HIGHER EDUCATION FINANCE:
A CASE STUDY OF MINORITY-SERVING INSTITUTIONS IN NEW MEXICO

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DEDICATION

This work is dedicated to my mother who always encouraged me to go to college, to my husband who made sure I didn’t starve while writing this document (I blame you), and to my son who joined us around Chapter 5 and inspired me to finish.
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ABSTRACT

HIGHER EDUCATION FINANCE: A CASE STUDY OF MINORITY-SERVING INSTITUTIONS IN NEW MEXICO

Virginia Rae Hunter
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This study explores the relationship between state and federal funding policies and the ability of minority-serving institutions (MSIs) to support low-income and minority students. The way US public higher education is financed has changed dramatically since the Great Recession. State appropriations to institutions have declined (SHEEO, 2017), tuition increases have dramatically outpaced growth in household income (College Board, 2016a) and state financial aid has drifted from need-based to merit-based (College Board, 2016b). Many wonder how this policy environment is impacting low-income and minority students and the institutions that serve them. MSIs have risen to the forefront of institutions committed to serving these students, and more should be known about how these institutions are affected by the current fiscal policy environment.

The purpose of this study is to explore the relationship between finance policies and the ability of MSIs to serve their students. Case study methodology was used to provide an in-depth analysis of how three campuses in New Mexico respond to state and federal finance policies and shifting revenue streams, and how these responses impact students. The three campuses include one Native American-serving Nontribal Institution that is a community college, and two Hispanic-Serving Institutions—a community
college and a regional comprehensive university. These campuses share similar geographic and student characteristics, but are funded through different finance policies. The findings suggest that: local appropriations play a critical role in the fiscal stability of community colleges in New Mexico; state funding favors well-resourced institutions and students; and institutional leaders perceive federal funding as providing the most support for low-income student success. This study also reveals that finance policies in the state are not aligned to their full potential for increasing degree attainment.
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Chapter 1—Introduction

The way US public higher education is financed has changed dramatically since the Great Recession. Recessions, chronic state deficits, the increasing cost of Medicaid, and the inability of other public functions to generate their own revenue all have led to a decline in state higher education budgets (Finney, 2014). Although state and local appropriations continue to be the largest source of revenue for public institutions (Dougherty & Natow, 2015; Zumeta, Breneman, Callan, & Finney, 2012), according to SHEEO (2017), educational appropriations per FTE fell from $8,616 in 1991 to $7,116 in 2016 (in constant 2016 dollars), a 17% drop. Institutions have accounted for this loss primarily by raising tuition, causing the cost of a college education to rise faster than family income. From 1982 to 2012, median family income grew by 152% while tuition and fees grew by 632% (Finney, 2014). The share of family income needed to pay for college has risen more dramatically for low- and middle-income students than it has for high-income families, increasing their reliance on loans or limiting access altogether (Finney, 2014; IRHE, 2016; Zumeta, et al., 2012). During this time state and federal finance polices have undergone dramatic change. The call for more accountability has led to the adoption of outcomes-based funding (OBF), or performance-based funding (PBF), in at least 30 states (Dougherty & Natow, 2015). State scholarships have drifted from need-based to merit-based in some states (mostly in the South), Pell Grants have expanded, and federally awarded competitive grants to institutions have grown. Even this growing state and federal commitment to student aid has not kept pace with rising
college prices. The increased share of educational costs now borne by students may be taking a toll on low-income and minority students and the institutions that serve them.

At the same time, the importance of earning a college degree never has been higher for individuals or society. A college degree has become the surest ticket to an economically stable life. Although economic standing is influenced by a variety of factors, such as parental income, education has been shown to help increase social mobility. This is especially true for the bottom quintile, as a staggering 84% of adult children raised in the bottom income quintile who obtain a college degree reach a higher income quintile, (Isaacs, Sawhill, & Haskins, 2008). Further, gains in wealth since the Great Recession have not been shared equally (Pew Research Center, 2015). Net wealth of the lower 93% of households declined between 2009 and 2011, but net wealth for the top 7% of households increased by $5.6 trillion during this time (Pew Research Center, 2015). The potential for higher education to increase the wealth and social mobility of low-income and minority students is strong, as workers with a postsecondary credential earn 74% more than workers with a high school diploma or less (Carnevale, Smith, & Strohl, 2013). Additionally, increasing overall degree attainment in the country is seen as a national imperative for the US to maintain a global economic advantage. The Center on Education and the Workforce estimates that by 2020, 65% of the US population will require a workforce certificate or degree (Carnevale, Smith, & Strohl, 2013). In sum, higher education is more expensive—and more important—than ever.

Leveraging policy to increase the educational attainment of low-income and minority students is also critical, because these two student groups are growing. With
family wealth having declined since the recession, (Pew Research Center, 2013), the proportion of low-income citizens has increased. Minority populations are also outpacing white populations (Frey, 2015), and US minorities traditionally have been underserved by the education system. To ensure that America has the workforce to meet the demands of the future economy, public policy should focus on improving access and success for low-income and minority students, as they are quickly becoming the majority in many states (Frey, 2015).

Minority-Serving Institutions (MSIs) have risen to the forefront of higher education as institutions committed to educating minority and low-income students. In 2012, MSIs enrolled more than 20% of all college students, 40% of students of color, and a far larger share of low-income students than Predominately White Institutions (PWIs) (Penn Center for Minority Serving Institutions, 2014). It’s estimated that 98% of African American and Native American students who attend Historically Black Colleges and Universities (HBCUs) or Tribal Colleges and Universities (TCUs), respectively, qualify for Pell, and among all MSIs, more than half of students qualify for Pell (Conrad & Gasman, 2015). MSIs educate students who are often debt-averse and have limited financial resources. Declining state appropriations have left public MSIs with budget shortfalls. Tuition increases, state grants, federal grants, and philanthropic efforts have filled some of this gap, but MSIs are often left under-resourced (Gasman, et al., 2007). Many MSIs are community colleges, and research indicates that community college funding has been disproportionately impacted by the last recession. Total revenues per FTE at community colleges in 2013 were 9% lower than their prerecession levels, and
only 1% higher than a decade earlier (Desrochers & Hurlburt, 2016). This indicates that the current environment of higher education finance may be one of many factors contributing to social inequalities rather than minimizing them. Beyond providing access, MSIs provide a culturally relevant and welcoming environment for students who historically have been marginalized by mainstream education (Conrad & Gasman, 2015).

**Purpose and Significance of the Study**

It is clear that the success of minority and low-income students is not only a social justice imperative but also has implications that impact the overall health of a democratic society. What is less clear is how public policies can best support institutions in ensuring the success of these students. Understanding how state and federal finance polices work together or against each other to support MSIs is an important but under-researched area. Policies often are studied in isolation, with research focused on analyzing one policy or intervention at a time. However, institutions do not operate in isolation; they are influenced by policies at multiple levels and experience a variety of intended and unintended impacts from these policies. Policies also are often studied in a top-down manner, starting with the singular policy and following implementation down to the institutional level. This approach fails to recognize the lack of control policymakers have over the technical, organizational, and social forces that affect implementation at the institutional level.

This study will improve upon traditional approaches by investigating how multiple finance policies come together to influence student success through a process of
“backward mapping” (Elmore, 1979). Backward mapping begins at the lowest level of implementation or behavior that generates the need for the policies, recognizing that public policies are not the only influence on institutional behavior. Examining two to three institutional cases in one state with similar student populations but very different funding streams may reveal insights into whether state and federal policies are working together or against each other to influence institutional behavior as well as what other influences affect policy implementation. My overarching research question is: What is the relationship between funding policies and the ability of MSIs to serve their students?

To answer this question, I explored the following questions:

• What local, state, and federal finance policies impact MSIs’ funding? To what extent are these policies working toward a common goal to improve student success and to what extent are they working at cross-purposes?

• To what extent are these policies and changes in these policies impeding or supporting the ability of MSIs to serve their students over time? How have changes in these policies impacted student access and outcomes over time?

I chose New Mexico as my case state because of the high level of state appropriations institutions receive, recent changes to the state funding formula and lottery scholarship, and the high number of MSIs and low-income students in the state. By selecting MSIs that have similar characteristics relative to size, location, and the students they serve, but very different public revenue streams from the local, state, or federal government, the study will reveal insights into how finance policies come together to influence the ability of institutions to meet the needs of students.
These cases provide deeper understanding of how state and federal finance policies could be better aligned to support MSIs and the students they serve. Research from these questions also may provide valuable insights into the unintended consequences of finance policies and provide policymakers with a better sense of how policies impact campuses that serve low-income students.

The following literature review presents the first steps to answering my research questions through an examination of historical approaches to funding public higher education, current trends in state and federal finance policies, known and perceived institutional responses to these policies, and previous theoretical approaches to understanding the relationship between public policy and higher education. The higher education finance literature provides an understanding of the relationship between state and federal finance policies and the ability of MSIs to meet student needs. It helped me begin to answer my first question by providing a policy scan of the state and federal finance policies responsible for funding MSIs and how these policies have changed over time. Literature on known and perceived institutional responses to finance policies helped me begin to answer my second question by explaining what current research reveals about this relationship. Most important, an understanding of literature on conceptual approaches to the relationship between public policy and institutional response guided my research methodology and data analysis.
Chapter 2—Literature Review

The relationship between funding policies and the ability of MSIs to serve their students begins with understanding how public higher education institutions are funded and how public funding may influence institutional behavior and student success. A historical survey of public finance policies is included as well as discussion of current sources of revenue on which institutions rely. State policies such as appropriations, OBF, and state-funded scholarships are discussed as well as federal funding policies such as Title V and Pell grants, and how well or poorly these policies work together. I discuss research on intended and unintended institutional responses to finance policies along with theories on the role of public policy in guiding institutional behavior. Moreover, I highlight differences in response of MSIs compared to mainstream institutions.

Historical Approaches to Higher Education Finance and Accountability

Understanding the relationship between funding policies and the ability of MSIs to meet student needs begins with a historical examination of how major higher education finance policies arose to meet student needs. The role of states in funding and overseeing higher education largely began with the Morrill Act of 1862. It marked the first large-scale federal effort to fund public higher education but also pushed responsibility for the operation of higher education onto the states. The Morrill Act offered federal land to states, the sale proceeds of which would fund higher education institutions, one in each state. The development of these land-grant institutions, focused on applied sciences such as agriculture, achieved the dual goals of increasing college opportunity and economic
development (Zumeta, et al., 2012). Higher education was seen as a public good, and access was expanded, but it was still predominately accessed by white men of middle-class to privileged backgrounds. That said, the Morrill Act did establish a few HBCUs, and the Second Morrill Act in 1890 established 17 public, land-grant institutions for blacks (Gasman, Nguyen, & Conrad, 2014). Naturally, with this increase in public financial support, a devotion to meeting public needs and goals was expected. Thus began the tension between institutional autonomy and public accountability in US higher education (Millett, 1981).

The second wave of mass public expansion and funding came with the Servicemen’s Readjustment Act of 1944, commonly known as the GI Bill. Providing student aid for veterans returning from WWII was not intended to increase college access; rather, the policy was designed to circumvent another depression by delaying returning veterans from entering the workforce (Zumeta, et al., 2012). Nevertheless, it more than doubled the college participation rate of 18- to 24-year-olds from 1930 to 1950 (Zumeta, et al., 2012). This growth in enrollment coincided with a growth in fund revenues, which increased from $554.5 million to $2.375 billion during the same period (Zumeta, et al., 2012). The number of public universities grew tremendously during the postwar years, from 547 in 1949 to 1,466 in 1976 (Carnegie Council on Policy Studies in Higher Education, 1980). Once again, as public investment grew, public expectations deepened (Millett, 1981). Society expected universities to meet multiple public needs, such as filling the expanding demand for educated talent in the American labor market, encouraging economic growth within the states, and advancing social mobility (Millett,
1981). These growing public expectations justified the increased role of state
governments in setting higher education policy and influencing behavior through funding
formulas (Millett, 1981). During this time, state appropriations were the primary funding
source for public universities, and each state had a slightly different funding formula for
distributing funds (Millett, 1981). Largely due to the Truman Commission Report, the
public returns of higher education were emphasized, and public higher education cost
little to nothing in tuition.

The Higher Education Act (HEA) of 1965 was the first federal legislation focused
on higher education; it created educational opportunity grants and a guaranteed student
loan program, both of which continued with some modifications through today. Before
the HEA, the federal government awarded slightly more than $100 million in aid
dedicated to needy college students. By 1990, federal aid to students, including student
loans, grew to $19 billion (Hearn, 2001) and now reaches nearly $36 billion (College
Board, 2016b). Interestingly, there was little philosophical, political, or ideological basis
for this growth (Hearn, 2001). Hearn (2001) argues that the federal government’s
programs of financial aid for college students lack philosophical coherence,
programmatic clarity, and a strong supportive interest-group coalition, among other
characteristics that ideal logical policy development should include. At the end of the
1960s, higher education finance faced criticisms of being regressive as the result of a
study of higher education in California—which showed that public funds were used to
subsidize the education of the rich (Hansen & Weisbrod, 1969)—and a high-tuition, high-
aid mentality was adopted. The HEA did, however, increase funding to black colleges and eventually other MSIs (Gasman, Nguyen, & Conrad, 2014).

The 1970s marked a focus on equality of opportunity, and the HEA was amended to create what is now called the Pell Grant, Sallie Mae, and LEAP program. Aid was clearly focused on low-income students, and federal higher education finance policies exhibited clarity of purpose that they previously lacked (Zumeta, et al., 2012). Near the end of the 1970s, though, a greater call arose for college affordability for middle-income families. In 1978, the Middle-Income Student Assistance Act (MISAA) widened Pell eligibility for middle-class students and lifted the income ceiling for eligibility to student loans (Zumeta, et al., 2012). This marked the beginning of the end of a cohesive effort to assist low-income students, and the 1980s brought in an era of market ideology and a focus on the private returns of higher education. In 1981, loans outgrew grants as the primary source of federal funding for higher education. And, by 1992, the introduction of unsubsidized loans resulted in loans outpacing grants in total spending, even when federal, state, and institutional funding was combined. Also in 1992, an HEA revision authorized the support and designation of HSIs, largely because of growth in the Hispanic and Latino populations (Gasman, Nguyen, & Conrad, 2014). President Clinton expanded tax credits for middle-income families during his terms as president, and also created the unsubsidized student loan program.
**Contemporary Finance Policies**

To help answer my questions, “What local, state, and federal finance policies impact MSIs’ funding?” and “To what extent are these policies working toward a common goal and to what extent are they working at cross-purposes?” an overview of state and federal finance policies is necessary. I provide a brief overview of state policies such as appropriations, outcomes-based OBF, and state-funded scholarships followed by a summary of federal grants (such as Pell and Title III), general appropriations, student loans, and tax credits. I examine how higher education is currently funded, how policies may or may not work in sync, and how external influences can impact policy implementation.

**State Finance Policies**

Discussions of state higher education finance policies are often complex, as each state has its own unique combination of contextual challenges, governance structures, appropriation levels, and finance policies (Zumeta, et al., 2012). This section will not provide an overview of all state finance polices but includes a brief overview of major polices that many states, including New Mexico, employ. This includes state appropriations, performance funding, and state-funded scholarships.

It cannot be overstated how fluctuating state and local appropriations have impacted institutional budgets, although this varies tremendously across states. In constant dollars, state and local appropriations per FTE were at an all-time high of $8,964 in 2001 (SHEEO, 2014). Subsequent years saw a decline and then an increase back up to
$8,081 in 2008 (SHEEO, 2014). The Great Recession, which began in 2008, dramatically reduced state revenue, and ended the growth in state and local higher education funding that was seen between 2004 and 2008 (SHEEO, 2014). After the recession, educational appropriations reached a low of $6,122 per FTE in 2012 owing to the end of federal stimulus dollars that helped states recover economically. State funding has recovered slightly in the last two years to $6,552 per FTE in FY 2014 (in constant dollars), but it is still far below the prerecession levels (SHEEO, 2014).

Between 2009 and 2014, state and local appropriations per FTE dropped 13.3% but variations among states were extreme—with Louisiana experiencing a 38.4% drop and Illinois experiencing a 49.5% increase (after years of funding far below the national average)—and the surge in funding is earmarked for pensions, not education-related spending (SHEEO, 2014). Only three states experienced overall growth during this period: Alaska, North Dakota, and Illinois (SHEEO, 2014). During this time of decreasing appropriations, nationally institutions saw a 3.9% enrollment growth (SHEEO, 2014).

Within this environment of declining (although now slightly rebounding) state appropriations, performance funding has reemerged as a popular state-level accountability policy (Dougherty & Natow, 2015). The Great Recession may be one reason that PBF has seen a resurgence in popularity, as states scramble to think of new ways to distribute scarce resources (Dougherty & Natow, 2015). In 1979, Tennessee was the first state to implement PBF, and now 38 states have utilized either PBF or OBF at one point or another, although details of the policy vary among states (Dougherty &
Natow, 2015). Broadly, the goals of PBF and OBF are to increase accountability, increase efficiency, and align institutional efforts toward completion rather than enrollment. Initially, most PBF models took a bonus approach, where institutions were rewarded funds beyond their regular state funding for meeting targeted student outcome indicators (Dougherty & Reddy, 2013). More recent attempts at OBF, often called Wave 2, or OBF 2.0 have used an embedded approach where a certain percentage of base funds are tied to performance indicators (Dougherty & Reddy, 2013). These more recent embedded models are more commonly called outcomes based funding, rather than performance based funding. Performance and outcomes based funding aims to increase the efficiency of institutions by rewarding movement on goals such as degree completion and passing degree milestones rather than providing state allocations based on headcount or base budgets as most states have done in the past (Dougherty & Natow, 2015). OBF metrics often include prioritizing certain student groups—such as Pell, adult, or under-represented students—rewarding movement through degree programs to completion, and increasing degree productivity (Snyder, 2014). Although there is great potential for OBF to increase efficiency, it is important for states to be mindful of possible unintended consequences, such as reduced academic standards, mission drift, or increased admission standards (Snyder, 2014). States must find the balance between putting enough funds at stake to encourage institutional response but not so much that institutions do not have a predictable budget with which to work (Cavanaugh & Garland, 2012). Often states need to revise their OBF model multiple times to find this balance (Cavanaugh & Garland, 2012).
State-funded scholarships also may play a role in the ability of MSIs to meet student needs. In 2014–2015, states awarded slightly more than $10 billion in grant aid to students, or $710 dollars per FTE (College Board, 2016b). However, this amount varies greatly among states, with New Hampshire awarding no state grants and South Carolina awarding $1,890 in grant aid per FTE (College Board, 2016b). Of the $10 billion awarded, 75% was given on a need basis and 25% was given in merit aid (College Board, 2016b). Up until 1982, all state grants were need-based (College Board, 2016b). This is part of an overall shift away from need-based aid, which was driven by the ideals of expanding access to higher education, to merit-based aid, which is largely driven by a human capital perspective (Heller, 2002). One example of this trend is the Georgia HOPE Scholarship program, which was the first large-scale, state-funded, merit-based scholarship program (Heller, 2002). Initially, this scholarship had both a merit component and a need component, requiring that applicants have a family income of below $66,000 dollars (Heller, 2002). However, by the second year of this program, the need-based component was dropped, and higher monetary awards were approved for fees and tuition at private institutions (Heller, 2002). The scholarship further directs funds to higher-income students through requiring that the Pell Grant be used toward tuition costs first (Heller, 2002). This shift toward merit-based aid often awards students who have the means to attend college unassisted, thereby spending taxpayer money unnecessarily.

In total, only 14 states require a demonstration of financial need for all of their state grants (Baum & Payea, 2012), although the greatest opportunity to maximize state funds would be to target academically prepared but underfunded students who have the ability to achieve in college yet are deterred because of a lack of funding (Perna, 2010).
Federal Finance Policies

The federal government supports higher education in four primary ways: grants (such as financial aid and research), general appropriations, student loans, and tax credits (Pew Charitable Trusts, 2015). In 2013, the federal government contributed $75.6 billion to higher education in direct spending: $31.3 billion through the Pell Grant, $1.6 billion through other financial aid grants, $24.6 billion through research grants, $12.2 billion in veterans’ educational benefits, $2.2 billion in other nonfinancial-aid grant programs, and 3.8 billion in general-purpose appropriations (Pew Charitable Trusts, 2015). The federal government loaned $103 billion to students and their families in 2013 (Pew Charitable Trusts, 2015). It also provided $31 billion in tax credits, deductions, exemptions, and exclusions (Pew Charitable Trusts, 2015). The large volume of federal support indicates that federal monies may play a large role in shaping institutional behavior. Many of these funding streams are awarded for special purposes, limiting what institutions can use them for, and possibly encouraging institutions to modify behavior to be eligible for these funds. The following paragraphs discuss in more detail the specifics of the Pell Grant, federal loans, Title III appropriations, and Title V grants.

Established in 1972 as the Basic Educational Opportunity Grants, Pell Grants have evolved to be the primary federal grant for low-income students. In 2014–2015, 8.2 million students received the Pell Grant (College Board, 2016b). The 2014–2015 maximum Pell award was $5,730, and in 2012–2013, 75% of recipients had an annual family income of less than $30,000 (IHEP, 2015). Pell is available to both full-time and part-time students and can be received for no more than 12 semesters (IHEP, 2015). In
2008, year-round Pell Grants were authorized so that students could use the grant in the summer, but in 2011 summer Pell Grants were eliminated to contain growing program costs (IHEP, 2015).

It is clear that Pell Grants have helped many low-income students make it through college, but they have not addressed all financial needs of students and families. The purchasing power of the Pell has dropped: the 2014–2015 maximum Pell grant was $5,730, covering a small fraction of the cost of attendance at a public postsecondary institution, which was, on average, $9,139 for in-state residents and $22,958 for out-of-state students. Although the amount of Pell Grants has grown through the years, Pell growth has not kept pace with growth in tuition and fees (College Board, 2016b). The process for applying for Pell is too complicated; automating part of the FASFA by linking it to the tax system was a step in the right direction, but was undone by the current presidential administration. The recent change to allow prior-year income to be counted toward eligibility will help students determine their eligibility before committing to a school, but more could be done to coordinate Pell Grants with other federal and state subsidy programs. Burd (2013) offers interesting potential additions to Pell, such as enacting a matching-grant program for institutions that enroll a small share of Pell students that would encourage them to reallocate institutional aid from merit to need-based aid. Institutions that enroll a large share of Pell students could receive a bonus to use to reduce their net price or create support programs for low-income students (Burd, 2013).
Many claim that the easy availability of federal loans drastically impacted institutional behavior and tuition setting and is the direct cause of the skyrocketing cost of higher education. The Stafford subsidized and unsubsidized loans and the Parental Loans for Undergraduate Students are the three major federal loan programs, which totaled $70 billion in 2011–2012 (Doyle, 2013). Federal loans for all loan programs totaled $103 billion in 2013 (Pew Charitable Trust, 2015). It is difficult to determine, but important to consider, the impact that unlimited borrowing has on the price of college. Restricting loans to a certain amount, especially graduate loans, may drive the cost of higher education down and increase access for low-income students (Burd, et al., 2013).

The HEA awards general appropriations and specialized grants to MSIs through Title II and Title V. Title III of the HEA is the primary source of institutional support for MSIs and includes federal direct appropriations used for general operating expenses as well as a competitive grant program (Hegji, 2014). Title III provides direct institutional aid to HBCUs and TCU s because of the federal responsibility for the welfare of these groups (Wolanin, 1998). This direct support to institutions is uncharacteristic of federal support for higher education, which typically funds institutions indirectly by providing loans and grants to students, and funding to institutions for research (Wolanin, 1998). Title III also provides competitive grants and formula grants to HBCUs, TCUs, HSIs, Asian American and Native American Pacific Islander–Serving Institutions (AANAPISIs), and Native American–serving, Nontribal Institutions (NASNTIs) through the Strengthening Institutions Program (SIP). These funds are restricted to facilities improvement, faculty development, curriculum development, and student services (Hegji,
Institutions also may use these funds to establish or increase their endowments as long as they do not use more than 20% of the funds for their endowment and have matching funds from a nonfederal source (Hegji, 2014).

