

# Forces Shaping Philadelphia's Future

Based on a speech made by President Santomero, to PECO Energy, Philadelphia, May 13, 2002

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**D**oes Philadelphia have what it takes to expand economic growth and attract more people? It's a challenge, says President Santomero in this quarter's message. The city has many things to recommend it as a location. Nevertheless, it has faced some difficulties in cultivating a role in certain important segments of the economy, and its population has been declining. But good things are also happening. Ultimately, Philadelphia's success — and the success of the surrounding area — depends on the creativity and commitment of its civic and business leaders. If they stay focused on contributing to the city's future, Philadelphia, President Santomero believes, will succeed.

The Philadelphia metropolitan area consists of Philadelphia County and its eight surrounding counties: Bucks, Chester, Delaware, and Montgomery on the Pennsylvania side; and Burlington, Camden, Gloucester, and Salem on the New Jersey side. When business people consider whether to locate here, they think about "here" as the Philadelphia metropolitan area. And research, including research at our own Bank, has shown that the economic fate of an entire region — that is, its major city and its suburbs — is bound together. In a statistical and, more important, in an economic sense, we are all part of one region.

So what are the forces shaping Philadelphia's future, and what shape

are they imparting to it? There are three sets of forces: those affecting the future of the national economy; those influencing the future of metropolitan areas in general; and finally those forging Philadelphia's own unique position among those metropolitan regions.

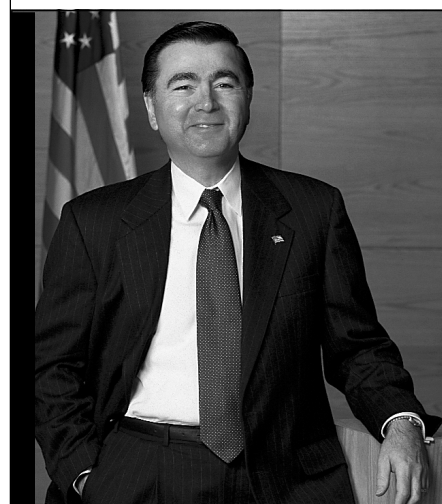
Earlier this year, the Federal Reserve Bank of Philadelphia released a study of the changes in Philadelphia's economic structure; we called it "The Industrial Evolution." \* As that title suggests, changes in the economic base of our economy occur gradually — in

evolutionary, rather than revolutionary, style. One implication of this is that the forces shaping Philadelphia's future are to a large extent already in operation and have been for some time.

## NATIONAL ECONOMIC TRENDS SHAPE PHILADELPHIA'S FUTURE

One set of forces shaping Philadelphia's future emanates from the national economy. Cyclical swings and secular trends in the national economy have an important impact on the pace and pattern of economic activity here. Over the past several decades, we have seen that impact for both good and bad.

I want to discuss these broader secular trends and their implications for our community. Here, the changing composition of economic activity in the national economy over the past several decades is particularly noteworthy: it affects the ongoing shift in the economy



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\* Available on our web site at  
[www.phil.frb.org/files/reghigh/repcard02.pdf](http://www.phil.frb.org/files/reghigh/repcard02.pdf).

of Greater Philadelphia. At both levels, there has been a clear movement away from employment in the manufacturing sector and toward the service sector. In 1980, 54 percent of the people employed in the U.S. worked in the service sector. By 2000, that proportion rose to 65 percent, an increase of 11 percentage points. In Philadelphia, the proportion rose from 57 percent to 71 percent, an increase of 14 percentage points.

The shift away from manufacturing employment and toward service-sector employment is a theme with which we have long been familiar. However, the last couple of decades have represented more than a shift from factory work to fast-food minimum-wage jobs. This has occurred to some extent, to be sure, but a more important and more fundamental trend has been the shift toward the knowledge occupations, that is, occupations typically requiring a bachelor's degree or higher education.

Knowledge occupations span a broad range of activities: from science and education, to professional business services, to computer hardware and software design. Knowledge occupations represent a significant and growing proportion of total employment in the U.S., particularly in metropolitan places, including Philadelphia. Tim Schiller's article later in this issue, "From Laboratory to Market: The Biotechnology Industry in the Third District," discusses the rise of one important industry that employs knowledge workers.

