REGIONAL HIGHLIGHTS

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Demographic and Economic Trends in the Region: A Mid-Decade Update

Shortly after the release of the 2000 census, the Philadelphia Fed published an article in the *Business Review* on the long-term demographic trends in the Third District. This report offers a mid-decade update of that article. It also offers a review of how the region's economy has performed in the first half of the decade. Since 2001 the nation has gone through a recession, a recovery, and an expansion that we anticipate will continue for some time. But not all parts of the Third District have fared equally well over this business cycle.

Major Demographic Trends

The Bureau of the Census estimates that the population of the United States will reach 300 million some time in October of this year. This estimate implies an increase of approximately one person every 10 seconds.

The Census Bureau produces estimates not only of the national population but also yearly estimates of the population of every state and county.[1] Since mid-2000 the total U.S. population has grown 5 percent. That is a somewhat slower pace than in the 1990s. Among the states in the Third District, Delaware has had the fastest population growth and Pennsylvania the slowest growth. Pennsylvania's growth is well below the national average. In fact, some counties in the western and northern part of the state have had significant population losses in the last five years. Finally, stories about immigration appear frequently on the national news. Most of these stories are about the Southwest. But immigration has also been an important factor in population growth in New Jersey, Delaware, and parts of Pennsylvania.

[1] See http://www.census.gov/popest/estimates.php. Since this report focuses on the components of population growth, the state and county estimates are based on the components of change (natural increase, net international migration, and net domestic migration) and do not include the residual included in some estimates. Inclusion of the residual would have reduced the growth rate for each of the three states in the Third District by 0.1 percent over the five-year period.

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The map in Figure 1 shows the relative population growth for the 50 states in the first five years of this decade. (All figures are at the end of the document.) Delaware is the 10th fastest growing state in the nation, and it is growing considerably faster than the national average. All the states shaded in green are growing faster than the U.S. as a whole, and those in dark green are growing at least 50 percent faster than the nation. As the map illustrates, most of the growth is taking place in the South Atlantic, the West, and the Southwest. New Jersey is in the middle of the pack. It ranks 26th in population growth, but New Jersey is growing considerably slower than the national average. Pennsylvania ranks 45th among the states in population growth, but that is an improvement over the 1990s when the state ranked 48th in growth. All the states shaded in red on the map, like Pennsylvania, are growing at less than half the national rate.

So far in this decade, there have been wider differences in population growth across the counties in the three states than in the 1990s. The map of population growth by county in Figure 2 shows that demographically there are really two Pennsylvanias. The grey lines on this map represent the borders of the Third District. A large number of counties in the western and northern parts of the state have lost population in the last five years. These are shaded in red, and they include 35 of Pennsylvania's 67 counties. Three counties in New Jersey also lost population—Cape May, Hudson, and Essex counties. The last two include the Jersey City and Newark areas.

Those counties shaded in green on the map added population at a faster rate than the nation. They are concentrated in four areas: south central Pennsylvania, Delaware, south Jersey, and a band of counties from the upper border between Pennsylvania and New Jersey to Chester County in the Philadelphia suburbs. The lone green shaded county in the sea of red in western Pennsylvania stands out on this map. That is Forest County, just outside the Third District. It has between 5,000 and 6,000 residents, but it has grown more than 16 percent since 2000. There is a simple explanation for this rapid growth. In 2004 the state opened a maximum security prison in the county for about 2000 inmates. Without the new prison inmates, Forest County would have lost population in the last five years and would be shaded in red like all of its neighbors.

This story illustrates how important it is to look behind the overall population changes, especially at the local level. It is helpful, for example, to sort out the contributions to population growth to understand the differences across the District. The total increase in population in any state or county is equal to the natural increase, that is, births minus deaths, plus the net increase from international migration and the net increase from domestic migration, that is, people moving from state to state or county to county.

The chart in Figure 3 shows the effects of these three components on the U.S. population growth and growth in the three states in the region. For the nation as a whole natural increase accounted for about 60 percent of total population growth and immigration about 40 percent. In Pennsylvania the contributions of those two factors were about the same, but both were very small. In Delaware the natural increase in population accounted for more than twice the amount of growth as immigration. New Jersey is clearly the outlier in Figure 3. New Jersey added more than a quarter million people because of international migration in the last five years, enough to increase its population by more than 3 percent. But this represents only the people who have come in the last five years. Almost 20 percent of New Jersey's total population is foreign born. That is the third highest percentage among the 50 states. For the nation, of course, natural increase and foreign immigration account for the entire population growth. So, for the U.S., the green and blue bars add up to the orange one.

For the individual states there is one more factor to consider: net domestic migration. People are always moving from one state to another, and this can have a large effect on population growth. For Pennsylvania the net effect of this movement has actually been very small. It is shown by the slightly negative value of the yellow bar on the chart. For New Jersey, on the other hand, out-migration to other states has seriously dampened the effect of the large number of foreign immigrants entering the state. Many of the counties in New Jersey with the largest number of foreign immigrants also had a large number of out-migrants to other counties or states. Delaware has had the opposite experience of New Jersey. The largest contributor to population growth has been in-migration from other states. Much of this has been due to the state's strong job growth.

No county in the three states had any measurable population loss because of out-migration to other countries, but several have had significant in-migration (Figure 4). The counties shaded in green on the map have seen an increase of 1 percent or more in their population because of foreign immigration, and those shaded in dark green have seen an increase of more than 3 percent. Foreign immigration has been most heavily concentrated in the northeastern counties of New Jersey. However, a few counties in south Jersey, two of the counties in Delaware, and parts of the Philadelphia and Allentown metro areas have also experienced significant increases in population because of immigration. In many cases, the counties shaded in green represent only the place of entry and the first residence of foreign immigrants. The full effect of foreign immigration in the region depends on where these immigrants and their children ultimately settle.

One gets some idea of this effect by looking at the proportion of Hispanics and Asians in the population. Not that all Hispanics or Asians are recent immigrants or children of recent immigrants. But more than half of foreign immigrants today are Hispanic and about one-quarter are Asian. The two maps in Figure 5 show how the racial and ethnic makeup of the region has changed over the past 15 years owing in large measure to immigration. In 1990 most of the counties with significant concentrations of Asians and Hispanics were in the densely populated areas of north Jersey. Fifteen years later, in 2005, almost every county in New Jersey, the entire state of Delaware, and the eastern counties in Pennsylvania all had populations that were more than 5 percent Asian or Hispanic. Immigration has significantly altered the racial and ethnic mix of a large portion of the Third District.

Major Economic Trends

The remainder of this report focuses on some major economic trends in the Third District. The year 2000 was the last full year of the longest economic expansion in American history. The national economy peaked in March 2001. Over the past five years, economic trends in the District have mirrored the demographic trends, and the reasons are straightforward. People tend to go where the jobs are, and when people move into an area for a job or any other reason, they generate demand for services like health care, retail, and entertainment. It is not surprising then that Delaware, which has had the greatest population growth in the three states, has also had the highest overall job growth.[2] New Jersey had the mildest recession in this business cycle and the steadiest job growth over the past five years. Finally, in this part of the report special mention will be made of two sectors of the economy: manufacturing and residential construction.

Unemployment rates over the past five years have shown the typical pattern of recession and recovery (Figure 6). Unemployment rates began to rise in the nation and in each of the three District states at the beginning of the recession or slightly before. It may seem strange that rates continued to climb after the recession ended. However, this is not unusual. For unemployment rates to decline significantly, jobs have to be increasing fast enough to absorb the new entrants into the labor force and lower the number of people already unemployed. And the number of new entrants usually increases after the end of a recession as job prospects improve. Unemployment rates have declined since the middle of 2003, but they have not reached the lows achieved before the last recession. In fact, the rates in New Jersey and Pennsylvania have risen slightly in the last few quarters.

The jobs picture illustrates an aspect of this last recovery that was not typical. Through 2002 and much of 2003 this was a jobless recovery. The chart in Figure 7 shows the state data as well as the national data. There are a few things to point out at the state level. First, jobs in New Jersey held relatively steady through the recession and its immediate aftermath. The recession hardly registered in the state. Delaware had the steepest decline in payroll employment but also the strongest rebound. And Pennsylvania had the longest period of job losses of any of the three states.

Figure 8 shows total job growth from the peak of the last expansion in the first quarter of 2001 to the first quarter of this year. New Jersey's growth matched the nation's. Delaware's employment grew at more than twice the national average, but jobs in

[2] The employment and unemployment data in this report are from the Bureau of Labor Statistics.

Pennsylvania have increased at less than one-quarter the national rate. This reflects the same order as population growth for the three states in our earlier slide.

An examination of individual labor markets across the District allows us to isolate the areas of strong growth. In the metro areas shaded in dark green in Figure 9, jobs have increased more than 4 percent. These areas are all in south Jersey, Delaware, and south central Pennsylvania. At the other end of the spectrum are the areas shaded in red. They have still not regained all the jobs lost in the 2001 recession and immediately thereafter. These include Reading and Williamsport in the Third District and the city of Philadelphia. On this map the Philadelphia metro area is divided into the city, the Pennsylvania suburbs, and the New Jersey suburbs, known as the Camden labor market. The three parts of the metro area have experienced very different patterns of job growth. Growth has been much stronger in the suburbs on the New Jersey side of the river than in the Pennsylvania suburbs. And the city of Philadelphia lost about 4.5 percent of its jobs between 2001 and 2006.