Title V of the HEA is a competitive grant program for HSIs and awards funding for special purposes (Hegji, 2014). These funds are also for restricted use similar to the Title III restrictions (Hegji, 2014). Although some MSIs were founded with the mission of serving particular groups, like HBCUs or TCUs, others—such as HSIs—achieved their MSI status unintentionally over time because of shifting demographics. This may mean that some HSIs do not consider serving Hispanic students as part of their institutional mission but are still able to reap the rewards of their federal designation (Wolanin, 1998).

HSIs can be defined as an institution where total Hispanic enrollment constitutes a minimum of 25% of the institution’s total enrolment. HSIs serve an important role in higher education, and though they make up less than 5% of all postsecondary institutions, they enroll nearly 50% of all Hispanic undergraduates (Gasman & Conrad, 2014).

In 2010–2011, 55% of Hispanic/Latino students receiving undergraduate degrees in education graduated from an MSI, showing that these institutions play an important role in promoting diversity across education (Gasman & Conrad, 2014). HSIs also play an important role in enrolling Pell students, as 48% of HSI students receive Pell Grants (Gasman & Conrad, 2014).
The Flow of Funds, Policies in Sync

Examining the relationship between finance policies and the ability of MSIs to meet student needs begins with examining the relationship between various types of finance policies and their goals. There are many policy levers that states can employ to influence higher education performance, including governance structures, appropriations levels, tuition and financial aid policies, accountability policies, transition-point policies, distance-learning policies, policies to improve private higher education, quality-assurance policies, and information systems (Zumeta, et al., 2012).

Figure 1 demonstrates the various bodies that have a role in funding higher education (Jones, 2003). All sources of revenue are broadly drawn from the economy and flow to state governments, the federal government, and students (Jones, 2003). These three stakeholders—states, the federal government, and students—have different goals and priorities. Most institutions receive the majority of their unrestricted revenue from students and state governments (Jones, 2003). The federal government also provides many sources of restricted funding or funding to be used for research or special projects, and grants and loans to students that eventually make their way to institutions (Jones, 2003).
The diagram indicates that state-level financing policy should focus on four main areas: appropriations made directly to institutions, tuition and fees policy, state student financial aid policy, and institutional student financial aid policy (Jones, 2003). States would do well to align policies in these four areas to work toward state priorities and goals; however, this is often not the case, and decisions regarding these policies are often made independently of each other (Jones, 2003). For example, a state may influence appropriations through performance funding and reward Pell student completions with more funding as a state priority but at the same time make financial aid policy merit-
based, rewarding students who would already have the means and drive to complete college. This scenario presents poor alignment of state policies. Improving alignment may more strongly produce the desired outcome of graduating low-income students. In addition to aligning state policies, states should design their policies with federal finance policies in mind to maximize their cost-effectiveness (Jones, 2003). For example, many states are revising their scholarship programs to be last dollar, requiring students to accept Pell Grants first and use state scholarships to make up any difference that Pell doesn’t cover. Understanding the individual characteristics and changes over time of the largest state and federal finance polices may reveal insights into their alignment and relationship to student success.

Understanding the purposes and characteristics of these policies, how they have shifted over time, and how they are influenced by external forces and each other is critical to understanding the relationship among these policies and the ability of MSIs to serve their students. For example, in California, funding to MSIs has shifted dramatically in just the last eight years (Boland, Castro Samayoa, Nguyen, Gasman, Jimez, Chen, & Zhang, 2015). State appropriations per FTE dropped 32% between 2006 and 2013 at four-year MSIs and 27% at two-year MSIs (Boland, et al., 2015). During the same time, revenue from government grants and contracts grew 56% at four-year MSIs and 40% at two-year MSIs (Boland, et al., 2015). More must be known about how state and federal finance policies work together or at cross-purposes to support MSIs.
Institutional Response to Finance Policies

Understanding my second set of questions begins with a review of theories on the relationship between public policy and institutions as well as the known institutional responses to current finance policies. One of the challenges of policymaking is the difficulty of determining which interventions are working to change student or institutional behavior, which are not working, and how multiple policies may be working with or against each other to achieve public goals. Policies are often studied in isolation, but intuitions do not operate in isolation or in response to only one policy. This section discusses theories on the relationship between governments and higher education institutions, theories of institutional change in higher education, and reviews literature on what is known about how institutions may change institutional behavior in response to current state and federal finance policies.

The Relationship between Policy and Institutions

Paulson (2001) offers an apt discussion of concepts from the economics of the public sector that can be useful in understanding the financing of public higher education and the role of the public sector in guiding higher education. At a basic level, public-sector economists are interested in the effective allocation of resources to provide a greater public benefit relative to public costs (Paulson, 2001). When the free market system fails to produce an efficient or equitable distribution of resources, the public sector intervenes in an attempt to increase efficiency or produce a more just equilibrium (Paulson, 2001). For example, OBF, as a public policy intervention, attempts to increase institutional efficiency by increasing attainment rates and, in some cases, attempts to
increase equitable distribution of resources by focusing on the attainment rates of low-income students. Governments tend either to subsidize students or institutions to maintain an equitable balance, correcting the market when it has not corrected itself (Paulson, 2001).

There are also many theories that take a more specific look at higher education as a market and aim to explain the state’s role in guiding the market. One of the first theories held that the state should take a role as mediator focused on managing the coordination between higher education and the market (Clark, 1983). This triangle of coordination (also referred to as a triangle of tension) is necessary because the US has taken a market approach to higher education that utilizes competition with little cohesion among institutions (Clark, 1983). For this reason, the state is needed to bring order to higher education systems (Clark, 1983). This framework was primarily focused on enrollment and encouraging higher education growth to meet growing demand.

One of the most often cited and comprehensive conceptual frameworks aimed at understanding how state policy influences higher education performance views the state as having a steering role in the higher education market and operating as a provider, regulator, and consumer advocate (Richardson et al., 1999). The framework concludes that higher education performance in the state depends on the interaction between the design of a higher education system and four state policy roles: providing resources (through state allocations), regulating (such as restricting use of resources for particular purposes), advocating for consumers (by providing financial aid), and steering (by
encouraging institutions to produce outcomes consistent with state priorities) (Richardson et al., 1999).

Bowen’s “revenue theory of cost” (1980) can help explain the relationship between finance policy and institutional spending. His theory states that institutions are always seeking to gain more prominence and prestige, and there is no limit to the amount of money they could spend in this pursuit. Therefore, each institution will raise all the money it can and spend all the money it raises; the effect of this is that institutions move toward ever-increasing expenditure.

McPherson and Shapiro (1993) examined the effect of government financing on institutional behavior. By looking at national data sets and dividing government funds into three broad categories—federal financial aid, direct state and local support, and government grants and contracts—the authors aimed to discover how changes in these categories impacted tuition and fees, institution-specific scholarship aid, and instructional expenditures. They found that an increase in federal financial aid of $1 led to a 50-cent increase in tuition at public four-year institutions (McPherson & Shapiro, 1993). They also found that an increase in direct state and local educational appropriations leads to an increase in instructional expenditures at public two-year and four-year institutions (McPherson & Shapiro, 1993).

Institutional Response to Declining Appropriations

The primary institutional response to declining state appropriations is to increase tuition. Net tuition as a percent of public higher education total (state and local
appropriations) revenue grew from 24.5% in 1989 to 47.1% in 2014 (SHEEO, 2014). The rate of growth of tuition revenue tends to escalate when state and local support falls short of inflation and enrollment growth (SHEEO, 2014). During good economic times, tuition still increases, just at a slower rate (SHEEO, 2014). This is typically during and directly after a recession (SHEEO, 2014). During the Great Recession, tuition as a percent of public higher education total revenue grew from 35.8% in 2008 to 47.7% in 2013 (SHEEO, 2014). The last year saw a slight decline in the share of tuition as higher education revenue, falling from 47.7% to 47.1% (SHEEO, 2014). This correlates to the recent increase in state funding to higher education.

Another institutional response to declining state appropriations is to cut faculty and staff, and an increased dependence on adjunct instructors. Although this trend began before the recession, it accelerated in recent years. Many institutions across the US are facing funding challenges and are restricting access, cutting academic programs and eliminating faculty and staff positions. For example, the University of Wisconsin system is projected to be facing a $928 million deficit and is consolidating and closing campuses. The University of Wisconsin Board of Regents also recently approved new policies regarding layoffs and tenure, leaving tenured faculty feeling more vulnerable. With the exception of a few private HBCUs and a few large HSIs, MSIs have very few financial resources and many are on the brink of closure (Gasman, Baez, & Sotello Turner, 2007). This largely can be attributed to decreases in state funding and federal financial aid, which impacts the fiscal stability of MSIs (Gasman, Baez, & Sotello Turner, 2007). Federal aid given in the form of competitive grants is unreliable and can vary from year
to year, further impeding the ability of MSIs to engage in long-term planning. This potentially could lead to institutional behavior that includes mission drift, raising tuition, increasing admission standards, cutting academic programs, reducing student-support programs, and pursuing alternative funding sources, among others.

**Institutional Response to OBF**

The most recent wave of performance funding, which ties performance metrics to base appropriations rather than a bonus, has been shown to incentivize institutions to make changes to programs and services, but there is very little conclusive research that determines how PBF might impact student outcomes (Dougherty & Natow, 2015). A recent ASHE report on PBF synthesizes findings from multiple studies across multiple states to lay out the common immediate and intermediate institutional impacts that PBF has had on higher education institutions (Dougherty & Reddy, 2013). The immediate institutional impacts of PBF are the direct means through which PBF policies encourage changes in institutional performance. These immediate institutional impacts include creating changes in institutional finances, increasing institutional knowledge of state goals, increasing institutional awareness of performance, encouraging status competition among institutions, and assessment of institutional capacity for organizational learning (Dougherty & Reddy, 2013).

The less obvious immediate impacts are more cognitive. Given that PBF programs require institutions to report certain output measures to the state, institutions must develop a greater understanding of state expectations, of their own performance on
these measures, and of their ability to work toward these measures (Burke, 2005; Dougherty & Hong, 2006). Shifting focus from inputs to outputs means that, in theory, institutions will spend less time measuring indicators such as enrollment and more time looking at course completion and graduation rates (Dougherty & Hong, 2006). This shift in focus potentially can be influenced by states through a deliberate effort to spread the word about state goals to key administrators (Dougherty & Reddy, 2013). In a few instances, PBF has created a competitive environment among institutions and led to an increased understanding of peer institutions’ performances (Dougherty & Reddy, 2013). Finally, PBF can encourage institutions to examine their own capacity for institutional learning and change (Dougherty & Reddy, 2013).

Intermediate institutional impacts consist of organizational changes that occur in response to the immediate institutional impacts, and these intermediate changes are intended to boost student outcomes (Dougherty & Hong, 2006). These organizational changes can be loosely into three areas: alterations to academic policies, programs, and practices; changes in developmental education and tutoring; and changes to student service policies, programs, and practices (Dougherty & Reddy, 2013). Alterations to academic policies, programs, and practices can include alterations to spending on instruction, department structure and staffing, curricula and graduation requirements, and course content and instructional delivery (Dougherty & Reddy, 2013). For example, if a state rewards an institution for increasing its graduation rate, an institution may respond through increasing the number of academic coaches available to struggling students to increase the graduation rate of the school. Conversely, an institution may simply increase
its standards for admission. By only accepting students with a high probability of graduating, the institution may be undermining other state priorities, such as increasing access to low-income and under-represented students. Studies also indicate that intermediate institutional impacts occur through changes in developmental education and tutoring (Dougherty & Reddy, 2013). If institutions are rewarded for graduating high-need students, they may make additional efforts to improve and expand tutoring centers, supplemental instruction, and developmental or remedial education. Student-service policies, programs, and practices is another area that may be impacted by PBF and has included efforts to improve services with regard to registration, financial aid, and first-year retention efforts, among others (Dougherty & Reddy, 2013).

Research also shows that, like any policy intervention, there can be unintended consequences of PBF. These unintended impacts can include costs of compliance, narrowing of institutional missions, restriction of student admissions, grade inflation and weakening of academic standards, and diminished faculty voice in academic governance (Dougherty & Reddy, 2013). The increased burden of reporting institutional outputs to states means that some institutions may have to hire additional personnel or devote more time and funding toward the reporting requirements, thus diverting resources from meeting the policy goals the funding program was designed to encourage (Dougherty & Reddy, 2013). Institutions may deemphasize or abandon missions that are not rewarded, or only minimally rewarded, by PBF formulas, causing mission drift (Dougherty & Reddy, 2013). Pennsylvania’s PASSHE system has tried to allow more flexibility for differing institutional missions by creating a menu of performance indicators and holding
institutions responsible for some but not all indicators (Cavanaugh & Garland, 2012). Differentiating between institutional types ensures that institutions can work toward goals that are in line with their mission and that they are not held accountable for other goals (Cavanaugh & Garland, 2012). Research also found that PBF can lead to grade inflation and weakened academic standards (Dougherty & Reddy, 2013). If an institution is rewarded for course completion and degree attainment, these goals are easy to meet by passing all students in a course and making degree requirements easier to meet. Similarly, if institutions are rewarded for degree completion, they simply may raise admission standards, excluding less-prepared students from entering and ensuring that their attainment rates rise (Dougherty & Reddy, 2013). Finally, low faculty awareness of PBF can lead to a diminished faculty voice in academic governance (Dougherty & Reddy, 2013).

**Institutional Response to Title III and Title V Grants**

Title III and Title V grants are finance policies specific to MSIs and may have specific impacts on institutional behavior. First, institutions that are near the percentile of minority students needed to receive these grants may change their admission and recruitment practices to secure and maintain the students needed to be eligible to apply for these grants. Second, these grants can be used only on facilities improvement, faculty development, curriculum development, and student services, which limits the ability of institutions to use these funds to meet their needs. Finally, the competitive nature of these grants may discourage MSIs from working together to achieve common goals.
Institutional Response to Financial Aid Policies

It is important for state and federal policymakers to consider how financial aid eligibility and delivery encourages enrollment, persistence, performance, and completion (Dynarski & Clayton, 2013). It can be difficult to measure the effectiveness of financial aid efforts because students who are eligible for an aid program may have very different characteristics and backgrounds than students who are not eligible (Dynarski & Clayton, 2013). Still, there can be some broad themes drawn from research on financial aid program efficacy, including the following: aid positively impacts enrollment; program complexity undermines aid effectiveness; academic incentives appear to augment aid effectiveness, particularly after enrollment; and loan design may be important in impacting enrollment (Dynarski & Clayton, 2013). Essentially, large incentives offered through simple programs with easy-to-understand eligibility requirements and application processes will increase college enrollment and the addition of academic requirements will contribute to completion (Dynarski & Clayton, 2013). Lack of knowledge about financial aid programs may be a large barrier to increasing enrollment through these programs (Heller, 2011).

There is still much to discover about institutional response to Title III and Title V funding, other federal competitive grants, OBF, and financial aid policies. More research is needed to discover how this convergence of finance policies impacts MSIs.
Researching Policy Implementation

State and federal finance policies are designed with the intention of influencing institutional and student behavior. However, effectively implementing policy is always a challenge. After the public policy reform efforts of the 1960s, policymakers and researchers began to recognize the difficulties of policy implementation and the role of implementation difficulties in affecting outcomes; as a result, they expanded research in that area (McLaughlin, 1987). Initially implementation research took a top-down approach, examining the policy decision first and following the effect with the aim of determining if the policy objectives were met (Sabatier, 1986). This approach looked for success or failure in meeting objectives and if the impacts of the policy met the objectives (Sabatier, 1986). A top-down approach relies on the assumption that policy implementation is controlled by the policymakers who control the organizational, political, and technological processes that affect implementation (Elmore, 1979).

The next wave of implementation researchers recognized that policymakers often do not have control of policy implementation and initiated a bottom-up approach to implementation research (Sabatier, 1986). A bottom-up approach to policy research begins at the level of implementation and the actors involved and works up to the initial policy, identifying barriers to implementation and the role of actors in successful or unsuccessful implementation (Sabatier, 1986). Bottom-up approaches recognize the limited influence that policymakers have over implementation and that actors at each level have little control over the behaviors and responses of others in the process (Elmore, 1979). “Backward mapping” (Elmore, 1979) is a seminal bottom-up approach.
Backward mapping begins at the lowest level of the policy process, the level that generates the need for policy (Elmore, 1979). It recognizes the limited ability of actors at one level to influence the actions of actors at other levels of implementation; it further recognizes the limited ability of organizations to influence the ability of private behavior (students) (Elmore, 1979). Backward mapping also assumes that the closer an actor is to the problem, the greater their influence over it, and that solving problems does not depend on hierarchal control but on allowing for discretion at the level of the problem (Elmore, 1979). Hierarchal control from policymakers can divert resources from problem solving and instead focus efforts on surveillance and compliance (Elmore, 1980). Delegated control allows policymakers to leverage complexity at the delivery level, creating a source for ideas about increasing the capacity to deliver services (Elmore, 1980).

Although backward mapping addresses many of the shortcomings of the top-down approach, it doesn’t address the need to study policy efficacy over time. Sabatier (1986) developed a conceptual framework to examine policy implementation during a 10- to 20-year period that combines the strengths of the top-down and bottom-up approaches. His synthesis adopts strengths of the bottom-up approach such as examining the policy problem (rather than the policy decision) and strengths of the top-down approach such as a concern for how socio-economic conditions constrain behavior (Sabatier, 1986). To this synthesis, he adds the longevity of researching a policy for more than 10 years and utilizes abstract theoretical constructs (Sabatier, 1986). This
framework is primarily concerned with theory construction rather than illuminating practices for practitioners and policymakers (Sabatier, 1986).

A framework developed by Jones and Ewell (1993), and expanded on by McGuinness (1994), also synthesizes the top-down and bottom-up approaches, and can help assess the relationship between state policy and successful undergraduate education practices. This framework considers known good practices in undergraduate education, public policy, and the mediating influences of organizational culture and resources that affect this relationship. To assess how state polices might promote or impede undergraduate education, Jones and Ewell identified characteristics of good practices that promote student learning. Such practices include frequent student-faculty contact and providing students with opportunities to apply their learning and demonstrate their skills (Jones & Ewell, 1993). The authors recognize that the successful execution of these practices relies on a relatively small group of faculty and staff at the institutional level and that it can be difficult to influence their behaviors directly through state policy. Rather, “state policy may have some direct impact on educational practices, but could more strongly affect these practices indirectly by the way it shapes institutions and their behaviors” (p. 7). State policy can help cultivate positive institutional cultures in which good educational practices can flourish. Characteristics of these positive institutional cultures include a strong sense of mission and shared purpose, clear statements of intended instruction objectives, and being actively student-centered, among others (Jones & Ewell, 1993). Positive institutional cultures are also influenced by resources: resources received by the institution and resources available to the students. The allocation of
resources is often considered the most powerful policy lever to impact institutional changes, and the absence of student resources is often considered the largest barrier to degree completion for low-income students. So, to promote an institutional culture that provides an environment that promotes good educational practice, the institution must be supplied with an adequate resource base that can be used for purposes that support wise educational practices, and students must have adequate resources to be in a position to take advantage of these educational practices (Jones & Ewell, 1993). To maintain the use of inspired educational practices, these resources must be stable and predictable for both parties over time (Jones & Ewell, 1993). Conditions to promote good educational practice also can be mediated at the state level through state characteristics such as their political culture, governance structure, and policies (Jones & Ewell, 1993). The illustration below shows the reciprocal effect that mediating influences have on state policy and good practices in undergraduate education (McGuinness, 1994).

Figure 2. The Effect of State Policy on Undergraduate Education

This framework begins as a starting point to encourage policymakers to learn more about the relationship between specific policies and undergraduate education through conducting a policy audit. This audit can examine particular state policies and
how they—alone or in conjunction—support or inhibit the development of good practices in undergraduate education (Jones & Ewell, 1993). By constructing a simple matrix with the state policies along one side, and conditions of good educational practice and mediating influences on the other, policymakers can mark a “+” when a policy had a positive influence over an educational practice or a “-” when that policy works against good practice. The previously mentioned framework is useful in conducting the policy audit for three reasons (Jones & Ewell, 1993). First, the framework can guide a top-down analysis of existing policies by providing a comprehensive list of the policies, and reveal basic relationships among the policies by examining the positive and negative influences they have on successful educational practices. Second, the framework can guide a bottom-up assessment of these relationships through a focus on the environments and structures that support or inhibit faculty and staff in implementing good educational practices (Jones & Ewell, 1993). Finally, the framework can assist a policy audit by illuminating how policies may be working in conflict, through identifying practices with a “+” and “-” in the same row of the policy matrix. McGuinness (1994) recommends that this approach to a policy audit (or policy review) include bottom-down and top-up perspectives as the institution may miss legitimate concerns about statewide issues and public accountability while the state may miss subtle points on institutional change. A policy audit also should keep in mind the importance of informal policy, which can be a powerful influence on institutional change (McGuinness, 1994).

Another framework that may be helpful in understanding the relationship between public policy and degree attainment is laid out in *The Attainment Agenda* (Perna &
Finney, 2014). The authors rest their framework on five tenets. First, understanding a state’s historical, demographic, economic, and political context is critical to understanding the relationship between public policy and higher education performance. The second tenet stresses the role of state policy leadership in guiding higher education performance by implementing a coordinated public agenda that reflects state needs. The third tenet encourages states to use public policies to promote both the demand for and supply of higher education. In order to promote equity in education attainment, the fourth tenet states that public policies should attempt to equalize opportunity. Finally, as reflected in the figure below, the fifth tenet states that improving higher education performance is a continuous process that requires regular assessment and readjustment of public policies. This model is focused on intention and action at the state level, and the authors conclude by recommending further attention to the interaction between state policy and institutional practice.

Figure 3. Conceptual Model for Understanding How State Public Policy Influences Higher Education Performance

(Perna & Finney, 2014, p. 205)
Conclusions

There are many conclusions that can be drawn from the literature on finance policies and institutional response to them. Understanding the relationship between finance policies and MSIs begins with understanding the historical approach to finance policies, contemporary finance policies, the relationship between policies, and the way institutions respond to them. Historically, MSIs were funded at levels below that of predominately white institutions, and this funding often came with expectations that institutions would encourage assimilation and provide training for low-wage occupations. Contemporary finance policies at the state, federal, and occasionally the local level vary in goals, are often unreliable, and are rarely designed to work in conjunction to achieve public goals. Greater alignment of finance policies could result in increased achievement of public goals and student success as well as the creation of an organizational environment supportive of student success. The relationship between policies and institutions aims to encourage desired behavior and incentivize institutions to work toward the public good. However, this relationship is marred by mediating influences, including organizational culture and sociopolitical forces. Changes in state and federal policy have led to a variety of institutional responses, including increasing tuition, adapting academic programs, and pursuing additional forms of revenue. There are many approaches to researching policy implementation, but this study will use a bottom-up approach to examine the relationship between finance policies and the ability of MSIs to meet student needs.
Chapter 3—Methodology

Purpose of the Study

This study aimed to discover more about how small MSIs that support low-income students navigate and respond to the complex web of state and federal finance policies, and how in turn this response influences their ability to meet student needs. My primary research question was: What is the relationship between funding policies and the ability of MSIs to serve their students? To answer this question, I explored the following questions:

• What local, state, and federal finance policies impact MSIs’ funding? To what extent are these policies working toward a common goal and to what extent are they working at cross-purposes?

• To what extent are these policies and changes in these policies impeding or supporting the ability of MSIs to serve their students over time? How have changes in these policies impacted student access and outcomes over time?

