2022/2023 New Mexico State University System Economic Development Plan



BE BOLD. Shape the Future.[®] **New Mexico State University**

I. INTRODUCTION

A. NEW MEXICO STATE UNIVERSITY

- 1. Mission: The mission of the New Mexico State University system is to serve the diverse needs of the state through comprehensive programs of education, research, extension and outreach, and public service. As the state's land-grant and space-grant university, and as a Hispanic-Serving Institution, NMSU fosters learning, inquiry, diversity and inclusion, social mobility, and service to the broader community.
- **2. Vision:** By 2025, the NMSU system will excel in student success and social mobility for our diverse student populations, achieve the highest Carnegie research status (R1), and maintain our Carnegie Community Engagement classification.

3. Values

- a. Leadership: Promoting and creating the ability for Aggies to shape the future
- b. **Excellence:** Providing the highest level of education, research, outreach, and service c. **Access:** Welcoming diverse populations to higher education and to the NMSU commu-
- nity

d. **Diversity & Inclusion:** Embracing our differences as an asset and actively seeking to include wide-ranging perspectives

e. **Student-Centered:** Supporting the education of our students through every aspect of our university, every day

These values are encapsulated as: **BE BOLD.** Shape the future.®

B. NMSU LEADS 2025 STRATEGIC PLAN

Goal 1: Enhance Student Success & Social Mobility: Be a recognized leader in advancing student outcomes and career success. Student success across the NMSU system is driven by a commitment to learning, degree completion, and career attainment enriched by our research and outreach enterprise. Our students are served by our culture of inclusivity and educational delivery that meets student needs and includes online and hands-on learning. Recognizing the diverse backgrounds of students across the system, NMSU provides a supportive environment for students to become a part of, and contribute to, the campus community, the state, the country, and the world.

Goal 2: Elevate Research & Creativity: Attain Carnegie R1 research ranking by 2025. NMSU recognizes that all disciplines advance research, scholarship and creative activity, and along with the assets of the state of New Mexico, create a strong foundation for teaching, learning, education, training, innovation, and economic development.

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Goal 3: Amplify Outreach & Extension: Be a recognized leader in economic and community development. NMSU outreach extends knowledge beyond the university, drives integration of activities, directly and indirectly, and supports student learning, experiences, and success. Our outreach activities include research, connections with communities and families, multigenerational engagement, economic development and entrepreneurship, and collaborative efforts with industry, corporations, and government entities.

Goal 4: Build A Robust University System: Be a recognized as a high performing, diverse, minority-serving, land-grant and space-grant institution. NMSU seeks to improve the university system, across the board, for faculty, staff, students, alumni, donors, stakeholders, and prospective students and their families. Cooperation throughout the NMSU system will be exemplary for university systems across the nation through efficient, effective, and empowering operations that align with our strategic goals.

Proposed Goal 5: Build an Online Global Campus: This goal is currently being developed for consideration by the Board of Regents.

Proposed Goal 6: Build, Elevate and Strengthen Sustainable Systemwide EID Practices: This goal is currently being developed for consideration by the Board of Regents.

II. NMSU ECONOMIC DEVELOPMENT GOALS AND INDICATORS

As defined by the U.S. Economic Development Administration, economic development creates the conditions for economic growth and improved quality of life by expanding the capacity of individuals, firms, and communities to maximize the use of their talents and skills to support innovation, lower transaction costs, and responsibly produce and trade valuable goods and services.

NMSU Economic Development Goals:

NMSU has defined four goals for its economic development effort, all of which feed into its broader LEADS 2025 strategic goals, as outlined above.

Economic Development Goal 1: Contribute to a stronger economic development ecosystem in our state and region.

Economic Development Goal 2: Contribute to the diversification of the economic base of New Mexico

Economic Development Goal 3: Advance collaborative efforts to strengthen communities in our region

Economic Development Goal 4: Lead reimagined education and training for local, regional, and national workforce

Key Performance Indicators:

Using a broad definition of economic development drawn from the <u>Human Development Index</u>, some relevant key performance indicators are health, education, and income. We have added environment and in-frastructure as areas in which we expect NMSU's economic development contributions to effect measurable change.

- 1. Education
- 2. Income
- 3. Health
- 4. Environment
- 5. Infrastructure

NMSU Strategic Areas of Contribution:

- 1. Workforce Development
- 2. Research
- 3. Real Estate & Infrastructure Development
- 4. Community & Relationship Development
- 5. Technology Transformation
- 6. Business & Entrepreneurship Acceleration

III. ENVIRONMENTAL ANALYSIS

State Economic Development Plan

1. **Collaborative New Mexico:** Modernize NM's economic development ecosystem by aligning stakeholders' efforts, streamlining and simplifying rules and regulations, and strengthening business recruitment and retention.

