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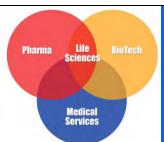


New Jersey Bio-Pharmaceutical Life Sciences Landscape

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New Jersey Department of Labor & Workforce Development Division of Labor Market & Demographic Research Winter 2012



NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER <u>Overview</u>



This presentation provides an overview of the landscape of New Jersey's Bio-Pharmaceutical Life Sciences Cluster, which includes the following components engaged in:

- * Pharmaceuticals: Establishments primarily engaged in manufacturing or distribution of drug related products.
- * <u>Biotech:</u> Services related establishments primarily engaged in scientific research, development, analytic and/or diagnostics.
- * Medical Devices: Establishments primarily engaged in manufacturing of medical equipment and supplies.

Agenda

- ☐ Highlights of New Jersey's "Bio-Pharmaceutical Life Sciences" cluster.
- ☐ State & Regional details about New Jersey's "Bio-Pharmaceutical Life Sciences" cluster.
- ☐ Regional Economic Developments.
- ☐ Developments relevant to New Jersey's *Bio-Pharmaceutical Life Sciences* Cluster.



NEW JERSEY BIO/PHARMACEUTICALS LIFE SCIENCES CLUSTER Overview



What does the

Bio-Pharmaceutical Life Sciences Cluster

offer New Jersey?

Lets take a look!!



NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Overall State Impact



The bio-pharmaceutical life sciences cluster has had an enormous impact on growing high quality jobs and adding significant value to the State's economic activities. Highlights (in 2011) included:

Employment

- Pharmaceuticals
- Medical Devices
- BioTech R&D



Employment total averaged 121,655 - or 3.9% - of all private sector workers in the state. -- Nationally, the proportion was just 2.0 percent!

■ Well-paying jobs: Paid more than \$14.5 billion in annual payroll; 8.1 percent of the state's total wages.

Establishments

- Pharmaceuticals
- Medical Devices
- BioTech R&D



Establishments over the past five years (2006-2011) realized an increase by 236 (+8.1%) – Pharmaceutical led the way increasing by 14.0%.

□ <u>Investment Added Value</u>: Industry R&D was \$18.4 billion, the 2nd among the 50 states. (2009)

- Added to Export Opportunities: New Jersey exported approximately \$4.8 billion in manufactured goods worldwide in 2011.
- Added to Growing the State's Economy: This cluster accounted for \$23 billion (nearly 5.0%) of New Jersey's gross domestic product. (Source: Rutgers, 2009)



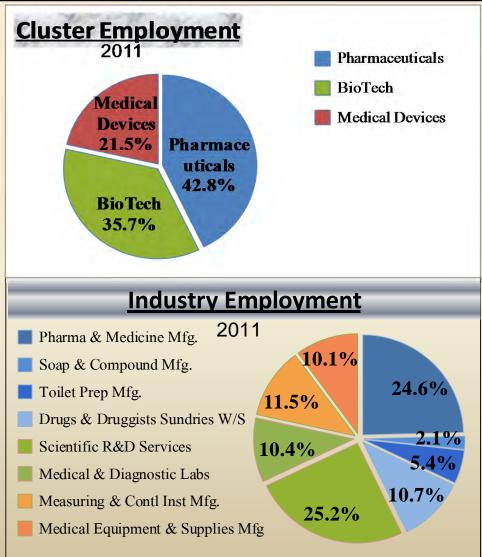


Industry Details of New Jersey's Bio-Pharmaceutical Life Sciences Cluster



- Statewide Employment -

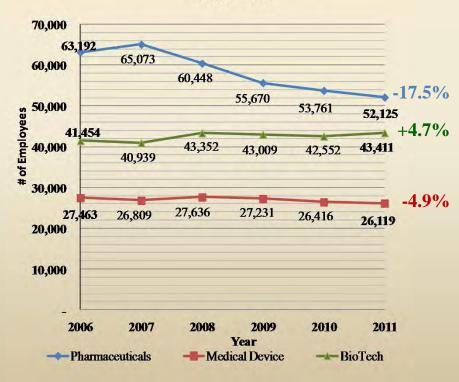




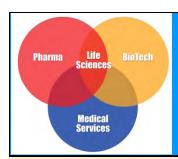
New Jersey had an average of 121,655 employees within this cluster in 2011. The cluster lost 7.9 percent employment over the 5-year (2006-2011) period.

5-Year Employment Trend

2006-2011

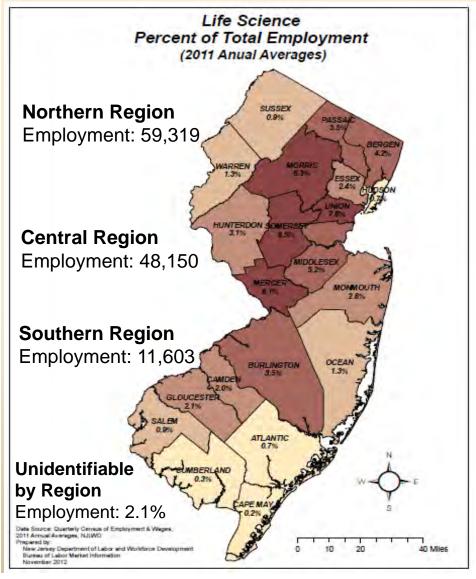


(SOURCE: Quarterly Census of Employment and Wages, 2011)









New Jersey's Bio-Pharmaceuticals Life Sciences Cluster employed an average of 121,655 workers in 2011. The breakdown of this highly talented workforce – by region – was as follows:

- ❖ Northern NJ accounted for 48.8 percent of Life Sciences employment with the largest share working in Pharmaceuticals (47.1%).
- ❖ Central NJ accounted for 39.6 percent of Life Sciences employment with the largest share working in BioTech (42.8%).
- ❖ Southern NJ accounted for 9.5 percent of Life Sciences employment with the largest share working in Medical Devices (63.3%).