Findings from this study revealed ways institutions are leveraging grant funds to improve student success and maintain support services while diversifying their revenue streams as state appropriations decline. It also exposed the sacrifices that institutions make when public funding declines and how this impacts the options available to students. Finally, it provides insights into the unintended consequences of finance policies and offers suggestions for how public funding could be more efficiently to support state goals.
Research Design and Analysis

I approached my research questions through a case study methodology, with a three-tiered data collection approach. Case studies are helpful in explaining complex causal links, describing contexts in depth, and exploring situations in which the intervention has uncertain outcomes (Yin, 2009). My data collection occurred in three phases. First, I collected and analyzed state- and institutional-level data from existing data sets, creating a systemized way to document changes in my sites. Second, to determine which policies impact my sites, and how these policies may be working together or at cross-purposes, I conducted a policy audit as laid out by Jones & Ewell (1993) and McGuinness (1994). Third, I interviewed institutional leaders at three MSIs in New Mexico, and across state agencies, to determine which finance policies, if any, are having a direct influence on student success. I will discuss each of these steps in further detail in the following paragraphs.

I began my data collection with a document and data review to determine which finance policies are influencing my sites and how they have changed over time. I examined legislation, and documents describing legislation, to create a time line of when the finance policies impacting my sites took effect and when changes to them were made. For example, in 1996 New Mexico initiated the Legislative Lottery Scholarship, which initially paid for eight full semesters of tuition, but in 2014 the policy was changed to seven full semesters, beginning in the second semester of study. I also documented changes in state appropriations levels; changes in Pell, Title III, and Title V grants; and additional grant awards. This background work informed my interview protocol. I also
conducted an analysis of IPEDS data statewide and on my institutional sites to identify changes in higher education performance that may be in response to changes in finance policies. My primary interest was to determine if, and how, my sites have changed over time in the money they receive, their spending habits, and the students they serve.

Specific IPEDS data points I analyzed and their importance are:

**Enrollment**

- Unduplicated headcount, full-time, part-time, and FTE—This data point was important to understand how enrollment changed over time.
- Enrollment by race and ethnicity—This data point revealed insights into whether institutional commitment to minority students changed over time.
- Percent of students in-state and out-of-state—This data point disclosed whether institutions are admitting more out-of-state students, possibly to generate revenue.
- Distance-education enrollment—This data point demonstrated whether institutions have increased online education, another activity thought to increase revenue.

**Graduation Rates**

- Graduation rate within 150% of normal time, 200% of normal time, and transfer-out rate—This data point revealed insights into how finance policy may impact performance.

**Student Tuition and Fees**
• In-state and out-of-state tuition and fees—To demonstrate whether declines in state appropriations lead to increases in tuition and fees.

• Average net price (income $0-30,000, income $30,001–48,000, and income $48,000–75,000) for students receiving Title IV federal financial aid—To understand gaps in aid and the percentage of family income different income brackets are paying for college.

Student Financial Aid

• Percent of undergraduate students receiving federal, state, local, institutional, or other sources of grant aid —This data point demonstrated how widely student aid policies are reaching students at my sites.

• Percent of undergraduates receiving Pell —This data point explored how changes in Pell impact the growth or decline of student populations on Pell.

• Percent of undergraduates receiving federal student loans—This data point gave me a sense of how many students had unmet need and therefore turn to loans.

Revenues and Expenditures

• Percent distribution of core revenues, by source—This data point demonstrated the major revenue sources my sites depend on and how they changed over time, possibly owing to policy changes.

• Core revenues per FTE enrollment, by source—This data point exhibited how revenue has shifted over time, but broken down by FTE, facilitating comparison between institutions.
- Percent distribution of core expenses, by function—This data point gave me a sense of how the proportion of spending on instruction, research, public service, academic support, student services, and institutional support at each of my sites changed over time.

- Core expenses per FTE enrollment, by function—This data point gave me the same sense of how expenditures have changed over time but allowed for comparison among my sites.

I also created a time line that chronologically lists federal policy changes in Pell, loans, and the HEA, and state policy changes in appropriations, state scholarships, and OBF. With this, I attempted to match changes to IPEDs data at my sites to changes in policies.

The second phase of my data collection was a policy audit, as explained by Jones and Ewell (1993) and McGuinness (1994). I created a table with mediating influences in the left column and state and federal finance policies across the top row. The mediating influences included indications of promoting a supportive organizational culture, as laid out on page 22 of Jones and Ewell (1993). Influences include “sense of mission/shared purpose” and “student centered.” The left column also included influences of state conditions, such as the political culture, governance structure, and policy-implementation process. Finally, it included indicators of good practice in education, and fiscal stability, including the promotion or deterrence of long-term planning and growth as well as the ability to compete for funds. Across the top row, I included state and federal finance
policies and, when applicable, local. Throughout this audit, I kept in mind the supportive features of finance policy, such as “requirements that prevent serious erosion of key instructional resources” and “absence of features that create incentives for institutions to alter their missions simply to acquire more resources” (Jones & Ewell, 1993, p. 26). Through this process, I assigned a “+” or “-” down the column of each policy in response to whether they support or inhibit the influences just described. This exercise helped direct a top-down analysis of the supportiveness of the policies and was useful in conducting a bottom-up analysis of the relationships among policies and good educational practices, and any potential conflicts in policy. This exercise also informed my interview protocol.

After the policy audit, I began interviewing. Research shows that even basic levels of knowledge about public finance and policies do not extend far below the level of vice president on most campuses, except for offices with direct responsibility for state reporting (Dougherty & Reddy, 2013). As this study is primarily concerned with the motives and reactions of those who are in a position to reflect on public policy efforts and campus wide student outcomes, I conducted interviews with 25 state leaders, national consultants, campus leaders, and those who directly administer programs connected to meeting public policy goals. At each site, when available, I interviewed the president, chief financial officer, chief academic officer, vice president of student services, and government liaisons. Given that my sites are small campuses, some participants filled more than one of these roles.
At the state level, I gained a more contextual knowledge of finance policies through speaking to former SHEEOs, staff members at the New Mexico Higher Education Department, former staff members of NMHED, and members of coordinating boards.

The interviews were semi-structured and included specific questions to answer my research questions. Primarily the questions focus on the finance policies that provide revenue for the institution, how changes in these policies impacted their funding, and how these policies may impede or support the ability of the institution to meet student needs. I audio recorded the interviews and then had them transcribed for detailed analysis through coding.

To analyze my interview transcripts, I employed standard methods of qualitative case study analysis, as described by Yin (2009). I used pattern matching between the empirical data I collected and predicted themes based on other studies to strengthen internal validity (Yin, 2009). I developed a coding system that reflected the codes I developed through my document and literature review, and best organized themes to answer my research questions. The following chapters reflect my findings, first at the state level, then a case study for each institution. Finally, I conducted a cross-site analysis to identify broad tenets that cut across the sites. I triangulated my data by collecting multiple sources of data, such as reports published by state and federal governments, institutions and, if needed, documents prepared by consultants and organizations. To strengthen the credibility and trustworthiness of my findings, I gathered feedback from key participants on the initial draft of my findings.
State-Selection Rationale

My primary state site is New Mexico and, within the state, I consider three institutions. I purposefully selected New Mexico because of the high number of MSIs and low-income students within the state. New Mexico is one of the most diverse states in the country. It is 48% Hispanic, 39% white, non-Hispanic, 10% American Indian and Alaskan Native, and 3% all other races (US Census Bureau, 2015). With a population of slightly more than two million, it is a slowly growing state with a population growth of 1.3% in the last five years, compared to the national average of 4.1% growth (US Census Bureau, 2015). New Mexico is also a low-income and low-resource state. Twenty-one percent of people in New Mexico live below the poverty level. The median household income in 2013 was $44,968, below the national average of $53,482 (US Census Bureau, 2015). All public higher education institutions in the state are minority-serving institutions.

I also selected New Mexico as a site because it invests heavily in higher education compared to other states, but that investment recently declined. Educational appropriations (not including tuition revenue) per FTE in constant adjusted 2014 dollars fell from $10,530 in 2008 to $8,029 in 2014, a 23% drop, but still higher than the 2014 national average of $6,215 (SHEEO, 2015). This fall in appropriations coincided with an increase in enrollment, as enrollment often increases during recessions as people go back to school in search of improving their employment prospects. In 2014, New Mexico had 98,630 FTE students, up 15% since the beginning of the recession (SHEEO, 2015). This high level of support suggests that institutions will respond to changes in state policies.
because state funding makes up a large share of their revenue, but this high level of support does not ensure that New Mexico students receive the same resources as students in wealthier states.

Additionally, New Mexico was chosen as a site because of the adoption of OBF in 2011 and the Legislative Lottery Scholarship, a merit-based scholarship that covers the full cost of tuition, beginning the second semester, for all high school graduates who qualify.

Within the state, I identified three sites for an in-depth analysis. The sites were chosen to reflect a variety of MSI designations and institutional types, and a rural location. I also selected my sites based on enrollment and need, choosing sites with a FTE enrollment of more than 1,000 students and more than 50% Pell-eligible, first-time, full-time students. The chosen sites also reflect a variety of revenue scenarios, with institutions receiving different proportions of revenue from tuition, state appropriations, local sources, or federal grants and contracts. The sites also reflect a variety of changes in the share of these sources from pre- to post-recession. See Table 1 for a comparison of revenue sources of my preferred sites to all institutions in New Mexico.

Table 1. Percent of Total Revenue of Selected Revenue Sources of New Mexico Public Institutions, 2007 - 2014

<table>
<thead>
<tr>
<th>Institution</th>
<th>Tuition and fees revenues</th>
<th>State appropriations revenues</th>
<th>Local appropriations</th>
<th>Government grants and contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central New Mexico Community College</td>
<td>6</td>
<td>7</td>
<td>39</td>
<td>30</td>
</tr>
<tr>
<td>Clovis Community College</td>
<td>6</td>
<td>10</td>
<td>56</td>
<td>46</td>
</tr>
<tr>
<td>Eastern New Mexico University–Main Campus</td>
<td>11</td>
<td>19</td>
<td>46</td>
<td>40</td>
</tr>
<tr>
<td>Institution</td>
<td>6</td>
<td>9</td>
<td>46</td>
<td>42</td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>Eastern New Mexico University–Roswell Campus</td>
<td>7</td>
<td>10</td>
<td>26</td>
<td>33</td>
</tr>
<tr>
<td>Eastern New Mexico University–Ruidoso Campus</td>
<td>4</td>
<td>6</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Institute of American Indian and Alaska Native Culture</td>
<td>2</td>
<td>3</td>
<td>62</td>
<td>54</td>
</tr>
<tr>
<td>Luna Community College</td>
<td>9</td>
<td>3</td>
<td>50</td>
<td>61</td>
</tr>
<tr>
<td>Mesalands Community College</td>
<td>18</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Navajo Technical University</td>
<td>13</td>
<td>19</td>
<td>54</td>
<td>51</td>
</tr>
<tr>
<td>New Mexico Highlands University</td>
<td>4</td>
<td>6</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>New Mexico Institute of Mining and Technology</td>
<td>10</td>
<td>10</td>
<td>28</td>
<td>16</td>
</tr>
<tr>
<td>New Mexico State University–Alamogordo</td>
<td>11</td>
<td>15</td>
<td>51</td>
<td>43</td>
</tr>
<tr>
<td>New Mexico State University–Carlsbad</td>
<td>8</td>
<td>8</td>
<td>45</td>
<td>30</td>
</tr>
<tr>
<td>New Mexico State University–Dona Ana</td>
<td>8</td>
<td>10</td>
<td>36</td>
<td>40</td>
</tr>
<tr>
<td>New Mexico State University–Grants</td>
<td>8</td>
<td>8</td>
<td>52</td>
<td>40</td>
</tr>
<tr>
<td>New Mexico State University–Main Campus</td>
<td>9</td>
<td>13</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Northern New Mexico College</td>
<td>6</td>
<td>6</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td>San Juan College</td>
<td>5</td>
<td>8</td>
<td>32</td>
<td>34</td>
</tr>
<tr>
<td>Santa Fe Community College</td>
<td>7</td>
<td>7</td>
<td>34</td>
<td>25</td>
</tr>
<tr>
<td>Southwestern Indian Polytechnic Institute</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>University of New Mexico–Gallup Campus</td>
<td>12</td>
<td>10</td>
<td>51</td>
<td>42</td>
</tr>
<tr>
<td>University of New Mexico–Los Alamos Campus</td>
<td>15</td>
<td>11</td>
<td>51</td>
<td>38</td>
</tr>
<tr>
<td>University of New Mexico–Main Campus</td>
<td>9</td>
<td>11</td>
<td>28</td>
<td>23</td>
</tr>
<tr>
<td>University of New Mexico–Taos Campus</td>
<td>8</td>
<td>6</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>University of New Mexico–Valencia County Campus</td>
<td>12</td>
<td>8</td>
<td>47</td>
<td>30</td>
</tr>
<tr>
<td>Western New Mexico University</td>
<td>10</td>
<td>19</td>
<td>58</td>
<td>47</td>
</tr>
</tbody>
</table>

Through this comparison, I selected three sites: Eastern New Mexico University (ENMU)–Roswell Campus, New Mexico Highlands University, and San Juan College, each with somewhat similar student populations but with different fiscal stories to tell.

ENMU–Roswell is a branch location of a comprehensive university, but awards only two-year technical degrees. Its FTE enrollment is 1,963, with 66% of students receiving Pell Grants. In-state tuition and fees has risen 24% in the past four years, from $1,566 per semester in 2012–2013 to $1,944 per semester in 2015–2016. In 2014, a mill levy was brought to ballot that would bring in an additional $2.1 million a year for the campus. The mill levy election faced an oppositional and well-funded media campaign from the local anti-tax Tea Party and may have included tactics to suppress the vote that day. The campus also faces an unsupportive local political climate based on its policy to admit undocumented students, even though state policy clearly articulates that undocumented students who attend a New Mexico high school are legally assured all the same higher education opportunities as students who are US citizens.

San Juan College, a community college, is a NASANTI. The largest of my sites, its FTE enrollment is 5,030 with 62% of its students receiving Pell Grants. It receives 25% of its revenue from local sources (a mill levy). In-state tuition and fees have risen 20% during the past four years, from $1,224 in 2012–2013 to $1,474 in 2015–2016. San Juan College is also expanding its distance education and low-residency programs, and in fall 2016 opened an early college high school. Participants described the local community as supportive of the college.
New Mexico Highlands University (NMHU) is a comprehensive university and HSI, awarding some master’s degrees. Its FTE enrollment is 2,833, with 58% of students receiving Pell Grants. In-state tuition and fees have risen 39% during the past four years, from $4,000 in 2013–2014 to $5,550 in 2016–2017. NMHU is investing new resources into student life activities and is unique in regard to having a large graduate student population of about 40%.

Limitations

All qualitative studies are interpreted through the perspective of the researcher, and although I attempted to minimize bias through member checks, this study’s data collection and analysis were interpreted through my eyes. My limited interaction with the sites restricts my ability to capture a narrative of institutional response and is limited by the memory and openness of my participants. Given that each state and institution is situated in a unique context, the findings of the study cannot be generalized across all institutions but will contribute to the discussion of public policy in higher education.
Chapter 4—New Mexico: A State-Level Overview

In order to understand fully the relationship between MSI funding and institutions’ ability to serve their students, it’s important to understand the unique state-level contextual factors that influence this relationship. The following chapter provides the background of higher education in New Mexico, including demographic and student performance trends, governance structure and political climate, and descriptions of state finance policies. Understanding these unique factors helps explore my questions at the state level:

- What local, state, and federal finance policies impact MSIs’ funding? To what extent are these policies working toward a common goal and to what extent are they working at cross-purposes?
- To what extent are these policies and changes in these policies impeding or supporting the ability of MSIs to serve their students over time? How have changes in these policies impacted student access and outcomes over time?

Demographics and Student Performance

New Mexico is a sparsely populated state of two million people. It is a majority-minority state with 47% of the population identifying as Hispanic or Latino, 39% non-Hispanic white, and 9% American Indian.

Higher education performance in New Mexico makes it an interesting site, with previous researchers characterizing it as a high-effort but low-performing state owing to the high financial investment at the state level but low to average student outcomes (Richardson & Martinez, 2009). Overall degree attainment rates are slightly below the
national average: only 34.2% of adults over age 25 in the state hold an associate’s degree or higher, compared to 38.8% nationwide (US Census Bureau, 2015). Similarly, 26.5% of New Mexicans 25 or over hold a bachelor’s degree compared to the national average of 29.8% (US Census Bureau, 2015). Preparation may be the biggest barrier to raising higher education attainment in New Mexico. When looking at the percentage of the population age 25 or older with a high school credential, New Mexico’s average is 84.2% (US Census Briefs, 2015). This is likely the point where many low-income students withdraw from the education pipeline. Remediation courses are widely utilized; 46% of New Mexico’s recent public high school graduates who enrolled in public higher education in the state take at least one developmental or remedial course within two years after high school graduation (NMHED, 2012).

Participation is one performance area in which New Mexico excels, and providing access to higher education has been a longstanding public policy priority in the state. New Mexico has a higher-than-national average of college continuation rate for graduating high school students, at 72%; it is much higher than the national average of 62% (Mortenson, 2014). This may be owing to low high school graduation rates and the Legislative Lottery Scholarship, which is awarded to all high school graduates and GED recipients and covers a large percentage of tuition and fees at any in-state public institution. Access-related strengths of New Mexico’s higher education institutions include proximity of institutions, inclusive admission standards, remediation efforts, and affordability (National College Access Network, 2012). However, owing to the low high
school graduation rates, the chance a 9\textsuperscript{th} grader would attend college by age 19 is lower than the national average at 41\% rather than 44\% (Mortenson, 2014).

New Mexico has done well in ensuring affordability in relation to other states. The Institute for Research on Higher Education (IRHE) ranks New Mexico as the fifth most affordable state in the country for higher education. On average, students in New Mexico would pay 15\% of their, or their parent’s, income to cover the net price of attending a two-year institution, and 24\% of their income to attend a public research university (IRHE, 2016). Of course, affordability varies by income quintile, with students in the lowest quintile paying 52\% of their income to cover the net price of a four-year research university, while students in the highest income quintile pay only 7\% of their income to attend a research university (IRHE, 2016). This difference is compounded by the low amount of need-based aid in New Mexico. The state awards $123 dollars per student in need-based aid, compared to the national average of $474 dollars, and $898 dollars per student in other aid, compared to the national average of $210 dollars (IRHE, 2016).

**Governance and Political Atmosphere**

New Mexico has a decentralized higher education governance structure. The Higher Education Department (HED) is a cabinet-level state agency overseen by the Secretary of Higher Education. The seven state universities have constitutional autonomy, however, leading to an atmosphere of great institutional independence. The New Mexico Council of University Presidents meets regularly and, in some cases,
coordinates lobbying efforts and policy actions. Fifteen separate boards of regents govern institutions, and there is no comprehensive state system. Tuition is set by the individual governing boards, although multiple participants indicated there is an informal agreement that institutions will keep tuition low owing to a commitment to student access and the lack of need-based aid in the state. The HED allocates funds from the Lottery Scholarship and has approval power over new degree programs and construction projects. Two agencies are responsible for analyzing and overseeing the higher education formula and budget: the Department of Finance and Administration, which represents the executive branch agenda, and the Legislative Finance Committee, which represents the budget proposed by the legislature. Each year both entities present a recommendation to a joint committee of representatives from the House Appropriations Committee and the Senate Finance Committee, and this joint committee votes on which proposal will become part of the General Appropriation Act. The committee also vote in a compromise between the two proposals. In recent years, the formula has changed every year.

There are three research universities in the state, two of which govern multiple branches that award two-year degrees. There are four comprehensive universities in the state, one of which oversees community college branches. There are seven independent community colleges and a variety of other specialized campuses, including four TCUs, for a total of 31 institutions. Interview participants disagreed on whether New Mexico is supporting an appropriate number of public institutions. Some felt the number was necessary to provide access to rural areas. Others pointed out that the high number created a duplication of services in some area, and a higher than necessary administrative
cost to the state. To compare, Arizona has 16 public institutions for a population of 6.8 million. The map below illustrates the locations of New Mexico’s public higher education institutions.
Figure 4. State-funded Colleges, Universities, Tribal Colleges & Special Schools in New Mexico

Source: New Mexico Higher Education Department, 2012
In 2010, Suzanna Martinez (R) was elected governor, promising to rein in government spending and increase government accountability. One area of focus for this goal has been higher education. On April 17, 2017, while locked in a budget showdown with the legislature, she vetoed all funding to higher education and the legislature (Strauss, 2017). During a special session in May 2017, the governor signed the budget, but again vetoed revenue measures. Events such as these characterize the often tense relationship among the governor, the legislature, and higher education leaders.

One state leader recalled her initial approach to higher education policy, saying: “So the bottom line was the governor against everybody, and they can’t win that one. No governor can win against everybody; that doesn’t work.” The first two education secretaries, Hanna Skandera, the former secretary of education, and Jose Z. Garcia, former secretary of the Higher Education Department, were considered by many to be political appointees without the necessary experience or expertise to lead these two departments effectively. Suzanna Martinez’s administration also has faced allegations of corruption and improprieties, further compromising the perceived competency of her administration. Under her leadership, the New Mexico Public Education Department has faced multiple lawsuits, the most significant from the National Education Association of New Mexico over teacher-evaluation policies considered to be unconstitutional (Sawchuk, October 2015). The New Mexico Higher Education Department certainly has faced less public criticism than the Public Education Department, although institutional leaders often described difficult working conditions under the previous secretary, Garcia.
Current Cabinet Secretary of Higher Education, Barbara Damron, is thought to have repaired relationships between institutions and the state. One participant noted:

The current secretary of higher education is a breath of fresh air compared to the one who was there for four years and cooperates with universities. She wants to help universities. There was a very antagonistic relationship prior to her coming onboard.

The state of New Mexico is currently grappling with a budget crisis. The state overspent by $220 million in FY 2016 and was expecting a $430 million revenue shortfall for FY 2017. The overall state budget is approximately $6 billion, meaning this deficit will hit New Mexico hard. In October 2016, the governor called a special session to address the budget issue, and work during the 2017 legislative session resulted in a balanced budget. One result of the special session was a 5% reduction in funding to higher education, in addition to cuts that were made at the beginning of the year. Among the effects of this reduction, the state’s largest community college, CNM, eliminated 100 positions (Root, 2016), and UNM’s health science’s center will eliminate 500 (Terrell, 2016). The end result is that between FY16 and FY18, instruction and general (I&G) funding declined 8.2% (NMHED, 2017).

Participants at both the state and institutional level recognized that the budget issue will be felt across the state, with one saying, “The state is in really big trouble.” Participants noted a variety of causes for this deficit, including “the price of oil dropped”; a need to diversify public revenue and “reduce our dependence on oil and gas revenue”; “a governor who wants to cut taxes every year”; and “the New Mexico economy has been
very slow to recover from the Great Recession.”

Participants also recognized that higher education is often the area cut to balance state budget, and that other public services would be protected through statute or political will. One participant shared the sentiment: “You can’t find the hundreds of millions of dollars that we need to balance the books this year without touching education.” And, “nobody is going to touch public safety. That’s suicidal [politically]. So it narrows the list down to basically us. Maybe the health department. So only a few state agencies will bear the brunt of the billion dollars.”

Although these cuts will be felt by institutions immediately, it remains to be seen how these cuts trickle down to students.

