"Our analysis of population changes within cities reveals that decentralization is occurring even inside city borders."

Center on Urban & Metropolitan Policy

Living on the Edge: Decentralization Within Cities in the 1990s

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Findings

An analysis of census tract population changes in the 100 largest cities between 1990 and 2000 indicates that:

- **Large cities exhibited uneven growth patterns in the 1990s: Though 72 percent of large cities grew, only 55 percent of neighborhoods added population.** At the same time, growing neighborhoods grew almost three times as fast (by 22 percent) as total city population (which grew 8 percent).
- **While growing cities were primarily made up of growing neighborhoods, nine such cities actually saw a majority of their neighborhoods decline in population.** By contrast, all 20 cities that lost population overall had more declining than growing neighborhoods.
- **Over 60 percent of central city population growth occurred in "outer-ring" neighborhoods, compared to just 11 percent in "inner-core" neighborhoods.** Midwestern cities were most likely to exhibit "hollowing out," with growth closer to the city edge and decline closer to the center. Southern cities grew rapidly at the suburban fringe, while growth and decline were spread somewhat more evenly throughout cities in the Northeast and West.
- **About two-thirds of all "downtown" census tracts gained population, including many in cities that lost population overall.** Growth in central business district populations, however, was quite small compared to overall city population change, and was often overshadowed by population loss elsewhere in the urban core.

I. Introduction

Analysis of population trends in the nation's cities during the 1990s has largely focused on city-level statistics. Lang and Simmons, for instance, observed that, in terms of population growth, the 1990s were the best decade over the last 50 years for 36 older industrial cities.[1] Nearly three-quarters of the 100 largest cities in 1990, grew over the decade, while just one in five lost population.[2] A similar trend prevailed in medium-sized cities.[3] Glaeser and Shapiro found strong regional/industrial patterns in city growth—Western cities grew faster than cities in other U.S. regions, and cities with large manufacturing bases grew much more slowly than service-oriented cities.[4]

This survey departs from Census 2000 analysis to date by examining population changes in the 1990s that took place within cities. It uses a new collection of data from the 1990 and 2000 decennial censuses to examine population change in city neighborhoods, as represented by census tracts. This area of inquiry is not novel. For example, studies from as early as the 1940s and 1950s examined census tract population change patterns by their proximity to the city center.[5]

Today, the issue of neighborhood population change retains its relevance, and deserves scrutiny for fiscal, social, economic, and political reasons. Neighborhood population growth can raise local property values, attract commercial development and create job growth, all of which can improve citywide fiscal conditions. In particular, interest has increased nationwide in bolstering downtown populations, which many city leaders believe could serve as an anchor for strengthening surrounding central city neighborhoods.[6] Neighborhood population decline, on the other hand, may reflect increasing incidence of crime,[7] may create greater concentrations of poverty and segregation,[8] and may result in housing abandonment and the attendant negative impacts on neighborhood quality.[9] Many government anti-poverty programs at the federal and state levels (e.g., Empowerment Zones, the Community Development Block Grant, the New Markets Tax Credit) target sub-municipal geographies; how neighborhood population changes in response to these programs should be of interest to researchers and policymakers. More broadly, those concerned about the overall population trajectory of cities should be interested in whether all types of neighborhoods contributed to city growth, or shared in city decline.

This survey finds that population change among large city neighborhoods in the 1990s generally reflected cities' overall population trends—growing cities tended to have larger proportions of growing census tracts than shrinking cities. However, in some growing cities, neighborhood population loss was more common than population gain. There were also notable trends in the spatial pattern of neighborhood growth and decline across U.S. regions; the bulk of central city population growth occurred at the suburban edge, and many cities experienced extensive population decentralization within their own borders. While downtowns grew in most of the 100 largest cities, even in cities that experienced overall population declines, they often represented islands of population growth within a larger sea of population loss in the urban core.

II. Methodology

Our analysis focuses on population changes within the 100 largest cities as of 1990. In 1990, these cities had population ranging from 171,000 (Newport News, VA) to 7.3 million (New York, NY). The top 100 cities are measured as of their 1990 populations (as opposed to their 2000 populations) to avoid biasing the 1990-2000 analysis towards fast-growing cities.[10]

Using these data, we present census tract-level population change data between 1990 and 2000 for tracts located within the city in 2000. Census-tract boundaries, however, do not necessarily respect city borders; tracts are statistical subdivisions of counties, not cities. For this reason, we first identify the census blocks that are located within each city's borders. Blocks are the smallest geographic entities for which the Census Bureau tabulates decennial census data. Using the consistent block definitions from the software, we tabulate population change in each city block between 1990 and 2000. We then aggregate those population figures up to their corresponding census tracts. Census tracts are often used to represent neighborhoods within cities, and it is for this reason that we present our analysis at the tract level, rather than at the block level. Throughout this survey, the word "neighborhood" is used interchangeably with "census tract."

Other analyses of Census 2000 data focus on the determinants of city tract population change in the 1990s by examining the tract's demographic and economic characteristics in 1990.[11] This paper concentrates primarily on neighborhood and downtown population change as they relate to overall city population change. The unique contribution of this analysis is that by using block-level data (aggregated to the tract level for presentation), we are able to capture the exact population change that occurred within a city's borders over the decade, and its distribution at the neighborhood level.[12]

One consequence of using a consistent set of tracts between 1990 and 2000 is that city boundaries are fixed. Over the 1990s, however, a number of large cities grew by annexing suburban land. Census Bureau estimates reflect that 15 of the 100 largest cities changed their borders in the 1990s such that their population increased by at least 2 percent. Because we use 2000 city borders to examine census tract population in both 1990 and 2000, population increases that result solely from the addition of new land (and its residents) to a city are not captured in the statistics we present here.[13] However, the population change that occurred over the decade within these new city tracts is captured.

We investigate how population growth and decline played out spatially in different cities and different regions of the U.S. Two cities that experience similar levels of neighborhood growth and decline may differ greatly on where those trends took place. One city may experience downtown revitalization and growth while losing

population in neighborhoods on its struggling suburban fringe; another may undergo a "hollowing out" with population loss in the city center but growth in farther-out neighborhoods. To better understand the spatial patterns of growth and decline within cities, we split each city's census tracts into three "rings," and analyze population change within each ring. We accomplish this by ranking all of a city's census tracts according to the distance between their center and the city's central business district (CBD), and splitting the ordered tracts into three groups. While these tract groups do not form perfect concentric rings (because cities are not circular), for ease of description, we refer to the groups as "inner core" (including the CBD), "middle ring," and "outer ring." Even this analysis can disguise important patterns of growth that occur along east/west or north/south lines, so we present maps of cities that illustrate common spatial patterns of neighborhood population change.

Finally, we present tabulations of population change for city "downtowns," as represented by their CBDs. CBDs were defined in the 1982 Census of Retail Trade to represent areas "…of very high land valuation characterized by a high concentration of retail businesses, service businesses, offices, theaters, and hotels, and by a very high traffic flow."[14] CBDs were designed to follow 1980 census tract boundaries; in the few cities where those boundaries changed over the past two decades, we used 2000 blocks to reconstruct the boundaries. While what constitutes the "downtown area" in many of these cities is undoubtedly different today than 20 years ago, most CBDs retain the same commercial character that originally resulted in their designation, and all CBDs constitute at least the core of their city's downtown.[15]

Table 1. Neighborhood Population Change in 100 Largest Cities, 1990–2000

Neighborhood Type	Share of All Tracts	Average Population, 2000	Average Population Change	Average % Change
Increasing (n = 8,288)	55.1%	4,093	739	22%
Decreasing (n = 4,899)	32.6%	3,145	(386)	(11%)
Stable (n = 1,846)	12.3%	3,849	-	-
Total (n = 15,033)	**100%**	**3,754**	**282**	**8.1%**

III. Findings

A. Large cities exhibited uneven growth patterns in the 1990s: Though 72 percent of large cities grew, only 55 percent of neighborhoods added population.

The 1990s were a decade of relatively widespread overall population growth in large U.S. cities. Overall, the top 100 cities increased in population by a little over 8 percent, and the majority—72 of 100—gained residents. Among the remaining 28 cities, population was stable in eight, and declined in 20.

Population growth also predominated at the neighborhood level in cities during the 1990s. A majority—55 percent—of the 15,033 census tracts within the 100 largest cities experienced increases in population. As Table 1 shows, population in these tracts grew at a 22 percent clip overall, considerably faster than the nation's 13 percent overall increase in population. The average growing central city tract added 739 people.