The Research Department of the Philadelphia Fed constructs a composite index for each state that combines the employment and unemployment data already discussed with wages and hours worked to form a single measure of economic activity (Figure 10). The indexes are meant to give a fuller picture of the states' economies than any one series alone. The indexes for the three states in the District show a flattening out of activity in New Jersey but no real downturn during the recession. The downturn in Delaware started somewhat later than the national recession. Pennsylvania suffered a longer recession and slower recovery than either of the other two states. This has been a typical pattern for Pennsylvania in past recessions.

As usual the manufacturing sector bore the brunt of the economic downturn in 2001, at both the national and the regional levels. This can be seen in the pattern of the general activity index from our Business Outlook Survey shown in Figure 11. Activity began to decline slightly before the onset of the recession. Manufacturing got off to a slow recovery after the recession, and the index from our survey registered some fits and starts through most of 2002 and 2003. The manufacturing sector did not reach its peak growth until late 2003 and early 2004. Since then, growth has ratcheted down in stages. And since the middle of last year the index has generally been in a range that we often see during expansions. The index based on July's survey is 7 points lower than June's. But the index remains positive, and more of the respondents to our survey are anticipating increases rather than decreases for their industry in the second half of the year. But more than a third of the respondents expect some deceleration in growth in the second half of the year.

Even as overall output has increased in recent years, manufacturing employment has continued to decline. All three states in our District have lost more manufacturing jobs during the recovery period than the nation as a whole. This continues a trend that goes back to the 1970s. The job losses shown in Figure 12 look very large, but it is important to remember that productivity has been increasing much faster in the manufacturing sector than in the economy as a whole. During the period of these job losses, output per hour increased more than 25 percent in the manufacturing sector. This compares with about 15 percent for all nonfarm business.

Residential construction is the second sector that merits special mention in this overview. Normally, housing construction declines rather sharply before and during recessions (Figure 13). That was the pattern in the early 1980s and 1990s. In the most recent recession, however, permits hardly declined at all, and the decline that did occur looked much more like the normal variation in permits.[3] The data in Figure 13 are six-month moving averages, and even with that degree of smoothing, permits tend to be quite variable, especially for the three states. So the downturn in permits for the nation and the region in 2000 and 2001does not stand out. After the recession, permits climbed steadily at the national level until very recently. We have gotten a dip in permits this year, but nothing that has been alarming. For the three states in the District there was also an earlier decline in permits in the second half of 2004, but that had to do with timing. Pennsylvania had passed a law requiring municipalities to enact certain building codes by the middle of that year, and builders rushed to get their permits before that date. Permits declined then after the middle of the year. This year's decline in permits in the region has been a bit stronger than the decline in the nation, but until now at least, it has been no worse than some downturns during other expansions. For the entire construction industry increases in nonresidential construction have sustained activity and employment. The question for the industry is how long the downturn in residential construction will last and how deep it will be.

The strength of the housing market in recent years has been reflected in record house-price appreciation. Figure 14 shows real house-price appreciation for 10-year periods beginning in 1975, that is, increases over and above the inflation rate.[4] New Jersey stands out with a real increase of 75 percent since 1995. The U.S. and Delaware had increases of about 50 percent. And Pennsylvania had an increase of about 35 percent. These increases far outstrip the other two 10-year periods on the chart. Several academic articles have been written on whether these price increases can be sustained, and we will publish a summary of some of those articles in an upcoming issue of our *Business Review*.

The largest house-price increases in our District have been in the markets along the Jersey shore like Ocean City and Atlantic City (Figure 15). Prices have risen much less rapidly as we move north and west from the Philadelphia area. As the housing market cools, some of these areas are likely to experience

[3] The data on permits are from the Department of Commerce.

[4] The housing price data in this report are from the Office of Federal Housing Enterprise Oversight.

declines in the inflation-adjusted price of houses even if the nominal prices do not fall. The latest house-price indexes available are from the first quarter of the year. But there is more recent anecdotal evidence from realtors that the number of homes on the market is increasing and that sellers are lowering their asking prices.

Besides the dip in housing permits presented in Figure 13, the clearest evidence of a slower housing market is the decline in existing home sales for the first quarter of this year. The striped bars in Figure 16 represent first-quarter sales at a seasonally adjusted annual rate.[5] The solid bars represent the yearly rates for 2003 through 2005. Sales peaked in New Jersey in 2004 and in the U.S. and the other two states in 2005. And sales for the first quarter of this year were lower across the board.

The number of monthly housing permits is one of the series that goes into our leading indexes for the three states. And the slowdown in housing is one of the reasons the leading index for each state has fallen in the last few months (Figure 17). Pennsylvania's leading index has even gone negative. Although a negative reading is most often associated with a coming recession, that is not always true. There were negative and near-negative readings in 1995 and 1996 that were not followed by recessions, and we don't see a recession for the state in the near term.

We are, however, predicting somewhat weaker job growth this year than last. The solid bars in Figure 18 represent growth from the first quarter of 2005 to the first quarter of 2006, and the striped bars represent our forecast through the first quarter of next year. We expect jobs to increase at a measurably slower pace in Pennsylvania and Delaware than they did last year. New Jersey's job growth should remain about the same as last year. But New Jersey already experienced a slowdown in job growth in the fourth quarter of last year and the first quarter of this year.

With slower job growth the unemployment rates in Pennsylvania and New Jersey are expected to increase by the first quarter of 2007 (Figure 19). The monthly rates in April and May have already moved up from the first-quarter rates this year. In Delaware the unemployment rate is expected to remain steady at slightly less than 4 percent.

The outlook then is for continued but somewhat slower growth in the region. Manufacturing is not expected to grow as strongly in the second half of the year as in the first half, but it is expected to grow. The long anticipated slowdown in the housing market has begun, but the pace of the slowdown has been orderly. We are likely to see some up-tick in the unemployment rates, but the rates will remain relatively low by historical standards.

Theodore M. Crone
Vice President and Economist

[5] These data are from the National Association of Realtors.

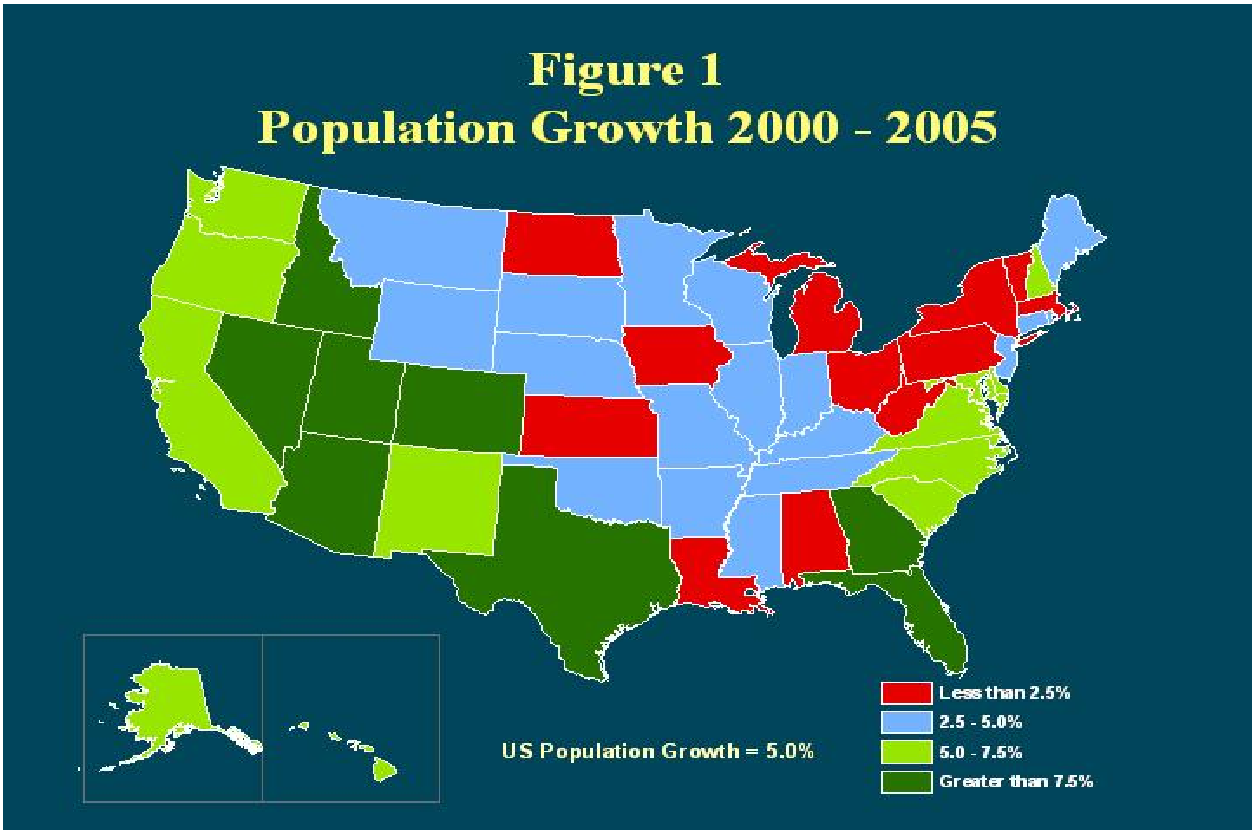


Figure 1
Population Growth 2000 - 2005
US Population Growth = 5.0%
Less than 2.5%
2.5 - 5.0%
5.0 - 7.5%
Greater than 7.5%

