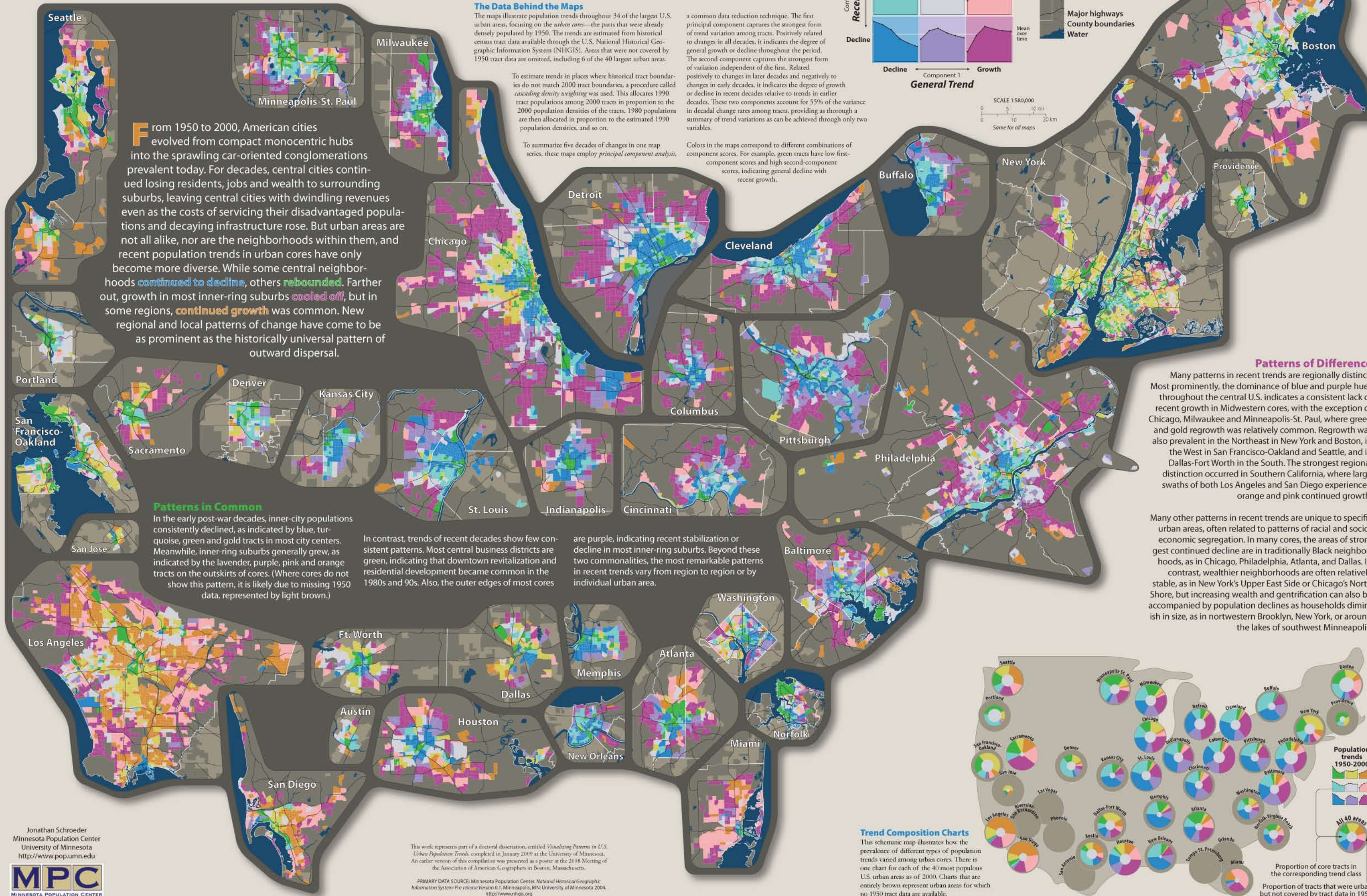# Growth, Decline, Regrowth & Regression
Population Trends in Major U.S. Urban Cores, 1950-2000

From 1950 to 2000, American cities evolved from compact monocentric hubs into the sprawling car-oriented conglomerations prevalent today. For decades, central cities continued losing residents, jobs and wealth to surrounding suburbs, leaving central cities with dwindling revenues even as the costs of servicing their disadvantaged populations and decaying infrastructure rose. But urban areas are not all alike, nor are the neighborhoods within them, and recent population trends in urban cores have only become more diverse. While some central neighborhoods continued to decline, others rebounded. Farther out, growth in most inner-ring suburbs cooled off, but in some regions, continued growth was common. New regional and local patterns of change have come to be as prominent as the historically universal pattern of outward dispersal.

