INNOVATION CREATES DIVERSIFICATION

New Mexico Economic Development Department

FIVE YEAR PLAN

—for—

STRATEGIC ECONOMIC GROWTH & DIVERSIFICATION

2013–2018

NEW MEXICO
ECONOMIC DEVELOPMENT DEPARTMENT

Questions or comments should be directed to elizabeth.davis@state.nm.us

NEW MEXICO
ECONOMIC DEVELOPMENT DEPARTMENT

ECONOMIC DEVELOPMENT COMMISSION

It is my honor to serve as chairman of the New Mexico Economic Development Commission and to have facilitated efforts to develop the state's Five Year Strategic plan. As New Mexico works to move forward in its economic recovery, this plan will help guide state leaders on identified areas with the best potential for growth and where we must focus the state's resources to compete nationally and globally for jobs.

It is the commission's key role to develop the Five Year Strategic Plan for economic development. The commission takes its role seriously. We not only work through the process of its development but will take action on the strategies presented.

We made a significant effort to obtain public input. We worked with the Councils of Governments and the Interim Legislative Jobs Council. EDD's Rural Economic Development Council was also engaged in the process and voted unanimously to approve and support the section of the plan dedicated to what has been dubbed the "Rural Renaissance."

The Commission will consider this a working document and will be monitoring the progress to move the strategies forward for the state.

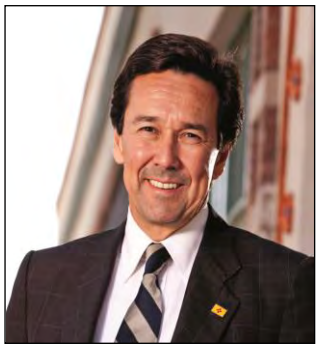
Thank you for your involvement and interest in the plan. We look forward to implementing the strategies listed here which will help support private investment and grow the economy in all parts of the state.

Sincerely,

Alex O. Romero
Chair
New Mexico Economic Development Commission

SUSANA MARTINEZ
GOVERNOR

JON BARELA
CABINET SECRETARY



I am proud of the work that has gone into the Economic Development Department's five year plan. This effort involved the participation of not only our department, but members of the Economic Development Commission, our statewide economic development partners, and business and government leaders, who all expressed their ideas to facilitate economic growth for New Mexico.

Over the last three years our department laid out a yearly strategic plan that focused on reducing regulatory burdens on job creators, fostering a pro-growth tax environment and increasing exports internationally. This strategy aimed to benefit not only the state's metro areas but also our rural communities.

Through this process, we expand our vision for growth through eight priorities that include more effective strategies and programs to improve our capacity to generate new jobs and wealth from ideas and technologies born here, providing new resources and tools to grow rural areas, and capitalizing on natural assets and those we develop.

These include taking advantage of our natural resources, our proximity to Mexico, our central location in the NAFTA region and the east-west and north-south transportation corridors that can move goods anywhere in the U.S. and Canada quickly. That is why the Bi-National Community in southern Doña Ana County is a priority for us to develop and market.

It is also important for New Mexico to continue to grow our international trade potential. Exports from this state have doubled in the last two years, leading New Mexico to take the top spot for export growth in the country in early 2013. This is a strategy to grow local jobs, as the U.S. Department of Commerce states: for every $1 billion in exports from a state, more than 6,000 jobs are created.

And for our rural communities, two of our most promising new initiatives are the MainStreet Frontier Communities and Historic Movie Theaters Initiatives. The latter provides funding to restore old theaters to their former glory in addition to updating them with digital movie equipment to allow them to show first-run movies. Not only are we preserving our historic treasures, we are encouraging commerce to return to local downtowns where families can spend money and stay in town for their entertainment. Governor Martinez also signed into law the creation of the MainStreet Frontier Communities Initiative to help drive commerce back to the most rural communities.

Based on the ongoing input I constantly receive as I travel our state, in October 2012 I established and appointed the Rural Economic Development Council. The purpose of the Council is to provide a formal platform to serve the specific needs of our rural communities, to identify issues and provide solutions through programs or policies. We are developing the Business Resource Center, a one-stop-shop of programs and services provided here and through our partners to better serve our own business community. The Center will include a web portal and business mentoring and facilitation program within the Economic Development Division.

We have a wonderful team of dedicated economic development professionals in the Economic Development Department and partners around the state working daily to see these initiatives come to reality for the benefit of all New Mexicans.

Jon Barela
Cabinet Secretary
New Mexico Economic Development Department

EDD gratefully acknowledges the participation and contributions of many talented individuals and their organizations in the development of this plan:

NEW MEXICO ECONOMIC DEVELOPMENT COMMISSION:
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Advanced Insights Group
Angel Fire Chamber of Commerce
Arrowhead Center at New Mexico State University (NMSU)
Attendees of the 2011 Rural Economic Development Forum in Gallup
Attendees of the New Century Economy Summit
Town of Bernalillo
The BioScience Center
John Brown, Silent Falcon UAS
Clovis Industrial Development Corporation
Cottonwood Technology Fund
Village of Cuba
Economic Development Action Group
EDD Rural Economic Development Council
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Mora Valley Community & Economic Development Committee

Nano Network
New Mexico Angels
New Mexico Handmade
New Mexico Interim Legislative Jobs Council
New Mexico Recycling Coalition
New Mexico Start-Up Factory, LLC
New Mexico Technology Commercialization Council
New Mexico Water Resources Research Institute at NMSU
NewMARC (New Mexico Councils of Governments)
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Village of Red River
Regional Development Corporation
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Sandoval County
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Taos County Economic Development Corporation
Technology Ventures Corporation
Greater Tucumcari Economic Development Corporation
Union County Economic Development Corporation
WESST Enterprise Center

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EXECUTIVE SUMMARY

The Economic Development Commission, appointed by Governor Martinez, is statutorily responsible for the development and approval of a five year plan for the economic growth of the state. The planning process began in 2011 at the Gallup Rural Forum. There have been countless meetings with partners and stakeholders since then, including the October 2012 New Century Economy Summit. Many of these partners will have a role in the implementation of the plan. This serves to ensure its comprehensive inclusion of strategies that will assist all of New Mexico's communities, ranging in population size from 38 to 545,852.

We chose Innovation as the theme of the plan because innovation leads to change and we have tremendous potential to creatively diversify our economy. New Mexico has a long history of creativity; from the earliest native artists and farmers, to Robert Goddard – father of the space industry.

We face daunting challenges just as the earliest New Mexicans did. Data and the strengths, weaknesses, opportunities and threats analysis (SWOT) (page 13) call out many of these challenges and informed this plan. Poor educational attainment compared to other states (Indicators, page 8) has been a competitive disadvantage for New Mexico. An important component in changing our current position is creating a knowledge economy that provides jobs which will keep well-educated New Mexicans here.

Nearly twenty percent of the state's employment base is reliant on the government sector. No other state is more dependent on federal spending (page 6). Realizing the serious impacts of sequestration on New Mexico, Governor Martinez and Secretary Barela worked with legislative leaders to pass comprehensive tax policy changes that reduce the corporate income tax rate and exempt consumables used in manufacturing (including electricity). These changes have generated new interest from businesses outside the state, kept businesses from leaving here, and resulted in Kiplinger's recent recognition of New Mexico as having the "9th most friendly tax climate."

Another critical challenge to our state's future is water availability and quality. Beginning in FY2015, Governor Martinez will direct strategic resources toward water infrastructure. A longer-term goal is the creation of a premier Center of Excellence in Water Research.

Successful economic development is the legacy we leave coming generations of New Mexicans. Toward this legacy we chose two primary goals:

- Create a diversified knowledge-based economy that will provide opportunities for our graduates ranging from creative entrepreneurship to PhD physicists
- Develop programs and initiatives requested by our rural communities that represent the diverse economic goals of every region of our state

Innovation → Enterprise → Economic Development represents the continuum of successfully growing IP and technologies developed in New Mexico into profitable companies creating new jobs and wealth here. Many talented individuals provided their knowledge, experience and ideas for this section of the plan. Policy and regulatory issues that hamper technology transfer are called out. Addressing all of

these will require collaboration with New Mexico's Congressional Delegation and the dedication of a significant level of resources.

There are many examples of comprehensive state technology transfer programs that represent successful collaborations of the elements necessary to create an optimal "culture of innovation." Successful I → E → E requires investment in infrastructure and talent, support for the research institutions where much ideation occurs, and resources for the network of technical assistance necessary to grow ideas into "gazelles." These programs are generally *economic development initiatives* with economic development goals and metrics.

The Rural Economic Development Council, appointed by Secretary Barela in 2012, provided the strategies in the Rural Renaissance section. These programs address the diversity of our state and the unique challenges facing our most rural regions: commercial district revitalization, business incubation services, commercial kitchens, small business recruitment, and infrastructure development.

New Mexico's border with Mexico is a unique asset with a great deal of potential deserving of its own section beginning on page 44. Governor Martinez and Secretary Barela have collaborated with Chihuahua Governor Duarte to develop a bold economic development plan for the Borderplex. This plan includes a progressive "Bi-National Community," the six-mile overweight cargo zone, ports of entry improvements, water and wastewater treatment upgrades, and the rail relocation project. The Union Pacific Intermodal Facility has been a catalyst for this undertaking and has already stimulated business growth in Dona Ana County. More than a dozen new companies have located to the County in the last three years. Progress with Mexico and a strategic focus on international trade have led to unparalleled export growth with New Mexico products reaching every region of the globe.

The Business Resource Center one-stop-shop is part of Secretary Barela's commitment to make New Mexico a more business-friendly state. The Office of Business Advocacy was established by Governor Martinez and Secretary Barela early in 2011 and has been a huge success with more than 200 businesses assisted since its inception.

Business recruitment remains a priority under the auspices of the Economic Development Corporation or New Mexico Partnership, established by statute in 2003. After experiencing severe budget cuts beginning in fiscal year 2009 the program is rebuilding itself. Implementing the strategies presented here will further improve New Mexico's competitive position to recruit new jobs.

NEW MEXICO ECONOMIC DEVELOPMENT DEPARTMENT FIVE YEAR STRATEGIC PLAN FOR ECONOMIC GROWTH AND DIVERSIFICATION

Innovation Creates Diversification

There are many definitions of "innovation." Simply put, it is the process of translating an idea or invention into a good or service that creates value. In economic development, it represents the evolution from a production-based economy to a broader view that embraces innovation and the development of a knowledge economy. It is believed that Socrates introduced the concept that higher learning and knowledge lead to prosperity. Today, there are volumes of data that make that correlation as well.

In today's global economy it is evident that economic development cannot succeed without education and even the well-educated population are unlikely to achieve prosperity without economic growth. Traditional economic development programs have been heavily reliant on incentives, financial packages and cost comparisons - an extremely-competitive high-stakes game to lure new industry. Bill Mehlman, of the U. S. Department of Commerce in 2003, stated "America must never compete in the battle to pay workers least – and it will take sustained innovation to ensure that we don't have to." Wouldn't it be great if a business-friendly state rich with talent and innovation was all the competitive edge New Mexico needed to lead the nation in economic growth?

For centuries, New Mexicans created beauty and prosperity from what the land gave them. They built farms, grew crops in harsh desert climates and created art from flowers and soil. Innovation leads to Enterprise which leads to Economic Development, or I → E → E, is the 21st century version of New Mexicans using ingenuity to create great things from within. Based on our diverse heritage, talent and natural resources, this strategic plan is built on the premise that New Mexico must create a business culture and environment that fosters economic innovation and growth.

The *New Century Economy Summit,* convened by Secretary Jon Barela, focused on strategies necessary to drive innovation in order to diversify the New Mexico economy. The Summit included specific areas of discussion around emerging opportunities for aerospace, bioscience and health, as well as digital media and water. The final report recommended, among other things, integrating workforce development, economic development and education systems. Tax reform and establishing a state capital outlay plan were also advocated. Consistent funding for technology commercialization was deemed essential to achieve economic diversity.

These recommendations and others gathered from a number of forums and contributors are incorporated into the pages of this strategic plan and will be moved forward by department staff and our partners as resources become available.

Vision

Innovation is the basis for economic change in today's global, national and state environments. New Mexico will diversify its economy by encouraging greater innovation in educating its children, in diversifying and growing its economy and in competing for economic opportunity for all its citizens.

Mission

Enhance and leverage a competitive environment to create jobs, develop the tax base and provide incentives for business development.

INTRODUCTION

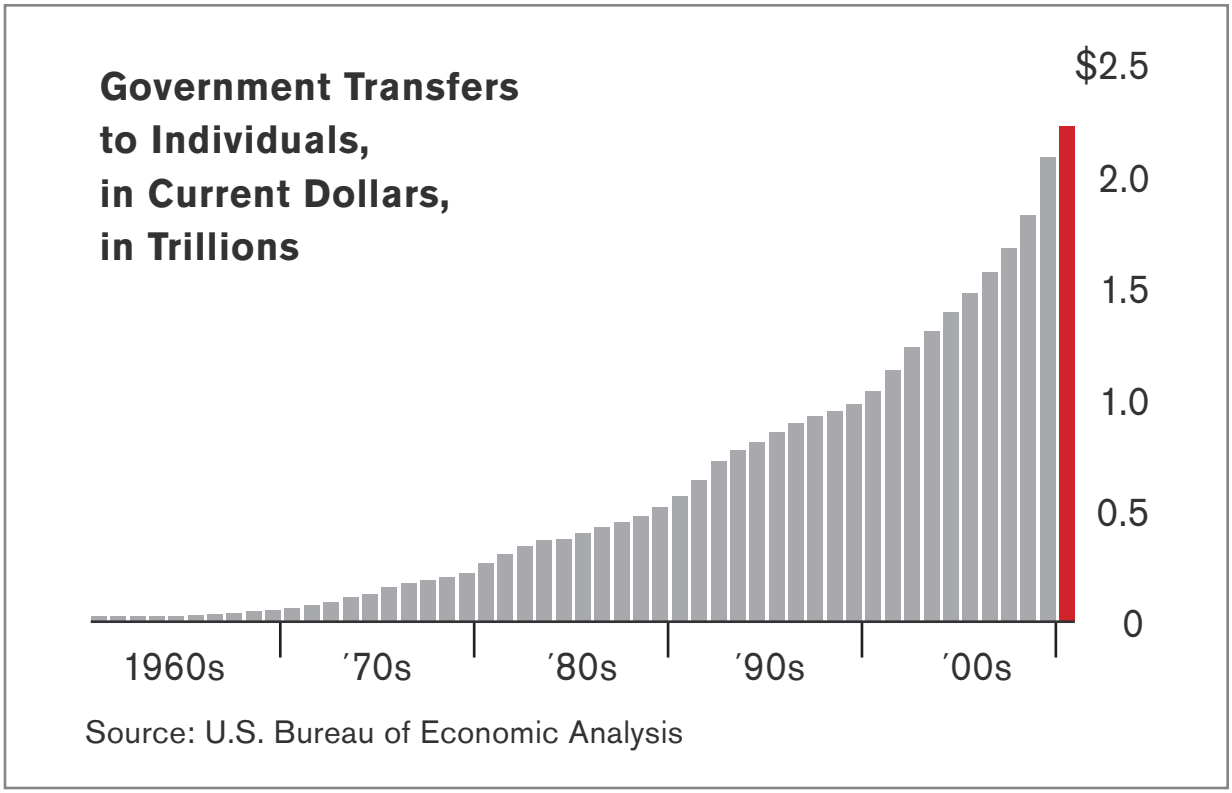
The New Mexico Economic Development Department is statutorily required to produce a five-year plan which is reviewed and approved by the Economic Development Commission. The plan is then submitted to the Governor's office for final consideration.

New Mexico faces many economic challenges and begins its next 100 years as a state transitioning from a government-reliant economy to an entrepreneurial economy by investing in job creators, workers, infrastructure and rural communities while supporting the mission of vital government programs.

We have made progress. Working with the Governor and the Legislature we made significant changes to New Mexico's tax policy and these changes have been recognized nationally. Most recently, Kiplinger ranked New Mexico the "**9th most tax friendly state in the U.S."** We must continue this momentum toward our goal of economic diversification and prosperity.

Through the long process of developing this plan EDD has worked to coordinate the strategies presented here with many partner stakeholders, including the Interim Legislative Jobs Council and the NewMARC economic development planning process. The implementation of this plan will include collaborative programs with many of these partners. Specific examples include the Rural Infrastructure Project Funding Committee (page 42), a collaborative group of funding agencies, the Councils of Governments and New Mexico MainStreet developed within EDD's Rural Economic Development Council; Rural Business Incubation (page 35) and the Business Resource Center (page 56), supported by the Business Incubator Consortium and our many small business assistance partners statewide.

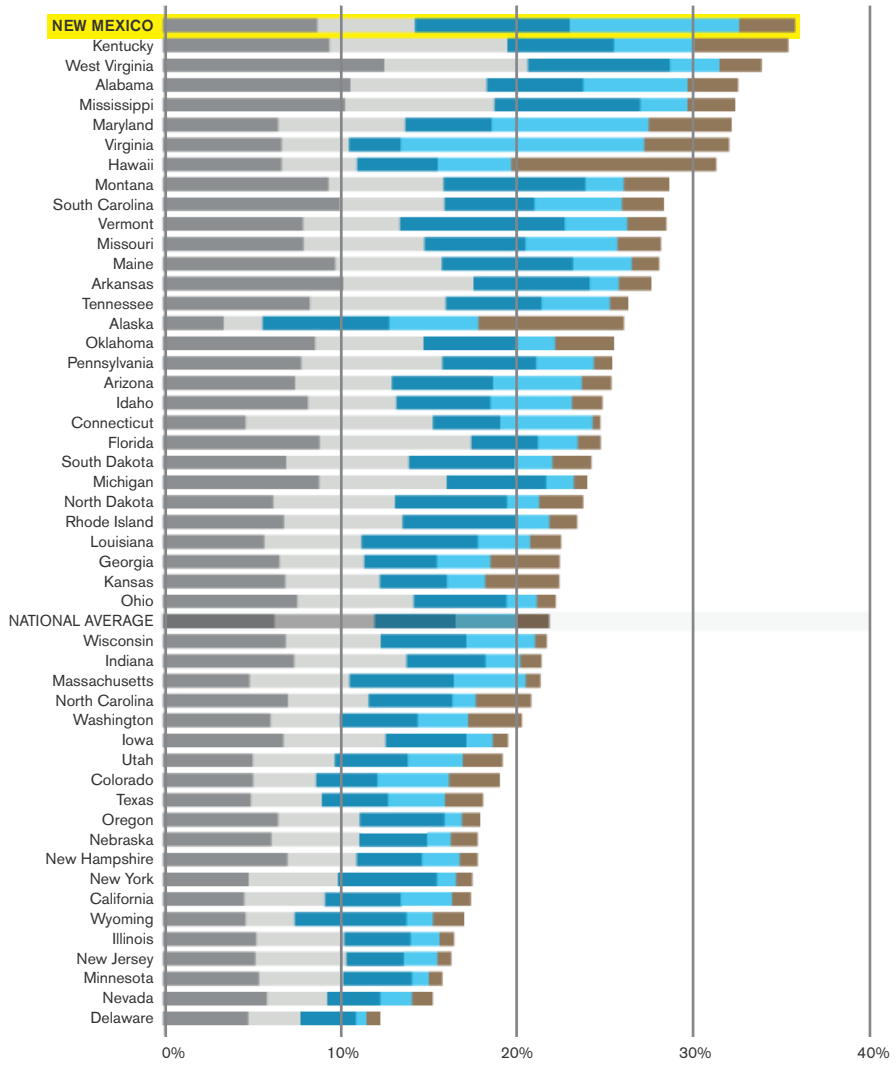
The graphs provided below bring into stark reality the reasons why New Mexico can no longer rely on government dollars to bolster its economy. Federal entitlement spending grew from $24.2 billion (26 percent of the federal budget) in 1960 to $2.3 trillion (66 percent of the federal budget) in less than 50 years. Today, discretionary spending is less than 30 percent of the federal budget. Fewer dollars will be available for New Mexico to pay for infrastructure, education, transportation, basic research and government contracting.



New Mexico isn't the only state to feel the pinch of federal efforts to balance the budget compounded by sequestration, but we are more susceptible to federal budget maneuvers than are other states. The graph on the following page shows federal spending received by states as a percentage of gross domestic product. In 2010 about eight states received federal dollars making up about 30 percent of their output with New Mexico at about 36 percent.

FEDERAL SPENDING IN THE STATES

Types of Federal Spending Across States Relative to State Gross Domestic Product, 2010

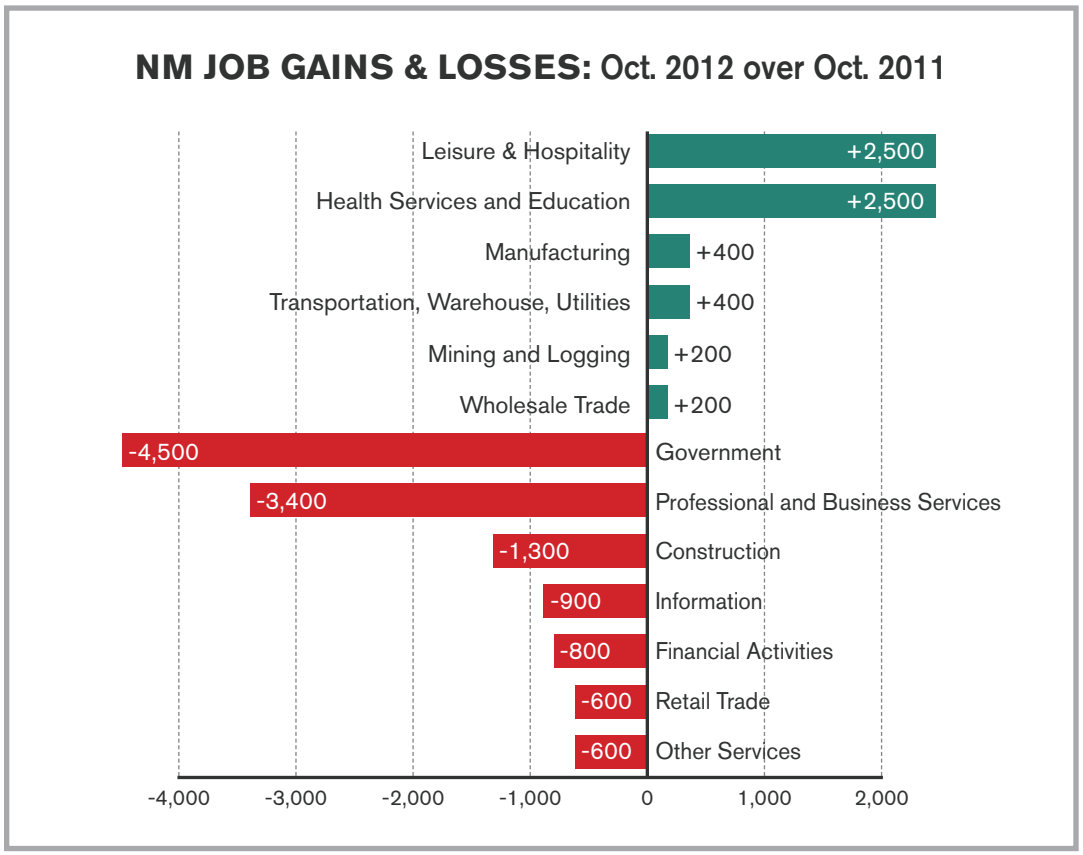


Source: Pew analysis of Bureau of Economic Analysis and U.S. Census Bureau's Consolidated Federal Funds Report. FY2010

Notes: Total federal spending in the District of Columbia was equivalent to 59.2 percent of the District's GDP, composed of direct payments (2.7%), Medicare and other payments (3.8%), grants (10.5%), procurement (20.4%), and salaries and wages (21.8%). Figures do not measure the federal government's contribution to state GDP, but rather the dollar value of federal spending relative to the size of each state's GDP.

