

Winter 2003

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Recommended Citation

Nelson, Arthur C. and Sanchez, Thomas W. (2003). "Periodic Atlas of the Metroscope: Lassoing Urban Sprawl," *Metroscope*, Winter 2003, pages 13-19. Published by Institute of Portland Metropolitan Studies, Nohad A. Toulon School of Urban Studies & Planning, Portland State University.

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Periodic Atlas of the Metro scape



Lassoing Urban Sprawl

by Arthur C. Nelson & Thomas W. Sanchez

In response to urbanization patterns leading to what may be termed "urban sprawl," dozens of local, regional, and state governments have embarked on "urban containment". At its heart, urban containment aims at synchronizing key public facilities with urban development pressures, preserving open spaces, and facilitating development in ways that preserve public goods, minimize public costs, and account for development impacts by those who cause them.

A cornerstone of urban containment is limiting development beyond an urban containment boundary such as an urban growth boundary, urban service limit, or (in the UK) urban growth stop line. Jurisdictions restrict this development one of two principal ways. First and foremost in all containment schemes is preventing the extension of urban facilities into the rural countryside, especially wastewater treatment provided via sanitary sewers. This restriction sometimes but not always extends to public water systems.

The second and more difficult method of containment involves restricting actual density. Consider the Twin Cities of Minneapolis-St. Paul, where minimum lot size restrictions do not discourage low density urban development since lot sizes can range from one to five acres on septic systems with or without public water. Such small acreage development is perhaps the most pernicious of all forms of urban sprawl since it consumes land at a very rapid pace, removes land from a variety of open space uses, signals to farmers impending conversion to development, and exacerbates efficient provision of services. Planners call this "weak" containment.

At the other extreme is the Portland metro scape, where development outside UGBs occurs only in "exception" areas (areas excepted from strict application of farm and forest use policies because they are already built or committed to low density uses) or in farms and forests where needed to manage a commer-

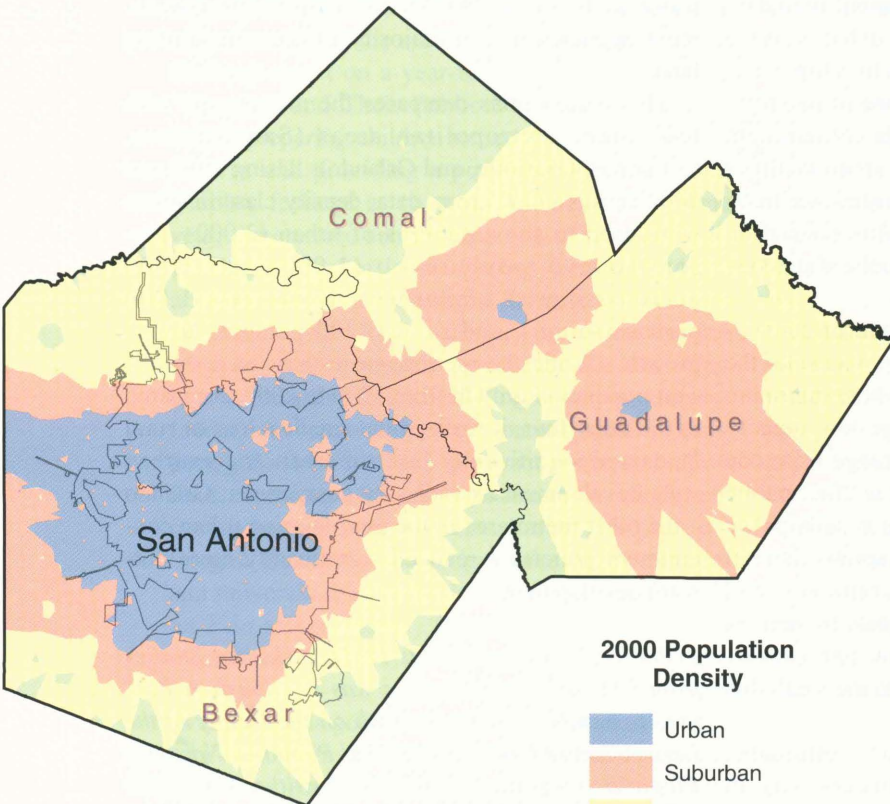
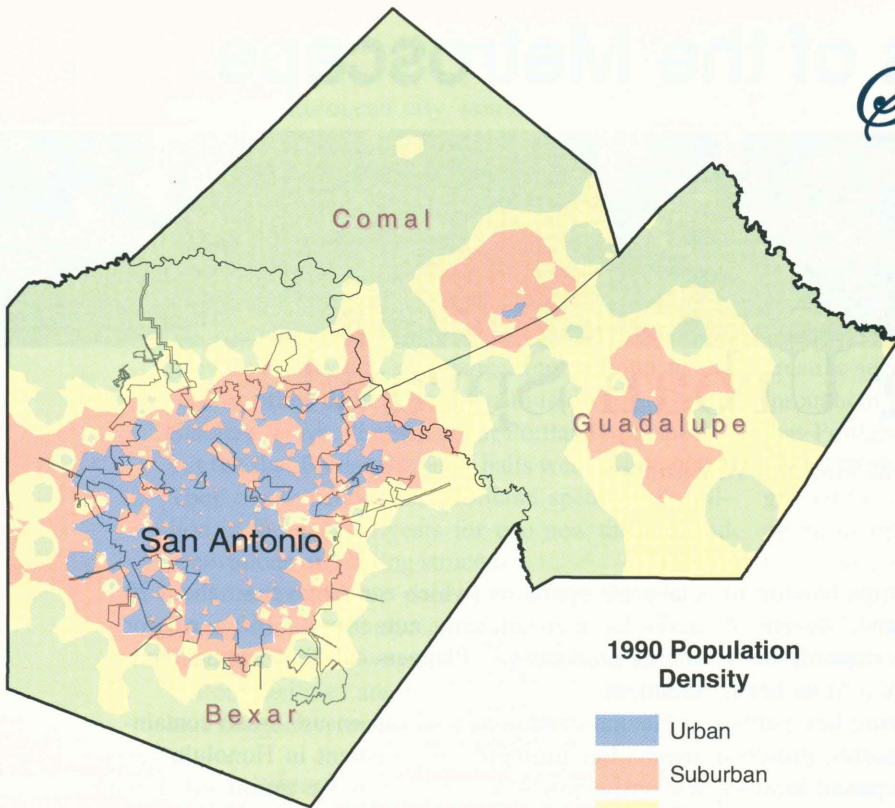
cial-scale operation (which can range from about 20 acres for high-intensity nurseries to 160 acres for timber production). Planners call this "strong" containment.

