



AREA

Albuquerque Regional Economic Alliance

2022 MARKET REPORT

**BIOSCIENCES IN
GREATER ALBUQUERQUE,
NEW MEXICO**





The greater Albuquerque region is developing a thriving biotechnology sector that can harness the skills and knowledge of its talented workforce. The Albuquerque metro has established programs and incentives that welcome risk takers and pioneers and the businesses and consultants that will nurture these companies that are essential to growing NM's economy.



Greg Byrnes
Executive Director
NM Biotechnology & Biomedical
Association





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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.

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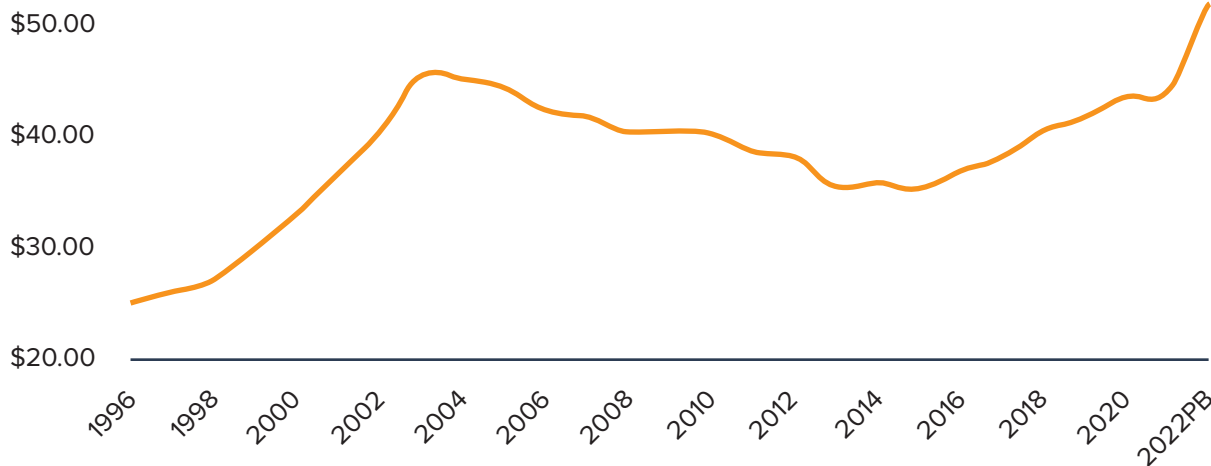
INNOVATION AND NIH FUNDING

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 the purchasing power of NIH funding peaked in fiscal year 2003 and declined steadily for more than a decade until consecutive funding increases were provided in each of fiscal year 2016 through fiscal year 2021.

The fiscal year 2021 program level is 3.3 percent below the peak fiscal year 2003 program level and is driven upward by the fiscal year 2022 budget request, providing a program level potential that would be 14.4 percent above the peak 2003 level.

NIH Program Funding | United States (Billions)



Source: Congressional Research Service, National Institutes of Health (NIH) Funding: FY1996-FY2022, Updated June 29, 2021

Shown above, NIH Funding has been adjusted for inflation (in projected constant FY2022 dollars) using the Biomedical Research and Development Price Index (BRDPI).



NIH AWARDS

Mountain West Region

From FY 2017 to 2021, the Mountain West Region of the United States total awards amounted to \$5.8 billion in NIH awards. In this region of the United States, New Mexico captured \$529.8 million and ranks 4th for the total amount of NIH awards over the period 2017 to 2021 and 3rd for per capita awards.

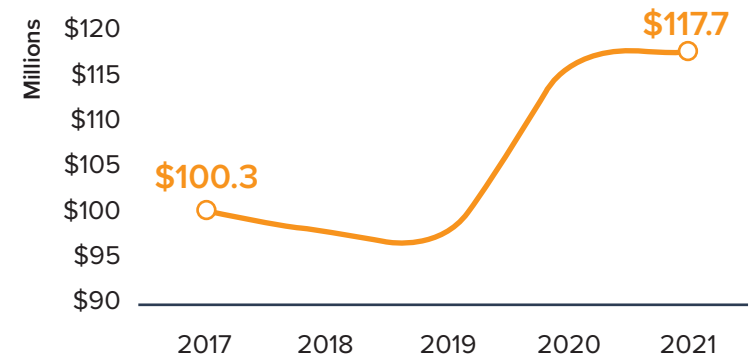
NIH Awards by State | Mountain West Region

