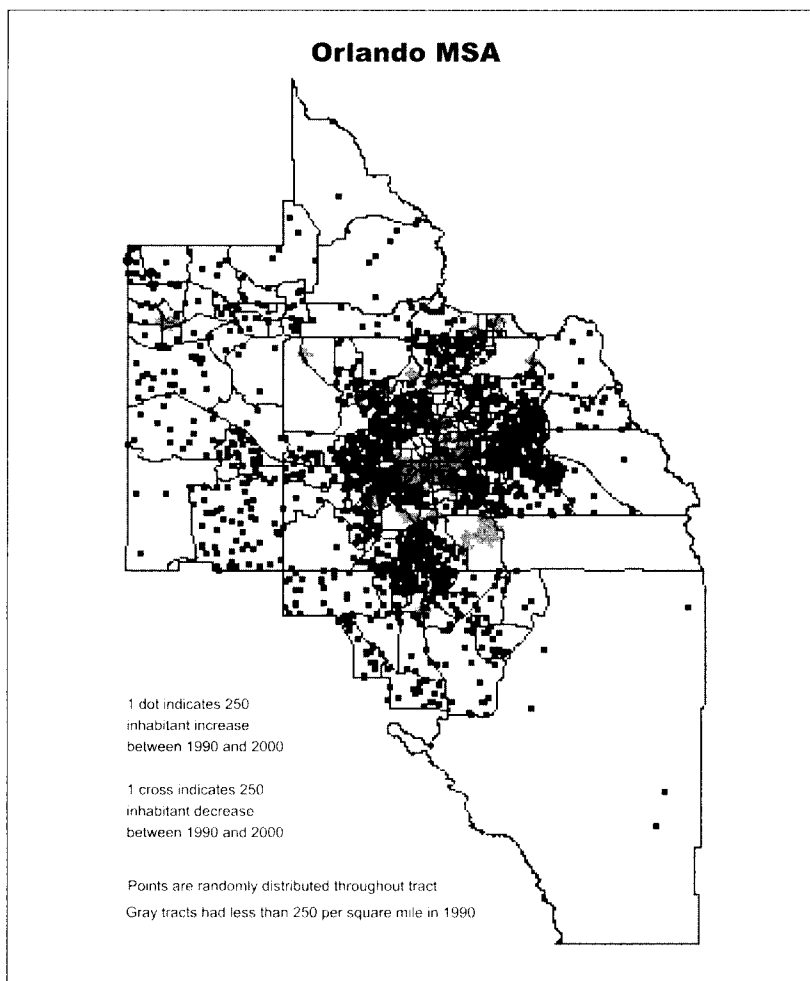


Figure 2M

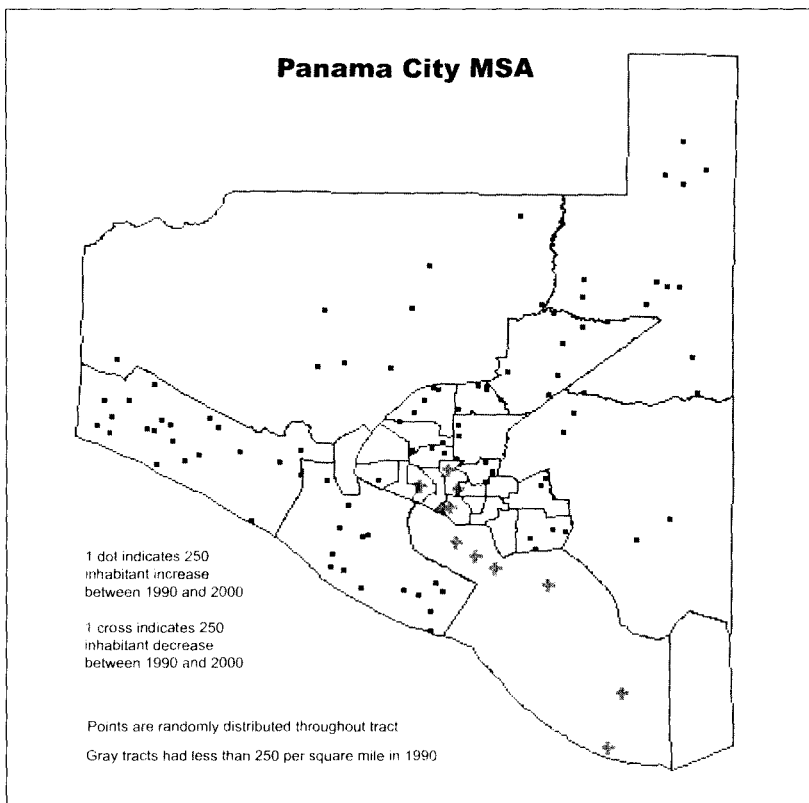