Natural conditions also can ensure urban containment. For example, development in Honolulu has virtually nowhere to go. On the mainland, Los Angeles provides a good example of natural containment since an ocean, mountain ranges, and federally owned desert hem in development. Phoenix can also be considered naturally contained because individual water wells are not financially feasible and government agencies own a majority of the surrounding land.

This issue's atlas compares the metro scape with four other metropolitan areas (San Antonio, Columbus, Charlotte, and Orlando). Using 1990 and 2000 census block group data, density classifications were used to show patterns of urban (3,000+ persons/sq.mi.), suburban (1,000 to 3,000 persons/sq.mi.), exurban (300 to 1,000 persons/sq.mi.), and rural (<300 persons/sq.mi.) growth. While the metro scape experienced significant population growth from 1990 to 2000, compared to the other four, it realized the smallest loss of rural lands and significantly less suburban and exurban style development as well. By comparison, Orlando – the other metro area in the sample using urban containment policies – realized significantly more outward development.

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San Antonio, program. It v comparable to P and geograph



1990

Urban
Suburban
Exurban
Rural

2000

Urban
Suburban
Exurban
Rural

% Change

Urban
Suburban
Exurban
Rural

1990

Urban
Suburban
Exurban
Rural

2000

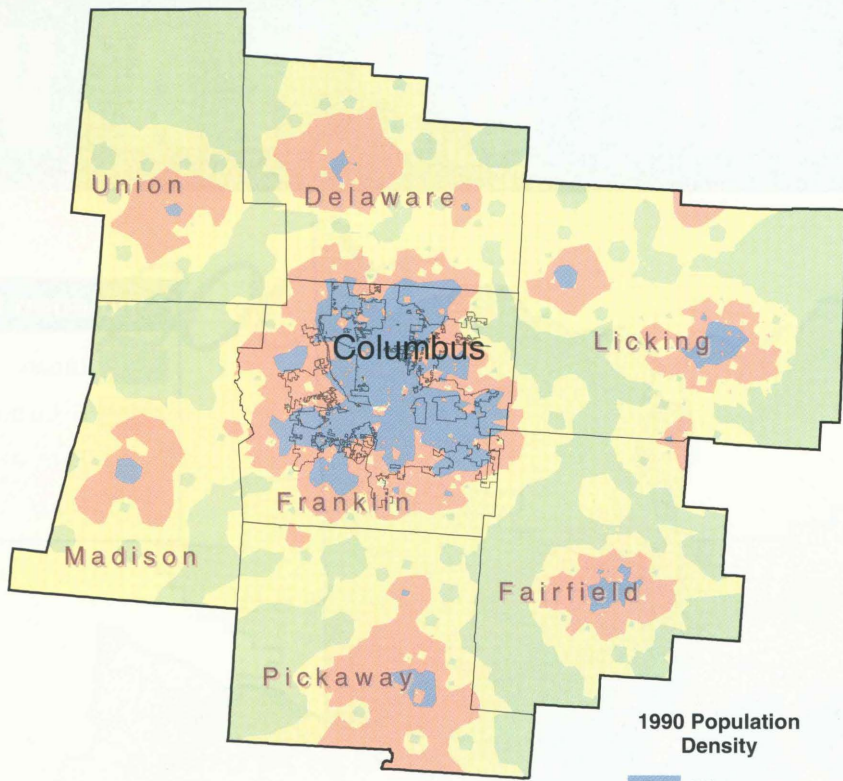
Urban
Suburban
Exurban
Rural

% Change

Urban
Suburban
Exurban
Rural

Columbus

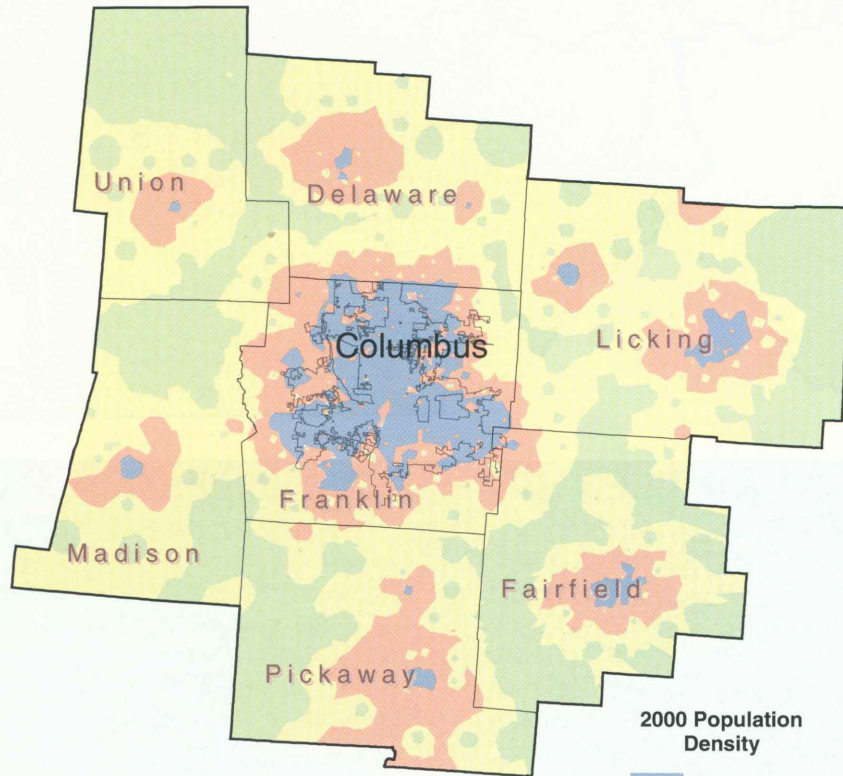
Columbus, OH has no urban containment program. It was included because it is comparable to Portland in terms of population and geographic size.