In our study "The Industrial Evolution," we compared patterns of employment and economic activity for the United States and 14 major metropolitan areas. In the U.S., 28 percent of workers were in knowledge occupations as of 1999. The percentage of workers in knowledge occupations exceeded that average in all but one of the 14 metropolitan areas we examined. In Philadelphia, 32 percent of workers

— nearly one-third — were in knowledge occupations. That places Philadelphia sixth among the 14 cities — Los Angeles, Baltimore, and New York had comparable (but slightly higher) percentages; Washington, D.C. and Boston had significantly higher percentages.

Having a substantial percentage of our workforce in knowledge occupations brings Philadelphia some important economic benefits. Knowledge occupations offer significantly higher compensation than other occupations. Keith Sill's article in this issue, "Widening the Wage Gap: The Skill Premium and Technology," discusses the wage differential between skilled and unskilled workers. Also,

## THE ROLE OF METROPOLITAN LOCATIONS IN THE ECONOMY SHAPES PHILADELPHIA'S FUTURE

A key question is: Will Philadelphia continue to participate in the expanding knowledge economy? I certainly believe it has that opportunity.

One reason is simply that it is a large metropolitan location. Such places have an important role to play in the knowledge economy. I just mentioned that virtually every one of the metropolitan areas we studied exceeds the national average for the proportion of its workforce in knowledge occupations. Indeed, I would argue that such

## The changing composition of economic activity in the national economy over the past several decades is particularly noteworthy: it affects the ongoing shift in the economy of Greater Philadelphia.

knowledge workers traditionally have lower unemployment rates than other workers.

Undoubtedly, Philadelphia's knowledge-based sector has contributed to the relatively rapid growth in real per capita income here since 1980. Philadelphia ranked fourth out of the 14 cities studied in this category, and this, in part, accounts for the relatively small increase in unemployment rates here during the current business cycle.

Equally important, knowledge occupations are projected to be among the most rapidly growing employment categories in this decade. So, to the extent that Philadelphia continues to participate in the national expansion of the knowledge-based economy, it will be a growing place with high average incomes and relatively stable employment.

locations are natural centers of knowledge-based economic activity.

The essence of a large metropolitan region is that it provides a geographic concentration of many people and organizations. This concentration is essential for creating an environment that both knowledge businesses and knowledge workers find attractive. In what way?

Let me start on the business side. The rise of the Internet and other global communications networks has made long-distance communication routine. But physical proximity is still important for some aspects of business. This is particularly true of the business conducted by the people in knowledge occupations. Their work requires frequent face-to-face interaction with counterparts from different organizations: researchers, entrepreneurs,

financiers, engineers, designers, lawyers, accountants, advertisers, and so forth. The physical proximity that a large metropolitan area provides makes such interaction relatively easy and inexpensive. So businesses employing a large proportion of knowledge workers find metropolitan areas relatively attractive locations.

But beyond this, large metropolitan regions have another important attraction. They can be and have been attractive places for knowledge workers to live. The physical proximity provides value to their residents because they offer economies of scale in the provision of social amenities. Because they can draw patrons from a large pool of people, many organizations, both public and private, can offer specialized leisure-time activities on an economically viable scale. Residents can choose from a rich and varied menu of cultural and recreational activities and experiences.

As people's incomes rise, their demand for this variety of leisure-time activities increases. Within this group, knowledge workers are particularly attracted to the quality of life that only a large metropolitan area can offer. In a world that is long on ideas and short on talent, this offers an important draw for knowledge-based businesses to locate and operate in these centers.

Thus, large metropolitan areas offer some fundamental advantages over smaller, nonmetropolitan areas as locations both for knowledge businesses and for knowledge workers.

## THE PHILADELPHIA STORY

More distinctively, as Tim Schiller discusses in his article in this issue, Philadelphia has been particularly successful in cultivating an important niche in a dynamic sector of the knowledge economy, centered on life sciences: biotechnology, pharmaceuticals, and health care. Its success in this

category is a testament to the power of the synergies that emerge when specific kinds of knowledge-based organizations come together.