Neighborhood growth, however, was somewhat less prevalent than citywide growth. Amid the prevailing trend of neighborhood population growth, about one-third of all central city census tracts lost population from 1990 to 2000. The declining neighborhoods were somewhat larger on average than were the growing neighborhoods in 1990—3,531 residents versus 3,354 residents—but by the decade's end, about 850 fewer people resided there on average than in growing tracts. Notably, though, the average population loss in these neighborhoods—11 percent—was only about half the size of the corresponding gain in growing neighborhoods.

In this fashion, large cities exhibited quite uneven growth patterns in the 1990s that saw fewer census tracts gaining population, and more tracts losing population, than city-level statistics suggest. This unevenness is exemplified by the experiences of several growing cities examined in the next section.

B. While growing cities were primarily made up of growing neighborhoods, nine such cities actually saw a majority of their neighborhoods decline in population.

For the most part, neighborhood growth mirrored citywide growth in the 1990s. The fastest-growing cities contained more gaining tracts than declining and stable ones. In cities that lost population, declining tracts predominated. Figure 1 shows this pattern graphically for groups of cities that experienced varying levels of overall growth/decline in the 1990s (Appendix A contains neighborhood population change statistics for each of the 100 largest cities).

Comparing each city's overall population change to its neighborhood-level

Table 2. Growing Cities With More Declining than Growing Neighborhoods, 1990–2000

City	Overall Population Change (%)	Number of Growing Tracts	Number of Declining Tracts	Number of Stable Tracts
Columbus, OH	11.7	85	99	23
El Paso, TX	9.4	32	62	16
Indianapolis, IN	6.9	78	105	21
Montgomery, AL	5.8	19	26	5
Augusta-Richmond, GA	5.3	15	20	5
Omaha, NE	4.6	52	62	18
Columbus, GA	3.9	21	27	8
Little Rock, AR	3.3	16	22	8
Des Moines, IA	2.7	19	22	15

population change, however, highlights three surprising patterns. First, as shown in Figure 1, modestly growing cities (2 to 10 percent growth) had the same share of growing neighborhoods as rapidly growing cities (10 to 20 percent growth). This was the case in large part due to the presence of New York City in the "Modest Growers" category. An astounding 81 percent of the city's nearly 2,200 census tracts added residents, placing it 13th among the top 100 cities in the share of its neighborhoods that grew. Without the presence of New York in this category, only 54 percent of "Modest Grower" census tracts would have gained population in the 1990s.

Second, not every city that experienced an overall population increase saw most of its neighborhoods grow as well. In fact, nine of the 100 largest cities had more declining than growing census tracts, even though they gained population citywide. Because the losses in their shrinking census tracts were smaller, on average, than the gains in their growing tracts, they were able to grow despite a relatively high incidence of neighborhood population loss (see Table 2).

All nine of these cities were located in either the midwestern or southern regions of the U.S. They were led by Columbus, OH, which grew overall at a considerable 12 percent rate even as a plurality of its neighborhoods lost residents. In effect, the cities in Table 2 boosted their population through increased density in some areas, while at the same time they "thinned out" in a larger number of areas. The patterns of neighborhood growth and decline in these cities help to explain why, even as 72 of the top 100 cities gained population in the 1990s, only 55 percent of their census tracts grew.

Third, the reverse pattern—a citywide loss with more growing than shrinking tracts—was not present in any of the 20 declining cities. As Figure 1 shows, across these cities, only 20 percent of all tracts gained population. Still, it is noteworthy that even in a city such as Baltimore, which lost nearly 12 percent of its population over the decade, one in six neighborhoods actually added residents, at an average rate of 11 percent. Clearly, there are islands of population gain amid seas of population decay in these cities. Often, there were explicit spatial patterns to that growth, which we examine in the next two sections.

Figure 1. Percentage of Census Tracts Gaining Population, by City Growth Category, 1990–2000

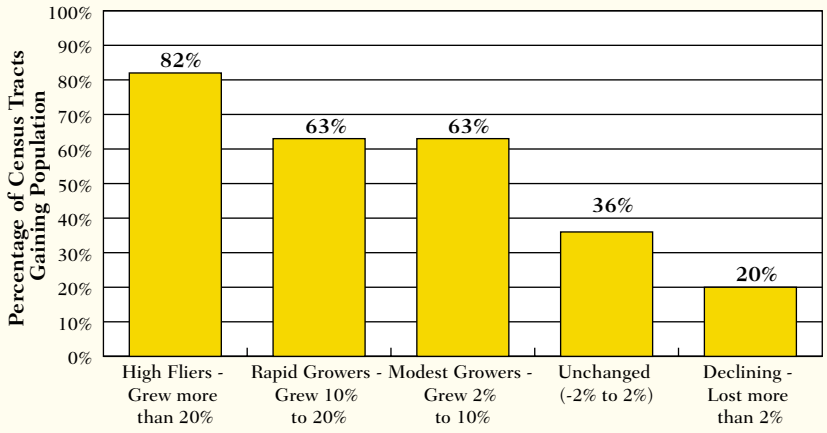
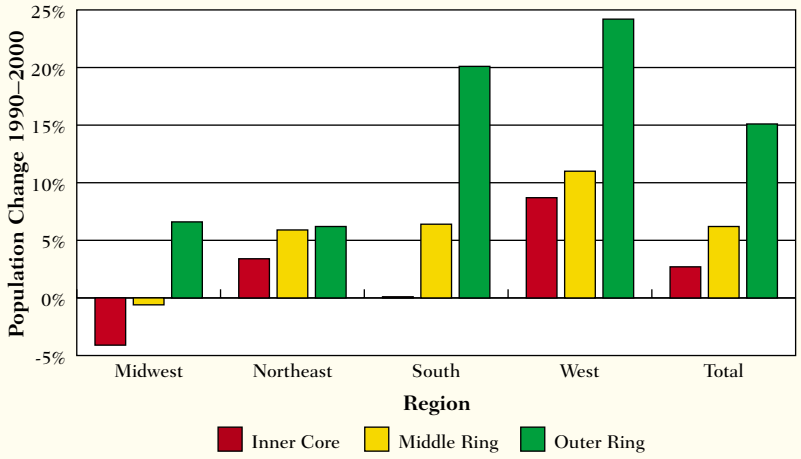


Figure 2. Neighborhood Population Change by Region and Distance from CBD, 100 Largest Central Cities, 1990–2000



C. Over 60 percent of central city population growth occurred in "outer-ring" neighborhoods, compared to just 11 percent in "inner-core" neighborhoods.
Initial analysis from Census 2000 indicated that, despite a population "renaissance" of sorts in many formerly struggling U.S. cities, decentralization remained the dominant trend across all metropolitan areas.[16] Suburban population grew at twice the rate of central city population, and no matter how fast cities grew, their suburbs consistently grew faster. In many metropolitan areas, the bulk of employment is located 10 miles or more from the traditional city center, and people appear to be following employment out to the suburbs.[17]

Our analysis of population changes within cities reveals that decentralization is occurring even inside city borders. In the 1990s, the population of most large U.S. cities shifted towards the outskirts, with the bulk of growth taking place along the suburban border. Between 1990 and 2000, the "inner core" of central city census tracts—those located in and around the CBD—increased in population by only 2.7 percent overall (Figure 2). The "middle ring" grew at a little more than twice that rate (6.2 percent), while the "outer ring" boomed in population (15.1 percent growth). As a result of this population shift toward city borders, more people across the 100 largest cities now live in outer-ring neighborhoods (19.5 million) than in either middle-ring (19.4 million) or inner-core (16.9 million) neighborhoods.

The outer census tracts were the drivers of central-city population growth during the 1990s. Fully 62 percent of growth across the cities occurred in these neighborhoods, compared with only 11 percent in the inner core. Notably, this was not the result of astounding growth in a few decentralizing cities. More than three-quarters of all cities analyzed (76 out of 98) grew fastest (or declined slowest) in census tracts located farthest from the CBD.

In many of these cities with fast growth in the outer neighborhoods, the CBD itself gained population, but change in the downtown area was far outpaced by that in the outer tracts. Oklahoma City, for instance, added 1,100 new residents to its CBD in the 1990s, and its inner-core neighborhoods grew by a little over 5 percent. Over the same period, the city's outer periphery of tracts grew by a staggering 34 percent, adding 50,000 new residents.

The pattern of increasing growth with increasing distance from the city center held across all regions of the country, although there were some very significant differences among regions in the size of the disparity between inner and outer tracts (Appendix Table A shows the population gain/loss in each third of neighborhoods for all 100 central cities). In general, "hemmed-in" cities in the Northeast experienced relatively even growth across inner, middle, and outer neighborhoods. Larger cities throughout the Midwest, South and West that had more room to develop, and greater ability to annex land, saw population explode at the edges as it often stagnated or eroded at the core.