Figure 2N

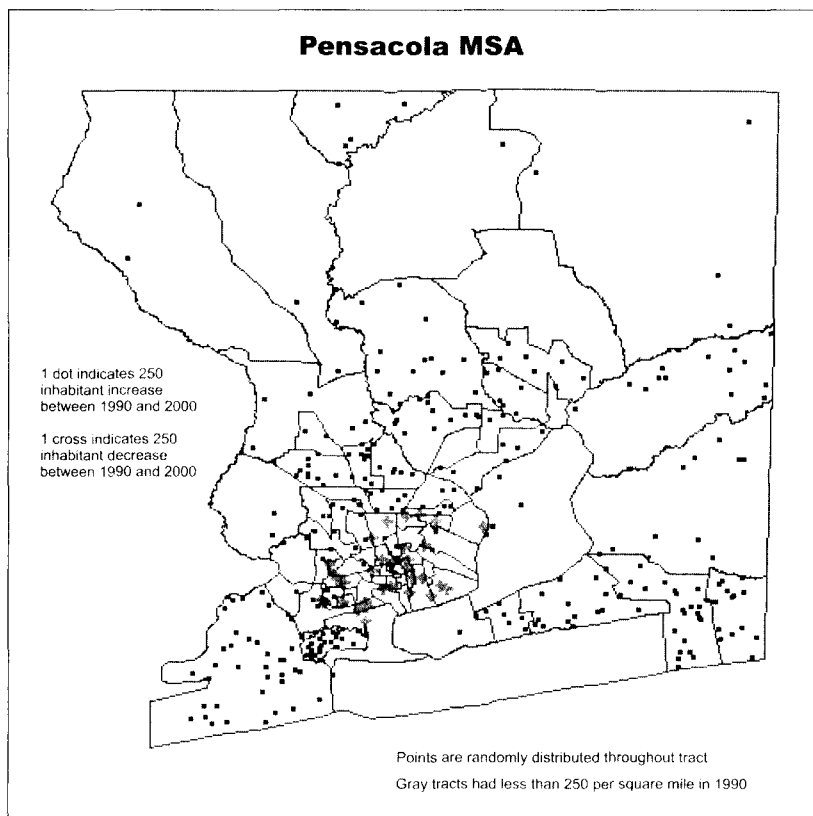


Figure 20

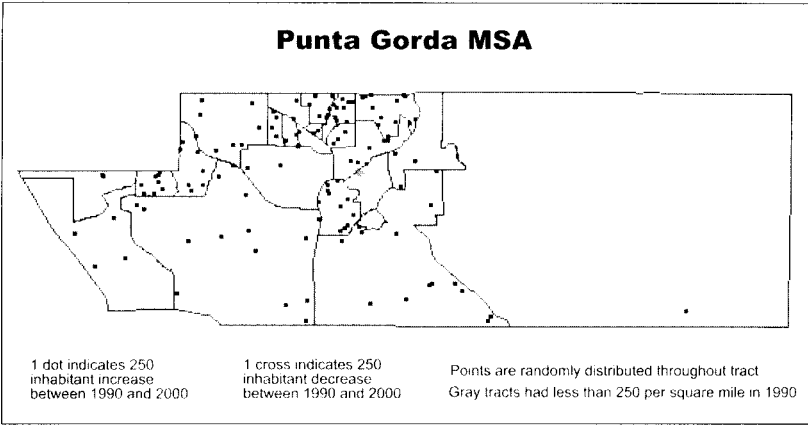


