



NEW SPACE NEXUS

BRIDGING INDUSTRY NEEDS WITH SPACE TALENT PIPELINES IN NEW MEXICO

2025 Gap Analysis by NewSpace Nexus Pathways to the Stars™

A WELCOME FROM CASEY ANGLADA DERAAD, CEO

At NewSpace Nexus, our mission is clear: to **Unite and Ignite Space™**. Since our inception, we have been dedicated to uniting space industry stakeholders, amplifying a unified voice for space leadership, and expanding the commercial space innovation ecosystem to strengthen national capabilities. Through collaboration with government, academia, and private industry, we strive to address the challenges that hinder the accelerated growth of both individual space companies and the broader industrial base.

Since 2019, NewSpace Nexus has made significant strides in fostering innovation and industry growth:

- **NewSpace Ignitor** has supported 49 companies in securing more than \$70 million in funding.
- The **Ignitor Expert Network** has grown to over 50 space and business experts, offering tailored support to emerging companies.
- The **NewSpace Launchpad** is an 8,000-square-foot space test and prototyping facility in Albuquerque, supporting 43 companies with 70 equipment resources, hosting over 170 events, and welcoming over 4,000 visitors.
- **NewSpace Alliance** membership has expanded to over 290 industry stakeholders, fostering collaboration across the ecosystem.
- The **NewSpace State of Space Industrial Base Conference**, now in its fifth year, convenes national space leaders to assess the state and trajectory of the U.S. space industrial base.
- **NewSpace T5 (Third Thirsty Thursday Tech Talk)** events have engaged thousands of space enthusiasts in networking and industry discussions.

This report marks an expansion in our focus of the **NewSpace Pathways to the Stars™** initiative. One of the industry's most pressing challenges is recruiting and retaining a highly skilled space workforce. Central to addressing this challenge is the engagement and participation of the entire ecosystem, industry, government, and academia.

To lead this effort, we formed the **Pathways to the Stars™ Leadership Council**, comprising 70 dedicated volunteers. This council includes representatives from

New Mexico's space and high-tech companies, the Air Force Research Laboratory, Los Alamos National Laboratory, state and local governments, economic development organizations, workforce development agencies and experts, and K-12 and higher education institutions. Their insights, guidance, and expertise are instrumental in shaping program design, implementation, and evaluation.

To gain deeper insights into New Mexico's current labor market, we partnered with the **Pathways2Careers Foundation** to conduct three key activities: a labor market analysis of the space industry, an employer survey to gather input on workforce challenges and requirements, and two in-person summits held in Las Cruces and Albuquerque.

Additionally, to strengthen our understanding of STEM education pathways, we contracted **STEM Boomerang** to conduct a comprehensive assessment of STEM initiatives across the state, with a particular focus on high-tech career development.

This report brings together the findings from these three initiatives. It not only highlights the current landscape but also outlines the next steps in strengthening the space talent pipeline. We invite you to join us in building Pathways to the Stars™, ensuring that New Mexicans have access to rewarding careers that offer financial security, professional growth, and industry impact. Together, we can bridge workforce gaps, strengthen STEM education pathways, and drive sustained economic growth.

Thank you for your partnership and commitment to advancing New Mexico's space industry and workforce.



Casey Anglada DeRaad, CEO

ABOUT NEWSPACE NEXUS AND PATHWAYS TO THE STARS™

NewSpace Nexus is a 501(c)(3) non-profit dedicated to accelerating the growth of the space industry. Founded in 2019, it is the only organization in New Mexico focused on uniting the regional space ecosystem and igniting national economic growth. With a mission to unite and ignite the space sector, NewSpace Nexus helps companies move beyond R&D by providing faster access to resources, customers, and partnerships.

Guided by core values of Integrity, Teamwork, and Excellence, the organization fosters collaborative

innovation (co-innovation), a model that leverages shared resources such as facilities, equipment, expertise, and workforce to accelerate aerospace innovation. This approach has successfully fostered a supportive network where stakeholders actively help emerging aerospace companies thrive. With strong alliances and a national reach, NewSpace Nexus is well-positioned to scale its impact and further strengthen New Mexico's role as a hub for space industry growth.



Pathways to the Stars™ is a strategic workforce development initiative led by NewSpace Nexus to build an inclusive, future-ready talent pipeline for the U.S. space industry. Launched in alignment with national workforce recommendations from the State of the Space Industrial Base (SSIB) reports (2021–2024) (1), the program spans early childhood through early career and is designed to connect students, especially those from underserved and underrepresented communities, to careers in space and technology.

The SSIB reports have consistently called for urgent, coordinated action to ensure the U.S. cultivates a STEM-powered workforce capable of meeting the challenges of commercialization, national security, and global competition. Pathways to the Stars™ directly addresses these challenges by integrating experiential learning, mentoring, and industry engagement into the educational journey. With NewSpace Nexus as a lead operator, the program has been recognized nationally as a model for scalable, regional workforce solutions.

Pathways to the Stars™ responds to the SSIB's key workforce recommendations by:

- Creating a national model for space-STEM career pathways that can be tailored to local regions;

- Diversifying the talent pipeline by engaging students from underrepresented populations and adjacent industries;
- Filling program and messaging gaps through coordinated outreach, storytelling, and awareness campaigns that highlight the full range of space careers, not just engineering, but also roles in business, law, communications, and logistics;
- Strengthening interagency alignment by coordinating with initiatives like the Interagency Roadmap for Space-STEM and Space Workforce 2030;
- Scaling mentorship and internship opportunities and advocating for policies that support talent mobility, industry partnerships, and education affordability.

NewSpace Nexus leads the initiative in partnership with workforce agencies, education providers, national labs, and employers across New Mexico. Early outcomes include labor market analysis, employer surveys, and statewide STEM program mapping, steps that lay the foundation for systemic change. As a result, Pathways to the Stars™ has become more than a program, it is a catalyst for unifying education, industry, and policy efforts to strengthen the space workforce nationwide.

EXECUTIVE SUMMARY

WHY NEW MEXICO'S SPACE CAREER PATHWAYS MATTER

Space is not a future aspiration. It is a current economic engine, and New Mexico has a rare opportunity to lead the nation in space innovation and industry growth. The state boasts over 240 space companies, world-class research labs, and national assets like AFRL, Spaceport America, and White Sands. Yet, many employers report severe difficulty filling critical roles, especially those requiring engineering and technical expertise. Left unaddressed, this shortage could stall economic momentum and cause talent and opportunity to leave the state.

KEY CHALLENGES IDENTIFIED

1. Strong industry growth with not enough talent to meet demand

- Scientific research and development jobs have grown by nearly 40% in the past 10 years, with an average salary of over \$120,000.
- The state is home to more than 47,000 high-tech jobs, yet many remain unfilled.
- Employers need engineers, cybersecurity professionals, and technical specialists, but are struggling to find them.

2. Employers report difficulty recruiting and retaining qualified candidates

- Most open jobs require a bachelor's degree or higher.
- Nearly half of the positions require a security clearance, reducing the pool of eligible candidates.
- Mid-career professionals are particularly hard to find.
- Employers are interested in hiring based on skills, not just degrees, but need more support to make that shift.

3. Education and training are not fully aligned with workforce needs

- Degree production in critical fields like mechanical and electrical engineering is declining.
- Many graduates lack essential workplace skills such as communication, teamwork, and professionalism.
- Students often do not learn about in-demand careers early enough to prepare for them.

4. STEM Programs exist but are fragmented and hard to navigate

- A total of 184 career pathway programs were identified, but most operate independently.
- Only 36 programs include space-focused content, and just 4 offer space-related internships.
- Very few programs support high school students or offer coordinated transitions from education to employment.

5. Students in rural, tribal, and underserved areas face greater barriers

- Most programs are concentrated in urban centers.
- Families and educators often do not know what programs are available.
- Lack of internet access, transportation, and local opportunities limit participation.

STRATEGIC RECOMMENDATIONS

To fully realize New Mexico's potential as a national space and innovation leader, the following six strategies are essential:

1. Establish a Statewide STEM Network

- Coordinate education, industry, and government partners to ensure clear student pathways from early education to career entry.

2. Expand Awareness and Access

- Invest in outreach tools (like searchable directories) and prioritize programming for underserved regions.

3. Strengthen Industry Engagement

- Support paid, industry-aligned internships and apprenticeships, especially for high school and early-career participants.

4. Integrate Career Readiness into STEM Curriculum

- Include professionalism, communication, and workplace readiness in STEM instruction to align graduates with employer expectations.

5. Align Curriculum with Industry Demand

- Ensure technical education (e.g., engineering, coding, cybersecurity) reflects real-world needs and emerging space technologies.

6. Create a Workforce Success Hub

- Establish a statewide hub to coordinate technical training, employer incentives, and recruitment/retention strategies.

THE CALL TO ACTION

New Mexico's economic future depends on building a workforce that is ready for the high-paying, high-tech jobs that are already here. Employers want to hire locally. Students want meaningful careers. With focused investment, policy support, and cross-sector coordination, New Mexico can lead the country in building a modern, inclusive workforce for space and technology. **This report provides a clear roadmap. The opportunity is now.**

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INTRODUCTION

New Mexico is rapidly emerging as a national leader in space, defense, and advanced technology industries. Yet despite strong employer demand, the state faces persistent challenges in cultivating a skilled, locally grown high-tech and ‘STEM’ workforce. This report presents a comprehensive analysis of the current labor market, employer needs, and the state’s science and technology (i.e., STEM) career readiness ecosystem—highlighting the urgent need for coordinated, equitable, and future-focused strategies to strengthen the talent pipeline and position New Mexico for long-term economic success.

According to the New Mexico Economic Development Department (NMEDD), Aerospace is one of nine target industries for growth in the state. NMEDD cites several reasons why the world’s premier aerospace companies do business in New Mexico, including ideal flying weather, superior launch opportunity, land, workforce training incentives, historical track record, critical, and great tax climate. New Mexico assets and stakeholders in the aerospace industry include three Air Force Bases (Cannon, Holloman, and Kirtland), Air Force Research Laboratory (AFRL), Spaceport America, Physical Science Lab (PSL) at New Mexico State University, U.S. Army White Sands Missile Range and NASA’s White Sands Test Facility, NewSpace Nexus, Arrowhead Center at New Mexico State University (NMSU), COSMIAC at University of New Mexico (UNM), the Professional Aerospace Contractors Association (PACA), and SpaceValley™ Foundation, and the more than 240 space industry startups and companies (*Descriptions of each can be found in Appendix I.*)

New Mexico’s STEM workforce ecosystem is rapidly evolving, anchored by leading employers, including the National Laboratories, AFRL, public universities, and private industry, all of which require a highly skilled talent pipeline to support their research and innovation initiatives. However, despite the increasing workforce demand, many youth and college students across the state (particularly in rural, tribal, and other underserved communities) lack exposure to STEM career pathways. Strengthening career readiness in these

high-opportunity fields is crucial to ensuring that New Mexico’s students are equipped with the skills, experience, and opportunities needed to succeed in high-tech industries, particularly in the growing space sector. Talent pipeline development also ensures that employers have the staff needed to compete in the global space industry market.

Although there are significant job growth projections within the space and technology sectors, a workforce shortage looms over New Mexico’s STEM industries, partially influenced by an aging workforce, low participation, and population decline. Currently, employers are already experiencing challenges in filling mid-career technical roles, and projections indicate that demand will continue to outpace talent currently in the pipeline, affecting fields such as aerospace engineering, software development, and advanced manufacturing. If left unaddressed, this shortage could hinder the state’s ability to remain competitive in emerging technology sectors.

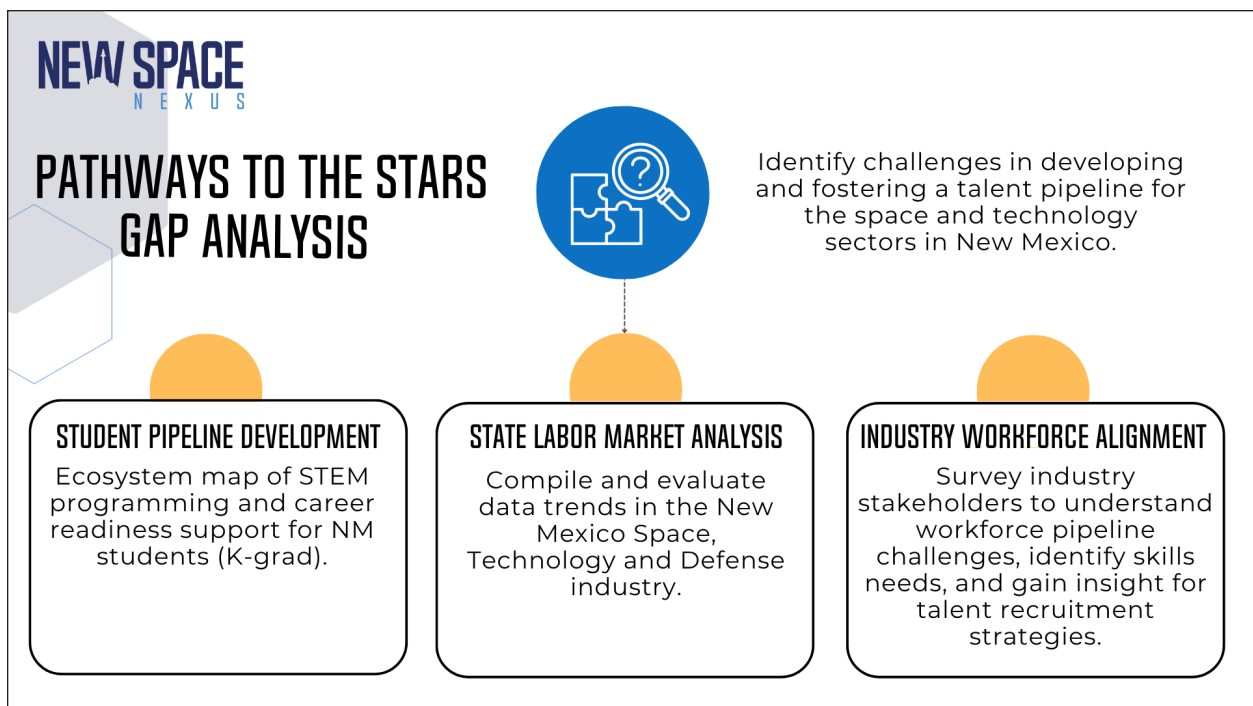
Exacerbating the workforce shortage is the fact that New Mexico’s higher education institutions are not producing enough STEM graduates each year to meet the growing demands of the workforce⁽²⁾. To mitigate the impending workforce shortage, the state must be strategic in how it engages with youth and guides them toward in-demand career pathways. One of the major challenges in New Mexico is the lack of consistent support and seamless pathways for students from pre-K through high school, into postsecondary education, and ultimately, into the workforce. Therefore, strengthening partnerships between schools, community organizations, higher education institutions, and public and private industry will be essential in ensuring that students are aware of and prepared for the opportunities available to them. A robust STEM pipeline must bridge this disconnect by equipping students with the knowledge, skills, and competencies necessary to transition successfully into STEM careers.

New Mexico’s unique position as a hub for careers in national defense, space exploration, and advanced technologies presents a unique opportunity to build a local talent pipeline that is prepared for what STEM technology innovation will become in the

future. From research institutions to commercial space companies, New Mexico is at the forefront of cutting-edge advancements. By strengthening STEM career readiness initiatives, New Mexico can leverage its existing assets to create a sustainable talent pipeline that not only meets industry demands but also provides meaningful career opportunities for students statewide.

This study takes a multi-perspective approach to understanding the challenges in building a STEM talent pipeline that can support the growing space and technology sectors. A comprehensive **Gap Analysis** was conducted to evaluate the alignment

between the state's labor market needs, employer expectations, and the availability of programs designed to prepare New Mexico students for STEM careers. The findings from this gap analysis provide a foundation for developing targeted strategies to enhance the state's workforce pipeline by aligning educational outcomes with labor market demands, strengthening employer engagement, and expanding access to STEM enrichment opportunities. The report concludes with actionable recommendations aimed at strengthening the space and technology sector workforce pipelines by aligning workforce needs with career readiness support.



Gap Analysis

SECTION 1: A LABOR MARKET ANALYSIS OF NEW MEXICO'S SPACE AND TECHNOLOGY SECTORS

ABOUT THE LABOR MARKET ANALYSIS

To develop a meaningful workforce pipeline strategy for New Mexico’s space and technology sectors, a multiperspective approach was used to provide insight into employment trends in high-impact industries in New Mexico. The analysis highlighted the most in-demand roles, the level of education and technical expertise required for these positions, and the gaps in the current talent pipeline. Additionally, trends in workforce demographics, wage competitiveness, and regional hiring challenges were analyzed to uncover structural barriers preventing students and job seekers from successfully entering STEM careers.

Therefore, a thorough review of labor market data was evaluated, including employment and wage trends data from New Mexico Department of Workforce Solutions⁽³⁾. Combined with labor market statistics, the analysis also leverages occupational profiles from the United States Employment and Training Administration and an analysis of job postings from New Mexico’s key industry employers over a twelve-month period. Combined with qualitative insights from industry surveys, this approach provides a data-driven understanding of the challenges and opportunities facing the state, particularly in these high-impact employment sectors.

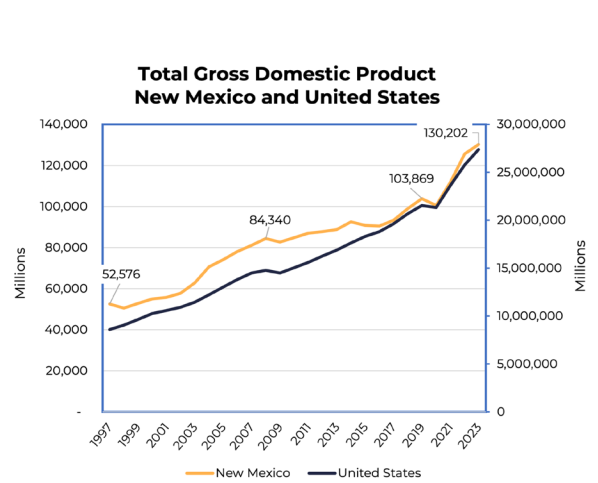


Figure 1 : Total Gross Domestic Product (GDP). New Mexico (orange left axis in millions) and United States (dark blue and right axis in millions), 1997-2023.]

A MEASUREMENT OF THE GENERAL ECONOMY USING GROSS DOMESTIC PRODUCT TRENDS

The labor market analysis of New Mexico’s space and technology sector begins with an overview of recent trends in the state’s economy. The total value of New Mexico’s economic activity, measured by gross domestic product (GDP), has generally increased over the past two decades, reflecting national patterns (Figure 1). Periods of economic disruption are evident during the 2008 financial crisis and the COVID-19 pandemic. From 2020 to 2023, the state experienced substantial growth—GDP rose by \$29.8 billion, or 29.6%. In the 2000s, New Mexico’s economic growth outpaced the national average, largely due to notable gains in the Health Care and Mining sectors.

