
U.S. Urban Decline and Growth, 1950 to 2000

By Jordan Rappaport

Following World War II, many large U.S. cities began to rapidly lose population. This urban decline climaxed during the 1970s when New York City, Boston, Chicago, Minneapolis, and Atlanta each lost more than 10 percent of their population. The sharp declines of these and numerous other U.S. urban municipalities led many to believe that large U.S. cities were dying. A 1982 Brookings Institution study concluded, “Continuing population declines in most large U.S. cities seem irreversible” (Bradbury, Downs, and Small).

Then, during the 1980s, New York and Boston began to grow again. In the 1990s, so did Chicago, Atlanta, and Minneapolis. The reversal of population declines by these and a few other U.S. urban municipalities has led many to believe that large U.S. cities are coming back. A 2001 *USA Today* headline proclaimed, “Cities Boom Once Again: Census Numbers Affirm an ‘Urban Renaissance’” (El Nasser).

Contrary to such perceptions, recent U.S. history has *not* been characterized by a period of pervasive urban decline followed by a widespread urban renaissance. To be sure, a few large cities such as New York, Boston, Chicago, Minneapolis, and Atlanta were able to successfully reverse steep population declines. But over the past 50 years, most large U.S. cities either declined continuously or else grew continuously. Such varied

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growth experiences resulted from a complex combination of national, regional, metropolitan area, and local factors. These included a continuing shift of population from the Northeast and Midwest to the South and West, a slowing shift of population from cities to suburbs, and the much more rapid growth of some metropolitan areas relative to others.

This article provides an overview of postwar U.S. urban growth and identifies some of the key factors behind the varied growth experiences of large U.S. cities. The first section shows that the popular perception of urban decline followed by an urban renaissance is misleading. Instead, large U.S. cities can be divided into three distinct groups: those that declined continuously, those that grew continuously, and those that reversed initial declines. The second section presents an accounting framework that identifies the principal trends underlying such varied growth. The third section applies this framework to examine the actual growth experiences of specific cities.

I. URBAN DECLINE AND GROWTH: PERCEPTION VERSUS REALITY

A common perception is that large U.S. cities are once again growing following a long period of decline. But only a relatively few large U.S. cities have been able to reverse sustained population declines. Rather, from 1950 to 2000, most large U.S. cities either grew continuously or declined continuously. This section details this disparate pattern of large U.S. city growth.

Popular perception: Large city decline followed by growth

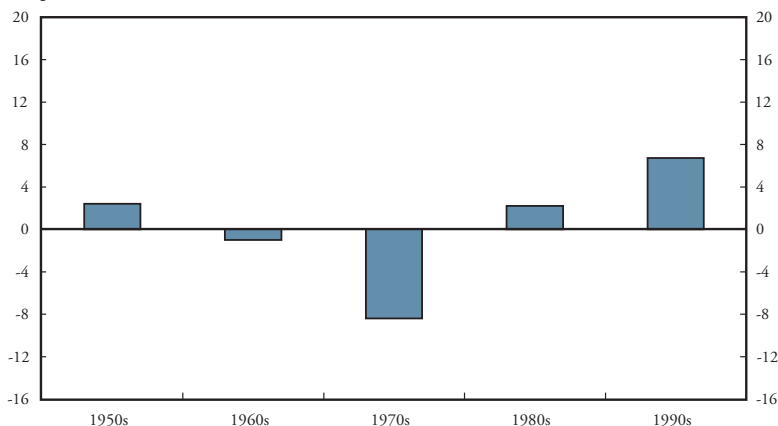
Aggregate statistics support the perception of post World War II urban decline followed by renewed growth. Starting around 1950, the resident population of many large U.S. cities began to shrink rapidly.¹ Despite booming national population growth, more than half of large cities lost population from 1950 to 1980. This decline climaxed during the 1970s, when more than two-thirds lost population. Many of the population losses during the 1970s were quite large. Nearly half of large

Chart 1

LARGE CITY POPULATION GROWTH

(Median, percent per decade)

Percent per decade



Sources: U.S. Census Bureau; author's calculations

cities shrank by at least 10 percent. St. Louis, Cleveland, Buffalo, and Detroit each shrank by more than 20 percent. Vast stretches of urban land were left virtually deserted.

Then, during the 1980s, large cities' fortunes appeared to turn around. More than half began to grow again. Even better, during the 1990s two-thirds of large cities grew.

The aggregate pattern of decline followed by growth comes across clearly in the decade-by-decade time series of large city median population growth (Chart 1). Median growth was a relatively low 2.4 percent for the 1950s (that is, half of large cities grew faster than 2.4 percent for the decade and half grew slower). Growth turned to slight decline during the 1960s and then plunged during 1970s. Following this nadir, large city median growth was once again positive during the 1980s and then increased further during the 1990s.

Reality: Decline by some large cities; growth by others

On closer examination, however, the aggregate pattern of large city decline followed by renewed growth poorly describes the actual growth of most large cities. In fact, relatively few large cities have been able to reverse sustained population losses. Far more common have been large cities that experienced continual decline or continual growth.

A first group of twenty-one large U.S. cities has *declined* continuously throughout much of the postwar period. All of these cities declined during each of the 1970s, 1980s, and 1990s. Most also declined during the 1950s and 1960s (Table 1, p. 28). These cities prove the falsehood of the perception of a current widespread urban renaissance. Indeed, two-thirds experienced population losses of at least 5 percent during the 1990s. Over the longer period, 1950 to 2000, the cumulative population losses of some declining cities have been staggering. St. Louis lost 59 percent of its population. Pittsburgh, Buffalo, Detroit, and Cleveland lost more than 45 percent each.

A second group of twenty-five large U.S. cities has grown more or less continuously since 1950 (Table 2, p. 31). These cities prove false the perception that U.S. urban decline was ever all pervasive. The cumulative population gains of some of these cities have been huge. San Diego, Houston, Phoenix, and Jacksonville have each more than tripled their 1950 population; San Antonio, Dallas, Oklahoma City, and El Paso have each more than doubled their 1950 population.² Ten additional large cities have increased their 1950 population by at least 50 percent.

Finally, a smaller third group of fifteen large U.S. cities has indeed been able to reverse significant population declines (Table 3, p. 33). Ten of these cities began growing again during the 1980s and have now sustained two consecutive decades of positive growth; the remaining five began growing again only during the 1990s. Among these turnaround cities, especially strong growth has propelled New York, San Francisco, Oakland, Portland, Seattle, and Denver to record-high populations in 2000. And Providence's two decades of growth represents an especially dramatic reversal after losing more than a third of its population from 1950 to 1980. The recent turnarounds in Minneapolis, Chicago, and Kansas City have been more modest.

So, contrary to popular perception, the period 1950 to 2000 has seen the sustained decline of one group of large U.S. cities, the vigorous growth of a second group of cities, and the decline followed by growth of a smaller third group of cities. The perception that decline was followed by growth misses a key point: Most of the cities that are growing now are not the same cities that had been shrinking in the past. To better understand such varied growth experiences, Section II introduces a framework for examining the broad trends underlying large U.S. city growth. Section III then applies this framework to account for the specific growth experiences of cities in each of the three groups.

II. DECOMPOSING URBAN DECLINE AND GROWTH

A helpful way of analyzing urban growth is to use an accounting framework that divides the growth into separate national, regional, metropolitan area, and local components. Applying this framework to aggregate data highlights four broad trends. Most important are a *continuing* regional shift of population from the Northeast and Midwest to the South and West and a *slowing* local shift of population from large cities to surrounding suburbs. In addition, the framework highlights a slowing shift of population from nonmetropolitan to metropolitan areas and a slowing of national population growth from the 1950s through the 1980s followed by a rebound during the 1990s.

A framework for decomposing growth

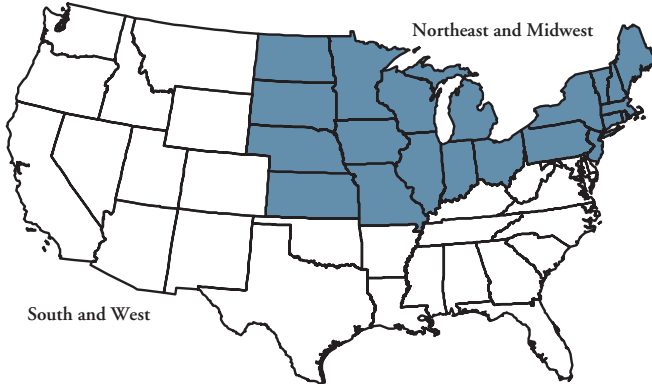
Cities' population growth can be thought of as arising from separate national, regional, metropolitan area, and local factors.

$$\text{City Growth} = \text{National Factor} + \text{Regional Factor} + \text{Metro Factor} + \text{Local Factor}$$

The national and regional factors capture the broad trends affecting city growth. The national factor is simply population growth for the continental United States. It measures the extent to which a city's growth reflects national trends (that is, natural population growth plus

Figure 1

REGIONAL DIVISION OF THE UNITED STATES



immigration). The regional factor is the rate of population growth of the region in which a city is located minus national population growth. It measures the desirability of the city's region as a place to live and locate jobs relative to the remainder of the nation.

