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New Jersey's Economic Roller Coaster

FROM "GO-GO" TO "SLOW-GO"

An Analysis of Economic, Business
and Demographic Trends

James W. Hughes

Distinguished University Professor

Dean Emeritus

Will Irving

Research Associate



December 2017 will mark the tenth anniversary of the last business-cycle peak in the United States as well as the tenth anniversary of the start of the Great 2007–2009 Recession (December 2007–June 2009).¹ During this ten-year period, the long-standing economic and demographic foundations of New Jersey were fundamentally disrupted and transformed: 2017 New Jersey looks quite different from 2007 New Jersey. The state’s recovery from the Great Recession has been less than robust, and there is still a high degree of uncertainty about future economic prosperity.

At this point, the current national expansion, which started in June 2009, is now the third longest in history. Thus, given the December 2017 anniversary, now is an appropriate time to assess the current economic and demographic status of New Jersey compared with both its prerecession *employment peak* (January 2008) and its recessionary *employment low* (September 2010), and to examine the long-term cyclical economic journey that has brought New Jersey to its 2017 destination.

The first ten years of the new millennium will be remembered as New Jersey’s lost economic decade. For the first time in history, the state ended a decade with fewer payroll jobs than it had at the beginning. The second ten years of the new millennium—where we are today—will eventually be known as the decade of the long recuperation. It has been a period of recovery from the lost decade—whose capstone was the painful Great Recession—and a period of responding to longer-term structural changes that have reshaped the economic underpinnings of the state. These changes have been driven by profound demographic shifts and sustained technological advances that have inescapably altered many of our once seemingly immutable twentieth-century economic certainties.

Moreover, the United States economy has already passed, or will soon pass, several significant mileposts before this year (2017) is completed:

1. The National Bureau of Economic Research (NBER) dates the national business-cycle phases based on a number of indicators. At the state level, business-cycle phases are gauged by employment peaks and troughs. The dates of national and state business cycles often differ.

March: The current national expansion reached 93 months in length (seven years and nine months), making it the third longest in the nation’s history.²

June: The expansion then celebrated its eighth full year (96 months).

July: It then entered its ninth year.

October: Three months later, it marked its 100-month anniversary.

December: It will reach 102 months in length and will be just five months shy of becoming the second longest United States expansion in history.³

December: In addition, as noted above, this month marks the tenth anniversary of the December 2007 onset of the Great 2007–2009 Recession and the end of the last business-cycle expansion.

December: It also marks the end of the eighth year of the second decade of the century, a decade entering its final stages.

The year 2017 is also the tenth anniversary of the unveiling of Apple’s iPhone, which ushered in the smartphone revolution. Fixed-in-place information technology umbilical cords were severed, and the mobile-internet-untethered era unfolded. This era is only a decade old but has further restructured twenty-first-century knowledge-based work, the shape of the economy, and where work can take place.

So, 2017 was a milestone year for a national economy and for a mature expansion not yet ready to expire due to longevity and old age.

The United States is also approaching 2018 with considerable economic momentum bolstered by nearly seven straight years (2011 through 2017) of robust employment growth. New Jersey too

2. It trails the 120-month-long March 1991–March 2001 expansion, the current record holder, and the 106-month-long February 1961–December 1969 expansion, currently in second place. The dates of the U.S. business cycle expansions and contractions are determined by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER).

3. If it continues, the expansion will be 107 months old in April 2018.

finally achieved a meaningful upward employment trajectory in the 2014–2016 period. While it had been an elusive recovery for the state during the early post-Great Recession period (2010–2014), 2015 and 2016 evidenced a somewhat more competitive state economic position.⁴ Nonetheless, New Jersey still has economic ground to make up to get back to where it was before the onset of the Great Recession.

Overview

The demographic and economic underpinnings of New Jersey have experienced substantial change over the past ten years. Demographically, millennial preeminence has supplanted baby boom preeminence.

- In 2007, the fabled suburban-centric baby boom generation still ruled. The product of the most fertile period in American history, the baby boom was the most influential demographic event of postwar America, dominating New Jersey at each of its life-cycle stages. Born between 1946 and 1964, it was between 43 and 61 years of age in 2007. It was still the primary force driving America's and New Jersey's labor forces and housing markets, a position it had maintained for more than a quarter of a century.
- Millennials—the first generation raised in the digital age—were born between 1980 and 2000. Originally termed the baby boom echo—since most were baby boom offspring—millennials were between seven and 27 years of age in 2007. The great majority were then still in the K-12 educational system or in higher education, and not yet in the labor force.
- But then the greatest age-structure transformation in American history unfolded: the simultaneous maturing of the baby boom and the coming of age of millennials. A decade later (2017), the demographic forces of the late-twentieth century had been fully supplanted by the demographic forces of the twenty-first century.
- In 2017, the oldest suburban-saturated baby boomers experienced their 71st birthdays, and more than one-half of all boomers were in their 60s. At this point, they increasingly started to represent the workforce of the past, with many starting to exit the workplace doors.
- Millennials now rule, having become the largest sector of America's and New Jersey's workforces. In 2017, this urban-centric generation was between 17 and 37 years of age and had become the prized labor force commodity, eagerly sought by a corporate America that increasingly required digital talent.
- Millennials are now totally reinventing America's and New Jersey's economic and shelter landscapes—redefining the workplace, reshaping workplace location, and transforming the geography of housing demand.

Concurrently, corporate New Jersey's locational preferences underwent significant change, reversing the fortunes of suburban and urban office markets.

- In 2007, New Jersey's economy was still overwhelmingly suburban-centric, largely staffed by baby boomers, and spatially concentrated in isolated and insulated automobile-dependent campuses and highway corridors. This was the nation's leading-edge growth model for the preceding quarter of a century, and it had become New Jersey's core economic competency.
- The state's expansive suburban office inventory was still relatively youthful—17 to 27 years of age—since the great majority of it was built during the remarkable 1980s' office building boom. "They [offices] were designed to be utterly predictable, familiar, disconnected and unchanging, both socially and aesthetically—the better to soothe employees and keep them focused."⁵

4. According to NBER's Business Cycle Dating Committee, the Great Recession started in December 2007 and ended in June 2009. However, private-sector employment in New Jersey continued to decline after the recession's end, finally bottoming out in February 2010. Total employment bottomed out later, in September 2010, due to public-sector losses.

5. Dan Zack, *The Washington Post*, July 20, 2015.

- However, during the early years of the 2000s, suburban office fatigue started to emerge in New Jersey and the broader region. This trend intensified in the post–Great Recession years, as the state’s sterile, disconnected, and aging office inventory began to constitute less-than-competitive work environments, internally and externally.
- Firms and their employees increasingly desired inspiring, interactive, collaborative workplace settings that were not isolated but part of urban-centric, multi-activity milieus laden with lifestyle amenities and public transportation conveniences. Once highly desirable leafy environments have morphed into liabilities. Increasingly, where the talent wants to be drives locational decision-making.
- New Jersey was onboard to embrace transit-oriented development from its inception with the creation of the Transit Village Initiative by the New Jersey Department of Transportation and NJ Transit. Mixed-use hubs married office space with retail, residential, and recreational uses, and corporate tenants signed on in transit-friendly locations like Hoboken, Jersey City, Morristown, Newark, and New Brunswick. However, even this new development format saw vacancy rates increase to 19.2 percent at the end of 2016, up from 16.9 percent in 2015. This compares with a 26.4 percent vacancy rate for the traditional suburban office market.⁶
- Today it is well recognized that recession-battered corporate America quickly adopted a new mantra: the need for agile workplaces that facilitate the development of a culture of collaboration and innovation, providing access to a global talent pool, particularly NextGen skill people. However, there is not yet substantial and definitive empirical evidence as to whether these innovation ecosystems deliver all that they promise.
- Nonetheless, in 2017, the state was saddled with an increasingly obsolete—functionally and geographically—white-collar economic infrastructure. Much of New Jersey’s aging

suburban office inventory was between 27 and 37 years of age, with growing underutilization. The state’s office markets were beset by change, and the difficult and uncertain process of adapting to the new workplace realities was fully under way.

This obsolescence and adaptation in the context of the great age-structure transformation has been an important contributor to New Jersey’s postrecession economic trajectory.

- Since the end of the Great Recession, it has taken much longer for New Jersey to gain full economic traction compared with the nation. The full recovery of the state’s recessionary employment losses lagged behind the nation by approximately two years—2016 versus 2014.
- During the recovery years—December 2010 to December 2016—New Jersey’s employment growth averaged 45,400 private-sector jobs per year.⁷ In order to grow at the same rate as the nation, the state would have needed to add 72,000 jobs per year. New Jersey has fallen far short of that mark.⁸ But, surprisingly, in 2016, the state actually kept pace with the nation, matching its growth rate.
- To put this performance in perspective, a comparison to New Jersey’s neighbor states—all of which also lag the nation—proves informative. Between 2010 and 2016, New Jersey was “middle of the pack,” growing faster than Pennsylvania and last-place Connecticut, but lagging behind Delaware and frontrunner New York. But in 2016, New Jersey was the five-state frontrunner, surpassing now runner-up New York. Interestingly, Connecticut remained firmly mired in last place, falling even farther behind.

7. The latest re-benchmarked (revised) New Jersey employment data is for December 2016, released in March 2017. Monthly employment releases are based on a sample and are subject to substantial revision at year’s end. Re-benchmarked data for 2017 will be made available in March 2018. Thus, this analysis is limited to the period ending in December 2016.

8. A key metric is that historically New Jersey accounted for 3 percent of the employment base of the United States. To grow at the same rate as the nation, the state would need to account for 3 percent of national job growth. The annual private-sector employment gain of the past six years (2011–2016) in the United States has been 2.4 million jobs per year. New Jersey’s expected 3 percent share would be 72,000 jobs per year.

6. Keiko Morris, “Office Vacancies Jump in New Jersey,” *Wall Street Journal*, September 9, 2017 (<https://www.wsj.com/articles/office-vacancies-jump-in-new-jersey-1504954804>).

In the decade since the last national business cycle peak (December 2007), many of the forces that once comfortably guided New Jersey's growth have been fundamentally disrupted and transformed. This has spawned slower growth—with employment contraction in high-paying industry sectors and employment gains mainly in lower-paying industry sectors—between January 2008 (the state's last cyclical employment peak) and December 2016.⁹

- New Jersey's economy in December 2016 was just 9,200 jobs larger than January 2008, eight years and 11 months earlier. This was the result of a private-sector employment gain of 50,800 jobs and a public-sector (government) shrinkage of 41,600 jobs.
- The private-sector gain of 50,800 jobs was the result of an increase of 133,100 jobs in service-providing industries and a decline of 82,300 jobs in goods-producing industries. The loss of goods-producing employment is a painful story of disappearing high-paying blue-collar jobs in manufacturing and construction.
- Unfortunately, these losses were not counterbalanced by the addition of high-paying service jobs. Of the 133,100 jobs added in service-providing industries, most—almost three-quarters (over 72 percent)—were in education and health services (+99,600 jobs). The average annual pay of these jobs is almost 20 percent below the state average for all industries.
- Four high-paying, service-providing industries are critical to the health of the state's office markets: information; financial activities; professional,

scientific, and technical services; and management of companies and enterprises.¹⁰ These four industries combined now have 35,600 fewer jobs than at the last business cycle peak. Given this contraction, the less-than-ebullient performances in many of the state's office market sectors are not surprising.

