

State of New Jersey Manufacturing Industry Report 2023

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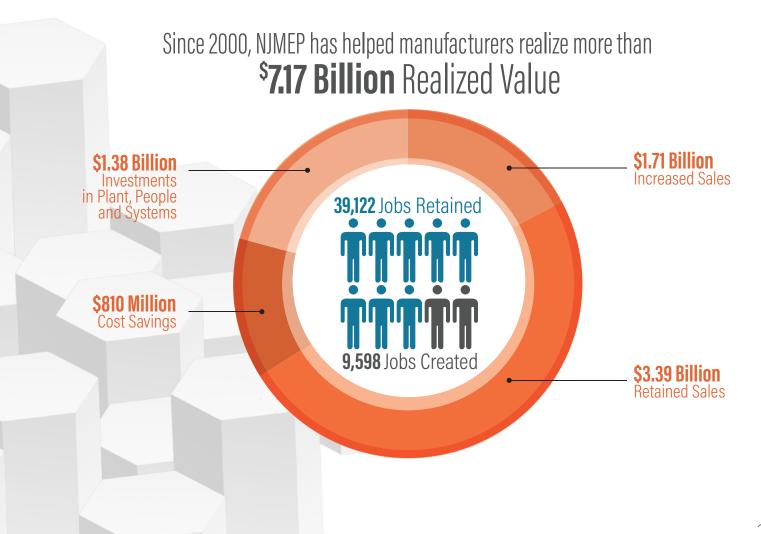
ABOUT NEW JERSEY MANUFACTURING EXTENSION PROGRAM (NJMEP)

New Jersey Manufacturing Extension Program (NJMEP) operates through a cooperative agreement with the Hollings Manufacturing Extension Partnership (MEP) Program of the National Institute of Standards and Technology (NIST) under the Department of Commerce. NJMEP is part of the MEP National Network made up of 51 Centers throughout the country including Puerto Rico.

Utilizing staff expertise and collaborative partnerships, NJMEP enhances operational performance and productivity, drives new product development, market expansion, workforce development and upskilling initiatives, and technology adoption for New Jersey's manufacturers. NJMEP serves the unique needs and challenges of small and medium-sized manufacturers (SMMs) through a broad array of services that improve the top and bottom line. NJMEP will continue expanding the outreach to SMMs statewide to ensure every business has access to the services they require.

NJMEP is rated as one of the top MEP centers in the country. Over the last year, the National NIST-MEP Network alone created, or helped retain, 125,745 jobs, generated \$14.4 billion in new or retained sales for manufacturers, and helped save businesses over \$1.5 billion. NJMEP and the MEP National Network are dedicated to enhancing the productivity and technological performance of U.S. manufacturing. The impact these organizations have, and the benefits they bring to our economy are not just impressive—they are crucial to the sustainability of the nation.

NJMEP's services produce measurable results for manufacturers in New Jersey. Quarterly independent third-party surveys of the clients we serve certify the economic impact.



State of New Jersey Manufacturing Observations



OBSERVATIONS

2023 will be a turning point for manufacturing businesses across the nation. New Jersey manufacturing operations were able to move forward from most COVID-19 disruptions, but now these organizations are facing an uncertain economic environment. Uncertainty aside, the new year will offer nearly limitless opportunities for their business to thrive. Media attention has only continued, touting manufacturing as a viable and sustainable career path. Academia and industry partners are forming new relationships to rebuild the talent pipeline. Government programs and incentives are being developed and funded. The Offshore Wind Project holds promise but also adds to workforce demands. Supply chain challenges remain and are just as difficult to predict as ever. The year ahead is far from easy to read. Yet, the manufacturing businesses that actively work to become more resilient, are willing to collaborate, and engage with industry thought leaders, in an effort to overtake foreign competition and grow.

9 TRENDS WITH A DIRECT IMPACT ON NEW JERSEY MANUFACTURING

Manufacturing is an incredibly complex industry. There are a variety of outside factors that will determine how the year will progress for each business. The standout trends mentioned here cannot be ignored by any manufacturing business. New Jersey manufacturers must investigate each of the nine areas listed below to best prepare their organization to avoid costly disruptions and grow over the next year.

Safety and Training

Finding new hires that have the skills to seamlessly walk onto a production floor and work safely and efficiently continues to be a challenge for nearly every manufacturing business across the United States. Safety must always be a top priority in any manufacturing environment. Businesses that invest in their new hires, and provide training and professional development opportunities, are seeing a massive benefit to their bottom line. When training is offered, that manufacturer is creating a safe, healthy, and productive work environment while at the same time increasing loyalty with their new hires.



Offshore Wind

Offshore Wind continues to excite, intrigue, and confuse New Jersey manufacturing businesses. The question remains how local domestic manufacturers will be able to contribute to these colossal projects.¹ New Jersey wants to be a renewable industry leader, but without a plan to engage local businesses the state will not have the required workforce—without these vital workers, New Jersey manufacturers will not be able to support the development or maintenance of these Offshore Wind turbines, and the economic boost to the state will be nominal. The industry must work together to speak up and ensure their voice is heard so they are not forgotten and overlooked.

https://www.roi-nj.com/2022/10/31/opinion/editors-desk/offshore-wind-great-paying-jobsare-coming-ensuring-there-are-workers-ready-for-them-is-the-challenge/



Supply Chain

The impact of COVID-19 on the supply chain may be dwindling, but disruptions have been compounded by the current geopolitical landscape. From port congestion to a renewed focus to become more domestically resilient, the supply chain will continue to be a topic that needs to be kept in check throughout 2023. Finding ways to become more resilient, and staying up to date with the latest international and local interruptions, will be vital to grow and thrive in the new year.²



Economic Turbulence

Fear of a severe recession has been making headlines since mid-2022. Inflation has steadily risen, and rising prices—both for the consumers and businesses—continues to cause unrest and unease, leaving businesses unable to have a direct impact on how the economy performs. However, they can ensure their business is prepared to weather any economic storm that may or may not sweep through New Jersey, and through the nation. As the new year progresses, domestic manufacturers must ensure they can stand strong against continued economic turbulence.

https://www.forbes.com/sites/bernardmarr/2022/10/03/the-5-biggest-business-trends-for-2023/?sh=4b5bc9db4217



Cybersecurity

Cybersecurity will be a consistent trend to watch as manufacturing becomes more and more digital, and in 2023 there is a particular deadline that will make this topic critical for any business in the Department of Defense (DoD) Supply Chain. The DoD announced that manufacturers in the DoD supply chain will need to comply with CMMC 2.0 by March 2023 or risk losing their contracts.³ As this deadline approaches and passes, businesses that do not take action will potentially face disastrous disruptions to their bottom line.

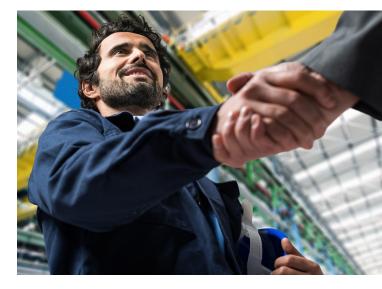


Reshoring / Nearshoring

Lessons learned over the past two years have resulted in domestic manufacturing receiving the credit and recognition it deserves once again. The Federal Government has put forth legislation like the CHIPS and Science Act in an effort to jump-start the local manufacturing industry, which aims to ensure the nation has a resilient domestic manufacturing base, and so that it never again experiences the challenges faced during the pandemic. States are beginning to step up and support local manufacturing, as is the case in New Jersey. The New Jersey Manufacturing Voucher Program (NJMVP)⁴, and the nearly \$30 million being invested by the state to directly support local manufacturing, is a testament to this support. Business leaders will need to continue to engage with entities like NJMEP, Chambers of Commerce, Associations, and industry partners in order to help usher in the next industrial revolution.

Sustainability

Contrary to popular belief, manufacturing businesses have been exploring sustainable strategies and technologies for decades, if not centuries. Manufacturers that can limit waste, recycle materials, and become energy efficient are far more profitable than those businesses that do not consider these concerns. Now with the emergence of "Environmental, Social, and Corporate Governance" (ESG) and new sustainable energy options, the topic is becoming a highly popular area of investment for the manufacturing industry.



Workforce

For the past two decades, the workforce has been a trend to watch closely in the manufacturing space. Businesses continue struggling to find qualified workers to fill their ranks and take advantage of the incredible career opportunities available in the modern manufacturing industry.⁵ The current workforce difficulties will be compounded by two particular trends listed above. As more manufacturing comes back to the US, and the Offshore Wind project requires hundreds of welders, New Jersey in particular will see a widening skills gap and will face massive competition for the aging experienced manufacturing workforce. Businesses that do not begin to take advantage of apprenticeship programs, and programs like the New Jersey Defense Manufacturing Community Consortium (NJDMCC)—programs intended to develop and upskill their workforce—will not be able to progress.⁶

Advanced Manufacturing & Automation

As workforce challenges continue, automation and advanced manufacturing technologies will offer a solution. Automated systems are not going to eliminate the need for a human workforce. Instead, these technologies will act as a supplement for businesses that require immediate and long-term solutions to a lack of staff. Automation enhances the current workforce's ability to do more with the same number of people. These technological solutions allow businesses to redistribute the human workforce to take on more complex roles, whereas automated systems can fill the gaps in repetitive production. New programs like NJMVP are available in 2023 to help offset the costs of these advanced systems. Businesses that do not invest in automation will not be able to sustain themselves beyond 2023.

