

# **Delaware, Kent, New Castle and Sussex Economic Profiles**

## **Executive Summaries**

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**Comprehensive Economic Development Strategy**

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## Statewide Economy

- Delaware's job growth is again positive after a period of negative growth. This weakness took the form of declining payrolls in 2001 and 2002 and zero growth in 2003. Positive growth returned in 2004 with 10,000 jobs added. The number of jobs in the state has now surpassed its pre-recession level.
- The current employment statistics from the BLS indicates that non-farm jobs are 22% higher now than in 1990. Trends in Delaware's non-farm jobs track the nation relatively closely. Nationally, the number of non-farm jobs is 19% higher than in 1990.
- Between 1990 and 2004, Delaware added 77,000 jobs (Bureau of Labor Statistics Current Employment Statistics). All major industries experienced positive employment growth between 1990 and 2004, save manufacturing.
- The period 1990-2004 was not one of unbroken job growth, however. During the 1990-1991 and 2001 recessions<sup>1</sup>, job growth stalled and turned negative in a number of Delaware industries. For example, the trade, transportation, and utilities industries lost jobs in 1991, 1992, and 2001. The same is true for professional and business services, which shed almost 5,000 jobs during the period 2000-2004 that encompasses the 2001 recession. Further, manufacturing and information each recorded double-digit negative growth between 2000 and 2004.
- The state's unemployment rate has been consistently lower than the national rate since 1990. The margin between the national unemployment rate and the state's rate over this period has been as great as 2.2% (1992) and as small as 0.1% (2000).
- Delaware's employment is more heavily concentrated than the nation in three industries: construction (7% of total employment versus 6% nationally), financial activities (13% of total employment versus 7% nationally), and professional and business services (17% versus 15% nationally).
- Three of every four establishments in the state employ fewer than ten workers. This equates to 18,176 establishments of the 24,000 in the state having fewer than ten employees.<sup>2</sup> The distribution of firms by establishment size varies by industry.

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<sup>1</sup> [www.nber.org/cycles.html](http://www.nber.org/cycles.html)

<sup>2</sup> County Business Patterns, 2002.

- Delaware's nominal Gross State Product (the total value of goods and services produced in the state-GSP) has risen consistently between 1977 and 2002. In 1977, the total value of goods and services produced in the state was \$6 billion. In 2002, Delaware GSP exceeds \$47 billion.
- In 1977, the state's largest industry was manufacturing, which accounted for 34% of total state product. The single largest manufacturing output industry in the state was chemicals production, which accounted for 16% of total GSP. By 2002, the relative share of GSP by industry was radically different. Manufacturing's share had receded from 34% to 9%. Simultaneously, financial, insurance, and real estate's (FIRE) share of GSP grew rapidly. In 2002, FIRE's share of GSP is the single largest in the state, comprising 44%.
- Employment volatility<sup>3</sup> for Delaware is highly related to employment volatility at the national level. This implies that the state's employment is relatively sensitive to national economic fluctuations.
- Delaware's identified economic clusters include financial services and insurance, life science and biotechnology (including agriculture), automobile manufacturing, chemical manufacturing, and tourism. These clusters vary in size and wages. The chemical industry, finance and insurance, and life sciences clusters have been shedding jobs. The average annual pay for these positions is high (approximately \$70,000 average annual salary).
- The following clusters are posting positive employment growth: transportation-equipment manufacturing (autos) and leisure and hospitality, though auto-manufacturing employment remains below its previous high. The average wages of each of these industries is \$65,296 and \$16,209, respectively.
- Outside of these economic clusters, trade, transportation, utilities, and educational and health services are among the primary drivers of job growth. However, the average annual pay falls below the salaries of Delaware's strategic clusters. The average annual pay for trade, transportation, and utilities is \$32,174, and \$38,697 for educational and health services. Therefore, there is evidence that aggregate positive job growth in the economy is masking a substitution of lower paying jobs for higher paying jobs.
- Delaware has a relatively low cost of doing business. While there are less expensive states across the nation in which to operate, within the northeast, Delaware's cost of doing business is among the lowest.

