# New Mexico: The State & Economic Opportunity

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July 19, 2024

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# Today's Agenda

**Project Background and Goals**
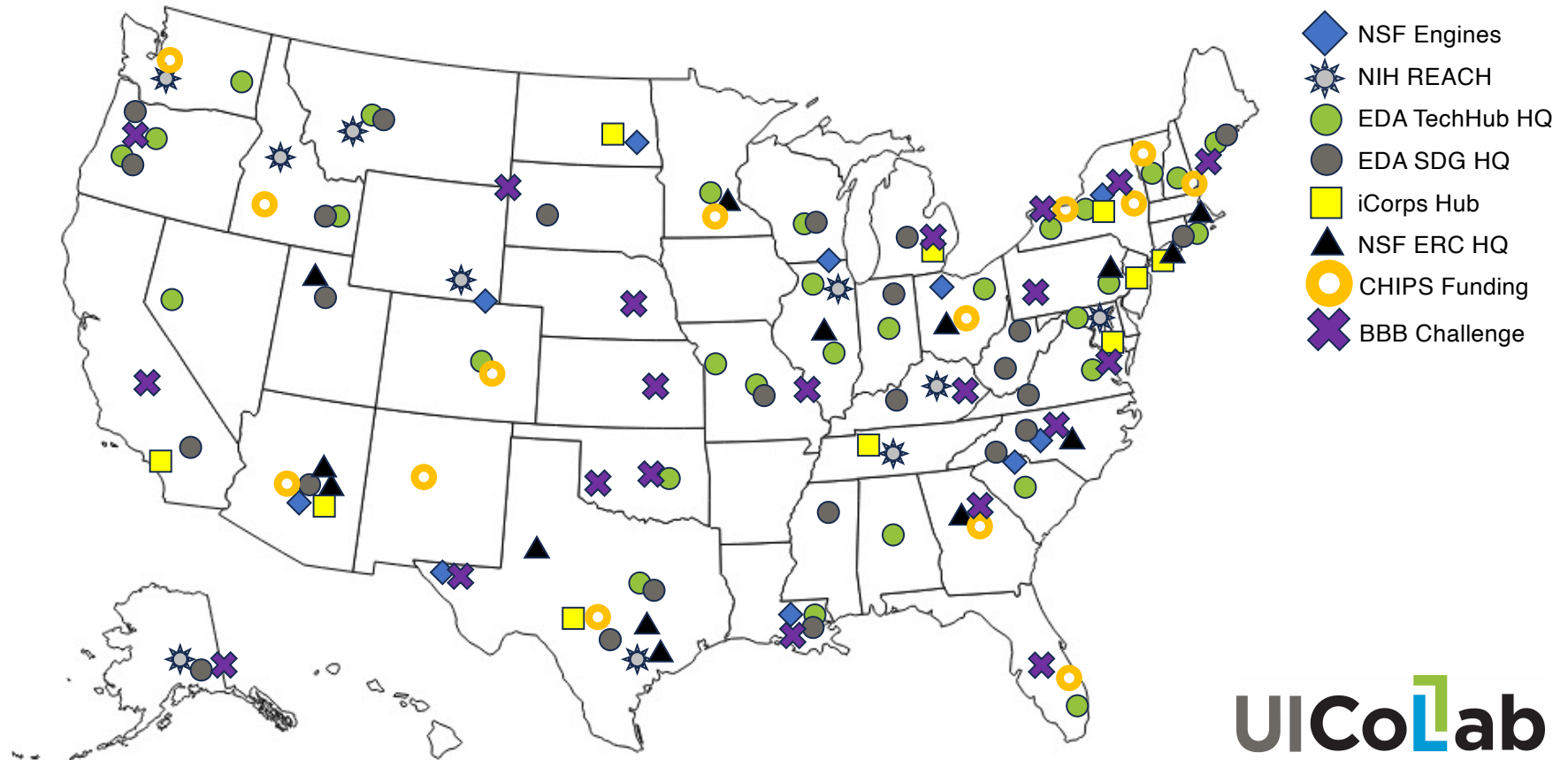
**Case Study Selection Methodology**

**Findings**

**Open Discussion**

# Project Background and Goals

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# Project Context: Recent Federal Awards



