

An aerial photograph of a city skyline, likely New Mexico, with a blue color overlay. The image shows several tall skyscrapers and a highway in the foreground. The text is overlaid on the left side of the image.

# New Mexico Governor's Statewide Conference on Economic Development

September 27, 2022

Roland Stephen, Executive Director  
Center for Innovation Strategy and Policy

# SRI is an independent mission-driven non-profit

## Legacy

Founded in 1946 by  
Stanford University



## Innovation

\$4B+ in research  
over the last 10 years

**4,600+**

Total patents

**13k+**

Patent cases

**1,000+**

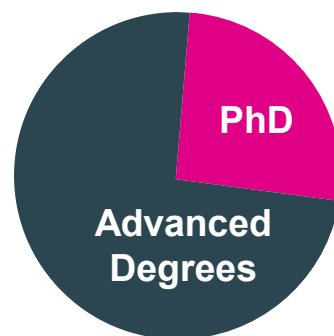
Scientific reports

**1,000+**

R&D projects / year

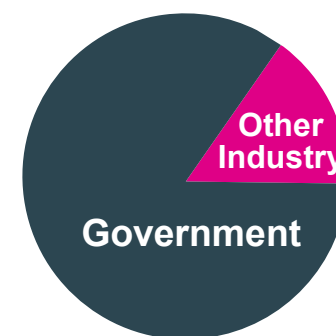
**1,700+**

Staff members



**~\$500M**

Annual revenue



## Transition

Helped to create hundreds of billions of marketplace value

**50+**

Spin-off  
companies

**100+**

Technology  
licenses

**1,000+**

Custom built  
advanced products



# **Analytics, Data Analysis, & Strategy Consulting**

The Center for Innovation Strategy and Policy (CISP) collaborates with organizations, regions, and countries to accelerate the long-term economic and social impact of investments in technology, innovation, and a skilled workforce.



**Technology-  
Based  
Economic  
Development**



**Innovation  
Strategy &  
Training**



**Design for  
Trust**



**Complex  
Program  
Evaluation**



**Science and  
Technology  
Program  
Support**



**Advanced  
Analytics in the  
Study of R&D**

# Why This Strategy, and Why Now?

**In the past, limited economic diversification has provided inconsistent statewide growth and fewer economic opportunities for many New Mexicans**

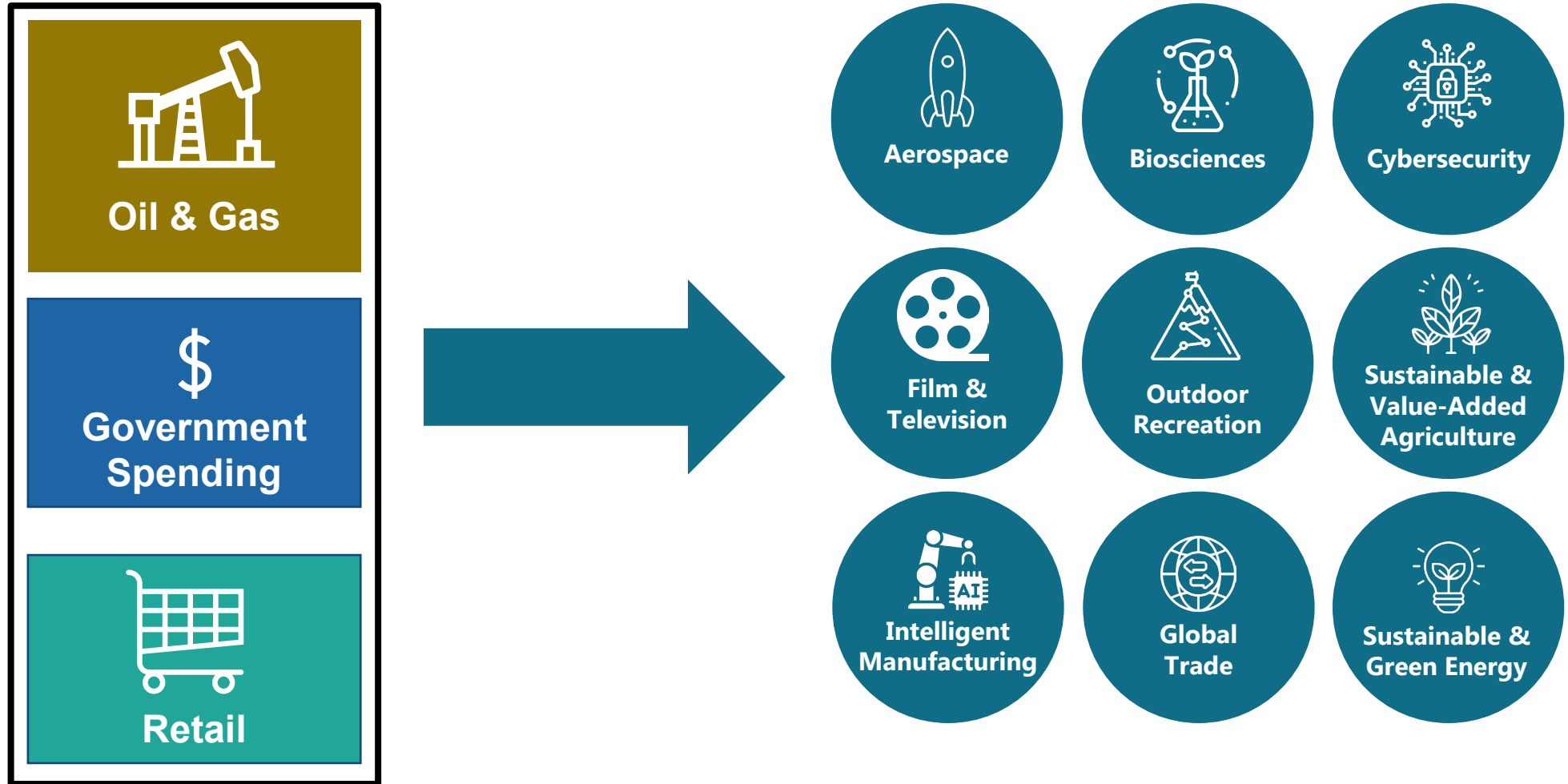
- While regional competitors have actively pursued opportunities in new industries, New Mexico has struggled to capitalize upon its immense assets to accelerate long-term growth in a wide variety of industries

