

<https://www.foxbusiness.com/economy/us-manufacturing-sector-reaping-benefits-reshoring>

# Shoring up New Mexico's Economic Future

**Dale R. Dekker, AIA**

October 16, 2024

# Dekker

Architecture in Progress



SERVING PUBLIC + PRIVATE  
CLIENTS FOR **65** YEARS



MULTIDISCIPLINARY  
**DESIGN FIRM**

ARCHITECTURE  
STRUCTURAL ENGINEERING  
INTERIOR DESIGN  
LANDSCAPE ARCHITECTURE  
PLANNING



**215** STAFF **3** REGIONAL  
LOCATED IN OFFICES

A yellow flag with a red Zia symbol is flying on a flagpole against a clear blue sky. The flag is slightly wrinkled and appears to be in motion. The Zia symbol is a stylized sun with four arms extending outwards.

# Extreme Makeovers



Old Albuquerque High School



Old Albuquerque High School



Albuquerque Convention Center

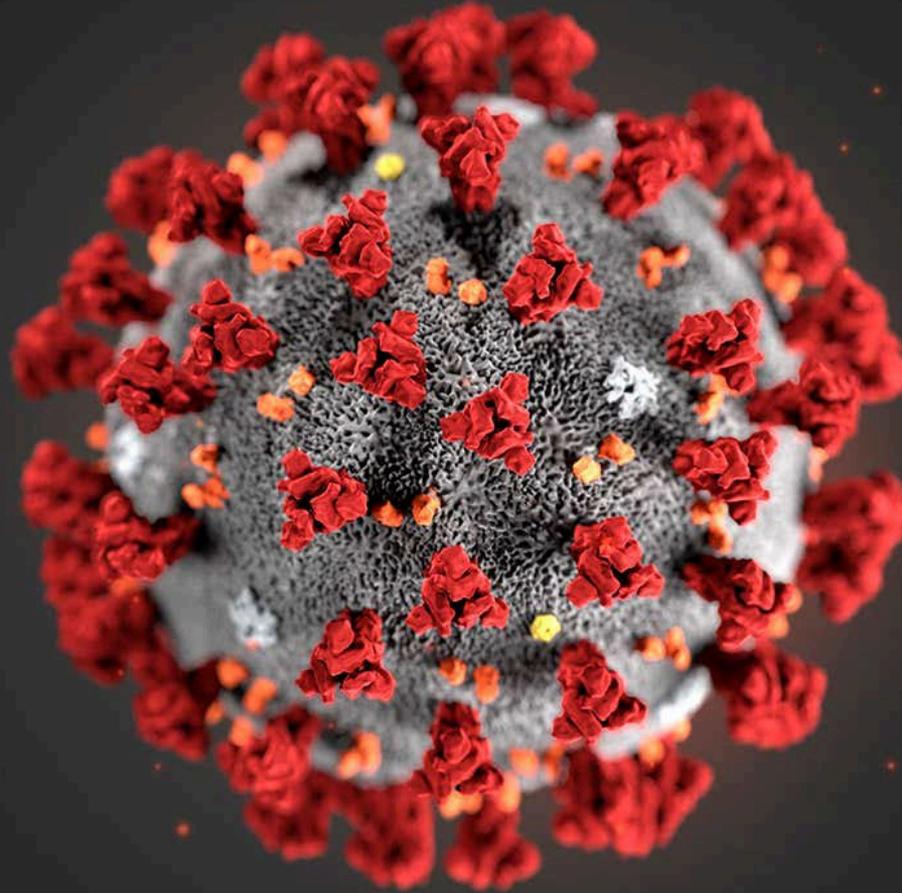


Albuquerque Convention Center



**“The times they are  
a-changin’...”**

**Bob Dylan**



“The shockwaves of the coronavirus pandemic cannot be overstated.”

2021 Kearney-Confidence Index

<https://businessfacilities.com/2020/04/top-10-covid-19-takeaways-for->



**“The coronavirus has exposed a dangerous risk to the national security and safety to United States citizens...”**

Top 10 COVID-19 Takeaways For Corporate Site Selection-April 7, 2020-Business Facilities

<https://businessfacilities.com/2020/04/top-10-covid-19-takeaways-for-corporate-site-selection/>

