

## ENDNOTES

<sup>1</sup> NJ Department of Labor, Nonagricultural Wage and Salary Employment, seasonally adjusted, <http://lwd.state.nj.us/labor/lpa/pub/emppress/pressrelease/seasadj.xls>

<sup>2</sup> NJ Department of Labor, Office of Labor Planning and Analysis, Employment & Wage Data, New Jersey Employment and Wages Covered by Unemployment Insurance, Fourth Quarter 2007, <http://www.wnjin.net/OneStopCareerCenter/LaborMarketInformation/lmi14/qtr407/nj0407.xls>

<sup>3</sup> NJ Department of Labor, New Jersey Nonfarm Wage and Salary Employment by Industry, 1997-2007, 2007 Annual Average, <http://www.wnjin.net/OneStopCareerCenter/LaborMarketInformation/lmi06/stateann.xls>

<sup>4</sup> NJ Department of Labor, Office of Labor Planning and Analysis, Employment & Wage Data, New Jersey Employment and Wages Covered by Unemployment Insurance, Fourth Quarter 2007, <http://www.wnjin.net/OneStopCareerCenter/LaborMarketInformation/lmi14/qtr407/nj0407.xls>

<sup>5</sup> US Department of Labor, Bureau of Labor Statistics, Median weekly earnings of full-time wage and salary workers by detailed occupation and sex, <ftp://ftp.bls.gov/pub/special.requests/lfaaat39.txt>

<sup>6</sup> US Department of Labor, Bureau of Labor Statistics, Employer Costs for Employee Compensation – June 2008 <http://www.bls.gov/news.release/pdf/ecec.pdf>

<sup>7</sup> US Department of Commerce, Bureau of Economic Analysis, Gross State Product Data Table, <http://www.bea.gov/bea/regional/gsp/>

<sup>8</sup> National Association of Manufacturers, The Manufacturing Institute, Why Manufacturing is Essential, <http://www.nam.org/AboutUs/TheManufacturingInstitute/WhyManufacturingIsEssential.aspx>

<sup>9</sup> Working for America Institute, Advanced Manufacturing Workforce Strategies Tool Kit, The Economic Overview of Manufacturing, [http://www.workingforamerica.org/toolkit/economic\\_overview.asp](http://www.workingforamerica.org/toolkit/economic_overview.asp)

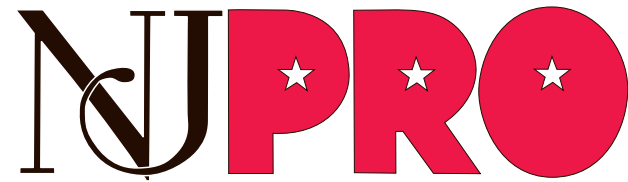
<sup>10</sup> National Association of Manufacturers, The Manufacturing Institute, Why Manufacturing is Essential <http://www.nam.org/AboutUs/TheManufacturingInstitute/WhyManufacturingIsEssential.aspx>

<sup>11</sup> National Association of Manufacturers, The Manufacturing Institute, “The Facts About Modern Manufacturing, 7th Edition”. <http://www.nam.org/AboutUs/TheManufacturingInstitute/CenterforManufacturingResearchandInnovation/TheFactsAboutModernManufacturing.aspx>

<sup>12</sup> National Association of Manufacturers, The Manufacturing Institute, “The Facts About Modern Manufacturing, 7th Edition”. <http://www.nam.org/AboutUs/TheManufacturingInstitute/CenterforManufacturingResearchandInnovation/TheFactsAboutModernManufacturing.aspx>

<sup>13</sup> National Association of Manufacturers, The Manufacturing Institute, “The Facts About Modern Manufacturing, 7th Edition”. <http://www.nam.org/AboutUs/TheManufacturingInstitute/CenterforManufacturingResearchandInnovation/TheFactsAboutModernManufacturing.aspx>

### About the



### Foundation

The New Jersey Policy Research Organization (NJPRO) Foundation is an independent public policy research affiliate of the New Jersey Business & Industry Association. NJPRO produces innovative, timely and practical research. NJPRO is New Jersey’s leading policy organization conducting research on behalf of New Jersey employers. Governed by an independent Board of Trustees, NJPRO is a nonpartisan, tax-exempt organization. NJPRO depends on the support of companies, individuals and foundations for its income.

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Committed to  
Quality Research  
on Behalf of  
New Jersey  
Employers

## Why Manufacturing Counts in New Jersey

### ISSUE

New Jersey manufacturers continue to employ more than 300,000 workers in New Jersey or 9 percent of the State’s private-sector workforce.

Not only does manufacturing make a significant contribution to total employment in New Jersey, but it also provides good jobs with higher than average pay and benefits and has a much bigger impact on the economy than is generally recognized.

This update to NJPRO’s 2004 and 2006 special reports on manufacturing details the significant contributions this industry makes to the New Jersey economy, as well as some noteworthy trends over recent years.

