



Biotechnology Ecosystem: Insights & Opportunities for Economic Development

BIO-SENS Industry-Academic
Biotechnology Symposium
July 26 2023
Biddeford Maine



Jim Damicis - Senior Vice President

- Past President, Northeastern Economic Developers Association (NEDA)
- International Economic Development Council (IEDC) Course Instructor
- Collaborator – Communities of the Future
- 30+ Years Experience in Economic and Community Development

Email: jim@camoinassociates.com
Website: www.camoinassociates.com
Twitter: [@jdamicis](https://twitter.com/jdamicis)
LinkedIn: www.linkedin.com/in/jdamicis
Blog: www.camoinassociates.com/navigator





Knowledge & Experience

Life Sciences Industry Analysis

Organization	Project
State of New Hampshire	Life Science Assessment and Strategy
Lansing Economic Area Partnership	MedTech Cluster Study and Strategy
Rhode Island Commerce Corporation	Comprehensive Economic Development Strategy – Life Sciences Sector Analysis
FocusMaine	Economic Impact of Biomanufacturing & Biotechnology Tax Incentives
Center for Economic Growth	Capital Region Life Sciences Ecosystem Analysis
Nassau County IDA	Economic Development Strategic Plan – Health Sector Analysis and Strategy
Urban Partnerships Community Development Corporation	East End Maker Lab Market Feasibility Study
Capital Region, New York	Workforce Assessment, Life Sciences Sector
Tallahassee-Leon County Office of Economic Vitality	Life Sciences Target Industry Analysis and Strategy
Loudoun County, VA	Biomed/Biotech Cluster Analysis and Strategy
Prince William County, VA	Life Sciences Cluster Analysis and Strategy
Westchester County IDA	Regeneron Expansion Impact Analysis
City of Newton, MA	Economic Development Strategic Plan - Life Sciences Cluster Analysis and Strategy
Town of Chelmsford	Repositioning Suburban Office Park Strategy - Life Sciences, Biotechnology, and Pharmaceuticals Cluster Study and Strategy
Los Angeles County	Comprehensive Economic Development Strategy – Life Sciences Sector Analysis
seCTer	Comprehensive Economic Development Strategy - Life Sciences Cluster Analysis
ElectriCities of North Carolina	Pharmaceutical Manufacturing Competitiveness Assessment
Montgomery County, NY	Business Attraction Blueprint

Knowledge + Expertise



Life Sciences Lead Generation and Business Attraction



Business Attraction Trade Show Examples

Sector	Trade Show
Manufacturing and Medical Devices	IM Engineering (East, South, West)
Bio	BioFuture
Bio	BioProcess International
Bio	The BioProcessing Summit
Bio	LSC World Congress USA
Biomedical	SPIE Photonics West
Medical Devices and Equipment	Florida International Medical Expo (FIME)
Medical Devices and Technology	DeviceTalks Boston
Medical Devices and Technology	MedTech Innovation Expo
Pharmaceutical	BioPharm America
Pharmaceutical	CPHI North America

Recent Projects



Michigan's Capital Region
MedTech Cluster Study

New Hampshire Life Science
Assessment and Strategy

Arizona State University
Life Sciences Lead Generation

What is Needed to Succeed



Existing Industry Base

- **Defining and knowing your niche**
- **Align opportunities and address critical gaps**
- **Build connections and synergies** with other sectors and supply chains



Innovation

- **A strong innovation ecosystem**
- **Organize, collaborate, and know your role** within the ecosystem
- **Prepare for future growth** by understanding emerging opportunities
- **Targeted marketing** that focuses on subsectors and geographies



Talent and Workforce

- **Understand critical occupations and skills**
- **Assess capacity** to deliver a **responsive and consistent system**
- **Determine potential to upskill and reskill** resident/employees