Reid Wilson. "State reliance on federal dollars near all-time high." *Washington Post*. September 23, 2013: http://www.washingtonpost.com/blogs/govbeat/wp/2013/09/23/state-reliance-on-federal-dollars-near-all-time-high/

The graph below clearly outlines the effect of federal budget decisions. The state must develop policies that will ensure New Mexico residents are less affected by the reduction in federal dollars. Government and professional and business services sectors account for the largest part of our state's job losses. (The national laboratories are managed by private contractors therefore their job reductions are primarily counted in the professional and business services category.) To mitigate or minimize the effects of this reliance, New Mexico must invest in the development of the private sector to achieve a diversified economy.



Source: New Mexico Department of Workforce Solutions, Labor Market Review October 2012

INDICATORS

The selected economic indicators describe the competitive features of an economy and are most indicative of what drives economic change. Contained in various sections of the plan are comparisons of New Mexico to western states that may be larger in population, but also have some measurable similarities. The states chosen do not all border New Mexico but they compete frequently on projects and attracting young talent and skills. The comparison states include: Arizona, Colorado, Nevada, Oklahoma and Utah.

Understanding population and its growth is important because it informs policy makers about the number and diversity of jobs needed for a growing economy. New Mexico's population has grown at a very moderate rate relative to other states which provides the state a reasonable opportunity to grow the number of jobs needed to support people coming into the labor force.

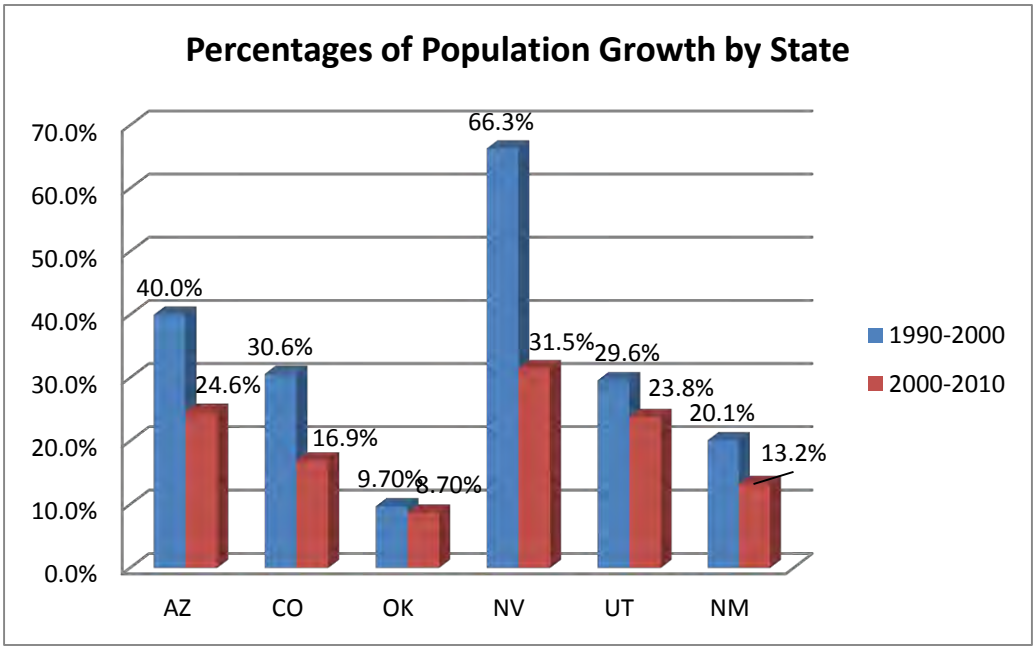
Employment data includes a breakdown of employment by type of industry. Every community seeks to grow its economic base which helps increase value-added output and income of the workforce. Understanding how well New Mexico is fairing in terms of percentage of the employed in economic base-related jobs will aid in informing policy and our business development strategy.

Educational attainment is highlighted because it is a critical factor in achieving economic growth. Companies looking to expand or relocate place a qualified workforce in their top five criteria. Knowledge economies obviously do not thrive without education. New Mexico's educational attainment though relatively low has been slowly improving relative to comparison states.

POPULATION

A look at population growth in the southwest shows New Mexico's population is growing at a slower rate than in our comparison surrounding states when we look at decennial population data (2000 and 2010). Overall, our population is growing but not as fast as in the previous decades.

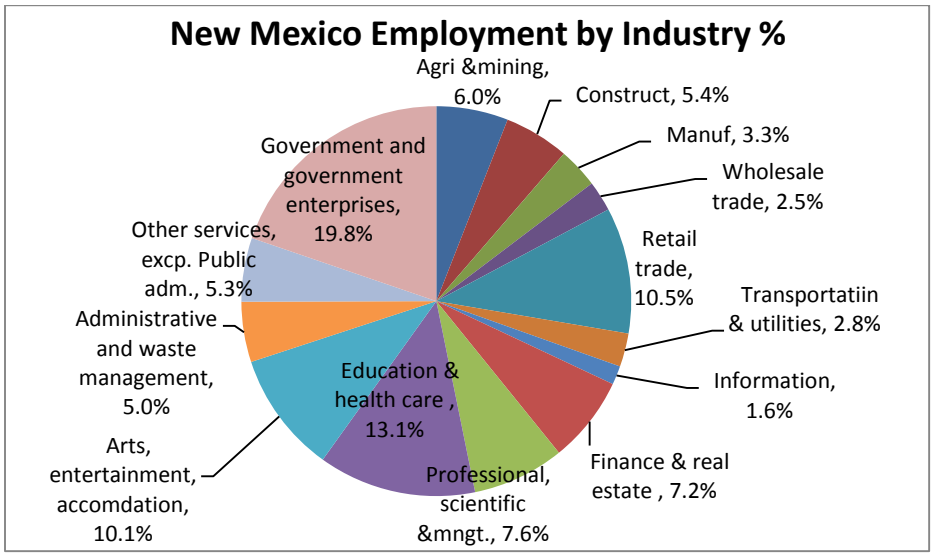
The chart on page 9 shows population growth rates from 1990 to 2000 and from 2000 to 2010. From 2000 to 2010, New Mexico had a population growth rate of 10.5%. About a third of that growth resulted from net in-migration into the state while the remaining two-thirds resulted from births. Other states such as Arizona, Colorado and Nevada experienced growth rates with more than 50 percent of the growth resulting from net in-migration. In-migration to these states could be explained by economic growth (opportunity) witnessed by these states over the period.



Source: U.S. Census Bureau, 1990, 2000 and 2010

EMPLOYMENT

In 2012, New Mexico had approximately 1,074,538 jobs. Of those, approximately 20 percent (212,270 jobs) were in the government sector and about 13 percent (140,638 jobs) in the educational, health and social assistance sectors. In addition, there were approximately 35,862 manufacturing jobs and about 64,024 agriculture, forestry and mining jobs. These jobs are considered economic base while government sector jobs are considered non-basic, supporting the local economy. A breakdown of employment by industry in New Mexico is provided below.



Source: Bureau of Economic Analysis, 2012

Table 1 below provides a breakdown of employment by industry in the comparison states. Compared to its surrounding states, more of New Mexico's workforce is employed in education, health and social assistance and in government and government enterprises. Also, more of New Mexico's workers are employed in agriculture, forestry and mining compared to the surrounding states except Oklahoma. Manufacturing, which is an important economic base sector, lags behind relative to the comparison states.

Table 1: Percent Employment by Industry, 2012

Industry	AZ	CO	NV	OK	UT	NM
Agriculture, forestry, mining	1.83%	3.26%	1.68%	9.49%	2.25%	5.96%
Construction	4.93%	5.63%	4.42%	5.41%	5.52%	5.39%
Manufacturing	5.00%	4.47%	2.83%	6.58%	7.29%	3.34%
Wholesale trade	3.33%	3.24%	2.46%	3.01%	3.20%	2.52%
Retail trade	10.80%	9.47%	10.34%	9.88%	10.59%	10.46%
Transportation & warehousing, & utilities	3.24%	2.83%	4.03%	3.26%	3.49%	2.78%
Information	1.48%	2.53%	1.17%	1.25%	2.17%	1.55%
Finance and insurance, and real estate	13.30%	12.03%	12.79%	8.31%	12.37%	7.18%
Professional, scientific, and management	7.14%	9.78%	6.87%	5.57%	8.11%	7.63%
Educational, health care & social assistance	12.93%	10.95%	8.46%	10.85%	11.45%	13.09%
Arts, entertainment, & recreation, accommodation & food services	9.61%	10.41%	22.66%	7.97%	8.48%	10.06%
Administrative and waste management	7.95%	6.02%	6.76%	6.01%	5.69%	5.00%
Other services, except public administration	5.24%	5.47%	4.71%	5.66%	5.23%	5.29%
Government & government enterprises	13.23%	13.90%	10.83%	16.74%	14.15%	19.75%

Source: Bureau of Economic Analysis, 2012

Although government employment continues to fall, recent statistics on New Mexico's employment numbers as seen in Table 2 shows that tremendous growth has been achieved in the private sector in the past two years with a growth rate of approximately 1.8% from the second quarter of 2011 to the second quarter of 2013 (Current Employment Statistics, Department of Work Force Solutions).

Major contributions to that growth are attributed to the following sectors: natural resources and mining (15.28%), finance (6.56%), leisure and hospitality (4.98%), transportation, warehousing and utilities (3.26%), and education and health services (2.25%). The construction industry, which is an important leading indicator, has started to experience positive gains in employment with a growth rate of almost 1% over the period. This shows that some of the economic base sectors are faring well with an exception of manufacturing, which experienced a decline over the period.

Table 2: Employment Growth from Second Quarter 2011 to Second Quarter 2013	
Industry	**2011Q2 - 2013Q2**
Total Private	1.80%
Natural Resources and Mining	15.28%
Construction	0.62%
Manufacturing	-2.49%
Wholesale Trade	-0.32%
Retail Trade	0.30%
Transportation, Warehousing and Utilities	3.26%
Finance	6.56%
Professional and Business Services	-2.26%
Educational and Health Services	2.25%
Leisure and Hospitality	4.98%
Government	-2.76%

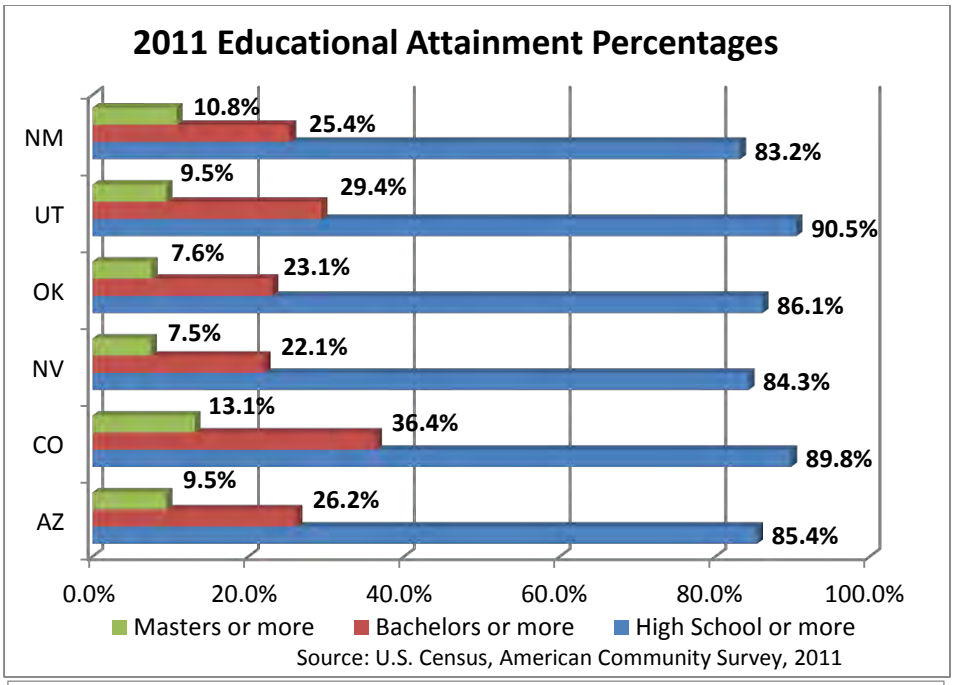
Source: Current Employment Statistics, Department of Workforce Solutions, 2013

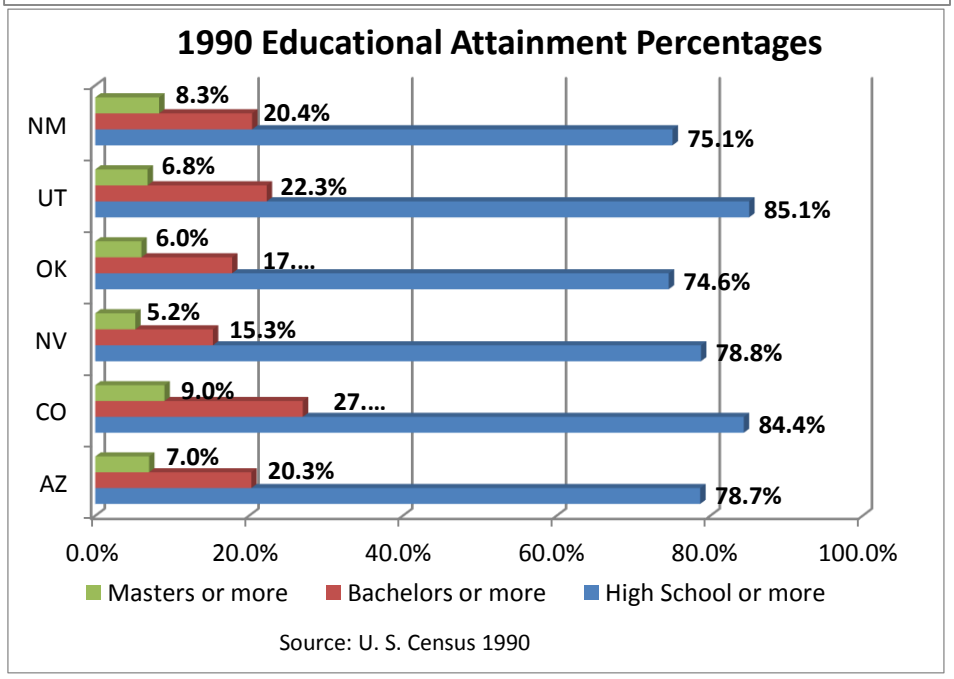
EDUCATIONAL ATTAINMENT

The graphs on the following page demonstrate the educational attainment levels of New Mexico and the comparison states in 1990 and 2011. In 1990, 75% of New Mexico's population aged 25 and over had at least a high school diploma. In 2011, this percentage jumped to about 83%, an increase of about 10 percentage points. We see the same trend in educational attainment in the "bachelors or more" and "masters or more" categories over the period.

Compared to other states, New Mexico's educational attainment level in 2011 with respect to population aged 25 and above with at least a high school diploma or equivalent is lowest. However, like Colorado, New Mexico has higher percentages of its population with master's degrees and PhDs due to the large presence of the national laboratories in the state.

Of particular note is that Utah and Colorado have about 10% of their populations aged 25 and over with less than a high school diploma. Nevada consistently lags behind New Mexico in percentages of college graduates.





STRENGTHS, WEAKNESSES, OPPORTUNITIES & THREATS (SWOT)

In order to plan for economic growth it is necessary to understand the existing and potential assets and barriers to economic development. The SWOT analysis has long been a key component in strategic planning. Strengths represent potential to build on. Weaknesses must be addressed to improve competitiveness. Opportunities represent untapped potential, and threats represent possible impediments to achieving goals. The SWOT provided here was informed by data provided in the previous Indicators section, independent studies and indexes, and New Mexico's existing policies and infrastructure. (Footnotes for the SWOT can be found in Appendix E)

STRENGTHS	WEAKNESSES
Strong Fiscal Policy & Economic Recovery: Unemployment and net employment losses have remained below the nation since the economic downtown. Economic base sectors are growing. Reduction of CIT rates and exemption of GRT on consumables greatly improved business tax climate; Lowest property tax in the nation[1] **Abundant Natural Resources:** NM is 10th in total energy production; 6th in oil; 7th in natural gas, 13th in coal, and 1st in potash[2] **Access to Education & Workforce Training**: More than 40 college campuses statewide[3], regional workforce training, and the Job Training Incentive Program **Diversified Workforce**: NM ranks 2nd in % of population Aged 5+ speaking a language other than English and 16th in % of foreign-born population[4] **R&D:** NM is ranked first in non-industry R&D nationally[5], with 3 national labs, and 3 research universities **Aerospace & Defense Presence**: 3 Air Force bases, White Sands Missile Range, Spaceport America, strong, increasing Homeland Security presence	**Dependence on Federal Funding**: Federal budget reductions are impacting the state and will continue; LANL has reduced its workforce by 20%[6] **Air Service**: NM has one international airport served by 8 carriers; no hub airport **Educational Attainment**: NM is ranked 34th in educational attainment[4] **Violent Crime**: NM was recently ranked 6th in violent crimes per capita[7] **Right-to-Work (RTW)**: NM is not a RTW state and this is a factor in locating manufacturing projects **Lack of Utility Infrastructure Statewide**: NM is ranked 47th in broadband telecom capacity; 44% of NM roads are poor or mediocre quality; estimated $307M in wastewater infrastructure needed[8] **Lack of VC & Entrepreneurial Infrastructure**: NM was ranked 30th in risk capital and entrepreneurial infrastructure, down 3 places from the 2010 Index[9]
OPPORTUNITIES	**THREATS**
Location & Transportation Infrastructure: NM is located in the middle of the fastest growing markets[4]; 3 interstate highway systems connect NM with both coasts and both international borders; UP Intermodal facility; and BNSF investment and potential intermodal facility **Energy Development Potential**: NM is ranked 2nd in solar potential; it has been estimated that only 27% of the available oil in the Permian Basin has been extracted; the San Juan Basin is the largest proven natural gas reserve in the country; ranked 4th nationally in installed photovoltaic capacity with more under construction[2] **Technology Commercialization Potential:** Despite NM's top ranking in non-industry R&D the state is ranked and a strong technology & science workforce (20th)[9], NM ranks 27th in tech concentration & dynamism[9], 32nd in IPOs[5], 27th in entrepreneurial activity and 42nd in industry investment in R&D[5]	**Water Resources**: the southwest is in the midst of a long period of drought; most available water is brackish; lack of infrastructure represents health issues and no monitoring/control over usage **Rural Population Loss:** 47 of 102 incorporated communities and 14 of 33 counties in NM lost population between 2000 and 2010[4] **Poor Broadband Connectivity**: Only 76.8% of NM residents have internet access, a ranking of 47th nationally[5] **GRT on Federal Contractors**: NM's GRT system levies an average 7% on federal contracts and the competitive bidding margin is usually 4 to 6% [10] **Competitive Regional States**: AZ, CO, OK, TX, NV, and UT are all ranked higher in national business climate ranking; AZ, TX and CO ranked among the top places to do business[1]; NM's resources to market the state for business relocation are limited in comparison to other regional states

INNOVATION → ENTERPRISE → ECONOMIC DEVELOPMENT (I → E→ E)

The process or continuum of taking ideas born in New Mexico to job creating entities that employ our graduates and grow our economy, commonly referred to as technology transfer or technology commercialization. New Mexico's wealth of research and development capacity and lack of success in capitalizing on it to move the state's private sector economic growth forward has been discussed and studied for decades. A 1982 report, *Enhancing New Mexico's Leadership in High Technology Industry Development* states: "New Mexico's historical inability to capitalize fully on its resource advantages threatens again to export high technology to the greater economic benefit of other states." More than three decades later, the same issues are still being discussed and the need to address them is more urgent as federal funding declines. The table on page 15 shows New Mexico's rankings in the *State New Economy Index* from 2002 to 2012. In the overall ranking, New Mexico is down three places from 27 to 30. Many of the other rankings indicate little progress or even a decline in areas that would strengthen the state's capacity to grow high-tech industry.

After a comprehensive review of New Mexico's history of plans and initiatives to enhance successful technology commercialization, studying sustained best practices in other states, interviewing the many organizations in the state that work hard to successfully facilitate technology commercialization, and researching where and how we have achieved both "wins and losses" in tech transfer, several facts become clear:

- Enacting programs and deploying resources that do not address gaps *in every step of the continuum* from innovation to economic development *simultaneously* will fail to result in a sustainable program of success. There are many examples of states with collaborative initiatives that have addressed each phase of this continuum. OCAST, the Oklahoma Center for the Advancement of Science and Technology, was based on a program started in New Mexico in the 1980s. OCAST continues to be highly successful (detailed in Appendix A).
- If New Mexico does not focus on growing technologies born here and does not take action to grow the state's economy with high-technology jobs it will be less able to provide career opportunities to resident graduates. Investing in education here will primarily benefit other states.

The Urban Land Institute studied ten U. S. metropolitan areas that experienced significant losses in manufacturing employment between 1990 and 2010 (Philadelphia's manufacturing employment declined 47 percent). Each of the ten cities simultaneously experienced double-digit growth in the professional and business services sector and each invested in innovation programs to advance the research assets already in place.[1]

- In the words of Craig Barrett, when he chaired Intel, "You can't save your way out of a recession – you have to invest your way out."[2]

[1] *Building on Innovation The Significance of Anchor Institutions in a New Era of City Building,* Urban Land Institute, 2011
[2] F*ortune Magazine*, September 2009

San Diego is ranked sixth in federal research funding[3] (New Mexico is first) and is now home to 6,000 technology companies employing 140,000. Our state clearly has a great deal of untapped potential.

There are many examples of initiatives throughout the U. S. to draw from and there are clear indicators that investments in these initiatives produce true, sustainable economic growth and wealth creation, as well as opportunities to retain the talented individuals that graduate from New Mexico schools, colleges and universities.

To change the current rate of success will require investment in infrastructure and programs that will fill gaps in the continuum and ensure that the many ideas born here ultimately create prosperity for New Mexico's second century of statehood and future generations.

State New Economy Index Rankings	2002	2007	2010	2012
Overall	27	33	32	30
IT Jobs	6	34	32	34
Managerial, Professional, & Technical Jobs	16	18	19	21
Workforce Education	46	26	35	31
Immigration of Knowledge Workers	NP	41	39	20
High-Wage Traded Services	NP	45	43	45
Export Focus of Manufacturing & Services	47	13	50	46
Foreign Direct Investment	48	48	48	48
Job Churning	11	14	13	21
Fast Growing Firms	NP	45	41	41
Initial Public Offerings	34	44	44	32
Entrepreneurial Activity	NP	8	11	27
Inventor Patents	NP	30	22	21
Online Population	42	46	41	39
E-Government	48	49	44	25
Online Agriculture	4	39	41	38
Broadband Telecommunication	31	36	46	47
Health IT	NP	NP	49	25
High Tech Jobs	15	8	2	2
Scientists & Engineers	1	2	16	18
Patents	18	18	19	28
Industry Investment in R&D	5	37	27	42
Non-Industry Investment in R&D	NP	NP	1	1
Venture Capital	44	16	34	19
Source for 2002 Index: Progressive Policy Institute				
Source for 2007, 2010 & 2012 Indexes: Kauffman Information Technology & Innovation Foundation				
NP = not provided				

[3] Urban Land Institute, "Building on Innovation" (See Footnote 1)

The primary goal of I → E →E is to create policies and programs that encourage the commercialization of ideas and technologies born here and reduce New Mexico's reliance on federal funding to create new jobs and drive the state's economy.

Successful initiatives require a collaborative effort between public and private sector leadership, partner support organizations and stakeholders to create a climate of innovation, shared vision, and progress.

