NEW MEXICO LEGISLATIVE FINANCE COMMITTEE

# LegisStat

**Priority: Economic Development | June 12, 2024**

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## Economic Development: Prioritizing Science and Technology Industries

Science and technology industries in New Mexico demonstrate significant growth potential due to the resources within the state, including national laboratories, research universities, test facilities, and military installations. The Economic Development Department (EDD) identifies five science and technology target industries—aerospace, intelligent manufacturing, cybersecurity, biosciences, and sustainable and green energy—as part of nine industries in its strategic plan aimed at increasing economic diversification. However, New Mexico faces low employment rates in these five target industries, constituting just 6.7 percent of the state's total employment. This LegisStat focuses the agency's efforts to support these five target industries, emphasizing the critical role of the science and technology sector.

The agency highlights these industries for their strong growth potential and higher employment concentrations compared to national averages, signifying a competitive edge in New Mexico. The target industries have experienced an average 18 percent growth between 2019 and 2023, with the bioscience industry leading with a 23 percent growth. Another advantage of these industries is the high average wages, representing an opportunity to increase the state's per capita income and quality of life. The industries' average annual wage of $90,599 is 57 percent higher than the state's average annual wage.

However, while these industries have grown, they still constitute a small portion of the state's total employment, comprising just 6.7 percent. Three of the industries—cybersecurity, biosciences, and sustainable and green energy—each account for less than 0.5 percent of the state's total employment. Aerospace and intelligent manufacturing collectively represent 5.4 percent, with aerospace making up 3.6 percent and intelligent manufacturing 1.8 percent. This underscores a pressing need for EDD to prioritize its strategies and funding to better support these industries, while also presenting possible opportunities for the Legislature to provide additional funding mechanisms and policies.

### Key Data

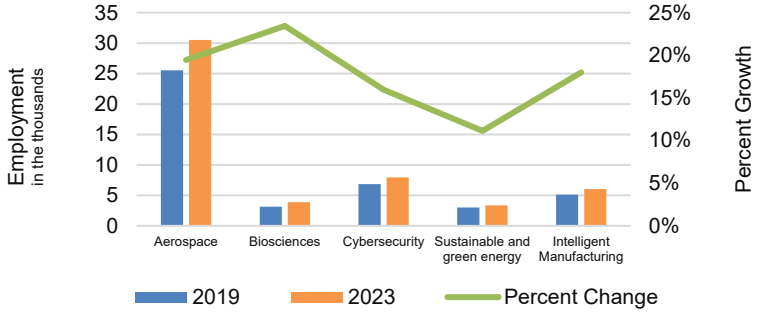
**Employment in Science and Technology Target Industries**

| Target Industry | Estimate | Share |
|---|---|---|
| Aerospace | 30,518 | 3.6% |
| Intelligent Manufacturing | 15,000 | 1.8% |
| Cybersecurity | 4,105 | 0.5% |
| Biosciences | 3,885 | 0.5% |
| Sustainable and Green Energy | 3,360 | 0.4% |
| **Total** | **56,868** | **6.7%** |

Source: Quarterly Census of Employment and Wages QCEW and EDD

- Combined employment in the science and technology target industries make up 6.7 percent of New Mexico's total employment.
- The aerospace target industry is the largest, but over 95 percent of employment is categorized as science and technology research and development, making the industry appear larger than what normally constitutes the aerospace industry. Without research and development, the aerospace target industry would be less than 0.1 percent of total private employment.
- New Mexico's largest occupations consist of office and administrative support (14 percent), food preparation and serving related (10 percent), and sales occupations (8 percent).

**Employment Growth in Science and Technology Target Industries 2019 - 2023**




Source: QCEW and EDD

- Between 2019 and 2023, EDD's science and technology target industries grew by 8,064 jobs, or 18 percent, with the bioscience industry seeing the largest growth at 23 percent, followed by a 19 percent growth in the aerospace sector.
- Any employment change in these industries will seem drastic because these industries have relatively low employment.