- Thus, the state's employment profile has not improved compared with its composition nearly a decade ago. Employment has fallen in the above-average-paying sectors that drive the state's office markets, as well as in the highest-paying goods-producing industries, while employment has overwhelmingly expanded in the below-average-paying service sectors.

However, the current expansion still under way presents a somewhat more positive picture of New Jersey's economic transformation, since its baseline is the employment trough (or end) of the Great Recession.¹¹ How far has the state advanced since hitting bottom (September 2010)?

- During the current expansion (September 2010–December 2016), the state has experienced a total employment increase of 267,800 jobs. This increase now surpasses by 9,200 jobs the total employment loss (-258,600 jobs) that occurred during the recession.
- The total private-sector employment gain (+285,100 jobs) during the current expansion exceeded that of total employment, as the government sector (-17,300 jobs) contracted. The total private-sector employment increase (+285,100 jobs) now exceeds the 234,300 private-sector job loss that occurred during the recession by 50,800 jobs.

9. Industry sectors are defined by the North American Industry Classification System (NAICS). Total employment consists of two major groupings: total private sector and government. Total private sector is partitioned into goods-producing industries and private service-providing industries. Goods-producing industries have three major subsets known as supersectors: mining and logging, construction, and manufacturing. Private service-providing industries have seven supersectors: trade, transportation, and utilities; information; financial activities; professional and business services; education and health services; leisure and hospitality; and other services. Most of these supersectors have several major subsectors.

10. Professional, scientific, and technical services, and management of companies and enterprises, are two of the three sectors within the larger professional and business services supersector. Both are among the highest-paying jobs in the state. The third sector—administrative support, waste management, and remediation services—is significantly below average in pay.

11. Using this period essentially removes the Great Recession from the equation.

- Two key service industries—information (-4,600 jobs) and financial activities (-1,300 jobs)—still continued to experience employment losses during the current expansion. This extended their pattern of decline, which occurred during the recession, when information lost 16,800 jobs and financial activities lost 23,100 jobs. The expansionary phase of the business cycle served only to slow their contraction.
- Fortunately, growth in professional and business services employment (+77,700 jobs) more than counterbalanced the combined employment loss (-5,900 jobs) of information and financial activities. Unfortunately, nearly two-thirds (50,300 jobs) of those employment gains were in the lowest-paying sector of professional and business services and just 27,400 jobs in the above-average pay sectors.¹² Nonetheless, the combination of information, financial activities, and the above-average-paying professional and business service sectors shows a positive advance of 21,500 jobs (27,400 jobs minus 5,900 jobs).

The current employment picture in New Jersey certainly reflects the slow recuperation from the Great Recession. However, it also results from a longer-term transmillennial transformation: a ratcheting down of employment growth in the twenty-first century—weaker post-2000 periods of economic growth compared with pre-2000 periods.

- A “Go-Go” twentieth-century New Jersey economy has been supplanted by a “Slow-Go” twenty-first century economy. The twentieth century’s last two expansions (1982–1989 and 1992–2000) had an average total employment increase of approximately 602,000 jobs per expansion.
- In contrast, the first two new millennium expansions (2002–2008 and 2010–2016) experienced an average total employment growth of approximately 198,000 jobs per expansion. These are extraordinarily different orders of magnitude.

12. Administrative support, waste management, and remediation services comprise the lowest-paying sector in professional and business services. The above-average-paying sectors are management of companies and enterprises, and professional, scientific and technical services.

- If the first two expansions of this century matched the final two of the last century, New Jersey would have over 800,000 more total jobs today than it currently has. The once great suburban job creation machine that powered the 1980s and 1990s in New Jersey has faltered.

The attenuation of the forces of suburban growth has transformed the economic dynamics of the broader region. New Jersey thrived in the era of sustained outward metropolitan expansion; its economy is far more subdued as regional centralization has asserted itself. This is revealed by a long-term comparison of total employment in New Jersey versus New York City.

- In 1950, New York City’s total employment (3.5 million jobs) was slightly more than double that of New Jersey (1.7 million jobs). It was the unchallenged leader of a centralized regional economy.
- By 1988, less than four decades later, New Jersey’s total employment (3.7 million jobs) had surpassed that (3.6 million jobs) of New York City. By 2004, the year of the state’s peak job advantage, New Jersey had 4.0 million jobs compared with 3.6 million jobs in New York City.
- The state’s economy, as benchmarked by total employment, went from less than half the size of New York City to 12 percent larger between 1950 and 2004. During this 54-year period, New Jersey added 2.3 million jobs—New York City less than 100,000 jobs.
- But, then the dynamics changed dramatically. Between 2004 and 2016, New York City gained almost 800,000 jobs—New Jersey fewer than 100,000 jobs. Clearly, regional employment growth patterns had undergone a fundamental shift.
- By 2016, New York City’s employment base (more than 4.3 million jobs) again exceeded that (less than 4.1 million jobs) of New Jersey.

New Jersey is no longer the locomotive of the regional economic train. It has been relegated to passenger status.

Detailed Analyses

The detailed analyses that follow start with a comparison of the time periods that were necessary to achieve full employment recovery from the Great Recession in New Jersey and the nation. New Jersey's employment recovery year-by-year for the 2009–2016 period is then presented, followed by a comparison between New Jersey's recovery and that of its neighboring states. Evaluated next are the employment growth patterns by industry sector over the period from January 2008 (the prerecession employment peak) to December 2016. To provide a longer-term context, the pre-2000 economic expansions are compared with post-2000 expansions. The long-term economic roller coaster that the state has ridden is subsequently presented, highlighted by analyses of business-cycle periods over time by industry sector. The next section is a discussion of changing regional economic dynamics, followed by a multiple-century historical reference framework. A conclusion then follows.

The United States–New Jersey Recovery Differential

It has taken much longer for New Jersey to gain full economic traction compared to the nation. Total employment (138.4 million jobs) in the United States peaked in January 2008 and then plummeted during the Great Recession and its aftermath. It eventually took until May 2014—six years and four months later—to fully recover all of the recession losses and reach a new employment peak (138.6 million jobs), since surpassed. Total private-sector employment (116.0 million jobs) in the nation also peaked in January 2008; it surpassed this prerecession high point in March 2014—six years and two months later—when employment reached 116.1 million jobs.

It has been a more elusive recovery for New Jersey. The state did not fully shed its recovery training wheels—and surpass its prerecession peaks—until 2016. It took eight years for full private-sector recovery. The prerecession private-sector employment peak (3,441,800 jobs) of February 2008 was finally

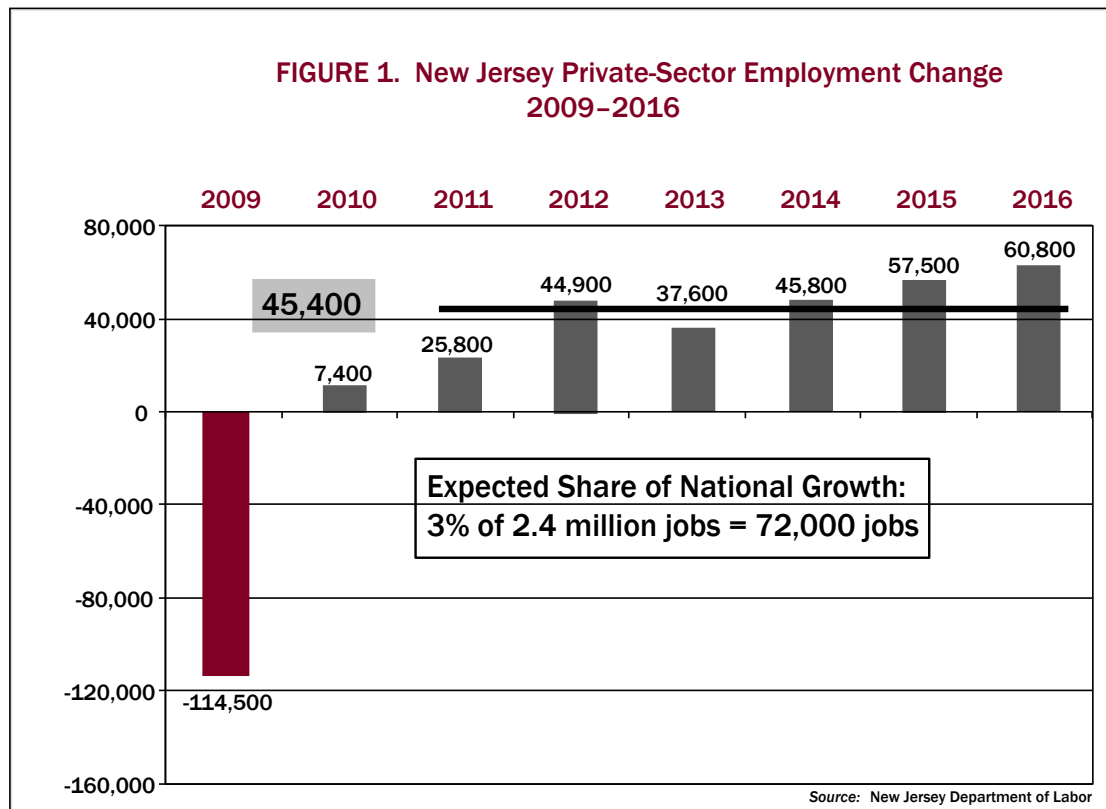
exceeded in February 2016 (3,442,800 jobs). Total employment had an even longer recovery period. It had peaked in January 2008 (4,094,500 jobs); it then took eight years and eight months to recover all its recession losses (September 2016) and reach a new employment high (4,095,700 jobs), since surpassed. So, New Jersey's recovery has lagged behind the nation by approximately two years—one year and ten months behind for private-sector employment and two years and four months behind for total employment.

Annual Employment Change during the Current Expansion

Annual private-sector employment change in New Jersey is presented in *figure 1* for the 2009–2016 period. The Great Recession technically ended in June 2009. Nonetheless, the state still lost 114,500 private-sector jobs that year, the second worst year since 1950.¹³ Modest recovery resumed in 2010 when the state added 7,400 jobs. Employment growth more than tripled in 2011 (+25,800 jobs), jumping to 44,900 jobs in 2012. It then flatlined the next two years: +37,600 jobs in 2013 and +45,800 jobs in 2014. An upward trajectory subsequently resumed as employment ratcheted up to 57,500 jobs in 2015 and 60,800 jobs in 2016.