In 2013 Governor Martinez signed into law a bill that recreated the Technology Research Collaborative (TRC); the legislation did not include an appropriation. EDD will support a funding request of $2 million for the TRC in FY15. This funding will include technology maturation grants for collaborative projects that include at least one university, one national lab, and a private company, and will require matching funds.

Objectives:

- **Identify and change policies that inhibit the commercialization of ideas and technologies.**
- **Incentivize the growth and retention of mature technology companies.**
- **Invest in new state-of-the-art infrastructure to attract and mentor talent, provide necessary conditions and equipment for R&D, and give birth to new technology-intensive companies.**
- **Provide financial support for the organizations within the collaborative that contribute to the process of taking ideas to job creation.**
- **Create unique, competitive economic development incentives to recruit technology companies utilizing New Mexico's tremendous research assets.**

INNOVATION – Generating More Commercially-Marketable Ideas and Technologies in New Mexico

It is important to acknowledge the difference between innovation and research. Innovation results in the creation of a product or service that is marketable. *Market-pull* should be distinguished from *technology push*. Market-pull is indicative of technologies that have commercialization potential because they fill a need in the market. Technology push is the practice of starting with an available technology and developing it without market intelligence or evidence of commercial potential. "Scientists and research institutions are often guilty of technology push because technology is what they know and work with every day. Aside from some rare exceptions, they have almost no experience in marketing and selling products.[4]

The Utah Science Technology and Research (USTAR), includes funding and incentives to recruit researchers with a proven track record of generating marketable technologies and generating grant funding to the state. Utah has successfully recruited researchers globally, including some stellar performers from Oak Ridge National Laboratories. USTAR achieved this with a combination of

[4] *Growing New Mexico's Clean Tech Economy: Strategies to Strengthen Technology Commercialization*, New Mexico Economic Development Department, September 30, 2010

initiatives, infrastructure and programs: state-of-the-art facilities on university campuses, access to a network of researchers in related fields and a "slush fund" to entice well-paid talent from their existing places of work.

Goal: Create a "Culture of Innovation" in New Mexico, an optimal environment to increase the percentage of R&D conducted here that is licensed for commercial use.

Objectives

- **Streamline and negotiate consistent policies around transferring technologies from the national laboratories and universities to the private sector.**
- **Develop infrastructure where it is needed to provide an optimal environment for researchers.**
- **Direct resources toward industry sectors that address issues critical to the growth of the state and are aligned with the research already conducted at the labs and universities.**

Funds to recruit successful research talent are very similar to "deal closing funds" and other incentives commonly used to recruit new industry.

Endowment Funds generally reward university professors who consistently produce research that generates grant funding, prestige for the institution, and "market pull."

Strategy: Establish a fund and facilities to target and recruit researchers who will contribute new technologies, generate philanthropic and federal grant funds, and attract investors, corporations, and serial entrepreneurs seeking technologies for investment.

Historically New Mexico's Higher Education Endowment Fund has been used by universities to recruit high level professors, call Endowed Chairs, to their institutions. These funds have been distributed based on a formula that guaranteed funding to each institution. In 2014 a bill will be introduced to eliminate the automatic disbursements in favor of a competitive bidding process on a project-by-project basis. The projects would be vetted by an ad-hoc board composed of Cabinet Secretaries for the Higher Education, Economic Development, and Finance and Administration Departments, two members appointed by the Governor, and two members appointed by the Legislature. All projects will require a 50 percent match in private funds. The bill will include a special (non-recurring) appropriation request of $7.5 million.

Accessible, state-of-the-art infrastructure is critical to growing ideas into companies. There is, for example, currently a lack of wet laboratory space in the state. The BioScience Center, the Santa Fe Business Incubator, and the Joseph L. Cecchi VentureLab are all functioning and highly successful business incubators with wet lab facilities, but available space is limited due to the demand created by the growing life sciences sector in New Mexico. Many states have invested in "Innovation Centers" that provide the space, equipment and location to house and grow researchers and entrepreneurs. These centers are commonly located on university campuses or near

national laboratories creating opportunities for scientists, students and faculty alike to pursue their research. Infrastructure is an essential component in recruiting new research talent to the state as well. There are many examples of sustained, successful programs that were initiated with significant state investment:

The State of Florida and The Scripps Research Institute (TSRI) formed a partnership in 2006 to expand TSRI from La Jolla, California, to open a biomedical research facility in Jupiter, Florida. The Florida Legislature appropriated $310 million to fund the investment and local governments provided 170 acres for the campus and research facilities. The facility now has 367 staff members and it has attracted two additional research facilities. The Legislature also approved investment of $350 million of pension funds in venture capital firms to support startup companies resulting from the research.[5]

Las Vegas, Nevada, in an effort to diversify its economic base, partnered with the Cleveland Clinic and private contributors to build the $100 million Cleveland Clinic and the Lou Ruvo Brain Center for research and cutting-edge neurological treatment.[6]

Strategy: Allocate capital outlay funds over the next five years to create at least two "Innovation Centers" specifically for research and technologies developed here. The state's financial contribution should encourage private sector investment and leverage available federal funding.

The Energy Policy Act of 2005 established the Technology Commercialization Fund (TCF). The TCF allows for 0.9% "of the amount made available to the Department of Energy for applied energy research, development, demonstration, and commercial application for each fiscal year, to be used to provide matching funds with private partners to promote promising energy technologies for commercial purposes." Since its establishment, no appropriations have been made for the TCF and neither Sandia National Laboratories (SNL) nor Los Alamos National Laboratory (LANL) has an existing TCF as provided for in the legislation.[7]

Strategy: Governor Martinez and legislative leadership work with New Mexico's Congressional Delegation to write a letter to the Department of Energy (DOE), Sandia and Los Alamos National Laboratories supporting the execution and funding of the TCF.

Each of the three research universities have different policies associated with technology transfer. In most instances there is financial motivation to hold on to patents or intellectual property. Some universities do not allow faculty to own companies or the terms and conditions of licensing IP are prohibitive. However, concepts such as "technology transfer clearinghouses" create consistent policy at the state level, removing the responsibility for managing a technology transfer process from the universities.

[5] Urban Land Institute, "Building on Innovation" (See Footnote 1)
[6] Cleveland Clinic Lou Ruvo Center for Brain Health, http://my.clevelandclinic.org/nevada/welcome.aspx
[7] Technology Ventures Corporation

Toward the same goal, states that offset patent and IP costs also frequently provide funding for endowed chairs and research programs within universities. These states also offer other incentives and have higher success rates with technologies developed by faculty. Some states make larger investments to achieve these objectives.

For example, the Bioscience Connecticut program invested in renovating and expanding the University of Connecticut Health Center. A goal of the program is to double federal industry research grants to drive discovery, innovation and commercialization. The initiative includes incubator space to foster new startup companies and a loan forgiveness program to attract more graduates in medicine and dentistry.[8]

There are many examples of states that have made investments in existing university research programs, both facilities and program funding, turning the program into an incubator of some type that in itself expedites the transfer of research from the university to market. Funding for these efforts typically does not come from higher education departments, but from the tech commercialization or economic development programs in order to direct the resources toward job creation.

Strategies: Develop policy around faculty entrepreneurship rules, eliminate conflict of interest potential, bring consistency to technology commercialization policies at the three research universities, and provide funding to support cost-sharing, facility development, and program operations.

Create infrastructure within research institutions such as the UNM Health Sciences Center or the NMSU Water Research Resources Institute (page 58) to facilitate the movement of marketable technologies to the private sector and create an environment for both faculty and graduate students to become successful entrepreneurs.

The mission of Technology Ventures Corporation (TVC) is to help startup companies that are developing technology from the national laboratories and research universities. TVC created the TechWhiteboard to showcase new technologies to assist entrepreneurs in getting funding for their ideas and to match venture capitalists with these opportunities.[9]

Strategy: Support TVC's efforts to gain the participation of each research entity, including the national laboratories and three research universities to expand the TechWhiteboard to a consolidated database of IP and technologies born here.

The "availability of both venture capital and early-stage investment cannot be stressed enough."[10]
In the 1980s the Legislature funded the New Mexico Energy Research and Development Institute with $10 million to be used as seed capital for companies developing new technologies. Stolar Research is a

[8] BioScience Connecticut
[9] Technology Ventures Corporation
[10] Urban Land Institute, "Building on Innovation" (See Footnote 1)

highly successful product of that program. There are several regional programs today, such as the Venture Acceleration Fund operated by the Regional Development Corporation, but New Mexico lacks a statewide funded seed capital or grant program to take technologies and IP to proof-of-concept. Many states utilize these programs with proven success and every tech plan produced in New Mexico in the past decade has made recommendations for seed capital, and/or tech maturation or proof-of-concept grants. Most investors do not get involved in a new technology or research before some demonstrated proof-of-concept is achieved. When researchers cannot identify seed or gap funding New Mexico risks losing the technology to a state with this type of funding, or in some cases, a company outside the state will recognize the potential of the research and purchase it with the same result – a loss of possible new jobs and investment here.

Colorado established a seed funding program for bioscience companies using the growth of future income tax withholdings from the biotech and clean-tech industries. "SB 47 takes 50 percent of the future income tax withholdings from the clean-tech and bioscience industries and puts them in funds to be used as seed money for startup companies and inventions. It is expected to generate about $2 million per year for each industry."[11]

Nebraska recently created the Business Innovation Act which includes $7 million each year for grants to small businesses for the following activities: Phase 0, 1, and Small Business Innovation Research (SBIR) grants capped at $1 million per year; Prototyping Fund capped at $50,000 per project or $1 million per year; grants to individuals or businesses to support commercialization of a product or process, including market assessments and startup strategic planning, management and business planning support, linking companies and entrepreneurs to mentors, and preparing companies and entrepreneurs to acquire venture capital; and grants to businesses that use the faculty of a public college or university for applied R&D of new products or use intellectual property generated at a public college or university.[12]

Strategy: Support 2014 legislation to fund the Technology Research Collaborative and establish a competitive technology maturation matching grant program (see text box on page 16).

Many states, such as Texas, Kentucky and Michigan, provide matching state funding for federally-funded programs like the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) and the National Science Foundation's (NSF) Experimental Program to Stimulate Competitive Research (EPSCoR) grants. Matching the federal awards would produce similar benefits to seed capital or technology maturation grants mentioned above.

By establishing a regular mechanism to provide required matching funds for the NSF's EPSCoR Research Infrastructure Improvement (RII) awards, New Mexico benefits from significant new funding for research and education in areas that are of importance to the state. EPSCoR research must align with priorities identified in the state's science and technology plan. Currently, a $4 million investment by the state

[11] *Tech-based Economic Development and the States: Legislative Action in 2011,* SSTI
[12] Ibid.

reaps a $20 million RII return in direct NSF funding. The equipment, cyber capability and education programs developed with this funding generate additional, long-term return through enhanced research capacity, innovation and workforce development. Furthermore, the EPSCoR designation has contributed over $50 million in NSF co-funding of research projects over the last 10 years in New Mexico. State participation in funding the program would support additional grant writing and administration and contribute to the effectiveness and success of the research funded. All federal grants require a 20 percent cost share and some states have created a state level cost share pool to leverage the federal funds.

Strategy: Set aside money from a permanent fund to provide matching funds that leverage federal and non-profit grant programs, including cost-sharing expenses, as well as enable the necessary integration to ensure coordinated research and development activities among the state's various research institutions, and the best return on any of these enabling investments.

Tax policy is critical to the success of business startups. This is especially true of R&D companies that take much longer to realize a revenue stream than other types of businesses.

Tax credits for investing in R&D companies can be a very effective mechanism to encourage angel investments. Currently, New Mexico's Angel Investment Tax Credit program allows a tax credit of up to 25 percent of an individual's or a business' investment of not more than $100,000 in a qualified company with a $750,000 annual cap on the credit.

Colorado allows a credit of 15 percent of the investment and Louisiana allows 35 percent. Maine has increased their seed capital tax credit to 60 percent. Eligible companies are small businesses that are "involved in manufacturing, advanced technologies or out-of-state exports."

In FY13, approved New Mexico Angel Investment Tax Credits totaled about 50 percent of the $750,000 annual cap on the credit.

In 2014 EDD will support legislation that would amend the Angel Investment Tax Credit by encouraging investors to make larger investments in small businesses and increase the amount of investments they make. For individuals applying for the credit, the amount of investment eligible for the credit will increase from $100,000 to $250,000. For funds applying to the credit, the amount of investment eligible to receive the credit will be raised from $100,000 to $500,000. The overall cap on the credit would be increased from $750,000 to $2 million per year. The number of years the credit can be carried over would increase from three to five years.

New Jersey has a relatively new law that allows qualified biotechnology and technology companies to sell unused net operating losses and R&D tax credits to unrelated profitable corporations for at least 80 percent of their value. This may be a more realistic policy to assist early-stage tech companies than New Mexico's R&D Tax Credit, which requires the new company to owe income tax in order to take advantage of the incentive.

In 2014 EDD will support legislation that expands and enhances the Technology Jobs Tax Credit and incorporates the Research & Development Tax Credit by: 1) increasing the amount of the credit for making qualified expenditures ("basic credit") from 4 to 5 percent; 2) increasing the amount of the credit for meeting the increased payroll targets ("additional credit") from 4 to 5 percent; and 3) making the additional credit refundable for qualifying small businesses (fully or partially, depending on the amount of qualifying expenditures the business makes). It would also limit the period for which the credit can be carried over to three years (currently there is no limit on the carry over period) and prevent unintended credits where a new business takes over existing jobs.

ENTERPRISE

There are many reasons early stage companies fail. Each new business has a unique set of challenges requiring a customized program of assistance. Funding is but one obstacle. Whatever the reason, the failure rate of business startups is daunting and in many cases could have been prevented.

Serial entrepreneurs have the experience and confidence to improve failure rates. These individuals have played an often under-recognized role in highly-successful regions like the Research Triangle in North Carolina and the Silicon Valley in California. Serial entrepreneurs have achieved success with an initial investment and learned the value of seeking out new technologies to repeat the experience. They contribute both funding and mentorship currently missing or in short supply in New Mexico.

Strategy: Incentive programs like the Angel Investment Tax Credit contribute to an environment to attract these individuals. New Mexico should create more incentives targeting serial entrepreneurs and market the state to these types of investors. These incentives might include relocation funds, preferred access to technology, and financial incentives from the state's commercialization fund.

The current barriers to formal company registration are not insignificant: forming a company can cost hundreds of dollars and generate daunting paperwork. Alternatively, entrepreneurs who choose not to register as a company are treated, by default, as either sole proprietors (with personal liability) or partners (with joint and several liability). "A provisional corporation could allow startup founders to begin working together – allowing them to apply for grants, license intellectual property from universities, pitch investors, etc. - without risking liability. Their provisional status would have to be

disclosed to all counter-parties, and could be given a specified timeframe in which to convert their provisional status to full status."[13]

Strategy: Create a new legal form of company entity, a provisional corporation, to provide formal protection to people in the exploratory process of forming a new start-up.

Despite the research and technology development undertaken in this state, New Mexico lacks large-scale venture capital firms and institutional investors (see graph in Appendix B for results of a national survey).

Strategy: Visit and interview the top ten venture capital firms in the United States to ascertain why they do not invest here. Determine how these companies decide where to invest and establish a presence.

The success rate of companies who graduate from a business incubator is 87 percent, nearly double the rate of success of business startups on their own. Incubator graduates also tend to remain in the region where they are incubated after graduation. Very few incubator facilities survive without funding support from government or philanthropic organizations, or most often a combination of those.[14] New Mexico currently has five incubators certified under the state program enacted in 2005: two in Albuquerque, one at San Juan College in Farmington, one at Arrowhead Center at New Mexico State University, and the Santa Fe Business Incubator. The BioScience Center in Albuquerque is a rare, privately-held business incubator dedicated to life sciences with wet lab facilities made available to tenants. All three incubators in Albuquerque are currently full.

After the business incubator program was created in 2005 it received $500,000 in capital outlay in 2006 and operational funding for the facilities from the Legislature from fiscal years 2007 through 2010. Statewide budget cuts have resulted in no funding to the program since fiscal year 2010 despite the demonstrated need and contribution to the state's economy. An economic impact study completed in 2011 indicated the return on the state's investment in these five facilities was roughly $43 to $1.

Strategy: Fund and expand the state business incubator program through recurring funding to the Economic Development Department, encouraging the growth of existing facilities and the delivery of incubator services to rural regions without facilities (see Rural Renaissance and Business Resource Center).

Technology transfer offices are generally associated with R&D facilities like the national laboratories and universities. By necessity, their mission is to license technology to others and to generate royalties/ revenue for their office and the associated R&D institution. States such as Utah, Connecticut, Wyoming and many others financially support their tech transfer offices allowing them to focus on job creation.

[13] *The Rainforest*, 2012, Victor W. Hwang and Greg Horowitz
[14] National Business Incubation Association, www.nbia.org

Michigan, through the Michigan Economic Development Corporation, awarded $25 million to eight organizations to support entrepreneurs in launching and growing start-up companies. This investment provides an incentive for collaboration and ensures financial stability for these typically nonprofit organizations that are critical in their respective roles in the continuum of Innovation to Economic Development.[15]

Strategy: Unite the technology transfer offices and financially support them under the Technology Research Collaborative thereby re-focusing their mission to create "gazelles", high-growth job-creating entities.

Tax credits and other incentives specific to R&D companies have historically been underutilized. Start-up research and technology development entrepreneurs often do not become profitable until the technology gets to the marketplace, limiting the impact of income tax credits.

Strategy: Forgive New Mexico gross receipts tax (GRT) for small businesses (threshold to be determined) up to three years when licensing a technology from a university or federally- funded research center.

ECONOMIC DEVELOPMENT

Economic development organizations were traditionally tasked with recruiting new industry to their respective jurisdictions. This has been accomplished over the years in an increasingly high-level game of competitive incentives. Recent examples include the Apple facility that will locate in Austin, Texas creating 3,600 jobs over ten years at an average salary of $60,000. The State of Texas, City of Austin and Travis County contributed a combined $35 million in incentives to locate the facility. Baton Rouge recently announced the location of IBM to its downtown in a new waterfront mixed-used development that will change the city, the state and Louisiana State University (LSU). The combined incentives total about $70 million and will include free space in the new 200,000 square foot river front office building, cash, and a commitment to double the number of computer science graduates from LSU.

The global economy is changing. The United States now has the highest corporate income tax rate in the world, and the recent economic recession has left cities and states without the resources to compete for large projects like the Apple and IBM examples. Consequently, economic development organizations have redirected their resources to growing existing industries and new companies.

Technology commercialization is just as competitive as recruiting industry and requires the same dedication of incentives and investment. New Mexico has historically focused its technology transfer programs on commercializing the idea or technology born here. The potential of relocating companies that would benefit from geographic proximity to the national laboratories and research universities is great, if the talent and resources at these institutions are accessible and affordable.

[15] Michigan Economic Development Corporation, www.michiganbusiness.org

Companies which began with technology born in New Mexico that have achieved profitability and sustainability can provide a great deal of information on their path to success. All of them probably had to overcome regulatory barricades and struggled to find the technical assistance and funds they needed. They can also provide insight into the incentives that would facilitate their growth and lure more companies to the state.

Goal: Provide financial and technical assistance, a business-friendly environment, and incentives to keep growing companies (gazelles) in New Mexico and recruit new industry that will take advantage of the research conducted here.

Objectives:

- **Work with the national labs and universities to determine how their talent and facilities can be fully-utilized to attract new industry and retain new companies in New Mexico.**
- **Recognize the "gazelles" and other technology companies that invest in the state and provide careers for New Mexicans at the highest level.**
- **Continue to nurture and mentor these companies to ensure continued success in this state.**
- **Develop a program of assistance, such as market intelligence, for companies that have lost business revenue due to sequestration or changes in global market competitiveness.**

Strategy: Conduct a survey of "gazelles" with the assistance of the organizations such as the Science and Technology Corporation (STC) and Technology Ventures Corporation (TVC) to learn more about the business climate for success specific to high-tech companies. Develop incentives and policy changes based on feedback received in the survey.

Competitive tax policy is just as essential to growing and retaining technologies born here as it is to recruiting new industry. The "Seven Percent Factor" means the state's gross receipts tax system taxes products and services companies provide to federally-funded entities. Federal contractors in New Mexico are at a disadvantage under the current gross receipts tax system because they must add seven percent when bidding for these contracts that are often determined by a margin of less than five percent.

Strategy: Enact a tax deduction for New Mexico companies bidding on federal contracts to remove the seven percent disadvantage they currently face.

According to the *Tax Foundation*, sales tax generally has the most adverse impact on small business startups; states that tax manufacturing machinery are at a distinct disadvantage in relocating and retaining advanced manufacturing. New Mexico has an Investment Tax Credit which provides a 5.125 percent tax credit taken against the cost of purchasing manufacturing machinery, but it does not make this state competitive against those states that *exempt* taxes on machinery. Arizona, Colorado, Idaho, Oklahoma, Texas, Utah, Washington and Wyoming do not tax manufacturing machinery.

Strategy: Exempt manufacturing machinery from gross receipts tax and sunset the Investment Tax Credit.

Large or small, the State of New Mexico should acknowledge the success and contribution of the gazelles.

Strategy: Establish the "Governor's Cup" award recognizing the top ten to 15 fastest growing companies annually.

In its economic development marketing efforts, EDD often emphasizes the talent and facilities associated with the national laboratories. There is great potential in locating new industry to New Mexico if the company can access the talent and infrastructure at the labs. Currently, access to these valuable resources is limited by regulation and policy, and often expensive in terms of cost recovery and paperwork. Collectively, these bureaucratic obstacles often result in a lost opportunity to draw companies to New Mexico. The state and the laboratories must work together to formalize a mechanism for technology transfer that accommodates the IP interests of both parties in any transfer.

South Carolina was able to gain DOE approval to exclude indemnity clauses from Cooperative Research and Development Agreements (CRADA) with universities because state law prohibits this requirement.[16] Both Sandia and Los Alamos National Laboratories have CRADAs with large corporations outside New Mexico. There is no incentive or requirement for the companies to have a physical presence here.

Strategies, all of which will require participation of New Mexico's Congressional Delegation: Streamline the process for working with the private sector by setting up global agreements for specified technology areas between the labs and DOE that allow working with the private sector to be done under task orders instead of requiring CRADAs for every new effort, thus reducing the time necessary for companies to partner with the labs.

Remove the requirement for national labs to provide matching funds for proposals submitted to federal funding agencies. These costs are often passed on to the participating business hindering the participation of lab staff on proposed projects and limiting access to lab talent.

Create incentives for national lab staff to work with the private sector by offering financial benefits when the work results in a technology with commercial value.

Change "full cost recovery" policies that make access to lab facilities cost-prohibitive for entrepreneurs and small businesses.

[16] "*Tech-based Economic Development"* (See Footnote 11)

Allow national lab scientists to work up to 20 percent of their time on a consulting basis with industry, without incurring lab overhead charges, and allowing them access to their lab facilities for these activities.

Modify the intellectual property rules so that sharing intellectual property is determined by who funds the research rather than who does the work, allowing for an equitable split of IP between the labs and business.

The New Mexico Small Business Assistance Program (NMSBA) provides technical assistance to small businesses facing technical challenges to access the unique expertise and capabilities of Los Alamos and Sandia National Laboratories. The assistance levels are calculated in research hours and capped at $10,000 for companies in Bernalillo County and $20,000 in every other county. A group of small businesses can request assistance under the heading of a "leveraged project" and receive up to $100,000 in assistance.

Strategy: Provide matching funds to increase the cap on the assistance provided per project and increase the number of businesses that can access the program.

