

## Regional Spotlight

# Smart Growth for Regions of All Sizes

Pittsburgh's population has shrunk by 400,000 since 1969, making it the poster child for urban shrinkage. So why is it doing so well? Sometimes, smaller really is better.

BY PAUL R. FLORA

Among the truisms to which regional policymakers frequently adhere, the most pervasive may be that a region must grow to be successful. However, population growth and job growth are not preconditions for a region to become economically healthy. Rather, the composition and characteristics of jobs required to meet the demands of a region's growing (or changing) industrial structure typically determine the health of a region's economy. High-productivity industries and progressively managed firms generate high-skill, high-wage jobs that raise a region's per capita income.

Indeed, for a region that has lost its prior locational advantage or is unable to attract high-productivity industries, growth may falter or reverse, but its economic health need not decline if policies recognize the transition; assist those most impacted; and generally lower the cost of living, including adjustments to the scope and cost of public infrastructure. Too often, shrinking regions refuse to accept the reality that their population will not resume a growth path.

Aside from the apparent fallacy of the growth paradigm, the policies that emanate from such a belief typically maintain unrealistic expectations given a region's economic structure, often ignore stronger countervailing market forces, and routinely waste resources in pursuit of misplaced goals. Pittsburgh's regional economy offers a persuasive counterexample to the growth paradigm even though its policymakers also often chased economic growth rather than economic health.

Pittsburgh has arguably held the crown for population decline among the nation's largest metropolitan regions for more than half a century. The region's population began falling in the 1960s. From 1969 to 2017, the Pittsburgh region's population fell further, and more consistently year to year, than any other major metropolitan region in the country, including Detroit.<sup>1</sup> Yet no sooner had most of Pittsburgh's steel mills closed for good in the early 1980s than Pittsburgh began garnering accolades as the "most livable city" and generating a stream of positive media coverage describing its economic comeback.

Moreover, consider that in 1969 the Pittsburgh metro area was the ninth largest in the nation.<sup>2</sup> Pittsburgh has since lost population in 41 of the 48 years through 2017, amounting to a net loss of more than 400,000 people.<sup>3</sup> As Pittsburgh shrank, 17 other metro areas surpassed it in population (Figure 1).<sup>4</sup>

While Pittsburgh's net population was falling at a pace of 0.3 percent per year, Orlando, FL, added nearly 2 million people (3.4 percent annualized growth). Las Vegas, which will likely surpass Pittsburgh within the next five years, has grown at a 4.5 percent annualized rate since 1969. Has rapid growth in Orlando and Las Vegas made their economies healthier than Pittsburgh's?

In 2016, Pittsburgh's real per capita income was \$60,797—nearly \$12,000 more than in Las Vegas and over \$15,000 more than in Orlando.<sup>5</sup> In 2017, Pittsburgh's poverty rate was 11.8 percent (a five-year-average estimate); the poverty rate was 14.6 percent in Las Vegas and 15.4 percent in Orlando. In Las Vegas and Orlando, population and job growth have produced neither greater overall incomes per capita nor a more equitable distribution of income.

Of the 17 metro areas that have surpassed Pittsburgh in population since 1969, only three (Minneapolis, St. Louis, and Seattle) had higher real per capita incomes than Pittsburgh as of 2016. And only four (Baltimore, Denver, Minneapolis, and Seattle) had lower poverty rates as of 2017. Despite over five decades of population decline, Pittsburgh remains an economically better place to live than most of its now larger peers.<sup>6</sup>

How does a region's economy improve while declining in population? What does regional economic growth mean, and how should we measure it? Most important, how can we ensure that policymakers are governed by a realistic appraisal of a region's prospects and develop strategies to grow better, not just bigger?

These questions are especially important in Pennsylvania. In seven of the state's 15 more mature metropolitan statistical areas, population has been shrinking for most of the past 50 years.