The Northeast

Amid their lower overall population increases, cities in the Northeast were the most balanced in the spatial distribution of their growth and decline across neighborhoods. Growth in their inner, middle, and outer tracts averaged 3.4 percent, 5.9 percent and 6.2 percent, respectively. Many Northeastern cities are "landlocked" in the sense that they border other incorporated jurisdictions on all sides, and so cannot add land to their outer ring through annexation. Land in these cities is often as expensive—or more expensive—in neighborhoods located near the city borders as it is near downtown areas. Not coincidentally, hemmed-in cities like Boston, Newark, and Yonkers saw their fastest growth in neighborhoods near the city center,

and grew little in neighborhoods on the city outskirts.[18]

For Boston, this did not mean that all inner-core tracts gained, or that all outer-ring tracts declined (Appendix Figure A). Increases and decreases in neighborhood population could be found throughout the city, while a population resurgence in close-in neighborhoods like the Back Bay, Beacon Hill, and East Boston drove the city's overall growth. Downtown-growing cities like Boston represented one side of the coin in the Northeast in the 1990s; cities including Buffalo, Philadelphia, and Rochester represented the other side. These cities experienced overall population declines, and at the neighborhood level, population loss was greatest in the city center and less dramatic in the outer reaches of the city.

The Midwest

The Midwest was the only region in which cities generally "hollowed out." Overall, midwestern cities lost population in their inner-core neighborhoods (-3.1 percent), experienced neither a gain nor a loss in their middle third, and saw considerable growth in their outermost neighborhoods (6.9 percent). The growth that occurred in the outer neighborhoods of Midwestern cities essentially saved them from overall population decline.

Columbus (OH), Fort Wayne, Indianapolis, and Kansas City all exemplified the midwestern "hollowing out" trend. Each experienced significant population loss at the core and significant growth at the periphery. In Columbus and Fort Wayne, annexation freed up land for new development and population growth on the city outskirts. In Indianapolis and Kansas City, sheer city size left more room to develop, and more room for population growth, in the outermost areas. In addition to their greater annexation powers and overall size, Midwestern cities have fewer physical obstacles to growth—no mountains, ocean, or Indian reservations impede growth in the Indianapolis hinterlands as they do in Denver, Boston, or Phoenix.

There were a few cities in the Midwest where gains in the core helped to drive population growth—Minneapolis and St. Paul, most notably—but decentralization predominated across the region, in both growing and shrinking cities. In Wichita, the inner-core neighborhoods lost about 3 percent of their population, while the outer ring grew by an astounding 45 percent (Appendix Figure B). Local analysts note that one traditionally black downtown neighborhood lost 65 percent of its population between 1970 and 2000. The deterioration of these neighborhoods has spread to more than 20 blocks on the edge of downtown, where upwards of half of all houses and apartments are vacant. Along the city's outskirts, by contrast, developers are building new, larger houses on vacant land, and people are buying in droves.[19]

The South

In the 1990s, growth in cities in the Southeast trailed that in the suburbs by wide margins. In the Mobile area, for instance, central city population grew by only 1.3 percent, but suburban population expanded by 22 percent. Across the region suburban population growth tripled central-city growth on average.[20]

Cities throughout the South mirrored this dramatic decentralization trend. Overall, cities in the South were largely stagnant in their core areas, grew modestly in their middle thirds, and experienced tremendous population increases—over 20 percent—in their outermost areas. The rapid growth in the outer ring of southern cities reflects the fact that they are typically larger in size than cities in other regions, and that they have access to more undeveloped land both within their own borders and in nearby unincorporated jurisdictions.[21]

Charlotte, Raleigh, and Greensboro together exemplify growth patterns in cities throughout the Southeast. Two-thirds of their combined population gain occurred in outer-ring neighborhoods, due in large part to development in newly annexed land—each city added to its land area by over one-third during the 1990s. At the same time, very little population growth occurred in and around the downtowns of these cities; only 4 percent of their net new residents resided in inner-core neighborhoods.[22] Nearly all of the "action" on growth took place in the farthest reaches of these North Carolina cities.

Southern cities' growth patterns varied somewhat, however. A number of cities in the Southwestern part of the region, such as Austin, Dallas, Forth Worth, and Houston experienced more substantial population gains in their core areas, though neighborhoods at their suburban edges still boomed. One Southwestern city, however, illustrates the predominant growth pattern in the South during the 1990s (Appendix Figure C). In San Antonio, declining tracts were clustered around the city core, and often found on one side of the core (in this case, the lower-income southern side). At the same time, tracts throughout the northernmost and southernmost reaches of San Antonio experienced substantial population gains. In the outer third of the city, the average census tract grew by 47 percent.

The West

Consistent with their faster overall growth than cities in other regions, Western cities experienced the most rapid population increases in each of their neighborhood rings. While growth in these cities was more evenly distributed between the inner, middle, and outer neighborhoods than in the Midwest or South, large disparities still existed between growth at the core and growth at the periphery. Overall, inner-core neighborhoods in

Western cities averaged 8.4 percent growth, and outer-ring neighborhoods averaged 24.1 percent growth. San Diego (Appendix Figure D) illustrates this disparity; some growth occurred in downtown neighborhoods, but areas farther north and northeast of the core such as Carmel Valley captured the bulk of the city's population increase over the decade. Some growth also occurred in the far southern part of the city along the Mexican border.

In the West, many cities are also notable for having experienced extremely rapid growth in their outer reaches. Many of these places saw the construction of enormous subdivisions in the 1990s that in older metropolitan areas would often be relegated to the suburbs. Cities like Colorado Springs (65 percent outer-ring growth), Bakersfield (116 percent), Mesa (119 percent), and Las Vegas (528 percent) were able to accommodate this type of population boom within their own expansive borders.

D. About two-thirds of all "downtown" census tracts gained population, including many in cities that lost population overall.
Researchers have already noted what has been termed a "downtown rebound" in a number of U.S. cities in the 1990s. After decades of population loss, many city downtowns are actually capturing increasing shares of metro area population. One Fannie Mae/Brookings urban center analysis found that 18 of 24 large-city downtowns gained population in the 1990s, including six that added residents even as the city lost population overall.[23] As Birch notes, however, the recent rise in downtown populations has been "small and delicate" when viewed over the longer term. Only 38 percent of the downtowns Birch analyzed had more people in 2000 than they did in 1970.[24]

This examination of CBD populations in a larger sample of 98 cities largely confirms findings from the earlier Birch analysis, corroborating evidence of a resurgence in city downtown populations.[25] Of the 232 census tracts that make up the CBDs of these cities, 151 (65 percent) experienced population increases over the decade. The overall population of CBDs jumped nearly 13 percent, considerably higher than the 8 percent overall increase across the 100 cities.

Viewed from the city level, downtown growth was similarly widespread. Overall, 68 of the 98 cities we analyzed saw increases in their CBD populations over the decade (Figure 3). In contrast to neighborhood growth citywide, though, there seemed to be no strong relationship between population change in cities at large and population change in their CBD tracts. In fact, of the 20 cities among the top 100 that declined in population during the 1990s, fully 17 (85 percent) saw increases in their CBD populations. Table 3 displays the ten cities with the fastest overall population gains despite population loss in their CBDs, and the ten cities with the largest population decline despite population gain in their CBDs. Cities with overall population losses such as Buffalo, Pittsburgh, and Cleveland all posted considerable percentage gains in their downtown populations, sometimes as a result of concerted municipal strategies to create "living" downtowns.

In these cities, however, a growing downtown often represented an isolated instance of population growth in the urban core. In fact, 40 percent of cities with growing CBDs in the 1990s experienced population loss in their inner-core census tracts. For example, Cleveland's strategy to create a "24-hour downtown" paid off in the addition of 2,700 new residents to its CBD, a 51 percent increase from 1990. Yet that growth occurred amidst the loss of 8,200 residents elsewhere in Cleveland's inner-core neighborhoods—a 6 percent population decline. Maps of San Antonio and San Diego (Appendix Figures C and D) both show that growing downtown neighborhoods lay alongside core neighborhoods that lost residents over the decade.