1990 Population Density

- Urban
- Suburban
- Exurban
- Rural

Scale: 1: 750,000



2000 Population Density

- Urban
- Suburban
- Exurban
- Rural

Scale: 1: 750,000

AREA

1990		
	Square Miles	%
Urban	122.7	3.4%
Suburban	141.7	3.9%
Exurban	267.1	7.4%
Rural	3,074.0	85.3%

2000		
	Square Miles	%
Urban	143.2	4.0%
Suburban	186.9	5.2%
Exurban	325.6	9.0%
Rural	2,950.5	81.8%

% Change

Urban	16.7%
Suburban	31.9%
Exurban	21.9%
Rural	-4.0%

POPULATION

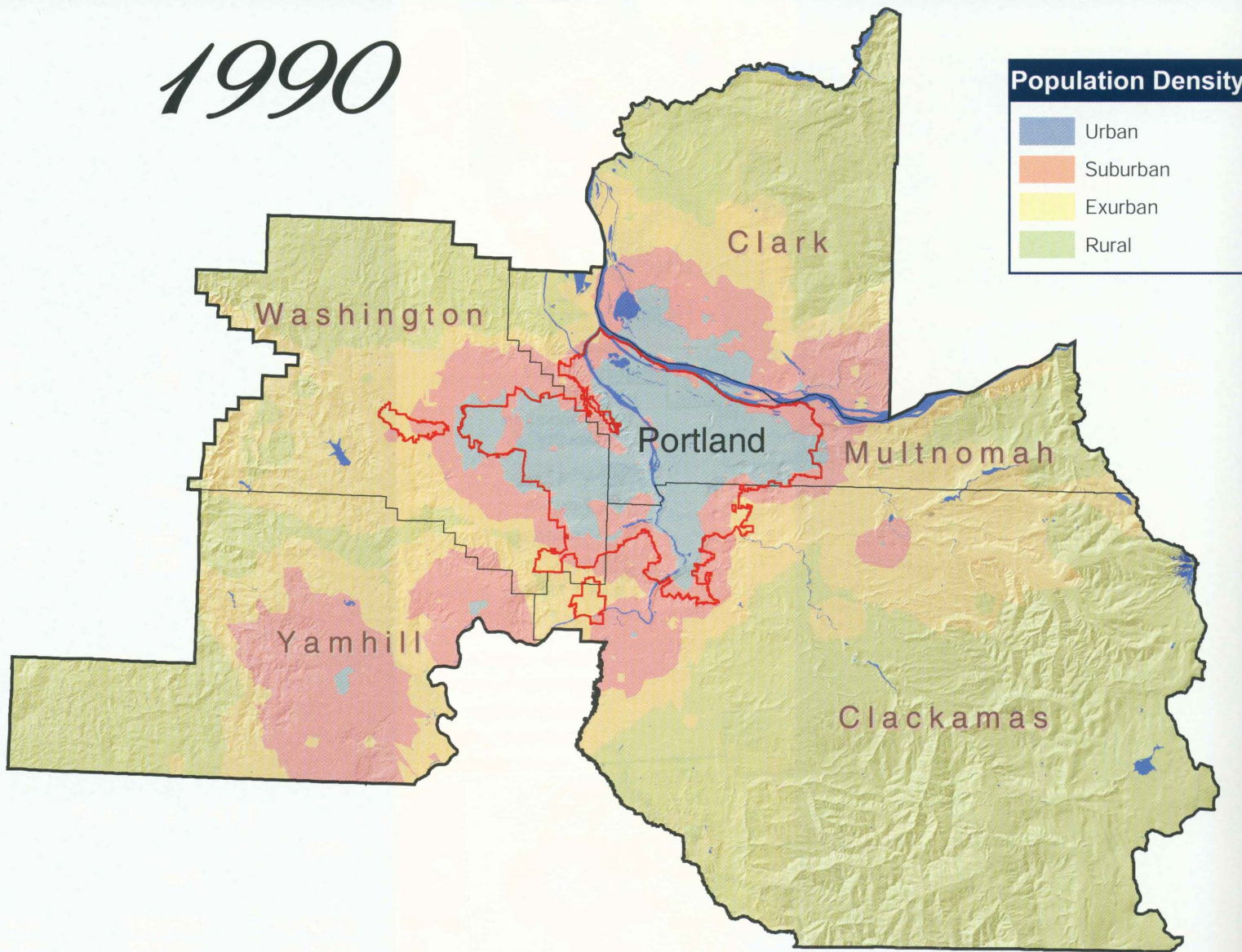
1990		
	Pop.	%
Urban	742,128	53.7%
Suburban	257,043	18.6%
Exurban	141,602	10.2%
Rural	241,001	17.4%