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<sup>3</sup> Formula modified from "Assessing Regional Economic Stability: A portfolio approach," Economic Review (Federal Reserve Bank of San Francisco), Winter 1990.

## Kent County Economy

- Kent County's job growth is again positive after a period of stagnation. This weakness took the form of flat payroll growth between 1999 and 2001. This period included the 2001 recession. Positive growth returned in mid-2002, and 10,000 jobs have been added since January 2000. Kent County weathered the recession with little net job losses and has posted strong growth in the post-recession period.
- The current employment statistics from the Bureau of Labor Statistics (BLS) indicate that the number of non-farm jobs is 31% higher now than in 1993<sup>4</sup>. Trends in Kent County's non-farm jobs have tracked national trends relatively closely up to 2001 but have outperformed the nation more recently. Nationally, the number of non-farm jobs is 19% higher than in 1993 (based on 2004 annual data).
- Between 1993 and 2004, Kent County added 15,000 jobs (BLS). All major industries experienced positive employment growth between 1993 and 2004, save manufacturing (negative growth) and information (flat growth). Among the fastest growing industries are educational and health services, financial activities, trade, transportation and utilities, and leisure and hospitality.
- Leisure and hospitality industries posted the fastest growth-66%, or 2,900 jobs. The next fastest growth industry was educational and health services. Financial activities grew 56%. Manufacturing posted negative growth of 22% during the period. This equates to approximately one in every four manufacturing jobs in 1993 being eliminated by 2004.
- The period 1993-2004 was not one of unbroken job growth, however. During the 2001 recession<sup>5</sup>, job growth stalled in a number of Kent County industries. For example, the information industry lost 100 jobs between 2000 and 2004. Professional and business services added only 100 positions during the period.
- Kent County employment base has shifted away from manufacturing towards services—echoing the national trend. In 1970, 20% of the county's employment was in manufacturing. By 2000, this figure had fallen to 9%. Simultaneously, the share of Kent County's total employment in services rose from 11% 1970 to 25% in 2000. Government employment's share of total employment fell from 37% in 1970 to 28% in 2000.<sup>6</sup>

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<sup>4</sup> Based on BLS Current Employment Statistics data extracted August 12, 2005.

<sup>5</sup> [www.nber.org/cycles.html](http://www.nber.org/cycles.html)

<sup>6</sup> These data are based on Bureau of Economic Analysis employment series. The data provide time series starting in 1969. The data are SIC based.

- Net commuting for Kent County is –728.<sup>7</sup> This reflects the commuting patterns wherein more Kent County residents leave the county for their work than non-Kent County residents enter the county for work. This figure is expected to increase over time.
- Per capita personal income is \$26,438 (BEA 2003), compared to \$34,199 for the state and \$31,472 for the nation.
- Kent County's unemployment rate has been consistently lower than the national rate since 1990. The margin between the national unemployment rate and the county's rate over this period has been as great as 2.2% (2003) and as small as 0.1% (2002).
- Kent County's employment is more heavily concentrated than the nation in four industries: construction (7% of total employment versus 6% nationally), trade, transportation and utilities (25% of total private employment versus 23% nationally), educational and health services (15% of total private employment versus 14% nationally), and leisure and hospitality industries (16% of total private employment versus 11% nationally).
- Three of every four establishments in Kent County employ fewer than ten workers. This equates to 1,533 establishments of the 2,991 in the county having fewer than ten employees.<sup>8</sup>
- Employment volatility<sup>9</sup> for Kent County is somewhat highly related to employment volatility at the national level. This implies that the county's employment is relatively sensitive to national economic fluctuations.
- Agriculture in the county comprises 721 farms with 185,000 total acres. The number of farms is falling, but quite slowly. Farm employment is relatively steady. Currently, 1,500 jobs are in agriculture, below the high of 2,000 in 1970, but up from 1990 figure of 1,264.

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<sup>7</sup> Delaware Population Consortium, 2004.