New Jersey manufacturers:

- Provide direct employment to more than 300,000 New Jersey workers
- Offer above average wages and benefits
- Have a big economic impact compared with other industries
- Are a highly productive sector of the State economy

### Why Manufacturing Counts— Jobs, Jobs, Jobs

As of December 2007, despite significant job losses (112,300 over the past seven years), New Jersey manufacturers still employ 309,700 production workers across the State. The greatest concentration of manufacturing jobs (127,325) is found in the counties of Bergen, Essex, Hudson, Passaic and Union. Lesser but still significant concentrations can be found in the State’s less densely populated regions in the south, central and northwest. The map on page 2 shows the geographic distribution of manufacturing jobs by region and county.

These jobs encompass many manufacturing sectors,

with the greatest clusters of employment being in pharmaceuticals and medicines (42,500), computer and electronic products (30,500), food manufacturing (29,300), and chemical manufacturing other than pharma (28,600).

A wide variety of products are manufactured in New Jersey, including pharmaceuticals, medical equipment, ambulances, labels, boxes, flags, military ribbons, theatrical shoes, life vests, computer chips, digital cameras, meteorological balloons, pizza sauce, jam, M&M candies, vinyl windows, wall board, building materials, fuels, plastics and rubber.

### Why Manufacturing Counts— High Wages and Benefits

By the end of 2007, New Jersey manufacturers were paying an average yearly wage of \$72,684. This was \$15,916 or 28 percent more than the average wage paid by all private-sector employers in New Jersey. It was also more than twice the average annual earnings of all full-time workers in the nation.

Nationally, manufacturers also provide better benefits. A recent study found that the nation’s manufacturers paid \$10.77 in total benefits per hour worked (total benefits includes leave time, premium pay,

#### TOP MANUFACTURING INDUSTRIES IN NJ (By 2007 Employment Size)

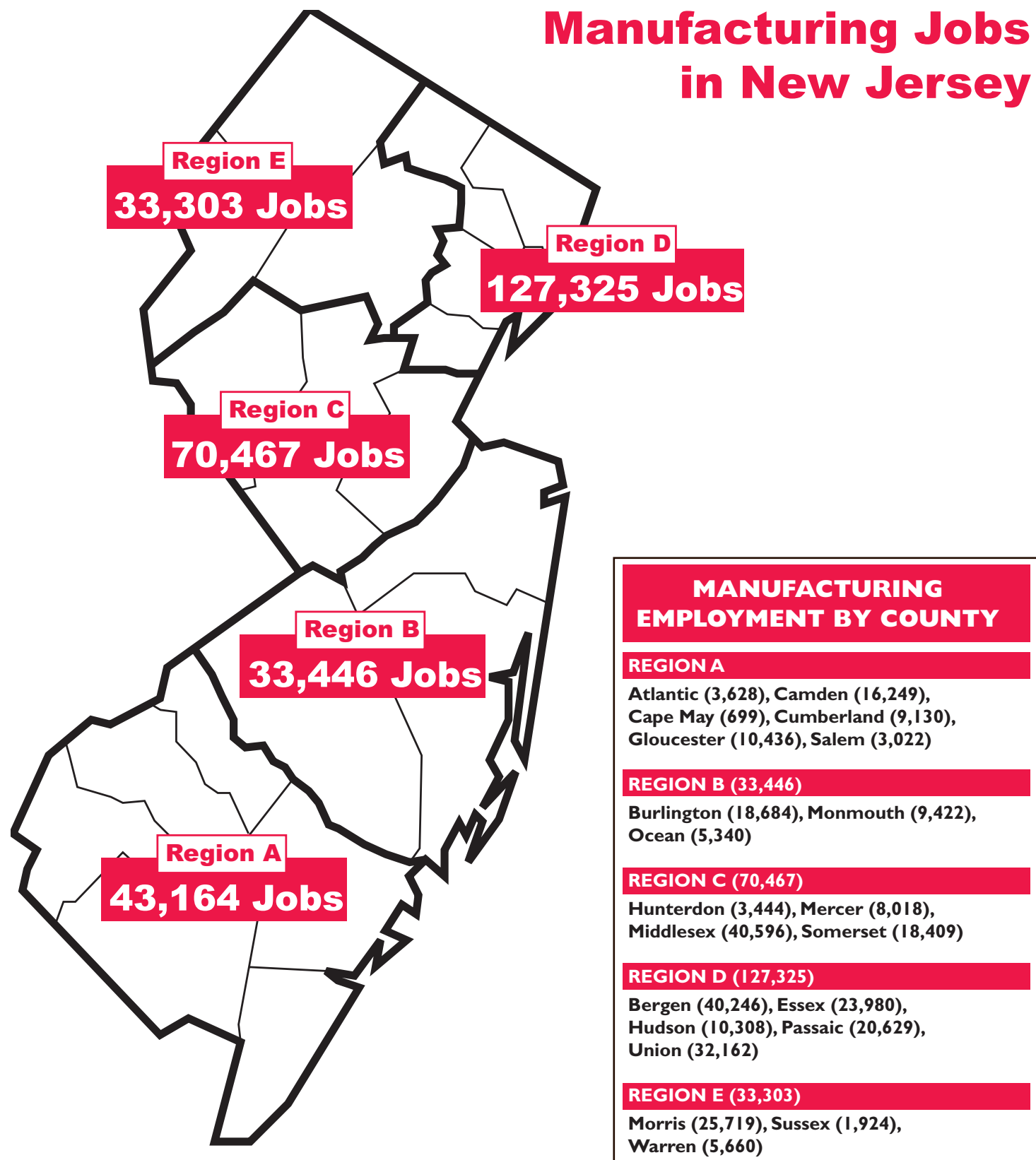
Pharmaceutical and Medicine	42,500
Computer and Electronic Products	30,500
Food Mfg.	29,300
Chemical Mfg. Other Than Pharma	28,600
Fabricated Metal	27,100
Printing and Related Support	22,700
Plastics and Rubber Products	17,900
Machinery	16,600
Paper Products	13,700