**The Flow of Funds in New Mexico**

Revisiting Jones (2003) provides a useful structure for discussing higher education finance in New Mexico. All sources of revenue are broadly drawn from the economy, and flow to state governments, the federal government, and students (Jones, 2003). In New Mexico, the economy is largely dependent on oil and gas, and the state’s budget often fluctuates with oil and gas prices. Jones, D. (2003) further states that state-level financing policy should focus on four main areas: appropriations made directly to institutions, tuition and fees policy, state student financial aid policy, and institutional student financial aid policy (Jones, 2003). In the past, New Mexico higher education finance policy has focused only on appropriations and state student financial aid, although rising tuition rates indicate the state should consider tuition policy as part of its
strategy. Net tuition revenue in New Mexico has increased by 240% since the recession (SHEEO, 2017). Figure 5 below indicates that state and local appropriations per FTE enrollment have been decreasing while the share of tuition revenue has been increasing. However, with public funding and tuition revenue combined, institutions have a total revenue per FTE above their prerecession levels.

Figure 5: New Mexico Public FTE Enrollment and Educational Appropriations per FTE, FY 1991–2016

NOTES: Data adjusted for inflation using the Higher Education Cost Adjustment (HECA). Full-time equivalent (FTE) enrollment equates student credit hours to full-time, academic-year students but excludes medical students. Educational appropriations are a measure of state and local support available for public higher education operating expenses, including ARRA funds, and exclude appropriations for independent institutions, financial aid for students attending independent institutions, research, hospitals, and medical education. Net tuition revenue is calculated by taking the gross amount of tuition and fees, less state and institutional financial aid, tuition waivers or discounts, and medical student tuition and fees. Net tuition revenue used for capital debt service is included in the net tuition revenue figures above.

SOURCE: State Higher Education Executive Officers (2016)
Even with the recent ups and downs in appropriations, New Mexico invests heavily in higher education compared to other states. Educational appropriations (not including tuition revenue) per FTE in constant adjusted 2016 dollars fell from $10,500 in 2008 to $8,807 in 2016, a 16% drop, but still higher than the 2015 national average of $6,954 (SHEEO, 2017). Net tuition as a percent of total educational revenue in 2015 was about 30%, far below the national average of 47% (SHEEO, 2016). However, tuition revenue grew dramatically during the recession; in 2008, public higher education net tuition revenue in New Mexico was $1,201 and grew to $3,725 in 2015, a 210% increase (SHEEO, 2016). Nonetheless, this high level of state support and growing share of tuition revenue is not enough to generate nationally competitive revenue. New Mexico’s total educational revenue per FTE is $12,525, below the national average of $12,907 (SHEEO, 2016). In spite of its low resources, New Mexico invests heavily in higher education. Higher education state support per capita in 2014 was $456, much higher than the national average of $272 (SHEEO, 2016). Of the total amount of tax revenues and lottery profits in 2012, New Mexico allocated 12% to higher education, far higher than the national average of 5.5% (SHEEO, 2015).

The figure below shows the fluctuation in the total amount of appropriations awarded higher education.
At the institutional level, sources of revenue have been shifting from the state to other sources. Revenue from state appropriations as a percentage of total revenue declined at 16 of 24 institutions (IPEDS, 2016). Revenue from tuition and fees as a percentage of total revenue rose at 15 of 24 institutions (IPEDS, 2016). Revenue from government grants and contracts (this included Pell dollars) rose at 17 of 24 institutions (IPEDS, 2016). Thirteen institutions in the state receive local appropriations; at 12 institutions, local appropriations rose as a percent of total revenue (IPEDS, 2016). Local appropriations provide a critical source of revenue for community colleges, as described in the next section.
Mill Levies Provide Varying Support for Community Colleges

At the local level, community colleges must secure a mill levy to operate. Mill levies are property taxes determined when a public institution needs a total dollar amount. That total amount is divided by the entirety of assessed local property value as a way to distribute the tax. The first mill a community college secures is given to the state to cover administrative and operations fees, so for a community college to benefit from local funding, it must secure more than one mill from its local county. A state leader noted that institutions tended to have one to three mills, and the goal of this policy is to ensure “colleges are responsive to the needs of the community . . . and more responsive to the employment needs of the community.”

The ability of community colleges to secure local mill levy is dependent on the willingness of local voters to raise taxes, and this willingness varies tremendously among counties, with some eagerly supporting their local community college, and others unwilling to raise taxes for education. One state-level respondent remembered, “I can’t think of a time when a mill levy election went out in Santa Fe that wasn’t passed. I think the communities see the benefits of funding that community college.” Conversely, an institutional leader stated of their county, “There have been six attempts to raise the mill levy since 1987. It has failed every single time, every single time.” This variation in local willingness to fund community colleges through local property tax impacts the ability of community colleges to diversify their revenues in ways that make them less dependent on shrinking state funds. Details of this variation are further explored in the institutional cases in the following chapters.
Appropriations and Outcomes-Based Funding

In 2011, New Mexico announced a shift to OBF and during the subsequent years has continued to refine its formula. The General Appropriations Act of 2011 required the HED to recommend a formula revision, given that New Mexico’s funding formula for FY 12 had become too complex and “failed to provide effective direction or accountability” (NMHED, 2013). The previous formula components included “coursework (lower and upper division, graduate), building renewal and replacement costs, equipment renewal and replacement costs, library acquisition, instructional space, utilities, and institutional support” (LFC, 2014a.). Throughout the years, changes were made to the original formula, causing an evolution of “drifting away from the formula’s original purpose” (LFC, 2014a.). One state policy expert referred to the old formula as “not comprehensible, was not understandable, was just a very complex kind of deal.” Another commented that there were only one or two people that understood it. Everybody gathered around those two or three people and tried to maximize. The project ended up being highly politicized and at the legislature each year institutions would come, they would ask for variances, and the funding formula suggestion. They would make accusations and if the calculations were not right, that the calculations last year had been done differently.

Both state and institutional leaders seemed in agreement that a new formula was needed, and the choice to move to an OBF formula seemed influenced by Complete College America. Complete College America is a national nonprofit focused on increasing the number of degree-holding Americans. It strongly supports outcomes-
based funding, listing it as a “game changer” that states should implement to increase degree attainment (Complete College America, 2016). New Mexico was an early adopter, and an institutional leader said of the governor: “She just loves the whole thing. I think she may have been the first or second one to sign onto it [Complete College America]. So the things they espouse are the things that she believes.” State documents also reference advocacy from organizations such as the National Conference of State Legislators, the National Center for Higher Education Management Systems, and the Lumina Foundation as influential in the decision to move to OBF (LFC, 2014b.).

In 2011, discussion began on the details of the new OBF formula for FY13 (LFC, 2014). The four output incentives were developed and agreed upon: increasing completed student credit hours; increasing the number of all degrees and certificates awarded; increasing STEHM (science, technology, engineering, health, and math) degrees and certificates; and graduating more Pell students (NMHED, 2011).

New Mexico’s executive branch initially proposed to put 5% of funding at risk, but rather than carving out the performance awards, the legislature approved an overall budget increase of $25.8 million that mostly covered the 5% of appropriations to be given based on performance, meaning the performance awards the first year were new money (LFC, 2014a.). The second year, FY14, the legislature approved another base budget increase of $11.2 million and increased the percentage awarded on performance to 7%. The percentage of Instruction and Genera (I&G) funds awarded for outcomes outpaced new money, so outcomes-based money was carved out for the first time. The third year, FY15, mission-specific outcome measures were added, and 4% of base funding was
reallocated through OBF, and another budget increase of $18.3 million was awarded through OBF, for a total of 7% of I&G funding awarded on outcomes (LFC, 2014a.).

Table 2. Instruction and General (I&G) Formula: Pre-outcomes-based funding (FY12 and earlier) and outcomes-based funding (FY13 +)

<table>
<thead>
<tr>
<th>Formula Component</th>
<th>FY12 and prior</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formula Inputs</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enrolled Student Credit Hours</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student Services</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Utilities</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plant Operations and Maintenance</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I&amp;G Transfers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3% Scholarship</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Building Replacement and Renewal</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equipment Replacement and Renewal</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Percent of I&amp;G Devoted to OBF</strong></td>
<td>5%</td>
<td>7%</td>
<td>7%</td>
<td></td>
</tr>
<tr>
<td><strong>Base Year Adjustment</strong></td>
<td>(new money)</td>
<td>3.5%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td><strong>Performance Funding</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Completed Student Credit Hours</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Total Awards</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>STEMH Awards</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Pell-eligible awards</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td><strong>Mission-specific Measures</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dual Credit Hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30 Credit Hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60 Credit Hours</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Dollars</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Source:</strong> LFC, 2014</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 3. Higher Education Instruction and General Formula, GAA of 2014 (FY15)

<table>
<thead>
<tr>
<th></th>
<th>2-Year</th>
<th>Comprehensive</th>
<th>Research</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Year</strong></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>(4% reduction of FY14 Base)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Workload</strong></td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>$4.75 per Completed Student Credit Hour</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Awards</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
$200 per certificate> one year  
$250 per associate degree  
$500 per BA degree  
$1,000 per MA degree  
$2,500 per PhD degree  

<table>
<thead>
<tr>
<th>STEMH Awards</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>$500 per STEMH associate degree</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1,000 per STEMH degree</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pell-eligible Awards</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>$575 per at-risk associate degree</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$1,150 per at-risk BA degree or higher</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mission-specific Outcomes</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>$4.75 per completed dual credit hour</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$100 for each 30 credit hours completed</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$250 for each 60 credit hours completed</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.70% of Total Research $</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: LFC, 2014

The goals and priorities of this policy have shifted through time. Originally, NMHED announced a shift to OBF to meet the goal of increasing accountability while reducing the amount of dollars per degree the state was spending. In the 2013 NMHED Annual Report, the secretary reiterated, “The need in New Mexico to impose discipline among the 24 institutions of higher learning through a performance-based formula is strong.” Through the years, the state softened its approach to demanding accountability through OBF, and now communicates the goals of OBF as ones of increasing degree completion rates and focusing on Pell and STEM graduates.

Participants at both the state and institutional level expressed their support of the goal of increasing degree completions, making comments such as, “I think it leads us in the right direction”; “Yes, it’s moved the needle. It has increased our degree output”; and “It was hard to deny the data. The increase in number of graduates was dramatic.”
However, one participant indicated another goal of OBF, reducing the overall amount of state budget that is awarded to institutions.

Secretary Jose Garcia started this process about four years ago. Their interest in this was two things. One was that they believed that higher education institutions should be funded based on performance. And issue number two was that the percentage of the state budget dedicated to higher education in New Mexico was too high. So they had twin goals. Goal one was to put 100% of our funding towards performance measures, and goal number two was to give a lesser percentage of the state budget than was currently existing in 2010. That’s how it started. And in many ways, it’s continued around those twin goals to this day.

At the same time that degree completions were rising, enrollment dropped at every institution in the state, leading one participant to wonder if access was being compromised:

Now, if I was a suspicious person, and I was thinking if a college is only getting paid for who they graduate, and they’re not getting much extra money for enrolling someone that is not going to graduate, and the enrollment is dropping at my schools, while the number of graduates is going up, I could be suspicious that that is an unintended consequence of the policy change, but I couldn’t prove it.

However, the same respondent also believed that institutions in the state are doing a better job with the students they have, primarily through improving remediation. Participants at the institutional level indicated another unintended consequence—that OBF was disincentivizing institutions to work together.

Before performance funding we would cooperate with each other. You’ve got a program? Oh, okay, you do Program A and we’ll do Program B and we’ll work together. Oh, now it’s just cutthroat. It’s like if I can steal a student from you I’m
going to steal them, especially if it’s a good student. So it’s created a competitive instead of a cooperative environment.

A leader at another institution echoed the sentiment.

I think that’s probably one of the unintended consequences of performance based funding. It is great when there’s new money and all that performance money and all the performance dollars are new money but when it becomes a zero-sum game and you have to take away from institution A to give to institution B, it does kind of create a cutthroat environment. Instead of competing with the nation and world, we’re competing with each other.

A state-level leader also indicated that OBF created conflict among institutions, and threatened community colleges and small rural campuses by creating a competitive atmosphere that encouraged other institutions to compete for survival.

Institutions are now in conflict with each other rather than in conflict with us [NMHED]. The two-year sector feels most threatened. And some of those institutions are very low performing. Most of the negative numbers were in the two-year sector, particularly small rural communities. And I think they feel very threatened by this because they have limited ability to include students and they have limited resources, and the workforce is not as robust, so they have limited ability to really respond to the agencies or the formula. The well-functioning two-year colleges, those that are dynamic and growing, and the research and comprehensive institutions on the other hand, now that they understand the formula, and understand that it’s a distributive model, and it’s a competitive model, are beginning to say “so be it, we will survive competition better than some of these little two-years.” So I think that part of the conflict now has shifted to the individual institutions looking at their self-interest.

Policy coalitions outside of the executive branch had different goals for the new OBF formula. For example, the Legislative Finance Committee (LFC) articulated these broad goals for the new funding formula:
• Change direction—from funding educational inputs to funding results.
• Reward student success—access, retention, and completion.
• Reward institutional success by funding measures that reflect and strengthen institutional missions.
• Improve educational pathways for recent high school graduates and adults—access, retention and completion.
• Review the new formula as implemented and revise and develop future formula components.

Source: LFC Hearing, November 2011

Throughout the policy development process, the LFC also recognized the challenges of developing an effective policy without clearly stated public education goals:

Without the benefit of a statewide higher education plan that involves educational goals, community needs, educational delivery, and governance, any discussion of state support ends with identifying which institutions benefit or are harmed by a formula method and appropriation level. The proposed formula includes a provision to support institutions that increase awards production over time. However, depending on the prior year base reduction level that redistributes funding, institutions that improve performance can still lose funding. Further, institutions that do not improve performance, for any reason, will certainly lose funding. Many of these institutions are small, rural, and lack capacity for growth, yet serve important community functions. The legislature will be called upon, during the appropriations process, to help these institutions address their shortfalls and succeed. (Legislative Finance Committee, 2014)
The LFC recognizes that some campuses serve important social function, but may not have the capacity to improve their performance indicators. Some campuses in New Mexico serve areas that are hours away from the next campus, and closing those doors would leave local students without any higher education options. These campuses tend to enroll a very high percentage of Pell recipients, students who may not have the resources and support to complete their degrees easily. Discussions about the mechanics of the funding formula were often focused on what would do the least amount of harm to vulnerable but strategically important campuses. This created an atmosphere of constant revisions and tweaks to the mechanics of the funding formula to create what one participant described as “a formula that won’t penalize anyone.” In FY15, mission-specific metrics were added to the formula, but the LFC recognizes that while helpful, this may not be the best way to support small campuses and statewide priorities:

The state has demonstrated that using one formula to recognize institutional performance can include differentiation by mission—valuing classes and awards at increasing levels to reflect increasing costs of producing courses and awards. But, there appears to be limits to whether one formula can sufficiently address and fund the state’s institutions that serve a diverse population, with varied levels of college preparedness, across a rural state. Research institutions vary greatly, with one having the health sciences center, another having all agriculture and outreach agencies, and another specializing in engineering and technology. Two-year institutions vary from rural to urban, headcounts of 2,000 to nearly 30,000, and many serve significant native and minority populations. A formula which also includes targeted measures based on research, baccalaureate, and access missions may be inadequate to support necessary efforts to propel student progress and program completion. More work is needed to determine how a funding formula can support statewide priorities. (LFC, 2014)
The LFC recognizes that there are some state goals and priorities that won’t be met with OBF and that it actually may work against efforts to support student success and completion. Without a set of clearly articulated goals and priorities set by the executive branch, constant conversations about which campuses need protection will continue to delay policy development. The three years of policy learning led to a new articulation of goals:

After three years of OBF, LFC staff conclude, and executive and legislative agencies agree, that:

(1) some state appropriations should be based on student performance;

(2) institutions should also be rewarded for succeeding at their missions—whether generating research dollars or improving students’ timely progress; and,

(3) a formula should lead to a level of budget predictability and be amended when results-focused data is available.

Executive and legislative agencies and institutions disagree on the mechanics that

(1) will lead to increased educational attainment, at a reasonable rate of statewide improvement;

(2) recognize significant differences among institutions; and

(3) accomplish both in a budget setting that allows institutions to plan and implement improvement strategies on a reasonable timetable.

(LFC, 2014)
In spite of the various goals articulated from a variety of policy coalitions, and in spite of all the flaws and unintended consequences of the formula, many participants did feel the shift to OBF improved outcomes and encourages institutions to focus more intently on student success. A state-level leader explained:

There is little doubt at this point in our minds that the discourse, the dialogue, the discussion, about the funding formula has had a major impact on the way institutions behave. And that’s exactly what we wanted. We believe strongly that that’s because of the discourse, the dialogue, the fact that everybody knows this funding formula was coming sooner or later; smaller institutions were putting in systems back in 2011 that would sharpen up and increase the total number of awards. They put in systems that would get at-risk students through, get better remediation and other kinds of thing, and they began channeling students into STEM degrees. . . . We’re basically saying the system went up 4%. That’s good. It hasn’t gone up that high in a long, long, time. So we feel that that directional message has been received, has been acted upon, and that’s really beginning to take hold.

The Lottery Scholarship: Aid for the Middle Class

In an attempt to make higher education more accessible to all of New Mexico’s high school graduates, in 1996 the state began devoting 100% of lottery profits to higher education scholarships. Any New Mexico resident who graduated high school or passed the high school equivalency (GED) exam—regardless of performance, test scores, or immigration status—is eligible. Once the New Mexico Legislative Lottery Scholarship covered the full amount of tuition for up to eight semesters of higher education. However, a 2014 amendment owing to looming insolvency reduced the amount of tuition covered to a percentage of the average sector tuition rate and changed the eligibility requirements. It is now a second-semester scholarship, covering three consecutive semesters at community colleges and seven at universities, beginning with the second
semester of college. For the 2016–2017 academic year, the lottery scholarship paid 90% of tuition for qualifying students. This figure will drop to 60% for academic year 2017–2018. To date, more than 100,000 New Mexicans have received the scholarship. The scholarship may be used at all state-funded public colleges, junior colleges, and universities in New Mexico. The scholarship may not be used at the state’s four tribal colleges, although there have been many legislative attempts to add them to the list. Recipients must be enrolled in 12 credit hours at community colleges and 15 credit hours at universities, and they must maintain at least a 2.5 GPA to keep the award.

Respondents indicated multiple goals that the Lottery Scholarship attempts to achieve, including providing free higher education for all New Mexican students; offering more financial aid to the middle class, to keep high-achieving students in the state; and increasing overall degree attainment in the state. One participant explained:

So what did the legislators want to do? Well, they wanted free college for every student in New Mexico who graduated from a New Mexico high school. I mean, it’s a lofty goal, free college for students. Twenty years ago, there was enough lottery revenue and tuition was low enough because there was enough state support that that worked at the time.

Another participant noted:

Michael Sanchez, I've talked to him a bunch of times about it. I think he really was trying to do something for the middle class. He knew there was [sic] Pell grants and other kinds of financial aid available for the poorest people in the state. And the richest people could afford whatever they wanted. But the bulk of the middle, community colleges were getting more and more unaffordable. He wanted to do something to specifically help them for college for their kids. It was also designed to help keep really bright kids at home by making it financially lucrative to stay in the state rather than go out [of state]. And I think it was
intended to improve graduation rates.

One participant noted that this benefit to the middle class was funded by low-income citizens who are more likely to buy lottery tickets:

We know it’s the poorest and least-educated citizens that end up essentially paying for the lottery scholarship. Here in New Mexico, it’s really the middle class and the wealthiest students that actually end up benefitting from that lottery scholarship. People that could theoretically afford that college tuition anyway.

New Mexico’s Legislative Lottery Scholarship also contributes to institutional finance but primarily for research institutions. Multiple participants noted the scholarship inadvertently incentivized students to attend research universities over community colleges and opened the door for research universities to increase tuition. One participant explained:

Instead of going to a two-year school, which may have been more affordable and close to home, it drove a huge migration of students out of the community college sector and into the research sector. . . . So there was a huge migration of funding and students towards those institutions and out of the community colleges. Now that the Lottery Scholarship was footing the bill, the institutions had a lot more freedom to raise tuition because when the students aren’t seeing their tuition bill they don’t really care if the institution raises tuition.

One participant noted the lack of efficiency in the high attendance at research universities:

That's taxpayers’ money going to support our future workforce, and that's a good thing. What we want is those funds to be used in the most efficient way possible. Students will take that funding and go to most expensive university, University of New Mexico, and that grant goes and pays for that tuition. Well, that same
student could go elsewhere and get the same education for half the price on that taxpayer money. If you come to a community college, because of our mission and how we're structured, we're simply the most efficient entity in higher, in all of education quite honestly. Cost per pupil you won't find anyone that comes close to a community college. We ought to be looking at what is the most efficient way to access or to utilize those [Lottery Scholarship] funds.

In 2015, of the $61.6 million awarded to students, $54 million went to students at research universities. The majority of lottery aid flows to the research institutions because they have higher tuition and a much higher percentage of their students are eligible for the scholarship. Figure 7 below shows what a sizeable amount of money has been awarded to research universities since 2000, compared to comprehensives and community colleges. Across the sectors, 41% of students at research institutions receive the scholarship, 15% of students at comprehensive institutions, and 5% of students at community colleges, as demonstrated in Figure 8.
Figure 7. Legislative Lottery Scholarships Distribution 2000-2015

Source: NMHED 2015 Annual Report

Figure 8. Percent of Fall Census Headcount Receiving Lottery Scholarship by Sector, FY09-15

Source: NMHED 2015 Annual Report
Finance Policies in Sync

To what extent are finance policies in New Mexico working toward a common goal and to what extent are they working at cross-purposes? When thinking about the alignment, or lack of same, among appropriations, tuition, and financial aid to achieve state goals, it is important to recognize that New Mexico’s goals have shifted through time, with different coalitions and actors supporting different goals at different times.

One participant explained the difference between Governor Richardson’s goals and current Governor Martinez’s goals:

The previous governor’s emphasis was strongly access. And that happened. Access greatly expanded. But when you expand access, you’re going to expand cost. Whereas this governor wants to reduce cost. So it’s a totally different feeling. It was a 180 after the election. We went from access being the most important to completion being the most important in 24 hours. And that really changes how you do things.

Other participants noted a lack of cohesive statewide goals, stating, “There are a lot of independent state goals. I don't know that we have a document or a framework where those have been written down.” There is also a recognition that different departments work toward different goals, with one commentator saying, “We don’t have an economic development strategy. The Department of Labor, which is now called Workforce Solutions, operates in a silo. Public education K–12 operates in its own little world.”

One factor complicating the ability of the state to initiate statewide goals and reforms is the decentralized nature of institutional governance. “There are 32 different institutions here, 32 individual governing boards . . . it makes it extremely difficult to
coordinate statewide initiatives.” Institutions do have tuition-setting authority but face legislative pressure to keep tuition low to ensure access. Institutional leaders also become very involved in advocating for appropriations. One participant explained the importance of high appropriations to institutions in the light of low-tuition, lack of need-based aid, and constraints on local funding:

Anytime there is a discussion about appropriations, institutional leaders in New Mexico are going to be highly engaged. We're a low-tuition state and are highly encouraged by the legislature to remain a low-tuition state. But we're also low-need-based aid. Outside of federal aid, there is virtually nothing. Our lottery program is not a need-based program, and so the means to deal with access for low-income individuals is to keep tuition low. That gives institutions limited influence over raising revenues through tuition. The community colleges do have access to some local property tax revenues. With the Great Recession, no community is willing to increase their tax rate for community colleges, so that is pretty static.

Participants most commonly noted financial aid as the area with the most room for realignment to meet attainment and access goals. The Lottery Scholarship was seen as inefficient by many, for both encouraging institutions to raise tuition and awarding funds to students who already could afford tuition. Recognizing that “institutions had a lot more freedom to raise tuition because when students aren’t seeing their tuition bill because the Lottery Scholarship is paying for it, they don’t really care if the institution raises tuition,” multiple participants suggested that the scholarship move to a flat rate grant by sector rather than covering tuition at any price.