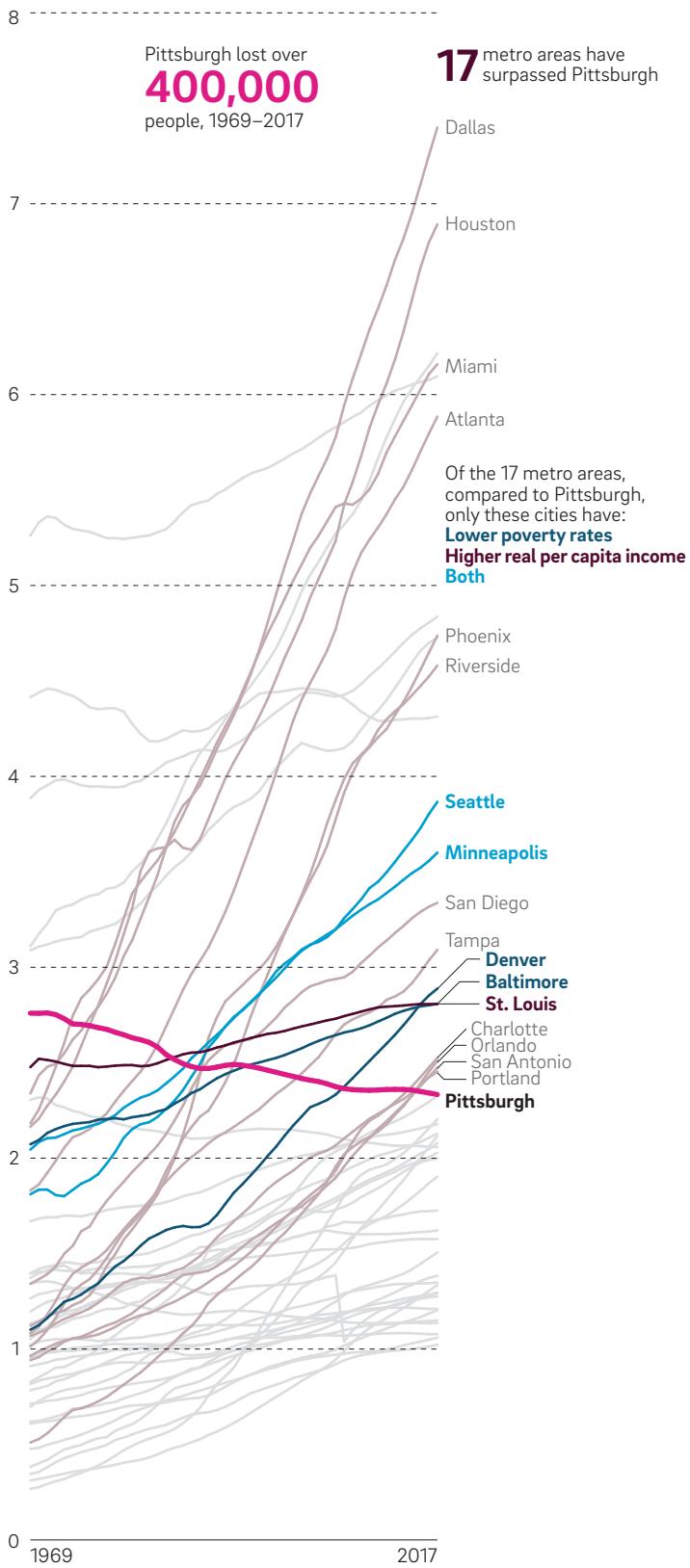
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See *Pittsburgh's Path to Economic Renewal Begun Long Before Its Decline* ➔

FIGURE 1

## Since 1969, 17 Metro Areas Have Surpassed Pittsburgh's Population

Millions of residents; excluding New York, Los Angeles, and Chicago



## Pittsburgh's Path to Economic Renewal Began Long Before Its Decline

In 1969, Pittsburgh was the ninth largest metropolitan region in the country, but its population had been falling since 1960, in step with the decline of the nation's integrated steel industry. Other than auto manufacturing in Detroit, arguably no other industry had dominated a region more thoroughly than steel had dominated Pittsburgh.<sup>16</sup> During the double-dip recession of the early 1980s, most of Pittsburgh's large integrated steel mills closed their doors for good.<sup>17</sup>

Meanwhile, the advent of air conditioning ushered in the migration from the Rust Belt to the Sun Belt and propelled numerous southern regions into periods of rapid growth. As of 2017, 17 metropolitan statistical areas (MSAs) had surpassed Pittsburgh in population. Miami, Dallas, Phoenix, and Orlando shot past on their own rapid trajectories. Others, such as St. Louis and Baltimore, edged past by rising slowly.