Figure 2P

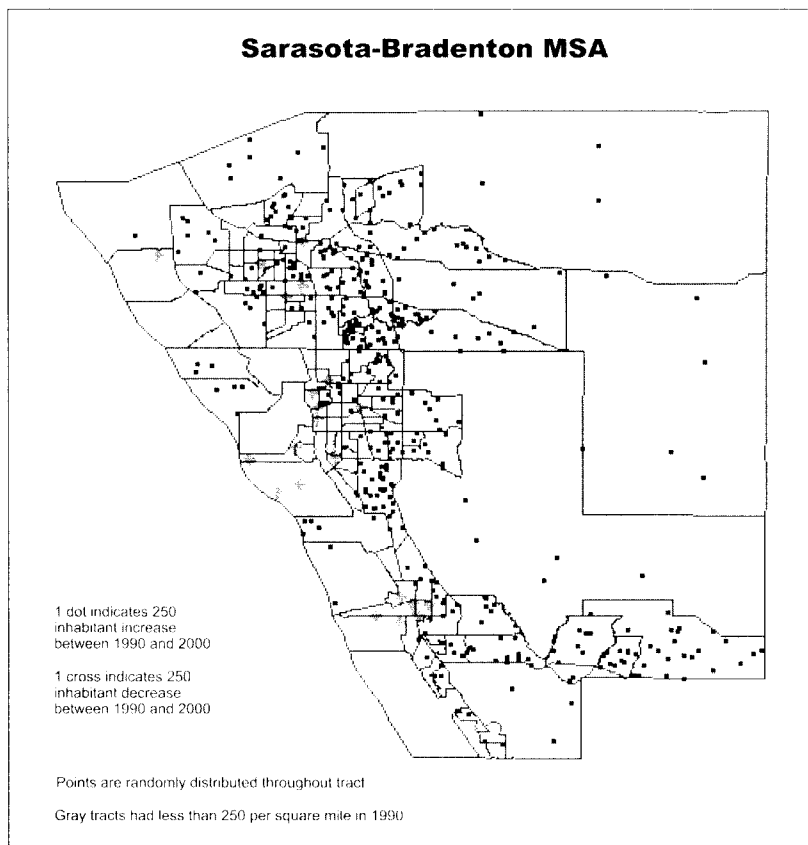


Figure 2Q

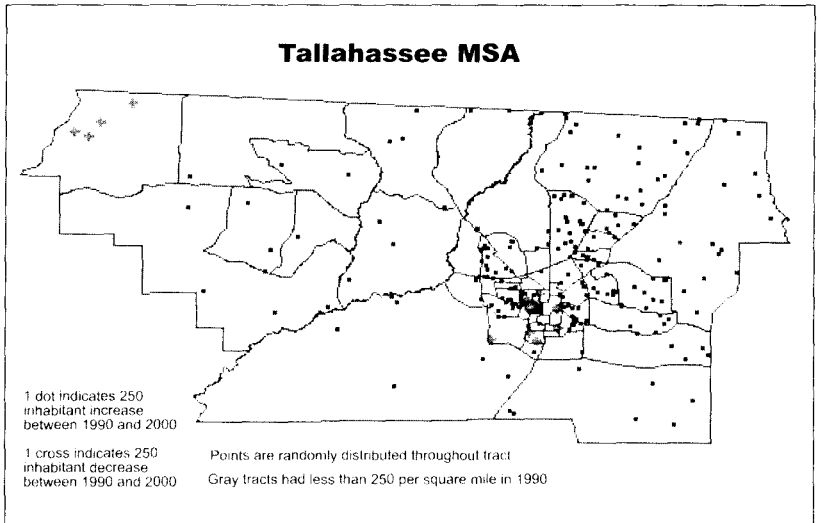