**The Challenge:** Jumpstart New Mexico's near-term recovery from COVID-19 AND its long-term transformation into a more diversified, resilient, and inclusive economy

**The Mission:** Reimagine New Mexico's approach to economic development, beginning with building the capabilities necessary to facilitate statewide collaboration on common goals, such as economic growth, inclusion, and workforce readiness

# Diversify State Economy via 9 Target Industries

Historically, New Mexico's economy has been dependent upon a few key industries: **government, retail, and oil and gas**



# Methodology

SRI's approach had a regional focus but with a view toward statewide implications

	Quantitative Methods	Qualitative Methods
Industry Analysis	<p>Cluster identification, location quotient analysis, shift share, diversification indices, business churn rates</p> <p><i>Data Sources: Emsi, BEA, BLS, U.S. Census Bureau</i></p>	<p>Virtual interviews (Zoom, telephone) with industry leaders, trade associations, tribal associations, and economic developers</p> <p>Lime Survey</p>
Workforce and Skills Analysis	<p>Occupation-to-skills mapping, underemployment, job quality and wages, migration patterns, degrees awarded at colleges and universities</p> <p><i>Data Sources: Emsi, BEA, BLS, U.S. Census Bureau, NCES IPEDS, NCSES</i></p>	<p>Virtual interviews (Zoom, telephone) with workforce institutions and college/university administrations</p>
Innovation Ecosystem Mapping	<p>Government and commercial R&amp;D funding, patent filings, startups and incubators, venture capital investments</p> <p><i>Data Sources: Pitchbook, USTPO, Emsi, AUTM, Kauffman Foundation</i></p>	<p>Virtual interviews (Zoom, telephone) with entrepreneurs, lab/facility leaders, and innovation/entrepreneurship program directors</p>
Impact Analysis	<p>Input-output modeling, ROI sensitivity analysis, tax revenue analysis</p> <p><i>Data Sources: Emsi, BEA</i></p>	<p>Virtual interviews (Zoom, telephone) with industry and community leaders</p> <p>Lime Survey</p>
Community and Industry Sentiment	N/A	<p>Virtual interviews (Zoom, telephone) with industry and community leaders, economic developers, tribal associations, and government officials</p>