The seeds for Pittsburgh's revival had been sown over many prior decades, beginning perhaps with the writings of the 1930s business economist Glenn McLaughlin, who warned city leaders that steel was a mature industry and the region should diversify to prepare for steel's gradual decline.<sup>18</sup> Pittsburgh engineered numerous critical changes, including strict county air pollution regulations, flood control projects, and downtown renewals such as Renaissance One, Renaissance Two, and several successors.

While later researchers have pointed to myriad current explanations for Pittsburgh's economic revival, the decades of prior city renewal efforts enabled Pittsburgh to reinvent itself after the decline of steel. From the 1990s on, firms like Google and RAND have been attracted to Pittsburgh as Carnegie Mellon University and the University of Pittsburgh led advances in higher education, the medical sector, life sciences, computer science, and robotics. Meanwhile, PNC Bank supplanted Mellon Bank as the region's major financial employer and has been a significant downtown developer since the 1990s. Thus the stability of Pittsburgh's economic health during the past 35 years has resulted from the emergence of high-skill, high-paying professional and technical jobs, which eased the sting of losing thousands of lower-skill, well-paying steelworker jobs.

Yet the region's population continued to shrink. Following the demise of steel, economic policymakers persisted with the assumption that the region would begin to grow next year and they planned accordingly—against the advice of regional economists that ongoing decline was more realistic.<sup>19</sup> Pittsburgh likely would have fared better (with greater gains or a smoother transition) had policymakers continued to heed the advice of regional economists, as in prior decades.

Source: Bureau of Economic Analysis.

Note: The chart was constructed for the 53 MSAs in the U.S. with populations greater than 1 million people in 2017.

Moreover, 12 of 20 smaller micropolitan statistical areas, such as Oil City, PA, have seen declining populations since at least 2000. Only seven micro areas have grown during that period, and only four grew sufficiently to earn a “promotion” to metro area status.

## The Case for Regions to Pursue Per Capita Income Growth Rather Than Jobs

Regions are too often compared on size-based measures such as population growth, employment growth, GDP, and total personal income. Less often, or as a secondary measure, regions are compared on a per capita basis, such as per capita income. Let's call these economic-health-based measures.<sup>7</sup>

Whereas GDP measures a region's total economy, GDP per capita represents a region's average potential spending power, which falls when population rises faster than GDP. Thus, growth in per capita measures is more vital to the well-being of a region's people. Individuals and families are better off in regions with higher per capita income, or where per capita incomes are rising faster.<sup>8</sup>

In fact, a region's population growth has a clear, strong correlation with the growth of its total real personal income. Since 1969, Austin, TX, Las Vegas, Orlando, Phoenix, and Raleigh, NC, have been the five fastest-growing regions for both population and total real personal income. By contrast, Cleveland, Detroit, Pittsburgh, and Buffalo, NY—the only four regions in which population has fallen since 1969—bring up the rear with the slowest growth of total real personal income (Figure 2).<sup>9</sup>

However, the strong positive correlation dissipates when real per capita income is examined in place of total income. Instead, a weak negative correlation appears. Austin and Raleigh still show strong growth rates for real per capita income, but Las Vegas, Orlando, and Phoenix show relatively weak growth rates. Meanwhile, Buffalo, Detroit, and Cleveland show below-average growth in real per capita income, while Pittsburgh's growth is above average (Figure 3).

Why do size comparisons persist if per capita comparisons matter more for individual welfare? For one, size comparisons

were once much simpler to make, and their use continues through inertia.<sup>10</sup>

Moreover, aggregate economic growth is generally perceived as a desirable outcome that benefits firms as well as state and local governments. Because local businesses and local politicians typically frame the economic development conversation, size comparisons tend to dominate the analysis. To be sure, population growth leads to new home construction, rising retail sales, and a larger tax base.

Thus, firms seeking to increase revenues or market share will expand into growing suburban areas and in the

Sun Belt, where population and consumer demand are growing most rapidly. At least three unfortunate events await many of these firms.

First, retailers have often extended their suburban reach too far, only to be reminded that the urban center retains a locational advantage for well-heeled customers. Second, over time in regions with a rising percentage of lower-income households, local firms will find their profit margins squeezed by price-sensitive consumers. Finally, when growth does stop, local businesses will be left servicing less-profitable customers than their counterparts in high per capita regions.

**FIGURE 2**

### Total Personal Income Growth Is Highly Correlated with Population Growth

Austin, TX, and Las Vegas are the latest U.S. boom towns.