Figure 2R

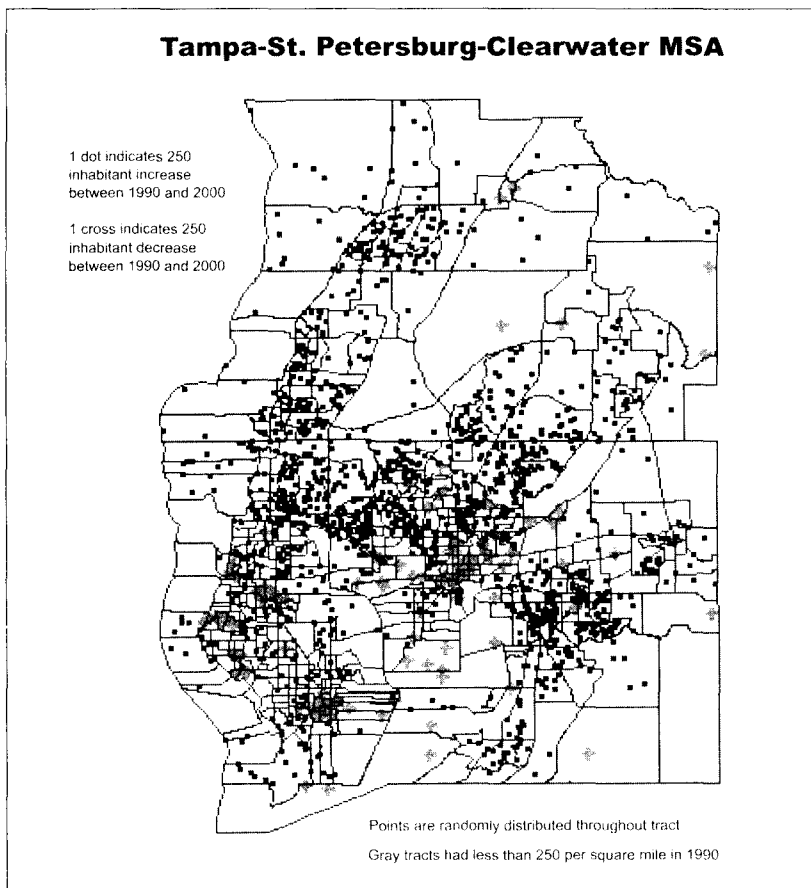
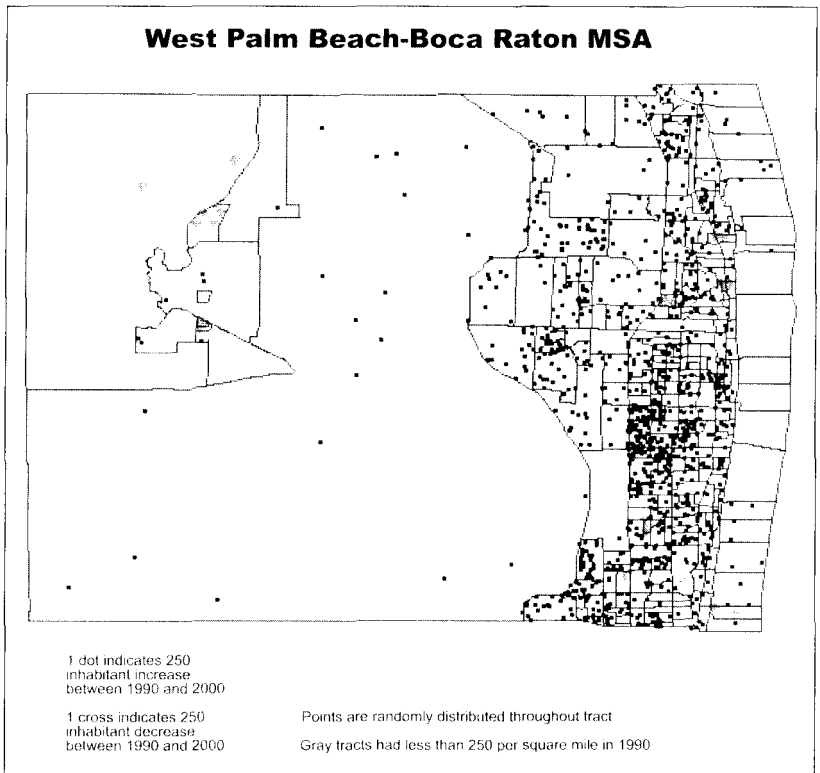