Time to Rebuild

Those hoping for a predictable year, after two years of unprecedented uncertainty, are out of luck. 2023 will be anything but easy to understand. The lessons learned over the past few years will pay off in dividends if business leaders take this experience and put it into action. Understanding these nine trends, looking back at the disruptions their organizations faced, and working to implement solutions to improve resiliency, rebuild the workforce, and engaging with state partners, will be the recipe for a productive and profitable 2023.

⁵ https://www.njmep.org/njdmcc/

⁶ https://www.roi-nj.com/2022/10/31/opinion/editors-desk/offshore-wind-great-paying-jobsare-coming-ensuring-there-are-workers-ready-for-them-is-the-challenge/



New Jersey Manufacturing Impacts by Cluster

ANUFACTURINO Employees 324,503 GDP \$59.98 Average Wage \$97,281

LIFE SCIENCES Employees 83,915 GDP \$120.9B Average Wage \$163,365

STEM/TECHNOLOG Employees 183,352

^{GDP}

Average Wage \$133,942

RANSPORTATION, LOGISTICS & DISTRIBUTION (TLD) Employees 414,584 GDP

\$62.5B

Average Wage \$73,259

Source: "Jobs by State | Life Changing Innovation." Lifechanginginnovation.org, https://www.lifechanginginnovation.org/jobs-by-state.html. Accessed 12 Nov. 2021.

Source: https://www.ibisworld.com/united-states/economic-profiles/new-jersey/

Source: United States Bureau of Economic Analysis, GDP in Chained 2012 Dollars, Quarterly Census of Employment and Wages, 2018 Annual Averages, Current Employment Statistics, 2018 Annual Average Prepared by: New Jersey Department of Labor and Workforce Development. December 2021

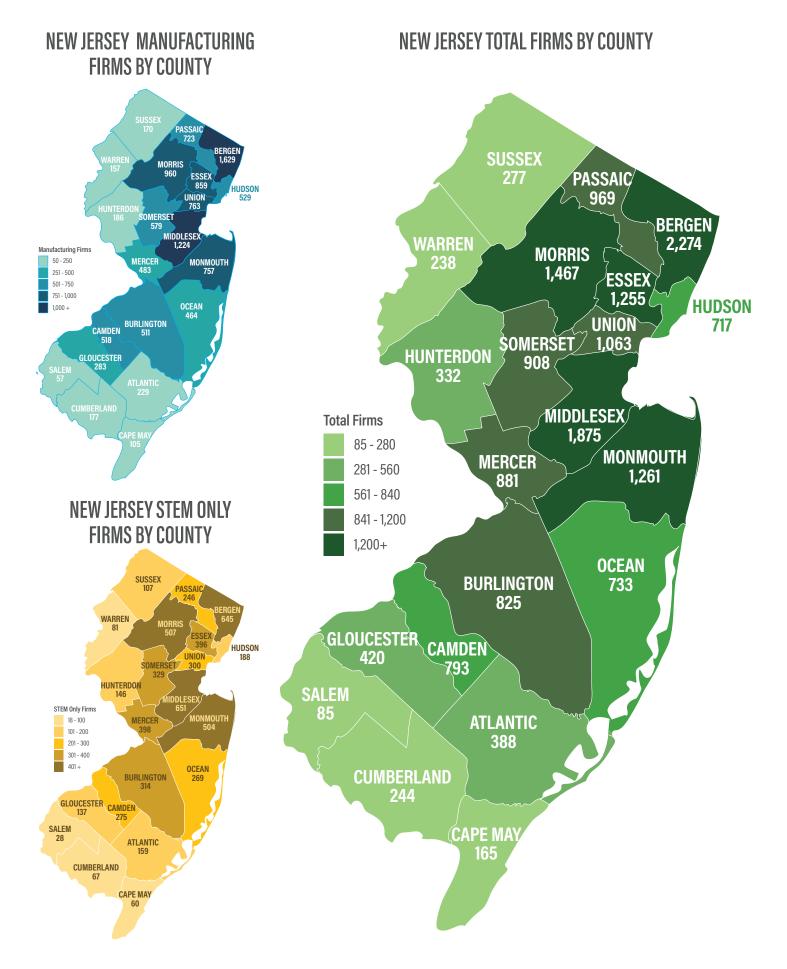
Source: Sources: U.S. Bureau of Economic Analysis and the U.S. Census Bureau

Prepared by: National Association of Manufacturers

Source: "In Our States: New Jersey." We Work For Health, Pharmaceutical Research and Manufacturers of America, www.weworkforhealth.org/in_our_states/new%20jersey, Accessed 1 Dec. 2020.

Source: Dun & Bradstreet December 2022, Prepared by: New Jersey Manufacturing Extension Program, Inc.

State of New Jersey Manufacturing in New Jersey



NEW JERSEY MANUFACTURERS BY FEDERAL DISTRICT

District	Senate	House	# of Manufacturers	Counties	Employees-EST Per Entity
State	Robert Menendez		11,363		
State	Cory Booker		11,363		
1		Donald Norcross	723	Camden, Gloucester	22,137
2		Jeff Van Drew	669	Atlantic, Cape May, Cumerland, Gloucester, Salem, Ocean	18,532
3		Andy Kim	720	Burlington, Mercer, Monmouth	19,890
4		Christopher Smith	901	Ocean, Monmouth	16,212
5		Josh Gottheimer	978	Sussex, Passaic, Bergen	22,208
6		Frank Pallone	815	Monmouth, Middlesex	26,180
7		Thomas Kean Jr.	1,312	Hunterdon, Morris, Warren, Somerset, Sussex, Union	38,696
8		Rob Menendez Jr.	638	Essex, Hudson, Union	17,519
9		Bill Pascrell Jr.	1,409	Bergen, Hudson, Passaic	41,954
10		Donald Payne Jr.	605	Union, Essex, Hudson	14,038
11		Mikie Sherrill	1,363	Essex, Morris, Passaic	49,193
12		Bonnie Watson Coleman	1,230	Middlesex, Mercer, Somerset, Union	37,944
			11,363	Direct Employment *	324,503

* An estimate supported by data from: Dun & Bradstreet AND NJMEP December 2022

'MADE in New Jersey' manufacturing continues expanding in the Garden State. According to IBISWorld, manufacturing contributed over \$59.9 billion to New Jersey's GDP in 2022.¹ Year-over-year, the industry grew 4.5% when 52% of the tracked sectors experienced growth below 1% or contracted in the same period. As businesses return to normal operations after 3 years of pandemic fears, manufacturing remains an economic stimulator. The state has made an incredible leap forward in how it is supporting these critical businesses. Over \$30 million has been set aside in the state budget to fund new manufacturing initiatives. Still, more support is needed. Businesses are working together to ensure domestic manufacturing cannot be overlooked, and their contributions are highlighted to garner the investment it deserves.

Manufacturing can be found in all 21 counties. These small businesses employ an average of 28 New Jersey residents. That's 28 voters per company that depend on manufacturing to sustain themselves, and their families. The average annual compensation for a full-time manufacturing employee is over \$97,000. This is money that gets pumped back into the economy to strengthen New Jersey as a whole. Additionally, manufacturers are often active members of their local communities, contributing to the 'Manufacturing Cares' initiative which has supplied nearly 2 million meals to food-insecure, state residents since 2016. These incredible businesses and all they contribute drive the state, its residents, and the world forward.