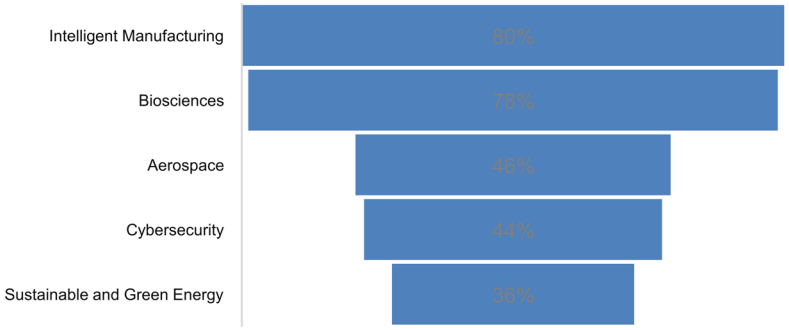
**Average Wage in Science and Technology Target Industries**

| Target Industry | Weighted Average Wage |
|---|---|
| Aerospace | $117,539 |
| Intelligent Manufacturing | $111,896 |
| Sustainable and Green Energy | $78,918 |
| Biosciences | $82,698 |
| Cybersecurity | $61,946 |

Source: QCEW and EDD

- The average wage for EDD's science and technology target industries is $90,599, 57 percent higher than the average wage in New Mexico of $57,520.
- Prioritizing industries with high wages is crucial for raising per capita income and improving quality of life. EDD should continue to focus on industries with higher wages.

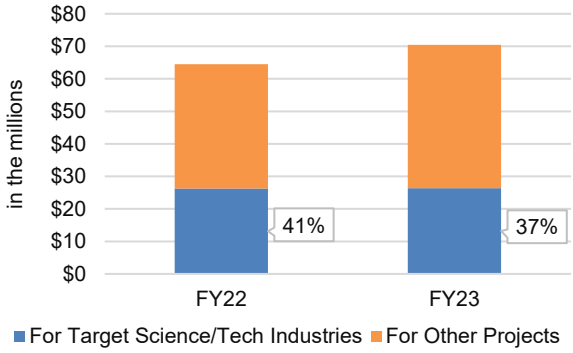
**Percent of Total Employment in Bernalillo County**




Source: LFC Files

- Two of the science and technology target industries, intelligent manufacturing and biosciences, have a substantial part of their workforce in Bernalillo County. Sustainable and green energy has the largest workforce outside of Bernalillo County.
- Investing in industry with regional diversity promotes equity and has a larger impact on employment. EDD should continue to focus on industries that reside in distressed labor markets.

**LEDA Funding for Target Science and Technology Industries**




Source: EDD

- In the past two fiscal years, EDD has awarded $26 million, or a total of $52.6 million, in LEDA funding to science and technology target industries. These awards made up 41 percent and 37 percent of its overall LEDA funding in FY22 and FY23 respectively.
- The remaining LEDA awards supported a variety of other industries, such as breweries, data processing centers, and food manufacturers.
- Note: Data in the chart is from EDD's FY22 and FY23 LEDA annual reports. The reports have industry codes by award, which were cross-referenced with the codes in EDD's strategic plan.

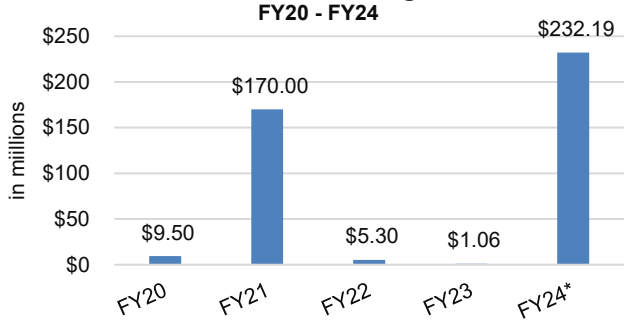
**FY24 $50 million appropriation for Economic Development Projects**
**(in thousands)**

| Agency | Use | Amount |
|---|---|---|
| EMNRD | Economic development projects | $5,480 |
| EMNRD | Monitoring and enforcement activities | $1,500 |
| EMNRD | Analyze remediation plan and progress associated with San Juan coal mine | $500 |
| ED | Economic development projects | $1,330 |
| ED | Monitoring and enforcement activities | $1,500 |
| ED | Analyze San Juan generating facility and coal mine restoration and remediation plan for environmental contamination | $860 |
| NMFA | Economic development projects | $1,330 |
| WSD | Economic development projects | $750 |
| EDD | Economic development projects | $36,750 |
| | **Total** | $50,000 |

Source: GAA 2023

- EDD was appropriated $50 million in one-time funding for economic development projects through FY27, including border planning and infrastructure projects, advanced energy projects, economic transition initiatives, and program administration.
- A portion of the funds were earmarked for other agencies.
- EDD has shared that $20 million will be used for border planning and infrastructure, $7 million for advanced energy grant programs, and additional funding for personnel for an entrepreneurship summit and coordinator.

**Non-State Investment in Companies as a Result of OSST Programs**
**FY20 - FY24**




*FY24 includes the first three quarters of the fiscal year.