Legend:
- NSF Engines
- NIH REACH
- EDA TechHub HQ
- EDA SDG HQ
- iCorps Hub
- NSF ERC HQ
- CHIPS Funding
- BBB Challenge

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# Project Goal

**What "economic gardening" is needed for New Mexico to attract federal and corporate investment?**

# Project Process

**Identify states with comparable characteristics to New Mexico**

**Gain insights into contributing factors for successful bids for large-scale, regional innovation grants/funding**

- o Interview 30+ key stakeholders across 6 states
- o Analyze state investment data, programs, and outcomes data

**Assess the interest and incentives of corporate partners in large-scale, regional initiatives**

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# Case Study Selection

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# Case Study Selection

**Three Goals**

1. Identify states that have been successful in garnering NSF Engines or similar awards
2. Ensure reasonable comparability with New Mexico's economic environment, considering resources available, economic standing, industrial constraints, as well as other factors
3. Include creative, effective, or ambitious programs that New Mexico could consider more broadly

| Rank | Criteria | Importance | Weighting | Example State |
|------|----------|------------|-----------|---------------|
| 1 | Receipt of NSF Engine grant | Primary | 2 | Louisiana |
|   | Major TBED growth investments | Secondary | 2-1 | Ohio |
|   | EPSCoR State | Primary | 2 | Nevada |
|   |  |  |  |  |
| 2 | National Lab presence/assets | Primary | 1 | Tennessee |
|   | Low-density population | Secondary | 1-0.5 | Montana |
|   | Native American stakeholders | Secondary | 1 | North Dakota |
|   | Similar GDP | Primary | 1 | Kansas |
|   | Comparable university system | Secondary | 1-0.5 | Indiana |
|   |  |  |  |  |
| 3 | Energy industry presence/opportunity | Tertiary | 1 | Pennsylvania |

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# State Scores

| State | Primary | | | Secondary | | | | | Tertiary | Total | Selection Features |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Engines | Major TBED | EPSCoR | Nat'l Lab | Low-Density | Native American (Reservations) | Similar GDP | Comparable Universities | Energy (Oil, Gas) | | |
| Wyoming | 2 | 1 | 2 | | 1 | 1 | | 1 | 1 | 9 | |
| Louisiana | 2 | 1 | 2 | | 0.5 | 1 | 1 | | 1 | 8.5 | Engine, State demongraphics |
| South Carolina | 2 | 1 | 2 | 1 | 0.5 | 1 | 1 | | | 8.5 | Engine, TBED |
| North Dakota | 2 | | 2 | | 1 | 1 | | 1 | 1 | 8 | Engine, State demongraphics |
| New Mexico | | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 8 | |
| Kansas | | 2 | 2 | | 1 | 1 | 1 | 0.5 | | 7.5 | |
| Alabama | | 2 | 2 | | 0.5 | 1 | 1 | 0.5 | | 7 | |
| Oklahoma | | | 2 | | 1 | 1 | 1 | 0.5 | 1 | 6.5 | |
| Idaho | | 1 | 2 | 1 | 1 | 1 | | 0.5 | | 6.5 | |
| Nebraska | | 1 | 2 | | 1 | 1 | 1 | 0.5 | | 6.5 | |
| Alaska | | 1 | 2 | | 1 | 1 | | 1 | | 6 | |
| South Dakota | | 1 | 2 | | 1 | 1 | | 1 | | 6 | |
| Nevada | | | 2 | | 1 | 1 | 1 | 1 | | 6 | |
| West Virginia | | | 2 | 1 | 1 | | | 1 | 1 | 6 | |
| Iowa | | | 2 | 1 | 1 | 1 | 1 | | | 6 | |
| New York | 2 | 2 | | 1 | | 1 | | | | 6 | |
| Arkansas | | 1 | 2 | | 1 | | 1 | 0.5 | | 5.5 | |
| Mississippi | | | 2 | | 1 | 1 | 1 | 0.5 | | 5.5 | |
| Kentucky | | 1 | 2 | | 0.5 | | 1 | 0.5 | | 5 | Aggressive, successful TBED, multiple fed awards |
| Ohio | 2 | 2 | | | | | | | 1 | 5 | Aggressive, successful TBED, Intel, multiple fed awards |