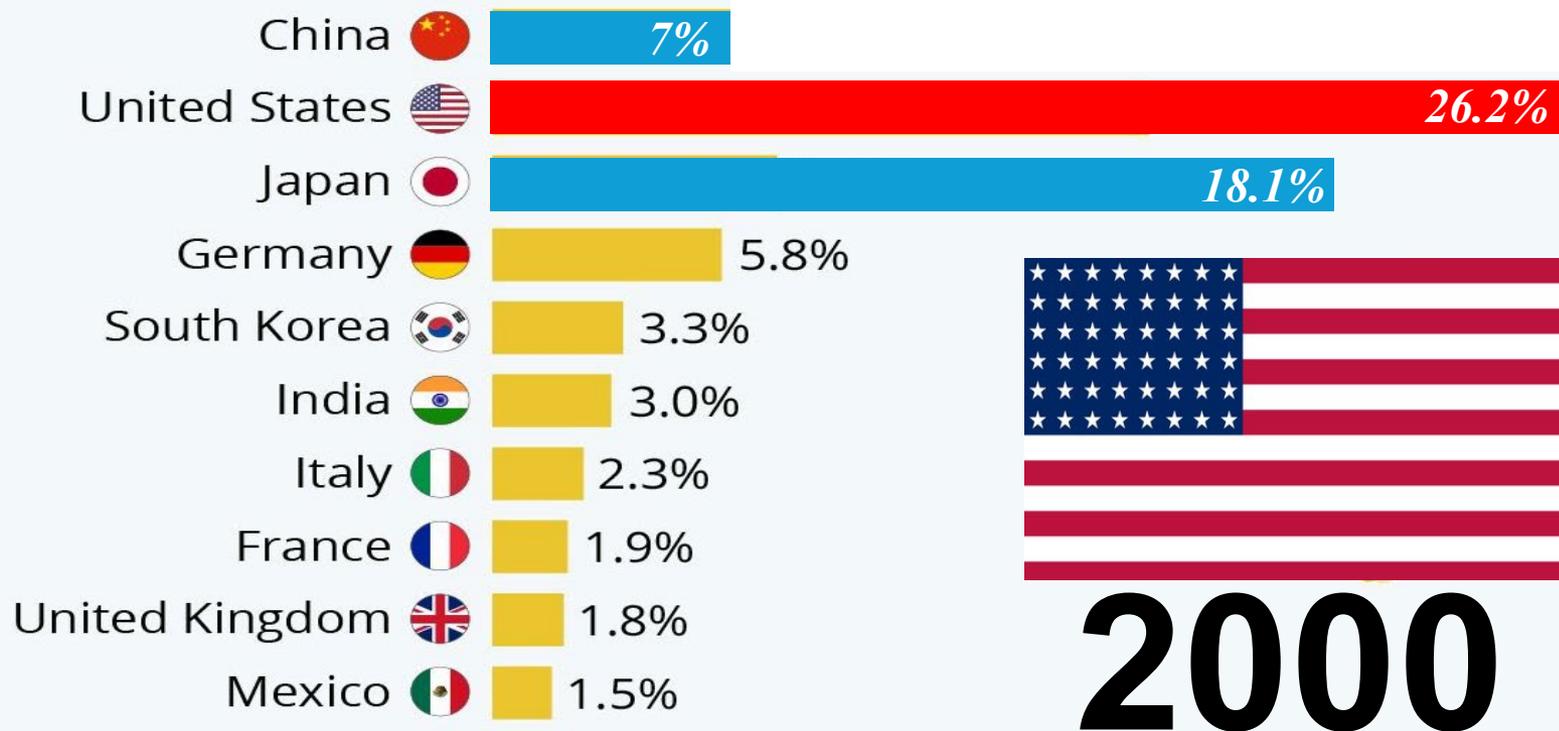
*In the headlines...*

**“Overextended and risky supply chains are no longer tolerable....”**

**“91% of the companies affected by the supply chain disruption in China are U.S. based.”**

# United States the World's Manufacturing Superpower

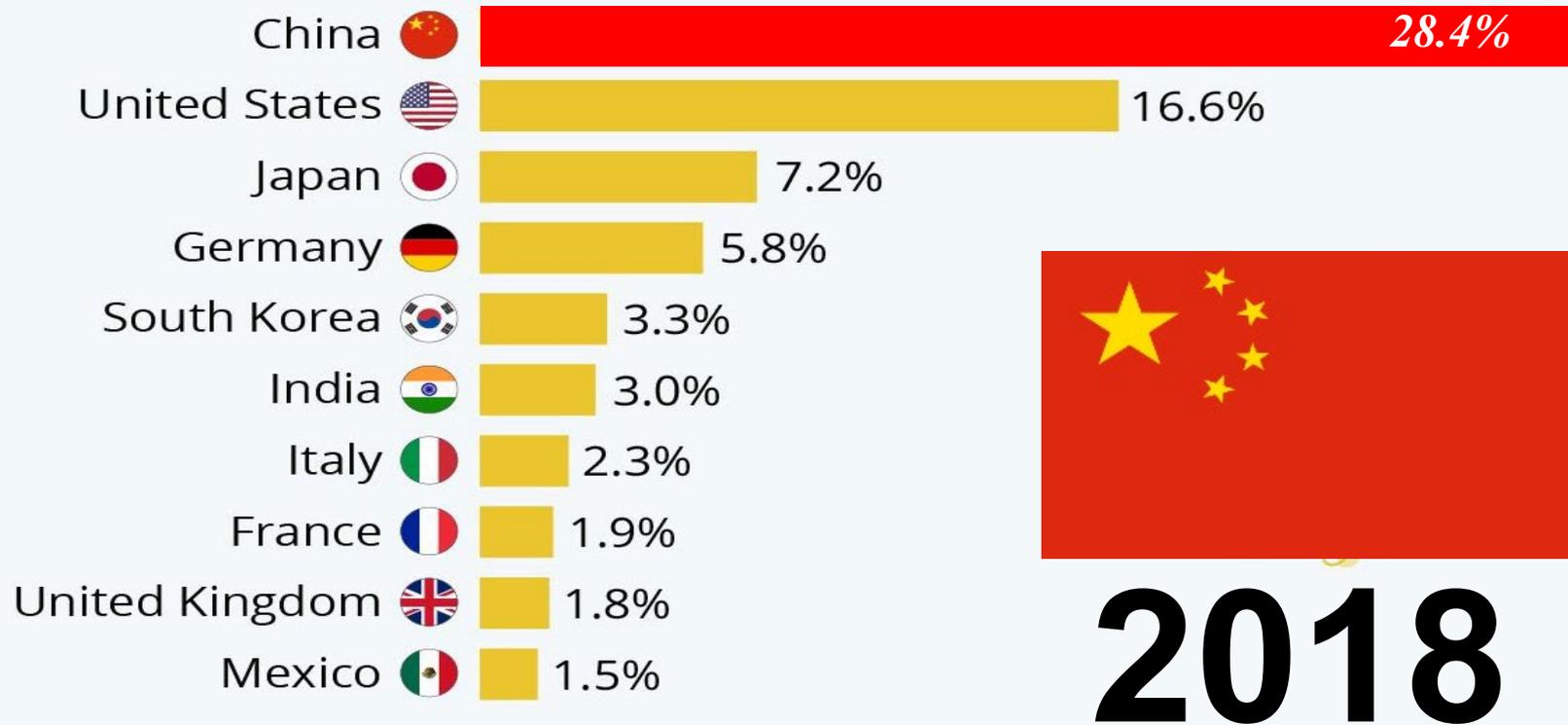
Top 10 countries by share of global manufacturing output in 2000 \*



\* output measured on a value-added basis in current U.S. dollars  
Source: United Nations Statistics Division

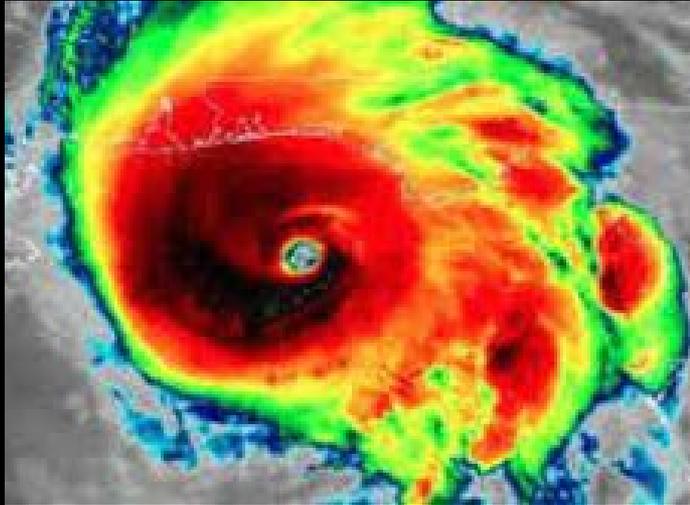
# China Is the World's Manufacturing Superpower

Top 10 countries by share of global manufacturing output in 2018\*



\* output measured on a value-added basis in current U.S. dollars  
Source: United Nations Statistics Division

# Supply Chain Disruption



Extreme Weather-  
Climate Change



Political/Wars



Human Rights



Accidents

**BUILDING RESILIENT  
SUPPLY CHAINS,  
REVITALIZING AMERICAN  
MANUFACTURING, AND  
FOSTERING BROAD-BASED  
GROWTH**

100-Day Reviews under  
Executive Order 14017



**THE WHITE HOUSE**  
WASHINGTON

**BUILDING RESILIENT  
SUPPLY CHAINS,  
REVITALIZING AMERICAN  
MANUFACTURING, AND  
FOSTERING BROAD-BASED  
GROWTH**

# Critical Infrastructure

Pharmaceuticals

Medical Equipment/PPE

Aerospace

Microelectronics

Advanced Manufacturing

Rare Earth Minerals

Defense Industrial Base

100-Day Reviews under  
Executive Order 14017



THE WHITE HOUSE  
WASHINGTON

*The* **INFRASTRUCTURE  
INVESTMENT  
and JOBS ACT**

**The CHIPS and  
Science Act**

**Inflation Reduction  
Act of 2022**

- historic down payment on deficit reduction to fight inflation -
- invest in domestic energy production and manufacturing -
- reduce carbon emissions by roughly 40 percent by 2030 -



The bill provides **\$550 billion** in NEW spending on our nation's infrastructure over the next five years...

The **\$280 billion** CHIPS and Science Act authorizes new and expanded investments in STEM education and training from K-12 to community college, undergraduate and graduate education.

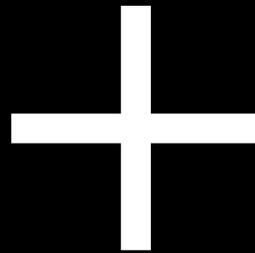
Authorizes **\$369 billion** investment in domestic energy production, energy security, climate change and manufacturing, in order to reduce carbon emissions by roughly 40 percent by 2030.

*The* **INFRASTRUCTURE  
INVESTMENT  
and JOBS ACT**

**The CHIPS and  
Science Act**

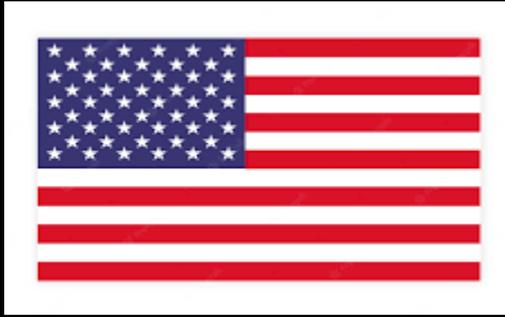
**Inflation Reduction  
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- reduce carbon emissions by roughly 40 percent by 2030 -



**BABA** is a requirement that all infrastructure projects funded by federal financial assistance would

be subject to new Domestic Sourcing requirements for iron and steel, manufactured products, and construction materials.



# USA

**\$1,149,000,000,000**



**\$7,250,000,000**

If NM was to get its Per Capita "fair" share an additional \$7.25 billion of federal revenue will flow into NM

# “Shoring” up America’s Economy in the **NEXT NORMAL**

## Critical Infrastructure

Pharmaceuticals

● ReShoring

Medical Equipment/PPE

● OnShoring

Aerospace

● NearShoring

Microelectronics

● FriendShoring

Advanced Manufacturing

Rare Earth Minerals

● GreenShoring

Defense Industrial Base

● GreenOnShoring

# ReShoring

**ReShoring** is the act of bringing U.S. manufacturing that moved overseas back to the United States.

# OnShoring

**OnShoring** is sourcing or expanding U.S. manufacturing production to a factory or new location within the U.S.

# What are the market forces driving **ReShoring** and **OnShoring** ?

**Supply Chain Risks and Costs**

**Total Costs-Energy-Taxes-Regulations**

**Transportation Access to Markets**

**Wage Gap is Closing**

**Technology**

**IoT...AI...Robotics...5G...3D Printing**

**Advanced Manufacturing**

# “Most likely measures to be taken by manufacturers in reaction to the COVID-19 Pandemic”

June 30, 2020 Cushman Wakefield

- **Immediate-to short-term:** Holding more product and component inventories....> Warehousing
- **Medium-term:** Diversifying component sourcing including an emphasis on “nearshoring” components ...closer to plants while holding more inventories.
- **Long-term:** “Reshoring” for some sectors, locating plants & component sources closer to each other as well as supply chain and production line restructuring would make JIT inventory management possible again.



**"U.S.  
manufacturing  
revival: trends,  
challenges and  
opportunities"**



## ReShoring

**Top industries coming back to the U.S.**

### **Clean tech and mobility:**

New factories are coming online to produce EVs, battery storage, hydrogen and other solutions that will help drive the energy transition.

