

# 2024 Market Report

Biosciences in New Mexico and greater Albuquerque

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### "New Mexico is richly endowed with biosciences expertise. Our 'ecosystem of life science innovation' includes Sandia National Laboratories (SNL), Los Alamos National Laboratory (LANL), Air Force Research Labs (AFRL), the University of New Mexico, the University of New Mexico Health Sciences, New Mexico Tech, and New Mexico State University, as well as numerous bioscience companies in the private sector. Each year, our research entities file patent applications and commercialize technologies that represent a trove of innovative and novel

treatments and technologies. These include advancements in medical devices and equipment, agricultural biosciences, pharmaceuticals, bioinformatics, and advanced clinical care, all with the potential to transform and diversify our state's economy"



- Dale Dekker Dale R. Dekker-Chair of the New Mexico Bioscience Authority

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## INTRODUCTION



A ripe opportunity for growth exists within the New Mexico based bioscience cluster. With a strong presence of national labs, both Sandia National Labs and Los Alamos National Labs operate bioscience research divisions that work on a range of subfields, from infectious disease research to the development of biofuels. This research environment is bolstered by the University of New Mexico, New Mexico State, and New Mexico Tech, which together spend more than \$6 billion on R&D while training a large pool of highly competitive STEM graduates.

### **INNOVATION AND NATIONAL INSTITUTES** OF HEALTH (NIH) FUNDING

Inflation Adjusted NIH Funding | United States

A driving force for bioscience innovation, NIH funding supports research and development across the United States. Highlighted below, the graph shows that consecutive funding increases were provided in each fiscal year 2014 through fiscal year 2024. Last year experienced the second largest (7.2%) year-over-year increase to \$51.1 Billion across all programs over the past 20 years.



**NIH Program Finding - United States (Billions)** 

Source: Congressional Research Service, National Institutes of Health (NIH) Funding: FY2004-FY2024, Updated May 17, 2023

Shown below, NIH Funding has been adjusted for inflation (in projected constant FY2023 dollars) using the Biomedical Research and Development Price Index (BRDPI).



### NIH AWARDS Mountain West Region

From FY 2019 to 2023, the Mountain West Region of the United States total awards amounted to \$6.6 billion in NIH awards. In this region of the United States, New Mexico captured \$579.5 million and ranks 4th for the total amount of NIH awards over the 5-year period and 3rd per capita awards.

#### NIH Awards by State | Mountain West Region

State	5-Year Total	Per Capita Awards (2023)
Arizona	\$1,567,420,158	\$49.00
Colorado	\$2,563,167,266	\$97.90
ldaho	\$91,701,133	\$9.55
Montana	\$234,182,638	\$35.25
Nevada	\$202,738,365	\$12.13
New Mexico	\$579,492,067	\$59.22
Utah	\$1,323,048,446	\$85.85
Wyoming	\$65,059,204	\$20.59
Mountain West Region Total	\$6,626,809,277	\$57.07

\*Per capita derivative of 2021 state population



#### 5-Year Growth in Awards | New Mexico

Alongside the comparative presence in the Mountain West Region, New Mexico has seen an increase in NIH funds coming into statewide organizations. NIH funding has increased 28% in the State of New Mexico over the same 5-year period.



Source: National Institutes of Health, Research Portfolio Online Reporting Tools (RePORT), 2024

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### NIH AWARDS New Mexico

From FY 2019 to 2023, New Mexico captured \$579.5 million in NIH Awards, \$498 million (86%) of which landed within organizations with an operating presence in the greater Albuquerque region.