State	5-Year Total	Per Capita Awards (2021)	Count of Awards
Colorado	\$2,220,802,134	\$89.07	5722
Utah	\$1,181,630,106	\$78.83	2831
New Mexico	\$529,793,806	\$55.72	985
Montana	\$241,239,784	\$43.34	425
Arizona	\$1,284,199,608	\$41.23	2553
Wyoming	\$64,769,621	\$22.18	91
Nevada	\$190,094,471	\$12.12	332
Idaho	\$83,647,446	\$9.86	138
Mountain West Region Total	\$5,796,176,976	\$52.12	13,077

*Per capita derivative of 2021 state population

Five-Year Growth in Awards | New Mexico

Alongside the comparative presence amongst Mountain West States, New Mexico has seen an increase in the amount of NIH funds coming into statewide organizations. Shown below, from 2017 to 2021, NIH funding has increased 17.3 percent in the State of New Mexico.



NIH AWARDS

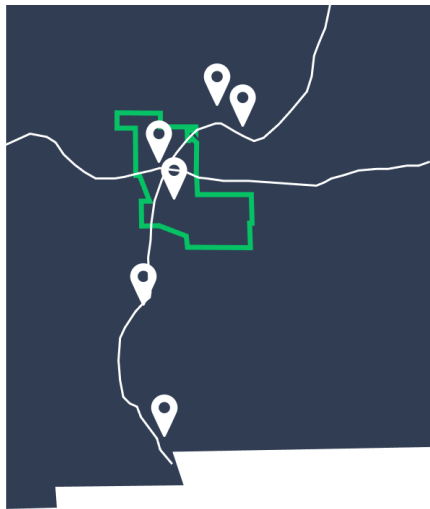
New Mexico

From FY 2017 to 2021, the State of New Mexico captured \$529.79 M in NIH awards, \$460 million of which landed within organizations with an operating presence in the Greater Albuquerque region.


87%

OF AWARD FUNDING CAPTURED BY ABQ METRO

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



Market	Five-Year Total Awards	Percent
Greater ABQ	\$460,021,019	86.8%
Las Cruces	\$43,876,514	8.3%
Los Alamos	\$21,353,126	4.0%
Santa Fe	\$3,774,780	0.7%
Socorro	\$768,367	0.1%
5-Year Total	\$529,793,806	

 Greater Albuquerque Metro

Five-Year NIH Awards by Organization | Greater ABQ

Award Recipient	Amount	Percent
UNM/UNMHSC	\$372,672,286	81.0%
The Mind Research Network	\$34,296,344	7.5%
Lovelace Biomedical	\$24,798,585	5.4%
Visionquest Biomedical, LLC	\$8,591,623	1.9%
Sandia Corp-Sandia National Laboratories	\$5,740,042	1.2%
Biomedical Research Institute Of New Mex	\$5,034,896	1.1%
Agilvax, Inc.	\$2,297,637	0.5%
Exhalix, LLC	\$2,097,389	0.5%
Bennubio Inc	\$1,246,869	0.3%
Albuquerque Area Indian Health Board	\$991,718	0.2%
Checkup And Choices, LLC	\$552,136	0.1%
Eta Diagnostics, Inc.	\$528,310	0.1%
Armonica Technologies, Inc.	\$349,200	0.1%
Gper G-1 Development Group LLC	\$299,952	0.1%
Nob Hill Therapeutics, Inc.	\$299,058	0.1%
Respira Therapeutics, Inc.	\$224,974	0.0%
Regional Total	\$460,021,019	100.0%



2

GROWTH TRENDS

Industry

In New Mexico, industries which support the Bioscience cluster expanded 17 percent from 2016 to 2021. This growth has primarily occurred within the Greater ABQ region and follows the I-25 corridor north to south.