Two participants suggested aligning the Lottery Scholarship with Pell, though for different reasons. One suggested making the Lottery Scholarship a last-dollar scholarship, awarding funds after students receive Pell and other aid. Another suggested incentivizing
students to apply for Pell even when they have the Lottery Scholarship so that Pell can cover living expenses.

Although many participants recognized the need for greater alignment between policies to meet attainment goals, some also felt the state was moving in the direction of greater alignment and noted that NMHED is currently drafting a strategic plan. One state leader indicated:

Well, I think they’re [policies] working better now than they ever have. The secretary just set an attainment goal for the state, which is we want to have 66% of our population have some type of credential by 2030. We’re in the process of developing a strategic plan for higher education, which we haven’t really done for quite some time, not this administration anyway. So how do we take all of these different levers, college affordability, lottery, dual credit, remediation and how do we use all of these different levers synergistically to get to where we want to be as a state?

Changes to Student Access and Outcomes

My second set of sub-questions are: To what extent are these policies, and changes in these policies, impeding or supporting the ability of MSIs to serve their students through time? How have changes in these policies impacted student access and outcomes through time? Matching student performance data to periods of policy implementation and change is difficult because New Mexico does not have a robust student-level data system and some institutions admittedly were preemptively preparing for OBF. In addition, each institution will deal with cuts in appropriations differently, with some severely feeling the cuts while others are generating enough additional revenue to protect their students from the effect of cuts. Still, state leaders described some of the impacts students were experiencing because of cuts in appropriations. These
include “losing professors”; “aging infrastructure”; and a reliance “on more part-time, adjunct faculty, which again may not be in the best interest of the student.” At community colleges, it was noted that losing support services were often the first effect that students felt:

> One of the key components of education at the community college level are wraparound services to address all the issues that students face, from paying rent, to holding down a job, to childcare. Those are things that community colleges especially seek to offer because of the nature of the students that we serve. Unfortunately, those are some of the same services that fall under the knife almost immediately when budgetary situations turn bad.

However, in spite of recent cuts, it seems student performance data is improving. Across the state, participants attributed this improvement to the OBF formula: “It was hard to deny the data. The increase in number of graduates was dramatic.” One state-level leader noted:

> From 2013 to 2014, the system as a whole, all colleges, two-year, four-year, went up about 4% on the metrics. It hasn’t gone up that high in a long, long, time. So we feel that that directional message has been received, has been acted upon, and that’s really beginning to take hold.

Participants described a variety of responses connected to OBF that impacted student access and success. This included actions like “lowering the semester credit hours required from 128 to 120 so that it’s theoretically possible for a kid to get through in four years”; automatically awarding certificates to students when they complete the necessary coursework “whether they wanted them or not”; “raising admission standards just slightly”; and “simplifying the tuition rates so it’s cheaper to take 15 hours than to take
13 or 14.” One participant described an institution that added a winter interim term to drive up credit hours:

Back then, you only got new formula money if your total credit hours grew by 3% from the previous year's number or from some average number. So they put this winter interim program together, specifically just to get the extra credit hours. Now, it turns out that that is also really, really helpful to help kids earn the lottery scholarship, because if you dropped a course and you're below the number of hours and your grade point is not quite where it was, you can take those interim fall courses, they still count towards your overall fall load and credit hours. They’re doing it now from the whole viewpoint of student success efficiently helps students get through quicker, use the campus more efficiently during otherwise completely slow times.

Even as student performance metrics show improvement, one participant noted that this does not necessarily mean that students are having a better educational experience, as OBF focuses on improving the quantity of degrees, not the quality.

With performance based funding, what you’re looking at is just outcomes. So a lot of people’s thinking calls into question—well, where does quality fit into that equation? I mean if all we care about is the number of degrees produced, you get the sense that everything is about rushing people through the door, and kind of this degree-mill sort of scenario. It cuts out the room for quality, for thoughtfulness, for developing well-rounded students.

The Lottery Scholarship was also mentioned as a policy that “does support student success. It's imperfect, but it really is a pretty good incentive.” Participants stated it encouraged more students to enroll in higher education and to complete on time. One participant described the complex effect that the scholarship had on student performance metrics.
A lot more kids went to college at the more expensive schools because of the promise of the lottery. And then when they didn’t earn the lottery, they dropped out. So you do a graduation rate based upon your entering cohort, so rates dropped tremendously. You had twice as many freshmen at UNM, for example, half of whom probably had no business going there in the first place. So it was hard to measure the benefit of the lottery just based upon overall numbers. So I would look at students who earned the lottery, which meant they did okay in their first semester, compared those to students who, maybe out-of-state students who did the same thing but weren’t eligible for the lottery. And the lottery students overall had a better graduation rate and retention record from that point.

Statewide Summary

New Mexico invests heavily in higher education compared to other states, but most indicators of student performance lag below national averages. Affordability is one area in which New Mexico excels, although tuition levels have risen dramatically in recent years, meaning funding for higher education is shifting from the state to families. One reason for the high levels of public funding is the plethora of institutions and satellite campuses, which were expanded because of a historic commitment to access. The state is characterized by high institutional autonomy, with each institution having its own governing board and tuition-setting authority. In recent years, the political atmosphere between the governor and higher education institutions has been tense, and overall goals and guidance have been unclear.

Decisions regarding appropriations, tuition levels, and financial aid are not made in unison, and goals for each sometimes work against each other. Cuts in state appropriations and the OBF policies seem to be impacting small rural community colleges more than other institutions. Eligibility requirements of the Lottery Scholarship mean that students at community colleges and comprehensives are less likely to receive
the scholarship than students at research universities. In addition, community colleges and comprehensives in low-income areas have limited ability to increase tuition to make up for losing out on this other revenue. Local funding varies by community, leaving some community colleges supported with additional funds through mill levies, and others without. Though student outcomes in the state seem to be improving overall, there may be regional variances, and participants voiced concern over the potential loss of access in certain areas of the state. The following cases will explore these dynamics more deeply at the institutional level.
Chapter 5—Eastern New Mexico University–Roswell: Our Mission Is Survival

Institutional Overview

ENMU–Roswell is a branch location of New Mexico’s largest regional comprehensive university, Eastern New Mexico University, headquartered in Portales, New Mexico. Situated in the southeast corner of the state, Roswell is most famously known as the alleged site of the 1947 flying saucer crash. The area is still known as an aviation hub as well as for agriculture and dairy processing. ENMU–R is the only higher education institution for at least 90 miles in each direction, providing a critical point of entry to higher education for students in that part of the state.

ENMU–R awards associate degrees and certificates, and offers transfer opportunities to the main campus in Portales that, which offers bachelor’s and master’s degrees. It also serves the community by offering adult education classes and community education courses through the Center for Workforce and Community Development. The branch has an FTE enrollment of 1,963, and 66% of their students receive Pell. ENMU–R is an HSI, with 46% of the student body identifying as Hispanic or Latino (IPEDS, 2015). Sixty-seven percent of ENMU–R students are 24 or younger; 31% are age 25 or older. Forty-nine percent are full-time, and 51% are part-time. ENMU–R is an open-enrollment institution, with 89% of the students being in-state. Twenty-six percent are exclusively enrolled in distance education courses, 22% are enrolled in some online courses, and 52% are not enrolled in such courses.
ENMU–R began as Roswell Community College, a branch of ENMU, in 1958 (ENMUR Fact Book, 2016). Initially, the college conducted evening classes at Roswell High School until 1967 when the school acquired part of a closed Air Force base in 1967. At this time, the college was renamed Eastern New Mexico University–Roswell and expanded its course offerings from basic transfer courses to career and technical programs.

Today ENMU–R serves the southwest corner of the state, with a mission to act as “a regional asset, creating quality personalized learning experiences and fostering community development.” Their purpose is to provide opportunities for entry, transfer and completion of Certificates, Associate degrees, Bachelor’s and Master’s programs; prepare individuals for opportunities in higher learning through programs such as Adult Basic Education, high school concurrent enrollment, and outreach services; offer personal enrichment and career development opportunities through traditional course work, community education, and customized training; and foster direct community and economic development through business and workforce development, partnerships for health and social service outreach, in-plant training, and ever increasing business and community partnerships. (ENMU-R, 2016)

They state their core values as to aspire to be recognized in our community as a caring institution, committed to high standards in all our educational programs and services. As a publicly-supported community college, we strive to provide opportunities for the educational development of our students and a fulfilling work environment for our employees. When students enroll in the College and when employees are hired, they are expected to commit themselves to these institutional values. (ENMU-R, 2016)
ENMU–R is governed by two boards. The ENMU Board of Regents has authority over curriculum and administrative issues, and the Branch Community College Board has authority over taxing, bonding, and other fiscal issues for the campus.

ENMU–R is located in the southeast region of New Mexico in Chaves County. Roswell has a population of 48,366 and a median family income of $31,724. Twenty-two percent of the population lives below the poverty line. The current unemployment rate is 6.5 percent. Fifty-three percent of citizens identify as Hispanic or Latino, 42% as white, Non-Hispanic or Latino, 2% black or African American, 1% as two or more races, with all other races less than 1%. Top employment industries in Chaves County are health care and social assistance; retail trade; accommodation and food services; education services; agriculture, forestry, fishing, and hunting; and construction. Top employers include Roswell Independent School District; Leprino Foods, the nation’s largest mozzarella cheese-manufacturing facility; Eastern New Mexico Medical Center; the City of Roswell; and the New Mexico Military Institute. The county is also home to Roswell Industrial Air Center, which houses three large commercial aviation-maintenance companies, and is home to 12 major oil-field companies.

To meet the needs of the local economy, ENMU–R offers 75 associate degrees and certificate programs. Of degrees awarded, 52% are in health professions and related programs; 21% are in mechanic and repair technologies; 7% are in business, management, marketing, and related support services, with no other area comprising 5% or more of degrees awarded. ENMU–R also has a robust High School Dual Credit Program that served 952 students in 2015.
Financially, ENMU–R relies primarily on state appropriations (40% of total revenue), although much of its revenue also comes from federal grants and contracts (33%) (IPEDS, 2015). Tuition revenue as a percent of total revenue has grown through the years; however, it remains a small share of the total revenue at 6%. Since 2009, in-state tuition and fees grew 37% from $1,239 in 2009–2010 to $1,824 in 2015–2016. Out-of-state tuition and fees grew 8% from $4,213 in 2009–2010 to $4,536 in 2015–2016. Since 2006, revenue per FTE has fluctuated but overall risen 7%. Table 4 below illustrates changes in revenue sources from 2006 to 2015 per FTE enrollment. The past two fiscal years, which include sharp state cuts, are not reflected in the table below.

Table 4. ENMU-R Revenue per FTE enrollment by source

<table>
<thead>
<tr>
<th></th>
<th>FY 2006</th>
<th>FY 2009</th>
<th>FY 2012</th>
<th>FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$953</td>
<td>$1,506</td>
<td>$1,054</td>
<td>$1,477</td>
</tr>
<tr>
<td>State appropriations</td>
<td>$6,179</td>
<td>$8,318</td>
<td>$4,603</td>
<td>$7,490</td>
</tr>
<tr>
<td>Local appropriations</td>
<td>$585</td>
<td>$1,231</td>
<td>$1,054</td>
<td>$1,392</td>
</tr>
<tr>
<td>Government grants and contracts</td>
<td>$5,091</td>
<td>$6,354</td>
<td>$4,355</td>
<td>$5,308</td>
</tr>
<tr>
<td>Other core revenues</td>
<td>$2,390</td>
<td>$1,294</td>
<td>$2,285</td>
<td>$851</td>
</tr>
<tr>
<td><strong>Total revenue per FTE</strong></td>
<td><strong>$15,474</strong></td>
<td><strong>$18,705</strong></td>
<td><strong>$13,352</strong></td>
<td><strong>$16,518</strong></td>
</tr>
</tbody>
</table>

Note: adjusted for CPI 2015 dollars


**Declines in State Appropriations and Enrollment Threaten the Future of ENMU-R**

Institutional leaders at ENMU–R communicated a feeling of uncertainty over the future of the institution owing to recent loss of revenue from declining state appropriations and enrollment. The president of the institution explained its precarious state:
I had a meeting with the Faculty Senate last week, and they asked me: what’s your proudest accomplishment in 6 years? We met payroll. How about that for an accomplishment? Not exactly visionary.

Between 2008 and 2015, state appropriations to ENMU–R declined from $18.6 million to $12.5 million, a 33% decrease. During this same time period, total revenue declined from $40 million to $30 million, a 25% decrease. Full-time equivalent enrollment dropped from 2,103 to 1,509, a 28% drop. To keep tuition revenue flat through declining enrollment, tuition and fees increased from $1,285 in the 2009–2010 academic year to $1,944 in 2015–2016, a 51% increase. An ENMU–R leader explained the scenario:

We were at $17 million about eight years ago. We had a year where our enrollment went really in the tank and we dropped a tuition band. So we had to take a penalty for tuition. During that time, we also had some decreases in our enrollment, which of course led to a decrease in I&G. At the same time the state appropriations started to go down. So we went from $17 million, and part of it was our own fault for the loss of enrollment, but also when we went through the recession, state appropriations went down. We bottomed out at about $10.6 million. We’ve climbed our way out a little bit from there.

When asked how this loss of funding impacted the campus, one leader responded that it had made it difficult for the institution to remain open:

If we depended on the state to finance us, I don’t think we could open the doors. It’s that bad. It’s the external environment that’s doing it [keeping the institution open]. Whether it’s the federal government through grants, or foundations or donations. Our foundation has been doing extremely well. That’s what’s helping us.

When asked how the institution has dealt with the revenue cuts, responses included increasing tuition, trimming staff, and cutting programs and services.
We’ve done a variety of things. We’ve increased tuition, much to the chagrin of the governor, who hates that. But if you cut us back, what do you want us to do? That’s one. Number two, we have offered retirement for people to leave. Number three, we’ve cut programs and services. . . . And whether we will survive this year’s budget battle, I don’t know.

Because of the loss of appropriations, tuition revenue, and enrollment, the campus is ending programs:

The bottom line is we are ending programs, we are ending services that . . . either they don’t meet quality standards, they don’t meet financial standards. They’re gone. We eliminated one last week. So that’s how we’re doing it. We are becoming more concentrated. The programs that are on the fringes or the programs that don’t lead directly to employment easily, we’re just lopping them off one at a time. Which obviously is upsetting to faculty, it’s upsetting to a particular industry, whatever that industry happens to be.

The campus has also “decreased the size of our staff and faculty” by not filling vacated positions and offering early retirement. One participant noted they’ve “taken some real dips in enrollment where we really didn’t need some of those people anymore.” And another pointed out “we’ve never had to technically lay off anybody.” However, just in the past four years the campus’s FTE staff declined from 347 positions to 257 positions, a 26% decrease. Additionally, the campus has “cut back on travel and some of the extraneous stuff.” Although one participant acknowledged that there have been dramatic cuts, they have been targeted and it “hasn’t been to the point where we’re really having huge across-the-board cuts yet. We’ve been able to manage with what we have.” Another stated that “it has been difficult for us operationally. I’m sure that from the academic perspective, they really feel like they’ve been hit, and they have been.”
This uncertainty over the future of the school has been felt since the beginning of the current gubernatorial administration, with one campus leader explaining:

The first year that the governor was in, I went before the Faculty Senate, and they were upset because I had not shared my vision for the school. I said, “I can give you my vision for the school in one word.” Oh, that’s great. What’s the word? “Survival.” You could have heard a pin drop in that room because I meant it and they knew I meant it.

With dwindling resource, statewide, one participant questioned the state’s commitment to providing access to students in rural locations.

The issue for the state is they need to decide whether they’re going to continue to have access to higher education in all of the communities that currently have it. And the sad part is they won’t answer the question because the answer is “no.” But they don’t want to say that because they’re going to lose votes. So I think, opinion again, not a fact, the strategy is to starve us out. The bottom line is they will not shut down institutions. . . . We won’t have the resources to continue.

**Antitax Attitudes Prevent ENMU–R from Receiving Local Funding**

Community colleges in New Mexico are expected to pull in revenue from local mill levies. However, institutional leaders at ENMU–R universally discussed the challenges of acquiring local funding. Albeit the state constitution mandates that community colleges must secure one mill to exist, the revenue of which must go back to the state, there is no support or assurance that the local population will approve additional mills to fund their institution. An institutional leader explains the process:

As part of the New Mexico constitution, the local population has to provide us with a minimum of one mill on the value of the property taxes. That is a minimum of funding which is not actually given to the institution. It’s taken to the state, and the state uses it. For lack of a better term, it’s our entry fee into the world of
higher education. We can, and have, gone out to try to increase that mill levy. Anything over and above the one mill would then be ours to use as operational.

Securing the first mill was a challenge and took special intervention and support from policymakers and community members. One participant explained that the first mill required two attempts to secure:

The first election here in Roswell was in ’87. They went out to the electorate in 1987 and said: you’re going to have to pass a one-mill tax on the residents of Chaves County, or the school is going to close. It failed. The election failed. The school was going to close. That’s how bad it is here. Then in the summer two people got together and pleaded with the state to give the residents of Roswell one more try. It passed that summer. So that would have been the summer of ’87.

Since then, mills to support ENMU–R were brought to ballot six times without success. An institutional leader recounts the attempts, saying, “There have been six attempts to raise the mill levy since 1987. It has failed every single time, every single time.”

When asked about why the mills were never approved by voters, participants noted a local population that is antitax and perceives higher education as a private good rather than a public good. A participant explained, “The community is very antitax and this would involve an increase in property taxes, and they’re just not supporting it. So we’re stuck with the minimum millage that we have right now. Unless the environment changes, I don’t see that changing any time real soon.” Another participant described local sentiment: “There is a feeling locally that higher education needs to pay for itself somehow and it's not going to be on the backs of the voters. It’s going to be on the backs of the students.” Another participant further described how the perception of higher
education being a private good rather than a public benefit impacted their ability to secure local support:

I think there’s a belief that higher education is loaded in some way, that we have excess money. I don’t know where that belief comes from. I suspect here in Roswell it’s from a group called the Tea Party. Their belief is that the students should pay 100% of the cost of their education. Right now here in Roswell they’re paying about maybe 25% of the cost. So the state is picking up the rest of it. Taxpayers are picking up the rest and they don’t like it. They would like to have all local and state revenue removed from higher education because they believe that the beneficiary of higher education is the student and that person should pay 100% of the cost.

The last attempt to secure local funding was in 2014 when a mill levy was brought to ballot that would bring in an additional $2.1 million a year for the campus. The mill levy election faced an oppositional and well-funded media campaign from the local antitax Tea Party and may have included tactics to suppress voting. When asked about the possibility of future local funding, respondents universally said they felt it was unlikely that a mill would ever pass but that the board would like them to keep trying.

I know that there has been conversation, and it’s only been conversation, that our governing board in Portales wants us to go back out again for another mill levy. They’re not from Roswell. They’re from other parts of the state. They don’t know the mentality in Roswell.

Without this local support, the campus is at a financial disadvantage compared to other community colleges in the state. Some campuses pull in as much as 56% of their revenue from local appropriations.
Although the local population seems unwilling to help support the campus through raising taxes, ENMU–R tries to meet community needs even at the expense of other campus priorities. One participant explained their commitment to support programs important to the community:

Quite frankly, health programs don’t make money. The problem is our most expensive program is nursing. And yet there’s no local community support in terms of funding to keep it going. It’s just like you have to do it because we said so. So we have to cut back on other things to support nursing.

Another cited the loss of the dental hygiene program in relation to the tension between local needs, the lack of local finance, and cuts in appropriations:

We’re always trying to fulfill the needs of the local population. The problem is that they don’t want to pay for it. There was a great uproar when it was decided that we would no longer have a dental hygiene program. When we started the program, we had secured funding from the state; eventually that went away and we were forced to self-fund it. At a certain point, we decided that it was not worth it financially. If the local funding had come in the way we wanted to, none of this would have happened. They would have been perfectly happy and it would not have been a very large increase to their property taxes.

Policies regarding Tuition and Appropriations are Not Made in Unison

Participants described an environment where appropriations, tuition, and local funding were not aligned in a cohesive way. When the state cuts appropriations, it also asks that institutions not raise tuition.

The governor every year contacts each of the college and university presidents. A current member of her staff will give you a phone call that goes something like this: “Are you going to raise tuition this year?” “Yeah, we’re going to have to.” “You better not. Don’t do it. Don’t you raise tuition. You’re going to really tick off the governor.” Usually the conversation ends something like “We’ve got to
do it. I guess we’ll tick her off. What do you want us to do? You guys are cutting us back.”

The institution felt that it had no choice but to raise tuition, although it was done in such a way as to keep overall tuition revenue flat, not replacing the loss from appropriations. One participant stated, “We’ve tried to keep our tuition fairly stable but have had to increase it to keep up even though it’s not the main source of our revenue.” In-district students saw a 21% increase in tuition and fees from 2012–2013 to 2015–2016. To help make up for the lost appropriations, ENMU–R has focused more intently on securing grants. “One thing we do well is we have leveraged federal funding sources to supplement or replace the funds that we have lost from state appropriations.” Another participant noted the tension among appropriations, student-driven revenue, and local funding:

On the other side, you don’t want to put it on the backs of the students because our student population are not the most well off. Which leads back to the third component of our budget, which is the local mill levy. Which is what we have tried to move forward and just can’t get anything more than the 1%.

When asked about the possibility of improving higher education policy and finance, participants exhibited optimism over the state’s efforts to create a common course-numbering system, but they also voiced frustration about the future of public finance. With state appropriations unlikely to return to prerecession levels, local funding unavailable for the foreseeable future, and a sense that federal grants are becoming more
and more competitive, the future of the campus seems bleak. One participant also expressed frustration about the lack of cohesiveness in state politics:

I feel that there’s a lot of pressures that are pulling on both sides and it’s done on purpose to try to dissuade institutions from doing things. If we don’t do them, we don’t spend the money. Whether they’re in the state legislature or whether they’re on the executive branch, they’re working so far apart and [that] puts us in the middle. We’re trying to please both sides and we can’t, and we’re getting nothing done. There’s just a frustration that no one seems to be on the same page. There’s no leadership and there’s no feeling that this is a team trying to make these things work.

**Generating Additional Revenue through New Programs**

One participant indicated other ways the campus has been generating revenue, such as creating niche programs and opening an early-college high school. An institutional leader explains all of the new programs ENMU–R has invested in to generate more revenue:

On the entrepreneurial side, we’re involved in all kinds of things here that a normal or traditional community college wouldn’t be involved in. Let me give you an example. Last week we started an agreement with the Tunisian Air Force. We are training helicopter pilots. So that’s a program for us that end[s] up making us money. So we do that. We started an early college here three years ago. That’s the combination of finishing your high school diploma and finishing an associate degree on the same day. We’ve done that. We have the largest and best special services program in the Western United States, not just in New Mexico, where we serve disabled students. That’s a unique program. We serve the New Mexico Youth Challenge, which is a program for high school–aged kids that for a wide variety of reasons high school isn’t working out for them. It’s like a paramilitary thing through the New Mexico National Guard. We’ve ramped up our air frame and power plant program to provide mechanics for all of the aviation industries in New Mexico.
State Finance Policies Are Not Designed to Support ENMU-R’s Student Population

New Mexico is a state that prides itself on access and equity, but a closer examination of state finance policies reveals that money often flows to the more affluent institutions and resources. This dynamic is reflected in the distribution of appropriations, the Lottery Scholarship, and the OBF formula. Even as participants at ENMU–R recognize that they receive more state support than community colleges in some other states, they also recognize that they and their students do not receive the same level of state support as other New Mexico institutions.