## 86%

#### OF AWARD FUNDING CAPTURED BY ABQ METRO

5-Year NIH Award Distribution | By Market, New Mexico



Market	5-Year Total Awards	Percent
Greater ABQ	\$498,098,970	86.0%
Las Cruces	\$52,448,788	9.1%
Los Alamos	\$26,433,685	4.6%
Santa Fe	\$1,783,790	0.3%
Las Vegas	\$371,250	0.1%
Socorro	\$355,584	0.1%
5-Year Total	\$579,492,067	

#### 5-Year NIH Awards by Organization | Greater ABQ

Award Recipient	Amount
Agilvax, Inc.	\$1,998,773
Albuquerque Area Indian Health Board	\$1,820,467
American Indian Science/Engineering Society	\$500,000
Armonica Technologies, Inc.	\$2,201,864
Bennubio, Inc.	\$1,522,044
Biomedical Research Institute of New Mex	\$5,034,896
Exhalix, LLC.	\$3,352,563
Gper G-1 Development Group LLC.	\$299,952
Lovelace Biomedical & Environmental Research	\$20,581,519
Lovelace Biomedical Research Institute	\$12,290,890
Neurinsight, LLC.	\$378,233
New Mexico Start-Up Factory II, LLC.	\$1,725,631
Nob Hill Therapeutics, Inc.	\$2,882,721
Respira Therapeutics, Inc.	\$224,974
The Mind Research Network	\$14,324,700
University of New Mexico	\$60,523,528
Volver Health LLC.	\$275,743
Sandia National Laboratories	\$6,953,430
University of New Mexico Health Science	\$351,709,931
Visionquest Biomedical	\$9,497,111
Regional Total	\$498,098,970

## **GROWTH TRENDS** Industry

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The Bioscience industry cluster aligns with research-intensive institutions across New Mexico. The following job distribution map illustrates the bioscience artery that runs along the I-25 corridor. Key institutions include Los Alamos and Sandia National Laboratories, the University of New Mexico, New Mexico Tech, New Mexico State University, and Lovelace Biomedical. An institutional bedrock is essential to a thriving biosciences cluster in Greater Albuquergue and New Mexico.

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### Job Distribution - New Mexico

Bioscience Cluster Employment



Lower job density

Higher job density



Market	Job Count 2023	Job Growth 2018-2023
Greater ABQ	19,523	21.0%
Los Alamos	14,033	32.0%
Santa Fe	495	11.0%
Las Cruces	488	-32.0%
Socorro	255	5.0%
Job Count 2023 Total	35,213	

Source: Lightcast, Q1 2024

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## GREATER ALBUQUERQUE MARKET ACTIVITY



As a market segment, Scientific Research and Development has historically dominated greater Albuquerque in both number of establishments and number of jobs. Its 5-year growth, however, has been surpassed by manufacturing, especially in Surgical and Medical Instruments (218%), Electromedical and Electrotherapeutic Equipment (78%), and Pharmaceuticals (54%). Nevertheless, Research and Development's segment location quotient (10.7) remains well above other segments in the Biosciences cluster.

### **MARKET MAP** Greater Albuquerque MSA

Market Map		2023 Establishments	2023 Jobs
Scientific Research	R&D in Engineering and Life Sciences	141	14,826
and Development	R&D in Biotechnology	40	464
	R&D Nanotechnology ifsgsdfsdf	4	19
	Medical Laboratories	59	1,578
Laboratories	Dental Laboratories	23	82
	Testing Laboratories	41	408
	Pharmaceutical Preparation	11	559
	Surgical Appliance and Supplies	11	354
	Electromedical and Electrotherapeutic Apparatus	4	568
Manufacturing	Medicinal and Botanical	3	295
	Surgical and Medical Instruments	12	35
	Analytical Laboratory Instruments	7	25
Wholesale	Medical, Dental, and Hospital Equipment Supplies	101	467
		457	19,680

\*Lightcast, Q1 2024, with author calculations



1,836 Jobs 47% 5-Year Growth

Wholesale 467 Jobs **8.9% 5-Year Growth** 

## **BIOSCIENCE CLUSTER**

#### **BIOSCIENCE INDUSTRY PRESENCE IN FIVE-YEAR JOB GROWTH (%)**

Industry Descriprion	2023 Job Growth	5- year
Medicinal and Botanical Manufacturing	295	16.1%
Pharmaceutical Preparation Manufacturing	559	53.6%
Electromedical and Electrotherapeutic Apparatus	568	79.7%
Analytical Laboratory Instrument Manufacturing	25	-30.6%
Surgical and Medical Instrument Manufacturing	35	218.2%
Surgical Appliance and Supplies Manufacturing	354	32.1%
Dental Laboratories	82	-45.0%
Medical, Dental, and Hospital Equipment and Supplies	467	8.9%
Testing Laboratories	408	31.2%
R & D in Nanotechnology	19	-77.1%
R & D in Biotechnology (except Nanobiotechnology)	464	31.8%
R&D in the Physical, Engineering, and Life Sciences (except	14,826	18.3%
Medical Laboratories	1,578	12.6%
Regional Total: ABQ MSA	19,680	