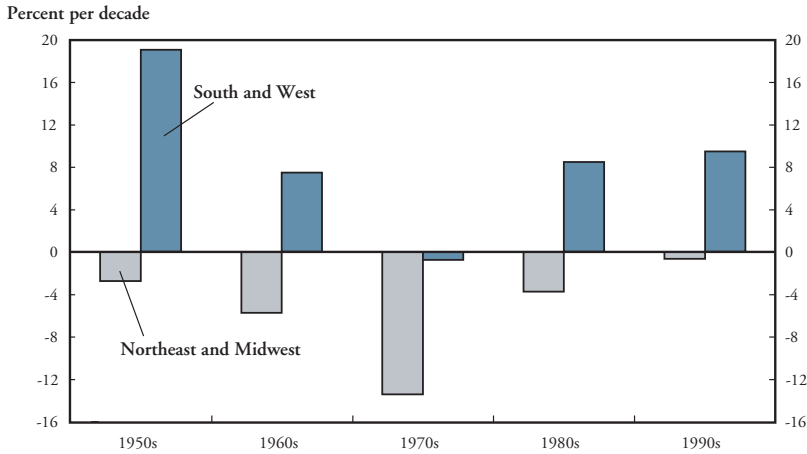
The metro and local factors focus in on the specific performance of a city and its surrounding metropolitan area. The metro factor is the rate of population growth of the metropolitan area in which a city is located minus the rate of population growth of the region in which the city and its metropolitan area are located.³ It measures the desirability of the city's entire metropolitan area (the city plus its surrounding suburbs) as a place to live and locate jobs relative to the remainder of its region. The local factor is the rate of city population growth minus the rate of population growth of the metropolitan area in which the city is located.⁴ It measures the desirability of the city relative to its surrounding suburbs.⁵

Using the framework to understand aggregate trends

A first step toward applying the framework is to divide the United States into smaller geographic regions. While such regions can be as small as U.S. states or even portions of states, for present purposes it is simpler to divide the country into two: a Northeast and Midwest (NE-MW) region and a South and West (S-W) region (Figure 1).⁶

Chart 2

LARGE CITY POPULATION GROWTH BY REGION

(Median, percent per decade)

Sources: U.S. Census Bureau; author's calculations

Dividing the United States into two regions reveals a much richer aggregate pattern of urban growth than the common perception of decline followed by comeback (Chart 2). Whereas median growth for the Northeast and Midwest cities was negative in every decade from 1950 to 2000, growth for the South and West cities was positive in every decade except the 1970s. And, for cities in both regions, growth was declining from the 1950s through the 1970s and then increasing from the 1970s through the 1990s.

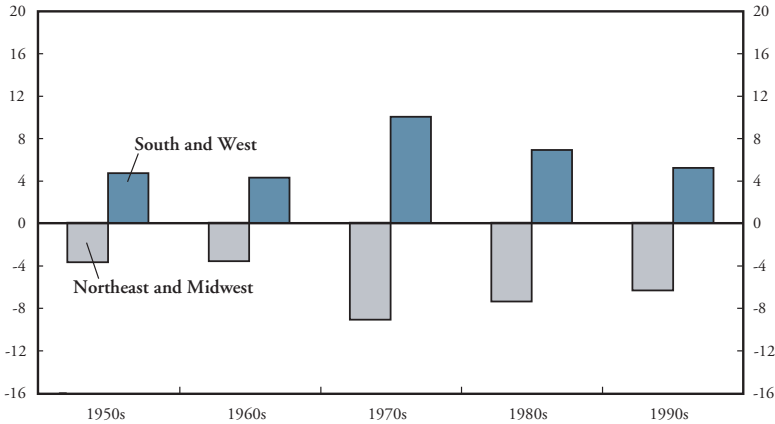
Applying the growth framework to aggregate data for each region identifies four broad trends underlying this pattern. The first is the continuing shift of U.S. population from the Northeast and Midwest to the South and West. This shift is captured by negative NE-MW and positive S-W regional factors for all five decades (Chart 3).⁷ During the 1950s and 1960s, NE-MW population growth lagged and S-W population growth led national population growth by about 4 percent per decade. The shift greatly accelerated during the 1970s: NE-MW growth lagged and S-W growth led national growth by almost 10 percent for the decade. Thereafter the shift moderated but still remained at about 6 percent for the 1990s.

Chart 3

REGIONAL FACTOR OF LARGE CITY GROWTH

(Regional minus national population growth)

Percent per decade



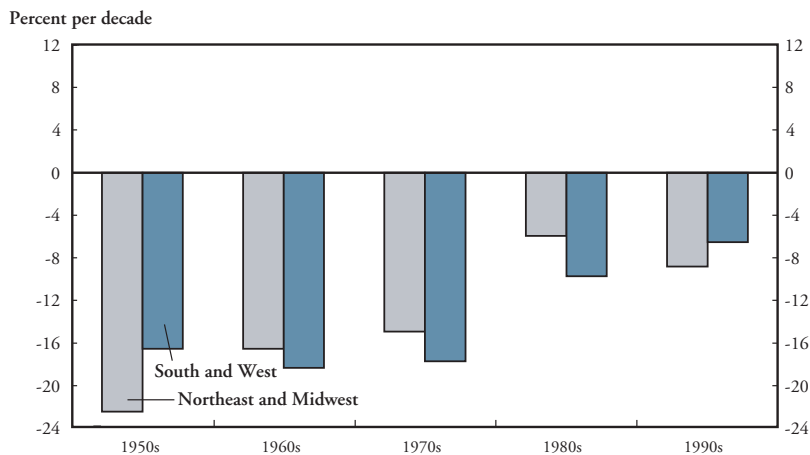
Sources: U.S. Census Bureau; author's calculations

The most likely explanation for this regional shift is the desire by many individuals to move to places with mild winters. The enhanced desirability of living in warm weather locations was underpinned by the spread of affordable air-conditioning technology during the 1950s and 1960s. Also contributing to the high demand for mild weather were rising incomes and an increasing number of retirees. Real per capita GDP rose more than sixfold during the 20th century. Unsurprisingly, many individuals have sought to use some of their rising income to “purchase” nice weather (that is, by moving) (Rappaport). The resulting migration to warm weather locations has been especially strong among the elderly. The number of financially secure senior citizens who can afford such moves has swelled, due both to the general rising level of U.S. income as well as Social Security, better retirement planning, and great advances in medicine (Costa).

An additional reason for the regional shift is the rapidly changing industrial composition of U.S. employment. Much of the United States’ heavy manufacturing, of such goods as steel and automobiles, is concentrated in the Northeast and Midwest. Such heavy manufacturing has represented a declining share of U.S. employment since the mid-

Chart 4

LOCAL FACTOR OF LARGE CITY GROWTH (City minus metro area population growth, median by region)



Sources: U.S. Census Bureau; author's calculations

1960s. The service industries that came to supplant heavy manufacturing were freer to locate throughout the country, wherever individuals most desired to live.

The second broad trend is the slowing shift of metropolitan areas' population from cities to suburbs. For both the Northeast-Midwest and South-West regions, median local factor growth was negative for all five decades (Chart 4). But local factor losses were much larger during the 1950s, 1960s, and 1970s, when the median local factor ranged from -15 to -22 percent per decade. In contrast, the local factor losses were much smaller during the 1980s and 1990s, when the median loss ranged from -6 to -10 percent per decade.

The main cause underlying the trend toward suburbanization has been the automobile. In 1900, people had to live either within walking distance of their workplace or else within walking distance of a commuter rail or streetcar line that was within walking distance of their workplace. Densely settled cities solved this locational need. The automobile's widespread adoption during the mid-20th century, along with

massive investment in highway and road construction, greatly enlarged the size of the geographic area in which people could both live and work (Jackson).

Of course, numerous other causes have also driven suburbanization. These include high-quality suburban school systems, low suburban crime rates, low suburban tax rates, and the increasing demand for large homes accompanying the dramatic rise in per capita income over the past century.

Less clear is why the shift from cities to suburbs slowed so dramatically during the 1980s and 1990s. Part of the slowdown may reflect the extended period of time that was needed for metropolitan area settlement patterns to adjust to the automobile. In other words, the 1950s through the 1970s were a period of transition as individuals, and later firms, moved out into the enlarged geographic area in which it had become feasible to live and work. The 1980s and 1990s, then, represent a longer term pattern in which suburban growth continues to outpace city growth, but by a smaller amount.

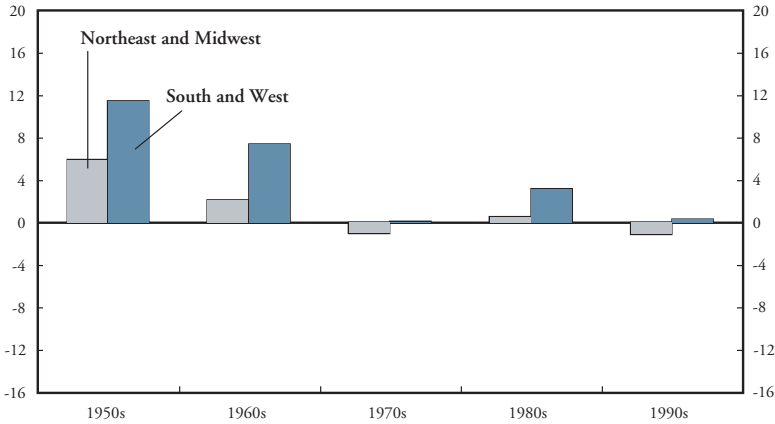
The slowing shift from cities to suburbs may also reflect some dissatisfaction with suburban “sprawl.” Cities offer the possibility of living both near where one works and near a wide range of urban amenities such as restaurants, live entertainment, and cultural attractions. Recent research suggests that wealthy individuals, who tend to place a high value on their time, are increasingly choosing to live near city centers both to avoid lengthy commutes and to enjoy urban amenities (Glaeser, Kolko, and Saiz). And, anecdotes abound of individuals who move from suburbs to the city for similar reasons after their children go off to college.⁸ The same research also finds a positive correlation between city growth and the number of restaurants and live performance venues.

The slowing shift may also capture the aging of numerous suburban communities. While nearly every large city continues to grow slower than its metropolitan area, so too do many of the older suburbs within those metropolitan areas. A recent Brookings Institution study of the 35 largest metropolitan areas classified 37 percent of their suburbs as declining or “stagnant” from 1990 to 2000 (Lucy and Phillips). Such slow-growth suburbs tend to be located relatively close in to cities and are grappling with aging infrastructure, deteriorating schools and commercial corridors, and inadequate housing stock.