Represented in Figure 2 is the GDP output by industry sector, showing the percentage contribution of various sectors to the overall economy.

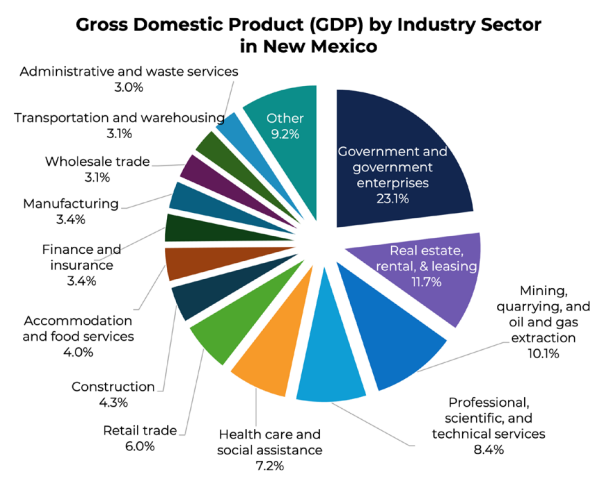


Figure 2 : Gross Domestic Product (GDP) by Industry Sector in New Mexico. 2023.]

JOB IN THE ‘SCIENTIFIC RESEARCH AND DEVELOPMENT’ INDUSTRY SECTOR

There is no formal sector classified specifically as ‘Space’ or ‘Technology,’ therefore, a deeper analysis of the related industry subcategories offers valuable insight into the employers contributing to workforce demand and economic output in these fields.

To help readers navigate the industry terminology, Table 1 outlines the NAICS code structure and how this sector is categorized. A more detailed description may be found in Appendix II.

LEVEL		CATEGORY	INDUSTRY CODE
Sector	XX	professional, scientific, and technical services	54
Subsector	XXX	professional, scientific, and technical services	541
Industry Group	XXXX	scientific research and development services	5417
Industry	XXXXX	research and development in the physical, engineering, and life sciences	54171

Table 1: The NAIC Code Industry Classification Structure

In addition to measuring GDP by industry category for the ‘STEM’ sectors in New Mexico, the total number of employers in each sector and the percentage of jobs in each industry category were also assessed. The *professional, scientific, and technical services* sector has the second highest number of employers in the state with a total of 9,115 establishments, closely trailing the *health care and social assistance* sector. In terms of percentage of jobs, the *scientific research and development services* industry (a *professional,*

scientific, and technical services subsector), which focuses specifically on research and experimental development in various scientific and technological fields, ranks as the fifth-largest employment industry in New Mexico (Figure 3), with over 31,000 jobs and an average wage of \$123,000 (Table 2, highlighted in orange). Over the past decade, this industry has experienced exceptional growth, expanding by 39.2% and adding 8,900 jobs. These trends highlight the sector’s strong job growth and high earning potential in New Mexico.

Total Jobs by Industry Sector in New Mexico

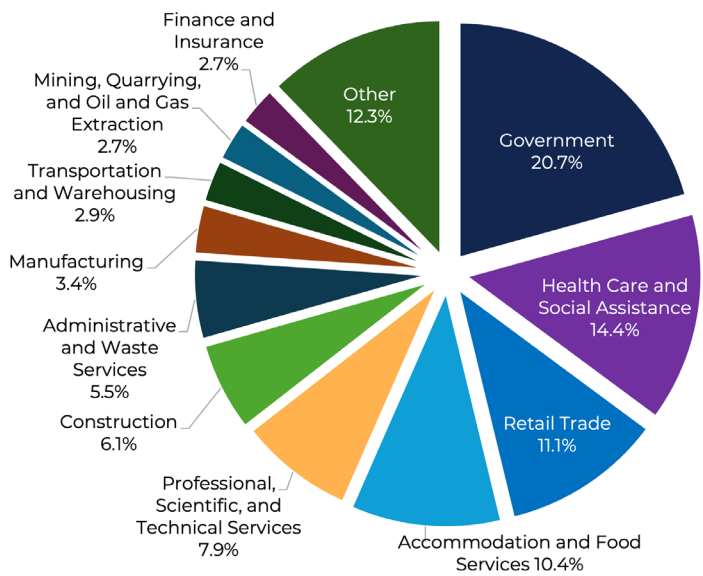


Figure 3: Total jobs by general industry categories. New Mexico, 2023



INDUSTRY CATEGORY	2023 JOBS	2014 - 2023 CHANGE	2014 - 2023 % CHANGE	CURRENT WAGE
Restaurants and Other Eating Places	68,998	5,349	8.4%	\$23,921
Education and Hospitals (Local Government)	50,091	(2,634)	(5.0%)	\$54,345
Local Government, Excluding Education and Hospitals	49,504	(459)	(0.9%)	\$54,345
Scientific Research and Development Services	31,780	8,946	39.2%	\$123,606
Federal Government, Civilian	29,867	458	1.6%	\$92,075
Individual and Family Services	26,523	7,905	42.5%	\$25,028
Education and Hospitals (State Government)	25,568	(81)	(0.3%)	\$72,446
General Medical and Surgical Hospitals	25,485	5,861	29.9%	\$81,630
State Government, Excluding Education and Hospitals	22,488	(183)	(0.8%)	\$68,984
Warehouse Clubs, Supercenters and General Retailers	17,993	2,077	13.1%	\$30,664
Employment Services	16,613	3,711	28.8%	\$52,104
Building Equipment Contractors	15,509	4,373	39.3%	\$66,202
Home Health Care Services	15,221	2,437	19.1%	\$27,323
Grocery Stores	14,013	753	5.7%	\$30,963
Support Activities for Mining	15,817	(1,637)	(9.4%)	\$87,237



Scientific R&D in New Mexico

The Employment Location Quotient (LQ) was used to benchmark a region's employment concentration in each industry or occupation against national averages. The LQ index provides insight into how specialized an industry is within a region. For example, an LQ of 1.0 for the hotel industry means the number of hotel jobs in a county match what would be expected based on national averages. An LQ of 2.0 indicates the region has twice as many hotel jobs as the national average for a region of its size. Figure 4 highlights the industries in New Mexico with the highest LQ values.

As expected, due to GDP measurement, the oil and gas/mining and tourism industries rank among the highest. However, the scientific research and development services industry (Figure 4) stands out, employing New Mexicans at more than six times the national average. This underscores its significant role in New Mexico's economy and labor market.

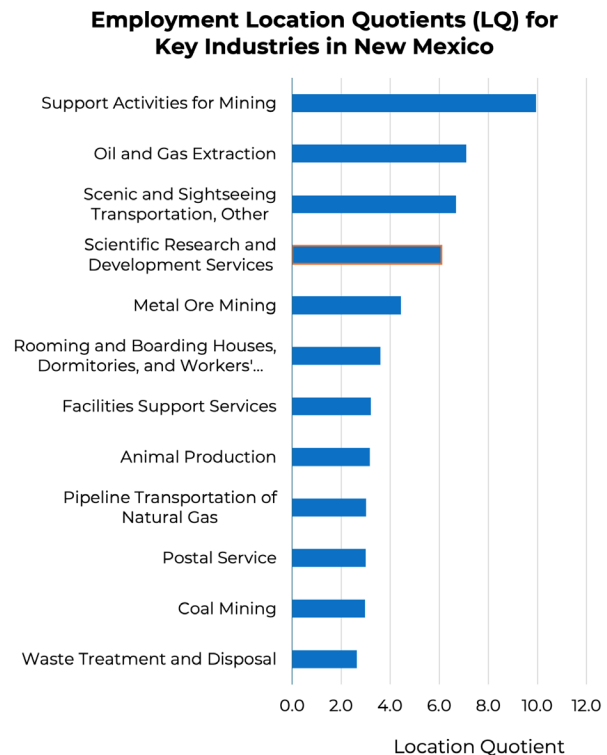


Figure 4: Employment Location Quotients (LQ) for Key Industries in New Mexico. This figure illustrates the industries in New Mexico with the highest employment location quotient (LQ) values, indicating regional employment concentration relative to national averages. An LQ of 1.0 suggests employment levels consistent with national expectations, while values above 1.0 reflect higher regional specialization. 2023.

6.0

EMPLOYMENT
LOCATION QUOTIENT

The Scientific Research and Development Services Industry employs New Mexicans at a rate **more than six times the national average** underscoring its significant role in our regional economy

LQ Scientific research and development services

'HIGH-TECH' TRENDS IN HIRING: NEW MEXICO VS. NATIONALLY

Advanced technology and cutting-edge research are integral to the space and technology sectors, positioning it firmly within what is commonly recognized as the '*high-tech industry*'. While labor market data lacks a precise definition, there are ways to assess how the advanced technology industries impact New Mexico's labor market.

The United States Census Bureau produces an experimental product called the Business Dynamics Survey-Hi Tech, which categorized the data for a specific set of industries in which the employment of STEM occupations is at least 500% of the employment for an average industry in the United States⁽⁴⁾. This methodology results in the designation of eleven industries - termed high-tech:

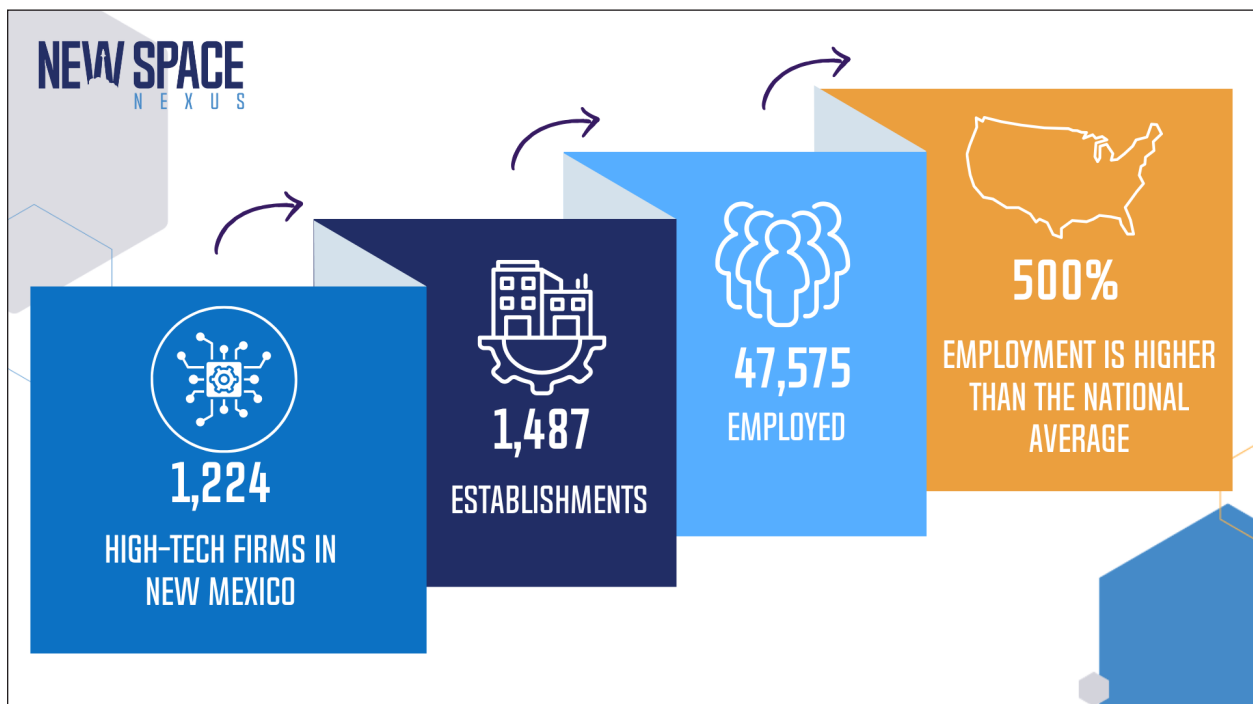
HIGH TECH INDUSTRIES

- 3341 Computer and Peripheral Equipment Manufacturing
- 3342 Communications Equipment Manufacturing
- 3344 Semiconductor and Other Electronic Component Manufacturing
- 3345 Navigational, Measuring, Electromedical, and Control Instruments Manufacturing
- 3364 Aerospace Product and Parts Manufacturing
- 5112 Software Publishers
- 5182 Data Processing, Hosting, and Related Services
- 5191 Other Information Services
- 5413 Architectural, Engineering, and Related Services
- 5415 Computer Systems Design and Related Services
- 5417 Scientific Research and Development Services

High-Tech Industries

In New Mexico, the *high-tech* dataset identified 1,224 firms operating 1,487 establishments, collectively employing 47,575 people in 2021. While growth certainly was observed via the addition of new businesses, a large percentage of job growth

that year resulted from the workforce expansion of existing businesses. This highlights the state's significant presence in *high-tech* industries and its role in supporting STEM-driven economic growth.



As shown in Figure 5 and 6, employment in New Mexico's *high-tech* industries has largely mirrored national trends. Using data from the U.S. Bureau of Labor Statistics' Quarterly Census of Employment and Wages, we can estimate employment levels in both *high-tech* and *non-high-tech* sectors at the state (Figure 5) and national levels (Figure 6). The contrast between these two industries is striking, particularly during the economic disruptions caused by the COVID-19 pandemic. The resilience of the *high-tech* sector and its ability to withstand severe economic downturns highlight its significance to the state's overall economy. This stability also underscores the value of *high-tech* careers for students and job seekers seeking higher pay and long-term career security.

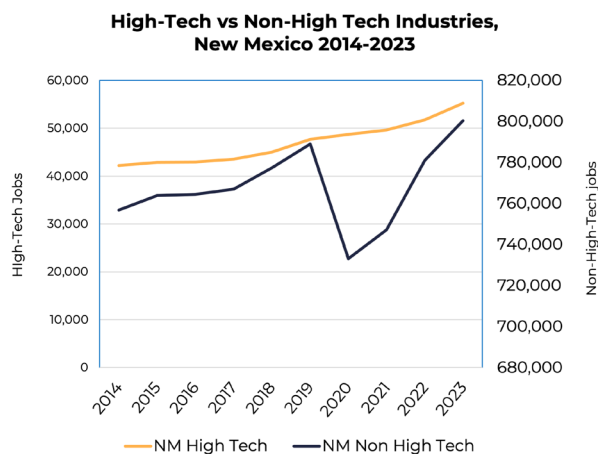


Figure 5: Total employment of High-Tech (orange) vs. Non-High-Tech (dark blue) Industries, New Mexico, 2014-2023.

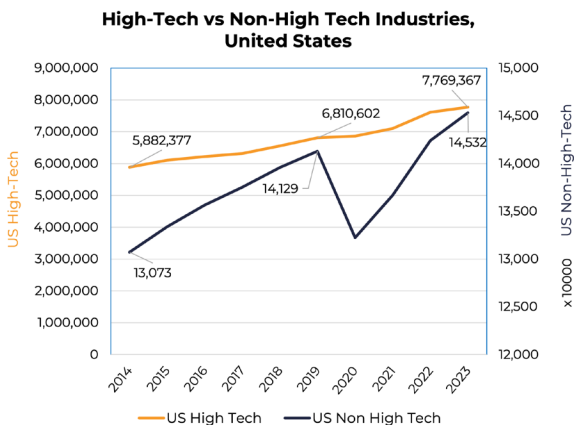


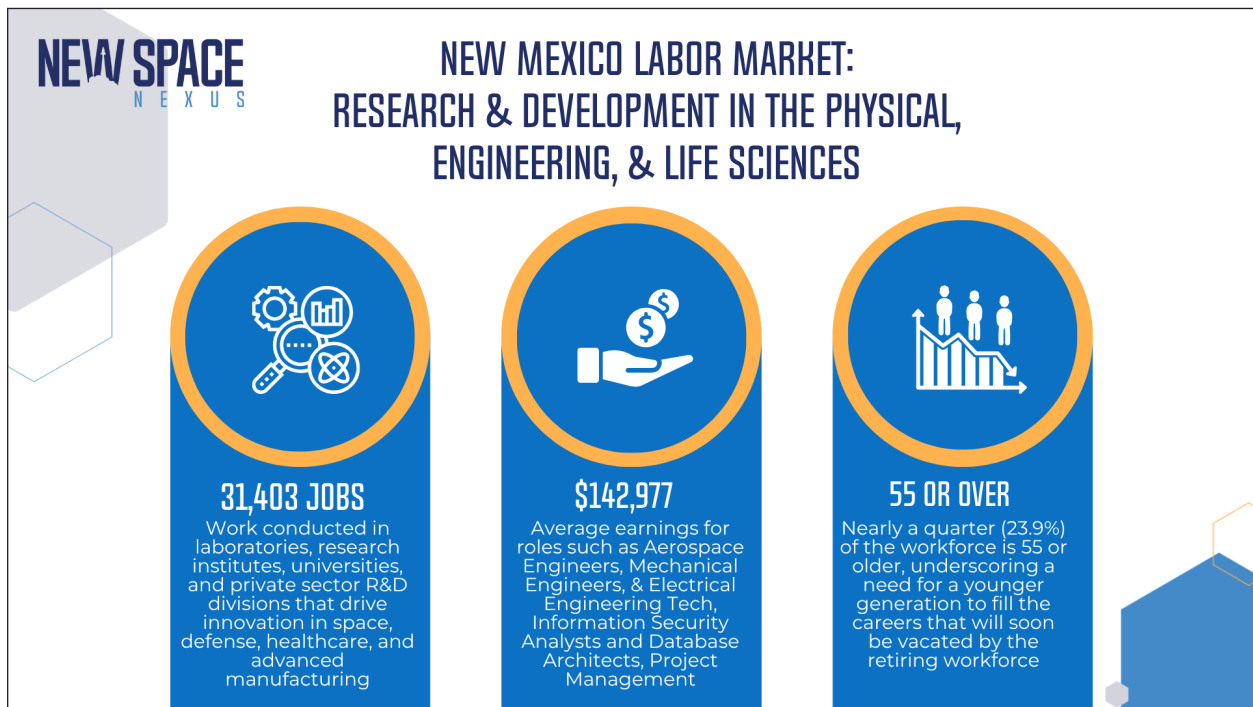
Figure 6: Total employment of High-Tech (orange) vs. Non-High-Tech (dark blue, x10000) Industries in the United States, 2014 - 2023.