There are two patterns evident in *figure 1*. A key metric is that, historically, New Jersey accounted for 3 percent of the employment base of the United States. To grow at the same rate as the nation, the state would need to account for 3 percent of national job growth. The annual private-sector employment gain of the past six years (2011–2016) in the United States has been 2.4 million jobs per year. New Jersey's expected 3 percent share would be 72,000 jobs per year, as shown in the boxed area in *figure 1*. But the state has fallen considerably short of that mark during the six-year period. The horizontal line in *figure 1* indicates the average annual employment gain from 2011 through 2016 was 45,400 jobs per year, far short of the 72,000 annual gain needed to keep pace with the nation.

13. This loss just trailed the 136,400 job loss of 1990.



Still, there is a positive note. The last three bars of figure 1 show a steady upward trajectory in annual growth, from 45,800 jobs in 2014 to 60,800 jobs in 2016. In 2014, the state's employment gain accounted for just 1.6 percent of the nation's job growth, slightly more than half of its expected share. But the state's share of national growth in 2016 reached the 3 percent mark. So, New Jersey's growth rate was finally competitive with the nation that year. However, preliminary data for 2017 has yet to provide evidence of this trend continuing. Revised 2017 employment data will be released in March 2018. Until that point, uncertainty about the state's current monthly employment data will prevail.

Middle of the Pack or Frontrunner?

How does New Jersey's economic performance compare with that of its nearby competitor states? *Table 1* provides total private-sector employment for 2010, 2015, and 2016—as well as change for the 2010–2016 and 2015–2016 periods—for the United States, Connecticut, Delaware, New Jersey, New York, and Pennsylvania. For the longer-term period (2010–2016), New Jersey stands in the middle

of the pack. The state's employment growth rate (+8.5 percent) exceeded that of Pennsylvania (+6.5 percent) and last-place Connecticut (+5.1 percent), but lagged that of Delaware (+10.4 percent) and frontrunner New York (+12.9 percent). None of the five states matched the national growth rate (+13.3 percent), but New York came close.

However, between 2015 and 2016, New Jersey became the frontrunner as its private-sector job growth rate (+1.8 percent) surpassed not only that of runner-up New York (+1.5 percent) but also that of the nation as a whole (+1.7 percent). Connecticut remained firmly mired in last place (+0.3 percent), falling even farther behind.

New Jersey: 2017 Versus 2007

In the decade since the last national business cycle peak (December 2007), the economic underpinnings of the state have been fundamentally disrupted and transformed: 2017 New Jersey looks quite different from 2007 New Jersey. How did the employment profile of the state change during this period of time?

TABLE 1
Employment Change, December 2010–December 2016
Private Sector, Selected States
(numbers in thousands)

| STATE | December 2010 | December 2015 | December 2016 | Change: 2010–2016 | | | Change: 2015–2016 | | |
|----------------------|------------------|------------------|------------------|----------------------|-------------|----------|----------------------|------------|----------|
| | | | | Absolute | % | Rank | Absolute | % | Rank |
| UNITED STATES | 108,573 | 120,987 | 123,026 | 14,453 | 13.3 | — | 2,039 | 1.7 | — |
| CONNECTICUT | 1,373.9 | 1,439.5 | 1,443.6 | 69.7 | 5.1 | 5 | 4.1 | 0.3 | 5 |
| DELAWARE | 352.7 | 386.0 | 389.4 | 36.7 | 10.4 | 2 | 3.4 | 0.9 | 4 |
| NEW JERSEY | 3,219.9 | 3,431.5 | 3,492.3 | 272.4 | 8.5 | 3 | 60.8 | 1.8 | 1 |
| NEW YORK | 7,094.1 | 7,890.4 | 8,007.1 | 913.0 | 12.9 | 1 | 116.7 | 1.5 | 2 |
| PENNSYLVANIA | 4,896.3 | 5,154.5 | 5,213.2 | 316.9 | 6.5 | 4 | 58.7 | 1.1 | 3 |

Source: U.S. Bureau of Labor Statistics.

Table 2 presents the employment change between the last employment peak (January 2008) and December 2016 for the major industry supersectors and subsectors, as well as the 2016 average annual pay. Total employment consists of two major groupings: total private sector and government. Total private sector is partitioned into goods-producing industries and private service-providing industries. Goods-producing industries have three major subsets known as supersectors: mining and logging, construction, and manufacturing. Private service-providing industries have seven supersectors: trade, transportation, and utilities; information; financial activities; professional and business services; education and health services; leisure and hospitality; and other services. Most of these supersectors have several major subsectors.

New Jersey's economy in December 2016 was 9,200 jobs larger than the last cyclical peak (January 2008) eight years and 11 months earlier. This was the result of a private-sector employment gain of 50,800 jobs and a public-sector (government) loss of 41,600 jobs. The private-sector gain (50,800 jobs) was the result of an increase of 133,100 jobs in

service-providing industries and a decline of 82,300 jobs in goods-producing industries. The loss of goods-producing employment was a painful story of disappearing high-paying blue-collar jobs. The 2016 average annual pay for all jobs (total nonfarm) in the state was \$62,772. The manufacturing supersector, with a far higher average annual pay (\$78,579), lost 62,200 jobs, while construction (\$68,752) lost 19,800 jobs. Unfortunately, these losses were not counterbalanced by the addition of high-paying service jobs.

As noted above, there was an increase of 133,100 jobs in service-providing industries. Most of this gain took place in the education and health services supersector (+99,600 jobs). Its average annual pay was \$51,432, a level significantly below the state's total employment average (\$62,772). The largest sector within education and health services is health care and social assistance. Its growth (+79,100 jobs) accounted for more than three-quarters (79.4 percent) of that of the supersector. However, its average annual pay was only \$51,698.

Three supersectors of vital importance to the state's office markets are information, financial

TABLE 2
New Jersey Nonfarm Payroll Employment and Average Annual Pay
January 2008–December 2016
(seasonally adjusted, numbers in thousands)

| Sector | January 2008 | December 2016 | Change: 2008–2016 | | Average Annual Pay 2016 (\$) |
|---|-----------------|------------------|----------------------|--------------|------------------------------------|
| | | | Number | Percentage | |
| TOTAL NONFARM | 4,094.5 | 4,103.7 | 9.2 | 0.2 | \$62,772 |
| TOTAL PRIVATE SECTOR | 3,441.5 | 3,492.3 | 50.8 | 1.5 | \$62,421 |
| GOODS-PRODUCING | 474.5 | 392.2 | -82.3 | -17.3 | \$73,529 |
| Mining and Logging | 1.7 | 1.4 | -0.3 | -17.6 | 35,771 |
| Construction | 170.7 | 150.9 | -19.8 | -11.6 | 68,752 |
| Manufacturing | 302.1 | 239.9 | -62.2 | -20.6 | 78,579 |
| Durable Goods | 138.6 | 108.6 | -30.0 | -21.6 | N.A. |
| Non-Durable Goods | 163.5 | 131.3 | -32.2 | -19.7 | N.A. |
| PRIVATE SERVICE-PROVIDING | 2,967.0 | 3,100.1 | 133.1 | 4.5 | \$60,906 |
| Trade, Transportation, and Utilities | 872.1 | 875.1 | 3.0 | 0.3 | 52,210 |
| Wholesale Trade | 229.8 | 215.9 | -13.9 | -6.0 | 87,094 |
| Retail Trade | 465.7 | 460.9 | -4.8 | -1.0 | 33,238 |
| Transportation, Warehousing, & Utilities | 176.6 | 198.3 | 21.7 | 12.3 | 58,902 |
| Information | 94.3 | 72.9 | -21.4 | -22.7 | 105,012 |
| Financial Activities | 274.5 | 250.1 | -24.4 | -8.9 | 107,830 |
| Finance and Insurance | 214.1 | 192.1 | -22.0 | -10.3 | 122,192 |
| Real Estate and Rental and Leasing | 60.4 | 58.0 | -2.4 | -4.0 | 62,912 |
| Professional and Business Services | 628.7 | 670.1 | 41.4 | 6.6 | 85,593 |
| Professional, Scientific, & Tech. Services | 295.3 | 299.6 | 4.3 | 1.5 | 106,404 |
| Management of Companies & Enterprises | 75.5 | 81.4 | 5.9 | 7.8 | 160,323 |
| Adm./Support, Waste Mgt./Remediation Svc. | 257.9 | 289.1 | 31.2 | 12.1 | 41,564 |
| Education and Health Services | 587.0 | 686.6 | 99.6 | 17.0 | 51,432 |
| Educational Services | 87.8 | 108.3 | 20.5 | 23.3 | 49,523 |
| Health Care and Social Assistance | 499.2 | 578.3 | 79.1 | 15.8 | 51,698 |
| Leisure and Hospitality | 345.4 | 375.2 | 29.8 | 8.6 | 24,490 |
| Arts, Entertainment, and Recreation | 54.9 | 65.2 | 10.3 | 18.8 | 34,442 |
| Accommodation and Food Services | 290.5 | 310.0 | 19.5 | 6.7 | 22,393 |
| Other Services | 165.0 | 170.1 | 5.1 | 3.1 | 33,938 |
| GOVERNMENT | 653.0 | 611.4 | -41.6 | -6.4 | \$64,853 |
| Federal | 60.2 | 49.4 | -10.8 | -17.9 | 78,234 |
| State | 158.3 | 144.6 | -13.7 | -8.7 | 70,632 |
| Local | 434.5 | 417.4 | -17.1 | -3.9 | 61,253 |

Notes: N.A. = not applicable.

North American Industry Classification System (NAICS) employment sectors.

Source: U.S. Bureau of Labor Statistics.

activities, and professional and business services. The second largest sectoral gain (+41,400 jobs) among all the supersectors was in professional and business services. Its average annual pay (\$85,593) is more than one-third (36.4 percent) higher than the overall state average. This growth performance suggests that there has been a significant improvement in the state's economic profile since the last cyclical peak. But an examination of its individual component sectors, extracted below from table 2, tells a slightly different story:

was in its highest-paying sector. Information's average annual pay (\$105,012) nearly matched that (\$107,830) of financial activities. However, just like financial activities, information lost employment since the last business cycle peak (-21,400 jobs, or more than one out of five).