Source: EDD

- Although follow-up investment has varied in the past four years, the Office of Strategy, Science, and Technology (OSST) is going to set a new record in FY24.
- In the fourth quarter alone, seven companies reported receiving additional funding, including Pajarito Powder with $20 million from the Department of Energy, Circular Genomics with $8.3 million in Series A funding, and X-Bow Systems with $18 million from the Air Force Research Laboratory.
- OSST tracks investment in companies assisted by its office from non-state sources. Companies can either receive a grant or technical assistance from OSST.

## LegisStat Recap

The agency's most recent LegisStat in December 2023 focused on how the agency's efforts aligned with the recommendations outlined in the agency's 20-year strategic plan and the status of the agency's Energy Transition Act funding.

The September 2023 LegisStat hearing, alongside the Department of Workforce Solutions, discussed expanding the labor force for economic recovery and EDD's role to support workforce alignment. The agency answered questions about how its efforts translated to the broader New Mexico economy, status of the $5.9 million appropriation for the Energy Transition Act, and its job creation efforts in FY23.

The Economic Development Department was one of the first pilot agencies to participate in the LegisStat process. Previous hearings in 2021 and 2022 focused on the state's slow recovery of rural job growth after the pandemic, the agency's strategic plan, and economic development initiatives, such as the Opportunity Enterprise Act and Venture Capital Investment Act.

## Performance Challenge: Low Employment in Science and Technology Industries

***Economic Development Strategic Plan and Focus on Science and Technology Industries.*** EDD updated its strategic plan in 2023 to include community stakeholders' views about the business environment and the state's economic current trajectory. The update also included the latest data points, including gross domestic product, unemployment rates, and domestic migration patterns. The report maintained the associated recommendations from the original strategic plan.

EDD's original strategic plan focused on six strategies to build a diverse and robust economy. The strategies included modernizing the economic development ecosystem, strengthening community capacity, improving higher education and aligning workforce, promoting equity through economic development, building capacity for entrepreneurs, and diversifying New Mexico's economy. The plan translates the strategic direction into concrete steps by target industry. Recommendations range from short, medium, and long-term for EDD, as well as for stakeholders in the economic development ecosystem.

Examples of recommendations related to the five science and technology target industries include developing an aerospace industry council to connect industry with higher education, organizing a biannual bioscience industry conference to strengthen industry and academia relationships, and providing funding for a cybersecurity center of excellence.

***Industry Evaluation.*** With limited resources, the department should focus its resources on industries that will have the greatest impact on New Mexico. Three measures to evaluate industries are competitiveness, wages, and regional diversity. An industry's competitive edge is the degree to which New Mexico's economy either propels or hinders growth. In short, if an industry's growth in New Mexico is higher than the national industry average, it may have a competitive advantage. Conversely, if an industry's growth in New Mexico is lower than the national industry average, it may be at a competitive disadvantage. Despite an average employment growth of 18 percent, LFC analysis suggests that New Mexico employment in aerospace and intelligent manufacturing have grown at a slower rate than national industry trends, which suggest a lack of competitive advantage. However, employment growth in cybersecurity, sustainable and green energy, and biosciences has surpassed national industry growth, which suggests a competitive advantage. An industry's competitive edge is in part driven by labor and capital, which are inputs that can be influenced with policy interventions and incentives.

Creating jobs in industries with high wages is an essential element to raising the state's per capita income and quality of life. The average wage in these industries is $90,599, 57 percent higher than the average wage in New Mexico of $57,520. On the higher end, the average annual wage in the aerospace industry is $117,539 and on the lower end is $61,949 in cybersecurity.

Regional diversity is another component to consider when prioritizing industries. The state should prioritize investment in industries that benefit distressed labor markets, such as counties with lower employment rates, as opposed to solely focusing on the Albuquerque metropolitan area. Research suggests a job created in the most stressed labor markets increases long-term employment by 80 percent more than a job created in the strongest market. Two of the five science and technology target industries—intelligent manufacturing and biosciences—have the majority of employment, 80 percent and 78 percent, respectively, in Bernalillo County. Aerospace, cybersecurity, and sustainable and green energy have 46 percent, 44 percent, and 36 percent of their employment in Bernalillo County. Investment in aerospace, cybersecurity, and green energy in a distressed community will have a larger impact on long-term employment than in an average labor market.

***EDD's Efforts to Support Science and Technology Target Industries.*** The agency has various tools for supporting the science and technology target industries, including the Local Economic Development Act (LEDA), Job Training Incentive Program (JTIP), and programs supported by the Office of Strategy, Science, and Technology (OSST).