<sup>8</sup> County Business Patterns, 2002.

<sup>9</sup> Formula modified from "Assessing Regional Economic Stability: A portfolio approach," Economic Review (Federal Reserve Bank of San Francisco), Winter 1990.

## New Castle County Economy

- The number of wage and salary jobs in New Castle County in 2003 was 301,864.<sup>10</sup> This equates to 49% more jobs than in 1980. By contrast, national job creation added 39% over the same period. Recent job growth has turned positive after two years of losses. However, the number of jobs in the county is still less than the pre-recession level.
- The number of employed persons in New Castle County is 11% higher now than in 1990. However, this rate of growth trails the national rate of 17% for the same period.<sup>11</sup>
- Net commuting for New Castle County is +25,508.<sup>12</sup> This reflects the commuting patterns wherein fewer New Castle County residents leave the county for their work than non-New Castle County residents enter the county for work. This figure is expected to increase over time.
- New Castle County's employment base has shifted away from manufacturing towards finance and services—echoing the national trend. In 1970, 28% of the county's employment was in manufacturing. By 2000, this figure had fallen to 12%. Simultaneously, the share of New Castle County's total employment in finance and service industries rose from 7% and 18%, respectively, in 1970 to 16% and 31% in 2000.
- Almost two-thirds of the state's employed persons are located in New Castle County.<sup>13</sup>
- Finance and financial services has surpassed chemicals as the single-largest industry with MBNA and J.P. Morgan Chase & Co. employing over 16,000 workers. Nevertheless, the chemical industry remains an important part of the economy. The acquisition of MBNA by Bank of America casts doubt over the future of MBNA employment in the state. The company is expected to shed 6,000 jobs, a portion of which is likely to be Delaware-based.

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<sup>10</sup> Bureau of Economic Analysis. BEA reports county-level employment from 1969-2003. The data are not as current as other series but provide a longer series of individual county data. BEA jobs are typically higher than BLS-reported jobs, because the BEA makes additions for groups excluded by state unemployment insurance programs, for farm employment, private households, and other excluded groups. See [www.bea.gov/bea/regional/articles/lapi2001/alternative\\_measures.cfm](http://www.bea.gov/bea/regional/articles/lapi2001/alternative_measures.cfm) for a complete description.

<sup>11</sup> Local area unemployment statistics. This series reports the number of persons with jobs by residence. No adjustment is made for multiple job holding. Comparably, wage and salary job growth is reported for this period by the Bureau of Economic Analysis.

<sup>12</sup> Estimated net commuting for 2005, Delaware Population Consortium, 2004.

<sup>13</sup> Local Area Unemployment Statistics, Bureau of Labor Statistics.



- Per capita personal income is \$38,636 (BEA 2003), compared to \$34,199 for the state and \$31,472 for the nation.
- Between 2001 and 2004, New Castle County lost 1,833 jobs.<sup>14</sup> Among the industries shedding jobs were manufacturing, trade, transportation and utilities, information, financial activities, and other services. Employment growth in leisure and hospitality and education and health services partially offset these losses.
- New Castle County's unemployment rate has been consistently lower than the national rate since 1990. The margin between the national unemployment rate and the county's rate over this period has been as great as 2% (1993) and as small as 0.1% (2001).
- New Castle County's employment is more heavily concentrated than the nation in two industries: financial activities (15% of total employment versus 7.3% nationally), professional and business services (21% of total private employment versus 15% nationally).
- Employment volatility<sup>15</sup> for New Castle County is highly related to employment volatility at the national level. This implies that the county's employment is relatively sensitive to national economic fluctuations. This contrasts with Sussex County, whose employment fluctuations are not explained in large degree by fluctuations in the national economy.
- Delaware's identified economic clusters include financial services and insurance, life science and biotechnology (including agriculture), automobile manufacturing, chemical manufacturing, and tourism. These clusters vary in size and wages.
- In New Castle County, the chemical industry, finance and insurance, and life sciences industry clusters have been shedding jobs. The average annual pay for these positions is high (over \$70,000 average annual salary).
- The following clusters are posting positive employment growth: transportation equipment manufacturing (autos), and arts, entertainment and recreation, though auto manufacturing employment remains below its previous high. The average wages of each of these industries is \$66,696 and \$22,818, respectively. Therefore, there is evidence that aggregate positive job growth in the economy is masking a substitution of lower paying jobs for higher paying jobs.