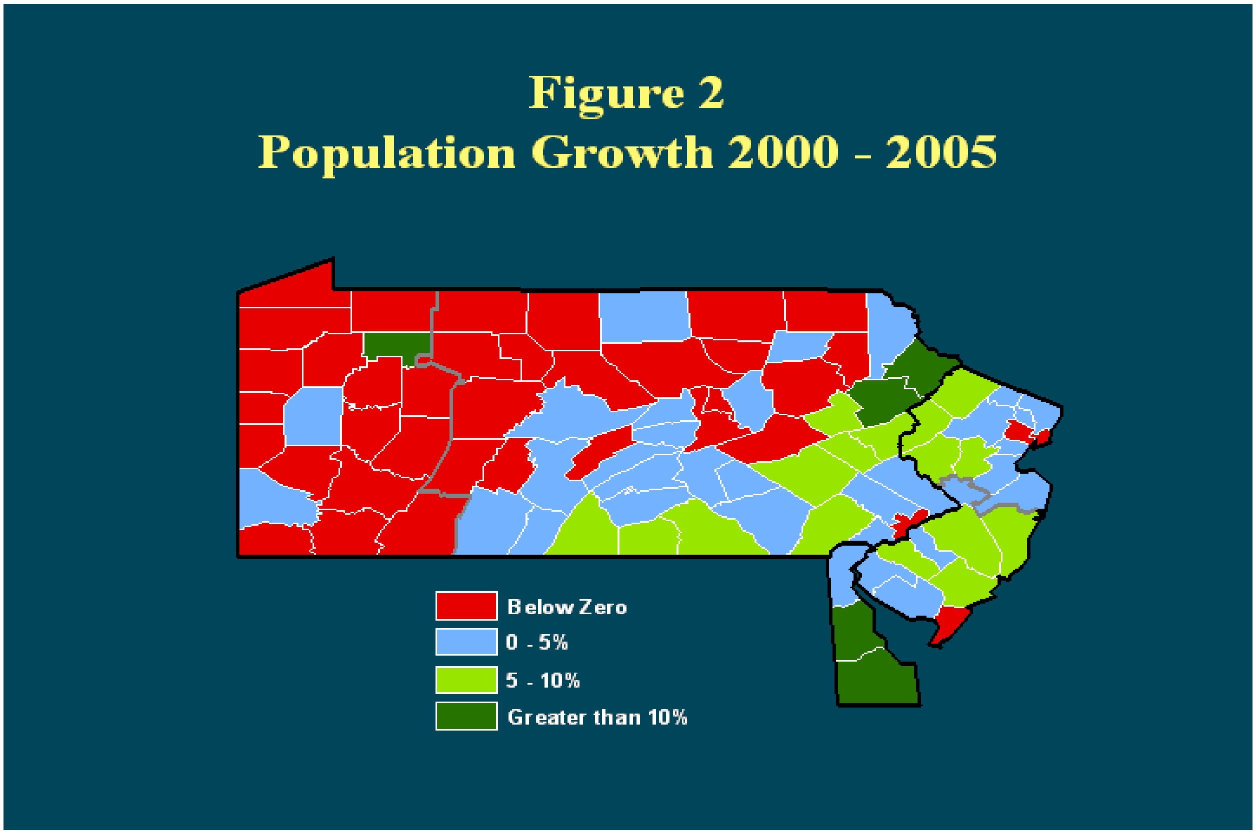


Figure 2
Population Growth 2000 - 2005
Below Zero
0 - 5%
5 - 10%
Greater than 10%

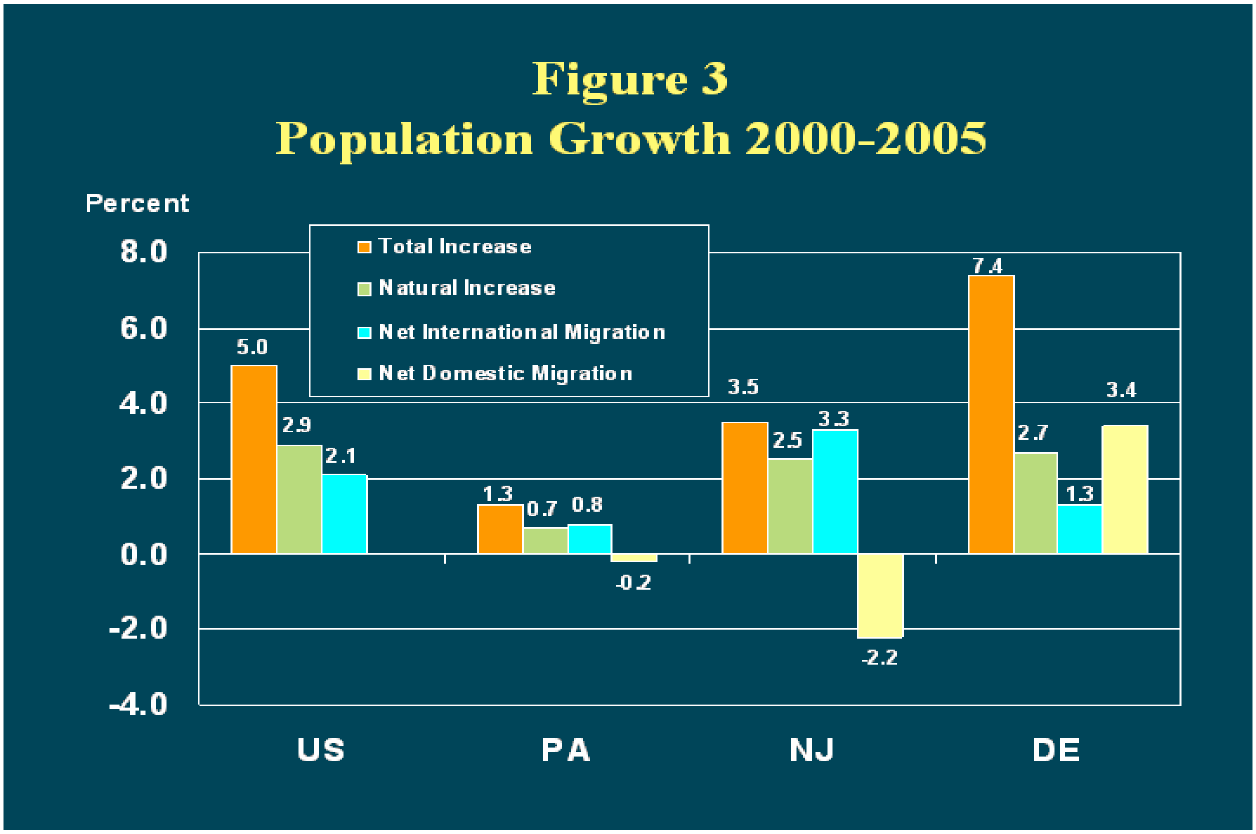


Figure 3
Population Growth 2000-2005
Percent
8.0
6.0
4.0
2.0
0.0
-2.0
-4.0
Total Increase
Natural Increase
Net International Migration
Net Domestic Migration
5.0
2.9
2.1
1.3
0.7
0.8
-0.2
3.5
2.5
3.3
-2.2
7.4
2.7
1.3
3.4
US
PA
NJ
DE

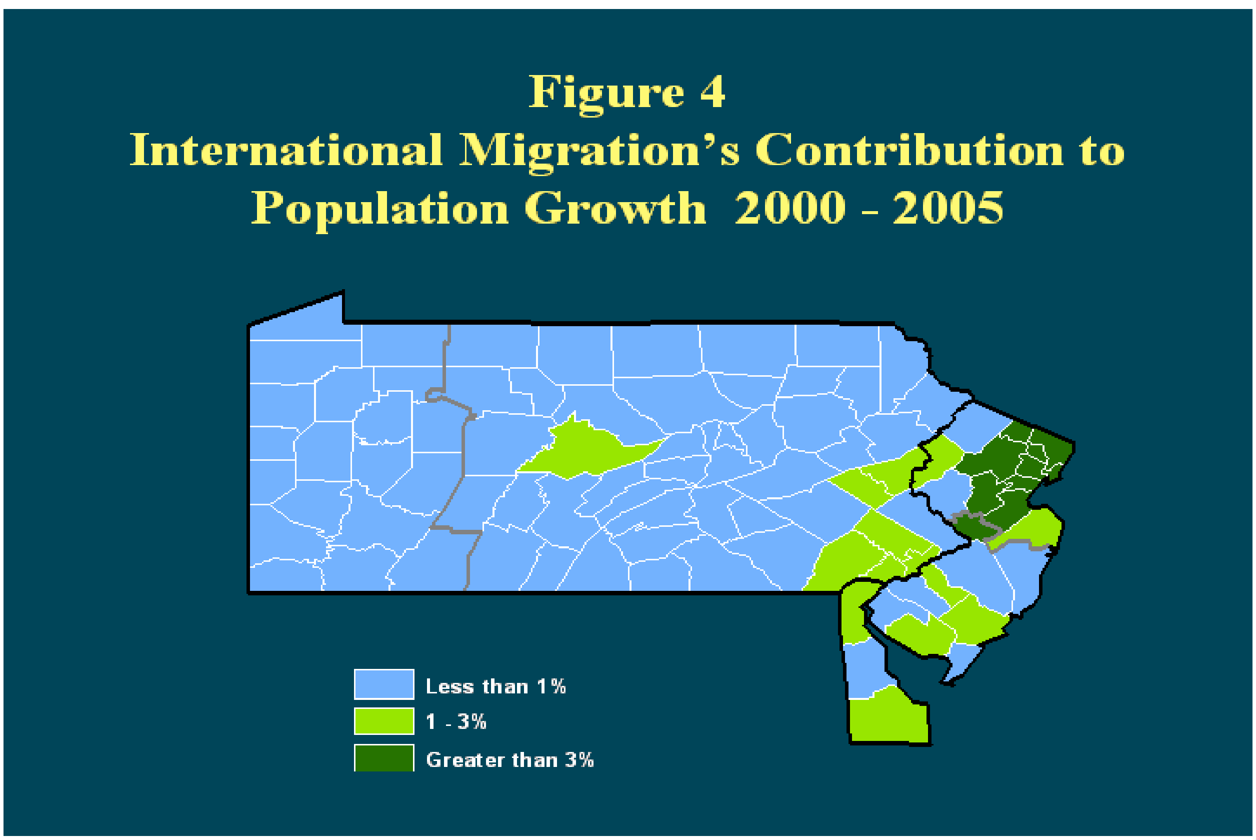


Figure 4
International Migration's Contribution to Population Growth 2000 - 2005
Less than 1%
1 - 3%
Greater than 3%

