Reduction in Public Funding for Postsecondary Education in Colorado from 1970 to 2010:

A Study Documenting Change and the Resulting Shift from Public to Private Good

by

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2010
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Robert Loevy

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Venkateshwar K. Reddy

__________________________________________
Date
This study examines and chronicles the change in public funding for postsecondary education in Colorado from 1970 to 2010. Colorado was ranked sixth among states in per capita funding for public higher education in 1970 and declined to 48th in 2010. The study analyzed state appropriations over this time period in five broad categories of spending: K-12 education, health and human services, courts and criminal justice, higher education, and the category entitled “other” combining all remaining functions of state government.

Findings demonstrate that since 1970, after adjusting for inflation, the total state general fund budget appropriations have increased by 231%, K-12 appropriations increased by 314%, health and human services increased by 662%, the courts and criminal justice program increased by 712%. Public higher education general fund appropriations increased 8.9% over this time period and other parts of state government declined by 55%. Since 1970, higher education enrollment in Colorado grew by 138%, thus, in inflation adjusted terms, state spending on higher education on a per student basis declined by 55%. This study also shows that higher education and the other category of state government functions have increased the use of fees or cash funds to offset the loss of the historical share of general fund.
The mixed methods study includes interviews with many current and former Governors, legislators, and higher education officials with knowledge in key areas of the budget and the political process, and chronicles significant events influencing the budget including the Taxpayer’s Bill of Rights (TABOR), expanding federal mandates in Medicaid, Constitutional amendments protecting K-12 funding, the growth of the corrections and criminal justice system, the 2008-10 recession, and other political and public policy choices that led to these changes in Colorado.

The study culminates with the drastic funding cut looming for the state budget following the expiration of temporary federal stimulus funds. The resulting cuts expected for higher education will place the burden of increasing tuition on students. The study recommendations call for leadership to address the underlying problems that are forcing public higher education in Colorado dangerously close to privatization.
Dedication

This dissertation is first and foremost dedicated to my partner in life, my love, best friend, and editor-in-chief, Marilyn, whose constant and unwavering support and encouragement has made this study and my resulting degree possible.

It is also dedicated to my children, Derrick and Tori, whose support of their dad during the many days and nights of studying and writing was so important to my successful completion of this study and the PhD program. I am so proud of both of you.

Additionally, this study is dedicated to my parents, Linda and G. Lawrence Burnett, whose support, enthusiasm, and love throughout my life set an example for me in striving to be a dedicated husband, father, and professional who cares about family, friends, and community.

Finally, this study is dedicated to my grandmothers, Alice Jane Burnett and Sarah Ann Rowe, both of whom always loved me, believed in me, and taught me that hard work and a great attitude can overcome any obstacle.
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I would like to acknowledge my staff in the Administration and Finance units of the University who have helped me immensely during the years I have spent in this program. They were there solving problems, representing me in meetings and events, and simply making it possible for me to participate actively in this doctoral program. It is because of their unwavering support that I have reached this stage in the process of finishing this degree—and I am grateful for their kindness and encouragement as I complete this study. I must also thank Provost Peg Bacon for her constant support and enthusiasm for my work in this program—this support mattered so much throughout this process. I am also grateful to the campus leadership team and many staff and faculty for their support of my work in this program.
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“We live in an age in which knowledge holds the key to our security, welfare, and standard of living; an age in which technological leadership will determine who wins the next round of global competition, and the jobs and profits that come from it; an age in which events move so rapidly that almost 80 percent of the computer industry's revenues come from products that did not even exist just two years ago.”
—Charles M. Vest, 1995, President, Massachusetts Institute of Technology

A college or university education has become an essential tool for developing critical reasoning skills and knowledge for workers in any industrialized or developed country in the world. Grounded in the foundations set by our nation’s forebears, colonists first established mostly private religious colleges, and public and private institutions of higher learning were eventually established in every state of the Union. As the nation became industrialized and then moved toward a high-tech, knowledge-based economy in the latter half of the twentieth century, hard work alone could not guarantee success, and an equal opportunity for the American dream became more dependent on postsecondary education. This development, along with a rapid increase in institutions and opportunities for many to attend institutions of higher learning, forever changed the landscape of preparation for a career in a complex and growing economy. Over the past two centuries, but particularly over the past 60 years, state-supported institutions of higher learning became a critical path for middle and low-income citizens, women, and students of color to obtain a competitive edge, and postsecondary education assistance became a cause to which state legislatures were motivated to make investments of public funds (Thelin, 2004).

This study specifically examines the path of Colorado’s state support from being one of the top ten states in funding public higher education to one of the lowest over the past four decades. This study shows that dramatic change was not due to a drop in wealth
or the financial ability of the citizens of the state to contribute to public higher education. Rather, a series of forces and discrete decisions shifted much of the state general fund over this time frame to other areas of the state budget such that most of the funds left for discretionary appropriations are those for higher education. When there is little flexibility for legislators to address political or critical needs of the state, higher education funding levels are threatened if not indeed reduced. The voter-adopted Taxpayer’s Bill of Rights (TABOR) (Colorado Constitution, 2010e) included a brilliant ratchet effect in economic downturns, which, absent some later retooling in 2005, prevented tax revenues from being spent at previous levels, further reducing the ability of the state government to fund public services after a downturn of an economic cycle.

The economic downturn of 2008-2010 has caused most states to drastically reduce funding to many government services, programs and institutions. While the non-discretionary federal and state mandates in Medicaid and human services remain, higher education is one of the “discretionary” areas where substantial reductions in public support can occur due to its perceived and real ability to generate other types of revenue. Colorado’s path from one of the best funded systems of public higher education in the nation to one of the lowest is an important phenomenon to explore, chronicle, and understand. The lessons learned from the citizen-initiated referenda, legislatively referred ballot measures, Constitutional amendments and statutory mandates, along with their effect on major public programs, such as public higher education, must be documented and analyzed so as not to repeat the mistakes of the past as Colorado and other states invest for the future.
Background

Organized universities have been in existence since the 12th century in Europe, and the concept of providing the opportunity for a postsecondary education accompanied settlers to North America. These immigrants wanted to construct institutions similar to those found in their native Europe for the development and enrichment of their new homeland. Indeed, colleges were one of the first institutions founded after settlers reached the coast of North America in 1620. “Harvard University . . . is the oldest institution of higher learning in the United States. [It was] founded 16 years after the arrival of the pilgrims at Plymouth” (Harvard University Guide, 2007, p. 1). The reasons for establishing higher education institutions varied, but some of the motivation was to train clergy in the new world. “The British were quick to export higher education to their North American colonies, not because of the home government’s policy but because the English colonists, often dissenters in religion, needed to train their own pastors, as dissident and intolerant as themselves” (Perkin, 1997, p. 21).

Even though most institutions of higher learning created during the colonial period were private and founded for mainly religious purposes, states began establishing public colleges near the beginning of the Revolutionary War (Lingenfelter, 2008). Many of these private religious colleges began to move toward more emphasis on general education in literature and the natural sciences. Perkin (1997) noted that one of three major developments in the history of US higher education was the establishment of state universities with the openings of the University of North Carolina in 1795 and the University of Georgia in 1801. The development of state colleges and universities
continued across the U. S. as states embraced the vision of creating learning environments to advance personal as well as state and local interests.

Vest (2007) said, “State universities were established above all else to create opportunity for young citizens to advance themselves, and to strengthen the states’ economies and general welfare” (p. 18). Examples of this general welfare might include educated voters, jurors, and parents to make more informed decisions regarding families or communities. To this point of “general welfare,” McMahon (2009) noted that there are other social benefits to higher education: “An important part of these [higher education] benefits are private non-market benefits that positively affect each graduate’s quality of life in ways other than just income” (p. 118). Additionally, he noted:

Important social benefits are generated by higher education and not just by research . . . including direct benefits to the quality of life . . . such as living in a democracy, enjoying human rights, political stability, and lower crime rates and criminal justice system costs. (p. 254)

Additionally, McKeown-Moak (2009) stated:

Throughout the history of higher education in the US, states, localities, and the federal government funded higher education because the benefits of the academy were perceived to derive at least in part to society or to public purposes. In the 18th and 19th centuries, postsecondary education was nearly free to students because the benefits were perceived to accrue to society rather than to the individual student and his family. (p. 194)

Thus, there are also non-economic benefits to the society and public at large that are served by having opportunities for postsecondary education available for increasing skills
and lifelong learning opportunities beyond the economic issues of workforce development and private earning capacity. Haveman and Sneed (2006) noted, “Most Americans expect the nation’s colleges and universities to promote the goal of social mobility to make it possible for anyone with ability and motivation to succeed” (p. 125).

The pace of creating new public colleges was advanced when the US Congress passed the Morrill Act in 1862 and the second Morrill Act in 1890 to provide land grants to Union states and territories to develop additional public colleges and universities that offered programs in professional and applied disciplines (Lingenfelter, 2008; Perkin, 1997). This increase was also due in part to the passage of the Servicemen’s Readjustment Act of 1944, commonly referred to as the G.I. Bill after World War II, which gave millions of servicemen the opportunity to get a college degree after serving in the armed forces. This Act had a substantial affect on the number of students who previously may not have had the financial wherewithal to attend a trade school, college or university. This effort also allowed returning veterans of all backgrounds to have a chance to gain knowledge and skills to help the nation recover from the war. According to the US Department of Veterans Affairs (2009):

In the peak year of 1947, veterans accounted for 49% of college admissions. By the time the original G.I. Bill ended on July 25, 1956, 7.8 million of 16 million World War II veterans had participated in an education or training program. (p. 1) Another public policy that led to greater demand for postsecondary education was the nation’s response to the cold war and the space race in the 1950s. The federal government enacted policies as well as financial incentives for universities to establish and expand
programs to increase scientific research and development to match advances made by the Soviet Union, particularly in the area of defense (Lingenfelter, 2008).

Many states expanded public colleges and universities and established new ones to meet the demand created by new generations of students seeking a college education and to meet the country’s research and development needs during the post-war years. Community colleges were established as a relatively new form of higher education to provide students with an entry point to higher education or to master specific trade or vocational skills. By 1960, there were over 2,000 institutions of higher learning in the United States, with some 3.6 million students enrolled.

Perkin (1997) stated, “The overwhelming features of American higher education have been its diversity and its restless expansion” (p. 22). Indeed, by 1975, an estimated 77% of all enrollments in higher education in the US were in public colleges and universities. By 1999-2000, the expansion of public and private institutions of higher learning totaled over 4,000 institutions in the US, with nearly 15 million students in attendance. Currently, there is no state in the country without a state-supported institution of higher learning. It is clear that there has been dramatic growth in the number of publicly supported institutions of higher learning, along with a concomitant increase in the number of students attending colleges and universities over the past 50 to 75 years.

However, while the number of institutions has increased exponentially over the last several decades, the relative percentage of operating budgets and financial aid provided by the states to these institutions has been steadily declining. Many public institutions and systems of higher learning across the US are gradually being redefined to more of a “private good” than a “public good,” as state and local governments contribute
less of the funds needed to deliver the educational services to the students. Mumper (2001) stated, “Several states seem to have decided to shift the responsibility of paying for higher education from taxpayers to students and their families” (p. 327). Zemsky, Wegner, and Iannozzi (1997) noted, “What has been weakened—and perhaps abandoned—is the public consensus that both the individual and society benefit from the public investment in postsecondary education” (p. 77).

It is in the context of downward adjustments to state financing of public higher education that this research study examined the policies of one state, Colorado, toward funding public higher education.

**Colorado’s Higher Education System**

To provide postsecondary educational opportunities for its citizens, over the course of the past 140 years the state of Colorado has built a system of state-supported colleges and universities. One researcher on Colorado higher education noted:

The development of higher education in Colorado replicated the standard pattern of higher education in the western states where yeasty optimism inspired the founding of grass-roots academies whose mushroom growth reflected an energetic faith in progress and a speculative bent, religious dedication and sectarian interest, provincial pride and a genuine commitment to learning.