Appropriations Don’t Keep ENMU–R on Par with Other Institutions

Like in most states across the country, community colleges receive less state appropriations than four-year institutions. Community colleges in New Mexico receive a lower level of state appropriations in New Mexico, in part because they draw from local appropriations. The Legislative Finance Committee explains:

For most four-year institutions, the state provides between 40% and 60% of I&G revenues, with the bulk of the rest coming from tuition and fees. For two-year institutions, heavily subsidized by local taxes, the state provides between 30% and 50%.

Even when state appropriations and local funding are combined, community colleges still bring in far less than four-year institutions. The difference is great, with Central New Mexico Community College bringing in $6,474 per FTE in local and state appropriations combined and New Mexico Institute of Mining and Technology bringing in $21,206 in state appropriations alone. ENMU–R falls below all four-year institutions and some community colleges at $8,652 per FTE in 2015 (IPEDS, 2016). During the
special session in fall 2016, the state delivered a 5% budget cut to all institutions in the state without considering the more dramatic impact that may have on an under-resourced community college versus a four-year institution.

**Limitations of the Lottery Scholarship**

In fall 2015, approximately 140 students at ENMU–R received the scholarship, about 5% of the total headcount (NMHED, 2015). This mirrors the statewide average among community college students. In 2015, ENMU–R received $176,197 in lottery funds, accounting for .6% of their institutional budget and .28% of the scholarship’s $61.8 million distribution that year (NMHED, 2015). Students at ENMU–R typically lose the scholarship for not maintaining full-time status or are never eligible for the scholarship because they didn’t enroll in higher education directly after high school.

Although few of their students maintain the scholarship, for those who do, the institution has committed to fulfilling the promise of covering 100% of tuition and fees through institutional funds. As a result of insolvency, “the lottery is now at 90%” of covering tuition and fees. And ENMU–R has “decided here, we’re covering the other 10. Most of the universities are not. In fact, most of the community colleges are not. I think we’re in the minority here.” An institutional leader went on to say, “We felt it an important thing to do. This is a judgment call and I’m not criticizing the universities. But, we decided that we rubbed our nickels together and we figured out that we could do this and still honor it at 100%.”

Participants recognized the looming insolvency of the scholarship, but when
asked if the scholarship might become need-based, they felt this may be unrealistic for the political climate in New Mexico. One leader stated:

This scholarship is really a benefit to the middle class. That’s who it’s for. Somewhere between 70 and 75% of our students are on Pell. It’s a poor community. They’re already getting their tuition covered. So who is it [the Lottery Scholarship] for? It’s for the students whose income or parents’ income exceeds Pell. That’s who it’s for.

One participant noted that the way students currently use the Lottery Scholarship, to attend the most expensive institutions in the state, is an inefficient use of taxpayer money.

That's taxpayer’s money going to support our future workforce, and that's a good thing. But, what we want is those funds to be used in the most efficient way possible. Students will take that funding and go to most expensive university, University of New Mexico, and that grant goes and pays for that tuition. Well, that same student could go elsewhere and get the same education for half the price on that taxpayer money. If you come to a community college, because of our mission and how we're structured, we're simply the most efficient entity in higher education. When we go to look at state resources, we ought to be looking at the most efficient way to access or to utilize those funds.

The OBF Formula May Reward Political Connections over an Institution’s Performance

When asked about OBF, participants felt the formula was not transparent and that it rewarded political connections more than student performance:

So when you look at it you go, “Well, how did this number happen and where did this number come from?” They can’t tell you. I can’t find anybody to tell me. Now maybe they don’t want us to know where the number came from. Therein lies my frustration with the way this state does performance funding is that they can’t tell you how the formula was actually calculated. That is my biggest gripe, the lack of transparency in how these numbers are calculated.
Another agreed that a portion of appropriations were ambiguously distributed,

“When the funding is actually allocated, it's not completely adhered to. It's adhered to up to a percentage, up to 90%, but then the last 10% is shuffled around and that's a little ambiguous around how that last 10% gets moved.” And a third indicated awards are political:

I’m very frustrated that the performance funding is not necessarily connected to performance, that there’s political ties associated with it. The state legislators and people of power manipulate those numbers where institutions who really have done poor work with this are getting benefits and institutions that have done fairly well get nothing. It all depends on where that political power is located. I realize it is a political thing.

Another similarly stated:

We’re one of the highest [performing] institutions in the state if you look at the numbers. At least that is what I’ve been told. I think maybe Gallup is a little bit higher than us. Anyway, we really don’t feel the increase in monies to us at all. Then we know of one institution, they’re not doing well when it comes to performance, but yet they get extra money because they have connections with the people that know how to get them the money. That’s not fair.

State appropriations, the Lottery Scholarship, and the slice of appropriations distributed through OBF were all discussed as politically swayed to benefit the students and institutions with political connections rather than being given to students and communities in need of more resources.
Federal Funding Is Perceived as Supporting Student Success Efforts

Participants frequently commended federal funding as supporting the campus. Government grants and contracts, including specialized grants and Pell Grants, make up 34% of ENMU–R’s total revenue (IPEDS, 2016). Participants discussed specialized grants as an important part of serving their student population. One leader explained, “We have been extremely, and I do mean extremely, successful in getting grants from outside resources.”

Participants inferred it was unlikely that the campus would have had as much success at improving their retention and graduation rates without the support of federal grants such as Title V, Upward Bound, and Gear-Up. One participant stated, “We leveraged those federal funds to impact our efforts around student success.” Another explained, “We see the success. We can’t pinpoint how it happened, but we would like to say it’s based on Title V. I can’t say that from a factual data perspective because I don’t think we’ve done a good job on campus in collecting that type of data.” A third implied that without these grants, student success support on campus would have been cut.

When you're cutting funding, you're not going to cut the instructor who is in front of the class first. You're going to cut those resources that are around the edges that are helping support the instruction that's happening in those classes. Well, instead of making that choice, we have worked hard to maintain federal grant funding so that we had funding to foster those retention success initiatives that we have on our campus.
Participants noted that the grants have been particularly helpful for opening a student success center, a career success center, hiring staff, and long-term planning.

Through a Title V grant, we have combined our math and science tutoring center and our writing center all into a Student Success Center to focus on student tutoring and support and helping students. Then there is a new Title V grant that we used to open up a Career Success Center, and that’s aimed at helping students with job placement.

One participant explained that “a good portion of our employees are actually funded by external grants, federal grants.” These staff members are “aligned with trying to get under-represented student groups more engaged in both getting into school and staying in school, being completers and getting a job.” These staff members include those at a TRIO-funded Education Opportunity Center and the Upward Bound program, among others. Grants awarded over long periods of time were used in long-term planning as one participant explained:

There's a few of them, such as the Federal Perkins Grant, whose funds we can count on year after year pretty much, and so you're definitely able to do strategic planning with that. We use those funds for program improvement so that we can improve and modernize our technical programs.

A list of ENMU–R’s current federal grants are below.

Table 5. Federal grants awarded to ENMU–R, 2015

<table>
<thead>
<tr>
<th>Grant Name</th>
<th>Total Award</th>
<th>Yearly Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gear-Up</td>
<td>9,665,600</td>
<td>1,380,800</td>
</tr>
<tr>
<td>Title V</td>
<td>2,492,157</td>
<td>488,505</td>
</tr>
<tr>
<td>Title V Coop Roswell</td>
<td>2,368,337</td>
<td>582,065</td>
</tr>
<tr>
<td>Student Support Services</td>
<td>1,100,000</td>
<td>220,000</td>
</tr>
<tr>
<td>Talent Search</td>
<td>1,522,965</td>
<td>304,793</td>
</tr>
<tr>
<td>Educational Opportunity Center</td>
<td>1,703,825</td>
<td>340,593</td>
</tr>
</tbody>
</table>
### Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT)

<table>
<thead>
<tr>
<th>Grant Type</th>
<th>Amount 1</th>
<th>Amount 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,145,445</td>
<td>362,046</td>
<td></td>
</tr>
<tr>
<td>Upward Bound</td>
<td>1,441,882</td>
<td>296,327</td>
</tr>
<tr>
<td>US Small Business Administration Grant</td>
<td>226,940</td>
<td>226,940</td>
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<tr>
<td>Adult Education</td>
<td>180,907</td>
<td>180,907</td>
</tr>
<tr>
<td>Carl Perkins</td>
<td>120,151</td>
<td>120,151</td>
</tr>
<tr>
<td>Carl Perkins Non-traditional Grant</td>
<td>70,000</td>
<td>70,000</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>22,038,209</strong></td>
<td><strong>4,573,127</strong></td>
</tr>
</tbody>
</table>


However, participants were concerned that some grants will become more competitive as more institutions are eligible for them. One participant expressed concern that their Title V grant may not be renewed, not because of any failing of the institution, but because “more institutions are applying. So that increases the numbers of grants that are out there wanting to get funded.” They went onto explain how this makes long-term planning difficult, because with a federal grant, there's no guarantee whatsoever, and it's competitive. If you get it, for five years you can count on actually a large sum of money because typically those are larger awards, but for five years you have this funding stream to do this work. The problem is in year six you don't have the funds from that grant anymore to sustain the work that you're doing.

**The Pell Grant Provides Support**

Federal funds also support the campus through Pell dollars, which are immensely important in funding ENMU–R, given that 66% of their students qualify for the grant. Uniformly, interview respondents noted the importance of the grant; however, they had differing recollections of the impact of summer Pell during its existence. Participants felt the additional funds did not impact their campus:
We do have a good deal of online classes, but the summer enrollment has not been tremendously affected by the summer Pell going away. Most of our students historically have used that time to work and not really continue their education.

We haven't seen enrolment go up [due to summer Pell] simply because there’s less and less students graduating for the secondary schools. Whenever their enrollments are down, then our enrollment goes down as well.

Another participant stated:

Enrollment here in Roswell and at most community colleges is pitiful in the summer. It’s just awful. It [summer Pell] was gangbusters. We had to find rooms. We had to find furniture. It was incredible. That’s the power of Pell. It made a huge difference. So given the opportunity will Pell students go to school in the summer if Pell is available? The answer is yes. They will and they did. . . . The summer they dropped it we went right back to where we were before.

Despite Declining Resources, Student Success Measures Are Improving

ENMU–R has experienced a dramatic improvement in graduation rates, rising from a first-time, full-time graduation rate of 15% in 2013 to 25% in 2015. ENMU–R has a fall-to-fall retention rate of 52%, and a first-time, full-time graduation rate of 25%.

In 2015, the campus awarded 31 degrees per 100 FTE enrollment.

Last year we were second in the state in retention, and that’s fall to fall, and first in completion. We’re real proud of that. We do 17 different things to improve retention and completion. We keep getting asked because we’re number one and very proud of that. What’s the silver bullet? We’re afraid to stop any one of them because we don’t know which one is the silver bullet. If you remove #16 and all of a sudden the whole thing falls apart. So we are going to continue to provide all of these resources because . . . it’s the combination of them that’s making us successful. We can’t point to any one and say that’s the reason. So we do all of them.
Some positive changes to support students include: “paired classes, like perhaps a writing class paired with a psychology class, so it’s a mini-cohort model”; a math center and writing center; and learning coaches funded through a Title V grant. The campus also has revised its approach to remediation:

We have greatly lessened the number of remedial classes we offer. And those that we do offer are fast track. We don’t have time, nor do we have the resources, to have people spend a year or two in remediation. So we’re going to throw you in the deep end of the pool and we’re going to provide a variety of support services around you. It has worked very well. Our retention rates are up. Our speed to graduation is up. So in essence, instead of teaching remedial classes, we are providing more support services.

Faculty also took it upon themselves to create an early-alert system whereby they make an assignment early in the semester and alert student services when a student does poorly so that a counselor can reach out.

Case Summary

ENMU–R serves as the only higher education institution in the Roswell area, providing critical access to educational programs and community enhancement. The campus serves a high percentage of Pell students, offering them a variety of career and technical programs, or the opportunity to earn credits for transfer to a four-year institution. Between 2008 and 2015, total revenue declined from $40 million to $30 million, a 25% decrease, leading to a 26% decrease in FTE staff and the elimination of programs with a low ROI, such as dental hygiene. This loss of revenue is attributed to declining state appropriations and enrollment. Although other community colleges in the state can draw revenue from local property taxes, ENMU–R has been unable to secure
local support because of an antitax mentality in the county and targeted efforts from the local Tea Party to thwart mill levies that have gone to ballot.

Like institutions in many states, ENMU–R is caught in a scenario where decisions regarding state and local appropriations as well as tuition levels are not made in unison, leading to a 21% tuition increase since 2013 and no hope of securing local property taxes. The institution is also generating more revenue through starting new academic programs and services that will have a high ROI, securing more grants, and focusing on its foundation. Participants explained an environment where state policies were not designed to serve their student population, with the distribution of appropriations, the Lottery Scholarship, and the OBF formula flowing to students and institutions with more resources, often for political reasons.

Although state appropriations make up a larger percentage of their overall revenue than federal grants, 42% versus 34%, participants uniformly discussed federal sources of revenue as supporting student success. The institution has done well in securing specialized grants such as Title V grants and TRIO programs, and participants recognized these as financing student supports, such as the tutoring center, that otherwise would be cut. Finally, in spite of their declining resources, retention and graduation rates have improved.
Chapter 6—San Juan College: Hard Times Ahead

Institutional Overview

San Juan College (SJC) is a community college in northwestern New Mexico. Located near the four-corner area, SJC is the only state-supported higher education institution in the area. Located near the Dine (Navajo) Reservation, SJC is a Native American Serving Non-Tribal Institution (NASNTI), with 33% of the student body identifying as Native American. The campus enrolls more Native American students than any other NASNTI. The campus has an FTE enrollment of 5,133, and 58% of first-time students receive Pell. Forty-eight percent of SJC students are 24 or younger, and 52% are 25 or older. Thirty-eight percent are full-time, and 62% are part-time. SJC is an open-enrollment institution, and 75% of students are in-state. Twenty-four percent are exclusively enrolled in distance education courses, 15% are enrolled in some online courses, and 60% are not enrolled in such courses.

SJC began as the Farmington branch campus of the New Mexico College of Agriculture and Mechanical Arts (now New Mexico State University) in 1956, offering courses in the evening in the Farmington High School building. In 1965, the branch acquired its first building and slowly grew until 1981. At that time, a county election voted to give financial support for the branch to become an independent community college known officially as Junior College District of San Juan County and, unofficially, as San Juan College.

SJC’s mission and vision are as follows:
Mission—The mission of San Juan College is to inspire and support life-long learning to achieve personal and community goals by providing quality education, services and cultural enrichment.

Vision—San Juan College will be an innovative, dynamic learning college built on mutual respect, meaningful participation and a collective commitment to students, the community and the core values of a comprehensive community college.

SJC is located in Farmington, in the northwest region of New Mexico in San Juan County. The county has a population of 130,044 and a median household income of $48,671. Twenty percent of the population lives below the poverty line. The current unemployment rate is 7.4%. Forty-one percent of citizens identify as white, Non-Hispanic, 37% as Native American, and 20% as Hispanic or Latino. Top employment industries in San Juan County are health care, retail trade, oil and gas extraction, educational services, and construction.

To meet the needs of the local economy, SJC offers 107 associate degrees and certificate programs. Top graduating majors are commercial driver’s license, human services, liberal arts, veterinary technology, occupational safety, and emergency medical services. SJC also offers a High School Dual Credit Program that served 1,764 students in 2015. The school has a first-time, full-time, fall-to-fall retention rate of 60% and a first-time, full-time graduation rate of 15%. In 2015, the campus awarded 34 degrees per 100 FTE enrollment.

Financially, SJC relies primarily on state appropriations (33% of total revenue), although much of its revenue also comes from local appropriations (22%) as well as
federal grants and contracts (21%) (IPEDS, 2015). Tuition revenue as a percent of total revenue has grown through the years; however, it remains a small share of the total revenue at 9%. Since 2009, in-state tuition and fees nearly doubled from $768 in 2009–2010 to $1,474 in 2015–2016. Out-of-state tuition and fees grew 145% from $1,680 in 2009–2010 to $4,114 in 2015–2016. Though the campus’s overall revenue has grown through the years, enrollment growth outpaced it, leading to a decline in revenue per FTE. Since 2006, revenue per FTE has declined 17%. Table 6 below illustrates changes in revenue sources from 2006 to 2015 per FTE enrollment. The two previous fiscal years, which include sharp state cuts, are not reflected in the table below.

Table 6. SJC Revenue per FTE enrollment by source

<table>
<thead>
<tr>
<th></th>
<th>FY 2006</th>
<th>FY 2009</th>
<th>FY 2012</th>
<th>FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$764</td>
<td>$867</td>
<td>$1,162</td>
<td>$1,429</td>
</tr>
<tr>
<td>State appropriations</td>
<td>$5,477</td>
<td>$5,761</td>
<td>$4,383</td>
<td>$5,180</td>
</tr>
<tr>
<td>Local appropriations</td>
<td>$4,803</td>
<td>$4,596</td>
<td>$3,275</td>
<td>$3,513</td>
</tr>
<tr>
<td>Government grants and contracts</td>
<td>$3,842</td>
<td>$2,943</td>
<td>$3,567</td>
<td>$3,418</td>
</tr>
<tr>
<td>Other core revenues</td>
<td>$1,965</td>
<td>$2,761</td>
<td>$957</td>
<td>$415</td>
</tr>
<tr>
<td><strong>Total revenue per FTE</strong></td>
<td><strong>$16,848</strong></td>
<td><strong>$16,927</strong></td>
<td><strong>$13,344</strong></td>
<td><strong>$13,955</strong></td>
</tr>
</tbody>
</table>

Note: adjusted for CPI 2015 dollars


**SJC Funding Is Heavily Influenced by the Price of Oil and Gas**

For SJC, both state appropriations and local taxes depend on the prices of oil and gas. One participant emphasized:

If I don’t say oil and gas at least five times in this conversation, I’m not representing the situation. But oil and gas is what’s kept this college comfortable
for the last several years. Even during the recession, oil and gas revenues were decent. Right now, what’s happening in oil and gas in the last two years is just beating the stuffing out of the college. And it’s beating the stuffing out of the state. . . . What impacts does this have on us? Tremendous impact.

SJC has been successful in acquiring mill levies to support local appropriations. During the recession, local appropriations remained fairly stable, providing a cushion for the campus as state appropriations dropped. Recently, though, as the prices of oil and gas decline, local appropriations have fallen. Participants are concerned that if the decline continues, local appropriations will disappear. One participant explained:

We receive tax revenues based upon production of oil and gas in the area. And with the market in decline, it’s been going down for the last two years. And this year, in the last fiscal year that ended June 30th, 2016, it is very, very, hard. This year that we’re in right now, it’s still continuing to spiral down. One of the things that I said to the board back in April is the tax revenues are dropping so fast that we’ll hit zero, and once it hits zero we can quit worrying about it.

Another participant echoed the concern, saying, “There’s not a lot we can do to protect our operational funding in times when state funding is going down or property tax assessments are going down.” Participants also expressed frustration about the lack of control their governing boards have over the mill levy. In some states, local boards have the authority to increase taxes without going to ballot. One participant explained: “I just wish our board had perhaps a little bit more influence or control over what’s happening with the mill levy.” And continued on, “Local boards don’t seem to have as much control over mill levy, or seem to be able to manipulate a mill levy the way that boards with different laws for local taxes can.”
San Juan College Bracing for Hard Times Ahead

SJC depends heavily on state appropriations. “Right now, our state funding is about 44-45% of our total revenues, so that’s the single biggest chunk we have. We worry a lot about what’s happening to state funding.” Participants felt that, to date, they have been able to protect their students from feeling the impact of budget cuts. However, they are not optimistic that they will be able to protect them in the future, with one participant stating, “Any further decrease in funding, whether it be from the state or from local sources, we’ve got to start to cut right into the classroom.”

Participants also pointed out that delivering the same cut to all institutions may be counterproductive to state goals, stating, “It would help if the state actually considered the number of students that we were serving and the cost per student as a factor rather than straight across-the-board cuts.”

Participants speculated what the impact to students would be if there were further cuts, speculating “that students will have fewer choices for programs, that valuable programs won’t be offered. And just in general, that the variety of course offering[s] will be reduced.” Programs such as medical lab technology and legal aid may be cut, and the two satellite campuses are “in jeopardy, and yet they serve those communities really well.” They will “take a look at programs that have low return on investments. In other words, cost us more to offer than we’re able to bring in, in revenue.” The school is “actively looking at programs that may have adequate numbers of graduates, but those graduates are finding inadequate number[s] of jobs to go to when they graduate.”
Participants listed some of the ways that recent cuts in appropriations had impacted the campus. To deal with the losses and prepare to make due with less in the coming years, “capital expenditures for building renovations or renewal” were pared, the “equipment replacement budget” was reduced, and institutional scholarships were cut. They “made a whole lot of cuts to our budget that we would consider to be the one-shot kind of cuts,” hoping that funding would eventually return to its previous levels. This seems unlikely to happen, however, so the campus is “bracing for about 2 or 3 very bad years.” Their next step is to “look into the instructional programs or the student services programs to see what we can live without.” So far, respondents do not feel the cuts have impacted student performance or access.

Participants also pointed out the impact that declining appropriations and grant funding have on the institution’s bond rating. A negative bond rating would prevent the campus from securing low-interest debt, potentially further impacting the institution’s finances. A participant explained:

As state funds start to go down, as federal funds from grants start to become more difficult to get, as our local tax revenues go down, the credit rating agency at Moody’s tend[s] to take a very dim view of us if our fund balance and net position start to fall. That impacts our credit rating, which then impacts our ability to secure low-cost, long-term debt for capital improvements and such.

Participants felt that legislators were aware of this dynamic, yet because of the critical nature of the state budget, they had no choice but to make cuts. Participants also pointed out that their fund balance may be threatened by cuts.

Legislators are saying, “We don’t want to hurt anyone in the classroom. So we’re
not going to hit your institutional budget, but we might take a portion of your fund balance.” And they don’t realize that we utilize that at certain times of the year to make payroll and all sorts of other things, or that it could kill our bond rating so we’re not able to build buildings or make improvements. They’re trying to do what won’t affect learning, but they don’t realize how much we depend on that balance as well.

Grants Offer Funding for Student Supports That May Not Otherwise Exist

Participants cited federal, state, and private grants as meaningful funds to support student success at SJC. One participant articulated:

My observation is everything creative that we do here right now is grant-funded. Anything that is innovative, cutting-edge, designed to dramatically increase students’ outcomes, which involves a little bit of a risk in doing so, we can only do when those programs have grant funding. Our regular funding doesn’t allow us to do that kind of work.