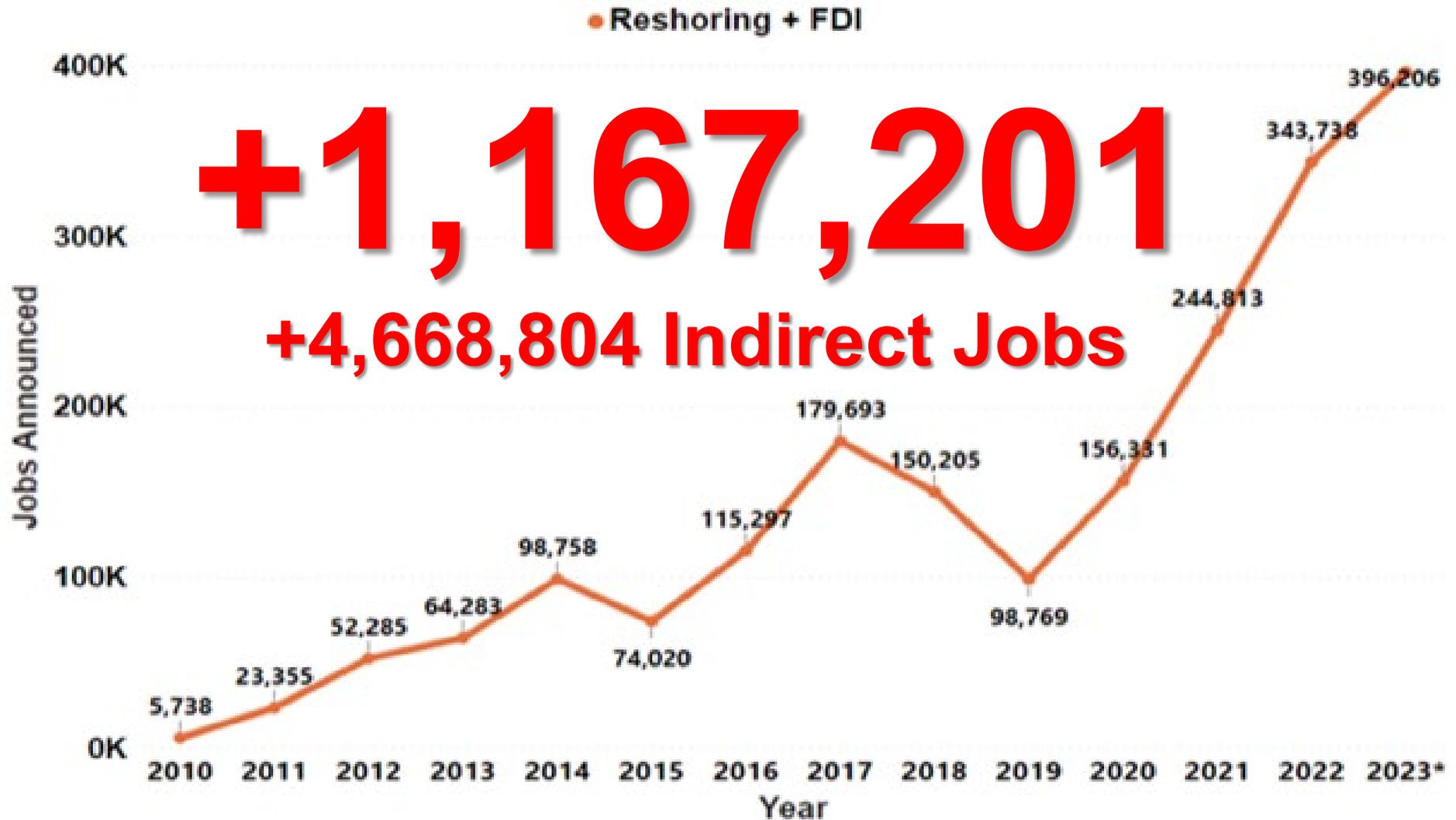
### **Aerospace:**

Companies are ramping up production of drone and defense projects.

### **Semiconductors:**

The U.S. has granted billions of dollars in incentives to encourage chip companies to grow or reestablish their production footprints in the U.S.

Job Announcements per Year, Reshoring + FDI, 2020 thru 2023-projected



*In the headlines...*

“The pick for the next manufacturing superpower?

**Mexico.”**

<https://insights.tetakawi.com/mexico-the-upcoming->

# Nearshoring

*Nearshoring...The practice of transferring a business operation to a nearby country, in preference to a more distant one...*

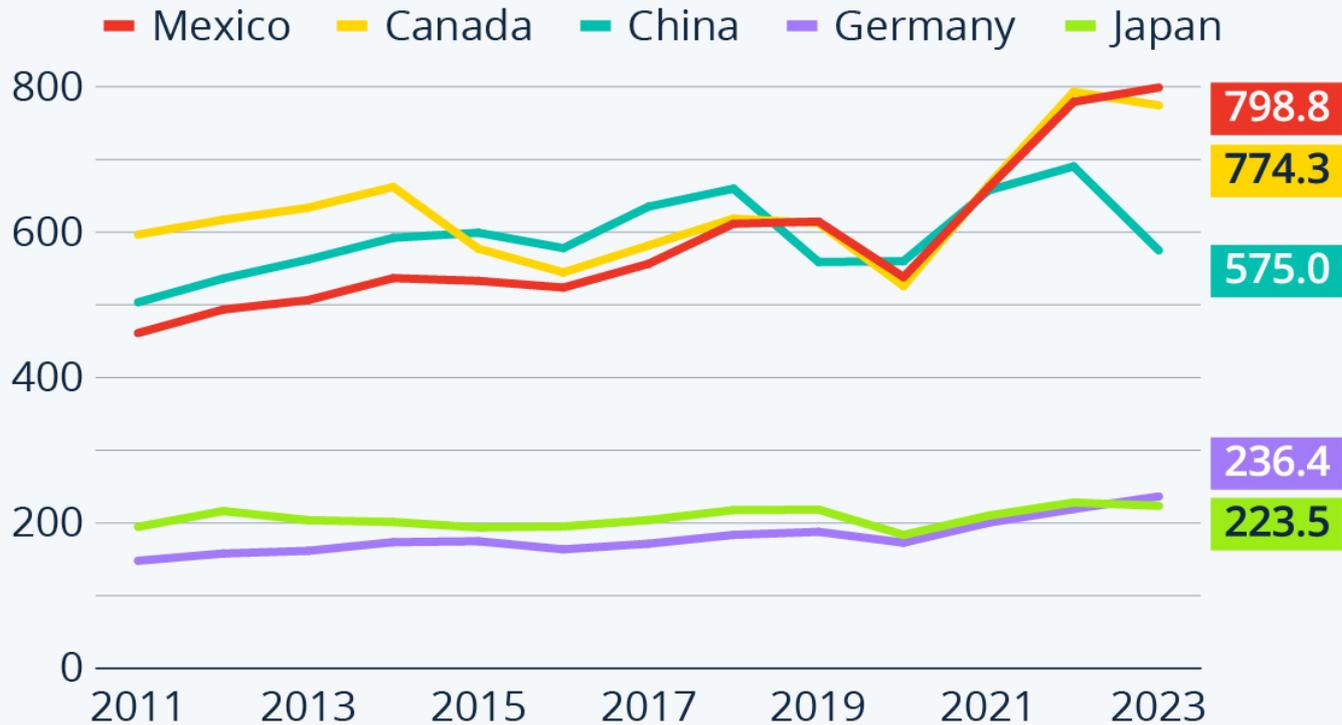


# Seven Reasons to Move International Manufacturing from China to Mexico

- 1. Wage Stability in Mexico vs. China**
- 2. Mexico Offers Favorable Tax Benefits to Manufacturers**
- 3. Operational Simplicity**
- 4. Shipping Transit Time and Costs- 1 to 3 days vs. 30 days**
- 5. Economic Status**-Higher per capita incomes
- 6. Intellectual Property Protection**
- 7. Access to Qualified and Affordable Labor**

# U.S. Trade With Mexico Surges to No. 1 Position

Volume of goods trade with the biggest trading partners of the U.S. (in billion U.S. dollars)



Imports plus exports

Source: U.S. Census Bureau



“The pick for the next manufacturing superpower?  
**Mexico.”**

<https://insights.tetakawi.com/mexico-the-upcoming-manufacturing-superpower>

# Nearshoring

“400 companies expected to land in  
Mexico in 2024...”



# Chihuahua stands out in job creation nationwide

30 November, 2023 Mexico Now

“...as of October 2023, **30,658** new formal jobs were generated in Chihuahua, of which 9,680 correspond to the Juárez region; 14,898 to Chihuahua; 954 to Delicias; 3,894 to Cuauhtémoc; 506 to Parral and 726 to Nuevo Casas Grandes.”

<https://www.airealestate.com.mx/en/industrial-park/chihuahua-en/>

# U.S. – Mexico Trade by Main POEs

Value in \$ billion

**2019**



Source: USDOT, BTS

**\$109,000,000,000**



# Freight Railroads Land Bridges



# I-40 TradePort Corridor Feeder Shed



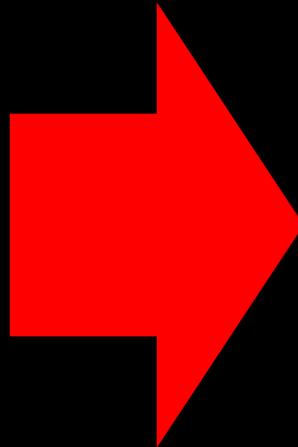
I-40 TRADEPORT CORRIDOR

CLEAN AND HIGH-EFFICIENCY



Chihuahua

**Nearshoring**



# Critical Infrastructure

Pharmaceuticals

Medical Equipment/PPE

Aerospace

Microelectronics

Advanced Manufacturing

Critical Manufacturing

Defense Industrial Base



**Reshoring**

# GreenShoring

**GreenShoring** is bringing manufacturing that moved overseas back to the United States that has a corporate mandate to reduce its carbon footprint.

# GreenOnShoring

**GreenOnshoring** is sourcing or expanding manufacturing production to a factory or new location within the United States due to a corporate mandate to reduce its carbon footprint.



# LCORE

**“New Mexico has the Lowest Cost of Renewable Energy”**

# RE



THE <sup>o</sup>CLIMATE GROUP



The **RE100** organization in London has signed up **223** global companies who have publicly committed to a goal of **100% renewables**.