Technology Square on the campus of the Georgia Institute of Technology in Atlanta is a mixed-use area that includes university facilities, a conference center with hotel attached, and commercial offices allied with the university. Technology Square is a 12-story building that houses the headquarters of the state economic development department, the Enterprise Innovation Institute through which Georgia Tech offers assistance to businesses, the economic development offices of the state's utilities, the headquarters of the Quick Start program through which Georgia offers free job training programs to qualified employers, a smaller program for providing training from baccalaureate-level colleges in the state, and a major bank. It is an environment to address the customized needs of any business.[17]

Strategy: Co-locate knowledge economy resources as an incentive to attract private sector investment and new jobs

I → E → E Metrics over Five Years	
Innovation	**Commercialize 60 ideas born in New Mexico**
Enterprise	**Create 40 new companies from New Mexico ideation**
Economic Development	**Realize 20 gazelles (employing a minimum of 20 with revenues exceeding $1 million)**
***Contingent upon restoration of the Office of Science & Technology and funding for the TRC.**	

[17] *A New Paradigm for Economic Development; How Education Institutions Are Working to Revitalize Their Regional and State Economies*, The Nelson A. Rockefeller Institute of Government, University of Albany, March 2010

RURAL RENAISSANCE: PROSPEROUS RURAL COMMUNITIES

There are 102 incorporated municipalities in the state and between the decennial censuses in 2000 and 2010, 41 lost population - some by as much as 20 to 30 percent. All of these communities are considered rural. In contrast, three of the four designated metropolitan areas experienced double-digit growth, Santa Fe being the exception with 9.2 percent growth. It is clear that rural New Mexico needs help and economic growth is essential for sustained population growth.

EDD began the process of determining rural community priorities at the Rural Economic Development Forum in Gallup in 2011. Working with the Councils of Governments, Forum attendees divided into the seven planning regions and identified priorities within each region. The entire group then voted on these priorities to determine the top six:

1. Infrastructure development
2. Enhance workforce training programs
3. Enhance state incentives and funding to critical EDD programs such as the Job Training Incentive Program (JTIP), the Local Economic Development Act (LEDA), the Certified Community Initiative (CCI) and funding specific to the operation of rural economic development programs that do not qualify for CCI and are not likely to meet the staffing requirement in the predictable future
4. Tax policy and regulatory reform
5. Reform LEDA
6. Create more statewide rural entrepreneurship assistance/business incubation services in each region

Since 2011, EDD has met with many stakeholders, community organizations and other partners to specifically determine rural community needs.

In 2012, Secretary Barela appointed the Rural Economic Development Council comprised of representatives from each region and two tribal representatives. The Rural Council held a meeting in June 2013 specifically to address priorities for this plan. Priorities identified in that discussion included:

- Infrastructure development
- Strategic use of capital outlay
- Training provided annually by EDD
- Marketing, recruiting assistance, financial and economic impact analysis
- Resources/funding for rural economic development organizations
- Fill entrepreneurship gaps in rural areas with services and initiatives including business incubators and facilitation, co-working spaces, videoconferencing capacity and student entrepreneurship programs

In October 2013, EDD's Rural Economic Development Council voted unanimously to approve the entire Rural Renaissance section of this plan.

Rural Commercial District Revitalization

Regardless of the size of the village, town or city, a thriving downtown district is a strong indicator of current economic conditions and the community's economic development priorities. In fact, quality of life has become increasingly important in economic development. Diversifying industrial segments and recruiting new industry within a community or region is often tied to a vibrant historic or traditional commercial district that serves the community. The outsourcing of manufacturing and new technologies that replace workers has caused a huge shift in the economic drivers of our communities. Small businesses are the job creators and they have very different priorities than large manufacturing facilities. A 2011 study conducted by the Urban Land Institute indicated the increasing importance of "cost of living and quality of life" when a business chooses a place to locate and grow.[18]

Vital downtown commercial neighborhood districts are not only an economic indicator, but an important amenity to families and businesses alike. The New Mexico MainStreet Program is an umbrella organization for four major programs of the department (three created by state statute as economic development incentive zones; the Main Street Program® (1984), Arts & Cultural District (ACD) Program (2007), the Frontier Communities Initiative (2013), and the New Mexico Historic Movie Theaters Initiative.

Goal: Enhance the level of services, resources and technical assistance to affiliates and expand resources to serve additional MainStreet Districts, Arts & Cultural Districts, Frontier Community projects, and Historic Movie Theaters

Objective:

- **Obtain additional funding and resources to support and expand these programs.**

Strategies: Work with the New Mexico Coalition of MainStreet Communities, secure a minimum of $30,000 annually (standard set by National Main Street Center), per affiliate.

Add a fourth FTE, Assistant Director, to assist with partnerships and cultivating funders to finance new affiliate operations and projects in MainStreet, ACD, Frontier Communities and for New Mexico Historic Movie Theaters Initiative.

Work with the Administration and Legislature to secure one FTE (a fifth for NMMS) to assist in the administration and management of the Arts & Cultural District Program, the cultural economy, and creative industries.

Objective:

- **Develop new financing for infrastructure and financial partnerships for capital improvements**

EDD will seek an annual capital outlay request of $3 million to leverage private sector investment in MainStreet communities.

[18] Urban Land Institute, "Building on Innovation" (See Footnote 1)

Strategies: Develop a Letter of Agreement (LOA) between EDD/NMMS and the Local Government Division of DFA to set aside $800,000 annually of CDBG funds for district revitalization efforts (pursuant to the MainStreet Act 1984).

Ensure "Infrastructure pipeline" from affiliates is included in all Councils of Governments (COGs), Regional Planning Organizations (RPO), New Mexico Department of Transportation, and capital outlay plans and financial requests.

Preservation tax credits are utilized to encourage private sector investment in the restoration of historic properties. EDD is supporting changes to the State Historic Tax Credits which would increase the existing credit from $25,000 to $50,000 for commercial properties in MainStreet districts. In 2007 this change was made for properties in Arts & Cultural Districts.

Utilize the Rural Infrastructure & Project Funding Committee (page 42) to fund economic development projects prioritized in the municipally adopted Metropolitan Redevelopment/Master Plan.

Work with the Historic Preservation Division (HPD) at the Department of Cultural Affairs to amend and increase the Tax Credit to today's market costs, of the Cultural Properties Act providing State Historic Tax Credits to renovate eligible commercial properties within districts.

Grow collaborative efforts with funders, the Friends of New Mexico MainStreet, the New Mexico Resiliency Alliance, the McCune Charitable Foundation and other statewide foundations, to support local district affiliates with seed grants and matching grants.

New Mexico MainStreet (NMMS)

For more than 27 years, MainStreet has been one of EDD's most popular and successful programs, creating around 500 new jobs in downtown districts each year. NMMS follows the National Main Street Center's Four-Point Approach®: organization; design and planning; economic positioning; and promotion/marketing; and its "Standards" for licensing and accrediting affiliated communities. This means that the number of communities the program can serve is dependent on state financial resources, both to operate the program and capital outlay to assist the communities in implementing district infrastructure projects which stimulate private sector investment. The State Coordinating Program (NMMS) is annually licensed and accredited by the National Main Street Center.

Goal: Maintain quality and integrity of the Four-Point Approach® in program delivery with expansion while adding two (2) new "Emerging" Communities per year

Objective:

- **Build resilient and sustainable organizations to partner through the organization development component of the Four Point Approach®**

Strategies: Establish standards of excellence and program delivery based on those standards, for non-profit operation and leadership.

Provide technology-based mechanisms to facilitate access to reinvestment data and capacity-building resources.

Expand in-field professional technical assistance.

Objective:

- **Deliver design and planning knowledge skills and practice to affiliates to establish quality revitalization for the built environment in each district**

Strategies: Secure Metropolitan Redevelopment/Master Plan funds for new MainStreet communities and for affiliates with municipally adopted plans more than five years old and secure funding for updates.

Continue relationship and funding for collaboration with UNM Design and Planning Assistance Center (DPAC), School of Architecture and Planning, providing two design studios annually.

Build a collaborative relationship and funding with the Indigenous Design and Planning Institute (iD+Pi) at UNM School of Architecture and Planning, to serve additional Native American communities in their traditional commercial areas

Objective:

- **Deliver technical assistance, knowledge and skills in Economic Positioning to local affiliate communities**

Strategies: Assist the affiliate in developing a micro/macro analysis of economic performance of the district.

Provide technical assistance and best practices in business start-up, retention, expansion and small business development (see Rural Business Incubation page 35).

Develop strategies with local affiliates that address small business and commercial real estate development.

Expand collaborative work with UNM Bureau of Business and Economic Research (BBER) providing economic structural analysis of Start-Up Districts.

Work with affiliate district municipalities to update their LEDA ordinances and LEDA economic development plans to include metropolitan redevelopment and cultural facilities in their ordinance and ensure the municipally adopted district metropolitan redevelopment master plan and municipally adopted cultural plan are referenced in the ordinances as part of the economic development projects of the municipal, county or tribal government.

Objective:

- **Deliver promotion and marketing services and technical assistance**

Strategies: Provide training and technical assistance to affiliates to develop district marketing and branding strategies that increase residents, visitors and tourists within the district.

Provide training and technical assistance to affiliates in event development (retail, destination and signature), increasing event attendance, gross receipts, hotel occupancy rates and lodgers tax revenue.

Strengthen relationship and collaboration with New Mexico Tourism Department, leveraging resources to brand and market districts and grow cultural and heritage tourism.

Work with the New Mexico Department of Transportation to secure annual state funding for the State Scenic Byway Program.

Redevelop and re-launch the "Off the Road New Mexico" website to reconnect the marketing network between district affiliates.

Arts & Cultural District Program (ACD)

Since its inception in 2007, the Arts & Cultural District Program has been enthusiastically received by participating communities who wish to grow their cultural economy and creative industries. It is "place-based" community economic development, building on a community's cultural and historic assets and heritage within a walkable district.

The arts and cultural economy is often the economic engine in our rural communities. The support of cultural entrepreneurs, cultural institutions, artists and the creative industries have a major positive impact on other related tourism and recreational industries, resulting in increased gross receipts and lodgers tax revenues for the community.

The Program is a collaborative effort between the Economic Development, Tourism and Cultural Affairs Departments, New Mexico Arts Division, the Historic Preservation Division, the McCune Charitable Foundation, and the New Mexico Humanities Council. Representatives from these statewide agencies comprise the state Arts & Cultural District Council which assists the state ACD Coordinator in establishing policy, process and implementation of the program. There are currently six communities designated as Arts and Cultural Districts and two will be state-authorized in November 2013. Many more communities have expressed interest in participating. By state statute the MainStreet Director is the designated ACD State Coordinator, responsible for program development and funding.

Goal: Build a program with higher positive economic impact on New Mexico's Cultural Economy

Objective:

- **Strengthen delivery of resources tied to economic performance benchmarks for local affiliates**

Strategies: Work with the Administration and Legislature to pass the "Clean Up" bill to the Arts & Cultural District Act (2007).

Work with the National Endowment for the Arts, the National Assembly of State Arts Agencies and UNM Bureau of Business and Economic Research to strengthen qualitative and quantitative data and performance of state-authorized districts.

Develop a series of quantitative cultural economic development performance measures for local ACD organization affiliates.

Work with the Administration and Legislature to capitalize the state's Arts & Cultural District Fund at the Department of Cultural Affairs (statutorily created in 2007).

Once the ACD fund is capitalized, seek further federal matching funds through the "Sustainable Communities" program the National Endowment for the Humanities, the National Endowment for the Arts and Foundations for local ACD cultural economic development priority projects on their municipally adopted ACD Cultural Plan and/or municipally adopted metropolitan redevelopment/master plan.

Frontier Communities Initiative

The Frontier Communities Initiative provides support to rural communities under 7,500 in population to develop a catalytic economic development project within a traditional or historic commercial district. The proposed project should demonstrate its positive impact in new job creation, business development or enhancing the economic environment for the community.

Additionally, the program hopes to plant the seeds to expand local capacity to develop "community-builders," people continuing to work together after the project is finished.

Of the 102 incorporated municipalities in the state only 26 had a population over 7,500 as of the 2010 decennial census. There are many more unincorporated villages that qualify for the program if a local governmental entity acts as fiscal agent. NMMS received 14 applications for services and seven communities were chosen for FY14. The number of communities the program can serve is dictated by the level of funding made available. Demand for the program suggests that recurring funding would be appropriate and serve many communities in need of NMMS services.

In 2014 EDD will seek funding of $500,000 to continue the Frontier Communities Initiative.

Goal: Build a more robust Frontier Community Initiative program to assist in rural economic development

Objective:

- **Secure dedicated source of funding for program, projects, and technical assistance**

Strategies: Work with Legislature and Administration to secure annual funding for technical assistance, services and resources, to work in up to 10 eligible communities.

Historic Movie Theaters Initiative

Historic theaters are the center of community life in many of New Mexico's rural villages and MainStreet Districts. With the conversion to digital media format many of these cultural community facilities will go

dark because of the prohibitive costs to convert. The negative impact of closing these cultural facilities spills over to other businesses in the district (restaurants, cafes and overnight accommodations). To those municipally-owned theater facilities, the Economic Development Department is providing matching grants for the conversion and adaptive reuse of these cultural economic anchors in our downtowns. Based on annual resources, the department will provide technical assistance through the MainStreet Program and Finance Development Team, to qualifying municipalities that have updated their LEDA ordinance to include cultural facilities as contributing economic development projects.

Goal: Assist municipalities in keeping their local cultural facility open

Objective:

- **Restore and equip two eligible downtown historic movie theaters annually.**

Strategies: Maintain database of New Mexico's Historic Theaters for potential public investment and provide technical assistance for restoration, rehabilitation, and projection upgrades

Ensure adequate contractual funding for services and technical support from the NMMS staff

Ensure funding through capital outlay appropriations to EDD to both the MainStreet and EDD-LEDA capital outlay funds

Restore Rural Programs and Funding at EDD

The Local Economic Development Act (LEDA) is an opportunity for communities to access capital outlay for economic development projects. In some instances it can be the determining factor in a job-creating project making the availability of funding critical to EDD's mission and our communities.

The Job Training Incentive Program has been serving the business community for more than 40 years and has played a critical role in recruiting new industry. Despite the Program's importance, funding JTIP requires a special appropriation. With 40 years of outstanding performance and data supporting the effectiveness of JTIP, it is time to provide recurring funding.

The Certified Communities Initiative (CCI) began in 2003. The purpose of CCI is to acknowledge local economic development programs that have achieved the standards set forth in the initiative and to provide resources to these communities to enhance their marketing efforts. The organizations that receive CCI funding rely on EDD's commitment to continue the Initiative and performance targets set for EDD indicate that the Legislature and Executive would like to encourage more participation in the program. Serving additional certified communities will require additional funding.

EDD currently has a backlog of $34 million in LEDA projects and will seek funding of $10 million for FY15.

Goal: Seek permanent funding for EDD's most essential community and business assistance programs that must be funded via a special appropriation annually or are at-risk due to budget reductions.

Objectives:

- **Restore LEDA to annual funding of $10 million and make this funding recurring**
- **Create an "Evergreen Fund" to permanently fund the Job Training Incentive Program (JTIP)**
- **Continue the Certified Community Initiative (CCI) with sustained funds and develop results-based metrics for the program that ensure quantitative outcomes for recipient regions**
- **Consider funding mechanisms for non-CCI eligible community organizations**
- **Encourage or incentivize matching funding by local entities**

Strategy: Phase-in legislative action to complete funding objectives within a five-year timeline.

Rural Business Incubation

Business incubation has grown tremendously in the last 25 years. It is now a globally-recognized, effective method of growing businesses and greatly enhancing the success and sustainability of each business served. Traditionally, a business incubator is a facility with client tenants who received a space to work, common office space services like conference rooms and kitchens, training, mentoring, networking, access to capital, market development and much more.

In 2005 the State of New Mexico created a business incubator program that provides guidelines for an incubator to be "certified" by the Economic Development Department. These guidelines include a facility and traditional business incubator model.

Rural business incubator facilities have proven to be more challenging to sustain. The National Business Incubation Association recently published a book, *Best Practices in Rural Business Incubation*, which discusses the challenges of sustaining facilities in low-population density areas. The book suggests that a successful facility requires a city with a minimum population of 25,000 to 30,000. This does not mean incubation services cannot be delivered to remote areas. In some cases a primary facility serves satellites in rural areas (see table and graphs in Appendix C).

EDD asked New Mexico's certified business incubators to collectively develop a plan to deliver these essential services statewide. The five certified incubators, WESST Enterprise Center, Santa Fe Business Incubator, South Valley Economic Development Center, Enterprise Center at San Juan College, and Arrowhead Technical Incubator; and the BioScience Center, came together as a Consortium to develop this plan. Each facility has unique talent and capacity, and there are many partner organizations that can contribute to this collaborative effort.

Virtual incubation is the process of reaching out to entrepreneurs and small businesses via the internet to deliver most of the services a client would receive residing in a facility. EDD will seek assistance from the Incubator Consortium to build-out the Business Resource Center (page 56) to a virtual incubation platform over the next five years. One of the first steps in this process will be the creation of an intake form on the site (nmbusinessresourcecenter.com) to begin the process of guiding the entrepreneur.

The platform will also allow clients to submit questions which will be addressed via video conferencing capabilities at the WESST Enterprise Center. These "virtual business incubation" sessions will take place monthly.

Training on a variety of business development needs, including EDD programs, will also be delivered via the web and videoconferencing.

Entrepreneurs who choose to remain in the program will be mentored by the appropriate business incubator depending on the location of the entrepreneur and the type of business. As an example, the BioScience Center was created to serve life sciences startups exclusively.

Co-working spaces are a relatively new trend in economic development/business incubation and have been highly successful in communities of all sizes. These spaces can also informally serve as satellite facilities supported by the business incubator community. Co-working spaces generally include computers, video conferencing equipment (broadband is essential), and common area amenities like conference rooms and kitchens.

EDD supports a special appropriation request of $100,000 to fund the business incubator program in FY15.

Goal: Develop a collaborative program to deliver services to entrepreneurs and small businesses statewide.

Objective:

- **Create a virtual incubation platform on the Business Resource Center website to guide clients to the services they need as they are needed**

Strategies: Provide regular training to clients through video conferencing.

Provide a monthly opportunity for entrepreneurs to receive answers to their questions via video conferencing, much like the business facilitation model already established in communities such as the Taos Entrepreneurial Network.

Mentor the clients to ensure they receive the necessary assistance needed to create a sustainable business.

Support rural co-working spaces by providing incubation services through incubator events, startup weekends, and services delivered virtually.

Statewide Commercial Kitchen and Growers Program

When EDD and the Legislature created the business incubator program in 2005, the South Valley Economic Development Center (SVEDC) was one of the first incubators to be certified under the new program. The Rio Grande Community Development Corporation (RGCDC) applied for the certification and manages SVEDC, which has become a nationally-recognized incubator due in large part to its highly successful commercial kitchen and unique growers program. The growers program began as a partnership with Mesa del Sol, a large mixed-use development in southeast Albuquerque. SVEDC organized growers of landscape plants in the South Valley in order to accommodate the large

development. Until this agreement Mesa del Sol was purchasing plants from Arizona with a loss rate of about 30 percent. This concept blossomed into today's Delicious New Mexico and Mixing Bowl programs which are highly-successful.

New Mexico still imports about 90 percent of the landscape plants used in the state today from Arizona. This represents a huge lost opportunity.

The Mixing Bowl is the commercial kitchen/incubator program of the RGCDC and SVEDC, working with 250 potential entrepreneurs every year. It has 120 businesses currently in the development phase, 60 businesses currently selling products, and another 40 that have graduated from the process over the last six years. This successful model could be implemented at a statewide level creating economic development opportunities for new entrepreneurs in any region of New Mexico.

There are many communities with dark kitchens across the state today. These facilities could be active job and wealth creators utilizing the expertise of the Mixing Bowl staff and the commitment of the participating community. The program helps entrepreneurs overcome regulatory issues and connects them to retail markets and a supportive entrepreneurial network.

RGCDC will partner with EDD and rural communities to build on existing infrastructure and create cost-effective kitchen incubators using the Mixing Bowl's successful program as a template and the nationally-recognized Delicious New Mexico brand. Commercial kitchens can add value and drive growth to local farmer's markets and festivals, and are often a contributor to downtown revitalization programs. New Mexico MainStreet already has local organizations that include farmers' markets and festivals featuring local foods in their promotional programs.

Identifying markets for food products often hinders potential entrepreneurs. A key to the success of the Mixing Bowl program is its relationship with buyers like Whole Foods and John Brooks. More than a dozen communities are already interested in participating in the program should funding be secured.

EDD supports the RGCDC's special appropriation request of $350,000 to fund the statewide commercial kitchen program in FY15.

Funding of $350,000 annually would be required to take the Mixing Bowl statewide. Multiple rural communities would receive the support they need to develop and integrate their respective food assets – whether entrepreneurs, farmers, ranchers, or value-added producers - into a cohesive, solid statewide food infrastructure. This funding could generate 120 new companies, 298 new jobs, and $5.485 million in gross business impacts in rural communities over the next four years. The annualized cost per job is roughly $3,200.

Goal: Establish 12 functioning commercial kitchens through the Delicious NM and Mixing Bowl programs.

Objectives:

- **Stand up kitchens in first six communities (USDA certified), market kitchens regionally, identify clients, provide training and assist in market development**

- **Link kitchens with other economic development programs such as MainStreet where appropriate**

Strategies: Identify dark kitchens and communities interested in activating them.

Market program statewide and identify additional communities for participation; provide program overview to communities, USDA inspection process and kitchen management.

Develop relationships in each participating community between the kitchen, downtown revitalization and related programs such as farmers' markets.

Preserve and Encourage Extractive Industries

Mining was an active industry in New Mexico long before statehood. Native Americans mined precious minerals. Oil was discovered here early in the 20th century. The industry contributes more than $2 billion to the state and local governments annually. The industry is currently one of the strongest contributors to New Mexico's economic growth, adding 2,050 jobs or 9.1% from the fourth quarter of 2011 to the fourth quarter of 2012. The average weekly wage was $1,415 in the calendar year 2012, one of the consistently highest wages in the state.

It is a particularly important industry sector because most of the jobs are concentrated in non-metropolitan areas that are most in need of the economic boost. Mining is expected to continue to be the strongest growth sector through 2013, according to a University of New Mexico (UNM) Bureau of Business and Economic Research (BBER) forecast.

Water is a challenge for New Mexico on many fronts. The oil and gas exploration industry understands the need to address this critical issue, but would like to see the state avoid harsh regulations that would be detrimental to extractive industries. Alternative policies to address water usage should focus on incentives to re-use produced and brackish water.

Goal: Acknowledge the importance of extractive industries, a critical sector of the state's economy, and seek a balance between a sound environmental future for New Mexico while supporting the growth of the industry.

Objectives:

- **Maintain a balanced, consistent regulatory and tax environment including permit processing**
- **Develop and provide an incentive for oil and gas companies to utilize brackish water in the drilling process (utilizing brackish water requires the installation of expensive water treatment equipment which could be offset by a tax incentive toward this cost)**

Strategy: Work with the NMSU water research facilities to understand and support water re-use policies to support the extractive industries within New Mexico.

Rural Business Recruitment

About a dozen local economic development organizations actively participate in recruiting business to the state with the New Mexico Partnership. The remaining organizations either lack the resources to travel to trade shows and sales missions or recognize the limitations their regions have to relocate large employers. Many lack infrastructure and "turn-key" sites and buildings for these projects. Small workforce populations and distance from an interstate highway also hamper the process of recruiting large companies.

During the Rural Economic Development Council planning discussion, several communities expressed the need for assistance to create smaller scale targeted recruiting programs. Often, small communities desire new retail stores, like a grocer or "Dollar Store" – industry sectors outside the scope of the Partnership's marketing program. To accomplish this objective, communities need marketing assistance in the form of brochures or website development, access to business lists, and data to present to potential new companies.