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# The Findings

Trends in New Mexico's State  
and Regional Economies

# Challenge #1: Lack of collaboration between economic development stakeholders

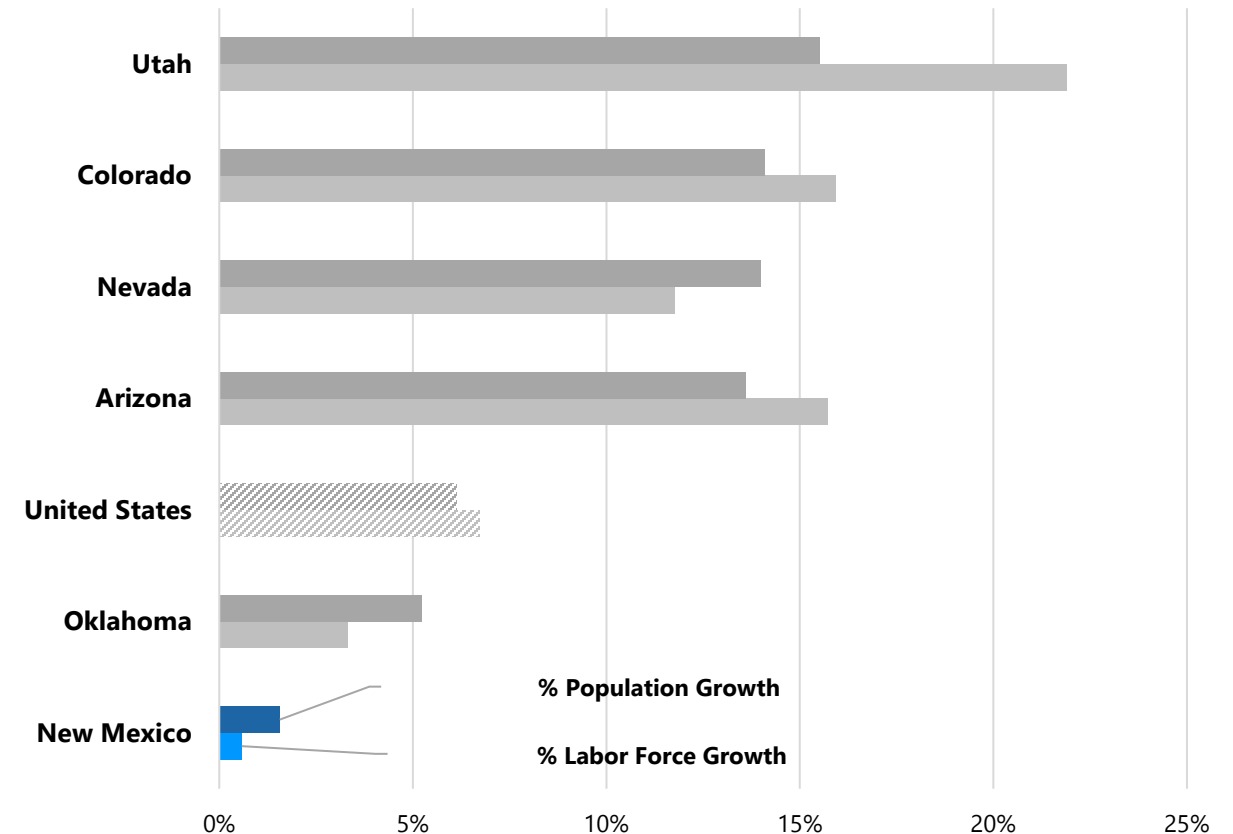
- + New Mexico has traditionally utilized a **decentralized, ad hoc approach to economic development**
  - Local and tribal governments have historically been encouraged to lead development within their jurisdictions while statewide organizations have played a minimized role
  - While this approach prioritizes the needs of local communities, it relies heavily upon local organizations' capacities to support economic development projects, leading to some regions of the state excelling in growing their economies while other regions have fallen behind.
- + Differences in local capabilities and priorities, in addition to the absence of a cohesive statewide strategy for economic development, has led to a **patchwork of programs and initiatives**
  - This decentralized approach can lead to **competing interests** and a **duplication of effort** between different actors in New Mexico's economic development ecosystem



# Challenge #2: Difficulty attracting and retaining talent in urban, rural, and tribal communities

- + New Mexico has struggled to attract new residents and workers
- + Trends influencing the slow population and labor force growth include:
  - Lack of economic opportunity for younger skilled professionals
  - Increasing housing costs in Santa Fe and Albuquerque
  - Lack of physical and digital infrastructure in rural and tribal communities