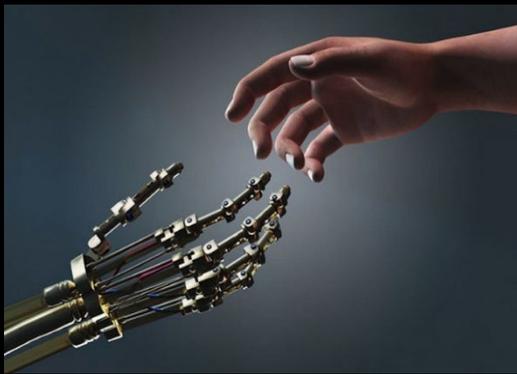
# GreenShoring



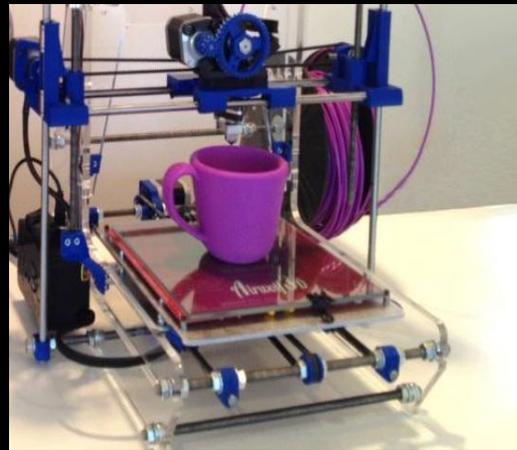
# GreenOnShoring



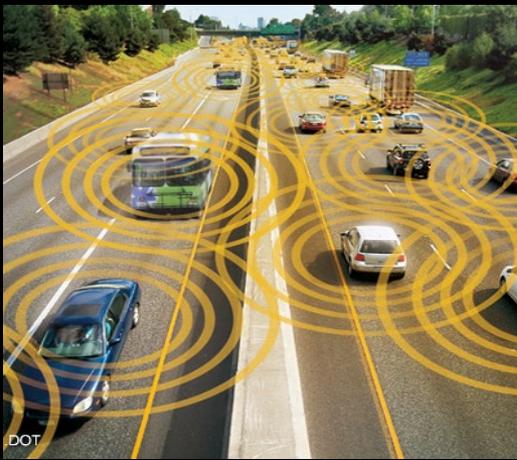
# Mega Trends



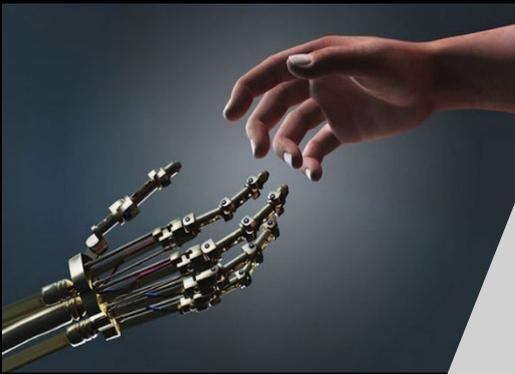
**Robotics and Cobots**  
**Intelligent Manufacturing**  
**Quantum Computing**  
**Circular Economy**  
**Small Nuclear Reactors**



**Industrial Revolutions 5.0-6.0**  
**Reshoring-Onshoring-Nearshoring**  
**3-D Printing/Virtual Reality**  
**Aerospace**  
**Space Technology**  
**Space Commercialization**



**6G/7G...Internet of Things (IOT)**  
**Smart Sensors & Smart Cities**  
**EV-Electric Vehicles**  
**Battery Technology**  
**Climate Change Adaptation**



**Robotics and Cobots**

**Smart Manufacturing**

**Cloud Computing**

**Sharing Economy**

**Nuclear Reactors**

**Industry Solutions 5.0-6.0**

**Reshoring-Nearshoring**

**3-D Printing Virtual Reality**

**Aerospace**

**Space Technology**

**Automation**

**5G/7G...Internet of Things (IoT)**

**Smart Sensors Smart Cities**

**EV-Electric Vehicles**

**Battery Technology**

**Climate Change Adaptation**

# Energy

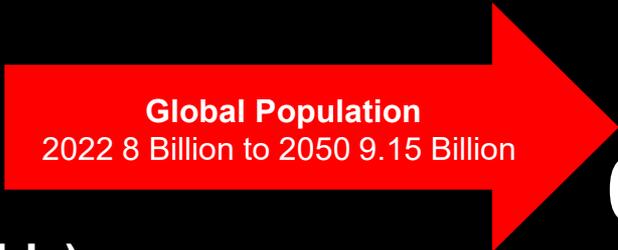
Solar, Wind, Nuclear, and Battery Storage account for most of the growth in both global capacity and generation.

**2022**

**29,000 TWH**

(28% or 8,120 TWH Renewable)

**Global Population**  
2022 8 Billion to 2050 9.15 Billion



**2050**

**60,000 TWH**

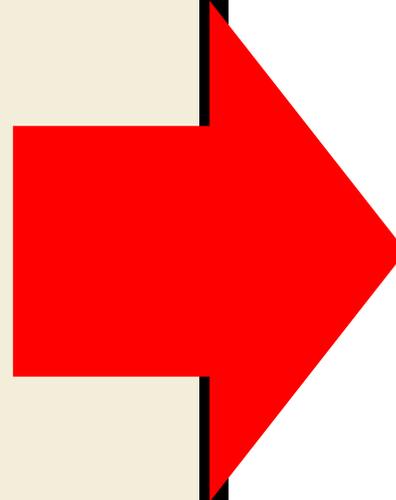
NEW MEXICO ECONOMIC  
DEVELOPMENT DEPARTMENT

# EMPOWER & COLLABORATE

New Mexico's Economic  
Path Forward

**October 2021**

A Summary of Findings & Recommendations  
from the Center for Innovation Strategy & Policy  
@ SRI International

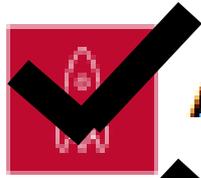


-  **Aerospace**
-  **Biosciences**
-  **Cybersecurity**
-  **Film & Television**
-  **Sustainable & Value-Added Agriculture**
-  **Outdoor Recreation**
-  **Intelligent Manufacturing**
-  **Global Trade**
-  **Sustainable & Green Energy**

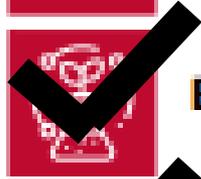
# New Mexico's Economic Path Forward

**“To build a diverse and robust economy...”**

# EMPOWER & COLLABORATE



**Aerospace**



**Biosciences**



**Cybersecurity**



**Film &  
Television**



**Outdoor  
Recreation**



**Sustainable &  
Value-Added  
Agriculture**



**Intelligent  
Manufacturing**



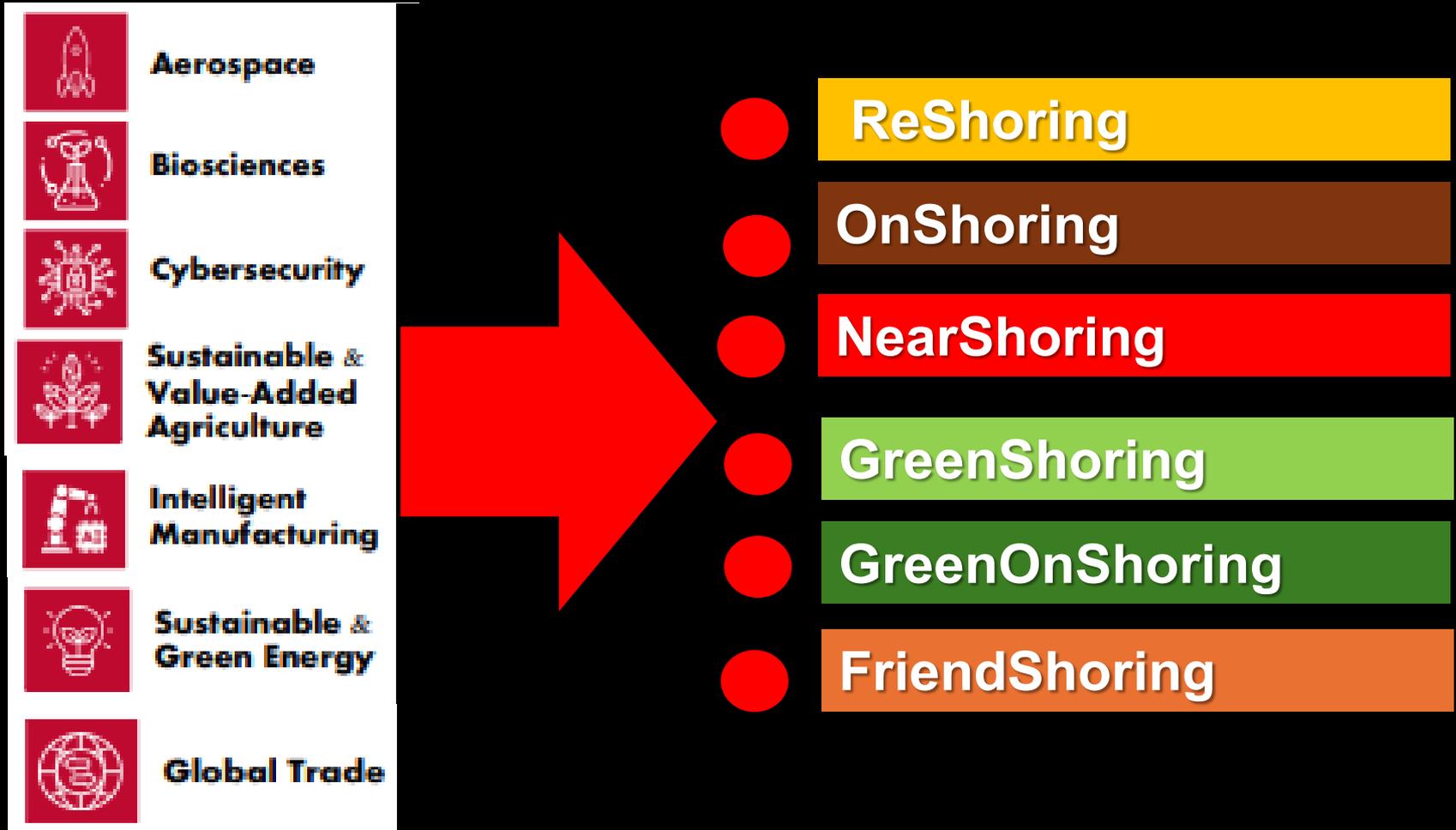
**Global Trade**



**Sustainable &  
Green Energy**

Seven of the **TARGET INDUSTRIES** requires a robust **engineering** and **STEM** professional and technical workforce in order to meet the goals of the **State EDD Plan...**