2000		
	Pop.	%
Urban	803,589	50.8%
Suburban	345,817	21.9%
Exurban	177,381	11.2%
Rural	254,279	16.1%

% Change

Urban	8.3%
Suburban	34.5%
Exurban	25.3%
Rural	5.5%

1990

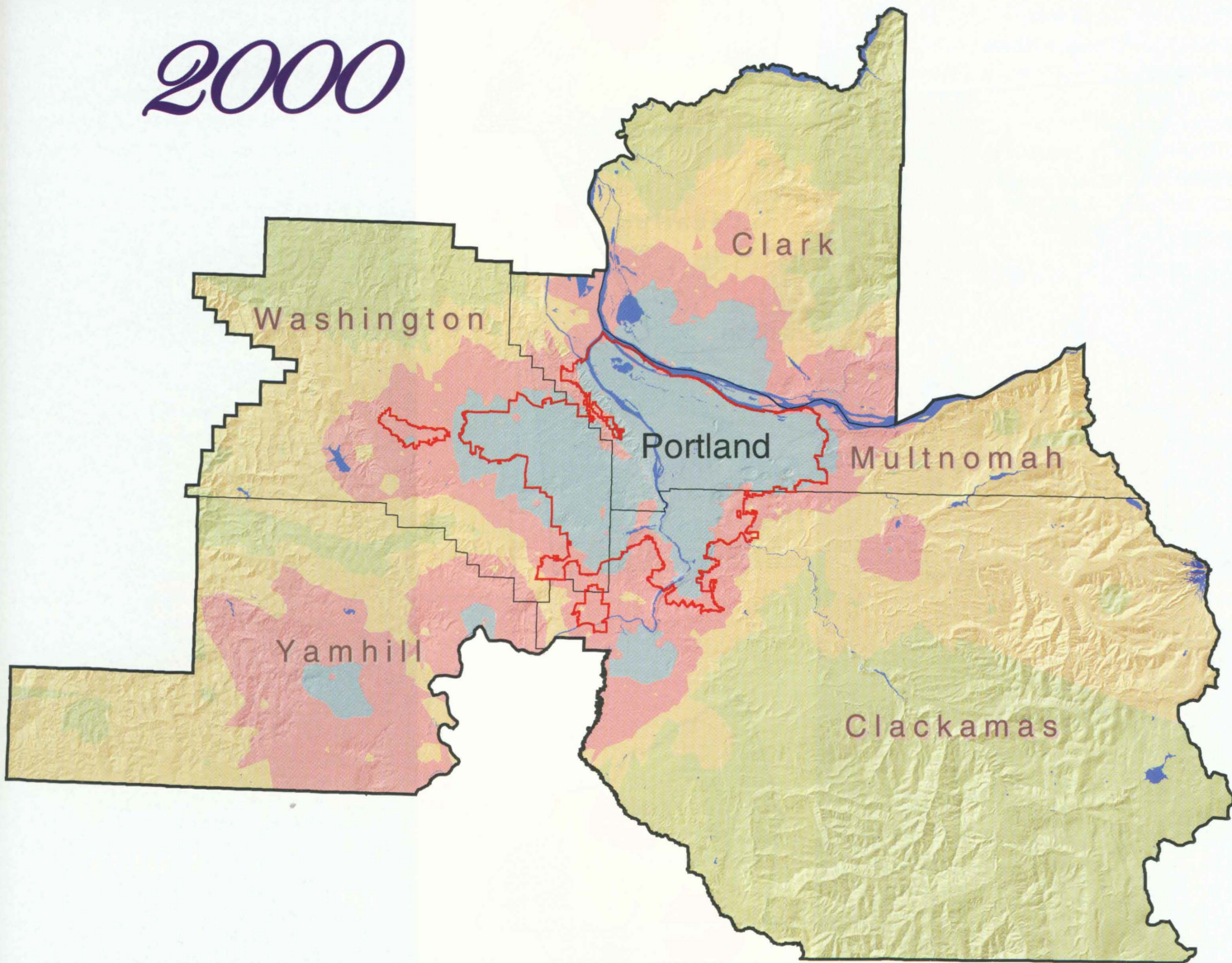


Portland's urban growth boundary (UGB) initiative is one of the nation's oldest and most well-known urban containment programs. It was adopted in 1979 in accordance with Oregon's statewide land use planning program and is drawn to accommodate a 20-year supply of urban development. Inside the urban growth bound-