A rural business recruitment program can be accomplished with the collaboration of the Community, Business, and Rural Development Team and the State Data Center.

Goal: Organize a collaborative program of assistance for community economic development organizations requesting recruitment program development from EDD

Objectives:

- **Identify participating organizations/communities and identify target business sectors for each**
- **Conduct a SWOT and incorporate into community economic development plan**

Strategies: Subscribe to national database of companies made available to the CBRDT via the State Data Center budget and resources.

Purchase a cost comparison model to provide valuable data for rural regions that generally offer a lower cost of doing business and living than metro areas.

Purchase an economic impact analysis model for in-house use and provide this service to rural communities to assist them in analyzing projects and potential incentives.

Strategic Use of Capital Outlay Funds

In studying infrastructure funding programs in other states it becomes immediately clear that New Mexico's capital outlay allocation formula provides no incentive to direct resources toward prioritized needs, and has a very limited process of vetting projects and insuring that funding is used for the designated purpose. According to our own capital outlay guidelines few legislators sponsor the high-ticket projects in their respective ICIPs because of the limited share of funds allotted to individual legislators. There is an implied incentive to sponsor smaller projects to get more through for their

constituents; the “a little here, a little there” approach will likely not include the projects with the most potential impact. This could be interpreted to mean that we provide two-thirds of our funds to “little, less significant” projects.

New Mexico’s capital outlay bill is generally developed in the last two weeks of the annual legislative session. A more structured timeline might allow for a more effective vetting process. In fact, some states require projects to be fully-vetted *before the legislative session* so that only those deemed in compliance and of a high priority ever get considered. Grouping a large number of “pork” projects together in one bill at the last minute is likely a contributing factor to the number of examples like those below.

Examining what went wrong with specific projects in New Mexico sheds light on issues within the vetting process:

- The dance studio for the National Institute of Flamenco is a great example of two governmental entities working at cross purposes. The state paid for a warehouse the City of Albuquerque condemned for demolition.
- The Mora County Courthouse ran out of money and stands unfinished.
- Endless public hearings (Highway 14 repaving) can extend the project past construction estimate deadlines, ensuring the final result will not achieve its original intent or the project will not be completed.
- Legislators provided $765,590 to design a Veterans Museum in Las Cruces, which was spent even though there were no funds to construct it.
- Similarly, in 2008 more than $1.6 million was allocated to purchase a building for a Holocaust Museum in Albuquerque, but this did not include any funds to renovate the building so the project was not completed.

There are other examples where the state allocated funds for a specific project and the local entity spent the funds elsewhere without repercussion. The process of validating invoices submitted for reimbursement when the project is underway is clearly inadequate.

Governor Martinez has made improving the capital outlay process a priority in order to:

- Evaluate and prioritize projects based on their regional and statewide importance;
- Foster growth in the economy;
- Bond for projects that will leverage the greatest federal match; and
- See the project to completion to maximize the economic investment into our state.

In this behalf, the Governor has requested the Legislature provide the Administration with reports that provide greater detail on projects being considered for severance tax bonding capital outlay authorizations so that those projects are vetted for final approval against the above criteria.

Best Practices from other States

- Limit percentage of spending on planning (10 percent as an example)
- Project is shovel-ready (planning, engineering done) and construction estimate is current and includes a specific expiration date. Projects that are not fully-funded based on valid cost estimates are destined for failure.
- Reduce the timeframe in order to recapture funds.
- Determine local government's capacity to fund the project via a loan program.
- Require matching local funds (25 percent in some states) for projects.
- Require more specific definitions of eligible expenses to insure the proper use of funds.
- Develop a more rigorous process of prioritizing projects for funding (require concurrence from the local governmental entity).
- Convene interim legislative committee to vet projects based on new guidelines before session starts; include representatives of funding agencies in order to best leverage resources.
- Provide a more stringent process of reviewing invoices for reimbursement.

(Additional information on practices in other states can be found in Appendix D)

Goal: Create a better process to dedicate capital outlay to projects that will contribute to a prosperous future for New Mexicans statewide

Goal: Support local planning and management in the capital outlay process

Objectives:

- **Address longstanding weaknesses in the capital outlay process**
- **Develop a consistent set of standards statewide**
- **Streamline duplicative state programs**
- **Require that planning and design is completed prior to full project funding**
- **Provide clearer language in each appropriation**

Acknowledging the critical need for water delivery systems that ensure safe drinking water and better evaluation of our water usage, Governor Martinez has proposed that 60 percent of all capital outlay be dedicated to water infrastructure in 2014.

Strategies: Improve the coordination of diverse funding sources (see Rural Infrastructure & Project Funding Committee page 42).

Create a process to vet projects once and avoid wasting staff time with duplicative reviews of the same project.

Develop a process to prioritize urgent projects.

Determine the ability of a local government to pay for infrastructure, wholly or in part, via a loan program.

Consider requiring a resolution from local governing body supporting the project as a priority for the community or region.

Address issues associated with projects that are not fully-funded.

Consider stricter time limits in order to recapture funds.

Develop a better process to disperse funds insuring compliance with project parameters.

Rural Infrastructure & Project Funding Committee

Years ago, EDD administered a group of funding entities to vet infrastructure and business development projects for funding. Participating entities included USDA Rural Development, New Mexico Finance Authority, HUD, NM Small Business Administration, Department of Finance and Administration, and the seven Councils of Governments. The group came together bi-monthly or quarterly (depending on demand) giving communities and businesses the opportunity to present a project in front of all New Mexico funding agencies rather than approach each individually.

Goal: Establish a collaborative funding committee under the auspices of the Rural Economic Development Council to provide New Mexico communities and businesses the opportunity to present projects once with the intention of fully-funding each project from appropriate sources.

Objective:

- **Fund five infrastructure projects critical to economic development each year**

Strategies: Identify participating agencies.

Create intake forms for community and business development projects.

Develop a clear set of criteria to determine projects that are critical to economic development.

Identify projects through the Community, Business & Rural Development Team and the Councils of Governments.

Meet bi-monthly or quarterly to vet projects.

Prioritize Fiber Development Statewide

Rural communities recognize the critical need to have broadband, specifically fiber, available for business development and to recruit location neutral workers. A 2010 study by the Ewing Marion Kauffman Foundation, *The Importance of Start-Ups in Job Creation and Job Destruction*, concluded that "growing businesses is essential to rural regions and start-ups have no chance of success without broadband."[19] In fact, few businesses can access their full customer base without broadband.

[19] *University Technology Transfer Through Entrepreneurship: Faculty and Students Spinoffs,* Ewing Marion Kauffman Foundation, August 2012

Broadband is also a critical component in health care delivery via telemedicine, education via distance learning, and public safety. A report by the Wisconsin Tech Council in 2011 determined that even tourism can be impacted by a lack of broadband availability.[20]

New Mexico is ranked in the bottom five states for broadband access in the *2012 State New Economy Index*. Other states in the bottom five are Mississippi, Arkansas, Montana and Kentucky, all predominantly rural states that also have a high percentage of low income residents.[21]

Goal: Prioritize funding for fiber/broadband development statewide. Leverage available federal funding with state capital outlay.

Objectives:

- **Utilize the final DoIT Broadband Economic Plan goals and objectives to assist communities in effectively adopting policies and procedures in broadband development and deployment**
- **Identify regional broadband projects that may be scaled up to interconnect with other planned projects with a goal of a statewide fiber optic network for economic development projects.**

Strategies: Assist communities in identifying and accessing state, federal and private funding opportunities for broadband development and deployment.

Track and report assistance provided to communities on development and deployment efforts, including technical assistance, economic impact analysis and identifying best practices.

Rural Renaissance Metrics over Five Years*
7 new MainStreet Districts
10 new Arts & Cultural Districts
35 Frontier Communities served
10 Historic Movie Theater renovations and digital conversions
Establish recurring LEDA funding of $10 million annually
Develop metrics for all EDD programs currently without measures and incentivize local matching funds
Restore recurring funding for New Mexico's certified business incubators resulting in the creation of 300 new urban companies and 150 new rural companies ($600,000 annually)
Establish 12 new commercial kitchens statewide
Fund 30 infrastructure and 50 business development projects
*Contingent upon increased resources for identified programs and partners

[20] *Connecting Rural Wisconsin, The Economic Necessity of Broadband*
[21] *2012 State New Economy Index,* Information Technology and Innovation Foundation, 2013

BORDERPLEX AND LOGISTICS INDUSTRY DEVELOPMENT

Transportation and Logistics Industry Potential

Geographic location and excellent transportation infrastructure provide strong opportunities for growth in the transportation, warehousing and logistics industry sector.

Three major interstate highways connect New Mexico to both international borders and both coasts of the U. S.:

- Interstate 25 connects the state with the Canadian border to the north and, via 40 miles on Interstate 10, the Mexican border and the Santa Teresa port of entry.
- Interstate 40 connects New Mexico to the eastern U.S. border at Wilmington, North Carolina, and Los Angeles to the west.
- Interstate 10 connects New Mexico to Jacksonville, Florida to the east and Los Angeles to the west.

Other major U.S. highways provide links with the interstate system:

- U. S. 70 is a four-lane highway linking Clovis (at U. S. 60) to Portales, Roswell, Alamogordo and Las Cruces, where it merges with Interstates 25 and 10.
- U. S. 60 begins in New Mexico 20 miles east of Clovis (the Texas border) and provides connections to I-40 via U.S. 54 at Fort Sumner and to I-25 at Socorro. From Socorro it extends west to the Arizona border.
- U. S. 550 is a four-lane highway connecting the Albuquerque MSA with the Four Corners region.

Both freight and passenger rail traffic began to decline after 1945 when the federal government began building the interstate highway system. Changes in the global economy and rising fuel costs have impacted that trend and freight delivered by rail is anticipated to surpass truck freight delivery growth by more than 3 percent annually until at least 2020.

Rail service reached New Mexico in 1879, more than three decades before statehood. Railroads have played a critical role in the state's economic growth from the very beginning. The second transcontinental rail link was completed at Deming in 1881. The Rocky Mountains were a barrier to travel to and from the west coast. The topography of New Mexico offered a route that avoided the tallest ranges to the north and the warmer weather meant that winter snows were less of a threat in completing the rail lines and delivering people and goods on time. New Mexico's rail lines remain an important component of the national rail system.

The two largest freight railroads in the U.S., BNSF and Union Pacific (UP), operate in New Mexico and are both making significant investments to extend services to new markets and meet global trends in intermodal freight delivery. New Mexico is clearly a crossroads within the national freight rail network.

The national BNSF TransCon corridor, one of three identified major corridors of commerce in the United States, represents 4,647 route miles covering 13 states from California to Chicago, to the north, and Atlanta, to the south. The Southern TransCon route connects the Ports of Los Angeles and Long Beach with Kansas City and Chicago. It crosses central New Mexico from Clovis to Gallup and operates major rail yards in both cities. BNSF is in the process of completing a double-tracking project on the TransCon route with only 38 miles of track within this state not completed as of the end of 2013.

The Union Pacific corridor passing through New Mexico connects Los Angeles/Long Beach to midwestern markets such as Chicago, Kansas City, St. Louis, Memphis, Dallas/Fort Worth, El Paso, Houston and New Orleans. The UP Sunset Route links the Ports of Los Angeles/Long Beach with the Santa Teresa/El Paso Borderplex. UP is in the process of completing a $418 million rail facility in Santa Teresa (detailed further in the Borderplex section). The facility will relocate many yard activities from El Paso, including a fueling facility, a block swap yard for sorting long-haul trains arriving from Southern California and bound for Midwest, east coast and gulf coast destinations; and an intermodal freight facility. The privately-owned Santa Teresa Southern Railroad provides service to the Santa Teresa Logistics Industrial Rail Park, interchanging with the UP Sunset Route near the new facility.

The Four Corners region is anticipating major growth in crude oil extraction. Major new transshipment facilities are expected to open in Thoreau and Gallup over the next two to three years. A rail line from Farmington to Gallup is a long term possibility. Gallup is working with BNSF to develop a warehouse and logistics park on the 13-mile rail spur northwest of the main line.

Developed business parks with proximity to either the BNSF TransCon or UP corridors will attract logistics and warehousing companies.

Borderplex: Santa Teresa/Las Cruces

New Mexico's border with Mexico and excellent business development partnership, combined with transportation infrastructure and services, represent huge opportunities for southern New Mexico.

The New Mexico border with Mexico comprises three corridors: Antelope Wells-Lordsburg (AWELB), Columbus-Deming, and Santa Teresa-Las Cruces. Fully developing these corridors will increase the viability and potential of these areas thereby enhancing and attracting commerce within the region. Each corridor is unique in its size, location and extent of development, thus requiring different needs to reach optimal capacity utilization and efficiency.

Three projects that will have a profound economic development impact on New Mexico's border with Mexico are taking place around Santa Teresa, including Union Pacific's new facility, the Bi-National Community, and the Rail Bypass Project. Each of these projects is under development and will have significant impacts on the region.

New Mexico boasts three ports of entry which include Santa Teresa-Las Cruces, Columbus-Deming, and Antelope Wells-Lordsburg (AWELB). Each of these corridors faces differing opportunities and needs which when met or taken advantage of, will maximize their potential.

Santa Teresa Corridor

Established in 1993, the Santa Teresa POE is the central border element of the Santa Teresa-Las Cruces corridor. The Santa Teresa POE was established as an attempt by New Mexico to capitalize on the $1 billion cross-border trade flows that exist in the El Paso-Juarez Metroplex. The Santa Teresa POE and its associated industrial base grew in small increments during the 1993 to 1998 time period. From 1998 to 2001, more than 2,000,000 square feet of industrial space was built to accommodate maquiladora-related industries, including suppliers, distribution centers, and logistical enterprises.

In 2009, Foxconn, a Taiwanese manufacturing company, established what would become Mexico's largest maquiladora operation immediately south of the Santa Teresa POE in San Jeronimo. Currently, this plant employs between 4,000 and 6,000 persons in its 1.6 million-square-foot facility on nearly 600 acres. The plant assembles up to 55,000 computers daily for Dell Corporation shipped throughout North America. Approximately 150 northbound trucks loaded with Foxconn-assembled computers cross the Santa Teresa POE bound for the Federal Express distribution center in El Paso.

Within the last three years, the value of exports and imports at the Santa Teresa POE has grown from $1 billion per year to more than $1.3 billion per month.

Commercial/Industrial Overview

Approximately 50 manufacturing and logistics firms are located in and around the Santa Teresa POE. Approximately 2,000 employees are employed in Santa Teresa industrial parks, and its industrial base is the second largest in New Mexico; Albuquerque is the largest.

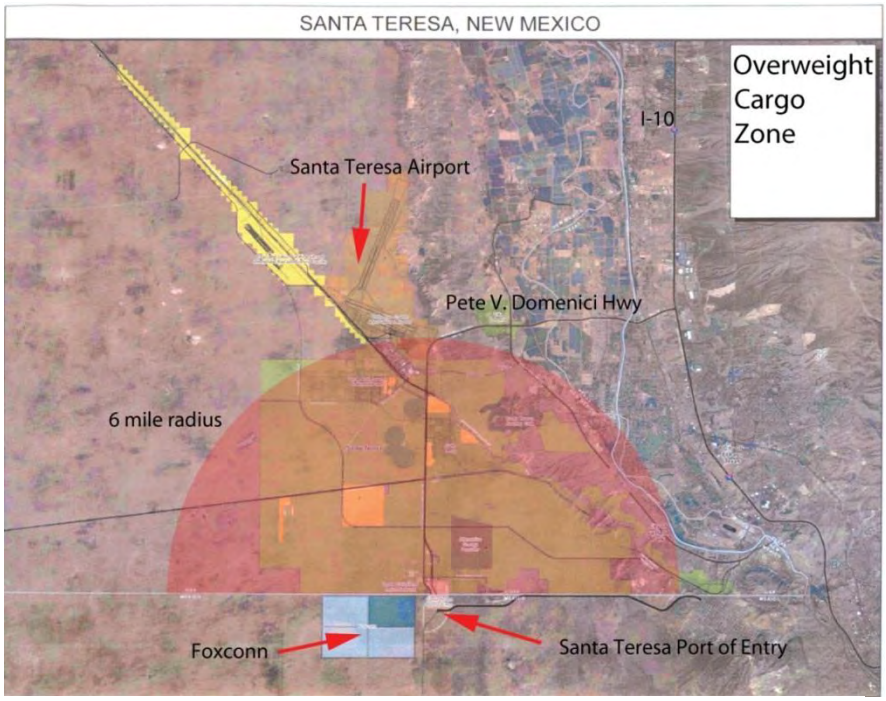
Currently Santa Teresa has three industrial Parks: the Border Industrial Park, the Intermodal Park, and the Santa Teresa Business Center. Almost every enterprise located in the Santa Teresa industrial parks is associated with production facilities south of the border.

Some firms manufacture value-added products that are utilized in Mexico's maquiladora industry. These facilities include plastic injection molding, metal fabrication, packaging, and steel coil and copper wire manufacturing. Other firms are warehousing parts and supplies for Mexican maquiladoras and logistics operations that move products in and out of Mexico.

According to U.S. Census Bureau statistics, more than 50 percent of all New Mexico exports to Mexico originate in Doña Ana County (Santa Teresa-Las Cruces Corridor). The El Paso-Juarez Borderplex, of which Santa Teresa is a part, ranks fourth behind Detroit, Los Angeles, and Houston as one of the largest metroplex exporters to Mexico.

Overweight Cargo Zone

Established in 2011, the overweight cargo zone allows overweight Mexican trucks (up to 96,000 pounds) into a limited six-mile zone north of the Santa Teresa POE. The establishment of the zone has generated a lot of interest by commodities companies that do not have to unpack their shipments when crossing into the U.S. to meet the 80,000 pound maximum weight in this country. Not having to reduce or touch the shipment until it reaches its final destination within the zone results in substantial savings. Companies such as Interceramic, Ironhorse Industries, and Ferza have already established logistics operations within the overweight zone.



Union Pacific Santa Teresa Intermodal Facility

Union Pacific is investing $418 million in its Santa Teresa project, which will include a diesel refueling station, a crew change station, intermodal yard, and block swap operations. EDD, the New Mexico Partnership, and the Mesilla Valley Economic Development Alliance are actively marketing the new facility to specific business sectors that would benefit from location within the Borderplex.

Specifically -

1) <u>Ocean freight traveling to the border in an in-bond status:</u>
   One niche New Mexico can exploit is attracting companies that receive ocean freight shipments from Asia, through the Ports of Long Beach and Los Angeles that are destined for Mexico's maquiladora industry. Generally, these shipments clear Customs when arriving at the west coast ports of entry and then travel by rail or truck to the Santa Teresa-El Paso-Juarez region.

   The UP Santa Teresa project should be promoted as an inland port of entry in which shipments can come from Asia, pass through West Coast ports of entry in an in-bond status, and clear Customs upon their final destination in the Santa Teresa corridor. Clearing Customs at its final destination allows cargo to travel more efficiently and securely.

   Companies that are shipping freight from Asia to the Santa Teresa-El Paso-Juarez corridor should be targeted as prospects for establishing a presence in the Santa Teresa region.

2) Logistics companies:
   Local and out-of-region logistics companies that move rail cargo for clients are prospects for the Santa Teresa-Las Cruces Corridor. Being located next to the UP intermodal yard increases these firms' efficiencies and bottom line.

3) Manufacturers and value-added companies:
   Manufacturers and other value-added companies that would benefit from location next to a world-class intermodal yard are prospects for establishing a presence in the Santa Teresa-Las Cruces corridor.

4) Repair/service companies
   Repair/service companies that are associated with UP are prospects for location to the Santa Teresa corridor. These include mechanical companies, calibration companies, and general service companies.

The UP Santa Teresa project also presents commercial opportunities for the Santa Teresa region. Currently, there are a limited number of restaurants, gas stations, mechanical garages, or other service companies in close proximity to the industrial parks. The rapid industrial development in Santa Teresa has the potential to attract commercial businesses.

Rail Bypass Project

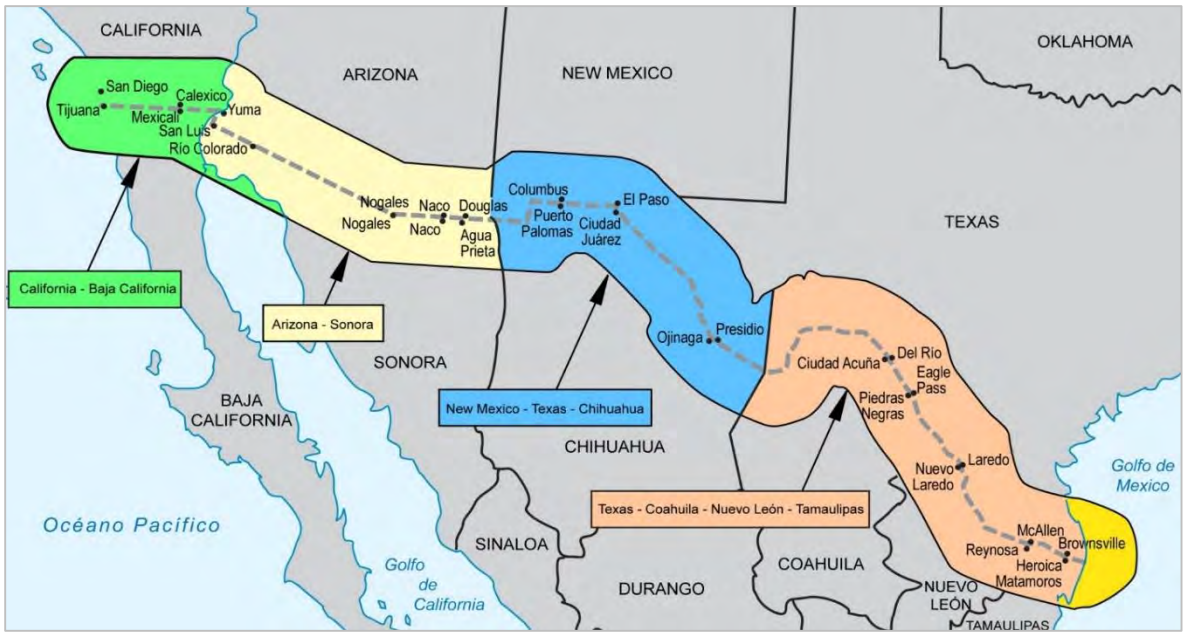
A major priority for EDD is the relocation of the rail lines from downtown Ciudad Juarez and El Paso to the Santa Teresa region. This project has been discussed for many years; within the last three years progress has been achieved. The New Mexico Border Authority is in the process of awarding a $1.9 million contract to a private sector firm to conduct a feasibility study on the relocation of the rail lines to Santa Teresa. The State of Chihuahua has already conducted its feasibility study, which concluded that the relocation is viable, and it has included this project as a priority in its request for infrastructure funding to Mexico's federal government.