# “Shoring” up New Mexico’s Economy



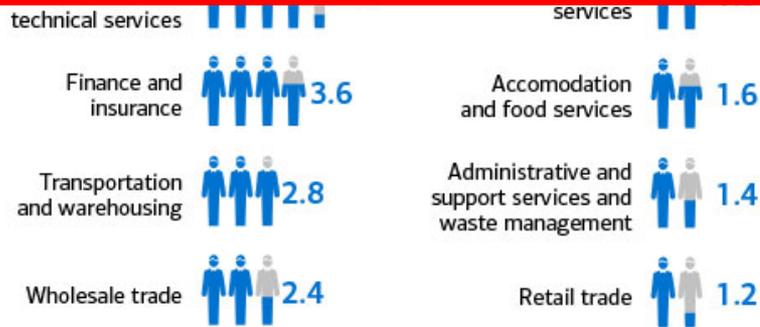
# Job Creators: The Multiplier Effect

The virtuous cycle of "building it here"

Job multiplier effect by employment industry



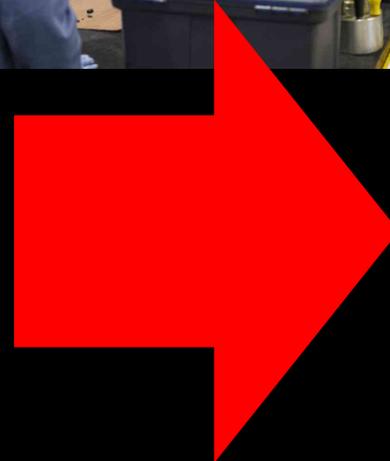
**“Our nation is facing a dire shortage of manufacturing workers.”**



Source: Economic Policy Institute

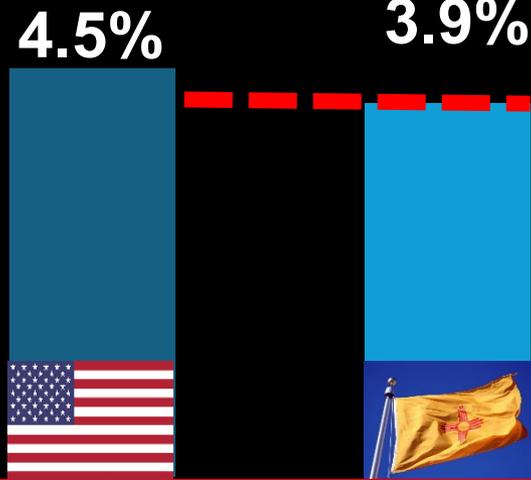


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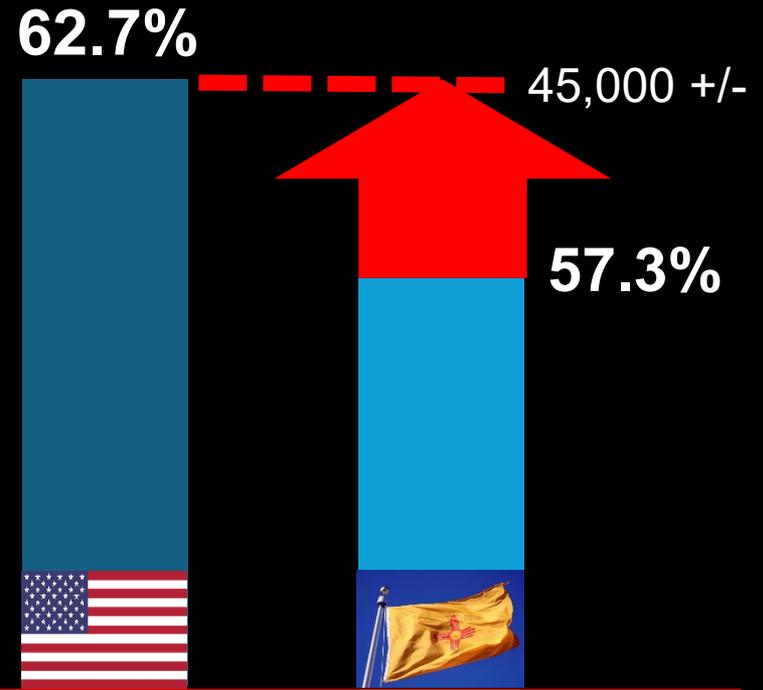
4+

# 45,000 +/-



**US**  
**NM**  
**Unemployment Rate**

Source: U.S. Bureau of labor Statistics-June 2024



**US**  
**NM**  
**LFPR**  
**Labor Force Participation Rate**

Source: FRED-June 2024

# Connect the Dots:

**Research Universities**  
NMSU...NMTech...UNM

**Chips & Science Act 2022**

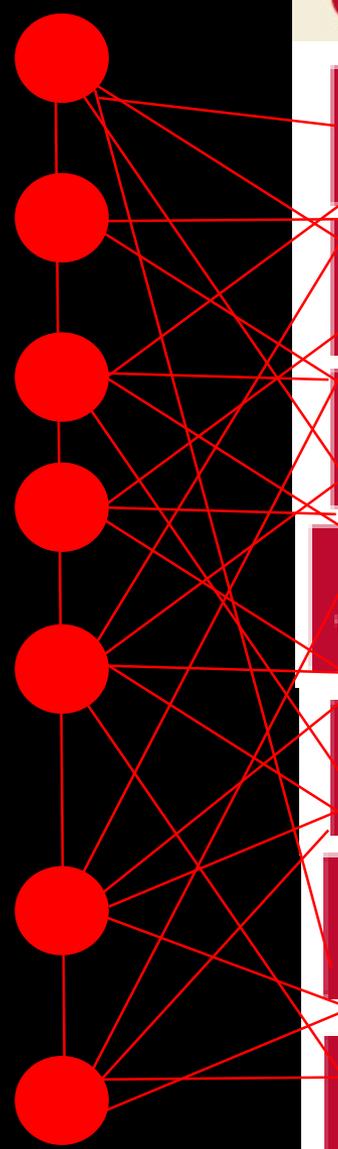
**Infrastructure & Jobs Act**

**Inflation Reduction Act 2022**

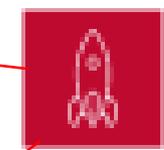
**Partnerships**  
SNL/LANL National Labs  
Air Force Research Lab

**Public/Private Partnerships**  
Private Industry

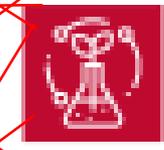
**Recruit & Retain**  
International-Latin Americas  
**New Mexico STEM & Engineering Talent**



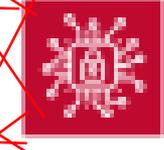
## EMPOWER & COLLABORATE



**Aerospace**



**Biosciences**



**Cybersecurity**



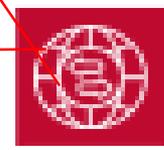
**Sustainable & Value-Added Agriculture**



**Intelligent Manufacturing**



**Sustainable & Green Energy**



**Global Trade**



Maya Angelou

**“If you don’t like something, change it. If you can’t change it, change your attitude.”**

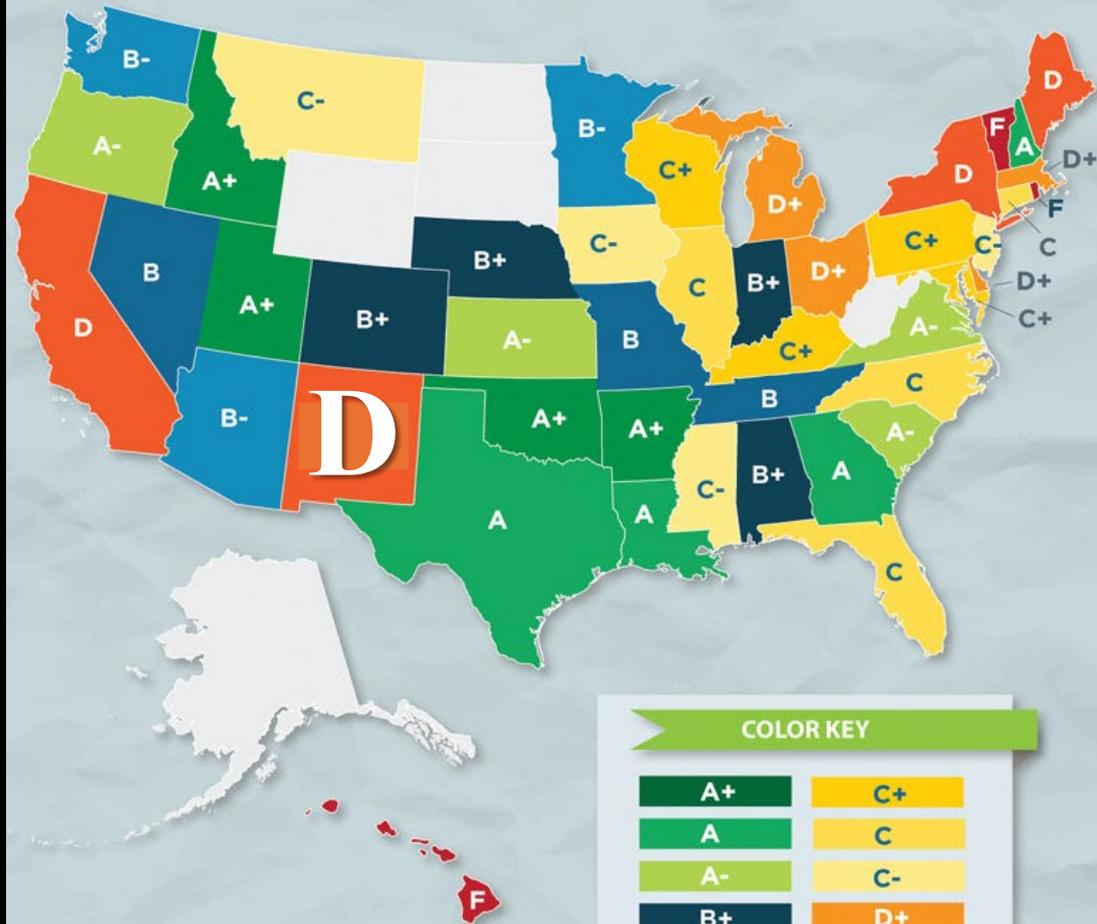
- #2 Texas
- #3 Utah
- #9 Colorado
- #18 Arizona
- #24 Oklahoma