Philadelphia ranks high in research and development spending at its colleges and universities. Much of the research is in the medical field. Research in the life sciences centered at the University of Pennsylvania and elsewhere has provided the kinds of potentially marketable ideas that attract entrepreneurs.

But to bring potentially marketable ideas to market takes venture capital. And while Philadelphia is not in the top tier of regions in the country for overall venture capital investment, it does rank high in venture capital investment in biotech and pharmaceuticals. Such investments have fostered any number of start-up businesses in the area.

Major pharmaceutical firms have had a significant presence here as well. Access to new ideas and new opportunities induced many of them to expand and others to establish a

presence here. Consequently, the pharmaceutical industry is important to our region and has made an important contribution to employment. In fact, the pharmaceutical industry is one segment of the few manufacturing sectors that has been growing in our region.

Perhaps the surest sign that Philadelphia has made it as a center for the life sciences came in a comment made in a local newspaper not long ago. One industry observer was quoted as saying that our area is now so renowned for its life sciences companies that headhunters typically start by looking here to find executives for companies elsewhere.

Nonetheless, the glass is not completely full. Philadelphia has not been as successful in cultivating an important role in some other segments of the knowledge economy: those centered on the physical sciences or computer hardware and software. Research spending in computer science at the area's universities and colleges is relatively low. As a consequence, a relatively small amount of venture





capital is invested in computer software and services here — hence, our area's relatively low employment in the computing industry, broadly defined.

## LOOKING TO THE FUTURE

Looking ahead, an important question is whether Philadelphia can turn its advantage as a metropolitan location into enough of a magnet for the expanding knowledge sector to bring substantial growth to the area.

This is a challenge. Thus far, Philadelphia has not generated growth on par with that of other major metropolitan areas. Of the 14 areas we studied, Philadelphia ranked 12th in population growth from 1990 to 2000. But Philadelphia may very well be stepping up to the challenge. Recent initiatives at both the state and city levels and led by both public and private interests indicate that the region sees the importance of these issues for its future success.

Certainly, Philadelphia has significant potential to expand its economy. For one thing, it can tap the flow of graduates from local colleges and universities to expand its capacity for growth in knowledge-based sectors. Philadelphia has a large college-student population and well-regarded graduate programs. Indeed, the region attracts a substantial number of students from elsewhere in the nation and around the world.

The problem is that so many of our graduates leave the area for positions elsewhere. One survey showed that fewer than 30 percent of the alumni of Penn, Bryn Mawr, Haverford, and Swarthmore live in the city of Philadelphia or the adjoining Pennsylvania counties. We have less data on the many other institutions that surround us, such as Princeton, Rutgers, Lehigh, and Penn State, but this itself suggests their concentrations are even lower.

Knowledge workers are

mobile. They go wherever the job opportunities and quality of life suit them. If our region were to offer more engaging opportunities, more people who earn their degrees in the region should find staying here for their first job highly attractive as well.

Keeping them would permit our region's advantage in life sciences to expand and broaden into other growing knowledge industries, such as the hard sciences or computer hardware and software, where future growth would be welcomed and some key activities are already under way.

One important ingredient for this expansion is already present. Entrepreneurial networks now exist in

has stepped up its efforts to offer the diverse array of cultural and recreational activities that only a large metropolitan area can support. We now have a revitalized Center City, the Avenue of the Arts, and the First Union Center. Soon we will have two new sports stadiums and the National Constitution Center. There are plenty of other examples, both in the city, its neighborhoods, and its surrounding suburbs.

Debates on the funding, location, and design of some of these facilities are inevitable, but the fundamental fact is that their existence makes Philadelphia a top-tier region. We need this kind of infrastructure not only to attract tourists but also to provide the

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the region. Such groups serve as catalysts for the inception and growth of knowledge-based industries by organizing the diverse resources that the metropolitan areas offer.

In recent years, the Philadelphia region has developed many networks, such as the Greater Philadelphia Venture Group, the Eastern Technology Council, the Entrepreneurs Forum, and the Ben Franklin Technology Center. These types of organizations establish a business-friendly climate and one particularly supportive of the knowledge-based economy.