( McGiffert, 1964, p. 19)

Many public and private colleges and universities were established in various parts of Colorado in response to political influences, local requests, and in areas of the state where
population growth and economic development goals generated interest in postsecondary education.

During the past century, Colorado’s population has increased from an estimated 540,000 in 1900 to 4.9 million in 2009, an 807% increase over this period (Forstall, 1995; US Census Bureau, 2009). Recent estimates from the US Census Bureau now project Colorado’s population at over five million residents for the first time in the state’s history. Hubbard (2009) stated:

Colorado . . . grew at the fourth-highest rate in the country amid the worst recession in decades. US Census Bureau estimates released today showed that the state's population hit 5,024,748 in July of this year, adding almost 90,000 people from last year. (p. B1)

Colorado has been a state that has been growing steadily over the past century, and this growth is projected to continue as demographics and net migration patterns are expected to continue uninterrupted into the future. Indeed, a recent Denver Post editorial noted, “Census projections show the state is expected to gain nearly 800,000 more people during the next two decades, growing significantly faster than the national average” (Editorial, Colorado’s growing pains, 2009). Thus, it appears that absent an unforeseen drastic change in population projections, the state will need a well-developed and competitive system of public higher education to meet both current and projected needs for postsecondary education.

To meet the growth in demand for more higher education services over the past century, twelve four-year public colleges and universities along with fifteen public two-year junior and community colleges have been established and located throughout the
A list of the twelve Colorado four-year institutions, their locations, the year these were first established, and the number of students enrolled as of 2009 is presented in Table 1.1.

Table 1.1

*Public Institutions of Higher Education in Colorado—Four-Year Colleges and Universities*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
<th>Founded</th>
<th>Enrollment – Headcount Fall, 2009</th>
</tr>
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<tbody>
<tr>
<td>Adams State College</td>
<td>Alamosa</td>
<td>1921</td>
<td>2,803</td>
</tr>
<tr>
<td>Colorado School of Mines</td>
<td>Golden</td>
<td>1879</td>
<td>5,124</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>Fort Collins</td>
<td>1870</td>
<td>25,893</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>Pueblo</td>
<td>1933</td>
<td>5,049</td>
</tr>
<tr>
<td>Fort Lewis College</td>
<td>Durango</td>
<td>1911</td>
<td>3,770</td>
</tr>
<tr>
<td>Mesa State College</td>
<td>Grand Junction</td>
<td>1925</td>
<td>6,968</td>
</tr>
<tr>
<td>Metropolitan State College</td>
<td>Denver</td>
<td>1965</td>
<td>22,615</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>Boulder</td>
<td>1876</td>
<td>31,143</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>Colorado Springs</td>
<td>1965</td>
<td>8,493</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>Denver &amp; Aurora</td>
<td>1912</td>
<td>17,511</td>
</tr>
<tr>
<td>University of Northern Colorado</td>
<td>Greeley</td>
<td>1889</td>
<td>11,244</td>
</tr>
<tr>
<td>Western State College</td>
<td>Gunnison</td>
<td>1901</td>
<td>2,064</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>143,756</strong></td>
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A list of the fifteen Colorado two-year public colleges, including the main location of the college, the year it was founded, and enrollment in fall 2009 is presented in Table 1.2.

Table 1.2

*Public Institutions of Higher Education in Colorado—Two-Year Colleges*

<table>
<thead>
<tr>
<th>Institution</th>
<th>Main Location</th>
<th>Founded</th>
<th>Enrollment – Headcount Fall, 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aims Community College</td>
<td>Greeley</td>
<td>1967</td>
<td>5,510</td>
</tr>
<tr>
<td>Arapahoe Community College</td>
<td>Littleton</td>
<td>1965</td>
<td>9,969</td>
</tr>
<tr>
<td>Colorado Mountain College</td>
<td>Glenwood Springs</td>
<td>1967</td>
<td>5,741</td>
</tr>
<tr>
<td>Colorado NW Community College</td>
<td>Rangely</td>
<td>1933</td>
<td>1,377</td>
</tr>
<tr>
<td>Community College of Aurora</td>
<td>Aurora</td>
<td>1983</td>
<td>6,293</td>
</tr>
<tr>
<td>Community College of Denver</td>
<td>Denver</td>
<td>1967</td>
<td>10,918</td>
</tr>
<tr>
<td>Front Range Community College</td>
<td>Westminster</td>
<td>1968</td>
<td>18,713</td>
</tr>
<tr>
<td>Lamar Community College</td>
<td>Lamar</td>
<td>1937</td>
<td>1,080</td>
</tr>
<tr>
<td>Morgan Community College</td>
<td>Fort Morgan</td>
<td>1970</td>
<td>1,918</td>
</tr>
<tr>
<td>Otero Junior College</td>
<td>La Junta</td>
<td>1941</td>
<td>1,660</td>
</tr>
<tr>
<td>Pikes Peak Community College</td>
<td>Colorado Springs</td>
<td>1968</td>
<td>13,572</td>
</tr>
<tr>
<td>Pueblo Community College</td>
<td>Pueblo</td>
<td>1933</td>
<td>6,592</td>
</tr>
<tr>
<td>Red Rocks Community College</td>
<td>Lakewood</td>
<td>1969</td>
<td>9,143</td>
</tr>
<tr>
<td>Trinidad State Junior College</td>
<td>Trinidad</td>
<td>1925</td>
<td>1,812</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>96,795</strong></td>
</tr>
</tbody>
</table>

These 27 public colleges and universities, serving over 240,000 students in 2009, were built over the course of more than a century, a period from 1870 to 1983. The incentives for growing this education system are generally local, regional, and statewide desires to provide affordable postsecondary educational opportunities for the citizenry in diverse geographical areas of the state. Other local economic interests are served by the establishment of colleges and universities by providing local employment and attracting students from areas outside the local community. These students not only pay for their educational costs, but also spend money locally, which generates additional revenue for these communities.

As the 38th state admitted into the United States in 1876, Colorado had relatively few privately operated colleges to educate its growing populace compared to states in the Midwest and on the East Coast. Indeed, Vest (2007) noted, “Private colleges, often founded with religious and secular objectives, dominate in the East . . . and that in the Midwest and Great Plains, [there is] only a smattering of private institutions” (p. 10). Several private colleges were established after Colorado was first named a separate western territory, but many of these failed and were closed even before the 1920s (McGiffert, 1964). Thus, the majority of postsecondary educational institutions and the attendant capacity reside in public institutions in Colorado. In fact, Colorado College, Regis University, and the University of Denver are the only major private institutions in the state founded in the late 1800s that are still in operation today (McGiffert). While a number of additional private and proprietary institutions have been developed and
established in the state over the years, these three major private schools, together, currently enroll approximately 29,000 students annually compared to over 240,000 enrolled at the 27 publicly supported colleges and universities in Colorado (Colorado Department of Higher Education, 2010b). Thus, approximately 11% of students attend these three private institutions (Colorado College, 2009a, Regis University, 2009, and the University of Denver, 2009) compared to 89% at public institutions. However, additional for-profit, proprietary and private colleges do offer educational programs in Colorado, providing additional postsecondary capacity separate from the public and private institutions listed.

A report from the National Center for Public Policy and Higher Education (2004) estimated that 85% of students participating in higher education in 2004, in the state of Colorado, were enrolled in publicly supported two- and four-year institutions. A report from researchers at the Delta Project (2009) estimated that 78% of college students in Colorado in 2006 were enrolled in public institutions of higher education. We can conclude from these different sources of data that the state of Colorado depends on the public higher education system to deliver approximately 75-85% of the postsecondary education services to the citizens of the state. This reliance on public institutions to deliver the vast majority of postsecondary education in Colorado illustrates the importance of this system in keeping the state competitive in the national and global economy by providing opportunities for advanced training and an increasingly complex workforce. This system is also important in delivering educated workers to meet the needs of small and large businesses. In addition, the system provides social benefits for the state and nation through the art and cultural opportunities it offers. Indeed, providing
an educated populace has been shown in many studies to be beneficial to society as a whole in lower health care costs, lower crime rates, and higher civic engagement (McMahon, 2009).

The demand for higher education services reinforces the notion that the development and support of the public college and university system has been and remains critical to training and providing learning opportunities for a significant number of Colorado’s citizens. The support that the state provides these institutions is an important component in underwriting the costs of a college education so that it remains affordable and attainable, particularly for those students without the financial means or the scholarship opportunities to attend a private college or university.

**Financing Instruction in Public Higher Education**

While colleges and universities utilize many different funding sources to meet the variety of missions that are a part of every institution, resources that are not restricted to a specific purpose are the most necessary and coveted to sustain the operations of a college campus. These types of resources are often referred to as fungible in that they can be applied to meet payroll, operations, library materials, technology expenses, utilities, and any other expense to deliver services to the students, faculty, and public that are served by the institution. In contrast, many funds received by colleges and universities are designated for specific purposes and cannot be spent for general needs and expenses of the institution. Examples of restricted or designated funds include sponsored projects, financial aid, funded research, gifts with specific designations for use, and auxiliary funds that are received by business-type or self supporting units on a campus. Examples of
business-type units on college campuses, often referred to as auxiliary operations, include bookstores, residence halls, recreation centers, day care centers, parking services, and student centers (Goldstein, 2005).

The general operating support appropriated from state government to institutions of higher education is held in what is commonly termed the “general fund.” These funds can be used for any purpose to support the general educational mission of the campus. This operating support is also termed a “state subsidy” to a public institution in that these funds are generally meant to subsidize the education of state residents who are enrolling in classes and programs. The other major component of any campus’ general support comes from the tuition received from students. Together these two components represent 80-90% of many public campuses’ general revenue to support the operations and educational mission. Lyall and Sell (2006) noted that self-generated funds such as gifts, auxiliary services, and tuition now account for more than 70% of most college and university budgets, as the public share of funding continues to decline. Heller (1999) summed up the relationship between tuition and state support: “The level of institutional support of public institutions helps to determine the tuition paid by students; the higher the support provided by the state, the lower generally is the tuition paid by all students” (p. 65).

From a simple standpoint, Goldstein (2005) noted that a federal commission referred to public higher education funding as the following model: Costs to provide education and related services minus the price paid in tuition generally equals the subsidy that is funded by state and local governments. A graphic example of this equation is shown in Figure 1.1:
Cost of Education - Price of Tuition = Public Subsidy

Figure 1.1. Model of public higher education funding (Goldstein, 2005).

Therefore, when the public subsidy per student in this model is reduced by state or local governments, public colleges and universities have two distinct options to address such a reduction. The institution can either reduce the cost of education through cost-efficiency or direct expense reductions, increase the tuition rates paid by each student, or some combination of these two strategies to balance the equation with a lower public subsidy amount. This equation is central to the analysis in this study since over the past three decades, Colorado has reduced its public subsidy for public higher education as a percentage of the cost to provide educational services.

Thus, while colleges and universities often report total revenues or funding including research awards, business operations, gifts, and other contracts awarded by governments and business, the general fund of a campus is the key component to funding the faculty and most of the staff salaries, maintaining the majority of the physical plant of the campus, and providing the materials necessary to support a learning environment. The funds appropriated by a state government are critical to the overall educational mission of the institution, as the taxpayers are intending to subsidize a portion of the educational costs of resident students. Goldstein (2005) stated that, “State and local governments are the single most important source of financial support for higher education in the United States” (p. 33). When state funds are not increased to match increased demand or necessary expansion, or are, in fact, reduced, pressure mounts to backfill these shortages with tuition revenues, the only other large source of unrestricted funding to maintain the
operating fund base for public institutions. Unless an institution is growing the number of students attending, the only way to increase tuition revenues is to increase tuition rates that each student must pay. Additionally, a growing population of students is eventually capped by the resource limits of a campus, including classrooms, faculty, and other infrastructure such as computers, libraries, and laboratories. To grow enrollment, a college must offer a competitive campus environment, degree programs that are in demand, and faculty who by their work and teaching skills attract students to enroll at the institution (Martin, 2005). When surrounding or competing states provide more state support to higher education, both tuition rates and potential quality of the degrees and campus are potentially more favorable in these other states.