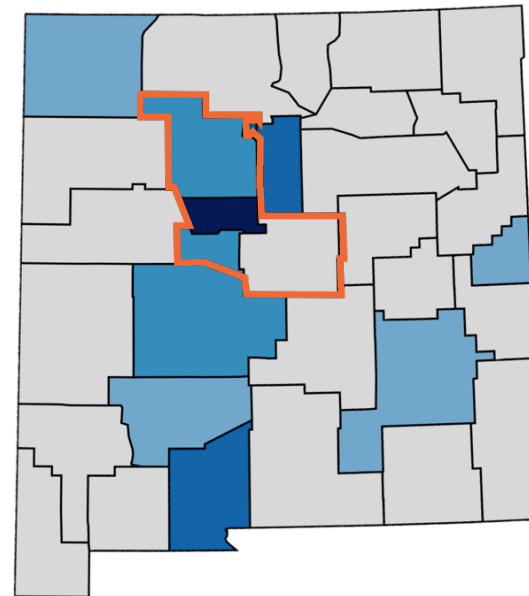
With the density of intellectual capital assets within Greater Albuquerque, it is no surprise that the region holds the largest share of employment within bioscience cluster industries.

With 18,600+ jobs in 2021, Greater Albuquerque holds nearly 60 percent (57.9 percent) of all bioscience cluster employment within the state of New Mexico. Regionally, this sector is primarily support by R&D in Physical, Engineering, and Life Science industry. However, chain density emerges with medical laboratories, as well as pharmaceutical and surgical appliance manufacturing and wholesale trade of medical supplies.

In aggregate, these industries have expanded 22 percent from 2016-2021, outpacing growth with the state (17 percent) and the United States (14 percent) over the same period.

Job Distribution | New Mexico

Bioscience Cluster Employment



Lower job density

Higher job density

3

MARKET MAP:

Greater Albuquerque MSA

		Establishments	2021 Jobs	2021 Jobs and 5-Year Growth (%) by Segment
Scientific R&D	R&D in Engineering and Life Sciences	123	13,987	 14,460 +20.7%
	R&D in Biotechnology	21	450	
	R&D Nanotechnology	5	22	
Laboratories	Medical Laboratories	54	1,512	 1,960 +4.9%
	Dental Laboratories	28	93	
	Testing Laboratories	39	357	
Wholesale	Medical, Dental, and Hospital Equip/Supplies	88	405	 405 +5.2%
Manufacturing	Pharmaceutical Preparation	14	593	
	Surgical Appliance and Supplies	12	421	
	Electromedical/ Electrotherapeutic Apparatus	5	349	
	Medicinal and Botanical	5	348	
	Surgical and Medical Instruments	10	35	
	Analytical Laboratory Instruments	6	30	
Regional Total: All Industry Segments		407	18,602	 1,780 +70.1%



KEY INSIGHT:

In Greater Albuquerque, the bioscience cluster is supported by a variety of industry segments. These segments include research and development, medical and testing laboratories, manufacturing, and wholesale trade industries. Shown left, while research and development is the region's top segment for employment (14,460 jobs) bioscience-oriented manufacturing supports 1,780 jobs and has far outpaced growth amongst segment peers over the last five years, expanding 70.1 percent.

