

A Philadelphia Report Card

Research Department

Federal Reserve Bank of Philadelphia

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EXECUTIVE SUMMARY

Since the early 1990s, the United States has been enjoying the longest expansion in its history, and 2000 ended with the national unemployment rate close to its 30-year low. In the last half of 2000, growth of gross domestic product began to moderate, and the economy created fewer new jobs in the last quarter than in recent years. During this expansion unemployment in the Philadelphia region has declined dramatically. Job growth was slow, however, when compared to the nation or to other large metropolitan areas. This slower pace of growth at the national level will present a challenge for the Philadelphia area. This report card looks at some of the factors behind the relatively slow job growth in the region.

- **Growth of population and labor force in the region was slow.**

Population in the Philadelphia metro area was basically flat in the 1990s. Like many large, dense metro areas Philadelphia suffered from out-migration to other parts of the country, but unlike many of these other areas, Philadelphia did not have a large influx of foreign immigrants. The foreign-born population in the Philadelphia region is relatively low, and the region did not offer as many job opportunities for foreign immigrants as other areas.

- **Business costs have been high in the Philadelphia region.**

Job opportunities in the area have traditionally been hampered by higher costs for labor and energy. Higher worker productivity can compensate for higher labor costs. Over the long run, increasing the region's productivity depends on increasing the general education level of the workforce and retaining highly educated, highly skilled workers by offering a high quality of life. The region has already begun to address high energy costs by deregulating

electricity. Some recent efforts to attract foreign capital to the region have been successful, and venture capital investment in the region increased more than sixfold in the second half of the 1990s. The region has not been as successful in attracting skilled workers from elsewhere in the U.S. or from abroad.

- **Public policies have influenced the economic environment.**

While demographic and market forces drive the regional economy, public policy is also a significant factor. The high tax burden in the city of Philadelphia deters job creation. The quality of public education in the city and the suburbs will be a major factor in attracting firms and jobs in the future. Comprehensive regional planning and infrastructure investment based on costs and benefits are difficult, but necessary, in a region that includes more than 350 municipalities in nine counties and two states. The region's governments and its business and civic communities have demonstrated that they can cooperate on key projects. That type of cooperation needs to be expanded if the region is to compete successfully in the new century.

This report concludes with a list of several options that local governments and the business community can consider to address the issue of attracting more economic activity to the region.

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I. INTRODUCTION

The end of the first quarter of 2001 will mark the 10th anniversary of the longest expansion in American history. The national economy has done extremely well over this period. Real gross domestic product has increased at an annual rate of 3.6 percent. The nation has added almost 2.5 million jobs a year, and the national unemployment rate has declined from more than 7 percent in 1992 to about 4 percent today, close to its 30-year low. Productivity, the key to higher living standards, has increased more than 2 percent in each of the last five years.

How well has the Philadelphia region fared in the current expansion?¹ The area has not done as well as the nation in terms of either job growth or income growth, but it seldom

does. Even by other measures, however, this was a relatively weak expansion for the Philadelphia metropolitan area. Payrolls and real personal income in the region have grown more slowly during the 1990s than in the long expansion in the 1980s. Moreover, among the 50 largest metropolitan areas in the country, Philadelphia ranks near the bottom in terms of job growth over this expansion. What explains the differences between Philadelphia and the nation and between Philadelphia and other large metro areas? There is no single answer. But demographic forces and technological change, market forces, and public policies explain much of the difference.

¹ We define the Philadelphia region in this paper as the nine-county Philadelphia metropolitan statistical area (Philadelphia, Bucks, Chester, Delaware, and Montgomery counties in Pennsylvania and Burlington, Camden, Gloucester, and Salem counties in New Jersey).

II. PHILADELPHIA'S ECONOMIC PERFORMANCE DURING THE CURRENT EXPANSION

When the national recovery began in March 1991, the Philadelphia region was in a relatively weak competitive position. The city of Philadelphia was in a deep financial crisis, and the metro area would still be mired in recession for another year.

City and Suburbs

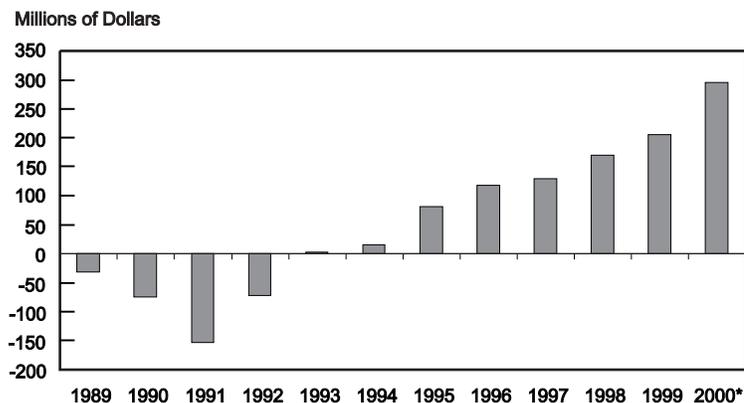
The cumulative deficit for the city in fiscal year 1991 was more than \$150 million (almost 8 percent of the general fund). And there was no end of deficits in sight without some kind of rescue from the state. The state came to the rescue in the form of the Pennsylvania Intergovernmental Cooperation Authority (PICA), which initially borrowed almost \$500 million on the city's behalf and to this day retains oversight of the city's finances. The PICA solution was at least partially successful in the sense that the city is running a cumulative surplus of almost \$300 million according to the preliminary numbers for fiscal year 2000 (Figure 1). This improved fiscal situation is the result not only of the mandatory belt-tightening in the city but also of the strong national economy that has produced modest job growth in the city since 1997. The city gained 27,000 payroll jobs between January 1997 and October 2000—a total increase of 4.1 percent. However, structural problems with the city's finances remain. In November 2000 the PICA board warned that “factors such as high poverty concentration, a high local tax burden, and a shrinking population make [the city of] Philadelphia especially vulnerable to a fast adverse hit should a national recession occur.”²

The near-bankruptcy of the city had serious reputational effects on the Philadelphia metropolitan area. Such effects are not easily measured, but they should not be underestimated. The city's fiscal crisis hung like a pall over the entire region in 1991. By almost any measure, the Philadelphia metro area remained in recession until mid-1992. Job levels continued to decline for more than a year after the beginning of the national recovery. And jobs in the city continued to decline until early 1997 (Figure 2). In the first seven years of the national expansion, the city lost about 60,000 jobs—a decline of more than 8 percent. The unemployment rate in the city peaked at almost 10 percent in 1993.

The suburbs were not immune to the problems of the city. The region's unemployment rate peaked at almost 8 percent in the third quarter of 1992. The turnaround in job growth in the suburbs also lagged the national recovery. While the Philadelphia suburbs have done much better than the city in terms of job growth, they have not done as well in this expansion as the suburbs of some other large cities, such as

FIGURE 1

City of Philadelphia Deficit/Surplus



*preliminary
Source: City of Philadelphia

² “Philadelphia’s Fiscal Challenge: Finding a Way to Save,” Pennsylvania Intergovernmental Cooperation Authority, White Paper (No. 9), November 16, 2000.

Chicago, Detroit, Boston, Baltimore, and Cleveland (Figure 3).³

Since the end of the national recession, payroll employment in the Philadelphia metropolitan area has increased at an annual rate of about 1.3 percent—less than two-thirds the national average (2.1 percent). Only recently has the city of Philadelphia had any increase in jobs, and job levels in the city are still more than 4 percent below where they were at the end of the recession. In contrast, employment in the suburbs has increased 19 percent during the expansion, a much higher rate than the metro area as a whole but still lower than the 22 percent increase for the nation.

Average annual job growth in the Philadelphia area in this expansion has been weaker than in the long expansion in the 1980s. Total job growth in the two expansions is close only because the current expansion is already two years longer than the last one.⁴

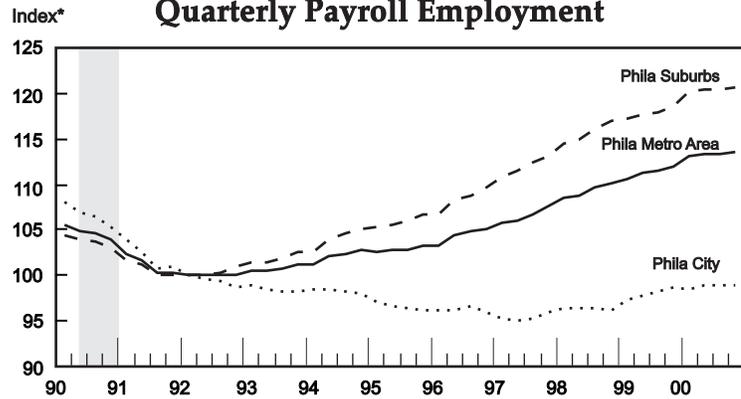
The Larger Region

Philadelphia also has not fared as well in this expansion as most other large metro areas. Among the 50 largest metropolitan areas in the U.S., the Philadelphia area ranks 42nd in job growth since early 1991 (Figure 4). Among the eight large metro

areas that have grown more slowly than Philadelphia, all but three (Los Angeles/Long Beach, New Orleans, and Hartford) are located in New York, New Jersey, or Pennsylvania. These three states represent a large portion of the Mideast region as defined by the Bureau of Economic Analysis.⁵ In the current expansion, the Mideast region had the

FIGURE 2

Philadelphia Region Quarterly Payroll Employment



*1992:1 = 100
Data are seasonally adjusted by the Federal Reserve Bank of Philadelphia.
Shaded area on the graph represents the national recession.

FIGURE 3

Suburban Resident Employment Percent Change 1991-1997

Metro Area	% Change Suburban Jobs	Metro Area	% Change Suburban Jobs
Austin, TX	86.2	Washington, DC	18.0
Las Vegas, NV	64.7	Seattle, WA	16.1
Salt Lake City, UT	57.6	Chicago, IL	15.5
Phoenix, AZ	56.6	Cleveland, OH	15.0
Dallas, TX	44.0	Miami, FL	14.1
Fort Worth, TX	39.2	San Diego, CA	13.6
Denver, CO	39.0	Oakland, CA	13.6
San Antonio, TX	38.1	Baltimore, MD	13.3
Atlanta, GA	36.9	Boston, MA	12.1
Houston, TX	34.8	St. Louis, MO	11.6
Indianapolis, IN	33.7	PHILADELPHIA, PA	10.6
Minneapolis, MN	31.8	Pittsburgh, PA	10.6
Kansas City, MO	29.2	Buffalo, NY	9.3
Columbus, OH	25.5	San Jose, CA	8.4
Charlotte, NC	25.4	San Francisco, CA	7.6
Portland, OR	25.3	Orange County, CA	6.9
Cincinnati, OH	21.2	Newark, NJ	3.0
Sacramento, CA	21.2	Los Angeles, CA	2.8
Detroit, MI	19.4	Hartford, CT	1.5
Milwaukee, WI	18.8	New York, NY	0.5
New Orleans, LA	18.3		

Source: Department of Housing and Urban Development, State of the Cities Data System, 2000

³ We use resident employment to compare suburban growth across metropolitan areas because they are the only data available. Resident employment differs from payroll employment, which is used in the rest of this report. Resident employment measures the number of people who live in an area (MSA, city, or suburbs) and are employed. Payroll employment measures the number of jobs at establishments in an area (MSA, city, or suburbs).

