Town hall participants are urged to read this report before the event.

TOWN HALL DETAILS:
May 19-20, 2016
Albuquerque, NM
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>6</td>
</tr>
<tr>
<td>Purpose of Report</td>
<td>10</td>
</tr>
<tr>
<td>Convener</td>
<td>10</td>
</tr>
<tr>
<td>Research Committee</td>
<td>10</td>
</tr>
<tr>
<td>Where Do We Get Our Information?</td>
<td>11</td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>12</td>
</tr>
<tr>
<td><strong>CHAPTER 1</strong></td>
<td></td>
</tr>
<tr>
<td>Economic Security for Families</td>
<td>13</td>
</tr>
<tr>
<td>Chapter Advisors</td>
<td>13</td>
</tr>
<tr>
<td>Poverty in New Mexico</td>
<td>13</td>
</tr>
<tr>
<td>Poverty Report Card</td>
<td>14</td>
</tr>
<tr>
<td>Measuring and Understanding Poverty Levels</td>
<td>14</td>
</tr>
<tr>
<td>Supplemental Poverty Measure</td>
<td>14</td>
</tr>
<tr>
<td>Self-Sufficiency Standard</td>
<td>14</td>
</tr>
<tr>
<td>Role of Government Programs</td>
<td>15</td>
</tr>
<tr>
<td>Temporary Assistance to Needy Families (TANF)</td>
<td>15</td>
</tr>
<tr>
<td>Supplemental Nutrition Assistance Program (SNAP)</td>
<td>15</td>
</tr>
<tr>
<td>Child Care Assistance Program</td>
<td>16</td>
</tr>
<tr>
<td>Medicaid</td>
<td>16</td>
</tr>
<tr>
<td>Cliff Effect</td>
<td>16</td>
</tr>
<tr>
<td>Local Support Networks and Training</td>
<td>17</td>
</tr>
<tr>
<td>Circles Model</td>
<td>17</td>
</tr>
<tr>
<td>Family Independence Initiative</td>
<td>17</td>
</tr>
<tr>
<td>Financial Literacy</td>
<td>18</td>
</tr>
<tr>
<td>Role of Nonprofit Sector in New Mexico Economy</td>
<td>18</td>
</tr>
<tr>
<td>Options and Intersections</td>
<td>19</td>
</tr>
<tr>
<td><strong>CHAPTER 2</strong></td>
<td></td>
</tr>
<tr>
<td>A Changing Workforce</td>
<td>20</td>
</tr>
<tr>
<td>Chapter Advisors</td>
<td>20</td>
</tr>
<tr>
<td>Unemployment and Poverty</td>
<td>20</td>
</tr>
<tr>
<td>Changing Workforce, Changing Needs</td>
<td>21</td>
</tr>
<tr>
<td>Millennials</td>
<td>22</td>
</tr>
<tr>
<td>Improving the State’s Educational Attainment</td>
<td>23</td>
</tr>
<tr>
<td>Arrowhead Park Programs</td>
<td>23</td>
</tr>
<tr>
<td>The Future of STEM Jobs</td>
<td>24</td>
</tr>
<tr>
<td>Innovations in Higher Education</td>
<td>24</td>
</tr>
<tr>
<td>Workforce Information Sharing</td>
<td>25</td>
</tr>
<tr>
<td>Improving Education Awareness and Access</td>
<td>25</td>
</tr>
<tr>
<td>Innovations to Help Low-Wage Workers</td>
<td>26</td>
</tr>
<tr>
<td>Workforce Innovation and Opportunity Act, State Plan</td>
<td>26</td>
</tr>
<tr>
<td>Options and Intersections</td>
<td>27</td>
</tr>
<tr>
<td><strong>CHAPTER 3</strong></td>
<td></td>
</tr>
<tr>
<td>Small Business Climate</td>
<td>28</td>
</tr>
<tr>
<td>Chapter Advisors</td>
<td>28</td>
</tr>
</tbody>
</table>
# Chapter 4: Diversifying Our Economy

## Chapter Advisors

- Growing the Economic Base
- Recruiting Retirees and Freelancers
- Regional Differences
- Goals and Challenges
- Population
- New Mexico’s Tax System
- Gross Receipts Tax
- Menagerie of Tax Incentives
- Strategies for Diversification
- Technology Commercialization
- Show and Tell
- Industries Worth Pursuing
- Natural Resources: Water, Energy, Forests
- High Tech
- Tourism
- Spaceport
- Back Office and Technical Support
- Retaining Existing Businesses

## Options and Intersections

## Chapter 5: Rural and Tribal Development

## Chapter Advisors

- Rural New Mexico
  - What is Rural?
  - New Mexico by Population
  - Economic Drivers
  - State Land Trust
- Agriculture
  - Water
  - Value-Added Agriculture
  - Local Purchasing Potential
  - Differences Between Farm and Ranch Economies
  - Agricultural Resiliency Project
- Energy and Mining
  - Conventional Energy
  - Renewable Energy
  - Transmission
- Infrastructure
  - Broadband
  - Physical Infrastructure
- Tribal Development
EXECUTIVE SUMMARY

If we as New Mexicans make wise economic policy choices today, and stick to them, there is no reason why the state could not catch up or surpass national averages. But economic development in the state offers much more than improved rankings. It can also result in serious reductions in poverty and increased opportunities for all New Mexicans to thrive.

The 2016 statewide town hall, *Economic Security and Vitality for New Mexico*, will bring people together to innovate and cultivate ideas for bringing economic opportunity to our communities today and for generations to come. Organized by the nonpartisan public policy organization, New Mexico First, the event asks participants to come equipped with knowledge and ideas. This report provides a foundation for the discussions.

CH 1: Economic Security for Families

More people in New Mexico live in poverty than in almost any other state. Even middle class families can find themselves struggling to make ends meet. Economic policy efforts in New Mexico often focus on the needs of the business community, with the understandable logic that a stronger business sector creates jobs that will lift people from poverty. This report takes the additional step and asks readers to first focus on the foundation of our society, of our economy – the family.

To be effective long-term, solutions to eliminate high poverty rates must directly address the underlying causes of our poverty in our state. Possible solutions include:

- Deploying research opportunities created from alternative ways to measure poverty
- Reforms to make government funded child care higher quality, more constant for families, and thus better for the potential employers who rely on a stable workforce
- Prorating benefit programs, smoothing out the benefits “cliffs” to eliminate disincentives to earning more income
- Streamlining application and eligibility determinations so people can spend more time getting and keeping jobs than navigating deadlines and requirements for various government assistance programs
- Using proven models for family support networks, through which community volunteers support one another in meeting challenges of daily life and increasing family incomes

CH 2: A Changing Workforce

High unemployment, low job creation, high poverty, shrinking population, and limited education all present barriers to building a strong workforce. New Mexico is battling all of them. As a result, the state has difficulty attracting new business, keeping its educated youth, and – some say – generally creating a climate conducive to economic vitality.

By 2020, most New Mexico students will not have the education, credentials or degrees required to fill 63 percent of New Mexico’s jobs.¹ This projection raises three critical questions. How do we help prepare New Mexicans for the following:

- Jobs that will likely be available
- High-paying careers that we want to come to the state
- Careers and occupations that we have yet to imagine

Potential solutions to these questions include:

- Adapting education and training programs to tap into the skills and interests of the millennial generation

¹ (Southern Regional Education Board 2015)
• Creating a statewide system of career guidance that transforms schools – as early as high school – into career-preparatory cultures, bridging high school to college and college to career advancement
• Increasing the number of graduates with science, technology, engineering and mathematics (STEM) degrees and/or occupational certificates
• Assisting full-time low-wage workers – including those with children, in financial distress or working multiple jobs – to more conveniently receive an education while they are employed

CH 3: Small Business Climate
Entrepreneurship plays a vital role in the growth of the economy. If successful, entrepreneurial innovations improve living standards, create jobs, generate wealth and stimulate related businesses.

While New Mexico ranks 36\textsuperscript{th} in a national business climate study based on fiscal health, there is hope for our entrepreneurial arena. Despite the recession, New Mexico’s startup climate has been fertile compared to many other states, as shown by both statistical and anecdotal data. In fact, New Mexico ranks third in the nation on the percent of the adult population that became entrepreneurs.

A lot of activity takes place in New Mexico to grow and support small business. Strides include creation of new business incubators and accelerators, social or professional events for entrepreneurs and small businesses, mentorship opportunities, strategic public-private partnerships, targeted educational programs, and new or improved physical spaces.

Challenges remain however. Little sustaining benefit to the state will result either from creation of an entrepreneurial ecosystem or from converting ideas into companies, if those businesses leave the state to grow.\textsuperscript{2} Reasons for leaving could include lack of access to capital, policies and taxes that are considered unfriendly, and merely the \textit{belief} that New Mexico’s business climate is not conducive to growth.

In addition, entrepreneurs of all backgrounds tend to have difficulty finding capital to help grow or start a company. Access to capital is especially challenging for people who do not speak English as a first language, those with no credit, or people with insufficient collateral.

Potential solutions that could remove barriers and incentivize entrepreneurs include:

• Increasing access to micro-lenders and lenders offering unique lending products to individuals with low credit and no collateral
• Examining predatory lending and discriminatory lending practices
• Considering modification of state and federal business lending guidelines to support more entrepreneurs
• Increasing take-up of the earned income tax credit (EITC) among families operating enterprises

Whatever the solution, there is a growing body of thought that asks every New Mexican to think and act like an entrepreneur – looking for opportunities to grow our collective economy.

CH 4: Diversifying Our Economy
A diversified economy is one in which employment and revenue streams come from multiple industries. When jobs and revenues are concentrated in just a few types of businesses, a state’s economic stability becomes sensitive to volatile business cycles.

New Mexico ranks seventh worst in the nation for industry diversification while most of our neighboring states rank in the top 25.\textsuperscript{3} The majority of New Mexico’s jobs are concentrated in the healthcare, retail trade, accommodation, food services, education and public administration industries. Education and

\textsuperscript{2} (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
\textsuperscript{3} (Utah Department of Workforce Services 2015)
healthcare rank as our largest industry sectors, and are projected to experience the most employment growth.⁴

Given New Mexico’s reliance on declining federal spending and tax revenues from the fluctuating oil and gas industry, many people believe that the need to create a robust and diverse innovation-based private sector economy is crucial.

Possible strategies to diversify our economy include:

- Following the example of other states that attract new people and new companies by marketing the state more aggressively, investing in strategic branding, staffing economic development agencies on levels on par with neighboring states
- Recruiting retirees and freelancers to move to and work in New Mexico
- Researching alternatives to New Mexico’s gross receipts tax system
- Aggressively pursuing industries aligned with New Mexico’s existing resources including energy, high-tech industry, tourism, New Mexico’s spaceport, and our back office and technical support sectors

**CH 5: Rural and Tribal Development**

The issues facing rural and tribal communities in New Mexico are significant. Migration to urban areas remains a steady trend, with most living in urban areas. However, rural areas make up the vast majority of the state’s geography and without a long-term plan could become areas completely lacking in economic development and opportunity impacting all of New Mexico.

Major industrial economic base drivers in rural New Mexico include energy production, agriculture, retail and tourism (i.e., recreation, lodging, food services). Revenue generated through rural New Mexico’s resources – especially oil and gas – help pay for the state’s schools, universities, hospitals and other important public institutions. Agriculture, a longstanding foundation of rural and tribal economies, remains a significant industry. However, challenges include access to water, a wide array of financial barriers, and many farmers and ranchers nearing retirement age.

Potential strategies to grow rural and tribal economies include:

- Investing in more renewable energy projects while maintaining current conventional energy generation
- Eliminating barriers to an expanded energy transmission capacity so the state could sell more power to other markets throughout the Southwest
- Expanding the use of value-added products that market or manufacture a crop to appeal to a niche market of consumers
- Establishing programs and initiatives that support and incentivize locally New Mexico grown and purchased food products
- Expanding and strengthening broadband capacity

Additional ideas for economic development for tribal areas specifically include:

- Establishing a K-12 curriculum training for children and youth, community-based training for adults, and advanced investment and business management skills for tribal leaders
- Providing increased opportunities for home ownership and quality housing
- Providing access through local banks to capital and financial services and loans customized to meet the needs of rural and tribal areas
- Collecting more data on trends particularly for Native-owned businesses, tribal economic growth, markets and general financial conditions

---

⁴ (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
CH 6: Government and the New Mexico Economy

New Mexico’s reliance on federal government dollars is a double-edged sword. On one hand, New Mexico has grown and prospered from federal government investment in our state. Thousands of federally funded jobs and contracts contribute enormously to our state’s tax base through the national labs, military bases and healthcare services. On the other hand, over reliance on any single source is not healthy for an economy. For decades, lawmakers and community leaders have urged the state to reduce our reliance on federal funding. So the question remains: how can we diversify sensibly while leveraging existing federal dollars to spur more economic growth.

Possible strategies include:

- Accelerating the creation of entrepreneurial private sector and nonprofit entity spin-offs from work done at our national labs and facilities
- Expanding the mission of the national laboratories to develop new technologies in the areas of alternative energy sources, telecommunications, health, and desalination of water that would also meet the mission of other federal agencies
- Creating and empowering a public-private coalition of experts to determine economic sectors that best contribute to New Mexico’s growth based on our resources and strengths
- Aligning higher education funding and mission specialization with identified industries that would contribute to New Mexico’s economic growth

Another set of possible strategies are tied to the prominent role of federal healthcare dollars in our state. For example, expanding New Mexico’s healthcare workforce is an additional way to leverage existing government dollars, meet the state’s need for primary, dental and mental health providers and generate more livable-wage, professional jobs in New Mexico.

New Mexico also faces a growing need to build and maintain critical infrastructure – everything from roads, transportation and water systems, broadband infrastructure, energy transmission, courthouses, healthcare facilities and schools – but with limited and shrinking government funding to do the job.

Many people point to public-private partnerships (P3s) as a possible strategy for providing New Mexico additional financing opportunities for infrastructure development, creating efficiencies, and sparking innovation that can also lead to cost savings. Optimal P3s are agreements in which the skills and assets of each sector (public and private) are shared as are the risks and rewards in the delivery of the service or facility.

This short summary provides a snapshot of the challenges, opportunities and potential solutions offered in the full report that follows.
FOREWORD

Purpose of Report
This background report is intended to help participants prepare for the New Mexico First statewide town hall on the economy, May 19-20, 2016. This type of major deliberation is held every two years, on a topic of critical importance to the state. The statewide town hall is New Mexico First’s service to the people and policymakers of our state. The event will produce a platform of consensus recommendations. New Mexico First and other organizations will advance those recommendations in the coming years, with particular emphasis for the next 18 months, ensuring that the participants’ ideas receive attention statewide.

We believe that the best deliberations are informed deliberations. Therefore, all our town halls are preceded by a nonpartisan backgrounder that sets the context.

Note: There are few right or wrong answers to any public policy question, and the problems and opportunities around our state’s economy are complex. As a result, no brief explanation of the situation – including this report – can hope to cover all the information and opinions available. Our staff and research committee provide their knowledge and expertise, but ultimately the people, business leaders and policymakers of New Mexico must decide what course our economic future will take.

Convener
New Mexico First engages people in important issues facing their state or community. The public policy organization offers unique town halls and forums that bring together people from all walks of life to develop their best ideas for policymakers and the public. New Mexico First also produces nonpartisan public policy reports on critical issues facing the state. These reports – primarily on water, education, healthcare, the economy, and energy – are available at nmfirst.org.

Our state’s two U.S. Senators – Tom Udall and Martin Heinrich – serve as New Mexico First’s honorary co-chairs. The organization was co-founded in 1986 by retired Senators Jeff Bingaman and Pete Domenici.

Research Committee
A statewide committee of researchers and reviewers contributed to this New Mexico First report. The lead authors are Heather Balas, Autumn Gray and Pamela Blackwell. A special thanks to the following committed New Mexicans for sharing their time and expertise (and for being willing to review this report in its multiple iterations)!

The committee includes:

Richard Anklam, New Mexico Tax Research Institute
Sharon Berman, New Mexico First
Leslie Cervantes, New Mexico State University (NMSU)
Elizabeth Davis, NM Economic Development Department (EDD)
Micaela Fischer, Thornburg Foundation
Ricardo Gonzales, El Paso Electric
Bob Grassberger, University of New Mexico (UNM), retired
Peter Ibarbo, Office of U.S. Congressman Steve Pearce
Abby Lewis, Office of U.S. Senator Martin Heinrich
Richard Luarkie, Emerging Equities Solutions Group
Ceela McElveny, Albuquerque Economic Development (AED)
Scott Miller, Circles USA
Johnny Montoya, Century Link
Gary Oppedahl, City of Albuquerque
Jim Peach, NMSU
Brian Rashap, Intel
Ndem Tazoh Tazifor, EDD
WHERE DO WE GET OUR INFORMATION?
Throughout this document, we provide as many data sources as possible. We draw from published reports, newspaper and journal articles, first-hand interviews and online resources. All direct quotes are from interviews conducted for this report, unless otherwise noted. We know that policymakers, researchers and students use our reports, so we provide the details you need to learn more – and answer your own questions. Footnotes provide short-references to complete citations in the bibliography.
INTRODUCTION

A vibrant economy is perhaps the most sought-after policy goal for our state. Many businesses, government agencies and nonprofits advance this goal in New Mexico every day. Some of their activities are working well and should be continued. There are also opportunities for change and expansion, and this report sets the stage for discussions about those opportunities.

This document, and the corresponding town hall for which it was prepared, is built on an understanding that people talk about economic reform from varying perspectives and using different vocabularies. For example, people who engage in economic development are more likely to focus on the changes needed to recruit and build businesses, and how to help those businesses thrive. By contrast, people who engage in economic change for individuals and families – particularly the fifth of the state’s population who live in poverty – tend to focus on changes to our financial and social safety net, and how to help these people succeed.

Experts agree we must do both. Regardless the lens through which New Mexicans look, we all want a brighter future for our state. We all want more prosperous lives for our children, our communities and our businesses.

While the big picture may be the same, people often work in ‘silos,’ isolated from opportunities to collaborate across professional or regional lines. Perhaps those insulated approaches worked in the past, but today’s economic realities call on us to integrate. Poverty will not be addressed if the state’s economy continues to contract. And our economy cannot expand if we do not cultivate more of our people to have a smart financial foundation and the skills to be wage-earners. Since our population size is not currently increasing, industry cannot grow our workforce without addressing the needs of the unemployed and ‘hard-to-employ’ so they may hold good jobs.

“The new demographic and economic realities make it simply impossible to separate the ‘safety net’ people from the economic development people anymore,” said Mark Lautman of the New Mexico Jobs Council, when interviewed for this report. “We have to set aside any history of mutual blame and work together to grow the economy, create great jobs, expand the workforce and meet people’s needs in a meaningful way.”

For these reasons, New Mexico First framed this report and town hall around business-based and family-based economic strategies that improve our state’s financial future. We ask people to think creatively, be willing to innovate, and also to honor the valuable, important work that is already underway.

To that end, this report addresses six major themes, each of which will be discussed by citizen groups at the town hall:

1. Economic stability for low and middle income families, including the impact of safety net programs and the nonprofit sector on the state’s economy
2. Our changing workforce, including opportunities for engaging “millennials” in the new economy
3. Advancing a culture of entrepreneurship, including support for our state’s many small businesses
4. Industry diversification and new business recruitment, including consideration of the state’s tax structure
5. New opportunities for rural and tribal development
6. The changing role of government on the state’s economy, including federal dollars and opportunities for public-private partnerships

Together, we can build a stronger New Mexico.
CHAPTER 1

ECONOMIC SECURITY FOR FAMILIES

CHAPTER ADVISORS

Many thanks to the advisors for this section: Claire Dudley Chavez, United Way of Santa Fe County; Scott Miller, Circles USA; Ndem Tazoh Tazifor, NM Economic Development Department; Alvin Warren, W.K. Kellogg Foundation; Peter Winograd, UNM Center for Education Policy Research (retired).