Chart 5

METRO FACTOR OF LARGE CITY GROWTH*(Metro area minus regional population growth, median by region)*

Percent per decade



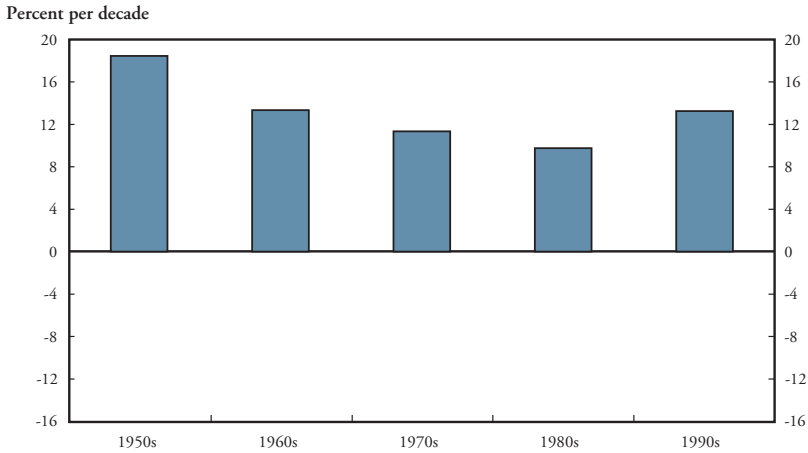
Sources: U.S. Census Bureau; author's calculations

The third trend underlying the aggregate pattern of large city growth is the slowing shift of population into large city metropolitan areas. During the 1950s and 1960s, median metro factor growth was positive for both the Northeast and Midwest and the South and West regions (Chart 5). This growth partly reflected shifts from rural to metropolitan areas within each region. Additionally, the especially high S-W metro factors suggest that most of the individuals moving to this region during the 1950s and 1960s chose to live in metropolitan rather than rural areas. During the next three decades, median metro factor growth was negligible in both regions, indicating that it played little part in shaping aggregate trends. As will be shown in the next section, however, metro factor growth during these latter decades was very important in accounting for the growth of specific cities.

The fourth trend underlying the aggregate pattern of growth is the slowing of national population growth from the 1950s through the 1980s followed by faster growth during the 1990s (Chart 6). The slowing portion of this trend derived from the falloff in U.S. fertility from its post World War II high, while the increase during the 1990s derived largely from surging immigration.

Chart 6

NATIONAL FACTOR OF LARGE CITY GROWTH (Continental U.S. population growth)



Sources: U.S. Census Bureau; author's calculations

By combining the four broad trends shown in Charts 3 to 6, it is possible to understand the regional urban growth patterns shown in Chart 2. The negative median growth of Northeast and Midwest cities reflected the combination of large negative regional and local factors. Specifically, the regional shift in population away from the Northeast and Midwest plus the local shift in population from NE-MW cities to suburbs together were sufficient to cause most NE-MW cities to shrink in every decade. In contrast, the positive median growth of South and West cities stemmed from positive national, regional, and metro factors outweighing a large negative local factor.⁹

Similarly, combining the four charts explains why cities in both regions experienced declining growth in the 1950s through the 1970s and then accelerating growth in the 1980s and 1990s. The period of slowing city growth from 1950 through 1980 derived from slowing national growth plus slowing metropolitan area growth. In contrast, the increased city growth from 1980 to 2000 derived from the slowing shift from cities to suburbs plus increasing national population growth during the 1990s.

Of course, the pattern of aggregate urban growth by region continues to mask considerable heterogeneity. The next section applies the growth accounting framework to the experiences of specific cities to understand how some declined continuously, others grew continuously, and still others were able to reverse initial population declines.

III. ACCOUNTING FOR SPECIFIC CITIES' DECLINE AND GROWTH

While the median growth rates by region are suggestive, they only partly account for the varied pattern of U.S. urban growth. Not all continually declining cities were located in the Northeast and Midwest. Nor were all continually growing cities in the South and West. And cities that reversed population declines were distributed approximately evenly between the two regions. This section applies the growth accounting framework to understand the disparate performance within each region.¹⁰ The box on page 29 provides further examples of applying the growth framework to uncover the sources of some cities' growth and others' decline.

How did some cities decline continuously?

As shown in the previous section, nearly all large U.S. cities have grown slower than their surrounding suburbs since 1950. But this widespread local factor loss was rarely sufficient to bring about any city's continuous decline. After all, two-thirds of cities grew continuously or were able to reverse initial declines. Indeed, even the combination of local factor losses with regional decline was not sufficient to stall some cities' growth. Rather, continuously declining cities also tended to be characterized either by metro factor losses or by especially large local factor losses.

Unsurprisingly, the majority of continually declining cities were in the Northeast and Midwest (Table 1). Depending on when their decline began, these fourteen NE-MW cities experienced a negative regional factor ranging from -6.1 to -7.7 percent per decade. Of course, the remaining thirteen cities in the Northeast and Midwest also experienced this negative regional factor. The continuously declining NE-MW cities differed from the remaining NE-MW cities either by experiencing metro factor losses or

Table 1
LARGE CITIES THAT DECLINED CONTINUOUSLY

<i>Large City</i>	<i>Period</i>	<i>Population Growth</i>	<i>National Factor</i> (national population growth)	<i>Regional Factor</i> (regional minus national growth)	<i>Metro Factor</i> (metro minus regional growth)	<i>Local Factor</i> (city minus metro growth)
<i>Northeast and Midwest Region:</i>						
Regional Median	1950 to 2000	-5.3			1.3	-13.9
1. St. Louis	1950 to 2000	-16.5	13.2	-6.1	-0.4	-23.1
2. Pittsburgh	1950 to 2000	-13.1	13.2	-6.1	-8.2	-12.0
3. Buffalo	1950 to 2000	-12.8	13.2	-6.1	-5.5	-14.4
4. Detroit	1950 to 2000	-12.5	13.2	-6.1	-0.3	-19.2
5. Cleveland	1950 to 2000	-12.2	13.2	-6.1	-3.0	-16.2
6. Newark	1950 to 2000	-9.0	13.2	-6.1	-2.5	-13.6
7. Cincinnati	1950 to 2000	-8.0	13.2	-6.1	1.9	-17.0
8. Rochester	1950 to 2000	-7.9	13.2	-6.1	1.7	-16.7
9. Syracuse	1950 to 2000	-7.8	13.2	-6.1	-0.8	-14.0
10. Philadelphia	1950 to 2000	-6.0	13.2	-6.1	0.3	-13.4
Regional Median	1960 to 2000	-6.0			0.2	-11.6
11. Dayton	1960 to 2000	-10.8	11.9	-6.7	0.6	-16.6
12. Akron	1960 to 2000	-7.0	11.9	-6.7	0.1	-12.3
13. Milwaukee	1960 to 2000	-5.3	11.9	-6.7	-0.4	-10.1
Regional Median	1970 to 2000	-6.1			-0.5	-9.9
14. Toledo	1970 to 2000	-6.4	11.4	-7.7	-1.6	-8.6
<i>South and West Region:</i>						
Regional Median	1950 to 2000	8.5			4.4	-13.9
1. Baltimore	1950 to 2000	-7.3	13.2	6.2	-7.7	-18.9
2. Washington	1950 to 2000	-6.5	13.2	6.2	3.2	-29.0
Regional Median	1960 to 2000	6.0			2.7	-13.2
3. Louisville	1960 to 2000	-10.0	11.9	6.5	-10.9	-17.6
4. Birmingham	1960 to 2000	-8.1	11.9	6.5	-12.0	-14.6
5. New Orleans	1960 to 2000	-6.3	11.9	6.5	-10.0	-14.7
Regional Median	1970 to 2000	5.6			1.2	-11.4
6. Norfolk	1970 to 2000	-8.7	11.4	7.3	-6.1	-21.3
7. Richmond	1970 to 2000	-7.4	11.4	7.3	-4.8	-21.3

Note: All growth rates are percent per decade for the enumerated time period. National growth is for the continental United States. Median growth rates over multiple decades are calculated as the product of decade median rates.

Sources: U.S. Census Bureau; author's calculations

by experiencing especially large local factor losses. For example, population declines in Pittsburgh and Buffalo derived in large part from poor metropolitan area performance. These cities experienced significant metro factor losses as compared to a median NE-MW metro factor that was slightly positive. In contrast, population declines in St. Louis and Detroit derived in large part from the especially poor local performance of the cities themselves

PERFORMANCE OF TENTH DISTRICT LARGE CITIES

Applying the growth decomposition to large cities in the Federal Reserve System's Tenth District highlights its power to reveal the regional, metro, and local contributions to cities' performance. The table in this box decomposes the growth of the District's present-day large cities for each decade from 1950 to 2000.

The decomposition is calculated with one main difference from how it is applied in the main text. The simple regional division of the nation into the Northeast and Midwest versus the South and West suggests that the Tenth District cities of Oklahoma City and Tulsa experienced a strong regional factor and a corresponding weak metro factor. But Oklahoma, along with its neighboring states to the north and east, actually grew considerably slower than the continental United States (see notes 12 and 13). This box's decomposition instead divides the Tenth District into an eastern region (Missouri, Nebraska, Kansas, Oklahoma) and a western region (Wyoming, Colorado, New Mexico). Doing so shows that Oklahoma City and Tulsa actually experienced weak regional but strong metro factor growth.

Regional performance had an important impact on growth rates. Cities in the District's eastern states—Kansas City, Oklahoma City, Omaha, Wichita, and Tulsa—were hurt by a regional factor that averaged -6 percent per decade. In contrast, cities in the District's western states—Denver and Albuquerque—benefited from a regional factor that averaged 10 percent per decade.