Medical & Diagnostic Labs

Measuring & Contl Inst Mfg.

Medical Equipment & Supplies Mfg

NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER

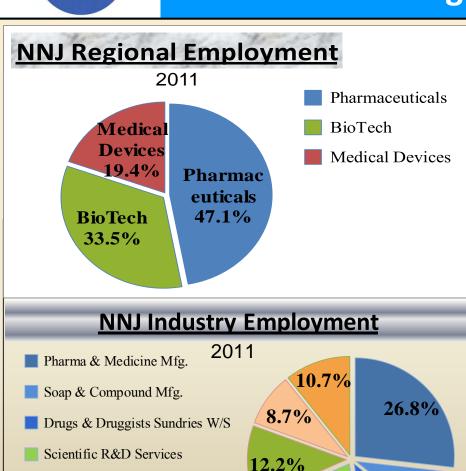
- Northern NJ Regional Employment -

9.0%

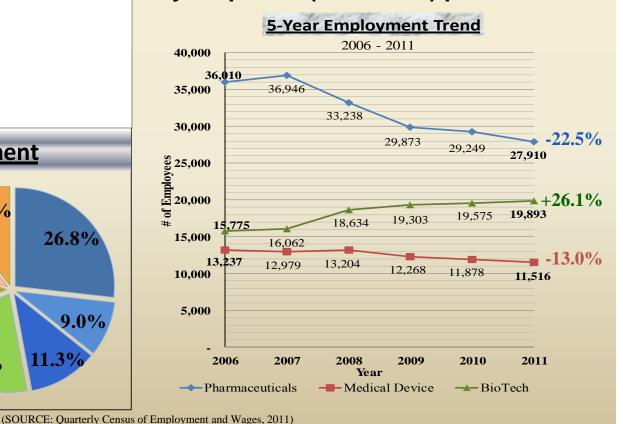
11.3%

21.3%





Over 59,300 workers were employed in this cluster in Northern New Jersey in 2011. The cluster's employment in this region declined by 8.8 percent over the 5-year period (2006-2011) period.

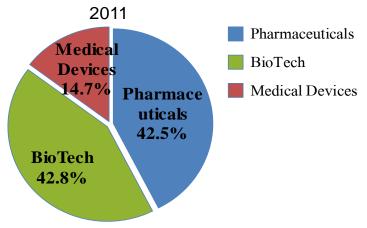




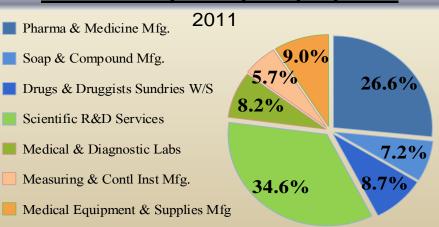






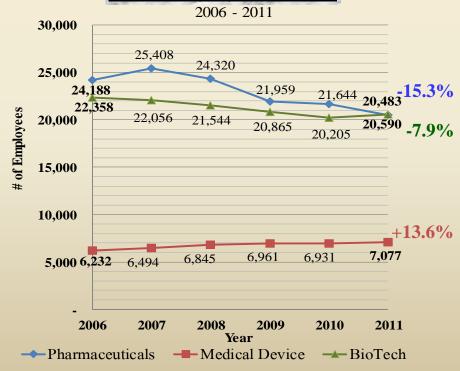


CNJ Industry Group Employment

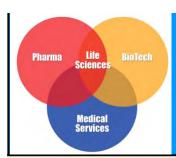


An average of 48,150 workers were employed in this cluster in Central New Jersey in 2011. The employment declined by 8.8 percent over the 5-year (2006-2011) period.

5-Year Employment Trend

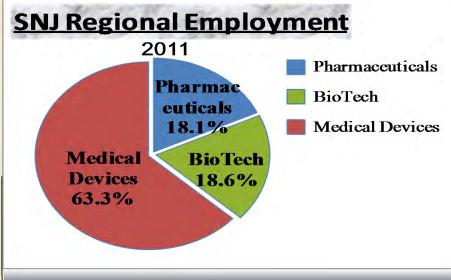


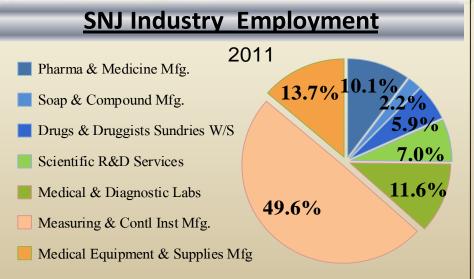
(SOURCE: Quarterly Census of Employment and Wages, 2011)