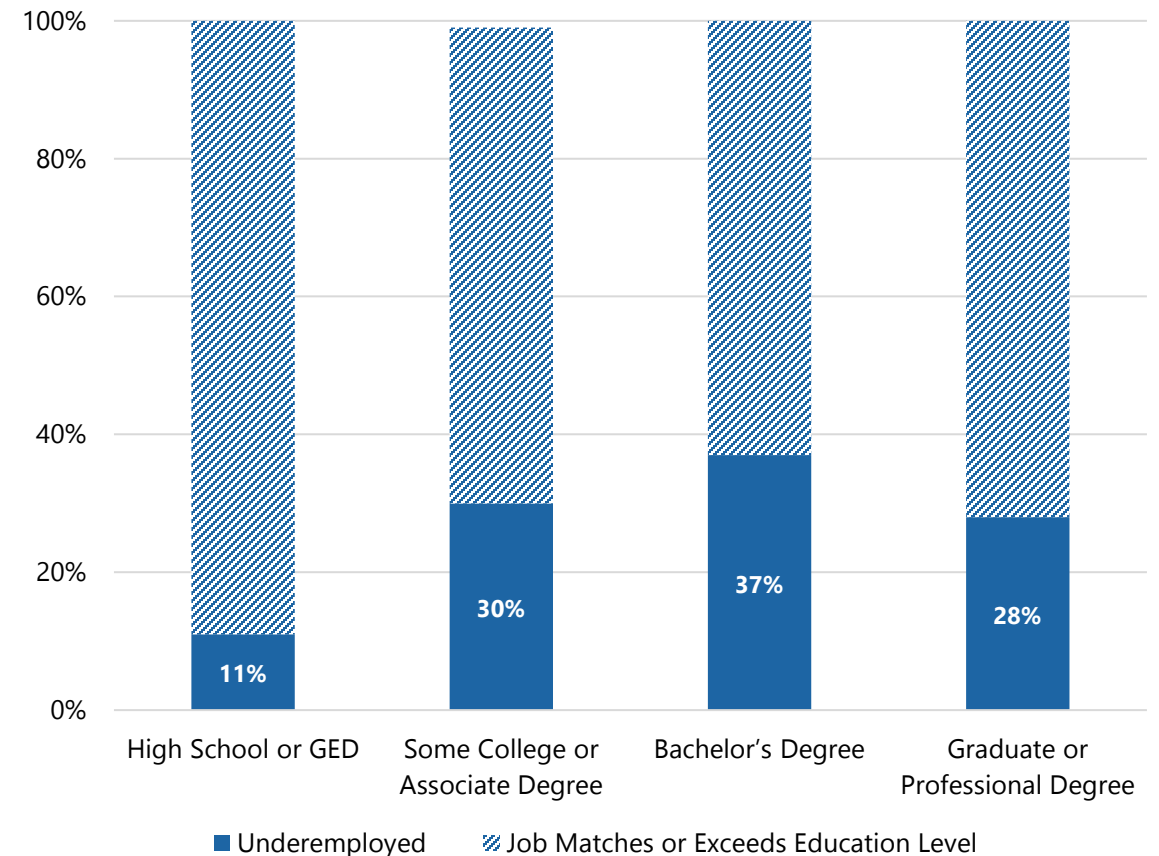
Population & Labor Force Growth, 2010–2019



# Challenge #3: Misalignment between higher education and industry

- + Many of New Mexico's higher education and training institutions are **increasingly disconnected from the needs of industry**
- + Though New Mexico aims to grow industries requiring STEM skills, New Mexico's higher education system is **increasingly producing graduates in non-STEM fields.**
- + There appears to be a **mismatch in the skills of workers and the skills in demand by employers**

Underemployment in New Mexico, 2015–2019.