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<sup>14</sup> Bureau of Labor Statistics Covered Employment and Wages.

<sup>15</sup> Formula modified from "Assessing Regional Economic Stability: A portfolio approach," Economic Review (Federal Reserve Bank of San Francisco), Winter 1990.

## Sussex County Economy

- Growth in the number of employed persons in Sussex County has outpaced the nation since 1990. Resident employment is 37% higher now than in 1990, compared to 17% for the nation.<sup>16</sup>
- The largest industry in the county economy is tourism. The tourism industry encompasses retail trade and leisure and hospitality industries. Leisure and hospitality alone comprises over 16% of the county's private employment. Retail trade comprises 18% of private employment.
- The number of wage and salary jobs in Sussex County in 2003 was 69,280.<sup>17</sup> This equates to 85% more jobs than in 1980. By contrast, national job creation rose 39% over the same period.
- Agriculture remains a vital part of the economy, although its role is diminishing. Sussex still boasts the largest number of farms in the state (1,312) though this number has decreased sharply (24% since 1987). The average farm size in Sussex County is growing (216 acres), and the total farming acreage is still high at 284,000 (down just 10% since 1987). The implication is that smaller farms are being sold, leaving the larger farms in operation. Farm employment is also trending downward; this is a reflection of both a reduction on the number of farms and increased automation of farming activities (which raises productivity).
- The market value of Sussex County agricultural products sold is \$462 million, of which \$389 million are poultry and their products. The number of broiler and other meat-type chickens sold is 224 million.<sup>18</sup> The county's manufacturing centers around food processing (which is tied to the poultry industry) and textiles (Invista/Koch Industries).
- Net commuting for Sussex County is -7,291.<sup>19</sup> This reflects the commuting patterns wherein more Sussex residents leave the county for their work than non-Sussex residents enter the county for work. This figure is expected to

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<sup>16</sup> Local area unemployment statistics. This series reports number of persons with jobs by residence. No adjustment is made for multiple job holding. Non-seasonally adjusted employment.

<sup>17</sup> Bureau of Economic Analysis. BEA reports county-level employment from 1969-2003. The data are not as current as other series but provide a longer series of individual county data. BEA jobs are typically higher than BLS-reported jobs, because the BEA makes additions for groups excluded by state unemployment insurance programs, for farm employment, proprietors employment, private households, and other excluded groups. See [www.bea.gov/bea/regional/articles/lapi2001/alternative\\_measures.cfm](http://www.bea.gov/bea/regional/articles/lapi2001/alternative_measures.cfm) for a complete description.

<sup>18</sup> 2002 Census of Agriculture. [www.nass.usda.gov/census/](http://www.nass.usda.gov/census/)

<sup>19</sup> Delaware Population Consortium.

increase over time. Per capita personal income is \$26,832 (BEA 2003), compared to \$34,199 for the state and \$31,472 for the nation.