- Southern NJ Regional Employment -

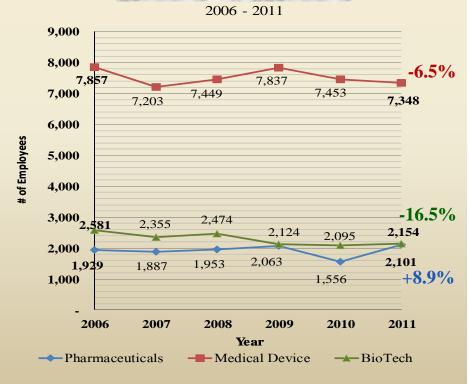




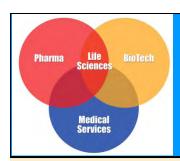


Over 11,600 workers were employed in this cluster in Southern New Jersey in 2011. The average employment declined by 6.2 percent over the 5-year period (2006-2011).

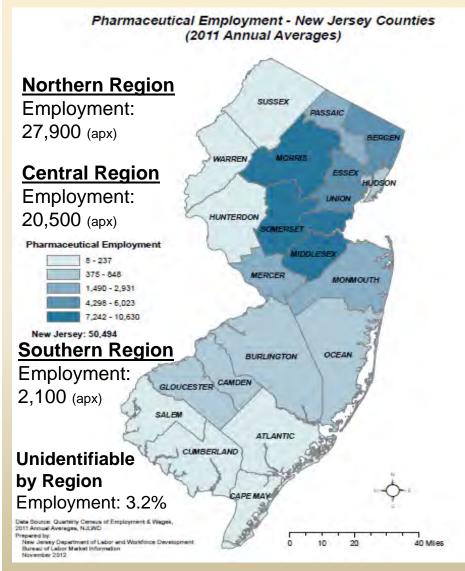
5-Year Employment Trend



(SOURCE: Quarterly Census of Employment and Wages, 2011)



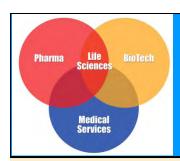
Concentration of Pharmaceutical Employment



New Jersey's pharmaceutical employment averaged 52,125 in 2011.

The breakdown - by region - was as follows:

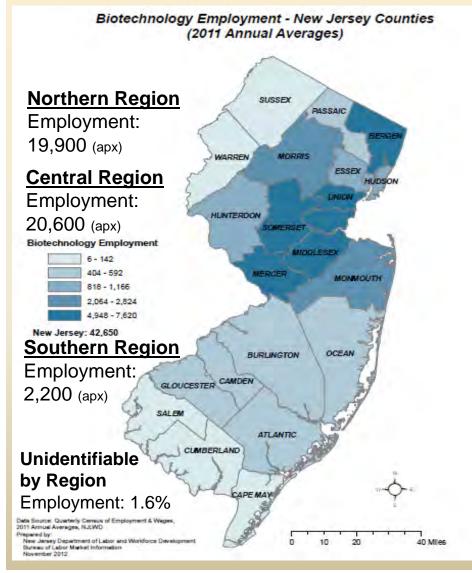
- **❖ Northern** accounted for 53.5%.
- **Central** accounted for 39.3%.
- **Southern** accounted for 4.0%.



NEW JERSEY BIO-PHARMACEUTICAL

Concentration of Biotechnology Employment





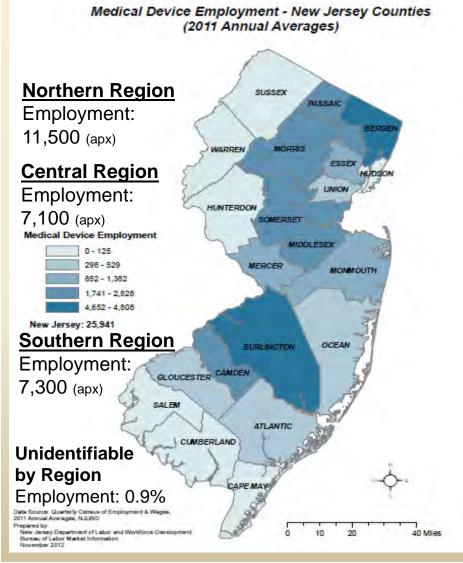
biotechnology New Jersey's employment averaged 43,411 in 2011.

The breakdown - by region - was as follows:

- ❖ Northern accounted for 45.8%.
- **❖ Central** accounted for 47.5%.
- **Southern** accounted for 5.1%.



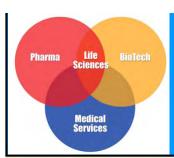




New Jersey's medical device employment averaged 26,119 in 2011.