Figure 2S



they have had to resort to intensifying residential land use within the existing urban area. The most notable example is Miami, where the urban land area only expanded by 46.52 square miles during the decade, or nine percent. During the same period its population density per square mile, already the highest in the state in 1990, increased by six percent. Fort Lauderdale finds itself in the same situation as Miami. Its urban population, whose urban density is second in Florida only to that of Miami, grew in population by 30 percent during the decade, while its urban density increased during the same period by 12 percent. Urban expansion of both counties is now being hemmed in on their western side by land owned by the state and federal government and the ocean on its eastward side. West Palm Beach, the most northern of the three MSAs that form the Gold Coast, is currently growing the most rapidly (35 percent



during the decade). It however, continues to have ample land for development, especially since developers broke the covenant that prevented the subdivision for housing of a large agricultural reserve west of Delray Beach . West Palm Beach's urban area gain was 36 percent, but urban density only fell slightly (one percent).

Outside of the MSAs within the Gold Coast, that of Orlando is the only one in the state that has had a significantly larger than average rate of population growth during the decade while experiencing an increase in its population density. Most MSAs with rates of population growth markedly lower than the state average, have become more compact. This is especially true of Jacksonville, where the urban density increased ten percent. The two MSAs whose urban areas have experienced the most rapid population growth rate (Naples and Ocala) were the ones that experienced the largest rate of urban area growth. Ocala led the state in the decline in its urban density, from 801 per square mile in 1990 to 519 in 2000. That MSA in both 1990 and 2000 had the least densely populated urban area of any MSA in the state. By 2000 virtually the entire western portion of the MSA, by most definitions, would be considered urban sprawl.

During the decade of the 1990s, in half of Florida's MSAs, those tracts that were rural at the beginning of the decade had sustained the greatest population growth by 2000 (Table 2). This was most true of Ocala, Panama City and Pensacola. It was least true in the MSAs of Miami, West Palm Beach and Tampa-St. Petersburg-Clearwater. In fact, because of the immigration to Miami of so many from Latin America during the decade, that metropolitan area's tracts with a density of 4000 persons or more sustained the largest growth. Most immigrants who arrived came with little money, and sought shelter within the most densely populated tracts within the city, often in the small homes of relatives or friends who came earlier. Elsewhere, since during the 1990s so many American blacks abandoned the old central city ghettos, there was either a decline in the population of densely populated tracts, as in Daytona Beach, Lakeland, Fort Walton Beach, Jacksonville, Fort Pierce-St. Lucie, and Melbourne-Titusville-Palm Bay, or the growth was modest. This is well illustrated by the accompanying maps (Figures 2A-S).

It is understandable why developers would seek rural land to build on, since, as stated earlier, a large area of land can be more economically developed than building homes on small lots scattered throughout the city. However, it is less logical why during the 1990s developers so frequently chose to develop land in tracts with the lowest population density (Table 3). Most of these tracts were

**Table 3**  
**Percentage Distribution of Change in Population in Tracts<sup>1</sup> of**  
**Various Density Per Square Mile Between 0 and 250**  
**Between 1990 and 2000**