Figure 3. Number of Growing and Declining "Downtowns" by Overall City Population Change, 1990–2000

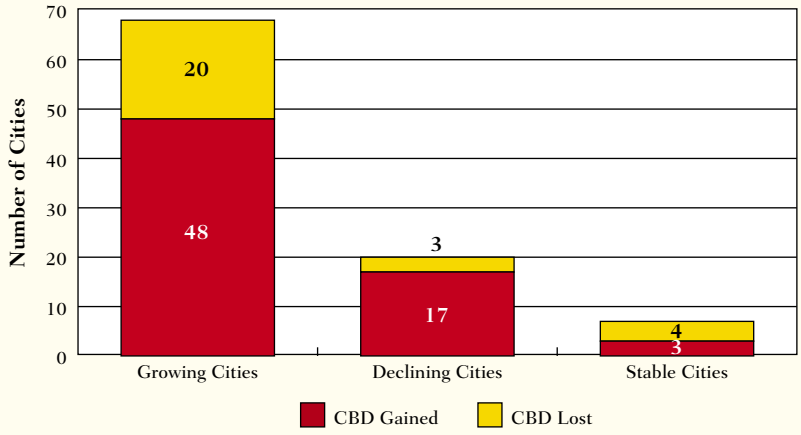


Table 3. City Population Change versus Central Business District Population Change, 1990-2000

	Total Population			CBD Population		
	1990	2000	Change	1990	2000	Change
CITIES WITH FASTEST POPULATION GROWTH AND DECLINING CBD POPULATION*						
Mesa, AZ	290,165	396,369	36.6%	3,206	2,864	-10.7%
Bakersfield, CA	188,069	246,985	31.3%	1,521	1,187	-22.0%
Dallas, TX	1,005,685	1,188,493	18.2%	3,443	2,188	-36.5%
Lexington, KY	225,347	260,487	15.6%	5,212	4,894	-6.1%
Stockton, CA	211,305	243,700	15.3%	8,459	7,102	-16.0%
Houston, TX	1,696,462	1,953,261	15.1%	7,005	6,678	-4.7%
Riverside, CA	226,857	255,166	12.5%	5,428	4,845	-10.7%
Columbus, OH	634,890	709,398	11.7%	1,656	1,621	-2.1%
El Paso, TX	514,957	563,605	9.4%	2,817	1,797	-36.2%
Tampa, FL	279,654	303,439	8.5%	1,171	709	-39.5%
CITIES WITH FASTEST POPULATION DECLINE AND GROWING CBD POPULATION*						
St. Louis, MO	396,489	348,182	-12.2%	3,250	3,385	4.2%
Baltimore, MD	736,014	651,154	-11.5%	1,683	1,739	3.3%
Buffalo, NY	328,045	292,644	-10.8%	1,440	1,939	34.7%
Norfolk, VA	261,228	234,399	-10.3%	2,402	2,881	19.9%
Pittsburgh, PA	369,804	334,524	-9.5%	3,785	5,222	38.0%
Dayton, OH	182,500	166,080	-9.0%	1,470	2,044	39.0%
Detroit, MI	1,027,671	951,213	-7.4%	5,970	6,141	2.9%
Washington, DC	606,827	572,044	-5.7%	2,708	3,188	17.7%
Cleveland, OH	505,291	478,330	-5.3%	5,367	8,105	51.0%
Milwaukee, WI	628,078	596,938	-5.0%	2,750	3,334	21.2%

** CBD population of at least 1,000 in 1990.*

The complicated relationship between city growth and downtown growth was also evident in the growing cities. Of 68 growing cities analyzed, 20 (29 percent) lost CBD population during the 1990s. Many of these 20 cities and their downtowns—such as Bakersfield, El Paso, Mesa, and St. Petersburg—are more "suburban" in feel than older Northeastern and Midwestern places. Some have posited that these mostly Southern and Western downtowns do not offer consumers enough in the way of amenities that help to distinguish them from suburbs, or from the rest of the city.[26] They may also lack the job concentrations characteristic of many older downtowns that appeal to people looking to live and work in the same area.

In general, CBD population gains made only minor contributions to overall population change in cities in the 1990s. In the 48 growing cities that also had a growing CBD, the "downtown" contribution to city population growth was only 2.4 percent on average. Similarly, in the 17 shrinking cities that had a growing CBD, the average "downtown" offset of city population loss was 2.4 percent. This should not be surprising, given the small geographic size of CBD areas in comparison to their cities. Still, these statistics serve as a reminder that downtown gains and losses form only a small part of the broader population trends affecting cities and their neighborhoods.

IV. Conclusion

Viewed at the city level, demographic shifts such as population and income growth/decline, racial/ethnic change, aging, and migration can indicate important changes in the ability of cities to serve public needs. At the end of the day, the city itself must deliver services to its residents, and raise the revenues to fund those services (or seek them from another level of government).

Population changes at the neighborhood level, by comparison, may better signal changes in the private markets in which city residents operate. Neighborhood population growth, for instance, can lead to increasing property values, and new jobs and retail opportunities for existing residents. In some cases, it may lead to displacement of lower-income residents due to higher housing costs. As such, exploring population dynamics at both the municipal and neighborhood levels is crucial for understanding the changing fortunes of cities and their residents.

This study finds that America's cities underwent complex patterns of neighborhood population change in the 1990s. As with cities themselves, most urban neighborhoods grew over the decade, and not surprisingly, cities that grew had more growing neighborhoods. Yet in many cities that grew overall, neighborhood population loss was pervasive. And most cities, especially those in the Midwest and South, experienced the bulk of their population growth in neighborhoods far from the core—and sometimes at its expense. CBDs—the cores of downtowns—were often buffered from these losses, due in part to concerted municipal strategies to create "living downtowns." But in many cases, those strategies seem to have fallen short of creating growth throughout the urban core.

Our findings confirm that city-wide indicators hide a more complex story about which neighborhoods benefited from the economic boom of the 1990s, and which were left behind. The design of targeted reinvestment strategies must begin with neighborhood-level analysis. While population change is only one part of an informed analysis, this paper's core findings about the pattern of within-central-city decentralization raise three interesting implications.

First, it appears that the larger trend of metropolitan decentralization begins inside city borders—that is, sprawl does not start at the city's edge. Central cities are made up of both healthy and distressed neighborhoods, and efforts to help slow the tide of decentralization must be focused on reinvigorating areas of slow growth or decline—whether these neighborhoods are located in the inner core (as in many Midwestern cities) or in farther-out city neighborhoods (as in Atlanta and Washington).

Second, there is a common perception that the growing cities in the South and West are healthy compared to their midwestern and northeastern counterparts. However, the large geographies of many of these places mask the fact that they, too, often have weaker cores. The inner neighborhoods of cities like Bakersfield and El Paso, if left unattended, may contribute to further "hollowing out" and help to accelerate larger decentralization patterns.

Third, the fact that declining inner-core neighborhoods often surrounded growing CBDs suggests the need for more inclusive "downtown strategies." In developing targeted revitalization strategies for downtown areas, city leaders should include efforts to engage or respond to the needs of surrounding neighborhoods. These can range from putting in safeguards to protect the affordability of some housing as property prices increase, to involving residents in center city redevelopment plans to ensure that downtown growth redounds to the benefit of surrounding neighborhoods.

As more detailed data become available from the Census long form, researchers will gain better insight into the push-and-pull forces that drove population changes within cities in the 1990s.[27] These data will also provide clues as to what those changes mean for the overall social and economic health of city neighborhoods in the next decade.

Appendix A. Neighborhood Population Change Characteristics in 100 Largest Cities, 1990–2000