<https://www.forbes.com/best-states-for-business/list/#tab:overall>

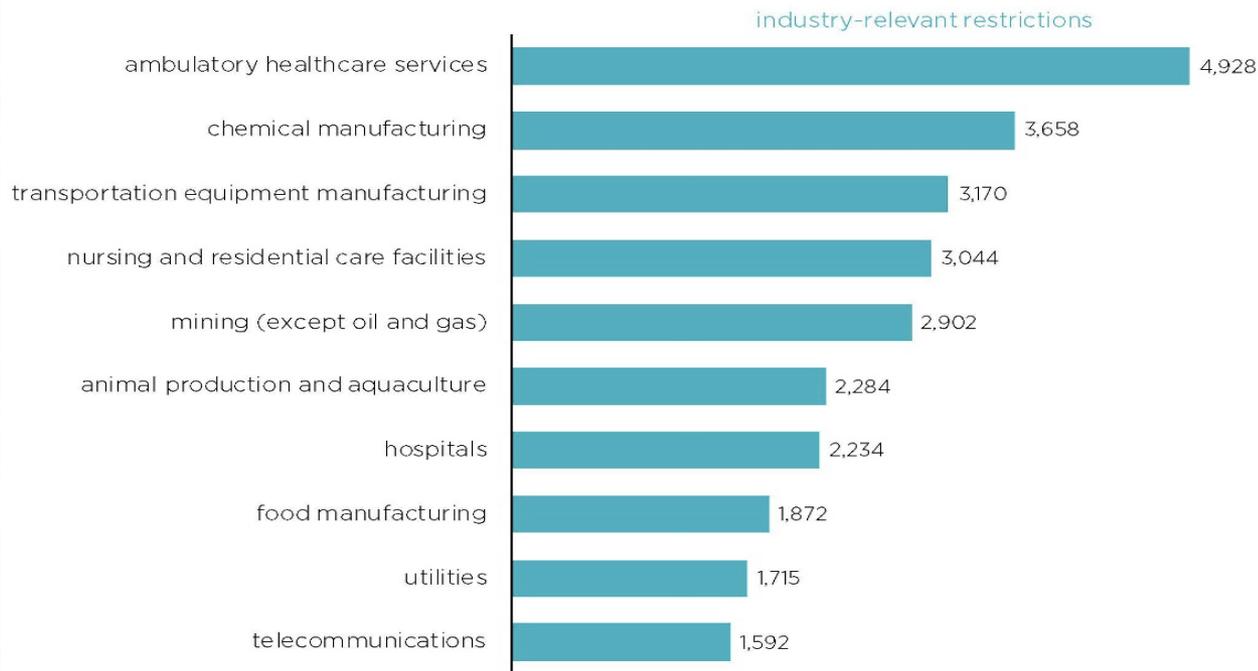
# Which State Is Best for Small Business?

When it comes to starting your business, some states make it a lot easier than others. Thanks to a survey of more than 6,000 small-business owners across the country released earlier this year by Thumbtack.com, a local-services listing site, and the Ewing Marion Kauffman Foundation, we now have a better idea of the easiest states in which to launch your startup dreams. The map below highlights how each state ranked.



Entrepreneur

## Top 10 Industries Targeted by New Mexico State Regulation in 2018

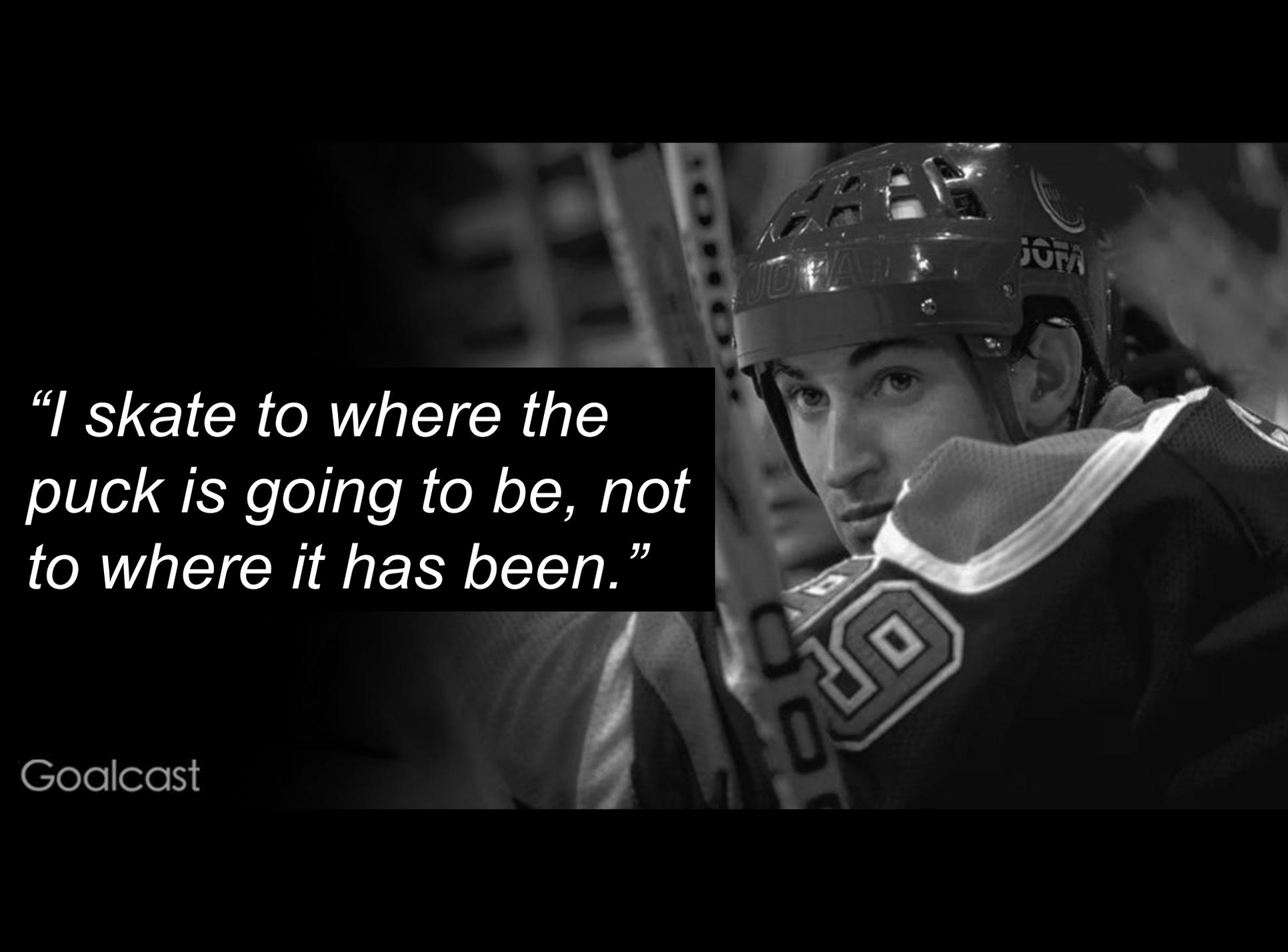


## A Snapshot of New Mexico Regulations

**125,395** Restrictions, 9.2 Million Words  
13 Weeks to Read

## A Snapshot of Arizona Regulations

**63,919** Restrictions, 5.6 Million Words  
8 Weeks to Read



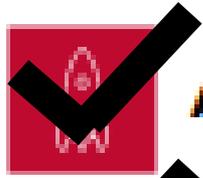
*“I skate to where the puck is going to be, not to where it has been.”*

Goalcast

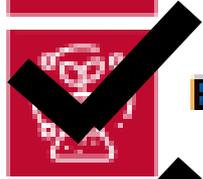
A yellow flag with a red hand symbol is flying on a blue background. A large red dollar sign is overlaid on the flag. The word "INVEST" is written in white, bold, sans-serif capital letters across the center of the image.

