Finding Exurbia: America's Fast-Growing Communities at the Metropolitan Fringe

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"Not yet full-fledged suburbs, but no longer wholly rural, exurban areas are undergoing rapid change in population, land use, and economic function."

Findings

This study details a new effort to locate and describe the exurbs of large metropolitan areas in the United States. It defines exurbs as communities located on the urban fringe that have at least 20 percent of their workers commuting to jobs in an urbanized area, exhibit low housing density, and have relatively high population growth. Using demographic and economic data from 1990 to 2005, this study reveals that:

■ **As of 2000, approximately 10.8 million people live in the exurbs of large metropolitan areas. This represents roughly 6 percent of the population of these large metro areas.** These exurban areas grew more than twice as fast as their respective metropolitan areas overall, by 31 percent in the 1990s alone. The typical exurban census tract has 14 acres of land per home, compared to 0.8 acres per home in the typical tract nationwide.

■ **The South and Midwest are more exurbanized than the West and Northeast.** Five million people live in exurban areas of the South, representing 47 percent of total exurban population nationwide. Midwestern exurbs contain 2.6 million people, about one-fourth of all exurbanites. South Carolina, Oklahoma, Tennessee, and Maryland have the largest proportions of their residents living in exurbs, while Texas, California, and Ohio have the largest absolute numbers of exurbanites.

■ **Seven metropolitan areas have at least one in five residents living in an exurb.** These metro areas include Little Rock (AR), Grand Rapids (MI), and Greenville (SC), as well as areas like Poughkeepsie (NY) that serve as "satellites" to nearby larger metro areas. Both fast-growing and slow-growing metropolitan areas have developed exurbs.

■ **Nationwide, 245 counties have at least one-fifth of their residents living in exurban areas.** The Louisville metro area has the highest number of exurban counties (13), followed by Atlanta, Richmond, and Washington, D.C., which each have 11. These exurban counties grew by 12 percent overall between 2000 and 2005, faster than population growth in urban, inner suburban, or outer suburban counties (like Loudoun County, VA). However, outer suburban counties added 4.5 million people in the last five years, exceeding the 1.8 million-person gain in exurban counties.

■ **Residents of the "average" exurb are disproportionately white, middle-income, homeowners, and commuters.** Yet exurbanites do not conform to all popular stereotypes. For instance, they do not appear to telecommute, work in the real estate industry, or inhabit super-sized homes at higher rates than residents of other metropolitan county types. Middle-income families' "drive to qualify" for more affordable new homes that are in limited supply elsewhere fuels growth in many metropolitan exurbs.

Despite their popularization by political analysts, media, and local growth activists, the "exurbs" do not abound nor fit a single, neat stereotype. Just 6 percent of large metro area residents live in an exurb, and these exurbs vary from affordable housing havens for middle-class families, to "favored quarters" for high-income residents, to the path of least resistance for new development. While they may continue to capture interest among political observers, the real test for exurbia lies in how our nation accommodates future growth. Will exurbs remain exurbs or become the suburbs of tomorrow?

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Introduction

Beyond the suburbs, at the far edges of metropolitan areas, communities both new and old are developing the capacity to house large flows of incoming residents.

Popularized in books like David Brooks' *On Paradise Drive*, and in numerous news articles analyzing the aftermath of the 2004 Presidential election (Bai 2004; Brooks 2004; Brownstein and Rainey 2004), these areas have come to be known as "exurbs." Exurbs are drawing the attention of journalists, pundits, policymakers, and sociologists attempting to understand how Americans live today and how different community types matter to politics and policy. In many exurbs, battles over roads, land, sewers, schools, quality of life, and "loss of small town character" are reaching a fever pitch.

But where exactly are the exurbs? And who lives there?

In most metropolitan areas, a central city (or cities) still lies at the core, containing a cluster of jobs and residents. Outside the core lie suburbs, areas that developed somewhat later, comprised today of both residential and commercial space. Suburbs are the dominant landscape in contemporary America, and their speed and scale of change has reconfigured the way Americans live (Hayden 2003). By the Census Bureau's definition, about 53 percent of the nation's residents live in suburbs.[1] Whereas most people used to work in cities and their immediate environs, today more than half of all metropolitan jobs are located at least 10 miles from a traditional city downtown (Mieszowski and Mills 1993; Berube forthcoming).

Exurbs, it is argued, lie somewhere beyond the suburbs. At the urban-rural periphery, outer suburbs bleed into small-town communities with an agricultural heritage. Not yet full-fledged suburbs, but no longer wholly rural in nature, these exurban areas are reportedly undergoing rapid change in population, land use, and economic function.

Notwithstanding what they will become in future generations, exurbs are important places to understand in their contemporary form. They lie at the forefront of important local debates around growth and development issues. As such, they help "set the table" for future metropolitan growth, and their prevalence may serve as an important indicator of emerging social trends or the effectiveness of various policies to shape metropolitan development.

Yet exurbia is hardly a new concept. It first gained popular attention when A.C. Spectorsky described its residents in his 1955 book, *The Exurbanites.* Despite this long history, the concept of the exurbs is enjoying greater attention now than ever before. The terms *exurbs*, *exurban*, and *exurbia* appeared in U.S. newspapers twice as many times in 2005 as they did just two years ago, and at four times the rate they did ten years ago.[2]

All the talk about exurbs, however, has yielded little methodical information or consistent definitions regarding their location and their residents. In addition, it is unclear what might distinguish exurbs from the suburbs in which Americans have lived for generations. Some researchers have tackled these questions in the academic literature. But many recent observers have resorted to an "I-know-it-when-I-see-it" approach for identifying the exurbs and their residents. Many counties, for instance, may have a more mixed character and are probably not well-described by alternating and overlapping classifications.

A lot of journalists, and some academics, argue that exurbs represent a path-breaking form of development, defined in part by the extreme distances from these areas to the metropolitan core. Yet today's exurbs may just be tomorrow's suburbs. In Spec-

torsky's 1955 rendering, Fairfield County (CT) and Rockland County (NY) housed exurban commuters to New York City. After five decades of continuous metropolitan decentralization, places like Greenwich (CT) and New City (NY) are nothing if not conventional New York-area suburbs.

Some common threads run through popular descriptions of the exurbs. They generally lie within the orbit of a big city, but have weaker economic and social ties to the urban core than suburbs, consistent with their more remote locations. They are more residential with newer housing stock, and less commercial than suburbs. They have population densities that are lower, more like their rural neighbors, and their economies may still depend somewhat on agricultural employment.

Perhaps most importantly, present-day exurbs seem to be defined by fast-paced, low-density growth and development. If that type of development continues, new housing and commerce could fill in the space on the far fringes of metropolitan areas, turning them into more "mature" suburbs and potentially creating new exurbs even farther out. More immediately, however, the development patterns typically identified as "sprawl" intersect closely with those found in the exurbs. This paper does not attempt to define "sprawl," nor does it equate sprawl with exurbia. But because public policies designed to curb (or promote) sprawl in metropolitan areas often affect the exurbs, it is important to understand more about where these communities are located, who lives there, and why.

Sparked by new popular interest in the subject, this paper describes an effort to "find exurbia," based on a review of the academic literature and analysis of data from Census 2000 and beyond. We begin by examining previous attempts to identify exurban territory and its residents, and discuss the implications of those inquiries. We

then describe a new methodology for identifying exurbs and the assumptions that underpin it. Applying that methodology, we proceed to describe the incidence and characteristics of exurban places nationwide, in states, and in selected large metropolitan areas. Having pinpointed the exurbs as geographies, we then profile their demography, asking who lives there, whether they differ from their counterparts elsewhere in the metropolis, and what their reasons might be for locating there. The paper concludes with some suggestions for future research and possible implications for public policies that aim to slow the rise of exurbia by promoting balanced metropolitan growth patterns.

Background

This study hardly represents the first attempt to define the exurbs. Planners, geographers, sociologists, and—most recently—election analysts have all devoted time and energy to examining new forms of development occurring at the metropolitan fringe, some of which posit the existence of quasi-urban, quasi-rural places that are sometimes referred to as *exurbs*.

Different research questions have motivated this literature, with little consensus emerging on the following key questions (relevant studies are listed in Table 1):

- **Where are the exurbs?** Several studies have advanced one or more ways to define exurbia as a geographic or demographic concept. Lamb (1983), Blumenfeld (1986), Lessinger (1987), Nelson (1992), Beale and Kassel (2005), and Clark and colleagues (2006) use varying techniques to identify the scope of exurbia (and similar geographic concepts) nationwide, and in selected areas of the U.S.
- **Who lives in exurbia?** The first work to describe the notion of exur-

bia, Spectorsky's 1955 book *The Exurbanites*, sought to describe not so much these far-flung (at the time) places, but the people who inhabited them. To Spectorsky, these people were a new breed of commuters, seeking a semi-rural lifestyle to which they could retreat from their 9-to-5 jobs in Manhattan's "ideas industries"—advertising, media, and the arts. Davis and Nelson (1994) and Nelson and Sanchez (1997) take a similar approach, identifying exurban households in the Portland area and asking what—if anything—differentiates them from other suburban households.
- **What are the development impacts of exurbs?** Several other studies identify the exurbs as part of an effort to understand the extent of "sprawling" development patterns in different parts of the U.S., and the implications for public policy. Theobald (2001), Irwin and Reece (2002), Nelson and Sanchez (2005), and Wolman and colleagues (2005) all use methodologies based in part or in whole on density (of population or housing) to measure exurban development.
- **What are the electoral impacts of exurbs?** Finally, very recent analyses by a collection of political analysts, including Brownstein and Rainey (2004), Texeira (2004, 2005), Gersh (2004), and Lang and Dhavale (2005) use various definitions of exurbs to look at voting patterns in different types of communities. These analyses were fueled in large part by stories from the 2004 presidential election documenting the success of Republican voter-mobilization efforts in new, outlying communities in "swing" states like Ohio and Florida. To study the impact of different types of suburbs on the 2000 and 2004 presidential elections, Lang and Sanchez (2006) develop an urban/suburban typology for the 50 largest metropolitan areas in which the outermost counties are

labeled "exurbs." Teixeira (2006) further investigates the politics of exurbia using Lang and Sanchez's classification system.

These studies that attempt to characterize exurbia and exurbanites form part of an even larger literature devoted to classifying the "hierarchy" of urban, suburban, and rural places and their residents. Some of these studies classify metropolitan counties and places by their degree of "urban-ness" and the residential/commercial functions they serve (Orfield 2002; Lang and Gough 2006; Lang and Sanchez 2006). Puentes and Warren (2006) focus on older "first suburbs" that were the first to develop outside big cities. Mikelbank (2004) uses the characteristics of both suburban residents and their locations to derive a typology of suburban places. Frey (2004) advances a typology of places within metropolitan areas based on their population and employment levels, and their distance from the urban core. USDA's Rural-Urban Continuum Codes (2004) have for three decades provided a particularly influential classification of counties that span the entire U.S. settlement hierarchy.

We make no attempt here to summarize the findings from this rich literature, since the studies—spurred by different inquiries—adopt such a wide range of methodologies and come to very different conclusions.

Given such a rich literature, then, what can this study possibly add to the information and interpretation that already exists? For one thing, because the exurbs are generally acknowledged as existing at the urban-rural fringe, they likely change rapidly and older studies may not reflect the contemporary situation. Furthermore, our review of the literature suggests to us a few core principles for this effort that distinguish it from past efforts to "find exurbia:"
- *Place before people.* We choose to identify exurbs based on their characteristics as places, rather than on

Table 1. Studies Defining Exurbia and Related Concepts

Study (by year)	Concept measured	Geographic Unit	Description
Spectorsky (1955)	Exurbanites	Counties and places in NY metro area	Outer edges of the NYC commuter shed: Fairfield County, CT; Rockland County, NY; Bucks County, PA
Lamb (1983)	Exurban sprawl	Counties and places	Within 50 miles of urbanized area (UA) > 250k people; growth rate > 5% in 1960s; outside UA in 1970
Blumenfeld (1986)	Metropolitan fringe	Counties	Outside Standard Metropolitan Statistical Area (SMSA) but: (a) within 70 miles of large SMSA (> 2M people) central city; or (b) within 50 miles of mid-sized SMSA (500k to 2M people) central city
Lessinger (1987)	Penturbia	Counties	Below-average population growth 1950–1970; far above-average growth 1970–1985
Nelson (1992)	Exurbs	Counties	Within 50 miles of central city boundary in mid-sized Metropolitan Statistical Area (MSA) (500k to 2M people); within 70 miles in large MSA (> 2M people); not central county or otherwise in metro area in 1960
Davis and Nelson (1994)	Exurban movers	Block groups and places, Portland and Salem, OR MSAs	Recent movers to portions of Portland and Salem, OR MSAs located outside urban growth boundary; at least 10% commuting to MSA
Nelson and Sanchez (1997)	Exurban population	Households in American	Recent movers to parts of metropolitan areas outside UA
Theobald (2001)	Exurban areas	Housing Survey, 22 metro areas	Housing density of 10–40 acres per unit
Irwin and Reece (2002)	Exurban areas	Block groups	Housing density between 5 and 40 acres per unit
Beale and Kassel (2005)	Exurbs	Block groups in Ohio Census tracts	Population density < 500 people per square mile; scores on 4 population characteristics: % of adults with college degrees; % employed in arts, entertainment, recreation, information industries; median household income; average commute time
Nelson and Sanchez (2005)	Exurban areas	Block groups in 35 largest metro areas	Population density of 300 to 999 per square mile
Brownstein and Rainey (2004); Teixeira (2004, 2005), Gersh (2004), Lang and Dhavale (2005)	Exurbs	Counties	Various combinations of metropolitan location and population characteristics
Wolman et al. (2005)	Extended Urban Area	Census tracts in six large metro areas	UA plus adjoining tracts with minimum housing density (60 units per square mile) and minimum commuting to UA (30 percent)
Lang and Sanchez (2006)	Exurbs (and other suburban types)	Counties within 50 largest metro areas	Lower population density, less urbanized population, higher non-Hispanic white population
Clark, McChesney, Munroe, and Irwin (2006)	Exurbia	Small grid cells (170 acres) from LandScan population model	Population density of 100 to 1,000

Source: Brookings Institution analysis

the characteristics of the people who live there. If we were seeking to find the "exurbanites" as Spectorsky did, we might then consider demographic characteristics like race/ethnicity, income, homeownership, or occupation as part of our definition.

Because exurbs are at their root *places*, however, we identify the attributes of a geographic area that might label it an exurb—largely independent of the social or demographic characteristics of its residents (aside from their commut-

ing patterns)—and then seek to understand whether the people who live there are demographically distinct from people elsewhere.[3]

• *Places we know.* Advances in Geographic Information Systems (GIS) technology have enabled researchers

to describe and classify very small geographic areas. Many have used GIS and small-area data to identify as "exurban" places as small as a couple of acres. However, such tiny geographies, in isolation or in the aggregate, have limited relevance to policymakers and the public. At the same time, defining exurbs at too large a geographic scale glosses over the very different development patterns that may characterize parts of that area. This is a particular problem in the Western U.S., where the average county covers 2,825 square miles. We attempt to strike a balance by first pinpointing exurban territory using census tract-level (i.e., neighborhood-level) data, and then aggregating those tracts up to the county level to connect our classification to widely-known geographies.

- *Useful across time and place.* Just as yesterday's rural area is today's exurb, the exurbs of prior decades—like Greenwich and New City—are today's mature suburbs. In light of these dynamics, we base our exurban identification on geographies and data that are likely to be available at regular intervals over time. Certainly, one-time surveys of land use, sewerage lines, or night lighting could form the basis for a methodology to identify exurban territory. However, these unique data sources are difficult to collect regularly or may be unevenly available locally. Our selection criteria derive from decennial census data, with the expectation that very similar, if not identical, data will be available across time to chart the movement and changing characteristics of exurbia. These data also have the advantage of covering the entire United States.
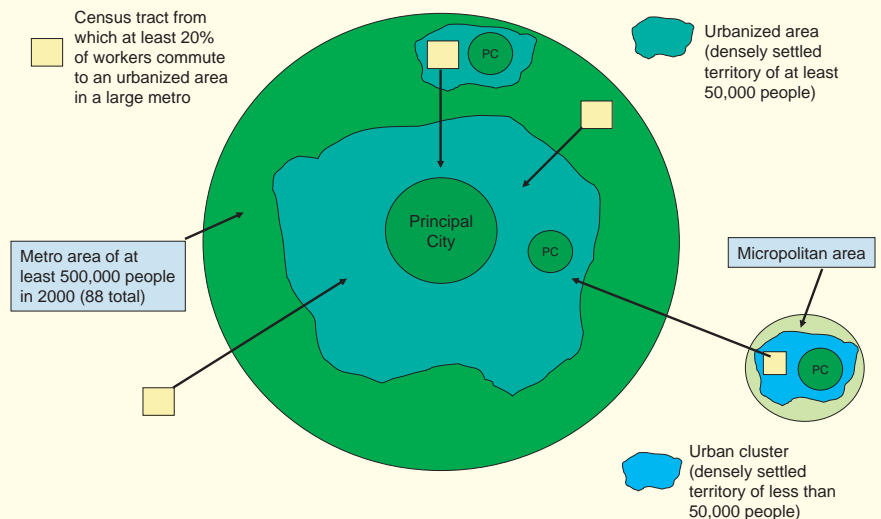
Methodology and Data

The principles above guide how we translate our model of exurbia from concept to real-world geography. Based on research, popular literature, field work, and interviews with experts, we observe three measures that define exurban places: *connection*, *density*, and *growth*. We first identify exurbs using census tracts—small areas with an average of 4,000 people—and then aggregate these areas to the county level for further analysis.[6] To qualify as exurban, a census tract must meet all three of the criteria described below.

*1. Economic **connection** to a large metropolis.* Implicit in the term "exurb" is some relationship with an *urban* area. The definition of its prefix, "ex,"—meaning "outside of"—is more

difficult to pinpoint.[7] Some researchers have used distance from, or adjacency to, a city or its established suburbs to define exurbs. But the underlying assumption is that geographical proximity to an urban area implies some kind of "connectedness." Though those connections may take various forms—where people shop, where their friends live, what newspaper they read, or what sports teams they root for—commuting ties offer one way to measure economic connection, and one for which data are widely available.

In our view, an exurb must be physically located *outside* a large city and its close-in suburbs, yet have some proportion of its residents *working* in that area. To identify these areas, we use data compiled by the USDA's Economic Research Service (ERS) from the Census 2000 tract-to-tract com-

Figure 1. Exurban census tracts send at least 20% of their workers to urbanized areas in large metropolitan areas

Census tract from which at least 20% of workers commute to an urbanized area in a large metro

Urbanized area (densely settled territory of at least 50,000 people)

Principal City

PC

Metro area of at least 500,000 people in 2000 (88 total)

Micropolitan area

Urban cluster (densely settled territory of less than 50,000 people)

Source: Brookings Institution

muting file.[8] We identify as potentially exurban those tracts for which ERS identifies that at least 20 percent of workers commute to an urbanized area within a large metropolitan area.[9] Urbanized areas are the basic census geographies that define the core of metropolitan areas (Frey et al. 2006), and they typically represent a central city and its built-up suburbs.[10] The 20-percent commuting threshold is somewhat lower than the 30-percent threshold used by Wolman et al. (2005) to define the extended urban area, and also below the 25-percent county-level threshold used by OMB to differentiate outlying and central counties in metropolitan areas. In this way, our minimum commuting threshold seeks to capture places that may still be evolving toward fuller inclusion in the metropolis.

We further limit qualifying tracts by identifying as exurban only those tracts with commuting ties to an urbanized area within a Metropolitan Statistical Area that had at least 500,000 residents in 2000 (see Figure 1 for a visual representation of this criterion). Exurban tracts may be located inside a metropolitan area, either in a smaller urbanized area or outside urban areas altogether; or they may lie outside metropolitan areas, in some cases within micropolitan areas.

By using a minimum metropolitan population threshold, we do not mean to indicate that smaller metropolitan areas lack exurbs. Rather, we expect that applying similar criteria to smaller metro areas would yield a very different sort of exurb. For instance, commuting distances from the exurbs of Binghamton, New York (assuming there are any) are likely much shorter, and housing prices much lower, than in the exurbs of Washington, D.C., San Francisco, or even Tulsa. Additionally, for purposes of this study, aggregating tracts in order to identify some counties as "exurban" would sacrifice refinement in small metro areas, which are much more likely to be composed of only one county than their large-metro counterparts.[11] Future research should consider whether and how exurbs might be defined differently in the small metropolitan context; in this paper we focus on the incidence of large metropolitan exurbs only.[12]

2. *Low housing density*. All measures of urbanity and rurality take density into consideration. Since the most visible component of an area's settlement type is the built landscape, we use housing density rather than population density to identify exurban areas. Using Census 2000 data, we rank all census tracts nationwide on housing density (units per square mile). We then distinguish as potentially exurban those tracts which, beginning from the lowest density tract, collectively contain one-third of the nation's housing units.[13] In 2000, these tracts had a maximum housing density of roughly 2.6 acres per unit.

Why the bottom third? First, this approach ensures that we capture areas in which housing is significantly more spread out than is typical in the U.S. today. Second, it includes a sizeable proportion of the typical residential development style at the metropolitan fringe today, which occurs on lots of at least one acre. When aggregated to the census tract level, most developments at this density likely fall within the range we define as exurban.[14] Notably, our range of acceptable housing densities for exurbia includes more dense settings than those used by Theobald (2001) and Irwin and Reece (2002), but similar settings to those considered exurban by Nelson and Sanchez (2005; equivalent to a range of 1.6 to 5.3 acres/per unit).

Our use of housing density intersects to a certain degree with density measures that underlie our commuting criterion. Specifically, potentially exurban tracts must have an economic connection to an urbanized area within a large metropolitan area, yet lie outside that urbanized area. Thus, many exurbs lie in areas that already fail to meet the population density threshold necessary to qualify as "urbanized" under the Census Bureau's definition.[15] Because some tracts that meet our commuting criterion **do** lie in smaller urbanized areas (see the commuting discussion above), the housing density criterion ensures that we capture areas with a more spread-out feel than is typical in suburbia today.