1 https://www.ibisworld.com/united-states/economic-profiles/new-jersey/



NEW JERSEY MANUFACTURERS BY STATE DISTRICT

District	Senate	Assembly	Assembly	# of Manufacturers	Counties	Employees-EST Per District
1	Michael L. Testa Jr.	Antwan McClellan	Erik K. Simonsen	268	Atlantic, Cape May, Cumberland	8,681
2	Vince J. Polistina	Claire Swift	Donald A. Guardian	190	Atlantic	3,540
3	Edward Durr Jr.	Beth Sawyer	Bethanne McCarthy Patrick	299	Cumberland, Gloucester, Salem	12,013
4	Fred H. Madden Jr.	Paul D. Moriarty	Gabriela M. Mosquera	100	Camden, Gloucester	2,593
5	Nilsa I. Cruz-Perez	William F. Moen Jr.	William W. Spearman	160	Camden, Gloucester	3,345
6	James Beach	Louis D. Greenwald	Pamela R. Lampitt	320	Burlington, Camden	8,426
7	Troy Singleton	Herb Conway Jr.	Carol A. Murphy	331	Burlington	9,378
8	Jean Stanfield	Michael Torrissi Jr.	Brandon E. Umba	238	Atlantic, Burlington, Camden	7,508
9	Christopher J. Connors	DiAnne C. Gove	Brain E. Rumpf	139	Atlantic, Burlington, Ocean	1,513
10	James W. Holzapfel	John Catalano	Gregory P. McGuckin	84	Ocean	1,202
11	Vin Gopal	Marilyn Piperno	Kimberly Eulner	329	Monmouth	6,420
12	Samuel D. Thompson	Robert D. Clifton	Alex Sauickie	201	Burlington, Middlesex, Monmouth, Ocean	2,606
13	Declan J. O'Scanlon	Victoria A. Flynn	Gerard Scharfenberger	200	Monmouth	5,096
14	Linda R. Greenstein	Daniel R. Benson	Wayne P. DeAngelo	222	Mercer, Middlesex	8,172
15	Shirley K. Turner	Verlina Reynolds-Jackson	Anthony S. Verrelli	387	Hunterdon, Mercer	10,743
16	Andrew Zwicker	Roy Freiman	Sadaf F. Jaffer	366	Hunterdon, Mercer, Middlesex, Somerset	11,108
17	Bob Smith	Joseph Danielsen	Joseph V. Egan	378	Middlesex, Somerset	14,958
18	Patrick J. Diegnan Jr.	Robert J. Karabinchak	Sterley S. Stanley	425	Middlesex	13,934
19	Joseph F. Vitale	Craig J. Coughlin	Yvonne Lopez	207	Middlesex	6,684
20	Joseph P. Cryan	Reginald W. Atkins	Annette Quijano	259	Union	6,324
21	Jon M. Bramnick	Michele Matsikoudis	Nancy F. Munoz	405	Morris, Somerset, Union	11,613
22	Nicholas P. Scutari	Linda S. Carter	James J. Kennedy	332	Middlesex, Union, Somerset	7,726
23	Michael J. Dougherty	John DiMaio	Erik Peterson	388	Hunterdon, Somerset, Warren	15,043
24	Steven V. Oroho	Parker Space	Harold J. "Hal" Wirths	250	Morris, Sussex, Union	4,649
25	Anthony M. Bucco	Brian Bergen	Arua K. Dunn	376	Morris, Somerset	10,800
26	Joseph Pennacchio	Christian E. Barranco	Jay Webber	569	Essex, Morris, Passaic	22,428
27	Richard J. Codey	Mila M. Jasey	John F. McKeon	328	Essex, Morris	11,509
28	Renee C. Burgess	Ralph R. Caputo	Cleopatra G. Tucker	104	Essex	2,790
29	M. Teresa Ruiz	Eliana Pintor Marin	Shanique Speight	288	Essex	8,527
30	Robert W. Singer	Sean T. Kean	Edward H. Thomson	301	Monmouth, Ocean	5,913
31	Sandra B. Cunningham	William B. Sampson	Angela V. McKnight	202	Hudson	8,024
32	Nicholas J. Sacco	Angelica M. Jimenez	Pedro Mejia	255	Bergen, Hudson	5,821
33	Brain P. Stack	Annette Chaparro	Raj Mukherji	83	Hudson	1,108
34	Nia H. Gill, Esq.	Thomas P. Giblin	Britnee N. Timberlake	184	Essex, Passaic	4,161
35	Nellie Pou	Shavonda E. Sumter	Benjie E. Wimberly	295	Bergen, Passaic	8,493
36	Paul A. Sarlo	Clinton Calabrese	Gary S. Schaer	513	Bergen, Passaic	15,214
37	Gordon M. Johnson	Ellen J. Park	Shama A. Haider	402	Bergen	10,258
38	Joseph A. Lagana	Lisa Swain	P. Christopher Tully	302	Bergen, Passaic	9684
39	Holly T. Schepisi	Robert Auth	DeAnne C. DeFuccio	339	Bergen, Passaic	7,747
40	Kristin M. Corrado	Christoper P. DeFillips	Kevin J. Rooney	344	Bergen, Essex, Morris, Passaic	8,751
				11,363	Direct Employment *	324,503

State of New Jersey Nanufacturing Sectors



Advanced Manufacturing

Manufacturing today is an incredibly diverse and highly advanced industry. No matter the kind of manufacturing business, advanced technologies are driving these facilities forward. Whether a manufacturer utilizes digital communication, sensors, safety systems, or software, all modern manufacturing is advanced manufacturing—but there is still a reluctance to embrace Industry 4.0. Business leaders that refuse to evolve will find their manufacturing operations struggling to keep their doors open for much longer. Manufacturing organizations that approach Industry 4.0 with an open mind, who are willing to work with trusted partners to ensure they are not distracted by fads—and to ensure their investments are put to the best use—will find themselves outpacing both foreign and domestic competition.

Advanced manufacturing takes on many forms. Whether exploring sensors, software, robotics, automation, 3D printing, or the incredible connectivity and opportunity within the Industrial Internet of Things, there are technologies available to elevate nearly every manufacturing process. An abundance of new advancements is a double-edged sword. Wreckless investments can lead to tremendous waste or worse, equipment or technology that goes idle or unused. New Jersey manufacturers found massive

success in 2022 and have big plans in 2023 by investing in Industry 4.0 technologies. They've achieved this success through careful ROI studies and consultative partnerships. Only through smart investments and an in-depth understanding of one's business can New Jersey facilities maintain this impressive path toward an efficient, sustainable, and profitable future.

Fears of Recession capitalized conversations and headlines since early 2022

Statista reported U.S. real GDP experienced negative growth in Q1 and Q2 of 2022, only to rebound slightly in Q3, and then fall below economists' predictions in Q4.¹

Recession will continue to be a topic of discussion throughout 2023 as the lingering disruptions from the pandemic continue; and coupled with rising inflation, which was recorded at **6.5%** in 2022.²

The Great Recession from 2007-2009 deeply affected the manufacturing sector at the state and national level

Manufacturing rebounded strongly after hitting lows in 2013, helping New Jersey residents rebuild wealth lost during the 2007-2009 period.³

1 out of every 14 New Jersey residents is employed in the manufacturing industry

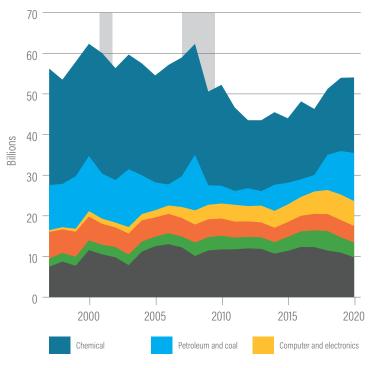
Chemical manufacturing accounted for 51 percent of manufacturing GDP in 1997 (\$28.7 billion), but only 34 percent in 2020 (\$18.5 billion).

Computer and electronic products manufacturing has been the fastest growing industry among this group, increasing its GDP from \$464 million in 1997 to \$6.1 billion in 2020, and now contributes the third highest output of GDP in New Jersey.

Medical device manufacturing has nearly doubled its output since 1997 to nearly \$4 billion in 2020.

- 1 https://www.statista.com/statistics/188185/percent-changefrom-preceding-period-in-real-gdp-in-the-us/
- 2 https://tradingeconomics.com/united-states/inflation-cpi
- 3 https://www.nj.gov/labor/labormarketinformation/assets/PDFs/ pub/empecon/advmfg.pdf

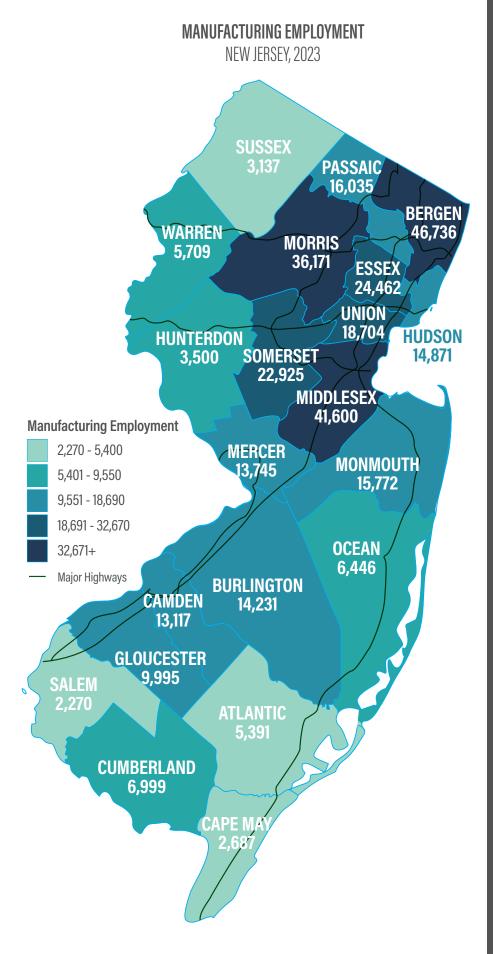
GROSS DOMESTIC PRODUCT (IN BILLIONS) BY MANUFACTURING SEGMENT NEW JERSEY: 1997-2020



Gray area denotes U.S. economic recession as defined by the National Bureau of Economic Research (NBER)

ALL MANUFACTURING INDUSTRIES AS A PERCENTAGE OF Total Manufacturing in New Jersey: 2020

Chemical (43,770) **19%** Food (35,420) **15%** Computer & Electronic Product (23,530) **10%** Fabricated Metal Product (21,040) **9%** Miscellaneous MFG (16,520) **7%** Plastics & Rubber (13,870) **6%** Machinery (12,960) **6%** Printing & Related Support Activities (11,580) **5%** Nonmetallic Mineral Product (10,130) **4%** Paper (8,740) **4%** Furniture & Related Product (6,500) **3%** All Other Manufacturers **13%**



Cite: Dun & Bradstreet AND NJMEP December 2022

BREAKDOWN OF MAJOR OCCUPATIONAL GROUPS WITHIN THE MANUFACTURING INDUSTRY NEW JERSEY, 2020

MANAGEMENT PRODUCTION 44% 7% **OFFICE &** ARCHITECTURE **ADMINISTRATIVE** & ENGINEERING SUPPORT 6% 10% TRANSPORTATION ALL OTHER & MOVING MATERIAL 23% 10%

Employment in manufacturing is highly concentrated in New Jersey's most populous counties and along the Interstate 95 corridor; however, manufacturing in many of New Jersey's more sparsely populated counties makes up a larger percentage of total private sector employment.