Metro factor growth was similarly important. All Tenth District large cities experienced metro factor growth that averaged at least 3.9 percent per decade. For Oklahoma City, Tulsa, and Denver, this metro factor growth was positive in all five decades. For the remaining cities, it was positive in some decades but negative in others.

Local factor losses for Oklahoma City, Omaha, Wichita, Tulsa, and Albuquerque were remarkably small. In many decades, these cities actually grew faster than their metropolitan areas. However, the same large negative local factors that were typical throughout the nation applied to Kansas City. Even larger local factor losses curbed Denver's growth, although these losses slowed considerably during the 1990s.

TENTH DISTRICT GROWTH DECOMPOSITION

	1950s	1960s	1970s	1980s	1990s	Average
National Factor	18.4	13.3	11.3	9.7	13.2	13.2
Regional Factor						
East 10th District (MO,NE,KS,OK)	-9.7	-6.2	-3.1	-6.0	-4.0	-5.8
West 10th District (WY,CO,NM)	13.7	4.0	19.7	3.2	12.5	10.4
Metro Factor						
Kansas City MO	18.5	7.3	-3.7	5.6	3.1	5.9
Oklahoma City OK	12.3	14.5	12.3	7.4	3.7	10.0
Omaha NE	11.9	7.4	-2.3	0.7	2.4	3.9
Tulsa OK	12.2	8.5	15.2	3.3	4.2	8.6
Wichita KS	31.6	-6.2	-2.3	5.1	1.7	5.2
Denver CO	19.5	15.1	0.0	1.3	4.2	7.8
Albuquerque NM	42.7	3.3	5.4	6.8	-4.7	9.6
Local Factor						
Kansas City MO	-23.1	-7.7	-16.2	-12.2	-10.7	-14.2
Oklahoma City OK	12.2	-8.1	-11.0	-0.8	1.0	-1.7
Omaha NE	-0.5	0.4	-15.3	2.4	4.6	-1.9
Tulsa OK	22.3	10.6	-14.2	-5.2	-6.3	0.6
Wichita KS	11.1	7.6	-5.0	0.0	2.4	3.1
Denver CO	-32.9	-28.1	-35.4	-19.2	-11.3	-25.9
Albuquerque NM	33.0	1.0	-0.7	-3.7	-4.4	4.2

Sources: U.S. Census Bureau; author's calculations

relative to their suburbs. These latter two cities experienced local factor losses more than five percentage points greater than the median NE-MW local factor loss.¹¹

The remaining seven cities that experienced continual population losses were in the South and West. They tended to decline both because their metropolitan areas performed poorly relative to the remainder of the S-W region and because the cities themselves performed especially poorly relative to their suburbs. That is, continuously declining S-W cities are distinguished both by metro factor losses and by especially large local factor losses. For example, Richmond experienced metro factor growth of -4.8 percent per decade and local factor growth of -21.3 percent per decade as compared to a median S-W metro factor of 1.2 percent and a median S-W local factor of -11.4 percent. In this group, only Washington, D.C., did not experience a metro factor loss. Its decline was instead due entirely to an extraordinarily large local factor loss averaging 29 percent per decade. And, only Birmingham and New Orleans did not experience especially large local factor losses. Their population declines resulted primarily from especially large metro factor losses.¹²

How did some cities grow continuously?

Large cities that achieved continuous growth did so in part due to strong regional performance. Twenty-one of the twenty-five continuously growing cities were in the South and West (Table 2).¹³ These continuously growing S-W cities also typically experienced either above-average metro factor gains or below-average local factor losses compared to other large cities in their region. For example, San Diego's metro factor averaged 14 percent per decade more than the median S-W metro factor. Alternatively, Jacksonville's local factor averaged 17 percent per decade more than the median S-W local factor.

The four continuously growing Northeast and Midwest cities—Columbus, Indianapolis, Omaha, and Wichita—experienced both above-average metro factor gains and below-average local factor losses as compared to other cities in their region. For example, Columbus' metro factor averaged 8 percent per decade more and its local factor averaged 11 percent per decade more than the respective NE-MW medians.

Table 2
LARGE CITIES THAT GREW CONTINUOUSLY

<i>Large City</i>	<i>Period</i>	<i>Population Growth</i>	<i>National Factor</i> (national population growth)	<i>Regional Factor</i> (regional minus national growth)	<i>Metro Factor</i> (metro minus regional growth)	<i>Local Factor</i> (city minus metro growth)
<i>Northeast and Midwest Region:</i>						
Regional Median	1950 to 2000	-5.3			1.3	-13.9
1. Columbus	1950 to 2000	13.6	13.2	-6.1	9.3	-2.8
2. Indianapolis*	1950 to 2000	12.9	13.2	-6.1	6.5	-0.7
3. Omaha*	1950 to 2000	9.2	13.2	-6.1	4.2	-2.1
Regional Median	1960 to 2000	-6.0			0.2	-11.6
4. Wichita	1960 to 2000	7.8	11.9	-6.7	1.4	1.2
<i>South and West Region:</i>						
Regional Median	1950 to 2000	8.5			4.4	-13.9
1. San Diego	1950 to 2000	29.6	13.2	6.2	18.9	-8.6
2. Jacksonville*	1950 to 2000	29.2	13.2	6.2	6.4	3.5
3. Houston	1950 to 2000	26.8	13.2	6.2	15.4	-8.0
4. San Antonio	1950 to 2000	22.9	13.2	6.2	3.8	-0.2
5. Dallas	1950 to 2000	22.3	13.2	6.2	14.6	-11.7
6. Oklahoma City	1950 to 2000	15.8	13.2	6.2	-2.0	-1.6
7. Fort Worth*	1950 to 2000	13.9	13.2	6.2	12.7	-18.2
8. Los Angeles	1950 to 2000	13.4	13.2	6.2	4.6	-10.6
9. Long Beach	1950 to 2000	13.0	13.2	6.2	4.6	-11.0
10. Memphis*	1950 to 2000	10.4	13.2	6.2	-7.1	-1.8
11. Miami	1950 to 2000	7.8	13.2	6.2	26.9	-38.5
Regional Median	1960 to 2000	6.0			2.7	-13.2
12. Phoenix	1960 to 2000	31.7	11.9	6.5	28.3	-15.0
13. El Paso	1960 to 2000	19.5	11.9	6.5	4.5	-3.5
14. Tulsa	1960 to 2000	10.7	11.9	6.5	-3.7	-4.0
15. Tampa*	1960 to 2000	2.5	11.9	6.5	13.1	-29.0
Regional Median	1970 to 2000	5.6			1.2	-11.4
16. San Jose	1970 to 2000	24.8	11.4	7.3	-1.0	7.1
17. Nashville	1970 to 2000	8.6	11.4	7.3	2.0	-12.1
Regional Median	1980 to 2000	5.6			1.7	-8.1
18. Austin	1980 to 2000	37.9	11.4	6.0	28.6	-8.2
19. Charlotte	1980 to 2000	31.1	11.4	6.0	4.9	8.8
20. Tucson	1980 to 2000	21.3	11.4	6.0	8.6	-4.7
21. Albuquerque	1980 to 2000	16.3	11.4	6.0	2.9	-4.0

*These large cities experienced strong growth punctuated by a single decade of population decline.

Note: All growth rates are percent per decade for the enumerated time period. National growth is for the continental United States. Median growth rates over multiple decades are calculated as the product of decade median rates. Some of the South and West cities grew from earlier than listed but had not yet passed the population threshold to be classified as "large" as described in the text.

Sources: U.S. Census Bureau; author's calculations

Regardless of region, continuously growing cities that achieved small local factor losses did so in part by annexing formerly suburban land. An extreme example is Jacksonville, which increased its land area more than twenty-five-fold between 1950 and 2000. Similarly, eleven other South and West cities that grew continuously at least doubled their land area between 1950 and 2000, as did all four of the Northeast and Midwest cities (Appendix Table 5).¹⁴

How did some cities reverse population declines?

Large cities that reversed initial population declines are divided approximately evenly between the two U.S. regions (Table 3). To achieve their comebacks, these fifteen cities tended to increase both their metro growth factor and their local growth factor. Quantitatively, the local factor increases were larger. But the metro factor increases are noteworthy because they bucked regional trends.

All of the comeback cities substantially slowed their population losses to suburbs. Comparing the periods when these cities were declining versus when they were again growing, nine cities increased their local growth factor by at least ten percentage points while the remaining six increased it by at least three percentage points. Such improvements partly reflect the trend toward slower suburbanization during the 1980s and 1990s. But, for several cities, local factor increases far exceeded median performance. For example, Denver's local factor improved by more than 15 percent during a period when the median South and West local factor improved by just 7 percent. Other cities that achieved especially large local factor increases included Providence, Portland, Minneapolis, San Francisco, and Oakland.