More people in New Mexico live in poverty than in almost any other state. Even middle class families can find themselves struggling to make ends meet. Economic policy efforts in New Mexico often focus on the needs of the business community, with the understandable logic that a stronger business sector creates jobs that will lift people from poverty. Several later sections in this report advance this premise. However, this report asks readers to first focus on the foundation of our society – the family.

“We must find a way to meaningfully engage the fifth of the state’s population that is left out of the modern economy,” commented economist Jim Peach, interviewed for this report. “Our conversation must start there.”

What challenges do New Mexico families face? What causes underlie our poverty rates? How might we define prosperity in the future? And what supports can we consider – today and in the future – to create real changes?

POVERTY IN NEW MEXICO

About one in five New Mexicans live on incomes at or below the Federal Poverty Level (FPL), making us the second poorest state in the nation. The same measure determines that we have the highest rate of child poverty in the country. When we look at New Mexicans by race and ethnicity, about a third of Native Americans (35%) and almost a quarter of Hispanics (23%) live in poverty, compared with Anglos (at 13%).

People living in poverty often experience difficulty paying for the basic necessities of life: their homes, food for their families, transportation to and from work, or quality childcare. Nationally, a single person in poverty lives on about $30 a day. Some people in poverty are unemployed. Others work multiple low-paying jobs and can sometimes be too tired to pursue activities (like returning to college/trade school, supervising children’s homework, or preparing healthful meals) that would improve their current – or their children’s future – conditions. In New Mexico, people are also more likely to be poor if they live in rural and tribal areas. In efforts to make ends meet, people may also find themselves with risky debt levels and little or no savings.

5 (Peach 2016)
6 (U.S. Census Bureau 2015)
7 (Kaiser Family Foundation 2014) Drawing on U.S. Census Data.
8 (Economist 2015)
9 (Index Mundi 2013) Drawing on U.S. Census Data.
POVERTY REPORT CARD

<table>
<thead>
<tr>
<th>Economic Measure</th>
<th>NM Percentages</th>
<th>National Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Poverty</td>
<td>21%</td>
<td>50th</td>
</tr>
<tr>
<td>Children in Poverty</td>
<td>29%</td>
<td>51st</td>
</tr>
<tr>
<td>Unemployment</td>
<td>7%</td>
<td>34th</td>
</tr>
<tr>
<td>Hunger/Food Insecurity</td>
<td>12%</td>
<td>15th</td>
</tr>
<tr>
<td>Affordable Housing</td>
<td>*</td>
<td>29th</td>
</tr>
<tr>
<td>Assets/Savings Trouble</td>
<td>10%</td>
<td>45th</td>
</tr>
<tr>
<td>Teen Birth Rate</td>
<td>*</td>
<td>50th</td>
</tr>
</tbody>
</table>

* Ranking based on calculation other than percentage.

Measuring and Understanding Poverty Levels
Since the 1960s, our nation has used the FPL to measure whether households have enough money to make ends meet. At the time the FPL was developed, average families spent about a third of their income on food. Researchers reasoned that multiplying a food budget by three would generate a good estimate of the minimum amount of money a family would need. In subsequent decades, household food spending declined (to about 10 percent today). Meanwhile, other expenses – such as housing, transportation, healthcare, childcare and taxes – increased. These changes prompt some researchers and advocates to question the accuracy of the FPL. They note that it does not take into account regional differences, such as higher housing costs in some parts of the country or lower gas prices in others. The FPL also includes only pre-tax cash wages income, not food stamps, tax credits or other non-cash government benefits. Consequently, the FPL does not measure whether these non-cash government programs are actually making a difference.

In recent years, at least two additional ways to measure poverty have gained attention: The Supplemental Poverty Measure (SPM) and the Self-Sufficiency Standard.

SUPPLEMENTAL POVERTY MEASURE
Based on National Academy of Sciences data, the SPM measures poverty using costs of food, clothing, shelter and utilities. The poverty threshold is adjusted by state or metropolitan area, taking into account regional differences such as housing costs. On the income side, the SPM also includes in-kind benefits (i.e., food stamps or child care assistance), tax credits and medical expenses. These factors are useful if policymakers want to measure government programs’ impact on poverty. The U.S. Census Department began publishing this data in 2012. The SPM is not intended as a replacement for the FPL in determining who is eligible for benefits.

Under the SPM, New Mexico’s poverty rate improves somewhat, to 16 percent, compared with 21 percent under FPL (2014). Because the SPM is relatively new, states are still learning how to effectively use it. Opportunities exist for states to use this measure to improve evaluation of government programs.

SELF-SUFFICIENCY STANDARD
The Self-Sufficiency Standard is a different poverty measure, unlike the others in that it is not conducted by the government. It defines the amount of income necessary for a family to meet basic needs (including taxes) without public assistance. The standard is calculated on a county-basis. It was initially developed in

---

[10] (Center for American Progress 2015) Chart includes the 50 states plus District of Columbia.
[11] Based on percentage of population with high-cost, high-risk forms credit such as payday loans.
[12] (University of Washington 2015)
[15] (Short 2013)
[16] (University of Washington 2016)
the mid-1990s as a performance measure for the goal of “self-sufficiency” in federal job training programs (now part of the Workforce Investment Act).

States can use this standard to evaluate impacts of current and proposed policy changes (such as food stamps, Medicaid, or tax credits). Nonprofits can use the standard to counsel people, using the county-based data for financial planning and setting family targets to become self-sufficient. Several states have developed online calculators to help people determine what wages they must earn, in their county, to become financially self-sufficient.

The Self-Sufficiency Standard is not a government program, so its deployment in 36 states has occurred voluntarily through foundation funding, public-private partnerships, and research organizations. Each participating state has a lead organization, usually a nonprofit, university or state office. New Mexico does not participate, presumably due to insufficient resources or the lack of a lead organization.

Role of Government Programs
There are multiple government programs that affect the financial bottom line for low-income families. These programs also affect the overall economy of the state. While primarily federally funded, the state plays key roles through management and/or matching funds.

TEMPORARY ASSISTANCE TO NEEDY FAMILIES (TANF)
In New Mexico, TANF goes by a different name: NMWorks. People used to call this safety net program “welfare.” It provides a monthly cash benefit to low-income families for housing, utilities and clothing. To be eligible, the family must have dependent children and their household income must be below 85 percent of FPL (or about $21,000 for a family of four). Most states, including New Mexico, impose a 60-month maximum time limit – during which time the recipient is often in college or job training programs. The amount of the benefit varies by state and family size. In New Mexico, the maximum monthly benefit for a family of four is $493. The program is federally funded through a block grant to the states, which are required to spend some of their own dollars toward programs for needy families.

SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)
The SNAP program, previously known as food stamps, is another safety net service. It is a non-cash benefit that enables families to purchase food. It is linked to the general economy because SNAP expenditures stimulate economic activity, particularly during economic downturns. In other words, when more people are struggling, more turn to food stamps, and in turn make food purchases that stimulate grocery, wholesale, and agricultural sectors of the economy. The program has a multiplier effect; every $5 in new SNAP benefits generates up to $9 of economic activity. When SNAP benefits are added to gross income, 13 percent of those households move above the poverty line. Unlike some programs that require a state match, the federal government pays 100 percent of SNAP benefits. States contribute financially by paying about half of the administrative costs of the program. In FY2014, New Mexico’s investment in SNAP was $30 million and the federal investment was just over $629 million. That translates to about a $20 to $1 federal-to-state investment for food benefits.

SNAP was in the news recently because New Mexico considered imposing a three-month time limit on SNAP eligibility for some residents who are not working or in school, a change that would have affected up to 17,500 people. Supporters of the time limit said the work requirement was a reasonable expectation that increased personal accountability. Opponents said it placed an unfair burden on the unemployed. The change is on hold, blocked by federal court in March 2016.

---

17 (USDA 2015)
18 (Hanson 2010)
19 (Mathmateica Policy Research 2014)
20 (USDA Food and Nutrition Service 2014)
21 (NM Center on Law and Poverty 2016)
CHILD CARE ASSISTANCE PROGRAM
The Child Care Assistance Program (CCAP) subsidizes the cost of child care for low and middle-income families that are working or in school. To enter the program, family earnings must be at or below 150 percent of the federal poverty level (or about $36,000 for a family of four). The subsidy amount varies somewhat by the type of care, and the dollars go directly to the licensed child care provider, not the family. About 17,500 children are served through the $96 million program (or an average of $5,400 per child). The program is financed through a combination of federal and state dollars.

From an economic development standpoint, this program affects employees’ ability to work, employers’ ability to have a reliable workforce, and the bottom line of many licensed child care providers. Further, quality child care is proven to increase students’ school readiness. However, concerns exist if government dollars are used to pay for lower quality care.

Some states are experimenting with reforms to make government-funded child care higher quality, more constant for families, and thus better for the potential employers who rely on a stable workforce. Such legislation recently passed in Colorado, Nebraska and Vermont. A previous New Mexico task force crafted a range of potential reforms to CCAP. It recommended a number of changes to the eligibility criteria so that more low-income families can qualify for and retain stable, quality care.

MEDICAID
In New Mexico, Medicaid is called “Centennial Care.” It is the government health insurance program for low-income people. Services include physical health, behavioral health, long-term care and community benefits. Slightly more than half of births in New Mexico are funded by Medicaid. Children are the most likely individuals in a family to receive this benefit, since they qualify if their family’s incomes are at or below 300 percent of the poverty level. For most adults to qualify, incomes must be at or below 133 percent of poverty (or about $32,000 for a family of four).

The safety net services listed above directly impact thousands of people in New Mexico, and indirectly impact all residents and the state’s economy as a whole. These programs are intended by provide support on a temporary basis. In some cases, however, the structure of government programs may make it difficult for people to transition off of assistance without hurting their families. Called the “cliff effect,” this situation occurs when low-income families perform well, see their incomes increase enough to put them just over a benefits threshold, and subsequently lose more government benefits than their pay increase can cover.

“These people metaphorically ‘fall off a cliff’ and find themselves in worse financial shape than before,” said poverty researcher Scott Miller when interviewed for this report. “Across the nation, policymakers from the right and left, along with economic researchers, are looking for solutions that honor hard work, advance progress, and transition people off public benefits in a fair way.”

Some states, including Colorado, Illinois and Nebraska, passed legislation to “smooth out” the cliff. Pennsylvania, Maine and Maryland have also considered legislative solutions. Possible solutions in New Mexico or other states follow.

• Prorate benefit programs to eliminate disincentives to earning more income (essentially, reducing benefits by about the same amounts as increased earnings, rather than in big chunks).

---

22 (UNM Center for Education Policy Research 2015)
23 (McMahan 2015)
24 (NM Partnership for Early Childhood Development 2014)
25 (Kaiser Family Foundation 2010)
26 (Miller, President, Circles USA 2016) (Fitzpatrick and O'Connor 2015)
27 (Miller, President, Circles USA 2016)
• Streamline application and eligibility determinations so that people spend their time getting and keeping jobs rather than navigating deadlines and requirements of different government programs.
• Align benefit programs with workforce and relational support strategies (like the Circles model or the Family Independence Initiative, described below) so that people eventually stabilize and need less from the safety net.

Local Support Networks and Training
Regardless how we measure or regulate poverty, most people agree that the main priority is to reduce, prevent, or best case, eliminate it. We want our families to prosper. But notions of prosperity may vary across different cultures, geographic boundaries or age groups. For example, the City of Albuquerque launched the Plan for Prosperity initiative to create a shared vision for what a prosperous community might look like. It gives citizens the opportunity to share their goals for the city and create consensus on action items.

Another approach is to focus on direct, personalized supports for families, such as the following programs.

CIRCLES MODEL
What might happen in low-income communities if people had reliable support networks from caring people, each committed to learning from each other and ending poverty? Researcher Scott Miller, founder of Circles USA, leads an effort attempting to achieve that goal.

In his model, a “circle” comprising two or more volunteers meet monthly with the head(s) of a single low-income family. Their goal is to work on solutions to get out of poverty. They share meals, talk through the challenges of daily life and focus on improving self-sufficiency. In the process, they expand social networks and attempt to strengthen education for both children and parents. Practical problem-solving is the goal. For example, in one group, Circle volunteers helped the head of household in their assigned family obtain a donated vehicle so she could get to and from work reliably. The woman with the car then became a volunteer who provided transportation for other Circle participants to get to their own planning meetings.28

Evaluation of 151 families in the program revealed an average increase in monthly earned income from $227 to $757, with an average of 10 months for families to stop taking government cash assistance.29

FAMILY INDEPENDENCE INITIATIVE30
In 2001, the national nonprofit Family Independence Initiative began partnering with low-income families to move them from poverty. The program operates in six cities across the U.S.: Oakland, San Francisco, Boston, New Orleans, Detroit and Fresno.

Organizers believe families can succeed when they have access to connections, choice and capital. Connections, under this model, include a network of family, friends, and colleagues who provide support, information, resources and a sense of accountability. They aim to provide both a safety net and a springboard forward. Choices, under this model, means the volunteers do not tell families what to do; they instead offer an array of self-directed options regarding finances, housing, careers, education or other opportunities. The third element, capital, includes both long-term financial planning as well as small cash payments for completing activities that improve a family’s well-being (i.e., balancing a checkbook, reducing credit card debt, improving grades in school, attending trainings, applying for a new job, obtaining insurance).

28 (Miller 2007)
29 (Circles USA n.d.)
30 (New America Foundation 2011)
The program appears to show results. For example, over a two-year period, families in the Oakland program saw a 27 percent increase in average household income and, over three years, 40 percent had purchased homes.

Financial Literacy
Many people recommend basic training in personal finances, not just for people in poverty—but for everyone. New Mexico House Bill 1205 passed in 2007 making it a requirement for high schools to offer financial literacy as an elective. Across the nation, 17 states require students to take a personal finance course before graduation.31 Last year, an economic literacy study published by personal finance company WalletHub ranked New Mexico 45th in the nation for financial planning and daily habits.32 Measured habits included personal savings, having a bank account, sustainable spending practices, and borrowing from “non-bank” entities. Non-bank entities include high interest credit cards, payday lenders, or “predatory” lenders.

A number of programs in New Mexico seek to address the need for increased financial skills including the following:

- Jump$tart Financial Literacy Coalition is a national clearinghouse and resource organization, with a New Mexico chapter.
- Making Money Work is a dual-credit, online program offered by Central New Mexico Community College (CNM) to high school and college students.
- University 101, a course for college freshmen at the University of New Mexico (UNM), includes a component developed by Nusenda Credit Union to help students manage their finances and create a stable financial foundation.
- Wells Fargo’s online financial planning curriculum, handsonbanking.com, has modules for different ages (i.e., youth, adults, veterans, seniors).
- Individual Development Accounts (IDAs) are matched savings accounts designed to encourage savings, investment and asset accumulation among low and moderate income families. They are typically administered through nonprofit organizations and are tied to financial literacy courses.

In addition to these strategies that help families strengthen their own financial position, entrepreneurship training can help individuals expand the economy and create jobs. These opportunities are addressed in greater detail in Chapter 3. For every one percentage point increase in entrepreneurship in a state, there is a two percent decline in poverty.33

Role of Nonprofit Sector in New Mexico Economy
Many of the challenges and possible reforms in this section potentially involve nonprofit organizations. The nonprofit sector in New Mexico comprises over 10,600 organizations, about 7,000 of which are public charities. The sector generates more than $6.5 billion in annual revenues in New Mexico and holds assets of almost $15.7 billion. New Mexico grantmakers’ giving to organizations in the state increased by 11 percent between 2006 and 2009—during the nation’s recession. New Mexico foundations annually give over $68 million. Additionally, New Mexicans give $738 million to charity each year, representing three percent of household income.34

The nonprofit sector in New Mexico employs roughly 48,000 people, or 8 percent of the state’s workforce.35 Although employment data is somewhat dated for the sector, an estimated one in 20 paid workers are nonprofit employees, which comprises more than double the amount in state government, and more than the combination of employees working in agriculture, mining, oil and gas and utilities.

31 (Council for Economic Education 2016)
32 (Klernan 2015)
33 (W. K. Kellogg Foundation n.d.)
34 (New Mexico Association of Grantmakers 2012 ), (Independent Sector 2016)
35 (Independent Sector 2016)
Many jobs in the nonprofit sector pay comparatively well. Overall, the average earnings are about 6.5 percent lower than the state average but 66 percent higher than the combined average of retail, accommodations and food services, which are among the largest sectors of the state’s economy.36

**Options and Intersections**

Given information presented in this chapter, there are excellent options for future policy discussions. What are the strengths and weaknesses of the standard method of measuring poverty? What learning opportunities might exist by exploring alternative methods? Should New Mexico take steps to address the cliff effect? What are the pros and cons of individualized family support systems, and how might they compare with, or complement, government safety net programs? What steps might New Mexico take to improve the financial literacy of our people, or should our efforts be directed in other ways? And how do we leverage the existing nonprofit sector to significantly reduce poverty?

These questions are also influenced by other chapters in this report. Obvious intersections exist with efforts to expand entrepreneurship and small businesses, as well as industry diversification to create new jobs. (Ch. 3 & 4) Furthermore, the relationship between poverty and workforce preparedness (K-12 education as well as community colleges and universities) is clear. (Ch. 2) It is also noteworthy that people in rural and tribal areas are more likely to live in poverty than those in urban areas, so the information presented in that chapter is also highly relevant. (Ch. 5)

---

36 (Bureau of Business of Economic Research 2006)
CHAPTER 2
A CHANGING WORKFORCE

CHAPTER ADVISORS
Many thanks to the advisors for this section: Leslie Cervantes, New Mexico State University; Ricardo Gonzales, El Paso Electric; Bob Grassberger, retired University of New Mexico; Abby Lewis, Office of U.S. Senator Jeff Bingaman; Peter Winograd, retired UNM Center for Education Policy Research.

High unemployment, low job creation, high poverty, shrinking population and poor education. These markers comprise what could be called the “Forbidden Five” for any state seeking to build a strong workforce. New Mexico is battling all of them. As a result, the state has difficulty attracting new business, keeping its educated youth, and – some say – generally creating a climate conducive to economic vitality.

Boiled down, part of the challenge looks like the proverbial chicken and egg: Economic development experts report that some companies may be hesitant to come to New Mexico for fear they cannot find qualified employees, and businesses already here struggle to find good employees. Simultaneously, many employable, educated individuals leave the state for higher wage jobs elsewhere. In addition, many “hard to employ” people live in New Mexico, struggling to make ends meet for their families.

Industry experts and national studies overwhelmingly point to education of the population as crucial not only to the development and sustainability of a successful economy, but also to the ability of residents to move up the ladder financially.

Unemployment and Poverty
As noted in the previous section, a fifth of New Mexico’s population lives in poverty (as measured by the Federal Poverty Level), ranking the state the second worst in the nation. That number reflects the percentage of people in the state whose incomes fell below the poverty line (for example, $23,834 for a family of four). Research shows that 42 percent of young people born to families in the lowest fifth of income distribution will remain there. For these young people, educational attainment beyond the high school diploma may offer the only means of moving up the economic ladder.

“If students perceive a lower benefit to remaining in school, then they may choose to drop out, even if they aren’t struggling academically,” noted Ruth Williams of Elev8 New Mexico. “Initiatives that bolster low-income students’ perceptions of what they can achieve in life can make a difference in high school graduation rates and overcoming the despair that comes from being at the bottom of the ladder and facing the large gaps to get to the middle rung.”

Since higher levels of educational attainment typically correspond to higher incomes, there is a direct correlation with increased economic activity of individuals and businesses. This is why the educational attainment of a population is a common starting point in evaluating the workforce’s capacity to contribute to economic growth.