3. *Population growth*. Exurbs are emerging growth centers, where people have been moving in large numbers recently. Some of these people may have come from outside the metropolitan area, but an even larger number may have relocated from denser parts of the same metropolitan area, in search of lower housing costs, more open space, and/or a small-town "feel." To qualify as exurban, a census tract must have experienced population growth between 1990 and 2000 that exceeded the average for its related metropolitan area.[16] In addition, the tract *must* have grown by at least 10 percent in the 1990s (thus excluding neighborhoods with very little population growth located in declining metropolitan areas). Similarly, tracts that grew by at least 3 times the national rate in the 1990s (at least 39.6 percent) are considered to have satisfied this criterion, even if their metropolitan area grew somewhat faster (as was the case in metro areas such as Austin, Las Vegas, Phoenix, and Raleigh).

Some may argue that exurbs need not be growing at all, and that any semi-rural community with an important economic relationship to an urban area should be considered exurban. But most popular accounts of exurbia focus on communities grappling with change, often facing rapid growth as they try to preserve their rural character. The profile of these

areas is probably quite distinct from slow-growing or stagnant fringe communities with either recent or long-standing commuting ties to the urban core. (See Box 1 below for an examination of "slow/no-growth exurbs.") Thus, by including population growth in our conceptual model, we seek to identify exurbs that have undergone significant recent development and change, where the urban-rural fringe is shifting rapidly.

We apply these three criteria to all census tracts nationwide, using data from the Geolytics® Neighborhood Change Database to hold tract boundaries constant between 1990 and 2000 to measure population growth.

Throughout the paper, we refer to census tracts that meet these criteria as "exurbs" or "exurban areas," and to their residents as "exurban population" or "exurbanites." Certainly, not every resident of these census tracts lives an "exurban" lifestyle, to the extent that the term denotes commuting long distances, living on a large-acre lot, and participating in significant recent growth. However, because both new and old residents of these areas are exposed to the growth pressures, development impacts, and economic changes taking place in these areas, we feel comfortable assigning exurban status to the entire population of these tracts.

For a portion of the analysis, we aggregate our tract results to the county level to describe the exurban character of counties based on the proportion of their residents living in census tracts identified as exurban. We start from census tracts rather than counties because the latter vary greatly in size across the country; small counties in the Southeast may be largely characterized by one type of development, while massive counties in the West might span the distribution from older cities, to mature suburbs, to exurbs, to wholly rural territory.[17]

County-based analysis does, however, allow us to identify the exurban

character of recognizable geographies. In Findings D and E, we develop an "urban hierarchy" of metropolitan counties that permits us to compare exurban counties with other types of urban and suburban counties. We explore the demographic, economic, and housing characteristics of exurban versus other metropolitan residents, using data derived from Census 2000, the Census Bureau's Population Estimates Program, the Internal Revenue Service, and the 2004 election results.

Findings

A. In 2000, approximately 10.8 million people lived in the exurbs of large metropolitan areas.
Applying the three criteria described above to all U.S. census tracts in 2000, we find that just 2,127 tracts (3.3 percent of all tracts) can truly be labeled "exurban" (Table 2). They contained total population of 10.8 million that year, a little under 4 percent of national population. Viewed against the backdrop of large metropolitan areas, to which our conceptual model affixes exurbs, the population of these exurban areas equaled a little over 6 percent of total large metropolitan area population.[18]

The most limiting of the three criteria relates to the census tract's economic connections. Of the more than 65,000 census tracts nationwide in 2000, just 5,828 (9 percent) qualified under our commuting criterion, which requires that at least 20 percent of the tract's workers commute to an urbanized area within a large metro area. Of these tracts, 3,831 (66 percent) met the density standard, and 2,952 (51 percent) expanded sufficiently in the 1990s to meet the population growth criterion. In the end, 2,127 tracts met all three of these criteria.

Because of the way we define exurbs, it comes as no surprise that exurban communities are, on average, fast-growing, low-density, high-com-

muter areas. Because they must, by definition, grow faster than their surrounding areas, the typical exurban tract experienced rapid population growth in the 1990s. While the nation grew by 13.2 percent over the decade, median population growth in exurban census tracts was 31.4 percent, more than double the national rate. Similarly, housing in exurban areas is built at low densities; with the typical exurban census tract possessing nearly 14 acres of land per housing unit.[19] By contrast, the median tract nationwide had just 0.8 acres of land per housing unit in 2000. And exurbs are clearly bedroom communities, evidenced by the 52 percent of workers in the typical exurban tract who commute into the urbanized core of a large metropolitan area.

Most exurbs are located within the outer reaches of metropolitan areas. Yet in 2000, nearly 14 percent of exurbanites lived outside metro areas altogether. A significant share of these nonmetropolitan exurbanites (44 percent) could be found in newly-designated micropolitan areas, smaller communities that often adjoin metropolitan areas. For instance, LaSalle County, part of the Ottawa-Streator, IL Micropolitan Statistical Area, borders the Chicago metropolis and houses significant numbers of commuters to that urban area. Similarly, Monroe County in eastern Pennsylvania, which forms the East Stroudsburg, PA Micropolitan Statistical Area, sends commuters to the urban core of the nearby Allentown-Bethlehem-Easton area, as well as to urban portions of the greater New York area.

If exurbanites represent only 4 percent of all Americans, are they such a big deal? First, recall that under our classification system, many parts of the nation fail to qualify because they lie at a great distance from a large metropolitan area. As such, a better way to view the incidence of exurbia is as 6 percent of large metropolitan population. Smaller metropolitan areas

Box 1. Slow/No-Growth Exurbs

Our method for defining exurbia embraces fast growth as a defining characteristic of the exurban experience. This is consistent with most popular accounts of exurbs, which tend to focus on rapidly changing areas near the urban-rural fringe, and our methods help to identify the locales that are making perhaps the greatest impacts on metropolitan development patterns. Moreover, using this additional growth criterion enforces greater similarity across the various communities that we ultimately label "exurbs."

What if instead we had decided that exurbs need not grow fast—or even grow at all? Many past efforts to find exurbia have not included growth among their definitional criteria (see Table 1). In these studies, exurbs are areas of semi-rural character (defined most often by density) that lie within the orbit of big cities and their metropolitan areas, but they may not be growing at all, or they may even be losing population. How might our exurban map change if we were to include these slow/no-growth areas that met our commuting and density criteria only?

As indicated in Finding A, there are roughly 1,700 additional census tracts nationwide that would qualify as exurbs if we dropped the growth criterion. In 2000, 6.8 million people lived in these slow/no-growth exurbs. Including these areas would thus boost our overall exurban population by roughly two-thirds. Moreover, it would alter somewhat the geographic distribution of exurbia. The table below shows that, compared to the exurban tracts identified in the text, slow/no-growth exurbs are tilted more heavily towards the Middle Atlantic states, and away from the interior South and the Mountain states. This makes sense, given the slower growth prevailing in the northern part of the United States. Within the Mid-Atlantic, metropolitan areas such as Albany, Buffalo, Harrisburg, Pittsburgh, Rochester, and Syracuse all possess large populations in these types of slow/no-growth locales.

Regional Location and Population of Slow/No-Growth Exurbs, 2000

| | Slow/No-Growth Exurbs | | Exurbs (Table 2) | |
| | | Share of National | | Share of National |
Division/Region	Population 2000	Exurban Population	Population 2000	Exurban Population
New England	361,552	5.3	494,084	4.6
Middle Atlantic	1,459,919	21.5	1,005,709	9.3
Northeast Subtotal	*1,821,471*	*26.8*	*1,499,793*	*13.9*
East North Central	1,227,699	18.1	1,790,439	16.6
West North Central	361,445	5.3	835,705	7.8
Midwest Subtotal	*1,589,144*	*23.4*	*2,626,144*	*24.4*
South Atlantic	1,456,057	21.4	2,235,117	20.8
East South Central	298,290	4.4	922,158	8.6
West South Central	751,144	11.0	1,874,031	17.4
South Subtotal	*2,505,491*	*36.8*	*5,031,306*	*46.7*
Mountain	134,669	2.0	554,883	5.2
Pacific	748,120	11.0	1,051,152	9.8
West Subtotal	*882,789*	*13.0*	*1,606,035*	*14.9*
U.S. Total	**6,798,895**	**100.0**	**10,763,278**	**100.0**

Source: Brookings Institution analysis of Census 2000 data

Collectively, these slow/no-growth exurban census tracts grew by only 5 percent in population between 1990 and 2000, compared to 31 percent growth in the exurbs defined in the text. As such, they seem distinct from the fast-growing metropolitan communities explored throughout this study. Nonetheless, the significant number of people living in these slow/no-growth exurbs across the country suggests that they merit further study and consideration of their unique impacts on metropolitan form.

Table 2. Regional Location of Exurban Census Tracts

Census Division	Number of Exurban Tracts	Total Number of Tracts	Percent of Tracts that are Exurban	Population in Exurban Tracts	Total Population	Total Large Metro Population	Ratio of Exurban to Large Metro Population	Share of National Exurban Population
New England	99	3,207	3.1	494,084	13,922,517	10,260,511	4.8	4.6
Middle Atlantic	212	9,974	2.1	1,005,709	39,671,861	32,090,895	3.1	9.3
Northeast	*311*	*13,181*	*2.4*	*1,499,793*	*53,594,378*	*42,351,406*	*3.5*	*13.9*
East North Central	382	11,358	3.4	1,790,439	45,155,037	26,895,804	6.7	16.6
West North Central	169	5,106	3.3	835,705	19,237,739	8,070,198	10.4	7.8
Midwest	*551*	*16,464*	*3.3*	*2,626,144*	*64,392,776*	*34,966,002*	*7.5*	*24.4*
South Atlantic	381	10,793	3.5	2,235,117	51,769,160	30,144,612	7.4	20.8
East South Central	167	3,941	4.2	922,158	17,022,810	5,446,570	16.9	8.6
West South Central	359	7,108	5.1	1,874,031	31,444,850	18,726,322	10.0	17.4
South	*907*	*21,842*	*4.2*	*5,031,306*	*100,236,820*	*54,317,504*	*9.3*	*46.7*
Mountain	127	4,285	3.0	554,883	18,172,295	9,886,618	5.6	5.2
Pacific	231	9,565	2.4	1,051,152	45,025,637	34,716,459	3.0	9.8
West	*358*	*13,850*	*2.6*	*1,606,035*	*63,197,932*	*44,603,077*	*3.6*	*14.9*
Nation	**2,127**	**65,337**	**3.3**	**10,763,278**	**281,421,906**	**176,237,989**	**6.1**	**100.0**

Source: Brookings Institution analysis of decennial census data

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may have their own forms of exurbia, but we suspect that they are quite distinct from the large-metro exurbs identified here. Second, although 6 percent may not seem like a large portion of metropolitan population, there are many regions of the country, and metropolitan areas within those regions, where exurbs capture much greater shares of the population. The next section explores variations across the United States in the prevalence of exurbs.

B. The South and Midwest are more exurbanized than the West and Northeast.

The 2,127 census tracts we identify as exurban in 2000 do not distribute evenly across the country. Some regions of the country seem to "exurbanize" more than others, depending on factors such as historical and contemporary settlement patterns, their natural constraints to development, rules and regulations that guide (or fail to guide) development, and the location and number of their large metropolitan areas.

Overall, the South and the Midwest are the most exurbanized regions, based on the ratio of population in their exurban tracts to population in their large metropolitan areas. In the South, these exurbanites represented 9.3 percent of large metro area population in 2000, and the comparable proportion in the Midwest was 7.5 percent (Table 2). Within these regions, the East South Central division, comprising Kentucky, Tennessee, Mississippi, and Alabama, exhibited an even more highly exurbanized population than the larger South, with nearly one in six residents living in an exurb. The same was true of the West North Central division (the Dakotas, Nebraska, Kansas, Missouri, Iowa, and Minnesota) compared to the overall Midwest. In these areas of the nation,

suburban growth generally far outpaced city growth in the 1990s, and few natural barriers stand in the way of continued metropolitan decentralization (Berube 2003, Fulton et al. 2001).

The West and Northeast show a far lower incidence of exurbia than the other regions. Exurbanites in these regions represent between 3 and 4 percent of large metropolitan population. In particular, the Mid-Atlantic (New York, Pennsylvania, and New Jersey) and Pacific (California, Oregon, Washington, Alaska, and Hawaii) divisions, though they each have more than 1 million exurban residents, have relatively small shares of their large-metro populations in such areas. Environmental constraints to outward growth in the West, such as deserts and mountains, the older urbanized development of the Northeast, and more similar growth rates between cities and suburbs make for smaller

shares of population in these regions living in far-flung, low-density exurbs.

The South as a whole contains almost 47 percent of the nation's exurban population, far more than any other region. The South Atlantic states alone (coastal states from Maryland to Florida) contain one-fifth of all exurbanites. Roughly one-quarter of exurban population resides in the Midwest, with about one in six living in the East North Central division (the "Rust Belt" states from Ohio to Wisconsin). The rest of exurbia splits fairly evenly between the Northeast and the West.

Drilling down to the state level, the more exurbanized nature of the South and Midwest continues to stand out (Figure 2). South Carolina, Oklahoma, Tennessee, and Maryland—all Southern states—lead all others in the share of their populations living in exurban communities. The Midwest also places three states (Wisconsin, Missouri, and Minnesota) among the 10 most exurbanized. Due to the happenstance of political boundaries, exurban residents in some of these states actually commute to adjacent states for work. For instance, much of Maryland's exurban population commutes to Washington, D.C., and its Northern Virginia suburbs. Many Wisconsin exurbanites commute to Minneapolis-St. Paul and its Minnesota suburbs.

Also striking is the rank-order of states by their total exurban populations. Texas and California place number one and number two, respectively, not surprising in light of their overall size. Yet Ohio, the seventh-largest state by overall population, places third on total exurban population. Michigan, the eighth-largest state, comes right behind in fourth place (Table 3).

Notably, seven states and the District of Columbia lack exurbs altogether. These states—including Vermont, Montana, and Alaska—possess no large metropolitan areas, and are located at great enough distances from other large metropolitan areas that they do not have any tracts that

Table 3. States Ranked by Total Exurban Population, 2000

	State	Total population	Exurban population	Percent exurban
1	Texas	20,851,820	1,241,472	6.0
2	California	33,871,648	725,921	2.1
3	Ohio	11,353,140	465,585	4.1
4	Michigan	9,938,444	457,184	4.6
5	New York	18,976,457	455,833	2.4
6	Tennessee	5,689,283	438,600	7.7
7	Virginia	7,078,515	417,721	5.9
8	Maryland	5,296,486	395,084	7.5
9	South Carolina	4,012,012	379,369	9.5
10	Wisconsin	5,363,675	375,881	7.0
11	Florida	15,982,378	373,092	2.3
12	Pennsylvania	12,281,054	368,000	3.0
13	North Carolina	8,049,313	360,292	4.5
14	Missouri	5,595,211	353,722	6.3
15	Minnesota	4,919,479	307,425	6.2
16	Oklahoma	3,450,654	307,354	8.9
17	Washington	5,894,121	261,709	4.4
18	Georgia	8,186,453	260,191	3.2
19	Indiana	6,080,485	255,979	4.2
20	Illinois	12,419,293	235,810	1.9
21	Alabama	4,447,100	224,129	5.0
22	Massachusetts	6,349,097	218,592	3.4
23	Colorado	4,301,261	199,548	4.6
24	Kentucky	4,041,769	190,125	4.7
25	Arizona	5,130,632	187,584	3.7
26	New Jersey	8,414,350	181,876	2.2
27	Louisiana	4,468,976	180,877	4.0
28	Arkansas	2,673,400	144,328	5.4
29	Kansas	2,688,418	132,235	4.9
30	Connecticut	3,405,565	127,699	3.7
31	New Mexico	1,819,046	104,302	5.7
32	New Hampshire	1,235,786	83,851	6.8
33	Mississippi	2,844,658	69,304	2.4
34	Oregon	3,421,399	52,435	1.5
35	Rhode Island	1,048,319	47,750	4.6
36	Nevada	1,998,257	40,912	2.0
37	Nebraska	1,711,263	29,748	1.7
38	Delaware	783,600	24,697	3.2
39	West Virginia	1,808,344	24,671	1.4
40	Utah	2,233,169	22,537	1.0
41	Maine	1,274,923	16,192	1.3
42	Iowa	2,926,324	12,575	0.4
43	Hawaii	1,211,537	11,087	0.9
44	Alaska	626,932	0	0.0
45	District of Columbia	572,059	0	0.0
46	Idaho	1,293,953	0	0.0
47	Montana	902,195	0	0.0
48	North Dakota	642,200	0	0.0
49	South Dakota	754,844	0	0.0
50	Vermont	608,827	0	0.0
51	Wyoming	493,782	0	0.0
	Total	281,421,906	10,763,278	3.8

Source: Brookings Institution analysis of decennial census data

Figure 2. Percentage of Population Living in Exurban Census Tracts by State, 2000

Legend:
- None
- < 2%
- 2% to 3.99%
- 4% to 5.99%
- 6% and up
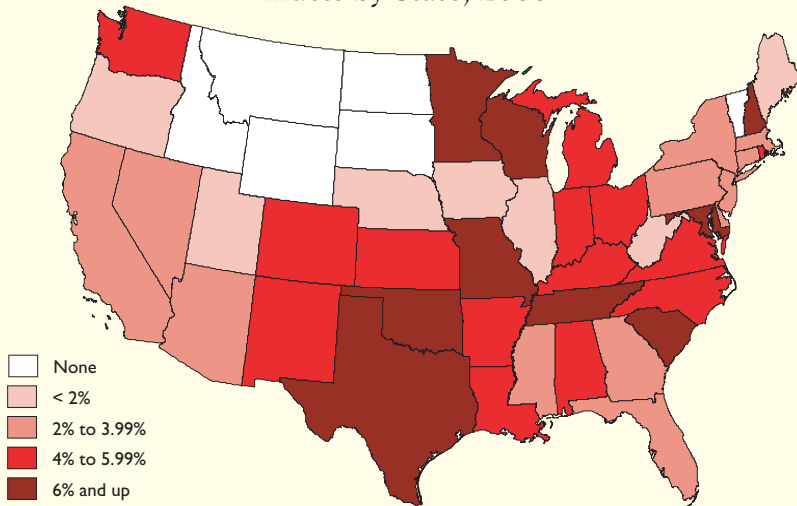
Source: Brookings Institution analysis of Census Bureau data

Note: Alaska has no exurban population, and less than 1 percent of Hawaii's population lives in exurbs

qualify on our commuting criterion (the District, on the other hand, lies at the fully-urbanized heart of the Washington, DC metro area). Still, these states probably have growing, commuter-dominated areas with low-density housing that might form the subject of future "small-metro exurbs" research.

C. Seven metropolitan areas have at least one in five residents living in an exurb.

Exurbia, at least by our rendering, is a metropolitan phenomenon. Therefore, examining the incidence of exurbia at the metropolitan level can offer perhaps the best insights into where exurbs are most common, and what drives their development.[20]

As a first observation, large metropolitan areas vary greatly in their number of exurban residents, and the ratio of exurban residents to total metropolitan residents (Table 4). From the most exurban metro area (Poughkeepsie, NY) to the least exurban (Miami, FL), there exists a roughly hundred-fold difference in the exurban ratio.

A second revealing finding is that each and every one of the 88 large metro areas has at least some associated exurban population—from just 4,600 in the New Haven-Milford, CT area to 445,000 in the Dallas-Forth Worth area (details on exurban populations associated with all 88 large metro areas can be found in Appendix Table A).

Among the top 10 metro areas in the ratio of exurban to metropolitan population, seven actually have exurban-to-metropolitan population ratios of at least 20 percent. This represents more than three times the national average. The top 10 comprise three somewhat different types of "heavily exurban" areas:

- One set contains relatively smaller metro areas with populations between 500,000 and 750,000 (Little Rock, Grand Rapids, Greenville, Madison, and Knoxville). These metro areas seem to contain significant rural territory within their metropolitan boundaries, and have large numbers of workers commuting into their urban cores from outside the

metro area altogether.
- A second group, consisting of Poughkeepsie and Worcester, represents "satellite metros" linked closely to the adjoining metro areas of New York and Boston. Many residents of these areas live in fast-growing communities where the majority of people work within the county, even as a significant minority commute long distances to adjacent metropolises. (See Box 2.)
- A third set of large, Southern metropolitan areas (Birmingham, Knoxville, Nashville, and Austin) reflects fast-growing regions where homebuilding seems to have spread quickly into the rural hinterlands.

At the other end of the spectrum lies a group of areas where exurban residents amount to fewer than one in 40 metropolitan residents. These metro areas, too, divide into three groups.
- Some face natural barriers, such as mountains, oceans, deserts, and wetlands, that inhibit the outward, low-density development characteristic of exurbs (Salt Lake City, San Diego, San Jose, Honolulu, and Miami).[21]
- New York and Los Angeles anchor dense mega-regions that each have a considerable number of exurbanites. However, those exurban populations are quite small viewed against the backdrop of total metropolitan population.
- Finally, Youngstown, Pittsburgh, and New Haven are growing so slowly—or losing population—that relatively few of their communities (even at the metropolitan fringe) have gained enough population recently to qualify as exurbs.