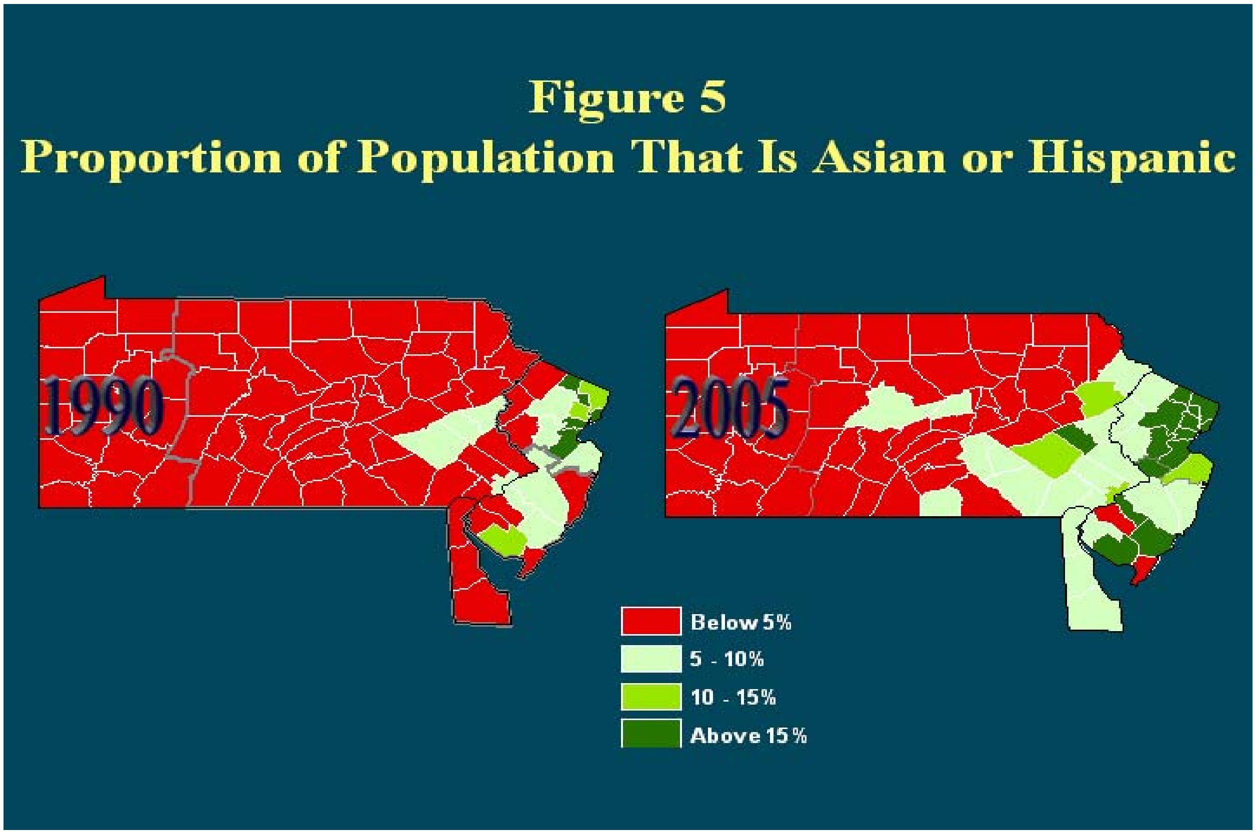


Figure 5
Proportion of Population That Is Asian or Hispanic
1990
2005
Below 5%
5 - 10%
10 - 15%
Above 15%

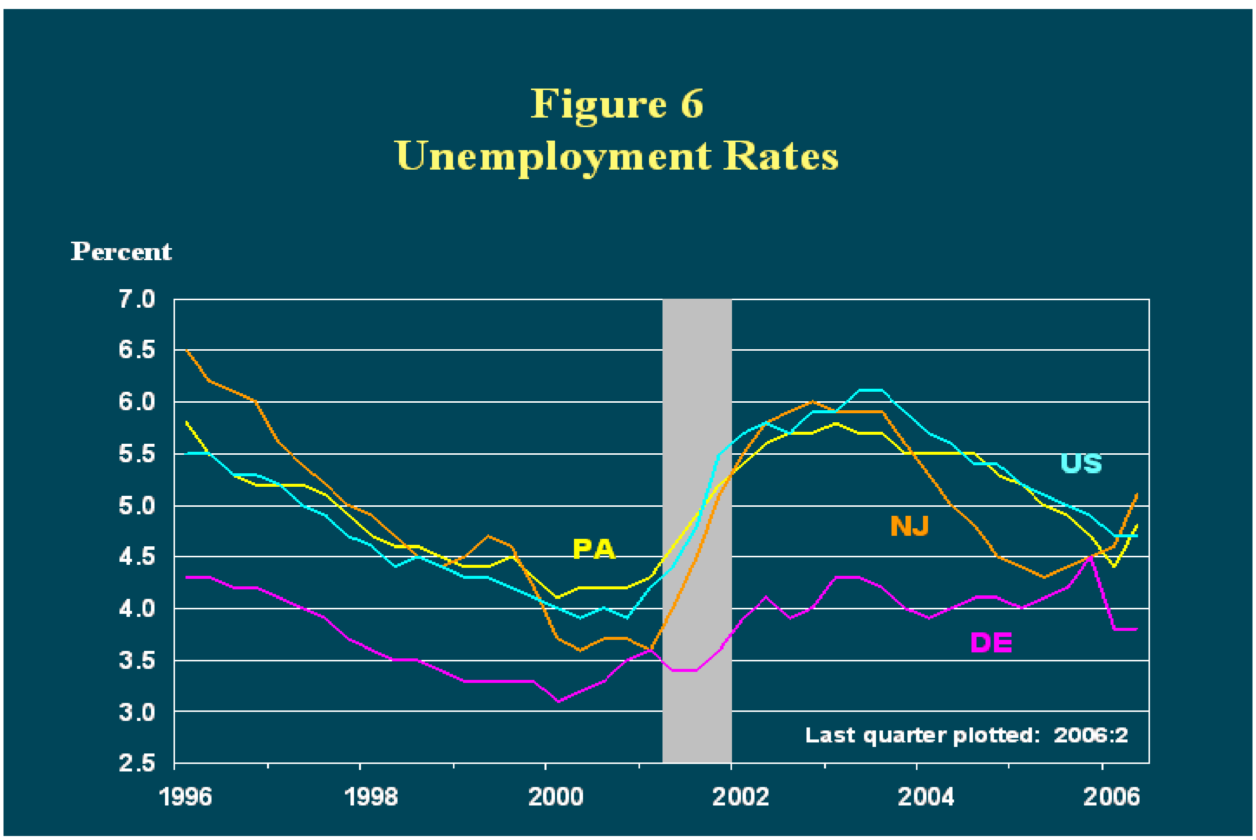


Figure 6
Unemployment Rates
Percent
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
1996
1998
2000
2002
2004
2006
PA
NJ
US
DE
Last quarter plotted: 2006:2