# Challenge #4: Disengagement of socioeconomically disadvantaged communities in planning processes

- + Traditional models of economic development in New Mexico have led to many of these communities being disengaged from the development planning process, institutionalizing inequities between communities and individuals with resources and those without
- + As a result, poor socioeconomic outcomes have become exacerbated in many of New Mexico's minority communities, requiring greater public resources to mitigate these outcomes.
- + Poverty remains among the most formidable obstacles to equity in New Mexico

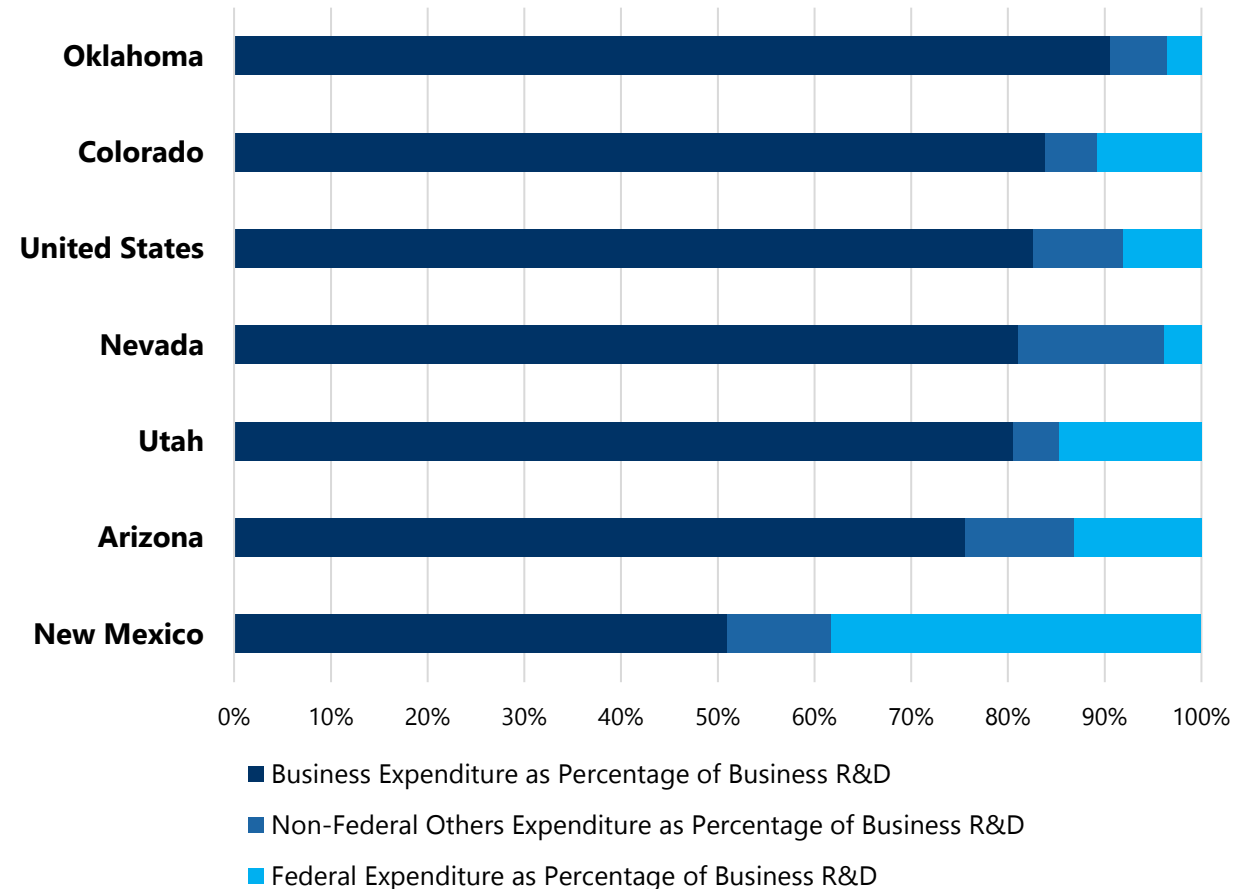
## Socioeconomic Indicators of New Mexico's Underserved Populations, 2019.

	<i>Unemployment Rate</i>	<i>Poverty Rate</i>	<i>Population with an Associate Degree or Higher</i>	<i>Median Personal Income</i>
Native Americans	8.4%	30.0%	21.1%	\$26,000
Immigrants	3.6%	26.1%	28.9%	\$28,000
Rural New Mexicans	7.8%	26.1%	26.2%	\$23,000
New Mexico Average	5.5%	26.1%	36.8%	\$35,000

# Challenge #5: Public-sector dominance in New Mexico's innovation ecosystem

- + While New Mexico's national laboratories sustain a core group of highly educated scientists and engineers, the private sector is in constant competition with the labs for high-skill talent.
- + Lack of private sector-driven R&D means that firms often rely on the federal lab system for innovation
- + Market readiness of New Mexico's entrepreneurs has been relatively low

Percent of Total Business R&D Spending, by Funding Source, 2010–2018.