Most of the comeback cities also benefited from stronger metropolitan area growth. Comparing the period when cities were declining versus the period of their subsequent comeback, twelve of the fifteen cities experienced an increased metro factor. While quantitatively smaller than the local factor gains, these metro factor gains bucked regional trends (Chart 5). For example, Denver's metro factor growth increased by more than 9 percent per decade during a period when the median South and West metro factor growth fell by more than 1 percent. Other comeback cities whose metropolitan areas achieved espe-

Table 3
LARGE CITIES THAT REVERSED DECLINES

<i>Large City</i>	<i>Period of Population Decline</i>	<i>Population Growth during decline</i>	<i>Population Growth following decline</i>	<i>Metro Factor during decline</i>	<i>Metro Factor following decline</i>	<i>Local Factor during decline</i>	<i>Local Factor following decline</i>
<i>Northeast and Midwest Region:</i>							
Regional Median	1950 to 1980	-7.4	-2.2	2.3	-0.2	-18.0	-7.4
1. Providence	1950 to 1980	-14.2	5.2	-1.7	1.2	-21.3	-0.5
2. Boston	1950 to 1980	-11.1	2.3	-2.6	0.0	-17.2	-2.2
3. Jersey City	1950 to 1980	-9.2	3.6	-4.7	0.8	-13.3	-1.7
4. Worcester	1950 to 1980	-7.4	3.3	-3.0	3.3	-13.1	-4.5
Regional Median	1960 to 1980	-9.6	-2.2	0.6	-0.2	-15.7	-7.4
5. St. Paul	1960 to 1980	-7.1	3.1	9.1	11.2	-22.2	-12.7
Regional Median	1970 to 1980	-13.4	-2.2	-0.9	-0.2	-14.9	-7.4
6. New York City	1970 to 1980	-10.4	6.4	-8.9	0.8	-3.8	1.1
Regional Median	1950 to 1990	-6.5	-0.6	1.9	-1.0	-15.1	-8.8
7. Minneapolis	1950 to 1990	-8.3	3.9	10.9	9.5	-26.4	-12.4
8. Chicago	1950 to 1990	-6.4	4.0	1.4	3.4	-14.9	-6.1
Regional Median	1970 to 1990	-8.7	-0.6	-0.2	-1.0	-10.5	-8.8
9. Kansas City	1970 to 1990	-7.4	1.5	4.6	5.4	-14.3	-10.7
<i>South and West Region:</i>							
Regional Median	1950 to 1980	8.3	8.9	6.2	1.7	-17.5	-8.1
1. San Francisco	1950 to 1980	-4.3	7.0	-4.6	-5.3	-26.5	-6.9
2. Oakland	1950 to 1980	-4.1	8.5	-4.6	-5.3	-26.3	-5.3
3. Portland	1950 to 1980	-0.7	20.2	-6.3	0.8	-21.2	0.2
Regional Median	1960 to 1980	3.3	8.9	3.7	1.7	-18.0	-8.1
4. Seattle	1960 to 1980	-5.8	6.8	-1.5	1.8	-27.5	-14.1
Regional Median	1970 to 1990	3.8	9.4	1.6	0.3	-13.8	-6.5
5. Atlanta	1970 to 1990	-10.8	5.7	9.1	20.2	-40.5	-33.1
6. Denver	1970 to 1990	-4.7	18.6	1.8	11.3	-27.0	-11.3

Note: All growth rates are percent per decade. Metro Factor is metropolitan area minus regional growth. Local Factor is city minus metropolitan area growth. Median growth rates over multiple decades are calculated as the product of decade median rates.

Sources: U.S. Census Bureau; author's calculations

cially strong growth increases included Jersey City, New York City, Worcester, Portland, and Atlanta. In contrast, only San Francisco, Oakland, and Minneapolis did not benefit from stronger metro area growth. These latter cities' comeback instead depended entirely on slowing relative population losses to their suburbs.

IV. CONCLUSIONS

Contrary to popular perception, recent U.S. history has not been characterized by a period of pervasive urban decline followed by a widespread urban renaissance. Rather, from 1950 to 2000, most large U.S. cities either grew continuously or declined continuously, with only a relatively small group of large cities actually reversing population declines.

The varied growth experiences of large U.S. cities reflects the combination of a number of underlying trends. Three of these trends stand out as especially important. First, population shifted regionally from the Northeast and Midwest to the South and West. Second, population shifted locally from large cities to suburbs, though at a much slower rate during the 1980s and 1990s than earlier. Third, within each region, some metropolitan areas grew much more rapidly than others.

Combining the three trends, cities that declined continuously tended to be in the Northeast and Midwest and also experienced either an above-average loss of population to their surrounding suburbs or else below-average metropolitan area growth. Cities that grew continuously tended to be in the South and West and also experienced either a below-average loss of population to their surrounding suburbs or else above-average metropolitan area growth. Cities that reversed population declines were scattered throughout the country. They tended to reverse declines both by slowing population losses to surrounding suburbs as well as by increasing metropolitan area growth.

To understand U.S. urban growth over the last 50 years, it is important to look beyond broad headline numbers. Decomposing growth into its component factors provides insight into why cities have performed so differently in the past. Moreover, doing so helps identify factors that may be crucial to specific cities' future success.

Appendix Table 1
U.S. LARGE CITIES

1950 Rank	City	1950 Population	1960 Population	1970 Population	1980 Population	1990 Population	2000 Population
1	New York City NY	7,891,957	7,781,984	7,895,563	7,071,639	7,322,564	8,008,278
2	Chicago IL	3,620,962	3,550,404	3,369,357	3,005,072	2,783,726	2,896,016
3	Philadelphia PA	2,071,605	2,002,512	1,949,996	1,688,210	1,585,577	1,517,550
4	Los Angeles CA	1,970,358	2,479,015	2,811,801	2,966,850	3,485,398	3,694,820
5	Detroit MI	1,849,568	1,670,144	1,514,063	1,203,339	1,027,974	951,270
6	Baltimore MD	949,708	939,024	905,787	786,775	736,014	651,154
7	Cleveland OH	914,808	876,050	750,879	573,822	505,616	478,403
8	St. Louis MO	856,796	750,026	622,236	453,085	396,685	348,189
9	Washington DC	802,178	763,956	756,668	638,333	606,900	572,059
10	Boston MA	801,444	697,197	641,071	562,994	574,283	589,141
11	San Francisco CA	775,357	740,316	715,674	678,974	723,959	776,733
12	Pittsburgh PA	676,806	604,332	520,089	423,938	369,879	334,563
13	Milwaukee WI	637,392	741,324	717,372	636,212	628,088	596,974
14	Houston TX	596,163	938,219	1,233,535	1,595,138	1,630,553	1,953,631
15	Buffalo NY	580,132	532,759	462,768	357,870	328,123	292,648
16	New Orleans LA	370,445	627,525	593,471	557,515	496,938	484,674
17	Minneapolis MN	521,718	482,872	434,400	370,951	368,383	382,618
18	Cincinnati OH	503,998	502,550	453,514	385,457	364,040	331,285
19	Seattle WA	467,591	557,087	530,831	493,846	516,259	563,374
20	Kansas City MO	456,622	475,539	507,330	448,159	435,146	441,545
21	Newark NJ	438,776	405,220	381,930	329,248	275,221	273,546
22	Dallas TX	434,462	679,684	844,401	904,078	1,006,877	1,188,580
23	Indianapolis IN	427,173	476,258	736,856	700,807	731,327	781,870
24	Denver CO	415,786	493,887	514,678	492,365	467,610	554,636
25	San Antonio TX	408,442	587,718	654,153	785,880	935,933	1,144,646
26	Memphis TN	396,000	497,524	623,988	646,356	610,337	650,100
27	Oakland CA	384,575	367,548	361,561	339,337	372,242	399,484
28	Columbus OH	375,901	471,316	540,025	564,871	632,910	711,470
29	Portland OR	373,628	372,676	379,967	366,383	437,319	529,121
30	Louisville KY	369,129	390,639	361,706	298,451	269,063	256,231
31	San Diego CA	334,387	573,224	697,471	875,538	1,110,549	1,223,400
32	Rochester NY	332,488	318,611	295,011	241,741	231,636	219,773
33	Atlanta GA	331,314	487,455	495,039	425,022	394,017	416,474
34	Birmingham AL	326,037	340,887	300,910	284,413	265,968	242,820
35	St. Paul MN	311,349	313,411	309,866	270,230	272,235	287,151
36	Toledo OH	303,616	318,003	383,062	354,635	332,943	313,619
37	Jersey City NJ	299,017	276,101	260,350	223,532	228,537	240,055
38	Fort Worth TX	278,778	356,268	393,455	385,164	447,619	534,694
39	Akron OH	274,605	290,351	275,425	237,177	223,019	217,074
40	Omaha NE	251,117	301,598	346,929	314,255	335,795	390,007
41	Long Beach CA	250,767	344,168	358,879	361,334	429,433	461,522
42	Miami FL	249,276	291,688	334,859	346,865	358,548	362,470
43	Providence RI	248,674	207,498	179,116	156,804	160,728	173,618
44	Dayton OH	243,872	262,332	243,023	203,371	182,044	166,179
45	Oklahoma City OK	243,504	324,253	368,164	403,213	444,719	506,132
46	Richmond VA	230,310	219,958	249,332	219,214	203,056	197,790
47	Syracuse NY	220,583	216,038	197,297	170,105	163,860	147,306
48	Norfolk VA	213,513	304,869	307,951	266,979	261,229	234,403
49	Jacksonville FL	204,517	201,030	504,265	540,920	635,230	735,617
50	Worcester MA	203,486	186,587	176,572	161,799	169,759	172,648
51	Phoenix AZ		439,170	584,303	789,704	983,403	1,321,045
52	El Paso TX		276,687	322,261	425,259	515,342	563,662
53	Tampa FL		274,970	277,714	271,523	280,015	303,447
54	Tulsa OK		261,685	330,350	360,919	367,302	393,049
55	Wichita KS		254,698	276,554	279,272	304,011	344,284
56	San Jose CA			459,913	629,442	782,248	894,943
57	Nashville-Davidson TN			426,029	455,651	488,374	545,524
58	Austin TX				345,496	465,622	656,562
59	Albuquerque NM				331,767	384,736	448,607
60	Tucson AZ				330,537	405,390	486,699
61	Charlotte NC				314,447	395,934	540,828
62	Virginia Beach VA					393,069	425,257
63	Sacramento CA					369,365	407,018
64	Fresno CA					354,202	427,652
65	Las Vegas NV						478,434
66	Mesa AZ						396,375

Note: 1950 rank for cities with 1950 population less than 200,000 is based on population for year in which the city is first classified as a large city.