Portland's initiative and other traditional UGB programs have seen their fair share of criticism. Many attribute the rising housing prices in Portland and other West Coast cities to land supply shortages in the face of rising demand for housing. Urban growth boundaries contribute to these land supply shortages, critics argue,

is unfair to reduce the development potential of their land simply because it lies outside an imaginary boundary. Finally, residents of existing neighborhoods inside the urban growth boundary often object to the increased density allowances for new urban development, especially if these densities are signif-

2000



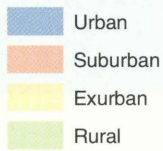
1990

	Sq. Miles	%	Pop.	% of Total
Urban	158.1	3.6%	845,709	57.2%
Suburban	173.1	3.9%	318,835	21.6%
Exurban	273.9	6.2%	140,962	9.5%
Rural	3,840.68	6.4%	172,389	11.7%

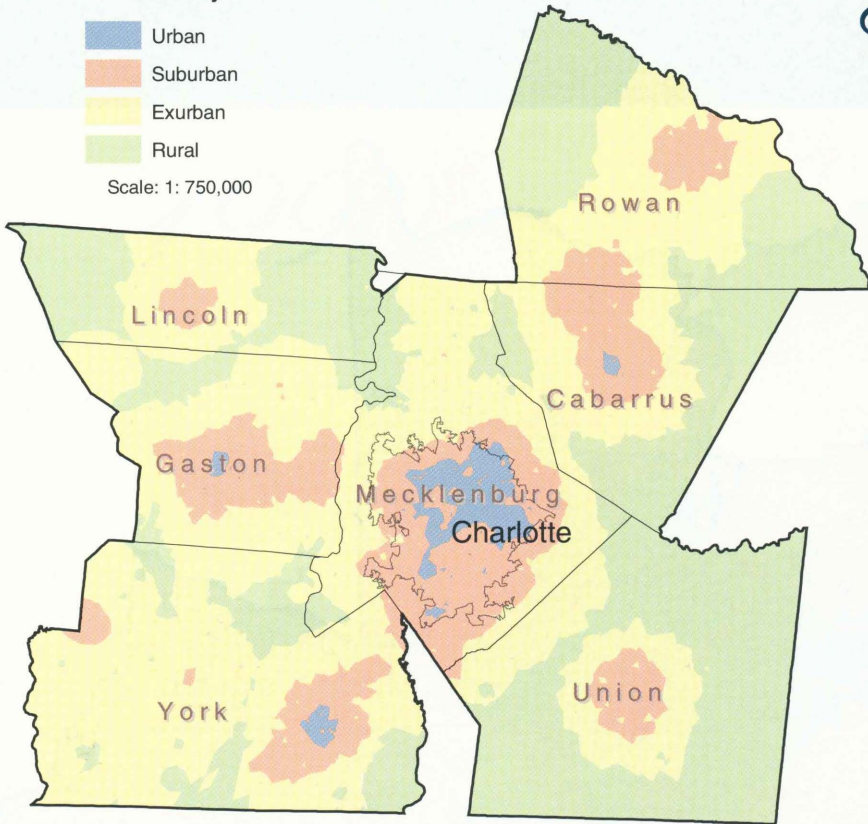
2000

	Sq. Miles	%	Pop.	% of Total	% Area Change	% Pop. Change
Urban	219.4	4.9%	1,193,430	63.7%	38.8%	41.1%
Suburban	187.8	4.2%	352,810	23.8%	8.1%	10.8%
Exurban	273.9	6.2%	140,962	9.5%	0.0%	0.0%
Rural	3,840.68	6.4%	172,389	11.7%	0.0%	0.0%