Pursuing grants became a team effort, the board made it a priority, and they “had everybody try to search for them and get involved.” Albeit participants were happy with the progress they made in securing grants, they plan to expand their capacity to “be more effective at grant writing and securing grants.” These grants serve specialized purposes, such as a Title III grant to strengthen guided pathways and enhance supplemental instruction; the Power Grant to retrain people who have been laid off in the coal, oil, and gas industries; and a Sun Path Grant to help increase the number of people trained in health care skills. Table 7 below lists SJC’s grants as of 2016.
Table 7. San Juan College Grant Awards, 2016

<table>
<thead>
<tr>
<th></th>
<th>Start Date</th>
<th>End Date</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Federal grants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRIO—Talent Search</td>
<td>09/01/2011</td>
<td>08/31/2016</td>
<td>$1,137,971</td>
</tr>
<tr>
<td>Student Support Services—EDGE</td>
<td>09/1/2015</td>
<td>08/30/2020</td>
<td>$1,192,480</td>
</tr>
<tr>
<td>Student Support Services—STEM</td>
<td>09/1/2015</td>
<td>08/30/2020</td>
<td>$1,100,000</td>
</tr>
<tr>
<td>Title III F—NASANTI</td>
<td>10/01/2011</td>
<td>09/30/2016</td>
<td>$2,023,794</td>
</tr>
<tr>
<td>Four Corners STEM Success (FOCUSS), partnership with Fort Lewis College</td>
<td>09/01/2011</td>
<td>08/31/2016</td>
<td>$356,355</td>
</tr>
<tr>
<td>Four Corners POWER Initiative</td>
<td>10/01/2015</td>
<td>09/30/2018</td>
<td>$1,400,000</td>
</tr>
<tr>
<td>SUN PATH</td>
<td>10/1/2014–09/30/2018</td>
<td></td>
<td>$1,366,921</td>
</tr>
<tr>
<td><strong>State grants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adult Basic Education (ABE) program</td>
<td>07/01/2015</td>
<td>06/30/2016</td>
<td>$411,528</td>
</tr>
<tr>
<td>Carl D. Perkins</td>
<td>07/01/2015–06/30/2016</td>
<td></td>
<td>$321,127</td>
</tr>
<tr>
<td><strong>Other grants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Center for Working Families Kellogg Foundation</td>
<td>01/1/2015–12/31/2018</td>
<td>$650,000</td>
<td></td>
</tr>
<tr>
<td>ENgaging LATino Communities for Education (ENLACE)</td>
<td>07/01/2015–06/30/2016</td>
<td>$200,000</td>
<td></td>
</tr>
</tbody>
</table>

Source: San Juan College Grant Programs [http://www.sanjuancollege.edu/about-sjc/san-juan-college-grant-programs/](http://www.sanjuancollege.edu/about-sjc/san-juan-college-grant-programs/)

Participants also referred to TRIO grants as essential funding linked to their improved retention rates. It was so successful that one person explained, “Whenever we have institutional funds to invest in more programs that are TRIO-like, we say that we’re going to pattern these after TRIO. TRIO has been a very effective funding source and tool for student retention.” Title III funds supported the development of guided pathways to a bachelor’s degree and initiated a campus wide 15 to Finish campaign. Participants also praised the success of their Kellogg grant that funds their Resource Network, which
offers assistance with financial literacy, a food pantry, transportation, and overcoming other barriers low-income students may face when working toward their degree.

**The Pell Grant Supports Students and Helped Summer Retention**

The Pell Grant supports 58% of the first-time students at SJC, making it a critical resource for the community and school. Participants noted how summer Pell, during its brief span, also helped with the “completion imperative” by shortening the time to degree and helping with first- to second-year retention. One participant explained:

Our biggest problem is our students will start in the fall, over 80% will come back in the spring. There’s this crazy thing about summer, because they don’t have any Pell, they don’t come back that following fall. It will drop all the way down to 60% will return.

**Seeking New Revenue through Programs with a High ROI, Building up Their Foundation**

To help replace some of the revenue lost from the decline in local and state appropriations, SJC has turned to other revenue sources. It has expanded revenue-generating programs such as an online veterinary technology program with a four-to-one return on investment. Between 2012 and 2015, exclusively online students grew from 17 to 24%. The school is also planning programs aimed at attracting a national audience, and along with that is a plan to build on-campus housing to accommodate those students. Finally, SJC has a successful foundation that provides students with about $700,000 a year in scholarships and 700,000 a year to support faculty stipends, awards, and programs. Between 2012 and 2015, the foundation’s assets grew from $15.3 million to
$25.5 million.

**OBF Focuses Campuses on Completion in Spite of Weaknesses**

When asked about OBF, respondents seemed to have a neutral perspective toward how it impacted their campus finances. One participant explained, “The amount of money that we get for outcomes is similar to the amount of money that we got under the previous formula for credits.” Although participants didn’t feel OBF impacted their funding, they did feel it impacted campuses statewide. One leader explained that people are “coming to that realization that it’s not just about enrollment, it’s really about graduation.” At SJC, participants felt OBF—along with President Obama’s challenge for community colleges to increase their graduation rates—helped them focus more intently on improving their graduation rates.

However, one participant pointed out inequities in the formula, with comprehensive universities receiving more funding for awarding the same certificates or degrees than a community college would. Blaming this inequity on political motives, they explained:

When you look at the details of the formula, you realize how things are more political. This is a quick example. If you look at two-year certificates and degrees, universities, if they grant those like a comprehensive, they get double the funding of what a community college would get, for the exact same degree. So, in all, I’m a supporter of performance funding, but I think the model should be simple enough to where there’s not any devil in the details.
When asked how finance policies may be working against completion goals, participants were quick to point out that the competitive nature of OBF may be impeding transfer. One participant suggested there should be “incentives for universities to work with community colleges. Like for transfer rate.”

**Increasingly Focused on Completion and Increasing Student Supports**

In recent years, the campus has made many changes to increase its number of graduates. One participant explained:

President Obama in 2009 challenged all community colleges to increase their number of graduates by 50% by 2020. We assumed the challenge, and plotted on a graph what our target was each year to reach that 50%, which is basically 5% each year. Every year, we’ve exceeded that target. Substantially. So where we’re at right now is in the past five years, we’ve increased our amount of graduates 143%.

In the 2010–2011 academic year, SJC awarded 839 certificates and degrees, and in 2014–2015, 1,466 certificates and degrees, a 75% increase. This growth is partially attributed to a growth in certificates that take less than a year to complete. In 2010–2011, the campus awarded 81 certificates of this type, and in 2014–2015, it awarded 367. In addition to granting more degrees, SJC has improved its graduation rates. Between 2008 and 2015, graduation rates in 150% time increased from 11 to 14%, and in 200% time increased from 14 to 20%.

Campus leaders listed a variety of strategies they employed to improve student completion. These included academic changes such as reducing the number of credits needed to 30 or 60 depending on the program as well as “diving into our data to see how
many students have met our graduation requirements that didn’t even know it.” To strengthen the pipeline from high school to higher education, they have worked with local K–12 superintendents and principals to increase dual-credit participation by 180%. In fall 2016, SJC launched an early-college high school with “80 freshman students that are 14 years old.”

SJC also has improved its supports for underprepared students. It now requires students in developmental courses also to take a student success course “where they’re able to learn about goal-oriented behavior, communication patterns, and how that affects their academic life and professional life.” And corequisite courses have been developed primarily in English and developmental writing. The school also has used grant funds to adopt the Integrated Basic Education Skill Training (I-BEST) model, which has led to 100% retention rates in some programs. A participant explained, “What they do is have your content instructor teach the class, and then you bring in another facilitator, which could be an instructor, but someone else that reinforces anything that the students may not be grasping.”

To clarify the pathway through a degree, SJC has “revised and refocused” new student orientation to improve preparation for placement testing and develop noncognitive skills that may help with college success. Title III funds have been used for the development of guided pathways to a bachelor’s degree and initiated a campus wide 15 to Finish campaign.

To support students financially, campus leaders have focused on growing their
foundation and committing foundation revenue to offering both need- and merit-based financial aid. Like ENMU–R, very few SJC students qualify for the Lottery Scholarship. Participants stated that only around 200 of their students receive the scholarship, with most ineligible because they didn’t start college right after high school or maintain full-time status. A participant explained:

We don’t have a lot of people utilizing the Lottery Scholarship at community colleges. I’m really happy that New Mexico has it. But, the universities are the ones that get the lion’s share of the funding. Our students generally will miss the criteria because the student has to enroll immediately out of high school, and they have to maintain that full-time status their first semester and then every semester thereafter.

**Case Summary**

SJC presents a case of a community college financially supported by the community through local appropriations. As the only nontribal higher education institution in the area, it serves as a critical point of access for residents in the area and enrolls more Native American students than any other NASNTI. Although overall revenue grew 24% between 2006 and 2015, increasing enrollment meant that revenue per FTE enrollment declined 17% when adjusted for inflation. During the recession, local appropriations softened the blow of cuts at the state level, but now both are declining and the institution is anticipating further diminishment of revenue. To prepare for the future, the campus is assessing which low-ROI programs will be eliminated and has cut back capital expenditures. Participants believe that any further cuts would be felt in the classroom.
The campus depends on specialized grants to fund student supports that participants felt they may not be able to offer without those funds. The campus is also looking to bring in new revenue through adding and expanding programs with a high ROI and building up the foundation. When asked about the OBF formula, participants felt it was encouraging institutions to focus more concretely on completion but did not feel it impacted their budget in a meaningful way. However, the campus has shifted campus policies to increase completion, such as standardizing 30 or 60 credit limits across programs and automatically awarding certificates and degrees to students as they complete the requirements. The total number of awards and graduation rates have increased since 2008, and the campus has expanded student supports and increased the amount of financial aid it offers to students.
Institutional Overview

New Mexico Highlands University (NMHU) is a regional comprehensive university located in Las Vegas, New Mexico, that awards bachelor’s and master’s degrees. The campus has an FTE enrollment of 3,499, of which 2,233 are undergraduates and 1,266 are graduate students. Fifty-eight percent of students receive Pell. NMHU is an HSI, with 57% of the student body identifying as Latino or Hispanic. Fifty-five percent of NMHU students are 24 or younger, and 45% are 25 or older. Sixty-six percent are full-time, and 34% are part-time. NMHU is an open-enrollment institution, and 66% of students are in-state. Of undergraduates, 16% are exclusively enrolled in distance education courses, 18% are enrolled in some online courses, and 66% are not enrolled in such courses.

NMHU was founded in 1893 as the New Mexico Normal School. In 1917, the school became a four-year, teacher-training college, and soon after graduate degrees were introduced. In 1941, the school was renamed New Mexico Highlands University. NMHU is governed by a local board of regents.

The NMHU mission is as follows: The Mission of New Mexico Highlands University is education through teaching, research, and service. The core values are: Excellence, Diversity, Accessibility and Responsiveness.

NMHU is located in San Miguel County, which has a population of 28,668 and a median household income of $29,237. Thirty percent of the population lives below the
poverty line. The current unemployment rate is 6.4%. Seventy-seven percent of citizens identify as Hispanic or Latino, 19% as white, Non-Hispanic, and 1% as Native American. Top employment industries in San Miguel County are educational services, health care, and social assistance; public administration; retail trade; and professional, scientific, management, administrative, and waste management services. In addition to the main campus, NMHU operates five learning centers in Albuquerque, Farmington, Rio Rancho, Roswell, and Santa Fe. These learning centers partner with local community colleges to offer bachelor’s and master’s degrees in popular programs such as accounting, business, education, and social work.

NMHU offers approximately 36 bachelor’s degree programs and 18 master’s degree programs—both with a variety of concentrations. Top degree-granting programs are social work, business administration, elementary education, school counseling, and registered nursing. NMHU has a first-time, full-time, fall-to-fall retention rate of 52%, and first-time, full-time graduation rate of 18%. In 2015, the campus awarded 25 degrees per 100 FTE enrollment.

The institution has been placed on probation by the Higher Learning Commission for being out of compliance with the following criteria:

- Criterion Three. Teaching and Learning: Quality, Resources, and Support
  - Core Component 3.C. “The institution has the faculty and staff needed for effective, high-quality programs and student services.”
  - Core Component 3.D. “The institution provides support for student learning and effective teaching.”
- Criterion Four. Teaching and Learning: Evaluation and Improvement
Core Component 4.B. “The institution demonstrates a commitment to educational achievement and improvement through ongoing assessment of student learning.”

Core Component 4.C. “The institution demonstrates a commitment to educational improvement through ongoing attention to retention, persistence, and completion rates.”

Criterion Five. Resources, Planning, and Institutional Effectiveness

Core Component 5.A. “The institution’s resource base supports its current educational programs and its plans for maintaining and strengthening their quality in the future.”

Core Component 5.B. “The institution’s governance and administrative structures promote effective leadership and support collaborative processes that enable the institution to fulfill its mission.”

Core Component 5.C. “The institution engages in systematic and integrated planning.”

Financially, the school receives 48% of its revenue from state appropriations, 24% from grants (including Pell) and contracts, 18% from tuition and fees, and 6% from sales and services. Revenue per FTE has declined slightly, and the campus has come to rely more heavily on tuition revenue. NMHU’s state appropriations were reduced by $2.3 million at the beginning of FY17 and another 5% midway through the year.

Table 8. NMHU Revenue per FTE enrollment by source

<table>
<thead>
<tr>
<th></th>
<th>FY 2006</th>
<th>FY 2009</th>
<th>FY 2012</th>
<th>FY 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition and fees</td>
<td>$3,189</td>
<td>$3,433</td>
<td>$3,674</td>
<td>$4,338</td>
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<tr>
<td>State appropriations</td>
<td>$13,780</td>
<td>$13,149</td>
<td>$9,687</td>
<td>$11,185</td>
</tr>
<tr>
<td>Government grants and contracts</td>
<td>$8,086</td>
<td>$6,750</td>
<td>$5,574</td>
<td>$5,513</td>
</tr>
<tr>
<td>Other core revenues</td>
<td>$3,051</td>
<td>$1,687</td>
<td>$1,006</td>
<td>$720</td>
</tr>
<tr>
<td><strong>Total revenue per FTE</strong></td>
<td><strong>$28,107</strong></td>
<td><strong>$25,021</strong></td>
<td><strong>$19,943</strong></td>
<td><strong>$21,756</strong></td>
</tr>
</tbody>
</table>

Note: adjusted for CPI 2015 dollars

Raising Tuition in Response to Cuts in Appropriations

NMHU is a campus that still draws nearly half of its revenue from state appropriations, which is why participants recognized that “New Mexico is luckier than a lot of states. We still have over 50% of our funding coming from the state. Some states have cut down to 13%.” However, participants also noted that this support is shifting, with one explaining, “The state's former policy was keep tuition low, and therefore state appropriations were high. Well, that mindset has kind of changed over the last decade,” and now tuition is rising. In 2016, NMHU’s board approved a 12.5% increase in tuition and fees “to address the budget gap that existed due to the diminishing resources we’ve received from the state.” Another explained how planned cuts were met with tuition increases while unplanned cuts left the institution with no way to generate additional revenue.

In addition to a cut that we had at the beginning of the fiscal year that amounted to about $800,000, which we knew about last spring, this fall they cut our budget another 5%. In anticipation for the $800,000 that we had cut from our budget this year, that was the main impetus for raising our tuition. So this additional 5% cut has really impacted us, although at the moment we’ve been able to not cut any programs.

In-state tuition and fees rose from $2,761 in 2009–2010 to $4,800 in 2015–2016, a 74% increase. Out-of-state tuition and fees rose from $4,328 to $7,534, also a 74% increase during the same time frame. This increase in tuition and fees kept overall revenue stable, and because historically tuition at NHMU was so low, the campus was able to raise tuition and still be lower than most institutions in the Southwest.
Additionally, the student senate passed an increase in fees to enhance social activities, including live concerts and an outdoor recreation center. Some of these activities may generate additional revenue that is funneled back into student life enhancements. However, one participant indicated this response was not sustainable.

We increased our tuition fees by 12.5 percent, still remaining . . . the third-most competitive four-year institution in the Southwest, and that is a comparative against 80 other schools. With the recent cuts that were added from the state legislature during special session, we basically netted out $57,000 higher than the revenue that we had from last year. So all we did was buy us some time.

Participants explained that, because of these reductions, they have “significantly slowed down . . . spending” and “reduced administrative costs” largely by “not filling open positions and freezing open positions,” leading to “a significant number of faculty and staff positions that we have not filled.” Another participant explained, “At the moment we haven’t cut any athletic programs, but that’s under review. We haven’t cut any academic programs, but that’s under review. We haven’t cut any personnel, but that’s also under review.”

Although cuts are on the table, NMHU has invested in student services through creating a first-year experience for all freshmen, which is currently financed with institutional funds with hopes eventually to find grant funding. Additionally, the campus recently established the Division of Strategic Enrollment Management to boost student recruitment and enrollment.

Participants noted that the shift from public revenue to tuition-driven revenue signals a shifting perception from higher education as a public good to higher education
as a private good.

The whole impact on what it means of who gets to have a college degree is shifting. Back in the 70’s and 80’s tuition was very low. The idea was that the more educated our citizens are, they are going to contribute to the overall economy. These educated people are going on and they’re going to be businessmen and they’re going to be educators and helping the common good of the country. But now people feel like it’s not a right. You should pay for it. So there’s a shifting more and more and more burden onto the student so student debt has just skyrocketed. It’s shifted away from states saying we’re going to pay for this to saying that students have to pay for it. So that’s a real fundamental shift in saying who is benefitting.

Another person stated that the cuts in funding and tuition increases are “causing huge disparity. It’s really the have’s and have not’s and who is or is not going to get educated.” That person went on to say, “It’s just putting the burden on the student. So it’s really a shift.” Another participant suggested that any additional resources would improve student success, stating, “Here at Highlands, our students are poor. We have a lot of first-gen students. We have a lot of students who come from poverty. They need all the assistance they can get.”

However, when asked if they felt tuition increases impacted student access, one participant stated:

No, no, not at all. We figured we'd see a drop, but we really didn’t see a drop in enrollment. I don't think students today are basing their sole decision on the cost of tuition. I think they look at the reputation. I also think if your tuition is too low, it hinders you. Because there is a perception of the quality you're going to get for what you spend. I think there is a blend between what students believe they're going to get, the academic reputation of the institution, plus the dollars they're willing to spend for that education.
OBF Formula Not Aligned with Institutional Mission

When asked about the impact of OBF, participants articulated their frustration about the formula not awarding activities they viewed as essential to their institutional mission, such as awarding graduate degrees as well as serving underprepared and transfer students. One participant observed how their uniqueness as a comprehensive that awards a lot of graduate degrees is putting the campus at a disadvantage with the new formula.

We’re a unique regional campus because our student body is 40% graduate students and 60% undergrad. They used to give different funding for the different level of classes. You got more money for graduate classes versus upper division versus 100 and 200 lower-division classes. With the new formula that’s based on outcomes, all of that has kind of gone away.

Participants also noted:

I don’t disagree that we should be accountable for outcomes. It can’t just be seats. But for Highlands, 80% of our students need some sort of remedial course when they come. When I look at the students that we’re starting with, I think we do a great job. We don’t really have that different a success than other schools.

[Disparity is] definitely built into the formula, absolutely it’s built into the formula. Our freshman class that we just had this fall, over 50% of them plan to transfer. Also, we have a lot of students that start late; they’re not really prepared in a lot of ways.

Participants also criticized the competitive nature of redistribution, acknowledging that improvement in their performance didn’t necessarily mean an improvement in funding.

Last year, we had record numbers [in] our graduating class for both graduate and
undergraduate. But, if you don’t beat the statewide average, then your funding is affected. So even if you improve overall, if you don’t beat the average, then your funding is going to go down. So those challenges have been a lot.

The flaw within the funding formula is that you are doing a redistribution. If you have a very large graduating class, then you have to fill those students, and if you can’t maintain that constant growth, then sooner or later it becomes punitive for the funding formula that the state is using today. If it's pure outcome based, like in degree completion, then you should reward institutions with some dollars so that it is a carrot.

In addition to this frustration regarding a lack of mission specification written into the OBF formula and the competitive nature of the redistribution, participants noted that the overall declining level of state appropriations made the performance component less of an incentive.

If there is no new money or if there are cutbacks, it doesn’t make any difference. We could run our data through the formula for outcomes based funding and maybe our retention rate improves, maybe it doesn’t. If there are cutbacks, it doesn’t make any difference. Outcomes funding only matters if there are some resources to award institutions that do well on those measures. If there is no money at all, and indeed if there is actually less money, it doesn’t make any difference. What’s the simple kind of analogy? I mean give your kids an extra quarter a day if they make their bed. If they have no bed, well, what difference does it make? So that’s what we’re faced [with] here.

**Lottery Scholarship Perceived as Poorly Understood by Students and Poorly Designed**

Participants at NMHU expressed that many local students are not aware of the eligibility requirements of the Lottery Scholarship, such as the requirement that students enroll in higher education directly after graduating high school, maintain a 2.5 GPA once enrolled, and carry 15 credits throughout their college career. One participant gave an
example, saying, “I've seen students that have good grades, maybe had a 3.2 but dropped one class and therefore lost the lottery.” Another pointed out: “I don’t think a lot of students are ready to go to college at 18. So this whole idea of what you do in your first semester determines whether you get the lottery for the rest of your college career is a little bit crazy.”

Participants felt that “back-ending” the scholarship would produce better outcomes and that by offering little to no funding the first two years and increasing funding each year as students progress would provide a powerful incentive for students to finish while not wasting funds on students who “start university really with no intention of ever finishing.” One participant felt the Lottery Scholarship funneled local students to UNM because they want to go to the “big city” and could do so without incurring debt owing to the scholarship; once there, however, they wouldn’t have the skills and support to be successful.

One participant pointed out that funds from the Lottery Scholarship primarily benefit research universities, as they raised tuition during the years that the Lottery Scholarship covered full tuition for all semesters.

The research institutions capitalized many years ago, within the benefits of the Lottery Scholarship. Many of the two-year and four-year schools did not evolve or were agile enough to tap into those resources, so I think there is a disproportionate amount of dollars going to the research schools. They increased the tuition during the early 2000s, while everyone else was more concerned with trying to keep it low.
Focusing on Grants for Additional Revenue

State and federal grants are another revenue stream that impacts NMHU’s ability to serve students. The school has “a pretty good record here on federal grants. Annually we bring in about $15 to $17 million in external support,” including “federal grants from USDA, United States Department of Education, the National Science Foundation, NIH, and others.” Unfortunately, the campus recently lost its TRIO Grant, after having it for 25 years. Losing the grant was a blow to student supports, including 12 tutors. NMHU was able to use institutional funds to hire a couple of tutors, but participants feel losing their TRIO Grants was a great loss. Participants recognized the importance of their specialized federal grants, such as TRIO and Title V, with one commentator saying, “I think they help some of the kids, especially the students that attend Highlands that lack confidence, lack any desire; it kind of helps boost them to get them out the door.”

The school also pursues research grants, looking “at grants that faculty has expertise so it brings opportunities in the master levels or other areas . . . and they give real-world experience to students.” Participants also recognize, though, that being a regional comprehensive makes them less competitive than a Research 1 university, and collaborating with other institutions on grants may increase their success. One participant explained, “Most of the funding from the federal level has been shrinking over the last decade or so, so some of those grants are becoming more and more competitive, and therefore they are being sought and awarded to more collaboration institutions, rather than an institution like an R1.”
**Cuts to Dual Enrollment May Be Limiting Access**

New Mexico recently changed how it funds dual-enrollment classes. Previously, the state paid both the participating high school and college or university for seat time. Now, the high school will receive funding for the student with the participating college or university receiving $10 per student. One participant explained:

> We have four high schools that really are interested in dual enrollment. It’s not something that we can expand because we don’t get the dollars for the students. So we have a huge number of students that are in the area that want to take college classes, but we’re not getting the funding for that. So that’s a real impact in terms of . . . the pipeline of getting students to come to Highlands.

As a result, NMHU is able to take only students who are filling empty seats in an already existing class and is not able to accommodate all interested students by creating new classes.

**The Future of DACA Students Is Uncertain**

Participants were also concerned about how state and federal laws may soon be at odds over Deferred Action for Childhood Arrivals (DACA), commonly called Dreamer students. Currently, all New Mexico residents are eligible for state financial aid programs and in-state tuition rates regardless of their citizenship status. The state has a longstanding commitment to educating all New Mexican residents, citizens or not. Participants were concerned that the new presidential administration would block these supports. One participant explained:

> I’ve had a couple of DACA students in my office crying. They’re very fearful that under the president-elect’s administration they’re going to be shipped back home. These two have never lived anywhere but here; they don’t know Spanish
and all they know is English. So what’s going to happen to those Dreamer students? Are they going to be eligible for anything and even more broadly are they going to be shipped out of here back to, I started to say home but that’s not their home. . . . Obviously, we’re a state agency and our students receive federal financial aid, and if the federal law changes, if the state law changes, well, what choice do we really have? We’ll have to comply.

**In Dire Need of an Improved Student Data System**

One participant felt that student success could be improved if the institution’s database system and data analytics were improved so that they could track students as they move through their programs. The institution still tracks students largely on paper or with Excel, and an improved student information system could help them move their student success efforts forward.