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# Findings

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# Louisiana

**State Funding/Programs**

$67M Budget Line for Engine
*"One big line item. It had real teeth… not borrowing from programs"*

**Key Research Partners**

Louisiana State University
Tulane University
Louisiana Tech
Community Colleges

**Investment Horizon: Primary building blocks began ~2010, led by Stephen Moret (eventually transitioned to VA and attracted Amazon HQ2)**

**Focus: "If you move the redwoods of California to Louisiana, they'll die. We have to build a strong ecosystem from a groups of organisms that demonstrate they can grow together. That's where we started. The change started three years ago."**

- Andrew Maas, Principal Investigator, NSF Engine Award

**Early coordination was essential, not competing applications like other states**
- "In the end, we decided Louisiana was the region, so all of the large institutions had to be part of that."
- "LSU has been cultivating relationships with [the energy] industry in the state for tens of years. These companies depend on us to produce employees… We focused on who we had in the state already, companies that have real foundations in the state already."

**Regular communications**
- Meetings started 18 months before proposal submitted with ~25 convenings of participants

# Kentucky

**Investment Horizon: State launched series of TBED-focused programs beginning with the Kentucky Innovation Act (2002)**
- Led by Governor and House Speaker
- Initiated $50M for innovation investments

**"Focus is Key. Not every industry can be successful in the state"**
- Kentucky Cabinet for Economic Development

**Example: Estate Whiskey Alliance: Distilleries and supply chain focused on local sourcing and sustainability. UK created a certification program**

**Keyhorse Capital: Seed and Series-A**
- Portfolio: 40% software, 40% life sciences/biotech
- Cultivating and training next generation of venture investors
- Approach end of life, will continue to invest with ROI account

**"Having the state provide key resources is essential for federal government programs. It is very difficult for a land grant university to launch innovation and startup programs."**

# South Carolina

**Investment Horizon: Shared focus on long-term investments: "It's like planting a tree..."**

**SC and Mississippi "were at an equal starting line in 1988 – similar population, economic activity... In the 1990's and forward the two states diverged completely, largely where Mississippi ran into barriers that South Carolina anticipated and overcame."**

- Cited Texas, Pennsylvania, and Ohio as their inspirations (aspirations) rather than focusing on equivalent states in size and resources or neighbor states
- "The result was SC put in major programs, and Mississippi made incremental investments that were cut off when they didn't demonstrate short-term gains"
- HQs (BMW, etc) were driven by state investments in infrastructure & K-12 education

**"We have to make it easier for our companies to innovate, and we have to support that at the state level. I had two meetings already today to focus on *what's next*."**
                                                                    - SC Commerce

**Tax credits for direct corporate investments and R&D have done little**

- Forcing start-ups through tax credits and other aggressive initiatives
- Often try to support a range of industries or initiatives, all which struggle

# Ohio

## Federal Wins
Build2Scale,Capital Challenge
NIH NCAI Center
NSF Engine
EDA TechHub and SDG HQ
Intel Fab

## State Funding/Programs

Edison Seed Fund
Third Frontier

## Key Research Partners
Ohio State
University of Cincinnati
Health systems (Cleveland
   Clinic, Mercy, Akron, etc)
Case Western

### Investment Horizon: State-led programs began decades ago, Edison then Third Frontier
- "[Third Frontier] is preparing the infrastructure to make the state ready for other companies. Intel in Columbus was all the infrastructure effort over the past 20 years."
- Third Frontier is winding down, will be able to invest from ROI account
- The success of Third Frontier Fund cited due to "focus on key industries by region"

### Coordination and industry focus were cited as critical elements
- "They are considering moving into a state line item. When Edison was a line item in the state budget the state assembly was voting on it which means it's a peanut butter approach spread across the state."
- Third Frontier has 5 clusters by metro area, each with a supporting investment organization (Cincy Tech, Rev1) to provide e a funding match to the state dollars.
- "As regional partners, we don't overlap 100%. So, we can share expertise and connections across the players in the partnership."