Source: U.S. Census Bureau

Appendix Table 2

U.S. LARGE CITY POPULATION GROWTH RATES

1950 Rank	City	1950s	1960s	1970s	1980s	1990s	Average
1	New York City NY	-1.4	1.5	-10.4	3.5	9.4	0.3
2	Chicago IL	-1.9	-5.1	-10.8	-7.4	4.0	-4.4
3	Philadelphia PA	-3.3	-2.6	-13.4	-6.1	-4.3	-6.0
4	Los Angeles CA	25.8	13.4	5.5	17.5	6.0	13.4
5	Detroit MI	-9.7	-9.3	-20.5	-14.6	-7.5	-12.5
6	Baltimore MD	-1.1	-3.5	-13.1	-6.5	-11.5	-7.3
7	Cleveland OH	-4.2	-14.3	-23.6	-11.9	-5.4	-12.2
8	St. Louis MO	-12.5	-17.0	-27.2	-12.4	-12.2	-16.5
9	Washington DC	-4.8	-1.0	-15.6	-4.9	-5.7	-6.5
10	Boston MA	-13.0	-8.1	-12.2	2.0	2.6	-6.0
11	San Francisco CA	-4.5	-3.3	-5.1	6.6	7.3	0.0
12	Pittsburgh PA	-10.7	-13.9	-18.5	-12.8	-9.5	-13.1
13	Milwaukee WI	16.3	-3.2	-11.3	-1.3	-5.0	-1.3
14	Houston TX	57.4	31.5	29.3	2.2	19.8	26.8
15	Buffalo NY	-8.2	-13.1	-22.7	-8.3	-10.8	-12.8
16	New Orleans LA	10.0	-5.4	-6.1	-10.9	-2.5	-3.2
17	Minneapolis MN	-7.4	-10.0	-14.6	-0.7	3.9	-6.0
18	Cincinnati OH	-0.3	-9.8	-15.0	-5.6	-9.0	-8.0
19	Seattle WA	19.1	-4.7	-7.0	4.5	9.1	3.8
20	Kansas City MO	4.1	6.7	-11.7	-2.9	1.5	-0.7
21	Newark NJ	-7.6	-5.7	-13.8	-16.4	-0.6	-9.0
22	Dallas TX	56.4	24.2	7.1	11.4	18.0	22.3
23	Indianapolis IN	11.5	54.7	-4.9	4.4	6.9	12.9
24	Denver CO	18.8	4.2	-4.3	-5.0	18.6	5.9
25	San Antonio TX	43.9	11.3	20.1	19.1	22.3	22.9
26	Memphis TN	25.6	25.4	3.6	-5.6	6.5	10.4
27	Oakland CA	-4.4	-1.6	-6.1	9.7	7.3	0.8
28	Columbus OH	25.4	14.6	4.6	12.0	12.4	13.6
29	Portland OR	-0.3	2.0	-3.6	19.4	21.0	7.2
30	Louisville KY	5.8	-7.4	-17.5	-9.8	-4.8	-7.0
31	San Diego CA	71.4	21.7	25.5	26.8	10.2	29.6
32	Rochester NY	-4.2	-7.4	-18.1	-4.2	-5.1	-7.9
33	Atlanta GA	47.1	1.6	-14.1	-7.3	5.7	4.7
34	Birmingham AL	4.6	-11.7	-5.5	-6.5	-8.7	-5.7
35	St. Paul MN	0.7	-1.1	-12.8	0.7	5.5	-1.6
36	Toledo OH	4.7	20.5	-7.4	-6.1	-5.8	0.7
37	Jersey City NJ	-7.7	-5.7	-14.1	2.2	5.0	-4.3
38	Fort Worth TX	27.8	10.4	-2.1	16.2	19.5	13.9
39	Akron OH	5.7	-5.1	-13.9	-6.0	-2.7	-4.6
40	Omaha NE	20.1	15.0	-9.4	6.9	16.1	9.2
41	Long Beach CA	37.2	4.3	0.7	18.8	7.5	13.0
42	Miami FL	17.0	14.8	3.6	3.4	1.1	7.8
43	Providence RI	-16.6	-13.7	-12.5	2.5	8.0	-6.9
44	Dayton OH	7.6	-7.4	-16.3	-10.5	-8.7	-7.4
45	Oklahoma City OK	33.2	13.5	9.5	10.3	13.8	15.8
46	Richmond VA	-4.5	13.4	-12.1	-7.4	-2.6	-3.0
47	Syracuse NY	-2.1	-8.7	-13.8	-3.7	-10.1	-7.8
48	Norfolk VA	42.8	1.0	-13.3	-2.2	-10.3	1.9
49	Jacksonville FL	-1.7	150.8	7.3	17.4	15.8	29.2
50	Worcester MA	-8.3	-5.4	-8.4	4.9	1.7	-3.2
51	Phoenix AZ		33.0	35.2	24.5	34.3	31.7
52	El Paso TX		16.5	32.0	21.2	9.4	19.5
53	Tampa FL		1.0	-2.2	3.1	8.4	2.5
54	Tulsa OK		26.2	9.3	1.8	7.0	10.7
55	Wichita KS		8.6	1.0	8.9	13.2	7.8
56	San Jose CA			36.9	24.3	14.4	24.8
57	Nashville-Davidson TN			7.0	7.2	11.7	8.6
58	Austin TX				34.8	41.0	37.9
59	Albuquerque NM				16.0	16.6	16.3
60	Tucson AZ				22.6	20.1	21.3
61	Charlotte NC				25.9	36.6	31.1
62	Virginia Beach VA					8.2	8.2
63	Sacramento CA					10.2	10.2
64	Fresno CA					20.7	20.7

Notes: 1950 rank is the same as in Appendix Table 1. All growth rates are percent per decade. Average is for the decades for which growth rates are listed.

Sources: U.S. Census Bureau; author's calculations

Appendix Table 3

U.S. LARGE CITY METROPOLITAN AREAS

1950 Rank	Metro Area	1950 Population	1960 Population	1970 Population	1980 Population	1990 Population	2000 Population
	Continental United States	150,701,000	178,463,000	202,229,535	225,179,263	247,051,601	279,583,437
	Northeast and Midwest Region	83,940,000	96,296,000	105,650,808	108,000,953	110,477,861	117,987,154
	South and West Region	66,761,000	82,167,000	96,578,727	117,178,310	136,573,740	161,596,283
1	New York City/Newark/Jersey City	12,895,615	14,476,301	15,590,641	14,550,446	14,871,296	16,128,681
2	Chicago IL	5,535,440	6,710,251	7,496,718	7,598,508	7,682,461	8,463,005
3	Los Angeles/Long Beach CA	4,482,558	6,941,834	8,833,279	9,939,386	11,942,736	13,118,824
4	Philadelphia PA	4,169,216	4,975,446	5,568,084	5,487,472	5,689,945	5,951,957
5	Detroit MI	3,150,803	3,934,800	4,263,434	4,309,032	4,195,616	4,366,362
6	Boston MA	3,065,344	3,357,607	3,708,710	3,662,832	3,783,817	4,001,752
7	Pittsburgh PA	2,642,589	2,837,493	2,828,877	2,720,526	2,530,514	2,489,201
8	San Francisco/Oakland CA*	2,531,314	3,425,674	4,344,174	3,279,460	3,485,833	4,027,013
9	San Francisco/Oakland CA*						4,518,282
10	St. Louis MO	1,747,834	2,092,633	2,345,224	2,273,148	2,329,552	2,410,796
11	Cleveland OH	1,640,319	2,061,668	2,238,320	2,060,584	1,979,894	1,997,048
12	Washington DC	1,543,363	2,125,008	2,929,483	3,095,560	3,712,130	4,257,221
12	Baltimore MD	1,485,437	1,833,795	2,105,238	2,216,226	2,400,014	2,572,191
13	Minneapolis/St. Paul MN	1,273,432	1,620,318	1,991,811	2,144,682	2,470,968	2,873,102
14	Providence RI	1,235,224	1,326,568	1,514,107	1,612,314	1,692,088	1,692,088
15	Cincinnati OH	1,213,832	1,486,040	1,611,615	1,661,678	1,738,746	1,860,314
16	Milwaukee WI	1,199,034	1,521,246	1,692,412	1,693,364	1,735,461	1,831,149
17	Seattle WA	1,196,172	1,512,979	1,934,628	2,240,264	2,748,895	3,275,847
18	Buffalo NY	1,122,052	1,341,750	1,386,899	1,282,721	1,251,795	1,312,535
19	Houston TX	1,021,876	1,527,092	2,121,783	3,034,407	3,634,927	4,540,723
20	Atlanta GA	921,354	1,232,154	1,668,339	2,112,611	2,805,789	3,895,116
21	Kansas City MO	918,674	1,168,732	1,337,317	1,397,831	1,528,302	1,714,751
22	Indianapolis IN	895,557	1,138,494	1,321,324	1,383,874	1,459,134	1,693,900
23	Akron OH	856,313	1,086,524	1,221,289	1,249,709	1,248,975	1,335,717
24	Dayton OH	818,541	1,063,188	1,240,981	1,246,019	1,275,260	1,331,930
25	Birmingham AL	790,347	851,896	873,175	973,495	998,493	1,092,966
26	Dallas TX	780,827	1,119,410	1,556,048	1,957,778	2,553,362	3,369,303
27	Louisville KY	774,319	963,458	1,093,648	1,173,207	1,176,118	1,289,852
28	Columbus OH	768,524	1,002,565	1,196,241	1,297,780	1,432,634	1,641,127
29	New Orleans LA	766,747	983,365	1,141,784	1,306,842	1,296,151	1,359,477
30	Portland OR	761,280	876,754	1,078,162	1,335,572	1,515,452	1,918,009
31	Rochester NY	722,800	854,652	1,020,238	1,030,630	1,062,470	1,098,201
32	Toledo OH	719,037	854,938	932,391	973,197	970,304	995,025
33	Memphis TN	676,274	811,082	911,123	997,844	1,067,263	1,205,204
34	Norfolk VA	667,848	924,746	1,104,541	1,210,580	1,448,714	1,631,245
34	Norfolk/Virginia Beach VA					1,499,652	
35	Denver CO	616,485	934,884	1,237,156	1,620,902	1,851,389	2,405,327
36	Syracuse NY	601,661	710,820	794,923	805,418	824,823	814,058
37	San Antonio TX	599,365	792,900	947,219	1,147,554	1,397,183	1,694,058
38	Miami FL	579,017	1,268,993	1,887,861	2,643,981	3,192,582	3,876,380
39	San Diego CA	556,808	1,033,011	1,357,782	1,861,846	2,498,016	2,813,833
40	Worcester MA	546,401	583,228	637,969	663,532	709,705	750,963
41	Oklahoma City OK	507,679	614,311	747,179	900,459	1,000,586	1,128,862
42	Richmond VA	497,331	602,670	710,856	802,922	910,846	1,049,809
43	Omaha NE	471,079	568,188	651,174	689,736	720,297	803,201
44	Fort Worth TX	435,599	618,550	822,029	1,017,427	1,395,713	1,751,418
45	Jacksonville FL	374,617	544,820	638,533	758,255	963,876	1,176,696
46	Tampa FL		889,611	1,202,668	1,762,045	2,279,666	2,659,999
47	Phoenix AZ		663,510	967,522	1,509,052	2,122,101	3,072,149
47	Phoenix/Mesa AZ						3,251,876
48	Wichita KS		470,668	475,153	503,596	548,026	607,457
49	Tulsa OK		470,649	544,479	672,325	719,374	815,095
50	El Paso TX		374,018	429,064	576,239	727,120	854,304
51	San Jose CA			1,188,504	1,483,212	1,727,311	1,938,187
52	Nashville-Davidson TN			704,297	856,642	990,946	1,238,570
53	Charlotte NC				1,185,955	1,393,475	1,775,472
54	Austin TX				589,732	852,199	1,258,181
55	Tucson AZ				531,443	666,880	843,746
56	Albuquerque NM*				454,499	543,896	611,000
56	Albuquerque NM*					589,131	712,738
57	Sacramento CA					1,246,726	1,471,089
58	Fresno CA					755,580	922,516
59	Las Vegas NV						1,375,765