The decline in state support which often triggers tuition rate increases is central to the research in this study. Important factors included the political challenges for institutions and policy makers of tuition rate increases, as well as the other constraints of state budgeting which limit funding options. This is particularly the expectation of those who are college-bound—that their state will help provide an affordable education—but some taxpayers and their representatives, the legislators, may not agree.

**Colorado’s Decline in Funding Public Higher Education**

Over the past 40 years, Colorado has declined precipitously compared to other states in the amount of tax support for general operating expenses it provides to its public colleges and universities. The drop in funding in Colorado is even more pronounced given that, overall, state support among the 50 states for public higher education has declined over the past two to three decades, and Colorado’s ranking has changed from
being in the top ten among the states to third from last, or 48th. Higher education analyst Mortenson (2002) stated, “Over the last 25 years, the tax effort made by states to fund higher education has declined in every state, by an average of 27.4 percent when controlled by state personal income” (p. 1). Mortenson noted that one measure of a state’s effort in funding public higher education is analyzing appropriations as a factor of a state’s relative wealth or productivity, as measured by personal income. Thus, clearly Colorado is not the only state struggling to fund public higher education, but may be in a more precarious position for sustained funding than other states due to a number of factors that were explored in this research study.

State support can be measured in a number of ways, but since the early 1960s a report from researchers at Illinois State University has tracked annual appropriations by state and provided calculations of this support in terms of per capita operating funding for public higher education. This report, published continuously since 1960, has become known as the “Grapevine Report” and tracks data for every state (Palmer, 2009). This report first began comparing states in fiscal year (FY) 1971-72 in terms of per capita appropriations for higher education as one method to measure the relative financial effort that states were making toward their systems of public higher education adjusted for population differences among the states.

To facilitate a comparison of the state of Colorado’s support of public higher education, it is necessary to identify an appropriate subset of the 50 states that can be used to measure how Colorado’s support compares in terms of a historical perspective, regional perspective, trends over time, and the most current data available. The Chronicle of Higher Education annually publishes an almanac of financial, demographic, and
enrollment data for public higher education in the US. In this report, the *Chronicle* separates the states in the country into six regions for reporting and comparison purposes. Colorado’s data and report are included in the Mountain West states region, along with Arizona, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming (Kelderman, 2009). These eight states represent the vast majority of the US located in the Mountain Time zone and are generally similar states in terms of economic drivers, length of time since attaining statehood, are some of the less populous states, and have other similarities warranting inclusion in a regional comparison. Indeed, the almanac reported that while these eight states are geographically diverse, “The economic landscape is less variable” (p. 58). The report stated that public higher education in most of the states in this region had benefited from mineral resource development and tourism. The article noted that the open spaces of the West that were previously used for ranching had been increasingly developed for drilling for oil, natural gas, and coal, and that these important resources were significant drivers of jobs and tax revenues.

Beginning in 2005, Colorado College initiated an annual project involving research and focus on issues important to the Mountain West states including its home state of Colorado. This effort includes faculty, students, and citizens, as well as experts from across the Rocky Mountain region, and examines issues such as water resources, growing metropolitan areas within the region, wildlife issues, historic preservation, and other salient issues. This “State of the Rockies” research effort defines the Rocky Mountain west for its annual research and reports as the eight states of Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming (Colorado College, 2009b). Thus, while there are certainly distinguishing and unique features for
each of the eight Mountain West states, it is appropriate to use the selected seven
Mountain West states as a comparison group for the state of Colorado to analyze public
support of higher education.

Colorado ranked sixth among all 50 states in FY 1971-72 with $50.65 spent per
capita on higher education operating support. Colorado ranked third among the Mountain
West states, with Wyoming fourth in this same year (Chambers, 1972). In FY 2009-10,
the latest year that data are available from the Grapevine Report, Colorado ranks 48th in
per capita spending on higher education, while Wyoming ranks first, and all other
Mountain West states were higher in state appropriations per capita than Colorado
(Palmer, 2010b). Table 1.3 details the per capita expenditures and ranking changes for the
eight Mountain West states, including Colorado, along with the national averages for per
capita spending.

Table 1.3

<table>
<thead>
<tr>
<th>State</th>
<th>1971-72 Appropriations</th>
<th>Per Capita</th>
<th>Rank</th>
<th>2009-10 Appropriations</th>
<th>Per Capita</th>
<th>Rank</th>
<th>Rank Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>113.4</td>
<td>$50.65</td>
<td>6</td>
<td>679.6</td>
<td>$135.26</td>
<td>48</td>
<td>(42)</td>
</tr>
<tr>
<td>Arizona</td>
<td>97.5</td>
<td>53.61</td>
<td>5</td>
<td>1,103.8</td>
<td>167.36</td>
<td>44</td>
<td>(39)</td>
</tr>
<tr>
<td>Idaho</td>
<td>34.1</td>
<td>46.93</td>
<td>9</td>
<td>389.1</td>
<td>251.74</td>
<td>23</td>
<td>(14)</td>
</tr>
<tr>
<td>Montana</td>
<td>30.6</td>
<td>43.58</td>
<td>15</td>
<td>179.0</td>
<td>183.64</td>
<td>40</td>
<td>(25)</td>
</tr>
<tr>
<td>Nevada</td>
<td>18.6</td>
<td>37.51</td>
<td>27</td>
<td>501.1</td>
<td>189.57</td>
<td>37</td>
<td>(10)</td>
</tr>
</tbody>
</table>
New Mexico 45.3  44.73  11  877.4  436.59  5   6  
Utah     50.4  46.05  10  687.3  246.83  25 (15)  
Wyoming  18.3  54.35  4   305.4  561.22  1   3  
US avg.  --  37.85  --  --  245.37 --  --


These data illustrate that among the states in the Mountain West, no state over the 39-year period from 1971 to 2010 dropped farther in the state-by-state ranking of public tax support than Colorado. Indeed, two of Colorado’s border states, New Mexico and Wyoming, moved up in the comparative rankings while five others also declined compared to their ranking in 1972, though none other than Arizona approaches the decline in Colorado’s funding of public higher education. What these data also show is that among these selected eight states, in FY 2009-10 the seven states similar to Colorado spent at least 23.7% more per capita on public higher education than did Colorado. In fact, Wyoming appropriated over 315% more per state resident to its public higher education system than Colorado in the latest reporting year.

Colorado was 33.8% above the national average for state support per capita of public higher education in 1971-72, and by 2009-10, the support had declined to 55% below the national average of $245.37. Figure 1.2 graphically illustrates the per capita funding levels of the Mountain West states in both 1971-72 and 2009-10 in relation to national averages for the same years. It is clear that while Colorado was competitive with
the other seven Mountain West states in terms of state funding for public higher education in 1971-72, all other states in the region are investing substantially more per capita in 2009-10. Indeed, among these eight states in 2009-10, only Arizona and Montana appropriate at a similar level to Colorado, and both are spending at least 23.7% more per capita than the state of Colorado.

![Figure 1.2. Comparison of eight Mountain West states’ per capita appropriations for higher education in 1971-72 and 2009-10, with comparison to US averages.](image)

As noted by Mortenson (2002), another method of examining a state’s support in public funding is to analyze the relative wealth or income of the population of a state. One can assert that a state with higher income or wealth per person would have greater financial capacity to fund public services, including higher education. One measure of a state’s capacity to fund public services, including higher education, is the average amount of income that a resident of the state earns annually. This measure is referred to as per capita income and is calculated quarterly and annually by the Bureau of Economic Analysis (BEA) in the US Department of Commerce. This research bureau defines
personal income as “income received by all persons from all sources . . . [it] is the sum of net earnings by place of residence, rental income of persons, personal dividend income, personal interest income, and personal current transfer receipts” (US Bureau of Economic Analysis, 2009). This measure is widely accepted as a reliable gauge of a state’s or a nation’s income and wealth, and changes or variations can help one understand differences in economic circumstances, particularly when income is measured on a per person basis, that is, per capita income.

The per capita personal income for Colorado in 2008 was $42,377, the second highest amount among the eight comparison states in the Mountain West, trailing only Wyoming at $49,719. Additionally, Colorado’s per capita income in 2008 was 6.6% above the US average of $39,751. Dividing per capita support of public higher education by the per capita income levels generates a factor or ratio of support for higher education, controlling for variances in state personal income. Data in Table 1.4 reflect the latest population estimates, per capita personal income, the state support per capita for higher education from Table 1.3, and the computed factor or ratio for support based on per capita personal income. Data are calculated for Colorado and the seven other Mountain West states along with the US average.
Table 1.4

*Comparison of Population & Public Higher Education Expenditures, and Ratio of Higher Education Spending as a Percentage of Per Capita Income, as of 2009*

<table>
<thead>
<tr>
<th>State</th>
<th>Population 2009</th>
<th>Per capita personal income</th>
<th>Higher Ed expenditures per capita</th>
<th>Expenditures as a percentage of personal income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado</td>
<td>4,939,456</td>
<td>$42,377</td>
<td>$135</td>
<td>.003</td>
</tr>
<tr>
<td>Arizona</td>
<td>6,500,180</td>
<td>32,953</td>
<td>167</td>
<td>.005</td>
</tr>
<tr>
<td>Idaho</td>
<td>1,523,816</td>
<td>32,133</td>
<td>252</td>
<td>.008</td>
</tr>
<tr>
<td>Montana</td>
<td>967,440</td>
<td>34,256</td>
<td>184</td>
<td>.005</td>
</tr>
<tr>
<td>Nevada</td>
<td>2,600,440</td>
<td>40,353</td>
<td>190</td>
<td>.005</td>
</tr>
<tr>
<td>New Mexico</td>
<td>1,984,356</td>
<td>32,091</td>
<td>437</td>
<td>.014</td>
</tr>
<tr>
<td>Utah</td>
<td>2,736,424</td>
<td>30,291</td>
<td>247</td>
<td>.008</td>
</tr>
<tr>
<td>Wyoming</td>
<td>532,668</td>
<td>49,719</td>
<td>561</td>
<td>.011</td>
</tr>
<tr>
<td>United States</td>
<td>304,059,724</td>
<td>39,751</td>
<td>245</td>
<td>.006</td>
</tr>
</tbody>
</table>


These data show that among the eight states in this comparison, Colorado is second in per capita income in this group. However, in terms of expenditure on higher education as a percentage of personal income, Colorado is last among the group by a wide margin and is half of the US average of 0.006. Additionally, with the exceptions of Arizona, Montana and Nevada, the other four neighboring states appropriate at least
twice as much of a percentage of state income than Colorado for public higher education, and in some cases, the amounts are two and three times the investment that Colorado is making. With the exception of the higher education expenditures per capita data, Table 1.1 and Table 1.2 use data from separate sources, but both reveal a similar trend: Colorado is seriously trailing surrounding states in allocating public funds to public higher education. This factor is termed the “higher education public support ratio” in this study as it takes into account the per capita income levels, or wealth, of each state, and divides the public support for higher education by the income generated per person in the state. Figure 1.3 illustrates the formula for this ratio:

\[
\begin{align*}
\text{Higher Ed Expenditures per capita} \\
\text{___________________________} &= \text{Higher Education Public Support Ratio} \\
\text{Per capita Personal Income}
\end{align*}
\]

Figure 1.3. Formula for higher education public support ratio.

Although Colorado is the second “wealthiest” state of the group, and has the second largest population and economy of the mountain states, its relative support of state institutions of higher education is last among this group of states by this ratio. In a recent blog, Mortenson (2010) concurred in this assessment of Colorado’s effort:

Measuring changes over the last 30 years—between FY 1980 and FY 2010—Colorado has reduced its state fiscal investment effort in higher education by (far) more than any other state: by 69.6 percent. No other state can match this abysmal record of disinvestment in public higher education over the last three decades. Figure 1.4 illustrates the higher education public support ratio for Colorado compared to the other Mountain West states and the national average.
Figure 1.4. The higher education public support ratio for Mountain West states and the US average in 2010. Data from Table 1.4.