Annualized change in aggregate real personal income vs. annualized percent change in pop., 1969 to 2017



**Source:** Bureau of Economic Analysis.

Taxing entities also prefer population growth, which often masks an unsustainable fiscal structure. Florida is able to provide state and local government services without an income tax by relying on impact fees for new development, a high sales tax that generates a large proportion of its revenues from tourists, and a “welcome stranger” property tax that caps increases for homestead property owners and shifts a disproportionate burden to new homebuyers.<sup>11</sup>

However, when growth stops, the cost of providing and maintaining infrastructure and delivering services grows faster than tax revenues. In Florida, the

Great Recession revealed an unpleasant, surprise feature of its tax cap for existing homeowners: As their property values plummeted, their assessed values continued to rise, which resulted in higher property taxes.<sup>12</sup>

If a region's population declines permanently, so too does its tax base, often forcing state and local governments to raise taxes on a population with lower incomes and less wealth. The resulting fiscal stress often prompts local officials to pursue growth strategies—unsuccessfully in the face of much stronger countervailing economic forces. Within a region, this problem may be further magnified by

local government fragmentation, which can accelerate a migration of households with means from fiscally distressed cities to surrounding suburban and rural jurisdictions.

Understandably, firms and regions are inclined to try to stay on the easier path by pursuing continuous growth, but it is unrealistic to expect to be forever immune from economic shocks that cause growth to slow, stop, or reverse.

## Industrial Structure Remains Key to Assessing a Region's Prospects

Since François Quesnay published his *Tableau économique* in 1758, economists have studied nations, and then regions, in terms of the industries that compose the economy to better understand what drives economic growth. Quesnay believed that agricultural surpluses were the prime mover.

Today, economists speak of a region's export base (or economic base) as those sectors associated with the region's production of goods or services in excess of local demand. The auto industry remains a significant part of Detroit's economic base, film studios of Los Angeles's economic base, and finance of New York's economic base.

A region's export base affects its economy in two key ways. First, employment typically rises (or falls) as industries present within a region's export base grow (or decline). Second, per capita income is greater in regions whose export-base sectors utilize highly skilled, high-paid employees.

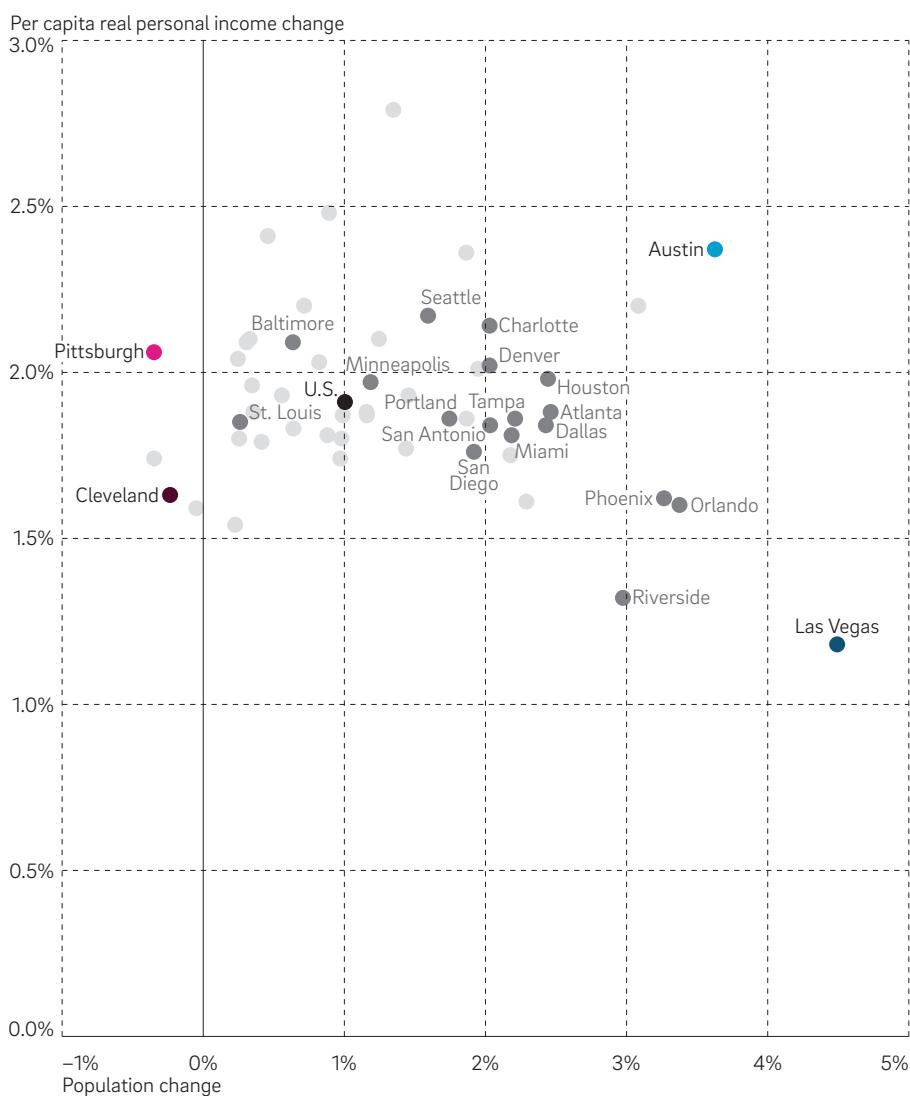
In turn, the usual multiplier effects that generate local jobs (e.g., carpenters, teachers, clerks, and wait staff) will be stronger in regions in which higher-paid export-base workers will consume high-value goods and services.