Recent and notable accomplishments by OSST included the advanced energy award pilot program and the research university team pitch award pilot program. In 2024, OSST announced the advanced energy award pilot program, funded by a portion of the $50 million appropriation in 2023, to award non-dilutive funds to proposals in advanced energy innovation and commercialization. EDD awarded $3.4 million to seven companies. Awardees include Parajito Powder with $766 thousand, TS-Nano with $713 thousand, and UbiQD with $617.5 thousand. OSST also announced the Research University Team Pitch Award pilot program in 2023 to award non-dilutive grants funds and entrepreneurship assistance to faculty and student teams at New Mexico research universities. EDD awarded $760 thousand to three teams, including Sandia Medical Technologies from the University of New Mexico, Sattwa-toyam focused on creating fresh water from brackish water from New Mexico Institute of Mining and Technology, and Yeast Encapsulated Essential Oils from UNM.

OSST also facilitates the Technology Research Collaborative, Defense Industry Diversification Program, and supports companies applying for business startup grants and Small Business Innovation Research (SBIR) grants.

The department can also award LEDA funding to its science and technology target industries. In the past two fiscal years, EDD has awarded a total of $52.6 million in LEDA funding to science and technology target industries. These awards made up 41 percent and 37 percent of its overall LEDA funding in FY22 and FY23 respectively. For FY23, LEDA funding for science and technology target industries may result in 581 jobs with an average salary of $56,834. EDD estimates the average state return on investment per project is 37 percent. The remaining LEDA awards from FY22 and FY23 supported a variety of other industries, such as breweries, data processing centers, and food manufacturers.

In FY23, EDD awarded $33.6 million of JTIP funding to 19 science and technology focused companies–approximately 99 percent of its total JTIP funding for the year. Only a fraction of its JTIP funding supported businesses outside of its target science and technology industries. Funding is intended to support the training of 2,799 individuals with an average annual salary of $59,825.

***Recent Appropriations to EDD.*** The Legislature has recognized the importance of investing in science and technology industries, specifically in EDD's target industries. During the 2024 session, the Legislature increased the agency's personnel by $500 thousand to fund five positions for target industries after noting that not every target industry had dedicated personnel. Most notably, the agency received $5 million recurring funding in the Economic Development Division initially tied to the creation of a climate, energy, and water unit, but legislation that would have created the unit did not pass, which gives the agency additional flexibility in spending the funding. The agency received a 31.2 percent increase in its recurring funding during the 2024 session.

During the 2023 session, the Legislature appropriated EDD $50 million for advanced energy, border planning, and economic development projects. The portion of the funds, $13.25 million, were earmarked to other agencies. The remaining $36.75 million was earmarked for EDD. EDD has previously shared that $20 million is for border planning and infrastructure and $7 million for advanced energy grant programs, an entrepreneurship summit, and entrepreneurship coordinator (FTE).

## Suggested Questions

**Employment for Science and Technology Target Industries**

- How is EDD working with other agencies, such as the Workforce Solutions Department and Energy, Minerals and Natural Resources Department, to prepare the workforce for future jobs in the clean energy sector?
- How is EDD working with higher education institutions to ensure programs and training are aligned to the science and technology target industries?

**Investment in Science and Technology Target Industries**

- How does EDD align LEDA and JTIP awards to its target industries, specifically the science and technology ones? Are certain projects for industries prioritized over others?
- What efforts is the agency considering to increase employment in the science and technology target industries?
- What are additional performance measures for the Economic Development Division and the Office of Strategy, Science, and Technology to better understand its efforts to prioritize the target industries?
- What is the status of the recommendations outlined in the agency's strategic plan for the industries discussed in this LegisStat?

**Increased Recurring Funding**

- EDD was appropriated $5 million recurring funding during the 2024 legislative session that was originally tied to a bill establishing the climate, energy, and water unit. The bill did not pass. What is the agency's plan to use this recurring $5 million funding?
- How will the agency track performance and effectiveness of its use of the recurring $5 million appropriation?
- EDD was appropriated an additional $500 thousand recurring funding during the 2024 legislative session to support 5 FTE in key industries. What is the agency's plan to spend this funding? How will the agency continue to focus on science and technology target industries?

**Site Readiness**

- EDD was appropriated $500 thousand nonrecurring funding during the 2024 legislative session for LEDA site readiness. What is the agency's plan for this funding? How does this align with EDD's strategic plan and target industries, specifically the science and technology industries?
- What are possible additional requests that may result from this initial appropriation for site readiness?
- How did the agency decide which areas or projects would fall under the scope for the $500 thousand appropriation for site readiness?

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