Ranked by absolute exurban population, the Dallas, Minneapolis-St. Paul, and Washington, DC metro areas lead the way. These regions feature prominently in journalistic accounts of exurban change; Frisco (TX), Carver County (MN), and Caroline and King George counties (VA) have all served as subjects of recent news stories about

Table 4. Top and Bottom Metropolitan Areas by Percent Exurban, 2000

	Metropolitan Area	Population, 2000	Total Exurban Population, 2000	Percent Exurban, 2000*	Exurban counties
1	Poughkeepsie-Newburgh-Middletown, NY	621,517	200,728	32.3%	2
2	Little Rock-North Little Rock, AR	610,518	144,328	23.6%	6
3	Grand Rapids-Wyoming, MI	740,482	168,523	22.8%	3
4	Greenville, SC	559,940	123,734	22.1%	1
5	Madison, WI	501,774	110,127	21.9%	3
6	Birmingham-Hoover, AL	1,052,238	224,129	21.3%	5
7	Knoxville, TN	616,079	129,497	21.0%	6
8	Worcester, MA	750,963	149,104	19.9%	0
9	Nashville-Davidson—Murfreesboro, TN	1,311,789	253,100	19.3%	8
10	Austin-Round Rock, TX	1,249,763	221,611	17.7%	5
79	Salt Lake City, UT	968,858	22,537	2.3%	2
80	San Diego-Carlsbad-San Marcos, CA	2,813,833	60,331	2.1%	0
81	Youngstown-Warren-Boardman, OH-PA	602,964	12,870	2.1%	0
82	Pittsburgh, PA	2,431,087	51,035	2.1%	0
83	San Jose-Sunnyvale-Santa Clara, CA	1,735,819	28,185	1.6%	0
84	Honolulu, HI	876,156	11,087	1.3%	0
85	New York-Northern New Jersey-Long Island, NY-NJ-PA	18,323,002	219,667	1.2%	3
86	Los Angeles-Long Beach-Santa Ana, CA	12,365,627	111,511	0.9%	0
87	New Haven-Milford, CT	824,008	4,593	0.6%	0
88	Miami-Fort Lauderdale-Miami Beach, FL	5,007,564	13,478	0.3%	0
	Total	176,237,989	10,763,278	6.1%	245

* Ratio of total exurban population to total metropolitan population

Source: Brookings Institution analysis of decennial census data

the rise of exurbia (Lyman 2005; Curry 2004; Cohn and Gardner 2006).

Analyzing the metro-area results by region further illuminates the variable forms and drivers of exurban development across the United States.

• *South.* Consistent with the findings by region, the vast majority of Southern metropolitan areas (26 of 32) exhibit above-average degrees of exurbanization. The trend is particularly pronounced in the Carolinas, which place six metro areas among the 20 most exurban. Metro areas in the interior South, including those in Tennessee, Alabama, Arkansas, and Kentucky also rank high, with few natural barriers standing in the way of their outward development, and an extensive interstate highway system fueling it. Notably, Atlanta—a popular example of the problems associated with lower-density development patterns—shows up with only an average degree of exurbanization. Roughly 85 percent of the region's population in 2000 actually lived inside the massive Atlanta, GA urbanized area (mostly at suburban densities), implicitly limiting the extent of exurban development. Additionally, the region grew by a staggering 38 percent in the 1990s, mounting a high growth bar for any community to qualify as exurban.[22]

• *West.* In contrast to the South, 12 of 20 Western metro areas have a below-average ratio of exurban population to metro area population. Several in California rank very low, a testament to the denser development that characterizes the Pacific coast (Fulton et al. 2001). As one heads into California's interior, however, exurbs become more prevalent. Riverside-San Bernardino, Fresno, Stockton, and Bakersfield possess more exurban development relative to their populations than their coastal counterparts. In the Mountain West, natural barriers seem to limit the extent of exurbia in places like Salt Lake City, Phoenix, and Las Vegas. Yet the same does not hold for Denver, Tucson, Colorado Springs, and Albuquerque, all of which exhibit above-average degrees of exurbanization.

• *Northeast.* As the "top 10" results suggest, significant exurban develop-

ment can be found in some smaller "satellite" metropolitan areas in the Northeast. Beyond Poughkeepsie and Worcester, a host of eastern Pennsylvania metro areas (Scranton–Wilkes-Barre, Allentown-Bethlehem-Easton, Harrisburg-Carlisle) exhibit above-average ratios of exurban-to-total-metropolitan population. Households at the fringe of each of these metro areas commute to their urban cores for work, but others drive to larger neighboring regions (e.g., New York, Philadelphia, Baltimore) for their jobs. While none is growing quickly—the Scranton area actually lost population during the 1990s—each contains neighborhoods where fast development occurred over the previous decade.[23] Even more striking is the collection of upstate New York metro areas, including Albany, Buffalo, Rochester, and Syracuse, which despite very slow metropolitan growth or even population loss still contain significant exurban populations.

- *Midwest.* The Midwest places a couple of metropolitan areas (Grand Rapids and Madison) very high on the exurban scale. Several more display high rates of exurbanization, such that 11 of the 18 Midwestern metro areas exhibit above-average exurban ratios. The Detroit, Kansas City, and St. Louis regions, in particular, each possess more than 200,000 exurban residents. All are losing population in the urban core, but are experiencing rapid, low-density growth at the exurban fringe. Columbus (OH), Cincinnati, Milwaukee, and Cleveland lag not far behind. The Chicago area, like the Twin Cities, has more than 300,000 exurban residents, but that represents a relatively small fraction of the metro area's 9 million-person reach. Finally, Dayton, Toledo, and Youngstown, largely by virtue of their stagnant overall population growth, as well as their proximity to other struggling regions (Cincinnati and

Cleveland), show fairly low degrees of rapid exurban development.

These findings emphasize that population growth alone does not determine the degree to which a metropolitan area develops exurbs. In slow-growth regions of the Northeast and Midwest, rapid homebuilding at the fringe may drain population away from cities and close-in suburbs, fueling the rise of exurban communities. In Buffalo, Scranton, St. Louis, and Detroit, the pace of homebuilding far outstripped household growth in the 1990s (Bier and Post 2003). Alternatively, proximity to an economically dynamic region, coupled with a slow rate of homebuilding in that adjacent region, may force growth into exurbs in satellite metro areas. The Boston and New York areas, in particular, have experienced declining rates of homebuilding in recent decades (Glaeser, Gyourko, and Saks 2005). To gain access to affordable housing, households seem to have shifted outward to exurbs in areas like Worcester, Hartford, Poughkeepsie, and Allentown.

Similarly, in Southern and Western metro areas, fast growth alone has not dictated the extent of exurbia. Where natural barriers to metropolitan decentralization are limited—such as in the Southeast, some areas of the Intermountain West, and California's Inland Empire and Central Valley—rapid metropolitan expansion has brought significant exurbanization. In other fast-growing metro areas near oceans, deserts, wetlands, and mountains, by contrast, fewer exurbs have sprung up (e.g., Phoenix, Las Vegas, coastal California, and Florida). In many cases, rapid suburban development in these regions has assumed a denser "boomburb" form than is typical elsewhere (Lang and Simmons 2003).

Maps of selected regions help to illuminate the variable number and location of exurban areas across the United States:

- In the greater **Boston** area (Map 1),

exurbanization has pushed northward into southern New Hampshire, and westward into Worcester County. Within Massachusetts, most communities inside Interstate 495 are either too dense, or too slow-growing, to qualify as exurbs. Just beyond the interstate, however, lies a series of rapidly growing commuter towns, like Lancaster, Sterling, Bolton, and Harvard, where lower-density development predominates. Meanwhile, the smaller city of Worcester itself has spawned exurban development to its west, in towns like Barre, Hubbardston, and Westminster. Several tracts in and around Worcester qualify on our commuting criterion (yellow areas) because they still maintain significant commuting ties to the larger Boston urbanized area, but they are too high-density and slow-growing to be exurban.

- **Chicago** (Map 2) has sprouted a considerable number of exurban communities in former farmlands throughout the metro area, and in some instances, beyond. Outside the metro area's older counties of Cook and DuPage, exurbs are evident in the remaining eight counties—most notably in McHenry County to the city's northwest, where nearly one-quarter of residents live in exurban census tracts. The region's exurbs extend into southern Wisconsin and western Indiana; more than half the residents of Jasper County, IN live in fast-growing, low-density areas with significant commuting ties to the Chicago area's urban core.

- The map of the greater **Los Angeles** area (Map 3) highlights the region's polycentric nature. The dark green areas on the map represent exurbs not only to the city of Los Angeles and its immediate environs, but to other large cities throughout the region, such as Long Beach, Anaheim, Thousand Oaks, Riverside, and San Bernardino. The extent of the dense urban core (grey areas of

Map 1. Exurban Character of Census Tracts in the Greater Boston Area
Based on Commuting Ties, Population Growth, and Housing Density

Criteria Met by Tract

- None
- Commuting, not density
- Density, not commuting, not growth
- Commuting and density, not growth
- Exurban: All three

Boston-Cambridge-Quincy, MA-NH Metropolitan Statistical Area

Worcester, MA Metropolitan Statistical Area

Source: Brookings Institution analysis of Census 1990 and 2000 data

Map 2. Exurban Character of Census Tracts in the Greater Chicago Area
Based on Commuting Ties, Population Growth, and Housing Density

Criteria Met by Tract

- None
- Commuting, not density
- Density, not commuting, not growth
- Commuting and density, not growth
- Exurban: All three
- Chicago-Naperville-Joliet, IL-IN-WI Metropolitan Statistical Area

Source: Brookings Institution analysis of Census 1990 and 2000 data

Map 3. Exurban Character of Census Tracts in the Greater Los Angeles Area
Based on Commuting Ties, Population Growth, and Housing Density

Bakersfield, CA MSA

Oxnard-Thousand Oaks-Ventura, CA MSA

Riverside-San Bernardino-Ontario, CA MSA

Los Angeles-Long Beach-Santa Ana, CA MSA

Kern

Ventura

Los Angeles

San Bernardino

Riverside

Orange

San Diego

Criteria Met by Tract

- None
- Commuting, not density
- Density, not commuting, not growth
- Commuting and density, not growth
- Exurban: All three
- Los Angeles-Long Beach-Santa Ana, CA Metropolitan Statistical Area

0 3.75 7.5   15   22.5   30
Miles

Map 4. Exurban Character of Census Tracts in the Greater Washington Area
Based on Commuting Ties, Population Growth, and Housing Density

Criteria Met by Tract

- None
- Commuting, not density
- Density, not commuting, not growth
- Commuting and density, not growth
- Exurban: All three
- Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Statistical Area
- Baltimore-Towson, MD Metropolitan Statisitical Area

Source: Brookings Institution analysis of Census 1990 and 2000 data
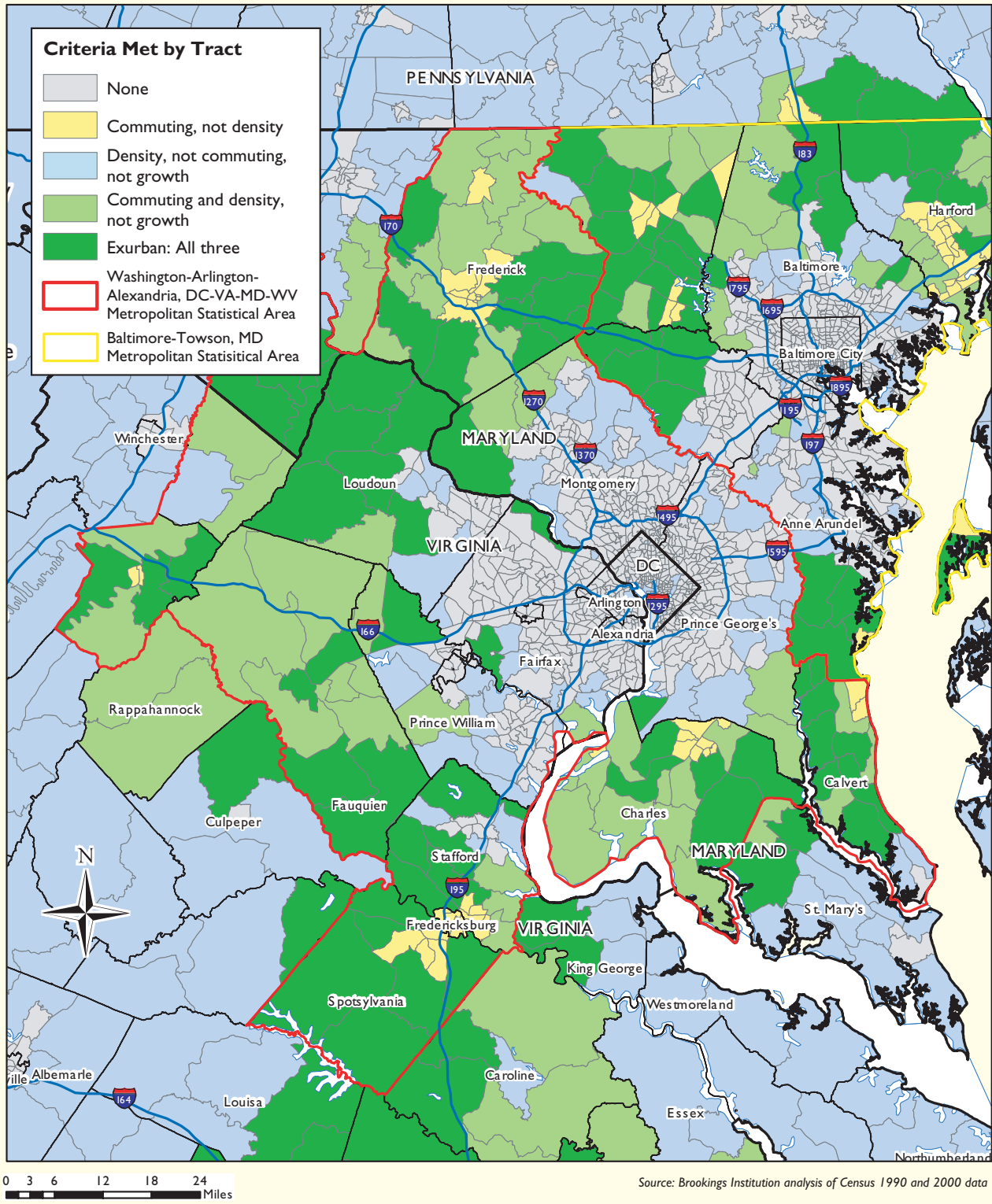
Box 2. Whose Exurb?

In this section, we associate exurban census tracts with the metropolitan areas in which they are located, and in the case of tracts outside metro areas, with the metro area to which they have their most significant commuting ties. As a result, satellite areas like Poughkeepsie, NY and Worcester, MA, rank among the most highly exurban metro areas, in part because many of their residents commute to nearby large metro areas. Relating exurban tracts to metro areas in this way maintains consistency with other parts of our analysis, which assign tracts to the regions and states (Findings A and B) and counties (Findings D and E) in which they are located.

Under an alternative approach, one could associate each exurban tract not with its "home" metro area, but with the metro area to which it has qualifying commuting ties. In this view, some exurbs in Worcester County, MA would be assigned to the Boston metro area; likewise, exurbs in Dutchess and Orange counties, NY would relate to the New York, rather than Poughkeepsie, metro area.

How would a commuting-based assignment change our rankings? The vast majority of metro areas would not change their relative position very much. Only 13 out of the 88 large metro areas change by at least six positions within the list in either direction under this alternative allocation scheme (see table below). Those shedding significant amounts of exurbia under the commuting approach include Worcester and Poughkeepsie, as well Riverside and Oxnard (satellites to the Los Angeles metro area) and Allentown (a satellite to both New York and Philadelphia). Gaining are regions that draw in commuters from surrounding metro areas, including Milwaukee (from Madison and Chicago), Los Angeles, and Boston. Some gains represent the addition of only one census tract (e.g., Dayton, Stockton, and Virginia Beach). In the majority of places, the two methods produce minor differences, or none at all.

In the end, viewing exurbs through the lens of their own metropolitan areas puts the issues associated with their growth and development squarely at the feet of policymakers who must contend with these issues on a daily basis. Nonetheless, it is useful to examine how "exurbanized" metro areas like Boston, New York, and Los Angeles appear through the commuting kaleidoscope.

Difference in Percentage Exurban Rank, Location-Based versus Commuting-Based Allocation of Exurban Tracts, Large Metropolitan Areas

Metro Area*	Location-Based			Commuting-Based		
	Exurban Population	% in Exurbs	Rank	Exurban Population	% in Exurbs	Rank
Exurban Population Increases						
Boston, MA-NH	130,785	3.0	75	248,363	5.7	52
Milwaukee, WI	116,780	7.8	38	148,708	9.9	28
Stockton, CA	26,432	4.7	64	29,101	5.2	56
Bridgeport, CT	18,985	5.3	57	51,696	5.9	50
Dayton, OH	21,242	2.5	77	28,492	3.4	70
Virginia Beach, VA	95,292	6.0	52	100,654	6.4	45
Los Angeles, CA	111,598	0.9	86	277,066	2.2	80
Exurban Population Decreases						
Springfield, MA	35,795	5.3	58	28,312	4.2	64
Poughkeepsie, NY	200,728	32.3	1	70,489	11.3	23
Allentown, PA	80,705	10.9	25	44,485	6.0	49
Oxnard, CA	47,920	6.4	48	17,864	2.4	78
Riverside, CA	217,750	6.7	44	87,216	2.7	76
Worcester, MA	149,104	19.9	8	34,428	4.6	62

Metro area names abbreviated; full names displayed in Appendix A

Source: Brookings Institution analysis of Census 2000 data

the map) is striking, reflecting the natural barriers to low-density development that have limited the overall degree of exurbanization in the region. The yellow areas, which maintain significant commuting ties with more than one of the region's urbanized areas, occur frequently as well. Nodes of exurban development are nonetheless evident in several parts of greater Los Angeles, including: southern Orange County around Laguna Niguel; northern Los Angeles County outside of Lancaster and Palmdale; the outskirts of Simi Valley and other areas surrounding Thousand Oaks; and inner Riverside County near Corona and Ontario. Yet the map may make exurbanization in the region look slightly more prevalent than it is, since many dark green tracts are actually sparsely populated desert and mountain areas.

- Measured as a proportion of metropolitan population, **Washington's** exurbs are the largest among these four regions (Map 4). The tentacles of the Washington region reach far south into Spotsylvania County, VA, where they begin to bleed into Richmond's northern exurbs; west into Warren County, VA, at the base of the Shenandoah Mountains; north into Frederick County, MD; and to the southeast in Calvert, Charles, and St. Mary's counties, MD. Baltimore, pictured partially on the map, also exhibits significant exurban development, and its exurbs meet Washington's in fast-growing western Howard County, MD. Unlike in Boston, Chicago, and Los Angeles—regions bounded by water on one side—development in the Washington region is occurring on all four sides of the urban core.

D. Nationwide, 245 counties have at least one-fifth of their residents living in exurban areas.
Analyzing exurban population at the census tract level provides a fine-grained view of where, and how much, exurban development occurs in and around metropolitan areas. But questions regarding who lives in exurbia are just as important for understanding what drives the growth of these communities, and what, if anything, differentiates them from the rest of suburbia.

Identifying Exurban Counties
Unfortunately, the decennial census is practically the only data source that provides tract-level information on household social and economic characteristics. For some statistics presented in this and subsequent sections, Census 2000 provides the most recent information available to describe these characteristics. To take advantage of newer data, we aggregate census tracts to the county level, and profile so-called exurban counties and their inhabitants using a variety of national demographic and economic data sources.

As noted in the Methodology section, census tracts are small enough areas that designating a whole tract, and 100 percent of its residents, as "exurban" probably does not create considerable error. By contrast, labeling a whole county as "exurban" is more difficult, since counties are much larger entities, especially in the Western U.S. and New England.

To determine a threshold for identifying exurban counties, we ranked all U.S. counties on the percentage of their populations living in exurban census tracts (Appendix Figure A). Overall, 574 counties contained at least one exurban census tract. Of these, 329 counties had less than 20 percent of their populations living in exurban areas, containing 5.1 million people (47 percent of total exurban population). A lower-bound threshold of 20 percent to identify exurban counties, then, captures a slight majority (53 percent) of all people living in exurban areas. Furthermore, there exists a significant drop between the number of counties that are 15 to 20 percent exurban (54), and the number that are 20 to 25 percent exurban (37), suggesting that a sort of natural break exists at this threshold (see Appendix Figure A). We also compared the list of counties that Lang and Sanchez (2006) identify as exurban to our county rankings, and while our methodological approaches differ, we find significant overlap between their exurban counties and counties that exceed our 20-percent threshold.[24]

Picking 20 percent as our lower-bound threshold, we identify 245 counties (7.8 percent of all U.S. counties) that have significant exurban character. Many of these counties cluster around a handful of metropolitan areas (these counties and some of their characteristics are listed in Appendix Table B). Louisville lays claim to the largest number of exurban counties, with 13 in its metropolitan orbit. Three other metropolitan areas in the South—Richmond, Washington, and Atlanta—possess 11 exurban counties each. Minneapolis-St. Paul and Dallas-Ft. Worth both claim 10. Together, more than one-quarter of all exurban counties lie in and around these six metro areas.

This clustering reflects not only the exurban character of certain metro areas, but also the typical size of counties in their home states. All else equal, smaller counties at the metropolitan fringe are more likely than very large ones to reach the 20-percent exurban threshold. Birmingham, for instance, exhibits a larger exurban population than Louisville (Table 4), but has only five exurban counties to Louisville's 13. Birmingham's exurban counties, however, boast 64,000 people on average, more than double the size of the average exurban county around Louisville. Notably, the Worcester metro area—ranked eighth overall on the ratio of exurban-to-total population—possesses no exurban counties, because it is composed of only county (Worcester County, MA)

that fails to meet the 20-percent threshold. Thus, the number of exurban counties in any one metro area depends on its geographic extent and governance arrangements, as well as the degree of local exurbanization.

Our list of exurban counties contains several of the "usual suspects" identified as such in the popular press—Jackson County north of Atlanta, Scott County outside of Minneapolis-St. Paul, and Fauquier County outside of Washington, D.C.[25] Yet other counties widely cited as exurbs, such as Loudoun County, VA; Forsyth County, GA; Delaware County, OH; and Pasco County, FL, fail to qualify. Each of these counties actually has significant population living in exurban census tracts (and significant land area consumed by exurban development) but not quite enough to represent 20 percent of total county population. In fact, these counties have largely passed the exurban stage

of their life cycles, and are closer to what Lang and Sanchez (2006) term "emerging suburbs" (see below).

In identifying exurbs, we rely on decennial census data. Six years on from Census 2000, however, it is worth inquiring whether exurbs remain growth centers in their respective metropolitan areas. To examine this and several additional questions regarding the demographic and economic profile of exurbs using more recent data, we divide jurisdictions within the 88 metropolitan areas into four types of county-based geographies:[26]

• **Urban counties** (40 in total) have significant central-city populations, and a highly urbanized character. Specifically, one or more of the 123 metropolitan central cities identified in Living Cities Census Series publications, based on city size and metropolitan area name, accounted for at least half the population of these

counties in 2000. Furthermore, at least 95 percent of residents in these counties lived in an urbanized area in 2000. Several are urban city-counties such as Philadelphia, Baltimore, and San Francisco. Others are Sunbelt counties with large, "elastic" central cities such as Houston, Charlotte, and Albuquerque that maintain urban population densities (Rusk 2003).