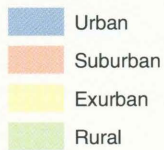
1990 Population Density



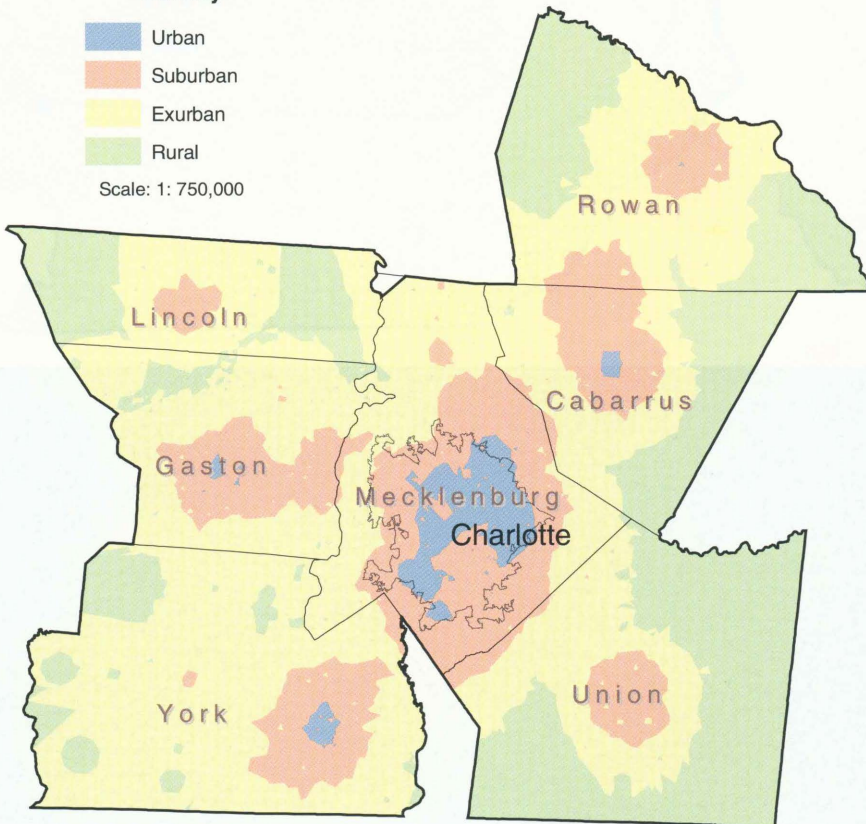
Scale: 1: 750,000



2000 Population Density



Scale: 1: 750,000



Charlotte has what is considered an urban service limit, but it does not extend outside of Mecklenberg County. Within Mecklenberg County, subdivisions can occur in areas ranging in size and as small as one acre. As a consequence, the average single-family dwelling (SFD) lot size in the Charlotte MSA is three times that of Portland.

AREA

1990

Square Miles

Urban	66.4
Suburban	192.2
Exurban	475.5
Rural	2,706.1

2000

Square Miles

Urban	70.8
Suburban	289.0
Exurban	41.2
Rural	2,339.2

% Change

Urban	6.6%
Suburban	50.4%
Exurban	55.9%
Rural	-13.6%

POPULATION

1990

Pop.