⁴ Total job growth in the Philadelphia metro area in the long expansion in the 1980s was 15.6 percent. Through October 2000, job growth in this expansion was 12.7 percent.

⁵ The Mideast region (New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia) is one of the eight major economic regions defined by the Bureau. The five metro areas in the Mideast growing more slowly than Philadelphia are Buffalo, Bergen-Passaic in New Jersey, Newark, New York, and Pittsburgh. Two other metro areas in the Mideast, Baltimore and Nassau-Suffolk in New York, had only slightly faster job growth than Philadelphia. Hartford, of course, is very close to the Mideast region, and Connecticut's economy follows a business cycle similar to that of the large states in the Mideast region (Crone, 1998/1999).

FIGURE 4

Payroll Employment Growth in the 50 Largest Metro Areas
March 1991 - October 2000

Metropolitan Area	Annualized Growth Rate	Metropolitan Area	Annualized Growth Rate
Las Vegas	6.45%	Orange County, CA	2.12%
Austin	5.60%	Detroit	2.02%
Phoenix-Mesa	4.90%	Cincinnati	1.96%
Orlando	4.76%	Washington, DC	1.92%
Atlanta	4.32%	Norfolk	1.90%
Salt Lake City	3.96%	Milwaukee	1.85%
Dallas	3.73%	Miami	1.83%
Denver	3.68%	Boston	1.78%
Tampa	3.67%	Oakland	1.77%
Nashville	3.66%	Chicago	1.68%
Riverside, CA	3.35%	St. Louis	1.60%
San Antonio	3.35%	Nassau-Suffolk, NY	1.52%
Portland, OR	3.21%	San Francisco	1.50%
Ft. Worth-Arlington	3.17%	Cleveland	1.41%
Charlotte	3.17%	Baltimore	1.31%
Ft. Lauderdale, FL	3.07%	PHILADELPHIA	1.26%
Minneapolis	2.72%	Pittsburgh	1.20%
Houston	2.71%	New Orleans	1.15%
Kansas City, MO	2.61%	New York	1.01%
Sacramento	2.60%	Newark	0.98%
Seattle	2.56%	Bergen-Passaic, NJ	0.96%
Columbus	2.46%	Buffalo	0.71%
Indianapolis	2.39%	Los Angeles-	
Greensboro	2.33%	Long Beach, CA	0.30%
San Jose	2.22%	Hartford	0.00%
San Diego	2.17%		

Source: Bureau of Labor Statistics

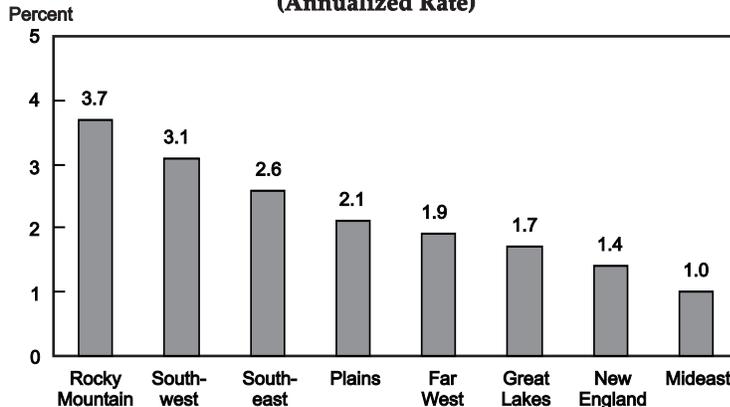
slowest average annual job growth of any major region in the country (Figure 5). Employment in all the Mideast states combined increased at an average annual rate of only 1 percent compared with slightly more than 2 percent for the nation. Jobs in New England, the second slowest growing region, have increased at an annual rate of 1.4 percent in this expansion, almost half again as fast as in the Mideast region. Employment in the Rocky Mountain states has grown at almost four times the rate in Mideast states. In the second half of the 20th century, real per capita income growth in the Mideast states was slower than the national average, and recessions have had a greater impact on per capita income in the region than in the nation as a whole (Carlino and Sill, forthcoming).

The state economic activity indexes produced by the Federal Reserve Bank of Philadelphia for Pennsylvania, New Jersey, and Delaware are broader measures of the states' economies than the employment numbers alone.⁶ These indexes show that economic growth in each of the three states lags the national average, and Pennsylvania lags the other two states (Figure 6).

The early years of the expansion were especially difficult for the region. The recoveries in Pennsylvania and New Jersey began eight to 14 months after the end of the national recession (Crone, 2000). Location is part of the explanation for Philadelphia's slow growth over this expansion because many jobs in any large metropolitan area serve the wider region. The Philadelphia area is situated in the middle of the nation's slowest growing region and spans two states (Pennsylvania and New Jersey) in which the recovery came late. But other parts of the region, such as south-central Pennsylvania, central New Jersey, and Delaware, have done much better in this expansion than the Philadelphia metro area, so location is not the whole explanation.

FIGURE 5

Payroll Employment Growth in BEA Regions
March 1991 to October 2000
(Annualized Rate)



Source: Bureau of Labor Statistics
Regions are defined by Bureau of Economic Analysis (BEA).

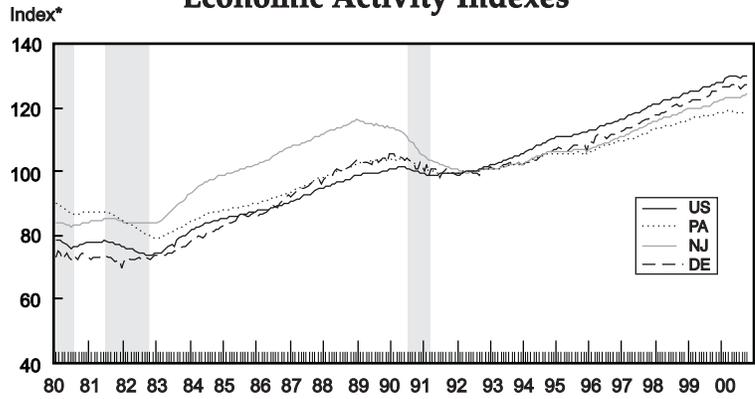
⁶ These indexes combine nonfarm employment, personal income, the unemployment rate, average hours worked in manufacturing, and industrial electricity sales.

Improvements in the Area's Unemployment Rate

Despite the slower than average job growth in Philadelphia during this expansion, there have been dramatic declines in the unemployment rates for both the metropolitan area and the city of Philadelphia. The metro area's unemployment rate has gone from slightly above the national average in 1992 to slightly below the national average today. The city's unemployment rate has gone from almost 10 percent in 1993 to about 6 percent today (Figure 7). How did the area manage these impressive declines in unemployment given the relatively slow job growth? The answer lies in demographics—slow growth of population and the labor force.

FIGURE 6

Economic Activity Indexes



*July 1992 = 100
The shaded areas on the graph represent national recessions.
Source: Federal Reserve Bank of Philadelphia.

FIGURE 7

Philadelphia Region Quarterly Unemployment Rate



Data are seasonally adjusted by the Federal Reserve Bank of Philadelphia.
Shaded area on the graph represents the national recession.

III. FACTORS CONTRIBUTING TO PHILADELPHIA'S SLOWER GROWTH

Multiple factors contribute to the pace of economic growth in a region. Most fall under the general categories of *demographic forces* (the growth and distribution of the population), *market forces* (including the prices of labor and energy and the availability of capital), and *public policies* (taxes and the provision of public goods).

Demographic Forces

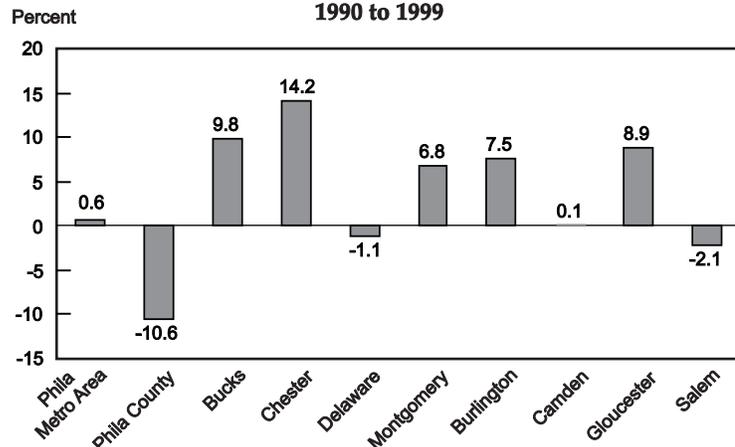
In the 1990s, population in the Philadelphia metropolitan area was basically flat compared with an increase of more than 10 percent nationally. Population growth is important for a region's economy for two reasons. Growth in population increases the supply of available workers, and it fuels demand for new service jobs to meet the needs of the additional residents.

While the metro area's total population changed very little in the 1990s, growth rates varied dramatically among the counties in the region. The population of the city of Philadelphia declined almost 11 percent from 1990 to 1999.⁷ The rate of decline leveled off somewhat at the end of the decade. The fact that the city began to add a few jobs in early 1997 apparently slowed the exodus to the suburbs. The suburbs as

a whole grew throughout the 1990s, but the suburban gains just compensated for losses in the city. And the experience of the suburban counties was not uniform (Figure 8). Population in Camden County remained basically flat in the 1990s, and population declined slightly more than 2 percent in Salem County in extreme southern New Jersey. Delaware County in Pennsylvania also lost population. The decade of the 1990s was basically a period of population shifts in the metro area with little net gain (0.6 percent).⁸

Natural Increase in Population: Population change has three basic components—natural increase (births minus deaths), net domestic migration, and net international migration (Figure 9). The rate of natural increase in the Philadelphia metropolitan area in the 1990s (4.4 percent) was 2 percentage points below the rate for the nation (6.4 percent). The birth rate in the metropolitan area during the 1990s was lower than the national average, and the rate of deaths was

FIGURE 8
Population Change in the Philadelphia Region
1990 to 1999



Source: U.S. Census Bureau, Population Estimates.

⁷ The city and county of Philadelphia include the same area and have a single local government.