• **Inner suburban counties** (82 in total) meet either of the criteria to be considered urban, but not both. Some have high population densities but do not contain significant central-city population. Many of these are the "first suburbs" just outside large cities identified by Puentes and Warren (2006), such as Nassau (NY), Montgomery (MD), and Orange (CA). Others contain one or more central cities, but have a majority of their populations living outside them, such as Los Angeles

Table 5. Exurban Population Change, 2000 to 2005

Population Change and Components of Change by County Type

County Type	Number	Population 2000	Population 2005	% Change	Natural Increase	Immigration	Internal Migration
Urban	40	44,279,015	45,581,910	2.9	4.3	4.0	-5.8
Inner Suburban	82	69,143,556	71,912,902	4.0	3.6	3.4	-2.9
Outer Suburban	211	50,637,945	55,178,398	9.0	3.0	1.5	4.6
Exurban	245	14,454,037	16,226,633	12.3	2.7	0.7	9.0
Total	**578**	**178,514,553**	**188,899,843**	**5.8**	**3.5**	**2.8**	**-0.5**

Metro Areas with Largest Absolute Change in Exurban County Population

Metro Area	Population Change 2000–2005 Exurbs	Metro Area	% in Exurbs
Washington-Arlington-Alexandria, DC-VA-MD-WV	139,681	409,300	34.1
Orlando-Kissimmee, FL	121,572	276,867	43.9
Minneapolis-St. Paul-Bloomington, MN-WI	113,401	166,333	68.2
Atlanta-Sandy Springs-Marietta, GA	108,500	649,632	16.7
Houston-Sugar Land-Baytown, TX	91,653	538,657	17.0
Dallas-Fort Worth-Arlington, TX	88,814	629,290	14.1
Chicago-Naperville-Joliet, IL-IN-WI	79,397	323,634	24.5

Source: Brookings analysis of Census 2000 and Census Population Estimates Program data

(CA), Hamilton (OH), and Allegheny (PA). Still others have a large central city, but are built at lower, suburban-style densities, such as Pima (AZ), Guilford (NC), and Travis (TX). On balance, the suburban character of these counties outweighs their urban character.

- **Outer suburban counties** (211 in total) include the residual counties within the 88 large metropolitan areas that do not meet the criteria for any of the other three county types (including exurban counties—see below). Lang and Sanchez (2006) term most of these either "mature suburbs" or "emerging suburbs," and they include growing counties such as Anne Arundel (MD, outside Baltimore), Collin (TX, outside Dallas), Pinal (AZ, outside Phoenix), and Forsyth (GA, outside Atlanta). These counties do not always lie at the outer edges of their metropolitan areas, but the title connotes their position in the metropolis relative to inner suburban counties, and the fact that they are distinct from exurbs, which lie outside the suburban range.
- **Exurban counties** (245 in total) are those described above, both inside and outside large metropolitan areas, that have at least 20 percent of their populations living in census tracts that satisfy the three exurban criteria.

Recent Exurban County Growth

Exurban areas are defined in part by their rapid population growth between 1990 and 2000. County-level analysis suggests that their growth advantage has continued into the current decade. Among the four county types, exurban counties grew fastest overall between 2000 and 2005, by 12.3 percent (Table 5). This was more than double the rate for the 578 counties combined. Thirty-eight (38) exurban counties actually ranked among the 100 fastest-growing in the United States during this period (U.S. Census

Bureau 2006). Outer suburban counties grew by the largest absolute amount, adding 4.5 million people in 5 years, compared to 1.8 million people added to exurban counties.

In fact, within metropolitan areas, population growth in outer suburban counties sometimes outpaced that in exurban counties. In the Dallas metro area, for example, the outer suburban counties of Collin, Delta, Denton, and Rockwall combined for a nearly 30 percent growth rate between 2000 and 2005, compared to 15 percent in Dallas' exurbs. The Austin and Jacksonville areas exhibited similar growth advantages "inside" of their far-flung exurbs. Of the 58 large metro areas that had associated exurban counties, 25 had their fastest population increases in other county types. This pattern suggests that in many metropolitan areas, exurbs remain at the edge of the growth envelope, where rapid smaller-lot, suburban-style development has yet to take root. In the Twin Cities, Orlando, and Washington, D.C. areas, however, exurbs have captured a very significant proportion of recent metropolitan population growth (Table 5).

What is the source of exurbs' continuing growth? In large measure, these counties are growing thanks to domestic in-migration. Between 2000 and 2005, they grew by 9 percent due to internal migration alone, far outstripping comparable rates in the other county types (Table 5). By contrast, they experienced little migration from abroad. And natural increase—the excess of births over deaths—has added relatively less population to exurban counties than to other county types in recent years.

Census Bureau population estimates do not provide information on the exact geographic source of county in-migrants. But IRS county-to-county migration data, applied to the Washington, D.C. region as a case-study example, offer a picture of within-metropolitan migration's importance to

exurban population gain. The Washington area contains three urban jurisdictions, six inner suburban jurisdictions, 11 exurban counties, and five outer suburban counties (Figure 3). Between 2000 and 2004, there was a clear hierarchy of migration within the region. Urban counties—specifically, the District of Columbia, Arlington, VA, and Alexandria, VA—lost considerable population on net to inner suburban jurisdictions. The inner suburbs, in turn, also experienced net migration losses within the region as they re-distributed migrants to outer suburbs and exurbs. The largest net movement was from the inner suburbs to the outer suburbs, particularly from Fairfax County, VA, to the nearby Virginia counties of Loudoun and Price William.[28]

But exurbs gained from these inner suburban counties, too, to the tune of 43,000 people from 2000 to 2004. They also drew residents on net from outer suburban counties, over 22,000 during that time period. What is more, Washington-area exurbs actually experienced a small net loss of residents to other parts of the United States during this period, further highlighting the importance of the inner parts of the Washington metropolis as a source of its exurbs' population gains.

E. The "average" exurb is disproportionately white, middle-income, homeowner-dominated, and commuter-oriented.

Among those acquainted with exurbia, theories and assumptions about its profile abound. Some commonly advanced notions hold that exurbs are characterized by:

- Large non-Hispanic white populations;
- Mostly married-couple family households, especially with children;
- High-income newcomers mixing with moderate-income longtime residents;
- Workers making long-distance "super-commutes" back into the

urban core, and workers telecommuting and working from home;

- A real estate-driven economy, with large numbers of workers employed in construction, landscaping, real estate brokerage, and home-related retail;
- Enormous cookie-cutter "McMansions" abutting old farmhouses; and
- Reliably Republican voters

Having defined and identified exurbs, we explore in this section the accuracy of these hypotheses about exurbs and their residents. Table 6 displays the characteristics of the "average" exurb, one exhibiting the population-weighted mean values on several of the indicators explored below, compared to large-metropolitan averages. In many respects, the average exurban area seems to live up to popular expectations.

Of course, there is no one "average" exurb, and the more detailed explorations below suggest that exurbanites do not always differ dramatically from their suburban counterparts. It also bears emphasizing that not all residents of exurbs exhibit exurban "behavior." That is, many people in these places lived there long before new homebuilding and fast growth began to occur. And while some exurban counties have the majority, or even all, of their residents living in exurban census tracts, others merely meet the 20-percent threshold. Thus, the overall characteristics of exurban-county residents explored here conflate the profiles of newcomers, long-time residents of exurbs, and adjoining areas that do not exhibit exurban character. Using these county proxies, however, enables us to compare a much wider, up-to-date set of demographic and economic indicators in exurbs versus other metropolitan locations.

Race and ethnicity—predominantly white communities
Exurban counties do have a significantly higher representation of non-

Figure 3. Net migration patterns within the Washington, D.C. metropolitan area, 2000 to 2004
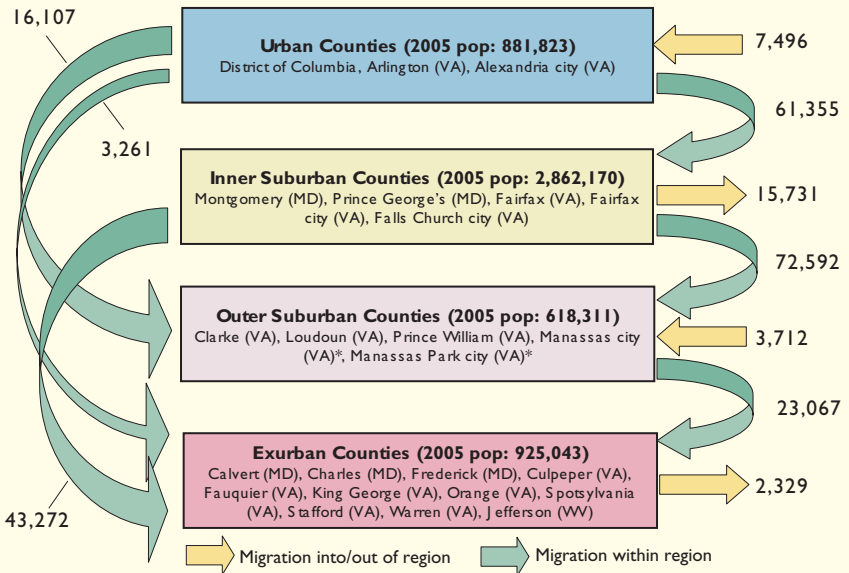
*Source: Brookings Institution analysis of IRS data. *The city-county equivalents of Manassas and Manassas Park, VA have population densities that qualify them as "inner suburban," but are labeled as "outer suburban" here because they lie wholly within outer suburban Prince William County, VA*

Hispanic whites than other large-metro county types. In 2004, over 83 percent of exurban-county residents were non-Hispanic white, compared to 61 percent of large-metro residents overall (Table 7). With the exception of American Indians, each race and ethnic group—including people of two or more races—comprised a lower share of population in exurbs than in any other county type. Moreover, the vast majority of exurban counties—211 of 245 (86 percent) had a white population share that exceeded the national average of 67 percent. Blacks (7.4 percent) constituted a slightly higher share of exurban-county population than Hispanics (6.5 percent).

Although whites are still over-represented in exurban counties relative to their share of the nation's population, exurban counties actually grew slightly more diverse in the 2000s. Between 2000 and 2004, they gained roughly 1 million new white residents, but overall non-Hispanic white share of population declined by 1.6 percentage

points overall, and dropped in 187 of 245 exurban counties.[29]

Household types—slightly more "nuclear" families
The results from Census 2000, the latest available for examining household types at the county level, confirm the hypothesis that exurbs do contain higher proportions of "nuclear" families than other types of places. The differences are not dramatic, however. Overall, about 28 percent of exurban-county households are married-couple families with children, about 2 percentage points higher than in outer suburban counties, and 4 percentage points higher than the large-metropolitan average (Figure 4). The exurban advantage is somewhat larger, actually, with respect to childless married couples. These may represent a mix of younger professional couples who have not yet had children, and empty-nester and retiree households whose children have left home.[30]

People living alone do, notably,

make up a far smaller proportion of households in exurban (21 percent) than urban (30 percent) counties. Not surprisingly, then, the average exurban household (2.67 persons) is slightly larger than that in other types of counties.

Income—largely middle-income

Exurban areas have households at all income levels, but retain a somewhat more middle-income profile than suburbs. The most recent evidence available on household incomes by county comes from tax return data reported by the Internal Revenue Service (IRS), which contains information on taxpayer Adjusted Gross Incomes (AGI).[31]

The income profile of exurban counties largely mirrors that in other suburbs, with one notable difference. Exurbs tilt somewhat more towards middle- and upper-middle-income households than their suburban neighbors, with a greater percentage of their residents in the $40,000 to $60,000, and $60,000 to $100,000 AGI categories. Inner and outer suburbs had relatively more high-income households with AGI of at least $100,000.

Of course, these statistics mask significant variation in the income profiles of exurban counties themselves. Nearly $27,000 separated the typical incomes of households in the richest exurban county (Stafford County, VA)

from those in the poorest exurban county (Torrance County, NM) in 2003 (Table 8). In the counties at the top of the list, roughly one in six households broke the $100,000 barrier, compared to roughly one in 40 at the bottom of the list. Large metro areas such as Washington, New York, Chicago, and the Twin Cities tend to have wealthy exurbs, while low-income exurbs ring somewhat smaller regions in the South such as Knoxville, Memphis, Charlotte, and Tulsa.

Commuting—more early risers and "super-commuters"

Commuting patterns form part of our definition of exurbia. At the census tract level, at least 20 percent of workers must commute to a large urbanized area in order for the tract to be considered exurban (in addition to its meeting density and growth criteria). Thus, we might expect that commuting patterns in exurban counties are distinct from those in other types of metropolitan counties.

This turns out to be the case in some, though not all, respects. A large proportion of workers from exurban counties worked outside their county of residence in 2000—roughly half overall (Table 9). This is a far higher share than in other metropolitan counties (reflecting in part the smaller average geographic size of exurban counties, as well as our method for identifying exurbs). Only 11 percent of

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Table 6. "Average" Exurban County vs. Large Metropolitan Area Characteristics

	Exurban counties (%)	All large-metro counties (%)
% population change (2000-05)	12	6
% non-Hispanic white (2004)	83	61
% married-with-children (2000)	28	24
% with AGI over $100,000 (2003)	8	11
% working outside county of residence (2000)	51	29
% commuting > 1 hour each direction (2000)	11	9
% in manufacturing or construction (2000)	26	19
% homeowners (2000)	78	63
% of new houses with 9+ rooms (2000)	14	20
% voting for Bush (2004)	63	47

Source: Brookings Institution analysis of Census 2000, Population Estimates Program, Internal Revenue Service, and 2004 election data

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Table 7. Race/Ethnic Profile by County Type, 2004

	Urban		Inner Suburban		Outer Suburban		Exurban		Total (race/ethnicity)	
	Population	%	Population	%	Population	%	Population	%	Population	%
White	21,237,954	47.0	39,615,756	55.3	40,187,525	74.0	13,236,748	83.4	**114,277,983**	**61.1**
Black/African American	10,549,626	23.3	9,033,773	12.6	5,114,065	9.4	1,177,314	7.4	**25,874,778**	**13.8**
American Indian	240,034	0.5	495,159	0.7	271,221	0.5	104,351	0.7	**1,110,765**	**0.6**
Asian/Pacific Islander	2,991,678	6.6	5,718,352	8.0	1,699,035	3.1	165,837	1.0	**10,574,902**	**5.7**
Two or More Races	568,986	1.3	1,207,137	1.7	699,923	1.3	163,183	1.0	**2,639,229**	**1.4**
Hispanic	9,624,373	21.3	15,538,624	21.7	6,324,603	11.6	1,029,743	6.5	**32,517,343**	**17.4**

Source: Brookings Institution analysis of Population Estimates Program data

exurban workers commute into an urban county, however; most only go as far as the inner or outer suburbs.[32]

To reach their jobs, exurban residents are more likely than workers from urban or inner suburban counties to drive alone to work, though they are very similar in this respect to residents of outer suburban counties. They are slightly more likely than commuters from other county types to carpool. Only a small fraction—less than 1 percent—use public transit, compared to 16 percent in urban counties, reflecting that most exurban areas have no viable public transportation options.

Contrary to the notion that exurbs are hotbeds for "telecommuters," there is no evidence that exurbanites work from home at higher rates than other metropolitan workers.[33] The vast majority who work outside the home do, however, face longer commutes—roughly one in nine exurban commuters travels more than an hour in each direction to reach his/her job.[34] Park and Pike counties, at the far edges of the Denver and New York metro areas, respectively, have the highest proportions of these "super-commuters" among exurban counties (Table 10). Exurban commuters also hit the road earlier than other metropolitan workers, with roughly one in seven starting his/her commute before 6 AM. "Early riser" exurbs include a mix of counties at the edge of traffic-snarled metro areas like Washington and Houston, where exurbanites might depart early to beat the rush, and counties where agricultural jobs remain important, around metro areas like Louisville.

Employment—more manufacturing, construction, and farming jobs
In *On Paradise Drive*, David Brooks portrays the archetypal exurban household headed by a married couple, "Patio Man" and "Realtor Mom." Not only is one member of the couple employed in the real estate industry,

Figure 4. Household Types by County Type, 2000
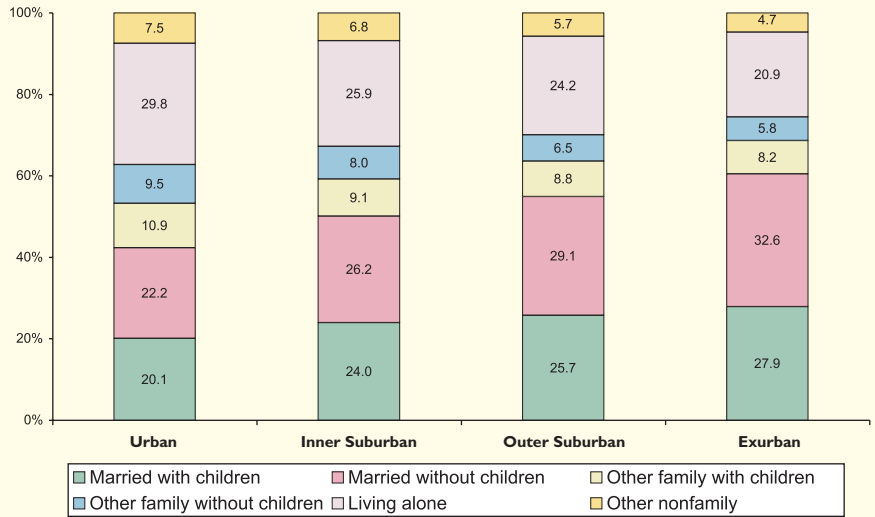
Source: Brookings Institution analysis of Census 2000 data;
"Children" refers to own children under the age of 18

Figure 5. Taxpayers by Adjusted Gross Income and County Type, 2003

Source: Brookings Institution analysis of IRS data

Table 8. Top and Bottom Exurban Counties by Median Adjusted Gross Income, 2003

	County	Metro Area*	Median AGI ($)	% over 100k
1	Stafford, VA	Washington, DC-VA-MD-WV	47,214	17.5
2	Scott, MN	Minneapolis-St. Paul, MN-WI	46,218	15.3
3	Sussex, NJ	New York, NY-NJ-CT-PA	45,673	16.4
4	Calvert, MD	Washington, DC-VA-MD-WV	45,531	17.5
5	Carver, MN	Minneapolis-St. Paul, MN-WI	45,215	17.5
6	Fauquier, VA	Washington, DC-VA-MD-WV	44,907	18.2
7	McHenry, IL	Chicago, IL	44,698	15.8
8	Livingston, MI	Detroit, MI	44,618	16.5
9	Elbert, CO	Denver, CO	44,080	14.3
10	Frederick, MD	Washington, DC-VA-MD-WV	42,804	15.6
236	Sevier, TN	Knoxville, TN	22,074	4.0
237	Atascosa, TX	San Antonio, TX	22,059	3.1
238	Waller, TX	Houston, TX	21,938	4.6
239	Marshall, MS	Memphis, TN-AR-MS	21,880	2.5
240	Saluda, SC	Columbia, SC	21,799	2.5
241	Anson, NC	Charlotte, NC-SC	21,348	2.3
242	Okmulgee, OK	Tulsa, OK	21,189	2.2
243	Union, TN	Knoxville, TN	21,125	2.0
244	Washington, MO	St. Louis, MO-IL	21,110	1.3
245	Torrance, NM	Albuquerque, NM	20,429	2.0
	All Exurban Counties		**31,605**	**8.4**

Source: Brookings Institution analysis of IRS data
*Names abbreviated; full names displayed in Appendix Table A

Table 9. Commuting Characteristics by County Type, 2000

	Percentage of Workers (unless otherwise noted)			
	Urban	Inner Suburban	Outer Suburban	Exurban
Counties (number)	40	82	211	245
Work Location				
Work outside county of residence	22.0	22.6	35.4	50.8
Work in an:				
Urban county	87.1	8.6	10.7	11.7
Inner Suburban county	6.3	85.1	12.1	14.8
Outer Suburban county	5.0	4.5	72.7	13.9
Exurban county	0.7	0.7	1.4	53.1
Other county	1.0	1.1	3.1	6.5
Commuting Mode				
Drive alone	63.5	74.4	80.8	80.6
Carpool	12.2	12.2	10.9	12.7
Public transit	15.7	6.2	2.1	0.8
Work at home	2.8	3.3	3.2	3.2
Commuting Time				
At least 60 minutes (in one direction)	10.3	8.9	7.7	11.5
Leave before 6 AM	9.8	9.8	10.8	14.4

Source: Brookings Institution analysis of Census 2000 data

but their personal endeavors revolve around the home—having the perfectly manicured lawn, a spacious backyard deck, the most powerful gas grill available on the market.

Brooks' scene is mostly caricature, of course. But it hints at what many consider to be powerful home-related economic drivers in exurbia, such as homebuilding, home sales, and home improvement.

While they do not allow us to look at detailed industries like home-related retail, or architecture and landscaping, Census 2000 data do reveal that exurban-county residents are more likely to work in construction than other metropolitan residents. In 2000, 9 percent of workers from exurban counties were employed in the construction industry; compared to 6 percent of workers from other metropolitan counties (Figure 6). Construction accounted for an especially significant portion of jobs in boom-county exurbs outside of Virginia Beach (Currituck County, NC); Denver (Park and Elbert counties, CO); and Atlanta (Pickens and Walton counties, GA). The proportion of exurban-county workers employed in real estate, however, appeared no different than in other metropolitan counties. Only in Summit County, UT (east of Salt Lake City) were more than 5 percent of workers employed in that industry.