DATA TRENDS IN RESEARCH AND DEVELOPMENT IN THE PHYSICAL, ENGINEERING, AND LIFE SCIENCES INDUSTRY

As we analyze the labor market data to gain a better understanding of the number of jobs within the space and technology sectors within the *professional, scientific, and technical services* sector (NAICS 54), the subcategory *research and development in the physical, engineering, and life sciences* industry (NAICS 54171) stands out. This more specialized subcategory encompasses work

conducted in laboratories, research institutions, universities, and private sector research and development (R&D) divisions that drive innovation in space, defense, healthcare, and advanced manufacturing. New Mexico's labor market data reveals that there were 31,403 jobs in this industry in 2023, with an average earnings per job of \$142,977.



New Mexico Labor Market R&D

Table 3 provides a breakdown of the percentage of industry jobs by occupational title.

OCCUPATION FAMILY	SHARE OF INDUSTRY JOBS
Architecture and Engineering Occupations	24.1%
Computer and Mathematical Occupations	16.7%
Management Occupations	15.7%
Business and Financial Operations Occupations	11.7%
Life, Physical, and Social Science Occupations	10.3%
Office and Administrative Support Occupations	8.4%

Table 3: Employment by Occupation Family Research and Development-Physical, Engineering, and Life Sciences Industry (NAICS 54171), As a percentage, New Mexico, 2023.

Within this category, 24% of the jobs fall under *architecture and engineering* occupations, which includes roles such as aerospace engineers, mechanical engineers, and electrical engineering technologists. The second largest group, accounting for 16.7% of jobs, is in *computer and mathematical* occupations, with positions like information security analysts and database architects. Following that, 11.7% of the jobs are in *business and financial* operations, including roles like project management specialists and compliance officers.

Furthermore, an analysis of the Research and Development in the Physical, Engineering, and Life Sciences industry (NAICS 54171) reveals a notable age distribution (Table 4). Nearly a quarter (23.9%) of the workforce is aged 55 or older, while only a small proportion (5.7%) is between the ages of 19 and 24. This skewed demographic highlights the urgent need to attract a younger generation to fill positions that will soon be vacated by retiring workers.



AGE DISTRIBUTION OF JOBS	SHARE OF JOBS
14 - 18	0.3%
19 - 24	5.7%
25 - 34	23.2%
35 - 44	25.0%
45 - 54	21.8%
55 - 64	18.9%

Table 4: Age distribution of jobs in the 'research and development in the physical, engineering, and life sciences industry (NAICS 54171). New Mexico. 2023

THE DEGREE REQUIREMENTS FOR OCCUPATIONS IN THE SCIENTIFIC RESEARCH AND DEVELOPMENT CATEGORY

Census Bureau data on staffing patterns and degree requirements show that the scientific research and development sector is primarily composed of roles in engineering, computer science, and management, with most positions requiring at least a bachelor's degree (Table 5). Highly specialized research roles,

such as physicists and biochemists, typically require a doctoral degree. Among all occupations in this sector, only two require an associate degree or less, highlighting the importance of continued investment in advanced education and training to support New Mexico's space and technology ecosystem.

OCCUPATION	SHARE	TYPICAL EDUCATION
Computer Hardware Engineers	4.9%	Bachelor's
Computer and Information Research Scientists	3.9%	Master's
Software Developers	3.8%	Bachelor's
General and Operations Managers	3.7%	Bachelor's
Secretaries and Administrative Assistants	2.8%	High School
Project Management Specialists	2.7%	Bachelor's
Mechanical Engineers	2.7%	Bachelor's
Nuclear Engineers	2.1%	Bachelor's
Architectural and Engineering Managers	2.0%	Bachelor's
Engineers, All Others	2.0%	Bachelor's
Engineering Technologists and Technicians, Except Drafters, All Other	1.9%	Associate's
Physicists	1.9%	Doctoral
Aerospace Engineers	1.8%	Bachelor's
Information Security Analysts	1.8%	Bachelor's
Electrical Engineers	1.7%	Bachelor's
Biochemists and Biophysicists	1.5%	Doctoral

Table 5: Percentage of total workforce in each occupation and estimation of typical education. New Mexico. 2023.

NEW MEXICO'S CURRENT TALENT PIPELINE

More than a quarter of New Mexico's population aged 25 and older has no formal education beyond a high school diploma (Figure 7), while another 23% have some college experience but no degree.

Educational Attainment in New Mexico

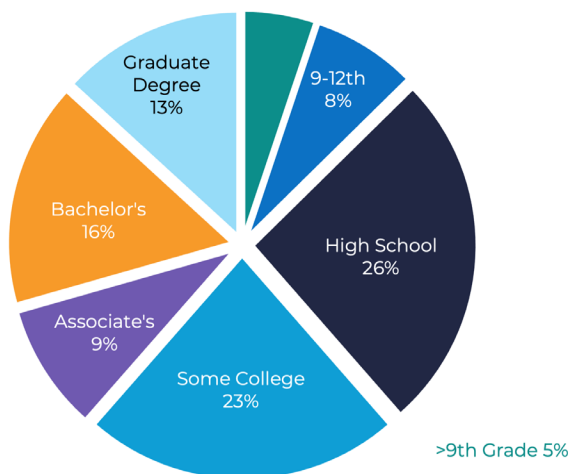


Figure 7: Educational Attainment, New Mexico, 2023.

Compared to the national average, New Mexico has a higher percentage of individuals with some college experience but a lower percentage of bachelor's degree holders (Figure 8).

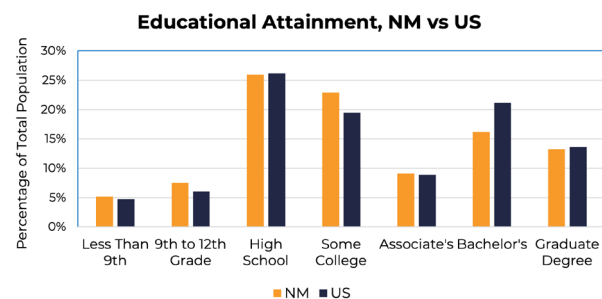


Figure 8: Educational Attainment, New Mexico vs. U.S., 2023.

Figure 9 provides an overview of the number of degrees and certificates awarded across various academic fields in 2023. Engineering ranked as the 6th highest field in degree completions, with just over 1,000 graduates, while Computer and Information Sciences Support Services ranked 8th, with nearly 800 awards.

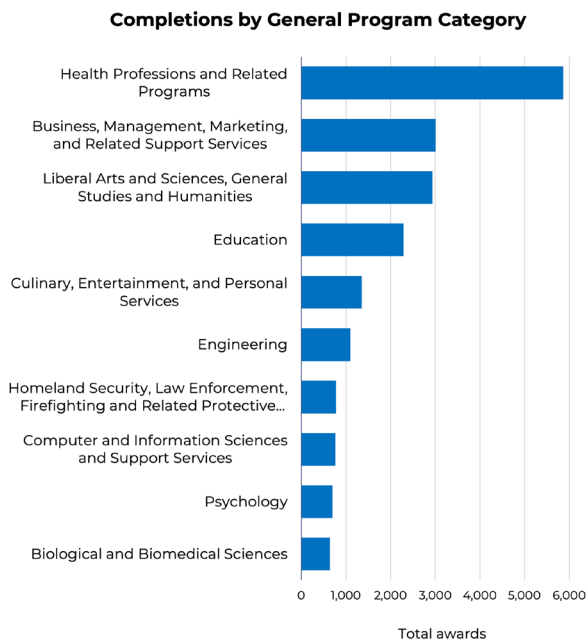
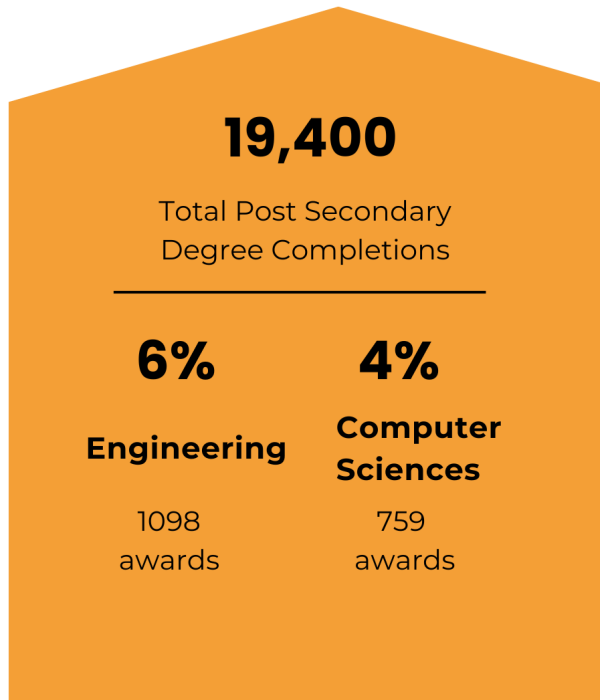


Figure 9: Completion of General programs by category, New Mexico, number of awards, 2023.



Degree Completions

A deeper analysis of engineering degree completions over the past five years reveals a decline in several disciplines, including mechanical, electrical, and chemical engineering, from 2018 to 2023 (Table 6). Notably, Aerospace, Aeronautical, and Astronautical/Space Engineering was the only engineering field to experience growth, doubling from 44 graduates in 2018 to 88 in 2023. This upward trend reflects a growing emphasis by K-12 and universities on expanding awareness and access to careers in the space industry.

In 2023, degree completions in computer and information sciences varied across disciplines, with Computer Science producing 77 graduates and 30 certificates, Computer and Information Sciences, General leading with 277 degrees (a decrease of 60 from previous years), Computer and Information Systems Security/Information Assurance awarding 121 degrees and 60 certificates, and Information Technology reporting 82 degrees and 16 certificates, reflecting a strong interest in cybersecurity and general IT fields (Table 6). These trends highlight shifting priorities in higher education, with notable growth in cybersecurity and aerospace engineering fields, aligning with workforce demands in emerging technology and national security sectors.

PROGRAM	2023 AWARDS	5-YEAR CHANGE
Engineering		
Mechanical Engineering	339	(22)
Civil Engineering, General	112	(7)
Electrical and Electronics Engineering	147	(31)
Chemical Engineering	97	(41)
Aerospace, Aeronautical, and Astronautical/Space Engineering, General	88	45
Engineering, General	76	(7)
Computer and Information Sciences		
Computer Science	77	30
Computer and Information Sciences, General	277	(60)
Computer and Information Systems Security/Information Assurance	121	60
Information Technology	82	16
Biological and Biomedical Sciences		
Biology/Biological Sciences, General	505	28
Chemistry, General	69	(19)
Biochemistry	64	(27)
Other		
Project Management	111	98
Physical Sciences, General	73	20

Table 6: Completion of General programs by category, New Mexico, number of completions. 2023.

REGIONAL EMPLOYMENT FLOWS AND JOB OPENINGS DATA FOR SPACE SECTOR COMPANIES IN NEW MEXICO

While the data presented so far offers valuable insight into historical job growth by industry category, another useful approach is to dive deeper into how employment trends follow some key space and technology employers that hire in New Mexico. A Sankey diagram was used to illustrate the flow of employers into (represented in blue) and out of (represented in red) an organization. This data is sourced from a third-party provider that aggregates online job postings based on specified parameters (location, NAICS code, occupation title). Analysis of job postings and online profiles data revealed interesting trends within companies categorized within the *Professional, scientific, and Technical Services* sector in New Mexico.

The Sandia Corporation (Sandia National Laboratory) was analyzed using the Sankey diagram. The left side (blue) represents the “Previous Employer” of individuals who were hired by Sandia Corporation. The central bar (dark blue) represents Sandia Corporation itself. The right side (red) represents the “Following Employer” of individuals who left Sandia Corporation. The width of each flow path is proportional to the number of employees moving between the respective employers. Over the last 12 months, Sandia National Laboratory has posted

1,795 job openings, including 1,501 in New Mexico. The job titles most frequently requested over that period tended to be engineers and a bachelor’s degree was mentioned in 59% of those job postings. A master’s degree was mentioned in 41%, and 28% mentioned a doctorate or Ph.D. According to an analysis of online profiles, more workers have come to the Sandia Corporation from previous employment at the University of New Mexico and the Los Alamos National Laboratory over the last year than from any other organization (Figure 10).

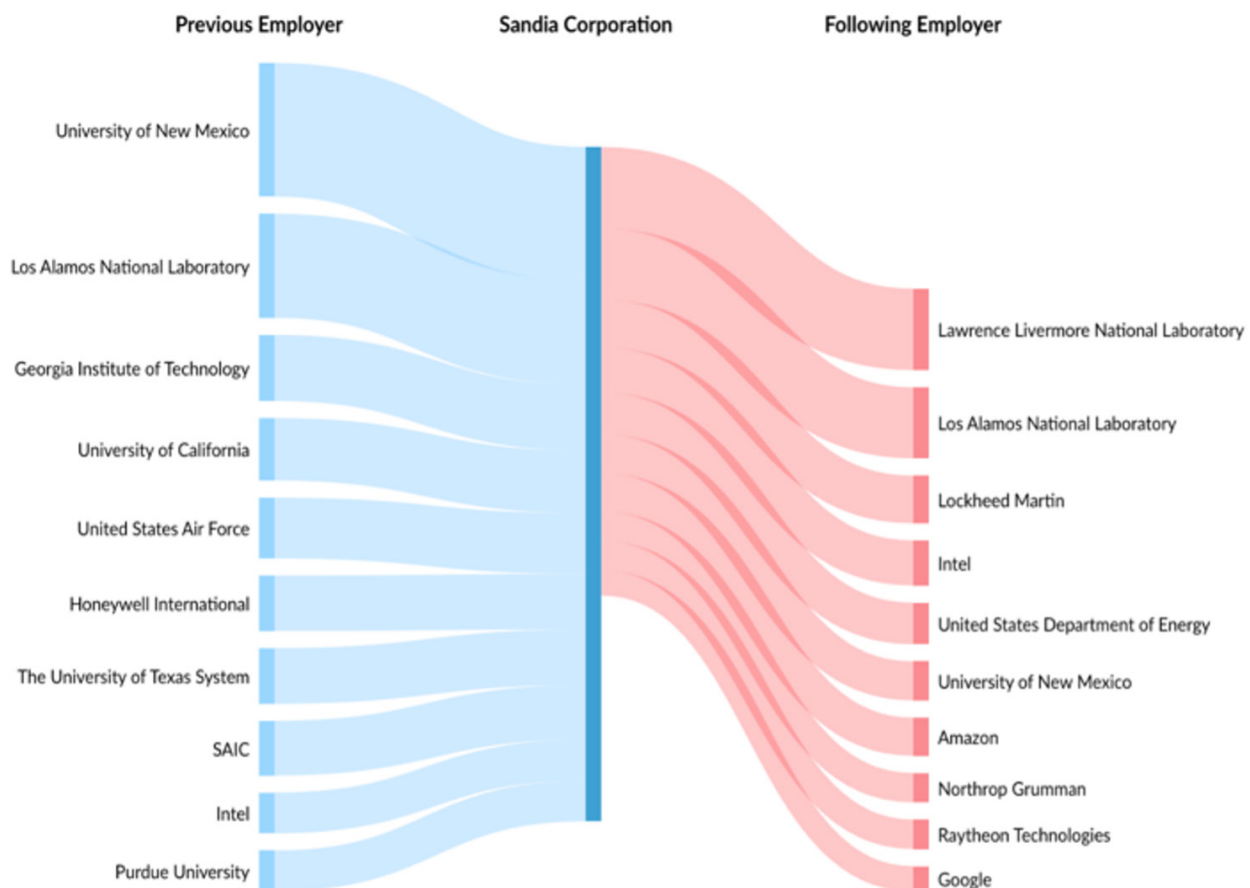


Figure 10: Talent Flow for Sandia Corporation using the Sankey diagram. This Sankey diagram illustrates the movement of talent into and out of Sandia Corporation. The left side (blue) shows the previous employers of individuals who were hired by Sandia. The central bar (dark blue) represents the current workforce at Sandia Corporation. The right side (red) displays the top destination employers of individuals who left Sandia. The width of each flow path is proportional to the number of employees transitioning between employers.

BlueHalo has posted 678 national job openings over the last 12 months, including 175 in New Mexico. Many openings were also posted in Maryland and Virginia. The job titles most frequently requested were engineers and analysts. A bachelor's degree was mentioned in 75% of those job postings. A master's degree was mentioned in 27%, and only 4% mentioned a high school diploma. BlueHalo has

grown substantially over the last 5 years, acquiring Aegis, Applied Technology Associations (2020), and Asymmetrik (2021). According to an analysis of online employee profiles and excluding employees absorbed by these acquisitions, more workers have come to BlueHalo from previous employment at Dynetics over the last year than from any other organization (Figure 11).