### State, R1 universities, and community colleges all aligned
- Viable talent pipeline at all stages (research and skilled line staff) to work in conjunction with the building of a fab/lab for Intel.
- "The workforce and manufacturing initiatives aligned with one another."

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# North Dakota

## Federal Wins

NSF Engine
iCorps Regional Hub

## State Funding/Programs

Legacy Investment for
Technology Loan Fund (LIFT)

## Key Research Partners

NDSU
University of North Dakota

### North Dakota is regarded as an up and coming success story
- Only one of 5 states receiving neither EDA TechHub nor SDG
- Others: New Mexico, Hawaii, Iowa, Nebraska
- 4 of which are below average on state support
- Not the lead on other large-scale regional innovation grants

### Legacy Investment for Technology Loan Fund (LIFT)
- $10M appropriated for 2023-2025
- Provides financing for commercialization of IP within the state of North Dakota within certain industries
- Goal is to leverage state, federal, and private sources of funding
- Projects should result I the development of a new company or the expansion of an existing one

### Keys to Success
- Sustainable investments by the state and having a passionate governor and chief IT officer on the state level.
- Getting the region right. Aligning the region as defined in the solicitation with the characteristics of the region in the proposal which meant excluding some potential partners.

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# Summary of Conclusions: Five Themes

- **Credible focus on distinct research priorities**

- **Credible (direct) state investment**

- **Coordination in region (state), not competition**

- **Start preparing in advance of the solicitation**

  o  Governance and regular meetings

  o  "We started doing the program work because it was the right thing to do even if we didn't receive the award."

- **TBED investment horizon is 5-15 years**

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# TBED Program Comparison
## Peanut-buttering vs. Focused Industry Support

| Industry-specific support | New Mexico | Louisiana | North Dakota | South Carolina | Kentucky | Ohio |
|---|---|---|---|---|---|---|
| Aerospace/Airlines | X | X | X | | | |
| Agriculture | X | | | X | X | X |
| Brewing/Distilling | X | | | | X | |
| Chemicals | | | | | X | |
| Construction/Real Estate Dev. | X | X | | X | X | X |
| Dairy | X | | | | | |
| Defense | X | | X | | | |
| Education | X | | X | | | |
| Energy | X | X | | X | X | X |
| Entertainment | X | X | | X | X | X |
| Financial Services | X | | X | | | |
| Import/Export | X | X | | X | X | X |
| Manufacturing | X | X | X | X | | |
| Retail | X | | | | | |
| Software | X | | | | | |
| Start-ups/SME/Investors | X | X | X | X | X | X |
| Technology | X | | X | X | X | X |
| Telecommunications | X | | | | | |
| Transportation | X | | | | X | X |
| Veterinary | | | | | X | |

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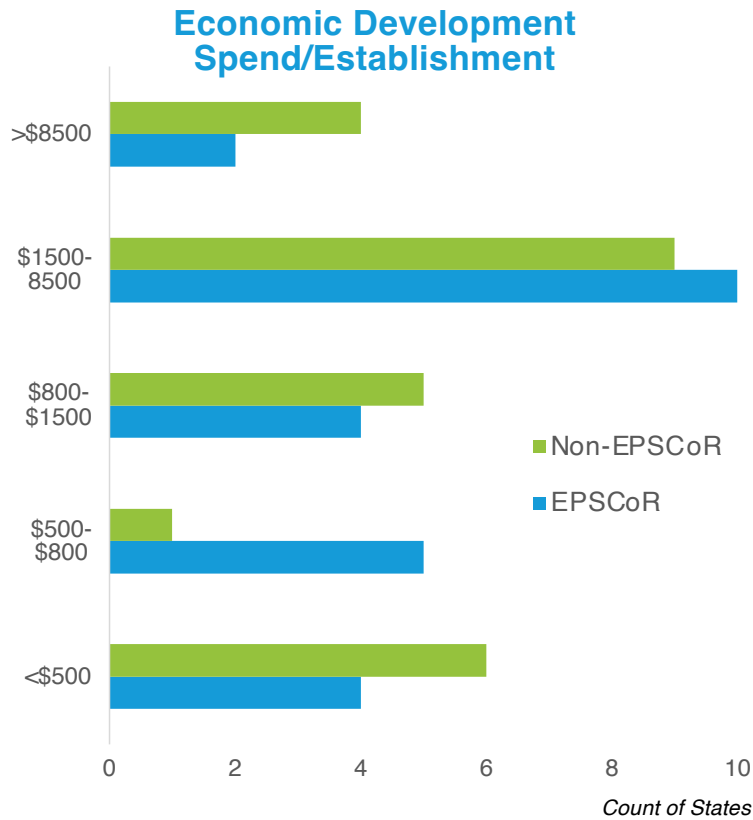
# TBED Program Comparison
## Direct Funding vs Tax Credits