New Jersey offers unique business advantages including:

- Geographic proximity to roughly 40% of the US
 population, or around 100 million potential consumers.
- · Highly educated and diverse workforce.
- Extensive transportation network in place to carry goods by land, air, and sea.

Passaic, Bergen, Morris, Essex, Union, Hudson, Somerset, and Middlesex Counties make up the largest concentration of manufacturing employment.

Bergen County has the largest share of manufacturing of total employment, nearly 14.4%, followed by Middlesex and Morris Counties.

Bergen, Morris, Middlesex, and Somerset Counties have a large and diverse mix of manufacturing industries.

Source: NJLWD, Quarterly Census of Employment and Wages, 2018 Annual Averages

Prepared by: New Jersey Department of Labor and Workforce Development December, 2019

SUBSECTOR DETAILS OF ADVANCED MANUFACTURING ESTABLISHMENTS AND EMPLOYMENT

The food manufacturing industry has added nearly 4,000 jobs over the past five years, and has large concentrations in Bergen and Camden Counties.

The chemical manufacturing industry has strong concentrations along the Route 1 corridor, particularly in Middlesex, Somerset, and Union Counties.

The computer and electronic product

manufacturing industry has maintained steady employment, and is prevalent in Bergen, Camden, and Morris Counties.

The fabricated metal product manufacturing

industry has added 1,000 jobs since 2015, and has concentrations nearest Philadelphia and New York City.

The medical device manufacturing industry employed 11,000 people in 2020, and nearly one-third of its employment is found in Bergen County.

Food Manufacturing

2015	1,096	31,508	29	
2020	1,272	35,418	28	
Change	+176	+3,910	-1	

Employment

Employment Per

Establishment

Chemical Manufacturing

2015	809	43,173	53
2020	874	43,774	50
Change	+65	+601	-3

Computer and Electronic Product Manufacturing

Establishments

2015	689	22,978	33
2020	703	23,531	33
Change	+14	+553	-

Fabricated Metal Product Manufacturing

2015	1,136	20,003	18
2020	1,131	21,036	19
Change	-5	+1,033	+1

Medical Device Manufacturing

2015	390	11,862	30
2020	353	11,045	31
Change	-37	-817	+1

Source: NJLWD, Quarterly Census of Employment and Wages, Annual Average Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

Key Occupations include:

Aerospace Engineers	Cutting, Punching, and Press Machine Operators
Assemblers and Fabricators	Dental Laboratory Technicians
Bakers	Electrical and Electronic Assemblers
Bioengineers and Biomedical Engineers	Electrical Engineers
Buyers and Purchasing Agents	Food Batchmakers
Chemical Equipment Operators	Food Scientists and Technologists
Chemical Technicians	Forklift Operators
Chemists	Industrial Engineers
Compliance Officers	Industrial Machinery Mechanics
Computer-Controlled (CNC) Machine Tool Operators	Inspectors, Testers, Sorters and Samplers

Machinists **Mechanical Engineers** Medical Appliance Technicians Mixing and Blending Machine Operators Packaging and Filling Machine Operators Production, Planning, and Expediting Clerks Sheet Metal Workers Software Developers Welders, Cutters, Solderers, and Brazers Whole Sales Representatives

DEMOGRAPHIC PROFILES OF NEW JERSEY RESIDENTS WORKING IN ADVANCED MANUFACTURING

Positive trend in workforce data

The workforce aged under 25 experienced the largest percentage of growth when looking at 2017 - Q1 2022, an increase of over 38%.

Nominal growth (5%) in the 55-64 age-range, and negative growth (-7%) in the 45-54 demographic, indicates that as the workforce continues to near retirement age, a younger workforce will now be available to take their place.

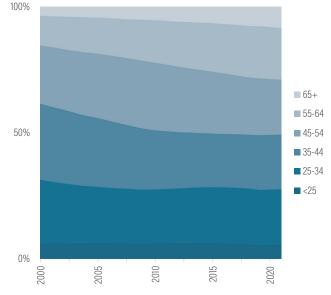
The share of the manufacturing workforce under the age of 44 has grown by 3.5% since 2017, reversing the historic industry trend of contraction in this age group.

On average a New Jersey manufacturing employee is 47 years or older. To drive this number down, the current trend of a younger workforce entering the industry must continue into 2023 and beyond.

Racially, it is more diverse than average, especially among the Asian population. The workforce is highly educated, as greater than 44% have at least obtained a bachelor's degree.

BREAKDOWN OF WORKFORCE BY AGE

NEW JERSEY: 2000-2022

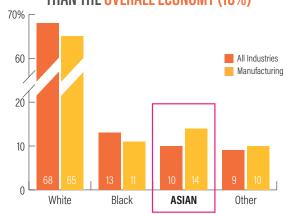


Source: United States Census Bureau. Quarterly Workforce Indicators Prepared by: QWI Explorer: https://qwiexplorer.ces.census.gov/#x=0&g=0

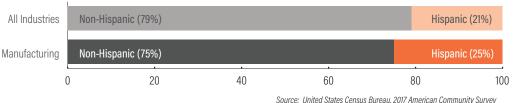
THE MANUFACTURING WORKFORCE IS PREDOMINANTY MALE (63%)



THE **ASIAN** POPULATION MAKES UP A LARGER PORTION OF THE MANUFACTURING WORKFORCE (14%) Than the overall economy (10%)

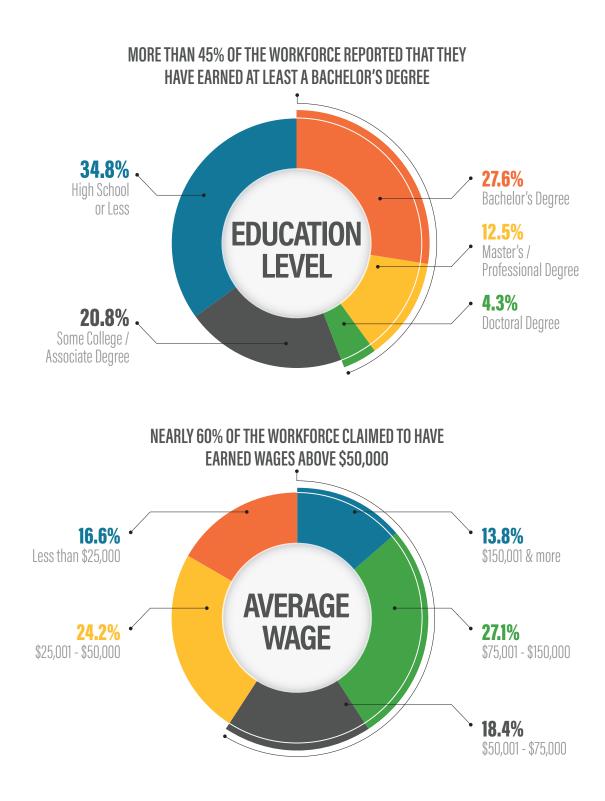


THE HISPANIC POPULATION MAKES UP A QUARTER (25%) OF THE MANUFACTURING WORKFORCE



Source: United States Census Bureau, 2017 American Community Survey Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

EDUCATIONAL ATTAINMENT AND AVERAGE WAGE OF NJ RESIDENTS IN THE MANUFACTURING WORKFORCE





Women in Manufacturing

The year 2022 was named the 'Year of Women in Manufacturing' to highlight an issue that continues to plague the industry. Bringing more women into the manufacturing workforce will help the industry continue to grow domestically, while also providing sustainable employment opportunities for this demographic. The 'Year of Women in Manufacturing' worked on highlighting exceptional women leaders in the manufacturing space to help encourage more women to push for these types of roles. By supporting those currently in the industry to pursue professional development opportunities, there will be a natural influx of women entering the industry to help offset the current skills and employment gap.

More progress will need to be made over the course of 2023 to ensure the manufacturing industry has a steady stream of STEM professionals to continue driving domestic industrial base forward. According to the U.S. Census Bureau, in 1970 women made up only 8% of all STEM workers, whereas in 2019 that increased to 27%. Women only made up 3% of the engineering field in 1980 compared to 15% in 2019. (https://www.census.gov/library/stories/2021/01/women-making-gains-in-stem-

occupations-but-still-underrepresented.html). The only way the country, state, industry, and academia can contribute to this positive trend is by showing the true face of manufacturing in New Jersey. New Jersey is investing in the industry; and that support must be used to actively engage with local schools, MEP's, and the community to ensure people know manufacturing is still alive in the Garden State, and to understand what a career in manufacturing really means.