Region/City	Region	Overall Population Change*	% Increasing Tracts	% Decreasing Tracts	% Stable Tracts	CBD Population Change	Inner Core Population Change	Middle Ring Population Change	Outer Ring Population Change	Land Area (sq mi)**
Midwest (21 cities)		1.2%	35%	53%	12%	18.4%	-4.1%	-0.6%	6.6%	117.4
Northeast (9 cities)		5.2%	65%	24%	11%	6.9%	3.4%	5.9%	6.2%	75.1
South (41 cities)		9.0%	52%	36%	12%	6.2%	0.1%	6.4%	20.1%	238.8
West (29 cities)		14.4%	68%	18%	14%	16.9%	8.7%	11.0%	24.2%	185.6
TOTAL - Top 100 cities		**8.1%**	**55%**	**33%**	**12%**	**12.9%**	**2.7%**	**6.2%**	**15.1%**	**183.1**
MIDWEST										
Akron, OH	MW	-2.7%	21%	65%	15%	-21.9%	-4.3%	-4.9%	1.9%	62.1
Chicago, IL	MW	4.1%	50%	41%	9%	34.4%	1.9%	4.5%	4.7%	227.1
Cincinnati, OH	MW	-9.0%	10%	79%	11%	-16.9%	-15.2%	-7.3%	-6.6%	78.0
Cleveland, OH	MW	-5.3%	20%	61%	19%	51.0%	-5.9%	-5.0%	-5.4%	77.6
Columbus, OH	MW	11.7%	41%	48%	11%	-2.1%	-9.1%	6.9%	40.1%	210.3
Dayton, OH	MW	-9.0%	15%	80%	5%	39.0%	-10.1%	-9.3%	-6.5%	55.8
Des Moines, IA	MW	2.7%	34%	39%	27%	0.3%	2.4%	2.4%	3.4%	75.8
Detroit, MI	MW	-7.4%	21%	71%	8%	2.9%	-9.6%	-9.1%	-4.6%	138.8
Fort Wayne, IN	MW	-0.1%	32%	52%	15%	1.5%	-7.8%	-0.3%	7.1%	79.0
Grand Rapids, MI	MW	4.5%	46%	27%	27%	18.2%	2.9%	4.3%	6.4%	44.6
Indianapolis, IN	MW	6.9%	38%	51%	10%	35.4%	-7.5%	2.2%	22.8%	361.5
Kansas City, MO	MW	1.5%	30%	56%	13%	-13.1%	-6.5%	-3.7%	14.4%	313.5
Lincoln, NE	MW	17.3%	65%	17%	17%	12.3%	3.4%	14.2%	41.1%	74.6
Madison, WI	MW	8.1%	45%	36%	18%	7.1%	0.5%	-3.9%	40.1%	68.7
Milwaukee, WI	MW	-5.0%	27%	62%	11%	21.2%	-9.6%	-6.2%	-0.8%	96.1
Minneapolis, MN	MW	3.9%	53%	35%	12%	20.1%	7.5%	7.7%	-1.6%	54.9
Omaha, NE	MW	4.6%	39%	47%	14%	32.0%	2.2%	-0.1%	13.3%	115.7
St Louis, MO	MW	-12.2%	12%	77%	12%	4.2%	-19.4%	-11.3%	-7.8%	61.9
St Paul, MN	MW	5.5%	46%	33%	21%	39.1%	9.3%	8.4%	0.4%	52.8
Toledo, OH	MW	-5.8%	12%	80%	8%	27.7%	-9.8%	-6.4%	-2.3%	80.6
Wichita, KS	MW	10.6%	44%	43%	14%	-8.4%	-2.7%	-0.3%	44.8%	135.8
NORTHEAST										
Boston, MA	NE	2.6%	47%	33%	20%	29.7%	5.9%	1.6%	1.0%	48.4
Buffalo, NY	NE	-10.8%	9%	83%	8%	34.7%	-14.7%	-13.9%	-6.0%	40.6
Jersey City, NJ	NE	5.0%	61%	29%	11%	5.2%	4.3%	4.9%	5.8%	14.9
New York, NY	NE	9.5%	81%	10%	9%	-0.6%	6.3%	10.9%	11.4%	303.3
Newark, NJ	NE	-0.5%	48%	43%	9%	-11.4%	3.8%	1.4%	-4.8%	23.8
Philadelphia, PA	NE	-4.0%	27%	57%	16%	8.8%	-7.2%	-4.9%	-1.1%	135.1
Pittsburgh, PA	NE	-9.5%	8%	89%	3%	38.0%	-9.0%	-8.8%	-10.7%	55.6
Rochester, NY	NE	-4.9%	12%	64%	23%	5.4%	-6.8%	-5.4%	-3.2%	35.8
Yonkers, NY	NE	4.3%	67%	10%	24%	8.2%	6.9%	4.1%	0.9%	18.1
SOUTH										
Arlington, TX	S	27.2%	85%	12%	3%	17.8%	15.1%	23.9%	45.2%	95.8
Atlanta, GA	S	5.7%	57%	31%	12%	110.9%	13.8%	0.9%	5.5%	131.8
Augusta-Richmond, GA	S	5.3%	38%	50%	13%	16.6%	-9.2%	-4.6%	19.1%	302.1
Austin, TX	S	31.9%	87%	6%	7%	-7.3%	17.7%	26.5%	71.8%	251.5
Baltimore, MD	S	-11.5%	17%	74%	10%	3.3%	-17.3%	-12.6%	-6.7%	80.8

Region/City	Region	Overall Population Change*	% Increasing Tracts	% Decreasing Tracts	% Stable Tracts	CBD Population Change	Inner Core Population Change	Middle Ring Population Change	Outer Ring Population Change	Land Area (sq mi)**
Baton Rouge, LA	S	2.1%	47%	45%	8%	17.6%	-3.3%	5.2%	2.7%	76.8
Birmingham, AL	S	-8.5%	30%	61%	9%	-12.9%	-13.4%	-6.6%	-0.2%	149.9
Charlotte, NC	S	26.6%	70%	22%	7%	25.9%	0.4%	16.9%	74.0%	242.3
Columbus, GA	S	3.9%	38%	48%	14%	-10.2%	-10.6%	-4.9%	18.3%	216.1
Corpus Christi, TX	S	7.4%	53%	23%	25%	18.3%	-3.9%	2.6%	28.4%	154.6
Dallas, TX	S	18.2%	69%	23%	8%	-36.5%	11.6%	16.5%	27.2%	342.5
El Paso, TX	S	9.4%	29%	56%	15%	-36.2%	-8.5%	5.0%	36.7%	249.1
Fort Worth, TX	S	19.5%	73%	20%	7%	75.3%	7.7%	13.6%	44.9%	292.5
Garland, TX	S	19.3%	84%	5%	11%	-3.0%	18.8%	18.5%	20.7%	57.1
Greensboro, NC	S	16.8%	67%	20%	14%	-31.0%	0.9%	11.9%	40.4%	19.2
Hialeah, FL***	S	20.5%	77%	13%	10%					579.4
Houston, TX	S	15.1%	70%	23%	7%	-4.7%	6.5%	16.9%	23.1%	579.4
Jackson, MS	S	-6.2%	25%	60%	15%	79.5%	-19.3%	-1.4%	-1.0%	104.9
Jacksonville, FL	S	15.8%	51%	34%	15%	-55.9%	-3.2%	7.9%	41.3%	1964.8
Lexington-Fayette, KY	S	15.6%	53%	37%	10%	-6.1%	-2.9%	3.6%	43.4%	284.5
Little Rock, AR	S	3.3%	35%	48%	17%	17.4%	-19.8%	-1.4%	19.6%	116.2
Louisville, KY	S	-4.9%	22%	65%	13%	3.1%	-2.9%	-5.3%	-6.7%	62.1
Lubbock, TX	S	6.7%	63%	20%	17%	-5.5%	-3.5%	1.4%	23.7%	114.8
Memphis, TN	S	-1.8%	35%	54%	11%	-4.8%	-16.2%	-3.6%	10.9%	279.3
Miami, FL	S	1.0%	41%	41%	18%	285.2%	1.0%	2.5%	-1.1%	35.7
Mobile, AL	S	0.5%	31%	57%	13%	-75.0%	-5.4%	1.2%	4.8%	117.9
Montgomery, AL	S	5.8%	38%	52%	10%	-38.8%	-15.0%	1.8%	28.7%	155.4
Nashville-Davidson, TN	S	11.7%	60%	29%	11%	3.4%	-1.3%	5.3%	28.0%	473.3
New Orleans, LA	S	-2.5%	29%	50%	20%	15.5%	-6.1%	-3.0%	-0.1%	180.6
Newport News, VA	S	5.9%	46%	43%	11%	11.8%	-10.5%	18.9%	5.9%	68.3
Norfolk, VA	S	-10.3%	25%	55%	19%	19.9%	-7.6%	-1.4%	-17.1%	53.7
Oklahoma City, OK	S	13.8%	60%	27%	13%	28.8%	5.4%	3.1%	34.0%	607.0
Raleigh, NC	S	25.4%	71%	16%	13%	27.3%	8.3%	24.9%	50.3%	114.6
Richmond, VA	S	-2.5%	28%	54%	18%	15.8%	-5.2%	-3.9%	0.0%	60.1
San Antonio, TX	S	14.8%	66%	24%	11%	27.1%	-0.3%	7.1%	47.1%	407.6
Shreveport, LA	S	0.4%	48%	38%	13%	17.5%	-6.9%	-1.9%	6.2%	103.1
St Petersburg, FL	S	4.0%	47%	23%	30%	-12.9%	-6.4%	6.1%	9.1%	59.6
Tampa, FL	S	8.5%	53%	30%	16%	-39.5%	-1.1%	2.5%	22.7%	112.1
Tulsa, OK	S	7.0%	54%	33%	13%	34.2%	3.6%	2.3%	15.4%	182.7
Virginia Beach, VA***	S	8.2%	51%	34%	15%					248.3
Washington, DC	S	-5.7%	21%	64%	15%	17.7%	-0.2%	-6.6%	-9.2%	61.4
WEST										
Albuquerque, NM	W	15.6%	44%	42%	14%	45.2%	2.2%	23.2%	24.1%	180.6
Anaheim, CA	W	23.1%	89%	7%	4%	34.0%	21.5%	18.5%	30.7%	48.9
Anchorage, AK	W	15.0%	89%	4%	7%	78.2%	9.2%	16.6%	17.9%	1697.2
Aurora, CO	W	24.3%	83%	10%	7%	75.5%	31.1%	13.7%	31.0%	142.5
Bakersfield, CA	W	31.3%	77%	11%	12%	-22.0%	3.3%	20.4%	116.3%	113.1
Colorado Springs, CO	W	27.5%	84%	3%	12%	16.0%	10.1%	17.1%	65.4%	185.7
Denver, CO	W	18.7%	76%	7%	16%	51.4%	14.9%	14.3%	26.4%	153.4
Fresno, CA	W	20.4%	70%	19%	11%	21.3%	5.7%	13.5%	55.3%	104.4
Glendale, CA	W	8.3%	83%	6%	11%	7.7%	8.5%	8.4%	7.9%	30.7
Honolulu, HI	W	-1.3%	30%	54%	16%	18.6%	2.1%	-2.5%	-3.4%	85.7