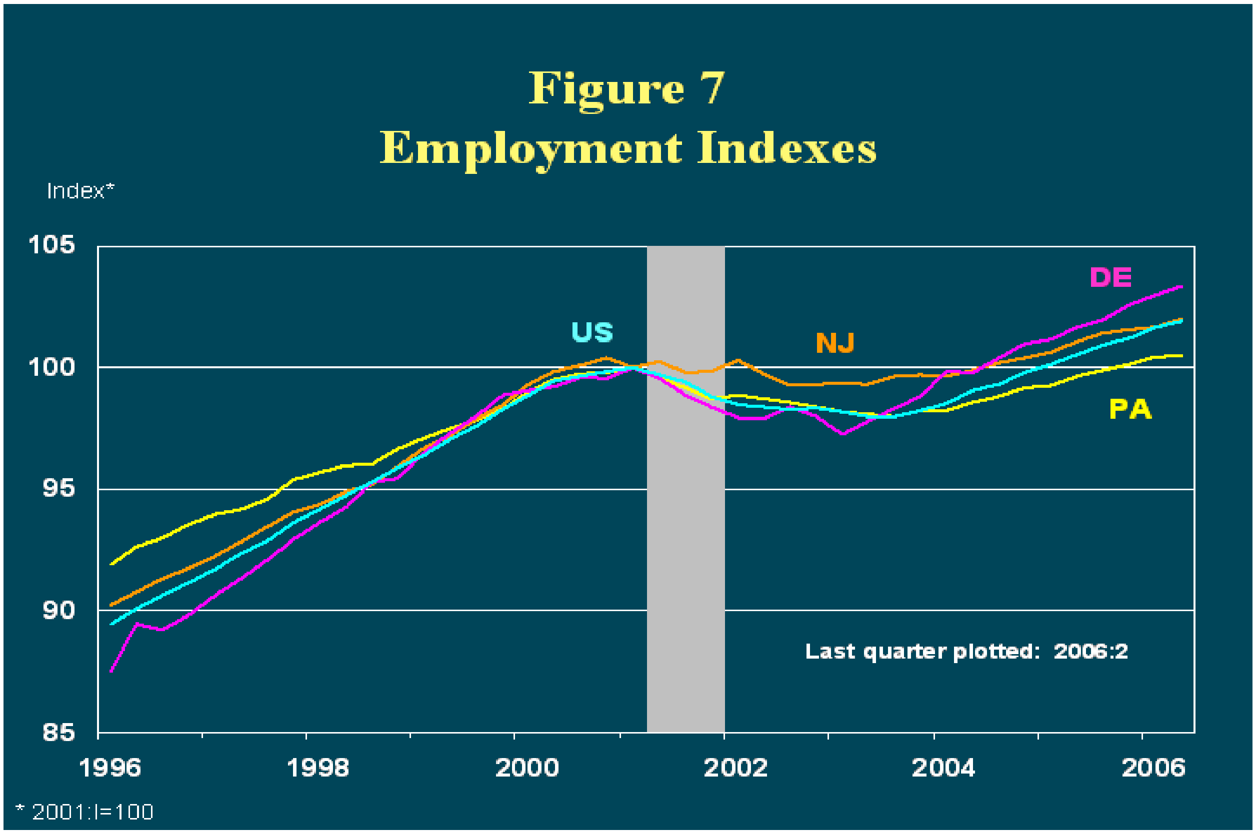


Figure 7
Employment Indexes
Index*
105
100
95
90
85
1996
1998
2000
2002
2004
2006
US
NJ
DE
PA
Last quarter plotted: 2006:2
* 2001:I=100

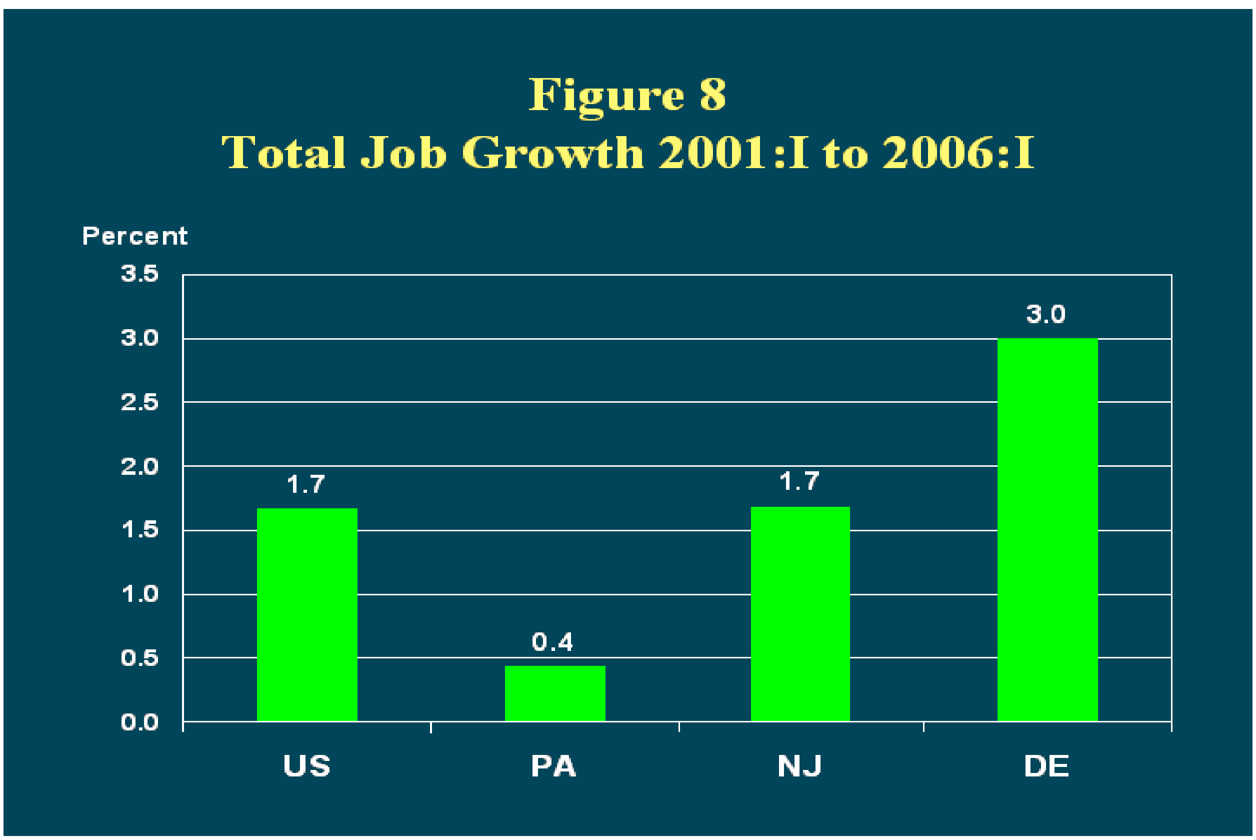


Figure 8
Total Job Growth 2001:I to 2006:I
Percent
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1.7
0.4
1.7
3.0
US
PA
NJ
DE

Figure 9
Metro area job growth 2001:I to 2006:I

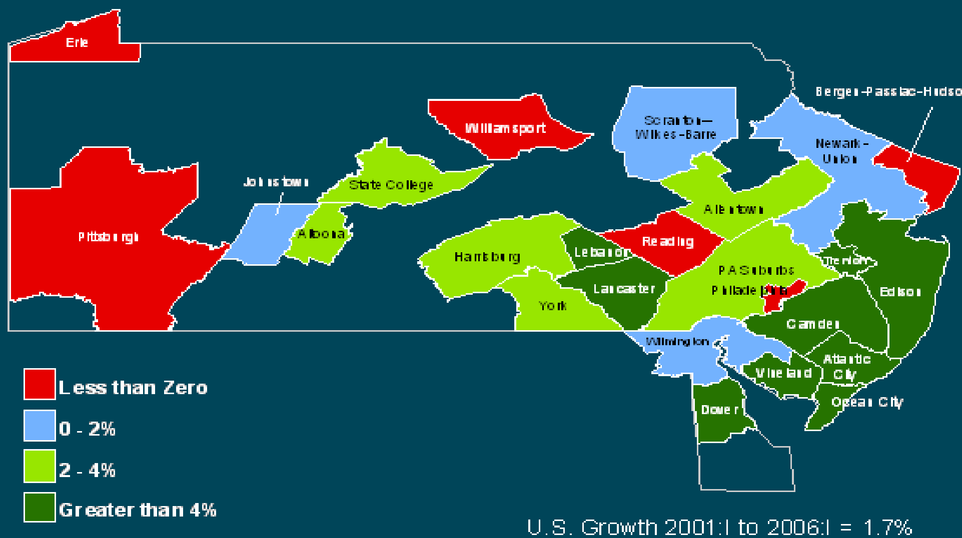
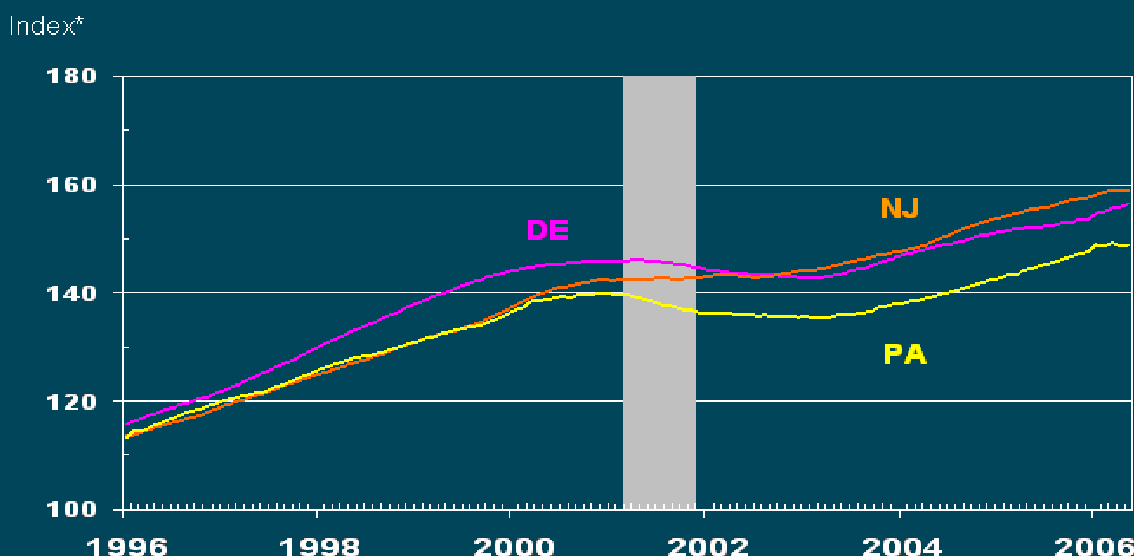