Use of Federal Funds to Offset State Support Reductions in Higher Education

The 2008-2010 economic decline of the US and most economies around the world led the 111th US Congress to pass a sizable domestic government spending package to assist states and individuals across the nation with the effects of the precipitous economic decline. This legislation, commonly referred to as the “stimulus package,” was passed as the “American Recovery and Reinvestment Act of 2009” (ARRA) and signed into law by President Obama on February 17, 2009 (American Recovery and Reinvestment Act of 2009). Among many provisions was the creation of the “State Fiscal Stabilization Fund” in Title XIV of the legislation, and the express purpose of this section of the legislation was to assist state and local governments dealing with reduced tax revenues due to the economic recession. This legislation stated that one of the five main purposes of the Act
was, “To stabilize State and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases” (American Recovery and Reinvestment Act of 2009, Section 3(a)(5)). All 50 states have received ARRA funds from the federal government as a result of this law, and Colorado is no exception.

As the recession affected Colorado, the General Assembly and the Governor had to look for ways to balance the state’s budget due to declining tax receipts. Since Colorado has a balanced budget requirement in the state Constitution (Colorado Constitution, 2010d) and cannot raise tax rates without a popular vote of the electorate due to provisions of TABOR, lawmakers and the Governor had little choice but to reduce spending by state government to balance the state budget. This situation was not unique to Colorado, as many states also reduced funding for public higher education as a budget balancing strategy and used ARRA funds to offset a portion or all of these state support reductions.

Many state budget officials and national higher education organizations had begun compiling data about these temporary federal funds assisting states with higher education funding and reporting on varying levels among these states. According to a February 11, 2010 report based on a study by the State Higher Education Executive Officers (SHEEO) cited by Stripling (2010), of all of the 50 states, Colorado was the most dependent upon federal ARRA funding to backfill state support for public higher education in FY 2008-09. Additionally, only 15 of the 50 states used ARRA funding in FY 2008-09 to assist in balancing state budgets for public higher education. The SHEEO report offered a look at this national trend of using temporary ARRA funds, stating:
As enrollments soared and state dollars dried up, the temporary fix of federal stimulus money staved off significant financial losses for higher education that are still yet to be fully realized, according to a report released today by the State Higher Education Executive Officers. In the 2009 fiscal year, state support for higher education fell by $2.8 billion to $77.9 billion, but an infusion of $2.4 billion in federal funds largely offset those losses. Absent a dramatic recovery that no one expects in the coming year, however, colleges and universities are likely to feel the brunt of the economic downturn in 2010 and 2011, the report suggests. That’s cold comfort for institutions that have already been cutting budgets, raising tuition and considering or implementing enrollment caps. (Stripling, 2010, p. 1)

These trends of reduced state support and reliance on ARRA funding only increased in FY 2009-10. A portion of the continuing budget reductions in FY 2009-10 for public higher education in Colorado was replaced with federal ARRA funds from Colorado’s portion of the State Fiscal Stabilization Fund. The number of states that used ARRA funding to assist public higher education increased from 15 in the prior fiscal year to 43 in FY 2009-10 (Palmer, 2010a). However, according to data from the Grapevine Report, the states of Colorado and Montana were the second most dependent on ARRA funding for public higher education among the 43 states utilizing these federal funds to offset funding reductions to public higher education. Colorado and Montana have 18% of total higher education spending funded by ARRA in FY 2009-10, trailing only Massachusetts with 21% of higher education spending funded by ARRA.

While these data are certainly compelling, the overall utilization and amount of stimulus funds used to fund public higher education nationally increased dramatically
from FY 2008-09 to 2009-10. ARRA funding for public higher education increased by 50% over the $2.8 billion spent in FY 2008-09 to an estimated $4.2 billion to support higher education (Palmer, 2010a). Overall, this support represented 5% of the total of the 50-state investment in public higher education in 2009-10. These federal funds were not intended to be permanent base additions to state budgets and acted as “back filler” for lost tax revenues, but absent state actions to find replacement revenues, large deficits or reductions are likely to result. Table 1.5 details the use of ARRA funds in FY 2009-10 for Colorado and the seven other Mountain West states with a national comparison and compilation.

Table 1.5


<table>
<thead>
<tr>
<th></th>
<th>2009-10 State Funding</th>
<th>ARRA Funding</th>
<th>2009-10 Total Public Funding</th>
<th>Percentage of Funding from ARRA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Colorado</strong></td>
<td>$679.6</td>
<td>$150.7</td>
<td>$830.3</td>
<td>18%</td>
</tr>
<tr>
<td>Arizona</td>
<td>1,103.8</td>
<td>84.2</td>
<td>1,188.0</td>
<td>7%</td>
</tr>
<tr>
<td>Idaho</td>
<td>389.1</td>
<td>17.7</td>
<td>406.8</td>
<td>4%</td>
</tr>
<tr>
<td>Montana</td>
<td>179.0</td>
<td>38.0</td>
<td>217.0</td>
<td>18%</td>
</tr>
<tr>
<td>Nevada</td>
<td>501.0</td>
<td>92.4</td>
<td>593.4</td>
<td>16%</td>
</tr>
<tr>
<td>New Mexico</td>
<td>877.4</td>
<td>15.5</td>
<td>892.9</td>
<td>2%</td>
</tr>
</tbody>
</table>
Table 1.5 illustrates that among the Mountain West states, Colorado utilized at least 63% more ARRA funds than any other state to support public higher education in 2009-10. In percentage terms, only the states of Montana and Nevada are near or at Colorado’s percentage of ARRA support for higher education. Figure 1.5 illustrates these differences in ARRA support among these states and the US average.

Figure 1.5. Percentage of FY 2009-10 state budgets for higher education funded by ARRA funding. Data from Table 1.5.

The relatively heavy reliance on federal ARRA funds that are short-lived, by a state that already ranks low in per capita funding among the states, presents a formidable policy and funding challenge for lawmakers, the Governor, public institutions of higher education, and the public in fiscal years 2010-11, 2011-12, and beyond. Absent a robust
economic recovery, and the attendant increasing tax revenues such a recovery would provide, Colorado will continue to be in a tenuous funding position with respect to public funding for public higher education.

The Research Problem

Clearly, over the past 40 years Colorado has lost ground when competing with other states’ public colleges and universities for public resources to operate institutions, hire faculty, and develop programs and operations that are appealing to students and employers. Colorado’s public colleges and universities must compete for accomplished faculty and outstanding students with other institutions, both public and private, in order to offer quality academic programs and learning experiences that are comparable to educational opportunities offered at competing schools (Kane & Orszag, 2003, Martin, 2005). Simply stated, Colorado’s public colleges and universities operate and compete in a national market for talented faculty and administrators who can generally choose from over 4,000 institutions in which to work and advance their research interests and careers. Thus, as the state continued to reduce its support for public higher education, institutions have been forced to become increasingly efficient. The past 40 years of state funding reductions have forced institutions to rely increasingly on tuition paid, by students and parents, to support a greater portion of the general operating costs of running the institutions.

This increasing price to attend public higher education can have an effect on the amount of a family’s income that is devoted to college educational costs, the amount of money that students must secure in loans to invest in their education, and, if these costs
seem insurmountable, may even affect the decision to go to college. It is also possible that increased costs to students for public postsecondary education could negatively affect graduation rates, as some students may need to extend the time it takes to complete their education because of the financial need to work while taking classes.

It is within these challenges that this research effort seeks not only to describe how Colorado arrived at this significantly lower public funding level, but also to examine what potential solutions may be available to public policy officials.

Research Gap

While substantial literature and numerous studies have examined reduced funding for public higher education in the US overall, there have been no comprehensive studies depicting the plight of the institutions in Colorado. This gap is particularly interesting because Colorado faces several unique Constitutional constraints. Young (2006) noted that the Colorado Constitution has been amended through the adoption of a tax and expenditure limitation (TEL) known as TABOR (Taxpayer’s Bill of Rights, 1992). This provision provides for a continual reduction in state government funding due to expenditure limits being indexed to the Denver-Boulder-Greeley Consumer Price Index (CPI) instead of being indexed to personal income in the state. While this work does describe pending reductions to and the challenges associated with the language of TABOR, it only briefly describes the affect on public higher education along with other state services in Colorado.

Original research was conducted in a doctoral dissertation that examined the public policy process which evolved in 2003 and 2004 in establishing the nation’s first
voucher funding system for public higher education in Colorado (Protopsaltis, 2008). This research covered a number of areas of the political and financial dynamics facing public higher education due to TABOR and other Constitutional constraints, and documented some of the financial challenges facing public higher education. However, this work centered on the political and policy strategies used to create the Colorado College Opportunity Fund and sought to answer a significantly different set of research questions than those addressed in this study.

Perryman (1993) conducted additional original research on state legislator attitudes toward funding higher education in Colorado, but this work was distinctly different than the 40-year analysis of state funding and options for public policy changes that is set forth in this study. Perryman surveyed legislators from the Colorado General Assembly on attitudes and dispositions toward voting for public funding for higher education and summarized and analyzed the results of these surveys. The research in the current study differs from Perryman’s work in that it identifies the series of decisions and events that occurred over several decades to take funding for Colorado’s public higher education system from one of the top-funded systems in the US to near the bottom of current rankings.

It is in the context of this research gap that this study chronicles and documents the changes that have occurred to public higher education over the past four decades in Colorado.
Research Questions

The research questions for this study include the following:

1. What factors have contributed to the relative decline of state support for public higher education in Colorado since 1970?

2. What legal and political decisions, developments, and constraints have contributed to public higher education receiving less state support per capita in Colorado compared to other Mountain West states and most of the nation?

3. What options and recommendations are available to the leaders of Colorado to address the issue of public funding of public higher education?

Theoretical Framework

Several established theories have been integrated and applied to create a theoretical framework for this study. The nature of public policy and choices between competing interests in the allocation of scarce public funds are directly relevant to this study and have been integrated with systems theories and their attendant affect on organizations and their environments to provide the lens through which this research study was completed.

Public choice theory. Public choice theory was first advanced in the late 1960s and early 1970s by Tollison (1984) to help further define decision making in the political arena about the allocation of scarce resources, essentially economic decision making in a political environment. Public choice theory is a lens that assisted this research endeavor by providing a focus on the political decision-making process in Colorado over the past four decades with respect to higher education funding. Tollison (1984) noted that “Public
choice theory attempts to offer an understanding, an explanation of the complex institutional interactions that go on within the political sector” (p. 13). This theory helps with the understanding of the complex interplay between the institutions of public higher education in the state and the elected officials, such as the members of the General Assembly and their attendant committees, as well as the Governor and the Colorado Commission on Higher Education.

Mueller (1996) defined public choice theory as “the economic study of non-market decision making, or simply the application of economics to political science” (p. 65). Mueller further noted that “the basic behavioural postulate of public choice, as for economics, is that man, be he voter, politician or bureaucrat, is an egotistic, rational, utility-maximizer” (p. 60). In this sense, public choice theory has guided the analysis of decisions made by the legislature and the electorate in Colorado since 1970 to gain an understanding of the key decisions and their effect on funding of public higher education. This theory was used to examine critical decisions made by the electorate, including the 1992 adoption of TABOR, which set annual revenue limits for state and local governments in the state Constitution.

At a basic level, this theory was also a guide as to the formation of the public higher education system in Colorado. Mueller (1996) stated that “Government provision of these ‘public goods’ can be an efficient resolution of market failures” (p. 60). As noted previously, the forming of public institutions of higher education in Colorado was in large part a reaction to the lack of the private sector options available to the majority of Coloradans. Private institutions provide some postsecondary options for Colorado residents, but the capacity is limited compared to the public sector, and the cost of
attendance is much higher than the cost at public institutions. The response to this “market failure” in Colorado has been a public policy of establishing and growing the public higher education system.

The application of public choice theory to this study involves examining the choices that both elected officials and the voters make with respect to prioritizing uses of finite public resources. This theory assisted in framing the questions and analysis contained in this study by providing one lens with which to examine the choices that policymakers have to make in funding various programs of state government. Former state legislator and current Mesa State College President Tim Foster summed up this challenge when he stated:

I remember talking with former State Representative and Joint Budget Committee Chairman Tony Grampsas about tough budget choices among different programs. He reminded me and several other members of the legislature that budgeting and choices that have to be made were never good versus bad choices—rather, these were always good versus other good choices.