**INVEST**

# EMPOWER & COLLABORATE



**Aerospace**



**Biosciences**



**Cybersecurity**



**Film &  
Television**



**Outdoor  
Recreation**



**Sustainable &  
Value-Added  
Agriculture**



**Intelligent  
Manufacturing**



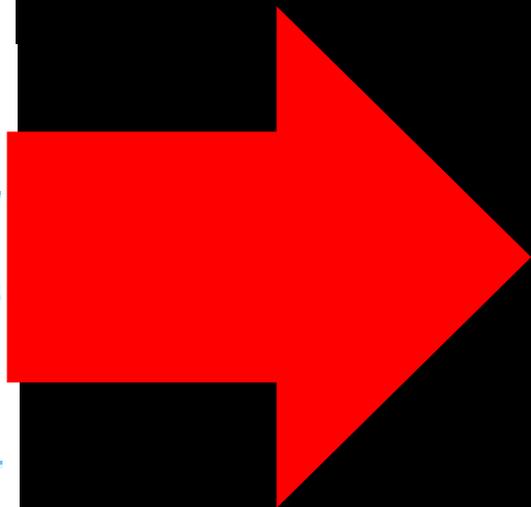
**Global Trade**



**Sustainable &  
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Seven of the **TARGET INDUSTRIES** requires a robust engineering and STEM professional and technical workforce in order to meet the goals of the **State EDD Plan...**

	<b>Aerospace</b>
	<b>Biosciences</b>
	<b>Cybersecurity</b>
	<b>Sustainable &amp; Value-Added Agriculture</b>
	<b>Sustainable &amp; Green Energy</b>
	<b>Intelligent Manufacturing</b>



**EMPOWER &  
COLLABORATE**

# Invest in K-12 STEM Education

UNM...NMSU...WNMU...ENMU...NMHU

\$60,000,000 per Year for 5-years = \$300,000,000



**Aerospace**

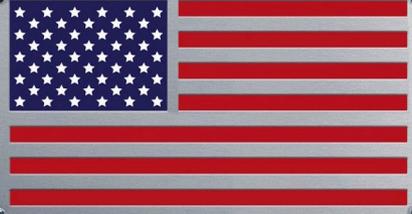
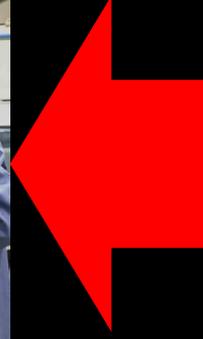
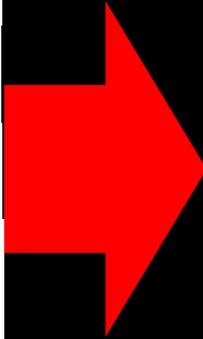
**Biosciences**

**Cybersecurity**

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THE MACHINISTS

**EMPOWER & COLLABORATE**

**Federal Grants**

# Invest in Community Colleges Career Technical Education

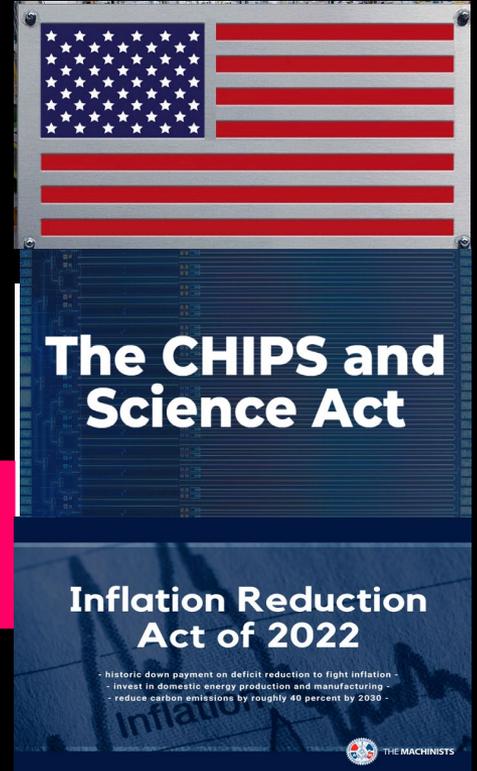
\$60,000,000 per Year for 5-years=\$300,000,000



\$150,000,000  
\$150,000,000  
\$150,000,000  
\$150,000,000  
\$150,000,000  
\$150,000,000

-  **Aerospace**
-  **Biosciences**
-  **Cybersecurity**
-  **Sustainable & Value-Added Agriculture**
-  **Sustainable & Green Energy**
-  **Intelligent Manufacturing**