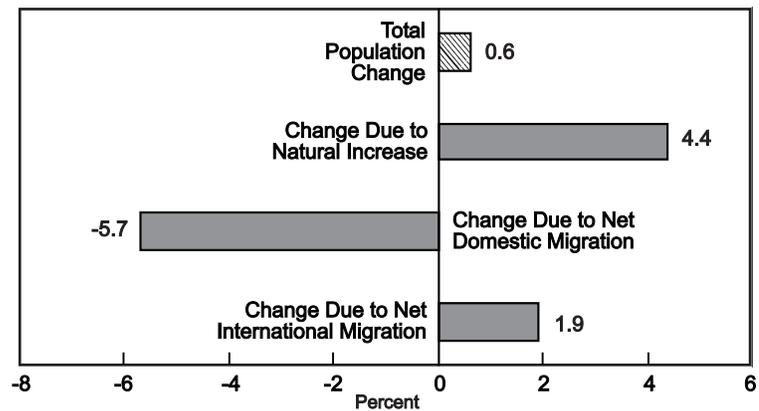
⁸ The estimated 1999 population for the counties in the Philadelphia metro area is as follows: in the Pennsylvania portion of the MSA—Philadelphia (1,417,601), Montgomery (724,087), Bucks (594,047), Delaware (541,502), and Chester (430,001); and in the New Jersey portion of the MSA—Camden (503,093), Burlington (424,510), Gloucester (250,492), and Salem (64,534).

greater than average.⁹ Philadelphia had about the same percentage of women of childbearing age as the nation in 1990, but they gave birth to about 7 percent fewer children. Deaths were higher in the region than in the nation because a larger fraction of the area's population is 65 years and older compared with the nation's (13.5 percent in 1990 compared with 12.6 percent for the nation). But the difference in the natural increase in population is not the major reason for Philadelphia's slower growth. On the basis of natural increase alone, population in the Philadelphia area would have grown about two-thirds as fast as in the nation—a lower than average, but respectable, rate of growth. The big differences in population growth between the region and the nation are due to domestic and international migration.

Net Domestic Migration: The Philadelphia metropolitan area lost many more residents to other areas within the U.S. than it gained during the 1990s. The 5.7 percent decline in population in the Philadelphia area due to net domestic migration more than offset the 4.4 percent natural increase. In the tri-state region, Pennsylvania and New Jersey lost more residents to other states than they gained in the 1990s, while Delaware was a net gainer.

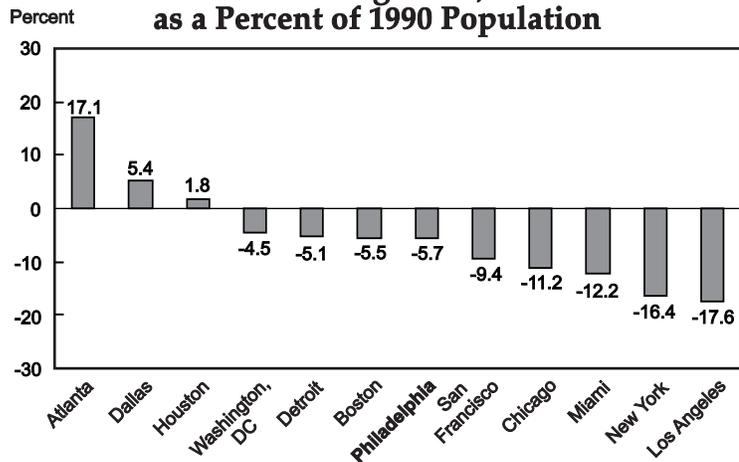
Part of the explanation for the negative net domestic migration in the Philadelphia area is the general deconcentration of employment and population in the U.S. Job growth in the postwar period has favored less dense metropolitan areas (Carlino and Chatterjee, forthcoming). Congestion, which results in higher living costs for households and increased production costs for firms, was undoubtedly a major factor in the relatively slower job growth of the densest metropolitan areas. Population as well as employment has grown less rapidly in denser MSAs, although the trend is not as pronounced for population as for employment (Carlino, 2000). There is always a chicken-and-egg question when examining job opportunities and migration. But continuing innovations in production, transportation, information, and communication technologies have allowed greater flexibility for firms and workers to choose locations based on differences

FIGURE 9
Components of Population Change 1990-1999 in the Philadelphia Metro Area, as a Percent of 1990 Population



Source: U.S. Census Bureau

FIGURE 10
Net Domestic Migration, 1990-1999 as a Percent of 1990 Population



Source: U.S. Census Bureau

in the quality of life. The historical trend of both population and jobs growing more rapidly in less dense areas works against Philadelphia because the metro area is the 16th most dense in the country in terms of jobs and the 13th most dense in terms of population.¹⁰

Most large dense metro areas have suffered population losses because of net domestic migration (Figure 10). However, many of these areas have compensated for at least some of these losses by attracting a large number of international immigrants.

⁹ From 1990 to 1999 the Philadelphia metro area had 136 births for every 1000 residents in 1990 compared with 148 births per thousand residents for the U.S. In the 1990s, the Philadelphia area had 91 deaths per thousand residents in 1990 compared with 84 deaths per thousand residents for the U.S.

¹⁰ This historical trend of faster growth in less dense areas helps explain why some parts of the tri-state area (Lancaster and State College, Pennsylvania, and Dover, Delaware) have grown much more rapidly than Philadelphia.

Net International Migration: International migration played an increasingly important role in the nation's growth in the 1990s. Net immigration (immigrants minus emigrants) added almost 7.5 million people to the U.S. population in the 1990s. That is almost 2 million more than in the 1980s and more than in any other decade of the 20th century. The metropolitan area's population increased 1.9 percent because of net international immigration during the 1990s, compared with 3.1 percent nationally.¹¹ States with common borders with Mexico (California and Texas) and locations where new immigrants can find relatives, friends, or others from their home countries who will help them gain a foothold (New York and Florida) tend to have the largest number of international immigrants.

During the 1990s most large metro areas in the United States attracted 30 to 50 foreign immigrants, on net, for every 100 foreign-born residents in 1990. The national average was 39 per hundred. A couple of areas (Boston and Detroit) had slightly fewer than 30 net immigrants per hundred

foreign-born residents, and the fast growing areas of Atlanta and Dallas had more than 50 immigrants per hundred foreign-born residents (Figure 11).

Philadelphia had slightly less than the average number of immigrants based on its foreign-born population in 1990 (36.5 net immigrants per hundred foreign-born residents in 1990). But the proportion of the Philadelphia area population that is foreign-born is low (Figure 12). Therefore, the increase in Philadelphia's total population due to foreign immigration (1.9 percent) is also low (Figure 13). In short, for such a large metropolitan area Philadelphia attracted relatively few foreign immigrants from the 1950s through the 1980s, and so in recent years, it has not been a magnet for immigrants. Moreover, Philadelphia, unlike Atlanta and Dallas, did not have strong economic growth in the 1990s that could have attracted a large number of immigrants despite a relatively small foreign-born population. Any effort to attract foreign immigrants to increase the region's population and workforce will have to overcome Philadelphia's recent history of low immigration rates and *perhaps* a perception of few job opportunities for immigrants.

Philadelphia's recent history of low immigration rates and *perhaps* a perception of few job opportunities for immigrants.

Market Forces

The Philadelphia area is in the middle of the largest concentration of people and jobs in the U.S. At one time, that was a factor in attracting a large number of firms and jobs to the region, but now it may be a major factor in limiting growth, since recent growth has favored less dense regions of the country.

Labor Costs: Higher business costs also work against the region—at least as long as they are not offset by higher productivity. For most businesses the largest component of their cost is labor, and wages and salaries are higher in the Northeast than in any other region of the country (Figure 14). Benefit costs for workers, including health care benefits, are also higher in the Northeast (Figure 15). Some of these higher wages and benefit costs are related to the type of industries and occupations that are located in Philadelphia and the northeastern region of the country—e.g., financial services, higher education, and specialized health care. We do not have the data

FIGURE 11

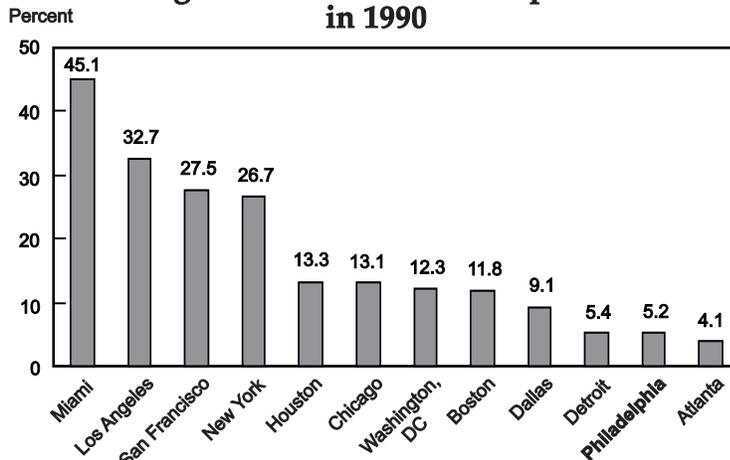
**Net International Immigrants 1990-99
Per 100 Foreign-Born Residents 1990**

Metro Area	Net immigrants per 100 foreign-born residents	Metro Area	Net immigrants per 100 foreign-born residents
Atlanta	70.7	Miami	38.6
Dallas	56.0	San Francisco	37.5
Washington DC	49.6	PHILADELPHIA	36.5
Houston	48.1	Los Angeles	31.2
Chicago	42.9	Detroit	29.6
New York	42.7	Boston	28.0
U.S. AVERAGE	39.2		

Source: U.S. Census Bureau

FIGURE 12

**Foreign-Born as Percent of Population
in 1990**



Source: U.S. Census Bureau

¹¹ Among the three states in the District, New Jersey had the greatest net international immigration. New Jersey's population increased almost 5 percent as a result of net international immigration. New Jersey's gain, however, is mostly in northern New Jersey. Thus, net international immigration played a relatively small role in the Third District.

to compare salaries for identical jobs in this region and elsewhere, but if we look only at wages and salaries in the manufacturing industry, they are higher in Pennsylvania and New Jersey than in the nation on average. In New Jersey these higher wages are apparently offset by higher productivity, but in Pennsylvania they are not (Figures 16A and 16B).