It is in this context that public choice theory is used in this study to understand and frame the difficult choices that the public and its elected representatives face when deciding how much public funding can be allocated to public higher education.

One other dimension of public choice theory that has application in this study is the analysis of the voting public, and decisions that Colorado voters have made over the past 40 years that have affected the state budget levels and priorities. The public has voted on several key Constitutional and statutory measures that affected property taxes, the state sales tax rate, borrowing for highway spending and prioritizing spending for K-
12 education ahead of other expenditures within the state budget. These are examples of public choice examined in this study in the sense of the public choosing certain tax rates and levels to fund government, choosing to fund one section of the budget at the expense of other parts of the budget, and making other key taxation and policy decisions that affect public services, including public higher education.

**Chaos theory.** Chaos theory was first developed by natural scientists as a method or framework for explaining random and non-stable events in nature (Levy, 1994; Thietart & Forgues, 1995). It has been adapted for use in the social sciences by economists and is used to help explain some events that are not easily explained. “Systems seem to be governed by relationships which dynamically interact with one another and are prone to chaotic behavior” (Thietart & Forgues, 1995, p. 20). Levy (1994) noted that “chaos theory is the study of complex, non-linear, dynamic systems” (p. 168). This theory is relevant to decision-making such as when the Colorado electorate adopted initiated referenda, such as Amendment 23 in 2000, which set annual state funding requirements for the public primary and secondary education system (K-12) in Colorado, irrespective of whether the state had the resources to implement the requirements of the amendment in any particular year or economic condition (Colorado Constitution, 2010e). Ease of public initiated referenda, complicated funding formulas, federal funding mandates, political pressures, and media “spin” of issues contributed to a state of complex, non-linear systems that affected state policy makers and budget officials. Chaos theory helps explain the significant challenges Colorado’s elected officials faced and the resulting affect on public higher education funding.
Levy (1994) noted, “One of the major achievements of chaos theory is its ability to demonstrate how a simple set of deterministic relationships can produce patterned yet unpredictable outcomes” (p. 168). As Colorado has gradually reduced its share of the educational expense for public higher education institutions, similar strategies, such as increasing tuition rates, were observed across the state. However, during recent years of marked tuition increases, some institutions have reported student enrollment declines while other colleges and universities have increased student populations (Colorado Department of Higher Education, 2010b). Thus, while predictable enrollment patterns were analyzed and observed, unpredictable outcomes were documented as well. Levy further stated that “chaotic systems never return to the same exact state, yet the outcomes are bounded and create patterns that embody mathematical constants” (p. 168). This framework was utilized to understand the new “state” of public higher education institutions following the marked, documented, and observable reduction in public funding.

Levy (1994) noted that systems or industries in chaotic environments operate in a sphere where long-term planning is difficult. “In chaotic systems, small disturbances multiply over time because of nonlinear relationships and the dynamic, repetitive nature of chaotic systems” (p. 170). This principle of chaos theory assisted in analyzing the gradual reduction in state funding over time and how continued reductions have multiplied the effects to evolve into a funding system that looks quite different from a financial standpoint than it did in the early 1970s. The repetitive nature of the annual appropriations and funding cycles represents an important context in which public higher education operates in Colorado and every state.
Chaos theory provided one lens through which the environment surrounding the funding of public higher education in Colorado, and the political and public policy process, can be examined within its chaos-like atmosphere. There is probably no other public system with as much chaos as a system of democratically elected officials making, implementing, or enforcing laws. There are many interests that must be weighed by elected officials, including tax policy, regulation of the private sector, the size and span of government-provided services, not to mention re-election, special interests and their potential funding, and a preference for spending in one’s own legislative district, among many other factors in legislating and governing. For instance, business interests desire a low tax rate and generally fewer rules and regulations from state government to assist with the growth and development of business enterprises. Often consumer interests or government interests will press legislators for more regulation or higher taxation of businesses to support goals that are important to these groups. The federal government can impose spending mandates or provide temporary stimulus funds to the states. In the case of public higher education, parents and students generally favor lower tuition and fee charges to keep the cost of postsecondary education more affordable. Institutional leadership often requests expanding resources to deliver new or expanded services, competitively compensate faculty and staff, and provide resources to improve the institution from an academic or service perspective. Generally, taxpayers want lower taxes and fees for the services provided by governments.

With so many competing interests and many players influencing the legislative process, many courses of action are not easily explained to the public who are directly
affected by these decisions. It is in this chaotic environment that state support for public higher education is determined on an annual basis in Colorado.

**Complexity theory.** Complexity theory also finds its origins in the natural sciences and is a theory built on existing work in chaos theory. Specifically, the theory attempts to better explain how order is sometimes restored in a chaotic world (Ruthen, 1992). A developing field known as “complexity” was formed to address areas or principles that chaos theory alone could not explain. This theory has also been applied in the social sciences field and was appropriate for contributing an element of the framework in this research.

Lewin (1999) wrote about complexity theory’s application to businesses and the environment in which firms operate as they work to thrive and survive in a world of opposing pressures. He stated:

> Complex adaptive systems are composed of a diversity of agents that interact with each other, mutually affect each other, and in so doing generate novel, emergent, behavior for the system as a whole. The system is constantly adapting to the conditions around it, and over time it evolves. (p. 198)

It appears that chaos theory alone would not be sufficient to analyze the myriad changes in a complex environment that are faced by public higher education institutions in the state. Multiple disciplines have found chaos theory falls short of explaining complex systems:

Beginning in the 1970s, physicists flirted with the idea that chaos theory could account for the behavior of complex systems. Although chaos theory provided
many mathematical tools useful for the study of complexity, it did not capture the wide range of dynamics exhibited by complex systems. (Ruthen, 1992, p. 132)

The Colorado system of public higher education, with 27 individual institutions, 11 different governing boards, one coordinating board, and legislative as well as executive branch budget processes all in a public forum, is clearly a complex system of decision-makers, public and private influences, and many other players where decisions adapt and evolve to annually serve over 240,000 students statewide. In this way, complexity theory added a lens by which decisions, responses, and developments could be analyzed as part of the study in this research endeavor. Indeed, Clark (2008) noted that “universities have adapted to every passing age, and they are now showing anew that they can construct the means of renewing themselves, transforming themselves, to become adaptable organizations” (p. 472). How the colleges and universities in Colorado adapt to this new reduced funding level from the state is a central focus of this work, and complexity theory assisted in understanding the strategies for renewing and transforming these institutions to a new funding model.

Lyall and Sell (2006) noted that public institutions are complex organizations, stating, “Universities, like other complex organizations, respond to the incentives and disincentives that resources provide” (p. 9). Additionally, two complexity researchers stated:

In complexity, environment affects system behavior in two ways. First, it constrains what is possible and “selects” behaviors that are most appropriate within current institutional arrangements. Second, perceptions of environment
influence agents’ internal models. And there may be interaction among both processes. (Harrison & Singer, 2006, p. 35)

In this sense, complexity theory has guided the analysis of how institutions and the public higher education system in Colorado behave when the public funding environment is reducing support. This theory also provides a lens to examine financial planning adjustments made by institutions and systems as state support declined.

The Colorado public higher education system can be considered a system that is adapting to a changing fiscal reality, involving a number of agents including governing board members, campus administrative leaders, faculty, students, parents, alumni and the public that the institutions were built to serve. Lewin (1999) noted that businesses are complex adaptive systems, and these organizations are part of another complex adaptive system, the economy. While public higher education institutions are public by their founding and nature, they operate as businesses with a product (educational services) to sell, customers (students) to attract and support, and expectations to meet (learning and diplomas). In this sense, examining public higher education from a business standpoint helps with understanding the adapting strategies that are being employed over time as state support continues to decline. Lewin also noted that “complexity scientists have identified a few simple rules by which complex adaptive systems operate” (p. 202). Two of these rules directly applied to the research in this study. The first rule is that “the source of emergence is the interaction among agents who mutually affect each other [and the second is] small changes lead to large effects” (p. 202).

Similar to concepts related in chaos theory, these complexity rules frame the analysis in this study as there are numerous agents interacting with the management and
financing of public higher education in Colorado. Additionally, the rule that “small changes lead to large effects” can be analyzed over the past 40 years as higher education funding in Colorado has declined in small ways, resulting in significant reductions over a long period of time. The effects of these changes were an integral part of the research in this study.

There is no question that the political and public policy environment surrounding public higher education funding in Colorado and other states is characterized by a dynamic process involving a number of complex systems. Since complexity theory was first developed, it has been researched and applied to living cells as well as human society, with the key factor being that “it must be capable of forming and changing strategies” (Ruthen, 1999, p.132). As the state of Colorado has reduced the amount of state support it provides to colleges and universities over the past several decades, it was appropriate to analyze the response from the institutions and their leaders and to examine how strategies have been altered due to this substantial funding change. Additionally, this framework provides the ability not only to analyze whether strategies have been altered or adapted, but also whether these strategies have been successful. There is ample evidence that tuition charges to students have increased markedly during the decline of state funding, and complexity theory contributed to analyzing the affect of this main adaptive strategy.

The universities and colleges in Colorado are complex systems of learning, research, resource compilation, both internal and external politics, and operations that serve to meet a wide variety of teaching, research, and public service missions. These institutions must also operate in a complex environment including state regulation,
budgeting and politics, a national environment where federal regulation, research and financial aid funding are driven by Congressional and administration mandates, and a local environment where land use and other measures of local concern can affect the operation of the institution.

Ruthen (1992) noted that complexity research conducted by Cowan showed that “complex systems can learn and adapt to changing conditions in the environment with which they interface” (p. 132). In this study, complexity theory is utilized to examine how public colleges and universities in Colorado have adapted to markedly lower state support to operate the institutions over the past four decades. The common elements of complexity and chaos theory include system or organization adaptation to an environment that is unpredictable and changing in ways that are challenging to the organization or system. Both theories were adapted for use in the social sciences from the natural sciences and help explain the unforeseen or complex interactions that occur when organizations are subjected to a changing environment.

It was appropriate to consider the relationship between complexity and chaos theory in this research study as complex and adaptive organizations are operating in a chaotic environment, with competitors, allies, skeptics, and other stakeholders who share an interest in the public higher education system. Theoretical biologist Stuart A. Kauffman has stated, “The bold hypothesis [in complexity theory] is that complex adaptive systems adapt to and on the edge of chaos” (as cited in Ruthen, 1992, p. 140). Additionally, Lewin (1999) said that “In today’s fast-changing business environment, companies will survive only if they are able constantly to adapt and evolve through operating optimally as a complex adaptive system” (p. 198). It is certain that this
principle applies to public higher education in Colorado as it tries to adapt to a new fiscal condition where many agree in principle with supporting higher education, but where the fiscal basis of public funding of higher education is dependent upon a complex economic, legal, and political system.

**Synthesizing three theories.** These three theories—public choice, chaos and complexity—guide and provide the framework for this research study. The intersection of these three theories provides a combined framework that can best describe the funding and political environment in which public higher education operates on a continual basis. These institutions navigate challenging processes for acquiring state support from the state budget, already constrained by non-discretionary commitments, the executive budget process and coordination with the Governor’s budget office, to the legislative budget process, with all of this taking place in a political atmosphere where party affiliation, influence, and public policy choices are made in allocating scarce resources. Figure 1.6 illustrates the combination of these three theories along with the intersection that guided the research effort in this study.
The synthesis of the three theories used in the research.

The intersection of these theories incorporated the public choice theory environment, in a context of chaotic and complex system interaction with how these public choices were made over the past 40 years in Colorado that affected public funding for public higher education. This combination of theories provides a framework for the study questions and lines of inquiry to ensure that a thorough analysis explains the dynamics and forces that have affected higher education funding in Colorado since 1970.