**EMPOWER & COLLABORATE**



**New R&D Funding & Grants**

# Invest in R&D Universities

\$30,000,000 per year per ED Cluster for 5-years = \$900,000,000

# “Shoring” up New Mexico’s Economy

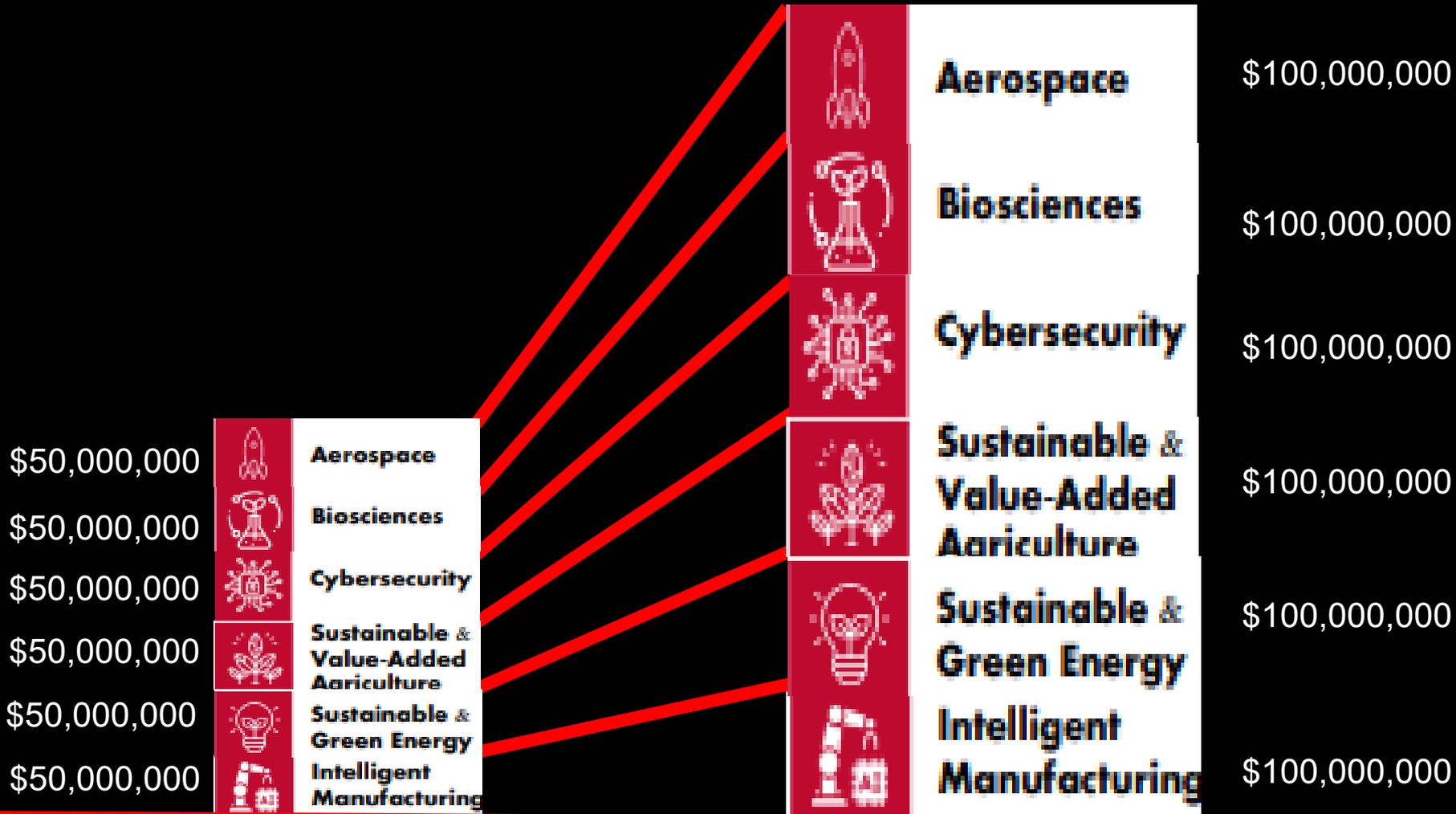


**EMPOWER &  
COLLABORATE**

**Critical Infrastructure**

**\$120,000,000 per year for 5-years**

ED Rebate Incentive like Film



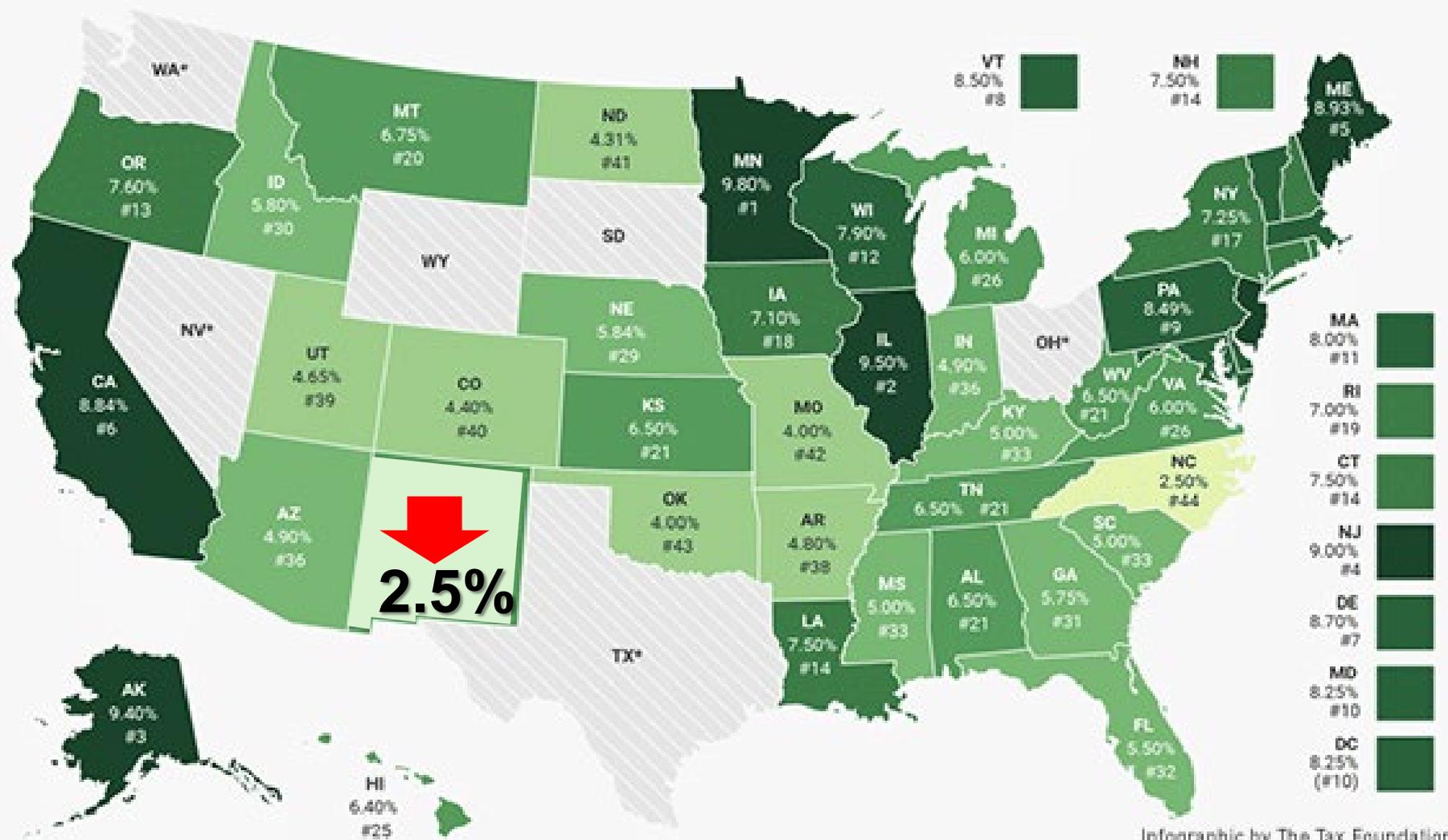
**State Investment**

**Venture Capital-VC**

# Targeted Co-Investment Funds

**Use to Pull Targeted Growth Companies into NM**

# Top Marginal Corporate Income Tax Rates as of January 1, 2024



Infographic by The Tax Foundation

**2.2% of State FY24 Annual Revenue  
comes from Corporate Income Taxes**

\$265,000,000/\$11,820,000,000

<https://njbia.org/which-states-have-the-highest-corp>



## **Phase 1:**

**State Level Funding of \$100 million +  
Enabling Legislation to Allow for  
Proactivity and Flexibility**

This includes the expansion of a statewide inventory and assessment of the cost to develop property infrastructure to serve highest and best uses for target employment locations, and pre-development costs.

**Site Readiness in New Mexico**

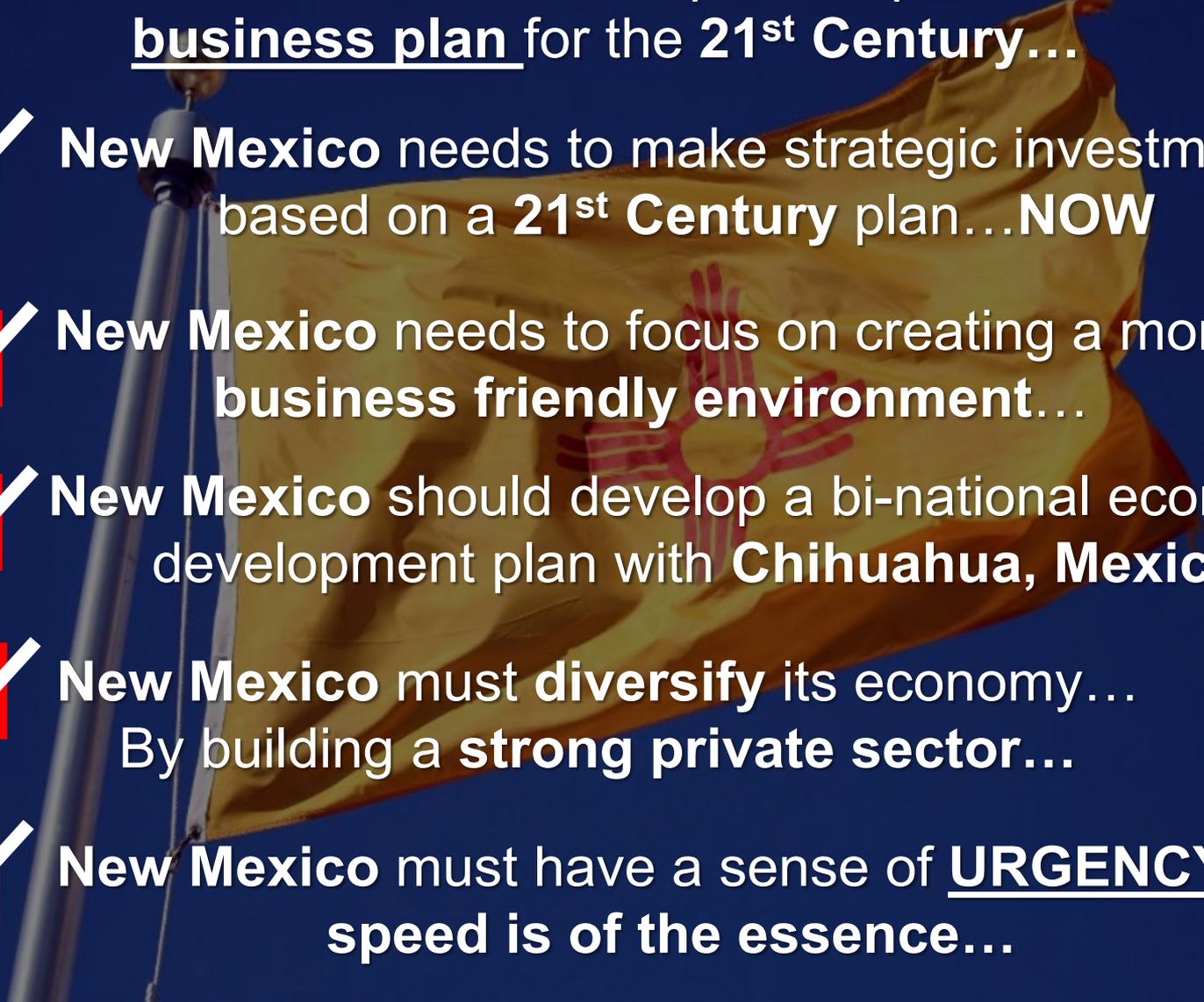
**\$100,000,000**



**\$3,000,000,000**

**“Go BIG...or go home...”**

# Shoring up New Mexico's Economic Future

- 
- The New Mexico state flag is visible in the background, featuring a yellow field with a red sunburst and a cactus. The flag is flying on a pole against a blue sky.
- ✓ **New Mexico** must develop a comprehensive business plan for the **21<sup>st</sup> Century**...
  - ✓ **New Mexico** needs to make strategic investments based on a **21<sup>st</sup> Century** plan...**NOW**
  - ✓ **New Mexico** needs to focus on creating a more **business friendly environment**...
  - ✓ **New Mexico** should develop a bi-national economic development plan with **Chihuahua, Mexico**
  - ✓ **New Mexico** must **diversify** its economy...  
By building a **strong private sector**...
  - ✓ **New Mexico** must have a sense of **URGENCY**...  
**speed is of the essence**...

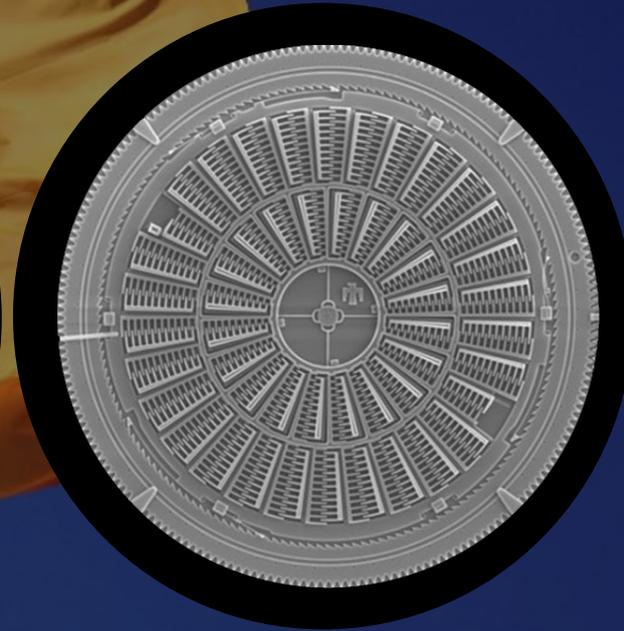
# New Mexico's Trifecta...



**Nature**



**Culture**



**Technology**

A futuristic cityscape at night, featuring a dense network of blue and white digital lines and nodes overlaid on the city. The city lights are visible in the background, and the overall color palette is dominated by blues and whites, suggesting a high-tech or digital theme.

**“The future belongs to  
those who prepare for it.”**

Ralph Waldo Emerson