Taken together—information (-21,400 jobs), financial activities (-24,400 jobs) and professional and business services (+41,400 jobs)—these three high-paying supersectors currently have 4,400 fewer jobs than at the last business-cycle peak. In fact,

| SECTOR | Average Annual Pay (\$) | 2008–2016 Job Growth |
|---|-------------------------|----------------------|
| Professional and Business Services | \$85,593 | 41,400 |
| Professional, Scientific, and Technical Services | 106,404 | 4,300 |
| Management of Companies and Enterprises | 160,323 | 5,900 |
| Administrative/Support, Waste Mgt./Remediation Services | 41,564 | 31,200 |

Between January 2008 and December 2016, the professional, scientific, and technical services sector added 4,300 jobs (with an average annual pay of \$106,404) while management of companies and enterprises added 5,900 jobs (with an average annual pay of \$160,323).¹⁴ These are admirable gains. However, the lower-paying administrative support and waste management and remediation services sector (with an average annual pay of just \$41,564) added 31,200 jobs. Thus, more than three-quarters (75.4 percent) of the total professional and business services employment gain was accounted for by this low-paying sector (31,200 jobs out of 41,400 jobs). Employment in financial activities has the highest average annual pay—\$107,830—of any supersector (table 2), but it has contracted by 24,400 jobs since the last business-cycle peak. Much (90.2 percent) of the loss (-22,000 jobs) was in its finance and insurance sector, which has an even higher average annual pay (\$122,192). So, most of the decline in financial activities employment

this actually overstates the positive current position of these office-critical supersectors. If the growing, lower-paying sector of professional and business services—administrative and support, and waste management and remediation services (+31,200 jobs)—is deleted from the three supersector total, the total high-paying job loss from the pre-Great Recession peak amounts to 35,600 jobs. Given this contraction, the less-than-ebullient performances in many of the state's office markets are not surprising.

The remaining three supersectors experienced growth. Leisure and hospitality, whose average annual pay is \$24,490, expanded by 29,800 jobs; other services (\$33,938) added 5,100 jobs; and trade, transportation and utilities (\$52,210) gained 3,000 jobs. Thus, while New Jersey has regained and surpassed its prerecession employment peak, it has done so more slowly than the nation and has seen contraction in both high-paying, goods-producing industries and in the sectors that once drove the expansion of the state's suburban office markets.

14. Management of companies and enterprises consists mainly of corporate headquarters activities.

The Longer-Term Picture: New Jersey’s Post-2000 Economic Slowdown

The current employment picture in New Jersey certainly reflects the long recuperation from the Great Recession. However, it also reflects longer-term shifts that date back to the turn of the century as much as to the unique cyclical factors of the postrecession period (2010–2017). The longer-term picture is a ratcheting down of employment growth in the twenty-first century—weaker post-2000 periods of economic growth compared with pre-2000 periods. In the second half of the twentieth century, New Jersey had been the regional economic locomotive, a role the state so ably played during the economic expansions of the 1980s and 1990s. But, in the first decades of the twenty-first century, New Jersey was no longer the “leader of the pack.” This is illustrated by the state’s historic cyclical economic shifts.

The Economic Roller Coaster

New Jersey (as well as the nation) rides a perpetual business-cycle roller coaster. During the past three and one-half decades (1981–2016), the state has experienced four expansions (including the current one in progress) and four recessions. The lengths of the nation’s expansion (peaks) and recession (troughs) periods are defined by the Business Cycle Dating Committee of the National Bureau of Economic Research (NBER) and are determined by a number of comprehensive economic measures. Because there is less current comprehensive data available at the state level, the phases of the business cycle in New Jersey in this report are simply defined by employment peaks and troughs. (Historically, there was close correspondence between the national and state definitions of peaks and troughs, but recently there have been significant divergences.) Thus, technically we are presenting New Jersey’s *employment expansions* and *employment recessions*.

These economic swings are graphically depicted in *figure 2*, which details total employment change in

New Jersey for the eight periods indicated. The red bars are expansions and the gray bars are recessions. The relative sizes of the red bars—much smaller in the last two expansions—tell the tale.

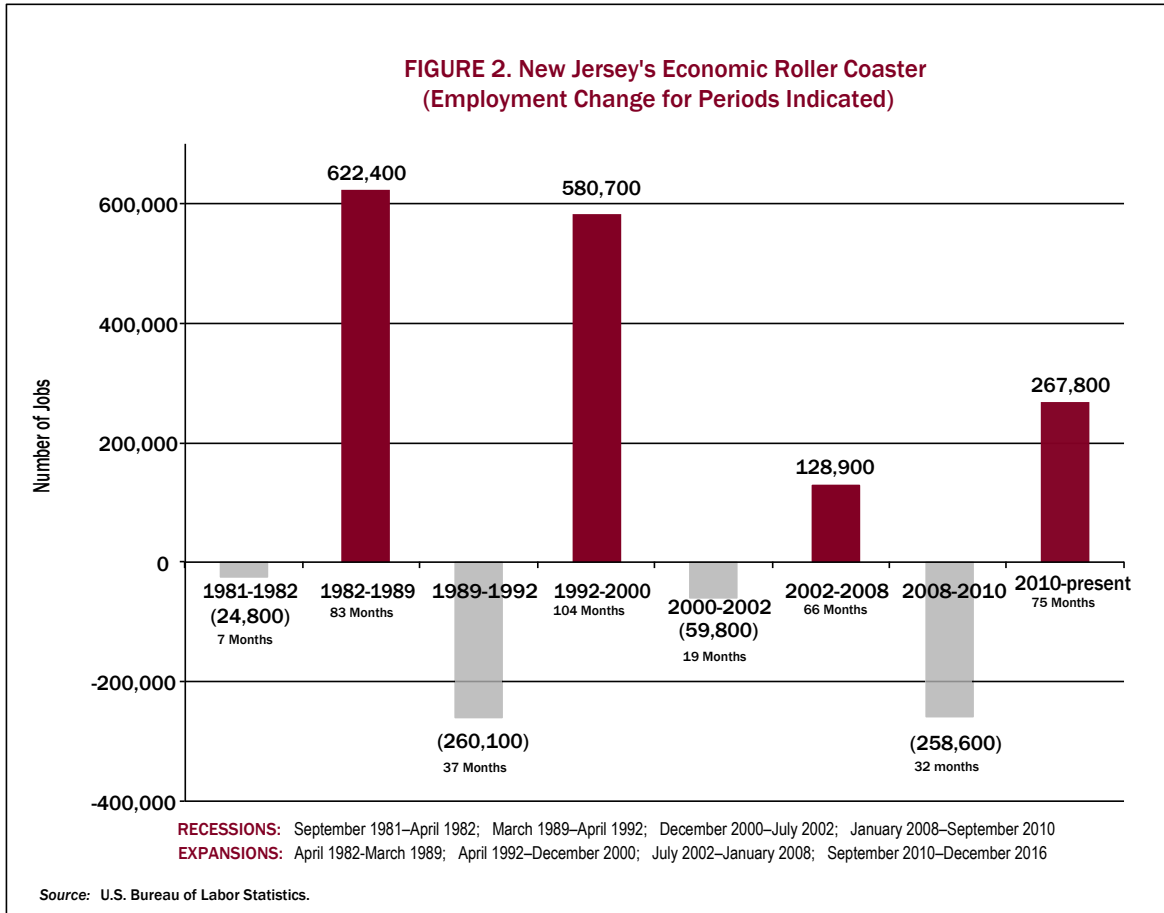
The starting point is the 1981–1982 recession, which was extremely modest not only in scale (-24,800 jobs) but also in duration (seven months). This minor statewide setback could be considered a “recessionette,” standing in stark contrast to the harsh 1981–1982 national recession, which at the time was the worst economic downturn in the United States since the Great Depression. A factor contributing to New Jersey’s modest setback was the state’s nation-leading transformation to a suburban postindustrial economy in the late 1970s.¹⁵ This helped to counterbalance the state’s great manufacturing employment hemorrhage that had started in the beginning of the decade. The “new” service economy that emerged proved resilient to the manufacturing-centric nature of the deep 1981–1982 national recession.

The “Go-Go” Expansions of the 1980s and 1990s

The modest 1981–1982 statewide recession, and the early start to a postindustrial economy, provided a springboard for the subsequent 1982–1989 expansion, which has been called the New Jersey “economic miracle.” It lasted 83 months and generated a net employment growth of 622,400 jobs. This gain was greater than that of any other expansion in the state’s history.¹⁶ It was driven by the

15. The technologically driven transformation to a suburban postindustrial, information-age economy was best symbolized by the opening of AT&T’s Long Lines complex in Bedminster in 1976 and its global headquarters in Basking Ridge in 1977, both straddling I-287. These facilities were the initial suburban pioneers leading to subsequent office expansion in New Jersey. Such locations were the centerpieces of the great expansions of the 1980s and 1990s.

16. However, the expansion ranked only fourth in length (83 months), trailing considerably the record 110-month-long expansion of 1961–1970 (bolstered by the Vietnam War) and the 104-month-long expansion of 1992–2000. It was just surpassed by the current statewide expansion, which reached 84 months in length in September 2017. This makes the 1982–1989 record employment gain even more impressive.



meteoric rise of a suburban white-collar, knowledge-based economy; it took place while New York City and Philadelphia, both experiencing sustained and severe economic and social malaise, became far less desirable as places to work and live. It also gained impetus from a bicoastal real estate frenzy, which spawned a massive suburban office building boom.¹⁷ New Jersey was one of its epicenters. Consequently, by the end of the expansion, the state had one of the greatest suburban office agglomerations in the United States. This was an exemplar of the nation's cutting-edge growth model at the time.

Unfortunately, the record 1982–1989 expansion was followed by a record recession. The 1989–1992 downturn turned out to be the longest (37 months)

and deepest (-260,100 jobs) recession in the state's history, caused in significant part by a painful real estate bust. In a reversal of the pattern of the last cycle, this time the national recession was extremely modest, lasting only eight months.

Nonetheless, the state's steep setback was then followed by the 1992–2000 upturn, which became the longest (104 months) peacetime expansion in the state's history, and the second longest overall.¹⁸ The forces of suburban postindustrial economic growth reached a new crescendo. The expansion was also bolstered by the national end-of-decade high-technology dot-com bubble, with New Jersey a major participant.¹⁹ While the 1992–2000 net employment gain (580,700 jobs) was below that (622,400 jobs) of

17. An underlying cause was the federal Economic Recovery Tax Act of 1981 (ERTA); one of its many features was the shortening and simplification of depreciation schedules applicable to personal and real property, which spawned a seeming real estate frenzy.

18. The duration of the expansion of the 1960s was abetted by massive Vietnam War spending.

19. At the time, Interstate 78 through Somerset County was dubbed the telecommunications corridor because of the massive consumption of office space by the telecommunications industry, led by AT&T spin-offs.

the 1982–1989 expansion despite being 21 months longer, it was still one of the great employment growth periods in the state’s history.

However, in 2000 and 2001, America’s dot-com boom was reduced to dot-bomb, which led to the nation’s first new millennium recession. This downturn was quite shallow in both the United States and New Jersey. In fact, the 2000–2002 employment losses in the state were much closer in scale to the modest 1981–1982 downturn than they were to the much more severe 1989–1992 recession. It was the extraordinary actions taken by the Federal Reserve to minimize the concurrent national downturn, as well to ameliorate the aftershocks of the 9/11 terrorist attacks, that helped moderate New Jersey’s recession.