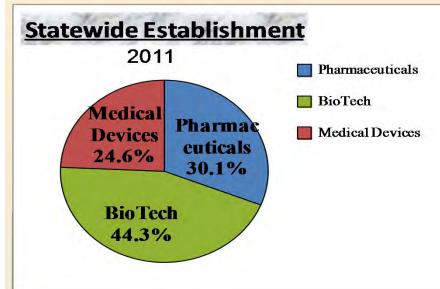
The breakdown - by region - was as follows:

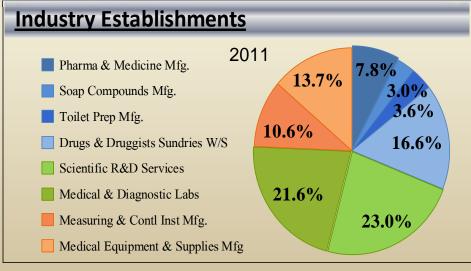
- ❖ Northern accounted for 44.0%.
- **❖ Central** accounted for 27.2%
- **Southern** accounted for 27.9%.



NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Statewide Establishments

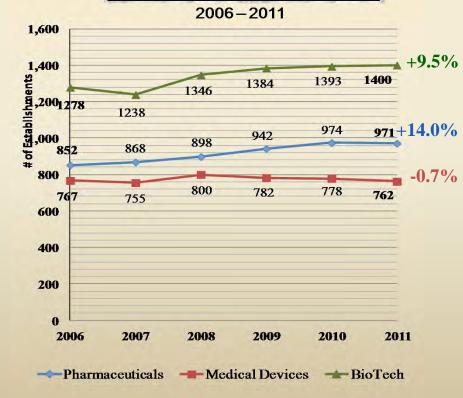






New Jersey had an average of 3,133 establishments in this cluster in 2011. These establishments gained 8.1% over the 5-year (2006-2011) period.

5-Year Establishment Trend

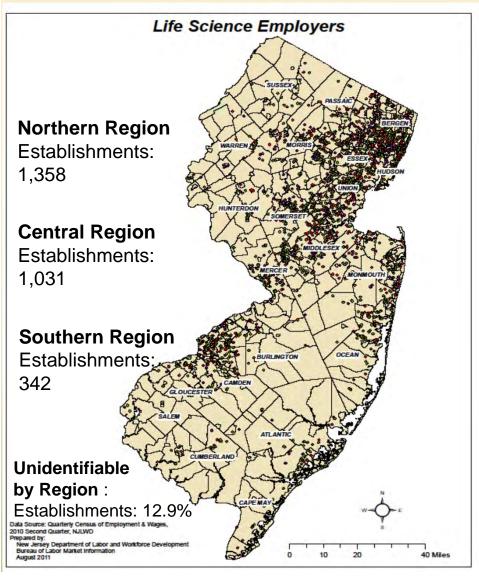


(SOURCE: Quarterly Census of Employment and Wages, 2011)



Concentration of Establishments





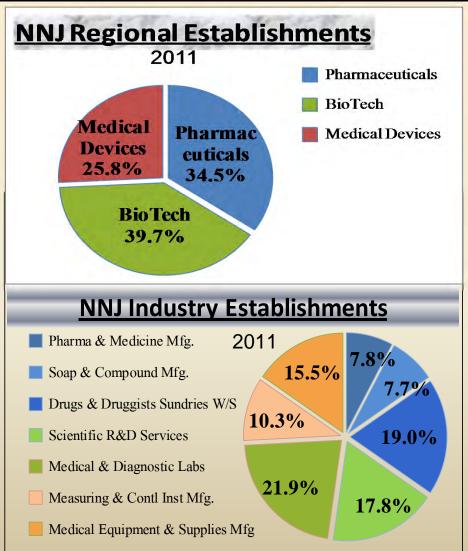
New Jersey had over 3,100 establishments directly engaged in this exceptionally highly concentrated Bio-Pharmaceutical Life Sciences cluster in 2011. The establishment breakdown – by region – was as follows:

- Northern Region accounts for
 43.3% of Life Sciences led by the
 Biotech component (39.7 %)
- ❖ Central Region accounts for 32.9% of Life Sciences led by the Biotech component (44.3%)
- Southern Region accounts for
 10.9% of Life Sciences led by the
 Biotech component (54.7%)



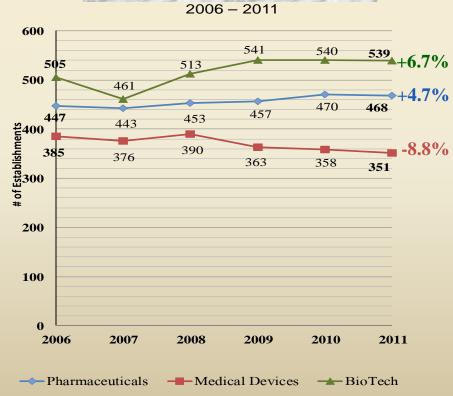




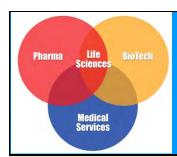


Northern New Jersey had an average of 1,358 establishments in this cluster in 2011. These establishments gained 1.6% over the 5-year (2006-2011) period.