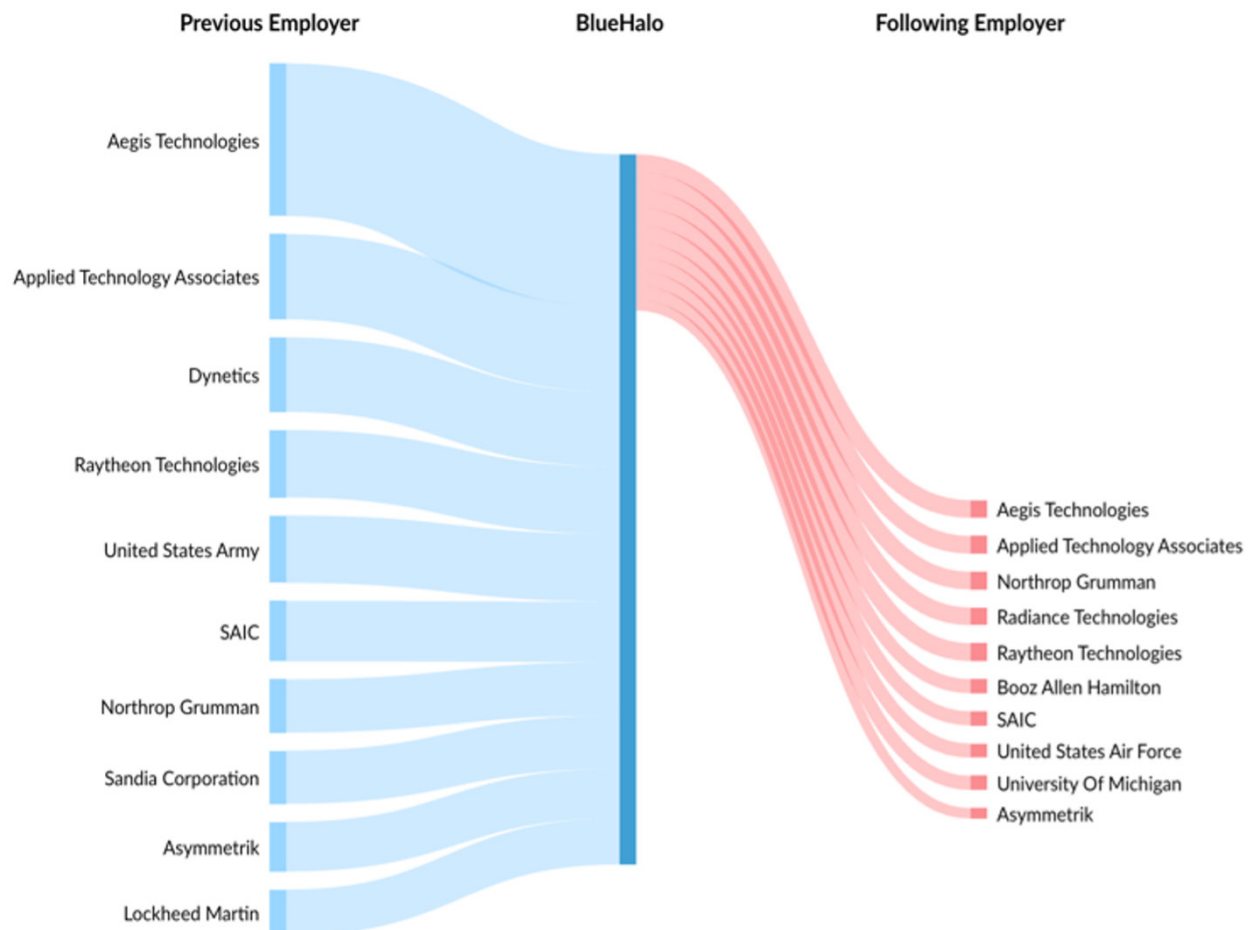


Figure 11: Talent flow for BlueHalo using the Sankey diagram

Rocket Lab USA has posted 1,084 national job openings over the last 12 months, including 140 in New Mexico. The job titles most frequently requested were engineers and a bachelor's degree was mentioned in 78% of all job postings. A master's degree was mentioned in another 34%, and 21%

mentioned a doctorate or Ph.D. According to an analysis of online profiles, more workers have come to Rocket Lab USA from previous employment at SpaceX over the last year than from any other organization (Figure 12).

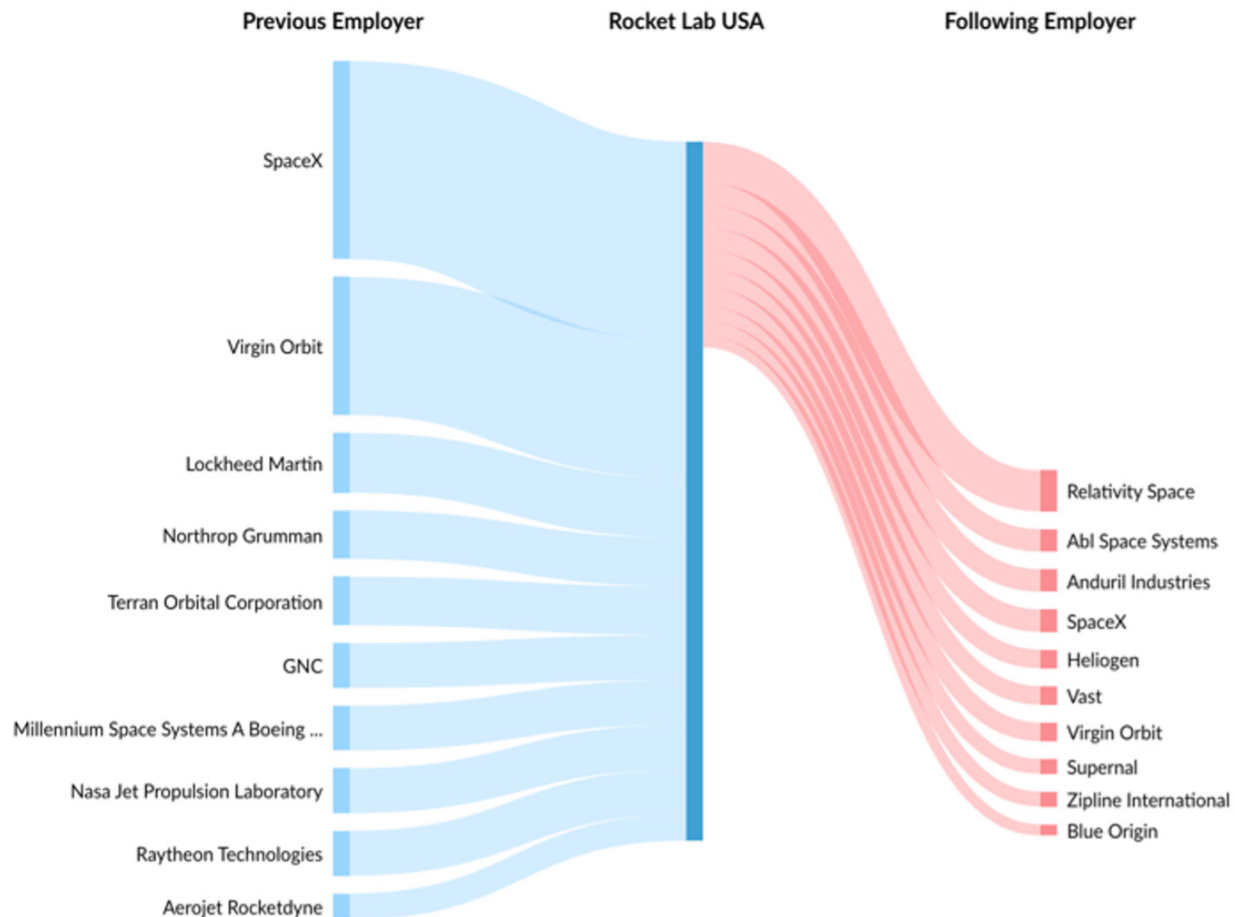


Figure 12: Talent flow for Rocket Lab USA using the Sankey diagram

The Sierra Nevada Corporation has posted 4,097 national job openings over the last 12 months, including 56 in New Mexico. Many jobs were for openings in Colorado and Alabama. A bachelor's degree was mentioned in 80% of those job postings, followed by a master's degree (15%) and a high school diploma (12%). The job titles most frequently requested tended to be engineers and technicians.

According to an analysis of online profiles, more workers have come to Sierra Nevada from previous employment at Lockheed Martin over the last year than from any other organizations.

A deeper analysis of how jobs move into and out of New Mexico would provide valuable insights into the overall impact of talent flow on the state's workforce.

A COMPARISON OF NEW MEXICO'S WAGE COMPENSATION COMPARED TO OTHER REGIONS

The Cost-of-Living Index (COLI) provides valuable insight into the competitiveness of engineering salaries in New Mexico relative to neighboring states. While the cost of living can vary significantly within a state, this analysis uses state-level values to assess cost-adjusted earnings for New Mexico's space and technology sector workforce. The COLI, which sets the national average at 100, places New Mexico at 100.5, very close to the national average. In contrast, California has the highest COLI in the region at 134.8, while Texas has the lowest at 96.6.

Figure 13 illustrates the COLI-adjusted wages for five engineering occupations across neighboring locations compared to the U.S. average: New Mexico, Texas, Arizona, Colorado, and California. New Mexico remains competitive in adjusted wages, particularly for aerospace and materials engineers, whose earnings exceed the national average.

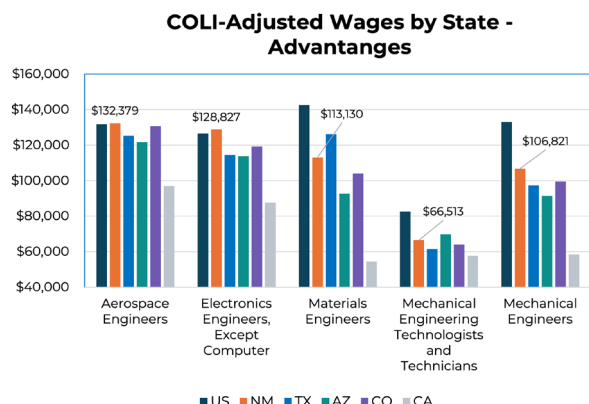


Figure 13: Comparison of Wage Compensation NM vs. Other States. Cost of Living Index (COLI)-adjusted annual wages for five different engineering and technology occupations across six different locations: the United States (US) average, New Mexico (NM), Texas (TX), Arizona (AZ), Colorado (CO), and California (CA).

Additionally, electronics engineers (except computer) also benefit from higher-than-average wages when adjusted for cost of living. However, mechanical engineering technologists, technicians, and mechanical engineers earn significantly less than both the national average and wages in other states. This comparative disadvantage was also observed for electrical, electronic, and industrial engineering technologists and technicians (Figure 14). These findings highlight how cost-of-living adjustments can shift perceptions of salary competitiveness, making New Mexico a strong contender for certain engineering fields while exposing challenges in others, particularly when compared to high-cost states like California.

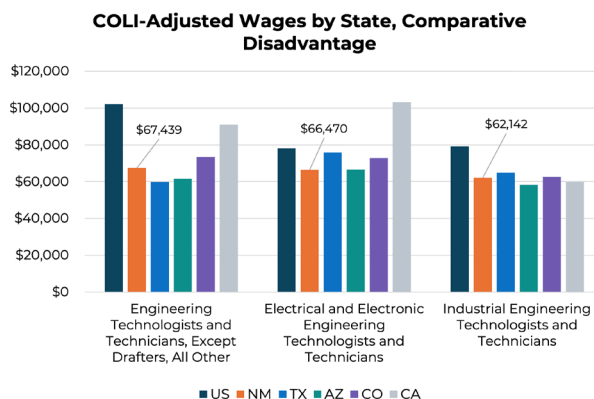


Figure 14: Comparison of Wage Compensation NM vs. Other States. Cost of Living Index (COLI)-adjusted annual wages for five different engineering and technology occupations across six different locations: the United States (US) average, New Mexico (NM), Texas (TX), Arizona (AZ), Colorado (CO), and California (CA).

IN SUMMARY

New Mexico's space and technology sectors are an economic driver in the state's economy and workforce. The findings herein underscore New Mexico's strategic advantages in these sectors, including its favorable geographic location, established research infrastructure, and economic incentives. However, the report also identifies challenges related to an aging workforce, a mismatch in educational attainment and industry demands, and regional competitiveness in certain engineering fields.

KEY FINDINGS IN NEW MEXICO'S LABOR MARKET ANALYSIS OF THE SPACE AND TECHNOLOGY SECTORS

Strong Economic Contribution:

- The space and technology sectors significantly contribute to New Mexico's GDP, particularly through government enterprises, professional, scientific, and technical services, and manufacturing.
- *High-tech* industries grow faster and show greater resilience during economic downturns.
- The *Scientific Research and Development Services* industry employs over 31,000 people with an average salary of \$123,000, demonstrating strong growth over the last decade.
- New Mexico has a high concentration of *High-tech* firms, with STEM employment significantly exceeding the national average.

Workforce Demands and Trends:

- There is high demand for engineers and analysts, particularly those with bachelor's or master's degrees.
- Major employers include BlueHalo, Rocket Lab USA, Sierra Nevada Corporation, and Sandia Corporation.
- An aging workforce highlights the need for investing in education, training, and pipeline development.

Talent Pipeline and Education:

- While New Mexico has a higher rate of individuals with some college experience, it lags the national averages in bachelor's degree attainment.
- Engineering degree completions are declining in most disciplines except aerospace engineering, which is growing.
- Computer and information sciences degrees show growth in cybersecurity but vary in other fields.

Regional Compensation and Competitiveness:

- New Mexico's Cost-of-Living Index (COLI) is close to the national average, making it competitive for aerospace and materials engineers.
- However, mechanical, and other engineering technologists and technicians earn less than the national average and compared to neighboring states.

Areas of Concern:

- The state needs to increase the number of degree-holders.
- The scientific R&D workforce is aging, creating a demand for younger professionals.
- Certain engineering roles offer lower wages, impacting competitiveness.

KEY FINDINGS

Labor Market Analysis

Strong Economic Contribution

New Mexico's Space, Defense, and Technology sectors drive GDP growth, show resilience and rapid expansion.

Workforce Demands and Trends

There is strong demand for engineers and analysts with bachelor's or master's degrees. An aging workforce in research sectors underscores the need for younger talent.

Talent Pipeline and Education

New Mexico lags in bachelor's degree attainment and engineering degree completions are declining, except in Aerospace Engineering. Cybersecurity degrees also show growth.

Regional Compensation and Competitiveness

New Mexico's cost of living is near the national average, supporting competitiveness for aerospace and materials engineers. Mechanical engineers and engineering technicians earn less than the national average and neighboring states.

Areas of concern

The state needs to increase the number of degree-holders. The scientific R&D workforce is aging, creating a demand for younger professionals. Certain engineering roles offer lower wages, impacting competitiveness.

SECTION 2: UNDERSTANDING EMPLOYER NEEDS AND CHALLENGES FOR DEVELOPING A SPACE AND TECHNOLOGY WORKFORCE PIPELINE

Labor market data offers valuable insights into employment trends, workforce demands, and industry needs in New Mexico. However, it is the firsthand experiences of employers that bring depth and context to these challenges and opportunities. To build a strong workforce pipeline for New Mexico's space and technology, we must first understand the obstacles employers face in hiring for talent and supporting the future workforce. With these challenges in mind, we can develop targeted workforce development strategies that align with space industry needs in New Mexico.

The perspectives of industry employers are essential, given the advanced and technical skill requirements of these industries and their evolving demand for a multidisciplinary workforce. Valuable insights that we

cannot gain from labor market data, such as hiring challenges, skill gaps, and employer perspectives on the readiness of local talent, were collected through survey responses. Qualitative data was collected during two in-person round table summits, held in both Las Cruces, New Mexico (October 2024), and Albuquerque, New Mexico (January 2025) (detailed reports in Appendix III and IV).

The survey was distributed to NewSpace Nexus's extensive network of over 350 space and technology companies, many headquartered in New Mexico. The survey was designed for input from senior leadership that are actively involved in hiring initiatives within their organizations. An example of the survey questions can be found in Appendix V, as well as the summary of the summit discussions.

EMPLOYER SURVEYS AND STAKEHOLDER INTERVIEWS

Surveys and interviews were conducted with a diverse group of employers in the space and technology sectors, including representatives from national laboratories, defense contractors, aerospace companies, and technology firms (listed in Appendix VI). Of the 24 survey respondents, 58% represented organizations headquartered in New Mexico, within specific counties: Bernalillo,

Sandoval, Santa Fe, and Sierra counties. The other 42% represented entities that are headquartered out-of-state, including: California, Virginia, Florida, Utah, Colorado, and Michigan. Although the survey received responses from various employers, no representatives from Doña Ana County participated.*

* The findings of this research are generally consistent with the employer insights in The Bridge of Southern New Mexico's Aerospace, Commercial Space, and Defense Roundtable report prepared in 2020.

CAREERS THAT DRIVE THE SPACE AND TECHNOLOGY SECTORS IN NEW MEXICO

To better understand current hiring trends in the space and technology sectors, the survey asked employers about the technical roles they currently prioritize. The top category was *research and technology development* at 19% (Figure 15), followed by roles in areas such as *space and defense, ground stations and equipment, launch support*, and other technical fields, occupations categorized as *research and development in the physical, engineering, and life sciences* (NAICS 54) industry subsector highlighted in the labor market analysis.

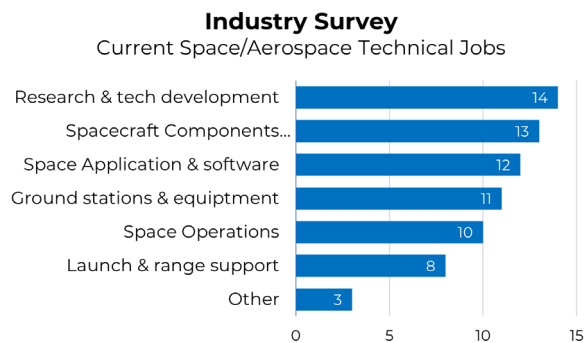


Figure 15: Industry Survey Responses – Primary Space or Technical Jobs Hired. This figure represents the aggregated responses to the survey question: “What space or technical jobs does your organization primarily hire for?”. Responses listed as “Other” include embedded systems and electronics engineering technicians, systems engineering.

When asked to identify the top job categories within their current workforce, respondents reported that the highest number of employees fell under the ‘Aerospace’ category, followed by the ‘STEM’ category (Figure 16).

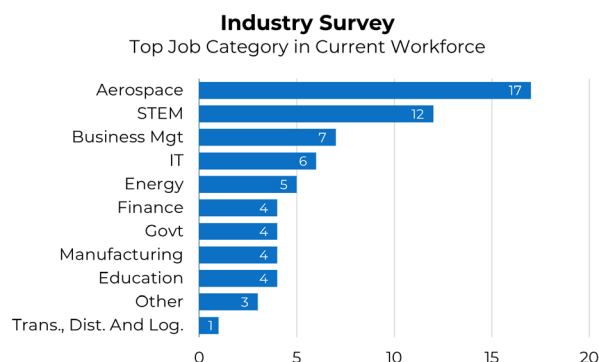
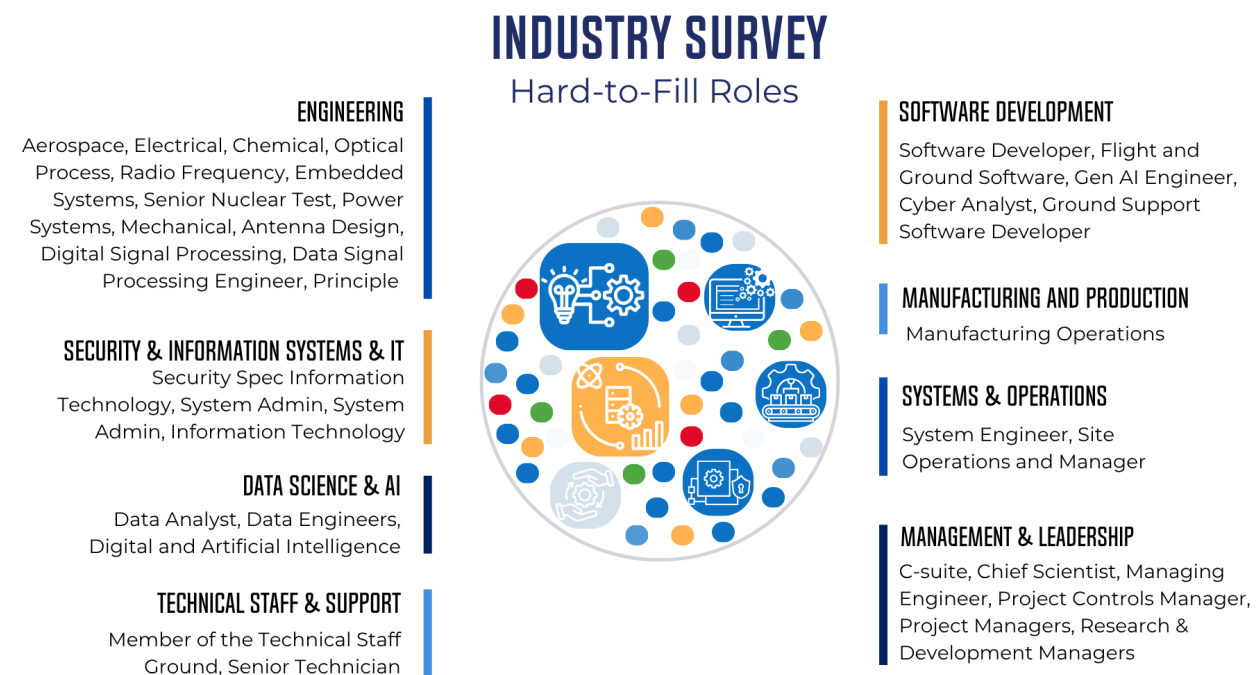


Figure 16: Industry Survey Responses – Top Job Categories in Employer’s Current Workforce. Reported as total aggregated jobs across all survey responses. Trans., Dist. Log: Transportation, Distribution and Logistics; IT: Information Technology.