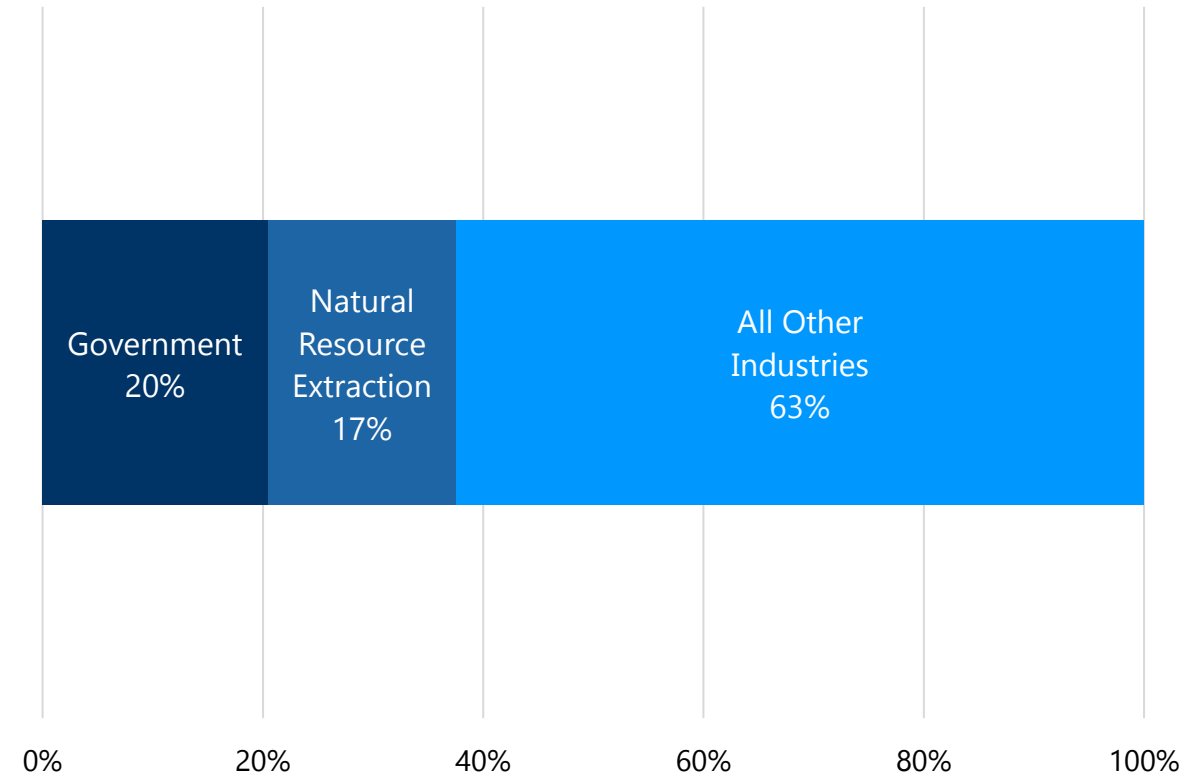













# Challenge #6: Concentration of the economy in a few key industries

- + Historically, New Mexico's economy has been **dependent upon a few key industries**: government, retail, and oil and gas
- + Lack of industrial diversification has resulted in volatile economic cycles in which employment and the state's ability to fund public services are **highly dependent on oil and gas prices as well as federal policy decisions**
- + As the world transitions from fossil fuel to renewable energy, the need for New Mexico to develop new drivers of economic growth will become ever more urgent

Percent of New Mexico GDP, by Industry, 2019.



# Assessing the Enabling Conditions for Target Industry Development

		Workforce	Incentives	Regulatory Environment	Physical Infrastructure	Institutional Capacity	Institutional Alignment
	<b>Aerospace</b>	Yellow	Red	Green	Green	Yellow	Yellow
	<b>Biosciences</b>	Green	Yellow	Yellow	Red	Yellow	Red
	<b>Cybersecurity</b>	Yellow	Green	Green	Red	Yellow	Yellow
	<b>Film &amp; Television</b>	Yellow	Green	Green	Yellow	Green	Green
	<b>Outdoor Recreation</b>	Yellow	Yellow	Yellow	Yellow	Green	Green
	<b>Sustainable &amp; Value-Added Agriculture</b>	Red	Red	Yellow	Yellow	Red	Red
	<b>Intelligent Manufacturing</b>	Red	Green	Red	Yellow	Yellow	Red
	<b>Global Trade</b>	Green	Green	Yellow	Yellow	Yellow	Red
	<b>Sustainable &amp; Green Energy</b>	Yellow	Green	Yellow	Red	Green	Green