5-Year Establishment Trend

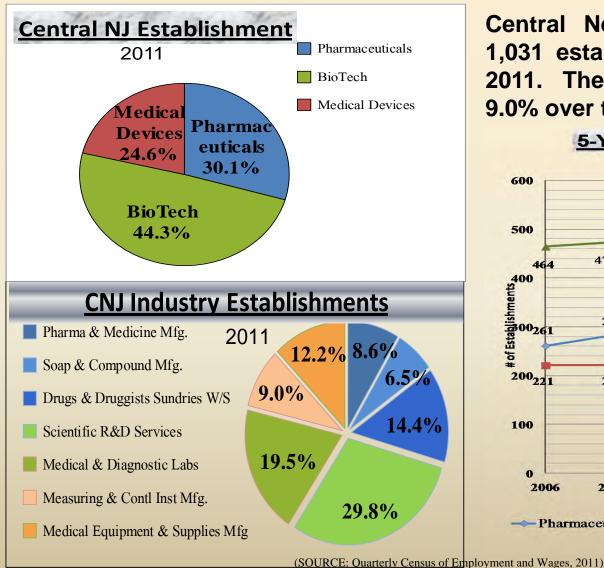


(SOURCE: Quarterly Census of Employment and Wages, 2011)



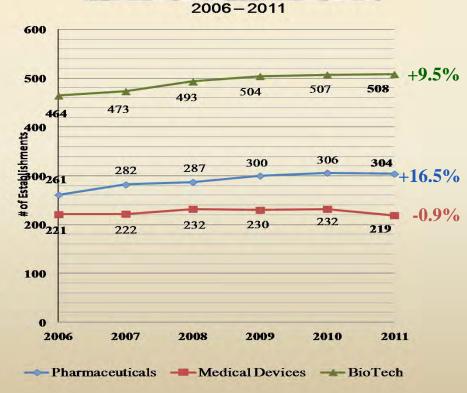
NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Central NJ Regional Establishments

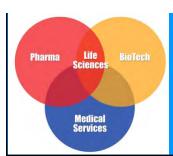




Central New Jersey had an average 1,031 establishments in this cluster in 2011. These establishments gained 9.0% over the 5-year (2006-2011) period.

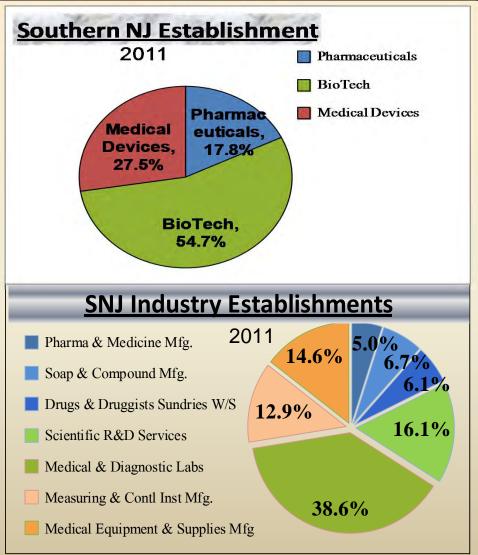
5-Year Establishment Trend



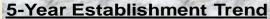


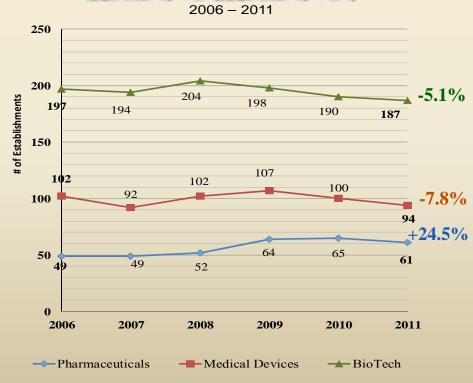
NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Southern NJ Regional Establishments



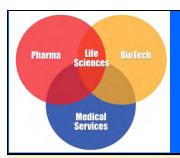


Southern New Jersey averaged 342 establishments in this cluster in 2011. These establishments lost 1.7% over the 5-year (2006-2011) period.



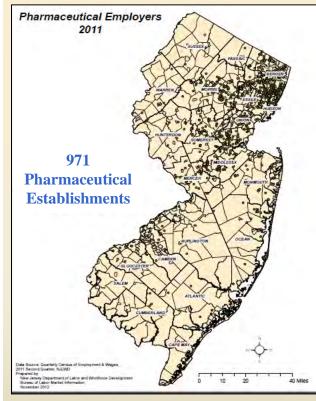


(SOURCE: Quarterly Census of Employment and Wages, 2011)



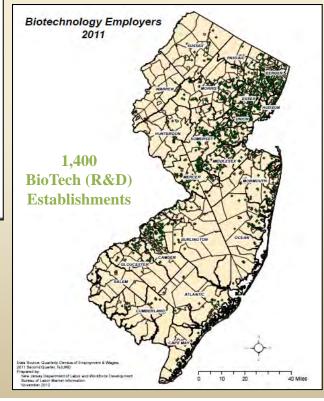
NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Establishment Concentration

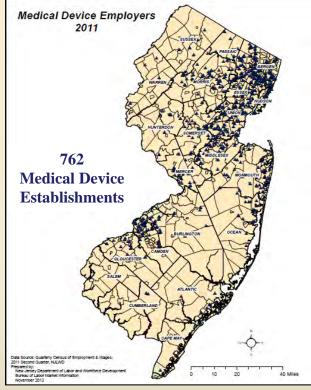




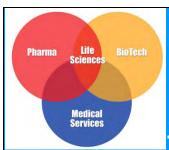
Pharmaceutical establishments have a powerful presence in northern NJ, attracted by an excellent labor pool, major universities and access to all modes of terrific transportation.