To better understand how a region attains high real per capita incomes with or without population growth, I compare four regional economies that represent four extremes of the distribution and examine their industry mix: Austin, with high population growth and high per capita income growth; Las Vegas, with high population growth and low per capita income growth; Cleveland, with

FIGURE 3

### But Per Capita Income Growth Is Not Correlated with Population Growth

Austin, TX, and Las Vegas have widely disparate rates of per capita income. Annualized change in real personal income per capita vs. annualized percent change in pop., 1969 to 2017



Source: Bureau of Economic Analysis.

low population growth and low per capita income growth; and Pittsburgh, with low population growth and high per capita income growth.

Not surprisingly, the industry mix differs substantially among these four regions. A good sense of the differences can be gained by identifying within each region the top five industrial sectors (by location quotient, a measure of an industry's concentration in an area) for which the sector employs at least 5,000 workers (Figure 4).<sup>13</sup>

Austin's top five sectors are representative of an economy with a large concentration of high-paying, high-tech jobs at firms that design and produce computer hardware and software. Pittsburgh is still characterized by its steel industry legacy plus its education and health sectors. Cleveland retains concentrations in many small, diversified manufacturing industries (nine of its 10 largest location quotients were manufacturing sectors) but has also experienced a shift to health care. In contrast, the Las Vegas economy is heavily concentrated in tourism sectors that do not pay very high wages.

To provide a more comprehensive comparison, I computed a weighted average wage for employees who represent the export base of each region.<sup>14</sup> The export-base employment of Austin generated an average weekly wage of \$1,841 in 2016—significantly higher than Pittsburgh's \$1,346 and Cleveland's \$1,245. Export-base workers in Las Vegas averaged only \$793 per week.

How a region grows, whether in high-skill, high-wage sectors or in low-skill, low-wage sectors, has important implications for the overall long-term health of the region's households and of the region itself. Were growth alone responsible for lifting a regional economy and all of its participants, then 46 years of rapid growth should have turned Las Vegas into one of the healthiest economies in the nation. If instead population growth is driven

primarily by low-wage jobs in sectors such as call centers, construction, tourism, and warehousing, then a region may grow poorer while its population is growing larger.

The distribution of 2016 real per capita incomes adjusted by regional price parities further demonstrates a lack of correlation with population growth and reflects instead the industrial structure (Figure 5). In every income bracket, one can find fast-growth and slow-growth regions. Despite very slow growth (or no growth), Cleveland, Philadelphia, Pittsburgh, and St. Louis enjoy per capita income levels equal to Denver, Houston, and Nashville, TN, which have all grown at twice the national rate. Of note, high-income outliers (San Jose, CA, San Francisco, and Boston) have significantly lower population growth rates than the low-income outliers (Orlando, Tucson, AZ, Las Vegas, Phoenix, and Tampa, FL).

Finally, 2017 poverty rates show a distribution that is likewise uncorrelated with population growth. Austin, Cleveland, Las Vegas, and Pittsburgh are once again located in separate quadrants of the scatter plot (Figure 6).<sup>15</sup>

Despite enduring population losses for over 50 years, the Pittsburgh region maintains higher real per capita income and a lower poverty rate than most of its peers. This outcome suggests that regional policymakers should not simply seek job growth but should pursue development strategies that emphasize the quality of jobs and the needs of the resident population.