**Significance of the Study**

Higher education funding in Colorado was in a precarious position during FY 2009-10, with millions of dollars of temporary federal American Recovery and Reinvestment Act (ARRA) providing backfill funding for reductions in state funding of Colorado’s public postsecondary institutions. Indeed, in FY 2009-10, temporary or one-
time federal funds from the ARRA were increased to nearly 54% of the previous levels of state support for public higher education. The January 27, 2010 budget adjustment request from the Governor’s Office of State Planning and Budgeting to the Colorado General Assembly detailed a total requested reduction of state support for higher education in FY 2009-10 of $382.0 million from a base of $705.9 million completely backfilled to this base level with federal ARRA funds (Colorado Office of State Planning and Budgeting, 2010). With little choice but to accept the Governor’s recommendation to reduce state support to higher education, the staff of the Joint Budget Committee recommended that the legislature adopt the Governor’s plan with some slight modifications during budget setting deliberations (Joint Budget Committee, 2010a). These ARRA funds are not projected to continue to sustain higher education spending at these levels after FY 2010-11.

With a weak economy providing reduced tax revenues for the state, the prospects for improvement in higher education funding in the next two to three years appear bleak if not non-existent. With Colorado already almost last among the 50 states in public funding, projections of continued declines in funding may place Colorado in a “leading edge” or “cutting edge” role as the first state in the US to seriously consider some form of limited or full privatization of public higher education. Indeed, the chair of the legislature’s Joint Budget Committee, Senator MaryAnn “Moe” Keller (D-Wheat Ridge) was quoted in a September 2009 speech to Denver business leaders as stating, “We may have reached the point where we can no longer fund higher education” (Capitol Solutions, 2009, p. 1). Senator Keller also stated that there are relatively few discretionary areas available for cuts to balance a weakening state budget other than
higher education. Senator Keller’s concern was echoed by Senate Majority Leader John Morse (D-Colorado Springs) who noted at this presentation that “eliminating higher-ed funding must be taken into consideration at this point” (p. 1).

It is not only legislative leaders who understand that Colorado is facing a fiscal crisis for public higher education, Governor Bill Ritter appointed a blue ribbon panel on December 17, 2009 led by prominent business leaders to examine public higher education funding and policies, which is expected to be complete by late 2010. “It really is about writing the future of education in this state and higher education in this state. It really is about a master plan,” said Governor Ritter at a press conference announcing the formation of this panel and study (as cited by Paulson, 2009, p. 1). While this panel is looking at a comprehensive plan for public higher education including potential new revenue streams, the research described herein takes a historical look at how the state arrived in this position. These key findings could inform future policies regarding higher education funding.

Not only do leading policy makers and executives at the state Capitol understand the gravity of the fiscal situation facing higher education in Colorado, but so does the Denver Post editorial board. In a December 2009 editorial, the Post said, ”Colorado policy makers must find stable funding streams for transportation (the $250 million annually from FASTER was just a start), higher education and other vital government services” (Editorial, Colorado’s growing pains, 2009). Thus, the only statewide daily newspaper’s editorial board clearly understands the challenge facing Colorado and underscores growing concern over the state’s fiscal situation. The current economy places public higher education in a precarious situation and validates the need for this research.
This study tracks how and why the higher education share of the state budget declined over the past four decades and identifies significant events and decisions, both at the ballot and in the legislative process, that have affected funding for public higher education in the state. Understanding the complex systems and pressures of the economy over time with a focus on higher education could enable state and higher education leaders to look at new ideas and ways of funding higher education in Colorado in a sustainable manner. This investigation sheds light on the political and public policy challenges that face our elected officials in crafting a state budget under a myriad of constraints, including initiated legislation and a weak economy producing weak sales, income, and property tax collections, in a state with a growing population. At the very least, an understanding of how Colorado’s funding of higher education went from near first in the nation to nearly last deserves an analysis of the issues for other states to examine and evaluate to prevent a similar fate.

Limitations of the Study

The limitations of the study include the current fiscal climate, which may force states to continue to further reduce budgets for public higher education and other public services. While the latest data available are used in this research, these data will almost assuredly be changing for Colorado, the other Mountain West states, as well as the other 42 states across the nation as these states work to balance revenues and expenditures in their state budgets in an uncertain economy. For purposes of this study, a forty-year period from FY 1970-71 to FY 2009-10 is examined and chronicled. The FY 2009-10 budget year ended on June 30, 2010 and while a new FY 2010-11 budget has been
enacted by the state of Colorado, there is tremendous uncertainty at present whether this budget will need to be substantially rewritten in early 2011 due to weak tax collections and whether Congress will extend an enhanced financial Medicaid match to the states in FY 2010-11. A recent *Denver Post* article quoted Governor Bill Ritter, Jr. who, in testifying before the legislature’s Joint Budget Committee regarding a projected FY 2010-11 shortfall, said, “I’m very hopeful that we would not have to do anything respecting K-12’s budget in this $75 million balancing plan we’ll submit in August (2010)” (as cited by Hoover, 2010, June 22). This article also noted that when creating the FY 2010-11 state budget, Colorado and some 29 other states assumed that Congress would extend additional Medicaid matching funds to assist states financially. Unfortunately, these funds may not be forthcoming, and Hoover (2010) noted, “Not getting the [Medicaid] extension money would result in having to cut nearly $212 million from the 2010-11 general fund budget of $6.9 billion.” Thus, due to the current uncertainty of the stability and viability of the state FY 2010-11 budget, these amounts were excluded from the analysis in this study.

A limitation of this study is that for consistency purposes, appropriations data rather than actual expenditures by higher education or any other functional area of state government were used in this study. This is due to the complicating factors in accounting for how funds are spent in accounting documents, such as audited financial statements compared to budgeting or appropriations documents. Oftentimes, general funds and cash funds are combined for accounting purposes and are reported as operating expenditures for state departments or agencies. Such a practice eliminates the opportunity to analyze appropriations of different types of fund sources within this study. While some
appropriations were certainly not completely spent by departments or agencies in state government during the study period of 1970 through 2010, using appropriation data was an appropriate method of studying and analyzing the choices made and the levels of appropriations for different areas of the state budget structure over time. It can be assumed that most of these appropriations were spent each year by state departments, as it is common for budget analysts to examine reversions of state funds at the end of each fiscal year and examine if adjustments should be made to the appropriation in subsequent fiscal years. Additionally, since 1986, general fund appropriations for higher education institutions in the annual appropriations act are not subject to reversion to the state at the end of any fiscal year. Thus, utilizing appropriation amounts for higher education along with other areas of state government keeps comparisons consistent throughout the study.

An additional limitation of this study is that the cost of delivering educational services or cost-efficiencies was not addressed. This study focused on examining revenues available to fund higher educational services, most notably state support as well as some overall cash funds and tuition generation analysis. However, the study does not attempt to address cost drivers or to analyze the expenditure side of the equation. Rather, this study discusses revenue decline from the traditional source of state support and what factors have changed the share of the state budget appropriated to higher education over the past four decades. It is a reasonable assumption that all states face similar costs, adjusted for local cost of living conditions, in providing similar public services.

Another limitation of the study is that all students enrolled at the public colleges and universities in Colorado are not Colorado residents and are, instead, studying in the state at these institutions as non-residents. This factor is more pronounced at some
universities and colleges than others; however, all public universities and colleges in every state have some mix of resident and non-resident students, so this factor should not limit this study in any significant way. This is the case because non-resident students are generally charged more in tuition than residents to deliver an education to the student. The practice supports the notion that the citizens of Colorado favor supporting resident students in their postsecondary educational pursuits. In this sense, non-residents subsidize resident students’ educational costs, as these additional non-resident tuition revenues are placed into a campus’ general fund.
Review of the Literature

This literature review covers the dimensions that inform the research questions and the examination of the political and economic factors leading to the reduction in state funding of higher education in the US and particularly in the state of Colorado. It begins with a review of the concept of a *national imperative* for having a workforce that is adequately prepared to create and innovate to help keep the US economy competitive with other developed nations in an increasingly competitive, knowledge-based, global economy. A section is included that explores the concept of *human capital theory* and the value of the investment in higher education versus earning power and other marginal costs. The review then discusses the nation’s system of *postsecondary education and its role in the US workforce development*. This review includes the role that public higher education plays in providing an educated workforce to meet global competitive challenges and assisting individuals in qualifying for enhanced income opportunities. Because public higher education in the US is primarily a state and locally-driven system, aided by federal policies and funding, many would extend this concept to the state level and analyze the effects of public higher education on a state economy and workforce.

Another dimension includes a review of literature on the shifting views of the primary beneficiary of postsecondary education in the US and how changing views regarding the burden of tuition affect funding of public higher education. This is the concept of *private good versus public good*, and this portion of the review will scan the latest literature to examine this tension and its affect on public higher education in the US. The next section will document literature surrounding the budgeting pressures and
changes in *public funding of public higher education*. The review includes literature regarding the political influences from the legislatures and Governor’s office outside of direct budgeting that can influence student decisions to attend college and indirectly affect state funding amounts. Earlier studies on higher education funding by state officials are cited and indicate troubles ahead. Studies analyzing the tax limitations and expenditure restrictions passed by the voters are included, as these relate to pressures on higher education funding. The last section documents research detailing the affect of tuition increases on *equity* issues such as the ability to attend postsecondary education.

**National Imperative of Higher Education for Workforce Development**

One reason that postsecondary education is critical to the economic health of the US and its workforce is the revolutionary change that has occurred over the last half of the 20th century from an industrial economy, with its heavy reliance on “blue collar” workers, to a knowledge-based economy, which requires constant learning and the ability to adapt to changing technologies during a worker’s productive years. Van Horn (as cited by Twentieth Century Fund, 1996, p. 61) noted, “During the 1950s and 1960s, the skills young people gained by completing high school enabled them to succeed in the workplace. Jobs paying good wages and requiring minimal education were abundant”. Changes in the economic landscape since this time have made the need for more advanced training and education beyond high school even more important as available jobs require greater skills and abilities. Princeton economist William Baumol weighed in on this issue when he stated, “What is happening to manufacturing today is precisely what happened to agriculture earlier in this century” (as cited by Uchitelle, 1994, A1). As
the economy of the US evolves again, from an industrial to a knowledge-based economy, it is important that postsecondary opportunities are available and affordable for citizens to compete globally in this new landscape.

Noted management author Peter F. Drucker identified this trend as early as 1959 and began to write extensively about this fundamental economic transformation in the 1990s. He opined, “Knowledge workers will not be the majority in the knowledge society, but in many countries, if not most developed countries, they will be the largest single group in the population and the workforce” (1995, p. 233). He continued with a pointed reference to postsecondary education’s importance in this change when he stated, “The knowledge worker gains access to work, job, and social position through formal education” (p. 233). Thus, Drucker has argued that postsecondary educational opportunities in the new economy are important not only for workers but also for society so that regions and communities can be economically competitive.

Without the problem solving and analytical foundation embodied in postsecondary education, industrial workers are not prepared to advance past the practical skills they possess to the knowledge-based jobs in the new economy. Drucker (1994) stated:

The great majority of new jobs require qualifications the industrial worker does not possess and is poorly equipped to acquire. They require a good deal of formal education and the ability to acquire and to apply theoretical and analytical knowledge. (p. 62)

Essentially, postsecondary educational opportunities are critical to the economy and the knowledge-based companies in need of this different type of labor skill. Drucker (1995)
summed up this issue saying, “The first implication of this is that education will become the center of the knowledge society, and schooling its key institution” (p. 234). Thus, as the nation evolves yet again economically, just as it did in the early nineteenth century from an agricultural economy to an industrial one, so too now is the country faced with the challenges of providing opportunities for workers to succeed in an economy largely dependent on knowledge-based skills. This change has implications for workforce and economic development goals across the US as public support for higher education declines.

Forde (2002) noted that workforce development intersects with economic development in that, “Workforce development, while having some overlapping functions with economic development, primarily concentrates on developing the human capital for improved performance on the job” (p. 34). Thus, having institutions such as universities and community colleges in a state or region is essential to promoting economic vitality to sustain economic growth by providing a trained workforce, equipped to meet the needs of local businesses and industries.