ONLY 1 IN 4 Management Positions are Held By Women in Manufacturing



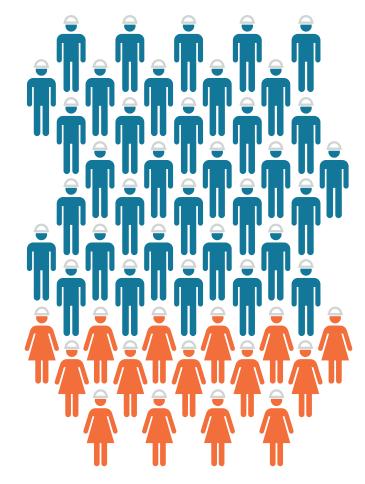
Women are still grossly underrepresented in the manufacturing space, despite the industry's continued struggle with finding qualified, reliable employees to fill their ranks.

As manufacturers struggle to recruit new employees, their outreach and recruitment strategies often overlook this demographic. By taking a proactive approach and encouraging women to explore industrial careers, manufacturers will find themselves engaging with a previously untapped talent pool.

Young women need to know about the value a career in manufacturing can offer.

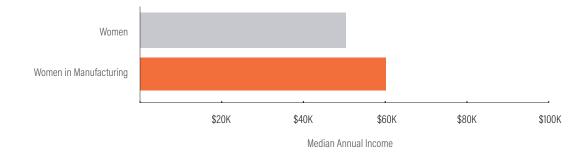
There are endless professional options when it comes to working in the manufacturing industry. Parents, academia, and industry must collaborate to highlight the value of industrial careers and ensure everyone feels confident and comfortable to explore these career options.

THE MANUFACTURING WORKFORCE IS 30% WOMEN



Source: https://gesrepair.com/women-in-manufacturing/

IN MANUFACTURING, WOMEN EARNED 16% MORE Than the National Median Annual income for women



Source: https://data.census.gov/table?q=industry+by+sex&tid=ACSDT1Y2021.B24042



Veterans in Manufacturing

New Jersey is struggling to support its veteran community. The state has a 5.4% veteran unemployment rate.¹ According to the Department of Labor, the national veteran unemployment rate is 3.2%.² Additionally, the median household income for veterans is below the New Jersey average. When looking at veteran households, the median household income is \$74,300.³ Compared to the state average of \$89,703, there is a large gap in veteran income.⁴

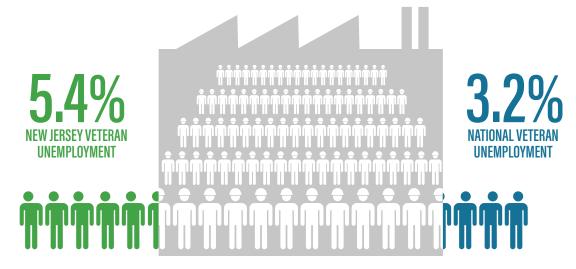
The New Jersey manufacturing industry will have a new way to engage and support the veteran community in 2023. Through the Office of Local Defense Community Cooperation (OLDCC), a grant has been provided to New Jersey's Manufacturing Extension program (NJMEP) to create a consortium of local 'MADE in New Jersey' manufacturing businesses that will have access to a pool of newly trained veterans, and their family members, who will receive nationally recognized industry certifications—which will make them a prime candidate for any job role. The following statistics will focus on the veteran population in New Jersey to highlight the value of engaging with this underserved demographic. To learn more about the New Jersey Defense Manufacturing Community Consortium, visit NJMEP.org/NJDMCC.

- 1 https://www.bls.gov/news.release/vet.t06A.htm
- 2 https://www.dol.gov/agencies/vets/latest-numbers#,~:text= Veteran%20Unemployment%20Rate%2was%203.2,from%203.8%25%20the%20prior%20year.
- 3 https://veteransdata.info/states/2340000/NEW_JERSEY.pdf
- 4 https://www.census.gov/quickfacts/fact/table/NJ/SB0001217

TRANSFERABLE SKILLS FROM VETERAN TO CITIZEN In Manufacturing

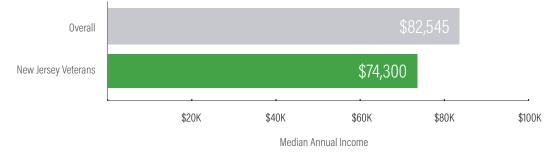
ABLE TO PERFORM UNDER PRESSURE **PROBLEM-SOLVING** EFFECTIVE COLLABORATIVE AND TEAM-DRIVEN OPEN TO CHANGE LEADERSHIP SELF-SUFFICIENCY

NEW JERSEY VS NATIONAL VETERAN UNEMPLOYMENT RATE



Sources: https://www.bls.gov/news.release/vet.t06A.htm and https://www.dol.gov/agencies/vets/latestnumbers#:--text= Veteran%20Unemployment%20Rate%2was%203.2,from%203.8%25%20the%20prior%20year

IN MANUFACTURING, NEW JERSEY VETERANS EARNED 10% LESS THAN THE MEDIAN ANNUAL HOUSEHOLD INCOME IN NEW JERSEY



Sources: https://veteransdata.info/states/2340000/NEW_JERSEY.pdf and https://www.census.gov/quickfacts/fact/table/NJ/SB0001217



Life Sciences Manufacturing

"Life Sciences" is a term that encompasses all manufacturing operations where medical, pharmaceutical, chemical, petrochemical, scientific processes or production take place. New Jersey has built a reputation for being a Life Science leader. The industry has expanded massively over the past few years, now contributing 19% of New Jersey Gross Domestic Product (GDP), or \$120.9 billion in total economic impact.¹ These essential businesses continue to face pressure from policymakers and decision-makers, which require these manufacturers to speak up and highlight their value while also emphasizing their safety practices and educating the public.

1 https://hinj.org/life-sciences-new-jersey/new-jerseys-life-sciences-by-the-numbers/

The Life Sciences Cluster has an enormous impact on providing high quality jobs and adding significant value to the State's economic activities.

Recent New Jersey highlights included:

 EMPLOYMENT TOTAL AVERAGED 76,510 or 2.4% of all private sector workers in the state for 2020. Nationally, the proportion was just 1.3%.

PAID OVER P14-1 BILLION IN SALARY in 2020 annual payrolls; 6% of the state's total wages.

- NEARLY 1,700 ESTABLISHMENTS TOTAL in 2020. Over a five year period (2015-2020), even with numerous industry-related reorganizations New Jersey's pharmaceutical component still grew (by +20.2%).
- 14 OF THE WORLD'S 20 LARGEST RESEARCH-BASED BIOPHARMACEUTICAL COMPANIES

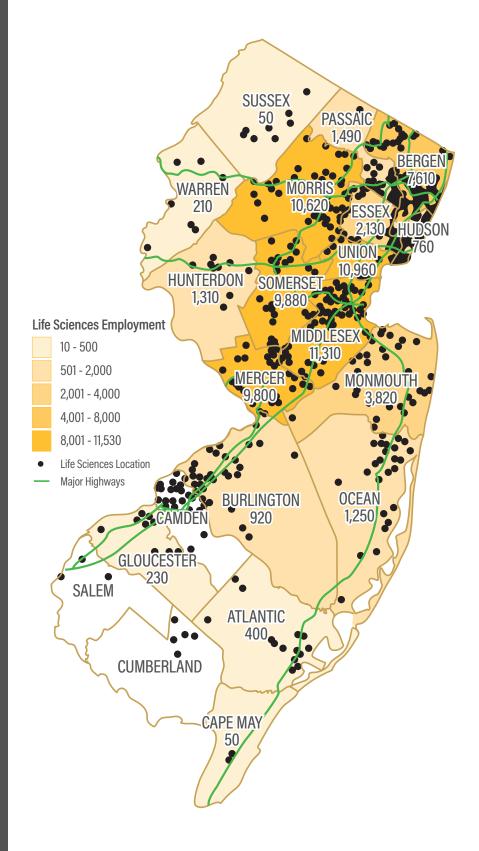
and 11 of the world's 20 largest medical technology companies maintain a headquarters (global, North American or U.S.) or significant presence in New Jersey.

- New Jersey has the highest concentration of scientists and engineers per square mile in the U.S. and is the #3 STATE FOR EMPLOYED BIOCHEMISTS AND BIOPHYSICISTS.
- New Jersey is one of the top two states in the nation for the most facilities manufacturing FDAapproved products, and is the #1 STATE FOR LIFE SCIENCES MANUFACTURING EMPLOYEES.