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# The Way Forward

New Mexico's Economic Path  
Forward

## Vision Statement

*New Mexico will have a diverse and robust economy that engages local talent, cultivates innovation, and delivers prosperity for all.*



**Collaborative**

Modernize Economic  
Development Apparatus



**Dynamic**

Strengthen  
Communities



**Skilled**

Reimagine Education  
& Training



**Equitable**

Promote Equity  
Through Economic  
Justice



**Innovative**

Fuel High Quality Home  
Grown Innovation



**Resilient**

Diversify Economy by  
Growing Target Industries





## **Modernize New Mexico's Economic Development Apparatus**

*New Mexico's approach to economic development has historically been disjointed, and an abundance of development-oriented organizations with overlapping priorities leads to confusion, missed opportunities, and intra-state competition for economic development "wins."*

### **Priority Area 1.1.**

*Align the efforts of stakeholders in New Mexico's economic development ecosystem*

### **Priority Area 1.2.**

*Streamline and simplify New Mexico's rules and regulations.*

### **Priority Area 1.3.**

*Strengthen New Mexico's business recruitment and retention efforts.*

# Strengthen New Mexico’s business recruitment and retention efforts

Empower NewMARC to establish industry councils for target industries comprised of businesses, organizations, and state, local, and tribal governments that determine the health of the industry and recommend actions to support the industry’s growth.

Lead:	Support:	Estimated Cost:	Timeline:
EDD, NewMARC	DWS, HED, tribal governments, workforce boards	\$	Short-term

Work with the Sustainable Economy Task Force to provide annual updates to the state legislature on this strategic plan and the progress made over the preceding year related to economic diversification, climate change mitigation, and impacts on underserved communities.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	Sustainable Economy Task Force	\$	Ongoing



## **Strengthen New Mexico's Communities**

*New Mexico's communities offer a wide variety of amenities for regional residents but suffer from a reputational obstacle that makes it difficult to attract skilled workers and retain home-grown talent.*

### **Priority Area 2.1.**

*Increase community capacity for economic development projects and initiatives.*

### **Priority Area 2.2.**

*Redefine New Mexico's urban regions.*

### **Priority Area 2.3.**

*Commit to the economic sustainability of New Mexico's rural and tribal communities.*

# Increase community capacity for economic development projects and initiatives

Increase overall funding for EDD’s LEADS program to enable EDD to better meet the needs of applicant communities and develop a specific carve-out of LEADS funding that is reserved for planning efforts related to economic and community development projects.

Lead:	Support:	Estimated Cost:	Timeline:
EDD-LEADS	N/A	\$\$	Medium-term

# Commit to the economic sustainability of New Mexico’s rural and tribal communities

Promote existing microtransit and flexible transit opportunities, such as New Mexico Department of Transportation’s NMGo! partnership with Enterprise Rent-a-Car, among rural small- and medium-sized businesses receiving economic and workforce development incentives. In partnership with employers and NM Department of Transportation, investigate new opportunities for alternative transit options.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	NMDOT	\$	Medium-term





## Reimagine Education & Training

*Higher education and training have long been central to New Mexico's competitiveness in key industries, but over time the state's higher education system has become less responsive to the needs of industry.*

### Priority Area 3.1.

*Improve the quality of New Mexico's higher education and training programs through industry engagement and institutional reform.*

### Priority Area 3.2.

*Reform New Mexico's workforce development ecosystem to align with industry needs.*

### Priority Area 3.3.

*Prepare New Mexico's students for success.*

# Improve the quality of New Mexico’s higher education and training programs through industry engagement and institutional reform.

Expand the use of industry-certified short-term non-degree certificate programs that connect New Mexico workers with existing and projected employment opportunities in New Mexico’s target industries.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	HED, Higher Education, DWS	\$	Ongoing

Establish a permanent industry relations office at select New Mexico colleges and universities that seek enduring relationships with industries in New Mexico.