Source: Emsi Burning Glass, Q2 2022, author calculations

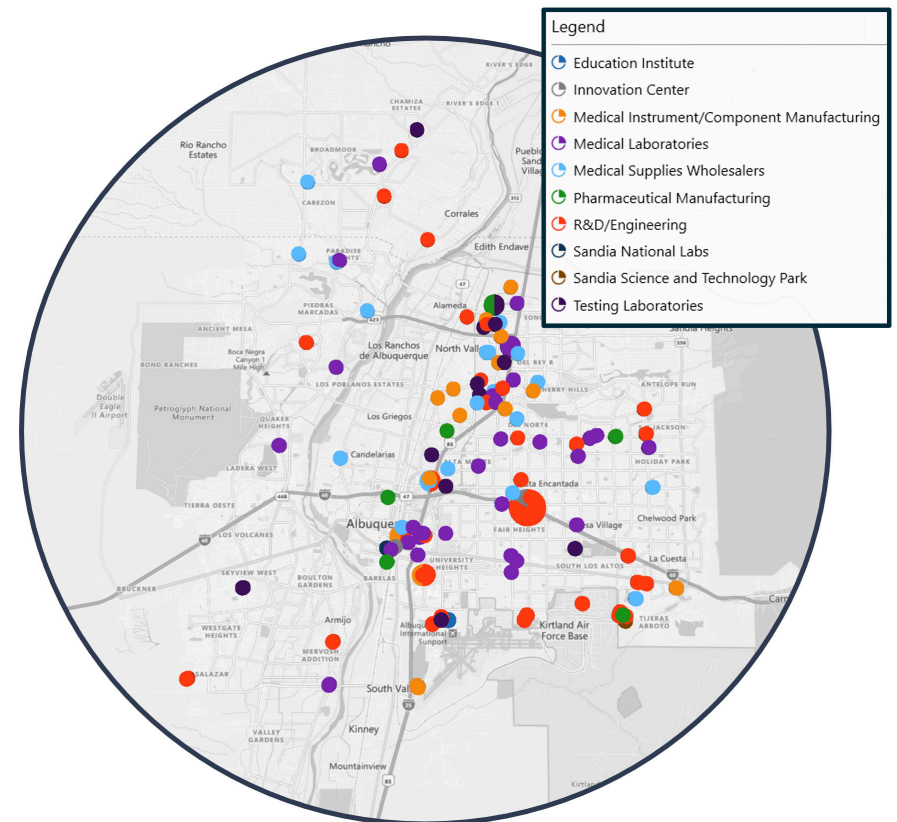
BIOSCIENCE CLUSTER

Bioscience Industry Presence in Five-year Job Growth (%)

Industry Description	2021 Jobs	5-year Growth
R&D in the Physical, Engineering, and Life Sciences	13,987	21%
Medical Laboratories	1,512	7%
Pharmaceutical Preparation Manufacturing	593	73%
R&D in Biotechnology	450	6%
Surgical Appliance and Supplies Manufacturing	421	52%
Medical, Dental, and Hospital Equipment Wholesalers	405	5%
Testing Laboratories	357	24%
Electromedical and Electrotherapeutic Apparatus Mfg.	349	59%
Medicinal and Botanical Manufacturing	348	130%
Dental Laboratories	93	-47%
Surgical and Medical Instrument Manufacturing	35	84%
Analytical Laboratory Instrument Manufacturing	30	-14%
R&D in Nanotechnology	22	340%
Regional Total: ABQ MSA	18,603	22%

Source: Emsi Burning Glass, Q2 2022

Bioscience Establishment Presence:



MARKET ACTIVITY

Invested in Greater ABQ

Innovation Spotlight

The state's strengths in scientific research, technology, and talent development have contributed to the formation of a cluster of biosciences startups. Many of these startups, have found a home in the Biosciences Center, an Albuquerque-based business incubator that provides operates in 19,500 square feet with 10 wet (chemistry and microbiology) laboratories, offices, information technology (IT) infrastructure, and conference space for biosciences entrepreneurs.

Bioscience Center Tenant: BioFlyte

In April 2022, BioFlyte, a bio-detection company with a revolutionary new class of fieldable biological threat collection, detection, and identification solutions, announced the raise of \$6.1M in new financing led by Cottonwood Technology Fund with additional funding from existing investor Anzu Partners.

BioFlyte will use this new funding to support field validation and the initial production of its BioTOF™ z200, a first-of-its-kind, comprehensive biothreat solution for critical infrastructure.



PHARMACEUTICAL MANUFACTURER CURIA PLANS 65,000-SQUARE-FOOT EXPANSION IN ALBUQUERQUE

March 2022

The 65,000-square-foot expansion includes the addition of a new advanced isolated high-speed, fill-finish vial line – which includes biosafety level 2 (BSL-2) containment, two lyophilizers, automated visual inspection technology, automated packaging capacity, ultra-cold storage capability, and enhanced security features.

“We see this expansion as a great opportunity to make a greater impact in New Mexico, which I’m proud to call our home. We are fortunate to have access to a skilled workforce and strong partnerships in the community, all committed to growing businesses, creating jobs, and fulfilling our mission to improve patients’ lives.”