“Slow-Go” Twenty-First Century Expansions

The two robust expansions described above (1982–1989 and 1992–2000) have yet to be replicated in this century. New Jersey’s first new millennial economic expansion (2002–2008) lasted just 66 months and added only 128,900 jobs to the state’s economy, despite being bolstered by unprecedented national housing and credit bubbles. The state’s total employment gain was only 21 percent of the size of the 1982–1989 expansion (622,400 jobs), and only 22 percent of the 1992–2000 expansion (580,700 jobs). The twentieth-century suburban growth protocol was morphing into a twenty-first century postsuburban growth model.

The bursting of America’s housing and credit bubbles led to the Great 2007–2009 Recession. It turned out to be the worst downturn in the United States since the Great Depression—lasting 18 months, officially starting in December 2007 and ending in June 2009 (although its employment losses continued for another eight months, until February 2010.) New Jersey’s total employment losses started in February 2008 and finally ended in September 2010. Thus, the state’s employment downturn lasted 32 months, five months shy of the 37-month-long 1989–1992 recession. Its employment losses (-258,600 jobs) also fell just short of the 1989–1992 decline (-260,100 jobs).

“No-Go” to “Slow-Go”

The second new millennium expansion in New Jersey started in September 2010, when the Great Recession ended. By the end of 2016, 75 months later, the state’s economy had grown by 267,800 jobs and the expansion was still in full progress. Nonetheless, its scale remained far below that of its twentieth-century predecessors.

The bottom line is that a “Go-Go” twentieth-century New Jersey economy has been supplanted by a “Slow-Go” twenty-first century economy. As of the end of 2016, the two new millennium expansions had experienced an average total employment growth of approximately 198,000 jobs per expansion. This pales in comparison to the approximately 602,000 job average of the 1982–1989 and the 1992–2000 expansions. These are extraordinarily different orders of magnitude. If the first two expansions of this century matched the final two of the last century, New Jersey would have over 800,000 more total jobs today than it currently has. The once great suburban job creation machine that powered the 1980s and 1990s in New Jersey has faltered.

Causal Factors

There are several dimensions of this slowdown. First, it reflects the changing national pattern of growth. The nation has also exhibited weaker post-2000 growth periods.²⁰ Nationally, employment growth in the last two pre-2000 expansions was approximately double that of the first two post-2000 expansions. In New Jersey, the pre-2000 expansions’ employment growth was triple that of the post-2000 expansions, a different order of magnitude. This explains at least part of the New Jersey slowdown, but certainly not all of it.

A second factor is the demographically driven component of economic growth. New Jersey is embedded in the mature, slow-growing Northeast

20. During the 1982–1990 and the 1991–2001 national expansions, employment growth averaged a robust 22,610,000 jobs per expansion. This was more than double that of the average employment growth (10,770,500 jobs) of the 2001–2007 and the 2009–2016 expansions.

The Lost Employment Decade: “Go-Go” to “No-Go”

The Great Recession marked the end of an unprecedented economic decade. Comprehensive payroll employment statistics by major industry sector for the nation were first published by the Bureau of Labor Statistics in 1939. During the ensuing six decades (through 1999),[†] total national employment growth per decade never fell below 20 percent. However, the combination of the weak 2001–2007 economic expansion and the severe 2007–2009 Great Recession produced the lost employment decade in the United States.^{††} Private-sector employment declined by 2.7 percent during the 2000s (measured December 1999 to December 2009). This was the first time (since payroll employment statistics were first compiled) that the nation ended a decade with fewer private-sector jobs than when the decade began.

It was also the lost employment decade for New Jersey, but even more so. Between December 1999 and December 2009, private-sector employment in New Jersey declined by 4.5 percent compared with 2.7 percent for the nation.

The state exited the decade with 152,100 fewer private-sector jobs than when it entered it. While government employment increased by a surprising 71,500 jobs, this was not sufficient to counterbalance the private-sector contraction, leading to a total employment loss in the state of 80,600 jobs. To put this disappointing performance in perspective, during the previous half-century (1950–2000), New Jersey gained on average almost 468,000 total jobs per decade, or more than 2.3 million jobs total.

In the late 1990s, in both the United States and New Jersey, there was widespread optimism about the glorious economic prospects that would accompany the new millennium. In retrospect, there wasn't a forecaster alive that could have predicted the economic reality that unfolded post-2000.

[†]Decades are measured from December in the year ending in “9”; thus, the decade of the 1940s is the December 1939–December 1949 period.

^{††}According to the National Bureau of Economic Research, the expansion began in November 2001, lasted 73 months, and ended in December 2007.

region of the country. As shown in *table 3*, the nation's population grew by 4.7 percent (14.4 million people) between 2010 and 2016. Much of that growth took place in the South, which added 7.8 million people (6.8 percent) and West, which added 4.7 million people (6.5 percent). Thus, 87 percent (12.5 million of 14.4 million people) of the nation's population growth took place in those two regions alone. In contrast, the population of the Northeast increased by only 1.6 percent (891,000 people), just slightly ahead of the Midwest (1.5 percent, or 1.0 million people).

New Jersey's 1.7 percent population growth rate, while greater than that of the Northeast, was barely one-third that of the nation (4.7 percent).²¹ Thus, the state is getting a below-average national share of employment growth linked to population growth, such as housing construction and population/household-serving economic activities. Other things being equal, the state should lag national employment growth because of its slower population increases.

A third factor centers on long-term structural changes and disruptions that underlie the lagging pace of economic growth in New Jersey. These include the attenuation of suburbanization; an aging suburban office inventory in the context of new corporate locational preferences and changes in the very nature of white-collar, knowledge-based work;²² the emergence of New York City as the region's economic locomotive; and the greatest age-structure transformation in the state's history.

21. As shown in *table 3*, New Jersey's 2010–2016 population growth rate (1.7 percent) stands in the middle of its neighbors/peers. Connecticut (0.1 percent) and Pennsylvania (0.6 percent) have the weakest growth rates, while New York's (1.9 percent) is slightly higher than that of New Jersey. Only tiny Delaware (6.0 percent) exceed the nation's growth rate (4.7 percent).

22. New Jersey has had an overreliance on isolated suburban office buildings and campuses to shelter its white-collar economic sectors. The one-dimensional suburban office, particularly in auto-dependent growth corridors, was the nation's late twentieth-century, cutting-edge growth model—and it became New Jersey's core spatial competency. But this no longer represents the cutting-edge growth model. It is now the nation's worst-performing office sector.

The economic reality of today and tomorrow increasingly suggests there is simply too much old, obsolete suburban inventory at a time when the new corporate locational preferences lean toward interactive 24-7 live-work-play (LWP) urban environments. As a result, New Jersey's suburban office footprint has been contracting since the onset of the Great Recession.

TABLE 3
Cumulative Estimates of Resident Population Change
United States, Regions, and Selected States
April 1, 2010–July 1, 2016

| Geographic Area | Change: 2010–2016 | | |
|----------------------|----------------------|------------|---------------------|
| | Number | Percentage | Share of Growth (%) |
| UNITED STATES | 14,369,408 | 4.7 | N.A. |
| NORTHEAST | 891,157 | 1.6 | 6.2 |
| Connecticut | 2,338 | 0.1 | 0.0 |
| Delaware | 54,129 | 6.0 | 0.4 |
| New Jersey | 152,516 | 1.7 | 1.1 |
| New York | 367,179 | 1.9 | 2.6 |
| Pennsylvania | 81,370 | 0.6 | 0.6 |
| MIDWEST | 1,011,604 | 1.5 | 7.0 |
| SOUTH | 7,756,569 | 6.8 | 54.0 |
| WEST | 4,710,078 | 6.5 | 32.8 |

Note: N.A. = not applicable.
Source: U.S. Census Bureau, Population Division: Table 2. Cumulative Estimates of Resident Population Change for the United States, Regions, States, and Puerto Rico; and Region and State Rankings: April 1, 2010 to July 1, 2016 (NST-EST2016-02).

Detailed Cyclical Changes

Detailed employment by supersector for the last six of the state's eight recessionary and expansionary cycles described above is presented in *tables 4 through 9*. The reason for this shortened time frame is that detailed industry supersector data before 1990 is not available in the current NAICS code.²³ Thus the first complete cycle under NAICS is the *1992-2000 expansion*, presented in table 4. In the 1992-2000 expansion, total private-sector employment growth (+557,800 jobs, or 19.4 percent) dominated, as government employment increased by

23. The North American Industry Classification System (NAICS, pronounced Nakes) in 1997 replaced the older Standard Industrial Classification (SIC) system. Older data were converted to this system only back to 1990. Pre-1990 data by industry sector are not comparable.

only 22,900 jobs (+4.0 percent): More than 25 private-sector jobs were added for every single government job. In the private sector, goods-producing employment contracted by 15,400 jobs, led by large manufacturing losses (-56,000 jobs). In contrast, private service-providing employment grew by 573,200 jobs, or more than one quarter (+25.1 percent). This paralleled the state's office building boom during this expansion.

Of private service-providing's seven supersectors, three are key to the health of the state's office markets: professional and business services, financial activities, and information. The largest, professional and business services, experienced the most robust growth, increasing by 187,500 jobs, or nearly half (+45.2 percent). By December 2000, New Jersey had a concentration of more than 600,000 professional and business service jobs, along with 266,900 financial activity jobs and 128,000 information jobs.

TABLE 4
New Jersey Nonfarm Payroll Employment
April 1992–December 2000

(seasonally adjusted, numbers in thousands)

| Sector | April 1992 | December 2000 | Change: 1992–2000 | |
|--------------------------------------|----------------|------------------|----------------------|-------------|
| | | | Number | Percentage |
| TOTAL NONFARM | 3,444.7 | 4,025.4 | 580.7 | 16.9 |
| TOTAL PRIVATE SECTOR | 2,872.9 | 3,430.7 | 557.8 | 19.4 |
| GOODS-PRODUCING | 588.1 | 572.7 | -15.4 | -2.6 |
| Mining and Logging | 2.3 | 1.8 | -0.5 | -21.7 |
| Construction | 110.1 | 151.2 | 41.1 | 37.3 |
| Manufacturing | 475.7 | 419.7 | -56.0 | -11.8 |
| PRIVATE SERVICE-PROVIDING | 2,284.8 | 2,858.0 | 573.2 | 25.1 |
| Trade, Transportation, and Utilities | 778.1 | 908.6 | 130.5 | 16.8 |
| Information | 112.6 | 128.0 | 15.4 | 13.7 |
| Financial Activities | 222.3 | 266.9 | 44.6 | 20.1 |
| Professional and Business Services | 414.9 | 602.4 | 187.5 | 45.2 |
| Education and Health Services | 383.6 | 505.4 | 121.8 | 31.8 |
| Leisure and Hospitality | 258.2 | 304.0 | 45.8 | 17.7 |
| Other Services | 115.1 | 142.7 | 27.6 | 24.0 |
| GOVERNMENT | 571.8 | 594.7 | 22.9 | 4.0 |

Note: North American Industry Classification System (NAICS) employment sectors.
Source: New Jersey Department of Labor.