Urban	269,614
Suburban	336,898
Exurban	251,874
Rural	308,695

2000

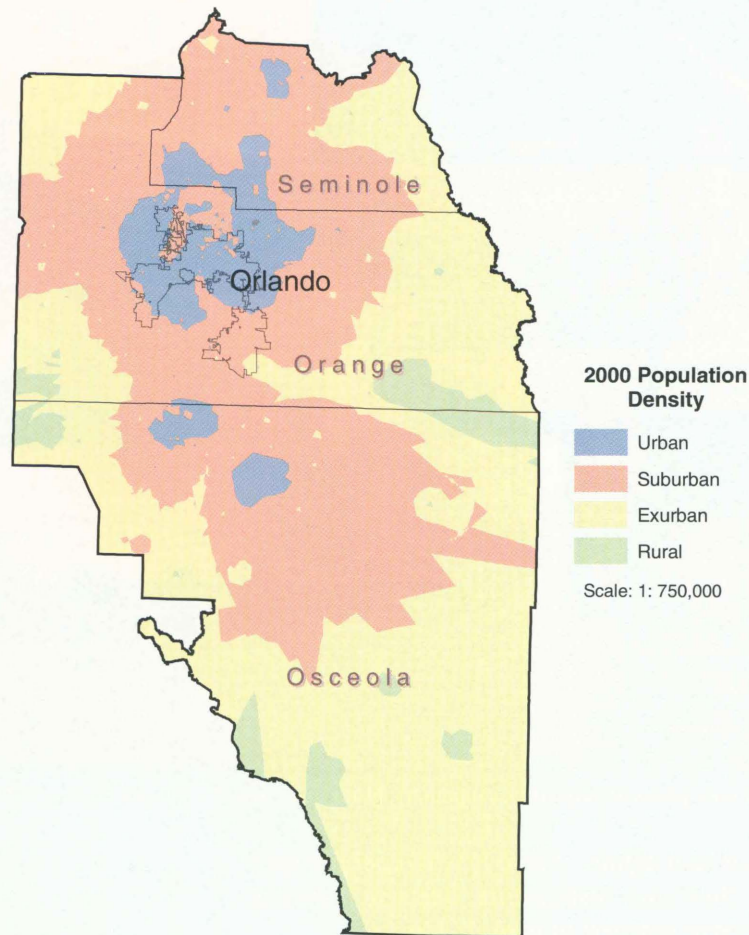
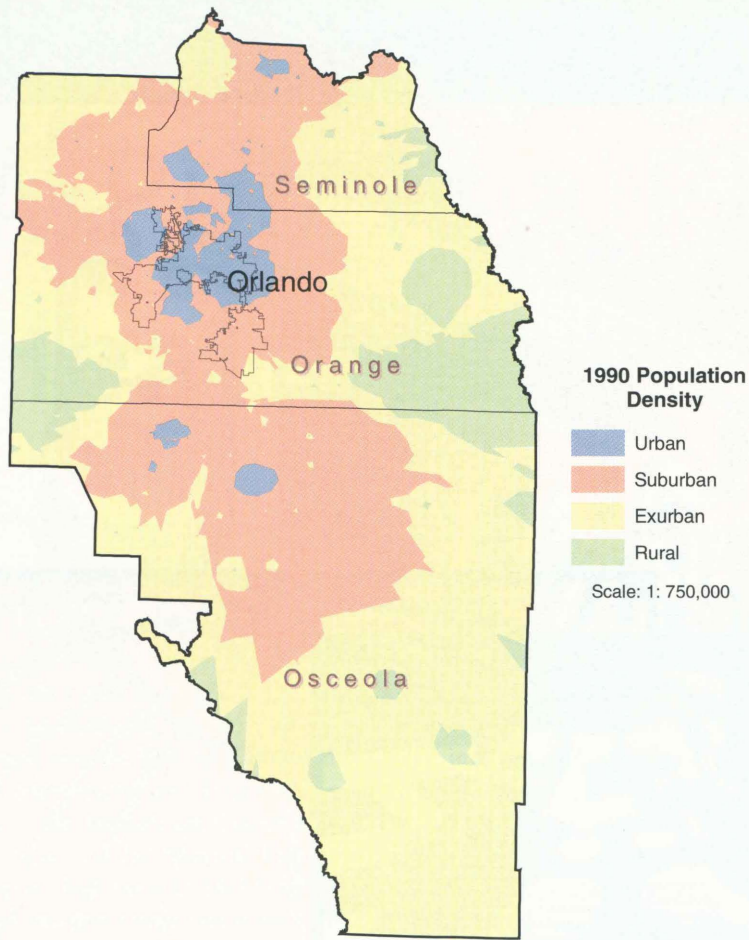
Pop.

Urban	292,121
Suburban	501,942
Exurban	400,043
Rural	305,187

% Change

Urban	8.3%
Suburban	49.0%
Exurban	58.8%
Rural	-1.1%

Like Portland, Orlando has a full-fledged urban growth boundary (UGB). Compared to Portland, however, Orlando has relatively less management of development outside the boundary. The differences between Portland and Orlando in-rates of suburban and exurban development are perhaps evidence of the effectiveness of the two implementation schemes.



AREA

1990

	Square Miles	%
Urban	107.5	3.8%
Suburban	233.9	8.2%
Exurban	194.1	6.8%
Rural	3,319.9	81.2%

2000

	Square Miles	%
Urban	157.5	5.5%
Suburban	268.6	9.4%
Exurban	258.4	9.0%
Rural	2,173.7	76.1%

% Change

Urban	46.5%
Suburban	14.8%
Exurban	33.1%
Rural	-6.3%

POPULATION

1990

	Pop.	%
Urban	460,780	43.0%
Suburban	400,550	37.3%
Exurban	112,398	10.5%
Rural	99,020	9.2%

2000

	Pop.	%
Urban	691,780	48.2%
Suburban	484,310	33.8%
Exurban	153,902	10.7%
Rural	104,041	7.3%

% Change

Urban	50.1%
Suburban	20.9%
Exurban	36.9%
Rural	5.1%