Jonathan Shoemaker
Vice President and General Manager,
Curia Albuquerque

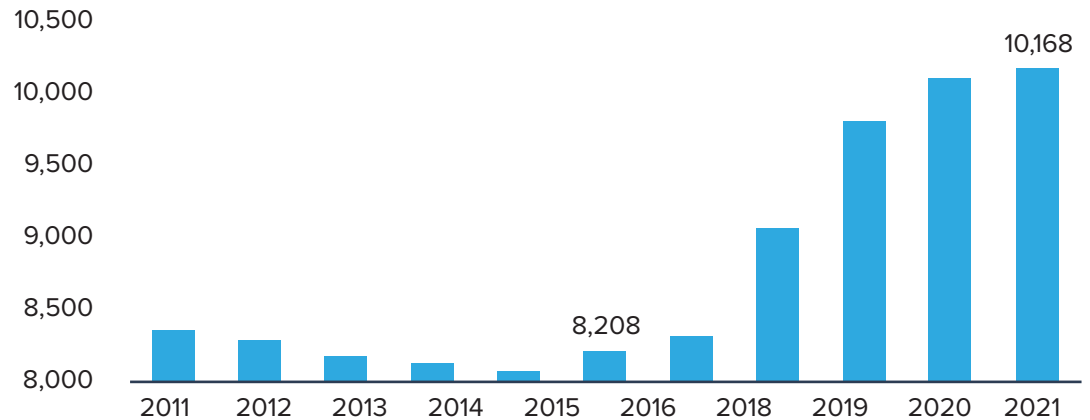
TALENT

Experienced Personnel

Analyzing critical mass and growth by granular occupation helps paint a robust picture of regional labor presence and workforce supply. Historically, growth within specialized medical laboratory and production occupations employ 10,170 in the regional market and have expanded by 23.9 percent from 2016 to 2021.

Similarly, in-line with industry growth within the region, occupational presence ensures alignment to industry standards and supports that of both small to medium sized medical laboratories and production-based research and development facilities.

Job Growth | Select Bioscience Occupations



Source: Emsi Burning Glass, Q2 2022

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GROWTH TRENDS

Occupations

GROWTH BY OCCUPATION:

Bioscience Cluster | R&D and Lab

Description	2016 Jobs	2021 Jobs	2016 - 2021 % Change	Median Annual Earnings
Software Developers and Software Q.A. Analysts	1,634	2,068	26.6%	\$96,649
Clinical Laboratory Technologists and Technicians	787	769	-2.4%	\$46,812
Medical Scientists, Except Epidemiologists	270	408	50.9%	\$62,352
Chemists	192	180	-6.3%	\$69,379
Bioengineers and Biomedical Engineers	91	171	88.0%	\$116,962
Biochemists and Biophysicists	170	164	-3.4%	\$104,164
Microbiologists	64	123	91.0%	\$48,411
Biological Scientists, All Other	132	103	-22.2%	\$79,457
Chemical Engineers	77	65	-15.5%	\$124,871
Soil and Plant Scientists	59	55	-6.2%	\$75,556
Epidemiologists	24	48	99.7%	\$76,723
Agricultural and Food Science Technicians	11	45	304.5%	\$36,545
Cohort Total: Greater ABQ MSA	3,513	4,199	19.5%	

Source: Emsi Burning Glass, Q2 2022

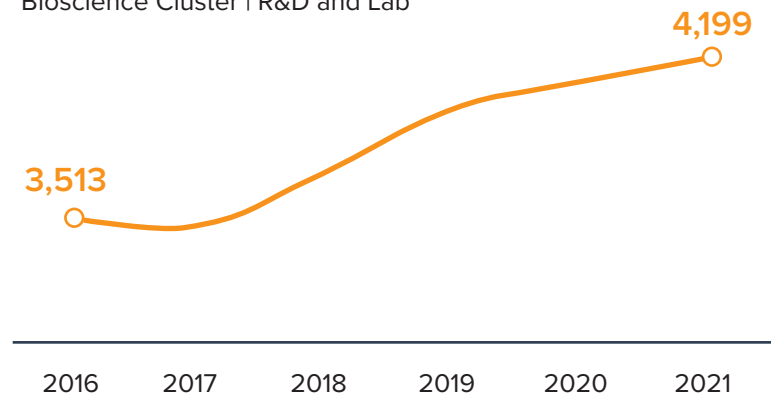
Top Performing Occupations

Occupation Title	5-year Growth
Agricultural/ Food Science Technicians	+304.5%
Epidemiologists	+99.7%
Microbiologists	+91.0%
Bioengineers and Biomedical Engineers	+88.0%
Medical Scientists, Except Epidemiologists	+50.9%