This profound skill change was noted by researchers who examined the public’s attitude toward postsecondary education across the US, “It is the decline of industrial workers and [the] subsequent rise of ‘knowledge workers’, so-called because they require formal education and continuous lifelong learning” (Dillman, Christenson, Salant & Warner, 1995, p. 4). These researchers noted that while manual skills and abilities are still needed, these must be combined with a deeper knowledge base for success in today’s fast changing workplace. They stated, “Many new jobs, like physical therapists and
computer technicians, still entail manual skills, but combine them with theoretical knowledge that cannot be obtained through apprenticeships or on-the-job training” (p. 4). Thus, as the US continues to move away from a largely industrial economy to a knowledge based economy, it is critical that postsecondary education opportunities of all types are available to the citizens to provide personal and economic opportunities in a changing US economy.

Human Capital Theory and Its Application in Postsecondary Education

The decision to attend a college or university is an individual or a family-oriented decision for many Americans, young and old. There are direct costs associated with postsecondary studies, to be sure, but there are also opportunity costs to the individual and society when citizens are forgoing a productive role in the economy to study full time instead of being in the workforce earning an income. The opportunity cost is great for the individual in that earnings and wealth that could have been acquired while attending college are deferred as an additional investment in higher education. One reason that these personal investment decisions are continually made is the potential for greater professional opportunities and greater potential for higher economic earnings once this stage of learning is completed and credentials are secured. The affect that these economic concepts had on decisions to attend postsecondary education were important to this research endeavor.

As far back as the early 1960s, scholars were developing the theory of human capital investments and formation. Blaug (1976) declared:
The birth of human capital theory was announced in 1960 by Theodore Schultz. The birth itself may be said to have taken place two years later when the *Journal of Political Economy* published its October 1962 supplement volume on “Investment in Human Beings.” This volume included, among several other path-breaking papers, the preliminary chapters of Gary Becker’s monograph *Human Capital*, which has ever since served as the *locus classicus* of the subject. (p. 827)

Blaug reported that human capital theory was developing, with many more scholars writing about the subject in the 1960s and early 1970s having a deeper understanding of the theory and its application. Specific to this research study, human capital theory treats postsecondary education as an investment rather than as a consumptive good, which was the prevailing pre-1960s view. Blaug (1976) stated, “All these phenomena—health, education, job search, information retrieval, migration, and in-service training—may be viewed as investment rather than consumption, whether undertaken by individuals on their own behalf or undertaken by society on behalf of its members” (p. 829). What this means to this research is that human capital theory notes the investment made by society to provide education for individuals, such as public support of postsecondary education.

As chronicled by Blaug (1976), Gary Becker (1962), then of Columbia University, was one of the first scholars to write extensively about this new field of economics and how it affected investments in education, including postsecondary education. Becker examined why physical capital differences alone could not explain income variations among individuals or nations when he proffered that some other force might be at work to explain these differences. He stated:
People differ substantially in their economic well-being, both among countries and among families within a given country. For a while, economists were relating these differences primarily to differences in the amount of physical capital since richer people had more physical capital than others. It has become increasingly evident, however, from studies of income growth that factors other than physical resources play a larger role than formerly believed, thus focusing attention on less tangible resources, like the knowledge possessed. A concern with investment in human capital, therefore, ties in closely with the new emphasis on intangible resources and may be useful in attempts to understand the inequality in income among people. (p. 9)

This was an entirely new theory and approach to how and why investments in human capital, through education, could explain or predict why some citizens had greater economic earning capacity than others. Human capital theory has important implications in the individual’s decision to attend postsecondary education and society’s investment in its human capital through support of public higher education institutions.

Checchi (2006) said, “We can look at educational choice as investment decisions, where current income opportunities are renounced in exchange for better income prospects in the future” (p. 19). Checchi also created economic equations to explain why so many students and parents in the world choose to make an investment in postsecondary education, a substantial investment when direct and indirect costs, also termed opportunity costs, are considered. He concluded that “More talented people will demand more education, because their marginal return is higher” (p. 23). In this sense,
not all students can take equal advantage of postsecondary education because of differing capabilities of the individual. Finally, Checchi found:

Human capital investment theory predicts that people will demand education up to the point where the marginal benefit is equal to the marginal cost. Marginal benefits depend on labour market conditions, on resources invested in education and on individual ability. Marginal costs depend on direct costs of schooling and, possibly, on individual ability. (p. 27)

Therefore, postsecondary education, under the economic assumption of perfect markets and perfect information, would provide that individuals make perfect educational investments until these costs outweigh the benefits for them personally. This is an economic assumption, however, and the decision to invest in postsecondary education involves making the best informed decision possible about the scholarly abilities of the student, the financial ability of the family or student, and the best chance for personal growth and success. These personal decisions are made each day by millions of American students and their families and are vital to the viability of the vast network of public and private postsecondary institutions in the US.

An additional economic consideration for public higher education is the imperfect financial markets that exist in postsecondary education, and if uncorrected by government intervention, can lead to differential access to higher education. Checchi (2006) points to a substantial difference between human capital and physical capital, such as machinery, buildings, plants, and equipment that firms utilize to produce a product or service. He asserts that human capital, unlike physical capital, cannot be collateralized, or resold, except in the case of slavery. Therefore, it is a unique input for any business or
organization that relies on human capital to help produce its products or services. When low-income families desire postsecondary education for their students, they must look to loans or financial aid in the form of grants to help pay the direct costs of instruction and educational services. Lenders often insist on collateral, such as a home or other substantial asset, to secure loans for those in financial need. While the US government does attempt to assist with loan guarantees for many families and students, this need to obtain financial assistance is a unique pressure faced by students of lower financial means compared to students with similar academic abilities from higher wealth or income families. According to Checchi, this phenomenon can lead to higher marginal costs for less affluent students for the same education due to the interest costs charged over time and pledging of collateral required to receive loans. He said, “Individuals are asymmetrically affected by this occurrence, since only individuals from poor families need to borrow in order to finance their schooling” (Checchi, 2006, p. 26). Checchi may be correct that individuals from poor families often need to borrow funds to finance postsecondary educational costs, but this phenomenon is also increasingly the case for middle income families and students, as costs to attend postsecondary education continue to rise.

This fundamental difference in marginal cost to attend postsecondary education has important implications for this research project in that public higher education, at its inception, was established to provide quality and lower cost higher education opportunities, particularly for those of limited financial means.
Postsecondary Education’s Role in Workforce Development

As far back as 1944 and in the post-World War II era, US policy focused on providing increased educational opportunities for the masses and not just for those in higher income families who traditionally had the financial means to send students to private colleges. President Truman established a President’s Commission on Higher Education to examine the role of higher education as it related to developing the nation’s workforce and helping it recover from World War II. The final report of this commission, issued in 1947, outlined a concern, more than sixty years ago, regarding affordability of postsecondary education. “It is the responsibility of the community, at the local, State and National levels, to guaranteed [sic] that financial barriers do not prevent any able and otherwise qualified young person from receiving the opportunity for higher education” (as cited by Heller, 2001, p. 1). The nation’s focus on higher education led to greater opportunities through passage of the Servicemen’s Readjustment Act of 1944, commonly referred to as the G.I. Bill, for soldiers returning from World War II to access higher education (US Department of Veterans Affairs, G.I. Bill History, 2009). This development also set the stage for the concept of the community college which concentrated on expanding basic and technical skills beyond the high school level. The new emphasis on postsecondary education, along with increased federal and private funding for research, fueled the growth and development of higher education across the US and also led to the development of a system educating 15 million students annually (Lingenfelter, 2008).
Willhaus (1995) noted in the mid-1990s that the demands of a changing economic climate will force more workers to strive for greater levels of educational attainment. He stated:

The emerging job market is dividing into two distinct components: one with well-paid, technical and administrative positions requiring high skills and college degrees; the other with minimum-wage occupations that could be performed by virtually anyone with reasonably good “basic skills” and “workplace skills.” There will be more of the latter kinds of jobs than the former, which is accounting for the increasing disparity between income levels. (p. 3)

This reflection on the state of future workers brings into focus the importance of postsecondary education and the role that public institutions play in providing an avenue for all citizens to find employment that provides an adequate income in an increasingly technical and complex workplace. A change has occurred over the past several decades, in that a college education, previously viewed by some as an optional track for those aspiring for greater income or professional opportunities, is becoming more of a requirement to compete for positions that are not simply entry level or minimum wage.

To this point, Willhaus (1995) stated:

A college education is becoming a gateway opportunity to earn an adequate wage. It’s not so much that college guarantees a good job as it once did; it’s that a college education is needed to compete effectively for a good job and a good income. College educated workers are the only group whose real wages have not fallen in the early 1990’s. (p. 3)
Thus, it is important for individuals, as well as the workforce in general, that postsecondary educational opportunities are available to meet the demands of a changing workplace and to create income opportunities for those entering the workforce. With an assumption that the primary source of training and learning is in postsecondary education, businesses and higher education need to partner to produce successful employees and support competitive and innovative businesses. Rodrriquez and Ruppert (1996) covered many of these points in their work on workforce issues and implications for higher education across the U.S when they noted:

Business and industry would like colleges and universities to incorporate into the collegiate experience the following skills: leadership and communication skills, quantification skills, interpersonal relations and the ability to work in teams, understanding the need to work with a diverse workforce at home and abroad, and the capacity to adapt to rapid change. (p. 11)

Not only is a degree or credential important, but continuing education is critical to remain current and competitive in this job environment. This point was emphasized in an article on workforce development quoting then-chair of the Federal Reserve Board Alan Greenspan:

The heyday when a high school or college education would serve a graduate for a lifetime is gone; basic credentials, by themselves, are not enough to ensure success in the workplace. Today’s recipients of diplomas expect to have many jobs and to use a wide range of skills over their working lives. Workers must be equipped not simply with technical know-how but also with the ability to create, analyze and transform information and to interact effectively with others.
Moreover, learning will increasingly be a life-long activity. (as cited by Ganzglass, Ridley, Simon, King, Narver & Van Horn, 2000, p. 1)

This need for a college education for personal economic success is not only the case for four-year degree programs but also for two-year programs traditionally offered by community colleges, the vast majority of which in Colorado are publicly supported by state and local taxpayers. Forde (2002) noted the important role that community colleges have in workforce and economic development, in that “community colleges’ [have an important] role as trainer of the masses for immediate employment and as trainer and technical assistant to the community for revitalizing neighborhoods and for creating wealth-generating activities” (p. 32). The important work of providing these skills attracted over 80,000 students to community college campuses across Colorado in 2008, and the public support provided to these institutions helps keep tuition costs relatively affordable at these campuses (Colorado Department of Higher Education, 2010b). However, reduced state support for these colleges will likely require heavier reliance on tuition revenues and could price many low- and middle-income students out of the market. Such a development could have tremendous implications for economic development if businesses cannot hire qualified workers to meet increasingly complex needs in the workplace.

**Private Versus Public Good—Shifting Views Of Public Higher Education**

Many scholars have written about shifting public perceptions as to who benefits most from higher education, the individual or society. While it should be evident that both the individual receiving the education as well as society gain from an educated
populace, it is less clear how much each should pay for this education. Lyall and Sell (2006) noted that “increasingly public higher education is seen as a private good, largely benefitting individuals rather than the economy, polity, and society as a whole” (p. xv). These authors note that this shift is manifested in federal higher education policy during the 1980s and 1990s when need-based grants shifted toward more emphasis on loans with eligibility for middle and upper middle income families. Additionally, Lyall and Sell noted that shifts at the federal level were made from need-based to merit-based grants, and in 2003, technical changes were made to require an increased share of postsecondary education cost to families of students. Thus, the federal government, a key player in higher education policy and financing in the US, seems to have adopted the view of much of the public in that those benefitting from educational services should bear a greater share of the costs. McKeown-Moak (2009) noted how little public debate has surrounded this change:

In the last decade of the 20th century, however, responsibility for funding higher education underwent a fundamental change—a shift away from public and governmental sources to students, their families, and institutions. This watershed change occurred with very little public debate, discussion, or explicit policy direction. (p. 194)

Over the years, there has been modest public discussion regarding the decline in state support for public higher education in Colorado, but certainly not the level of discussion given the current reductions to the state budget. It is very likely that more than 50% of the current state operating support for institutions of public higher education may have to be eliminated by FY 2011-12 due to use of unsustainable federal stimulus revenues to
backfill state revenue shortfalls (Colorado Office of State Planning and Budgeting, 2010, Joint Budget Committee, 2010a).