Besides construction, two other industries appear to exhibit a locational preference for exurban counties. Farming, not surprisingly, is more important in the exurbs, though less so than in prior decades—only about 2 percent of exurban residents were employed in agriculture and mining in 2000. Manufacturing looms largest among exurban industries, accounting for a much higher proportion of jobs (17 percent) than in the remainder of large metropolitan areas (13 percent) (Figure 6). This makes sense, given the land intensity of manufacturing, and the decreasing price of land as

Table 10. "Super-Commuter" and "Early Riser" Exurbs, 2000

Super-Commuter Exurbs

	County	Associated metro area*	Total commuters	Workers with 60+ minute commute	Super-commuter share (%)
1	Park, CO	Denver, CO	7,110	2,344	33.0
2	Pike, PA	New York, NY-NJ-CT-PA	18,643	5,712	30.6
3	Warren, VA	Washington, DC-VA-MD-WV	14,994	4,346	29.0
4	San Jacinto, TX	Houston, TX	7,891	2,156	27.3
5	Charles, MD	Washington, DC-VA-MD-WV	60,032	15,225	25.4
6	Calvert, MD	Washington, DC-VA-MD-WV	36,187	9,127	25.2
7	Amelia, VA	Richmond, VA	5,326	1,334	25.0
8	Van Zandt, TX	Dallas, TX	18,759	4,675	24.9
9	Elbert, CO	Denver, CO	9,863	2,429	24.6
10	Culpeper, VA	Washington, DC-VA-MD-WV	15,469	3,804	24.6

Early Riser Exurbs

	County	Associated metro area*	Total commuters	Workers departing before 6 AM	Early riser commuter share (%)
1	Crawford, IN	Louisville, KY-IN	4,377	1,234	28.2
2	Juniata, PA	Harrisburg, PA	9,915	2,733	27.6
3	Nye, NV	Las Vegas, NV	11,660	3,211	27.5
4	Washington, MO	St. Louis, MO-IL	8,331	2,260	27.1
5	Warren, VA	Washington, DC-VA-MD-WV	14,994	4,050	27.0
6	Liberty, TX	Houston, TX	25,409	6,525	25.7
7	San Jacinto, TX	Houston, TX	7,891	2,003	25.4
8	Bibb, AL	Birmingham, AL	7,754	1,923	24.8
9	East Feliciana, LA	Baton Rouge, LA	7,280	1,784	24.5
10	Breckinridge, KY	Louisville, KY-IN	7,518	1,805	24.0

Source: Brookings Institution analysis of Census 2000 data

* Names abbreviated; Full names displayed in Appendix Table A

one moves outward from the urban core (Glaeser and Kahn 2001).

These job figures provide a snapshot of exurban employment as it existed in 2000. As these areas continue to develop residentially, some may acquire more diversified, higher-value industries and occupations that reflect the growing demands and skills of their populations. In the end, some may shed their exurban status and morph into outer suburban employment centers, even as others remain more rural and single-industry dependent in character.

Housing—more affordable, modestly-sized homes

Exurbs are, by and large, homeowner communities. More than three-fourths of exurban-county residents in 2000 owned their home, a significantly higher proportion than in any other metropolitan county type.

One type of exurbanite homeowner, the sort described by Spectorsky (1955), Nelson (1992), and Brooks (2004), has relocated to the urban fringe to enjoy a countryside or small-town atmosphere, while retaining access to metropolitan amenities such as shopping, culture, and high-paying jobs. These newcomers might live in enormous new houses in gated subdivisions, or in restored farmhouses on large tracts of land that enable them to engage in "hobby farming." They may find themselves living side-by-side with long-time residents of these communities who inhabit homes of far more modest value.

This stereotype, however, overlooks the evidence that exurbs serve as sources of affordable homeownership in many metropolitan areas. In these regions, middle-income families may be "driving to qualify" for a home in their price range, one that does not exist in closer-in suburbs. Lacking detailed information on new home values at the county level, we examine average incomes for owners of new homes in Census 2000—those built between 1995 and 2000—as a proxy for the value of the homes purchased by those households.

Overall, owners of new exurban

Figure 6. Employment by Industry, Residents of Exurban Counties versus Other Metropolitan Counties, 2000

Exurban Counties

Legend:
- Agriculture & Mining
- Construction
- Manufacturing
- Wholesale
- Retail
- Transp/Utilities
- Information
- Finance/Real Estate
- Education
- Professional/Admin
- Health
- Arts/Rec/Hospitality
- Public
- Other

Other Metropolitan Counties
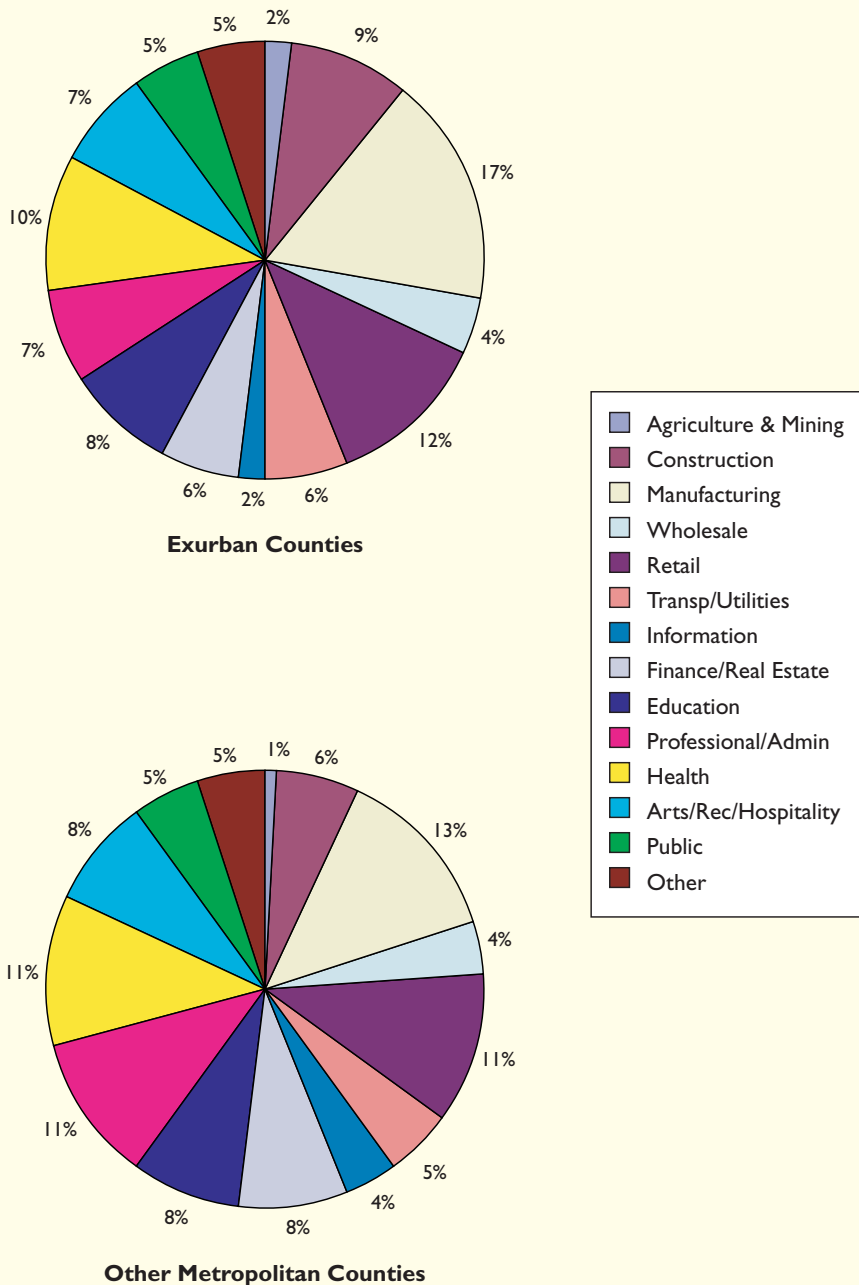
Source: Brookings Institution analysis of Census 2000 data

homes had significantly lower average incomes ($68,790) than owners of new urban ($93,627), inner suburban ($100,010), and outer suburban ($88,618) homes. Thus, while outer suburbs seem slightly more affordable overall than urban or inner suburban counties, new homes in the exurbs were occupied by families with incomes on average $20,000 lower than in outer suburbs.

In theory, this pattern could derive from the disproportionate number of exurban counties located in the South, where incomes tend to be lower. But even within metro areas, high-income households tended to buy nearer the core, while middle-income households bought toward the fringes. In fast-growing areas like Denver and Washington, DC, incomes for owners of new homes are highest in the urban core, and decrease with county distance from the core (Figure 7).[35] In slower-growing areas, especially those with a struggling urban core, new owner incomes tend to be highest in inner and outer suburbs, while exurbs appeal to a middle- and upper-middle-income market. In the Richmond metro area, new exurban homeowners have incomes nearly equal to those in the outer suburbs; in the Philadelphia area, the exurban market is somewhat more middle-income.

Statistics on the size of new homes that exurbanites buy are consistent with their more middle-income status. Based on the fact that the median-sized home nationwide constructed between 1995 and 2000 contained just under six rooms, we categorize "super-sized" homes as those containing nine or more rooms. One in six homes built during that period were that large. In exurbs, these super-sized homes made up one in seven recently-constructed houses in 2000. The proportion of homeowners in inner (21 percent) and outer suburbs (23 percent) that occupied "super-sized" new homes in 2000 was roughly 50 percent higher than in exurbs. Thus, it seems
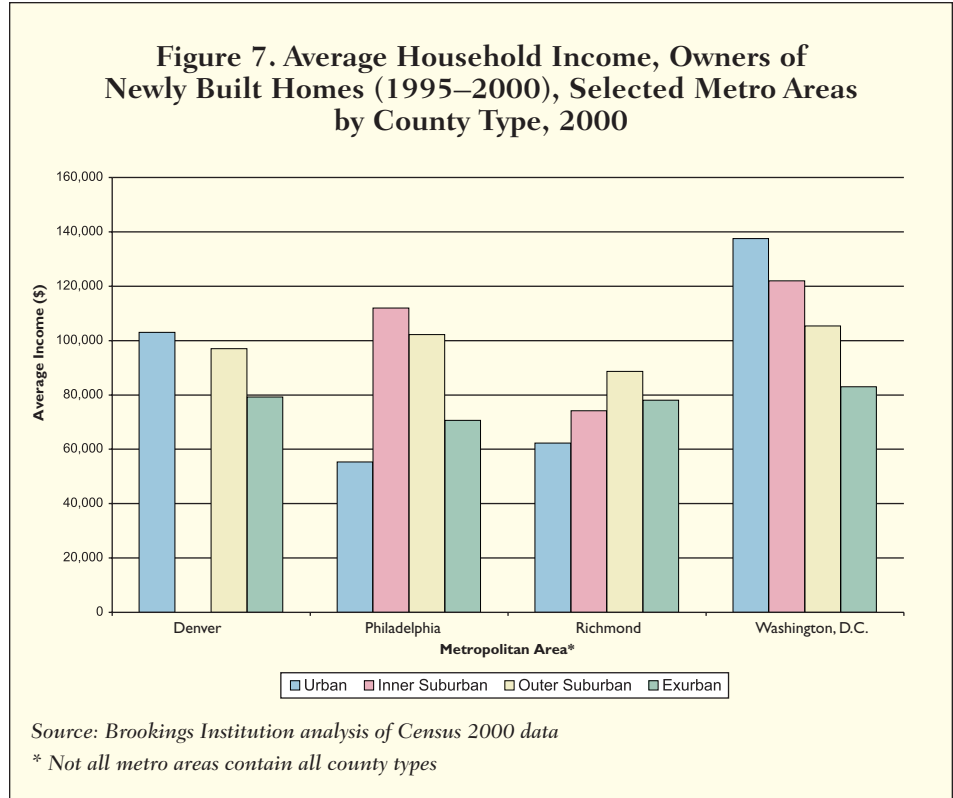
that exurbs generally offer more inter-
mediate, affordable new home types
than do metropolitan suburbs.[36]

Housing affordability, of course, is a
function of both homebuyer incomes
and home prices. Viewed through this
lens, exurban homes do appear some-
what more affordable to their inhabi-
tants than homes elsewhere in
metropolitan areas. In 2000, just
under one-quarter of all exurban
homeowners with mortgages spent
more than 30 percent of their income
on housing, a standard metric for
assessing housing-cost burdens (Fig-
ure 8). This was a lower proportion
than in urban, inner suburban, and
outer suburban counties. About 45
percent spent a modest amount (less
than 20 percent) of income on hous-
ing costs. Interestingly, inner suburban
counties appeared to have the highest
housing costs relative to resident
incomes, with almost one-third of
households spending over 30 percent
of income on those costs.

Politics—heavily Republican, but small vote total

Among all topics related to exurbia,
perhaps the most ink has been spilled
analyzing their political leanings (see
Background). In particular, Teixeira
(2006) acknowledges that Republican
voters dominate exurbia, but points to
Lang and Sanchez's (2006) "emerging
suburbs" as the political battleground
of tomorrow.

Our method for identifying and
classifying exurbs and other county
types differs from Teixeira's (ours also
applies to a greater number of metro-
politan areas), but our basic conclu-
sions echo his.[37] In 2004, 63 percent
of votes cast in exurban counties for
either of the two major-party presiden-
tial candidates went to George W.
Bush. This formed the mirror image of
the situation in urban counties, where
John Kerry captured a little under 63
percent of the vote. The margin was
closest in outer suburban counties,
where less than 6 percentage points

Figure 7. Average Household Income, Owners of Newly Built Homes (1995–2000), Selected Metro Areas by County Type, 2000

Source: Brookings Institution analysis of Census 2000 data
* Not all metro areas contain all county types

separated the two candidates (this
county category overlaps most closely
with Lang and Sanchez's "emerging
suburbs"). So reliably Republican were
the exurbs that only 19 of the 242
counties cast a majority of their ballots
for Kerry.

As Teixeira (2004, 2005, 2006) has
noted, however, the exurbs still form a
small piece of the electoral pie. Our
analysis lends further support to this
view. Of the more than 75 million
votes cast in large metropolitan coun-
ties for either of the candidates in
2004, fewer than 7 million (9 percent)
originated in exurban counties.[38] Elec-
toral dynamics in the inner and outer
suburbs, the source of more than two-
thirds of large-metro votes, will likely
play a much more significant role in
shaping future election results than
shifts in voting behavior occurring at
the exurban fringe. Differing demo-
graphic drivers of growth in and
among these county types may influ-
ence their future political path.[39]

Summary

This section demonstrates that in sev-
eral ways, exurban-county residents
can indeed be distinguished from their
metropolitan neighbors. They are
more likely to: be non-Hispanic white;
live in a "nuclear" family; face daily
"super-commutes" of an hour or more
each way; work in construction or
manufacturing; and vote Republican.
In other important ways, however,
exurbanites do not look that different,
or actually confound some popular
stereotypes. For instance, the exurbs
do not appear to be overrun with real
estate agents. Nor are they generally
destinations for high-income home-
owners living in super-sized new man-
sions. In many metropolitan areas,
though, the growth of exurbs may be
related to middle-income families'
"drive to qualify" for more affordable
new homes that are in limited supply
elsewhere.

As to individual families' reasons for
locating in the exurbs, and their aspi-
rations for life there, these nationwide

Figure 8. Percentage of Income Spent on Housing Costs, Homeowners with Mortgage, by County Type, 2000

County Type	Less than 10%	10% to 20%	20% to 30%	30% to 40%	Over 40%
Exurban	6.8	38.7	30.3	11.8	12.3
Outer Suburban	6.6	36.7	30.8	12.6	13.3
Inner Suburban	6.7	33.0	29.7	13.8	16.9
Urban	7.6	36.3	28.5	12.3	15.3

Source: Brookings Institution analysis of Census 2000 data

Figure 9. Presidential Vote Totals by Candidate and County Type, 2004*

Kerry | Bush

	Urban	Inner Suburban	Outer Suburban	Exurban
Kerry	62.6%	55.1%	47.1%	36.9%
Bush	37.4%	44.9%	52.9%	63.1%

Democratic and Republican candidates only
Source: Brookings Institution analysis of Census 2000 data

data are merely suggestive. There is clear variation among exurban counties themselves on many of the indicators described here, which forms the subject of the next section.

Discussion

In this paper, we have attempted to "find exurbia" in an effort to inform not just news stories about the exurbs, but the very policies that shape metropolitan development patterns. We find that exurbs emerge to varying degrees in different regions of the country, and serve somewhat different functions depending on their location. Consequently, it is difficult to generalize about the policy factors that drive exurbanization, or curb it, and we have only begun to scratch the surface on these issues. As a next step for research, we would recommend "unpacking" the various types of exurban areas in order to dig deeper into the variable causes of their growth, and the consequences of that growth for efforts to achieve sustainable metropolitan development. This might involve, among other strategies, interviewing new households in different types of exurbs to discover their motives for relocating (see Davis and Nelson (1994)).

Thus far, we have been studiously neutral in our descriptions of exurbs, in order to identify and describe them as objectively as possible. Yet evidence and observation suggest that exurbs represent a sub-optimal form of development.

To be sure, some exurbanites prefer the acreage and semi-rural lifestyle that living "out there" offers, and are more than willing to endure long commutes to their jobs to secure it. For some, exurbs satisfy an ever-growing demand for new, large housing. When offered a range of conventional housing options, most potential homebuyers surveyed (from 71 to 83 percent) prefer single-family, detached
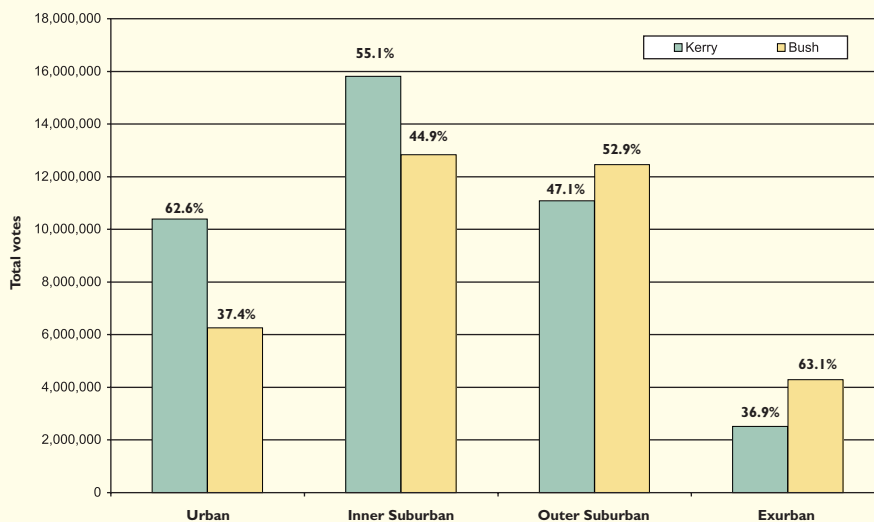
dwelling (Fannie Mae Corporation 1997; National Association of Home Builders 1999). Over the past 45 years, the size of the average new single-family home increased from 1,200 to 2,343 square feet (U.S. Census Bureau 2005).

But given a greater range of viable housing options, many exurban residents (perhaps with the exception of those living in "recreation exurbs," described below) might prefer to live elsewhere in the metropolis, closer to jobs, in safe communities with good schools and nearby amenities. Preference surveys reflect continued demand among homebuyers for large lots (57 percent preferring more than one acre), but also the ability to walk to stores and restaurants (51 percent) and have reasonable daily commutes (79 percent desiring 45 minutes or less) (National Association of Realtors 2004). Much exurban development seems to be satisfying the first preference in lieu of the other two.

Moreover, a significant body of research evidence demonstrates that such low-density development patterns are fiscally inefficient, and forego the productivity gains that smarter growth development patterns can generate (Muro and Puentes 2004). It is not clear that these negative externalities are fully captured in the prices that new exurban residents pay for their homes and land.[40]

Nor are the transportation costs associated with exurban living readily apparent to many residents. New research is demonstrating that the increased transportation costs that encumber households in exurban locations may severely mitigate the benefits that accrue to those households from the less expensive housing found there. In a recent Brookings publication, the Center for Transit-Oriented Development and Center for Neighborhood Technology (2006) found that fewer transportation options and longer commutes in outer parts of the Twin Cities area cause affordability

Affordable Exurbs—Examples	
Boston	Strafford County, NH
Dallas	Henderson and Hunt counties, TX
New York	Dutchess County, NY and Pike County, PA
Philadelphia	Cecil County, MD
Portland	Yamhill County, OR

rates to vary greatly. Policymakers and planners have only recently begun to consider housing affordability in the context of the transportation costs associated with neighborhoods in which new homes are located.

The profile of exurbs developed in this paper points toward the existence of at least a few different exurban types, explored below. A full review of the policy levers that may promote or curb exurbanization is beyond the scope of this descriptive analysis. For each of the exurban types described, however, we identify policy areas that deserve further scrutiny from state, local, and regional leaders seeking to understand the differing drivers of exurbanization. This is by no means an exhaustive account of all types of exurbs that exist today, nor do we attempt to place every exurban county into one of these categories. This discussion instead aims to illustrate the diverse range of exurbs and their residents, and seeks to provoke additional research into why these places have emerged and how public policy should respond.

Affordable exurbs.

In a number of large metropolitan areas, particularly those on the East and West coasts, exurbs appear to offer new housing that is considerably more affordable to middle-income homebuyers than new housing elsewhere in the metro area. This does not mean that the cities or older suburbs in these areas have no affordable housing stock whatsoever, but rather that most owner-occupied housing closer to the core tends to be quite

expensive, and perhaps out of many families' reach. Considering that most of these metro areas are growing at a moderate pace or faster, they have a need for new housing. Yet a range of policy or planning factors may limit the supply of housing generally, and affordable housing specifically, in closer-in jurisdictions, pushing somewhat affordable development to the urban fringe. Some local governments, including many in the greater Boston, Denver, and San Francisco Bay areas, use exclusionary tools like low-density-only zoning and permit caps that severely limit the supply of apartment buildings and affordable housing (Pendall, Puentes, and Martin 2006). In other cases, building codes in cities and first suburbs may drive up the costs of rehabilitation and re-use of older housing stock, or effectively prevent redevelopment altogether (Burby, Salvesen, and Creed 2006).