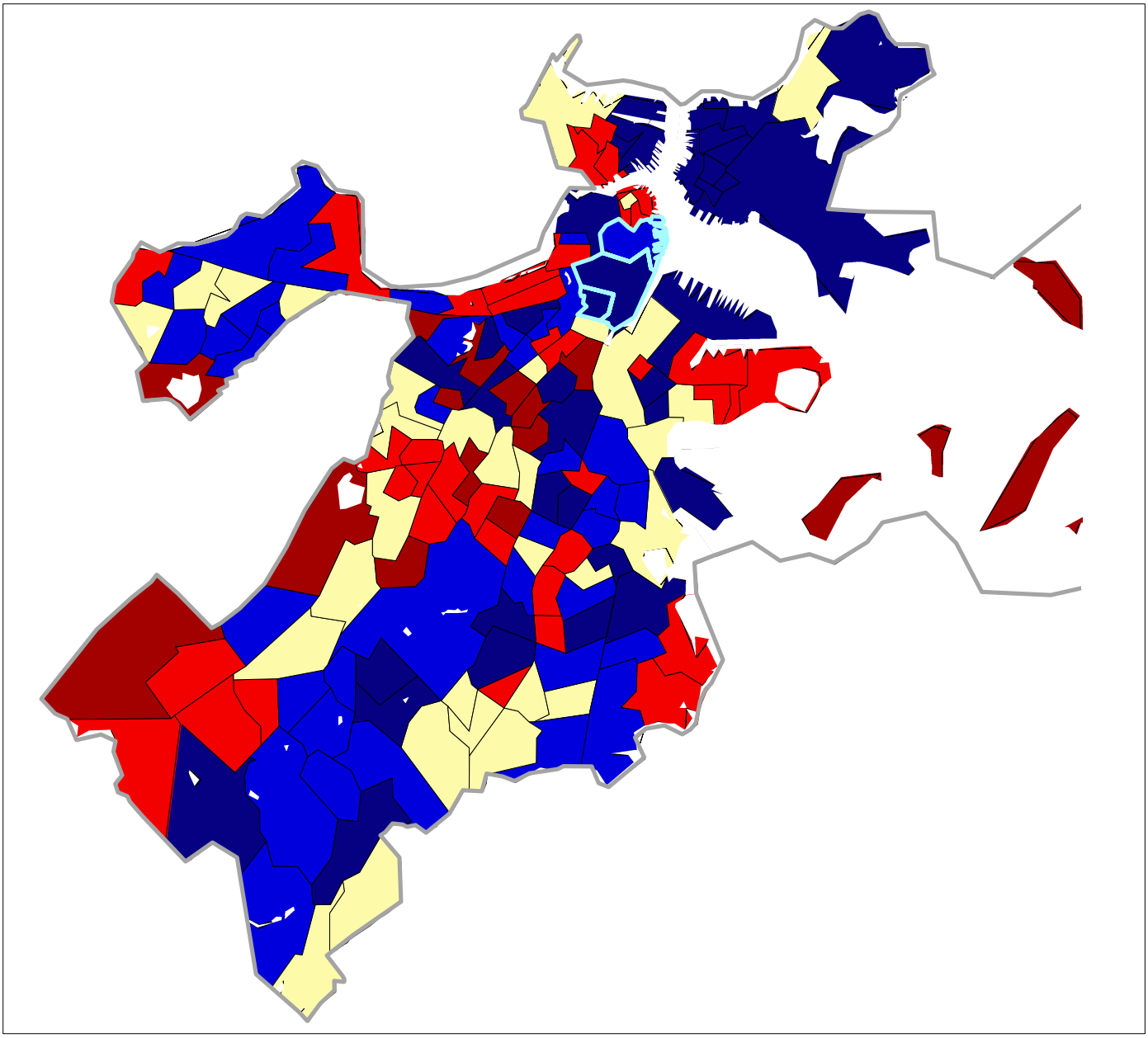
Region/City	Region	Overall Population Change*	% Increasing Tracts	% Decreasing Tracts	% Stable Tracts	CBD Population Change	Inner Core Population Change	Middle Ring Population Change	Outer Ring Population Change	Land Area (sq mi)**
Huntington Beach, CA	W	4.7%	37%	37%	26%	16.2%	11.3%	1.2%	1.5%	26.4
Las Vegas, NV	W	84.4%	86%	6%	8%	37.4%	26.2%	54.9%	528.2%	113.3
Long Beach, CA	W	9.4%	66%	15%	20%	15.5%	5.1%	5.2%	11.8%	50.4
Los Angeles, CA	W	6.0%	59%	23%	18%	-8.5%	1.5%	5.6%	10.8%	469.1
Mesa, AZ	W	36.6%	84%	8%	9%	-10.7%	16.5%	21.5%	119.0%	125.0
Oakland, CA	W	7.3%	68%	15%	17%	36.3%	5.4%	6.6%	9.6%	56.1
Phoenix, AZ	W	33.9%	87%	8%	5%	9.5%	24.8%	19.5%	64.9%	474.9
Portland, OR	W	8.8%	65%	20%	15%	14.6%	5.3%	4.2%	17.9%	134.3
Riverside, CA	W	12.5%	64%	21%	15%	-10.7%	3.3%	12.6%	23.8%	78.1
Sacramento, CA	W	10.2%	59%	26%	15%	8.8%	0.3%	9.1%	20.6%	97.2
San Diego, CA	W	10.1%	58%	27%	15%	20.1%	5.1%	3.4%	24.5%	324.3
San Francisco, CA	W	7.3%	69%	15%	15%	21.6%	10.1%	2.1%	10.0%	46.7
San Jose, CA	W	14.2%	74%	14%	13%	5.0%	12.5%	15.8%	14.2%	174.9
Santa Ana, CA	W	15.0%	85%	5%	10%	33.2%	12.0%	16.2%	18.2%	27.1
Seattle, WA	W	9.1%	76%	9%	15%	43.6%	14.8%	5.2%	8.9%	83.9
Spokane, WA	W	9.8%	79%	9%	12%	2.4%	4.1%	7.0%	27.3%	57.8
Stockton, CA	W	15.3%	49%	30%	21%	-16.0%	6.7%	33.2%	9.6%	54.7
Tacoma, WA	W	9.6%	61%	22%	16%	26.2%	2.9%	13.8%	14.6%	50.1
Tucson, AZ	W	16.8%	74%	12%	14%	17.7%	8.0%	18.1%	27.8%	194.7

** Population change figures are based on consistent use of 2000 city boundaries in both decades. As a result, additions to population that occurred solely as a result of annexation between 1990 and 2000 are not reflected.*

*** Figures for regions are averages.*

**** Hialeah, FL and Virginia Beach, VA have no Census-defined central business districts.*

Appendix Figure A: Boston, MA: Population Change by Census Tract, 1990–2000



Substantial Decline (< -10%)
Moderate Decline (-10 to -2%)
Stable (-2 to 2%)
Moderate Growth (2 to 10%)
Rapid Growth (>10%)