TABLE 5
New Jersey Nonfarm Payroll Employment
December 2000–July 2002

(seasonally adjusted, numbers in thousands)

| Sector | December 2000 | July 2002 | Change: 2000–2002 | |
|--------------------------------------|------------------|----------------|----------------------|-------------|
| | | | Number | Percentage |
| TOTAL NONFARM | 4,025.4 | 3,965.6 | -59.8 | -1.5 |
| TOTAL PRIVATE SECTOR | 3,430.7 | 3,356.7 | -74.0 | -2.2 |
| GOODS-PRODUCING | 572.7 | 525.9 | -46.8 | -8.2 |
| Mining and Logging | 1.8 | 1.5 | -0.3 | -16.7 |
| Construction | 151.2 | 161.7 | 10.5 | 6.9 |
| Manufacturing | 419.7 | 362.7 | -57.0 | -13.6 |
| PRIVATE SERVICE-PROVIDING | 2,858.0 | 2,830.8 | -27.2 | -1.0 |
| Trade, Transportation, and Utilities | 908.6 | 879.4 | -29.2 | -3.2 |
| Information | 128.0 | 111.1 | -16.9 | -13.2 |
| Financial Activities | 266.9 | 275.8 | 8.9 | 3.3 |
| Professional and Business Services | 602.4 | 580.5 | -21.9 | -3.6 |
| Education and Health Services | 505.4 | 528.5 | 23.1 | 4.6 |
| Leisure and Hospitality | 304.0 | 308.0 | 4.0 | 1.3 |
| Other Services | 142.7 | 147.5 | 4.8 | 3.4 |
| GOVERNMENT | 594.7 | 608.9 | 14.2 | 2.4 |

Note: North American Industry Classification System (NAICS) employment sectors.
Source: New Jersey Department of Labor.

These three supersectors also encompass the highest-paying private-service providing jobs.

As shown in *table 5*, in the *subsequent recession* (December 2000–July 2002), private-sector employment declined by 74,000 jobs while government increased by 14,200 jobs, yielding a modest total contraction of 59,800 jobs (-1.5 percent). The largest private-sector losses were in manufacturing (-57,000 jobs); trade, transportation, and utilities (-29,200 jobs); professional and business services (-21,900 jobs); and information (-16,900 jobs). Of the ten private-sector supersectors, five actually had employment gains during the downturn.

As noted earlier, the *July 2002–January 2008 expansion* that followed was very modest in scale (*table 6*). Private-sector employment in total increased by just 84,800 jobs while government increased by 44,100 jobs, an approximate two-to-one ratio. This private–public growth pattern stands in sharp contrast to the 1992–2000 expansion, when 25 private-sector jobs were added for every additional government job.

In the private sector, the growth in professional and business services (+48,200 jobs) failed to counterbalance the decline in manufacturing (-60,600 jobs). In contrast, in the preceding 1992–2000 expansion (*table 4*), employment gains in professional and business services (+187,500 jobs) were more than triple the losses in manufacturing (-56,000 jobs). Moreover, in the 2002–2008 expansion, the information supersector lost 16,800 jobs while financial activities lost 1,300 jobs. These two declines muted the effect of the modest growth (+48,200 jobs) in professional and business services. The impact of the three supersectors together (+30,100 jobs) on the state’s office markets was minimal during this expansion.

Following this “expansionette,” America’s Great Recession quickly unfolded and fully encompassed New Jersey. The state’s *January 2008–September 2010 recession* (*table 7*) resulted in a total employment decline of 258,600 jobs (-6.3 percent). This contraction consisted of a total private-sector loss of 234,300 jobs (-6.8 percent), and a decline of 24,300 jobs (-3.7 percent) in government. The largest private-sector employment declines were in trade, transportation, and utilities (-63,200 jobs), manufacturing (-50,500 jobs), and professional and business services (-36,300 jobs).

The three office-driving supersectors in the aggregate lost 76,200 jobs.

The *current expansion* (September 2010–December 2016) is still under way.²⁴ As of December 2016, the state had experienced a total employment increase of 267,800 jobs since September 2010 (*table 8*). This increase barely surpassed the total employment loss of 258,600 jobs that occurred during the preceding recession. Nonetheless, total employment is at a record high (4,103,700 jobs), 9,200 jobs higher than the prerecession employment peak of 4,094,500 jobs (January 2008).

Total private-sector gains (+285,100 jobs) during the expansion exceeded total employment, as the government sector (-17,300 jobs) registered declines. Total private-sector employment (3,492,300 jobs) is now (December 2016) also at a record high, 50,800 jobs greater than the previous record holder—the prerecession employment peak of 3,441,500 jobs (January 2008).

Surprisingly, two key supersectors—information and financial activities—experienced losses during the current expansion. Information had a decline of 4,600 jobs and now (December 2016) has 72,900 total jobs; this is 21,400 jobs less than the prerecession employment peak of 94,300 jobs (January 2008). Financial activities lost 1,300 jobs, and its current level (250,100 jobs) is 24,400 jobs less than the prerecession peak of 274,500 jobs. The two supersectors together now have 45,800 fewer jobs than they had at the last business cycle peak (January 2008).

Fortunately, growth in professional and business services employment almost counterbalances their contraction. Between September 2010 and December 2016, employment in professional and business services increased by 77,700 jobs. Its current level (670,100 jobs) is now 41,400 jobs greater than the past cyclical high of 628,700 jobs (January 2008). Nonetheless, the three supersectors combined are still 4,400 jobs shy of their peak level approximately nine years ago.

24. To reiterate footnote 7, the latest re-benchmarked (revised) New Jersey employment data is for December 2016, released in March 2017. Monthly employment releases are based on a sample and are subject to substantial revision at year’s end. Re-benchmarked data for 2017 will be made available in March 2018. Thus, this analysis is limited to the period ending in December 2016.

TABLE 6
New Jersey Nonfarm Payroll Employment
July 2002–January 2008

(seasonally adjusted, numbers in thousands)

| Sector | July 2002 | January 2008 | Change: 2002–2008 | |
|--------------------------------------|----------------|-----------------|----------------------|-------------|
| | | | Number | Percentage |
| TOTAL NONFARM | 3,965.6 | 4,094.5 | 128.9 | 3.3 |
| TOTAL PRIVATE SECTOR | 3,356.7 | 3,441.5 | 84.8 | 2.5 |
| GOODS-PRODUCING | 525.9 | 474.5 | -51.4 | -9.8 |
| Mining and Logging | 1.5 | 1.7 | 0.2 | 13.3 |
| Construction | 161.7 | 170.7 | 9.0 | 5.6 |
| Manufacturing | 362.7 | 302.1 | -60.6 | -16.7 |
| PRIVATE SERVICE-PROVIDING | 2,830.8 | 2,967.0 | 136.2 | 4.8 |
| Trade, Transportation, and Utilities | 879.4 | 872.1 | -7.3 | -0.8 |
| Information | 111.1 | 94.3 | -16.8 | -15.1 |
| Financial Activities | 275.8 | 274.5 | -1.3 | -0.5 |
| Professional and Business Services | 580.5 | 628.7 | 48.2 | 8.3 |
| Education and Health Services | 528.5 | 587.0 | 58.5 | 11.1 |
| Leisure and Hospitality | 308.0 | 345.4 | 37.4 | 12.1 |
| Other Services | 147.5 | 165.0 | 17.5 | 11.9 |
| GOVERNMENT | 608.9 | 653.0 | 44.1 | 7.2 |

Note: North American Industry Classification System (NAICS) employment sectors.
Source: New Jersey Department of Labor.

TABLE 7
New Jersey Nonfarm Payroll Employment
January 2008–September 2010

(seasonally adjusted, numbers in thousands)

| Sector | January 2008 | September 2010 | Change: 2008–2010 | |
|--------------------------------------|-----------------|-------------------|----------------------|--------------|
| | | | Number | Percentage |
| TOTAL NONFARM | 4,094.5 | 3,835.9 | -258.6 | -6.3 |
| TOTAL PRIVATE SECTOR | 3,441.5 | 3,207.2 | -234.3 | -6.8 |
| GOODS-PRODUCING | 474.5 | 381.0 | -93.5 | -19.7 |
| Mining and Logging | 1.7 | 1.4 | -0.3 | -17.6 |
| Construction | 170.7 | 128.0 | -42.7 | -25.0 |
| Manufacturing | 302.1 | 251.6 | -50.5 | -16.7 |
| PRIVATE SERVICE-PROVIDING | 2,967.0 | 2,826.2 | -140.8 | -4.7 |
| Trade, Transportation, and Utilities | 872.1 | 808.9 | -63.2 | -7.2 |
| Information | 94.3 | 77.5 | -16.8 | -17.8 |
| Financial Activities | 274.5 | 251.4 | -23.1 | -8.4 |
| Professional and Business Services | 628.7 | 592.4 | -36.3 | -5.8 |
| Education and Health Services | 587.0 | 599.9 | 12.9 | 2.2 |
| Leisure and Hospitality | 345.4 | 335.4 | -10.0 | -2.9 |
| Other Services | 165.0 | 160.7 | -4.3 | -2.6 |
| GOVERNMENT | 653.0 | 628.7 | -24.3 | -3.7 |

Note: North American Industry Classification System (NAICS) employment sectors.
Source: New Jersey Department of Labor.

Changing Regional Economic Dynamics: The Ebbing of the Tidal Wave of Suburbanization

The dramatic change in suburban-urban growth patterns helps explain part of New Jersey's lagging growth and current economic position. The state thrived in the great era of suburbanization that dominated the second half of the twentieth century. In a post-2000, postsuburban economic era, this is far less so the case. Following World War II, America underwent a period of unbridled metropolitan expansion outward, first of population, followed sequentially by the full panoply of population-serving activities, and then the full range of economic functions. New Jersey, comprising a significant part of the vast suburban catchment areas of New York City (the largest city in the U.S. in 1950—7.9 million people) and Philadelphia (the third largest city in 1950—2.1 million people), was at the forefront of this powerful national dynamic, eventually becoming the most suburban and exurban of states.

Thus, New Jersey secured the major regional shares of demographic and economic growth spawned by a tidal wave of metropolitan expansion—development moving ever outward from the two adjacent central-city behemoths to a growing and expanding suburban and exurban ring or periphery.²⁵ However, as the new century unfolded, metropolitan inversion started to take place, with the flow of development reversing itself; the trend is now toward the metropolitan center, not away from it. New

Jersey is experiencing the demographic and economic downside of a contracting outlying suburban ring.