As of 2015, New Mexico had a less-educated populace than the surrounding states and the nation, and change for the better is not expected in the near future. Analyses of educational pipeline data suggest

37 (Springer 2015)
38 (Center for American Progress 2015)
39 (Southern Regional Education Board 2015)
40 (Leach 2016)
41 (New Mexico Legislative Jobs Council December 2015)
that at least half of New Mexico students will not earn a college credential or degree by their mid-twenties.\textsuperscript{42}

If that prediction plays out, New Mexico will continue to lag in its ability to compete. Labor market economists project that by 2020, about two-thirds of all jobs (65 percent nationally and 63 percent in New Mexico by one estimate) will require some postsecondary education — meaning an advanced industry credential or a postsecondary certificate, credential, or degree at the associate level or higher.\textsuperscript{43}

These data do not bode well for New Mexico’s unemployment rate, which increased more sharply than the national average during the 2007-2010 recession and was the highest in the nation at 7 percent in December 2015 and January 2016.\textsuperscript{44} In fact, New Mexico remains among 10 states that have failed to regain all jobs lost in the recession.\textsuperscript{45} Compared to a year ago February, the state saw zero job growth. As for numbers, there are over 9,500 fewer people in the New Mexico labor force than in 2009.\textsuperscript{46}

It is not difficult to see why. In the last several years, employment in lower-skilled occupations dropped considerably. The construction and manufacturing sectors declined during the national recession and never fully recovered. Discretionary consumer spending fell, so leisure and hospitality employment dropped.\textsuperscript{47} And New Mexico’s oil and gas industry experienced significantly falling prices (from $92 a barrel in 2013 to $44 in 2015).\textsuperscript{48} An estimated 6,000 people in New Mexico’s Permian Basin in the southeast and the San Juan Basin in the northwest lost their jobs as of fall 2015.\textsuperscript{49}

It is also worth noting that unemployment varies greatly by region in the state. For example, Los Alamos and Eddy Counties have the lowest unemployment rates (five percent or less) while Luna and McKinley have the highest (14 percent and 11 percent).\textsuperscript{50} Targeted job creation or movement of job seekers between counties are possible strategies for increasing employment.\textsuperscript{51}

**Changing Workforce, Changing Needs**

Across the nation, educational requirements are becoming more stringent as jobs that demand physical skills decline and those requiring cognitive skills rise, largely because of the advancement of technology.\textsuperscript{52} Increased efficiencies in automation and software decrease the need for some employees.\textsuperscript{53} Automation may also contribute to income distribution challenges, with increasing numbers of ‘blue collar’ or industrial workers displaced. However, some experts forecast that the digital age will not ultimately result in fewer jobs; jobs may simply require different skill sets than were previously required.\textsuperscript{54}

\textsuperscript{42} (Southern Regional Education Board 2015)
\textsuperscript{43} (Southern Regional Education Board 2015)
\textsuperscript{44} (Albuquerque Journal 2016)
\textsuperscript{45} (Albuquerque Journal 2016)
\textsuperscript{46} (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
\textsuperscript{47} (Quigley 2016)
\textsuperscript{48} (U.S. Energy Information Administration 2016)
\textsuperscript{49} (Albuquerque Journal 2016)
\textsuperscript{50} (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
\textsuperscript{51} (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
\textsuperscript{52} (Georgetown University 2013)
\textsuperscript{53} (Grassberger 2016)
\textsuperscript{54} (Winograd 2016)
As the nature of jobs change, so will the demographics to fill those positions. For the first time in U.S.
history, five generations will be working side-by-side, and this poses unique challenges for both
employers and employees in multiple areas – from communication styles to what is considered
appropriate workplace attire.

It is predicted that 31 million jobs will be available nationwide in 2020 due to baby boomer retirements,
contributing to a shortfall of five million workers with postsecondary education and training. Between
2008 and 2018, New Mexico will create as estimated 292,000 job vacancies both from new jobs and from
job openings due to retirement, even though older people are staying in the workforce longer.

The New Mexico Department of Workforce Solution’s (DWS’s) projections for 2022 indicate the largest
percentages of growth in: personal care and service; education, training and library; healthcare support;
and food preparation and service-related positions. The DWS report demonstrates that one of the most
consistent themes is that New Mexico’s projected workforce is likely to be similar to the existing
workforce in terms of educational qualifications and salaries. (More details on industry job projections
appear in Appendix C of this report.)

The projection data raise three critical variables. How do we help prepare New Mexicans for:

- Jobs that will likely be available
- High-paying careers that we want to come to the state
- Careers and occupations that we have yet to imagine

MILLENNIALS

Simultaneously, millennials (people born between 1980 and 1995) are becoming a force in the economy,
making up 25 percent of the population today. Seventy-five million millennials have either joined or are
preparing to join the national workforce. Depending on who you ask, the surge presents either cause for
concern or an exciting opportunity.

“When I hire, I want someone who knows how to learn, and how to learn on their own. Millennials tend to be great at that...”
-- Brian Rashap, Intel

Some people in older generations have criticized millennials for being self-absorbed, less
productive, or generally difficult to work with; the media have run with the stereotype. But
millennials, educators and some employers – often in tech fields – decry the labeling. They
point, instead, to positive traits in younger generations that have never lived in a world
without Internet.

It may be true that millennials tend to work differently than previous generations. If an
entire generation must be characterized, this one is often described as: valuing life outside of work more than previous generations; seeking jobs they are passionate about as opposed to jobs that pay the bills; and preferring to work in a relaxed work

55 (Grassberger 2016)
56 (Georgetown University 2013)
57 (Georgetown University 2016)
58 (New Mexico Department of Workforce Solutions 2016, 15)
59 (Patel 2015)
60 (Meister 2013)
61 (Albuquerque Business First 2016)
environment. They also are electronically literate, having never known a world without computers, cell phones and the Internet, and they welcome new ideas and challenges.62

Given their predilection toward technology and group activities, it should come as no surprise that some millennials also learn differently. They prefer “gamified” assignments and on-demand instruction, as well as opportunities to work in teams on hands-on projects as opposed to receiving traditional classroom-textbook instruction.63

“When I hire, I want someone who knows how to learn, and how to learn on their own,” commented Intel executive Brian Rashap when interviewed for this report. “Millennials tend to be great at that, especially if we’ve made on-demand training available in small, as-needed chunks.”64

Bottom line: Whether stereotyped or misunderstood, millennials (and the ‘Gen Z’ up-and-comers) are the future workforce, and changes in education may need to be made to accommodate our evolving workers’ styles and the types of jobs that will be available to them.

Improving the State’s Educational Attainment

Of greater concern than generational differences for educators and employers is state data on educational attainment. As noted previously, most New Mexicans will not earn a college credential or degree by their mid-twenties.65 This data source begins tracking students at ninth grade. (Of interest, passing Algebra I is critical to ensuring that a student graduates from high school. Students who pass Algebra I by the end of ninth grade have a substantially greater chance of graduating from high school on-time and continuing on to higher education.66)

The fact that many high schools and community colleges operate without explicit collaboration structures may contribute to the problem.67 The Southern Regional Education Board (SREB), a national education policy organization, writes that New Mexico needs to create a system of career guidance that transforms schools – as early as high school – into career-preparatory cultures.

ARROWHEAD PARK PROGRAMS

Arrowhead Park Early College High School (ECHS) in Las Cruces is doing just that. The school continues to successfully bridge high school to college, and college to career advancement for its 400 New Mexico students, many of whom are first generation college graduates.68

Established in 2010, ECHS experiences almost 100 percent graduation rates with 83 percent of its first graduation class earning an associate’s degree, and 50 percent of students earning two or three degrees.69 The school curriculum includes pathways in science, technology, engineering, mathematics (STEM) and entrepreneurship. A related program, Arrowhead Park Medical Academy, opened in 2014 to create a career pipeline for students to become healthcare professionals.

Business and education leaders in Albuquerque have said New Mexico’s mindset of hopelessness must shift if our young people are going to be motivated to see the value not only in education but also in themselves.70 In fact, hope has been shown to be a better predictor of student success than SAT or ACT scores, or GPA.71

62 (Albuquerque Business First 2016)
63 (Patel 2015)
64 (Rashap 2016)
65 (New Mexico Legislative Jobs Council December 2015)
66 (National Center for Educational Statistics 2010) (New Mexico Jobs Council 2014)
67 (New Mexico Legislative Jobs Council December 2015, 93)
68 (NM State University 2015)
69 (The Bridge of Southern New Mexico 2015), (Amis 2013)
70 (Albuquerque Business First 2016)
71 (Schoeniger 2015)
The Future of STEM Jobs

About 20 percent of all American jobs are now in the science, technology, engineering, and mathematics (STEM) fields, with half of those open to workers who don't have a four-year college degree, according to a new analysis by the Brookings Institution. In fact, STEM knowledge offers attractive wage and job opportunities to many workers with a post-secondary certificate or associate’s degree. An estimated 80 percent of all jobs in the next decade will require STEM skills, and most of those positions will need some level of postsecondary education and training.

Significant attention has been devoted in recent years to increasing the number of college graduates with STEM degrees, and there has been steady progress in New Mexico. However, concerns exist that the number of retiring STEM professionals outpaces the number of new graduates. Post-secondary courses that align education with STEM job openings will be critical to keeping up with changing workforce needs.

Innovations in Higher Education

Four-year degrees are not required for many jobs within the exploding digital and technical industries. Often, competency-based education, such as STEM and coding programs that target occupationally specific needs, is sufficient. Certificates awarded as a result of completion of industry-specific coursework combined with proof of skills obtained through previous employment are becoming increasingly valued, if not essential, to creation of a strong and versatile labor pool.

Some industry advocates want educational institutions and programs to become even more adept at tying curriculum and program development to the needs of local business. Doing so, they say, creates a better prepared workforce and increases the likelihood that employers can hire from that pool. However, this line of thinking is not universal among higher education faculty. Some educators are concerned that too much focus on professional training can lead to a narrow education that leaves students without critical thinking skills and the ability to solve complex problems.

Ideally, we do both. However, that’s easier said than done. Notes one Georgetown workforce report, “The move toward making people both college and career ready essentially amounts to finding ways to learn basic knowledge, and transforming these capabilities into deeper learning in order to create a flexible and adaptable individual with the appropriate skills to survive in the twenty-first century.”

Central New Mexico Community College (CNM) has been known for responding well to the state’s needs, but more recently, administrators have focused on proactive creation of career pathways and anticipating a labor pool composition that will attract business to New Mexico.
For example, New Mexico’s microbrewery industry is booming, with Albuquerque quickly becoming a destination for beer makers. So this year, CNM is opening its Brewing Academy as part of its culinary arts program. Students completing the academy will earn a brewing technology certificate. While the immediate goal is education, the longer-term vision is one of economic development: to help create a pool of entry-level brewer technicians, attracting out-of-state brewers and leading New Mexico to become a mecca for the industry. It’s not necessarily that CNM is keenly interested in beer; it’s more that the college is interested in brewing as an industry for economic growth.81

Similar examples include a Deep Dive Coding Bootcamp to train web developers and a Cybersecurity Academy. Cybersecurity may be an area with particular potential for diversification, given our state’s assets such as the national labs and the Air Force Research Laboratory. The international technology company Cisco estimates there are over a million unfilled cybersecurity jobs worldwide, and the need is growing.82

There is also a growing emphasis on teaching workforce readiness skills, also known as soft skills, such as phone etiquette, customer service and reliability. Social traits, too, such as empathy, adaptability, cultural awareness and curiosity are increasingly important to job success and sought by employers.83

All of these types of targeted training may be particularly promising for New Mexico’s unemployed or “hard-to-employ” people. Concrete, hirable skills can make a huge difference for men and women trying to move out of poverty.

WORKFORCE INFORMATION SHARING
To better align career opportunities with course offerings, community colleges have for the last three to five years strengthened their commitment to working more closely with the state Department of Workforce Solutions. Information-sharing has been more integrated, especially in identifying job availability and the training needed to fill those positions.84

Though progress has been made, some people recommend that information and data-sharing between Workforce Solutions and the entire higher education system (as opposed to specific campuses) needs to improve to better deliver workforce development services, particularly to low-wage workers and the unemployed.85

The Southern Regional Education Board agrees, calling for increased collaboration between the New Mexico Legislature, Public Education Department, Higher Education Department, Department of Workforce Solutions, as well as individual school employees, district leaders, industry partners and community members.86

In the meantime, innovations to increase workforce training awareness, affordability and accessibility among those populations is largely created in silos, with educational institutions and city and state governments devising their own programs.

Improving Education Awareness and Access
There exist different challenges for engaging people in higher education if they are older, working full-time or have families. Helping full-time low-wage workers to more conveniently receive an education while they are employed would not only aid in poverty reduction but would also help raise the level of educational attainment by the state’s workforce as a whole. A broader range of opportunities – both

81 (Staley 2014)
82 (Cisco 2015)
83 (Grassberger 2016)
84 (Winograd 2016)
85 (Winograd 2016)
86 (Southern Regional Education Board 2015)
educational and financial – could make a difference for people who have children, are in financial distress, work multiple jobs, and/or are caretakers for family.87

INNOVATIONS TO HELP LOW-WAGE WORKERS
To that end, New Mexico schools have devised financial and programmatic initiatives to increase and improve education opportunities for low-wage workers and financially at-risk students.

• The Rust Opportunity Grant, an endowment at CNM, is specifically designed for those students at risk of dropping out in case of a financial crisis. An unexpected medical bill or a broken vehicle are common examples of crises that force low-income students out of the classroom.
• To broaden STEM education access, CNM has partnered with the W.K. Kellogg Foundation to provide “access funds” for lower income and underserved groups. The funds help them to attend the college’s coding boot camp and cybersecurity course.
• Clovis Community College offers an array of scholarships, grouped under its AcademicWorks website. Students may apply for multiple types of support though a one-stop shop application process, including financial support specific to needed fields like nursing or welding.
• Several universities now offer “one-stop” application processes for scholarship applications.

On a related note, increasing numbers of New Mexico employers use the WorkKeys testing system to assess applicants’ abilities to perform real-world workplace skills needed across most jobs. WorkKeys measures common workplace skills like reading for information, locating information, workplace observation and listening for understanding. Students without a college degree or who did not follow a traditional career path may use this test to demonstrate their ability to do a job – even if their educational background is limited or does not match the job description.

WORKFORCE INNOVATION AND OPPORTUNITY ACT, STATE PLAN 88
New Mexico’s Workforce Development Plan, which was scheduled to be submitted to the federal government in April 2016, attempts to integrate workforce development tightly with economic development. The plan is required to focus on people with barriers to employment. These people include recipients of public assistance, other low-income individuals and people who are basic-skills deficient.

New Mexico’s plan promotes employability, more efficient use of funding by eliminating redundancies, and improved alignment of services. There is a network of regional boards that tracks progress and determines how to deliver services and job training that are right for their respective communities.

Training and services are delivered via the Workforce Connections (aka One-Stops) in 21 cities throughout the state. The One-Stops are designed so that those seeking services need only travel to one location.

Other efforts that might be considered to support a healthy workforce include89:

• Connecting parents to work, including equipping low-income parents with demand-driven hard and soft skills and credentials that lead to quality employment.
• Building bridges to advancement through efforts that move low-income parents into family-sustaining employment (above the Federal Poverty Level) in high-growth, high-wage sectors.
• Providing integrated services and access to work and income supports that lead to greater employment stability and income growth.
• Taking action to disrupt discriminatory hiring and pay practices through support for research, civic engagement, advocacy and media.
• Examining policies and strategies to improve the quality of jobs, including living wages, paid sick/medical leave and predictable scheduling.

87 (Winograd 2016)
88 Section summary provided by Bob Grassberger, Ph.D.
89 (Warren, W. K. Kellogg Foundation 2016)
New Mexico has made significant strides through passage of the Pay Equality Ordinance in 2015. As a result of it, 24 companies are offering equal pay to the men and women they employ. Another positive effort is the New Mexico Family Friendly Business Award, which recognizes businesses offering family-friendly employee benefits.

**Options and Intersections**

Given information presented in this chapter, there are excellent options for future policy discussions. How can we address, in an integrated way, the five big challenges of high unemployment, low job creation, high poverty, shrinking population and poor education? What steps can we take to address the challenges and opportunities of millennials in the workplace? How can we improve integration between the many government agencies and education entities that affect our state’s workforce? How can we expand efforts to reengage the unemployed and hard-to-employ in the workplace and the state’s overall economy? How can we leverage existing efforts, such as the state workforce innovation plan?

These questions are also influenced by other sections in this report. Clearly, opportunities to break cycles of poverty lead to greater appreciation for higher education, and vice versa. (Ch. 1) Efforts to grow the state’s business sector – whether through entrepreneurship, small business expansion, or large industry diversification – all require a highly prepared workforce. (Ch. 3 & 4) The same is true for growth in rural and tribal communities. (Ch. 5)
CHAPTER 3

SMALL BUSINESS CLIMATE

CHAPTER ADVISORS

Many thanks to the advisors for this section: Gary Oppedahl, City of Albuquerque; Johnny Montoya, Century Link; Richard Anklam, New Mexico Tax Research Institute.

Entrepreneurship plays a vital role in the growth of the economy. If successful, entrepreneurial innovations improve living standards, create jobs, generate wealth from the entrepreneurial venture and stimulate related businesses.90

There are multiple tools by which to assess New Mexico’s success in building a climate that is friendly to small business and entrepreneurs. These may include:

• Community and regional resources
• Mindset/outlook of the culture
• Policies and tax structure
• The amount of venture capital and ease of access
• National data on what works, and does not work, elsewhere

Where We Stand: Business Climate

In a national business climate study by George Mason University, New Mexico ranks 36th on fiscal health based on five categories – cash solvency, budget solvency, long-run solvency, service level solvency and trust fund solvency.91 The areas that pulled New Mexico down are budget, service level and trust fund, where the state ranked 46th, 48th and 49th respectively. This suggests the ratio of state debt, taxes and revenues to personal income is poor and that state revenues are falling short of expenses.

Some economic developers believe that, until New Mexico establishes a business climate better adept at drawing outsiders, the health of the economy rests largely on government and the existing private sector – particularly small businesses, startups and entrepreneurs.92 Fortunately, New Mexico’s innovators are doing a pretty good job on their own. While the national trend for job creation from startups has been down since the recession, New Mexico’s startup climate has been fertile by comparison, as shown by both statistical and anecdotal data.

The Kauffman Index of Entrepreneurship ranks states by assessing new business start-ups and entrepreneurs. New Mexico ranks well compared with neighboring states, steadily increasing since 2011. We rank third in the nation on the percent of the adult population that became entrepreneurs.93 New Mexico even outpaced high-flying Texas and California, seen by many business watchers as startup meccas.94

Good Work Underway

There is a lot of excellent activity taking place in New Mexico to grow and support small business. New Mexico’s competitiveness on the entrepreneurial stage is in large part due to the private sector’s success statewide in development of a solid, collaborative entrepreneurial ecosystem that is poised for expansion.95 Many improvements have been made to increase the amount of resources for entrepreneurs and small businesses, particularly in places near universities or national labs. These strides

90 (New Mexico First 2015)
91 (Mercatus Center at George Mason University 2015)
92 (Albuquerque Business First 2016)
93 (New Mexico First 2015)
94 (NM Business Journal 2015)
95 (Knighten, Manager, New Mexico Office of Science & Technology in the Economic Development Department 2016)
include creation of new business incubators and accelerators, social or professional events for entrepreneurs and small businesses, mentorship opportunities, strategic public-private partnerships, targeted educational programs and new or improved physical spaces.

- In Albuquerque alone, the number of business accelerators expanded by six between mid-2014 to the end of 2016, with one adding a Santa Fe location. Each is addressing a unique niche — creatives and artists, women-owned businesses, high-growth, early stage, socially conscious and tech commercialization.
- Downtown Albuquerque’s seven-acre Innovate ABQ research and innovation hub is envisioned to be the center of entrepreneurial activity for the entire state.
- A community center for entrepreneurs, the Epicenter, has opened at the Innovate ABQ site.
- At the grassroots level, there is a new effort called Startup New Mexico led by entrepreneurs to support the growth of startups and foster vibrant entrepreneurism statewide.
- Encuentro New Mexico is working with Latino immigrant entrepreneurs.
- In 2015, the first Statewide Startup Weekend was held, involving Farmington, Albuquerque, Santa Fe and Las Cruces, allowing entrepreneurs across 400 miles to pitch ideas in their communities, form working teams and create businesses.
- In 2015, the Rio Grande Community Development Corporation launched the first nonprofit entrepreneurial incubator, Social Impact Though the Nonprofit Community (SINC). SINC offers business development assistance to nonprofits.