Lightcast, Q1 2024, with author calculations

#### **Bioscience Establishment Presence:**





### MARKET ACTIVITY Invested in Greater Albuquerque

### **Innovation Spotlight**





Nature's Toolbox, Inc. (NTx), a life sciences company specializing in RNA and protein manufacturing platforms, has secured \$47.5 million in Series B financing, led by RA Capital Management. The investment will accelerate the development of NTx's biomanufacturing platforms, NTxscribe<sup>®</sup> and NTxpress<sup>®</sup>, facilitating global distribution of manufacturing capabilities.

This advancement aims to address future pandemic preparedness, personalized medicine therapy, and increased access to critical vaccines and medicines. The financing marks the largest Series B round raised by a New Mexico life sciences company to date. NTx's CEO, Jamie Coffin, Ph.D., expressed excitement about RA Capital Management's leadership and the addition of Peter Kolchinsky, Ph.D., to the Board of Directors, foreseeing accelerated technology development and commercial penetration. NTx's NTxscribe platform, a cell-free continuous flow manufacturing system, and NTxpress, a recombinant cell-free expression system, offer scalable solutions for RNA and protein production, promising to revolutionize compound production across various markets.

The Series B funding will fast-track the commercialization of these platforms, including biomaterial manufacturing for mRNA and protein production, ultimately benefiting global health and biopharmaceutical research and development.

Read more here: Full Article

## GREATER ALBUQUERQUE GROWTH TRENDS Occupations

Greater Albuquerque's occupational growth trends correlate with overall industry trends in the Bioscience cluster. The following pages outline consistent growth across two occupational cohorts.





Occupational analysis illustrates greater Albuquerque's regional labor presence and workforce supply in the Bioscience cluster. This cluster has been divided into two occupational cohorts: Research & Development and Laboratory Occupations and Specialized Medical Device and Production Occupations. The following graph illustrates job growth of 21% across both cohorts from 2018 to 2023. Sustained job growth that aligns to industry standards ensures both small and medium sized firms can meet the demands of the industry cluster



Job Growth | All Cohorts

Source: Lightcast, Q1 2024, with author calculations

## **GROWTH BY OCCUPATION**

Bioscience Cluster | Research & Development Lab

Occupational Description	2018 Jobs	2023 Jobs	2018-2023 (%) Change
Biochemists and Biophysicists	59	266	351%
Epidemiologists	23	47	104%
Microbiologists	82	144	76%
Computer Hardware Engineers	1,242	1,873	51%
Physicians, Pathologists	11	16	45%
Computer and Information Systems	486	670	38%
Food Scientists and Technologists	47	64	36%
Bioengineers and Biomedical Engineers	71	95	34%
Materials Engineers	291	389	34%
Computer and Information Research	313	413	32%
Dental Laboratory Technicians	99	129	30%
Software Developers	1,267	1,642	30%
Inspectors, Testers, Sorters, Samplers, and	662	823	24%
Chemical Equipment Operators and	80	88	10%
Phlebotomists	450	491	9%
Soil and Plant Scientists	54	58	7%
Chemists	183	193	5%
Chemical Technicians	84	86	2%
Clinical Laboratory Technologists and	882	845	-4%
Biological Technicians	123	114	-7%
Physicists	395	351	-11%
Calibration Technologists and Technicians	70	60	-14%
Biological Scientists, All Other	176	141	-20%
Ophthalmic Laboratory Technicians	48	35	-27%
Medical Scientists, Except Epidemiologists	310	208	-33%
Chemical Engineers	91	57	-37%
Cohort Total: Greater ABQ MSA	7,599	9,298	22.4%

This cohort experienced an increase of 22.4% in jobs from 2018 to 2023. Jobs for Biochemists and Biophysicists more than quadrupled (351%) as the cohort's top performing occupation over the 5-year period. Demand for this occupation is largely driven by the presence of the national labs, as nearly 85% of jobs are found in the Scientific Research and Development Services Industry Sector.