**Case Summary**

NMHU presents a case of a regional comprehensive that is becoming increasingly tuition-dependent. As a percent of total revenue, tuition has risen from 13 to 20% in the past four years. Though this rise is dramatic, NMHU remains competitively priced and their enrollment has not suffered, although participants realize that increases continued at this rate aren’t sustainable. Giving funding cuts in FY17, the campus is considering eliminating programs and staff. With NMHU being a comprehensive institution that serves largely as a transfer institution and graduate school, participants felt that the state’s OBF formula does not reward them for serving their student population. The campus has focused on student support and research grants to boost revenue,
although recently it lost its TRIO Grants and, along with them, numerous tutors and student support staff.

In addition to cuts in appropriations and NMHU’s losing its TRIO Grant, participants also felt their ability to serve their students was threatened by the revision of the way dual credit was funded, the potential of the incoming presidential administration targeting DACA students for deportation, and their out-of-date student record keeping.
Chapter 8—Analysis and Discussion

The purpose of this study was to better understand the relationship between funding policies and the ability of MSIs to serve their students. I conducted a state-level case study and three institutional case studies to explore this relationship. The findings of these cases answered the following set of questions:

• What local, state, and federal finance policies impact MSIs’ funding? To what extent are these policies working toward a common goal and to what extent are they working at cross-purposes?

• To what extent are these policies, and changes in these policies, impeding or supporting the ability of MSIs to serve their students over time? How have changes in these policies impacted student access and outcomes over time?

To answer these questions, I used two analytic frameworks. The first focuses on how states can effectively use appropriations, tuition and fees policies, state financial aid, and institutional financial aid in alignment to meet state objectives (Jones, 2003). The second is a framework developed by Jones & Ewell (1993), and expanded on by McGuinness (1994), to attempt to assess the relationship between public policy and effective undergraduate education. The purpose of this chapter is to describe the analytical frameworks used for this study and to conduct a comparative analysis of the state and institutional cases using these analytical frameworks.

Financing in Sync?

Answering my first set of questions began with examining the relationship between various types of finance policies and their goals. Participants noted many ways
that funding to higher education is suffering in New Mexico, and in the context of Financing in Sync (Jones, 2003), it is clear why institutions feel they must pursue alternative revenue sources. All sources of revenue are drawn from the economy, and flow to state governments, the federal government, and students (Jones, 2003). In the case of New Mexico, the economy is suffering, limiting the amount of resources flowing to students, the state, and counties. Students in New Mexico, and particularly at the case institutions in this study, are low-income, and the state’s main financial aid program does not target these students. Most institutions receive the majority of their unrestricted revenue from students and state governments (Jones, 2003), and institutions in New Mexico are shifting the balance from the state to students. The federal government also provides many sources of restricted funding, or funding to be used for research, or special projects, including grants and loans to students that eventually make their way to institutions (Jones, 2003). For my case institutions, these funds are critical to funding student success and support services. The movement of these resources is visually explained in Figure 9 below.
The diagram indicates that state-level financing policy should focus on four main areas: appropriations made directly to institutions, tuition and fees policy, state student financial aid policy, and institutional student financial aid policy (Jones, 2003). As Jones (2003) points out, “The net effect when funding policies are not aligned and get out of balance is that one or more of the major participants in the process are put at a serious disadvantage” (p. 9). New Mexico would do well to align policies in these four areas to work toward state priorities and goals; however, this has not been the case.
Complicating finance policy, New Mexico’s higher education governance structure is decentralized, with most institutions having constitutional autonomy and their own governing board. This provides institutions, rather than the state, the authority to control tuition levels. The state has also provided little direction for institutions. This lack of planning and focus at the state level trickled down to my institutional cases, presenting numerous ways state policies were not working in alignment. The most notable of these are rapidly rising tuition, inefficiently allocated state financial aid dollars, and unstable and untargeted appropriations at the state and local level. These issues are complicated by a lack of consistent and clearly communicated state goals or objectives for higher education, and are described in further detail below.

**Tuition Is Increasing Rapidly, but Not Thoughtfully**

Across the state, and at the three institutional cases, tuition has risen at a dramatic rate, and the state lacks authority to guide tuition increases in a way that would make them predictable for students and families. Since 2009, at ENMU–R, in-state tuition and fees grew 37% from $1,239 in 2009–2010 to $1,824 in 2015–2016. At SJC, in-state tuition and fees nearly doubled from $768 in 2009–2010 to $1,474 in 2015–2016. In-state tuition and fees at NMHU rose from $2,761 in 2009–2010 to $4,800 in 2015–2016, a 74% increase. And across the state, net tuition revenue per FTE was $1,201 in 2008 and grew to $3,725 in 2015, a 210% increase (SHEEO, 2016). Though tuition at these institutions is still far below the national average, it is important to recognize that students in New Mexico have fewer resources to devote to their education than students in other parts of the country. Although students may be able to bear these tuition
increases now, there will be a limit to how much low-income students in the state can afford. Already, 30% of New Mexico families would have to pay 70% of their annual income to pay the average net price of college (IRHE, 2016). To date, it is hard to assess if these increases in tuition have limited access. Enrollment has dropped or remained flat at institutions across the state, indicating access could be compromised.

**The Lottery Scholarship Is a Missed Opportunity to Increase Attainment**

As a merit-based scholarship with no income guidelines, awards often fund students who are able to afford tuition and likely would attend and complete higher education without the scholarship. These funds could be more strategically used to incentivize students who would not otherwise attend college. Recent changes to the Lottery Scholarship reduced the amount of tuition covered from 90% to 60%, making it less of an incentive for low-income students who may not attend college otherwise.

In some ways the Lottery Scholarship can be viewed as a “promise program” or an attempt to provide free college, at least at it was initially designed. A review of available research and theory by Perna (2016), suggests that, “to increase higher education attainment, promise programs should have the following characteristics:”

1. Recognize that college-going opportunities and resources vary based on the contexts in which an individual is embedded, including the place a student lives and the schools a student attends.
2. Promote early awareness of college and the availability of financial aid;
3. Target students who would not otherwise enroll in or complete college;
4. Provide a financial award that reduces the cost of attending particular types of colleges;
5. Engender confidence that the program will deliver the “promise;”
6. Encourage academic preparation and achievement; and
7. Assist students with navigating their way into and through the nation’s educational systems. (Perna, 2016, p.4)

New Mexico’s Lottery Scholarship has room to grow on all of these characteristics, and evolving the scholarship to include some of these characteristics may help increase degree attainment in New Mexico.

While the OBF formula was designed to incentivize institutions to focus on increasing attainment levels, particularly for low-income students, the Lottery Scholarship, is a merit-based scholarship that low-income students often do not qualify for, demonstrating a clear misalignment of state goals. Because the current governor’s administration has not released state goals for higher education, when viewed in the context of the goals developed by the LFC (2014) for the OBF formula, the Lottery Scholarship again falls short.

- Change direction – from funding educational inputs to funding results.
- Reward student success – access, retention, and completion.
- Reward institutional success by funding measures that reflect and strengthen institutional missions.
- Improve educational pathways for recent high school graduates and adults – access, retention and completion.
- Review the new formula as implemented and revise and develop future formula components.
The scholarship has potential to make progress on the fourth goal, if amended to focus on students who would not otherwise go to college, particularly low-income students, both recent high school graduates and returning adults.

**Appropriations Are Unreliable and Untargeted**

Appropriations levels in New Mexico are declining, but owing to their higher-than-average level, some see this decline as appropriate or at least manageable. However, even though the governor expressed the desire to reduce the amount of state funds distributed to higher education when she took office in 2010, the state did not plan a slow and predictable decline in appropriations that would have allowed institutions time to develop other revenue streams. Rather, appropriations have gone up and down over the past six years, with the last cut coming unexpectedly and in the middle of the fiscal year.

Many also describe the state as having too many institutions that often duplicate efforts in some service areas. This has led to an atmosphere where state appropriations are expected to support more administrative units than are necessary, stretching ever-declining resources. The midyear cuts in appropriations were 5% for all institutions when the state could have used that opportunity to cut funding to institutions that are providing a duplication of services or were no longer meeting state objectives.

Local appropriations may not support the communities with the greatest need. This case study presented two community colleges, one that received ample local funding, and one that didn’t. Political ideology seemed to drive decision making
regarding local support for both these community colleges. One community valued education as a public good and supported their local college. This support helped the institution weather the recession, grow enrollment and continue to provide necessary services and education to the community. The other community did not vote to support their local community college, and has seen a 25% decrease in enrollment and staff. The institution fears closing its doors, possibly leaving the community and surrounding area without any option for higher education.

**State Goals and Objectives for Higher Education Are Not Consistent or Clearly Communicated**

Jones (2003) states that effective financing policy should “be reinforcing of and consistent with stated priorities. . . . In states where the objectives are not clear, institutions have the luxury of establishing their own priorities, the sum of which are not necessarily in line with state needs.” Participants at the institutional level were aware of vague state goals, such as Governor Richardson’s focus on access and Governor Martinez’s focus on reducing costs for the state and increasing institutional accountability. Since Governor Martinez took office, however, there has been no statewide plan for higher education, goals, or priorities.

**State Conditions to Support Students**

To answer my second set of questions, I’ve turned to the framework developed by Jones and Ewell (1993) and McGuinness (1994); it takes into account known good practices in undergraduate education, public policy, and the mediating influences of organizational culture and resources that affect this relationship.
To assess how state policies might promote or impede undergraduate education, Jones and Ewell identified characteristics of good practices that promote student learning. Such practices include frequent student-faculty contact and providing students with opportunities to apply their learning and demonstrate their skills (Jones & Ewell, 1993). The authors recognize that “state policy may have some direct impact on educational practices, but could more strongly affect these practices indirectly by the way it shapes institutions and their behaviors” (p. 7). Characteristics of these positive institutional cultures include a strong sense of mission and shared purpose, clear statements of intended instruction objectives, and being actively student-centered, among others (Jones & Ewell, 1993). States can do many things to cultivate a positive institutional culture, such as create a hospitable political climate focused on the “ends” of education—ensuring the governance structure is not overly complicated or catering to the “high status” institutions in the state—and provide adequate resources to students and institutions. With this framework in mind, a number of findings emerge.
Unreliable Resources Are Threatening the Student Experience

Positive institutional cultures that will support student learning are also influenced by resources—those that are received by the institution, and resources available to the students (Jones & Ewell, 1993). The allocation of resources is often considered the most powerful policy lever to impact institutional changes and, in the case of New Mexico, the withdrawal of resources is impacting institutional behavior by forcing hiring freezes and eliminating programs with low ROI. Related to this is the fact that the absence of student resources is often considered the largest barrier to degree completion for low-income students, and in New Mexico scholarship resources are overwhelmingly distributed to middle-class students attending research universities. To promote an institutional culture that provides an environment that promotes good educational practice, the institution must be supplied with an adequate resource base that can be used for purposes that support good educational practices, and students must have adequate resources to be in a position to take advantage of these good educational practices (Jones & Ewell, 1993). Neither seems to be the case in New Mexico. To maintain the use of good educational practices, resources must be stable and predictable to both parties through time (Jones & Ewell, 1993). Again, such is not the case in New Mexico.

My institutional sites described atmospheres with low morale and bleak visions for the future. They are reducing their numbers of faculty and staff, eliminating programs with low ROI, and relying more on philanthropy and private grants. To attempt to bring in more resources, they also have begun to expand online education and pursue more out-of-state students. Pursuing out-of-state students could be considered mission drift,
especially for the community colleges. However, these institutions are pursuing out-of-state students only for revenue-generating programs that can, in turn, support programs with a low ROI that are important to the local community. One example was starting a helicopter pilot training program with the Tunisian Air Force to funnel money into nursing. Of the two community colleges in my study, one had local appropriations while the other didn’t. This may have been the deciding factor between one institution feeling on the brink of closure and fighting for survival, even as the other remained comfortable through the recession and is only now assessing programs with a low ROI.

**Negative Impact of Political Culture in New Mexico**

Conditions to promote good educational practice also can be mediated at the state level through state characteristics such as their political culture, governance structure, and policies (Jones & Ewell, 1993). Again in the case of New Mexico, political culture has varied dramatically during the tenures of the past three secretaries of higher education, creating at times a contentious relationship between the state and institutions. This was most recently demonstrated when Governor Martinez vetoed all funding for higher education.

This tense political environment clearly stymied the development and rollout of the OBF formula, and institutional and state-level interviews indicate that political connections matter when it comes to which institutions get resources. This seems particularly true for the Lottery Scholarship and OBF formula. The Lottery Scholarship is thought to funnel students and resources unnecessarily to the research institutions, while OBF has “devils in the details” and also awards more funding to the research
universities. These resources disproportionately funnel to research universities through the policies, intentionally or not.

**Participants Perceive Federal Funds as Supporting Student Success Efforts**

Although each of my institutional sites receives more money from state appropriations than federal sources, when asked if any finance policies were directly contributing to student success, participants universally responded that federal grants were. Federal grants providing restricted funds for student success efforts were seen as supporting the completion agenda and providing supports for under-resourced students. The notion that participants universally pointed to federal grants as supportive even though the funds were lower than appropriations raises questions about whether restricted funds were seen as a bonus or additional support while appropriations were seen as an entitlement. In addition, federal funding was viewed as focused on equity and supporting low-income students, while state appropriations and financial aid were viewed as disproportionately benefitting well-resourced institutions and schools. Historically the federal government has supported higher education from a perspective of achieving equity, while states tend to distribute funding widely. Currently institutional leaders in New Mexico seem to feel that federal dollars are supporting their efforts, but they are concerned about the future of many of the grants they receive. This finding raises many important issues in light of the current presidential administration, particularly, what is at stake when the federal role in promoting equity is diminished?

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OBF Is Honing Institutional Focus on Completion in Spite of Flaws

The state’s adoption of OBF seems to have focused institutional purpose around student completions. However, participants felt the decline in state appropriations negatively impacted the incentive of OBF and eventually threaten student success. The new OBF formula was adopted as the state’s main accountability policy, although one participant noted that OBF does not have any mechanism for quality assurance. Transition-point policies are a common policy lever that states employ to improve attainment; however, respondents felt that the OBF formula was creating a competitive environment that is harming transfer.

Attainment Rates and Student Performance Seem to Be Increasing across the State

In spite of cuts to state appropriations, and the resulting impacts on the campuses, student performance metrics are up at the institutional sites and statewide. When asking about strategies campuses are engaging in to improve student performance, I learned that some actions were substantive, improving educational delivery, such as moving to a corequisite remediation model or starting learning communities. However, some actions were less of an improvement to educational delivery and more of one-shot attempt to boost numbers, like mining data to find students who had completed courses needed for certificate programs and automatically awarding them. All three institutional sites said the classroom would be the last place to feel cuts, given a desire to protect their students, but all three described an institutional environment of fear and uncertainty.
Conclusion

A cross-case analysis of state and institutional cases reveals many ways that state policies could be improved to strengthen the ability of MSIs to serve their students. A planned approach to tuition increases, guided by the state, could ensure that tuition growth doesn’t continue to outpace family ability to pay. The Lottery Scholarship could be targeted to students who would not otherwise go to college—specifically, low-income students who are bearing the brunt of tuition increases. If the state wishes to scale back appropriations levels, it could plan declines, and offer support for community colleges who are unable to secure local appropriations. Finally, there is a lack of clear goals and objectives for higher education in the state.

A cross-case analysis also reveals many ways finance policy is influencing the ability of MSIs to serve their students. Cuts to resources are forcing institutions to eliminate positions and programs, and further cuts seem likely to impact the classroom experience. The political culture is negatively influencing policy implementation and progress, creating an atmosphere where institutions don’t feel fairly treated. Federal grants were most often linked to positive student success supports, and attainment rates and overall completions were increasing across the state.
Chapter 9—Concluding Thoughts and Recommendations

Recommendations for Further Research

This study revealed a variety of potential areas in need of further research. I aimed to learn more about the relationship between finance policies and student success, however, there are a variety of other factors that impact campuses and their ability to serve students that were beyond the scope of this study. Institutional leadership can have a strong impact on institutional culture, for better or worse, and more research will always be needed in this area. Finance policies must not only be well designed, but leaders must have the desire and capacities to accept the opportunities to respond. While policy design and synchronicity are important, implementation and response is equally important. At a granular level, research on the effect of institutional leadership when responding to finance policy could be helpful in supporting policy implementation and identifying when leadership deficits inhibit effective implementation.

Second, participants indicated that appropriations were influenced by political connections, even after a formula was adopted to mitigate this. Other finance policies, such as the state’s financial aid scholarship and local appropriations, were influenced by politics connections and ideology as well. Dougherty, et al. (2015) provides research on the political nature of performance funding, but as states continue to explore new funding models and revise old, continued research is needed to ensure that public funds are distributed on the basis of need rather than by political influence. While the research community has focused largely on outcomes based funding in recent years, findings from
this study indicate other finance policies such as local appropriations and financial aid programs are just as easily influenced by political connections and ideology, and also effect campuses that serve low-income students. Participants also indicated that an ideological shift from viewing higher education as a public good to a private good influenced the level of funding that the state was willing to provide. These political forces and ideologies present in policy development and resource allocation have strong implications for under-resourced campuses and the low-income students they serve, and more research is needed to determine how to best protect and support these institutions.

Third, it is well known that decisions regarding higher education finance are often made in silos, with decisions regarding appropriations, financial aid, and tuition made by different actors at different times. Research on states that successfully brought these funding streams into sync could be helpful to other states eager to improve policy alignment. Research on how the motivation to bring these areas into sync gained traction among policy actors could be especially helpful, as well as could the process they went through to achieve greater alignment. In addition, I believe more research on the importance of local funding in achieving institutional financial stability and commitment to community needs could be useful to institutions eager to secure more local buy-in. Research on the effectiveness of federal grants and the effectiveness of messaging the goal of student support that the grants do, could be useful to states as they develop more targeted programs. Finally, in the case of New Mexico, the merit-based scholarship stands out as a prime opportunity to improve higher education finance to meet state attainment goals. More research on states that have moved away from merit-based
scholarships toward need-based scholarships could be helpful.

**Recommendations for Administrators and Faculty**

As Elmore (1979) recognized, policymakers have limited control over policy implementation, and actors at each level have little control over the behaviors and responses of others in the process. Faculty and staff are the point of delivery of providing services to students and thus are the key to successful policy implementation and work toward public goals. Given their role as the front line of policy implementation, faculty and staff should seek to understand the motivation behind, and intended effects of, public policies and goals. Faculty and staff also serve as the communicative conduit between policymakers and students, which means that they are in the best position to communicate to policymakers what is and isn’t supporting student success. For example, many participants stated that local students were often not aware of the eligibility requirements for the Lottery Scholarship. This critical piece of information may not reach policymakers if not brought to light by institutions. Accepting the responsibility of student advocates (not just institutional/organizational advocates) is another way that faculty and staff can contribute to effective policy development.

Institutional administrators and leaders also serve as a critical point of communication in relaying the motivation behind, and intended effects, of public policies and goals to faculty and staff, and challenges with implementation back to policymakers. Because of their important role in the delivery process, institutional leaders and administrators should work with policymakers to develop shared public goals, potentially
goals that will resonate with students as well. When public goals are in conflict, ambiguous, or unappealing, work towards them will be slow, and policy implementation will suffer. While institutional leaders and administrators may regularly share information about policy successes and challenges within their institution, they should also aim to engage in the larger public discourse on the importance of the public purposes of higher education and its important benefit to low-income students.

**Recommendations for Policy**

What actions could state actors take to insure finance policies are working toward a common goal? First, the Governor’s office should develop clearly articulated goals and work to ensure stakeholder buy-in. Without institutional buy-in, progress toward goals may be slow and response to policies may be symbolic more than substantive. In the example of New Mexico, the state rolled out OBF without communicating clear goals that facilitated collaboration. In fact, stating the goal of imposing discipline among institutions was counterproductive, especially in a state with high institutional autonomy and political power. This led to years of unproductive policy development that may have been avoided with diplomacy and shared goals. Collaboration and buy-in are essential elements of policy implementation.

Policymakers should also work to focus state policy on the parts of the educational pipeline where they are losing the most students. In the case of New Mexico, it is widely recognized that K–12 preparation is a barrier to raising higher education degree attainment. However, the state is rolling back its financial commitment to dual
enrollment and does not support remediation success in the OBF formula. New Mexico also has a high number of residents with some college but no degree; however, it has not committed to a statewide effort to encourage return-to-finish or opened up the Lottery Scholarship to returning students. Data suggests that focusing on these two areas of New Mexico’s educational pipeline would greatly improve completion in the state. It is also widely suggested that the state has too many institutions, offering a duplication of services in some areas and stretching resources thinly. However, the state initiated a 5% budget cut across all institutions in FY17, rather than looking at service areas and determining which institutions are meeting state goals and which aren’t, then delivering cuts based on need.

Third, policymakers should look in unison at the level of resources available from local constituents, the state, and students in order to make funding decisions. While New Mexico has historically been one of the most affordable states for students, rapidly increasing tuition levels may eventually threaten that affordability. The NMHED should conduct an affordability assessment in collaboration with institutional leaders to get a more complete sense of the tuition levels students can manage at different income tiers. While the state has no formal authority to control tuition levels, many institutional leaders across the state are committed to insuring access for low-income students, and seem willing to work on solutions to control tuition levels. Local resources, or the willingness of communities to contribute local resources, emerged as a challenge for one institution and a benefit for another, sending a rippling effect throughout the respective institutions. Resources were allocated based on political ideology, not need or public goals. In cases
where community colleges that serve an important regional need are not financially supported by their communities, NMHED should step in with support to either rally local supporters or provide additional funding to mitigate the lack of local support. In general finance policies should more thoughtfully balance who has the ability to contribute to higher education resources and when this balance needs to shift, then plan the shift to happen gradually over time. And given that all 50 states show structural budget deficits (Jones, 2006), the state funds that are reserved for financial aid should only go to the students and institutions that need financial help.

Finally, NMHED and the LFC should assess how higher education finance policies are, or are not, working together to meet state goals. Policies are often developed independently from each other, over different time spans, to meet different goals. When this is the case, opportunities to revise and readjust policies may still appear. In the case of New Mexico, the looming insolvency of the Lottery Scholarship makes it a prime target for revision to meet state goals and work in synthesis with other state policies. Unfortunately this may be a missed opportunity as legislators recently made the decision to fund 60% of tuition rather than making the scholarship last dollar or need based. Although the original intent was to provide access for all high school graduates, the state no longer has the resources to meet this goal. Providing even a high-income threshold—for example, $80,000 a year and making the scholarship last dollar after students receive Pell—would more directly target the scholarship to middle- and lower-middle-income students while increasing the amount of federal funding coming into the state. Or the scholarship could become a need-based grant, helping low-income students manage
escalating tuition prices. NMHED should also explore options to work with institutions on curbing rising tuition. Other states may provide helpful examples, such as Maryland’s approach of tying tuition increases to median income, and creating a rainy day fund to stabilize ups and downs in appropriations levels.

When thinking about the implications of my final research questions, I’m left thinking: What can states do to create an organizational atmosphere conducive to good practices in undergraduate education? A meaningful and successful student experience depends on a variety of personal interactions; a relationship with a faculty mentor, a tutor who takes the time to explain a confusing concept, or membership in a club that makes the student feel at home. Public policy is far removed from these interactions, but it should strive to create an atmosphere where these interactions flourish. This positive institutional atmosphere relies on many things: a shared sense of purpose, commitment to institutional goals, and being actively student-centered. Underlying everything, though, must be a base of adequate resources. It can be difficult to know what the appropriate level of resources are to maintain this positive environment and what level of resources should come from the public versus the students. When encouraging institutions to improve student success, states may see more progress when they use resources efficiently to support students and institutions who would struggle without public support.
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