The third-largest category was in business administration and finance, highlighting the need for non-technical positions in driving innovation and business growth within an organization. In fact, other non-STEM (i.e. non-technical) jobs that play an important supporting role included project/program management, human resources, business development, and financial/accounting, among others (Appendix V). Understanding the breadth of needs to grow the industry emphasizes the importance of developing both technical and non-technical talent pipelines. While STEM roles are critical for innovation and research, business and administrative functions ensure efficient operations,

strategic growth, and financial sustainability. Addressing workforce gaps across these areas will require a balanced approach to education, training, and recruitment, ensuring that organizations have the diverse expertise needed to thrive in a competitive landscape.

Employers provided a detailed list of job titles for their hardest-to-fill positions, primarily falling in the engineering and information technology occupations. Of all the jobs identified by employers that were hardest to fill, engineering specialties, like aerospace, electrical, process, and chemical, were mentioned most. Second, were data and computer science-related occupations (full list in Appendix V).



Hard-to-Fill Roles

TARGETING KEY SKILLS FOR THE SPACE AND DEFENSE TALENT PIPELINE

To effectively develop a talent pipeline strategy for the space and technology sectors in New Mexico, there needs to be strategic alignment between what is taught in the education system with the skills needed for careers in this sector. Therefore, the most important data we can get from these surveys is the identification of specific technical skills that

are needed to be successful on the job. And not surprising, employers had a lot to say about the skills they needed to fill current roles that were most lacking from potential candidates. The technical skills that were reported in the survey responses are represented below and follow these three STEM disciplines, computer, engineering, or specialty skills:

INDUSTRY SURVEYS

Technical Skills Most Lacking in Potential Candidates



COMPUTER SKILLS

- Circuit Design
- Cloud Computing
- Cyber Threat/Pen Testing
- Data Engineering
- Linux
- Space Systems Hardware
- Systems Analysis
- Systems Design



ENGINEERING-RELATED SKILLS

- Embedded Systems Engineering
- Engineering Technical Management
- Radio Frequency Engineers (Knowledge, Skills, Abilities for RF)

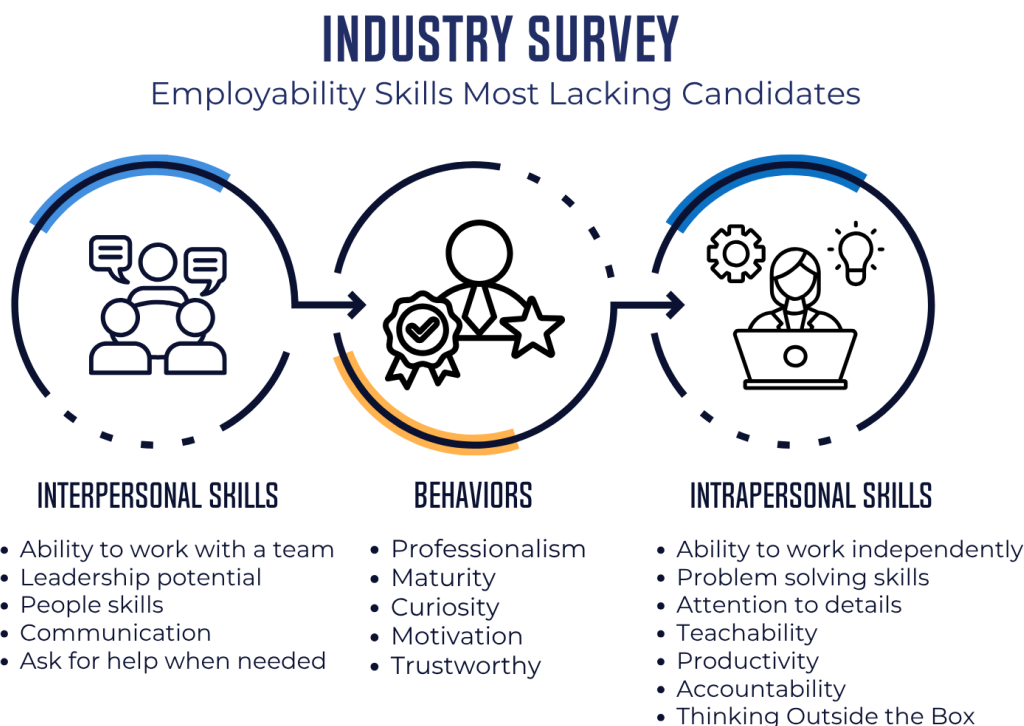


SPECIALIZED SKILLS

- Cost Analysis
- Risk Assessment & Management
- Antenna Related Experience
- Security (Cyber, Physical, Risk, Personal)
- Physics
- Project Management

In addition to the technical skills, employers also identified the following employability or “soft” skills that were needed and frequently lacking in

the current talent pool. The areas identified in the January 2025 employer round table are highlighted below:



Employers indicated a disconnect between what students are taught in the classroom and how to apply it in the workforce, lamenting that academic rigor with STEM programs at universities and colleges seemed to be declining. From the industry surveys, direct insight into how they feel education should better prepare students for the workforce include: “*Integration of hands-on training*”, “*project-based learning*”, and “*better alignment of college programming with industry needs*” are key to growing the best talent for the space and technology sectors. Professionalism was also identified as lacking in post-secondary graduates.

Looking ahead to the future of the industry and its evolving demands, employers emphasized the need for candidates to adapt to rapid advancements in technology, develop strong data tracking and evaluation skills, understand space-qualified component design and fabrication, possess

fundamental STEM competencies, and demonstrate effective management skills.

Stronger partnerships between public and private industry and secondary and postsecondary education systems will be essential in ensuring that curriculum design and implementation can respond and adapt as the industry evolves. Career Technical Education (CTE) programs and non-credit-bearing college programs that produce skill-specific, industry-recognized credentials (e.g. IT, cybersecurity, software development) will be well-positioned to make faster pivots to keep pace with the industry. Although underutilized (per survey responses), the workforce system (comprised of programs from the Department of Workforce Solutions at the state level and Workforce Connections offices at the local level) can support employers and job seekers with funding and services to support and strengthen these connections.

IN DEMAND ROLES MOSTLY REQUIRE POST-SECONDARY DEGREES

The space and technology sectors are inherently driven through research, innovation, and technological advances that push mankind toward seemingly endless areas of exploration and conquest. As a result, employers seek a workforce with diverse, multidisciplinary expertise. Given the industry's rapid growth, attracting talent requires collaboration across multiple technology sectors.

Labor market data highlighted the need for advanced post-secondary education for top occupations within the space and technology sectors. And employers surveyed on this question reinforced this finding, with 86% identifying their hardest-to-fill positions as 'high-skilled' roles requiring advanced degrees, while the remaining challenges were in 'mid-career' (i.e., experience level) positions. Notably, no respondents had

difficulty filling entry-level or 'low-skilled' jobs, indicating either a lack of entry-level jobs needed in these organizations or progress in developing this segment of the talent pipeline.

To gain deeper insight into the workforce needs of this sector based on educational attainment, survey responses indicated that most roles require post-secondary education, with 42% needing a bachelor's degree and 25% requiring a master's degree (Figure 17). In contrast, only 17% of roles required an associates degree, and these positions were generally easier to fill. The jobs that were identified that did not require a formal credential or degree were administrative assistants, engineering and process technicians, event and facilities planning, as well as roles in IT and design.

INDUSTRY SURVEY
MINIMUM CREDENTIALS FOR EMPLOYMENT

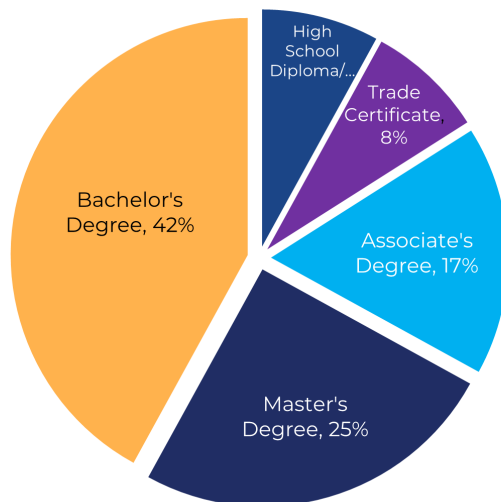


Figure 17: Industry Survey: Minimum Credentials for Employment. Represented as a percentage.

Survey respondents identified mechanical and electrical engineering as the most in-demand degrees for the sector (Figure 18). However, degrees in business management, administration, and information technology—covering areas such as cloud architecture, software development, computer science, and data science—were also highly valued. Additionally, degrees in science, physics, and statistics were mentioned, along with business-supporting fields like communications, marketing, and project management.

This presents a challenge for New Mexico, which has historically lagged in degree production compared to the national average, with only 16% of the state's population holding a bachelor's degree (Figure 7).

This data, combined with the declining number of engineering graduates identified in the Labor Market Analysis, reinforces employers' concerns about the difficulty of filling these positions due to a limited talent pool with the necessary qualifications.

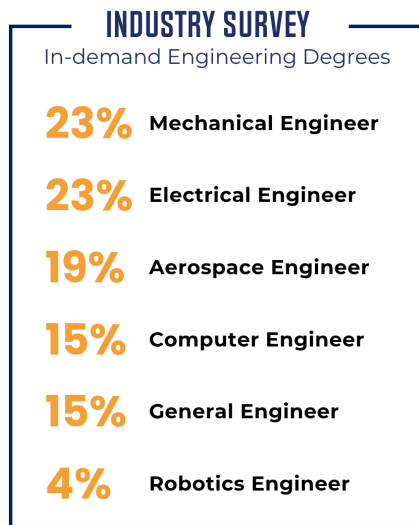


Figure 18: Industry Survey: In-Demand Engineering Degrees Valued by Employer. Represented as a percentage.

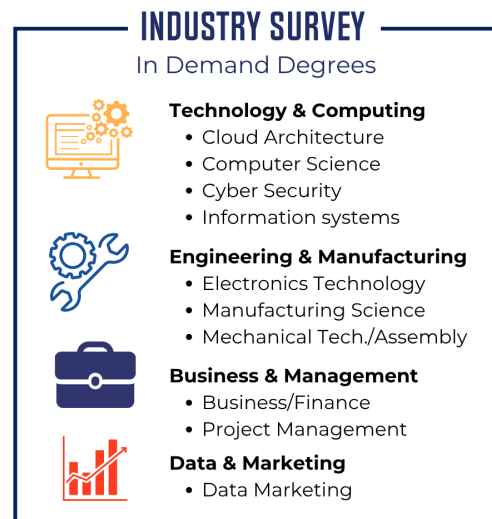


Figure 19: Industry Survey: In-Demand Degrees Valued by Employer

ALTERNATIVE STRATEGIES FOR STRENGTHENING THE TALENT PIPELINE: SKILL-BASED HIRING AND CROSS INDUSTRY RECRUITMENT

There is a national shift away from degree-only hiring toward a skills-based approach, where candidates are evaluated based on demonstrated knowledge, skills, and abilities rather than just advanced formal education. New Mexico's STEM sectors seem to be embracing this trend, where hands-on experience, technical proficiency, and non-degree industry certifications are also evaluated when hiring for critical roles. Among survey respondents, two out of every three employers identified skills-based hiring as a key strategy for expanding their talent pipeline.

While advanced degrees remain a key requirement, per the industry survey responses and labor market data, expanding entry points for diverse candidates, such as career changers, individuals with military or vocational training, and those from non-traditional backgrounds, could help ease workforce shortages. To support this shift, companies may need to reconsider strict degree requirements for certain roles and establish strategic partnerships with educational programs to offer specialized training outside the traditional higher education model, such as an earn-while-you-learn apprenticeship model. This approach would create multiple pathways for students and professionals to enter the industry while equipping them with the essential skills needed for success within these roles.

In addition to providing non-degree avenues for success in the space and technology sectors, an alternative approach to building a talent pool could

involve recruiting from other industries that require similar skills and training. Quantifying the number of potential workers with valuable, transferable skills who are currently employed in other industries remains a challenge. However, employers identified the energy sector (including renewable energy and oil and gas), advanced manufacturing, and the automotive industry as key sources of talent with relevant expertise. The energy sector employs a substantial number of engineers, technicians, mechanical operations specialists, photovoltaic experts, and data analysts, many of whom possess formal education and technical skills that could seamlessly transition into space and technology sectors roles. Likewise, the automotive industry, particularly with its advancements in electric and autonomous vehicles, is home to engineers, electronic technicians, mechanics, artificial intelligence specialists, and cybersecurity experts, skill sets that closely align with the evolving needs of the space and technology workforce.

Tapping into these adjacent industries presents a strategic opportunity for employers to bridge talent gaps, particularly in high-demand technical fields. Developing targeted cross-training programs, industry partnerships and customized training, and skill-matching initiatives could accelerate workforce transitions, allowing professionals from these sectors to seamlessly integrate into New Mexico's growing space and technology ecosystem.

RECRUITING TALENT FOR THE SPACE INDUSTRY IN NEW MEXICO

To understand the innate challenges faced by employers when recruiting STEM talent in New Mexico, many survey respondents found it 'slightly more difficult' than recruiting in the rest of the

country. On a scale of 1 to 10, they indicated a 7-point average difficulty versus a 6-point US average, which shows these are challenging roles to fill in general.

Employers in New Mexico rated STEM talent recruitment a **7 out of 10** in difficulty. Higher than the national average of 6.

When employers struggle to fill positions, nearly 90% of respondents cited a lack of interest in living in New Mexico and under-qualified candidates as the primary challenges. Additionally, over 50% noted that limited work experience among candidates

made it difficult to find qualified hires for mid-career roles. Another critical factor is the ability to obtain a security clearance, with nearly half (47%) of surveyed employers indicating that their roles require clearance, further narrowing the pool of eligible candidates.

INDUSTRY SURVEY

Workforce Recruitment Challenges

DO NOT HAVE
THE
NECESSARY
SKILLS (86%)

DO NOT WANT
TO LIVE IN THE
LOCAL AREA
(86%)

LIMITED
WORK
EXPERIENCE
(57%)

DO NOT HAVE
NEEDED DEGREES
OR CERTIFICATES
(29%)

DO NOT MEET LEGAL
REQUIREMENTS AND/OR
CANNOT PASS DRUG
SCREENING (14%)

LACKING
SUFFICIENT
TRAINING (29%)

INTEREST IN THE TYPE
OF JOB IS LOW (14%)

TALENT CANNIBALIZATION

PRIVATE SECTOR: NOT ABLE TO
COMPETE WITH PUBLIC SECTOR WAGES
AND BENEFITS

Employer survey responses highlighting recruitment challenges are unsurprising, given the consistently low unemployment rates in recent years. As of February 2025, New Mexico has approximately two job openings for every job seeker, emphasizing the intense competition among employers for a limited talent pool in a tight labor market. Additionally, the state's Labor Force Participation Rate stood at 57.7% in December 2024, significantly lower than the national average of 62.5%. This gap highlights a fundamental challenge in expanding the workforce for the space and technology sectors, as fewer individuals are actively engaged in the labor market. The challenge is further compounded by the widespread perception that these roles require formal degrees and extensive experience.

Within this challenging environment, the employers surveyed are applying a 'broad reach' approach to identifying and hiring talent. Most recruitment is through professional recruiting firms (i.e., headquarters), with the greatest successes in recruitment from current employee referrals and through paid job advertisements (Figure 20). Only a few employers were leveraging the state's programs for hiring and retention support, including free online job postings and candidate search support. Only one in three are using employer-focused supports like the state's recruitment and screening strategies, and even less (17%) taking advantage of candidate pre-screening and reimbursables for upskilling existing employees.

Employers indicated a variety of sources for finding the best talent at this time:



Figure 20: Word cloud recruitment strategies

While employers identified several good sources for recruiting talent, there is a general concern among employers that good talent is leaving the state. This creates an imperative for the state to do better in building awareness for students of career opportunities in New Mexico while they are still in school, so they can be better prepared for pursuing these high value careers that align with regional workforce and economic development goals.

Employers also identified the need for a better “narrative” about working in New Mexico for adult workers who are already here and for attracting other professionals from across the country into the state's growing industry. Benefits such as low cost-of-living, great weather, diversity of the work, and abundance of opportunities can serve as great assets in building that narrative.

KEEPING NEW MEXICO TALENT: WORKFORCE RETENTION STRATEGIES

Recruiting employees is already a significant challenge but keeping them is an even greater concern. Employers risk losing trained workers to both local and national competitors, a common issue in the industry. Talent “cannibalization” is especially prevalent between private companies and the public sector, including the national labs and military-affiliated organizations. One employer noted that even modest financial incentives can be enough to lure professionals from one company to another, making it increasingly difficult for businesses to maintain a stable workforce. Addressing this challenge may require competitive compensation strategies, stronger retention and upskilling programs, and initiatives that emphasize long-term career growth within the private space and technology sectors.

When asked about strategies for retaining their workforce, employers identified a range of approaches to keep employees engaged, motivated, and committed to their teams. Some emphasized intangible factors, such as fostering a sense of ownership and conveying the broader impact of their work. Others highlighted deep problem-solving as a key driver of engagement. One employer noted that even small gestures, like providing breakfast burritos, can make a meaningful difference in workplace morale.