State universities are providing entrepreneurship education as part of standard course offerings and regularly engage their communities in innovation.

- The University of New Mexico in 2015 began its Innovation Academy, a multidisciplinary program that crosses traditional university schools to create a focused approach for entrepreneurial education and development.
- CNM’s STEMulus Center programs, such as its Deep Dive Coding Boot Camp and its IGNITE Community Accelerator, are targeting community-based, lower income entrepreneurs.
- New Mexico Tech is hosting in 2016 its first two-day Inventors and Entrepreneurs Workshop/Business Start-Up Conference devoted to facilitating the progression of ideas from conception to market, including “Shark Tank” style presentations.
- New Mexico State University’s Entrepreneurship Institute was created in 2008 to help build businesses.
- And more recently, NMSU created the New Mexico Entrepreneurs Alliance, an online network for entrepreneurs statewide.

The amenities conducive to cultivating entrepreneurship, including the number of business incubation programs throughout New Mexico, are vast and interrelated. Discussion of these initiatives alone could fill this report. Suffice it to say that seeds are planted and widely scattered across the state to enable growth of a healthy innovation economy.

**DUPICATION**

That said, one challenge in New Mexico’s economic development world is duplication of services. The Albuquerque Living Cities Initiative’s implementation team is tackling this by creating a technological platform to network all service providers. The intent is to make the system more responsive to the particular needs of individual entrepreneurs. (The Living Cities Initiative, operated out of Mayor Richard Berry’s Office, is a “grow our own” approach to economic development that involves generating collective impact to accelerate job creation and economic mobility.)

96 (Driver 2015)
97 (Social Impact Through the Nonprofit Community SINC n.d.)
98 (DelCampo 2016)
Challenges
But challenges remain. Little sustaining benefit to the state will result either from creation of an entrepreneurial ecosystem or from converting ideas into companies if those businesses were to leave the state to grow.99 Reasons for leaving could include lack of access to capital, policies and taxes that are considered by some to be unreasonable or unfriendly, and merely the belief that New Mexico’s business climate is not conducive to growth.

Inherent in being an entrepreneur is the risk of failure, even the expectation of multiple failures. There is also little sustaining benefit to the state if entrepreneurs, in failing, are not incentivized to try again.100

SCARCITY MINDSET
Despite creation of a relatively robust entrepreneurial ecosystem, one of New Mexico’s greatest challenges may be our collective mentality, which is often one of scarcity. This results in a cultural belief that our current condition is unalterable and in a value system that leads individuals to act out of fear and self-protection, as opposed to in proactive, visionary ways that benefit the community.101

“While we certainly seem to have a perverse pleasure in massaging old wounds, the degree to which this constrains us depends on who you talk to,” said Deirdre Firth, deputy director of the City of Albuquerque Economic Development Department. The younger generations, for example, seem to have a more positive outlook.102

Nevertheless, there is a growing body of thought that says, “It’s time for every New Mexican to think and act like an entrepreneur.”103 Though the idea may seem radical to some, teaching people to think – and therefore act – like an entrepreneur is gaining traction in cities across the nation. In fact, the City of Albuquerque and CNM recently partnered with the Marion Ewing Kauffman Foundation to bring the Ice House Entrepreneurship Program to city employees and to CNM students. The pilot program, teaching 100 city employees about the entrepreneurial mindset, was a first in the nation and is being viewed as a model by other cities.104

Whether a person has a desire or intent to start a business is irrelevant in entrepreneurship education. Rather, the training focuses on how an individual thinks – and therefore acts – not only when facing a perceived challenge but also in a neutral situation. National studies have shown that people who think like an entrepreneur have higher self-confidence, believe they have control of their destiny and are more apt to view any situation – no matter how dire - as an opportunity for improvement and positive action.105

From preparing students to become workforce-ready graduates or next-generation innovators, to elevating the entrepreneurial thinking of the existing workforce, an entrepreneurial mindset (defined as the underlying beliefs and assumptions that influence behavior) exposes opportunities, ignites ambition and fosters the attitudes and skills that can empower anyone to succeed.106

“Until New Mexicans as a social body believe something greater than the status quo is both necessary and achievable, and until residents cease to act according to a mindset that views problems as insurmountable obstacles, the vibrant entrepreneurial ecosystem now under construction will be limited to those groups and individuals already wired to buy into it,” says City of Albuquerque economic developer Gary Oppedahl.

99 (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
100 (Thompson 2012)
101 (Oppedahl 2016)
102 (Firth 2016)
103 (Albuquerque Journal 2016)
104 (Darling 2016)
105 (United States Department of Labor 2016)
106 (Schoeniger 2015)
ACCESS TO CAPITAL

Even if New Mexico were to experience a profound shift in its cultural mindset, economists say the state will not “move the needle” unless there is sufficient seed capital to support funding for the best ideas.\(^{107}\) In fact, there appears to be universal agreement that the biggest gap in our business climate is capital and that a structural shortage of debt and equity capital is the major long-term impediment to startup development and a self-sustaining small-business climate. “This is especially true in the sweet spot between $500,000 and $2.5 million,” Oppedahl says.

This is not to say that we are completely lacking in early stage venture investors in New Mexico. The Venture Acceleration Fund, New Mexico Angels, the Verge Fund and Flywheel Ventures are just a few. However, investments in New Mexico have been relatively flat since 2009, with the state falling notably below other Four Corners states.

Both the state and the private sector have been taking action. Two recent initiatives are anticipated to jumpstart a greater influx of early stage capital:

- The NM Angel Tax Credit allows for certain investors to take a tax credit of up to $25,000 for an investment made in a New Mexico company that is engaging in high-technology research or manufacturing.\(^{108}\)
- The Catalyst Fund, a “fund of funds” of $20 million established by the State Investment Council, acts as a catalyst for private capital matches from startup fund managers around New Mexico.

The Catalyst Fund is already garnering tremendous interest from venture capital firms outside New Mexico, including one that can help fill the critical half-million to $2 million gap.\(^{109}\)

There is also evidence that some startups succeed in New Mexico despite the capital challenge:

- Skorpios Technologies, a material science firm, obtained $19 million from out-of-state investors in 2011.
- Lavu Inc., a high-tech iPad point-of-sale software company, raised $15 million from a Washington, D.C.-based venture capital firm in 2015, allowing it to double its employees and office space in downtown Albuquerque.
- SunPort, which built a plug that allows consumers to use solar energy simply by plugging an electronic device into a wall, is garnering national attention and funding opportunities.

Unfortunately, these companies are the exception rather than the rule because they have chosen to stay in New Mexico. It is more common for innovators to create viable companies in the state, only to leave for cities with more seed money and investors.

Low-income entrepreneurs of all backgrounds tend to have even greater difficulty when it comes to finding capital to help grow or start a company. Their unique challenges were identified in 2015 by the Albuquerque Living Cities Initiative, which found that access to capital is especially challenging for people who do not speak English as a first language, those with no credit or bad credit, and those with insufficient collateral.

Such entrepreneurs may face challenges despite the existence of alternative lenders in Albuquerque.\(^{110}\) Micro-lenders include Accion NM, WESST, the Loan Fund and NM Community Capital. Innovative lending products such as Nusenda Credit Union’s Co-op Capital model also exist. It provides loans to individuals with low credit and no collateral through existing membership-based organizations.

\(^{107}\) (Knighten, Manager, New Mexico Office of Science & Technology in the Economic Development Department 2016)
\(^{108}\) (New Mexico Angels 2015)
\(^{109}\) (Oppedahl 2016)
\(^{110}\) (Warren, W. K. Kellogg Foundation 2016)
In some cases, the inability to get funding leads individuals who desperately want to start or grow a business into the grips of predatory lending. Other barriers to capital discovered by Living Cities include:

- Higher interest rates because of the risk associated with limited or no collateral or challenged financial histories.
- Lack of access to business training (e.g. financial management, marketing and sales).
- Lack of mentors and networks.
- Lack of awareness of existing resources.

To address these problems, some economic development leaders suggest New Mexico should look at opportunities for other models of entrepreneurship, such as worker-owned cooperatives and other employee ownership models that have been shown to help increase income and long-term wealth among low-income individuals.

It might also be prudent to consider:

- Examining predatory lending and discriminatory lending practices.
- Modifying state and federal business lending guidelines to support more minority entrepreneurs and women.
- Increasing take-up of the earned income tax credit (EITC) among families operating enterprises and extend the EITC to single adults.

**Options and Intersections**
Given information presented in this chapter, there are excellent options for future policy discussions. How can we leverage and support the good work that is already underway? To what degree should we reduce any duplication that may exist among small business support organizations? How might we cultivate an entrepreneurial mindset, moving away from a scarcity mentality? What steps might we take to increase access to capital?

These questions are also influenced by other sections in this report. In particular, a healthy small business and entrepreneurial climate is highly influenced by efforts to diversify the economy. (Ch. 3 & 4) The same is true for attempts to strike the right balance for federal investments in our state economy – including the many small businesses and contractors that rely on those government dollars. (Ch. 6) All those efforts rely on a highly qualified workforce. (Ch. 2) And of course, the fifth of our population that lives in poverty find it difficult to contribute to an entrepreneurial economy while also meeting basic family needs. (Ch. 1)
CHAPTER 4

DIVERSIFYING OUR ECONOMY

CHAPTER ADVISORS

Many thanks to the advisors for this section: Richard Anklam, New Mexico Tax Research Institute; Elizabeth Davis, NM Economic Development Department; Ceela McElveny and Gary Tonjes, Albuquerque Economic Development.

A diversified economy is one in which employment and revenue streams come from multiple industries. When jobs and revenues are concentrated in just a few types of businesses, a state’s economic stability becomes sensitive to volatile business cycles.

New Mexico ranks seventh worst in the nation for industry diversification, according to the 2014 Hachman Index. Most of our neighboring states rank in the top 25. The index measures industry diversity based on private-sector employment data. New Mexico’s ranking is worse than our neighboring states because most employment is highly concentrated in a small number of industries.

The majority (57 percent) of New Mexico’s jobs are concentrated in the healthcare, retail trade, accommodation, food services, education and public administration industries. Education and healthcare not only rank as the largest industry sectors, but these industries are also projected to lead in numeric employment growth. Meanwhile, other government jobs (such as the federal labs), as well as agriculture and manufacturing sectors, are projected to experience a decline in employment.

Revenues are highly concentrated in the oil and gas sector, which is spread out across several of the industry categories in the chart below. In 2013, production taxes, royalties and other direct sources of state revenue from the oil and gas industry accounted for 31.5 percent of New Mexico’s General Fund.

Given New Mexico’s reliance on declining federal spending and tax revenues from the fluctuating oil and gas industry, many people believe that the need to create a robust and diverse innovation-based private sector economy is crucial.

---

111 (Utah Department of Workforce Services 2015)
112 (NM Department of Workforce Solutions 2014), (NM Labor Market Review 2015)
113 (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
114 (New Mexico Department of Workforce Solutions Economic Research and Analysis Bureau 2015)
115 (NM Energy Minerals and Natural Resources Department 2015)
116 (New Mexico Economic Development Department 2016)
“Private sector business needs to take back and drive the economic development initiatives in our state,” said Dale Dekker, who is active in economic development circles in New Mexico. “For too long, businesses have existed because there has been a lot of work in the public sector. But we need to grow the pie; that’s the challenge now. That’s not necessarily getting the next government contract or hoping that oil prices go up. We have to grow by exporting our goods, products and services.” In other words, create economic base jobs.

Growing the Economic Base

Industry diversification has been a priority of every New Mexico governor in recent history, including Susana Martinez. As she noted in her 2015 State of the State address, “Helping businesses grow, attracting companies and jobs from elsewhere, and making New Mexico a high-tech jobs leader – that’s how you create a more diverse economy and a stronger private sector.”

Key to those goals, many believe, is creating ‘economic base’ jobs. An economic base job is one that exports goods and services, bringing new money into the state, as opposed to circulating existing money within the state. By one estimate, the state must create 140,000 new economic base jobs in the next 10 years – an average of 14,000 per year – just to return to pre-recession employment levels.117

Of the 14,000 new jobs annually that must be created, it is estimated that 4,000 would be created organically, without help from any program or policy. The remaining 10,000 per year would have to come from elevating investment and policy support for new and existing program efforts.118

The NM Legislative Jobs Council has identified eight sectors where state and local efforts could affect creation of economic base jobs:

- Private sector employer-based (27 percent)
- Federal government including healthcare expansion (20 percent);
- Energy and extraction (11 percent)
- Visitor/jobs with salaries paid from the local sale of goods and services to visitors from out of state (11 percent)
- Retirees (11 percent)
- Freelancers/independent contractors (6 percent)
- Film and digital media (6 percent)
- Startups (5 percent)
- Agriculture (3 percent)

New business recruitment in target industries is an obvious and traditional method of creating more economic base jobs. Economic developers at state and city levels are continuously pursuing new businesses through participation in national trade shows, wooing site selectors, targeted marketing, etc. All of that is costly in terms of money, time and human resources, especially for a state that has so little of each.

---

117 (New Mexico Legislative Jobs Council December 2015)
118 (New Mexico Legislative Jobs Council December 2015)
RECRUITING RETIREES AND FREELANCERS

However, due to upcoming changes in workforce composition, New Mexico may have an opportunity to build on an existing population sector. The equivalent of creating tens of thousands of economic base jobs could be achieved by strategic recruitment of retirees and freelancers, both of which are forecast to multiply significantly in the next four years.

As Baby Boomers retire, 31 million jobs are expected to open nationally, and another 24 million new jobs will be available by 2020, but that doesn’t mean the older, jobless population stops spending money. Retirees often receive pensions or other financial benefits from former employers – money that could be brought to New Mexico and spent here if they moved from out of state. Though retirees do not technically generate new economic base jobs, studies show that the economic activity (home purchases, household expenses, Medicare spending) produced by in-migrating retirees equates to creation of jobs.

As for freelancers, about one in three U.S. workers is a freelancer today. That number is expected to increase nationwide to more than 40 percent by 2020. Recruitment of freelancers brings significant potential to increase out-of-state income since freelancers who move to New Mexico would typically have clients elsewhere. Freelancers and startup businesses are anticipated to drive economic base growth in the 21st century nationwide, even though locally, they are likely to generate less than 12 percent of the economic base jobs needed.

A national “perceptions study” commissioned by the Albuquerque Convention & Visitors Bureau (ACVB) in 2014 suggests it may not be difficult to attract either demographic because both young professionals and older workers already tend to have a positive perception of New Mexico’s largest city, Albuquerque.

The two segments with the most positive perceptions of Albuquerque as a place to work and live (and who were open to relocating) were “Young Achievers” (educated, young professionals) and “Got It Togethers” (older professionals who may soon be considering retirement).

REGIONAL DIFFERENCES

It is important to note that the degree of industry concentration and the type of available employment depends strongly on the geographic area being examined. For example, more populous counties like Bernalillo, Otero, Santa Fe, Dona Ana and Chaves generally rank higher for industry diversity. The least diverse economy is the high-wage government laboratory town of Los Alamos, where almost 75 percent of employment is in the professional services and technical sectors. Eddy and Lea counties have little industry beyond energy and mining. Because of these multiple micro-economies within our state border, some people recommend that we focus on economic diversity county by county.

Goals and Challenges

States that attract new people and new companies do multiple things well.

- They know how to market their state.
- They invest in strategic branding.
- Their economic development agencies hire a broad range of specialists and pay them well.
- The political, regulatory and tax climates are considered “friendly.”

---

119 (Georgetown University 2013)
121 (Giang, Business Insider 2013)
122 (New Mexico Legislative Jobs Council December 2015)
123 (Dyer, Jessica 2015)
124 (Shaleen, NM Labor Market Review: New Mexico’s Industrial Diversity: A State- and County-Level Analysis 2015)
125 (Metcalf, NM Ranks Low for Diversity in its Economy 2015)
126 (Quigley 2016)
They often provide incentives in the form of cash offered up front and the flexible use of that cash, often after high-level negotiations.

Economic developers and tourism experts recommend that New Mexico invest more in external marketing efforts. They argue that retirees and freelancers elsewhere need to be made aware of the state’s abundance of outdoor recreation, temperate weather, relative low cost of living and quality health care. Companies need to be told not only about those amenities but also about positive aspects of the state’s business climate.

Similar outreach may be warranted with the business world. It does little good, for example, to reduce the state’s corporate income tax by 27 percent or to adopt the single sales factor (both done in 2013) in an effort to compete for business if no one outside of the state knows about those changes.

“New Mexico is an unknown commodity,” said Steve Vierck, former head of the New Mexico Partnership, a statewide economic development nonprofit that serves as the official business recruiting arm for the state. “You have to be on the awareness screen to get compared to other states. A part of our challenge has been to just get noticed.”

MARKETING

However, getting noticed costs money. Budgets of economic development entities are tight. The lack of money at state and city levels is causing some economic development leaders to suggest that tourism budgets and economic development budgets might be shared, or that at least the two efforts be marketed under a single brand, in an effort to have the greatest impact with little resources.

In fact, just this year the NM Economic Development Department launched an initiative called ‘New Mexico True Business,’ hoping to capitalize on the Tourism Department’s existing ‘New Mexico True’ brand.

The ACVB perception study described previously suggests there is opportunity to leverage tourism marketing efforts with economic development. It found that the travelers who respond most favorably to Albuquerque as a vacation destination share many characteristics with the professionals most likely to consider the city a good place to build a career — or business — and raise a family. Those similarities scream for collaborative marketing efforts.

Still, others advise that tourism marketing is very different from economic development and that while advertising is impactful in vacation decisions, it has little influence on business decisions. Staffing in New Mexico’s economic development agencies poses a challenge equal to that of marketing. Communities throughout the state may not have the number of people needed to compete with cities of similar sizes in states like Texas, Arizona and Utah. For example, the New Mexico Partnership has three employees, but an equivalent agency elsewhere may have 20 or more.

POPULATION

New Mexico’s population growth is also different from other states. We grew just 1.3 percent from 2010 through 2015, and that growth occurred only because more people were born than died during that period. During that same time, Arizona grew almost seven percent and Texas grew more than nine percent. A low population growth rate, combined with a large percentage of children born into poverty, presents unique economic challenges for our state. In the meantime, New Mexico saw almost 30,000
more people leave the state than move in. One reason for migration is that some economic opportunities are better elsewhere.133

Population growth is generally viewed as healthy from an economic development perspective. However, in our desert state, people also understand that growth efforts must be tied to long-term water planning, ensuring we do not deplete natural resources.

**New Mexico’s Tax System**

**GROSS RECEIPTS TAX**

New Mexico’s Gross Receipts Tax (GRT) is considered by many as being prohibitive to economic prosperity and job creation. It is, however, the single largest contributor to the state’s general fund, the largest contributor to municipal government coffers, and a significant component of county government budgets.

To understand the challenge, it helps to compare New Mexico’s GRT with approaches used in other states. There are three main models:

- A sales tax, which is a tax on the final product, usually tangible property, sold to consumers.
- Traditional GRT: A turnover tax, typically imposed at very low rates (i.e., 2 percent or less) on gross income, and typically used to replace corporate income tax as a tax on business activity. It does not replace sales taxes in states that have them.
- New Mexico’s GRT: An excise tax applied much more broadly to a wider array of products and services that lead to a final product, plus the tax on the final sale.

“Today’s GRT makes poor households poorer, kills jobs and incentivizes out-of-state buying.”