- Sussex County's population growth rate is the fastest in the state. This growth is fuelled in large part by migration. The overarching trend is retiree migration into the county. However, there is solid growth of the non-retiree age group. Collectively, these population trends will dictate the pace of development in the county. With additional population comes additional demand for goods and services, which will be a catalyst for future growth in the county.
- The rapid growth in house prices threatens to impede the growth in the county. The rising population creates demand for service-sector jobs, which may be insufficiently compensated to afford the area housing prices.
- Sussex County's employment base has shifted away from manufacturing towards finance and services—echoing the national trend. In 1970, 27% of the county's employment was in manufacturing. By 2000, this figure had fallen to 14%. Simultaneously, the share of Sussex County's employment in finance and service industries rose from 6% and 14%, respectively, in 1970 to 11% and 24% in 2000.
- Some industries in Sussex County have been relatively resistant to the national recession. Industries contributing to private employment growth include construction, trade, transportation and utilities, educational and health services, leisure and hospitality, and other services.
- The recent performance of Sussex County's economic clusters is mixed. Tourism is expanding. Average pay for these positions is \$14,662. However, high paying jobs in chemical manufacturing and finance and insurance are being eliminated, whose average salaries are \$55,374, and \$37,551, respectively.
- Employment volatility<sup>20</sup> for Sussex County is not highly related to employment volatility at the national level. This implies that the county's employment is relatively insensitive to national economic fluctuations. This contrasts with New Castle County and the state, whose employment fluctuations correlate in large degree with fluctuations in the national economy.
- Sussex County's wages are generally lower than the statewide average. The mean (average) hourly wage for all occupations is \$14.20 in Sussex County compared to \$18.38 statewide. The wage differential between county and statewide entry-level wages is much narrower than at the mean (\$7.54 for all occupations in Sussex versus \$8.45 for all occupations statewide). The differential between county and statewide is greatest for hourly wages of

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<sup>20</sup> Formula modified from "Assessing Regional Economic Stability: A portfolio approach," Economic Review (Federal Reserve Bank of San Francisco), Winter 1990.

experienced workers (\$17.54 for all occupations in Sussex versus \$23.34 for all occupations statewide).

## Future Research

The following items are issues for possible future research.

- Delaware Companies will continue to Face Intense Competition.

Delaware companies may be divided into *exporters* (firms that produce goods and services for markets *outside* the state, either nationally or internationally) and *nonexporters* (firms that produce goods and services for the local market). Both types face competition. *Exporters* face competition from domestic and international firms. Their productivity will dictate to a large degree their competitiveness. Other factors that influence their competitiveness include economic fluctuations, exchange rates, tariffs, and quotas. *Nonexporters* (firms that provide goods and services to a local market) face competition from (national or international) firms who export to DE. Their ability to compete will be determined in part by their productivity.

- Research into productivities of industries could help to identify areas of competitive advantage.

The intense competition approximates with the definition of “competitive markets”. In this market, firms have little influence on price since there are so many other potential suppliers. In such a market, firms do not make excessive profits, and produce at or near their efficient scale (lowest cost per unit). Customers benefit when firms operate in competitive markets because a) the price for good or service will be close to its cost to produce it and b) the cost to produce it is at or near the lowest cost.

Firms try not to operate in competitive markets. They seek some monopoly power. Such power derives from barriers to entry (ownership of a key resource, or a patent or copyright). Firms try to differentiate their product, and in so doing, reduce the number of alternate suppliers.

- Is the average firm size shrinking?

Previous in-house functions such as payroll, accounting, and custodial services, are now being outsourced. This naturally leads to not only smaller companies, but more companies. The process of profit maximizing should drive a firm to outsource what can be done more cost effectively (explicit and implicit costs) by someone else. The company performing the outsourced function then has the incentive to remain productive/efficient, or else its client will find another company that can do it better.

*Is it better to have 10 Davids or 1 Goliath?* This raises the question of the role played by the small business.

- The end of economies of scale?

Are firms achieving lowest average costs at lower levels of output? With greater ability to outsource, can firms achieve low cost output at lower volumes?

Firms operating in industries with large fixed costs benefit from producing greater output as these costs are spread over higher units. This lowers average total cost of a unit, which benefits the economy.

# Industry Clusters

## ***I.Relationship of Industry Clusters and Economic Development***

Dr. Michael E. Porter, a Harvard Business School professor, championed the concept of “Industry Clusters” and first recognized power of clusters to boost regional economic development. An industry cluster is defined as a geographically-concentrated group of industries and institutions that are interconnected by the markets they serve and the products they produce. Industries in a cluster share buyers, suppliers, processes, and technology. Successful industry clusters foster a business environment where collaboration and cooperation is encouraged among government, private businesses, industry, and universities. These entities develop mutually beneficial relationships to sustain economic growth, attract new business, promote research activity, and enhance economic-development opportunities within related growth industries of a geographic region.