Interestingly, employers overwhelmingly viewed non-monetary factors as more effective retention tools than financial incentives alone. Flexibility in work schedules emerged as the most impactful strategy, with remote and hybrid work options being highly valued, particularly by younger employees seeking a better work-life balance.





Additionally, mentoring programs, where early-career employees are intentionally paired with senior staff or specialists in different areas, were seen as vital in creating a supportive and attractive work environment.

While non-financial incentives were prioritized, financial benefits also played a role in retention efforts. Employers mentioned strategies such as profit-sharing, tuition reimbursement or student loan repayment, and clear pathways to career advancement, including promotions and expanded responsibilities. A full list of retention strategies can be found in Appendix IV and V.

Employers recognize professional growth and development as key retention strategies. To increase the number of mid-career professionals in the industry, a “grow-your-own” approach, or the practice of investing in the upskilling and advancement of existing staff, could prove more cost-effective than the expensive and uncertain process of recruiting outside talent who may not stay long-term. By focusing on internal development and strategic talent transitions, employers can strengthen workforce stability while reducing reliance on external recruitment.

Summit participants also discussed this as part of their retention efforts and mentioned specific strategies to strategically grow talent from within through both

education and mentoring, covering topics in leadership growth, skill expansion, and foundational learning.

New Mexico’s workforce system is well-equipped to support employers in strengthening their recruitment and retention strategies by providing financial resources and wage reimbursement programs to help address workforce challenges. They can also play a pivotal role by connecting job seekers, especially those with transferable skills from other industries to employers eager to grow a mid-level workforce. These mid-career professionals, who often bring valuable work experience, could significantly reduce the need to import talent from out of state.

Both the NM EDD and the New Mexico Department of Workforce Solutions have designated aerospace as a target industry, creating specialized business support resources and wage reimbursement support to attract and further develop these industries in New Mexico.

Furthermore, employers can invest in upskilling their current workforce by leveraging tuition assistance programs like the Opportunity Scholarship, administered by the New Mexico Higher Education Department. By utilizing these state-supported initiatives, businesses can enhance workforce development efforts while reducing the financial burden of training and retention.

INTERNSHIPS AND YOUTH ENGAGEMENT

To better understand the talent shortage in the space and technology sectors from an industry perspective, the survey asked: *“What do you believe is the biggest barrier to getting more students interested in space-related careers?”* Employers expressed common

concerns, highlighting a general lack of awareness, and understanding of the industry, limited early STEM education, and insufficient math and science preparation (Appendix V).

INDUSTRY SURVEY

Biggest barrier to getting more students interested in space-related careers

EARLY STEM EDUCATION

- Lack of exposure for students to realize they can do it
- Missing early science education
- Weak math and science education

CAREER AWARENESS AND OPPORTUNITIES

- Lack of knowledge of the opportunities
- No awareness or access to entering the field
- Failure to recognize long-term opportunities
- Missing a degree

INDUSTRY UNDERSTANDING AND WORKFORCE READINESS

- Limited awareness of job roles
- Not understanding diverse roles in space companies
- Not recognizing the increasing demand & future opportunity
- Lack of visibility of many roles with national labs in NM

Awareness emerged as a recurring theme, as early exposure plays a crucial role in shaping the talent pipeline. Expanding early exposure to these careers, starting as early as elementary school, and creating a clear pathway from awareness to exploration, preparation, credentialing, and employment will help broaden the pool of young talent prepared to enter New Mexico’s growing space industry.

When it comes to access points for more students to engage with and prepare for careers in the space and technology sectors, employers were surveyed about their current internship practices and how they interact with students through training opportunities. Among the responses, four employers reported offering internships, apprenticeships,

and on-the-job training for high school and college students as part of their talent pipeline strategy and to teach industry-specific skills to the next generation of workforce. However, several challenges remain, including the time required to supervise interns, funding for internships, difficulty publicizing opportunities, restrictions on integrating individuals without security clearances into contracts, lack of housing, and the timing of available positions. Additionally, many space-related jobs in New Mexico are located at sites with restricted public access—such as military installations, national laboratories, and defense contractors—creating logistical barriers to providing hands-on training opportunities.

CULTIVATING A VIBRANT TALENT PIPELINE FOR THE FUTURE

To build a thriving talent pipeline and position New Mexico as a hub for high-skill, high-demand, and high-wage industries, it is essential to create an ecosystem where companies not only want to establish themselves but also remain and grow. Feedback from summit participants underscored three critical areas for action: strengthening connections to resources by fostering industry collaborations and enhancing capacity-building efforts; increasing awareness of career opportunities

in technology and advocating for policies that retain space-related jobs in the state; and expanding the local talent pool by aligning university curricula with industry needs, engaging youth and college students through internships, and developing a robust mid-level workforce. Addressing these priorities through targeted, collaborative efforts will ensure that New Mexico develops a sustainable, dynamic workforce capable of meeting the evolving needs of its growing industries.

INDUSTRY SURVEY

Critical Areas of Action to Create a Thriving Ecosystem



- Develop and support industry collaborations for workforce development strategies
- Connection to a talent pool and talent pipeline
- Capacity-building ecosystem support for funding, recruiting, & scaling



- Making students and professionals aware of the breadth of opportunity in Tech in New Mexico
- Advocate with the New Mexico Congressional Delegation to keep space jobs in New Mexico



- Alignment between university curriculum and the skill needs of industry
- Engage youth and college students through internship programs
- Build mid-level position community (those with 10-15 years of experience)

Surveys and interviews revealed key barriers for employers, including difficulties in recruiting for advanced-degree roles, a shortage of qualified candidates, and limited support for internships and work-based learning (WBL) opportunities. Despite these challenges, employers are eager to invest in building a strong talent pipeline, provided they receive the necessary support, partnerships, and resources. The most pressing issue is the shortage of advanced technical talent, which requires a comprehensive strategy to develop a sustainable workforce. This strategy includes three main approaches: first, expanding local

talent development through targeted education initiatives that offer multiple entry points into space careers; second, attracting skilled mid-level professionals from other regions to strengthening the workforce; and third, leveraging talent from adjacent industries—such as oil and gas, clean energy, and advanced manufacturing—that require similar technical expertise. By aligning these efforts and fostering collaboration, New Mexico can create a thriving ecosystem where students, professionals, and employers all benefit, ultimately strengthening the state's workforce for the future.

KEY FINDINGS FOR INDUSTRY-FOCUSED TALENT PIPELINE DEVELOPMENT

- **Challenges hiring for advanced degree engineering roles:** New Mexico's engineering talent pool does not meet the diverse career demands of the industry. And while postsecondary degrees remain highly valued by employers, the limited production of these degrees threatens the long-term talent pipeline.
- **Openness to skill-based and cross-industry hiring:** 65% of employers express openness to skill-based hiring, expanding the various pathways of entry into the sector without the necessity of a formal bachelor's degree. Leveraging talent from adjacent industries with similar skill sets may help offset a workforce shortage in this growth sector.
- **Internships and on-the-job training as a talent pipeline strategy:** Employers recognize internships and hands-on training as essential components of their talent pipeline. However, challenges such as administrative coordination, funding limitations, and security clearance restrictions hinder their ability to offer these opportunities.
- **Widening gap between education, training, and workforce readiness:** Employers report a growing disconnect between education and workforce readiness, citing a decline in the technical skills and abilities of recent graduates and the critical need for employability or "soft" skills training.
- **Recruitment and retention challenges and successes for New Mexico employers:** The private sector face challenges in competing with the higher wages and benefits offered by the public sector. Flexibility in the type of work and scheduling emerged as the most effective strategy for retaining their workforce, in addition to mentoring.

KEY FINDINGS Industry Survey

Engineering Talent Gap

New Mexico's engineering talent supply falls short of meeting the diverse needs of the industry, creating broader limitations for both companies and the supporting workforce.

Talent Pipeline Issues

Employers value postsecondary degrees, but limited degree production could restrict the talent pipeline. However, 65% of employers are open to skill-based hiring, offering an opportunity to tap into a broader talent pool.

Recruitment and Retention Challenges

Start-ups and small businesses struggle to compete with public sector wages and benefits, leading to frequent recruitment, training, and turnover cycles that weaken the overall sector.

Closing the Skills Gap

Employers perceive a decline in graduates' knowledge, skills, and abilities, highlighting a gap between education and employment. They also noted a shortage of essential soft skills in the talent pool.

Strengthen The Talent Pipeline

Stronger industry-education partnerships, more resources and support for training, and emphasis on both technical and non-technical roles



SECTION 3: NEW MEXICO'S STEM ENRICHMENT AND CAREER READINESS PROGRAMS: ASSET MAPPING OF CAREER PATHWAY PROGRAMS

Previous sections examined the workforce pipeline through labor market data and employer perspectives. Next, we explore the career pathway programs currently available to students and identifying gaps in accessing and progressing through the STEM talent pipeline in New Mexico. The term “Career Pathway Programs” refers to a broad concept that includes programs designed to support students at all educational levels, from early childhood through postsecondary education. These programs, whether during or outside of school, create and foster learning opportunities and

STEM exploration, introducing students to various concepts and ideas, while ultimately guiding them towards career exploration and readiness.

Herein, an asset map was created and assessed to quantify the availability of programs by region and discipline, identify gaps in accessibility and curriculum, and highlight opportunities for better industry alignment. These insights will guide actionable recommendations to strengthen pathways from education to employment in New Mexico's growing space and technology industries.

THE STEM WORKFORCE DEVELOPMENT ECOSYSTEM IN NEW MEXICO

New Mexico boasts a rich STEM ecosystem supported by a diverse array of programs, institutions, and industries that contribute to workforce development. From national laboratories to private technology and space startups and companies, the state is home to cutting-edge research, technological advancements, and a

growing demand for a highly skilled workforce. Outlined below are the key strengths of New Mexico's STEM ecosystem, highlighting major public and private employers, as well as the public educational institutions of K-12 and higher education that support talent development and workforce readiness:

NATIONAL LABORATORIES & RESEARCH INSTITUTIONS

Los Alamos National Laboratory (LANL) and Sandia National Laboratories are major centers of scientific innovation and the largest STEM employers in New Mexico, with a combined current workforce of over 30,000 employees and over 500 active job openings (February 2025). They actively support STEM talent pipeline development by providing internships and research opportunities for students from K-12 through graduate levels. They also run a program to boost the STEM proficiency of teachers and educators through their foundation. In addition to being the largest STEM employers in the state, these laboratories play a crucial role in driving private sector growth through technology licensing.

The Air Force Research Laboratory (AFRL) at Kirkland Airforce Base plays a crucial role in advancing aerospace and defense technologies, with a significant focus on space-related research. They are invested in developing the future workforce through industry partnerships and hands-on learning experiences, contributing to the growth of the aerospace and defense sector in New Mexico.

HIGHER EDUCATION INSTITUTIONS

University of New Mexico (UNM), New Mexico State University (NMSU), and New Mexico Institute of Mining and Technology (New Mexico Tech) play a pivotal role in STEM education through degree programs, research initiatives, and industry collaborations. In addition to the research universities, New Mexico is home to 13 additional public community colleges and three tribal colleges across the state that provide workforce training, certifications, and associate degree programs aligned with STEM careers.

K-12 STEM EDUCATION & CAREER ENRICHMENT PROGRAMS

New Mexico's public, private, and charter schools, along with Career Technical Education (CTE) programs and out-of-school initiatives, expose students to STEM concepts, offer career exploration opportunities, and equip them with foundational knowledge, skills, and abilities relevant to various industries. Additionally, Explora and Future Focused Education's on-the-job training programs provide students with practical, hands-on experience that enhances their understanding of career pathways and prepares them for both higher education and future career success.

ASSET MAPPING CRITERIA

To conduct a comprehensive gap analysis of career pathways programs in New Mexico, this study employed a multi-step approach, including data collection, program mapping, and evaluation based on the discipline of 'STEM' that the program curriculum supported. The methodology was designed to assess the alignment between existing youth and college-aged STEM enrichment initiatives and workforce needs in the space and technology sectors (and overarching STEM sectors), as well as identify gaps in ages supported, regional accessibility, STEM disciplines, and industry partnerships and engagement. A key focus was determining whether students had continuous access to STEM education and career readiness opportunities throughout their academic journey. A detailed description of data collection and analysis parameters can be found in Appendix VII.

While this gap analysis provides valuable insights into the STEM enrichment and career readiness ecosystem in New Mexico, several limitations should be acknowledged. Many career pathway programs do not readily share detailed information about their program structure or specific participant numbers and demographics, making it difficult to obtain direct insights beyond what was published on their website. Moreover, if the program did not have a website or online content, it was not included in the asset map. This limitation may have led to underrepresentation of certain programs or a lack of depth in assessing their effectiveness. Additionally, while the data collected provide insight into program availability, further evaluation is needed to assess their overall effectiveness and impact on student outcomes, such as how program completion correlates to future education and career success for the student participant.



CAREER PATHWAY PROGRAMS MAPPED

Through this gap analysis, a total of 184 **career pathway programs** were identified across 89 organizations statewide. These programs span a wide range of educational levels, from early childhood STEM exposure to college-level career readiness initiatives. An online, searchable directory of all programs mapped in this study can be found at <http://stem-programs.newspacenexus.org/>. Several noteworthy programs stand out for their impact,

either by serving many students or by effectively supporting underrepresented communities in STEM enrichment and career readiness. These include *Explora*, the *STEM Outreach Center* at NMSU, *Career Technical Education (CTE)* dual credit through New Mexico Public Education Dept., *STEM Academy* at the Air Force Research Laboratory, and *Indigitize*. Detailed descriptions of these programs can be found in Appendix VIII.

ASSET MAPPING: CAREER PATHWAY PROGRAMS

Total STEM Programs Mapped



184 STEM CAREER PATHWAY PROGRAMS

89 ORGANIZATIONS

36 SPACE- FOCUSED PROGRAMS

PROGRAMMING BY STEM DISCIPLINE

STEM career pathway programs across New Mexico encompass a broad range of disciplines, providing students with diverse learning and engagement opportunities. Figure 21 illustrates the distribution of programs by STEM focus area, highlighting the breadth of subject areas covered. As a note, many of the programs offer curriculum that spans multiple STEM disciplines. The largest category, comprising 64 programs, is classified as 'All STEM,' indicating that these initiatives take a generalized approach rather than specializing in a single discipline. This strategy creates a funnel effect, first exposing students to a broad STEM foundation before guiding them into progressively more specialized fields.

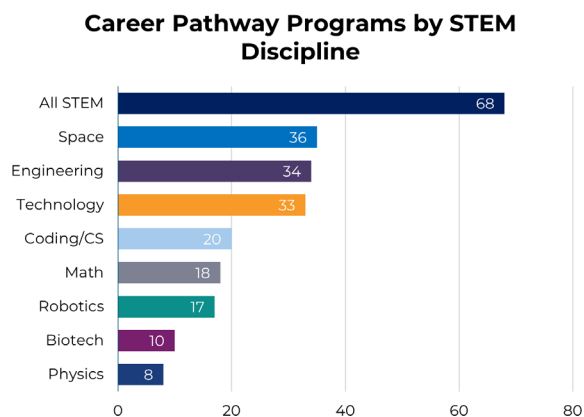


Figure 21: Distribution of STEM programs based on the target STEM Discipline. CS: Computer Sciences. Bar chart represents total aggregated programs across all organizations, statewide in New Mexico.

One example of a program taking a generalized approach is the *Be Pro Be Proud* program, a state-supported career exploration initiative that brings a mobile education unit to schools, allowing students to explore career pathways in automation, robotics, skilled trades, and computer programming. Other prominent career pathway programs with extensive reach, engaging thousands of participants annually, include *Explora* and the *STEM Outreach Center* at NMSU, both highlighted in Appendix VIII.

Through the asset mapping, 36 programs were identified that focused on curriculum with the 'Space and Aerospace' sectors. Many of these programs align engineering and technology curriculum with a focus on space-related applications. Notable initiatives include the *New Mexico STEM Academy* through the AFRL, which provides hands-on STEM

learning experiences in and exposes students to careers on Kirtland Air Force Base. In addition, the annual *Spaceport America Cup* engages students in a global collegiate rocketry competition and the *Albuquerque Aviation Academy* prepares youth for college and careers in aviation and aeronautics.

Thirty-four programs were identified that introduce students to engineering concepts and guide them along potential career pathways. These programs provide a combination of hands-on learning, project-based experiences, and mentorship to cultivate critical thinking and problem-solving skills essential for success in the engineering field. Notable programs include the *Engineering the Future* magnet school, offered through the Albuquerque Public School system, which integrates STEM-focused curriculum with real-world applications to prepare students for future careers. Another program is the *Engineering and Computing Summer Academy* at UNM, a summer program for high school students to explore various engineering disciplines, engage with university faculty, and gain practical exposure to technical concepts that align with industry demands.

The fourth-largest category is 'Technology', with 33 programs focused on developing students' skills and interests in emerging technologies. Key programs in this sector include the *Quantum REACH (QU-REACH) Internship Program* at UNM, which provides students with hands-on experience in quantum computing and research, the annual *Supercomputing Challenge*, a statewide and national competition that engages students in solving real-world scientific problems using computational methods, and the *Technology Leadership High School*, a charter school dedicated to preparing students in grades 9-12 for careers in technology-related fields.

Programs focused on 'Space', 'Engineering', and 'Technology' for K-12 students provide a strong foundation for engaging youth in STEM disciplines and aligns with the workforce needs in New Mexico's space and technology sectors. To effectively bridge the gap between education and employment, efforts should prioritize strengthening programs that focus on technical skill building and problem solving by increasing industry engagement and incorporating career exploration and readiness training alongside project-based learning models. This approach will better equip students with the skills and knowledge needed to succeed in high-demand STEM fields.

PROGRAM DISTRIBUTION BY TARGET AGE AND/OR EDUCATIONAL LEVEL

Programs were categorized based on the age and/or educational level they supported, revealing a strong emphasis on engaging K-12 students—a critical component in developing New Mexico's future STEM workforce. Many of the programs served a range of students, as illustrated in Figure 22, 57 programs (19% of the total) serve Pre-K and elementary students, 81 programs (26%) focus on middle school students, and 94 programs (31%) are designed for high school students. This distribution highlights the investment career pathway programs are making in early STEM exposure and education, ensuring students are introduced to foundational concepts and career pathways at key development stages.