Source: NI Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

Source: EvaluatePharma® May 2021, Evaluate Ltd. Prepared by: HINJ, 2021

LIFE SCIENCES EMPLOYMENT AND ESTABLISHMENT LOCATIONS BY COUNTY, 2020



LIFE SCIENCES MANUFACTURING INDUSTRY SECTOR ESTABLISHMENTS AND EMPLOYMENT ANALYSIS

PHARMACEUTICALS:

520 Establishments — 31%

- Pharmaceutical and medicine manufacturing (65.9%)
- Soap, cleaning compound, and toiletry manufacturing (38.8%)

The pharmaceuticals component accounted for 43.6% of the life sciences industry sector employment:

33,360 jobs

BIOTECHNOLOGY (R&D)

820 Establishments – 49%

- · Scientific research and development services
- Consists of service-related establishments primarily engaged in scientific research, development, and/or analytic

Biotechnology (R&D) accounted for 42.0% of the life sciences sector employment:

32,100 jobs

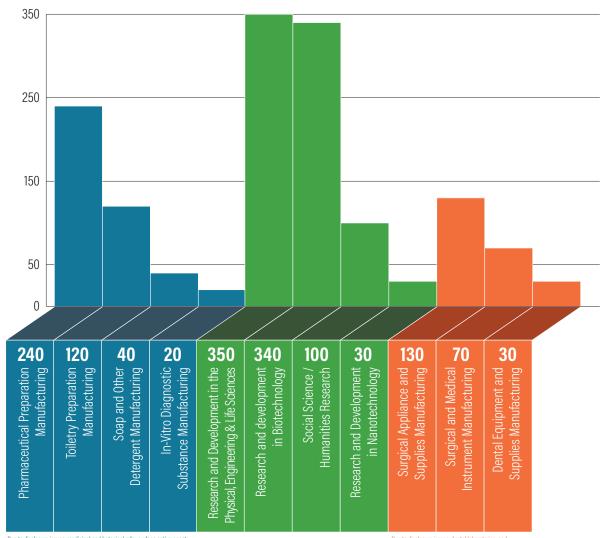
MEDICAL DEVICES

350 Establishments – 21%

- · Medical equipment and supplies manufacturing
- Establishments primarily engaged in manufacturing medical equipment and supplies

Medical devices is the smallest of the three components and makes up 14.4% of the life sciences industry:

11,050 jobs



Due to disclosure issues, medicinal and botanical mfg., surface active agent mfg., other biological product mfg., and polish and sanitation good manufacturing are not included in the chart above. Due to disclosure issues, dental laboratories, and ophthalmic goods mfg. are not included in the chart above.

LIFE SCIENCES ESTABLISHMENT NUMBERS BY SUB-SECTOR, 2020

LIFE SCIENCES INDUSTRY SECTOR: ANNUAL AVERAGE WAGE ANALYSIS

PHARMACEUTICALS:

 Annual average wages were \$148,840 in 2020,

up +19.9% (or \$24,700) from \$124,140 in 2015.

 Changes in this industry ranged from soap, cleaning, compound, and toiletry manufacturing (+10.8%), to pharmaceutical, and medicine manufacturing (+12.2%) in annual average wages from 2015 to 2020.

BIOTECHNOLOGY (R&D)

 Annual average wages were \$243,560 in 2020, up +16.7% from \$208,620 in 2015.

of +17.8%.

 Research and development in biotechnology experienced the highest wages increase from \$266,220 in 2015 to \$313,500 in 2020. A total increase

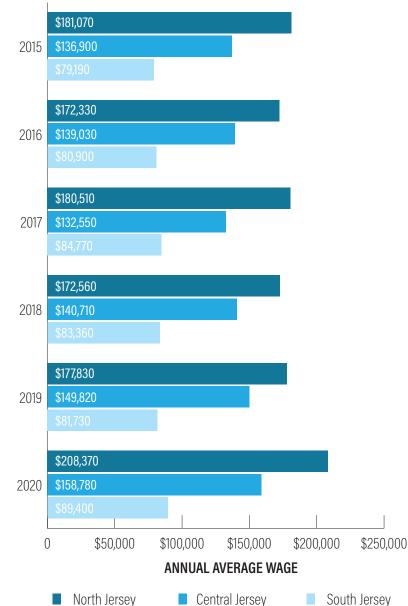
MEDICAL DEVICES

- Annual average wages were \$122,380 in 2020, up +8.4% from \$112,940 in 2015.
- Surgical appliances and supplies manufacturing experienced a significant wages increase from \$127,270 in 2015 to \$144,550 in 2020. A total growth of +13.6%.

\$350,000 \$250,000 \$150,000 \$313,500 \$124,980 \$144,550 \$175,690 \$181,710 \$94,980 \$94,090 \$110,180 \$74,750 \$69,360 \$111,460 \$50,000 0 In-Vitro Diagnostic Manufacturing Substance Manufacturing Pharmaceutical Preparation Manufacturing **Fights of Contendiation** Soap and Other Detergent Manufacturing Research and Development in the Physical, Engineering & Life Sciences Dental Equipment and Humanities Research Surgical Appliance and Surgical and Medica Research and Developmen Social Science / Research and Developmen Due to disclosure issues, dental laboratories, and ophthalmic goods mfg. are not included in the chart above Due to disclosure issues, medicinal and botanical mfg, surface active agent mfg., other biological product mfg., and polish and sanitation good manufacturing are not included in the chart above.

LIFE SCIENCES ANNUAL AVERAGE WAGE BY SUB-SECTOR, 2020

LIFE SCIENCES ANNUAL AVERAGE WAGE BY REGION 5-YEAR TREND, 2015 - 2020



NORTHERN REGION (Bergen, Essex, Hudson, Hunterdon, Morris, Passaic, Somerset, Sussex, Union, and Warren Counties) – Annual average wage increased 15.1% from 2015 - 2020.

Establishments – A majority of the Life Sciences industry-related establishments can be found along major highways in New Jersey within a close proximity to New York City.

Employment – Represented more than half of the life sciences employment in New Jersey in 2020.

Average Wage – The average wage for these counties in life sciences related industries is comparatively above the statewide total average in this sector (\$211,620 vs. \$184,760).

CENTRAL REGION (Mercer, Middlesex, Monmouth, and Ocean Counties) – This region experienced the highest growth in annual average wage over the five-year period—a total of 16%.

Establishments - These counties account for more than a quarter of all establishments in the life sciences industry sector in New Jersey.

Employment – Employment for these four counties makes up nearly one third of employment in the life sciences industry sector.

Average Wage – The average wage for these counties in life sciences related industries is relatively below the statewide total average in this cluster (\$158,780 vs. \$184,760) in 2020.

SOUTHERN REGION (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem Counties) – Presented the smallest annual average wage increase (+12.9%) during the shown period.

Establishments – Having a close proximity to Philadelphia, PA, these three counties account for 6.2% of all life sciences industry establishments in New Jersey.

Average Wage – The average wage for these counties in life sciences related industries is below the statewide total average in this cluster (\$89,830 vs. \$184,760). These counties also account for 2% of total life sciences annual average wages paid in 2020.

- Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2020 Annual Averages
- Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment and Wages, 2015-2020 Annual Averages
- Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

LIFE SCIENCES INDUSTRY SECTOR: OCCUPATIONAL AND DEMOGRAPHIC ANALYSIS

LIFE SCIENCES INDUSTRY SECTOR TOP OCCUPATIONAL GROUPS, 2020

Occupational Group	Pharmaceutical	Biotechnology (R&D)	Medical Devices
LIFE, PHYSICAL, AND SOCIAL SCIENCE Employment: 15,830 Average Salary: \$101,610	16.5%	29.8%	
PRODUCTION Employment: 15,190 Average Salary: \$45,890	34.1%		38.3%
MANAGEMENT Employment: 15,080 Average Salary: \$204,910	13.0%	28.9%	7.8%
BUSINESS AND FINANCIAL OPERATIONS Employment: 8,350 Average Salary: \$100,450	7.4%	12.1%	16.9%
OFFICE AND ADMINISTRATIVE SUPPORT Employment: 4,140 Average Salary: \$55,090	7.3%	6.3%	11.9%
COMPUTER AND MATHEMATICAL Employment: 4,140 Average Salary: \$105,040		6.8%	
ARCHITECTURE AND ENGINEERING Employment: 3,370 Average Salary: \$117,290	3.5%	5.7%	9.9%
TRANSPORTATION AND MATERIAL MOVING Employment: 2,770 Average Salary: \$40,630	6.9%		4.8%
INSTALLATION, MAINTENANCE, & REPAIR Employment: 2,060 Average Salary: \$66,450	4.0%	1.6%	
SALES AND RELATED Employment: 1,500 Average Salary: \$105,820			
HEALTHCARE SUPPORT Employment: 850 Average Salary: \$38,780		2.4%	
OTHER	7.2%	6.6%	10.4%

PHARMACEUTICAL

A majority of occupations in pharmaceutical & medicine manufacturing and pharmaceutical & chemical manufacturing are production related.

In both industry groups, computer & mathematical and installation, maintenance, and repair occupations account for a significant portion of the employment within the "Other" categories.

BIOTECHNOLOGY (R&D)

The biotech's occupational group shows that this industry class holds a significant portion of professional, scientific, and technical workers with indepth skills and knowledge related to science.

In this group, healthcare support, installation, maintenance, and repair occupations account for a significant portion of the employment within the "Other" category.

MEDICAL DEVICES

The medical devices' occupational group shows that this industry class holds a significant portion of technical workers with skills and knowledge related to production.