BioTech establishments have a strong presence in New Jersey, especially within the "Einstein Alley Corridor" area. Nearby universities and incubators are a significant contributing factor.

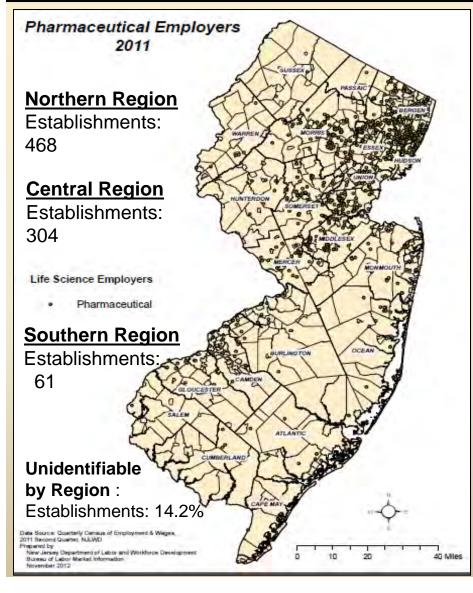




Medical Device establishments have a robust presence in NJ, especially located in the north-eastern section of the state in the heart of the manufacturing area, adjoining 'Pharma' country.



Concentration of Pharmaceutical Establishments



In 2011, New Jersey averaged 971 establishments directly engaged in the pharmaceutical industries.

The establishment breakdown - by region – was as follows:

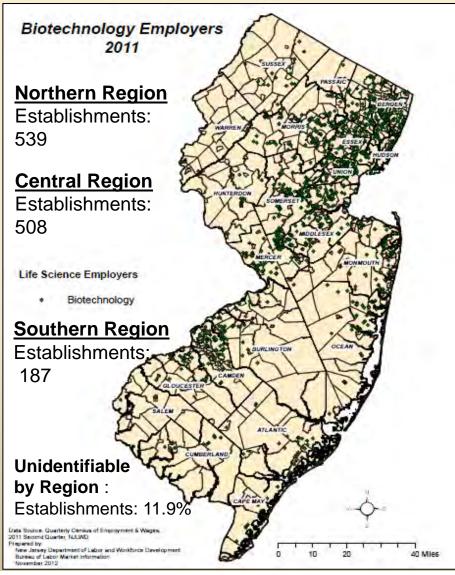
❖ Northern Region: 48.2%

❖ Central Region: 31.3%

❖ Southern Region: 6.3%



Concentration of Biotechnology Establishments



In 2011, New Jersey averaged 1,400 establishments directly engaged in the biotechnology industries.

The establishment breakdown - by region – was as follows:

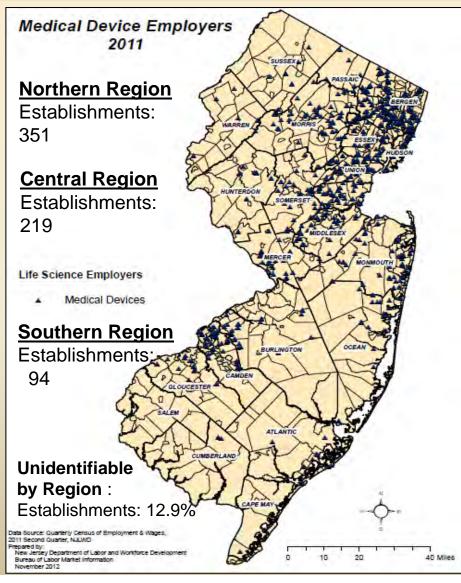
❖ Northern Region: 38.5%

❖ Central Region: 36.3%

❖ Southern Region: 13.3%



Concentration of Medical Device Establishments



In 2011, New Jersey averaged 762 establishments directly engaged in the medical device industries.

The establishment breakdown - by region – was as follows:

❖ Northern Region: 46.1%

❖ Central Region: 28.7%

❖ Southern Region: 12.3%



Summary of Employment & Establishments

The following chart provides a geographic summary of Life Sciences' employment & establishments in New Jersey;

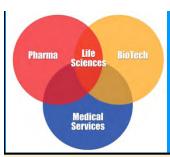
Employment *	2011		5-Year (2006-2011) Trend			
	Cluster		Pharmaceutical	Biotech	Medical Device	Overall Cluster
Statewide	121,655		-17.5%	4.7%	-4.9%	-7.9 %
Nothern New Jersey	59,319	48.8%	-22.5%	26.1%	-13.0%	-8.8%
Central New Jersey	48,150	39.6%	-15.3%	-7.9 %	13.6%	-8.8%
Southern New Jersey	11,603	9.5%	8.9%	-16.5%	-6.5%	-6.2%
Establishusauts *	2011			5-Year (2006	i-2011) Trend	
Establishments *	2011 Cluster	r	Pharmaceutical	5-Year (2006 Biotech	-2011) Trend Medical Device	Overall Cluster
Establishments * Statewide		r	Pharmaceutical 9.5%		Medical Device	Overall Cluster 8.1%
	Cluste 3,133	r 43.3%	9.5%	Biotech	Medical Device	8.1%
Statewide	3,133 1,358		9.5% 6.7%	Biotech 14.0%	Medical Device -0.7% -8.8%	8.1% 1.6%