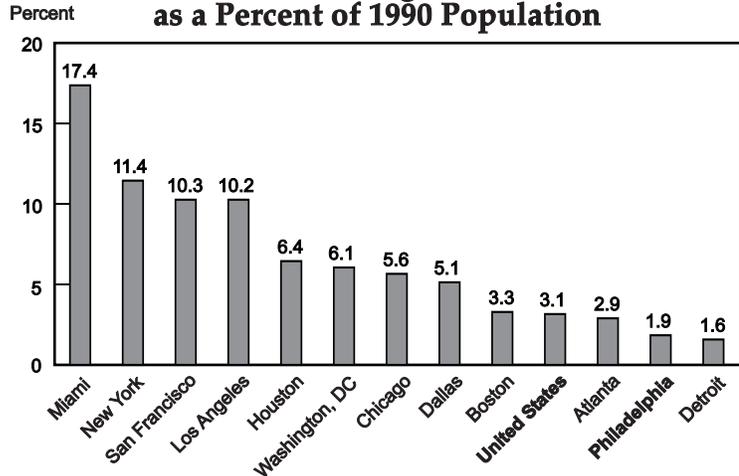
In the Philadelphia metro area, manufacturing wages are even higher than the state averages for either Pennsylvania or New Jersey. But we have no direct measure of productivity, even for manufacturing, at the metropolitan level because we have no good measure of output.¹² So we do not know if Philadelphia's high wages are offset by higher productivity. Differences in wage rates will *ultimately* reflect differences in worker skills and productivity, but it may take years for an economy to adjust. Jobs will increase only slowly in areas where wages are high but workers' productivity is not. Footloose firms will move from those high wage areas and take their jobs with them. Over the long run, wage differentials can be sustained only if productivity differences are maintained. Is the Philadelphia workforce of sufficiently high quality to compensate for its higher hourly wages?

Workforce Skills: In the absence of a direct measure of productivity, the most commonly used indirect measure of labor-force skills and productivity is the educational level of the workforce. A good basic education improves a worker's productivity in many ways, not the least of which is giving him or her the flexibility to learn new skills as new techniques and processes are introduced in the workplace. We have two common measures of the education level of the workforce: the percentage of the workforce with a high school diploma and the percentage with a bachelor's degree or more. For the larger Philadelphia

¹² In its *Census of Manufactures*, published every five years, the Bureau of the Census reports value added in manufacturing for metropolitan areas. Unfortunately, the cost of purchased services is not subtracted from the value of the final product to obtain this value-added measure, so it is not an accurate measure of production in the manufacturing sector.

FIGURE 13

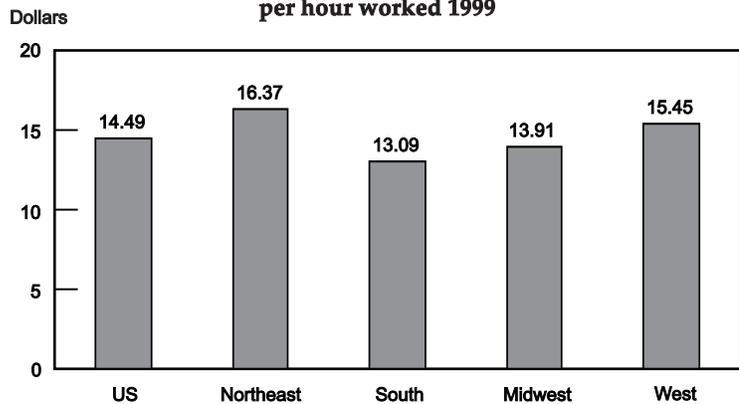
**Net International Migration, 1990-1999
as a Percent of 1990 Population**



Source: U.S. Census Bureau

FIGURE 14

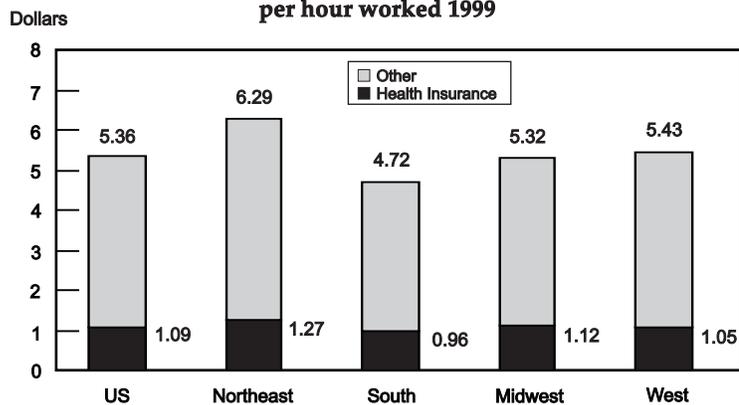
**Average Wages and Salaries
per hour worked 1999**



Source: Bureau of Labor Statistics

FIGURE 15

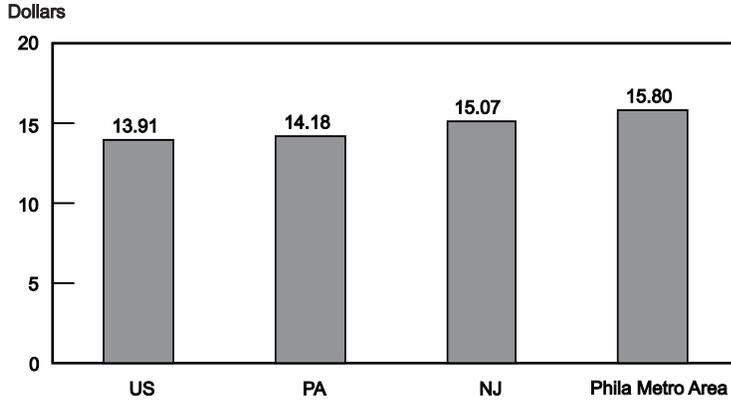
**Total Benefit Costs
per hour worked 1999**



Source: Bureau of Labor Statistics

FIGURE 16A

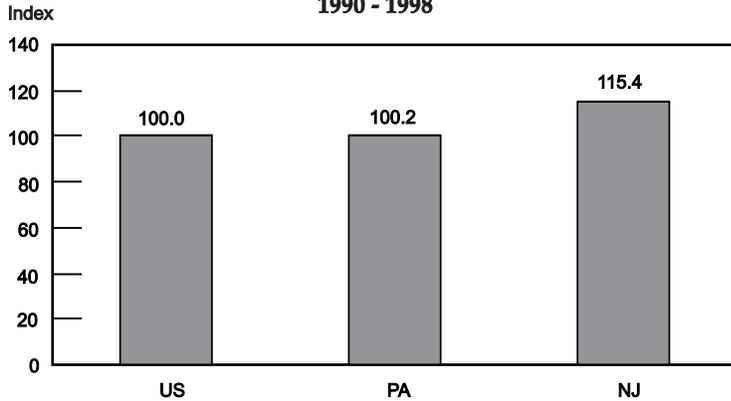
Average Manufacturing Wages 1999



Source: Bureau of Labor Statistics

FIGURE 16B

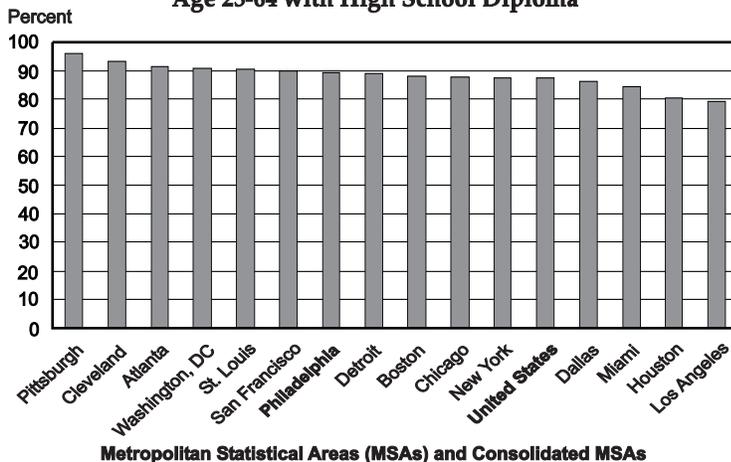
Output Per Hour Worked in Manufacturing 1990 - 1998



Index represents average ratio of gross state product in manufacturing to hours worked in manufacturing 1990-1998. The average ratios are indexed so that the average U.S. ratio for the nine years equals 100. Source: Bureau of Labor Statistics

FIGURE 17

Percent of Population Age 25-64 with High School Diploma



Source: U.S. Census Bureau, Current Population Survey, March 2000.

area, which includes Wilmington and Atlantic City, almost 90 percent of the working-age population 25 and older has a high school diploma—a higher percentage than the nation as a whole and the seventh highest percentage among 15 of the largest metro areas in the country (Figure 17). But a high school diploma may no longer be a good measure of potential worker productivity. While a high school education was sufficient for the majority of jobs in the U.S. economy 20 to 30 years ago, the new jobs in today's high-tech economy increasingly demand a bachelor's or even postgraduate degree. By this measure of workforce skills, Philadelphia does not rank as high. The percentage of the working age population with a bachelor's degree is higher in the Philadelphia region than in the nation, but the percentage in the region is lower than that in some metro areas with which Philadelphia directly competes (New York, Boston, Washington, Atlanta, and Cleveland). Among 15 of the largest metro areas, the Philadelphia area ranks 9th in percentage of the working-age population with a bachelor's degree (Figure 18).¹³

It is easiest to attract educated workers when they leave college or a postgraduate program and take their first job. Philadelphia attracts a large number of students to its highly rated universities and four-year colleges. Philadelphia has a higher full-time equivalent enrollment of students per thousand residents than New York, Los Angeles, Dallas, Atlanta, and several other large metro areas. But given the size of the area, Philadelphia does not have as many college and university students as Boston, the San Francisco Bay area, Chicago, or Pittsburgh.¹⁴ In short, Philadelphia is among the major metro areas with a high

¹³ Philadelphia also lags other major metro areas (Baltimore, Boston, Chicago, Cleveland, Detroit, Phoenix, and Raleigh-Durham) in the percentage of the workforce with some college but no bachelor's degree (Pennsylvania Economy League, 1996).

¹⁴ Other areas that have a higher full-time equivalent enrollment of college students per 1000 residents include Austin, San Diego, Denver, Seattle, Minneapolis-St. Paul, Phoenix, Chicago, and Washington-Baltimore (Pennsylvania Economy League, 2000).

concentration of college and university students, but within this group, Philadelphia is closer to the middle than the front of the pack.

Perhaps more important than attracting college students from other areas is increasing the number of high school students from the region who attend college and get a degree. It is estimated that about three-fourths of the high school graduates in the region in the 1997-98 school year intended to go to college (Pennsylvania Economy League, 2000). A clear challenge for the region is to increase the number of high school graduates who enter college, earn degrees, and stay in the region to pursue their careers.

Retaining highly educated, highly skilled workers is another dimension of building a productive workforce. Recent studies have suggested that it is life-style amenities that attract these workers. Some economists argue that the most successful cities in the future will be those that attract and retain high-income families and high-skill workers by offering good schools, clean and safe streets, and a wide array of products and amenities. Economists look at differences in rents for identical houses and differences in wages for identical jobs to estimate the relative attractiveness of different areas. People are simply willing to pay more to live in an area that offers the amenities they want.