Notes: Double entries for San Francisco capture the loss of counties to the San Jose metro area. Double entries for Albuquerque capture the inclusion of the newly created Cibola county. 1950 rank for metropolitan areas with 1950 large city population less than 200,000 is based on metro area population in year city is first classified as large. Note that large city metro areas are constructed as described in the text and do not correspond to Census Bureau delineated metro areas. U.S. and region entries include both metro and non-metro areas.

Sources: U.S. Census Bureau; author's calculations

Appendix Table 4

U.S. LARGE CITY METROPOLITAN AREA POPULATION GROWTH RATES

1950 Rank	Metro Area	1950s	1960s	1970s	1980s	1990s	Average
	Continental United States	18.4	13.3	11.3	9.7	13.2	13.2
	Northeast and Midwest Region	14.7	9.7	2.2	2.3	6.8	7.0
	South and West Region	23.1	17.5	21.3	16.6	18.3	19.3
1	New York City/Newark/Jersey City	12.3	7.7	-6.7	2.2	8.5	4.6
2	Chicago IL	21.2	11.7	1.4	1.1	10.2	8.9
3	Los Angeles/Long Beach CA	54.9	27.2	12.5	20.2	9.8	24.0
4	Philadelphia PA	19.3	11.9	-1.4	3.7	4.6	7.4
5	Detroit MI	24.9	12.7	-2.8	-2.6	4.1	6.7
6	Boston MA	9.5	10.5	-1.2	3.3	5.8	5.5
7	Pittsburgh PA	7.4	-0.3	-3.8	-7.0	-1.6	-1.2
8	San Francisco/Oakland CA	35.3	26.8	6.3	15.5	12.2	18.8
9	St. Louis MO	19.7	12.1	-3.1	2.5	3.5	6.6
10	Cleveland OH	25.7	8.6	-7.9	-3.9	0.9	4.0
11	Washington DC	37.7	37.9	5.7	19.9	14.7	22.5
12	Baltimore MD	23.6	14.7	5.3	8.3	7.2	11.6
13	Minneapolis/St. Paul MN	27.2	22.9	7.7	15.2	16.3	17.7
14	Providence RI	7.4	11.4	2.5	6.5	4.9	6.5
15	Cincinnati OH	22.4	8.5	3.1	4.6	7.0	8.9
16	Milwaukee WI	26.9	11.3	0.1	2.5	6.0	8.9
17	Seattle WA	26.5	27.9	15.8	22.7	19.2	22.3
18	Buffalo NY	19.6	3.4	-7.5	-4.0	-1.5	1.6
19	Houston TX	49.4	38.9	43.0	19.8	24.9	34.8
20	Atlanta GA	33.7	35.4	26.6	32.8	38.8	33.4
21	Kansas City MO	27.2	14.4	4.5	9.3	12.2	13.3
22	Indianapolis IN	27.1	16.1	4.7	5.4	16.0	13.6
23	Akron OH	26.9	12.4	2.3	-0.1	6.9	9.3
24	Dayton OH	29.9	16.7	0.4	2.3	4.4	10.2
25	Birmingham AL	7.8	2.5	11.5	2.6	9.5	6.7
26	Dallas TX	43.4	39.0	25.8	30.4	32.0	34.0
27	Louisville KY	24.4	13.5	7.3	0.2	9.7	10.7
28	Columbus OH	30.5	19.3	8.5	10.4	14.6	16.4
29	New Orleans LA	28.3	16.1	14.5	-0.8	4.9	12.1
30	Portland OR	15.2	23.0	23.7	13.6	26.6	20.3
31	Rochester NY	18.2	19.4	1.0	3.1	3.4	8.7
32	Toledo OH	18.9	9.1	4.4	-0.3	2.5	6.7
33	Memphis TN	19.9	12.3	9.5	7.0	12.9	12.3
34	Norfolk VA*	38.5	19.4	9.6	19.7	8.8	18.7
35	Denver CO	51.6	32.3	31.0	14.2	29.9	31.3
36	Syracuse NY	18.1	11.8	1.3	2.4	-1.3	6.2
37	San Antonio TX	32.3	19.5	21.2	21.8	21.2	23.1
38	Miami FL	119.2	48.8	40.1	20.7	21.4	46.3
39	San Diego CA	85.5	31.4	37.1	34.2	12.6	38.3
40	Worcester MA	6.7	9.4	1.3	9.8	5.8	6.6
41	Oklahoma City OK	21.0	21.6	20.5	11.1	12.8	17.3
42	Richmond VA	21.2	18.0	13.0	13.4	15.3	16.1
43	Omaha NE	20.6	14.6	5.9	4.4	11.5	11.3
44	Fort Worth TX	42.0	32.9	23.8	37.2	25.5	32.1
45	Jacksonville FL	45.4	17.2	18.7	27.1	22.1	25.7
46	Tampa FL		35.2	46.5	29.4	16.7	31.5
47	Phoenix AZ		45.8	56.0	40.6	44.8	46.7
48	Wichita KS		1.0	6.0	8.8	10.8	6.6
49	Tulsa OK		15.7	23.5	7.0	13.3	14.7
50	El Paso TX		14.7	34.3	26.2	17.5	22.9
51	San Jose CA			24.8	16.5	12.2	17.7
52	Nashville-Davidson TN			21.6	15.7	25.0	20.7
53	Charlotte NC				17.5	27.4	22.4
54	Austin TX				44.5	47.6	46.1
55	Tucson AZ				25.5	26.5	26.0
56	Albuquerque NM				19.7	21.0	20.3
57	Sacramento CA					18.0	18.0
58	Fresno CA					22.1	22.1

*Norfolk growth rate for 1990s is for Norfolk/Virginia Beach metro area.

Notes: 1950 rank is the same as in Appendix Table 3. Large city metro areas are constructed as described in the text and do not correspond to Census Bureau delineated metro areas. U.S. and region entries include both metro and non-metro areas. All growth rates are percent per decade. Average is for the decades for which growth rates are listed.

Sources: U.S. Census Bureau; author's calculations

Appendix Table 5

U.S. LARGE CITY LAND AREAS (SQUARE MILES)