## How to Grow a Healthier Economy—Without (Necessarily) Growing More Populous

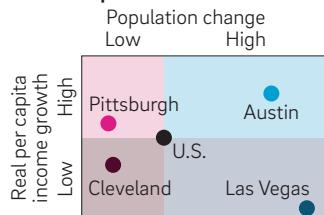
Regions face the same basic challenges, whether they are anchored by a large, mature, slow-growing city; a midsize, youthful, rapidly growing city; or a small, declining city contemplating the

FIGURE 4

### Industry Matters More Than Population Growth

2017 annual average salary;  
2017 average weekly wages; sectors  
employing at least 5,000 workers

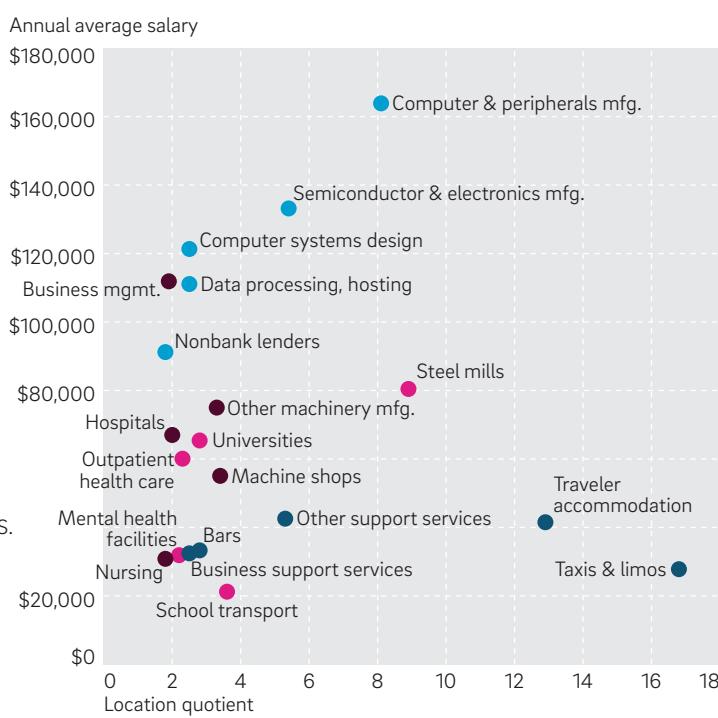
#### Four Examples of Extreme Distribution



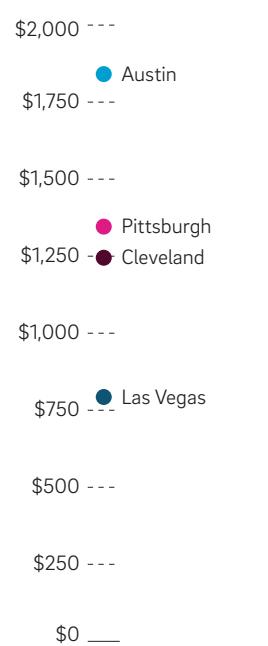
**Note:** Location quotient quantifies how concentrated an industry is compared to the U.S. average. A location quotient of 10 indicates jobs in a specified industry are 10 times more concentrated in a specified region as in the nation as a whole.

**Source:** Quarterly Census of Employment and Wages, Bureau of Labor Statistics.

#### Salaries for Sectors with Five Highest Location Quotients in Each Region



#### Average Weekly Wage of Export-Related Employment



promise from the latest resource boom. Regions typically strive to deliver public services and to enable the provision of amenities to meet the needs of residents and firms within a fiscally sound, long-range budget constraint. A region's industrial structure is a major determinant of the budget constraint. First, policymakers should approach economic development with a realistic understanding of their region's place and prospects in the world economy. A comprehensive economic base analysis provides a good start to avoid setting unattainable goals and wasting resources on empty strategies. This analysis should undergird any objective assumptions about future population or employment trends.

Next, regions should develop an infrastructure plan and pragmatic policy solutions for addressing the economic needs of existing and future residents, including a sustainable fiscal path for the region's local governments. Ideally, each region would produce a multijurisdictional fiscal impact analysis of its

long-range comprehensive plan to ensure its efficiency and feasibility.