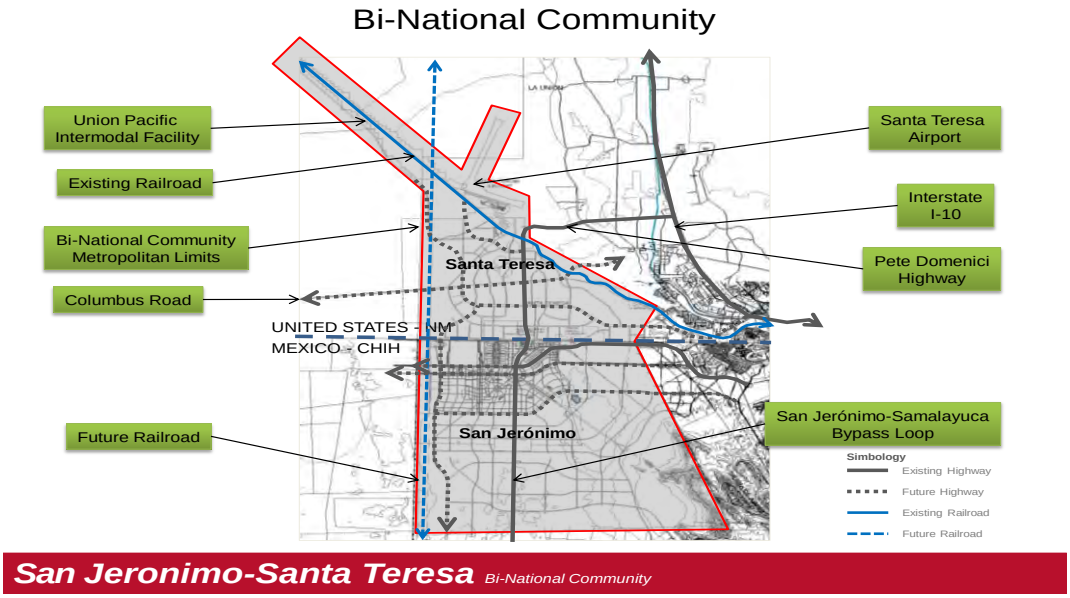
When completed, the relocation of the rail lines would have a major economic impact on the Santa Teresa-Las Cruces corridor due to the extra volume of cargo that would pass through the region. The rail relocation would also create logistical efficiencies for the Santa Teresa – Ciudad Juarez region and remove the bottleneck that rail companies such as Union Pacific, BNSF, and Ferromex are experiencing where their rail lines are surrounded by a large urban population.

Bi-National Community

In November 2012, with the support of the Border Industrial Association, Governor Susana Martinez and Chihuahua Governor Cesar Duarte announced the Bi-National Community Master Planning project at the New Mexico-Chihuahua Commission meeting in Chihuahua, Mexico. Working with a private sector team representing both sides of the border, the framework for this new project has been structured in its basic form, and is now referred to as the "Bi-National Community".

The Bi-National Community is the model of cross-border development incorporating the largest inland port including coordinated sustainable master plans, foreign trade zones, industrial efficiencies, a secured border region, quality residential living, joint health care and education programs all centered around the Santa Teresa/San Jeronimo Port of Entry, on the New Mexico-Chihuahua border. This community encompasses more than 70,000 acres, combining truck, rail and air services to destinations worldwide creating a globally competitive industrial and logistics platform.





Competitive Advantages of the Bi-National Community:

- Equidistant to the seaports of Long Beach and Houston, and integrated into the northern economic corridor of Mexico, connected to the Pacific seaports by both rail and highway

- More than 70,000 acres of master-planned land for industrial, commercial and residential development, including 2,000+ acres of rail-served industrial land
- Foreign Trade Zone (U.S.) adjacent to Recinto Fiscalizado Estratégico (Mexico) on the border
- Efficient border crossing that handles commercial oversize and overweight loads
- Easternmost land crossing on the US-Mexico border
- Inland port with full intermodal capabilities planned on both sides of the border
- Juarez railroad bypass project
- Doña Ana County Airport runway expansion to serve cargo; currently a preferred airport for executives
- One of three proposed pilot programs for a Dual Customs Clearance facility between the U.S. and Mexico
- Common industrial clusters
- Central corridor of the NAFTA region

Based on these advantages, New Mexico and Chihuahua are working together to master plan the Santa Teresa and San Jeronimo communities and differentiate the bi-national project as unique in the world. Both states will work to acquire necessary infrastructure funding as the project develops and a joint marketing plan will be launched for promotional purposes. High-tech and security elements will be major differentiation points of the project and agencies such as Los Alamos and Sandia National Laboratories and Chihuahua's CIMAV will be involved.

Both governors have made the Bi-National Community a major focus of their economic development efforts, and will work together to promote this project to major corporations throughout the world. The marketing program was launched in the fall of 2013.

The benefits that will accrue to both states include:

- Creation of a world-class, globally-competitive industrial zone
- Commitment from both governors to economic development through cross-border cooperation
- Economic prosperity for the region with the ability to raise per capita incomes on both sides of the border
- Increased domestic and foreign

investment
- Enhanced tax base
- Unique assets to recruit large OEM's that locate operations on both sides of the border
- Increased opportunity and work skills of the local employment base
- Model of sustainable development

EDD will work with Chihuahua's Secretary of the Economy to coordinate the work teams and to report their progress to Governors Martinez and Duarte.

Goal: Complete the Bi-National Community, Rail Bypass and infrastructure improvements at the Port of Entry to fully realize the potential of the Santa Teresa Corridor as a unique global destination for logistics and distribution companies and maquiladora suppliers

Objectives:

- **Completed master plan with identified resources for the development of the Bi-National Community**
- **Completed feasibility study and master planning for the project**
- **Continue the collaboration with the federal and Mexican governments to improve the infrastructure and services at the Santa Teresa Port of Entry**

Strategies: Utilize capital outlay to complete water and wastewater treatment facility upgrades necessary to meet the demands of the high level of growth in the region

Allocate resources to upgrade roads in and around the Corridor

Make necessary improvements to the Dona Ana County Airport at Santa Teresa to meet the standards of an intermodal hub, including a cross-runway for weather and safety purposes and lengthen existing runways to 10,500 feet

Promote the unique amenities of the Santa Teresa/Borderplex region to identified business sectors

Columbus-Deming Corridor

The Columbus Port of Entry (POE) is New Mexico's only port on the Mexican border that is open 24 hours per day for private vehicle traffic. The port also is a designated commercial POE, primarily serving northbound shipments of produce such as chile and onions. It is open for commercial shipments from 9:00 a.m. to 5:00 p.m. on Monday through Friday, and 9:00 a.m. to 2:00 p.m. on Saturdays.

Commercial/Industrial Overview

The Columbus-Deming Corridor has primarily been a pass through for travelers entering Mexico and going to destinations in the U.S. such as Deming. Indeed, the Walmart and other retail shops in Deming have become shopping destinations for Mexican citizens traveling from northwestern Chihuahua. From a commercial standpoint, the port serves mostly northbound produce shipments destined for the U.S.

Because the produce market is seasonal, heavy traffic at the POE is also seasonal, occurring mid-summer to late fall.

Columbus has an industrial area that is referred to as its industrial park. It consists of industrial land just north of the border and northwest of the POE. Within this park is a vacant industrial building that the community has been attempting to market for at least five years.

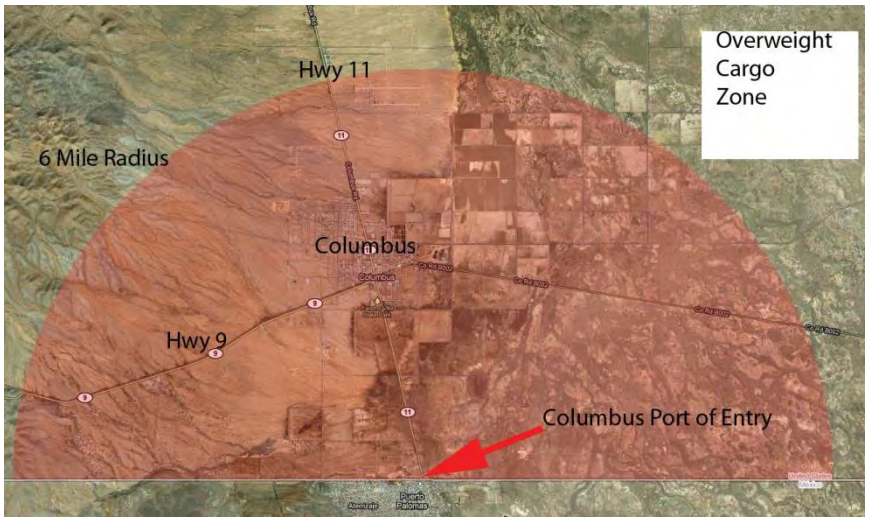
The Luna County Border Committee, consisting of border stakeholders within Luna County, has been formed to address economic development and infrastructure issues. A major focus of this group is the Columbus POE and attracting industry to the Village of Columbus.

POE Bypass

EDD needs to provide oversight to the commercial bypass project in order for the POE to remain attractive for commercial traffic. Advancing the bypass project has challenges:

1. The bypass cannot carry two-way commercial traffic to and from Palomas until INDAABIN (Instituto de Administración y Avalúos de Bienes Nacionales – Mexico's Institute for the Administration and Assessment of National Real Estate) and Mexican Customs shift their commercial crossing from Highway 11 to new border crossings just south and east of the Columbus POE. Mexico agreed to shift to the new crossing points several years ago but has not done so. Chihuahua provided the necessary land to INDAABIN several years ago.
2. The planned expansion/replacement of the Columbus POE stalled several years ago when the last serious Obama Administration budget did not pass. There was nearly $60 million in this budget proposal for the Columbus POE. Senator Martin Heinrich has proposed including $50 million in the Senate's pending immigration bill for the project, but it remains to be seen if the bill passes and if the appropriation survives.
3. The proposed new Columbus POE is dependent upon Mexico moving its commercial crossing point, so its funding would add pressure on Mexico to shift the crossing points. Nevertheless, the existing Columbus POE would be much more efficient if the Mexicans would proceed with the shift. If this occurs the bypass project would become feasible.

The Columbus POE also has an overweight cargo zone -



Opportunities with Mexico

The Columbus-Deming Corridor's opportunity with Mexico directly relates to the POE, both from commercial and industrial standpoints. From a commercial standpoint, the Village of Columbus, Luna County and EDD must determine how best to take

advantage of the thousands of private vehicles and passengers that utilize the port on a monthly basis. A Family Dollar Store has been established just north of the POE and all indications are that it has been a successful venture. More commercial opportunities that generate increased gross receipts for the Village of Columbus and Luna County need to be developed.

Goal: Develop the Columbus-Deming POE and regional industrial buildings and parks to maximize the Corridor's potential

Objectives:

- **Complete infrastructure and upgrade available buildings at the Columbus Industrial Park as a destination for new business**
- **The planned Peru Mill Industrial Park in Deming would provide access to both BNSF and UP rail lines, as well as Interstate 10, and Deming is less than 60 miles to the Columbus POE. Complete the Park and a marketing plan to attract logistics and distribution companies and create new jobs in Luna County.**

Strategies: Assist the Luna County Border Committee, Deming-Luna County Economic Development, Village of Columbus, and the State of Chihuahua to resolve infrastructure issues related to the development of the POE and industrial parks

Develop a marketing plan to attract industry tied to Mexico focusing on the POE and the six-mile overweight cargo zone that has been established north of the POE

Antelope Wells-Lordsburg Corridor

A key part of the Antelope Wells-Lordsburg Corridor's efforts to develop cross-border economic development lies in the viability and potential of the Antelope Wells/El Berrendo Port of Entry (AWELB). As the smallest of New Mexico's three ports of entry with Mexico, AWELB accounts for very little traffic between New Mexico and Chihuahua when compared to other ports of entry in the region. Apart from regular port users, many people within New Mexico and Chihuahua have no knowledge of AWELB's existence.

Given the time, effort and process required to establish a new port of entry on the U.S.-Mexico border, AWELB holds a major potential advantage for the region – it is an existing port that is currently functioning and receiving federal support from both nations. AWELB will play a role in almost any strategy that Hidalgo County embarks upon with northwestern Chihuahua. Therefore, the port itself must be analyzed carefully and issues surrounding its functionality must be identified.

Customs and Border Protection (CBP) has averaged three agents at Antelope Wells during the work week. One agent lives on-site, while the other two agents are sent to Antelope Wells from other ports of entry such as Columbus. On the weekends, sometimes a third agent is sent to assist at the port. As of late, the Mexican federal government has averaged two Mexican Customs officials at AWELB. The El Berrendo side of the border has no immigration officials stationed at the federal facilities. Therefore, no

visas or car permits to enter Mexico can be issued at AWELB. Currently, AWELB is open from 8:00 a.m. to 4:00 p.m. seven days per week.

Commercial/Industrial Overview:

Except for the cattle companies and personnel who stopped using this port of entry when the cattle yards were closed, the main users and demographics served by AWELB have changed very little during its time in existence. AWELB continues to primarily receive traffic generated by Mexicans based in northwestern Chihuahua traveling to the U.S. for shopping purposes, visits to family members (most of whom live in the western part of the U.S.), and vacations. Americans utilizing AWELB are primarily utilizing the port of entry to cross into Mexico for the same reasons.

Opportunities with Mexico

In a 2007 study published by the New Mexico Border Authority, titled Hidalgo County Border Development Master Plan, the major findings were as follows:

Strong support exists within the public and private sectors of the 10 northwestern Chihuahua municipios to develop cross-border economic development opportunities with southwestern New Mexico and to support improvements at AWELB. However, any cross-border activities are severely limited if the El Berrendo Road, which runs from AWELB to Mexican Highway 2, is not improved. Improvements on this 6.72-mile dirt road could range from grading and/or chip and seal treatment, if opting for a less expensive approach, to fully paving this road.

There is a great lack of awareness in northwestern Chihuahua of AWELB and very little cross-border trade is currently being conducted between northwestern Chihuahua and southern New Mexico.

The underdeveloped and underutilized AWELB has the effect of widening the distance between the adjoining regions of southwestern New Mexico and northwestern Chihuahua.

Interest does exist on behalf of a few northwestern Chihuahua cattle ranchers to again start using AWELB for their cattle crossings if it is reestablished as a commercial port of entry and improvements are made. However, the volume of potential cattle crossings appears to be small. At present, no interest on behalf of the federal governments of either country, exists to convert AWELB to a commercial crossing.

Utilizing primary information in the form of a survey administered to 300 people located in northwest Chihuahua by different subsectors, and interviews with southwestern New Mexico stakeholders, potential traffic was identified in the following areas if AWELB port of entry were improved:

Farmers/ranchers, businesspeople and public officials from northwestern Chihuahua who cross into the U.S. for shopping, family visits, and vacation purposes, but use other ports of entry due to the condition of AWELB.

Southwestern New Mexico-based businesses that are importing production inputs from Mexico:

- Northwestern Chihuahua-based value-added producers/manufacturers, food processors and maquiladoras that are shipping their products to the U.S., but using either the Agua Prieta/Douglas or Columbus/Palomas Ports of Entry
- Shuttles and out-of-region traffic such as recreational vehicles

Infrastructure Needs

The ability of the Antelope Wells-Lordsburg Corridor to successfully take advantage of any of the identified opportunities is heavily dependent on improvements being made at AWELB. However, AWELB could be described as a "catch-22" situation: It is difficult to justify on behalf of the federal governments of both Mexico and the U.S. the expenditure of additional budgetary resources until this port begins receiving more than an average of 100 vehicles per day. However, it is difficult for the port to increase its traffic counts to justify more resources until investments are made at this port of entry. Therefore, it is critical that AWELB's stakeholders adopt strategies that will result in increased traffic counts at this port of entry within the context of its situation at hand.

The most important of these strategies involves improving the 11.2-kilometer El Berrendo Road south of this port of entry. While it is theoretically possible that increased traffic and revenues coming into Hidalgo County can be increased via AWELB through focused promotional efforts related to the identified opportunities, it is highly unlikely. Improving the El Berrendo Road, along with other improvements at AWELB, such as increased signage, are paramount to the success of any effort with neighbors in northwestern Chihuahua.

Goal: Increase commercial/pedestrian traffic and attract businesses fitting the goals and assets of the region

Objectives:

- **Attract eco-tourists to the region by working with the Tourism Department to promote AWELB to tourists interested in eco-tourism**
- **Develop retail (destination) economic development to capture gross receipts from shoppers from northwestern Chihuahua coming to Hidalgo, Luna and Grant Counties via AWELB**
- **Attract maquiladora suppliers to build on the maquiladora industrial base already existing in northwestern Chihuahua**

Strategies: Continue the evaluation of the AWELB port's viability in becoming a potential for commercial and pedestrian traffic

Aggressively market the newly refurbished AWELB port of entry to northbound travelers in northwestern Chihuahua

Borderplex Metrics – Five Years
Recruit 40 new companies to the Borderplex region (Dona Ana and Luna Counties)
Create 1,500 new jobs in the Borderplex
Increase exports from New Mexico to Mexico by 50 percent

BUSINESS RESOURCE CENTER: ONE-STOP-SHOP

By definition, a startup company does not have the facilities, staff or other specialized personnel that an established business has. "For every hour a small company spends on obtaining permits, locating appropriate facilities, obtaining required licensing, and doing paperwork, time is lost that could be spent developing new products and transferring innovation into the marketplace."[22] Community leaders and economic development professionals in non-metro areas generally have limited resources and time to provide an adequate level of mentoring to a startup or even research the products and services the new business needs. One-stop-shops are designed to speed companies through this process.

Virginia has a Business One Stop website that is intuitive and comprehensive:

Goal: Develop an easily-accessible and intuitive online road map (one-stop-shop) for new small businesses to find the resources they need and mentor the businesses through the process of achieving sustainability.

Objectives:

- **Develop an on-line one-stop-shop on EDD's Business Resource Center website to guide small businesses and entrepreneurs to the resources they need**
- **Create an online intake form for businesses to request the services they need**
- **Utilize EDD's technology collaborative and business incubators to identify appropriate organizations to mentor the small businesses and entrepreneurs**

[22] Urban Land Institute, "Building on Innovation" (See Footnote 1)

- **Provide financial support to business incubators, technology commercialization offices and other organizations that assist small businesses and entrepreneurs to ensure their sustainability**

Strategies: Organization a group of partners that assist businesses, including business incubators, financial assistance programs, Small Business Development Centers and local economic development organizations to inform the organization and content of the website.

Dedicate an FTE with the Economic Development Division to keep the website updated and to respond to intake forms and inquiries.

Organization quarterly meetings or conference calls to update and improve the website with collaborating organizations.

Business Resource Center Metric for Five Years
Assist 600 businesses through the Center's one-stop-shop and mentorship program, documenting the progress of each business

CENTER OF EXECELLENCE IN WATER RESEARCH

The availability of water is a global concern and certainly an issue in the southern U.S. and New Mexico. The southern U.S. is in the 100th year of a 300 year arid cycle according to data presented by Sandia National Laboratories scientists. A 10 percent reduction in precipitation is equal to a 20 percent reduction in runoff in the Southwest. Add other mitigating factors and it is predicted that there will be a 50 percent reduction in river flows over the next 50 years.

There are numerous known and proven strategies to improve this situation including better management of the forest ecosystem. Forest thinning could generate as much as 100 tons per acre of biomass and reduce the loss of water through snow evaporation. Other opportunities exist in developing non-traditional water resources. New Mexico is fortunate in that it has huge non-traditional resources such as significant saline aquifers and oil and gas produced water. And the cost of developing these resources has been coming down over the last decade.

A statewide solution to the current drought, the prolonged arid cycle and to a sustainable water future will involve new conservation ideas, the application of promising research and technology, strategic investments in capital infrastructure projects and funding for an innovation center to coordinate the state's efforts.

Because of the state's large geography and variable terrain, there are remote and underdeveloped areas that lack running water from these resources. Failed wells and uneven adjudication of water rights contribute to challenges the state faces in securing its water future.

Goal: Establish a Center of Water Excellence at New Mexico State University

Objectives:

- **Develop a template for a sustainable and renewable water future for the state based on the best models from around the nation and internationally**
- **Make water research and innovation a center piece in the State Technology Plan**

Strategies: Work with the research community and the Legislature to create a process and funding for recruiting water researchers with proven water technology commercialization.

Work with advocates to develop the STEM/water curriculum or experiential training.

Convene a forum to examine the best and most immediate water innovation ideas to develop the pipeline for the X Prize for water innovation and seek financing to fund the X Prize.

Ensure water experts are involved in the development of the State Technology Plan.

Center of Excellence in Water Research Metrics for Five Years*
Fund and build a Center of Excellence in Water Research at New Mexico State University
Recruit ten top researchers in the field of water research to the Center
Collaborate with the private sector by establishing a technology transfer process for IP and technologies developed at the Center
*Contingent upon funding – capital outlay for the Center and funding to support its programs

WORKFORCE DEVELOPMENT

A knowledge economy is driven by educated people. New Mexico has a high percentage of PhDs in science and engineering combined with low educational attainment. The national labs and other research institutions are primarily responsible for the presence of scientists and engineers here. Below-average educational attainment numbers can be attributed to a number of factors, including poverty (children leaving school to support families in need), loss of New Mexico graduates to states with more career opportunities, and a lack of knowledge jobs for students determined to remain here. These students may not see an incentive to continue their education. EDD can address these issues by recruiting knowledge jobs to the state, creating the infrastructure and climate to grow knowledge jobs, and working to align education and workforce development initiatives with economic development goals.

EDD's direct role in workforce development is limited to the Job Training Incentive Program (JTIP). Despite that limitation a skilled workforce is a critical component of successful economic development on every level for every industry sector. Workforce development is continually identified by communities throughout the state as an impediment to business growth and prosperity. Governor Martinez acknowledged education and workforce preparation issues with the creation of the Employability Partnership by Executive Order in 2012.

Job Training Incentive Program (JTIP)

Beginning in FY15, incorporate $1.5 million annually into EDD's budget as recurring funding and $1.5 million as non-recurring funding resulting in permanent funding of $4.5 million in FY16 and beyond.

Created as an incentive for manufacturing companies to hire new workers, JTIP has evolved with the global economy over the four decades since its inception in 1972. In addition to the manufacturing sector, JTIP now funds training for nonretail service providers that export more than 50 percent of their services out of state and certain green energy sectors. At the 2013 policy retreat the JTIP board added two new components: the WorkKeys™ incentive and the internship program. The WorkKeys™ incentive provides a company with an additional five percent reimbursement if the company chooses to utilize WorkKeys™. WorkKeys™ is a federally-funded program that has been underutilized in New Mexico even though a strong need for this type of job preparation has been recognized. The internship component of JTIP is intended to encourage New Mexico companies to hire New Mexico graduates.

Goal: Develop an "evergreen" fund for JTIP within EDD's budget and increase JTIP participation statewide by 30 percent over the next five years.

Objective:

- **Use technology, training and marketing to increase participation in JTIP**

Strategies: Build an intuitive electronic application on EDD's website to eliminate paperwork and simplify the process.

Provide annual JTIP training to communities and businesses statewide.

Build a stronger statewide marketing program through print and electronic media.

JTIP has historically been funded by a special appropriation separate and apart from the Economic Development Department's annual budget. This necessitated separate legislation and created uncertainty regarding the program's funding.

Collaboration with the Department of Workforce Solutions (DWS)

Workforce development is one of the primary missions of the Department of Workforce Solutions. In that capacity DWS administers many workforce training programs and workforce preparation initiatives such as WorkKeys. In addition, each regional Workforce Investment Board has funding to develop workforce programs that meet the unique needs of the region it serves. EDD has signed an agreement with DWS to collaborate when a business that does not qualify for JTIP needs workforce assistance. EDD staff works with designated DWS staff to find a program to meet the specific goals of the business.

Goal: All New Mexico businesses are aware of state and federal workforce training initiatives and receive the assistance each needs to succeed with skilled employees

Objectives:

- **Provide annual training with DWS on statewide workforce programs, finding the programs and accessing the training**

Strategies: Reach out to private sector employers, local governments and economic development organizations across the state and provide them with an understanding of the services available to them through the public workforce system and identify gaps where they exist.

Employability Partnership

The Employability Partnership of New Mexico was formed via an Executive Order issued in the summer of 2012 by Govenor Martinez. The order was in response to the lack of return on investment from tax dollars used to train and educate Nex Mexico's workforce, employers' dissatification with the quality and availability of skilled workers, and the desire to improve overall job growth in New Mexico.