The Data Behind the Maps

The maps illustrate population trends throughout 34 of the largest U.S. urban areas, focusing on the urban cores—the parts that were already densely populated by 1950. The trends are estimated from historical census tract data available through the U.S. National Historical Geographic Information System (NHGIS). Areas that were not covered by 1950 tract data are omitted, including 6 of the 40 largest urban areas.

To estimate trends in places where historical tract boundaries do not match 2000 tract boundaries, a procedure called cascading density weighting was used. This allocates 1990 tract populations among 2000 tracts in proportion to the 2000 population densities of the tracts. 1980 populations are then allocated in proportion to the estimated 1990 population densities, and so on.

To summarize five decades of changes in one map series, these maps employ principal component analysis,

a common data reduction technique. The first principal component captures the strongest form of trend variation among tracts. Positively related to changes in all decades, it indicates the degree of general growth or decline throughout the period. The second component captures the strongest form of variation independent of the first. Related positively to changes in later decades and negatively to changes in early decades, it indicates the degree of growth or decline in recent decades relative to trends in earlier decades. These two components account for 55% of the variance in decadal change rates among tracts, providing as thorough a summary of trend variations as can be achieved through only two variables.

Colors in the maps correspond to different combinations of component scores. For example, green tracts have low first-component scores and high second-component scores, indicating general decline with recent growth.

Population Trends, 1950-2000
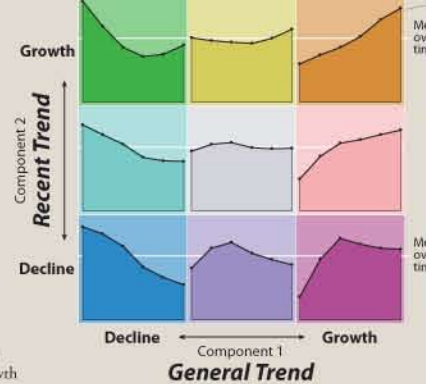
Estimated trend by 2000 census tract
Tracts are grouped into three equally sized classes for each of two principal components of trend variation. Trend lines indicate mean deviation from mean population over time for all tracts in each class.

Not urban in 1950
(Est. 1950 density < 200 persons/km² or area outside of major urban area)

Urban but no data in 1950
(Est. 1950 density > 200 persons/km² and area < 90% covered by 1950 tracts)

Major highways
County boundaries
Water

SCALE 1:580,000
Same for all maps

Patterns in Common

In the early post-war decades, inner-city populations consistently declined, as indicated by blue, turquoise, green and gold tracts in most city centers. Meanwhile, inner-ring suburbs generally grew, as indicated by the lavender, purple, pink and orange tracts on the outskirts of cores. (Where cores do not show this pattern, it is likely due to missing 1950 data, represented by light brown.)

In contrast, trends of recent decades show few consistent patterns. Most central business districts are green, indicating that downtown revitalization and residential development became common in the 1980s and 90s. Also, the outer edges of most cores are purple, indicating recent stabilization or decline in most inner-ring suburbs. Beyond these two commonalities, the most remarkable patterns in recent trends vary from region to region or by individual urban area.

Patterns of Difference

Many patterns in recent trends are regionally distinct. Most prominently, the dominance of blue and purple hues throughout the central U.S. indicates a consistent lack of recent growth in Midwestern cores, with the exception of Chicago, Milwaukee and Minneapolis-St. Paul, where green and gold regrowth was relatively common. Regrowth was also prevalent in the Northeast in New York and Boston, in the West in San Francisco-Oakland and Seattle, and in Dallas-Fort Worth in the South. The strongest regional distinction occurred in Southern California, where large swaths of both Los Angeles and San Diego experienced orange and pink continued growth.

Many other patterns in recent trends are unique to specific urban areas, often related to patterns of racial and socioeconomic segregation. In many cores, the areas of strongest continued decline are in traditionally Black neighborhoods, as in Chicago, Philadelphia, Atlanta, and Dallas. In contrast, wealthier neighborhoods are often relatively stable, as in New York's Upper East Side or Chicago's North Shore, but increasing wealth and gentrification can also be accompanied by population declines as households diminish in size, as in nortwestern Brooklyn, New York, or around the lakes of southwest Minneapolis.

Trend Composition Charts

This schematic map illustrates how the prevalence of different types of population trends varied among urban cores. There is one chart for each of the 40 most populous U.S. urban areas as of 2000. Charts that are entirely brown represent urban areas for which no 1950 tract data are available.

Population trends 1950-2000

All 40 areas

Proportion of core tracts in the corresponding trend class

Proportion of tracts that were urban but not covered by tract data in 1950

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