Figure 10
Philadelphia Fed Economic Activity Indexes



*July 1992=100

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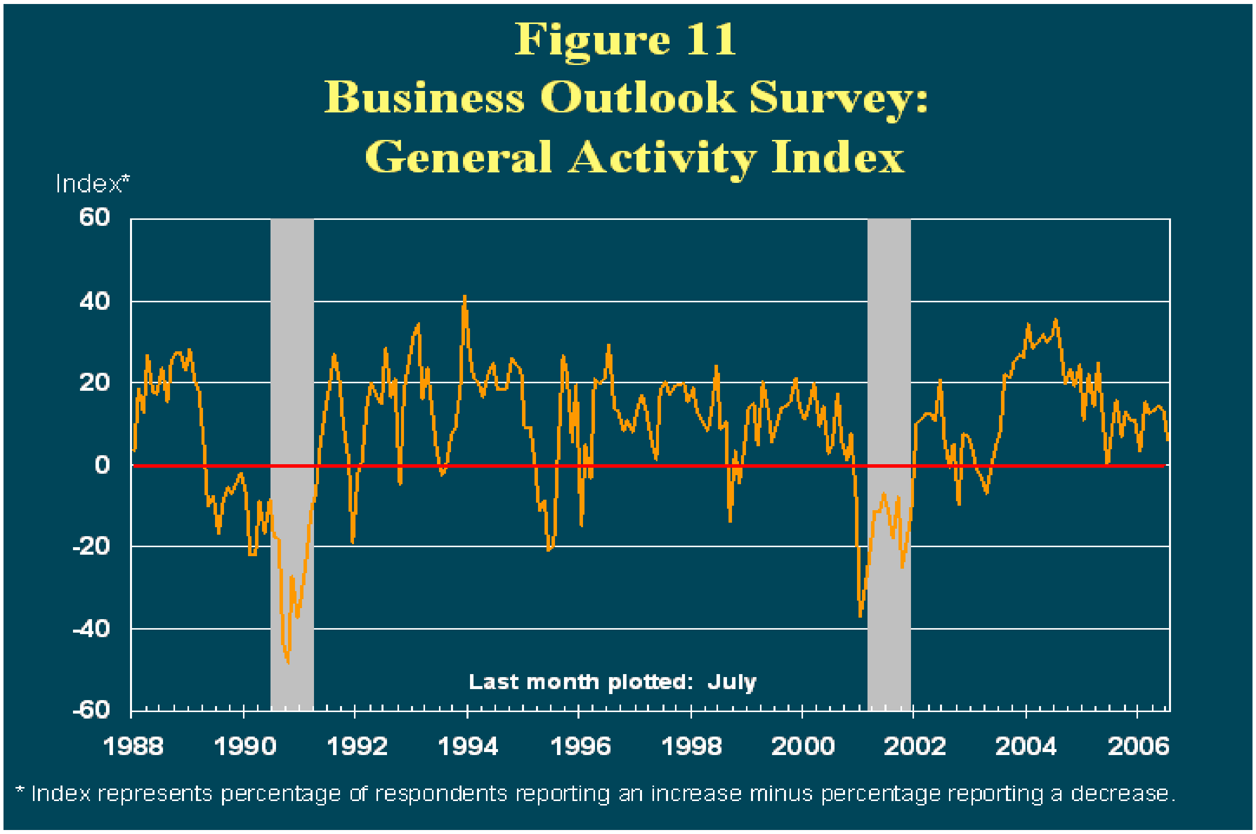


Figure 11
Business Outlook Survey:
General Activity Index
Index*
60
40
20
0
-20
-40
-60
Last month plotted: July
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
* Index represents percentage of respondents reporting an increase minus percentage reporting a decrease.

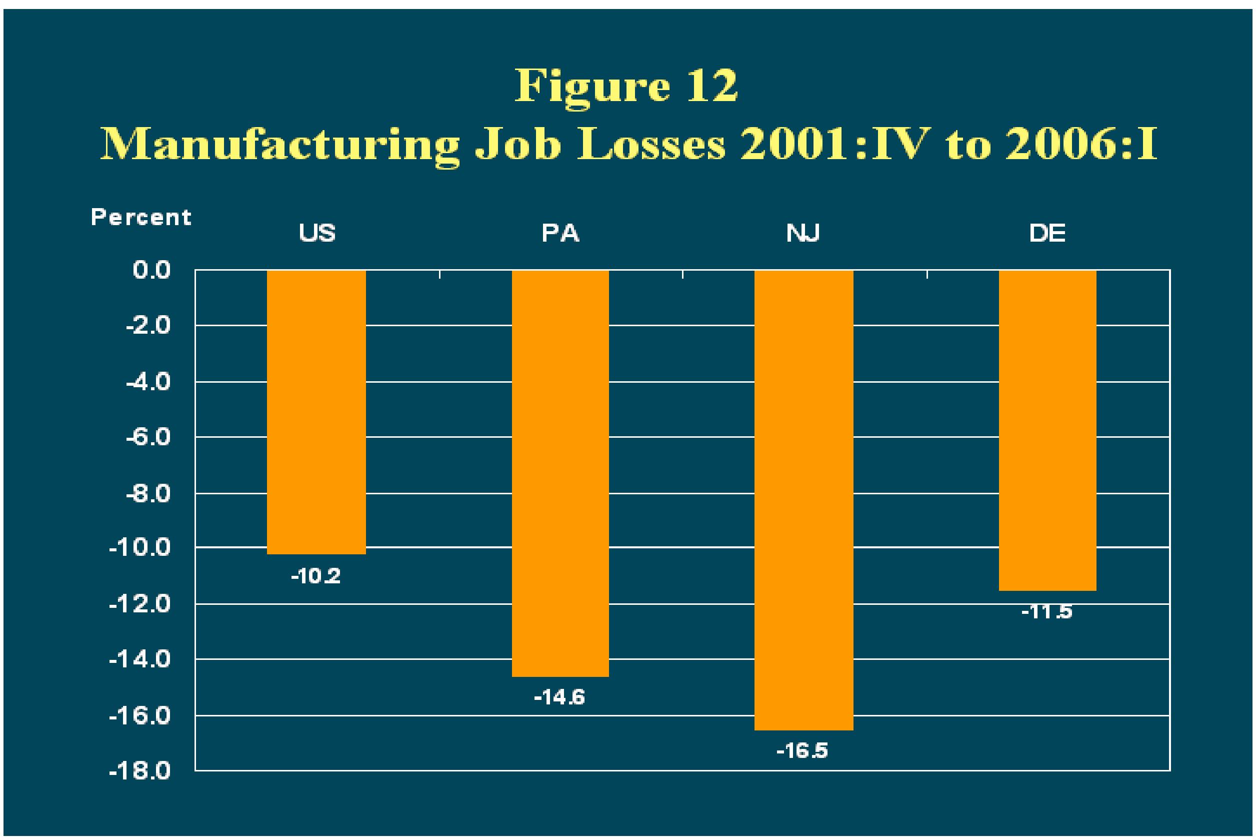
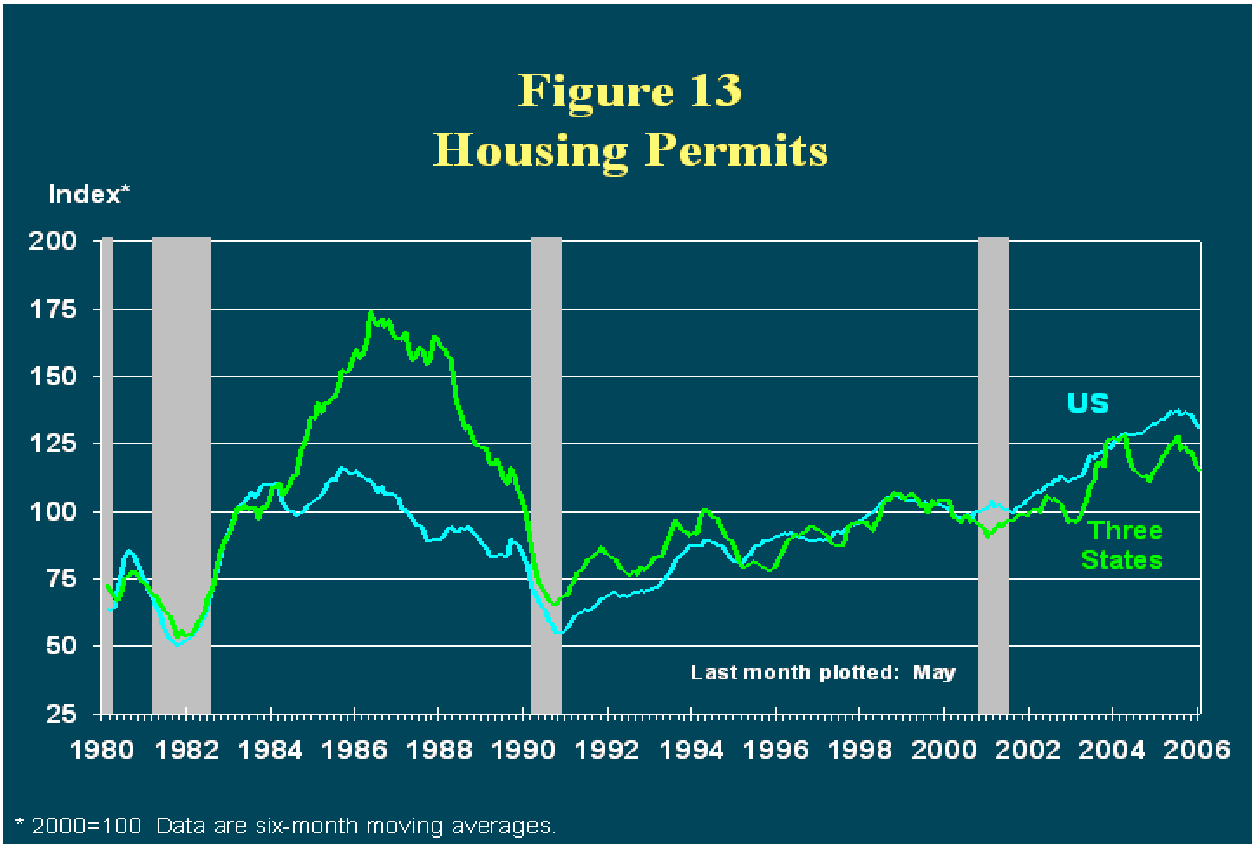
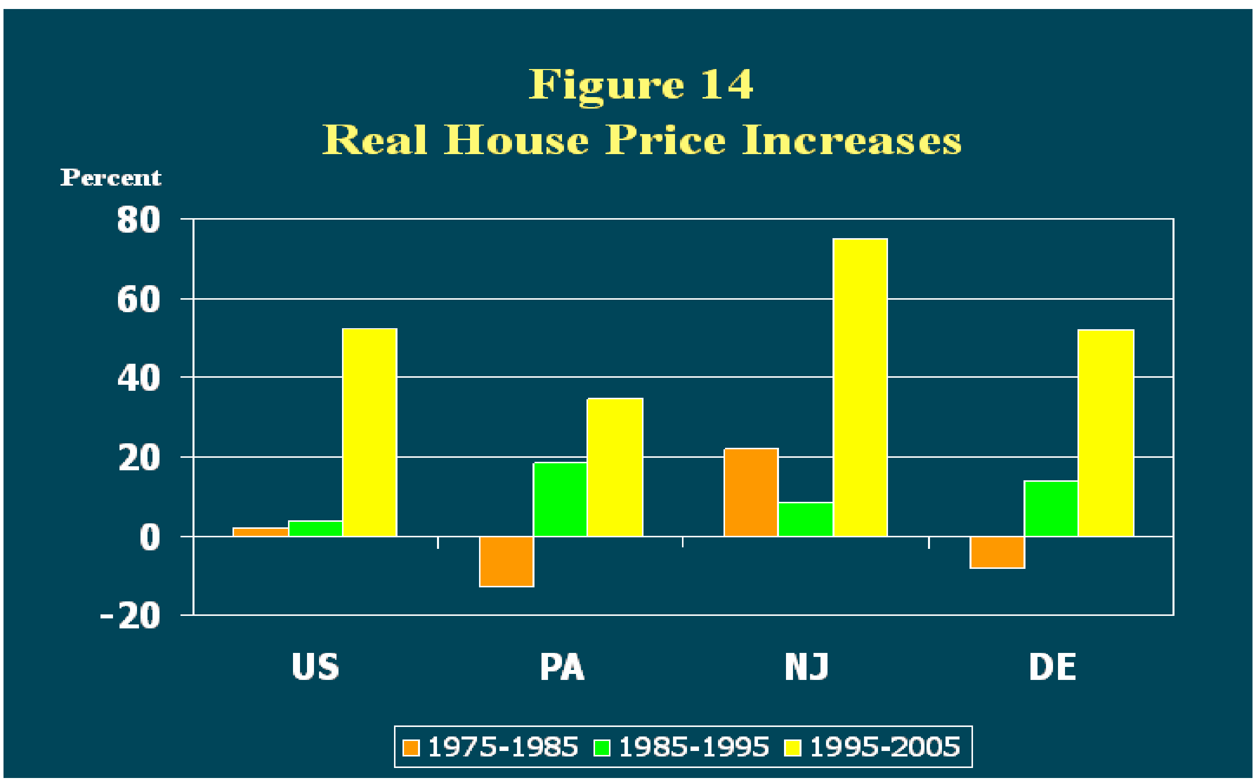