These changing metropolitan dynamics, and changing regional economic locomotives, are revealed by shifting New Jersey–New York employment growth patterns (*table 9*). In 1950, New York City's total employment (3.5 million jobs) was slightly more than double that of New Jersey (1.7 million jobs).²⁶ It was the unchallenged leader of a centralized regional economy that was only in the early stages of the relentless suburbanization that would transform the old regional economic order. But, by 1988, less than four decades later, New Jersey's total employment (3.7 million jobs) would surpass that of New York City (3.6 million jobs). By 2004, the year of the state's peak job advantage, New Jersey had 4.0 million jobs compared with 3.6 million jobs in New York City.

So, the state's economy, as benchmarked by total employment, went from less than half the size of New York City to 12 percent larger between 1950 and 2004. During this 54-year period, New Jersey added 2.3 million jobs—New York City less than 100,000 jobs. But, then the dynamics changed dramatically.

Between 2004 and 2016, New York City gained almost 800,000 jobs—New Jersey fewer than 100,000 jobs. Clearly, regional employment growth patterns had undergone a fundamental shift. By 2016, New York City's employment base (more than 4.3 million jobs) again exceeded that (less than 4.1 million jobs) of New Jersey. The state's overwhelming suburban focus had become an economic growth impediment.

25. By 1980, New Jersey's big six cities—Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton—accounted for just 13 percent of the state's total population. There were very few states of equivalent size or larger within which major cities played such a small role. For example, in 1980, New York City alone accounted for 40 percent of New York State's total population. Thus, in an era of urban decline and suburban metropolitan expansion, the forces of suburban growth certainly favored New Jersey.

26. Alternatively, New Jersey's employment base was less than one-half (48 percent) the size of New York City's.

TABLE 8
New Jersey Nonfarm Payroll Employment
September 2010–December 2016
(seasonally adjusted, numbers in thousands)

| Sector | September 2010 | December 2016 | Change: 2010–2016 | |
|--------------------------------------|-------------------|------------------|----------------------|-------------|
| | | | Number | Percentage |
| TOTAL NONFARM | 3,835.9 | 4,103.7 | 267.8 | 7.0 |
| TOTAL PRIVATE SECTOR | 3,207.2 | 3,492.3 | 285.1 | 8.9 |
| GOODS-PRODUCING | 381.0 | 392.2 | 11.2 | 2.9 |
| Mining and Logging | 1.4 | 1.4 | 0.0 | 0.0 |
| Construction | 128.0 | 150.9 | 22.9 | 17.9 |
| Manufacturing | 251.6 | 239.9 | -11.7 | -4.7 |
| PRIVATE SERVICE-PROVIDING | 2,826.2 | 3,100.1 | 273.9 | 9.7 |
| Trade, Transportation, and Utilities | 808.9 | 875.1 | 66.2 | 8.2 |
| Information | 77.5 | 72.9 | -4.6 | -5.9 |
| Financial Activities | 251.4 | 250.1 | -1.3 | -0.5 |
| Professional and Business Services | 592.4 | 670.1 | 77.7 | 13.1 |
| Education and Health Services | 599.9 | 686.6 | 86.7 | 14.5 |
| Leisure and Hospitality | 335.4 | 375.2 | 39.8 | 11.9 |
| Other Services | 160.7 | 170.1 | 9.4 | 5.8 |
| GOVERNMENT | 628.7 | 611.4 | -17.3 | -2.8 |

Note: North American Industry Classification System (NAICS) employment sectors.

Source: New Jersey Department of Labor.

TABLE 9
Total Nonfarm Employment—New Jersey (State) and New York City
1950–2016
(annual averages, nonseasonally adjusted; numbers in thousands)

| Year | New Jersey | New York City | Ratio: New Jersey/New York City |
|--------------------------|----------------|---------------|------------------------------------|
| 1950 | 1,656.8 | 3,468.2 | 0.48 |
| 1960 | 2,017.1 | 3,538.4 | 0.57 |
| 1970 | 2,606.2 | 3,745.5 | 0.70 |
| 1980 | 3,060.4 | 3,301.7 | 0.93 |
| 1988 | 3,651.0 | 3,605.8 | 1.01 |
| 1990 | 3,634.8 | 3,574.7 | 1.02 |
| 2000 | 3,995.5 | 3,732.3 | 1.07 |
| 2004 | 3,999.4 | 3,565.5 | 1.12 |
| 2010 | 3,851.0 | 3,730.5 | 1.03 |
| 2016 | 4,075.5 | 4,341.2 | 0.94 |
| CHANGE: 1950–2004 | 2,342.6 | 97.3 | |
| CHANGE: 2004–2016 | 76.1 | 775.7 | |

Source: U.S. Bureau of Labor Statistics

A Historical Reference Framework²⁷

New Jersey's twenty-first century economic landscape is the latest manifestation of a series of profound technological and societal transformations that took place over a two-century period of time. The first major transformation was the shift from a dispersed agriculture/natural resources economy spread across the state to a centralized, rail- and immigrant-dependent, urban-manufacturing economy sheltered in factory structures. The second was the emergence of a dispersed, automobile-centric, suburban postindustrial economy, largely housed in office buildings. The third, currently under way, involves the reshaping and repositioning of the state's knowledge-dependent activities and office ecosystems that have been disrupted by globalization, increasingly sophisticated information technology and artificial intelligence, and fundamental demographic change.

The starting point of these transformations was the prolific agricultural/natural resources base that is memorialized by New Jersey's nickname: "The Garden State." The name allegedly was coined by Abraham Browning of Camden in an address to the Centennial Exhibition in Philadelphia on New Jersey Day, August 24, 1876. "In his address Mr. Browning compared New Jersey to an immense barrel, filled with good things to eat and open at both ends, with Pennsylvania grabbing from one end and New Yorkers from the other. He called New Jersey the Garden State and the name has clung to it ever since."^{28,29} While agriculture's share of the state's economy has greatly diminished since that time, its output is still cherished by "Garden Staters."

27. This section is revised from material originally published in James W. Hughes and Joseph J. Seneca, *New Jersey's New Economy Growth Challenges*, Rutgers Regional Report No. 25 (New Brunswick, NJ: Rutgers, The State University of New Jersey, July 2006).

28. <http://www.state.nj.us/njfacts/garden.htm>

29. The state's moniker was made official when Governor Chris Christie signed New Jersey Senate Bill No. 1076 in August 2017.

The Emergence of a Manufacturing Behemoth: The First Transformation

In the 1800s, the Industrial Revolution unfolded in America, and New Jersey was one of its epicenters. It encompassed a complex set of technological and societal changes that spanned the entire nineteenth century. As a result, the economy of the Garden State was transformed from "growing things" to "making things." Manufacturing firms agglomerated in urban locations because of rail- and water-based transportation advantages, other basic infrastructure advantages (roads, water supply, sewers and energy availability), accessibility to consumer markets domestic and international, and large pools of skilled and unskilled labor.

New Jersey's "big six" cities—Camden, Elizabeth, Jersey City, Newark, Paterson, and Trenton—all thrived and developed in the second half of the nineteenth century as urban manufacturing centers. Paterson became known as "Silk City USA." "Trenton Makes, the World Takes," and "On Camden Supplies, the World Relies" were obviously boosterism slogans but they were based on firm economic foundations. New Jersey was a technology-driven, urban-manufacturing dynamo by the time the twentieth century unfolded and was at the leading technological edge of global industrialization.

In the first half of the twentieth century, New Jersey could simultaneously boast proudly of the mammoth Singer Sewing Machine plant in Elizabeth—the largest sewing machine manufacturing facility in the world that at its peak employed 10,000 workers; the RCA Radio and Victrola factory in Camden—the largest of its type in the world; Western Electric in Kearny—the world's leading telephone manufacturing complex; and Roebbling Steel (John A. Roebbling's Sons Company) in Trenton, the world's leading producer of wire rope, which provided the cables for several of the world's greatest suspension bridges, including the Brooklyn Bridge, the George Washington Bridge, and the Golden Gate Bridge.³⁰ All of these enterprises, and many others, sold

30. Roebblingmuseum.org

their high-in-demand outputs in national and world markets, creating the jobs needed to produce these outputs and generating large revenue flows from the subsequent sales of these products that flowed back to New Jersey.³¹

Urban manufacturing dominated America's economic geography through the end of World War II, and New Jersey was a model example. But then the unique advantages of urban locations faded as new technologies and highway infrastructure emerged. The new suburban factories erected in the postwar decades produced the bounty of consumer goods required by an increasingly affluent suburban New Jersey. For example, the Ford Motor Company manufacturing plant (Mahwah Assembly) was completed in 1950 in Mahwah Township (Bergen County). When it opened, it was the largest motor vehicle assembly plant in the United States.³² The growing reliance on trucking, as well as single-story manufacturing structures, rendered obsolete many dimensions of the dense fabric of urban New Jersey. Urban manufacturing began its long slide. But, suburban manufacturing hegemony in the Northeast and New Jersey was short-lived as cost competition intensified, postwar reconstruction in Europe and Japan advanced, and globalization unfolded.³³

The Genesis of a Proud Postindustrial Economy: The Second Transformation

By the 1970s, as manufacturing began its long decline, a second major technology-driven transformation was already well under way—the

emergence of a postindustrial, knowledge-dependent, information-age economy that would replace the old industrial order. The opening of AT&T's Long Lines complex in Bedminster Township (Somerset County) in 1976 and its global headquarters in Basking Ridge (Bernards Township, Somerset County) in 1977 quickly became powerful symbols of the state's postindustrial, high-technology future. New Jersey became "global telecommunications central." These advanced-stage "telco" facilities also legitimized once frontier exurban/suburban sites as market-acceptable geographic locations for office development in New Jersey. Before that time, the broad New York City metropolitan region's office market was overwhelmingly centered in Manhattan.

The components of the broader economy that emerged from the second major economic transformation were mainly housed in suburban office buildings—postindustrial "factory floors." A new national phenomenon was the emergence of "edge cities" and suburban growth corridors. This postindustrial suburban shift followed the pattern of manufacturing three decades earlier.

By 1990, the eleven counties of the North-Central New Jersey office market³⁴ had emerged as the fifth largest metropolitan office market in the country, with much of the new inventory located in freeway-oriented suburban growth corridors; by 1990, 80 percent of all the office space ever built in the history of New Jersey had already been erected, largely in the 1980s. There was a national "buzz" about the emerging Route 1 Princeton corridor—the "Zip" (08540) Strip—as well as the I-287, I-78, I-80 corridors, and other suburban concentrations. New Jersey found itself at the leading technological edge of a second global economic reordering. Once again, New Jersey's economy had successfully reinvented itself.

31. However, by the 1980s all these businesses were reduced to historical footnotes.

32. It produced 6 million automobiles in the 30 years it operated. It closed in 1980. Ford had earlier (1948) opened Metuchen Assembly in Edison Township (Middlesex County), a smaller assembly plant that produced nearly seven million vehicles before it closed in 2004.