*"Having the state provide key resources is essential for federal government programs."*

| Industry-specific support (Program count) | New Mexico | Louisiana | North Dakota | South Carolina | Kentucky | Ohio |
|---|---|---|---|---|---|---|
| Funding support | 8 | 13 | 31 | 17 | 17 | 21 |
| Tax credits | 31 | 16 | 20 | 31 | 22 | 16 |
| **% Direct Funding** | **21%** | **45%** | **61%** | **61%** | **44%** | **57%** |

*Note: Does not include direct training and other types of TBED support programs*
*Sources: Council for Community and Economic Research, various state websites, interviews with state employees*

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# Econ Dev Spending and Engines Awards

## Economic Development Spend/Establishment



| Spend/Establishment | Count of States (bar chart) |
|---|---|
| >$8500 | Non-EPSCoR: ~4, EPSCoR: ~2 |
| $1500-8500 | Non-EPSCoR: ~9, EPSCoR: ~10 |
| $800-$1500 | Non-EPSCoR: ~5, EPSCoR: ~4 |
| $500-$800 | Non-EPSCoR: ~1, EPSCoR: ~5 |
| <$500 | Non-EPSCoR: ~6, EPSCoR: ~4 |

Legend:
- Non-EPSCoR (green)
- EPSCoR (blue)

*Count of States*

## Case Studies

**Ohio**

**Kentucky**
**Louisiana**
**South Carolina**

**New Mexico**
**North Dakota**

## Comparable States

**Alabama**
**Kansas**
**Wyoming**

**Arkansas**
**Idaho**
**Nebraska**

**Oklahoma**

**39% of states won an ENGINE**

**31% of states won an ENGINE**

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# Role of Corporate Partners: University Perspective

"Corporate partners weren't really involved. We used to have someone in my office working with angel networks. But that's really the extent of their participation."

"LSU has been cultivating relationships with [the energy] industry in the state for tens of years. These companies depend on us to produce employees… We focused on who we had in the state already, companies that have real foundations in the state already."

Successful NSF Engine and ERC proposal reviewer: The practice of "fitting" a story to the NSF Engine is a losing strategy. Whatever actual issue is being solved in a proposal has to authentically be a problem that region faces with local industry.

Corporate supporters are required for many program, including NSF Engines.
- Support for the program has to be genuine and credible
- State/University expectations have to align with realities of the corporate partner's goals

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# Role of Corporate Partners: Corporate Perspective

"Is the [state] money available now or is this a program available to work on now, we don't want to plan a project out 3-5 years. We can always do nonbinding letters of support we do those all the time but the state commitment in an area has to come first because then it's real."

"We start with the problem that we can solve and identify partners with best solutions... academic medical centers, government centers, and universities."

"Early engagement is really important for the corporate partners to help shape it."

"We do not have a lot of time to be showing up at planning meetings. We're already working on sponsored projects with these universities and we can introduce them to other partners... but, we don't have bandwidth to just ideate in a room. I'd love to see specific projects that we're interested in, and then I can suggest what we need to see done"

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# Pro Tip: Dedicated Communications Staff

**Louisiana: "We hired a consultant to be the communication channel, brand, emails, and other assets and it can't be purple and gold. LSU was leading the initiative, but we had to … be all together on the project."**

**Kentucky: "Most important hire I've made is the Director of Marketing."**
- Needed dedicated staff to communicate with stakeholders (state, campus, etc)
- Communication system in place to be prepared to both apply for and demonstrate success from federal initiatives

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# Open Discussion

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# Thank you

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