Figure 12
Manufacturing Job Losses 2001:IV to 2006:I
Percent
US
PA
NJ
DE
0.0
-2.0
-4.0
-6.0
-8.0
-10.0
-12.0
-14.0
-16.0
-18.0
-10.2
-14.6
-16.5
-11.5





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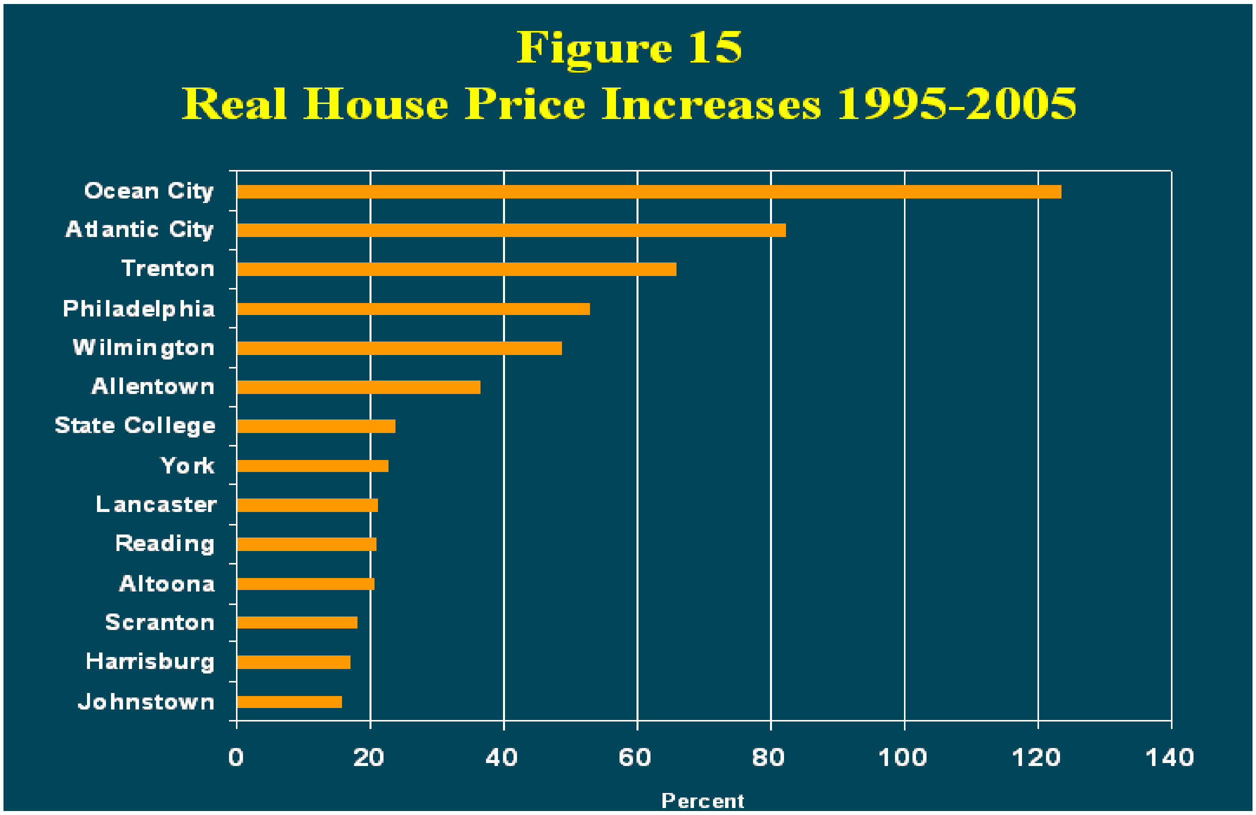


Figure 15
Real House Price Increases 1995-2005
Ocean City
Atlantic City
Trenton
Philadelphia
Wilmington
Allentown
State College
York
Lancaster
Reading
Altoona
Scranton
Harrisburg
Johnstown
0
20
40
60
80
100
120
140
Percent