(SOURCE: New Jersey Department of Labor & Workforce Development, Quarterly Census of Employment and Wages)

* Note: Not all data was identifiable by region. Specifically:

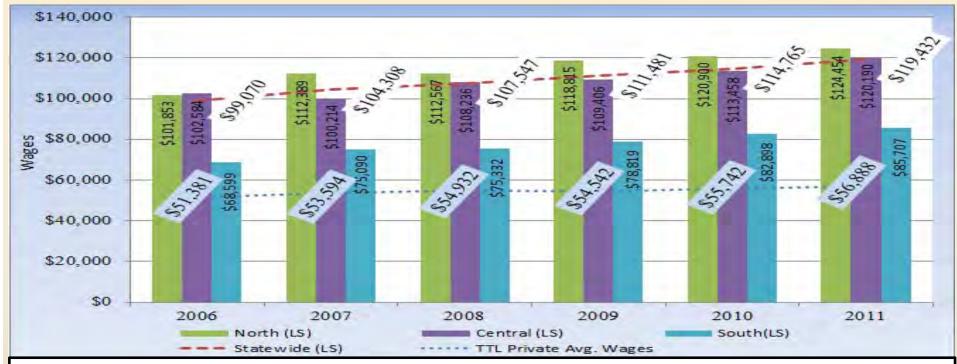
■ Employment: 0.9% ■ Establishments: 13.1%

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NEW JERSEY BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER Average Annual Wages



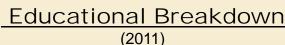


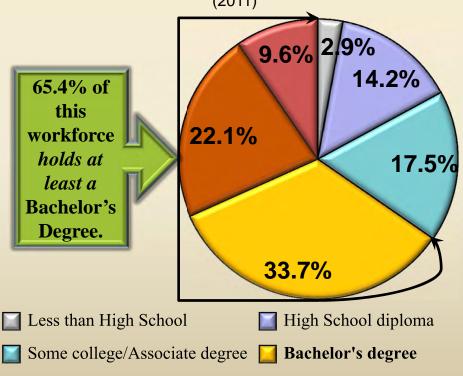
This cluster's statewide 2011 annual average wage was \$119,432, which was 109.9 percent higher than the state's total private sector's average wages of \$56,888. The cluster's three components (*statewide*) all had wages that were significantly higher than the statewide total private average wages; Medical Device \$94,572 (66.2%), Biotech \$116,032 (104.0) and Pharmaceuticals \$134,721 (136.8%)





Due to the high level and technical demands of many of the occupations found in this cluster, these related New Jersey employer's had a tremendous need for highly well-educated workers.





Master's/Professional degree Doctoral degree

(Source: 2011 American Community Survey Public Use Microdata Sample)

- New Jersey's highly well-educated workforce is realized in this cluster as nearly *two thirds* of its workforce *holds at least* a bachelor's.
 - ❖ Bachelors: 33.7%
 - ❖ Master's/Professional: 22.1%
 - ❖ Doctoral: 9.6%





Economic Development Projects

in

New Jersey's
Bio-Pharmaceutical
Life Sciences
Cluster



NORTHERN NJ BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER RECENT ECONOMIC DEVELOPMENT PROJECTS

ThorLabs, Newton, NJ

The company recently opened a new 120,000-sq.-ft.-three-story facility in Newton. In addition, it intends to expand its facility in Andover Twp.

DSM Nutritional Products, White Twp.

Capital Invt: \$200M into expansion: +160 job.

<u>BASF</u>, Florham Park, NJ Relocation / Expansion

Also, adding its pharmaceutical supply unit here.

Merck & Co., Summit, NJ

 $(Relocating\ from\ Whitehouse\ Station,\ NJ.\)$

Involves approximately 2,000 jobs. Also an expansion project, which includes setting up the Animal Vet. Unit in Summit.



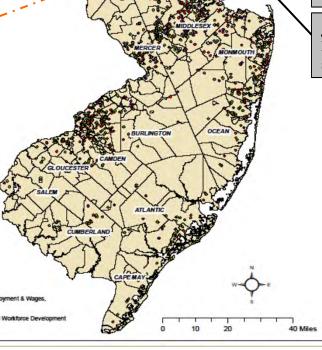
Suzhou Pharma Svcs, Lyndhurst, NJ **New:** Contract development & manufacturing organization with new

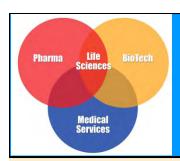
corporate headquarters.