Bioscience Cluster | R&D and Lab



Source:Lightcast, Q1 2024, with author calculations

Fastest Growing Occupations =

## **GROWTH BY OCCUPATION**

Bioscience Cluster | Medical & Device Production

Occupational Description	2018 Jobs	2023 Jobs	2018-2023 (%) Change
Cutting, Punching, and Press Machine Setters,	50	244	388%
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and	254	621	144%
Industrial Engineering Technologists and Technicians	129	248	92%
Grinding, Lapping, Polishing, and Buffing	50	84	68%
Industrial Engineers	377	595	58%
Transportation, Storage, and Distribution	204	295	45%
Mechanical Engineers	1,084	1,429	32%
Industrial Production Managers	181	237	31%
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and	158	202	28%
Industrial Machinery Mechanics	665	826	24%
Miscellaneous Assemblers and Fabricators	1,144	1,420	24%
First-Line Supervisors of Production and Operating Workers	890	1,015	14%
Computer Numerically Controlled Tool	82	91	11%
Maintenance and Repair Workers, General	3,374	3,739	11%
Machinists	306	335	9%
Electrical Engineers	1,181	1,238	5%
Electrical and Electronic Engineering	628	616	-2%
Medical Equipment Repairers	229	218	-5%
Engineering Technologists and Technicians, Except Drafters, All Other	1,069	984	-8%
Cohort Total: Greater ABQ MSA	12,055	14,437	20%

This cohort experienced an increase of 20% in jobs from 2018 to 2023. Jobs for Metal and Plastic Machine Operators nearly quintupled (388%) as the cohort's top performing occupation over the 5-year period. Occupation presence across industries suggests small and medium sized business drive demand.





Fastest Growing Occupations =

## GREATER ALBUQUERQUE GROWTH TRENDS

## Graduates

Key STEM programs have expanded as educational institutions move to meet the evolving needs of companies in the Biosciences cluster. Greater Albuquerque employs over 61% of statewide graduates that remain in New Mexico following graduation.

STEM programs grew 2% in total graduates from 2018 to 2022. Top performing programs include Pharmaceutics and Drug Design (414%), growth entirely attributed to greater Albuquerque at the University of New Mexico for both undergraduate and graduate programs.

### **Biotechnology Transfer Pathway**

CNM and UNM have developed an agreement for Associate Graduates in Biotechnology at CNM to seamlessly transfer their coursework to UNM and complete a Bachelor degree in Biology in 2 years. This program gives students the flexibility to immediately continue their education following their graduation at CNM or enter the workforce immediately and return to UNM in the future.





### **TALENT** STEM Program Completions

#### Graduate Output, ALL STEM Programs





Among top performing STEM programs in New Mexico, graduate output increased by 9.3% from 2018 to 2022. 5-year output growth is highest for Electromechanical Technologies/Technicians (819%) and Pharmaceutics and Drug Design (414%). As the program with the highest graduate output, Biology/Biological Sciences experienced modest growth (4%) over the same period.

#### STEM Top Performing Programs in New Mexico 2022 Graduates

Program Description	2022 Graduates
Biology/Biological Sciences, General	553
Electromechanical Technologies/Technicians, Other	239
Electrical and Electronics Engineering	140
Chemical Engineering	129
Biochemistry	80
Animal Sciences, General	77
Chemistry, General	77
Instrumentation Technology/Technician	52
Pharmaceutics and Drug Design	36
Electrical, Electronic, and Communications Engineering Technology/ Technician	33
Top Performing STEM Program Total	1,416

Source: Lightcast, Q1 2024

For more information on the Bioscience Industry in Albuquerue ( and New Mexico), please visit: www.newmexicobio.org

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