2. **Dynamic New Mexico:** Strengthen communities by increasing capacity for economic development projects and initiatives, redefining urban areas, and committing to the sustainability of rural and tribal communities.

3. **Skilled New Mexico:** Reimagine education and training with industry engagement and institutional reform, aligning workforce development with industry needs, and preparing students for success.

4. **Inclusive New Mexico:** Promote equity through economic justice by encouraging increased collaboration with tribal communities, expanding access to entrepreneurial resources for people from disadvantaged backgrounds, and improving education and workforce outcomes for underserved populations.

5. **Innovative New Mexico:** Enable high-quality homegrown innovation by building capacity among entrepreneurs, removing barriers to financial resources for entrepreneurs, sustaining an entrepreneur-friendly business environment, and connecting entrepreneurs and innovators to industry knowledge and resources.

6. Resilient New Mexico: Diversify the economy, with emphases on:

- a. Aerospace
- b. Biosciences
- c. Cybersecurity
- d. Film and television
- e. Outdoor recreation/Tourism

- f. Sustainable and value-added agriculture
- g. Intelligent manufacturing
- h. Global trade
- i. Sustainable and green energy
- j. National Security (NMSU)

7. Challenges

- a. Lack of collaboration between economic development stakeholders
- b. Difficulty attracting and retaining talent in urban, rural, and tribal communities
- c. Misalignment between higher education and industry
- d. Disengagement of socioeconomically disadvantaged communities in planning processes
- e. Public-sector dominance in New Mexico's innovation ecosystem
- f. Concentration of economy in a few key industries

IV. KEY INDICATORS & UNIVERSITY CONTRIBUTIONS TO ECONOMIC DEVELOPMENT

NMSU's impact on and contributions to economic development in the state and region come from all sectors and all disciplines. This ongoing work is seamlessly integrated into strategic planning at the college and unit level, as well as the institutional and systemwide level. The below table is not an exhaustive account of economic development activities led by NMSU. Instead, it highlights initiatives that have been identified by colleges and campus units as high-impact opportunities that can be achieved in the near-term to meaningfully accelerate our economic development engine.

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Workforce Development				
Increase certification programs supporting regional industry	Education Income	1, 2, 3, 4	Number of programs; meetings with industry representatives	DACC
Expand degree programs directly sup- porting NM Economic Development Pri- orities (Biosciences – Biology, Biochem- istry, Biotechnology, Molecular Biology; Cybersecurity; CMI; Data Analytics; Geography and Environmental Sciences)	Education	1	Number of graduates from each program increased by 5%	Arts & Sciences

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Workforce Development				
Develop new degree program directly supporting the needs of NM labs (Com- puter Engineering)	Education	1	New bachelor degree approved and achieve initial enrollment of 15 students	Arts & Sciences
Expand current discipline-specific ef- forts in culturally responsive pedagogy professional development	Education	2	Creation of one mi- cro-credential per year on culturally responsive pedagogy in X	Arts & Sciences
New Energy Economy (Navajo Agricul- tural Products Industry)	Education Income Health Environment	1, 2, 3	Number of jobs by region	Research, Creativity, and Strategic Initiatives
Plan, implement, assess, and redefine the development of high-demand, relevant career pathways/pilelines in health, education, and social services with its emphasis on social justice and equity, inclusion, and diversity (EID)	Health, education, income	1, 2, 3, 4	Number of students enrolling in and com- pleting career pipeline programs	HEST
Increase strategic partnerships with defense industrial base companies, DoD agencies and DOE laboratories, with regional pressence (NM) to support co-op opportunities for NMSU students through the PSL Classified Ready Em- ployee Workforce (CREW) Program.	Income	1, 2, 3, 4	Number of CREW students in each annual cohort; Number of registered co-ops with DoD, DoE and defense industry companies	Physical Sci- ence Lab; Of- fice of Experi- ential Learning
Increase strategic partnerships with DoD agencies and DOE laboratories in NM and AZ to support co-op opportunities for NMSU students through the PSL De- fense Civilian Training Corp Program.	Income	1, 2, 3, 4	Number of DCTC stu- dents in each annual cohort; Number of registered co-ops with DoD, DoE and defense industry companies	Physical Sci- ence Lab; Of- fice of Experi- ential Learning
Develop national security and defense acquisition primer courses that support the re-skill and up-skilling adult learners interested in careers in defense sector	Education Income	1, 2, 3	Number of students who register and com- plete courses	PSL; NMSU Global