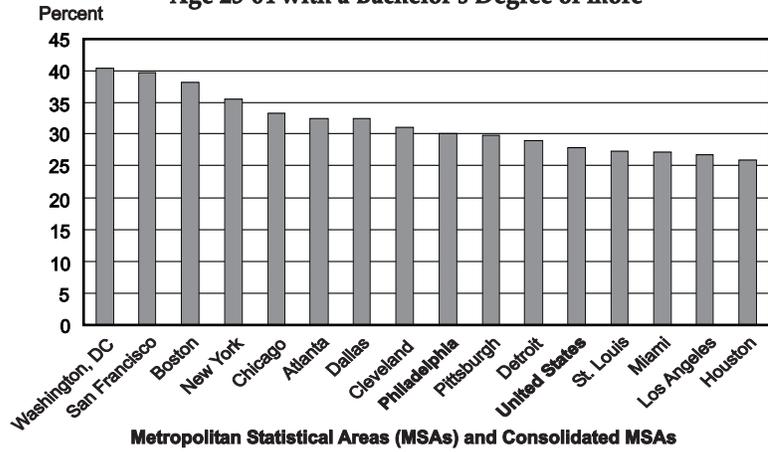
In a recent study, the Philadelphia metropolitan area ranked 27th among the 37 metropolitan areas that were ranked on the basis of their attractiveness as a place to live, i.e., their quality of life (Gabriel and Rosenthal, 2000). In this study, Miami, San Diego, Los Angeles, and San Francisco were at the top of the list; quality of life was lowest in Detroit, Gary, St. Louis, and Houston (Figure 19). Estimation of the value of amenities is imprecise, so we can confidently differentiate among quality of life only when comparing the top-ranked metropolitan areas to the lowest ranked ones (Gyourko, 1991). Nonetheless, the Philadelphia metropolitan area is much closer to the lowest than to the highest ranked metropolitan areas; it is ranked just below Milwaukee and just above Baltimore.

Energy Costs: Other factors beyond the availability and cost of qualified labor are important in deciding where to locate or expand a business. One of the major factors for any firm, especially an industrial firm, is the cost of energy. All three states in our region have made progress in bringing

about more competitive energy prices by beginning the process of deregulating the electricity market and, in the case of New Jersey, the market for natural gas. Prior to deregulation, industrial electricity prices were one-half to two-thirds higher in the Philadelphia area than in the nation as a whole (Figure 20). Prices for commercial and residential electricity were also higher in the region. Electric energy deregulation

FIGURE 18

**Percent of Population
Age 25-64 with a Bachelor's Degree or more**



Source: U.S. Census Bureau, Current Population Survey, March 2000.

FIGURE 19

**Quality of Life Rankings
Metropolitan Area**

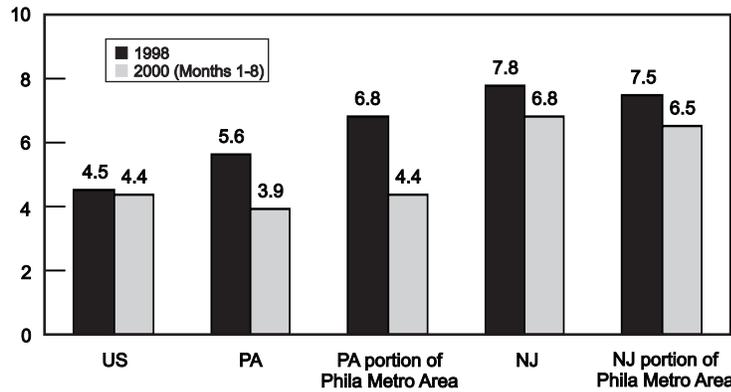
Metro Area	Rank	Metro Area	Rank
Miami	1	Chicago	19
San Diego	2	Indianapolis	20
Los Angeles-Long Beach	3	Rochester	21
San Francisco	4	Pittsburgh	22
Tampa-St. Petersburg-Clearwater	5	Dallas	23
New York	6	Columbus	24
Albany-Schenectady-Troy	7	Washington, DC	25
Greensboro-Winston-Salem-High Point	8	Milwaukee-Waukesha	26
Sacramento	9	PHILADELPHIA	27
Norfolk-Virginia Beach-Newport News	10	Baltimore	28
Seattle-Bellevue-Everett	11	Cincinnati	29
Denver	12	Atlanta	30
Newark	13	Cleveland-Lorain-Elyria	31
San Jose	14	Akron	32
Minneapolis-St. Paul	15	Kansas City	33
Fort Worth-Arlington	16	Houston	34
Birmingham	17	St. Louis	35
New Orleans	18	Gary	36
		Detroit	37

Source: Gabriel and Rosenthal, 2000

FIGURE 20

Industrial Electricity Prices

Cents per Kilowatt Hour

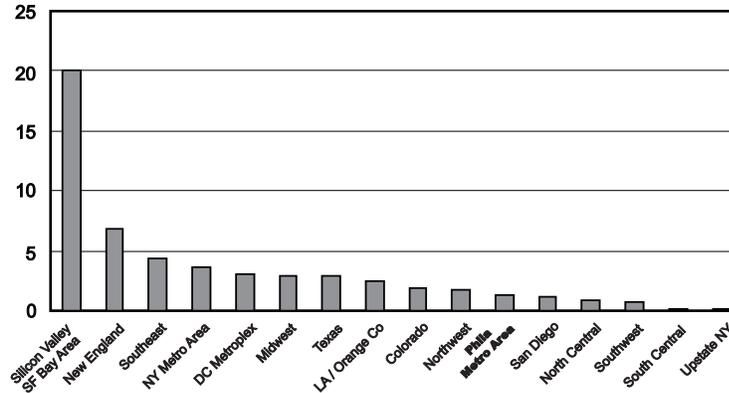


Source: Department of Energy, Energy Information Administration

FIGURE 21

Venture Capital Invested by Region in 2000*

\$ Billions



*Data are only for the first three quarters of 2000. Source: PricewaterhouseCoopers Money Tree Survey. The areas surveyed do not correspond exactly to the official boundaries of the metropolitan areas.

has been more successful in Pennsylvania than in any other state and has improved Philadelphia's competitive position (Schiller, forthcoming). More than 45 percent of the industrial customers in the Pennsylvania portion of the metro area are now served by alternative suppliers, and more than 30 percent of commercial customers have selected alternative suppliers.¹⁵ Competition has held down electricity prices in the region. For the first eight months of 2000, industrial electricity prices in Pennsylvania were lower than the na-

tional average. In the Pennsylvania portion of the Philadelphia region, prices were at the national average. In New Jersey the gap between local prices and national prices has narrowed in the past two years. As deregulation continues and more competition is introduced into energy markets, differentials in energy prices across the country will continue to narrow.

Venture Capital: A region's growth is not just a matter of attracting firms and workers from other areas or even achieving high growth among existing firms; it is increasingly a matter of nurturing new firms. This is particularly true in the case of the high-tech industries. An essential ingredient in fostering entrepreneurship and the formation of new companies is the availability of capital, including bank financing and venture capital. A number of organizations, including the Greater Philadelphia Chamber of Commerce and Greater Philadelphia First, have promoted the region as a center for sound investment in new firms.

It is difficult to track venture capital investment, but according to a PricewaterhouseCoopers survey, more than \$1.3 billion in venture capital was invested in the Philadelphia region in the first three quarters of 2000. Although the region does not rank nearly as high as the Silicon Valley or New England in terms of venture capital investment, the Philadelphia region, among all the areas in the survey, has consistently ranked 11th or 12th in the amount of venture capital invested (Figure 21).¹⁶ Moreover, the amount of venture capital invested in the Philadelphia region has increased about sixfold in the last five years (Figure 22). Even though

Philadelphia is not among the leading regions in overall venture capital investment, it has attracted a large and growing amount of venture capital in recent years. In fact, Philadelphia has a competitive advantage in certain industries, such as biotech and pharmaceuticals. The area ranks fourth in venture capital investment in biotech over the last six years and second in pharmaceuticals (Figure 23A and 23B).

¹⁵ This represents more than 40 percent of the commercial and industrial power sold in the Pennsylvania portion of the Philadelphia metro area.

¹⁶ The areas covered by PricewaterhouseCoopers in their Money Tree survey often include more than the official metro area whose name is used. For example, in the survey, the Philadelphia metro area includes eastern Pennsylvania, southern New Jersey, and Delaware. In the survey, the New York metro area includes northern New Jersey and Fairfield County, Connecticut.

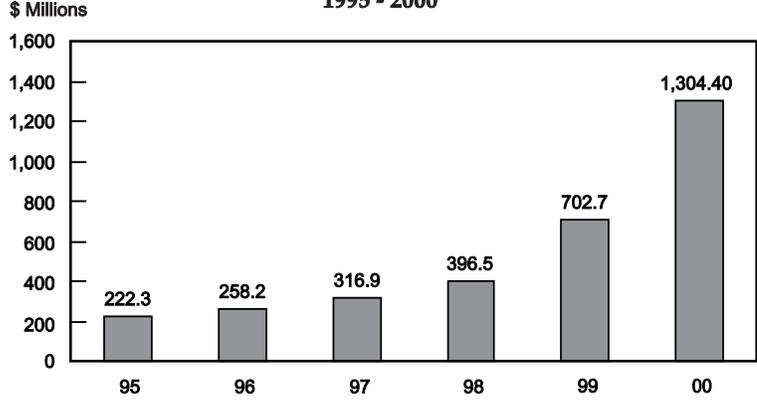
Public Policy

Demographic changes and market forces shape the fortunes of metropolitan regions, but public policy also plays a significant role. When we think of public policy we think of taxes, the provision of public services, such as education, and investment in public infrastructure, such as highways and public transit. However, the structure of local government is also an important factor in the competitiveness of the metropolitan area. The predominance of small local governments with powerful local control has enabled many of the region's suburban communities to provide high quality education and other public services at a reasonable cost. The reliance on small local governments, however, has hampered efforts at regional planning and the development of large scale projects that cross municipal boundaries.