-- Richard Anklam, NM Tax Research Institute

New Mexico’s taxing of each step in the process is commonly called ‘pyramiding’ since it creates layers of taxes that are often buried in the cost of the final product. These taxes include everything from temporary services to hiring accountants, making the cost of doing business higher in New Mexico than neighboring states. While there are a handful of states that impose traditional GRT, New Mexico’s approach is somewhat unique. It is a hybrid of a sales tax and traditional GRT.134

“Pyramiding adds considerably to the already regressive nature of any consumption tax, making the tax much more burdensome to poor households than a traditional sales tax,” said Richard Anklam of the New Mexico Tax Research Institute. “On the business side, the problem is generally worse for smaller businesses than large ones, because small companies don’t have staffs of in-house accountants or IT managers. The small companies rely more on outside contractors, and under GRT, they pay taxes for those services. This increases their cost of doing business in ways that wouldn’t happen elsewhere.”

Over the last decade or more, our state’s taxation system may have become less stable because of tax base erosion (e.g. new exemptions/deductions narrowing the consumption base) and a long-term trend to increase GRT rates. The controversial exemptions of food and health services from GRT were intended to make those essentials more affordable. Some argue they have done exactly that. Others say removing those items prompted the state to raise GRT on everything else, penalizing consumers — especially the low-income.135 “Made much worse with the addition of the rising rates, today’s GRT makes poor households poorer, kills jobs and incentivizes out-of-state buying,” said Anklam.

133 (Quigley, New Mexico’s Population Struggle 2016)
134 (Anklam 2016)
135 (Quigley, Your Government Needs More Money 2016)
However, eliminating GRT would create a huge disruption in New Mexico’s funding base. Our state relies heavily on the service economy, so taking it out of the taxation equation would definitely affect our bottom line and impair the state’s ability to provide existing government services. Any reform efforts would be challenging, demand significant research into viable alternatives, and require major bipartisan cooperation.

**MENAGERIE OF TAX INCENTIVES**

To overcome perceived disincentives to businesses operating in NM, the state offers tax incentives. According to the state Economic Development Department (EDD), incentives generally play the biggest role in attracting new businesses to the state. New Mexico offers more than 300 tax exemptions, deductions and credits against the GRT. Several incentives were also established to help create high-wage, technology and rural jobs, as well as tax credits for companies making manufacturing investments that grow the economy. \(^{136}\)

Barring major reform to the overall GRT structure, the argument for targeted tax subsidies and incentives is supported by three studies performed by the national economic research firm Ernst and Young. The first one, in 2011, concluded that New Mexico had the worst state and local business tax burden of any state. In 2012 and 2014, the New Mexico Tax Research Institute engaged the firm to repeat the study, but to change the method by factoring in existing state tax incentives. The 2012 and 2014 reports compared us with Arizona, California, Colorado, Nevada, Oklahoma, Oregon, Texas and Utah – all western states with which New Mexico is often compared. This research determined that, after incentives were accounted for, New Mexico’s ranking improved greatly for the targeted industries, moving us to the middle or near the top of the rankings for the states modeled. \(^{137}\)

However, all those incentives and subsidies can create concerns and confusion, which some argue just adds to the state’s economic troubles. That’s according to a report released in January by UNM and the Committee for Economic Development, a national policy organization. The study recommends business leaders push for a rigorous review of tax subsidies to determine whether the incentives are worth the money spent. The study noted that private companies can apply for 34 tax credits in seven industries. Between 2011 and 2013, the state issued 860 subsidies at a cost of more than $262 million. \(^{138}\)

People on all sides of the issue agree that further research is probably warranted, especially on the long-term value of tax subsidies, their impact on the state’s economy and the role of GRT.

**Strategies for Diversification**

The potential need to devote more resources to economic development, whether in staffing, marketing, or other contexts, is not lost on the EDD. “Even Wyoming spends a lot more than we do, and they have one-quarter the population,” said EDD staffer Elizabeth Davis.

The state’s five-year (2015-2019) strategic plan outlines priorities that require a significant amount of funding or capital investment. These investments include improvements to technology commercialization, defense industry diversification, as well as increasing and maintaining Local Economic Development Act (LEDA) and Job Training Incentive Program (JTIP) funds.

**TECHNOLOGY COMMERCIALIZATION**

Among the highest priorities for the EDD is creating tech commercialization pipelines that result in statewide job creation. \(^{139}\) Here’s what that looks like: When research and technological development in the state’s national labs or universities is successfully converted to products or services in the
marketplace, that leads to creation of private-sector businesses around those products, and ultimately to creation of jobs.

To realize greater success in tech commercialization, the EDD reopened in 2014 its Office of Science & Technology (closed since 2011) and integrated efforts with the Technology Research Collaborative (TRC). The TRC unites New Mexico’s research institutions to accelerate the commercialization of new, homegrown technologies. The barriers to success most often noted by TRC members are a lack of funding for technology maturation and seed capital for start-up businesses.140

Patricia Knighten, who manages the state’s science and technology office, recently published the Science and Tech Plan, which among other things calls for $1.5 million in seed capital for technologies born in New Mexico’s labs or universities. It also recommends a higher education endowment fund, a fund for matching federal research grants, and other large standing budgets of money so that more tech commercialization opportunities can be pursued by research institutions.141

SHOW AND TELL
To improve outsiders’ perceptions of New Mexico and to familiarize companies with what the state has to offer, the EDD offers annual tours for site selection consultants. The first of these was hosted last year in Santa Fe.142 Many local organizations host similar tours. For example, Albuquerque Economic Development (AED) hosts about a dozen site selectors every year during the city’s international balloon fiesta.

Other strategies the state either uses or could implement to attract outside companies include:

- Engagement of local/regional economic developers to “sell” their communities since no one knows their respective markets better than those who live there
- Sales missions, or one-on-one meetings with site selectors in their home cities
- Meetings with targeted companies in their respective locations
- Select advertising and general marketing to economic development publications and through direct mail
- Trade shows targeted to industries that make sense for New Mexico (i.e. space, aircraft, petroleum)
- Relationship-building among those individuals nationwide who represent the largest number of site selection projects

Industries Worth Pursuing
While the state is not in a position to be overly selective about business sectors it would like to attract, there are some that tend to make more sense than others in New Mexico. Because of our climate, natural resources, outdoor/cultural amenities and cutting-edge research and technologies generated by three national laboratories and three nationally recognized research universities, New Mexico is, or could become, competitive in the following target areas.143

NATURAL RESOURCES: WATER, ENERGY, FORESTS
Water security, food security and energy are major issues confronting the world for the foreseeable future. New Mexico could lead the way in resource management, especially as it relates to water and energy. If our state could solve our own water problems through technology, planning and policy initiatives, we could teach others to do the same. Similarly, expansion of renewable energy (wind, solar and geothermal), while retaining conventional (oil and gas), could create more opportunities to lead – and grow the economy.

140 (Knighten, Patricia, 2015)
141 (Knighten 2016)
142 (Tonjes, President, Albuquerque Economic Development 2016)
143 (Dekker, 2016), (New Mexico Economic Development Department, 2016)
Expanding efforts in forest and watershed restoration presents another growth option. Doing so would help protect our forests from extreme fire, while also potentially creating rural jobs and reinvigorating New Mexico’s timber industry.

HIGH TECH
Optics and photonics are rapidly growing and specialized fields of physics and engineering based on the science of light. They affect the fields of health, defense, telecommunications, digital photography and others. In New Mexico, the Air Force Research Lab and Sandia National Laboratories created a large private sector contractor capability that is unique to the state.

Similarly, bio-tech, bio-pharmaceuticals and new drugs are growing three times faster than traditional healthcare.\(^{144}\) UNM and the Bio-Science Center in Albuquerque are indicators of the human capital, research and development (R&D), and intellectual property that exists in our state.

TOURISM
New Mexico’s trifecta of history, nature and culture makes us unique in the nation for tourism. In 2014, the state saw 2.3 million visits from people engaging in “quiet recreation,” such as campers and hikers — bringing $173 million to the state that year and employing more than 1,700 people.\(^{145}\)

Increased tourism could bring immediate benefits for state and regional economies. Marketing outreach could target travelers in the U.S. as well as Mexico’s growing middle class.

Sports tourism could provide another growth opportunity. New Mexico’s weather and elevation make us a great place to recreate, and the state could become a leading destination for regional and national youth sports activities. Strategic investments in facilities and infrastructure would be required.

SPACEPORT
The global attention and media coverage generated by the initial launch of Richard Branson into sub-orbit may be the one of the most anticipated and watched events of the decade. If New Mexico planned ahead, the launch could provide large-scale opportunities to market the uniqueness of New Mexico to business and consumer audiences.

BACK OFFICE AND TECHNICAL SUPPORT
New Mexico already has a strong “back office” sector comprised of customer service, technical support, order taking, claims processing, bilingual customer support, accounts payable and mail processing. These jobs exist in Albuquerque, Las Cruces, Rio Rancho and elsewhere. Strategies to grow this sector include: training/credentialing a bilingual workforce, strong workforce development with education in “soft skills” including phone courtesy, and expansion/maintenance of reliable, high-speed broadband.

\(^{144}\) (Dekker 2016)

\(^{145}\) (Moss 2016)
Retaining Existing Businesses

Attraction is only part of the puzzle; healthy industry diversification also must include initiatives to retain existing businesses and help them grow.

The ability to build and maintain relationships with local business is critical, according to Albuquerque Economic Development (AED). The organization recommends the following types of activities:  

- Holding regular conversations to determine local business needs and challenges.
- Developing programs that respond to those needs
- Connecting business with internal and external experts in areas of need (startups, tax, law, workforce, tech)
- Conducting industry appreciation events

Options and Intersections

This chapter offers several ideas for further discussion. How high a priority is industry diversification? What actions might the state take, soon, to expand both the types and numbers of jobs in New Mexico? And how might we align existing efforts, minimizing duplication? To what degree do we want to expand recruitment of retirees and freelancers? How can we spread the word nationally about New Mexico’s capacity to house new businesses? What types of businesses should we pursue? How can we grow our economy while also protecting natural resources and attracting industries that might thrive in our desert climate?

These questions are also influenced by other sections in this report. The discussion of federal investments in New Mexico – including the pros and cons of those dollars – bears heavily on the issue of diversification. (Ch. 6) Broadening the economic base is not just a challenge in our urban areas, it is a priority for our rural and tribal communities as well. (Ch. 5) Any new industries will require a highly trained workforce supported by a world-class university system. (Ch. 2)

---

146 (Tonjes, 2016)
CHAPTER 5
RURAL AND TRIBAL DEVELOPMENT

CHAPTER ADVISORS
Many thanks to the advisors for this section: Leslie Cervantes, New Mexico State University (NMSU) and Cervantes Enterprises; Micaela Fischer, Thornburg Foundation; Peter Ibarbo, Office of Rep. Steve Pearce; Richard Luarkie, Emerging Equities Solutions Group (and member of Laguna Pueblo); James Peach, NMSU; Alvin Warren, W.K. Kellogg Foundation (and member of Santa Clara Pueblo); David Williams, Office of Senator Tom Udall.

The issues facing rural and tribal communities in New Mexico are significant. Migration to urban areas remains a steady trend, and some people may say that is just the way of the future. They say, let markets and new generations take their own course, and if that means the populations become centered around the cities, so be it. Other people counter that rural and tribal communities are a critical element of our state’s cultural heritage. They might point out that New Mexico is a land of multiple languages and resilient people — people who work hard, honor family traditions, instill rich values and contribute to the state as a whole — so we must retain and support our communities on tribal and rural lands.

This chapter overviews unique opportunities and trials encountered by New Mexico rural communities in general (non-tribal and tribal) as well as distinctly different issues experienced by our 23 sovereign Native American nations.

Rural New Mexico
New Mexico is a predominantly rural state. The vast majority of our land is undeveloped, and many people like it that way. Over three-fourths of our counties are classified as rural (26 out of 33), but only 33% of our people actually live in rural areas.147 This percentage has been steadily declining for decades, though the actual number of people is slightly increasing. Similar trends exist in tribal communities. Nationally, the migration of Native Americans away from reservations to urban areas continues to increase with 70 percent of Native Americans living in metropolitan areas.148 Less than 50 percent of New Mexico’s Native American population is working and living in or near federally recognized tribal areas.149

This migration of people from rural and tribal areas means that a greater percentage of our population than ever before lives in cities. Practical issues like good jobs, salaries, access to medical care, or convenience send many small town residents to the Albuquerque area, Las Cruces, or out of state.

147 (USDA 2014)
148 (Williams 2013)
149 (U.S. Department of Interior 2013)
WHAT IS RURAL?
The federal government defines counties as “rural” and the related term “frontier” (which essentially means really rural) using a complex set of measurements including the number of people in a county, the number of people per square mile, and the distance of a community from a metropolitan area. (See appendix for the government’s rural classifications for each county.)

For the purpose of this report and the town hall, we will keep it simple. We are considering all New Mexico communities other than Albuquerque, Rio Rancho, Santa Fe and Las Cruces to be rural, since they face similar challenges and often rely on similar industries. We also encourage readers to bear in mind that very small rural places, such as Floyd or Roy, confront different hurdles than their less rural counterparts like Gallup or Portales. There are six New Mexico counties (Catron, DeBaca, Harding, Hidalgo, Mora and Union) that are classified as extremely rural, with populations below 5,000. By comparison, Bernalillo County has over 662,500 residents.150

Bottom line, as the following map illustrates, New Mexico is unquestionably rural. If we fail to tend to our non-urban areas – economically, environmentally and socially – we are ignoring the vast geographic majority of the state.

NEW MEXICO BY POPULATION

ECONOMIC DRIVERS
Major industrial economic base drivers in rural New Mexico include energy production, agriculture, retail and tourism. The film industry is also growing, presenting interesting opportunities for some rural and tribal communities. Each county varies considerably. The Arrowhead Center at NMSU recently published a series of economic base studies for each county. This rich source of local information shows, for example, that Curry County’s economy relies on the military, agriculture, transportation/warehousing and retail. By contrast, Lincoln’s economic base includes arts/entertainment, accommodation/food, retail, real estate and agriculture. Grant County, home to Silver City, relies on mining, tourism, retail and agriculture. The one variable that all three examples share is agriculture. (See appendix for economic drivers of each region of New Mexico.)

STATE LAND TRUST
Nine million acres of surface estate and thirteen million acres of mineral estate in New Mexico are managed by the State Land Office. Most of that land is in rural areas, and it is leased for agriculture, oil and gas, commercial uses, mineral extraction and rights of way. Revenues generated from these activities

150 (U.S. Census Bureau 2010)
are placed in either the Land Grant Permanent Fund (for non-renewable sources of income such as oil and gas) or the Land Maintenance Fund (for renewable sources of income such as agricultural leases). The funds support New Mexico schools, universities, hospitals and other important public institutions. These funds save the average household about $800 a year in taxes. The land plays an important role in rural economies.\textsuperscript{151}

### Agriculture

While the number of people directly employed on farms and ranches is relatively small (less than 1.4 percent of the overall workforce), the overall agricultural industry in our state is indubitably growing. The number of New Mexico farms, young farmers and minority farmers increased in recent years. The number of farmers and ranchers under age 34 rose by 47 percent between 2007 and 2012 (the last date for which data is available). During that timeframe, the number of Hispanic-operated farms jumped 45 percent to almost 9,400. With over 24,000 farms, New Mexico has about 43 million acres in farmland. Total agricultural net income increased more than a third in the last five years.\textsuperscript{152}

Consequently, according to one study, agriculture in New Mexico translates into about $10.6 billion a year, over 50,000 jobs, and nine percent of the state’s economy. These figures include three types of impacts:\textsuperscript{153}

- The direct effect of the sale and processing of agricultural products
- The indirect effects of farmers and ranchers buying goods and services from local industries
- The induced effect of those people and businesses re-spending the income they received from the farmers and ranchers

So, even though the agriculture sector is growing and its economic impacts significant, the industry faces significant challenges. Most farmers and ranchers are nearing retirement age (average age is 60). About half of all principal farm and ranch operators in the state have a primary occupation outside of the farm or ranch. In addition, land prices in the state continue to escalate, more than doubling in price per acre since 1997 for all farmland and increasing over 150% for irrigated cropland over the same period.\textsuperscript{154}

### WATER

The agricultural industry accounts for an estimated 80 percent of New Mexico’s total water withdrawals.\textsuperscript{155} Much of that water returns to rivers or other water sources and is re-used downstream. As a portion of the state total, agriculture’s reported percentage increased slightly in recent decades (from 75 percent in 1995). However, the actual reported volume of water used by the industry steadily declined, from 3.4 million acre-feet in 1995 to 3 million acre-feet in 2010. That decline may be due to changes in irrigation technology, farming practices, amount of acreage in production, or other factors.

### VALUE-ADDED AGRICULTURE

One strategy for growing the economic impact of agriculture is expanding the use of value-added products. The term “value-added” refers to activities that make a product more valuable to consumers, perhaps through marketing/branding, processing, or appealing to a specific interest. For example, some farmers in eastern New Mexico raise peanuts. To make this a “value-added” crop, the region:

- Marketed the uniqueness of the Valencia peanut, distinctive from other seed types in both size and flavor
• Linked the crop to a manufacturing process, where the raw produce is roasted or made into a niche brand of peanut butter
• In some cases, raised peanuts organically, appealing to people who are willing to pay more for an organic product

Any of these activities add financial value to the basic agricultural product. The EDD points to the following industries as examples of the state’s growing value-added food and agriculture economy:

• Dairies and cheese manufacturing
• Chile and its commercial processing
• Nuts and their commercial processing
• Organic produce
• Wine
• Microbrewers

LOCAL PURCHASING POTENTIAL
Researchers point out that the agricultural industry could play a larger role in the state economy, create more jobs and increase the in-state benefits of its water use if consumers purchased more food from local growers. Many environmental advocates also champion the cause, pointing to energy savings when fewer foods are trucked or flown across the globe. Our state imports more than $4 billion in food products each year. One study calculated that if New Mexicans bought 15 percent of their food directly from local farmers and ranchers, incomes would increase by over $370 million. For every dollar that goes to New Mexico farmers and ranchers, an estimated 95 cents is re-spent in the local community. ¹⁵⁶

DIFFERENCES BETWEEN FARM AND RANCH ECONOMIES
There are key differences between farm and ranch operations that affect their impacts on local economies and land use including:

• Differing values of irrigated versus non-irrigated land
• Much more land needed to ranch than farm, generally
• Totally different types of equipment needs
• Somewhat different workforce needs (both partly seasonal but at different times)
• Different vulnerabilities in terms of weather/water vulnerabilities

AGRICULTURAL RESILIENCY PROJECT
Since Fall 2015, a statewide program organized by NMSU County Extension Services and New Mexico First has been advancing the goal of a statewide agricultural resiliency plan. With funding from a coalition of foundations and government entities, the project aims to create a consensus-driven plan that includes a strong export-oriented commodity agriculture sector as well as a robust local food system of all sizes of farms and ranches.

A series of regional forums across the state (held on non-tribal and tribal lands) identified the following top concerns about the future of agriculture:

• Natural resources, mostly worries about adequate water
• Regulatory challenges, creating uncertainty and inhibiting economic growth
• Succession planning for the next generation of farmers and ranchers
• Need for more education for all sectors (school children, general public, policymakers and within the industry)
• Improved access to agricultural markets, locally, nationally and internationally

¹⁵⁶ (Crawford 2014)
• Workforce issues, including immigration policies, the need to recruit and retain new farmers and ranchers, and a desire for an educated, prepared labor force
• Financial challenges, reflecting the growing cost of farming and ranching for existing operations as well as the incredibly high start-up costs for those entering the field

All these concerns may inform future decision-making about agriculture, in both traditional rural communities and on tribal lands.

Energy and Mining

CONVENTIONAL ENERGY
The extractive industries (oil, gas, mining) are major drivers of many rural and tribal economies, and while they may not operate in as many counties as agriculture, these energy sources create considerably larger financial impacts. Tax revenue from the oil and gas industry comprises roughly a third of New Mexico’s general fund; state fiscal planners estimate that each dollar drop in the price of a barrel of oil reduces the state budget by about $6 million.  