Central Business District

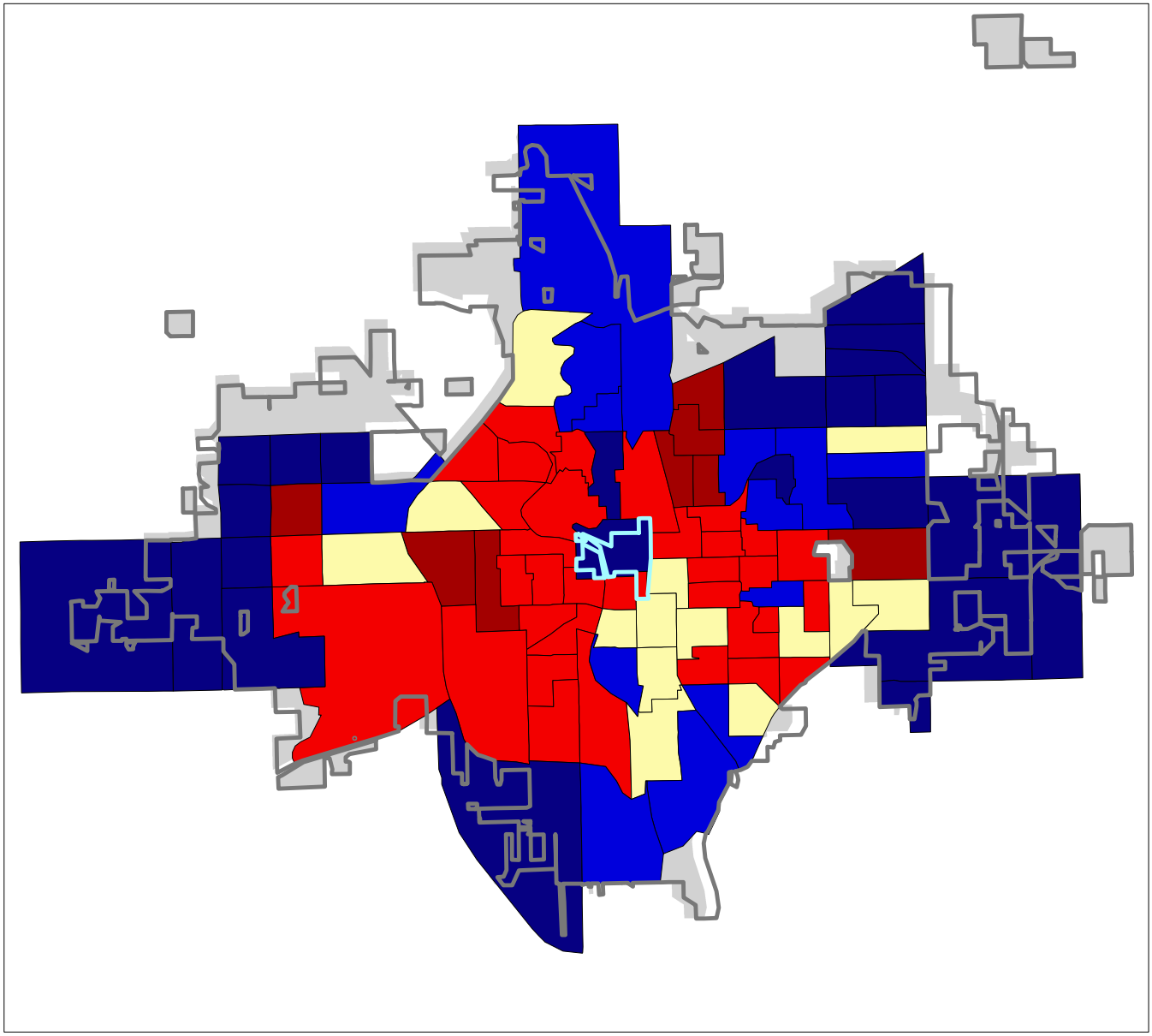
Percentage of Census Tracts

Increasing = 47.1%
Decreasing = 33.1%
Stable = 19.7%

Population Change

Inner Core: 5.9%
Middle Ring: 1.6%
Outer Ring: 1.1%

Appendix Figure B: Witchita, KS: Population Change by Census Tract, 1990–2000



Substantial Decline (< -10%)
Moderate Decline (-10 to -2%)
Stable (-2 to 2%)
Moderate Growth (2 to 10%)
Rapid Growth (>10%)

Central Business District

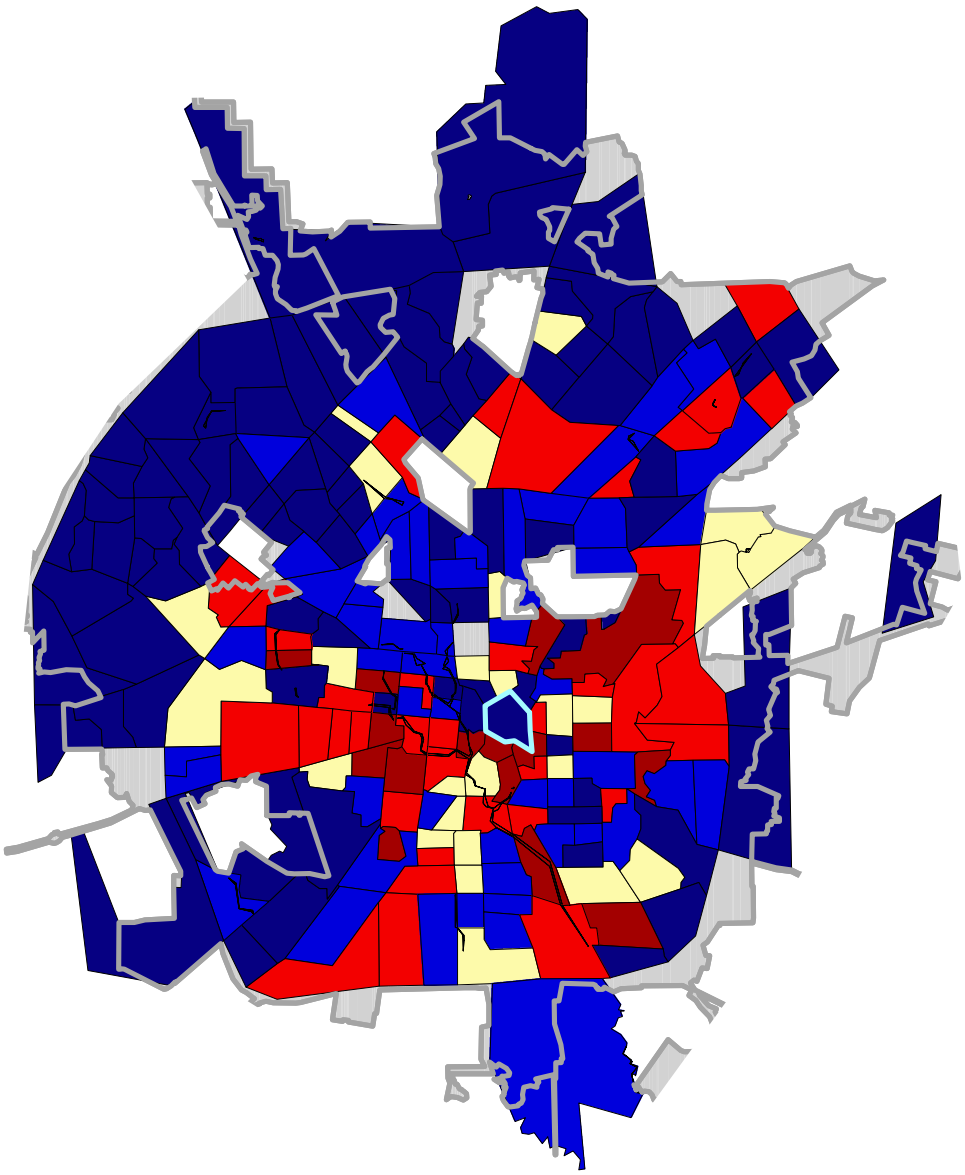
Percent of Census Tracts

Increasing = 20.6%
Decreasing = 64.7%
Stable = 14.7%

Population Change

Inner Core: -2.7%
Middle Ring: -0.3%
Outer Ring: 44.8%

Appendix Figure C: San Antonio, TX: Population Change by Census Tract, 1990–2000



Substantial Decline (< -10%)
Moderate Decline (-10 to -2%)
Stable (-2 to 2%)
Moderate Growth (2 to 10%)
Rapid Growth (>10%)