Inclusionary zoning requirements and special subsidies for key public-sector workers have emerged as responses to the lack of affordable housing in cities and older suburbs, but these tools are still used relatively infrequently across the United States. In addition to considering programs such as these, policymakers contending with rapid growth in "affordable exurbs" should also update local measures of housing affordability to reflect the full range of location costs, including transportation.

Recreation exurbs.

Access to natural amenities, such as lakes, mountains, forests, and temperate climate, has long been recognized

Recreation Exurbs—Examples	
Austin	Burnet and Blanco counties, TX (Texas Hill Country)
Denver	Park and Gilpin counties, CO (Rocky Mountains)
Providence	Washington County, RI (Narragansett Bay and Long Island Sound)
Seattle	Island County, WA (Puget Sound)
Stockton	Calaveras County, CA (Sierra Nevada foothills)

as a major driver of growth in rural areas (McGranahan 1999). As most exurban areas lie at the intersection of rural and urban America, many have experienced rapid growth precisely because they are proximate to these attractive settings. Indeed, about one-tenth of the exurban counties identified in this report score high on McGranahan's Natural Amenity Index. In many of these locales, including those listed below, second homes—for recreational or seasonal use—account for at least one-fourth of the housing stock.

Thus, even with a healthy local recreation-based economy, these places exhibit important economic connections to their nearby large metropolitan areas. While other exurbs have grown due to land-use conversions—from agriculture to housing development—the recreation exurbs have undergone more of a "housing conversion," from seasonal to year-round living. Advances in technology and changes in the way people work have enabled more workers to establish their primary residences in these locales. As an educated, high-income Baby Boom generation moves into its pre-retirement and semi-retirement years, development will likely continue to proceed apace in these counties, and their metropolitan connections may grow even stronger. New challenges will undoubtedly arise for efforts to preserve the resource systems that make these recreation exurbs such valued locations in the first place. Overall, growing incomes and natural beauty virtually guarantee

future growth in these types of exurbs; the test for state, regional, and local planners will be to accommodate that growth in a balanced and efficient way.

Favored-quarter exurbs.
In a minority of metro areas, exurbs are not exactly the affordable-housing haven for middle-income homebuyers. They feature more upscale homes, occupied by high-income households seeking the semi-rural lifestyle enjoyed by Spectorsky's exurbanites some 50 years ago. Many large and prosperous metro areas noted above—like New York, Washington, and the San Francisco Bay Area—have these types of exurban communities.

But these exurbs are somewhat more prominent in slow-growth areas of the country that have underperformed the rest of the nation economically in recent decades. In these regions, new exurban homeowners are very nearly as wealthy as their counterparts in inner or outer suburbs, and generally much better-off than those in the city. Their houses are typically quite large, with significant acreage. These exurbs have effectively become

part of the "favored quarter" for metropolitan residents. This may owe in part to the decentralized nature of these metropolitan economies, as the location of a majority of their jobs far from the central-city downtown reduces commute times for exurban residents (Glaeser, Kahn, and Chu 2001). They may also offer a perceived refuge from the economic and social distress that afflicts their far-away central cities.

In most of the metro areas that feature these favored-quarter exurbs, housing unit growth outpaced household growth significantly over the 1990s (Bier and Post 2003), and the trend appears to have continued into the current decade. Thus, exurban growth is occurring largely at the expense of other parts of the region, as jurisdictions compete to acquire the tax base that high-income residents bring. Residents of every region, even those with no net household growth, will exhibit some demand for new and better housing, particularly if their incomes are rising (Gottlieb 2002). A lack of coordinated local land use planning, however, may drive new housing growth to the urban-rural fringe. In these metropolitan areas, first suburbs and central cities that are losing higher-income households to the exurbs might consider joining forces to push for statewide and regional growth management reforms that require greater local collaboration, and bring the pace of development into line with projected growth (Puentes and Warren 2006).

Favored-Quarter Exurbs—Examples	
Baltimore	Carroll County, MD
Cleveland	Geauga County, OH
Detroit	Livingston County, MI
Hartford	Tolland County, CT
New Orleans	St. Tammany Parish, LA
Richmond	Goochland County, VA

Many other exurbs do not fit neatly into any of the categories explored above. Exurbs around cities like Louisville, Nashville, and Tulsa, for instance, seem to provide new homes that are affordable, but not significantly less expensive than those in the inner or outer suburbs of those metropolitan areas. Counties such as DeSoto (MS), Wagoner (OK), and Nelson (KY) are not blessed with considerable natural advantages. Neither do they form part of the "favored quarter" in declining regions, since they are located in areas of the country that are growing.

Still, several metropolitan areas feature exurbs like these that simply lie within the path of rapid residential development. For instance, the exurbs of Virginia Beach and Norfolk contained 11 percent of that region's population in 2000, but have captured 26 percent of recent housing growth. Around Memphis, exurban counties contained 21 percent of metropolitan population in 2000, but have reaped 38 percent of new housing since then. The pattern is repeated in several other metropolitan areas, especially those in the Midwest and South where few natural barriers impede continued outward growth. Over the past two decades, these areas have consumed significant amounts of formerly agricultural lands to accommodate population growth. The Nashville metro area, for instance, urbanized an average of nearly one acre of land between 1982 and 1997 for each additional resident (and even more per household) of the region (Fulton et al. 2001).[41]

Local and regional leaders in areas like these should recognize the distinct possibility that these exurbs are well on their way to graduating from exurban status into what Lang and Sanchez (2006) term "emerging suburbs." As such, political and corporate leaders must consider how future metropolitan growth can be accommodated in a more compact, fiscally efficient manner as these places continue to add housing and jobs. Otherwise, low-density "build-out" could fuel rapid growth farther out in the region, creating even more severe economic and environmental challenges.

Conclusion

After so much analysis, it is worth returning to a question posed much earlier in the paper: *Are exurbs that big a deal?* We find that the roughly 11 million residents of exurbia amount to just 6 percent of the population of large metropolitan areas to which they attach. As such, exurbs are probably receiving a slightly outsized share of attention nationally. Politically, these jurisdictions were not alone responsible for the outcome of the 2004 presidential election (Teixeira 2005). Some might be tempted to joke that exurbanites are nothing more than "fringe elements" in their metropolitan areas, and hardly represent the norm.

If exurbs signal the possible shape of things to come, however, that makes them all the more important to understand today. Spectorsky's *The Exurbanites* is a fascinating period piece, but it failed to foresee a contemporary New York metropolis in which Poughkeepsie—another 50 miles north of Rockland County— forms the exurban frontier. Absent continued research and policy focus as to the causes and consequences of exurban growth, we might find ourselves wondering in 2050 how New York's exurbs arrived in Albany. We hope that the foregoing analysis provides a useful baseline for further inquiry, and helps state and local leaders wrestle with some of the economic, environmental, fiscal, and quality-of-life issues posed by their fast-growing fringe communities.

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Appendix Figure A. Number of counties by percentage exurban, and cumulative share of exurban population, 2000
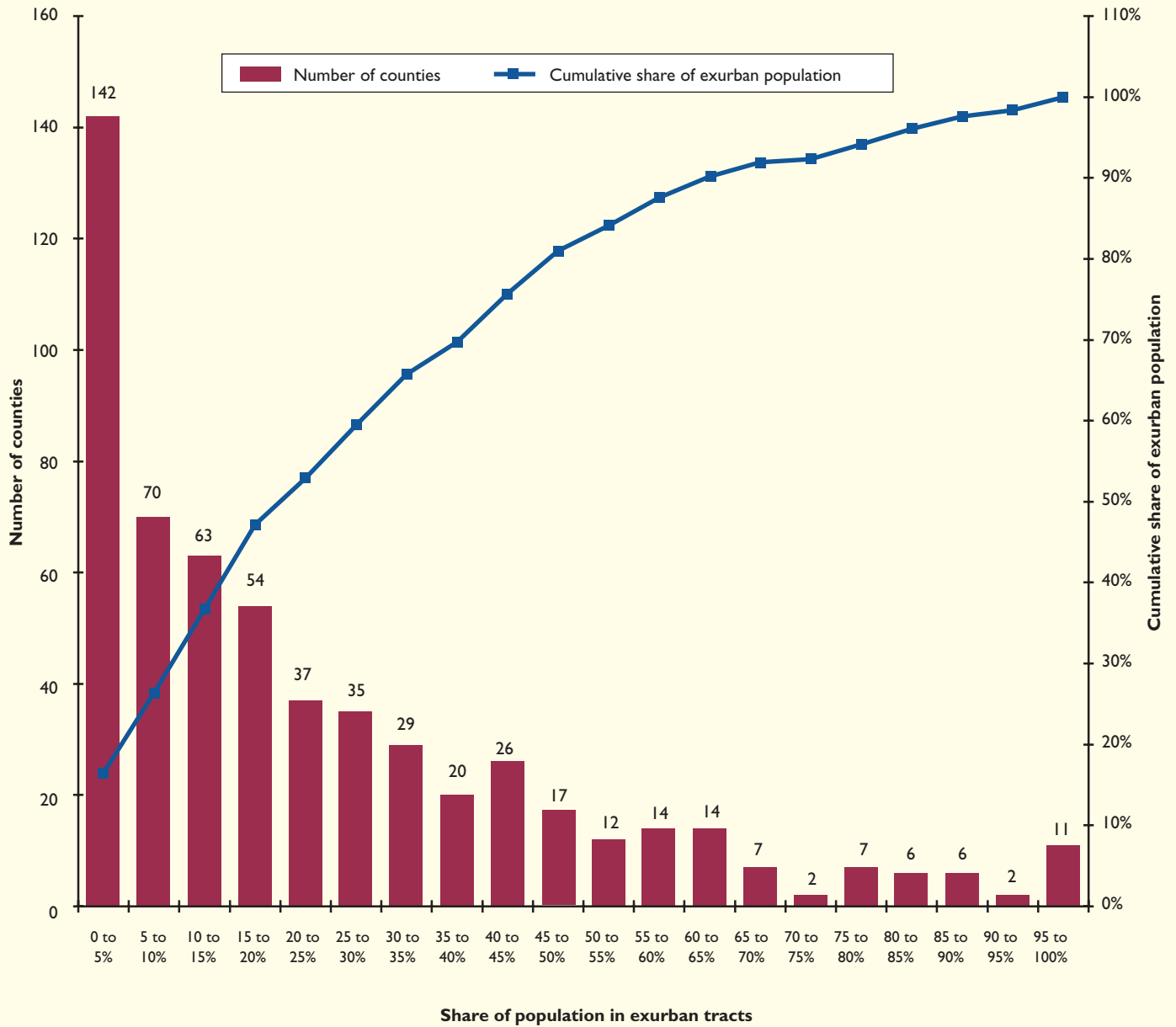
Source: Brookings Institution analysis of decennial census data

Appendix Table A. Large Metropolitan Areas by Percent Exurban, 2000

	Metropolitan Area	Region	Population 2000	Exurban Pop Inside Metro	Exurban Pop Outside Metro	Total Exurban Pop, 2000	Percent Exurban, 2000*	Exurban Counties
1	Poughkeepsie-Newburgh-Middletown, NY	NE	621,517	174,747	25,981	200,728	32.3%	2
2	Little Rock-North Little Rock, AR	S	610,518	121,049	23,279	144,328	23.6%	6
3	Grand Rapids-Wyoming, MI	MW	740,482	110,777	57,746	168,523	22.8%	3
4	Greenville, SC	S	559,940	91,553	32,181	123,734	22.1%	1
5	Madison, WI	MW	501,774	80,537	29,590	110,127	21.9%	3
6	Birmingham-Hoover, AL	S	1,052,238	208,935	15,194	224,129	21.3%	5
7	Knoxville, TN	S	616,079	85,341	44,156	129,497	21.0%	6
8	Worcester, MA	NE	750,963	141,883	7,221	149,104	19.9%	0
9	Nashville-Davidson—Murfreesboro, TN	S	1,311,789	236,654	16,446	253,100	19.3%	8
10	Austin-Round Rock, TX	S	1,249,763	209,366	12,245	221,611	17.7%	5
11	Louisville, KY-IN	S	1,161,975	190,029	12,821	202,850	17.5%	13
12	Columbia, SC	S	647,158	96,191	13,875	110,066	17.0%	6
13	Tulsa, OK	S	859,532	140,503	5,060	145,563	16.9%	6
14	Raleigh-Cary, NC	S	797,071	117,303	14,585	131,888	16.5%	2
15	Greensboro-High Point, NC	S	643,430	83,346	21,252	104,598	16.3%	1
16	Charleston-North Charleston, SC	S	549,033	75,323	10,319	85,642	15.6%	1
17	Oklahoma City, OK	S	1,095,421	154,160	7,631	161,791	14.8%	4
18	Harrisburg-Carlisle, PA	NE	509,074	61,989	11,152	73,141	14.4%	2
19	Richmond, VA	S	1,096,957	153,501	0	153,501	14.0%	11
20	Charlotte-Gastonia-Concord, NC-SC	S	1,330,448	95,481	73,235	168,716	12.7%	3
21	Minneapolis-St. Paul-Bloomington, MN-WI	MW	2,968,806	342,512	27,900	370,412	12.5%	10
22	San Antonio, TX	S	1,711,703	211,624	0	211,624	12.4%	7
23	Albuquerque, NM	W	729,649	74,276	10,804	85,080	11.7%	2
24	Kansas City, MO-KS	MW	1,836,038	190,225	20,453	210,678	11.5%	9
25	Allentown-Bethlehem-Easton, PA-NJ	NE	740,395	64,992	15,713	80,705	10.9%	1
26	St. Louis, MO-IL	MW	2,698,687	259,470	22,618	282,088	10.5%	8
27	Memphis, TN-MS-AR	S	1,205,204	125,307	0	125,307	10.4%	5
28	Baton Rouge, LA	S	705,973	72,071	0	72,071	10.2%	4
29	Colorado Springs, CO	W	537,484	50,133	4,536	54,669	10.2%	1
38	Milwaukee-Waukesha-West Allis, WI	MW	1,500,741	88,582	60,126	148,708	9.9%	1
30	Orlando-Kissimmee, FL	S	1,644,561	135,910	22,863	158,733	9.7%	2
31	Columbus, OH	MW	1,612,694	128,261	17,127	145,388	9.0%	5
32	Cincinnati-Middletown, OH-KY-IN	MW	2,009,632	163,406	13,231	176,637	8.8%	8
33	Dallas-Fort Worth-Arlington, TX	S	5,161,544	337,807	106,710	444,517	8.6%	10
34	Baltimore-Towson, MD	S	2,552,994	197,819	17,884	215,703	8.4%	2
35	Wichita, KS	MW	571,166	45,043	2,693	47,736	8.4%	2
36	Tucson, AZ	W	843,746	58,956	11,012	69,968	8.3%	0
37	New Orleans-Metairie-Kenner, LA	S	1,316,510	108,806	0	108,806	8.3%	2
39	Jacksonville, FL	S	1,122,750	80,126	6,105	86,231	7.7%	4
40	Washington-Arlington-Alexandria, DC-VA-MD-WV	S	4,796,183	317,066	39,743	356,809	7.4%	11
41	Scranton—Wilkes-Barre, PA	NE	560,625	12,901	27,742	40,643	7.2%	1
42	Houston-Sugar Land-Baytown, TX	S	4,715,407	330,153	2,870	333,023	7.1%	5
43	Seattle-Tacoma-Bellevue, WA	W	3,043,878	142,489	68,721	211,210	6.9%	1
44	Riverside-San Bernardino-Ontario, CA	W	3,254,821	217,750	0	217,750	6.7%	0
45	Denver-Aurora, CO	W	2,179,240	100,237	44,642	144,879	6.6%	4
46	Cleveland-Elyria-Mentor, OH	MW	2,148,143	124,039	15,993	140,032	6.5%	2
47	Detroit-Warren-Livonia, MI	MW	4,452,557	244,192	44,469	288,661	6.5%	4
48	Oxnard-Thousand Oaks-Ventura, CA	W	753,197	47,920	0	47,920	6.4%	0
49	Fresno, CA	W	799,407	32,962	16,764	49,726	6.2%	0
50	Atlanta-Sandy Springs-Marietta, GA	S	4,247,981	236,041	24,150	260,191	6.1%	11
51	Syracuse, NY	NE	650,154	34,498	5,170	39,668	6.1%	0
52	Virginia Beach-Norfolk-Newport News, VA-NC	S	1,576,370	89,483	5,809	95,292	6.0%	7
53	Hartford-West Hartford-East Hartford, CT	NE	1,148,618	50,782	18,000	68,782	6.0%	1

Appendix Table A. Large Metropolitan Areas by Percent Exurban, 2000 (continued)

Metropolitan Area	Region	Population 2000	Exurban Pop Inside Metro	Exurban Pop Outside Metro	Total Exurban Pop, 2000	Percent Exurban, 2000*	Exurban Counties
54 Rochester, NY	NE	1,037,831	53,608	5,675	59,283	5.7%	1
55 Omaha-Council Bluffs, NE-IA	MW	767,041	42,323	0	42,323	5.5%	3
56 Portland-Vancouver-Beaverton, OR-WA	W	1,927,881	85,987	16,947	102,934	5.3%	1
57 Bridgeport-Stamford-Norwalk, CT	NE	882,567	18,995	28,108	47,103	5.3%	0
58 Springfield, MA	NE	680,014	35,795	0	35,795	5.3%	0
59 Albany-Schenectady-Troy, NY	NE	825,875	30,980	11,255	42,235	5.1%	0
60 Indianapolis, IN	MW	1,525,104	68,138	7,534	75,672	5.0%	4
61 Buffalo-Niagara Falls, NY	NE	1,170,111	52,789	4,803	57,592	4.9%	0
62 El Paso, TX	S	679,622	13,285	19,222	32,507	4.8%	0
63 Akron, OH	MW	694,960	22,643	10,179	32,822	4.7%	0
64 Stockton, CA	W	563,598	14,600	11,832	26,432	4.7%	1
65 Toledo, OH	MW	659,188	28,046	0	28,046	4.3%	0
66 Tampa-St. Petersburg-Clearwater, FL	S	2,395,997	94,285	0	94,285	3.9%	1
67 Bakersfield, CA	W	661,645	25,326	0	25,326	3.8%	0
68 Providence-New Bedford-Fall River, RI-MA	NE	1,582,997	57,922	0	57,922	3.7%	1
69 Phoenix-Mesa-Scottsdale, AZ	W	3,251,876	109,171	8,445	117,616	3.6%	0
70 Chicago-Naperville-Joliet, IL-IN-WI	MW	9,098,316	273,226	44,632	317,858	3.5%	7
71 Sarasota-Bradenton-Venice, FL	S	589,959	20,325	0	20,325	3.4%	0
72 Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	NE	5,687,147	156,823	33,670	190,493	3.3%	1
73 Sacramento—Arden-Arcade—Roseville, CA	W	1,796,857	50,636	5,380	56,016	3.1%	0
74 McAllen-Edinburg-Mission, TX	S	569,463	7,802	9,610	17,412	3.1%	0
75 Boston-Cambridge-Quincy, MA-NH	NE	4,391,344	102,722	28,063	130,785	3.0%	1
76 Las Vegas-Paradise, NV	W	1,375,765	16,176	24,736	40,912	3.0%	1
77 Dayton, OH	MW	848,153	16,786	4,456	21,242	2.5%	0
78 San Francisco-Oakland-Fremont, CA	W	4,123,740	90,795	11,929	102,724	2.5%	0
79 Salt Lake City, UT	W	968,858	18,880	3,657	22,537	2.3%	2
80 San Diego-Carlsbad-San Marcos, CA	W	2,813,833	60,331	0	60,331	2.1%	0
81 Youngstown-Warren-Boardman, OH-PA	MW	602,964	12,870	0	12,870	2.1%	0
82 Pittsburgh, PA	NE	2,431,087	51,035	0	51,035	2.1%	0
83 San Jose-Sunnyvale-Santa Clara, CA	W	1,735,819	16,808	11,377	28,185	1.6%	0
84 Honolulu, HI	W	876,156	11,087	0	11,087	1.3%	0
85 New York-Northern New Jersey-Long Island, NY-NJ-PA	NE	18,323,002	178,384	41,283	219,667	1.2%	3
86 Los Angeles-Long Beach-Santa Ana, CA	W	12,365,627	111,511	0	111,511	0.9%	0
87 New Haven-Milford, CT	NE	824,008	4,593	0	4,593	0.6%	0
88 Miami-Fort Lauderdale-Miami Beach, FL	S	5,007,564	7,261	6,217	13,478	0.3%	0
Total		**176,237,989**	**9,306,451**	**1,456,827**	**10,763,278**	**6.1%**	**245**

* Ratio of total exurban population to total metropolitan population
Source: Brookings Institution analysis of decennial census data