New Mexico is the sixth-largest net supplier of energy to the nation, primarily because of oil and gas production. Much of that production occurs on federal lands. In addition, mining operations in New Mexico produce more than 20 million tons of coal per year. This extraction feeds coal-fired power plants, with almost two-thirds of New Mexico’s net electricity generation.

As noted above, much of the state’s oil, gas and coal mining occurs on tribal lands. For example, Navajo Nation formed its own energy company in 2013 and acquired Navajo Coal Mine from the mining company BHP Billiton. The tribe also signed a 25-year lease extension with the Four Corners Power Plant, a decision tied to over 700 Navajo jobs.

The under-regulated uranium mining industry of the twentieth century left a legacy of abandoned and contaminated sites in New Mexico. Some of the mill sites have been cleaned up, but many – located on tribal and non-tribal lands – remain unremediated. Groundwater contamination is among the biggest concerns. Changes in economic and regulatory conditions prompt some energy developers to consider renewing uranium mining in New Mexico, but with much more stringent environmental and public health protection rules.

RENEWABLE ENERGY
Many rural and tribal communities have developed, or are developing, renewable energy projects, including wind, solar and geothermal. Past public policies, including the Renewable Energy Production Tax

157 (New Mexico First 2016)
158 (U.S. Energy Information Administration 2015)
159 (Harvard University 2014)
Credit and other incentives, contributed to the expansion. The greatest wind potential is on the high plains and rugged ridges in the eastern half of the state. In 2014, wind energy contributed seven percent of New Mexico’s electricity generation. In addition, New Mexico’s abundant sunshine gives the state some of the nation’s best solar energy potential. On a per-capita basis, New Mexico is among the top 10 states nationally in distributed grid-connected solar capacity.160

In addition, geothermal resources exist in western and southern New Mexico. The main use of geothermal energy in New Mexico had been for greenhouse agriculture, much of it supporting green chile production. Geothermal energy also has been used for space heating, district heating, aquaculture and spas at several locations. In December 2013, New Mexico’s first utility-scale geothermal power plant came online in the Animas Valley.161

TRANSMISSION
Because our state has a relatively small population with low electricity demand, we can produce much more renewable energy than we can consume. To build renewables as a strong economic base industry, more storage and transmission capacity is required to carry that energy to power markets throughout the Southwest. New Mexico is already playing a national role in this area. At Sandia National Laboratories, the Energy Storage Systems program is collaborating with industry academia and government institutions to increase reliability and performance and market competitiveness of grid storage. The lab also hosts the U.S. Department of Energy’s Storage Database that provides information on grid-connected storage projects and relevant state and local policies.162 Previous New Mexico First town halls (2009 and 2012) called for expansion of the national transmission grid in order to grow this segment of our economy.

Infrastructure

BROADBAND
New Mexico ranks in the bottom quarter of states with minimally adequate broadband. Even more critical is the lack of broadband infrastructure in rural and tribal areas, where 25% of the state’s population and 39% of the businesses reside. It was estimated in 2012 that nearly half (47%) of the New Mexico rural and tribal population did not have access to adequate broadband, twice the national average.163

When tribal communities are separated out, the access problem appears more troubling. An estimated one in five people on tribal lands have access to wired broadband. Various activities are underway to address this challenge. For example, a $13.8 million low-interest loan was approved in March 2016 for Sacred Wind Communications to improve internet infrastructure in tribal communities.

Broadband access matters because of the changing job opportunities available to people in rural areas. There are more opportunities than ever for companies to reach a workforce virtually. For example, 45 percent of IBM’s workforce now operates remotely, often from communities of their choice.164 Technology is also creating more solopreneurs, such as people selling on eBay, providing consulting services, blogging, etc.

“Much of the rural population wants to be able to stay where they are and make a good paycheck, and this type of virtual office employment would allow for that,” commented Las Cruces economic developer Davin Lopez. “Changing opportunities force us to think differently about the kind of infrastructure needed to support rural New Mexico. Maybe we do not need as many paved roads for large company vehicles; instead, critical infrastructure is likely in broadband.”

160 (U.S. Energy Information Administration 2015)
161 (U.S. Energy Information Administration 2015)
162 (Pew Charitable Trusts 2016)
163 (NM Department of Information Technology 2013)
164 (Harvard Business Review 2013)
Not all broadband needs to be wired, however. Technology in the form of low-orbiting satellites and unmanned aerial vehicles may also make broadband more accessible to rural New Mexico than previously thought.

While access remains our state’s challenge, New Mexico’s rankings in broadband have recently improved in some areas. We ranked number one in a national survey that measured how broadband is used by individual businesses, organizations and households. The state also finished well in five research categories including availability of providers, adoption of household users, and driving meaningful use through issue awareness and training. Further, New Mexico ranked highly in growth investment through the government’s commitment to promoting broadband and fostering a “fair-minded” regulatory environment.

PHYSICAL INFRASTRUCTURE

Another challenge facing rural and tribal communities is physical infrastructure, including water delivery systems, wastewater treatment and roadways. In rural communities, these infrastructures may be aging, leaking or crumbling. The same is true on tribal lands, or sometimes the infrastructure never existed in the first place. There are several locations on the Navajo Nation, for example, still without running water, electricity or wastewater systems. Similar conditions exist in many colonias (Spanish for community). Colonias are government-recognized residential areas, mostly along the U.S. and Mexico border, characterized by substandard housing and infrastructure. New Mexico’s Rural Infrastructure Program, Tribal Infrastructure Fund, and Colonias Infrastructure Fund all help address these challenges.

(See Chapter 6 for information about public-private partnerships (P3s) as an option for financing New Mexico infrastructure projects.)

Tribal Development

New Mexico has about 220,000 Native American citizens, making up 11 percent of the state’s population. We are home to 23 sovereign tribal nations, including 19 Pueblos, three Apache tribes and the Navajo Nation (which also spans into Arizona). Each tribe brings its own government, traditions and culture. The pueblos alone span over two million acres across eight counties.

Almost a third (31 percent) of Native Americans in New Mexico live on incomes below the Federal Poverty Level (FPL). Jobless rates contribute to this challenge, with 16 percent of Native Americans in New Mexico unemployed. While most Native American people do not live on tribal land, growing tribal economies would improve the economic conditions of tribal families overall.

Some people mistakenly believe that business principles and tribal culture are inherently mutually exclusive, that if you have one you cannot have the other. In fact, strong reservation economies are vital to sustaining and developing Native American cultural identities. Tribal cultural values of operating businesses at the free will of individuals and families, using resources to help others, consensus driven decision-making, and holistic approaches to...
economic development for long-term positive impacts are values that can be beneficial for all communities, tribal and non-tribal.169

Negotiating the boundaries between the culture of the tribe and the culture of mainstream business while maintaining personal authenticity is a challenge faced and met by many tribal leaders.170 Tribal leaders who display the ability to successfully accommodate both mainstream and tribal cultures may produce good outcomes for their own tribes as well as the companies that do business in Native American communities.171

In addition, healthy tribal economies contribute to the state’s overall economic diversity. Tribes contribute an estimated $66 million per year to the NM General Fund through NM Gaming Compact revenue sharing, not including gross receipts taxes and severance taxes.172 New Mexico has experienced significant job growth (for tribal and non-tribal people) in the lodging and hospitality sector due to hotels, resorts, golf courses and casinos on tribal lands.

For some, the growth in gaming revenue points to more promising futures on tribal lands. Others worry about social problems associated with rising levels of gambling. And certainly, employment remains a priority. Nationally, up to 75 percent of Indian gaming jobs go to non-Native employees.173 In addition, hospitality and gaming industries do not exist in many tribal communities. Only 15 of the 23 tribes and pueblos in New Mexico operate casinos and, of those, 13 operate hotels.174

Gaming aside, tribes across the country are increasingly able to develop businesses that produce jobs, profits and government revenues. Tribes have also strengthened their self-governance, increased their control over their natural resources and food systems, and become more direct influencers of the U.S. energy sector.175 In addition, the arts and crafts industry is a core aspect of tribal tourism revenues; it is also a main source of supplemental income for many Native American families. Between 1990-2010, per capita income for Native Americans grew by 46.5 percent.176

That said, overall economic health of tribal communities varies widely. Serious challenges remain. A wide array of tribal development challenges and possible solutions exist at individual, community and regional levels.

FINANCIAL LITERACY
Just as financial literacy is a priority for the population at large, multiple sources point to this issue as a need for tribal members and leaders. Generations of poverty may contribute to some Native American youth and adults lacking skills to manage finances well. Advocates recommend K-12 curriculum training for children and youth, community-based training for adults, and advanced investment and business management skills for tribal leaders.177 Such training could be financed by tribes, economic development investors, government grants or foundations. For example, the First Nations Development Institute deploys W.K. Kellogg Foundation dollars in New Mexico to run a program that provides financial literacy training to Native American parents of students in Gallup. The program also helps young people set up youth savings accounts and children’s saving accounts.

169 (Alvarez 2011), (R. J. Miller 2012)
170 (Stewart, et al.)
171 (Stewart, et al.)
172 (Warren, 2016), (NM Gaming Control Board 2014)
173 (Robertson 2012)
174 (500 Nations n.d.)
175 (Warren, 2016), (NM Gaming Control Board 2014)
176 (Economic Policy Institute 2013), (Akee and Taylor 2014)
177 (Akee and Taylor 2014)
178 (National Congress of American Indians 2007) (Harvard University n.d.)
HOUSING
Adequate housing is important for any community, since without it one cannot attract and recruit a workforce. Further, home ownership is a major factor in our country for creating a middle class; home equity serves as the biggest source of capital for business start-ups and also a main source of funding for retirement and college. These factors apply to both tribal and non-tribal communities.

However, tribal communities are far more likely to experience housing challenges. Native American families are two-and-a-half times more likely to live in an overcrowded home than the general population, 10 times more likely to live without adequate plumbing, and 11 times more likely to lack adequate kitchen facilities. When high quality housing does exist, Native people who have financial resources to own their homes may encounter challenges due to tribal land status or title restrictions. Most tribal land is held in trust by the federal government, so the title cannot be sold. The federal Indian Home Loan Guarantee Program (Section 184), may be used to overcome these hurdles to home ownership.

CAPITAL, BANKING AND INCENTIVES
Access to capital and financial services are key tools for economic advancement, breaking cycles of poverty and overall tribal development. Tribes often have less access to bonding capacity than other communities, and those that do use bonds to raise money face higher rates or shorter periods. Prior to 2009, tribes did not have the same authority to issue tax-exempt bonds as other types of governments, making it harder to finance major infrastructure or development projects such as roads or schools.

Now that the law is changed, Native American governments can more effectively deploy Tribal Economic Development (TED) bonds to finance any project or activity for which state or local governments could issue tax-exempt bonds (i.e., water projects, schools, infrastructure). TED bonds are not grants. Instead they are tax-favored bonds used to raise money from investors. This type of loan must be paid back, but investors generally accept a lower interest rate since the interest is not taxable. TED bonds cannot be used to finance gaming construction.

In addition to financing public needs, tribes also experience considerable challenges in accessing capital for non-gaming related businesses. This hurdle, along with geographic location, access to markets, and limited workforce directly impact the diversification of tribal economies.

One strategy for increasing access to capital is local banks. In some cases, regulatory barriers prevent financial institutions from opening branches on tribal lands. The Borrego Spring Bank (the first Native American-owned bank in California) overcame those barriers. A case study on the institution illustrated improved financial services for tribal governments, native businesses and tribal people. The bank’s goals include fostering economic self-sufficiency among Native Americans, diversifying tribal economies, facilitating “Indian to Indian commerce,” and providing financial literacy training.

On the tax side, tapping incentives may be another strategy to consider. Previous research recommended incentivizing businesses to locate on tribal land, including coordinating tribal and state tax laws. There may be opportunities to leverage existing federal and state programs, such as enterprise zones, Mainstreet Programs, or existing tax credits. Some, but not necessarily all, tribes struggle with capacity issues such as not knowing how to access existing resources. In other cases, there may be challenges in

---

178 (National Congress of American Indians 2007)
179 (Ludwig 2013)
180 (Economic Policy Institute 2013), (National Congress of American Indians 2007)
181 (Harvard University n.d.)
182 (National Congress of American Indians 2007)
183 (U.S. Treasury Department 2012)
184 (Harvard University n.d.)
collaboration between different types of government, or questions about how to respect the jurisdictions of tribes and states.  

**INTER-TRIBAL COOPERATION**

While it is clear each tribal community is different, with its own customs and governance, opportunities may exist to leverage greater buying power through cooperation. Some options include:  

- Creation of inter-tribal loan funds for business development designed to serve multiple tribes (could be on regional, statewide or national levels)
- Establishment of more micro-loan programs on a multi-tribe level since individual tribes and pueblos often cannot finance on their own
- Expansion of entrepreneurial training and incubators, potentially in partnership with tribal colleges
- Formation of a statewide organization to market and brand native products and foods

**ECONOMIC DATA**

It is difficult to strategically plan, and track progress toward, economic development on tribal lands without good data. Like other states, New Mexico would likely benefit from more data on trends among Native-owned businesses, tribal economic growth, markets and general financial conditions. Nationally, there is also some concern about the accuracy of tribal information collected through the American Community Survey, the federal government’s major tool for gathering information between U.S. Census years.

**Options and Intersections**

Both rural and tribal communities want to preserve ways of life and traditions that are dear to them, while also seeking to embrace vibrant futures. What opportunities exist to maintain or increase rural and tribal populations? To what extent and in what ways will we support long-standing rural industries? How can New Mexico innovate to encourage new or different industries on rural and tribal lands? And what reforms can New Mexico support that will advance the economic and cultural well-being of our tribal communities?

These issues relate closely to other chapters. Our rural and tribal communities contain many people living at or near the poverty level. Partly for this reason, these communities struggle greatly to cultivate and retain a qualified workforce. Our rural and tribal communities also want to grow a culture of entrepreneurship and diverse economies, and they face similar struggles as those in urban areas. Practically all rural and tribal communities rely on their small business economies and they are often excellent natural cultivators of entrepreneurial goals. Another factor is the major role of federal dollars in rural New Mexico, especially for those communities near military bases.

---

185 (Warren 2016)
186 (National Congress of American Indians 2007)
187 (Warren 2016), (National Congress of American Indians 2007)
188 (Economic Policy Institute 2013)
CHAPTER 6
GOVERNMENT & THE NM ECONOMY

CHAPTER ADVISORS
Many thanks to the advisors for this section: Jerry Harrison, New Mexico Health Resources; Ruth Hoffman, Lutheran Advocacy Ministry-New Mexico; Bill Jordan, Voices for Children-New Mexico; Jim Peach, New Mexico State University; Mike Puelle, Associated General Contractors-New Mexico; David Williams, Office of U.S. Senator Tom Udall.

The Federal Government’s Role in New Mexico’s Economy
New Mexico’s reliance on federal government dollars is a double-edged sword. On one hand, New Mexico has grown and prospered from federal government investment in our state. Thousands of federally funded jobs and contracts contribute enormously to our state’s tax base through the national labs, military bases and healthcare services. On the other hand, over-reliance on any single source is not healthy for an economy. For decades, lawmakers and community leaders have urged the state to reduce our reliance on federal funding. So the question remains: How can we diversify sensibly while leveraging existing federal dollars to spur more economic growth?

GOVERNMENT’S HISTORIC MILITARY ROLE
Since 1846 when General Stephen Kearney captured Santa Fe in the war with Mexico, New Mexico has felt the significant presence and influence of the federal government. This presence shaped not only our economy but our way of life.189

Later, World War II resulted in a significant build-up of federal facilities and programs, starting in 1943 when the federal government built Los Alamos as the center for atomic research. These activities led to the September 1945 move of some units from Los Alamos Laboratory to Sandia Base. This move was the predecessor of Sandia National Laboratories. These military activities contributed to the establishment of the Holloman, Kirtland and Cannon Air Force Bases near Alamogordo, Albuquerque and Clovis as well as White Sands Missile Range and Fort Bliss Army Base.

GOVERNMENT’S ROLE TODAY
Some 70 years later, the federal government unquestionably plays an enormous role in New Mexico’s economy. The state has experienced considerable growth in federal spending, now up to $29.2 billion.190 New Mexico is ranked as the most dependent state on federal investments, with federal spending accounting for over 37 percent of state revenue.191

New Mexico receives substantially more federal dollars than it contributes. For every dollar we pay in taxes to the federal government, New Mexico receives over three.192 On one hand, this $3.60 to $1 ratio reinforces the need to diversify our economy so we are less reliant on government spending. On the other hand, government investments unquestionably create economic opportunities. The federal government is a major employer in New Mexico, creating about a quarter of our jobs.193

According to the New Mexico Legislative Jobs Council, the state has the potential to add 9,421 new jobs in the government sector by 2023, presuming removable barriers in the areas of leadership, capital and

---

189 (Reynis, Grassberger and Norton 2005)
190 (The Pew Charitable Trusts 2016, p. 6)
191 (Kiernan 2015)
192 (Kiernan 2015), (IRS 2015)
193 (Morales 2010)
access to a qualified workforce are lifted. Jobs in the government sector include local, county, state and federal government positions.

Annual federal spending in New Mexico amounts to over $14,000 per person, yet (as noted previously in this report) more of our population lives in poverty than almost anywhere in the country. Federal spending can be divided into four categories:

- **Individual Benefits** – benefits payments to individuals. Includes Social Security retirement, survivor and disability payments, veterans’ benefits, Medicare, Medicaid, food assistance, unemployment insurance payments, student financial aid and other federal retirement, disability and assistance payments
- **Grants** – funding to state and local governments for a variety of programs including healthcare, transportation, education, housing, funding for individuals (e.g. Pell grants), and other nonfederal entities, such as research grants
- **Contracts** – contracts for purchases of goods and services, from military and medical equipment to information technology and catering services
- **Salaries and wages for federal employees** – includes those employed at our national labs, military bases, veterans’ hospital and Indian Health Service (IHS) facilities

Almost half of federal spending in New Mexico goes toward benefits payments to individuals and a quarter is for government contracts. However, the economic impact of federal funding extends beyond the individuals or groups that receive that directly. For example, individual medical benefits result in healthcare providers and hospitals being paid for their services and staying in business. Likewise, New Mexico businesses and entrepreneurs rely on government contract funding received directly by our national labs and military bases, allowing them to be active consumers in our economy. In turn, healthcare providers, businesses and their employees purchase goods and services in the community.

**DIVERSIFYING GOVERNMENT CONTRACTORS**

As the previous chart notes, one quarter of New Mexico’s federal funding comes from contracts with federal agencies. A substantial portion of the contracts are with the U.S. Department of Defense (DOD). The DOD budget and funding priorities can fluctuate greatly. In anticipating these fluctuations, the DOD makes funds available to help government contractors diversify their funding sources so they are not as fiscally dependent on DOD contracts. The Defense Industry Adjustment Fund, which includes $1.6 million of committed state money, is anticipated to pay for a multi-year program that began earlier this year.