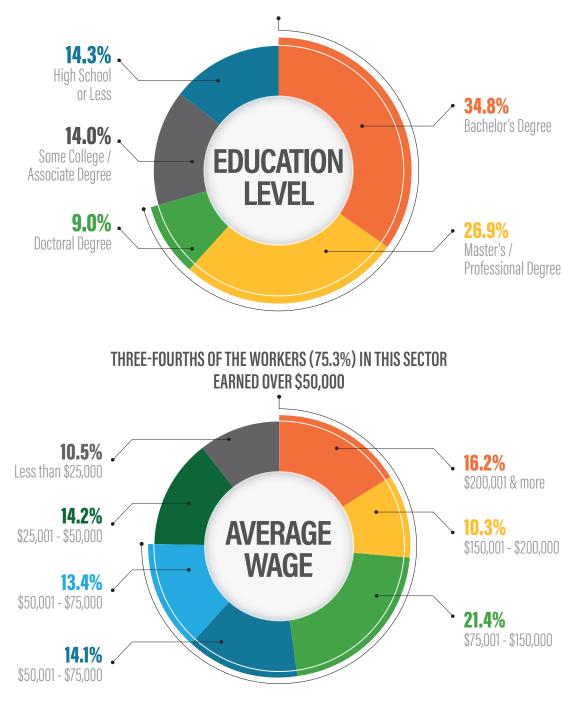
In this group, the installation, maintenance and repair, and sales and related occupations account for a significant portion of the employment within the "Other" category.

Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2020

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021

EDUCATIONAL ATTAINMENT AND AVERAGE WAGE OF NJ RESIDENTS IN THE LIFE SCIENCES SECTOR

NEARLY TWO-THIRDS OF NEW JERSEY'S WORKFORCE EMPLOYED IN THIS SECTOR HOLD AT LEAST A BACHELOR'S DEGREE, MANY HOLDING EVEN MORE ADVANCED DEGREES.



Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics, May 2020

Prepared by: New Jersey Department of Labor and Workforce Development, December 2021



Transportation, Logistics, and Distribution

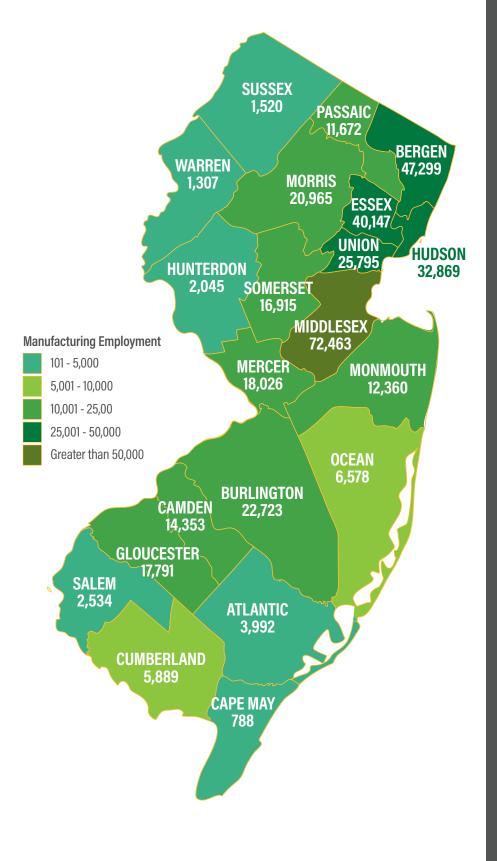
The Port of New York and New Jersey took the title of the busiest container port in the U.S. for at least the month of August 2022.¹ It moved 843,191 Twenty Equipment Units (TEUs) (imports and exports) in August alone. Concerns over labor strikes and lockouts on the West Coast have caused businesses to switch to the East Coast. New Jersey is, and has always been, a logistics leader. The Garden State is strategically positioned between international ports and interstate highways, making it a critical cornerstone for the supply chain. Lessons learned from the pandemic are creating more resilient supply chains, however, added volume continues to threaten this delicate transportation network.

The Port of Long Beach and LA have moved to second and third, in cargo volume in 2022. It is unclear whether this trend will continue or even worsen over the coming year. Countless delays, material shortages, and geopolitical pressures will require businesses to keep a close eye on this developing shift in global trade. Progress has been made to stem the fallout from the COVID-19 pandemic, but new challenges

are appearing. Businesses must employ lessons learned from the 2021 and 2022 disruptions to overcome unforeseen future challenges in 2023 and beyond.

 $1 \qquad https://maritime-executive.com/article/port-of-new-york-and-new-jersey-becomes-america-s-busiest-boxport$

TLD EMPLOYMENT BY COUNTY, 2020



54.5% OF NJ'S TRANSPORTATION, LOGISTICS, AND DISTRIBUTION (TLD) JOBS ARE LOCATED IN MIDDLESEX (18.1%), BERGEN (11.8%), ESSEX (10.0%), HUDSON (8.2%), AND UNION (6.5%) COUNTIES. These counties are advantageously located in close proximity to the ports of Newark and Elizabeth, as well as major highways like the NJ Turnpike.

Other areas in the state that have substantial concentrations of TLD employment include Burlington, Camden, and Gloucester counties, which are also in close proximity to the NJ Turnpike, as well as major arteries like I-295. These three counties are in close proximity to the Delaware River, the Ports of Camden and Paulsboro, and the City of Philadelphia. Collectively, these 3 counties accounted for 13.7% of the state's TLD employment.

Mercer County has become more prominent as a center of TLD employment. Jobholding has more than doubled (+111.3%) in the county since the end of the 'Great Recession'—from 8,530 (2009) to over 18,000 (2020).

In 2020, New Jersey's top-ranking counties for wholesale trade employment were Bergen (15.6%), Middlesex (14.2%), and Morris (6.9%) counties, in part, due to the state's high concentration of pharmaceutical firms. Combined, these three counties account for over one-third (36.7%) of employment in wholesale trade and 41.8% of jobholding within the druggist goods merchant wholesalers and chemical merchant wholesalers subsector industries.

Statewide, private sector jobholding within the druggist goods merchant wholesalers and chemical merchant wholesalers subsector industries account for 10.8% of all wholesale trade industry employment.

The state's top industries by employment within wholesale trade were grocery and related products wholesalers (31,247 jobs or 15.6%) and professional and commercial equipment merchant wholesalers (28,526 jobs or 14.2%).

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment & Wages

Prepared by New Jersey Department of Labor & Workforce Development, December 2021

Infrastructure: Sea



Port of New York & New Jersey

The Port of NY/NJ became the second busiest port in the nation in 2022.

In 2022, it broke the record for handling 9.493 million containers, a 27% increase over 2019.

The Port of NY/NJ is an economic powerhouse for NJ. Onethird of the nation's GDP is produced within 250 miles.

For the State of New Jersey, the Port of NY/NJ supported:

- Nearly 205,000 direct jobs
- Over 428,300 total jobs in the State
- More than \$29.3 billion in personnel income
- · Nearly \$80.4 billion in business activity
- Nearly \$9.8 billion in federal, state, and local tax revenues

It is the largest port on the East Coast (2018).

2nd largest container port in the U.S handling 4,238,107 cargo containiers, valued at nearly \$211.6 billion.

Port of Camden, Paulsboro & Salem

Cargo offloaded at the these terminals are within the industrial/commercial epicenter of 100 million Americans, and the industrial heartland of America and eastern Canada.

The South Jersey Port Corporation (SJPC) is a pillar of the Delaware River maritime complex—a \$77.6 billion economic dynamo supporting 191,000 jobs across three states, The SJPC and the 40+ port-related businesses are among Camden's largest employers and taxpayers, supporting 3,400 family sustaining jobs.

A \$250 million investment is taking place for a new monopile manufacturing facility located at the Paulsboro Marine Terminal. It will help to make the State the quintessential supply chain hub of the American offshore wind industry. Salem Port will serve as a hub to provide a location for essential staging, assembly, and manufacturing activities related to offshore wind along the East Coast.



Infrastructure: Land

New Jersey's excellent land transportation network includes approximately 39,000 miles of public roadways, which allows trucks to haul 75 percent of the more than 600 million tons of goods moved through the state each year.

New Jersey's 1,317 miles of freight railroads serves as an alternative to move cargo more efficiently through the region and across the nation.

The Transportation, Logistics & Distribution (TLD) cluster consists of two major components

The transportation, logistics, and distribution industry cluster consists of industries within the wholesale trade, transportation, and warehousing sectors. For the sake of analysis, these industries can be further grouped by those related to **transportation** and those related to **logistics and distribution**.

NEW JERSEY'S TLD SECTOR EMPLOYMENT

(PRIVATE SECTOR) 2007-2020

450,000 400,000 350,000 250,000 250,000 200,000 150,000 100,000 50,000 0 100,000 50,000 100,000 Transportation Distribution / Logistics

In 2020, the pandemic heightened the demand for added employment to address the shift towards e-commerce. However, over this same time period major disruptions—to the supply chain and the overall economy—resulted in a net loss of 3.3% to TLD's employment.