Government Structure: In the Philadelphia metro area, there are more than 350 small to medium municipalities competing for people and businesses, and one very large government—Philadelphia. Historically, Philadelphia filled the role of a regional government, and it was in fact formed from 29 smaller communities in 1854. After this consolidation, the city occupied the entire county of Philadelphia and assumed the roles of both city and county government. In this dual role, the city provided typical municipal services like police and fire protection and sanitation as well as the services normally provided by counties in Pennsylvania—public health clinics, public housing, services for the homeless, and a criminal justice system. The higher poverty rates in the city meant that it spent more money per capita on these types of services than the surrounding counties did. Economists know, however, that the ability of local governments to effectively redistribute income by funding these types of social services is very limited. As technology changed and the geographic scope of the region expanded, higher income people could more easily move to the suburbs and avoid paying the city's higher taxes required in part by these social services. Thus, the disparity in per capita personal income between the city and suburbs has widened (Figure 24). The large number of suburban communities meant that residents could vote with their feet and choose small communities tailored to their own needs.

FIGURE 22

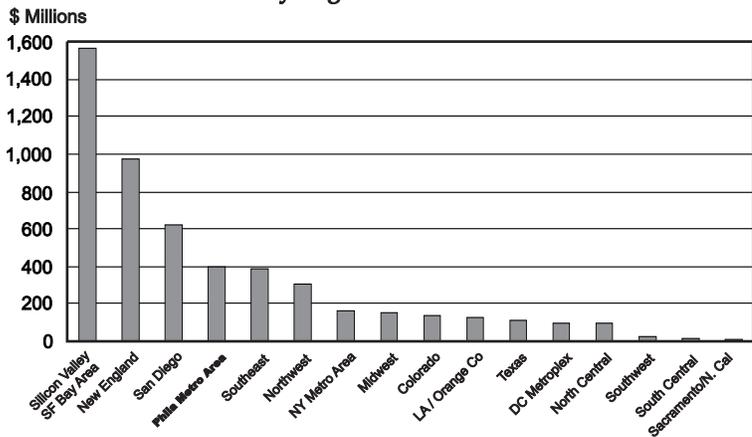
Venture Capital Invested in the Philadelphia Region 1995 - 2000*



*Data for 2000 are only for the first three quarters.
Source: PricewaterhouseCoopers Money Tree Survey.

FIGURE 23A

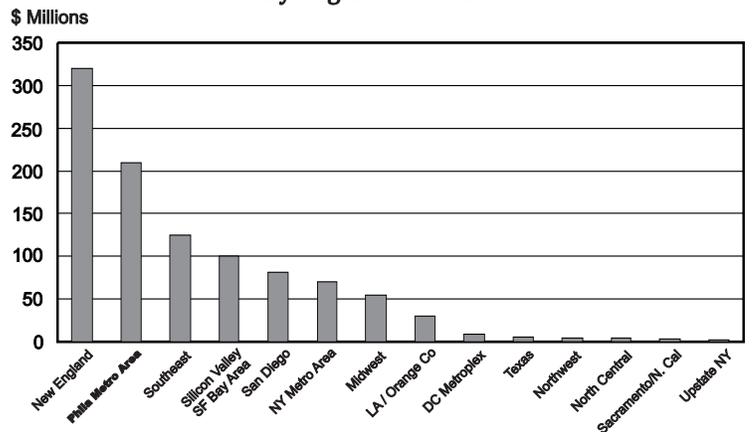
Venture Capital Investment in Biotechnology by Region 1995-2000*



*Data are only for the first three quarters of 2000.
Source: PricewaterhouseCoopers Money Tree Survey.

FIGURE 23B

Venture Capital Investment in Pharmaceuticals by Region 1995-2000*



*Data are only for the first three quarters of 2000.
Source: PricewaterhouseCoopers Money Tree Survey.

The relatively small municipal governments typical of the Philadelphia suburbs are well suited to providing local public services: competition among local governments promotes the efficient provision of services, and the large number of communities offers more combinations of taxes and public services from which people can choose.

For the city of Philadelphia to effectively compete with its suburban neighbors, it needs to find ways to decentralize and function more like its smaller suburban counterparts (Voith, 1996). Some forms of decentralization have already been introduced in the city. Special service districts such as the Center City District, the University City District, and the South Street District have been incorporated to raise funds to spend on projects and services in the districts. Another example of decentralization is the division of the city's school district into a system of clusters of schools to give neighborhoods more direct input into public education.

Decentralization is not without limits or problems, however. The funding of basic municipal services is not likely to be decentralized. Economically disadvantaged communities lack the tax base to support quality public services, but the demand for public services and the costs of providing them are likely to be higher in these poorer communities than elsewhere (Pack, 1995). And decentralization in big city school systems has not always met with success. New York City's attempt to decentralize its school system did not have the desired positive impact on the system.

Besides providing both municipal and county services for

its residents, the city of Philadelphia has historically provided or helped finance many facilities or institutions that are essentially regional in nature—the airport, professional sports facilities, the art museum, and the zoo.

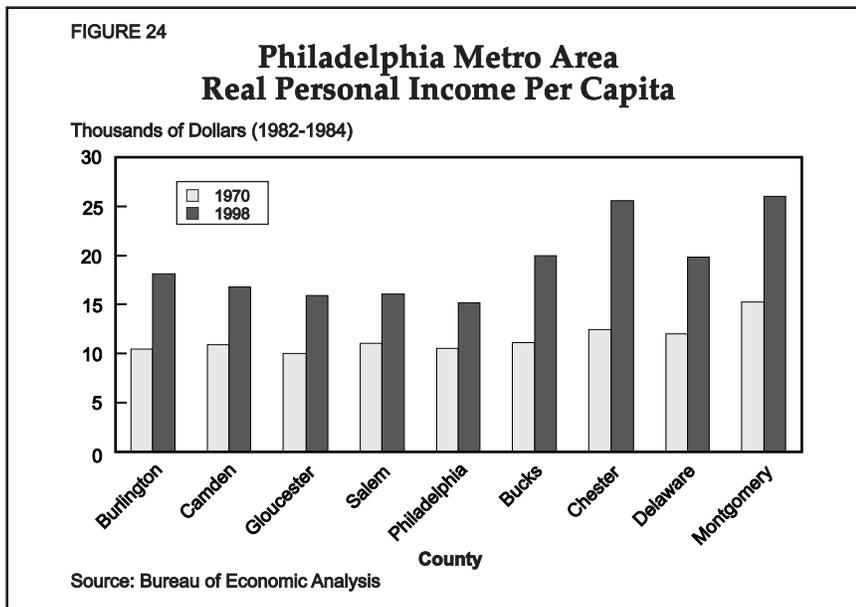
History has determined much of the governmental structure in the Philadelphia area. The region's small and medium suburban cities and towns offer residents many choices of high quality communities with good public services. The city of Philadelphia has provided many regional resources over the years. But faced with a declining population and tax base, the city is in the process of reexamining both which services it should provide and how to pay for them.

Taxes: Philadelphia's tax structure is rooted in the days when the city's government was in effect a regional one. For example, both city residents and suburban commuters pay the wage tax. When the city was the dominant location for jobs, the wage tax was effectively a way of sharing the tax burden regionwide for some things the city provided. As changes in transportation and technology made it possible for jobs to move outside the city, the regional nature of the wage tax faded, and it increasingly became an incentive to leave the city.¹⁷

Taxes in the city of Philadelphia are onerous when compared to taxes in other large cities, and they are a significant deterrent to economic growth in the city. Relative to other cities, Philadelphia is generally ranked among those with the highest taxes in the nation (Figure 25). Unlike most jurisdictions, the city of Philadelphia relies heavily on a

wage tax to generate revenues. Almost 60 percent of the city's tax revenues are generated through the wage and earnings tax (Figure 26). In addition, the city imposes property taxes, a sales tax, and a gross receipts tax on businesses.

Most analysts recognize that taxes have to be lowered to improve the city's competitive position relative to the suburbs and to other major cities. Estimates show that increases in the wage tax from 1977 through 1984 resulted in the loss of 100,000 jobs in the city (Inman, 1992). Certainly raising taxes is no longer an effective solution to any shortfall in city revenues. The city is near its peak of revenue-generating capacity—that is, raising taxes shrinks the city's economy and tax base so much that revenue will not rise significantly.¹⁸ On the positive side, this implies that while lowering taxes will reduce the city's tax rev-



¹⁷ Other public policies also contributed to this process of decentralization. Federal income tax provisions that favor the consumption of housing services create incentives for greater use of residential land and generally result in population shifts from older, denser urban communities to communities on the edge of the urban area, characterized by large lots (Voith, 1999).

¹⁸ In the case of the gross receipts tax, it is estimated that total tax revenue would actually rise with a decrease in the tax rate (Haughwout and Inman, 2000).

enue, it will also *increase* economic activity in the city. Thus, in the long run, the annual revenue loss will be less than the initial reduction in taxes.¹⁹

Public Education: One side of the local public ledger is taxes, and the other side is the services that local governments provide. Citizens expect the value of the two to balance, i.e., to get what they pay for. Perhaps the most important public service in the city or the suburbs is public education. High quality education is becoming increasingly important in today's economy; it is the source of much of the region's human capital. Consumers in the area clearly recognize this because they are willing to pay significantly higher prices for houses in communities with high performing school districts (Crone, 1998).

Public education is generally good in suburban school districts, with the exception of a few troubled ones, typically in older cities and towns. Philadelphia city schools lag far behind the average suburban schools. Average SAT scores in the city are considerably lower than the average for any suburban county in the Pennsylvania portion of the region (Figure 27).²⁰ While the issue of what determines the educational success of public school systems is an incredibly complex one about which there is little consensus, it is clear that resources spent on education are lower in Philadelphia than in most suburban school districts (Figure 28). Philadelphia spends less per pupil than any other county in the region—for most of the counties 10 to 17 percent less. The Philadelphia school district is not alone, however, in the search for more resources to carry out its mission. An increasing number of suburban districts are faced with rising costs and a stagnant or slow-growing tax base.

It is difficult to imagine that the poor performance of the Philadelphia school system does not adversely affect the region as a whole. The Philadelphia school dis-

¹⁹ In recent years, the wage tax has been cut annually by an almost imperceptible 0.1 percentage point a year. From an accounting point of view, these tax cuts "lower" city tax revenues, yet most of the direct revenue loss has been offset by increases in the size of the tax base.

²⁰ Countywide scores are not available for New Jersey.