1950 Rank	City	1950 Land Area	1960 Land Area	1970 Land Area	1980 Land Area	1990 Land Area	2000 Land Area
1	New York City NY	315.1	300.0	299.7	301.5	308.9	303.3
2	Chicago IL	207.5	222.0	222.6	228.1	227.2	227.1
3	Philadelphia PA	127.2	129.0	128.5	136.0	135.1	135.1
4	Los Angeles CA	450.9	455.0	463.7	464.7	469.3	469.1
5	Detroit MI	139.6	138.0	138.0	135.6	138.7	138.8
6	Baltimore MD	78.7	75.0	78.3	80.3	80.8	80.8
7	Cleveland OH	75.0	76.0	75.9	79.0	77.0	77.6
8	St. Louis MO	61.0	61.0	61.2	61.4	61.9	61.9
9	Washington DC	61.4	61.0	61.4	62.7	61.4	61.4
10	Boston MA	47.8	46.0	46.0	47.2	48.4	48.4
11	San Francisco CA	44.6	45.0	45.4	46.4	46.7	46.7
12	Pittsburgh PA	54.2	55.0	55.2	55.4	55.6	55.6
13	Milwaukee WI	50.0	90.0	95.0	95.8	96.1	96.1
14	Houston TX	160.0	321.0	433.9	556.4	539.9	579.4
15	Buffalo NY	39.4	41.0	41.3	41.8	40.6	40.6
16	New Orleans LA	199.4	205.0	197.1	199.4	180.7	180.6
17	Minneapolis MN	53.8	53.0	55.1	55.1	54.9	54.9
18	Cincinnati OH	75.1	77.0	78.1	78.1	77.2	78.0
19	Seattle WA	70.8	82.0	83.6	144.6	83.9	83.9
20	Kansas City MO	80.6	130.0	316.3	316.3	311.5	313.5
21	Newark NJ	23.6	24.0	23.5	24.1	23.8	23.8
22	Dallas TX	112.0	254.0	265.6	333.0	342.4	342.5
23	Indianapolis IN	55.2	70.0	379.4	352.0	361.7	361.5
24	Denver CO	66.8	68.0	95.2	110.6	153.3	153.4
25	San Antonio TX	69.5	148.0	184.0	262.7	333.0	407.6
26	Memphis TN	104.2	129.0	217.4	264.1	256.0	279.3
27	Oakland CA	53.0	52.0	53.4	53.9	56.1	56.1
28	Columbus OH	39.4	87.0	134.6	180.9	190.9	210.3
29	Portland OR	64.1	66.0	89.1	103.3	124.7	134.3
30	Louisville KY	39.9	59.0	60.0	60.0	62.1	62.1
31	San Diego CA	99.4	195.0	316.9	320.0	324.0	324.3
32	Rochester NY	36.0	37.0	36.7	34.2	35.8	35.8
33	Atlanta GA	36.9	136.0	131.5	131.0	131.8	131.7
34	Birmingham AL	65.3	63.0	79.5	98.5	148.5	149.9
35	St. Paul MN	52.2	52.0	52.2	52.4	52.8	52.8
36	Toledo OH	38.3	49.0	81.2	84.2	80.6	80.6
37	Jersey City NJ	13.0	15.0	15.1	13.2	14.9	14.9
38	Fort Worth TX	93.7	138.0	205.0	240.2	281.1	292.5
39	Akron OH	53.7	53.0	54.2	57.5	62.2	62.1
40	Omaha NE	40.7	48.0	76.6	90.9	100.6	115.7
41	Long Beach CA	34.7	46.0	48.7	49.8	50.0	50.4
42	Miami FL	34.2	34.0	34.3	34.3	35.6	35.7
43	Providence RI	17.9	18.0	18.1	18.9	18.5	18.5
44	Dayton OH	25.0	34.0	38.3	48.4	55.0	55.8
45	Oklahoma City OK	50.8	299.0	635.7	603.6	608.2	607.0
46	Richmond VA	37.1	38.0	60.3	60.1	60.1	60.1
47	Syracuse NY	25.3	25.0	25.8	23.8	25.1	25.1
48	Norfolk VA	28.2	52.0	52.6	53.0	53.8	53.7
49	Jacksonville FL	30.2	30.0	766.0	759.7	758.7	757.7
50	Worcester MA	37.0	37.0	37.4	37.4	37.6	37.6
51	Phoenix AZ		187.0	247.9	324.0	419.9	474.9
52	El Paso TX		109.0	118.3	239.2	245.4	249.1
53	Tampa FL		69.0	84.5	84.4	108.7	112.1
54	Tulsa OK		49.0	171.9	185.6	183.5	182.6
55	Wichita KS		51.0	86.5	101.4	115.1	135.8
56	San Jose CA			136.2	158.0	171.3	174.9
57	Nashville-Davidson TN			507.8	479.5	473.3	473.3
58	Austin TX				116.0	217.8	251.5
59	Albuquerque NM				95.3	132.2	180.6
60	Tucson AZ				98.8	156.3	194.7
61	Charlotte NC				139.7	174.3	242.3
62	Virginia Beach VA					248.3	248.3
63	Sacramento CA					96.3	97.2
64	Fresno CA					99.1	104.4
65	Las Vegas NV						113.3
66	Mesa AZ						125.0

Note: 1950 rank is the same as in Appendix Table 1.

Sources: U.S. Census Bureau; Gibson; author's calculations

ENDNOTES

¹For this analysis, large cities will be defined as the 50 *municipalities* with population of at least 200,000 in 1950 plus any additional municipalities that later surpass this population threshold adjusted upward by the rate of national population growth (Appendix Table 1). In other words, continental U.S. population growth was 18.4 percent during the 1950s, implying that municipalities with population of at least 237,000 in 1960 but less than 200,000 in 1950 are classified as “large” from 1960 forward. The 1970, 1980, 1990, and 2000 respective population thresholds are 268,000, 299,000, 328,000, and 371,000.

²Even stronger, Phoenix more than tripled and El Paso more than doubled their 1960 population.

³Metropolitan areas are defined herein as the combination of all counties *with centers* within 40 miles of *the center* of a large city. Large cities with centers within 30 miles of each other are combined into a single metropolitan area encompassing all counties with centers within 40 miles of either city. This metropolitan area definition differs substantially from the metropolitan area classification scheme used by the U.S. Census Bureau. First, the large city population thresholds in the present analysis result in many fewer metropolitan areas. Appendix Table 3 enumerates 45 large city metropolitan areas in 1950 rising to 59 large city metropolitan areas in 2000. The Census Bureau recognized 168 metropolitan areas in 1950, with the number rising to 336 in 2000. More importantly, the definition herein is geographically consistent across metropolitan areas and is constant across time. In contrast, the Census Bureau classification is geographically idiosyncratic across metropolitan areas with borders continually being redefined to reflect changing local settlement patterns.

The 40-mile distance from large city center to surrounding county center results in geographic areas at least as large as those defined by the Census Bureau for most of the metropolitan areas herein. Of the 59 metropolitan areas listed in Appendix Table 3, 37 include one or more additional counties compared to their Census Bureau definition for 2000, representing a total of 86 “extra” counties; 16 exclude one or more counties compared to their Census Bureau definition for 2000, representing a total of 35 “missing” counties.

⁴Suburbs are defined as the remainder of metropolitan areas after excluding large cities. Large city population growth rates are shown in Appendix Table 2. Corresponding metropolitan area growth rates are shown in Appendix Table 4.

⁵So for instance, if the national factor is 10 percent, and the regional, metro, and local factors are each 0 percent, a city’s 10 percent growth entirely reflects national trends. On the other hand, if the metro factor is 10 percent, and the national, regional and local factors are each 0 percent, a city’s 10 percent growth entirely reflects strong metropolitan area performance.

⁶Of course, each of these regions can itself be divided into two or more regions. The Census Bureau defines four “Census Regions” and nine, smaller “Census Divisions.” The divisions are each made up of three or more U.S. states. The Northeast and Midwest region used herein is the combination of the Census Bureau’s Northeast and Midwest regions; the South and West region used herein is the combination of the Census Bureau’s South and West regions excluding Alaska and Hawaii.

⁷As the continental United States is the combination of the Northeast-Midwest region and the South-West region, negative NE-MW regional factor growth necessarily implies positive S-W regional factor growth. However, the regional factors do not sum to zero because the two regions' populations differ.

⁸Such "empty nesters" no longer directly benefit from high-quality suburban school districts; and many of the bedrooms in their suburban homes go unused.

⁹That is, national population growth plus the regional shift in population to the South and West plus the shift in population into S-W metro areas during the 1950s and 1960s together were sufficient to outweigh the local shift in population from city to suburbs for most S-W cities.

¹⁰The present section focuses on *how* some large cities declined continuously, others grew continuously, and still others reversed initial declines. An important related question is *why* they did so. Fundamental to answering the "why" question is understanding the determinants of the relative performance of regions, metropolitan areas, and large municipalities. Existing research suggests that metropolitan area and municipal growth are positively correlated with education levels and negatively correlated with unemployment and the manufacturing share of employment (Glaeser, Scheinkman, and Shleifer). An update to their research finds a negative correlation between municipal growth and population density, which is interpreted as suggesting that more automobile-oriented cities grow faster (Glaeser and Shapiro). Dense cities that have been able to reverse population declines tend to be distinguished by high consumption amenities such as restaurants, art museums, and live performance venues (Glaeser, Kolko, and Saiz).

¹¹Pittsburgh and Buffalo's respective metro factors were -8.3 percent and -5.5 percent per decade as compared to a median NE-MW metro factor of 1.3 percent per decade. St. Louis and Detroit's respective local factors were -23.1 percent and -19.2 percent per decade as compared to a median NE-MW local factor of -13.9 percent per decade.

¹²The metro factor losses of Louisville, Birmingham, and New Orleans are arguably attributable to a too coarse geographic division of the United States into only two regions. A "South Central" region composed of West Virginia, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, and Oklahoma grew slower than the continental United States for each of the five decades except the 1970s. Constructed using the 1960 to 2000 South Central regional factor of -3.4 percent per decade, Louisville's per decade metro factor is -0.9 percent, Birmingham's metro factor is -2.0 percent, and New Orleans' metro factor is 0.0 percent.

¹³Of course, a strong positive regional factor was also experienced by the thirteen S-W cities that declined, either continually or initially. On the other hand, the two region geographical division of the United States used in the present analysis arguably attributes an overly strong regional factor and an overly weak metro factor for Oklahoma City, Memphis, Tulsa, and Nashville. These cities are located in an adjacent group of states that grew considerably slower than the remainder of the South and West. Constructed using the South Central region described in the previous note, these cities' regional factor ranged from -2.3 to -5.5 percent per decade, depending on the exact time period of their continuous growth. Correspondingly, for their respective time period of continuous

growth enumerated in Table 2, Oklahoma City's metro factor is 9.6 percent, Memphis' metro factor is 4.6 percent, Tulsa's metro factor is 8.3 percent, and Nashville's metro factor is 12.7 percent.

¹⁴The 11 additional South and West large cities that doubled their land area from 1950 to 2000 refers to annexations that occurred after cities' population attained "large" status. So for instance, Albuquerque is not included among these nine cities even though its land area more than tripled from 1950 to 2000. But Albuquerque is first classified as a large city in 1980. And between 1980 and 2000, its land area slightly less than doubled.

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