In the case of a budget downturn, one way to prevent New Mexico from losing the businesses contracted with the national labs is to help them transition to a private sector-oriented business model. While the DOD may always be the labs’ primary customer, the labs’ ability to agilely transition to commercially

---

194 (New Mexico Jobs Council 2014, p. 1)
195 (Henry J. Kaiser Family Foundation 2015)
196 (The Pew Charitable Trusts 2016, p. 6)
197 (Knighten, 2016)
198 (Dekker, 2016)
viable work not only increases the likelihood they would continue to thrive under a federal budget cut, but also diversifies the economies of the communities in which they are located.\textsuperscript{199}

In 2005, community leaders from around the state convened at a New Mexico First town hall to find ways to reduce the state’s reliance on federal funding and create a more diversified New Mexico economy.\textsuperscript{200} Considerable progress has been made toward these goals, but there is more to do. Key ideas included:

- Accelerate the creation of entrepreneurial private sector and nonprofit entity spin-offs from work done at our national labs and facilities. This would include expanding effective business assistance programs and entrepreneurial incubators and reducing regulations that are impediments to entrepreneurial efforts.
- Expand the mission of the national laboratories to develop new technologies in the areas of alternative energy sources, telecommunications, health and desalination of water that would also meet the mission of other federal agencies. This broader mission would allow the labs, entrepreneurs and businesses to work with and tap into the resources of federal agencies other than DOD.
- Create and empower a public-private coalition of experts to determine economic sectors that best contribute to New Mexico’s growth based on our resources and strengths. The coalition would also structure an investment strategy to recruit and expand businesses.
- Align higher education funding and mission specialization with identified industries that would contribute to New Mexico’s economic growth. This includes awarding state funded scholarships for emerging and critical professions in New Mexico (e.g. science, math and technology) on the condition that graduates work in New Mexico for a specified time.

**Changing Role of Federal Healthcare Dollars**

Just as the federal government is the major funder for our national labs and military bases, Washington is also the major funder for healthcare benefits and services in New Mexico. Healthcare and educational services industries are projected by the New Mexico Department of Workforce Solutions to be the largest growing job sectors over the next decade.\textsuperscript{201} New Mexico’s healthcare industry employs over 140,000 people, most of them working in the private sector as doctors, nurses and other healthcare professionals.\textsuperscript{202}

“Getting families and children access to health insurance not only helps families, it helps our schools, healthcare system and economy,” said Erik Lujan of Native American Professional Parent Resources and member of Taos Pueblo.

However, expanded insurance means the state needs more healthcare professionals. The goal to expand the healthcare workforce is a widely supported state priority with major economic development impacts.\textsuperscript{203} Thirty-two of New Mexico’s 33 counties, including Bernalillo, have a shortage of primary, dental and mental health providers.\textsuperscript{204} New Mexico has established infrastructure for educating and training healthcare providers. The state now has two universities (UNM and NMSU) together preparing a wide array of healthcare providers including doctors, nurse practitioners, physician assistants and pharmacists. Additional campuses in New Mexico train nurses and healthcare technicians.

These activities grow the workforce needed for families, but they also influence efforts to recruit businesses, industries and professionals to move to New Mexico. Access to a full range of healthcare providers and services can make a difference in whether they move to and stay in New Mexico.\textsuperscript{205}

\textsuperscript{199} (Knighten, 2016)  
\textsuperscript{200} (Reynis, Grassberger and Norton, 2005)  
\textsuperscript{201} (NM Department of Workforce Solutions 2015, p. 6)  
\textsuperscript{202} (Harris 2015, p. 14)  
\textsuperscript{203} (NM Health Care Workforce Committee 2015)  
\textsuperscript{204} (NM Department of Workforce Solutions 2015)  
\textsuperscript{205} (Heinriks 2016)
NEW MEXICO’S MEDICAID FUNDING SHORTFALL
For the reasons above, most people agree that all New Mexicans need health insurance. The federal Medicaid program addresses this need for low-income people. Medicaid insures 850,000 New Mexicans, more than one-third of the state’s population. About 250,000 of those people are newly enrolled in Medicaid since 2014.206 Financing this program is a complex and immediate problem that will take the work of expert groups of diverse stakeholders to find and promptly implement effective, long-term solutions.

In 2016, the legislature and governor – facing a serious state budget shortfall triggered in part by falling oil prices – reduced the 2017 Medicaid budget by $86 million.207 However, because Medicaid is funded mostly by the federal government with a smaller state match, New Mexico’s $86 million budget cut creates an actual cut of over $400 million.208 When the state reduces its contribution, the federal government portion is automatically lowered proportionately.

The Affordable Care Act (ACA) allowed states to expand Medicaid coverage to more people, thus reducing the rate of uninsured. There is a perception among some that the Medicaid expansion caused New Mexico’s current budget problems. According to the University of New Mexico (UNM) Bureau of Business and Economic Research (BBER), this is not the case. Instead, Medicaid expansion through the ACA is actually generating revenues.

The Medicaid program, including its post-ACA expansion, currently covers more than its costs and is projected to continue covering its costs beyond 2020 when the state’s match rises to 10 percent. (The federal government will assume 90 percent of Medicaid expansion program costs from 2020 forward.) Medicaid is also generating General Fund revenue for a net gain through fiscal year 2021 of $316 million.209

Possible solutions to the state budget shortfall include cutting spending across the board for Medicaid services, requesting a supplemental appropriation for the 2017 budget, reducing reimbursement rates, rescinding physician rate increases and rates paid to hospitals, instituting a hospital and physician fee on the volume of services charged under Medicaid, and increasing reimbursement for services provided in rural areas.210 It has been suggested that all of these options plus additional yet unknown solutions should be explored together in a comprehensive way for the long-term solvency of the Medicaid program in New Mexico.

Public-Private Partnerships
The previous sections looked at how we spend or rely on federal dollars. This section looks at different options to weave together different types of dollars (federal, state and private) into public projects. New Mexico faces a growing need to build and maintain critical infrastructure – everything from roads, transportation and water systems, broadband infrastructure, energy transmission, courthouses, healthcare facilities and schools – but with limited and shrinking government funding to do the job.

Many people point to public-private partnerships (P3s) as a possible strategy for providing New Mexico additional financing opportunities for infrastructure development, creating efficiencies, and sparking innovation that can also lead to cost savings.211

P3s are agreements between public agencies (federal, state and/or local) and private sector entities that allow delivery of a public service or facility for public use. Through this agreement, the skills and assets of

206 (Krasnow 2016), (DeMarco 2016)
207 (Krasnow 2016)
208 (DeMarco 2016)
209 (Reynis 2016)
210 (Krasnow 2016)
211 (National Conference of State Legislatures 2016)
each sector (public and private) are shared as are the risks and rewards in the delivery of the service or facility. 212

Whether a bridge, a water system, a hospital or some other public need, P3s can be used to finance different elements of a project including: 213

- Design and build phases
- Operate and maintain phases
- Some combination of the above

P3 proponents argue that in addition to injecting financial resources, private sector involvement potentially reduces costs, project delivery time and public sector risk and may also improve project selection and project quality. 214 While P3s are designed to provide private capital for public projects, they also contribute the ingenuity and entrepreneurship of the private partners. 215

On the other hand, opponents argue that P3 potential is limited, that private funding will substitute for public resources with no net gain to the public. 216 Additional concerns include loss of public control, private sector profits at the public’s expense, loss of future revenues, risk of private sector bankruptcy or default that falls back to the taxpayer, loss of accountability and transparency, environmental and labor-management concerns, use of out-of-state or foreign companies and specific contract terms. 217

Thirty-three states (along with the District of Columbia and Puerto Rico) have enacted by statute P3 enabling legislation. New Mexico’s neighboring states of Arizona, Colorado, Texas and Utah have P3 enabling legislation designated primarily for transportation purposes. 218 New Mexico P3 enabling legislation has been introduced in recent years, but has not yet passed the state legislature.

Ultimately, changes in federal law encourage the creation of P3s at the state and local level. 219 Increasingly, federal grants require a larger portion of state and local matching funds and require that P3 agreements be part of grant proposals. Partly in response to this development, the Bipartisan Policy Center (BPC) last year developed model P3 legislation based on its review of best practices nationwide. The model legislation helps to address concerns about P3s and allows each state to tailor its legislation according to its needs and circumstances.

KEY COMPONENTS OF THE P3 MODEL LAW 220

- **Enable P3s for a wide range of public projects in addition to transportation projects.** Examples include roads, bridges, storm water management, broadband, energy transmission, schools or courthouses.

- **Create a state office dedicated to providing P3 expertise, standardized procurement processes and assistance.** The office would be a resource for all state, county and municipal agencies and departments unfamiliar with alternative methods of funding projects. This office would conduct ongoing public and stakeholder engagement as well as promote transparency and information sharing.

- **Standardize and promote best practices.** Create a P3 Guidelines Task Force with members representing all tiers of government within the state as well as public consumer and private stakeholders. The task force would recommend the governing, guidelines for solicitation, evaluation, award and delivery of P3 projects. Task force meetings would be public meetings. The task force

---

212 (Meyer 2012)
213 (National Conference of State Legislatures 2016)
214 (Mallett 2014)
215 (Sandy Apgar 2012)
216 (Mallett 2014)
217 (National Conference of State Legislatures 2016)
218 (Association for the Improvement of American Infrastructure 2015)
219 (Mallett 2014)
220 (Bipartisan Policy Center 2015)
would make recommendations based on significant input from the public and interested stakeholders.

- **Protect the public interest.** Public interest would include a process for education and input in the development of P3 projects. It would also require an evaluation of the life-cycle costs and benefits of a potential P3 project. Before an agreement is signed, recommends the BPC, there must be compatibility between public interests and private funders, as well as evidence that costs and benefits of the P3 have been assessed and disclosed.

**P3 CASE STUDIES**

Though the state does not have P3 enabling legislation, some P3s have taken place in New Mexico. Below are examples from New Mexico and elsewhere.

**Highway Construction – Santa Fe, NM**

- Contract for NM 44 Highway Construction Program, 1999
  - Public sector partner: New Mexico State Highway and Transportation Department
  - Private sector partner: Mesa Development Corporation

The contract for the NM Corridor 44 construction used a P3 to create a new model for joint public-private design and accelerated construction, a new class of public finance investment, and introduced “long-term warranties” for these types of projects to the nation. This warranty guaranteed the public a road performance level that could not be achieved through traditional means. The state and New Mexico taxpayers realized a savings of $89 million though this P3.

**Renovated and Improved Parks Space – Grants, NM**

- Parks maintenance, 2001
  - Public sector partner: Grants municipal government
  - Private sector partner: Operations Management International, Inc. (OMI)

Through this collaboration, Grants was able to remodel an abandoned fire station for a new parks office, replace 375 sprinkler heads in local parks, install new wind screens at softball fields, repair and repaint concession stands and improve the appearance and safety of the youth football field. OMI is providing a higher degree of service at the same cost the city was paying previously.

**New Medical School in New Mexico – Las Cruces, NM**

- Burrell College of Osteopathic Medicine at New Mexico State University, 2016
  - Public sector partner: New Mexico State University (NMSU)
  - Private sector partner: The Burrell Group, LLC

Scheduled to open in June 2016, Burrell College of Osteopathic Medicine (BCOM) is a private, free-standing medical college that is not a part of NMSU, but is closely affiliated with NMSU. BCOM’s 80,000-square-foot newly constructed building is located on the NMSU campus.
The goal of BCOM is to increase the number of doctors for rural and underserved New Mexico communities. However, barriers like the limited number of physician residency slots in New Mexico or nationally present practical challenges that must be overcome.

**New Mass Transit Rail System – Denver, CO**
- Regional Transportation District (RTD) FasTracks Commuter Rail Lines, 2010
- Public sector partner: Regional Transportation District
- Private sector partners: Kiewit Infrastructure, Regional Rail Partners, Plenary Roads Denver and others

Once complete, the project will bring 47 miles of new rail to the RTD system, more than doubling its existing light rail holdings. The initiative is projected to create more than 10,000 construction jobs during the peak construction period and bring tourists and other money into the regional economy.

Project funding for FasTracks is derived from a combination of funding sources, including a voter-approved sales tax increase, municipal revenues, federal funding and P3 investment.

**New School, Housing and Community Space – Washington, DC**
- James F. Oyster Bilingual Elementary School, 1993
- Public sector partners: DC Public Schools, DC Municipal Government
- Private sector partner: LCOR Incorporated

Through the P3, a new, state-of-the-art 48,000-square-foot building and an adjacent 211-unit apartment building were constructed at no cost to taxpayers. Community areas, exterior playgrounds and parking areas included in the P3 also contribute to the current, more efficient use of the site.

The partnership between DC Public Schools, the DC government and LCOR, Inc., a national real estate development company, allowed for alternative financing sources to complete the project, exceeding community expectations in the process.

**Options and Intersections**
This chapter offers several ideas for further discussion. To what degree should our state strive to become less reliant on federal government dollars? Or should we aim to continue to grow this segment of our funding base? (Or is it a bit of both?) How might we best leverage existing federal funds to spur and sustain a diverse, vibrant economy? What can we do to accelerate and support the creation of entrepreneurial private sector and nonprofit entity spin-offs from work done at our national labs and facilities? Should New Mexico pass P3 legislation? If so, what might a New Mexico model addresses key infrastructure needs, while considering proponents’ and opponents’ views and concerns?

These questions are also influenced by other sections in this report. As noted above, industry diversification goes hand-in-hand with discussions about New Mexico’s reliance on federal dollars. (Ch. 4) And a large portion of federal contractors are also small business owners. The tech transfer opportunities associated with research at the labs and other federal facilities are great, but they rely on a healthy entrepreneurial culture and the systems infrastructure to support it. (Ch. 3) Consideration of P3s is especially important to rural and tribal areas where infrastructure needs are significant. (Ch. 5) And the changing role of federal dollars in the healthcare industry links directly to the concerns of New Mexico’s low-income population. (Ch. 1)

---

225 (Meyer 2012)
226 (Whaley 2014)
227 (Meyer 2012)
# APPENDICES

## Appendix A: Economic Drivers by Region

<table>
<thead>
<tr>
<th>STATE OF NEW MEXICO</th>
<th>Dir. Empl.</th>
<th>Tot. Empl.</th>
<th>Output Direct $ Impact</th>
<th>Output Total $ Impact</th>
<th>$ Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>98,311</td>
<td>160,598</td>
<td>5,574,507,324</td>
<td>9,106,339,439</td>
<td>1</td>
</tr>
<tr>
<td>Scientific R&amp;D Services</td>
<td>32,155</td>
<td>56,251</td>
<td>4,970,488,281</td>
<td>8,695,228,758</td>
<td>2</td>
</tr>
<tr>
<td>Ag Production</td>
<td>26,924</td>
<td>41,961</td>
<td>3,881,871,821</td>
<td>6,008,285,299</td>
<td>3</td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>62,164</td>
<td>101,535</td>
<td>3,664,326,416</td>
<td>5,985,103,474</td>
<td>4</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>69,146</td>
<td>106,238</td>
<td>3,712,477,783</td>
<td>5,703,955,481</td>
<td>5</td>
</tr>
<tr>
<td>Federal Govt. Non-Military</td>
<td>29,545</td>
<td>48,746</td>
<td>3,288,753,662</td>
<td>5,426,083,042</td>
<td>6</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>26,475</td>
<td>43,310</td>
<td>3,209,204,102</td>
<td>5,249,951,667</td>
<td>7</td>
</tr>
<tr>
<td>Petroleum Refineries</td>
<td>604</td>
<td>665</td>
<td>4,326,457,031</td>
<td>4,759,017,299</td>
<td>8</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>9,236</td>
<td>15,940</td>
<td>2,751,842,285</td>
<td>4,749,509,082</td>
<td>9</td>
</tr>
<tr>
<td>Wholesale Businesses</td>
<td>25,637</td>
<td>38,226</td>
<td>3,167,260,254</td>
<td>4,722,592,393</td>
<td>10</td>
</tr>
<tr>
<td>Food Processing</td>
<td>5,654</td>
<td>8,925</td>
<td>2,888,843,602</td>
<td>4,635,452,275</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1. NORTHWEST REGION</th>
<th>Dir. Empl.</th>
<th>Tot. Empl.</th>
<th>Output Direct $ Impact</th>
<th>Output Total $ Impact</th>
<th>$ Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Refineries</td>
<td>213</td>
<td>227</td>
<td>1,514,066,040</td>
<td>1,618,193,104</td>
<td>1</td>
</tr>
<tr>
<td>Oil &amp; Natural Gas Extraction</td>
<td>3,292</td>
<td>4,396</td>
<td>672,063,782</td>
<td>897,328,597</td>
<td>2</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>12,579</td>
<td>18,746</td>
<td>665,946,899</td>
<td>992,491,552</td>
<td>3</td>
</tr>
<tr>
<td>Electricity Generation, Transmission &amp; Distribution</td>
<td>1,270</td>
<td>1,500</td>
<td>653,704,346</td>
<td>772,166,034</td>
<td>4</td>
</tr>
<tr>
<td>Support For Oil &amp; Gas Ops.</td>
<td>2,436</td>
<td>3,438</td>
<td>458,677,429</td>
<td>647,379,687</td>
<td>6</td>
</tr>
<tr>
<td>Wholesale Businesses</td>
<td>4,450</td>
<td>5,824</td>
<td>456,078,583</td>
<td>597,035,083</td>
<td>7</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>7,195</td>
<td>9,810</td>
<td>373,729,706</td>
<td>509,566,019</td>
<td>8</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>2,882</td>
<td>4,052</td>
<td>357,830,597</td>
<td>503,059,684</td>
<td>9</td>
</tr>
<tr>
<td>Hospitals – Private</td>
<td>2,633</td>
<td>3,860</td>
<td>352,323,730</td>
<td>516,595,684</td>
<td>10</td>
</tr>
<tr>
<td>Ag Production</td>
<td>4,523</td>
<td>6,671</td>
<td>270,370,665</td>
<td>396,766,874</td>
<td>13</td>
</tr>
<tr>
<td>Food Processing</td>
<td>91</td>
<td>116</td>
<td>32,309,966</td>
<td>40,725,693</td>
<td>63</td>
</tr>
</tbody>
</table>
## Economic Security and Vitality in New Mexico

### 2. NORTHEAST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Production</td>
<td>2,413</td>
<td>3,624</td>
<td>421,826,080</td>
<td>643,777,146</td>
<td>1</td>
</tr>
<tr>
<td>State/Local Govt. Education</td>
<td>5,131</td>
<td>7,507</td>
<td>274,399,078</td>
<td>401,444,631</td>
<td>2</td>
</tr>
<tr>
<td>Mining Gold, Silver &amp; Other Metals</td>
<td>401</td>
<td>460</td>
<td>240,289,139</td>
<td>275,913,553</td>
<td>4</td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>2,602</td>
<td>3,799</td>
<td>139,370,163</td>
<td>203,538,578</td>
<td>5</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>2,699</td>
<td>3,629</td>
<td>144,613,434</td>
<td>194,423,302</td>
<td>6</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>412</td>
<td>627</td>
<td>119,851,807</td>
<td>182,554,958</td>
<td>7</td>
</tr>
<tr>
<td>Hospitals – Private</td>
<td>944</td>
<td>1,354</td>
<td>116,459,961</td>
<td>167,152,237</td>
<td>8</td>
</tr>
<tr>
<td>Health Services – Non-Hospitals</td>
<td>1,281</td>
<td>1,871</td>
<td>110,637,115</td>
<td>161,564,530</td>
<td>9</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>1,076</td>
<td>1,421</td>
<td>111,619,621</td>
<td>147,405,351</td>
<td>10</td>
</tr>
<tr>
<td>Food Processing</td>
<td>38</td>
<td>48</td>
<td>27,139,555</td>
<td>32,939,418</td>
<td>39</td>
</tr>
</tbody>
</table>

### 3. EAST CENTRAL

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Production</td>
<td>3,906</td>
<td>5,396</td>
<td>934,627,904</td>
<td>1,309,814,598</td>
<td>1</td>
</tr>
<tr>
<td>Food Processing</td>
<td>757</td>
<td>1,219</td>
<td>517,217,038</td>
<td>838,138,919</td>
<td>2</td>
</tr>
<tr>
<td>Federal Govt. Military</td>
<td>3,325</td>
<td>4,398</td>
<td>494,559,692</td>
<td>654,100,491</td>
<td>3</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>4,429</td>
<td>6,353</td>
<td>229,376,236</td>
<td>328,975,393</td>
<td>4</td>
</tr>
<tr>
<td>Rail Transport</td>
<td>456</td>
<td>638</td>
<td>145,506,287</td>
<td>203,533,634</td>
<td>6</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>2,715</td>
<td>3,624</td>
<td>137,187,393</td>
<td>183,122,544</td>
<td>7</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>413</td>
<td>612</td>
<td>120,942,459</td>
<td>179,087,187</td>
<td>8</td>
</tr>
<tr>
<td>Oil &amp; Natural Gas Extraction</td>
<td>1,027</td>
<td>1,204</td>
<td>137,688,232</td>
<td>161,476,759</td>
<td>9</td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>1,684</td>
<td>2,415</td>
<td>90,673,416</td>
<td>130,031,583</td>
<td>10</td>
</tr>
</tbody>
</table>