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%)	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
Torrance, NM	Albuquerque, NM	14,694	86.9	3.1	57.2	26.7	20,429	21.2	83.9	44,203
Valencia, NM	Albuquerque, NM	34,282	51.8	4.4	39.3	27.5	24,359	8.2	83.9	46,152
Warren, NJ	Allentown-Bethlehem-Easton, PA-NJ	36,220	35.4	7.2	89.4	27.9	40,136	18.8	72.8	93,963
Barrow, GA	Atlanta-Sandy Springs-Marietta, GA	14,673	31.8	28.8	79.8	30.7	31,280	14.6	75.5	59,601
Bartow, GA	Atlanta-Sandy Springs-Marietta, GA	35,111	46.2	16.3	83.8	29.7	29,546	13.1	75.2	64,171
Butts, GA	Atlanta-Sandy Springs-Marietta, GA	10,888	55.8	6.8	69.4	24.6	27,438	13.0	76.6	51,505
Coweta, GA	Atlanta-Sandy Springs-Marietta, GA	40,221	45.1	21.9	76.1	30.9	36,622	10.1	78.0	77,155
Dawson, GA	Atlanta-Sandy Springs-Marietta, GA	15,999	100.0	21.2	95.1	27.4	32,458	16.1	81.4	71,271
Jackson, GA	Atlanta-Sandy Springs-Marietta, GA	14,148	34.0	24.7	86.9	27.8	30,790	11.5	74.9	64,566
Jasper, GA	Atlanta-Sandy Springs-Marietta, GA	4,481	39.2	14.3	72.4	24.9	27,330	18.5	79.1	70,792
Lumpkin, GA	Atlanta-Sandy Springs-Marietta, GA	5,367	25.5	14.9	91.2	25.5	26,797	13.0	72.3	58,300
Newton, GA	Atlanta-Sandy Springs-Marietta, GA	12,996	21.0	37.8	65.2	27.4	30,285	13.6	77.7	64,228
Pickens, GA	Atlanta-Sandy Springs-Marietta, GA	14,603	63.5	21.7	94.4	24.3	32,144	17.1	82.1	63,795
Walton, GA	Atlanta-Sandy Springs-Marietta, GA	16,048	26.4	22.8	81.4	29.5	34,405	17.2	76.5	69,133
Bastrop, TX	Austin-Round Rock, TX	47,340	82.0	19.9	62.6	27.1	29,847	16.9	80.3	58,820
Blanco, TX	Austin-Round Rock, TX	3,873	46.0	7.6	80.5	24.0	25,996	18.5	78.6	55,022
Burnet, TX	Austin-Round Rock, TX	8,372	24.5	20.7	81.0	22.9	26,403	16.0	78.4	61,136
Caldwell, TX	Austin-Round Rock, TX	13,837	43.0	12.5	47.5	26.4	24,086	13.9	69.6	54,765
Hays, TX	Austin-Round Rock, TX	48,372	49.6	25.7	62.8	26.6	28,997	9.4	64.9	69,444
Carroll, MD	Baltimore-Towson, MD	78,338	51.9	11.1	93.8	33.0	42,565	16.0	82.0	86,903
Queen Anne's, MD	Baltimore-Towson, MD	16,542	40.8	11.9	89.1	25.8	41,455	18.6	83.2	80,836
East Feliciana, LA	Baton Rouge, LA	8,104	37.9	-2.6	52.9	23.6	24,282	14.7	82.4	57,794
Livingston, LA	Baton Rouge, LA	36,846	40.1	18.0	93.0	32.1	28,736	11.9	83.8	51,755
West Baton Rouge, LA	Baton Rouge, LA	13,839	64.1	0.3	62.2	25.0	24,002	3.0	78.8	57,297
West Feliciana, LA	Baton Rouge, LA	9,615	63.6	0.4	49.6	26.8	26,670	10.7	74.5	69,794
Bibb, AL	Birmingham-Hoover, AL	13,031	62.6	7.9	75.6	25.8	24,020	11.9	80.2	40,563
Blount, AL	Birmingham-Hoover, AL	41,351	81.0	8.8	91.1	28.3	26,793	15.2	83.5	47,294
Chilton, AL	Birmingham-Hoover, AL	15,992	40.4	4.9	84.8	26.7	24,904	15.3	82.2	45,959
Shelby, AL	Birmingham-Hoover, AL	36,031	25.1	18.6	86.1	31.0	39,572	6.9	80.9	83,491
St. Clair, AL	Birmingham-Hoover, AL	59,907	92.5	11.1	89.2	27.6	27,780	9.8	83.7	51,980
Strafford, NH	Boston-Cambridge-Quincy, MA-NH	25,298	22.5	5.6	94.9	23.3	30,728	6.9	64.4	73,012
Berkeley, SC	Charleston-North Charleston, SC	46,777	32.8	6.0	65.8	27.7	25,768	6.3	74.2	54,786
Anson, NC	Charlotte-Gastonia-Concord, NC-SC	6,412	25.4	1.0	49.6	18.5	21,348	10.0	76.0	44,384
Iredell, NC	Charlotte-Gastonia-Concord, NC-SC	26,735	21.8	14.0	80.1	24.9	29,719	7.8	75.3	71,773
York, SC	Charlotte-Gastonia-Concord, NC-SC	54,904	33.4	14.7	75.4	25.6	29,602	7.1	73.1	65,663
DeKalb, IL	Chicago-Naperville-Joliet, IL-IN-WI	31,236	35.1	9.4	83.6	25.0	32,709	8.8	59.6	71,650
Grundy, IL	Chicago-Naperville-Joliet, IL-IN-WI	8,591	22.9	16.3	92.8	27.6	37,261	10.6	72.3	73,806
Jasper, IN	Chicago-Naperville-Joliet, IL-IN-WI	17,467	58.1	5.6	95.2	29.8	31,634	12.3	77.5	57,668
Kenosha, WI	Chicago-Naperville-Joliet, IL-IN-WI	54,059	36.1	7.0	83.2	25.0	32,401	8.6	69.1	79,786
McHenry, IL	Chicago-Naperville-Joliet, IL-IN-WI	61,289	23.6	16.2	86.6	36.6	44,698	16.8	83.1	93,900
Newton, IN	Chicago-Naperville-Joliet, IL-IN-WI	5,851	40.2	-0.7	95.3	27.4	27,376	14.1	80.0	54,951

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area (continued)

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%)	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
Porter, IN	Chicago-Naperville-Joliet, IL-IN-WI	39,796	27.1	7.1	90.4	27.6	35,678	8.3	76.6	77,416
Bracken, KY	Cincinnati-Middletown, OH-KY-IN	1,864	22.5	4.6	98.5	25.0	26,328	20.4	76.9	48,401
Brown, OH	Cincinnati-Middletown, OH-KY-IN	31,002	73.3	4.3	97.8	28.1	26,679	18.5	79.5	51,923
Clinton, OH	Cincinnati-Middletown, OH-KY-IN	8,596	21.2	4.6	95.0	25.4	28,208	7.4	68.9	59,911
Dearborn, IN	Cincinnati-Middletown, OH-KY-IN	20,965	45.5	5.9	97.5	29.2	33,426	8.6	78.6	71,019
Franklin, IN	Cincinnati-Middletown, OH-KY-IN	5,542	25.0	3.9	98.6	31.0	28,077	12.8	81.4	60,027
Gallatin, KY	Cincinnati-Middletown, OH-KY-IN	7,870	100.0	3.5	95.8	27.9	26,380	10.5	77.0	47,245
Grant, KY	Cincinnati-Middletown, OH-KY-IN	22,384	100.0	9.1	97.5	29.5	27,762	11.5	74.1	54,695
Pendleton, KY	Cincinnati-Middletown, OH-KY-IN	9,500	66.0	4.3	98.2	30.5	27,231	17.6	77.9	54,802
Geauga, OH	Cleveland-Elyria-Mentor, OH	35,720	39.3	4.3	96.7	32.0	35,156	5.9	87.3	105,596
Medina, OH	Cleveland-Elyria-Mentor, OH	47,108	31.2	10.0	96.1	31.6	36,473	5.8	81.2	83,792
Teller, CO	Colorado Springs, CO	15,514	75.5	6.0	92.0	27.2	33,861	11.6	80.9	74,106
Calhoun, SC	Columbia, SC	5,200	34.2	-0.9	52.2	20.4	22,840	8.1	84.3	50,519
Fairfield, SC	Columbia, SC	5,289	22.6	2.1	40.4	19.1	22,252	7.9	77.5	42,995
Kershaw, SC	Columbia, SC	21,879	41.6	6.9	70.8	24.0	26,691	8.3	82.0	49,995
Lexington, SC	Columbia, SC	53,821	24.9	8.5	81.0	26.2	29,978	5.3	77.2	60,347
Newberry, SC	Columbia, SC	9,395	26.0	3.4	61.0	19.0	24,125	7.4	76.7	46,681
Saluda, SC	Columbia, SC	4,694	24.5	-1.5	60.0	21.9	21,799	15.9	80.6	46,216
Madison, OH	Columbus, OH	18,828	46.8	2.7	90.9	26.6	31,760	4.6	72.3	63,961
Morrow, OH	Columbus, OH	12,211	38.6	7.9	97.7	28.1	28,956	11.3	82.2	54,767
Perry, OH	Columbus, OH	12,727	37.3	3.3	98.3	27.7	26,213	18.1	79.4	49,294
Pickaway, OH	Columbus, OH	17,930	34.0	0.3	91.4	26.7	30,975	7.2	74.6	64,689
Union, OH	Columbus, OH	14,382	35.2	11.0	94.5	31.3	36,426	4.3	77.5	74,433
Ellis, TX	Dallas-Fort Worth-Arlington, TX	24,651	22.1	18.6	69.2	33.3	31,512	11.4	76.2	74,536
Henderson, TX	Dallas-Fort Worth-Arlington, TX	18,931	25.8	8.7	83.5	21.2	23,113	20.6	80.0	57,143
Hood, TX	Dallas-Fort Worth-Arlington, TX	36,893	89.8	15.5	88.9	22.3	30,653	18.6	81.2	73,844
Hunt, TX	Dallas-Fort Worth-Arlington, TX	27,505	35.9	7.2	78.4	24.0	24,553	17.6	71.4	59,687
Johnson, TX	Dallas-Fort Worth-Arlington, TX	47,374	37.4	14.3	80.4	31.2	29,923	13.2	78.9	61,430
Kaufman, TX	Dallas-Fort Worth-Arlington, TX	37,382	52.4	23.5	74.2	30.6	29,134	20.9	79.2	67,544
Parker, TX	Dallas-Fort Worth-Arlington, TX	39,180	44.3	15.1	88.1	30.4	31,595	13.1	80.6	71,247
Rains, TX	Dallas-Fort Worth-Arlington, TX	3,941	43.1	22.6	88.0	21.7	23,930	23.1	82.7	53,796
Van Zandt, TX	Dallas-Fort Worth-Arlington, TX	16,365	34.0	8.5	87.4	25.0	24,917	24.9	80.9	54,264
Wise, TX	Dallas-Fort Worth-Arlington, TX	23,189	47.5	14.7	84.1	30.9	30,586	17.6	81.3	59,535
Clear Creek, CO	Denver-Aurora, CO	4,791	51.4	-1.3	93.9	21.3	30,124	13.2	75.9	87,851
Elbert, CO	Denver-Aurora, CO	17,992	90.5	13.2	92.0	37.4	44,080	24.6	89.4	85,579
Gilpin, CO	Denver-Aurora, CO	4,757	100.0	2.8	91.9	20.5	31,524	19.5	78.5	73,405
Park, CO	Denver-Aurora, CO	9,203	63.4	15.3	91.7	25.1	35,958	33.0	87.8	70,192
Lapeer, MI	Detroit-Warren-Livonia, MI	61,095	69.5	5.7	94.0	31.2	34,381	19.8	85.0	74,383
Livingston, MI	Detroit-Warren-Livonia, MI	75,149	47.9	14.5	95.8	34.0	44,618	10.6	88.1	93,863
Sanilac, MI	Detroit-Warren-Livonia, MI	13,892	31.2	0.5	95.5	25.5	23,731	13.7	81.9	52,862
St. Clair, MI	Detroit-Warren-Livonia, MI	46,379	28.2	4.1	93.3	25.8	30,440	13.5	79.6	71,951

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area (continued)

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%)	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
Allegan, MI	Grand Rapids-Wyoming, MI	27,939	26.4	6.6	90.5	29.0	31,427	4.2	82.9	66,006
Barry, MI	Grand Rapids-Wyoming, MI	19,238	33.9	5.2	96.0	27.5	32,633	6.0	85.9	68,280
Newaygo, MI	Grand Rapids-Wyoming, MI	21,037	43.9	4.2	92.2	26.4	26,561	14.7	84.5	50,717
Randolph, NC	Greensboro-High Point, NC	33,602	25.8	5.6	83.7	25.5	26,036	4.7	76.6	54,150
Laurens, SC	Greenville, SC	16,745	24.1	0.9	70.5	21.1	22,949	4.5	77.4	48,462
Juniata, PA	Harrisburg-Carlisle, PA	8,624	37.8	2.8	96.7	26.8	26,660	20.3	77.7	50,558
Perry, PA	Harrisburg-Carlisle, PA	17,647	40.5	2.5	97.8	26.2	30,278	11.6	79.6	64,432
Tolland, CT	Hartford-West Hartford-East Hartford, CT	28,121	20.6	7.8	90.1	26.6	42,784	5.2	73.5	103,871
Austin, TX	Houston-Sugar Land-Baytown, TX	5,179	22.0	9.9	70.4	27.1	27,100	16.2	77.2	56,291
Liberty, TX	Houston-Sugar Land-Baytown, TX	42,488	60.6	6.3	73.5	29.1	26,478	22.9	79.0	52,312
Montgomery, TX	Houston-Sugar Land-Baytown, TX	137,150	46.7	27.1	78.0	32.5	34,616	15.6	78.2	88,202
San Jacinto, TX	Houston-Sugar Land-Baytown, TX	18,036	81.1	10.5	79.5	22.5	22,463	27.3	87.9	53,578
Waller, TX	Houston-Sugar Land-Baytown, TX	28,521	87.3	6.0	50.8	25.8	21,938	19.4	72.5	63,712
Hancock, IN	Indianapolis, IN	12,661	22.9	13.4	95.9	30.4	38,581	4.5	81.4	82,496
Morgan, IN	Indianapolis, IN	17,121	25.7	4.3	97.7	29.4	34,110	8.0	79.7	64,621
Owen, IN	Indianapolis, IN	7,534	34.6	4.2	97.7	25.9	26,101	18.1	81.6	48,303
Putnam, IN	Indianapolis, IN	15,235	42.3	2.3	94.4	26.8	29,435	10.8	78.6	51,371
Baker, FL	Jacksonville, FL	6,422	28.9	9.7	82.8	30.3	27,141	14.4	81.3	48,422
Bradford, FL	Jacksonville, FL	6,105	23.4	7.8	74.1	22.0	24,350	9.9	79.0	46,377
Clay, FL	Jacksonville, FL	34,048	24.2	20.8	82.3	30.3	32,903	11.7	77.9	66,260
Nassau, FL	Jacksonville, FL	27,464	47.6	11.7	89.0	25.0	31,637	8.3	80.7	78,386
Bates, MO	Kansas City, MO-KS	9,115	54.7	1.8	96.3	25.1	24,005	19.5	75.0	49,063
Cass, MO	Kansas City, MO-KS	28,166	34.3	14.0	92.4	29.9	34,095	7.5	79.6	66,412
Clinton, MO	Kansas City, MO-KS	10,098	53.2	8.8	95.5	26.8	28,508	11.3	79.0	62,874
Franklin, KS	Kansas City, MO-KS	12,321	49.7	5.5	93.0	26.0	28,884	8.7	73.5	54,885
Johnson, MO	Kansas City, MO-KS	12,001	24.9	4.8	88.9	27.1	25,873	9.5	61.5	56,165
Lafayette, MO	Kansas City, MO-KS	9,434	28.6	0.2	95.1	25.6	25,973	13.0	75.4	64,099
Leavenworth, KS	Kansas City, MO-KS	19,974	29.1	6.0	82.8	30.3	33,129	3.8	67.0	74,621
Linn, KS	Kansas City, MO-KS	4,922	51.4	3.2	97.0	23.5	25,308	22.2	82.5	51,247
Miami, KS	Kansas City, MO-KS	16,809	59.3	7.0	94.7	29.2	31,972	8.1	78.5	79,021
Blount, TN	Knoxville, TN	34,748	32.8	8.7	93.7	23.3	27,898	4.1	75.9	54,471
Jefferson, TN	Knoxville, TN	13,598	30.7	8.5	94.4	23.6	24,078	6.9	77.9	47,460
Loudon, TN	Knoxville, TN	16,007	41.0	10.6	94.5	21.8	29,234	4.4	79.1	64,593
Roane, TN	Knoxville, TN	11,807	22.7	1.8	94.6	21.6	25,935	5.3	77.5	53,379
Sevier, TN	Knoxville, TN	14,779	20.8	10.6	96.0	23.0	22,074	4.9	73.3	46,867
Union, TN	Knoxville, TN	17,808	100.0	6.7	97.6	27.5	21,125	10.5	80.9	38,086
Nye, NV	Las Vegas-Paradise, NV	24,736	76.1	22.9	83.8	19.2	27,983	22.8	76.4	48,402
Faulkner, AR	Little Rock-North Little Rock, AR	37,779	43.9	12.4	86.4	27.2	27,853	5.6	68.6	59,891
Grant, AR	Little Rock-North Little Rock, AR	12,763	77.5	5.1	94.2	29.0	27,831	11.2	80.2	57,690
Hot Spring, AR	Little Rock-North Little Rock, AR	7,279	24.0	2.9	86.2	23.5	23,372	9.0	78.0	44,038
Lonoke, AR	Little Rock-North Little Rock, AR	22,489	42.6	14.1	89.4	31.4	28,786	5.4	75.9	55,849
Perry, AR	Little Rock-North Little Rock, AR	4,931	48.3	2.2	94.9	25.5	23,761	15.9	82.1	55,816

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area (continued)

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%)	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
Saline, AR	Little Rock-North Little Rock, AR	30,750	36.8	8.6	93.6	27.3	30,286	4.7	80.7	61,282
Breckinridge, KY	Louisville, KY-IN	4,783	25.6	3.2	95.4	23.9	23,421	16.9	81.9	39,527
Clark, IN	Louisville, KY-IN	27,279	28.3	5.0	88.4	21.9	28,464	3.1	70.0	63,732
Crawford, IN	Louisville, KY-IN	2,787	25.9	3.9	98.1	24.0	24,317	16.6	82.9	51,306
Harrison, IN	Louisville, KY-IN	21,303	62.1	6.7	97.3	28.2	29,262	7.1	84.1	64,241
Henry, KY	Louisville, KY-IN	11,921	79.2	5.3	92.8	24.7	27,279	8.6	77.4	60,086
Meade, KY	Louisville, KY-IN	18,303	69.5	7.1	90.9	33.2	27,373	14.5	73.9	53,397
Nelson, KY	Louisville, KY-IN	30,875	82.4	9.0	92.1	27.5	27,839	10.0	78.0	59,687
Scott, IN	Louisville, KY-IN	5,251	22.9	3.3	98.1	25.5	26,809	6.7	75.8	54,571
Shelby, KY	Louisville, KY-IN	18,621	55.9	13.8	82.4	26.5	31,343	5.6	72.7	75,631
Spencer, KY	Louisville, KY-IN	11,766	100.0	30.3	96.0	31.9	35,133	6.7	82.6	69,984
Trimble, KY	Louisville, KY-IN	5,034	62.0	10.4	97.4	27.7	27,566	8.9	80.6	49,900
Washington, IN	Louisville, KY-IN	11,052	40.6	2.2	98.0	26.9	25,554	9.5	81.1	54,523
Columbia, WI	Madison, WI	22,748	43.4	5.2	96.3	25.3	31,136	6.0	74.9	68,656
Green, WI	Madison, WI	9,379	27.9	4.3	97.6	26.1	30,189	5.6	73.7	67,383
Jefferson, WI	Madison, WI	17,670	23.9	4.5	93.1	25.9	31,547	4.8	71.7	70,681
DeSoto, MS	Memphis, TN-MS-AR	28,853	26.9	26.1	79.1	29.8	32,575	3.7	79.2	65,379
Fayette, TN	Memphis, TN-MS-AR	9,098	31.6	18.3	66.8	22.8	26,236	14.5	80.3	60,917
Marshall, MS	Memphis, TN-MS-AR	20,631	59.0	1.7	48.2	20.8	21,880	10.5	80.5	54,774
Tate, MS	Memphis, TN-MS-AR	19,820	78.1	4.3	67.3	25.5	23,929	10.7	78.3	57,270
Tipton, TN	Memphis, TN-MS-AR	39,878	77.8	8.6	77.5	28.8	27,991	12.8	76.2	60,580
Washington, WI	Milwaukee-Waukesha-West Allis, WI	64,497	54.9	6.9	96.2	30.2	39,042	3.6	76.0	77,751
Carver, MN	Minneapolis-St. Paul-Bloomington, MN-WI	18,504	26.4	19.7	92.9	38.2	45,215	4.6	83.5	103,696
Chisago, MN	Minneapolis-St. Paul-Bloomington, MN-WI	35,967	87.5	18.8	94.8	32.3	39,080	12.7	87.0	65,212
Isanti, MN	Minneapolis-St. Paul-Bloomington, MN-WI	21,490	68.7	19.4	96.3	29.5	33,585	18.0	85.2	64,639
Pierce, WI	Minneapolis-St. Paul-Bloomington, MN-WI	11,713	31.8	6.0	96.9	28.0	35,261	7.3	73.1	73,303
Pine, MN	Minneapolis-St. Paul-Bloomington, MN-WI	6,360	24.0	6.8	93.1	22.8	26,046	17.9	83.7	52,122
Polk, WI	Minneapolis-St. Paul-Bloomington, MN-WI	12,593	30.5	6.9	96.9	24.5	30,904	14.7	80.1	61,162
Scott, MN	Minneapolis-St. Paul-Bloomington, MN-WI	28,576	31.9	31.5	88.6	37.9	46,218	3.2	86.6	88,846
Sherburne, MN	Minneapolis-St. Paul-Bloomington, MN-WI	52,101	80.9	25.2	95.2	36.8	42,568	11.9	84.0	70,732
St. Croix, WI	Minneapolis-St. Paul-Bloomington, MN-WI	38,681	61.2	21.2	96.5	30.8	40,574	7.5	76.4	81,332
Wright, MN	Minneapolis-St. Paul-Bloomington, MN-WI	70,595	78.5	22.0	95.7	34.3	38,733	10.6	84.3	71,325
Cannon, TN	Nashville-Davidson—Murfreesboro, TN	3,085	24.1	3.3	95.6	25.4	24,889	13.1	78.5	53,933
Cheatham, TN	Nashville-Davidson—Murfreesboro, TN	20,049	55.8	6.9	94.9	31.3	31,374	9.0	83.6	63,002
Dickson, TN	Nashville-Davidson—Murfreesboro, TN	21,296	49.3	5.9	92.3	26.2	26,976	15.4	76.1	54,678
Hickman, TN	Nashville-Davidson—Murfreesboro, TN	12,726	57.1	6.0	93.3	25.9	23,871	21.2	80.2	43,034
Robertson, TN	Nashville-Davidson—Murfreesboro, TN	21,248	39.0	10.1	85.7	28.5	29,007	7.6	76.5	64,721
Rutherford, TN	Nashville-Davidson—Murfreesboro, TN	79,813	43.8	19.0	81.3	28.5	31,241	7.3	69.8	65,512
Trousdale, TN	Nashville-Davidson—Murfreesboro, TN	4,800	66.1	4.8	86.0	24.1	23,823	14.8	76.3	51,698
Wilson, TN	Nashville-Davidson—Murfreesboro, TN	29,190	32.9	12.6	89.8	29.1	32,643	7.1	81.4	71,471
Plaquemines, LA	New Orleans-Metairie-Kenner, LA	6,453	24.1	8.4	68.4	28.7	24,625	8.5	78.9	66,402