Lead:	Support:	Estimated Cost:	Timeline:
HED	EDD, DWS, Higher Education	\$\$	Medium-term



## Promote Equity Through Economic Justice

*New Mexico's population is among the most diverse in the United States, but, similar to national trends, economic opportunity in the state has become increasingly polarized between those with access to critical resources and those without.*

### Priority Area 4.1.

*Encourage state, regional, and local organizations to increase collaborations with tribal communities.*

### Priority Area 4.2.

*Expand access to resources for entrepreneurs from disadvantaged backgrounds.*

### Priority Area 4.3.

*Improve education and workforce outcomes for underserved populations.*

# Improve education and workforce outcomes for underserved populations

Partner with HED, tribal colleges, and local businesses to expand the DWS internship portal to include micro-internship opportunities that offer part-time, working, and disabled students the ability to gain paid experience and connect local students with local companies.

<b>Lead:</b> EDD	<b>Support:</b> HED, tribal colleges, local businesses	<b>Estimated Cost:</b> \$\$	<b>Timeline:</b> Medium-term
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Develop a live map of childcare needs in New Mexico’s communities to determine regions of the state that are facing shortages in care.

<b>Lead:</b> NM Early Childhood Education and Care Department	<b>Support:</b> EDD	<b>Estimated Cost:</b> \$\$	<b>Timeline:</b> Medium-term
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## **Fuel High Quality Home-Grown Innovation**

*New Mexico is home to a number of competitive assets that drive innovation—including three federal labs—but innovation and entrepreneurship outside of these labs has been slow to develop and is overdependent upon federal government support for success.*

### **Priority Area 5.1.**

*Build capacity among New Mexico's entrepreneurs.*

### **Priority Area 5.2.**

*Remove barriers to financial resources for entrepreneurs.*

### **Priority Area 5.3.**

*Sustain an entrepreneur-friendly business environment.*

### **Priority Area 5.4.**

*Connect entrepreneurs and innovators to critical industry knowledge and resources.*

# Build Capacity Among New Mexico Entrepreneurs

Collaborate with stakeholders in business and financial communities to develop a standardized, non-degree business and financial literacy training program for small businesses that is taught by business support organizations.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	Incubators, accelerators, nonprofits	\$\$	Short-term

In partnership with New Mexico Small Business Development Center and New Mexico Minority Business Development Agency's (MBDA) Business Center, implement a micro-grant program that provides financial support to small businesses looking to establish an online presence to reach markets outside of New Mexico.

Lead:	Support:	Estimated Cost:	Timeline:
EDD, Small Business Development Center, Minority Business Development Agency	Economic development organizations	\$\$	Medium-term



## Diversify New Mexico's Economy by Growing Target Industries

*New Mexico has a strong history with natural resources as well as tech-intensive industries related to national defense and energy, but over time the state's economy has become captured by these traditionally dominant industries, making New Mexico's economy susceptible to changing economic and political winds.*

**Priority Area 6.1.**  
*Aerospace.*

**Priority Area 6.2.**  
*Biosciences.*

**Priority Area 6.3.**  
*Cybersecurity.*

**Priority Area 6.4.**  
*Film & Television.*

**Priority Area 6.5.**  
*Outdoor Recreation.*

**Priority Area 6.6.**  
*Sustainable & Value-Added Agriculture.*

**Priority Area 6.7.**  
*Intelligent Manufacturing.*

**Priority Area 6.8.**  
*Global Trade.*

**Priority Area 6.9.**  
*Sustainable & Green Energy.*

# Develop the Intelligent Manufacturing Industry

Fund, support, and promote the development of industrial rail parks in both southern and central New Mexico as attractive manufacturing locations with easy rail access.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	Rail park developers, NM Partnership	\$\$	Medium-term

Work with the New Mexico Manufactured Housing Association, R&D institutions, and CNM's FUSE Makerspace to explore the potential of using 3D printed manufactured housing to address challenges in affordable housing and rural development.

Lead:	Support:	Estimated Cost:	Timeline:
EDD	NM Manufactured Housing Association, R&D institutions	\$\$	Long-term

# What is next?

The work will continue:

- There will be engagement across New Mexico through the Sustainable Economy Advisory Council


The work will inform:

- Serve as a structure for the alignment and coordination of New Mexico's economic development activities

The work will provide focus:

- Allow federal and other investments to be effectively targeted

To achieve all this the document will be continuously revisited and revised.



# Q&A



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