Source: Emsi Burning Glass, Q2 2022

Five-Year Cohort Growth

Bioscience Cluster | R&D and Lab



TALENT

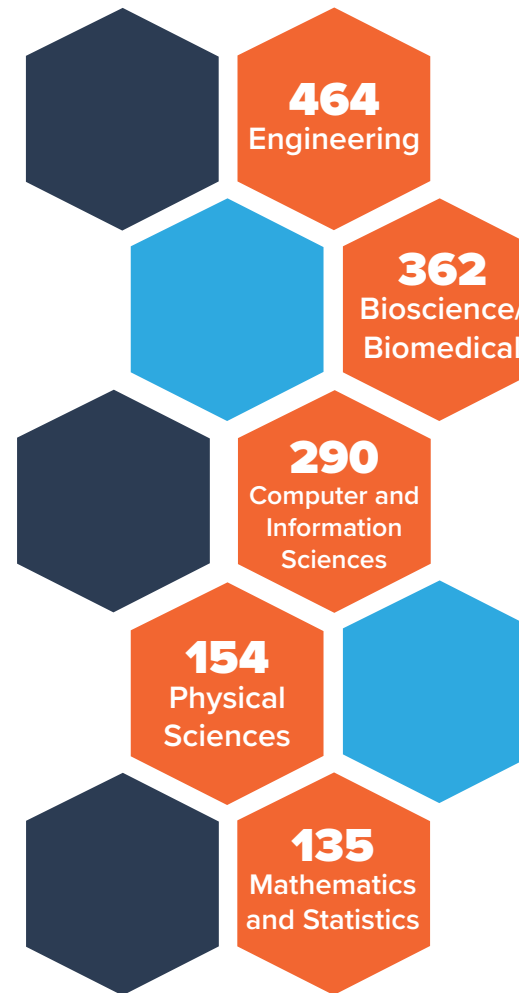
Student Population

In Greater Albuquerque, growing the number of STEM jobs is critical to the region's capacity for innovation and future growth.

Relative to total output, in 2020, secondary educational institutes in Greater Albuquerque graduated 1,600 students in STEM based programs, an increase of 3.4 percent from 2015.

Shown left, the program bioscience/ biomedical (CIP 26) produced 362 graduates in 2020, a 12 percent increase from 2015 to 2020.

In addition, graduates of computer and information sciences, physical sciences, and mathematics account for 580 graduates in 2020.



1,600
STEM GRADUATES

Source: Emsi Burning Glass, Q2 2022, Graphic reflects 2-digit CIP programs and does not include detailed agricultural, Conservation, and Engineering Technologies that may align to a bio facility.

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GROWTH TRENDS

Graduates

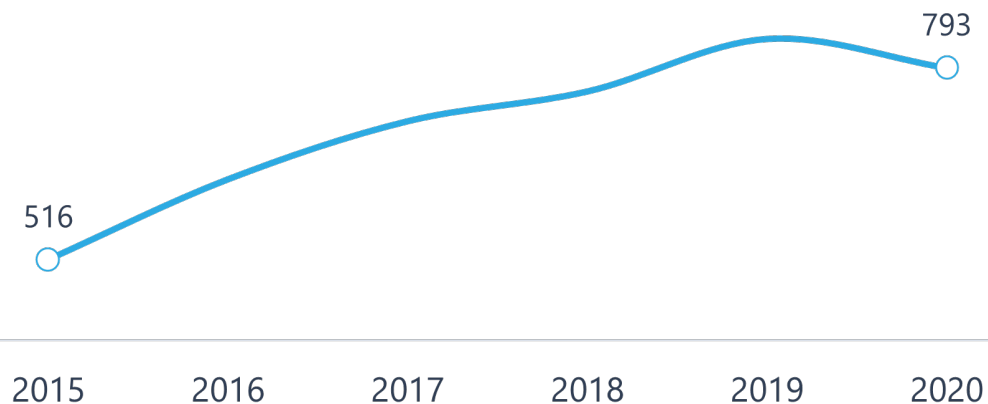
GROWTH BY PROGRAM:

Top Performing STEM Programs | Five-year growth

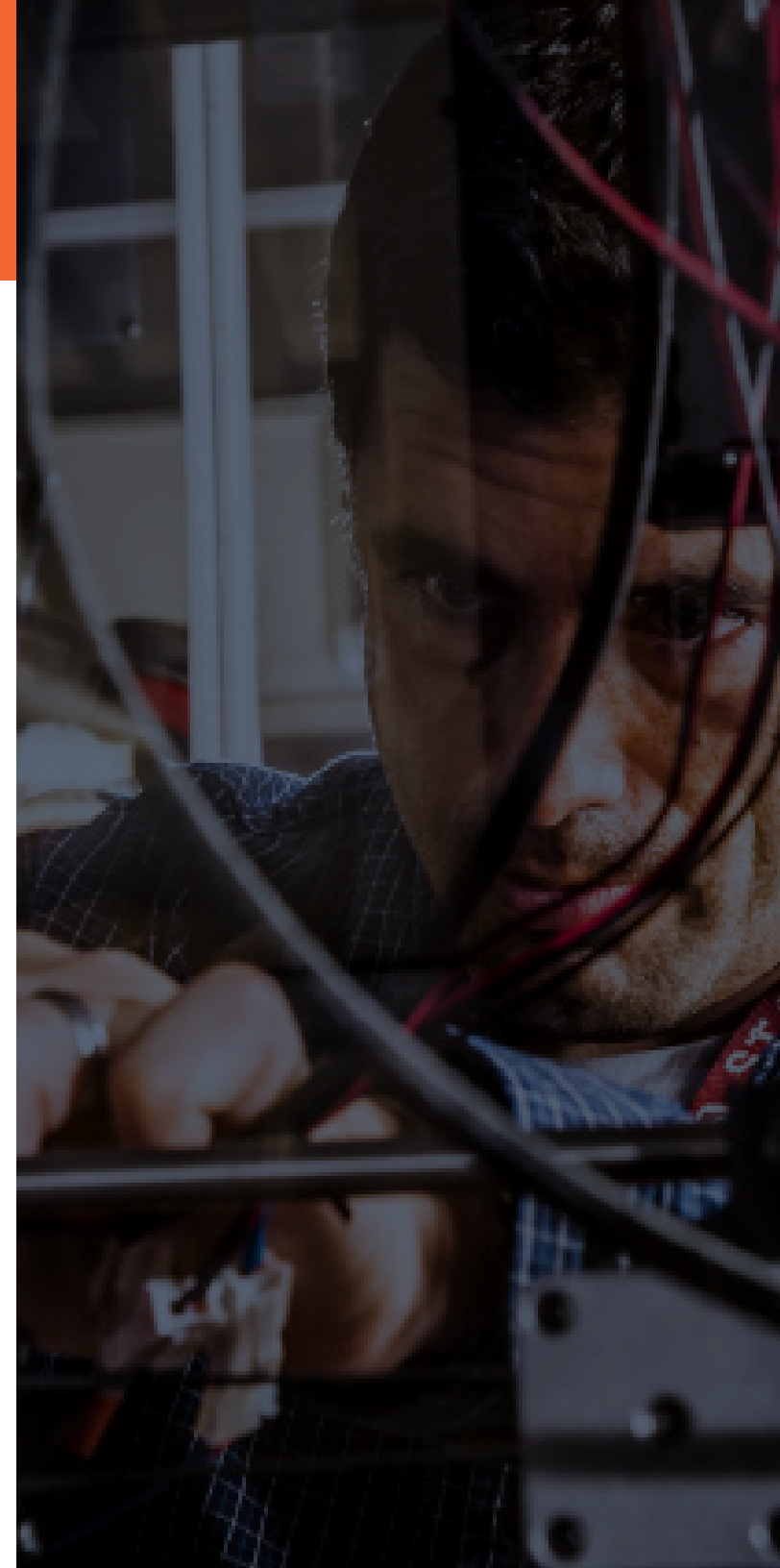
Helping to fuel the region's production of STEM-based talent, growth amongst bioscience-oriented programs maintain an emerging presence in the share of total STEM output. Shown below, top performing STEM programs graduated nearly 800 in 2020, 54 percent higher than its 2015 level.

Program Description	2020 Graduates	2015 - 2020 % Change
*Pharmaceutics and Drug Design	50	4,900.0%
Computer Science	24	2,300.0%
*Bioengineering and Biomedical Engineering	10	400.0%
Mathematics, General	121	175.0%
*Chemical Engineering	58	81.3%
Mechanical Engineering	112	57.7%
*Biochemistry	73	52.1%
Engineering Science	11	10.0%
Materials Science	11	10.0%
Computer Engineering, General	35	9.4%
*Biology/Biological Sciences, General	288	8.7%
Cohort Total: Greater ABQ MSA	793	53.7%

2020 Graduates and Five-year Graduate Growth



*Bio-focused program, 6-digit CIP Codes





www.ABQ.org