Source: NJ Department of Labor

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# NJPRO Special Report: *Why Manufacturing Counts in New Jersey*

## Distribution of Manufacturing Jobs in New Jersey



MANUFACTURING EMPLOYMENT BY COUNTY	
<b>REGION A</b>	Atlantic (3,628), Camden (16,249), Cape May (699), Cumberland (9,130), Gloucester (10,436), Salem (3,022)
<b>REGION B (33,446)</b>	Burlington (18,684), Monmouth (9,422), Ocean (5,340)
<b>REGION C (70,467)</b>	Hunterdon (3,444), Mercer (8,018), Middlesex (40,596), Somerset (18,409)
<b>REGION D (127,325)</b>	Bergen (40,246), Essex (23,980), Hudson (10,308), Passaic (20,629), Union (32,162)
<b>REGION E (33,303)</b>	Morris (25,719), Sussex (1,924), Warren (5,660)

retirement and insurance) compared to \$7.86 in total benefits per hour worked in the overall private sector. This represents a 37 percent increase in employee benefits for manufacturing employees over the average private-sector employee.

### Why Manufacturing Counts—Big Economic Impact

New Jersey manufacturers generated approximately \$41 billion in economic output in 2007 or about 9 percent of New Jersey's total Gross State Product of \$465 billion. In terms of economic output, the manufacturing sector is larger than each of the following industries: finance, wholesale trade, healthcare, retail trade, information, construction, waste services, transportation, hospitality, utilities, art and entertainment, education, agriculture, and mining. Manufacturing in New Jersey is so big that its economic output is roughly equivalent to that of the combined outputs of the construction, education, utilities and hospitality industries.

Manufacturing also has a bigger impact on the overall economy than other industry sectors. Manufacturers use more intermediate goods and services than other industries to make their final products. Every \$1 of final manufactured output generates an additional \$1.37 in other intermediate economic output. This is the largest economic multiplier effect of any industry, meaning that there is a greater return on investment in manufacturing than in any other sector of the economy.

Part of this multiplier effect can be explained by the large amount of research and development that manufacturers undertake. They are responsible for more than 70 percent of all business R&D, and that is a benefit to the entire economy.

Manufacturing also supports large numbers of jobs in other industries. The National Association of Manufacturers found that the nation's factories supported more than 20.2 million jobs in the US in 2006, 14.2 million of those jobs in manufacturing and more than 6 million in other industries. Assuming this proportion carries to New Jersey, New Jersey manufacturers would support approximately 13 percent of the State's private-sector workforce, 446,394 jobs — 309,700 in manufacturing and 136,700 in other industries.

### Why Manufacturing Counts—Manufacturers Are Highly Productive

Manufacturers enjoy the nation's highest rate of productivity growth. From 1987 to 2005, manufacturing productivity almost doubled, increasing 2.5 times faster than all other industries. During this time, manufacturers accounted for about 15 percent of the nation's economic output, yet they accounted for 25 percent of the nation's productivity growth.

Productivity is important for several reasons: 1) Rising productivity has been the key to the survival of US manufacturing, allowing our goods producers to compete with foreign manufacturers whose basic costs of production are lower; 2) Higher productivity growth is passed on to workers as higher wages; 3) Higher productivity allows the overall economy to grow faster without fueling inflation; and 4) Federal Reserve Chairman Ben Bernanke said that productivity growth is "perhaps the single most important determinant of average living standards."

### CONCLUSION & POLICY IMPLICATIONS

Manufacturing remains a vitally important sector of the New Jersey State economy. The State's manufacturers provide over 300,000 jobs that pay above average wages and benefits, generate 9 percent of the State's economic output, have a multiplier effect on the economy, support many jobs in other industries and are highly productive.

Manufacturing's importance makes the loss of manufacturing jobs in New Jersey very troubling, and raises a number of policy issues. What does this decline mean in terms of lost jobs, wages and economic activity, particularly for people without a college education? What policy actions can be taken by government to bolster and strengthen this sector of the economy? What would be the policy implications of taking no action? In publishing this series of reports on manufacturing, NJPRO hopes to encourage statewide discussion of this important issue.