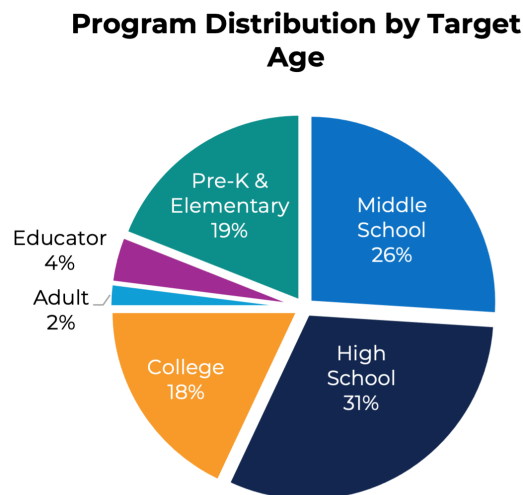


Figure 22: Distribution of STEM programs based on the target age group, as a percentage of total aggregated programs.

Fifty-six statewide programs currently support college (and post-secondary) students in career readiness for the STEM job market. Although less availability of programming compared to K-12, these numbers correspond to a smaller student population and the funding constraints college students have if the opportunities are unpaid.

The fact that only 12 programs focus on support for educators, either through STEM training, curriculum assistance, and mentorship highlights a significant gap in workforce readiness support. Ongoing professional development ensures that educators can effectively

integrate hands-on activities, real-world applications, and industry-aligned knowledge into their teaching, making STEM subjects more engaging, accessible, and relevant for students. By investing in educator training, we can better prepare students for STEM careers and ensure that they are equipped with the skills needed to succeed in the evolving job market.

Additionally, seven programs, mainly makerspaces, professional development, and career coaching programs, support adult learners, representing only 2% of all programs (Figure 22).

Comparing STEM disciplines across K-12 engagement, the target age for program support follows similar patterns of distribution across elementary, middle, and high school (Figure 23). However, one identifiable variation is the limited number of programs (six in total) that introduce engineering-based curricula at the elementary level. Since engineering is a fundamental discipline and a high-demand degree in the space and technology sectors, this gap underscores the importance of introducing engineering concepts at an early stage. Teaching engineering concepts can help students develop critical thinking problem-solving and hands-on technical skills by engaging in activities such as designing simple machines, exploring material properties, and applying math and science principles to real-world challenges. Strengthening early engineering education can better prepare students for advanced STEM learning in later grades and career awareness for these jobs in the future.

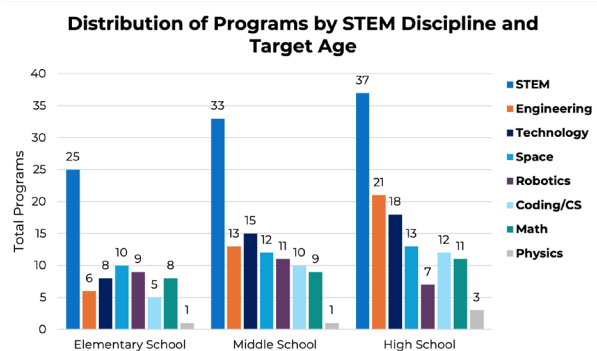


Figure 23: Distribution of STEM programs based on the target age group and STEM discipline. Bar Charts show the total number of programs. CS: Computer Sciences

STEM PROGRAM AVAILABILITY BY REGION AND POPULATION SERVED

Of the 184 STEM career pathway programs identified in the asset map, the geographic reach, and the populations that they serve is often correlated with population density and proximity to institutions of higher education, as demonstrated by the bubble map in Figure 24. The data reveals a strong concentration of programs in the Albuquerque area, representing nearly half (44%) of all listed initiatives. While a smaller number of programs offer statewide reach (19%), which were often publicly funded statewide initiatives. Significant regional efforts were mapped in Northern New Mexico (13%), often aligning with the Los Alamos National Labs and the northern colleges, and Las Cruces (10%). Other rural locations, including Farmington, Socorro, Clovis, Silver City, and Alamogordo, represent smaller percentages of program availability, suggesting potential areas for growth and increased support.

Eight programs were identified that directly serve indigenous populations within tribal boundaries, including programs: *Indigitize*, *Alliance for Indigenous*

Math Circles (AIMC), *STEM SF*, *College Horizons*, *STEM Advancement Program*, *Cultivating Coders*, *Communities to Careers*, and the *Institute of Electrical and Electronics Engineering Club* at the Navajo Technical University. While eight programs may appear sufficient, they primarily offer in-school STEM curriculum and project-based learning but fall short in providing career readiness and on-the-job training opportunities, critical components for adequately preparing underserved populations for the workforce. As the adage goes - "If students cannot see what is out there, they do not know it exists." This gap is particularly pronounced in rural and tribal communities, where access to internships and work-based learning opportunities is limited. As a result, this disparity further widens the gap in STEM career representation and hindering efforts to cultivate a diverse and inclusive STEM workforce. Addressing these gaps is critical to ensuring that all students, regardless of geographic location or socioeconomic background, can engage in high-quality STEM education and career development.

CAREER PATHWAY PROGRAMS

Distribution of Programs by Geographic Reach

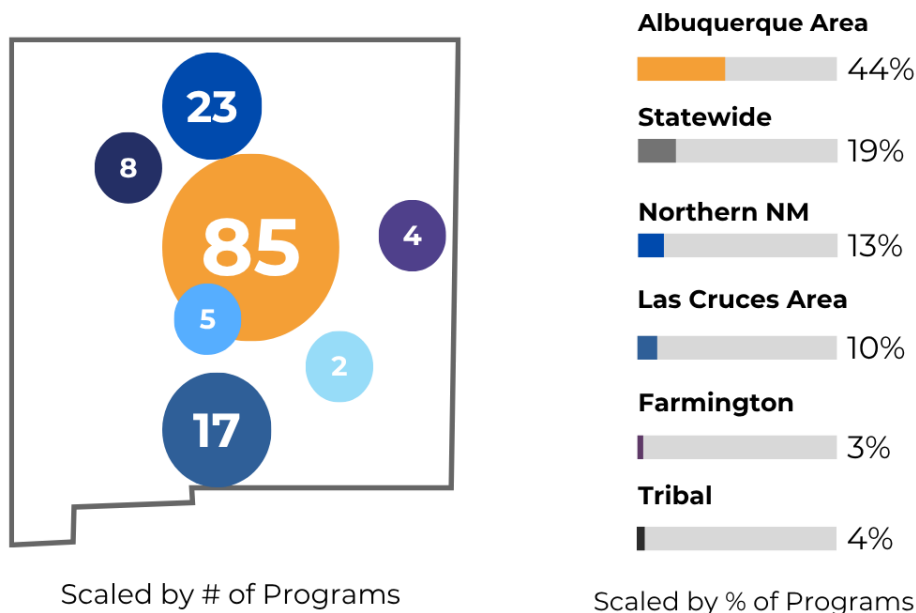


Figure 24: Distribution of STEM programs based on geographic location. This bubble map illustrates the number of programs in each region, with geographic areas color-coded and labeled accordingly. The size of each bubble is proportional to the number of programs mapped in that region.

DISTRIBUTION BY PROGRAM TYPE

Figure 25 demonstrates the distribution of programs based on the structure of the organization, how they interact with students, and/or the structure of their educational offerings. 'Out-of-School Time (OST)' programs make up the largest category, with 128 initiatives focused on after-school activities, summer camps, clubs, and competitions. This strong presence highlights the community's investment in supplemental support and engagement, underscoring the importance of extended learning beyond the classroom.

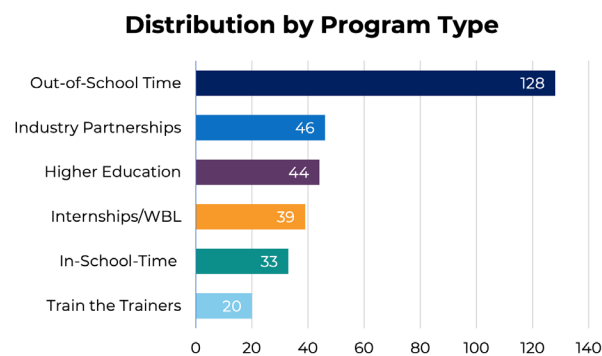


Figure 25: Distribution of STEM programs based on the program type. The bar chart represents total aggregated programs. WBL: Work-Based Learning.

The asset map identified 46 'Industry Partnership', primarily within programs that facilitate the connection between education and careers by offering internships, career exploration programming, onsite visits, and classroom demonstrations. These programs are often organized and funded by a public or private employer in the region. For example, AFRL supports the *NM STEM Academy* and the *Spaceport America Cup*.

Since New Mexico's STEM ecosystem is primarily made up of startups, small businesses, national labs, and federal contractors—rather than large corporations—establishing meaningful partnerships for student career readiness requires intentional support to help employers create and sustain these opportunities. Therefore, the asset map categorized programs that specifically organized and facilitated 'Internships/Work-Based Learning (WBL)' opportunities for students. Statewide, 39 programs provide hands-on experiences that help students explore career paths and develop essential job-ready skills. Such programs include the *X3 Internships by Future Focused Education* and the *STEMArts Ambassador Program*.

Programs that are primarily facilitated and funded by institutions of 'Higher Education' also contribute significantly, with 44 programs that provide students with research opportunities, educator support, develop STEM curriculum, and outreach initiatives to engage students in STEM fields.

'K-12 public education (In-School-Time)' programs, with 33 initiatives, focus on integrating STEM learning into the traditional school day, enhancing curriculum and career readiness efforts through STEM curriculum tracks, CTE, and charter and magnet schools. As a note, the number of programs does not include the curriculum that is taught at every public school in the state, but on focused programming and funding support for enrichment in STEM and specific career readiness initiatives. Additionally, 20 programs are categorized as 'Train-the-Trainer', supporting educators by equipping them with the tools and resources needed to improve STEM instruction, creating a multiplier effect on student impact.

PROGRAMS FOCUSED ON SPACE INDUSTRY

Of the statewide programs identified across all age ranges, 36 programs provide space-focused curriculum (Figure 26). The majority are 'OST' programs (29) and 'Industry Partnerships' (17), indicating that much of STEM engagement occurs outside traditional classroom settings and relies on collaboration with regional non-profits and public and private employers. While partnerships with 'higher education' and 'Internships/WBL' programs provide opportunities for college students, there are fewer structured pathways for K-12 students to transition into STEM careers. 'In-School-Time' programs (2) and train-the-trainer initiatives (2) are significantly underrepresented, highlighting a gap in public education STEM integration and professional development for educators. Age distribution shows a relatively balanced engagement across elementary (10), middle school (12), high school (13), and college (13), suggesting sustained interest in STEM but fewer targeted programs supporting career readiness at the high school-to-college transition.

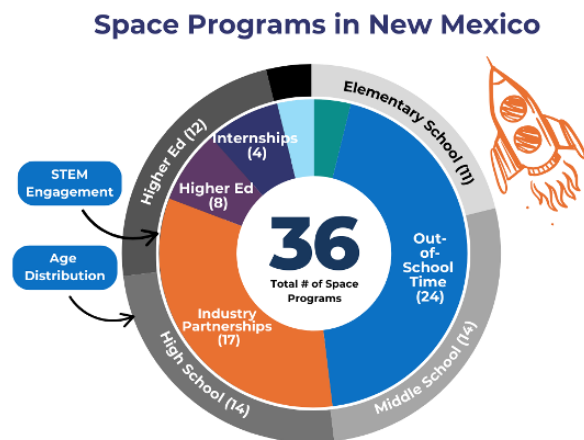


Figure 26: Distribution of Space-focused Programs. Pie charts represent total number of programs in New Mexico (36), distributed by types of programs (inner chart), and target age ranges (outer chart).

The 'Industry Partnerships' identified in this study are predominantly concentrated within federally funded research initiatives. For example, AFRL operates several, large-scale workforce development programs that provide students with technical expertise in space-related fields such as robotics and

satellite technology, such as the *AFRL Scholars* and the *AFRL Career STREAM Apprenticeship* program. The *NanoSatellite* program follows a WBL model in which college students compete in satellite-building challenges. Despite its potential, participation from New Mexico students and educators remains low. Since these programs are federally funded, they do not prioritize in-state students, as evidenced by the 2024 competition, which did not feature a single team from New Mexico. Additionally, federally funded programs primarily prepare students for research-based careers rather than broader opportunities within the private commercial space industry, underscoring the need for private industry investment in OST and youth student engagement through career exploration programs.

Higher education institutions also contribute to space-focused programming through initiatives like *UNM's Space Day*, the *Sustainable Space Research Grand Challenge*, and the *STEM Advancement Program (STEMAP)*. Beyond student-led STEM organizations, structured collaborations between colleges and private industry remain limited, further widening the gap between education and industry alignment for talent pipeline development.

A significant gap in New Mexico's space-focused STEM talent pipeline is the limited engagement from private industry. Although some companies provide internships or take part in local workforce initiatives, these opportunities are often hard to locate, and limited in the number of students they serve. Larger corporations with operations in New Mexico typically manage internships through their national headquarters (out-of-state), making them highly competitive and available to students across the country. Programs such as BAE Systems' LEAP Summer Internship and the RISE Intern program at Redwire exemplify this trend. Meanwhile, among startups and small businesses based in New Mexico, no dedicated or coordinated internship programs were identified. This lack of accessible, locally focused work-based learning poses a significant barrier to preparing students for careers in the space and technology sectors—and represent a key opportunity for growth through targeted programming and strategic partnership.

CONTINUITY IN SUPPORT FOR STUDENTS TO PROGRESS THROUGH THE TALENT PATHWAY

While New Mexico offers a wide range of STEM programs, career exploration initiatives, and academic opportunities, the current asset map highlights a fragmented system. Many of these programs operate in isolation, supporting their specific student populations without strong connections to the next phase of education or career readiness. As a result, there is a noticeable lack of structured pathways that guide students from early STEM exposure through higher education and into the workforce.

This disjointed approach makes it difficult for students, particularly those in rural and underserved communities, to navigate the STEM pipeline and take full advantage of the resources available to them. Out-of-school time (OST) programs, while robust in numbers and extremely valuable for student engagement, largely function independently

of public schools, higher education institutions, and private industry, further reinforcing these silos and disrupting continuity.

To address these gaps, New Mexico must prioritize the development of a coordinated, student-centered system. This includes fostering stronger alignment across programs, increasing collaboration through shared goals, and building pathways that are clearly defined and well-supported. Wraparound support such as career coaching, mentorship, and workforce development partnerships should be embedded across all stages of the student journey. With clear guidance, sustainable funding, and strategic collaboration, programs can work together to prepare students not just for STEM learning—but for meaningful, high-paying careers in New Mexico's growing space and tech industries.



KEY FINDINGS FOR ASSET MAP DATA ON CAREER PATHWAY PROGRAMMING IN NEW MEXICO

- **Limited Programming in Engineering and Technology:** While broad STEM programs are widely available, there is a shortage of targeted initiatives in engineering, technology, computer science, and other high-demand fields. This gap may hinder New Mexico's ability to develop a workforce equipped for specialized roles in the state's expanding space and tech sectors.
- **Barriers to Access in Rural and Tribal Communities:** There are fewer opportunities for students in rural and tribal communities that limit students from participating in internships, apprenticeships, or advanced STEM coursework. This geographic disparity creates significant equity challenges in STEM education, career readiness, and diversifying the states talent pipeline.
- **Insufficient Industry Engagement and Work-Based Learning Opportunities:** Limited industry partnerships reduce students' exposure to real-world STEM careers, making it difficult for them to gain practical skills and transition into the workforce. The absence of large corporations and dedicated internship programs further exacerbates this issue for New Mexico students.
- **Lack of Visibility and Outreach to Students:** Many Career Pathway Programs lack widespread marketing and clear communication about how to apply and participate, making it challenging for students, parents, and educators to discover and access these opportunities.
- **Gaps in Continuity for STEM Talent Development:** Career Pathway Programs often function in silos, creating a lack of structured pathways that guide students through the talent pipeline, from early STEM engagement through higher education and into careers. Without a coordinated system, students may struggle to advance through the STEM pipeline and fully capitalize on available resources.
- **Absence of Widely Accessible and Connected Pathways for Space-Focused Talent Pipeline Development:** The absence of accessible, structured pathways connecting students to career paths beyond advanced degrees, weakening local talent development and industry preparedness.

KEY FINDINGS

Asset Mapping: Career Pathway Programs

Targeted STEM Programs

New Mexico lacks targeted STEM programs in tech, engineering, and computer science, risking a gap in its future tech and space workforce.

Limited Access

STEM programs are mostly in urban areas, limiting access for rural and tribal students and creating equity challenges in education and careers.

Lack of Real-World Experience

STEM internships and training programs are limited and uneven, with few industry partnerships and a lack of large employers, making it hard for students to gain real-world experience and enter the workforce.

Lack of Visibility

STEM programs lack strong online visibility and outreach, making it hard for students, parents, and educators to find and access them.

Disconnected STEM Pathways

STEM students lack clear pathways from early interest to careers, making it hard to navigate opportunities and stay in the pipeline.

No Flight Plan for Future Talent

New Mexico lacks clear pathways connecting K-12, college, and industry, weakening its space workforce pipeline and local talent development.

DISCUSSIONS AND STRATEGIC RECOMMENDATIONS

The goal of this study is to take a comprehensive view of the overall landscape for STEM employment opportunities and pathways in New Mexico. Beginning with a labor market analysis, the data showed a strong economic contribution by New Mexico's space and technology sectors as well as workforce demands and trends. Combining this information with the employer surveys and discussions allowed for a conversation with employers to identify specific challenges and concerns. Finally, asset mapping of Career Pathway Programs for K-grad students that helped identify gaps in support for students to engage and prepare for future careers in these space and technology sectors. Given the data collected and synthesized across these three areas, it is time to explore next steps to improving career pathways to grow the STEM workforce talent pipeline in New Mexico.

The data collected in this study highlights significant strengths in K-grad STEM engagement across New Mexico, particularly in the breadth of STEM disciplines supported through OST programs and higher education involvement. However, key gaps persist in ensuring students have access to various programs at all stages of their education and career levels and the types of programs that support training for in-demand industry-aligned skills. Addressing these gaps requires a multi-faceted approach focusing on program awareness, industry-aligned skill development, career readiness, industry engagement, and statewide accessibility and coordination. Increasing support for in-school STEM curriculum (often via educator training) and high school-to-career transition opportunities will better prepare students for STEM careers and strengthen the talent pipeline.

Considering this New Mexico centric study through a national lens, we can compare our findings with insights from Space Workforce for Tomorrow (SWFT). The SWFT movement boasts over 30 members

and partners working together across the space industry, government, and academia to build the most skilled, innovative, and future-ready workforce, ensuring U.S. leadership in space for generations to come. The organization emphasizes that the U.S. must rethink how we recruit, train, and retain talent from widening the door to nontraditional learners to better supporting skilled trades, technicians, and community college pathways. Leadership in the movement underscores the need to “fish where the fish are,” supporting regional hubs and underrepresented communities through hands-on, industry-aligned learning from K-12 robotics and design-build-test experiences to two-week intensive camps/courses and adjunct faculty partnerships.