DISTRIBUTION / LOGISTICS SEGMENT			
NAICS	Industry	Employment	
4931	Warehousing and storage	69,910	
4244	Grocery and related product wholesalers	31,247	
4234	Commercial equipment merchant wholesalers	28,526	
4236	Electric goods merchant wholesalers	15,780	
4242	Druggists' goods merchant wholesalers	14,690	
4238	Machinery and supply merchant wholesalers	14,313	

TRANSPORTATION SEGMENT			
NAICS	Industry	Employment	
4841	General freight trucking	30,136	
4921	Couriers	27,515	
4854	School and employee bus transportation	11,457	
4885	Freight transportation arrangement	8,810	
4842	Specialized freight trucking	8,115	
4881	Support activities for air transportation	7,037	

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment & Wages, Annual Averages Prepared by New Jersey Department of Labor & Workforce Development, December 2021 401,005 TLD WORKERS

TLD employed 12.5% of the state's private sector workers.



2:1 EMPLOYMENT RATIO

The industry sector's employment is comprised of two-thirds (67.5%) in the Distribution-Logistics sector and one-third (32.5%) in Transportation. This employment ratio has remained consistent for many years.

\$75,244 AVG WAGE

The annual average New Jersey private sector wage for TLD in 2019 was \$75,244. Total wages for the TLD cluster accounted for 12.7% of private sector wages statewide.



In 2020, NJ had the sixth highest dollar amount per state nationwide. NJ accounted for four percent (4.03%) of the nation's GDP generated from TLD. Infrastructure: Air



Newark Liberty International Airport

Newark Liberty serves approximately 50 carriers, including United Airlines, which is considered a major employer in the industry. The airport is also a major cargo hub. In 2019, the airport handled nearly 825,000 tons of air cargo. It ranked 14th among the top U.S. airports in 2018 by landed weight of all cargo operations. This does not include aircraft carrying passengers that may also be carrying cargo.

A recent 2019 report revealed that about 23,000 people are employed at Newark Airport. It also found that the airport contributes \$33.6 billion in annual economic activity to the New York/New Jersey metropolitan region, generating 180,000 total jobs and more than \$11 billion in annual wages.

Teterboro Airport

The airport supports more than 5,000 jobs paying \$362 million in annual wages, and generates nearly \$1.2 billion in annual sales activity.

Atlantic City International Airport,

The airport contributed \$678 million in economic activity to the New Jersey region, provided over 7,700 jobs to the region, and currently employes over 2,700 people. Commercial and general aviation activities at Atlantic City International Airport provides over 700 jobs.

William J Hughes Technical Center, home to the Federal Aviation Administration and located at the Atlantic City International Airport, is a vital part of the nation's air transit system. The Technical Center, which is a premier aviation research, development, test and evaluation center, is at the forefront of development for NextGen—the Federal Aviation Administration's new National Airspace System.

Sources: North Jersey Transportation Planning Authority Impact Study, July 2020 Global Trade Magazine, October 9, 2020 South Jersey Port Corporation , 2019

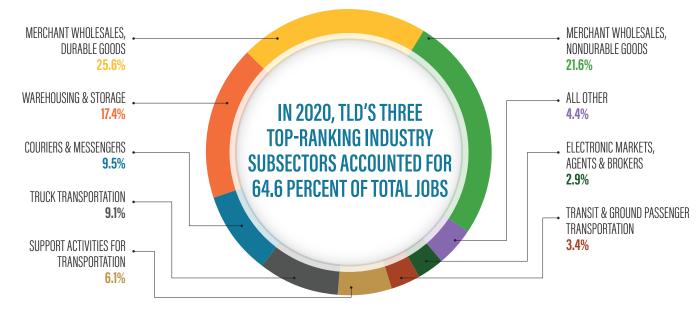
Offshore Wind Biz, April 20, 2021 New York Shipping Association Port Authority of NY/NJ Journal of

NJ Transit 2019 Annual Report & Bureau of Transportation Statistics Port of NY/NJ Airport Traffic Report, 2019 Bureau of Transportation Statistics

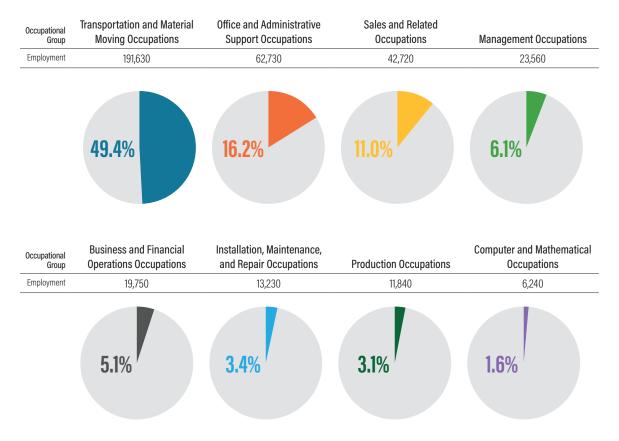
Port of NY/NJ Airport Traffic Report, 2016 Atlantic City International Airport USDOT, Federal Aviation Administration

TLD SECTOR: OCCUPATIONAL ANALYSIS

TLD SUBSECTORS BY EMPLOYMENT, PRIVATE 2020

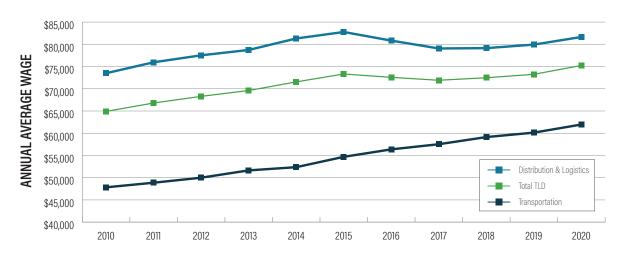


TLD EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP



TLD SECTOR: ANNUAL AVERAGE WAGE ANALYSIS

WAGES 2010-2020 DISTRIBUTION/LOGISTICS VS TRANSPORTATION



Overall, total TLD wages increased at an average of 1.5% year-to-year during the same period.

Average annual wages for workers in the distribution/logistics component ranged anywhere from 31.8% to 55.4%—higher than those for transportation segment workers over the 10-year (2010-2020) period.

Top TLD Occupations Include:

Accountants and Auditors
Bookkeeping, Accounting, and Auditing Clerks
Customer Service Representatives
First-Line Supervisors of Non-Retail Sales Workers
First-Line Supervisors of Office and Administrative Support Workers
First-Line Supervisors of Transportation and Material-Moving Workers, Except Aircraft Cargo Handling Supervisors
General and Operations Managers
Heavy and Tractor-Trailer Truck Drivers
Industrial Truck and Tractor Operators
Laborers and Freight, Stock, and Material Movers, Hand
Light Truck Drivers

Office Clerks, General Packers and Packagers, Hand

Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity

Sales Managers

Sales Representatives, Wholesale and Manufacturing, Except Technical & Scientific Pdts

Sales Representatives of Services, Except Advertising, Insurance, Financial Svcs, & Travel

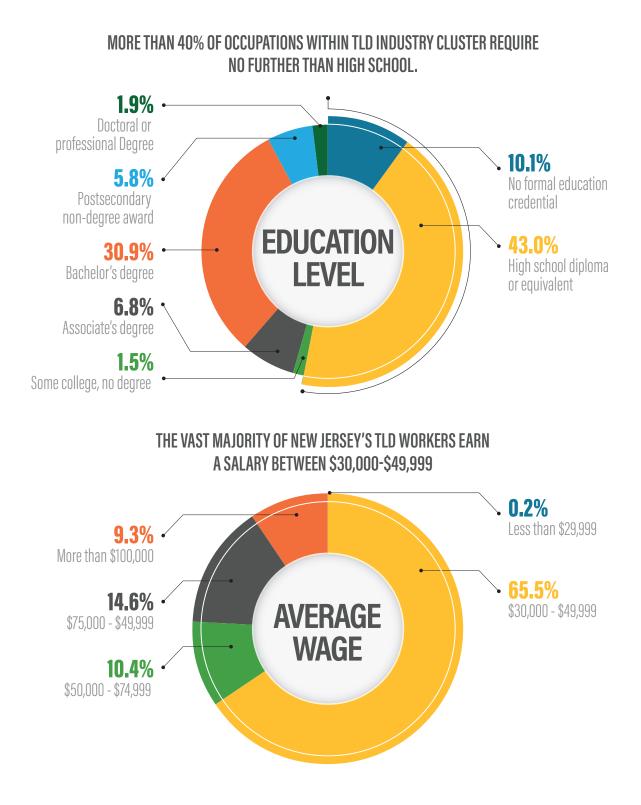
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive

Shipping, Receiving, and Inventory Clerks

Stockers and Order Fillers

Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment & Wages, Annual Averages Prepared by New Jersey Department of Labor & Workforce Development, December 2021 Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Wage Survey, 2020 data Prepared by New Jersey Department of Labor & Workforce Development, December 2021

EDUCATIONAL ATTAINMENT AND AVERAGE WAGE OF NJ RESIDENTS IN THE TLD SECTOR



Source: NJ Department of Labor & Workforce Development, Quarterly Census of Employment & Wages, Annual Averages Prepared by New Jersey Department of Labor & Workforce Development, December 2021 Source: NJ Department of Labor & Workforce Development, Occupational Employment Statistics Wage Survey, 2020 data Prepared by New Jersey Department of Labor & Workforce Development, December 2021







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