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area (continued)

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%) 2005	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
St. Tammany, LA	New Orleans-Metairie-Kenner, LA	80,139	41.9	14.6	83.3	30.6	30,938	14.8	80.5	75,464
Monroe, PA	New York-Northern New Jersey-Long Island, NY-NJ-PA	31,308	22.6	16.7	77.9	28.6	30,821	21.2	78.3	71,206
Pike, PA	New York-Northern New Jersey-Long Island, NY-NJ-PA	28,639	61.9	20.7	87.5	27.7	32,161	30.6	84.8	72,738
Sussex, NJ	New York-Northern New Jersey-Long Island, NY-NJ-PA	40,918	28.4	5.8	91.5	33.9	45,673	24.5	82.7	111,145
Grady, OK	Oklahoma City, OK	18,233	40.1	8.3	85.7	26.5	25,808	8.3	75.7	56,034
Lincoln, OK	Oklahoma City, OK	11,238	35.0	0.5	85.8	26.0	23,434	13.9	80.1	47,773
Logan, OK	Oklahoma City, OK	14,811	43.7	8.7	80.2	25.8	23,444	6.0	78.4	59,667
McClain, OK	Oklahoma City, OK	26,492	95.5	8.1	84.6	28.4	28,683	6.6	81.3	58,176
Cass, NE	Omaha-Council Bluffs, NE-IA	8,059	33.1	5.5	96.5	28.5	32,833	4.7	79.7	73,274
Mills, IA	Omaha-Council Bluffs, NE-IA	2,925	20.1	4.9	96.6	26.7	32,781	3.6	79.5	62,093
Washington, NE	Omaha-Council Bluffs, NE-IA	6,152	32.8	5.2	97.2	30.1	33,570	2.9	77.3	81,395
Lake, FL	Orlando-Kissimmee, FL	42,338	20.1	30.2	80.9	16.7	28,217	9.1	81.5	62,933
Osceola, FL	Orlando-Kissimmee, FL	72,984	42.3	32.9	51.9	25.8	23,025	6.6	67.8	60,240
Cecil, MD	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	49,072	57.1	13.1	91.5	27.2	35,111	9.4	74.9	70,612
Yamhill, OR	Portland-Vancouver-Beaverton, OR-WA	19,764	23.3	8.1	82.8	28.2	29,783	8.2	69.6	64,888
Dutchess, NY	Poughkeepsie-Newburgh-Middletown, NY	88,959	31.8	5.0	78.6	26.6	37,524	13.7	68.9	95,744
Orange, NY	Poughkeepsie-Newburgh-Middletown, NY	85,788	25.1	8.7	73.5	30.7	35,070	18.3	67.0	93,588
Washington, RI	Providence-New Bedford-Fall River, RI-MA	31,584	25.6	3.6	93.9	24.7	36,868	5.6	72.9	95,045
Franklin, NC	Raleigh-Cary, NC	24,655	52.2	14.3	64.6	24.3	28,330	14.9	77.8	51,271
Johnston, NC	Raleigh-Cary, NC	67,939	55.7	18.8	73.0	26.9	28,970	9.9	73.4	60,001
Amelia, VA	Richmond, VA	11,400	100.0	6.9	73.7	25.3	28,607	25.0	82.0	60,435
Caroline, VA	Richmond, VA	9,665	43.7	15.5	64.8	22.6	29,503	16.5	82.0	60,081
Charles City, VA	Richmond, VA	2,498	36.1	2.7	43.9	18.8	28,088	8.4	84.9	60,466
Cumberland, VA	Richmond, VA	5,740	63.7	4.1	62.1	20.4	24,293	21.7	77.2	46,485
Goochland, VA	Richmond, VA	12,500	74.1	14.3	74.4	24.4	38,378	7.7	86.7	107,083
Hanover, VA	Richmond, VA	24,299	28.1	12.0	87.1	32.7	42,559	4.5	84.3	90,784
King William, VA	Richmond, VA	8,322	63.3	11.5	75.5	29.2	33,953	10.6	85.1	69,191
Louisa, VA	Richmond, VA	10,483	40.9	16.6	77.6	22.8	31,252	14.4	81.4	58,818
New Kent, VA	Richmond, VA	13,462	100.0	19.0	81.4	28.4	37,695	8.3	88.8	84,679
Powhatan, VA	Richmond, VA	22,377	100.0	17.6	82.3	31.4	41,448	11.4	88.9	72,375
Sussex, VA	Richmond, VA	4,419	35.3	-3.3	37.4	16.6	23,476	10.8	69.5	40,738
Orleans, NY	Rochester, NY	9,651	21.8	-1.8	87.4	24.5	25,742	7.5	75.6	53,056
Summit, UT	Salt Lake City, UT	7,721	26.0	16.7	87.3	34.7	35,062	5.4	75.5	118,591
Tooele, UT	Salt Lake City, UT	11,159	27.4	23.1	85.2	38.6	34,835	14.4	78.3	56,394
Atascosa, TX	San Antonio, TX	20,378	52.8	11.1	38.2	30.9	22,059	14.2	78.5	53,191
Bandera, TX	San Antonio, TX	15,193	86.1	12.1	81.3	22.4	26,500	16.8	82.9	59,017
Comal, TX	San Antonio, TX	37,209	47.7	21.9	73.6	26.3	30,878	8.5	77.2	73,496
Guadalupe, TX	San Antonio, TX	19,162	21.5	14.6	58.8	29.1	29,085	6.8	77.0	65,231
Kendall, TX	San Antonio, TX	19,331	81.4	19.3	79.5	30.4	34,038	8.9	79.6	85,896
Medina, TX	San Antonio, TX	26,207	66.7	9.0	50.2	30.3	23,426	11.6	79.7	51,169
Wilson, TX	San Antonio, TX	19,251	59.4	14.7	59.3	32.5	27,626	13.4	85.0	56,584

Appendix Table B. Profile of Exurban Counties, Listed by Metro Area (continued)

County	Related Metropolitan Area	Exurban population	Share of county population in exurban areas (%)	Population change 2000–2005 (%)	Share non-Hispanic white, 2004 (%)	Share married couples with children, 2000 (%)	Median Adjusted Gross Income, 2003 ($)	Share with super-commute*, 2000 (%)	Share home owners, 2000 (%)	Average HH income, new home owners**, 2000 ($)
Wayne, PA	Scranton—Wilkes-Barre, PA	19,375	40.6	4.6	95.2	22.9	25,292	8.3	80.5	52,726
Island, WA	Seattle-Tacoma-Bellevue, WA	27,578	38.5	10.3	86.2	26.0	31,252	15.7	70.1	69,937
Franklin, MO	St. Louis, MO-IL	58,645	62.5	5.3	96.9	28.1	29,069	14.0	78.0	68,300
Jefferson, MO	St. Louis, MO-IL	56,451	28.5	7.5	96.3	29.5	32,642	9.7	83.4	63,587
Lincoln, MO	St. Louis, MO-IL	34,767	89.3	21.6	94.9	29.9	30,433	13.3	80.8	56,494
Monroe, IL	St. Louis, MO-IL	8,908	32.3	11.8	97.7	31.7	39,624	8.2	80.2	76,259
Montgomery, MO	St. Louis, MO-IL	2,549	21.0	0.3	95.8	23.6	23,060	12.9	78.7	47,728
Ste. Genevieve, MO	St. Louis, MO-IL	5,909	33.1	1.6	97.7	27.9	28,497	13.2	82.3	50,855
Warren, MO	St. Louis, MO-IL	24,525	100.0	16.3	94.5	26.6	29,495	12.6	83.1	65,350
Washington, MO	St. Louis, MO-IL	10,096	43.2	2.6	94.6	26.4	21,110	24.3	79.9	39,186
Calaveras, CA	Stockton, CA	11,832	29.2	15.1	86.1	19.3	32,266	16.7	78.7	78,586
Hernando, FL	Tampa-St. Petersburg-Clearwater, FL	42,309	32.3	20.5	87.1	15.4	24,536	13.6	86.5	57,138
Creek, OK	Tulsa, OK	22,902	34.0	1.7	81.3	26.0	24,712	5.2	78.0	47,775
Okmulgee, OK	Tulsa, OK	10,322	26.0	0.2	68.9	22.2	21,189	10.8	72.6	45,885
Osage, OK	Tulsa, OK	11,264	25.3	1.9	66.8	24.8	23,331	7.3	80.5	56,571
Pawnee, OK	Tulsa, OK	4,262	25.7	1.0	82.1	25.5	23,672	8.6	80.0	47,824
Rogers, OK	Tulsa, OK	48,715	69.0	13.2	78.8	30.5	29,244	4.3	81.1	60,556
Wagoner, OK	Tulsa, OK	20,240	35.2	11.2	78.3	29.2	29,731	5.4	81.0	63,455
Currituck, NC	Virginia Beach-Norfolk-Newport News, VA-NC	11,722	64.4	26.0	89.4	25.7	30,089	15.7	81.5	82,206
Gates, NC	Virginia Beach-Norfolk-Newport News, VA-NC	3,295	31.3	6.8	61.0	25.1	25,486	19.9	82.0	50,052
Gloucester, VA	Virginia Beach-Norfolk-Newport News, VA-NC	18,520	53.2	8.3	86.0	27.3	31,158	15.3	81.4	61,435
Isle of Wight, VA	Virginia Beach-Norfolk-Newport News, VA-NC	17,741	59.7	11.8	72.6	25.5	34,709	7.8	80.9	71,859
Middlesex, VA	Virginia Beach-Norfolk-Newport News, VA-NC	2,514	25.3	5.3	80.1	16.4	27,622	22.1	83.0	64,834
Suffolk city, VA	Virginia Beach-Norfolk-Newport News, VA-NC	14,673	23.0	23.0	89.2	25.0	32,071	5.4	72.2	65,223
Surry, VA	Virginia Beach-Norfolk-Newport News, VA-NC	3,263	47.8	2.5	48.3	22.4	26,511	18.9	77.0	56,851
Calvert, MD	Washington-Arlington-Alexandria, DC-VA-MD-WV	35,012	47.0	16.9	82.9	33.4	45,531	25.2	85.2	84,083
Charles, MD	Washington-Arlington-Alexandria, DC-VA-MD-WV	26,135	21.7	14.5	59.8	29.2	42,048	25.4	78.2	83,960
Culpeper, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	9,949	29.0	23.3	77.4	26.0	33,723	24.6	70.5	74,957
Fauquier, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	26,392	47.9	16.9	85.4	29.8	44,907	22.7	76.2	87,389
Frederick, MD	Washington-Arlington-Alexandria, DC-VA-MD-WV	63,278	32.4	12.3	84.8	30.8	42,804	17.4	75.8	94,638
Jefferson, WV	Washington-Arlington-Alexandria, DC-VA-MD-WV	24,671	58.5	15.9	89.2	23.7	34,944	23.3	75.9	69,803
King George, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	7,256	43.2	22.0	77.6	28.9	39,953	14.8	71.8	70,880
Orange, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	7,750	29.9	16.3	83.8	21.5	32,624	15.9	77.1	57,908
Spotsylvania, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	49,932	55.2	27.3	78.1	33.9	41,037	23.3	82.2	74,106
Stafford, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	20,850	22.6	26.0	74.4	38.2	47,214	24.5	80.6	86,190
Warren, VA	Washington-Arlington-Alexandria, DC-VA-MD-WV	18,026	57.1	12.1	90.5	24.2	33,388	29.0	74.1	67,188
Butler, KS	Wichita, KS	30,735	51.7	4.5	93.1	30.0	32,701	3.0	77.7	67,747
Kingman, KS	Wichita, KS	2,693	31.1	-5.9	96.3	26.3	23,980	10.1	78.1	61,128

Source: Brookings Institution analysis of decennial census data

* Share of workers commuting at least one hour in each direction

** Owners of homes built between 1995 and 2000

Endnotes

1. This figure is the sum total of metropolitan area residents who live outside Census Bureau-defined central cities. Source: **www.census.gov/hhes/www/poverty/hist-pov/hstpov8.html** [accessed July 2006].

2. Brookings Nexis search of U.S. Newspapers.

3. Though commuting and population growth are arguably "people-based" measures that serve to define exurbs in this paper, they closely reflect the relationship between people and their surrounding places, unlike indicators such as race/ethnicity and education (which have been employed in other definitions of exurbia).

4. This figure excludes Alaska. Counties in the other three regions average between 600 and 750 square miles in land area. Analysis of Census Bureau data.

5. We first attempted to apply our methodology to county subdivisions rather than census tracts, but were constrained by a lack of consistent data for these geographies across time and in all states.

6. Each census tract is associated with one and only one U.S. county.

7. An alternate view might hold that the "ex" in the term "exurban" refers to the "ex" (i.e., former) urban dwellers who relocated to the far reaches of the metropolitan area in which the exurbs are located.

8. ERS used this file to assemble Rural-Urban Commuting Area (RUCA) codes for all U.S. census tracts. Thanks to John Cromartie at ERS for making these data available.

9. A qualifying tract may be located *within* an urbanized area if at least 20 percent of its commuters travel to a larger urbanized area for work. Such tracts are often located near smaller city/town centers in outlying parts of a larger metropolitan area, such as Antioch, CA (outside Oakland); Frederick, MD (outside Washington); Monessen, PA (outside Pitts-

burgh); and Rock Hill, SC (outside Charlotte). Urbanized areas are, by definition, part of metropolitan areas.

10. An urbanized area consists of an incorporated or census-designated place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area, that together have a minimum residential population of at least 50,000 people.

11. Of the 88 metropolitan areas with 2000 populations of at least 500,000, 13 are composed of one county, versus 38 of the 78 metropolitan areas with populations of 250,000 to 500,000.

12. Accordingly, in most cases we express exurban population as a percentage of relevant large metropolitan population, rather than national or regional population.

13. We also tried adjusting these rankings by Census region and division to reflect the variability in typical development density across the U.S. (using a technique described in Cohen and Debbage 2004), but those adjustments did not significantly change our results.

14. Because new residential development at the urban-rural fringe typically occupies only a portion of a census tract, and often occurs in a "leapfrog" fashion that leaves open space between developments, when aggregated to the tract level we expect that much of this development would qualify as exurban (with tract densities of at least 2.6 acres per unit). Fieldwork in the Washington, D.C. area confirmed that many developments with one-acre lots were situated in census tracts that qualified as exurban.

15. For Census 2000, the Census Bureau classifies as "urban" all census block groups that have a population density of at least 1,000 persons per square mile, plus surrounding census blocks that have a population density of at least 500 people per square mile. Urbanized areas are those urban areas with a population of at least 50,000.

16. Because some exurban tracts are located outside metropolitan areas altogether, we compare the tract growth rate to the growth rate for the large metropolitan area to which the tract sends the largest number of commuters. In addition, tracts designated as exurban must have had total population of at least 100 in 2000.

17. See Lang and Sanchez (2006).

18. Technically, exurban population is not itself a component of large metropolitan population, since 14 percent of exurban population falls outside the boundaries of large metropolitan areas. See Finding B.

19. This does not indicate that houses in the typical exurban tract were sited on 14-acre lots, because our housing density calculation takes into consideration both developed and undeveloped land.

20. Here, we consider the extent of exurban population by metro area based on the location of census tracts we identify as exurban. This is consistent with our approach above, which associates exurban census tracts with their respective regions, divisions, and states. That noted, our results would be somewhat different if we identified exurban census tracts with the metro areas to which they had their qualifying commuting ties. In particular, very large metro areas along the Eastern seaboard, such as Boston, New York, and Washington, would acquire additional exurban tracts that actually lie within adjoining metro areas. See Box 2. Where an exurban census tract lies wholly outside metropolitan areas, however, we assign that tract's population to the metro area(s) to which it has its largest qualifying commuting tie.

21. A few metro areas, such as San Diego, CA; McAllen, TX; and Detroit, MI, face international barriers to continued outward expansion.

22. As the next section demonstrates, however, a large number of the small counties that ring the Atlanta region have significant exurban character.

23. Pike County, PA, long the prototypical New York City exurb, has actually been integrated into the New York-Northern New Jersey-Long Island, NY-NJ-PA metropolitan area. Richard D. Lyons, "Lure for Long Commute: Cheaper Homes." *The New York Times*, September 20, 1987; Anthony DePalma, "New York Suburbs Spilling Westward." *The New York Times*, February 14, 1988; Nick Ravo, "Commuting at the Edge of the Exurb Belt." *The New York Times*, December 11, 1994; Matthew Purdy, "Across Two Rivers and Into the Poconos: City Folk Go Country." *The New York Times*, March 18, 2001; Mark Morrison, "Living Too Large in Exurbia." *BusinessWeek Online,* October 17, 2005.

24. The overlap between our methodology and that of Lang and Sanchez was actually somewhat greater among counties with 20 to 25 percent exurban populations than among those with 25 to 30 percent exurban populations. The 20-percent exurban population threshold is also analogous to the 20-percent lower-bound commuting criterion we use to identify qualifying census tracts. Rather than adopt the approach described here, we could have identified as exurban only those 81 counties in which a majority of the population lived in exurban tracts. However, these counties would have captured only 19 percent of U.S. exurban population. Further, because exurbanization is an evolutionary process, a lower threshold identifies as exurban those counties that may in future years (and perhaps as of today) have even faster growth and stronger commuting linkages with the metropolitan core. In addition, we found that the demographic characteristics of residents of counties that were majority exurban did not differ significantly from those of residents of counties that were 20 to 50 percent exurban.

25. See, e.g., Janet Frankston, "The Birth of a City: Whetting Growth." *The Atlanta Journal-Constitution*, May 2, 2005, p. 1E; Larry Werner, "New City Manager Ready to Remake Burnsville." *Star-Tribune*, April 12, 2003, p. 1D; Sandhya Somashekar, "Town Reaps Hard Cash for New Houses." *The Washington Post,* July 16, 2006, p. A1.

26. Other than exurbs, we derived the counties types described here—urban, inner suburban, and other suburban—primarily for purposes of comparing exurbs to other geographies, and not necessarily to advance a new method for categorizing metropolitan counties. Other systems are more refined, but were not appropriate for use here. The Lang/Sanchez typology applies only to the 50 largest metropolitan areas (and includes some residential demographic information in its classification system), while the Puentes/Warren typology is not county-based, but relies on central-city data not available between decennial censuses. Lang and Sanchez (2006); Puentes and Warren (2006).

27. Specifically, we treat as a central city all cities named first in the metropolitan area name, plus additional cities within the name that had populations of at least 100,000 in 2000. In the New York-Northern New Jersey-Long Island, NY-NJ-PA metro area, we treat New York, NY and Newark, NJ as central cities. This yields 123 central cities within the 88 large metro areas. Recognizing the city-county consolidation that occurred in 2003, Louisville, KY is treated as the Louisville-Jefferson Consolidated City post-2000.

28. Note that these figures capture moves within the United States alone, and do not account for other sources of population gain/loss including immigration and natural increase.

29. Interestingly, in the extended region encompassing Washington, D.C., and Richmond, exurban counties such as Charles County, MD, and Stafford County, VA, have seen their white population shares drop, even as more rural exurbs such as Virginia's Caroline and King William counties saw those shares increase. The effects of these migration and population dynamics on exurban diversity may merit deeper study in other selected large metropolitan areas.

30. The proportion of exurban-county households headed by an individual age 65 or over in 2000 was actually the same as the metro-wide average (19.6 percent).

31. Adjusted gross income differs from total income, in that it excludes earnings directed to a retirement account, or used to pay health insurance premiums. It may also exclude certain other household expenses such as interest paid on student loans, job relocation costs, and tuition and fees paid for post-secondary education.

32. The high percentage of workers commuting to the inner suburbs for work partly reflects the fact that major urban centers in some metropolitan areas, including Los Angeles, Phoenix, Miami, and San Antonio, are located within counties classified as "inner suburban" because they are large and include lower-density development.

33. This does not necessarily indicate that exurbanites do not work from home; some may alternate between commuting and telecommuting. The question on the census long form asks the respondent how he/she "usually" got to work in the previous week.

34. The share of commuters in urban counties traveling at least an hour in each direction is relatively high primarily due to large numbers of workers in New York City's outer boroughs traveling into Manhattan, or to inner suburbs, via public transit.

35. The county with the highest average income for owners of new homes in 2000 was Manhattan, at $243,000. The county with the lowest average was Union County, TN, an exurban county outside of Knoxville, at $38,000. In only six exurban counties—Summit, UT; Sussex, NJ; Goochland, VA; Geauga, OH; Tolland, CT; and Carver, MN—did average incomes for owners of new homes exceed $100,000.

36. Stafford County, VA, the Washington, DC exurb with the highest median adjusted gross income in 2003, had the highest proportion of new super-sized homes in 2000 among exurban counties, at 45 percent.

37. Voters in the large-metro counties analyzed here cast 62 percent of the popular ballots cast nationwide for either Bush or Kerry.

38. Note, however, that 33 of the 242 exurban counties lie outside large metropolitan areas.

39. This forms the subject of a forthcoming Metropolitan Policy Program analysis by William H. Frey.

40. To ensure that developers help pay for existing, new, or expanded infrastructure needed to serve development, some municipalities impose impact fees on the owners of new development. However, fewer than half of jurisdictions in large metropolitan areas in the Northeast, Midwest, and South impose such fees (Pendall, Puentes, and Martin 2006). Nor do such fees generally compensate for other externalities such as increased traffic congestion and loss of open space.

41. The term "urbanized" here connotes developed land, rather than land meeting the minimum population density requirements to be considered "urbanized" by the Census Bureau (Fulton et al 2001). These statistics on land urbanization are derived from the Natural Resources Conservation Service's Natural Resources Inventory (NRI) at the U.S. Department of Agriculture. Unfortunately, the data from the 2002 NRI have not yet been publicly released. As such, 1997 data are the latest national available.

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