Central Business District

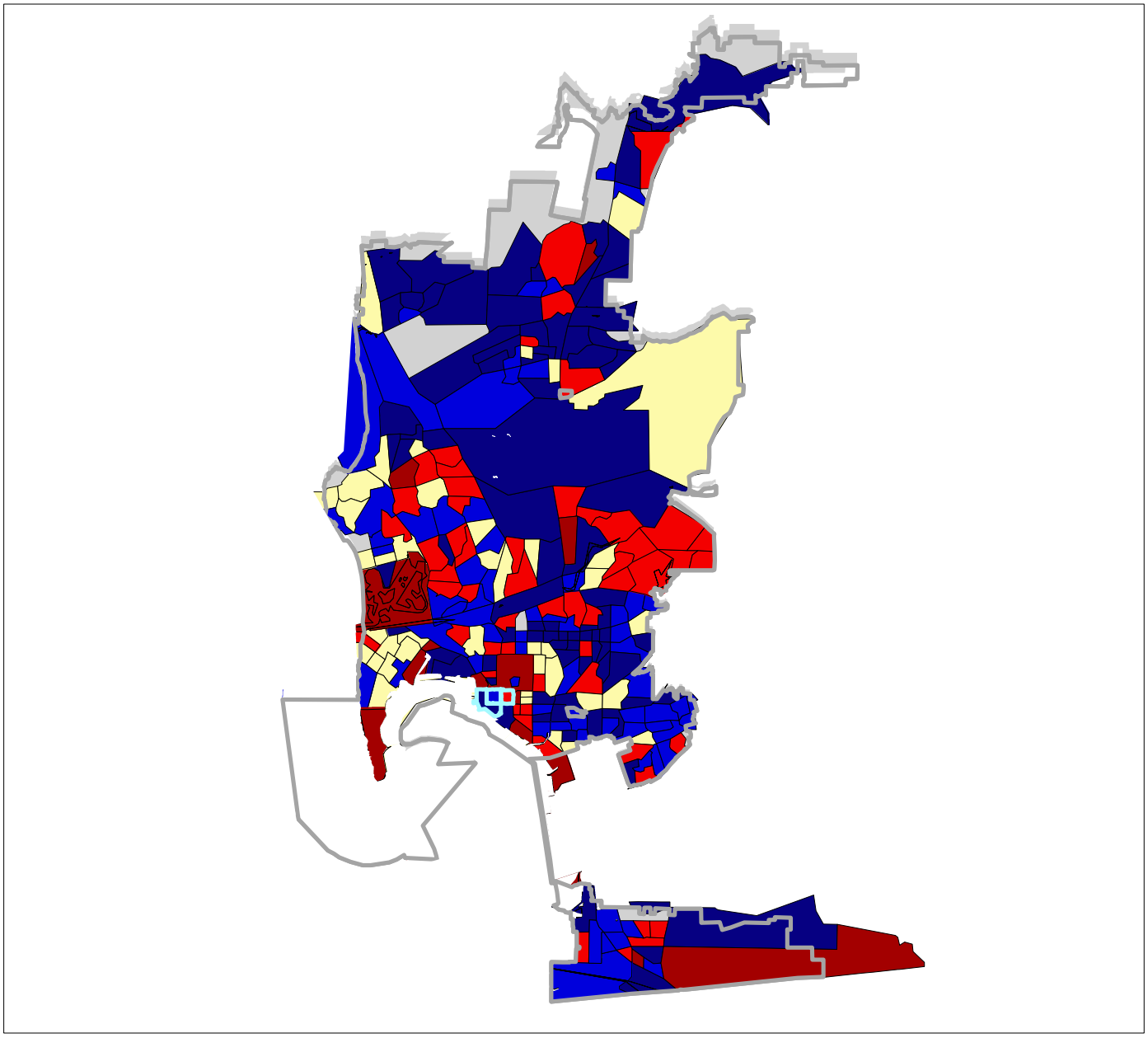
Percentage of Census Tracts

Increasing = 65.6%
Decreasing = 23.8%
Stable = 10.7%

Population Change

Inner Core: -0.3%
Middle Ring: 7.1%
Outer Ring: 47.1%

Appendix Figure D: San Diego, CA: Population Change by Census Tract, 1990–2000



Substantial Decline (< -10%)
Moderate Decline (-10 to -2%)
Stable (-2 to 2%)
Moderate Growth (2 to 10%)
Rapid Growth (>10%)

Central Business District

Percentage of Census Tracts

Increasing = 58.1%
Decreasing = 26.9%
Stable = 15.1%

Population Change

Inner Core: 5.1%
Middle Ring: 3.4%
Outer Ring: 24.6%

Endnotes

1 Lang and Simmons. "The Urban Turnaround."

2 Berube, "Population Change in Large Cities and Their Suburbs."

3 Vey and Forman, "Demographic Change in Medium-Size Cities."

4 Glaeser and Shapiro, "City Growth and the 2000 Census."

5 Thompson, *Population*; Redick, "Population Growth and Distribution in Central Cities."

6 Sohmer and Lang, "Downtown Rebound."

7 Morenoff and Sampson, "Violent Crime and the Spatial Dynamics of Neighborhood Transition."

8 Quillian, "Migration Patterns and the Growth of High-Poverty Neighborhoods."

9 Scafidi et al., "An Economic Analysis of Housing Abandonment."

10 See Berube, "Population Change," for further discussion regarding this selection of cities.

11 Kingsley and Pettit, "Population Growth and Decline in City Neighborhoods"(forthcoming).

12 Treating all census tracts that intersect the borders of the 100 largest cities as part of those cities leads to an overstatement of city population of roughly 25 percent. Treating only those census tracts whose centers lie within the 100 largest cities' borders as part of those cities leads to an understatement of city population of roughly 20 percent. Using census blocks is thus essential for accurately representing within-city population change.

13 One specific result of using this methodology is that the city of Memphis, which grew by 6.5 percent according to the official 1990 and 2000 census counts, actually decreased in population by a little under 2 percent within its 2000 city boundaries over the decade.

14 U.S. Census Bureau. **http://www.census.gov/geo/www/cbd.html**.

15 Researchers at the University of Pennsylvania, building on efforts of the Fannie Mae Foundation and the Brookings urban center, are in the process of defining downtown boundaries in cities throughout the country by conducting interviews with local leaders and analysis of historical maps. While their definitions reflect a more contemporary view of the geography of city downtowns, they encompass a smaller sample of cities than is analyzed in this report. Notes the lead researcher on the project: "…there is no single socioeconomic meaning nor geographical boundary for the term [downtown]. While U.S. downtowns share several common characteristics (a central business district at the core, access to substantial transportation networks, a supply of high-density buildings), they differ dramatically in their age, territory, functions, contents, and character" (Birch, "Having a Longer View on Downtown Living").

16 Katz and Berube, "Cities Rebound—Somewhat."

17 Glaeser, Kahn, and Chu, "Job Sprawl."

18 As noted in the Methodology section, however, because we use consistent 2000 boundary definitions for cities, population growth in cities that annexed land in the 1990s reflects actual net population change at the tract level. Additions to population that result solely from the acquisition of existing residents in annexed tracts are not included in our calculations.

19 Dan Voorhis. "Fleeing the City's Core: Is Anybody Home?" *Wichita Eagle,* July 1, 2001 (1A).

20 Berube, "Population Change."

21 In *Cities Without Suburbs,* Rusk referred to "elastic cities" like those in the South that are large and are able to expand their borders through annexation. In 2000, the average size of the southern cities in this study was 239 square miles, compared to 186 in the West, 117 in the Midwest, and 75 in the Northeast.

22 Interestingly, two of the largest cities in this region, Atlanta and Washington, bucked this trend. Atlanta densified in its core, thanks largely to an increase in "downtown living." Washington managed to stabilize population in its downtown area, as poorer neighborhoods in the farther-flung Northeast and Southeast sections of the city experienced substantial population loss.

23 Sohmer and Lang, "Downtown Rebound."

24 Birch, "Having a Longer View."

25 The figures presented in this section are for 98 cities; neither Hialeah, FL, nor Virginia Beach, VA, had a Census-defined CBD in 1982.

26 Sohmer and Lang, "Downtown Rebound."

27 Kingsley and Pettit, "Population Growth and Decline."

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About Living Cities

Living Cities: The National Community Development Initiative is a partnership of leading foundations, financial institutions, nonprofit organizations and the federal government that is committed to improving the vitality of cities and urban communities. Living Cities funds the work of community development corporations in 23 cities and uses the lessons of that work to engage in national research and policy development. Visit Living Cities on the web at **www.livingcities.org**

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