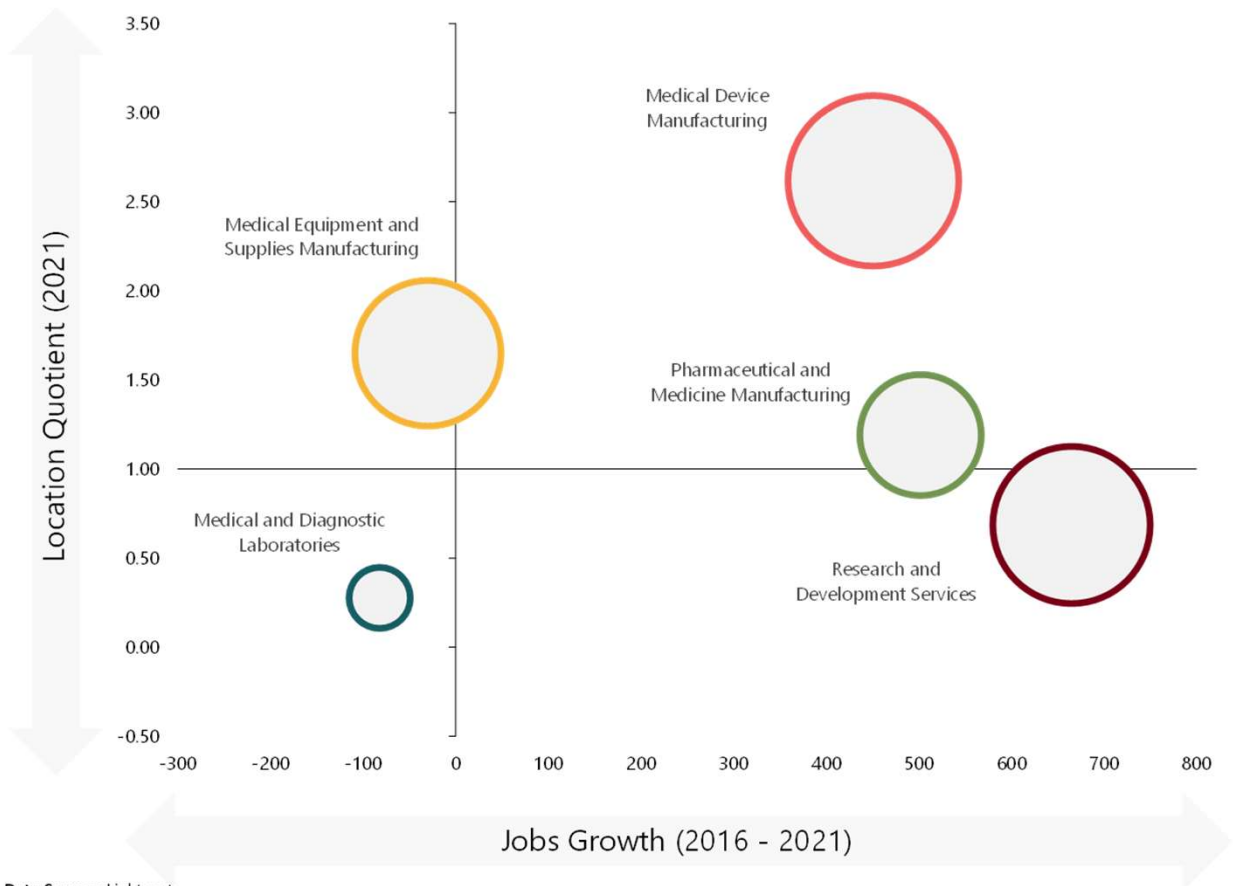


Real Estate

- **Understand the variety of space needs**
- **Having space for companies at all stages of growth**

Insights: New Hampshire Life Science Industry Trends

Life Sciences Industry Groups By Key Metrics (bubble size indicates 2021 jobs), New Hampshire



Data Source: Lightcast

Insights: New Hampshire Life Science Industry Trends

New Hampshire Industry Economic Highlights

Life Sciences has made a strong contribution to the state's economic growth in the last decade and continues to demonstrate a positive trajectory.

11,290

jobs in 2021, or

1.5%

of the state's total employment



1,484

net jobs added in 2012-2021,
which is an increase of

15.1%

and represents

3.8%

of the state's total job
growth during this period

In 2021, the average earnings
of a Life Sciences worker in
New Hampshire was

\$130,848/year,

which is higher than the
state average for all
industries (\$82,113)



612

payrolled Life Sciences
businesses in the
state in 2021, averaging

25

jobs per business

The Life Sciences
cluster contributed

\$2.8 billion

to New Hampshire's Gross
Regional Product (**3%**) in 2021



\$4.3 billion

in total sales in 2021



73.8%

of sales are export-oriented,
occurring outside the state

BEA

New Hampshire Department of
**BUSINESS AND
ECONOMIC AFFAIRS**

 **camoin**
associates

Insights: New Hampshire Life Sciences

Opportunities in Emerging Sectors

With strategic investment, resources, and support, the State of New Hampshire has the potential to encourage growth in some of these leading subsectors within the Life Sciences industry.