<u>Bayer HealthCare</u>, Whippany, NJ Retention / Expansion

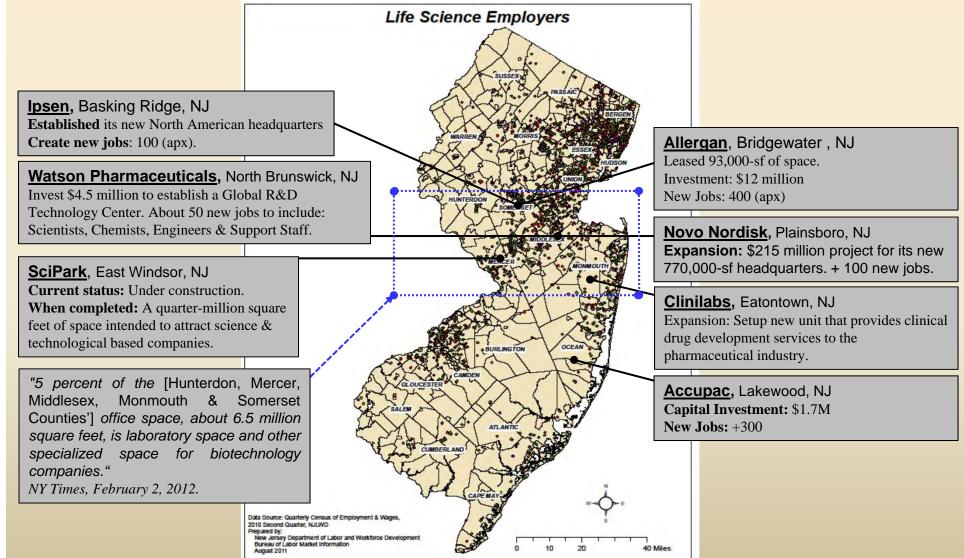
Jobs involved: 1,500 - 2,500

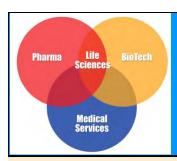
<u>Panasonic Healthcare</u>, Newark, NJ New healthcare division to focus on the life sciences, hearing care and diagnostics.





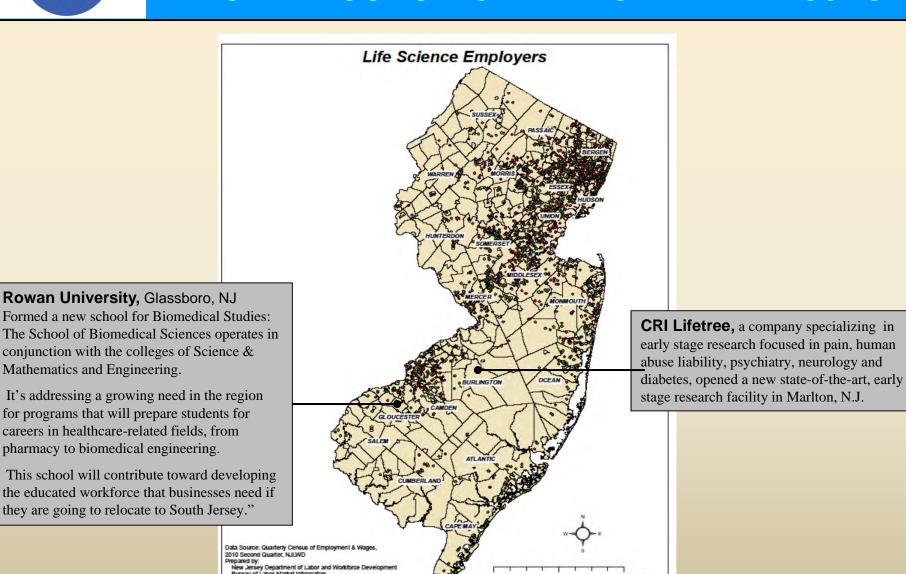
CENTRAL NJ BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER RECENT ECONOMIC DEVELOPMENT PROJECTS

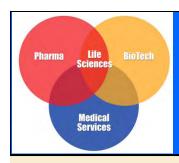




Mathematics and Engineering.

SOUTHERN NJ BIO-PHARMACEUTICAL LIFE SCIENCES CLUSTER RECENT ECONOMIC DEVELOPMENT PROJECTS





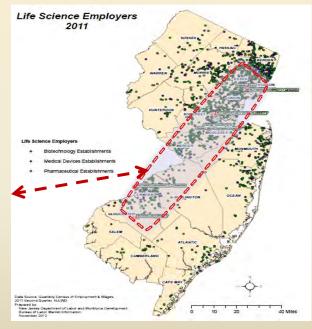


Updates Relevant to New Jersey's Bio-Pharmaceutical Life Sciences Cluster

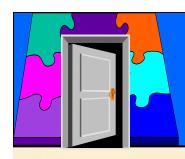


NEW JERSEY RELATED CLUSTER DEVELOPMENT UPDATES

- Changing paradigm is effecting the way these type of companies are making decisions involving what products / services will be researched and developed.
- Changing 'cluster' business approach is having significant influences of where these companies are (re-)locating operations.
 - ➤ New Jersey has taken steps to address these changes such as developing greater partnerships between educational institutions (e.g. Rutgers University / New Jersey Institute of Technology / Rowan University) -- along with promoting and supporting stronger collaboration of hospitals & other related businesses to ensure the success of the cluster's employment & business growth in the Garden State!



❖ <u>NEW JERSEY IS STILL a KEY PLAYER</u> nationally, as well as globally, providing incredible value to the Biopharmaceutical Life Science Cluster.



Contact Information



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http://lwd.dol.state.nj.us/labor/lpa/LMI_index.html

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