The composition of the Employability Partnership Board (EPB) was modeled after the Bridge of Southern New Mexico (a business initated and driven organization). Not only has the early college high school (ECHS) model demonstrated a reduction in dropouts, but its students are projected to enter the market about 2.75 years earlier and be more career-ready at a lower cost per student. Students in the pilot

model (Arrowhead ECHS) complete both an associate's degree as well as their high school diplomas in high school. Thirty percent of the Arrowhead students will graduate with their associate's degree in a STEM related program in December of 2013 before receiving their high school diplomas in May of 2014.

In a similar fashion, via the Executive Order, the Governor defined New Mexico's Workforce Delivery System to include the administrative functions of the Department of Workforce Solutions, the Higher Education Department, the Public Education Department, the Human Services Department, and the Economic Development Department. As such, the Governor appointed the Cabinet Secretaries of these agencies along with state business leaders, and educators to form the EPB. The mission of the board is to maximize the return of the state's education and workforce development investment by directing them in a measurable manner to create an internationally competive workforce for the 21st Century.

Goal: Evaluate the current workforce delivery system to increase its overall effectiveness; and identify policy impediments and policy development that supports increased employability throughout the state

Objective:

- **Conduct a biennial assessment of over 1,500 businesses in New Mexico from major industry sectors to provide an analysis of the key employment needs and issues as well as project future needs**

Strategies: Develop a statewide comprehensive workforce survey which will be used to establish benchmarks for evaluation, results-oriented investments, and policy recommendations.

Launch a feasibility study to determine the most beneficial model for the two year, four year, and research institutions to operate and be funded, while eliminating duplication in programs within regions.

Goal: Expand programs with a high return on investment including additional early college high schools (ECHS)

Objectives:

- **Double the ECHS footprint in the state**
- **Assist other similar programs to be incubated in New Mexico**
- **Expand opportunities to engage other transformative educational platforms such as Mission: Graduate**

Strategies: Seek continued funding to support the mission and goals.

Expand business level engagement.

Monitor incubation of each new school to ensure positive outcomes for students and communities.

Goal: Develop a comprehensive strategic plan that is metric and demand driven

Objectives:

- **Engage major stakeholders across all areas of the state to ensure broad support in the development of a comprehensive strategic plan**
- **Regionalize and formalize business partnerships**

Strategies: Identify existing business organizations for partnership and improve diversity engagement.

Use the Partnership's departmental public information offices' expertise to develop a robust strategic plan that will effectively inform, engage, and empower employers throughout New Mexico to increase expectations.

Hold the delivery system highly accountable to producing highly employable individuals.

Goal: Be the first in the country to establish a fully-integrated data warehouse: the New *Mexico Workforce Delivery System (NMWFDS)* by aligning Workforce Solutions, Public Education, Higher Education, Human Service, and Economic Development such that they function as a single virtual agency with respect to the state's workforce development

Objectives:

- **Create a centralized data management/tracking system that drives New Mexico's current and future workforce funding, resource allocation, programs, and metrics**
- **Create a statewide Career Pathway-Career Readiness System (CPCRS) that ensures state funding, educational institutions, and workforce related programs are aligned and measured by the direct linkage to the CPCRS**

Strategies: Move business engagement from a sporadic, non-systemized advisory capacity to engaged owners of New Mexico's challenges and the New Mexico Department of Workforce Solutions.

Align the educational K-20 system such that it functions as an integrated system strongly linked to economic development with shared accountability for the delivery of employability outcomes.

Workforce Development Metric for Five Years
Provide training for 4,000 New Mexicans via the Job Training Incentive Program

RECRUIT NEW INDUSTRY TO THE STATE: NEW MEXICO PARTNERSHIP

Created in statute in 2003, the New Mexico Economic Development Corporation, or Partnership, was established as a public-private partnership with the purpose of having the flexibility to market the state and entertain company executives and site selectors with potential business relocation projects. The Partnership functions as a contractor to the Economic Development Department. The contract is negotiated annually with performance measures and targets approved by both the Executive and Legislative Finance Committee. Employees of the Partnership are not state employees, allowing for salaries commensurate with a high level of experience and expertise in economic development sales and marketing. The mission of the Partnership is to recruit new industry to the state and support competitive business expansions.

Goal: Effectively implement marketing and business development initiatives to convey New Mexico's competitive advantages in order to attract/expand economic base employers. Progressively increase performance measures and initiatives in order to attain the best per capita business attraction results of any competitor state.

Objectives:

- **Effectively measure the success and cost effectiveness of the various marketing activities**
- **Expand private sector involvement and support**
- **Increase the number of potential recruitment opportunities (PROs) targeting diverse industry sectors suitable to each region of the state, increasing the number of site visits, and deals closed**

Strategies: Continue to seek additional resources to market New Mexico globally and support funding for a competitive project closing fund.

Be increasingly specific in targeting opportunity sectors and assets, such as the border, and emphasize those marketing elements which have proven most cost effective including customized research to better substantiate New Mexico's competitiveness as a destination for new business.

Emphasize face-to-face meetings with key business executives and site consultants.

Closely collaborate with the Economic Development Department, regional and community economic developers and other stakeholders, including increasing local economic developer participation in marketing events.

Recruit New Business Metrics for Five Years
Create 8,500 new jobs through business relocations and competitive expansions
Bring 50 new companies to New Mexico

FILM AND EMERGING MEDIA

The New Mexico Film Office (NMFO) serves the film, television and digital media industry locally, nationally and internationally. Our purpose is to market the state to this global industry, service the productions and promote jobs for New Mexicans. We offer many resources to producers, film crew and local filmmakers. We work diligently to assist in coordinating film location resources and scouts. The film division assists productions with the financial aspects of their projects, guiding them through our established incentive programs.

Production Recruitment & Assistance

Although New Mexico has a long history of filmmaking with the diverse array of landscapes and unique lighting, over 200 major film and television projects have shot in New Mexico over the last ten years due to the implementation of production tax incentives.

Goal: Strengthen film, television and media industry statewide, increasing positive economic impact to the state

Objectives:

- **Attract 15 percent more production companies and other types of projects to the state**
- **Expand production support and infrastructure available in New Mexico to allow for up to 20 percent of projects to be entirely completed in-state**

Strategies: Educate studios, major independent production companies and local filmmakers on current industry resources including the Film Production Refundable Tax Credit program and training incentive.

Meet with local crew, vendors and filmmakers to assess areas for growth.

Target training needs and educational opportunities for residents.

Identify key national and international industry events and panels in which to participate for state promotion and business recruitment.

Create a marketing strategy and budget and secure funds to support.

Increase tracking and analysis of productions' economic impact.

Legislatively streamline efficiency of credit per the intention of the current law.

Increase administrative support for staff.

Emerging Media

The film and media industries are evolving rapidly with advancements in digital technologies which affect multiple industries. This includes but is not limited to mobile applications, post production

services, data wrangling and rendering. The Emerging Media Initiative is an opportunity for New Mexico to be a leader in these technologies through identifying trends in entertainment, education and telehealth.

Goal: Increase the state's visibility in digital technologies that affect the entertainment, educational and medical industries.

Objective:

- **Attract and recruit five (5) new, key businesses and assist in the expanding of current businesses that produce digital content and utilize related technology**

Strategies: Meet with digital technicians, companies and related vendors to develop an emerging media market for New Mexico.

Request funds for an FTE to develop and expand initiative.

Evaluate services available in New Mexico that support companies while in production.

Review incentive as it applies to digitally-generated projects and services.

Film Tourism

With an established film history in New Mexico, film tourism offers another tool to navigate through and experience the diversity of our state, while creating economic benefits.

Goal: Develop and expand upon film tourism benefits to the state

Objective:

- **Strengthen collaboration with the New Mexico Tourism Department in order to educate communities on related economic opportunities of promoting in-state film tourism, and enlist at least (5) local chambers of commerce to develop a standardized film tourism initiative**

Strategies: Consult with the Tourism Department and educate the public regarding the history of films produced in New Mexico and films that incorporate New Mexico in the storyline with little to no cost to the state.

Collaborate with vendors that offer services that relate to an industry themed "True Adventure."

Work with productions while on the ground to develop tourism prior to project's theatrical release or network airing.

Create certification program or equivalent for chambers of commerce with a film tourism initiative.

Promote filming and tourism in New Mexico simultaneously at industry marketing events.

Assist and consult as requested to determine the economic impact of film on tourism and on film tourism for local businesses.

Outreach Initiatives
Facilitating events and creating networks not only promote job opportunities for residents considering film and media careers, but it creates an avenue for local filmmakers to hone their creative talents.

Goal: Support and promote residents pursuing primarily creative film and media careers and strengthen New Mexico's local talent base

Objective:

- **Strengthen the facilitation of outreach to resident filmmakers and educators in order to assist and identify seven (7) rural communities with established film and media activities and accomplishments; and increase conference and event attendance by 25 percent**

Strategies: Identify and promote resources available to local filmmakers and educators.

Strengthen and diversify our role as liaison between the public, communities and educational institutions for the purposes of local industry outreach.

Expand resources, including funds and sponsors, to support New Mexico filmmakers through filmmaking competitions, showcases, conferences, networking opportunities and other events that attract and encourage film and digital media students to create New Mexico-based media.

Consult with the Governor's Council on Film & Media Industries to disseminate resources available through New Mexico educational programs creating and strengthening networks and alliances.

Collaborate with local colleges, high schools and charter schools to conduct guest speaking events.

Maintain and expand annual events such as the annual Film & Media Educational Summit and the NM Industry Conference.

Broaden audience for social media and monthly newsletter.

Promote and maintain NMFO Resource Center.

Statewide Film Liaison Network

A designated community film liaison assists the film division with its mission and creates a great resource for a community and interested production companies alike. Acting as the conduit between the company and the community, liaisons pre-empt issues. Training provided by the film division provides the means to become a film–friendly community while protecting local residents and to disseminate information about industry-related events and opportunities.

Goal: Strengthen and expand the statewide network of film liaisons representing New Mexico communities

Objective:

- **Prepare government, tribal entities, residents and businesses for production inquiries and industry activities by increasing network to twenty-five (25) chambers of commerce (or related government entities) and five (5) tribal entities**

Strategies: Increase the number of state film liaisons in rural areas of New Mexico by outreach to chambers and local governmental and tribal entities.

Provide more training and resources for all liaisons such as additional location photographs workshops, outreach to local vendors, and meetings with film program educators.

Create efficient mechanism to share information about local and regional film and media resources, festivals and accomplishments.

Workforce Development

Since 2004, JTIP for Film & Multimedia consists of six subprograms designed to increase high-wage job opportunities, to diversify skill sets and, ultimately to increase one's employability. Programs focus on advanced crew training, continual education for seasoned professionals, exposure to the creative aspects of physical production, internships with digital media companies, and transitioning New Mexico veterans into a new industry.

Goal: Increase qualified industry workforce to support physical productions and emerging media companies through the Job Training Incentive Programs for Film & Multimedia

Objectives:

- **Develop, promote and market programs to increase participation by residents by fifteen percent (15%)**

Strategies: Evaluate and target administrative resources for all programs, three (3) current and three (3) pilot programs, to assist in programs' effectiveness and efficiency.

Identify areas of needed skill sets and determine whether internships, continued educational workshops or on-the-job training best applies.

Collaborate with Local Outreach Manager to determine overlaps in training.

Work with educational programs and film organizations for film and media students and seasoned professionals to take advantage of program resources and to avoid duplication of similar training.

Evaluate data as collected by contracted JTIP Administrator.

Collaborate and liaison with agencies, such as Veteran Affairs and Bureau of Indian Affairs, to promote programs and increase awareness.

Conduct site visits to industry companies expanding into New Mexico to assist in determining training opportunities for residents.

Film Office Five Year Metrics
Recruit 75 major film and media projects to New Mexico
Generate $1.1 billion in direct spending by production companies statewide

APPENDIX A: Innovation → Enterprise → Economic Development

Oklahoma Center for the Advancement of Science and Technology (OCAST)

The **Oklahoma Center for the Advancement of Science and Technology (OCAST)** was established in 1987 as the state's agency for technology-based economic development. OCAST's statutory mandate: "expand and diversify Oklahoma's economy and provide new and higher quality jobs for Oklahomans by encouraging the development of new products, new processes and whole new industries." OCAST offers a broad array of programs addressing different technologies and steps to successful technology commercialization. OCAST clients can return to any program as often as necessary for assistance.

Oklahoma Health Research (HR) competitively awards basic research funding for one- to three-year research projects related to human health. Eligible applicants are universities, nonprofits and commercial enterprises and enable the recipient to gain expertise, produce data needed to obtain larger grants from other sources, and to obtain patents which can lead to new businesses.

Oklahoma Plant Science Research competitively awards funds for basic, proof of concept and applied research related to plant science based on technical merit, commitment of resources, and in the case of applied research, the potential for market success. The awards require a minimum of one dollar matching support for each dollar awarded.

The **Oklahoma Technology Commercialization Center** provides technical assistance to entrepreneurs, early-stage companies and firms seeking to commercialize new technologies. The program focuses on assessing needs, guiding clients through the commercialization process and linking them to a comprehensive network of technology sources, including universities, and commercialization services. The program also assists in identifying funding.

The **Intern Partnerships** program provides support for qualified research and development partnership projects that involve Oklahoma industry and institutions of higher education. It increases the pool of scientists, engineers, faculty and business entrepreneurs who can contribute to economic development in the State. Projects funded under this program must meet five requirements: (1) an Oklahoma institution of higher education or a business must be the fiscal agent; (2) OCAST funds must be equally matched from non-state appropriated funds; (3) the research must be performed in an applied research laboratory located at a firm, a nonprofit research institute or an institution of higher education; (4) the mentor must be from industry or be an academic with a documented success record of applied research; and (5) an Oklahoma business must benefit.

Oklahoma Applied Research Support (OARS) competitively awards funds for one- to three- year projects from any technology area based upon technical merit, potential for market success and commitment of resources. Funding for both proof-of-concept and accelerated projects is available through OARS. The program requires a minimum of one dollar matching support for each state dollar awarded. Eligible applicants are Oklahoma businesses and universities, or nonprofit research organizations that have industrial partners. OARS gives preference to projects involving collaboration between research institutions and private industry.

The **Oklahoma SBIR Collaborative Resources (OSCR)** program supports applied research and facilitates technology transfer involving small private for-profit businesses by leveraging federal and private resources and promoting action, encouraging strategic partnerships between firms and research institutions and promoting commercialization of new technologies. Key elements of OSCR are the Small Business Innovation Research (SBIR) program and the Small Business Technology Transfer (STTR) programs.

OCAST contracts with Oklahoma State University to operate the **Inventors Assistance Service (IAS)** program, which assists the independent inventor in navigating the process from idea to marketplace. Located at Oklahoma State University, IAS provides workshops and individual training on the patent process and intellectual property protection. IAS has a strong working relationship with the regional U.S. Patent Library.

Assistance provided by IAS includes: A unique inventor's checklist that guides individuals through the maze of activities required to take their product to the marketplace; specialized seminars and workshops, including sessions on how to use the Internet to search patent material; how to write a provisional application for patent; how to research an invention's industry; how to research and understand marketing data; and information about the Oklahoma tax credits or exemptions for inventors.

Under the **IAS Selected Inventors** program, inventors are invited to submit documentation about their invention and its stage of development to a panel of fellow inventors, university experts, business people and others involved in working with entrepreneurs. Selected inventions are given specific assistance, such as help developing prototypes, creating packaging, preparing market analysis, doing materials testing and other related activities – often using the resources of the university, graduate students and Oklahoma Department of Career and Technology Education programs.

The **Technology Business Finance Program** is designed to promote promising innovation and to support efforts to commercialize in Oklahoma by providing early stage financing to start-up companies, well established firms and manufacturers. The program requires a match and includes payback provisions.

The **Seed Capital** program has been crafted to be an economic development tool with a goal of making investment in early stage companies engaged in the commercialization of promising new technologies in Oklahoma. Growing innovative Oklahoma companies that attract other investment as they successfully commercialize their products and services is the ultimate goal. The state takes an equity or debt position with firms it invests in. Required co-investment with the private sector leverages the agency's investment.

The **Oklahoma Nanotechnology Applications Project** assists qualified Oklahoma companies with the application of nanotechnology through research, development and manufacturing and helps them improve current or create new cutting-edge products or processes. The funds encourage nanotechnology collaboration between industry, institutions of higher education and nonprofit research institutions.

OCAST includes a partnership with **Oklahoma Manufacturing Alliance**, comparable to New Mexico's Manufacturing Extension Partnership. Source: http://www.ok.gov/ocast/

Missouri Technology Corporation (MTC)

The Missouri Technology Corporation, a nonprofit governed by a 15-member board, offers research support, commercialization programs and operates the Missouri Innovation Center Network. The Network includes ten Innovation Centers located throughout the state on university campuses. The Centers were created to "provide assistance to individuals and business organizations during the early stages of the development of new technology-based business ventures." The Innovation Centers work closely with their associated universities and target high-growth advanced technology companies. The Centers provide specialized facilities, access to capital, technical and business experts, resources and specialized service providers to these companies:

- Stimulating technology entrepreneurship
- Opportunity assessment (the technology, the market and the management team)
- Planning, financing and accomplishing research and development
- Developing the business plan and securing startup funding and growth capital
- Incubating the ventures that result (mentoring and physically accommodating startup firms)

Research support for the MTC is provided through the Research Alliance of Missouri, research centers located throughout the state, and the Missouri Life Sciences Research Board. The **Research Alliance of Missouri (RAM)** consists of chief research officers of major universities across the state. In order to define critical issues related to the evolution of a knowledge-based economy for Missouri, RAM identified resources at its disposal to:

- Provide basic and advanced education and training for the workforce needs of Missouri businesses;
- Produce new knowledge through research;
- Facilitate technology transfer from newly created knowledge into commercialized products in order to improve the standard of living of Missourians; and
- Enhance federal funding through collaborative agreements

RAM currently consists of 12 universities, whose chief research officers and technology transfer officers serve as representatives to RAM. The Missouri Technology Corporation, the Missouri Department of Economic Development, and the Department of Higher Education participate as ex-officio non-voting members of the Research Alliance. Participation in RAM will expand to include other universities and non-profit organizations with a demonstrated capability to enhance the economic development of Missouri through research and development. Among criteria for selection of future RAM participants is an annual expenditure of at least $10 million for research and development.

RAM receives funding from the state, through the Missouri Department of Economic Development, to support its efforts. Additional funding is obtained from grants, contracts, and fees for projects initiated,

facilitated and/or supported by the Alliance. The Missouri Technology Corporation is the formal recipient of such funds, but RAM directs the application of such funds acquired through its efforts.

The Research Centers are affiliated with organizations, such as the Missouri Research Institute, or universities. Examples include the Center for Applied Science and Engineering, the Ozarks Environmental and Water Resources Institute, the Center for Bone and Tissue Repair and Regeneration and the Center for Arts and Humanities. There are more than 50 Centers throughout the state.

The MTC funds several commercialization programs that support the growth of innovative businesses. The **Missouri IDEA (Innovation, Development, and Entrepreneurship Advancement) Fund** promotes the formation and growth of businesses that engage in the transfer of science and technology into job creation. Programs include:

- Missouri TechLaunch
- Seed Capital Co-Investment Program
- Venture Capital Co-Investment Program
- High-Tech Industrial Expansion Program

The **Missouri Technology Incentive Program** provides $5,000 grants to support entrepreneurs who are pursuing federal SBIR/SBTT grant funding. Source: http://www.missouritechnology.com/

Utah Science Technology and Research (USTAR)

USTAR is a state-funded collaborative entity with a mission to strengthen the state's "knowledge economy." USTAR investments include facilities, support to recruit talent for research teams, programs for entrepreneurs, and financial assistance through grants or angel investments.

USTAR is headquartered in Salt Lake City in the World Trade Center. It is co-located with its partner organizations: the Governor's Office of Economic Development, World Trade of Utah, and the Office of Energy Development.

Regional Outreach
USTAR's Technology Outreach and Innovation Program (TOIP) is designed as a resource to:

- Collaborate with universities to commercialize innovations
- Assist Utah entrepreneurs, businesses and innovators across the state through technology outreach centers at regional higher education institutions
- Connect private investors to promising opportunities
- Maximize economic impact of new technologies created in Utah

The Technology Outreach and Innovation Program provides help to companies by offering services in:

- Business consulting
- Business plan development
- Market / Opportunity analysis
- Industry and university networking

- Product development, testing and patent research
- Presentations and connections to investor groups

A number of these services are free to Utah companies that qualify.

There are four regional centers under TOIP:

- USTAR North
- USTAR Central
- USTAR East
- USTAR South

Facilities

USTAR has invested in two interdisciplinary research and development facilities, one at the University of Utah and one at Utah State University. The facilities are used by the recruited "all-star" research teams working in the initiative's key innovation areas. The primary purpose of the buildings is to give the research teams state-of-the-art facilities to conduct their research. The secondary purpose is to foster the connection between industry, entrepreneurship and research.

The **BioInnovations Center** is a 118,000 square-foot building (shown at right), dedicated in October 2010. It houses highly advanced life-sciences laboratories and provides researchers the resources to seek cures for a range of human and animal diseases. USTAR teams including Applied Nutrition Research, Synthetic BioManufacturing and Veterinary Diagnostics and Infectious Diseases are occupants of the innovative structure. The facility includes:

- Bio Safety Level 3+ lab
- Vivarium
- Clinical nutrition center
- Life science labs

The USTAR **James L. Sorenson Molecular Biotechnology Building** is the centerpiece of a visionary plan to bridge the University of Utah main campus and health sciences with the goal to accelerate research at the interfaces of medicine, engineering, pharmacy, science, business, law and digital media.

Facilities include:

- State-of-the-art Nanofabrication facility
- 18,000-sf cleanroom
- 5,300 square-foot microscopy and materials characterization suite
- Open-plan lab space

The 208,000 square-foot multidisciplinary building is home to the **Brain Institute**, the **Nano Institute**, and the **Department of Bioengineering**.

The **Utah Nanofab** currently leverages $83 million in federal funding for active research projects and services 45 Utah companies.

Infrastructure and Partners

Utah EPSCoR

In 2009, Utah was designated a National Science Foundation EPSCoR Jurisdiction. The Experimental Program to Stimulate Competitive Research (EPSCoR) status enables Utah to compete for federal research funding opportunities not available to non-EPSCoR states. Similarly, Utah also qualifies as a U.S. Department of Energy (DOE) and NASA EPSCoR jurisdiction.

Currently, Utah has been awarded two NSF EPSCoR cyber-infrastructure grants with a third research infrastructure, $20 million proposal pending. Additionally, Utah has two EPSCoR awards from NASA. Each EPSCoR grant awarded has significant research, education and outreach components.

NSF Award

The National Science Foundation has awarded a group of Utah higher educational institutions and related organizations a five-year, $20 million competitive grant to help manage and protect one of the state's most valuable and scarce resources, water. The grant funds a statewide effort to assist in building the human and research infrastructure needed to sustainably manage Utah's waters. The award, which went into effect July 1, creates **iUTAH**, which stands for Innovative Urban Transitions and Aridregion Hydro-Sustainability.

iUTAH is an interdisciplinary effort among researchers from Utah State University, the University of Utah, Brigham Young University, and two dozen other Utah institutions of higher education, government agencies and industry and non-profit partners. EPSCoR partners in Alaska and Wyoming are also collaborating. The Utah office coordinated the multi-partner effort, with the support of USTAR and Suzanne Winters, who dedicated a year of her leadership and time to ensure the effort came through.

iUTAH will strategically invest in projects aimed at monitoring and improving state water usage, while informing Utah residents of sustainable practices, and educating future water scientists and managers. The program also will promote long-term collaboration among Utah institutions and provide interdisciplinary research opportunities to students and faculty from kindergarten through postgraduate school.