Life Sciences
Manufacturing and a
broader connection to
Advanced Manufacturing



Digital Technology
and the growth
of MedTech



Advanced Materials,
including Regenerative
Manufacturing

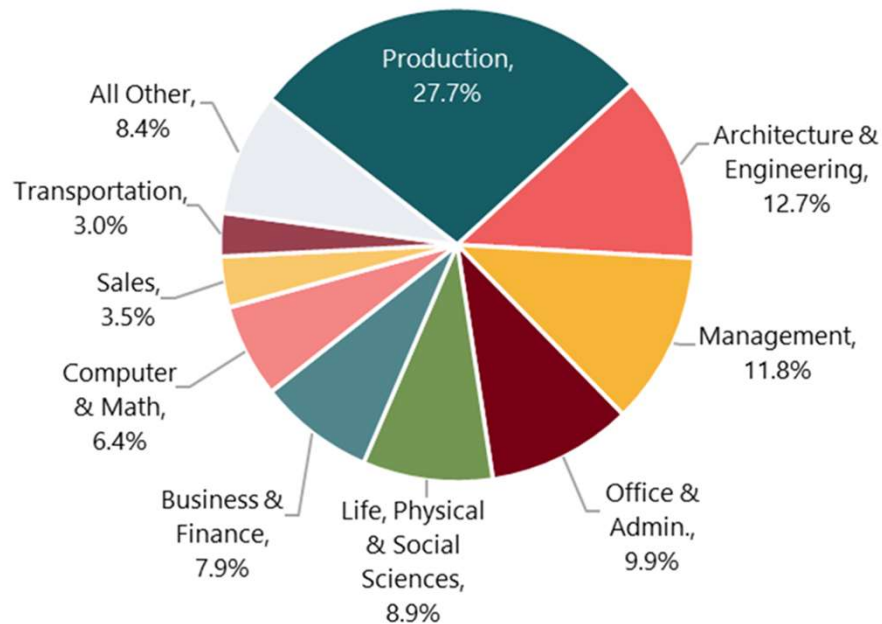


Personalized
Medicine

Insights: Workforce - Challenge

Major Challenge to current industry and future growth: Meeting the needs of a rapidly growing and changing workforce including attracting and retaining the level of workers needed in the future at all education and skill levels.

New Hampshire Life Sciences Occupations, 2021



Source: Lightcast

Insights: Workforce - Skills



High skill workers account for nearly 46% of the jobs in the cluster and have the fastest growth rate of all categories at 23% between 2016 and 2021.



Only 12% of occupations are middle skill, which may make it hard to retain workers.



42% of workers are low skill, a category which is also growing rapidly at 14.9% between 2016 and 2021. This provides opportunity for entry-level workers; however, upskilling and career pathways are needed to attract and retain the workforce for future workforce needs.



Low and middle skill occupations have a higher likelihood that all or a portion of the job may become automated over time.

Insights: Workforce – In Demand Skills

Top 5 in-demand skills and qualifications for Life Sciences' occupations

(based on job postings from November 2018 through November 2022)

Specialized Skills	Common Skills	Qualifications
<ul style="list-style-type: none">AccountingAuditingMarketingAgile MethodologyComputer Science	<ul style="list-style-type: none">CommunicationsCustomer ServiceManagementSalesOperations	<ul style="list-style-type: none">Security ClearancesProject Management Professional CertificationAssociation of Chartered Certified AccountantsSix Sigma Green Belt CertificationAmerican Society for Clinical Pathology Certification

Source: Lightcast

Workforce, Talent, and Entrepreneurship Recommendations – NH Life Sciences

- Implement cross-industry workforce partnerships to support occupations that have a substantial impact on the economy.
- Continue to pursue public-private-philanthropic partnerships in workforce development efforts.
- Support workforce initiatives that highlight opportunities to grow from within the state and from outside attraction.
- Address gaps in the statewide entrepreneurial resource system.



Resources

New Hampshire Life Sciences Industry Assessment And Strategy, February 2023:

www.nheconomy.com/about-us/bea-reports

How to Take Advantage of the Growth Opportunities in Life Sciences

Expansion Solution Magazine, June 27, 2023 : <https://camoinassociates.com/resources/how-to-take-advantage-of-the-growth-opportunities-in-life-sciences>

Camoin Associates Life Sciences Industry Analysis + Strategy Development:

<https://camoinassociates.com/life-sciences-industry-analysis/>

Biotechnology Ecosystem: Insights & Opportunities for Economic Development

Presentation for BIO-SENS Industry-Academic Biotechnology Symposium, July 26 2023:

<https://camoinassociates.com/resources/bio-sens-symposium-presentation>