### 4. SOUTHEAST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum Refineries</td>
<td>382</td>
<td>410</td>
<td>2,730,044,678</td>
<td>2,926,911,625</td>
<td>1</td>
</tr>
<tr>
<td>Oil &amp; Natural Gas Extraction</td>
<td>6,560</td>
<td>8,838</td>
<td>1,522,124,023</td>
<td>2,050,731,367</td>
<td>2</td>
</tr>
<tr>
<td>Support For Oil &amp; Gas Ops.</td>
<td>6,145</td>
<td>8,844</td>
<td>1,151,085,938</td>
<td>1,656,527,202</td>
<td>3</td>
</tr>
<tr>
<td>Ag Production</td>
<td>2,993</td>
<td>4,052</td>
<td>840,845,110</td>
<td>1,155,862,850</td>
<td>4</td>
</tr>
<tr>
<td>Food Processing</td>
<td>1,064</td>
<td>1,697</td>
<td>662,629,536</td>
<td>1,103,669,315</td>
<td>5</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>6,666</td>
<td>9,859</td>
<td>375,766,296</td>
<td>555,735,496</td>
<td>7</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>2,666</td>
<td>3,833</td>
<td>337,676,331</td>
<td>485,468,480</td>
<td>8</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>1,025</td>
<td>1,611</td>
<td>305,533,936</td>
<td>480,375,437</td>
<td>9</td>
</tr>
<tr>
<td>Oil &amp; Natural Gas Extraction</td>
<td>1,152</td>
<td>1,361</td>
<td>393,381,653</td>
<td>464,874,284</td>
<td>10</td>
</tr>
</tbody>
</table>
### 5. SOUTH CENTRAL

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Govt. Non-Military</td>
<td>7,255</td>
<td>11,066</td>
<td>848,863,831</td>
<td>1,294,796,767</td>
<td>1</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>15,410</td>
<td>23,229</td>
<td>844,259,521</td>
<td>1,272,617,206</td>
<td>2</td>
</tr>
<tr>
<td>Federal Govt. Military</td>
<td>4,769</td>
<td>6,511</td>
<td>679,694,885</td>
<td>927,966,124</td>
<td>3</td>
</tr>
<tr>
<td>Ag Production</td>
<td>4,272</td>
<td>5,748</td>
<td>614,514,662</td>
<td>841,347,200</td>
<td>5</td>
</tr>
<tr>
<td>Food Processing</td>
<td>1,031</td>
<td>1,498</td>
<td>490,915,594</td>
<td>732,678,159</td>
<td>6</td>
</tr>
<tr>
<td>Health Services – Non-Hospitals</td>
<td>3,838</td>
<td>5,881</td>
<td>387,642,883</td>
<td>594,104,010</td>
<td>7</td>
</tr>
<tr>
<td>Hospitals – Private</td>
<td>3,173</td>
<td>4,716</td>
<td>372,887,024</td>
<td>554,114,572</td>
<td>8</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>7,549</td>
<td>10,385</td>
<td>398,321,655</td>
<td>547,909,010</td>
<td>9</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>3,224</td>
<td>4,610</td>
<td>361,664,886</td>
<td>517,233,008</td>
<td>10</td>
</tr>
</tbody>
</table>

### 6. SOUTHWEST

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mining Copper, Nickel, Lead &amp; Zinc</td>
<td>812</td>
<td>943</td>
<td>462,385,437</td>
<td>536,997,265</td>
<td>1</td>
</tr>
<tr>
<td>Food Processing</td>
<td>788</td>
<td>985</td>
<td>319,036,178</td>
<td>397,158,146</td>
<td>2</td>
</tr>
<tr>
<td>Ag Production</td>
<td>1,479</td>
<td>2,030</td>
<td>191,553,707</td>
<td>266,152,617</td>
<td>3</td>
</tr>
<tr>
<td>Federal Govt. Non-Military</td>
<td>1,427</td>
<td>1,979</td>
<td>173,526,825</td>
<td>240,659,833</td>
<td>4</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>3,230</td>
<td>4,424</td>
<td>167,991,974</td>
<td>230,095,381</td>
<td>5</td>
</tr>
<tr>
<td>Mining Gold, Silver &amp; Other Metals</td>
<td>194</td>
<td>229</td>
<td>115,569,824</td>
<td>136,761,918</td>
<td>6</td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>2,133</td>
<td>2,920</td>
<td>113,867,386</td>
<td>155,869,252</td>
<td>7</td>
</tr>
<tr>
<td>Health Services – Non-Hospitals</td>
<td>818</td>
<td>1,123</td>
<td>77,588,142</td>
<td>106,513,220</td>
<td>8</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>1,511</td>
<td>1,944</td>
<td>74,544,815</td>
<td>95,882,208</td>
<td>9</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>223</td>
<td>317</td>
<td>64,771,721</td>
<td>91,944,700</td>
<td>10</td>
</tr>
</tbody>
</table>

### 7. WEST CENTRAL

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ag Production</td>
<td>1,071</td>
<td>1,495</td>
<td>156,385,284</td>
<td>224,808,919</td>
<td>1</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>2,758</td>
<td>3,948</td>
<td>148,973,419</td>
<td>213,205,939</td>
<td>2</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>1,771</td>
<td>2,339</td>
<td>93,220,711</td>
<td>123,150,244</td>
<td>3</td>
</tr>
<tr>
<td>Banking, Credit Unions</td>
<td>229</td>
<td>363</td>
<td>66,644,142</td>
<td>105,823,214</td>
<td>4</td>
</tr>
<tr>
<td>Real Estate</td>
<td>1,002</td>
<td>1,117</td>
<td>89,645,615</td>
<td>99,936,943</td>
<td>5</td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>1,133</td>
<td>1,623</td>
<td>65,433,678</td>
<td>93,742,686</td>
<td>6</td>
</tr>
<tr>
<td>Scientific R&amp;D Services</td>
<td>501</td>
<td>735</td>
<td>59,897,583</td>
<td>87,808,627</td>
<td>7</td>
</tr>
<tr>
<td>Construction – New Non-Residential</td>
<td>560</td>
<td>726</td>
<td>57,064,083</td>
<td>73,902,126</td>
<td>8</td>
</tr>
<tr>
<td>Federal Govt. Non-Military</td>
<td>532</td>
<td>763</td>
<td>46,592,064</td>
<td>66,769,168</td>
<td>9</td>
</tr>
<tr>
<td>Hospitals – Private</td>
<td>329</td>
<td>474</td>
<td>44,778,191</td>
<td>64,412,632</td>
<td>10</td>
</tr>
<tr>
<td>Food Processing</td>
<td>23</td>
<td>28</td>
<td>5,181,815</td>
<td>6,121,411</td>
<td>71</td>
</tr>
</tbody>
</table>
### 8. METRO REGION

<table>
<thead>
<tr>
<th>Industry</th>
<th>Direct Empl. Impact</th>
<th>Total Empl. Impact</th>
<th>Output Direct $ Impact</th>
<th>Output Total $ Impact</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scientific R&amp;D Services</td>
<td>29,683</td>
<td>55,483</td>
<td>4,650,383,789</td>
<td>8,692,377,779</td>
<td>1</td>
</tr>
<tr>
<td>State &amp; Local Govt. Education</td>
<td>48,107</td>
<td>82,604</td>
<td>2,867,794,189</td>
<td>4,924,243,333</td>
<td>2</td>
</tr>
<tr>
<td>Semiconductors &amp; Related</td>
<td>4,080</td>
<td>6,128</td>
<td>2,813,451,416</td>
<td>4,225,781,340</td>
<td>4</td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State &amp; Local Govt. Non-Education</td>
<td>38,591</td>
<td>66,221</td>
<td>2,367,196,777</td>
<td>4,061,985,962</td>
<td>5</td>
</tr>
<tr>
<td>Food &amp; Drinking Places</td>
<td>39,389</td>
<td>63,745</td>
<td>2,164,564,209</td>
<td>3,503,033,881</td>
<td>6</td>
</tr>
<tr>
<td>Wholesale Businesses</td>
<td>15,502</td>
<td>24,577</td>
<td>2,033,204,102</td>
<td>3,223,592,622</td>
<td>8</td>
</tr>
<tr>
<td>Telecommunications</td>
<td>5,794</td>
<td>9,460</td>
<td>1,907,824,951</td>
<td>3,114,909,638</td>
<td>9</td>
</tr>
<tr>
<td>Federal Govt. Non-Military</td>
<td>14,987</td>
<td>25,972</td>
<td>1,714,665,161</td>
<td>2,971,448,107</td>
<td>10</td>
</tr>
<tr>
<td>Food Processing</td>
<td>1,850</td>
<td>2,848</td>
<td>832,137,129</td>
<td>1,237,654,407</td>
<td>25</td>
</tr>
<tr>
<td>Ag Production</td>
<td>4,624</td>
<td>7,424</td>
<td>401,713,926</td>
<td>649,162,266</td>
<td>48</td>
</tr>
</tbody>
</table>

**SOURCE:** Joel Diemer, Terry Crawford, and Michael Patrick. 2014. *Agriculture’s Contribution to New Mexico’s Economy.* New Mexico State University Cooperative Extension Service. Used with permission.
Appendix B: New Mexico Counties, By Population and Rural-Urban Continuum (RUC) Code

<table>
<thead>
<tr>
<th>County</th>
<th>Population</th>
<th>RUC</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bernalillo</td>
<td>662,564</td>
<td>2</td>
<td>Metro - Counties in metro areas of 250,000 to 1 million population</td>
</tr>
<tr>
<td>Sandoval</td>
<td>131,561</td>
<td>2</td>
<td>Metro - Counties in metro areas of 250,000 to 1 million population</td>
</tr>
<tr>
<td>Valencia</td>
<td>76,569</td>
<td>2</td>
<td>Metro - Counties in metro areas of 250,000 to 1 million population</td>
</tr>
<tr>
<td>Torrance</td>
<td>16,383</td>
<td>2</td>
<td>Metro - Counties in metro areas of 250,000 to 1 million population</td>
</tr>
<tr>
<td>Dona Ana</td>
<td>209,233</td>
<td>3</td>
<td>Metro - Counties in metro areas of fewer than 250,000 population</td>
</tr>
<tr>
<td>Santa Fe</td>
<td>144,170</td>
<td>3</td>
<td>Metro - Counties in metro areas of fewer than 250,000 population</td>
</tr>
<tr>
<td>San Juan</td>
<td>130,044</td>
<td>3</td>
<td>Metro - Counties in metro areas of fewer than 250,000 population</td>
</tr>
<tr>
<td>Otero</td>
<td>63,797</td>
<td>4</td>
<td>Nonmetro - Urban population of 20,000 or more, adjacent to metro</td>
</tr>
<tr>
<td>Rio Arriba</td>
<td>40,246</td>
<td>4</td>
<td>Nonmetro - Urban population of 20,000 or more, adjacent to metro</td>
</tr>
<tr>
<td>McKinley</td>
<td>71,492</td>
<td>5</td>
<td>Nonmetro - Urban population of 20,000 or more, not adjacent to metro</td>
</tr>
<tr>
<td>Chaves</td>
<td>65,645</td>
<td>5</td>
<td>Nonmetro - Urban population of 20,000 or more, not adjacent to metro</td>
</tr>
<tr>
<td>Lea</td>
<td>64,727</td>
<td>5</td>
<td>Nonmetro - Urban population of 20,000 or more, not adjacent to metro</td>
</tr>
<tr>
<td>Eddy</td>
<td>53,829</td>
<td>5</td>
<td>Nonmetro - Urban population of 20,000 or more, not adjacent to metro</td>
</tr>
<tr>
<td>Curry</td>
<td>48,376</td>
<td>5</td>
<td>Nonmetro - Urban population of 20,000 or more, not adjacent to metro</td>
</tr>
<tr>
<td>San Miguel</td>
<td>29,393</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Cibola</td>
<td>27,213</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Luna</td>
<td>25,095</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Los Alamos</td>
<td>17,950</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Socorro</td>
<td>17,866</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Sierra</td>
<td>11,988</td>
<td>6</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, adjacent to metro</td>
</tr>
<tr>
<td>Taos</td>
<td>32,937</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Grant</td>
<td>29,514</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Lincoln</td>
<td>20,497</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Roosevelt</td>
<td>19,846</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Colfax</td>
<td>13,750</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Quay</td>
<td>9,041</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Guadalupe</td>
<td>4,687</td>
<td>7</td>
<td>Nonmetro - Urban population of 2,500 to 19,999, not adjacent to metro</td>
</tr>
<tr>
<td>Hidalgo</td>
<td>4,894</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
<tr>
<td>Mora</td>
<td>4,881</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
<tr>
<td>Union</td>
<td>4,549</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
<tr>
<td>Catron</td>
<td>3,725</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
<tr>
<td>De Baca</td>
<td>2,022</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
<tr>
<td>Harding</td>
<td>695</td>
<td>9</td>
<td>Nonmetro - Completely rural or less than 2,500 urban population</td>
</tr>
</tbody>
</table>

SOURCE: USDA
## Appendix C: Projected Changes to the New Mexico Workforce by Industry

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Care and Service</td>
<td>43,367</td>
<td>56,936</td>
<td>13,569</td>
<td>2.76%</td>
<td>31.29%</td>
</tr>
<tr>
<td>Education, Training and Library</td>
<td>49,418</td>
<td>60,852</td>
<td>11,434</td>
<td>2.10%</td>
<td>23.14%</td>
</tr>
<tr>
<td>Healthcare Support</td>
<td>24,706</td>
<td>30,188</td>
<td>5,482</td>
<td>2.02%</td>
<td>22.19%</td>
</tr>
<tr>
<td>Food Preparation and Serving Related</td>
<td>75,959</td>
<td>90,990</td>
<td>15,031</td>
<td>1.82%</td>
<td>19.79%</td>
</tr>
<tr>
<td>Community and Social Services</td>
<td>14,511</td>
<td>16,740</td>
<td>2,229</td>
<td>1.44%</td>
<td>15.36%</td>
</tr>
<tr>
<td>Healthcare Practitioners and Technical</td>
<td>48,736</td>
<td>55,696</td>
<td>6,960</td>
<td>1.34%</td>
<td>14.28%</td>
</tr>
<tr>
<td>Computer and Mathematical</td>
<td>14,697</td>
<td>16,726</td>
<td>2,029</td>
<td>1.30%</td>
<td>13.81%</td>
</tr>
<tr>
<td>Building and Grounds Cleaning and Maintenance</td>
<td>32,188</td>
<td>36,507</td>
<td>4,319</td>
<td>1.27%</td>
<td>13.42%</td>
</tr>
<tr>
<td>Installation, Maintenance and Repair</td>
<td>32,910</td>
<td>36,377</td>
<td>3,467</td>
<td>1.01%</td>
<td>10.53%</td>
</tr>
<tr>
<td>Sales and Related</td>
<td>79,915</td>
<td>87,959</td>
<td>8,044</td>
<td>0.96%</td>
<td>10.07%</td>
</tr>
<tr>
<td>Protective Service</td>
<td>22,697</td>
<td>24,963</td>
<td>2,266</td>
<td>0.96%</td>
<td>9.98%</td>
</tr>
<tr>
<td>Transportation and Material Moving</td>
<td>45,389</td>
<td>49,543</td>
<td>4,154</td>
<td>0.88%</td>
<td>9.15%</td>
</tr>
<tr>
<td>Business and Financial Operations</td>
<td>33,279</td>
<td>36,167</td>
<td>2,888</td>
<td>0.84%</td>
<td>8.68%</td>
</tr>
<tr>
<td>Construction and Extraction</td>
<td>57,622</td>
<td>62,072</td>
<td>4,450</td>
<td>0.75%</td>
<td>7.72%</td>
</tr>
<tr>
<td>Office and Administrative Support</td>
<td>124,160</td>
<td>133,371</td>
<td>9,211</td>
<td>0.72%</td>
<td>7.42%</td>
</tr>
<tr>
<td>Life, Physical and Social Science</td>
<td>13,649</td>
<td>14,429</td>
<td>780</td>
<td>0.56%</td>
<td>5.71%</td>
</tr>
<tr>
<td>Management</td>
<td>56,033</td>
<td>59,135</td>
<td>3,102</td>
<td>0.54%</td>
<td>5.54%</td>
</tr>
<tr>
<td>Arts, Design, Entertainment, Sports and Media</td>
<td>10,381</td>
<td>10,896</td>
<td>515</td>
<td>0.49%</td>
<td>4.96%</td>
</tr>
<tr>
<td>Legal</td>
<td>6,448</td>
<td>6,751</td>
<td>303</td>
<td>0.46%</td>
<td>4.70%</td>
</tr>
<tr>
<td>Production</td>
<td>30,720</td>
<td>31,831</td>
<td>1,111</td>
<td>0.36%</td>
<td>3.62%</td>
</tr>
<tr>
<td>Architecture and Engineering</td>
<td>21,146</td>
<td>21,812</td>
<td>666</td>
<td>0.31%</td>
<td>3.15%</td>
</tr>
<tr>
<td>Farming, Fishing and Forestry</td>
<td>7,445</td>
<td>7,047</td>
<td>-398</td>
<td>-0.55%</td>
<td>-5.35%</td>
</tr>
</tbody>
</table>

Source: NMDWS, employment projections program
Downloaded: 04/06/2016
Fitzpatrick, Kevin, and Gail O’Connor. 2015. *Assessing Income Eligibility for Statewide Assistance: Staying Off the Cliff’s Edge.* University of Arkansas, Community and Family Institute.


Harvard University. 2014. *On Improving Tribal-Corporate Relations in the Mining Sector.* Harvard Project on American Indian Economic Development.


Leach, Carol, interview by Autumn Gray. 2016.


MIERZWA, John, interview by Autumn Gray. 2016. CNM STEMulus Center, (February).


Moss, Rebecca. 2016. "Study: ‘Quiet recreation’ brings in $173 million, employs more than 1,700." The New Mexican, April 1.


New Mexico Department of Agriculture. 2014. Number of farms, young farmers, minority farmers rising in New Mexico. February. Number of farms, young farmers, minority farmers rising in New Mexico. New Mexico Department of Agriculture.


New Mexico First. 2016. "New Mexico Progress Report."


NM Department of Information Technology. 2013. NM Broadband Assessment and Recommendations. In partnership with New Mexico First.


NM Department of Workforce Solutions. 2014. "State of the Workforce."


NM Higher Education Department. 2014. "NMHED Data Reports."

NM Office of State Engineer. 2010. "Irrigated Acreage."

NM Office of State Engineer. 2010. "Water Use by Categories."

NM Partnership for Early Childhood Development. 2014. NM Child Care and Early Education Task Force. New Mexico First.


Rashap, Brian, interview by Heather Balas. 2016. Intel executive (February).


Springer, Mike. 2015. Study looks at why millennials are leaving New Mexico. December 6.


Strategic Networks Group. 2016. "The 50 States of Broadband."


U.S. Census Bureau. 2015.


Winograd, Kathie, interview by Autumn Gray. 2016. (March).
Many thanks to the sponsors who made this report, and the accompanying town hall deliberation, possible.

AARP
Bernalillo County
Brownstein Hyatt Farber Schreck
Bueno Foods
Christus St. Vincent
Central New Mexico Community College
Comcast
Concho Resources
Eastern New Mexico University
Freeport-McMoRan
Konica Minolta
Laguna Development Corporation
Mercedes-Benz of Albuquerque
Southwest Capital Bank
Sutin, Thayer & Browne

Sponsors as of April 27, 2016