The 70,000-square-foot **Bingham Entrepreneurship and Energy Research Center** is a state-of-the-art, high-tech educational facility that will train students in business, entrepreneurship, accounting, engineering, water management, natural resources, environmental policy and other programs.

The building houses 11 classrooms equipped with interactive video capabilities necessary for the USU distance education program. This academic wing has space for student support services including registration, advising and academic administration. Additionally, the Bingham Entrepreneurship wing of the center hosts entrepreneurs who wish to incubate their business endeavors in the entrepreneurial station.

In fall 2007, Utah entrepreneur and businessman Marc Bingham and his wife, Debbie, donated $15 million for the building. The university, recognizing the $15 million would go a long way, but not quite far enough, began raising matching contributions from a variety of sources. The Bingham Center became

a $23.4 million dollar project. Factoring in a $5 million land donation by local entrepreneur Bob Williams of 138 acres, roads and other infrastructure enhancements, the venture exceeds $40 million.

The **Technology Venture Development Accelerator** is a database of University of Utah faculty and graduate students who are research topic experts and potential research collaborators.

The **BioInnovations Gateway (BiG)** is an incubator for emerging biotech and medical device companies, a high-tech training facility for the next generation of bio-innovators, and a contract research resource for Utah's life science industry.

Located within the Granite Technical Institute (GTI) at 2500 South State Street, BiG supports up to seven resident companies, providing access to state-of-the-art biotech, and biomanufacturing, and engineering design and prototyping equipment. In a unique approach compared to incubators nationally, students work side-by-side resident company staff. In BiG, students from the GTI Biotechnology/Biomanufacturing programs may earn high school and college degree credit.

The retrofitted facility represents 25,000 square feet of space. Wet and dry labs, a clean room, offices, and meeting space are the main components.

The **SBIR-STTR Assistance Center (SSAC**), located at Salt Lake Community College – Miller Campus in Sandy, Utah is the State's Small Business source for information and assistance with SBIR and STTR grant location, preparation and submission.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) federal grant programs offer non-equity position, competitive grants for just this purpose. There may be $150,000 to $1,000,000 available to entrepreneurs to bring their technology to reality or the next generation.

Through the SBIR-STTR Assistance Center, qualified businesses can gain assistance with all elements of the SBIR-STTR process to including:

- Searching and matching your concept with agency solicitations
- Pre-registering with Grants.gov and agencies
- Editing and writing assistance
- Submission
- Training opportunities on how to find agency solicitation as well as tricks and nuances to winning SBIR-STTR proposals

The **Utah Valley University Business Resource Center** is the hub and a one-stop shop for helping entrepreneurs accelerate their access to money, markets, and mentors. The Center helps connect Utah's business owners and entrepreneurs with resources available in the public, private, and academic sectors. Its function is to minimize failure rate, maximize efficiency in service, accelerate business growth and retention, and measure results. The end goal is to increase revenues in the region and facilitate the creation of quality high-paying jobs to its citizens.

Commercialization Offices

As part of the initiative to increase innovation, entrepreneurship, and investment in Utah, USTAR has supported the operation of technology commercialization offices throughout the state. These offices help researchers protect and improve their research, connect entrepreneurs with new ideas, and help growing companies find seed capital:

- University of Utah TCO

- Utah State University Commercialization and Development Office
- Weber State University Research Foundation Office
- Utah Valley University Business Resource Center

Funding Resources

Go-To-Market Grants

GTM grants focus on helping Utah's high potential technology companies perform customer and product validation activities before initiating equity fundraising or sales efforts. GTM grants will typically be awarded in tranches, with a first tranche of $5,000 to $10,000 followed by a possible second tranche of $15,000 to $20,000 for companies that produce meaningful results with their first GTM award.

The GTM grant program is independently administered on a regional basis through USTAR's economic development teams at Dixie State College (DSC), Utah Valley University (UVU), and Weber State University (WSU). Those wishing to apply for a GTM grant must first apply for and complete a rigorous "Nail It Then Scale It" training program offered by USTAR's economic development teams at each of these three institutions of higher learning. After successful completion of the training program, companies will become eligible to apply for a GTM grant.

Regardless of where the company is located, any Utah-based company may apply for a GTM grant through DSC, UVU or WSU – provided the company and its technology being developed are a good match with USTAR's regional economic development goals and objectives as described here:

- DSC is focused on pre-revenue, high potential startups developing new high tech manufacturing, IT hardware, software and energy technologies. Existing businesses developing new technologies may also apply.
- UVU is focused on pre-revenue, high potential startups developing new high tech manufacturing, IT hardware, and software technologies.
- WSU is focused on job creation and new revenue creation within a 6 – 12 month time frame. Successful applicants will have an intact leadership team, a prototype, customer validation, sales and marketing channels, and will include Weber State resources in at least one of their milestones.

Angel Investing

USTAR works with five angel investment groups with varying regional and technological focuses.

Research Teams

USTAR has funded research teams at both universities. The research teams are led by faculty innovators who collaborate with industry to develop and commercialize new technologies. The characteristics of the chosen innovation areas:

- Are based on existing university strengths
- Have vast commercialization opportunities
- Address large and strategic global markets
- Leverage Utah industry strengths

Since the inception of USTAR is has attracted 50 leading researchers from MIT, Harvard, UCLA, Case Western, University of Arizona, Oak Ridge National Laboratory, and other institutions to work in the areas of biodevice/biopharma, energy, digital media, imaging technology, nanotechnology, medical

imaging and brain medicine. The facilities USTAR has invested in and built have played a key role in recruiting this talent.

USTAR Research Teams:

- Alternative and Renewable Energy (U of U)
- Arrhythmia Consortium (USU and U of U)
- Center for Human Nutrition Studies (USU)
- Biomedical Device Innovation (U of U)
- Circuits of the Brain (U of U)
- Diagnostic Neuroimaging (U of U)
- Digital Media (U of U)
- Fossil Energy – Carbon Engineering (U of U)
- Imaging Technology (U of U)
- Micro & Nano Systems Integration (U of U)
- Nanoscale & Biomedical Photonic Imaging (U of U)
- Nanotechnolgy Biosensors (U of U)
- Space Weather Center (USU)
- Advanced Weather Systems Foundation (USU)
- Synthetic Biomanufacturing Institute (USU)
- USTAR Advanced Transportation Institute (USU)
- Veterinary Diagnostics and Infectious Disease (USU)
- Wireless Nanosystems (U of U)

Source: http://www.innovationutah.com/

University of North Dakota Energy and Environmental Research Center (EERC)

The **Energy and Environmental Research Center (EERC)** "provides critical solutions to energy and environmental issues throughout the northern Great Plains. At its core, the EERC's culture involves research, development, demonstration, and commercialization or innovative technologies that have real-world applications."

The EERC includes **11 Centers of Excellence** which are supported by technology demonstration facilities, 12 laboratories and a mechanical design and modeling group with specialized in-house capabilities necessary for prototype development. The campus includes offices for faculty and staff,

access to expertise for capturing intellectual property and commercializing technology, and a foundation that supports both research and product development to market.

Centers of Excellence:

- Coal Utilization Technologies Center
- National Center for Hydrogen Technology
- Emission Control Technologies Center
- Center for Climate Change and Carbon Capture & Storage
- Center for Renewable Energy & Biomass Utilization
- Water Management Center
- National Alternative Fuels Center
- Center for Oil and Gas
- Great Plains Applied Energy Technology Center
- Center for Environmental Chemistry and Reclamation

The **Great Plains Applied Energy Technology Center** is developing and demonstrating a dynamic system to allow consumers to be able to use 100% of their electricity from renewable resources (Green Grid). The Center for Oil and Gas seeks new approaches for exploration, development and production of oil and gas. Experiments using CO2 to recover a higher percentage of oil from the Bakken reserve are a promising example of taking technology from the campus to the private sector. From a November 30th news release:

"If just 1 percent of additional oil can be recovered from the Bakken and the underlying Three Forks formation using CO2, that would equate to 1.7 billion barrels of oil, said John Harju, associate director for research for the EERC." Assuming an average oil price of $88 a barrel, that additional 1 percent translates to $150 billion. "The prize is big," Harju said. Estimates show that producers will be able to recover between 2 percent and 10 percent of oil from the Bakken formation using horizontal drilling and hydraulic fracturing. "In essence, somewhere between 90 and 98 percent of the oil in that reservoir is still there after we've gotten to the economic limit on one of these Bakken wells today," Harju said. "This is where the notion of carbon dioxide into the reservoir comes in."

Laboratories :

- Analytical Research
- Environmental Chemistry
- Environmental Microbiology
- Fuel Analysis
- Fuels and Materials Research
- High-Temperature Materials
- Infrared Thermograpy
- Mercury Research
- Natural Materials Analytical Research
- Particulate Research
- Process Chemistry and Development
- Water and Wastewater Treatability

As an example, the Fuels and Materials Research Laboratory works with project scientists and engineers at the EERC to analyze coal, determine the physical properties of coal ash and other ceramic materials, and test the utility of coal ash and other ceramic materials, and test the utility of coal ash as a valuable by-product of coal utilization.

The **Technology Commercialization** component of the EERC leverages research dollars by developing true working partnerships with government, the research community, and private sector clients from all over the globe. The majority of EERC contracts are funded by nonfederal entities. Two market forces (energy and environment) shape the business model, expertise, and technologies of the EERC. The energy industry is focused on the growing demand for more efficient and economical techniques for a variety of fuels; the environmental field is challenged with the growing demand for the cleanup and control of pollutants and other environmental hazards. Opportunities in the energy and environmental arenas are dynamic, and the EERC anticipates tremendous growth over the next 20 years. The aim is to secure sufficient energy; clean air and water; and fertile, productive soils for the future.

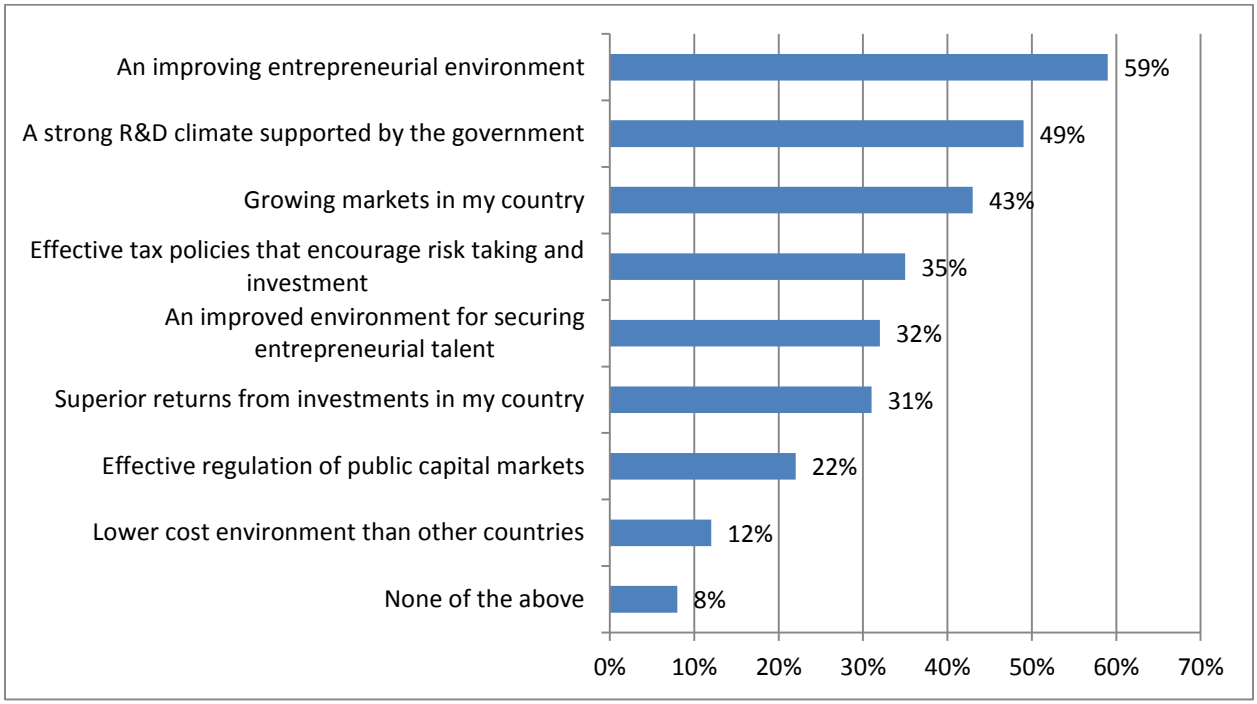
The key to the successful EERC business model is innovation based on partnerships and best business practices. The EERC enables its entrepreneurial partners to cost-effectively translate breakthrough inventions into marketable products. The success of these innovative products in the marketplace results in significant economic, environmental, and societal benefits worldwide.

Technology commercialization is facilitated through the Energy & Environmental Research Center (EERC) Foundation, an independent nonprofit corporation. The EERC Foundation was incorporated in 1992 under the laws of North Dakota as a 501 (c) 3. The EERC, through written agreement and long-standing culture and practice, relies on the EERC Foundation to act as its designated technology commercialization organization.

The EERC Foundation provides a dedicated infrastructure to support commercialization activities and houses the rights to technologies developed by the EERC. Through two decades of experience meeting a wide variety of unique client needs, the EERC Foundation has developed highly flexible and innovative approaches to a variety of business arrangements. These include tailored licensing and equity agreements that support the client's achieving a competitive edge.

Commercialization also secures work at the EERC through development contracts as well as by providing funding to assist in the development of commercially viable technology. The EERC Foundation investing cash in the EERC creates a virtuous cycle of economic growth. Equally important is the EERC Foundation's role in providing incentives for innovative work at the EERC. Under the State Board of Higher Education policy, inventors in a commercialized technology receive at least 30% of the net commercialization income.

APPENDIX B: Factors for Favorable Attraction of VC Investment Globally



The source of this data is the 2010 Global Venture Capital Survey, National Venture Capital Association, Deloitte Development LLC

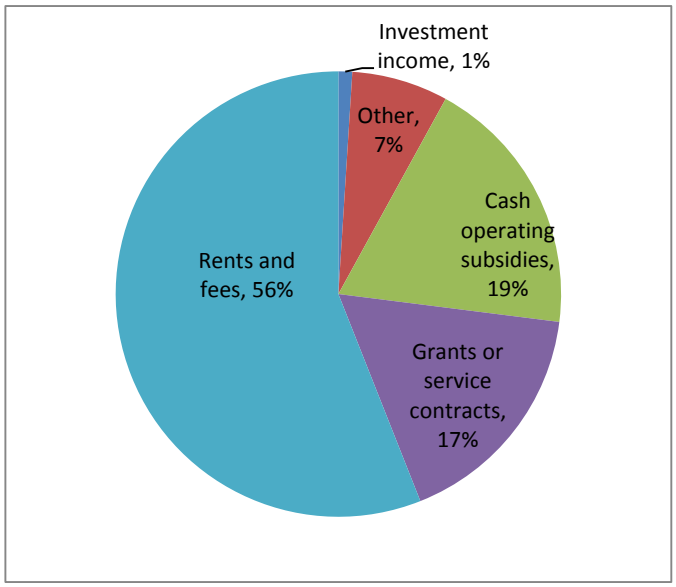
APPENDIX C: Rural Business Incubation

The National Business Incubation Association's *Best Practices in Rural Business Incubation – Successful Programs in Small Communities 2013* provides a wealth of knowledge for communities considering an investment in an incubator facility. The table and pie charts were excerpted from that publication.

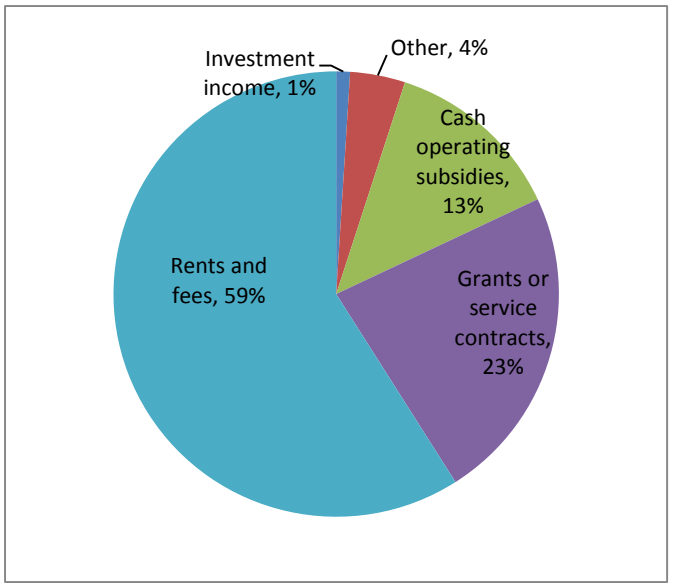
PERCEIVED IMPORTANCE OF INCUBATOR SERVICES (1=least important, 5=most important)		
Category	Rural	Urban
High-speed Internet access	4.6	4.1
Help with business basics	4.4	4.5
Networking activities among clients	4.1	4.2
Help accessing commercial loans	3.9	3.7
Linkages to higher education resources	3.9	3.7
Marketing assistance	3.9	3.9
Help with accounting or financial management	3.7	3.7
Access to specialized equipment or facilities	3.7	3.7
Entrepreneurship training programs	3.7	3.6
Shared administrative office services	3.5	3.2
Access to management information services	3.3	3.2
Assistance with e-commerce	3.3	3.2
Access to angel investors	3.2	4.1
Access to venture capital	3.2	3.5
Help with regulatory compliance	3.2	3.3
Human resources support or training	3.2	3.0
Technology commercialization assistance	3.2	3.5
Help with presentation skills	3.1	3.7
Management team identification	3.0	3.4
General legal services	3.0	3.3
Intellectual property management	3.0	3.4
Manufacturing processes and technology	3.0	2.6
Federal procurement assistance	3.0	3.0
International trade assistance	2.7	2.7

Rural versus Urban Incubator Revenues and Expenses

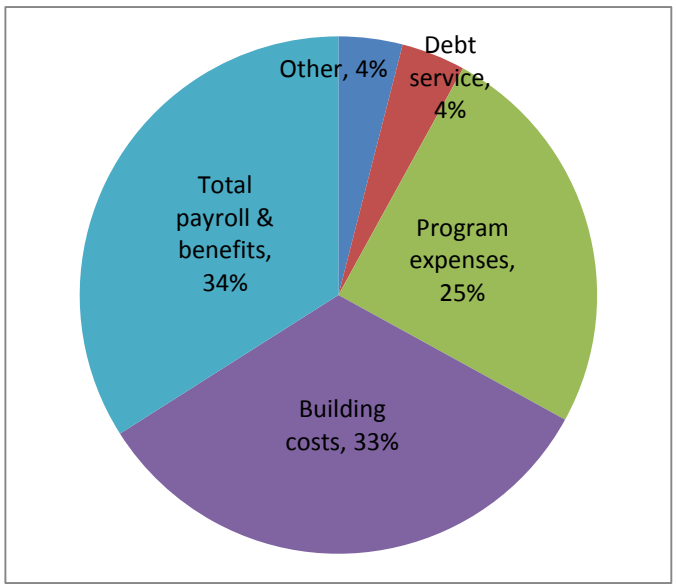
Rural Incubator Revenues



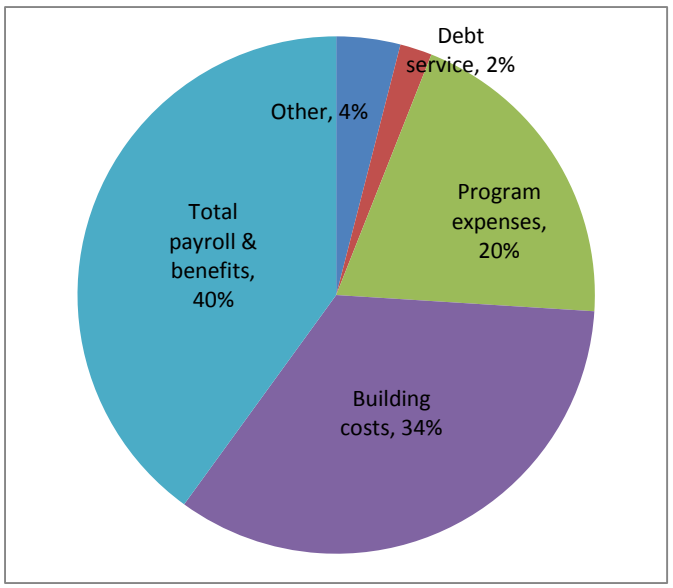
Urban Incubator Revenues



Rural Incubator Expenses



Urban Incubator Expenses



Source: Best Practices in Rural Business Incubation: Successful Programs in Small Communities 2013, National Business Incubation Association

APPENDIX D: Capital Outlay Deployment Best Practices

Michigan has the strongest, most structured capital outlay process identified. *It follows each project from beginning to end* and this process is assigned to a specific legislative committee responsible for oversight, the Joint Capital Outlay Subcommittee. The Committee meets year-round to review and approve various capital outlay documents as required by law. Responsibilities include:

- Prioritizing projects for funding
- Authorizing requests to fund planning when necessary
- Approving or disapproving project program statements, and architectural and engineering design and planning documents
- Establishing a project's total cost and financing sources through the inclusion of a construction authorization in an appropriations bill
- Approving or disapproving transfer requests between capital outlay project accounts
- Reviewing the Governor's annual capital outlay budget requests
- Reviewing funding proposals for special maintenance projects

Michigan's capital outlay process involves eight steps:

1. Submission of master plans (five-year plans)
2. Review of master plans by the Committee and authorizing agency
3. Approve planning authorizations (exceptions for rural or hardship communities)
4. Planning document review and approval
5. Construction and cost authorization
6. Final design/construction
7. Project management
8. Construction financing

New Jersey utilizes a process that includes a resolution signed by the local governing body documenting why the project is a priority for the community or region and it authorizes the applicant to submit the electronic application for funding. New Jersey does not award funding until the project is fully-funded to completion. The Sponsor is responsible for compliance for all aspects of the agreements, including "the provision of professional liability insurance or errors and omissions insurance sufficient to protect against liabilities arising out of the professional obligations performed pursuant to the agreements." The Sponsor must submit contract plans, specifications, engineer's estimate, and engineer's design certification 15 days prior to the advertisement of a RFP. The engineer is required to be registered in the state. The local government must award a construction contract for the project within 18 months of approval of the Resolution, Application, and Agreement by the funding agency. Design costs, permits and utility costs cannot be included in the funding request.

Louisiana's capital outlay funding process defines eligible expenses more specifically than a typical capital outlay appropriation in New Mexico. Eligible expenses do not include vehicles (which can

disappear or are easily transferable), or minor repairs that may not be evident to the observer or quantifiable/accountable. Eligible capital outlay expenditures (note that planning is not on the list):

- Land acquisition
- Site development and improvement
- Acquisition or construction of buildings or other structures
- Additions or expansions to existing facilities
- Major repair or renovation of existing facilities
- Installation, extension or replacement of utility systems or major building system components
- Roof replacement
- Hazardous material abatement
- Fixed equipment which is connected to building utility systems
- Initial equipment and furnishings for new buildings

In **California,** eligible projects are defined by use (such as education, public safety, critical infrastructure) and guidelines for projects are specific to the category.

APPENDIX E: Footnotes for SWOT Analysis

1. Tax Foundation, 2014 State Business Tax Climate Index
2. Energy Information Administration
3. New Mexico Higher Education Department
4. U. S. Department of Commerce, U. S. Census Bureau
5. The Information Technology & Innovation Foundation, 2012 State New Economy Index
6. Los Alamos National Laboratory
7. America's Health Rankings (www.americashealthrankings.org)
8. American Society of Civil Engineers, Infrastructure Report Card (www.infrastructurereportcard.org)
9. Milken Institute, 2012 State Technology and Science Index
10. Phillips Technology Institute