Cluster industries help drive a region’s economic growth by concentrating, or clustering, businesses to enhance access to business markets and improve innovation. The premise of cluster-based economic-development initiatives is that nurturing key industries will improve the competitiveness of businesses within these industries and enhance the economy. The old adage that there’s “strength in numbers” describes the industry-cluster concept. Clusters of industry, in a supportive business environment, gain greater access to resources and a comprehensive “economic infrastructure.” This economic infrastructure includes more experienced and skilled labor pools, accessible technology, ease of communication, available infrastructure, access to specialized suppliers and services, tailored support from financial and academic institutions, and technical knowledge.

Industry clusters are regarded as the key to competitiveness in the New Economy. Clusters enhance competitiveness by

- Improving Productivity – Access to specialized suppliers, skills, knowledge, technology, and training promotes a collaborative advantage in a competitive business climate.
- Fostering Innovation – A concentration of related industries and institutions stimulates research and innovation.
- Facilitating the Commercialization of Innovation – As the industry cluster strengthens and awareness increases, a framework for regional economic development provides sustained competitiveness and new opportunities for start-up and spin-off businesses.

Successful clusters cut across traditional industry classifications. For example, the California wine industry is traditionally classified under the California Agricultural Cluster. Yet products of the wine industry also support California’s Tourism Cluster, Food Cluster, as well as educational, research, and trade organizations that support growers, wineries, and processing facilities.

## ***II. Existing Programs and Trends***

### **Delaware's Industry Clusters**

Five industry areas have been identified as key to Delaware's economic competitiveness: automobiles, chemicals, financial services and insurance, life sciences/biotechnology, and tourism. Delaware's focus has been to foster public- and private-sector business relationships and to create a business environment in which clusters can grow and prosper. Governor Minner's New Economy initiatives have helped to establish programs and policies that support cluster-based economic development.

### **Industry-Cluster Trends**

States are increasingly adopting cluster-directed policies to boost cluster-based economic development. Examples of cluster-directed policies include programs and investments to support the concentration and specialization of business and industry, the development of more responsive and efficient government operations, and legislation directed at the regulatory and tax environment.

## ***III. Identified Opportunities and Constraints***

### **Opportunities**

- Since the industry cluster concept was first introduced as an economic development strategy in 1990, follow up studies have demonstrated how clusters can be an effective organizing principle in economic development. One study found that a worker in a rural cluster firm earned 13% more, on average than a worker in a rural non-cluster business. Another study also demonstrated a positive correlation between the extent of clustering and income growth in a rural region.
- Industry-cluster analysis is beneficial in that it promotes informed decision-making on strategies to better prepare the workforce, support cluster growth, and increase wealth in a region.

### **Constraints**

- While researchers agree that economic growth can be enhanced by cluster-based economic-development initiatives, they also caution against focusing on a limited number of clusters within a region. Case studies have shown that businesses that are dependent on one industry cluster can become distressed as a result of a recession, an economic downturn, or collapse of an industry.
- One of the limitations of cluster analysis is that there are no official guidelines or conventional approaches to identifying or defining clusters. However, a consensus among researchers is beginning to emerge, leading to the development of a more standardized approach to cluster analysis. Several recent cluster-based analysis studies have used three factors common to all clusters for defining what constitutes a cluster. Those three factors are some measure of employment concentration, cluster dependency, and economic prosperity.
- An objective way to identify industry clusters is by using the North American Industrial Classification System (NAICS). The NAICS groups establishments

and jobs that are related by their primary product or function. The Bureau of Labor Statistics and the Bureau of Economic Analysis use NAICS for their industry-reporting convention. The economic analysis portion of the CEDS, conducted by the University of Delaware's Center for Applied Demography and Survey Research (CADSR), has adopted the NAICS industry groups to guide their research and aid comparability of cluster measures between Delaware and other states.