In addition, all regions, but especially those with a high proportion of low-wage jobs, may find that they need to budget for strategies that reduce the cost of living for households living on those minimum-wage jobs. Policymakers may need to reduce barriers to education and labor force participation by, for example, assisting with day care, health care, job training, and transportation needs for marginally attached workers, and by encouraging the provision of affordable housing near jobs and in transit-oriented locations.

Finally, and especially for regions that are stagnant or declining in population, policymakers should consider developing people-oriented policies that help persons relocate to regions with greater job opportunities and consider rationalizing public infrastructure with incentives for the region's residents to consolidate into a more compact urban form.

These recommendations do not include policies to target and attract particular

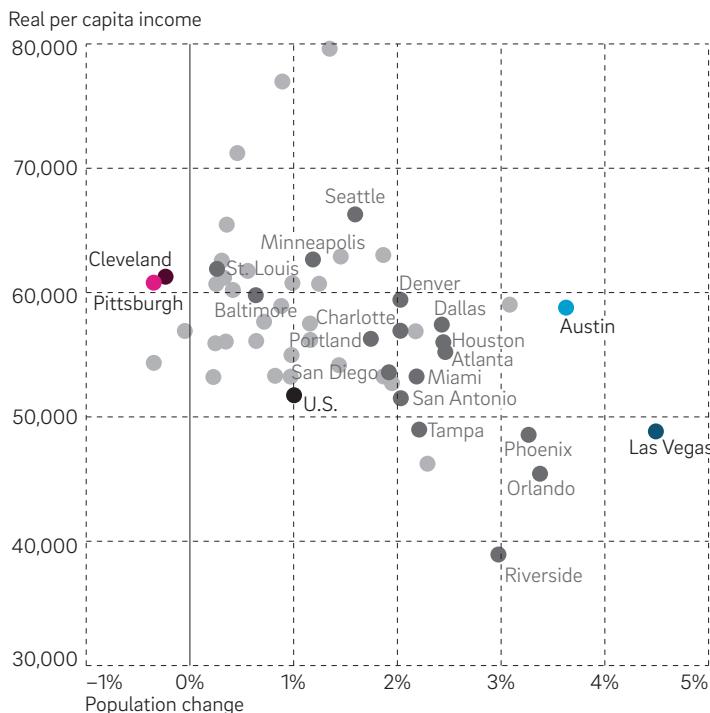
businesses. Better perhaps is a policy to not target or subsidize any business that does not utilize high-value occupations, or that does not make immediate use of a region's existing underutilized labor force.

A final key point is that all of the above policy prescriptions are (optimally) regional. Cities, their suburbs, and their hinterlands will realize their greatest economic success by working as one. Ideally, states would encourage municipal consolidations that expand the political/fiscal base to match a region's economic footprint. Since municipalities are creatures of the state, the burden of failing to relieve the inefficiencies of local government fragmentation will fall to the state to address. ■

**FIGURE 5**

### Population Gains Do Not Determine Levels of Income

Largest U.S. metropolitan areas' growth and income.  
Real per capita income (2016) adjusted with regional price parities (2018 dollars); annualized percent change pop.: 1969 to 2017



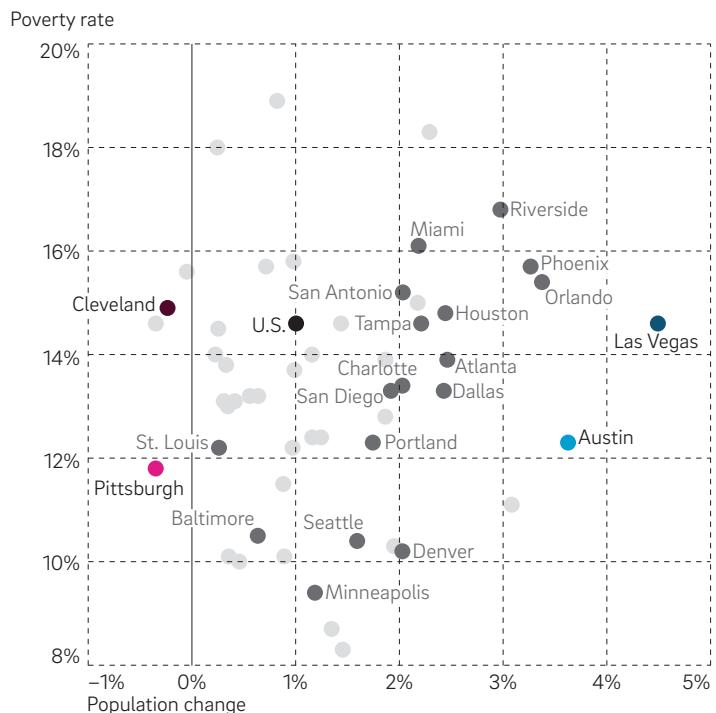
**Note:** Income has been adjusted for regional cost-of-living differences.