(Cont. on next page)

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Workforce Development				
Develop a short course designed to train economic development specialists. The course could be included as part of the NM EDGE program or as an NMSU-O Storefront course. The course could be structured similarly to the University of Minnesota Extension training.	Education	1, 2, 3, 4	Online version of the short course (course material) will be devel- oped within the Canvas infrastructure by the end of 2023. Short course will be made	ACES
Center for Public Utilities	Education Income Infrastructure	4	Number of registrants in prof development workshops and courses	Business
Center for Border Economic Development	Education Income	1, 4	Number of student placements through Center efforts and projects (i.e., how many later get jobs due to involvement in Center efforts)	Business, Arrowhead Center
Center for Supply Chain Entrepreneurship	Education Income	1, 4	Number of projects/en- gagements with clients Number of student placements through Center efforts and projects (i.e., how many later get jobs due to involvement in Center efforts)	Business
Insurance & Financial Services Center	Education Income	1, 4	Number of projects/en- gagements with clients Number of student placements through Center efforts and projects (i.e., how many later get jobs due to involvement in Center efforts)	Business
Doctor of Economic Development Program	Education Income	1, 2, 3, 4	Number of students graduating with DED Number and types of roles landed by DED graduates	Business

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Research				
Increase use-inspired research projects in all disciplines	Education Income Health	1, 2, 3, 4	Research funding dol- lars; number of under- graduate and graduate students participating in research	All
Establish a National Security Testing and Evaluation Applied Research (NSTAR) Regional Working Group	Education Income	1,2,3,4	Research funding dollars that is a direct result of convening; number of undergrad- uate and graduate students participating in research; number of papers, presentation, demonstrations	PSL
Real Estate & Infrastructure Develop	ment			
Establish a senior retirement community at Aggie Uptown through public-private partnership	Income Health Infrastructure	1, 2, 3, 4	Opening of the senior community; other mile- stones TBD	Aggie Development
Establish a regional medical provider at Aggie Uptown	Education Health	1, 2, 3, 4	Establishment of the provider/facility; other milestones TBD	Aggie Development
Plan, implement, assess, and redefine the development of real estate and infra- structure that aligns with the mission of HEST at NMSU to integrate learning, research, outreach, and service pro- moting social transformation and social justice through engaging our students and various constituencies in education, health, and social sciences	Education Health Income	1, 2, 3, 4	Number of real estate and infrastructure projects that have been aligned with HEST mission	HEST
Develop a Creative Campus at Arrowhead Park	Education Income Infrastructure	1, 2, 3, 4	Opening of the DACC Creative Campus building; Complete design work for CMI and KRWG buildings; other milestones TBD	Arrowhead Center

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Community & Relationship Developm	nent			
Develop an industry-govt relations re- search liaison role to directing traffic for potential economic development oppor- tunities connected to research	Income	1, 2	Establishment of a liaison role	Research, Creativity, and Strategic Initiatives
Establish and activate the CIRCLE Research Center (Center for Integrative Rural Community & Leadership Engagement)	Education Health	2	Establish structure, develop at least 2 com- munity collaborations, submit 2 proposals	Research, Creativity, and Strategic Initiatives
In-Land Transportation Hub at Santa Teresa	Education Income Infrastructure	1, 2, 3	Number of companies that move to NM and number of jobs created	Research, Creativity, and Strategic Initiatives, Arrowhead Center
Plan, implement, assess, and redefine the development of multidisciplinary and cross-sectoral community-university partnerships to enhance transformative education, health, and social services/ sciences programs and promote so- cio-economic mobility to elevate, uplift, and empower peoples, families, and communities	Education Income Health	1, 2, 3, 4	Number of new and continuing partner- ships	HEST
Indian Resources Development (IRD) will conduct asset and needs assess- ment with specific departments at tribal nations in New Mexico to identify ways in which to support those nations in advancing their economic development goals in agriculture, natural resources, engineering, energy, business, workforce development, and education.	Education Income	1, 2, 3, 4	IRD will conduct three asset and needs as- sessments each year with specific depart- ments at tribal nations in NM to identify ways in which to support those nations in ad- vancing their economic development goals	ACES
Serve as a leader for K-12 entrepreneur- ship education in New Mexico	Education Income	1, 3	Number of NM coun- ties participating in entrepreneurship edu- cation Number of K-12 student participating ientrepre- neurship education	Arrowhead Center