FIGURE 25

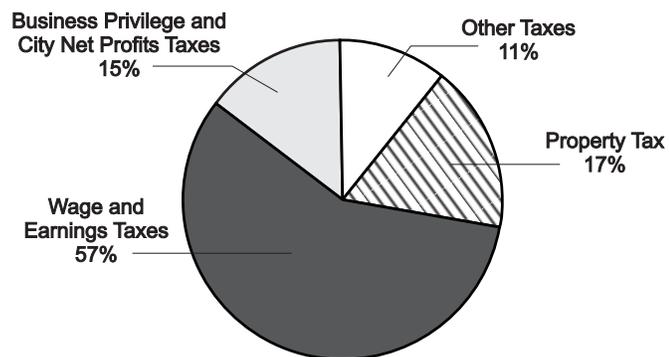
**Estimated Burden of Major State and Local Taxes
for a Family of Four, 1999
\$50,000**

City	Tax Burden	City	Tax Burden
Bridgeport, CT	21.3%	Little Rock, AR	8.3%
Newark, NJ	13.6%	Kansas City, MO	8.2%
Providence, RI	12.5%	Omaha, NE	8.1%
Portland, ME	12.5%	Oklahoma City, OK	8.1%
PHILADELPHIA, PA	12.4%	Portland, OR	8.1%
New York City, NY	11.0%	Burlington, VT	8.0%
Louisville, KY	10.7%	Los Angeles, CA	7.9%
Milwaukee, WI	10.5%	Boise, ID	7.9%
Baltimore, MD	10.3%	Charleston, WV	7.8%
Boston, MA	10.1%	Wichita, KS	7.6%
Manchester, NH	9.9%	Seattle, WA	7.5%
Detroit, MI	9.7%	Phoenix, AZ	7.4%
Minneapolis, MN	9.5%	Billings, MT	7.4%
Washington, DC	9.4%	Indianapolis, IN	7.2%
Virginia Beach, VA	9.2%	Albuquerque, NM	7.1%
Salt Lake City, UT	9.1%	New Orleans, LA	6.8%
Des Moines, IA	9.0%	Fargo, ND	6.7%
Honolulu, HI	9.0%	Wilmington, DE	6.7%
Columbus, OH	8.9%	Sioux Falls, SD	6.6%
Columbia, SC	8.6%	Denver, CO	6.5%
Charlotte, NC	8.6%	Houston, TX	5.6%
Birmingham, AL	8.6%	Memphis, TN	5.2%
Atlanta, GA	8.6%	Jacksonville, FL	5.0%
Chicago, IL	8.6%	Las Vegas, NV	4.8%
Jackson, MS	8.5%	Cheyenne, WY	4.1%
		Anchorage, AK	3.5%

Source: Government of the District of Columbia

FIGURE 26

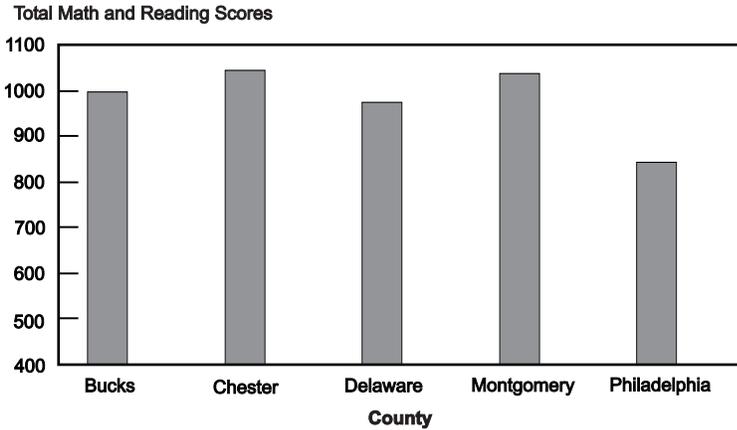
**City of Philadelphia Tax Revenue
Fiscal Year 2000**



Source: City of Philadelphia, Office of the Controller

FIGURE 27

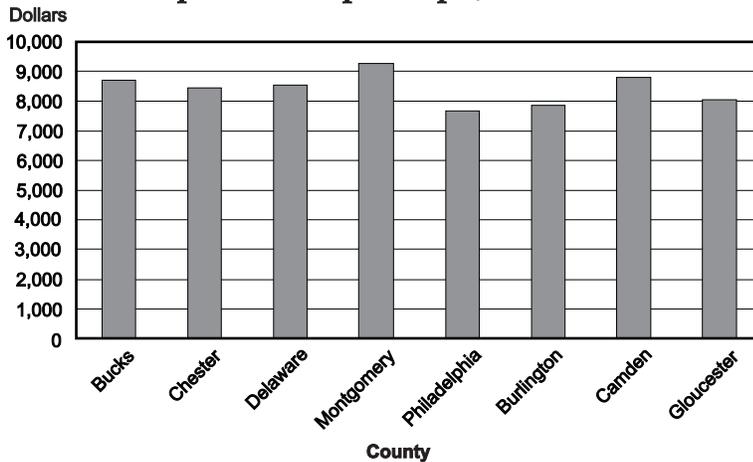
Philadelphia Metro Area SAT Scores, 1998-1999



Source: PA Department of Education

FIGURE 28

Philadelphia Metro Area Expenditures per Pupil, 1999-2000



Source: Philadelphia Inquirer and Courier-Post

FIGURE 29

Large City School Districts SAT Scores, 1995



Source: "Developments in School Finance, 1997 - Does Money Matter?: Financing Education in the District of Columbia from the Perspective of the Financial Authority" by Dr. Joyce Ladner

trict serves almost 208,000 students, or 24 percent of all public and parochial school students in the metropolitan area. Failing to adequately educate such a large number of the school-age population means that a large amount of the region's human capital is underused, which undermines the region's productive capacity and has serious negative consequences for individuals. Of course, Philadelphia is not alone; test scores in most large cities are low (Figure 29). Improving educational achievement in the Philadelphia public schools and in the small number of suburban districts that have low average test scores could significantly improve the region's attractiveness.

Many cite the poor performance of the city's school system as a major factor in the decision of high- and medium-income families to leave the city. But in the long run, the poor performance of the city schools is linked to other public policies that encourage these families to leave the city. Philadelphia's tax structure, for example, encourages high-income families to leave the city for economic reasons. This exodus adversely affects the school district's tax base and deprives the school system of the resources, both social and educational, of highly educated, high-income families.

Highways and Public Transit: Public transit and highways lie toward the other end of the spectrum from public education in terms of which level of government makes the decisions. Highway infrastructure is provided by the state, and public transportation is often the responsibility of a regional authority. Setting up regional transportation authorities and forging cooperative arrangements in the Philadelphia area have been complicated by the fact that the region spans two states. Thus, in the case of public transportation, SEPTA, New Jersey Transit, and PATCO all serve Philadelphia-area communities.

Because much of the Philadelphia region's development predates the automobile, its public transportation infrastructure is among the largest in the nation, and its highway infrastructure is relatively modest (Figures 30A and 30B). Decentralization of population and jobs has put increasing strain on the highway infrastructure and has resulted in calls for new investment in highways (Figure 31). Since the metropolitan area's population was stagnant in the 1990s, much of the additional travel and congestion is associated

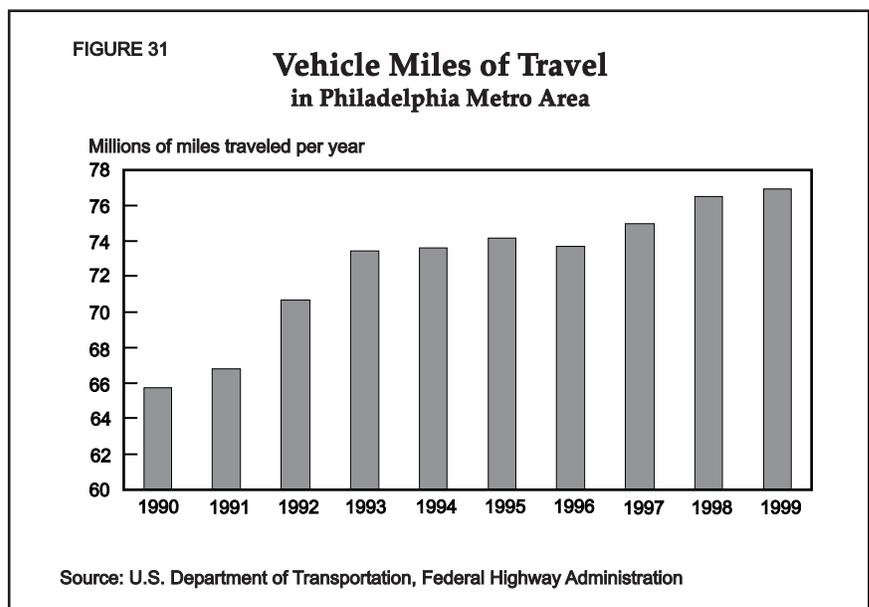
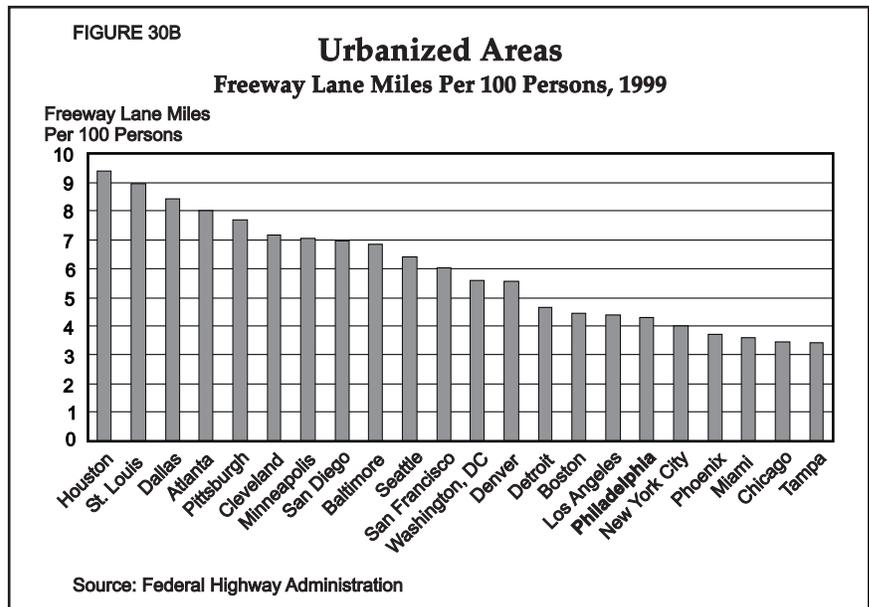
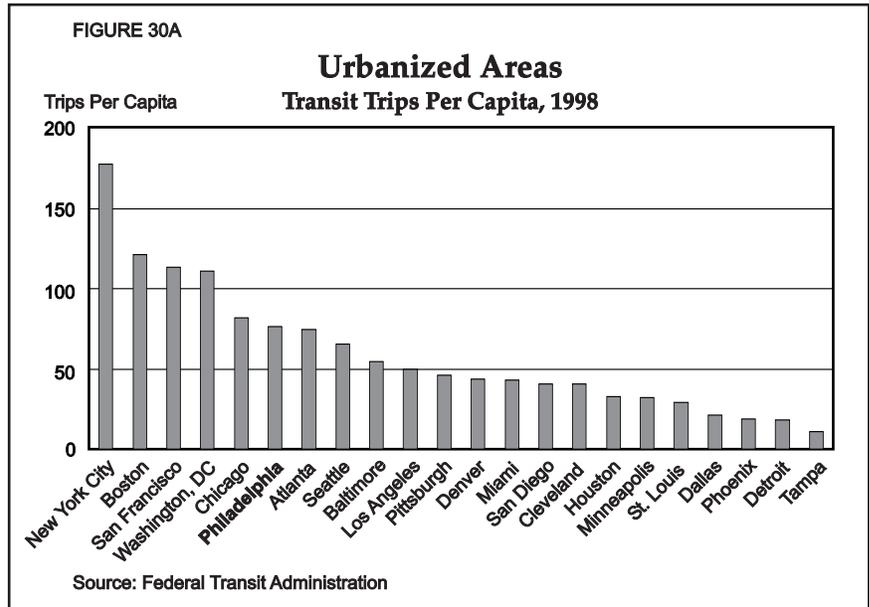
with decentralization. The region's planning bodies have been seriously considering new suburban rail lines, most notably the proposed Schuylkill Valley Metro from King of Prussia to Reading.