33. Nonetheless, this was still the era of the great industrial laboratory, with New Jersey possessing a unique concentration of leading-edge technology/research facilities linked to manufacturing. Innovation "factories" or "genius factories" such as Bell Labs (telecommunications and telecommunications equipment), RCA's Sarnoff Labs (electronics), and Exxon-Mobil (energy) were globally preeminent, drawing the world's "best and brightest" to New Jersey.

34. Bergen, Essex, Hudson, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Passaic, Somerset, and Union counties.

TABLE 10

— AGILE WORKPLACES —

Six Different Work Zones to Support Six Different Work Activities

| | |
|---|--|
| 1 <i>Focus Zones</i> | Individual private-space tasks (including phone calls) |
| 2 <i>Connect Zones</i> | Collaborative–interactive team space (including group meetings and discussions) |
| 3 <i>Chance Interactive–Connection Zones</i> | Casual/chance intellectual collisions by design spaces |
| 4 <i>Multifunctional Zones</i> | Choice of alternative workspaces |
| 5 <i>Assembly/Collective Zones</i> | Large organizational meeting spaces, often combined with chance interactive–connection zones |
| 6 <i>Vitality Zones</i> | Amenity, sustenance, and activity spaces |

Source: Authors.

*A Disrupted Postindustrial Economy:
The Third Transformation*

New Jersey’s industrial and postindustrial transformations both left the state in enviable economic positions. However, a third transformation is now at hand—one that has uncertain consequences. As internet-dependent global supply chains spatially rearranged the global manufacturing order, internet-dependent innovation chains are starting to spatially rearrange the world’s knowledge and advanced-services economy. An international economy with an abundance of low-cost, globally wired, highly educated, high-technology service-sector workers is a challenge of unprecedented complexity and implications. Low-cost factories and high-technology production are now being supplemented by low-cost laboratories and high-technology services at new emerging global locations.

In addition, the unfolding of the new century also brought with it significant changes in many of the forces and trends that shaped the second

half of the twentieth century: New demographics have begun to reshape the workforce, workplace geography, and housing markets; profound advances in information technology and artificial intelligence have fundamentally altered knowledge-based work and business models; and suburban office corridors and their component physical structures have aged and are no longer state-of-the-art. A new urban-centric economic geography is starting to emerge while the suburban office ecosystem is being retooled.³⁵

35. We now know the dispersal of office complexes ever outward went far too far. In 1992, Merck opened its new 900,000-square-foot global headquarters on the outer metropolitan perimeter in Whitehouse Station, Hunterdon County, close to I-78, 50 miles west of Manhattan. It is now sitting vacant. In 1993, BASF—a German chemical company—opened its new 970,000-square-foot U.S. headquarters on the outer metropolitan perimeter, also 50 miles west of Manhattan, in Mount Olive, Morris County, along I-80. It too is now sitting vacant. But, these two spatial examples represent only one dimension of the fundamental economic reordering currently under way.

This does not mean that New Jersey's suburban economy is destined to become irrelevant. It will still be a key component of the region's diverse economic portfolio and comprehensive geographic offerings. Many companies will still desire suburban settings, although there will be much sharper market differentiation. Locations near emerging suburban activity centers should prove to be much more viable than isolated sites in the perimeter counties of the region.

Many 1980s office buildings were built as rigid, one-dimensional, 9-to-5 workday facilities, planted in fields of asphalt, housing standardized, repetitive, routine work processes. They were not, to say the least, agile, creative, and inspiring work environments, the key office imperative of today (table 10). So, is deconstruction the new suburban office normal? In many cases: Yes. We have a broad suburban office ecosystem that is reinventing itself. It is removing obsolete properties at the same time as others are being transformed into NextGen suburban economic assets. This long-term structural change is just gathering momentum.

Conclusion

As the end of the second decade of the century rapidly approaches, New Jersey is enveloped by the long-term structural economic changes buffeting America and the world. When the century first unfolded, there was little inkling of the metamorphic events and disruptions that would subsequently transpire:

- Advancing information technology would completely transform the very nature of postindustrial work, with new technologies taking over many standardized routine tasks that once required legions of middle-skilled, white-collar workers. Transformative digital workplaces that would inspire innovation would soon become the new corporate maxim, rendering obsolete vintage twentieth-century office ecologies.
- Concurrently, a three-decade-long period of economic decentralization would come to an end, and once-prized employment locations—suburban offices and campuses—quickly lost their allure. Vacant corporate headquarters complexes—such as the palatial global headquarters of Merck in Whitehouse Station—would eventually sit forlornly on the economic landscape with little potential reuse in sight.
- Many suburban office buildings would soon meet the same fate as most of New Jersey's once-vast inventory of obsolete factory buildings—deconstruction—since they had no future as knowledge-based work environments.³⁶ The 2016 demolition of the 500,000-square-foot former headquarters of Continental Insurance in Cranbury is illustrative. It is being replaced by a pair of speculative warehouses.
- The latter reflects another dimension of the widespread impact of advancing information technology on one of New Jersey's core socioeconomic competencies: shopping and consumption! An unanticipated revolution in retail and distribution functions would occur during the current decade with the advent of mobile-internet technology, threatening a great retail apocalypse—retail carnage and a bricks-and-mortar meltdown—as e-commerce and omnichannel retailing exploded.³⁷

36. While the suburban office real estate footprint was unexpectedly contracting, this did not mean the overall suburban office ecosystem was becoming a full-fledged endangered species. Select well-positioned properties would be simultaneously transformed into twenty-first century economic assets. Examples include Advance Realty's New Jersey Center of Excellence at Bridgewater (formerly Sanofi's U.S. corporate research campus), Somerset Development's Bell Works in Holmdel (which originally housed Bell Labs), and Vision Real Estate Partners' 67 Whippany Road campus in Whippany (another former Bell Labs research complex), which was subsequently resold. But, such repositionings represent a small share of the vast suburban inventory.

37. Omnichannel is a multichannel approach to sales that seamlessly links the in-store experience to the store's website, to a customer's mobile-device application, and to social media platforms.

- New Jersey’s rich landscape of impenetrable suburban shopping fortresses known as superregional malls—which had emerged victorious over the state’s classic downtowns in the regional retailing wars of the last century—would soon be challenged.³⁸ It was not anticipated that many of these cathedrals of consumption could face a fate similar to the classic downtown department store. The death of the American shopping mall would become a very real concern paralleling that of the old suburban office park becoming the new American ghost town.³⁹ Even that last bastion of bricks-and-mortar destination shopping—the supermarket—is losing ground to the proliferation of online grocery sales, which is anticipated to total \$18 billion in the United States by 2020.⁴⁰
- Due to its geographic location, and home to the Port Newark-Elizabeth Marine Terminal—which, with the advent of the era of containerization, became the principal shipping port for the Northeast region and the New York metropolitan area—New Jersey had long been a major center for logistics, warehousing, and distribution functions. But the rise of e-commerce would revolutionize this sector in ways that were not easily forecast.
- Fulfillment centers—expansive, sophisticated, technology-laden warehouse-shipping facilities where orders are received, picked, packaged, and readied for customer delivery—have proliferated in the state. This is the positive counterpoint to bricks-and-mortar retail contraction. Without New Jersey’s fulfillment center ecosystem, online retail and e-commerce would have been stymied in the broad metropolitan region centered on New York City.
- Dramatic changes in the housing world would gradually unfold. The final decade of the last century was the dynamic era of trade-up suburban and exurban housing, culminating in the proliferation of top-of-the-line McMansions across the state. Few anticipated that, in the post-Great Recession period, these baby boom-driven suburban shelter dream machines would turn out to be yesterday’s shelter excesses.
- Moreover, the unanticipated resurgence of New York City, as well as other 24-7 global U.S. gateway cities, has created new shelter possibilities for the affluent and elite. Suburban mansions—safe refuges in the last century—now appear to be losing ground to trophy Manhattan condominiums.
- The unanticipated shelter choices and locational preference of millennials have been restructuring New Jersey for most of this century. But the era of millennials in the family-raising stage of the household life cycle is commencing, an era that will prevail for the foreseeable future. Will their preferences change in the unfolding era? That is a key question that remains to be answered.

38. By 1990, New Jersey had 29 enclosed superregional malls encompassing more than 30 million square feet of space, one of the great concentrations of this shopping model in America. The Garden State was king of regional malldom! See James W. Hughes and George Sternlieb, *Retailing and Regional Malls*, Rutgers Regional Report Volume III (New Brunswick, NJ: Rutgers University, Center for Urban Policy Research, 1991).

39. A Credit Suisse report forecasts that one-quarter of U.S. malls will close by 2022. <http://fortune.com/2017/05/31/malls-retail-stores-closing/>

40. Statista (<https://www.statista.com/topics/1915/us-consumers-online-grocery-shopping/>), 9/3/2017.

It is not difficult to conclude that many of the assumptions and fundamentals that guided us in the past have thus lost relevance today. But the structural certainties of today will likely not be the structural absolutes of tomorrow. A major takeaway of the events of this century is that the world we think may be coming may not be the world that actually arrives, because of the potential innovations and disruptions by things not yet imagined.

Further advances in information technology, artificial intelligence, and machine learning will inevitably continue to disrupt and reshape today's economic forces. For example, drones and autonomous vehicles have the potential to fundamentally alter many spatial and land-use dynamics. Both of these technologies were not on our radar screen just a short time ago.⁴¹ To survive and thrive, the state will have to constantly adapt, restructure, and reinvent itself.⁴² History—the successful transformations of the past—stands as evidence that it can be done.

Looking forward, there are also cyclical uncertainties because we have yet to invent a boom that can last forever. The current expansion, while mature, still appears to have significant traction. If it lasts until July 2019, it will be the longest in the nation's history at 121 months. Is that possible?—stay tuned. What is undeniable is that a fresh round of public policy innovation is required to ensure the future economic competency of the state and its ability to continually adapt. ■

The staff of the Rutgers Regional Report wish Joseph J. Seneca, coauthor of these reports for many years, a happy retirement. This report still bears his imprint.

41. Two relevant questions of today: Do self-driving vehicles have the potential to upend the trucking and logistics industries? Do drone delivery and online food shopping have the potential to upend supermarket industries?

42. For a discussion of some of the imperatives, see James W. Hughes and Joseph J. Seneca, *Reinventing the New Jersey Economy: New Metropolitan and Regional Employment Dynamics*, Rutgers Regional Report No. 33 (New Brunswick, NJ: Rutgers, The State University of New Jersey, December 2012).

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Edward J. Bloustein School
of Planning and Public Policy

Rutgers, The State University of New Jersey
33 Livingston Avenue | New Brunswick, NJ 08901
(848) 932-5475
bloustein.rutgers.edu