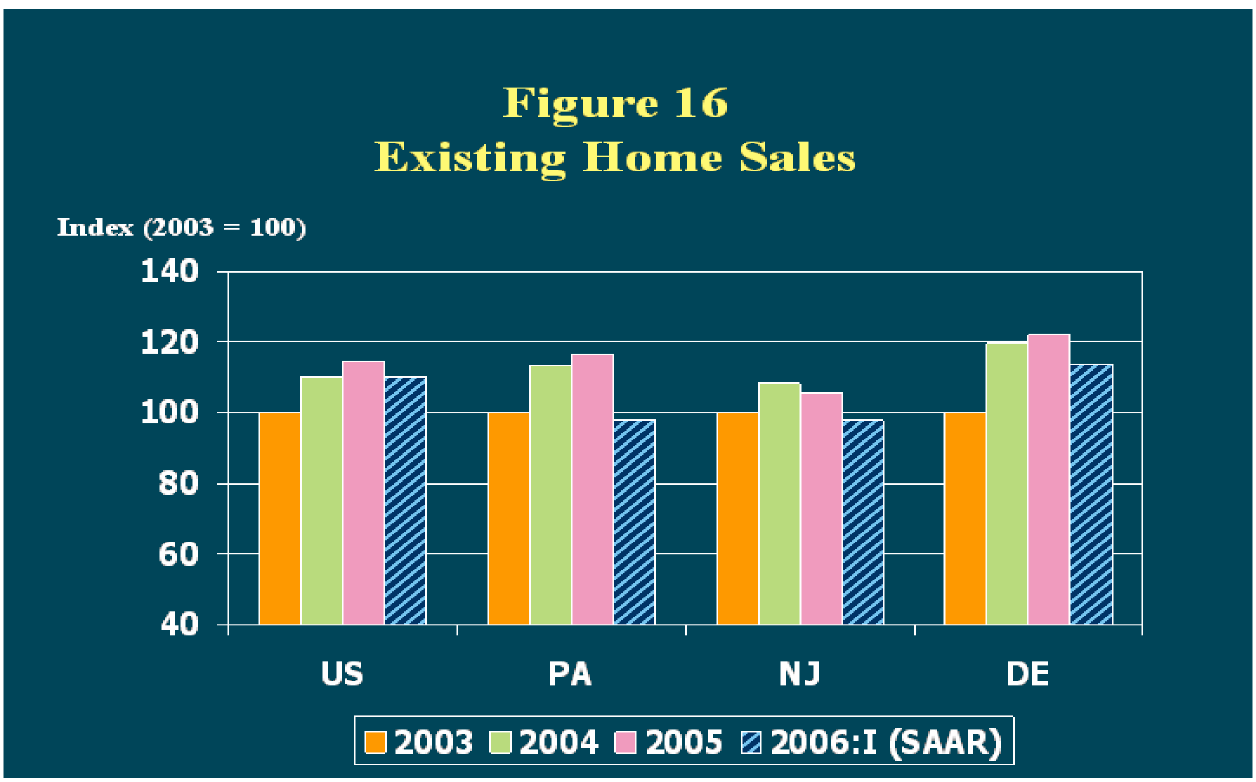


Figure 16
Existing Home Sales
Index (2003 = 100)
140
120
100
80
60
40
US
PA
NJ
DE
2003
2004
2005
2006:I (SAAR)

Figure 17

Philadelphia Fed Leading Indexes

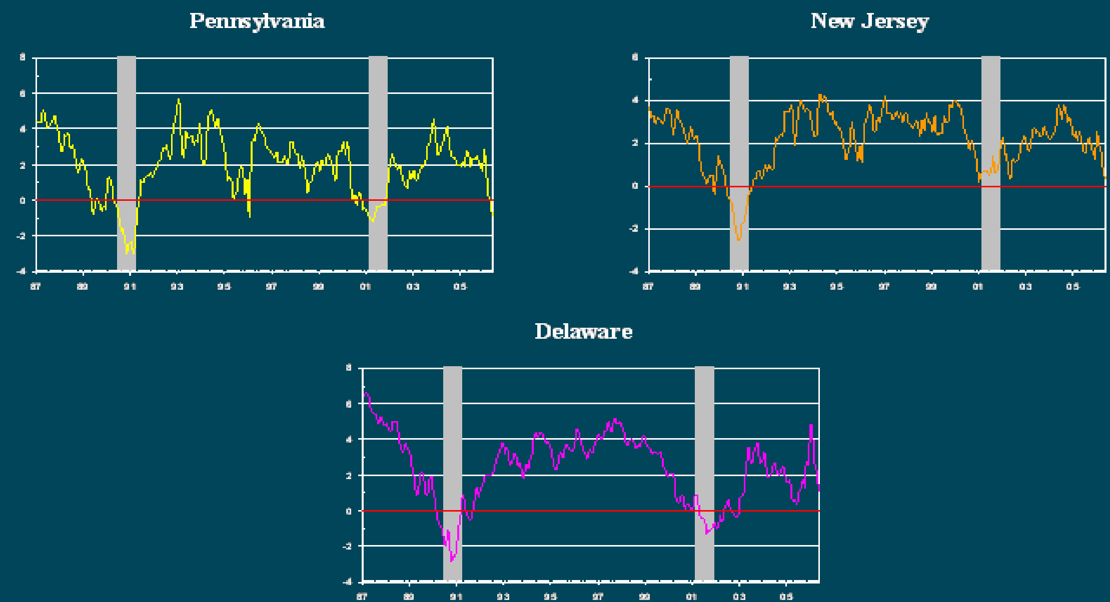
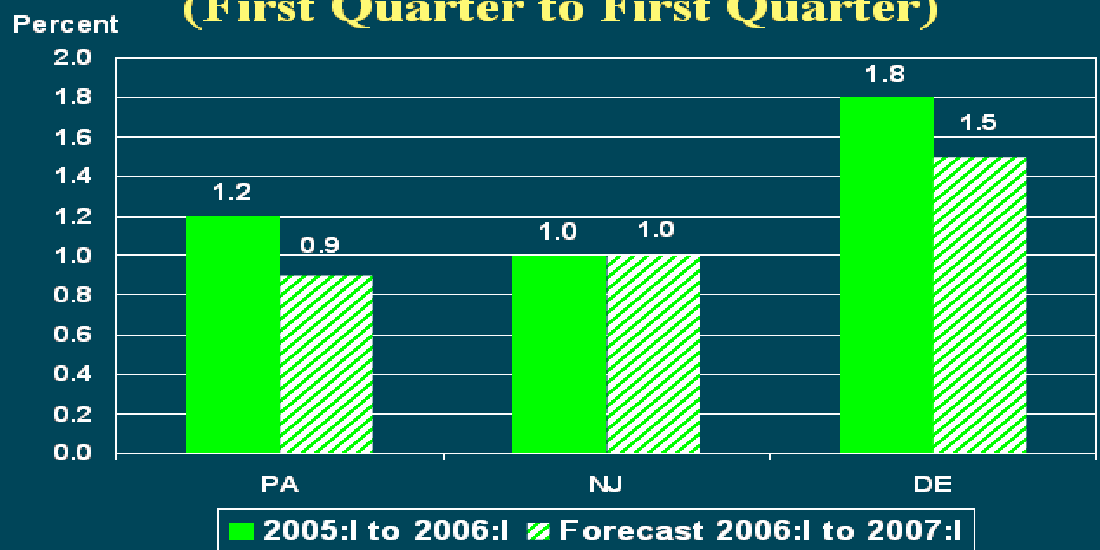
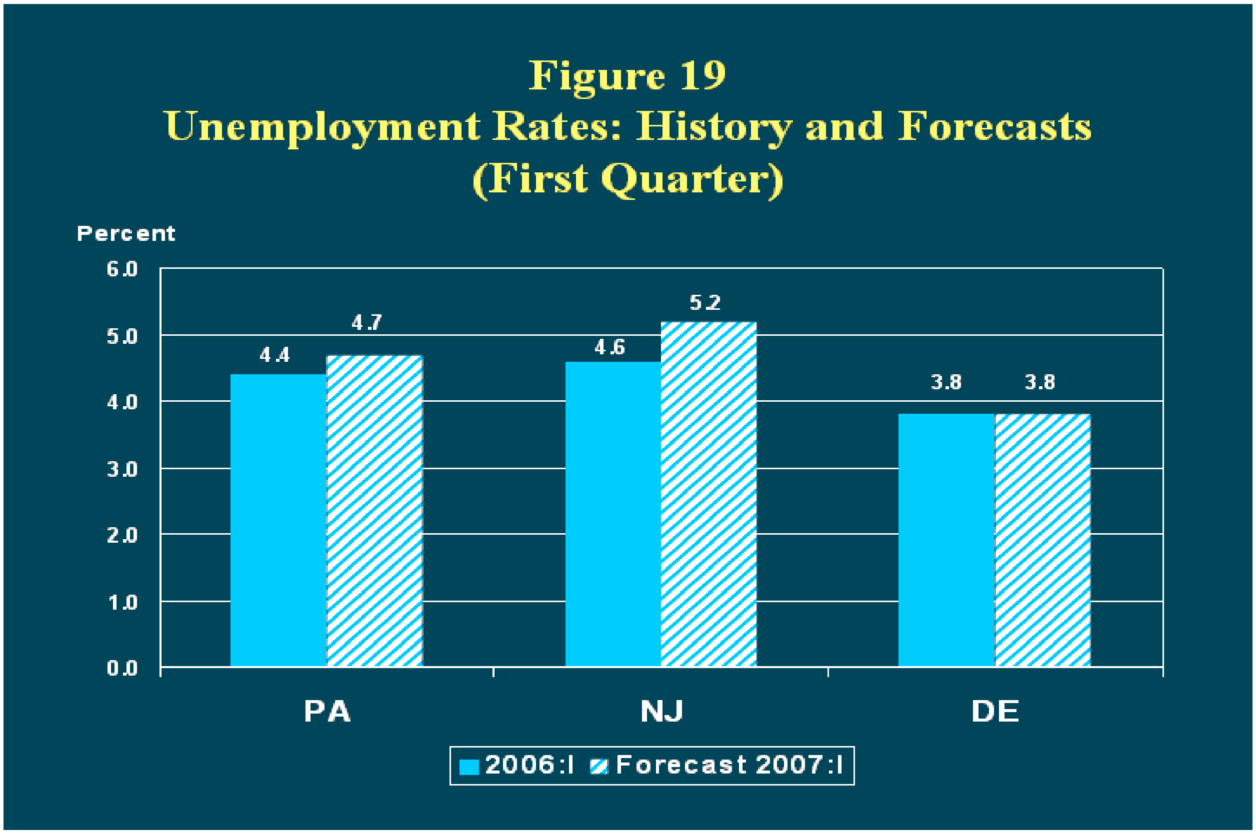


Figure 18

Payroll Employment Growth: History and Forecasts

(First Quarter to First Quarter)





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