When it comes to retaining local college graduates — and knowledge workers more generally — one half of the equation is offering interesting job opportunities. The other half is offering an interesting lifestyle.

In recent years, Philadelphia

quality of life that attracts and retains residents and jobs in a knowledge-based economy. We seem to be on the path to exploiting that advantage further.

One serious problem remains. Can the region begin to generate the growth in employment and population that we need to maintain our status as the nation's fourth largest metropolitan area (ranked by 2000 population)? This is an open question and a clear challenge, which we must address directly.

## PHILADELPHIA'S OWN UNIQUE CHARACTERISTICS WILL HELP SHAPE ITS FUTURE

The third set of forces shaping Philadelphia's future are those unique characteristics shaping its capacity to compete with other metropolitan areas for people and jobs. Whether these features prove a positive or negative

force, they differentiate Philadelphia from other metropolitan areas as a location of choice for businesses or potential residents.

Let me first offer a few words about two such features — taxes and public schools in the city of Philadelphia — then some thoughts on a third — our location.

Those who live or work in the city of Philadelphia bear one of the heaviest local tax burdens in the nation. The business tax burden here is equally onerous, particularly for start-up businesses. This issue has been widely debated, and I will add nothing to that debate here except to say that reducing that burden in a fiscally responsible way would significantly improve the whole region's competitive advantage.

Likewise, the public school system in the city of Philadelphia is not meeting the basic educational needs of its students. It is worth emphasizing, though, that a good public school system would give the city a decisive competitive advantage in attracting both businesses and residents to the region in this knowledge-based economy. Conversely, its failure weighs heavily on our minds and the minds of business leaders considering site relocation. So, our current initiatives in the area of public school education will have a profound effect on the city, on the region, and on the Commonwealth of Pennsylvania, to say nothing of the lives and futures of our children.

The impact of Philadelphia's location on its future is a more complex issue. I consider it both a disadvantage and an advantage in our new world economy. Much has been made of the

fact that economic activity has been gravitating to less densely populated areas, particularly in the South and the West, and away from the densely populated areas in the Northeast and Midwest. That has indeed been the trend, and it works to our disadvantage.

On the other hand, the densely populated Northeast corridor is the center of economic and political activity in the U.S. Philadelphia's location between New York and Washington, D.C. provides people and businesses here with an opportunity to tap into the broader network of activity that the Northeast corridor represents. In essence, Philadelphia's location leverages up its value in the knowledge-based economy by providing access to a broader network of contacts and opportunities.

The advantage of Philadelphia's location plays out in a number of ways. On the business side, Philadelphia's location in the middle of the Northeast corridor allows it to tap into industrial growth along the corridor. The prominence of the pharmaceutical industry in Philadelphia is part of the larger story of the industry's prominence in the larger geographic area. "The nation's medicine chest" runs from New York through the state of Delaware.

On the consumer side, ready access to cultural activities and entertainment in New York and Washington complement the menu offered to Philadelphia residents in their own city, heightening the attractiveness of our region as a place to live and work.

As we look to the future, I think the challenge presented by our location is to maintain the energetic

business climate and high quality of life that make Philadelphia a significant and desirable base of operations from which one can plug into the entire network of the Northeast corridor.

## CONCLUSION

I began by saying there are three sets of forces shaping Philadelphia's future: those affecting the future of the national economy; those influencing the future role of metropolitan areas; and those forging Philadelphia's own unique position among those metropolitan areas. The last of these is really a question of how we respond to the forces of change that affect our environment.

Large metropolitan areas have some fundamental advantages that can place them at the forefront of our knowledge-driven economy. Philadelphia has had particular success in establishing itself in an important segment of the knowledge economy, and it seems to be developing the capacity to broaden its role. The question is whether the potential will be realized. Will the business leaders of the community show the creativity and take the risks necessary to move ahead? Will civic leaders build the basic infrastructure, manage the budgets, and provide the basic education on which this economy can thrive?

If business and civic leaders throughout the region stay focused on contributing to Philadelphia's future, I believe we will succeed. 