Research has generally confirmed that investment in transportation infrastructure contributes positively to the productivity of a metropolitan area. Highways and public transit can effectively increase the amount of accessible land in growing metro areas, and they can improve the functioning of the labor market by giving individual workers access to more job locations. Transportation investments, however, affect not only the level of a region's economy but also where people and businesses locate in the region. A good example is the construction of I-476, or the "Blue Route," in Montgomery and Delaware counties. After the highway's final approval, the town of Conshohocken, which lies at the intersection of I-476 and I-76, became a very valuable business location and experienced rapid construction and increases in commercial rental values. The growth in Conshohocken was a combination of new business and a shift of business from other areas of the region.

Because transportation investments always affect where households and firms locate, these investments never simply meet demand; they also create demand. Thus, transportation investments both respond to decentralization and contribute to the decentralization process. Because of these interactions, transportation planning needs to be comprehensive. Since investment in highways and public transit affects future development and land values, decisions cannot be based on a beggar-thy-neighbor policy. An overriding criterion governing which transportation investments to pursue is how much they improve the economic competitiveness of the entire region. Transportation projects that *increase* employment and income, rather than simply shift the location of homes and jobs, should be the focus of the region's transportation investment.

Link Between Central Cities and Their Suburbs

Research has shown that over time the economic performance of suburbs is closely tied to the performance of their central cities (Chang and Coulson, 2000). There is a positive correlation between city and



suburban rates of growth in income and population for northeastern and midwestern cities in the 1970s and 1980s (Voith, 1992). For large cities, high rates of central city income growth cause more rapid growth of suburban income and faster increases in suburban real estate values. Thus, for metropolitan areas with large central cities, the economic well-being of the central city positively affects the economic health of the suburbs (Voith, 1998). In the Philadelphia area, suburban neighborhoods with good access to center city by highway and public transportation still command higher house prices than otherwise similar neighborhoods (Voith, 2000). More important, the price people are willing to pay for access to Center City increases when city employment increases.²¹

The link between the economic health of the city and the economic performance of the suburbs highlights the need for regional cooperation. This need for regional cooperation in

the Philadelphia area is not confined to highway and public transit investment. A number of regional assets, such as the airport, are still the city's responsibility. Others, such as the new Regional Performing Arts Center, are funded from various sources on a case-by-case basis. Regional cooperation is necessary to realize the full value of these assets. Fostering regional cooperation and building regional institutions in a metro area that spans two states and includes nine counties and more than 350 municipalities is never going to be easy. But the region's competitiveness depends on it. The quality of life in the region depends on more than what individual communities can provide. No single community can alleviate congestion, and no single community can provide the array of educational, cultural, entertainment, and retail opportunities that attract new businesses and high-skill workers.

²¹ While the city's economic growth increases average suburban house price growth, admittedly not all parts of the suburbs share equally in the benefits. In fact, communities with good access to the city tend to have large gains in house prices when the city grows, but these gains diminish near the urban fringe (Voith, 1999). Suburban employment in Philadelphia is very decentralized and housing is very elastically supplied on the urban fringe, so that price increases are capped by construction costs in these communities. While city growth raises property values in close-in suburbs, it has virtually no impact on construction rates in nearby suburban communities and tends to depress construction in communities more distant from the city. Suburban employment growth, on the other hand, has little impact on house prices anywhere, but it has large positive impacts on housing construction rates on the urban fringe. Thus, close-in suburbs prosper when the city does well, but city growth adversely affects suburban housing developers and owners of agricultural land on the urban fringe (Voith, 1999).

IV. OPTIONS FOR THE REGION

The Philadelphia metropolitan area is disadvantaged in terms of economic growth because it is situated in the middle of what has been the slowest growing region in the United States. It is also one of the densest metropolitan areas in the nation, and in the last half century, both job growth and population growth have favored less dense areas. Moreover, like many other old, dense metro areas, the Philadelphia region has to cope with the social, economic, and infrastructure problems that come with age.

These larger trends over which Philadelphians have little or no control do not imply that the region is destined to stagnate or even decline. Adopting this position would be defeatist. The region has an extensive public transit system that can lessen the congestion associated with high density. Many older, densely populated regions in the Northeast and Midwest have problems similar to Philadelphia's in terms of high business costs and central cities whose resources are strained. The regions that aggressively address the issues are the ones most likely to be successful. A number of options for the Philadelphia region follow naturally from this challenge.

- **Population growth and job growth go hand in hand. If the region wants to attract good jobs and retain them, the skills of the local workforce need to be enhanced.**

- Among major metropolitan areas, the Philadelphia region does not have a particularly high percentage of workers with a bachelor's degree. Therefore, we need to increase the number of high school graduates who go to college and obtain degrees. This may involve (1) more career counseling in high schools, (2) more opportunities for students to attend SAT prep courses and improve their scores, and (3) greater efforts by local colleges and universities to recruit qualified students from the area with the help of the business and civic communities.

- Local businesses, with the support of state and local government, might consider recruiting more high-skill workers from outside the U.S. The region has attracted significant foreign capital, such as the North American headquarters of SAP in Delaware County. Trade missions should be concerned with attracting skilled labor as well as foreign capital to the region.
- **The quality of life in the region could be strengthened to increase Philadelphia's appeal to highly educated, highly skilled workers.**
 - Improving basic amenities like public education and public safety is essential for improving the quality of life. Beyond those efforts, however, a more formal structure may be needed to support the wide range of cultural institutions in the region that are now supported on a case-by-case basis.
 - The increase in tourism in the region has spillover effects for the quality of life of the region's residents. The same upscale restaurants and cultural events that tourists help support are also available to the residents of the Philadelphia region.
- **Nonlabor costs of doing business have traditionally been high in the Philadelphia region. Further deregulation in the private sector and more efficient planning in the public sector could reduce these costs.**
 - The deregulation of electricity in Pennsylvania and New Jersey has already introduced competition in the local electricity market and helped keep prices down. Extending the deregulation of natural gas across the region could broaden the benefits of energy deregulation.

- In the public sector, the existence of more than 350 municipalities in the metro area can delay public and private projects and increase their cost. Regionwide or countywide efforts to coordinate the process of planning and issuing permits could reduce both the delay and the cost. Counties and municipalities in the Pennsylvania portion of the metro area should be encouraged to take advantage of recent state legislation to help coordinate the planning process and the issuance of permits.
- **Entrepreneurs have been an important factor in the success of most fast growing regions in this expansion. Philadelphia's entrepreneurs need strong support from the local financial and business communities, and many groups, such as the Greater Philadelphia Chamber of Commerce, have recognized this need.**
 - Entrepreneurs depend on networks of other entrepreneurs, service providers, and financial sources. In recent years, the Philadelphia region has developed networks such as the Greater Philadelphia Venture Group, the Technology Council, the Entrepreneurs' Forum, and others. These types of organizations need continued support from the business community.
 - Philadelphia is not in the top tier of regions in the country for overall venture capital investment. But it does have a significant high-tech sector and ranks high in venture capital investment in some industries, such as biotech and pharmaceuticals. The clustering of firms in an industry sometimes provides synergies that promote faster growth. The Philadelphia region should market itself even more aggressively in areas in which it can offer these types of synergies.
- **Residents of the city of Philadelphia bear one of the highest tax burdens of large-city residents anywhere in the country. And an increasing number of suburban residents are dissatisfied with the limited choices in how they can fund public education.**
 - Philadelphia's high wage tax needs to be reduced without endangering the city's fiscal health. One avenue for reducing the city's tax burden is to make better use of the city's assets, such as the gas works, the airport, and municipal piers. Some of the city's assets might be managed differently to generate (more) revenue. Others might be leased or sold, allowing the city to reduce its tax burden.
 - Residents in several suburban communities have called for an alternative to property taxes to finance local public schools. Alternatives to the property tax could be explored. Some states, such as Michigan, have successfully adopted alternative school financing schemes.
- **For most families public education is the most important service provided at the local level. To adequately compete in a high-tech economy, the Philadelphia region needs to improve the average quality of its public schools.**
 - The Pennsylvania portion of the metro area has a relatively new standard measure of performance—the Pennsylvania System of School Assessment (PSSA) tests. This measure needs to be used aggressively not only by school districts but also by business and civic groups to identify and help schools with large numbers of underachieving students.
 - For the foreseeable future, the great majority of students in the region will be educated in public schools and a large percentage of these in Philadelphia's public schools. Thus, any effort at education reform in the region has to concentrate on the public school system. But experiments in educational competition, such as charter schools, deserve support as long as they can prove themselves in an impartial evaluation.
- **Investments in transportation infrastructure and technology can be used to lessen congestion and its associated costs in this densely populated region.**
 - The capacity of our existing highway system can be extended by the use of new technology. EZ Pass has just recently been introduced on the Pennsylvania Turnpike and the bridges that span the Delaware River. Other technologies are available to monitor and direct traffic flow on the highways.
 - Public transportation in the region can be expanded in locations where it is a cost-effective option. But investment priorities for both public transportation and highways should be based on a sound economic analysis of costs and benefits.

The Philadelphia region was very successful in the 1990s at providing jobs for its residents, as evidenced by the low unemployment rate. The region, however, did not create a large number of jobs relative to the nation or to other large metropolitan areas. Some of the forces behind the region's slower-than-average growth, such as the preference of firms for locating in less dense areas, are beyond the control of local governments and business leaders. But governments and

business leaders can influence other factors, such as tax rates, the regulatory environment, the quality of the public schools, the condition of highways and the public transportation system, and elements of the overall quality of life. Philadelphia's government and its business and civic communities are aware of these challenges. This report simply sets out some options the region faces in pursuing its common goals.

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