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Community & Relationship Developm	nent			
Produce actionable business and eco- nomic research for stakeholders in New Mexico	Education Income Infrastructure	2, 3	Number of professional business or economic research projects com- pleted	Arrowhead Center, C-BED, Center for Supply Chain Entrepreneur- ship
Technology Transformation				
Offer Regional I-Corps Programs to students and faculty with innovative research in New Mexico	Education Income	1, 2	Number of teams participating from New Mexico	Arrowhead Center
Develop a STTR training program for faculty members and graduate students in STEM areas	Education Income	1	Develop and deploy 1 STTR training work- shop per semester; Track number of STTR proposal submissions	Arrowhead Center
Implement transformative technologies in our region. Example: Phase I SBIR contract at PSL with Corvid Technologies to develop a hypersonic antenna system that is de- ployable from the aft plate of a hyper- sonic boost glide vehicle.	Education Income Health Environment Infrastructure	1, 2, 3, 4	Number of invention disclosures; Number of patents filed Number of jobs creat- ed; number of technol- ogy demonstrations/ implementations	Arrowhead Center, PSL, others
Provide access to Subject Matter Ex- perts at NMSU through Technical Assis- tance programs	Income Infrastructure	2,3	Number of technical assistance projects completed by NMSU subject matter experts	Arrowhead Center
Plan, implement, assess, and redefine the development of technology transforma- tion to advance education, health, and social services/sciences programs with its emphasis on social justice and EID	Education Income Health	1, 2, 3, 4	Number of health, ed- ucation, and social sci- ences-related technol- ogy projects launched or supported	HEST
Further develop artificial intelligence/ machine learning electromagnetic signal processing technology developed by PSL inventors toward commercialization (OPEN VPX) Patent Pending	Income Infrastructure	4	Software licensing roy- alties; Number of jobs created; number of technology demonstra- tions/ implementations; number of coorperative agreements	PSL

UNIVERSITY CONTRIBUTION	KEY PERFORMANCE INDICATORS	ECON. DEV. GOALS (defined in sec II)	METRICS	CAMPUS UNIT OR COLLEGE
Technology Transformation				
Further develop micro-sensor tech- nology for use in hypersonic research developed by PSL inventors toward commercialization	Income Infrastructure	4	Number of jobs creat- ed; number of technol- ogy demonstrations/ implementations; number of cooperative agreements; number and amount of industry contracts	PSL
Business/Entrepreneurship Accelera	tion			
Expand Arrowhead programs, resources, and services to those areas and popula- tions with the least access to such assets	Education Income	1, 2, 3	Number of rural com- munities participating in Arrowhead business acceleration programs; percentage of Arrow- head clients from rural and tribal communities; ethnic/racial minorities, and women; Number of counties served by Arrowhead Center programs	Arrowhead Center
Develop entrepreneurship extra-curricular learning content for students in various disciplines	Education Income	1, 4	Number of Studio G Sites at colleges and universities in New Mexico; Number of New Mexico student entrepreneurs partici- pating in Studio G	Arrowhead Center
Serve as a leader for student entrepre- neurship in New Mexico	Education Income	1, 3	Number of Studio G Sites at colleges and universities in New Mexico; Number of New Mexico student	Arrowhead Center
Serve as a leader for Native American entrepreneurship in New Mexico	Education Income	1, 3	Number of tribal communities served by Native American entre- preneurship programs; Number of Native American entrepre- neurs participating in Studio G	Arrowhead Center

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Business/Entrepreneurship Accelera	tion			
Plan, implement, assess, and redefine the development of collaborative innovation entrepreneurial incubators and accel- erators in education, health, and social services/sciences with its emphasis on social justice and EID	Education Income Health	1, 2, 3, 4	Collaborate with Arrowhead Center on one or more incubator/ accelerator project related to education, health, and social services/sciences	HEST
Amplify impact of research on society and the economy by accelerating tech- nology and knowledge transfer as well as associated entrepreneurial activities	Education Income Health Environment Infrastructure	1, 2, 3, 4	Formalize eight corpo- rate partnerships that result in: - Utilization of NMSU research results - Direct funding for applied research - External funding for technology maturation to turn research results into usable applications Spin out five com- panies from NMSU, engaged faculty as technology science advisors or founders. - Licensing/royalty income - Shareholder in company	Research, Creativity, and Strategic Initiatives, Arrowhead Center
Center of Excellence in Sustainable Food and Agricultural Systems agricultural economists will conduct series of eco- nomic/business feasibility assessments for value-added food products and businesses.	Education Income	1, 2, 3	Two economic/busi- ness feasibility assess- ments will be conduct- ed annually for three years.	ACES



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