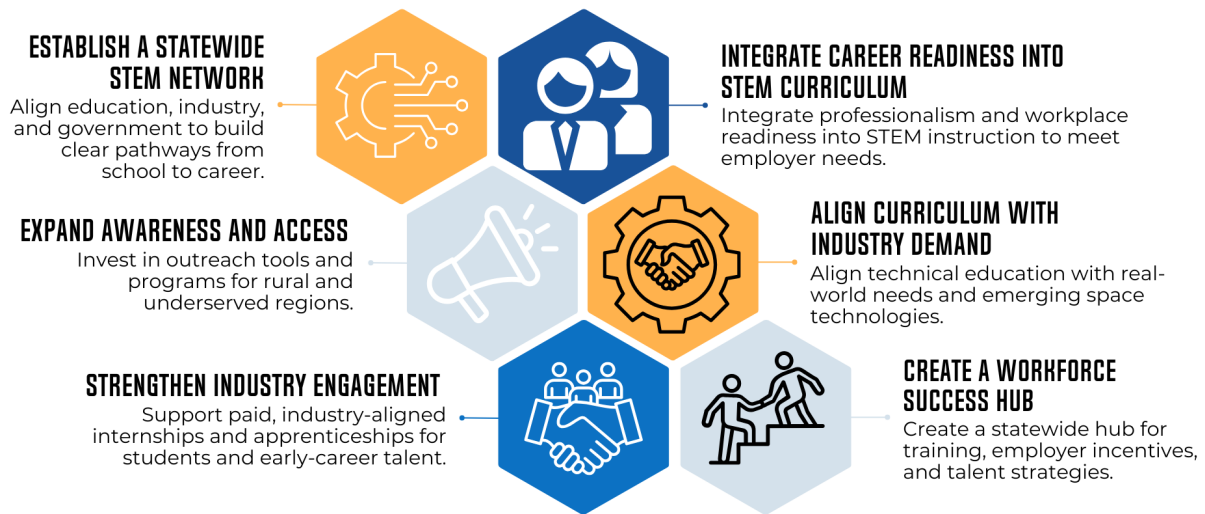
The group also stresses that we must not only teach skill sets and mindsets, but foster a heartset, a culture of passion, grit, and purpose that empowers students and professionals alike. Programs that integrate mentoring, internships, and real-world projects, particularly those that center around students and mirror real industry roles, are key to retention and readiness.

In response to this national imperative, New Mexico has a powerful opportunity to lead by strategically expanding access to and enthusiasm for careers in space and technology. Today's “Pathways to the Stars™” are no longer limited to engineers and scientists. They span every discipline needed to fuel a thriving space economy, from business and communications to skilled trades and creative industries.

The strategic recommendations that follow are designed to build students' confidence, develop industry-relevant skills, and normalize space and technology careers as an achievable, exciting future for all New Mexicans.



STRATEGIC RECOMMENDATIONS: BRIDGING INDUSTRY NEEDS WITH STEM TALENT PIPELINES IN NEW MEXICO



STRATEGIC RECOMMENDATION 1: *Establish a Statewide Coordinated ‘STEM Network’ to Enhance Student Pathway Continuity*

Develop a program that removes individual program silos and connects students, parents, and educators with STEM curriculum resources, mentorship, and career exploration opportunities, ensuring continuous support from early education through career entry.

While a variety of STEM enrichment programs exist across the educational continuum in New Mexico, a key challenge identified through the gap analysis is the lack of continuity from early education through to career entry. Many of these programs operate independently and in silos, resulting in fragmented support as students transition between grade levels, postsecondary education, and into workforce or career pathway programs. This discontinuity limits the long-term impact of STEM engagement efforts.

To address this, New Mexico would benefit from a coordinated, statewide “hub-and-spoke” network that serves as the connective tissue for workforce pipeline development. Such a network would ensure sustained student engagement and provide a clear, structured pathway from cradle to career. At present, no such network exists in the state—yet it holds significant potential to unify stakeholders across the workforce development ecosystem,

including K-12 and higher education, the state workforce system, out-of-school time (OST) providers, and public and private employers.

Successful models in other states—such as the Ohio STEM Learning Network⁶, the Louisiana STEM Initiative⁷, and the Tennessee STEM Innovation Network⁸—demonstrate how collaborative, well-aligned STEM ecosystems can significantly strengthen both workforce development and student outcomes.

During the 2025 New Mexico Legislative Session, Senate Bill 107 (NMSU Center of Excellence) was introduced to establish a statewide STEM Network. The bill received board support from organizations such as NMSU, the LANL Foundation, the New Mexico Out of School Time Network (NMOST), STEM Boomerang, and NewSpace Nexus. Ultimately, it received funding and will begin FY26⁹.

STRATEGIC RECOMMENDATION 2: *Increase Awareness and Access to Career Pathway Opportunities for Students*

Strengthen outreach efforts and expand the online presence of STEM programs. Prioritize increased engagement with rural and tribal communities by developing tailored programming and addressing barriers to entry, ensuring equitable access to STEM education across New Mexico.

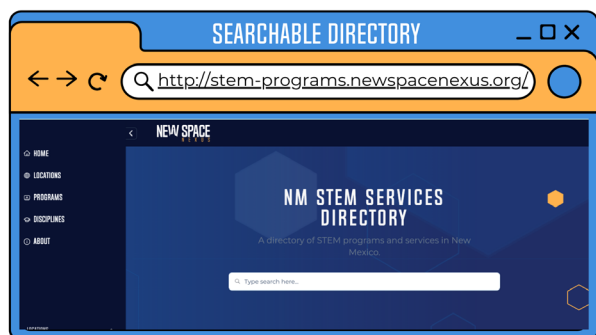
Throughout the gap analysis, a key question emerged: How do students find out about these opportunities? Do they search online or receive information through their schools? A high school intern working on this project was both amazed by the vast number of available programs and disheartened by the fact that she had never heard of them. This highlights a critical issue: while many STEM opportunities exist, they remain largely inaccessible due to limited outreach. To bridge this gap, efforts to improve communication and awareness must be significantly strengthened for students, parents, and educators.

Early exposure to STEM careers plays a vital role in shaping students' perceptions and aspirations, yet many programs struggle with limited online visibility, making it challenging for students (and their teachers and caregivers) to discover and engage with opportunities. Expanding awareness requires strategic partnerships with schools, regional community-based programs, and out-of-school initiatives. Additionally, targeted marketing efforts, such as social media campaigns and multilingual resources, can help broaden engagement and ensure that STEM opportunities reach a more diverse audience. A key finding from this research is the lack of a centralized, easily navigable online platform to streamline program information sharing for New Mexico students.

A searchable, online directory of all Career Pathway Programs in New Mexico was created and is made available as a useful resource for students, parents, educators, and community partners. Link to the directory at: <http://stem-programs.newspacenexus.org/>

Geographic and socioeconomic barriers continue to limit access to STEM education, particularly in New Mexico's rural and tribal communities. Expanding outreach efforts to these areas requires culturally relevant programming that resonates with diverse student populations and incorporates representation from their own communities. Overcoming financial and logistical barriers is critical to expanding access and can be achieved through targeted funding and strategic regional partnerships. Common challenges include limited transportation options, lack of access to technology and reliable broadband, program fees, and the difficulty of balancing participation with family responsibilities. By bringing STEM career pathway programs directly into rural, tribal, and underserved communities and aligning with in-school time activities, the need for travel is reduced, making participation more feasible and equitable for all students.

Ensuring intentional and inclusive programming for underrepresented and under-resourced students is essential to strengthening New Mexico's STEM talent pipeline and providing equitable support for all learners. Wraparound services are essential for continuity of support and scalable engagement, such as consistent mentorship, career guidance, and internship opportunities to help students from non-traditional backgrounds navigate the state's STEM ecosystem. Inclusive programming includes hands-on, immersive experiences, culturally relevant role models, and supportive community networks. These elements not only help students envision themselves in STEM careers but also build the confidence and skills necessary to pursue them.



STRATEGIC RECOMMENDATION 3: *Support Industry Engagement Through Coordinated Internship and Work-Based Learning Opportunities*

Strengthen partnerships with STEM employers to provide coordinated and paid internships, apprenticeships, and hands-on training experiences for both degree and non-degree career pathways.

Expanding access to internships and WBL opportunities is vital to building a skilled STEM workforce in New Mexico's space and technology sectors. Achieving this requires strong public and private industry engagement, not only to provide hands-on training, but also to align educational curricula with industry needs. Asking industry to be a pivotal part of the workforce development strategy in our state starts with understanding the challenges that limit their ability. In a state that has few large corporations, many startups and small businesses do not have the experience, bandwidth, and funding in place to host interns, which was highlighted in the Industry Survey section. Moreover, many federal grant programs that aim to increase on-the-job training opportunities for students allocate very little money and support for the industry partners that are allocating a large amount of time to training and mentorship. To encourage businesses to invest in workforce development initiatives, additional financial and programmatic resources need to be provided, either directly as wage reimbursement or to programs that support intern coordination.

Current funding mechanisms are in place to support on-the-job training for students through the New Mexico's workforce system, which encompasses both the New Mexico Department of Workforce Solutions as well as the regional workforce boards (America's Jobs Center New Mexico). These state offices manage a federally funded Workforce Innovation and Opportunity Act (WIOA) program that provides wage reimbursement for interns and entry-level employees that need additional training. They also support a wide range of Pre-apprenticeship, Apprenticeship, and Career Pathway Programs to gain on-the-job technical training for trade and STEM careers. It's important to note that of the 63 Career Pathway Programs supported by DWS, there are over a dozen programs that would support careers in the Space Industry, including: data scientist, telecommunications, and network technician, mechanic, electronic fabrication, machinist, project management, and more¹⁰. By expanding program support for career paths that align with the Space and Technology Sector and increasing awareness of these state and federally funded resources and incentives,

more businesses could be encouraged to be active participants in workforce development initiatives.

This research study identified 39 internship and WBL programs that provide hands-on experiences, integrating curriculum with job-ready skill development. However, the majority of these opportunities are geared toward college students, leaving a notable gap for high school students and non-college young adults who would greatly benefit from earlier career exposure through job shadowing, mentorship, and exploration programs. Additionally, only four programs are specifically focused on space careers and are embedded within federally funded research programs at AFRL, highlighting a significant shortage of private industry-aligned opportunities in this rapidly growing sector.

To bridge this gap, a strategic approach is needed to strengthen partnerships with STEM employers and expand on-the-job learning experiences. One potential solution is a large-scale internship cooperative that streamlines coordination, offers comprehensive employer support, and ensures student interns receive hourly pay. Apprenticeship and pre-apprenticeship programs should also be expanded to provide structured pathways into the space and technology sectors, particularly for technician-level roles.

To maximize impact, New Mexico could leverage public-private partnerships that connect startups and businesses with larger government agencies and national laboratories. Industry partnerships that leverage the resources, expertise, and infrastructure of larger entities offer a powerful opportunity to scale existing programs. By building on what's already working, these collaborations can expand access, streamline implementation, and accelerate impact across regions. Programs such as AFRL's DoD STARBASE NM, the Mission Concept (MC) through the University NanoSatellite Program, and competitions offered by the New Mexico Space Grant Consortium (NMSGC) already provide structured opportunities that, with private industry engagement and program scaling, could be expanded to reach students in all regions of the state. Strengthening and scaling these initiatives will enhance industry involvement and build a more robust, sustainable STEM pipeline.

STRATEGIC RECOMMENDATION 4: *Integrate Career Readiness and Employability Skills Training alongside Technical STEM Curriculum*

Embed employability skills, such as professionalism, workplace communication, accountability, problem-solving, into STEM education to better prepare students for workforce entry.

While technical expertise is critical for STEM careers in the space and technology sectors, students must also be equipped with the professional skills necessary to succeed in the workforce. Many employers' express concerns about new graduates lacking professionalism, workplace communication, and problem-solving abilities, as highlighted in the industry survey responses. However, if students are never explicitly taught these skills, they cannot be expected to develop them on their own. Career readiness should not be treated as an afterthought but rather integrated alongside technical training to ensure a well-rounded preparation for the job market.

To bridge this gap, curriculum and career pathway programming should incorporate employability skills such as professionalism, workplace etiquette, accountability, teamwork, and effective communication. Project-based learning, internships, and mentorship programs can help reinforce these skills in real-world settings, allowing students to practice professional behavior before entering the workforce. Furthermore, the internship cooperative

mentioned above could offer pre-internship support and education in these areas, maximizing resources and impact for the benefit of both students and employers.

Careers in New Mexico's space and technology sectors, across both public and private employers, often require security clearances and background checks. Employers surveyed in this study identified the ability of candidates to obtain clearance as a significant recruitment challenge. In addition to employability skill training, students should be informed about the large number of in-state jobs that require clearance and how their current decisions may impact future eligibility. Early awareness of these requirements is essential, and educators and industry partners should collaborate to integrate this guidance into career exploration efforts. By embedding career readiness and understanding the clearance processes into STEM education, students can be equipped not only with technical skills but also the professional awareness needed to succeed in New Mexico's competitive job market.

STRATEGIC RECOMMENDATION 5: *Align Curriculum and Technical Skill Training with Industry Needs*

What students learn in the classroom and career pathway programs should be directly informed by industry demands to ensure students are adequately prepared for STEM careers in the space and technology sectors.

To effectively prepare students for careers in the space industry, core STEM competencies must be embedded within space-focused career pathway programs. A strong foundation in mathematics (including algebra, trigonometry, calculus, and statistics), physics, chemistry, and engineering are essential for success in space and technology fields. Additionally, employers have identified key technical skills critical to the industry, such as computer skills (circuit design, data engineering, and programming languages like Python, C++, and MATLAB), engineering expertise (including embedded systems engineering), and business-related skills (such as project management). Aligning educational pathways with these in-demand skills will be essential in developing and fostering a robust and prepared talent pipeline in New Mexico.

To build a sustainable talent pipeline for New Mexico's space and technology sectors, there is a clear need for more technical and hands-on learning opportunities that equip students for in-demand roles in satellite design, robotics, propulsion systems, and space communications. These high-tech industries require a multidisciplinary workforce that spans both

degree and non-degree pathways, incorporating not only STEM expertise but also skills from business, design, and creative visualization fields.

Aligning curriculum with high-growth, high-opportunity occupations is a key priority of the New Mexico Public Education Department's College and Career Readiness Bureau (CCRB).¹⁰ To advance this goal, the department administers several key initiatives, including statewide Career Technical Education (CTE) programs and Innovation Zone grants, which support public and charter high schools in delivering career readiness experiences, on-the-job training, and internships. Additionally, CCRB oversees the NM Career Pathways website¹¹, a resource that showcases in-demand careers by region and school district to help students make informed choices about their futures. While these efforts have broad impact for students, a clear framework for how employers can meaningfully engage and contribute through these statewide initiatives remains underdeveloped. This is where a coordinated 'STEM Innovation Network' could play a vital role—bridging education and industry to strengthen statewide workforce pathways.

STRATEGIC RECOMMENDATION 6: *Establish a ‘Workforce Success Hub’ to Cultivate a Future-Ready Workforce for New Mexico’s Space and Tech sectors*

New Mexico’s space and technology sectors are fueling a dynamic, high-tech economy. While building a future talent pipeline is essential, the ability to recruit and retain a skilled workforce remains a pressing challenge. To address this, establishing a ‘Workforce Success Hub’ would create structured, accessible pathways that align education and industry needs, strengthening the state’s talent pipeline.

The Workforce Success Hub will:

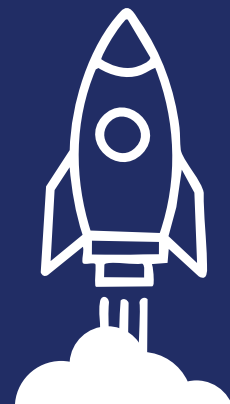
- **Provide Technical and Professional Development Training for Students:** Provide hands-on, workforce-aligned training at all educational levels to better prepare students for careers in high-tech industries.
- **Strengthen Industry Engagement in Workforce Initiatives:** Bridge the gap between higher education and private industry by coordinating internships, work-based learning opportunities, and leadership development programs.
- **Leverage Resources for Hiring and Retention:** Monitor market trends and guide employers to leverage state incentives to offset hiring and retention costs.

- **Drive Recruitment and Retention through Upskilling and Leadership Development:** Offer professional development and leadership coaching, career growth opportunities, and upskilling programs to empower both professionals and employers in the space and technology ecosystem.

By aligning education, industry, and economic development resources, the Workforce Success Hub would position New Mexico as a destination for top talent while ensuring that local students are prepared to meet the growing demands of the space and high-tech sectors.

A FLIGHT PATH FOR NEW MEXICO’S SPACE WORKFORCE

Developing a sustainable workforce pipeline for space and technology careers in New Mexico requires a shared commitment across education, industry, government, and community partners. The opportunities in these sectors are vast and growing, but ensuring equitable access, continuity of support, and alignment with real-world skills is critical to our success. By working together to bridge gaps, strengthen partnerships, and invest in hands-on learning, we can empower the next generation of innovators and problem-solvers right here in New Mexico. We all have a part to play—let’s widen the door to opportunity, not lower the bar for excellence.



ADDITIONAL INFORMATION

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Tracey Bryan is the Executive Director of the Pathway2Careers Foundation, bringing extensive experience across the full talent development

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Janae Martinez was a college intern for STEM Boomerang whose dedication and hard work spearheaded the initial findings of this report. Her efforts in data collection, analysis, and outreach laid the foundation for this comprehensive study.

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We also want to recognize the *Pathways to the Stars™ Leadership Council* for their commitment, guidance, and strategic insights. Through quarterly meetings and in-person convenings, their expertise and dedication have helped shape the direction of this work, ensuring that it remains impactful and aligned with the needs of New Mexico's STEM ecosystem.

This report reflects a collective effort to strengthen pathways for students and future professionals in STEM fields, and we deeply appreciate everyone who contributed to its development

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“The 2025 NewSpace Nexus Gap Analysis supports New Mexico’s WIOA priorities by connecting employer needs with education and training pathways in the state’s growing aerospace sector. This collaborative, data-driven approach helps ensure more New Mexicans are ready for high-wage, high-demand careers in space and advanced technology. The analysis also shows that work in this industry is not just for PhDs, and we can make careers in aerospace accessible to a wide range of New Mexicans.”

Sarita Nair
Cabinet Secretary
New Mexico Department of Workforce Solutions



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APPENDIX: <https://www.newspacenexus.org/wp-content/uploads/2025/07/Appendices-I-VIII.pdf>