Metropolitan Statistical Area (MSA)	0-250	200-249	150-199	100-149	50-99	0-49	YouTotal 0-250	Percent of Total Change 250 or Less
Daytona Beach	47534	26.6	12.2	15.1	13.7	32.3	100.0	50.7
Fort Lauderdale	100139	15.3	17.9	14.3	11.0	41.6	100.0	27.2
Fort Myers	58570	14.5	07.3	33.7	19.4	25.1	100.0	55.4
Fort Pierce	24969	06.9	-00.7	11.8	06.6	75.4	100.0	36.5
Fort Walton Beach	11181	37.5	*	25.2	*	37.3	100.0	41.8
Gainesville	15556	18.9	53.0	*	28.1	18.9	100.0	42.8
Jacksonville	74749	06.8	05.4	10.4	48.1	29.3	100.0	38.6
Lakeland	35306	01.7	10.4	23.9	22.2	41.8	100.0	45.0
Melbourne	20212	04.9	21.4	*	16.6	57.1	100.0	26.2
Miami	52039	14.6	18.8	*	36.7	29.9	100.0	16.7
Naples	54958	20.6	16.8	25.3	11.9	25.5	100.0	55.4
Ocala	54971	19.9	11.2	33.0	18.1	17.7	100.0	85.8
Orlando	149592	16.2	20.9	10.6	35.4	17.0	100.0	35.6
Panama City	16314	*	*	35.9	31.6	32.5	100.0	76.9
Pensacola	45168	00.3	08.2	24.1	47.4	20.1	100.0	66.7
Punta Gorda	11432	05.9	06.2	17.6	27.7	42.7	100.0	37.3
Sarasota	36324	18.3	15.0	04.3	21.2	41.2	100.0	36.2
Tallahassee	26845	10.1	*	22.5	18.3	49.0	100.0	52.7
Tampa-St. Pete	83035	16.8	10.2	38.4	15.2	19.3	100.0	25.3
W. Palm Beach	62803	31.2	16.0	02.1	05.6	45.2	100.0	23.5
Rest of Florida	212567	04.8	02.1	10.6	13.2	69.3	100.0	90.3
Florida	1194264	13.4	11.5	16.2	21.5	37.4	100.0	39.2

\* No tracts of this density in 1990  
 2000 tracts adjusted to equal those of 1990

far from the densely populated areas within the MSA. This was particularly true of Fort Pierce-St. Lucie, and Melbourne-Titusville-Palm Bay. For the teachers who are within or near an MSA where developers have shown such a great interest in developing its least densely populated tracts, this would be an excellent question for class investigation.

Another appropriate question to raise in a high school social studies class, and of course at the college level as well, is what causes urban sprawl within Florida. To many the explanation is that people within the inner city, once they could afford it moved to the suburbs to live in a less densely populated neighborhood, often exchanging an apartment for a detached home. However, that does little to explain the growth of urban sprawl within Florida. Within Florida most of the people among the millions who have arrived over the past 40 years, or have moved within Florida, are simply exchanging one detached house for another. This was well documented in the work of Kolankiewicz and Beck using urbanized area census data between 1970 and 1990 ([www.sprawlcity.org/studyFL](http://www.sprawlcity.org/studyFL)).

They concluded that there has been very little change in the per capita residential land use in Florida over time, a conclusion supported by tract data used in this study. This would suggest that if Floridians really wanted to stop the deterioration of the state's natural environment, and improve the urban environment, they should support legislation that would slow population growth or at least not encourage immigration.

### Conclusion

Hopefully, finishing this article the reader should be convinced that urban sprawl in Florida is an important issue. Resolution of the problem, however, will not be accomplished by one piece of legislation. The state's comprehensive plan, mandated by the state's legislature approximately two decades ago, was supposed to resolve the problem. Instead, most counties, under pressure from residential and commercial developers, have frequently altered the plan, often to the detriment of the county's quality of life. It is also inconceivable that the state's legislature will adopt legislation to discourage in-migration to the state.

The only really successful way of combating urban sprawl is, if you are disposed to do so, to engage in battles over local land use issues that you perceive will lower the quality of life within your community. For those who wish to contest these issues several web sites have been cited that provide information on how to campaign for your point of view. These web pages lead to numerous others that also provide good advice. For teachers who want to introduce the issue to students there are two excellent detailed teaching units produced by the University of North Carolina-Wilmington to accompany their video documentary *Paving the American Dream: Southern Cities, Shores & Sprawl*. One is for middle school students, the other is for those in high school ([www.uncwil.edu/smartgrowth/how-to.html](http://www.uncwil.edu/smartgrowth/how-to.html)). Good luck.