**Source:** Bureau of Economic Analysis.

**FIGURE 6**

### ...Nor Poverty Rates

Largest U.S. metropolitan areas' growth and poverty.  
Five-year poverty estimates (2017); annualized percent change pop.: 1969 to 2017



**Note:** Poverty rates are not adjusted for regional cost of living.

**Sources:** Bureau of Economic Analysis and U.S. Census Bureau.

## Notes

**1** Cleveland's population fell during the same period at a slower rate than did Pittsburgh's. Detroit's population fell at a much slower rate and rose in more years than it fell. Buffalo's population declined at a similar rate, but less consistently, and Buffalo was, and is, half the size of Pittsburgh.

**2** Unless otherwise noted, region and metro area refer to official metropolitan statistical area (MSA). Analysis in this article is based on data for each MSA as delineated in the Office of Management and Budget Bulletin 18-03 issued April 10, 2018. This article truncates these official names to the names of their largest principal cities.

**3** The brief interludes of population growth occurred in years that followed economic recessions, suggesting that some of the Pittsburgh diaspora returned home after losing jobs in other regions. (They may have felt that it is better to be unemployed near family and friends than in a relatively strange place.)

**4** Recently released census estimates of 2018 population indicate that Sacramento, CA, became the 18th metro area to surpass Pittsburgh's population.

**5** Per capita income estimates have been adjusted for cost-of-living differences and are expressed in 2018 dollars.

**6** The 17 metro areas that have surpassed Pittsburgh in population since 1969, with the year in which they reached that milestone, are Miami (1974), Dallas and Houston (1976), Atlanta (1985), St. Louis (1986), Minneapolis and Seattle (1989), Riverside, CA, and San Diego (1990), Phoenix (1993), Baltimore (1995), Tampa, FL (2001), Denver (2006), Charlotte, NC (2014), and Orlando, FL, Portland, OR, and San Antonio (2015).

**7** Other economic-health-based measures include poverty rates, unemployment rates, and comparative cost-of-living measures.

**8** This statement assumes that other variables are the same, including potential income inequality.

**9** The article analyzes the 53 metro areas in the United States with populations greater than 1 million in 2017. The United States as a whole is also represented. The variables are based on data from the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis.

**10** Adjusting economic data to eliminate potentially distorting underlying factors—such as population growth or the presence of an unusual number of college students, retirees, migrants, or prisoners—was difficult before computers and remains complicated today.

**11** Florida's constitution limits the annual increase in assessed value of properties with a homestead exemption to 3 percent or the change in the Consumer Price Index, whichever is lower. New homebuyers can face tax bills that are several times greater than their long-tenured neighbors in comparable properties.

**12** The recapture rule of the Florida law requires that homestead properties with an assessed value below market value must be assessed the

legislated increase even when the market value has fallen, as long as the assessed value is below market value.

**13** This selection was necessarily an arbitrary one that misses sectors with smaller location quotients, which may employ significantly more workers or pay significantly higher wages. Moreover, key sectors with higher location quotients may have been suppressed in the Quarterly Census of Employment and Wages data set based on nondisclosure rules of the Bureau of Labor Statistics.

**14** The average weekly wage was calculated on a weighted basis across all sectors within each region with a location quotient of 1.2 or higher. The average weekly wage in each of these sectors was multiplied by the number of workers in each sector in excess of the number required to reach a location quotient of 1.2. The employment and wage data are 2017 annual averages for all sectors in a region except those sectors for which the BLS suppressed data because of nondisclosure rules.

**15** Some shifting and some compression would occur in this scatter plot if poverty rates could be adjusted for regional price parities, as was done with per capita income.

**16** See Chinitz (1961).

**17** See Hoerr (1988).

**18** See McLaughlin (1938).

**19** See Giarratani and Houston (1989).

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