The students’ and parents’ willingness to pay higher tuitions for higher education given increasing returns for graduates has also been explored by scholars. Martin (2005) declared, “As the return to a college education rises relative to the return to a high school education, the willingness and ability of students to pay for a college education increases” (p. 232). Thus, just as a business views investments in terms of potential returns to the enterprise or its shareholders, Martin holds that individuals and families look at the costs of postsecondary education in much the same way—an investment. These views would follow one principle of human capital theory in that postsecondary education is not viewed as a consumable product but as an investment (Blaug, 1976).

**Public Funding of Public Higher Education**

The breadth and extent of literature examining the role that state support and tuition costs have on college participation, personal debt required to finance education, and other academic outcomes continues to grow as states in the US struggle to provide taxpayer funds to keep up with growth, increased costs, and demand for public higher education services. Decreases in public funding support for higher education have lead to higher tuition rates nationally, shifting the burden of payment from the public to students and parents (Heller, 1999; Kane & Orszag, 2003; McLendon, Hearn, & Mokher, 2009; Mumper, 2001; Paulsen & St. John, 2002; Protopsaltis, 2008; Tandberg, 2007; Alexander, Harnisch, Hurley, & Moran, 2010). Indeed, Rizzo (2006) noted:
In nearly all 50 states, the share of state tax dollars ultimately finding its way to public higher education institutions has fallen by well over 25% in the last 30 years, and schools and states are rapidly spiraling toward the private high-tuition equilibrium. (p. 29)

This means that lines between public and private postsecondary education are increasingly converging as reduction in public support for public higher education institutions forces institutions to look to other traditional private sources of funding to finance institutional expenses. Tandberg (2007) found that across the US, smaller shares of the states’ general fund are being appropriated to public higher education: “When looking at higher education’s share of state general fund expenditures, there has been a significant decline. . . . expenditures have declined [nationally] by 12.5% from 1985 to 2005” (p. 6).

Kane and Orszag (2003) found that “Over the past two decades, state financing of higher education has declined as a share of personal income. State appropriations have fallen from an average of roughly $8.50 per $1,000 of personal income in 1977 to an average of about $7.00 per $1,000 in personal income in 2002” (p. 2). These authors noted that tuition increases have only partially covered these declines in funding and have hurt public institutions’ ability to stay competitive with private institutions. To this point, they said, “Educational spending per full-time equivalent student has declined at public institutions relative to private institutions, from about 70 percent in 1977 to about 58 percent in 1996” (p. 2).

Archibald and Feldman (2006) estimated the decline of state support of higher education at an even higher level: “Public effort in support of higher education—
measured as a percentage of $1000 of personal income—has been in decline over the past quarter century. Aggregate state effort has fallen by 30% since the 1970s” (p. 618). These authors analyzed the effects of tax and expenditure limits (TELs) on higher education spending across 23 states that have enacted such limitations since the 1970s. Archibald and Feldman’s work examined appropriations for higher education over the period from 1961 to 2001. They found that there are significant negative effects on higher education funding in states that have these TELs and noted ominously:

The fact that a majority of these provisions are cast in constitutional concrete adds more significance to the results. It will not be easy for supporters of increases in funding for higher education to succeed in states that have these provisions. (p. 641)

These findings are important to this research endeavor which covers a time frame from 1970 to 2010 in that Colorado has one of the most restrictive TELs among the states. The Taxpayer’s Bill of Rights (1992), commonly referred to as TABOR, was adopted by the voters and includes both tax rate increase restrictions and expenditure limitations. Understanding how the adoption of TABOR has affected the state’s ability to support higher education is an important aspect of this study.

This situation is not new for public higher education in the US, although the trend toward lower funding may be increasing rapidly as the state and nation face a second significant economic downturn in the past decade. As far back as the late 1950s, scholars were writing about concerns of costs and the increasing politicization of access, costs, and outcomes in higher education. Frankel (1959) noted, “For the first time in a long
while, the quality and goals of American higher education, and not only its availability and its cost, have become explicit political issues” (p. 149).

It appears that Colorado policy makers may have been influenced by such concerns in the 1960s as this period of time marked some of the highest increases in state support for public higher education on record. By FY 1972-73, 40% of the costs of public higher education were being paid by state government and 24% of the state’s entire general fund revenue base was appropriated to higher education (Colorado Commission on Higher Education, 1976). Additionally, two new four-year public institutions were established to meet growing demand in the two largest metropolitan areas of the state. In 1965, the Metropolitan State College of Denver was established on the Auraria campus in downtown Denver, and a new campus of the University of Colorado was established in Colorado Springs (Burke, 2010). By 2008, these two institutions served over 29,000 students despite being in existence for just over 40 years (Colorado Department of Higher Education, 2009). Additionally, as illustrated previously in Table 1.2, seven community colleges were established across the state in the 1960s (Burke, 2010). Thus, affirmative steps were taken in the 1960s by Colorado policy makers to ensure access to higher education for a growing state not only by adding state resources to the existing system, but also by authorizing two new four-year institutions to assist in meeting projected demand. This level of state support for public higher education in Colorado in the early 1970s marks the beginning of the research period covered in this study and is central to several of the study’s research questions.

The National Center for Public Policy and Higher Education (1999) noted that the effects of state revenue fluctuations are uneven for public higher education in that in
periods of economic growth, higher education tends to receive disproportionately more
funding than other areas, while losing proportionately more support when state revenues
are declining. When state revenues are declining, one reason a state takes a larger share
of funding reductions from higher education may be the belief that other revenue
opportunities are available for providing funding including tuition, gifts and philanthropy.
This phenomenon becomes particularly difficult for public higher education as there have
been two significant national economic downturns in the US since 2000: 2001 to 2003
and 2008 to 2010. These downturns have resulted in reduced state support for public
higher education in nearly every state, and Colorado is no exception (Colorado Office of
State Planning and Budgeting, 2010; Heller, 2006; Lyall & Sell, 2006).

Lyall and Sell (2006) cited data from the State Higher Education Executive
Officers (SHEEO) and the US Department of Education which indicate that “from 1980
to 2000, the share of state revenues appropriated to public higher education declined from
9.8 percent to 6.9 percent, a nearly 30 percent decline in two decades” (p. 11). Hovey
(1999) noted:

Over the past several decades, state budgets for higher education have reflected
two major characteristics. . . . The percentage of state spending devoted to higher
education has been declining. . . . and the changes are linked to state fiscal
circumstances. (p. 19)

When public colleges and universities lose state funding, generally the only reliable and
sustainable source of funds that can be spent on educational services is tuition from
students. Lyall and Sell (2006) attested to this, stating, “As state funding falls, only
tuition dollars can be substituted to meet core instruction and student services needs.
Thus, for public universities across the country, state budget cuts almost always drive tuition up as universities strive to maintain access and quality” (p. 36). This phenomenon of substituting tuition for state support has not abated or changed over the past decade in Colorado or any other area of the US. The economic challenges over the past decade have been substantial for nearly every state in the country and affect states’ ability to contribute to the cost of public postsecondary education. Johnstone and Marcucci (2010) noted that this is not only a US phenomenon; “Governments everywhere struggle more and more under escalating burdens of seemingly non-discretionary increases in public spending obligations: pensions, the rising costs of elementary and secondary education, health care, public infrastructure, national security, and interest on national debts” (p. 18).

Heller (2006) stated that “continued constraints on state appropriations will likely result in ongoing upward pressure on tuition prices” (p. 28). He further stated:

Revenues from tuition and fees will continue to grow as a share of the overall revenue received by public colleges and universities. The era of universally low tuition in the public sector, an era that dominated most of the nation’s history, is over and will not return. (p. 29)

This realization that tuition will be a larger piece of financing public higher education going forward has implications for parents, students, and society in general. Indeed, McLendon, Hearn, and Mohker (2009) concluded:

In abandoning low or no tuition policies, states are no longer providing generous “blanket” subsidies for students of all income levels. In this context, students, families, and separate state, federal and private merit and need-based programs
are more responsible than before for covering students’ college expenses relative to states’ institutional subsidies. (p. 706)

These findings have profound implications for students and families at all income levels. Absent some major public policy change in Colorado that would provide substantially more state support for higher education, future students and their families can expect to spend much higher amounts on postsecondary education than previous generations if McLendon et al. and Heller are correct.

Clark (2008) noted the challenges even on a global scale: “The universities of the world have entered a difficult era . . . they find their governmental patrons retreating from full coverage of costs” (p. 472). Clark continues to report on the financial challenges: “The financial picture is particularly troubling . . . good universities are expensive; great universities are very expensive . . . and one government after another has made it clear that it can—or will—pay for only part of the bill” (p. 472). This trend has serious consequences for students and parents in that previous estimates for college savings may be insufficient to meet higher costs of attending any form of higher education.

Zhang (2006) also found that reductions in state appropriations for public institutions of higher education generally lead to increases in tuition and fees to maintain funding for educational costs. Zhang noted that, “it is unlikely that public institutions can compensate for the reduction in state appropriation through internal resource allocation other than by raising tuition and fees” (p. 15).

Zumeta (2004) explained this reduction phenomenon in higher education funding as a share of states’ budgets in this way:
Higher education . . . is the largest broadly discretionary item in state general fund budgets, so it is the most vulnerable target for budget cutting. Moreover, unlike most of the other major state budget components, higher education has other substantial sources of funds that policymakers feel can be tapped if institutions need to cope with deep budget cuts. These include tuition increases, private donations, and grants and contracts. (p. 85)

Indeed, in Colorado’s case, the *Denver Post* editorial board wrote in early 2008:

> When Amendment 23 was approved in 2000, state revenue, already limited by TABOR, also had to fund further hikes in local school budgets. During the budget crisis, these warring mandates could be met only by savagely cutting higher education, the only big budget area not protected by its own spending mandates.

(Editorsial, Fix state budget conflicts quickly, 2008)

Other research into public support of higher education and the changes over the past several decades cited the change in Medicaid expenditures in the states along with overall business conditions as primary factors affecting higher education funding. Kane, Orszag and Gunter (2003) noted, “To the extent that state Medicaid costs crowd out higher education appropriations in the future, the projected increase in state Medicaid costs poses a threat to the public higher education system” (p. 26). These authors wrote that increases in the Medicaid coverage since the 1980s, along with a growing caseload of eligible citizens for these services, are part of the reason that the states have spent a greater percentage of state budgets on this program. Indeed, Tandberg (2007) explained this disparity in budgetary growth between higher education and Medicaid when he said, “From 1976 to 2004, [higher education] appropriations increased by 36%. Though an
extreme example, higher education’s increase pales when compared to Medicaid’s 285% increase” (p. 5).

The reduction in state support for public higher education forces institutions to increase prices for students to attend, leading to greater dependence on parents and students to pay a larger share of the cost of the education delivered. Zumeta indicated that “These tuition increases have contributed to a substantial shift in the burden of paying for higher education from states to students and their parents” (p. 87).

This trend of a declining share of the state budget was described in a report from the National Center for Public Policy and Higher Education, as caseload issues and federal mandates on states in health care drove higher shares of the state budget in most states, because the budget is a “zero-sum” game. The report went on to show, “Through the late 1980s and early 1990s factors unique to Medicaid and corrections were causing rapid annual increases in spending for those programs” (National Center for Public Policy and Higher Education, 1999, p. 20). The report noted further, “Because ‘shares of the budget’ is a zero-sum game, their gains had to come at the expense of shares of other programs” (p. 20). Thus, some of the budgetary challenge facing public higher education was the result of other public policy decisions about providing low-income citizens with new or expanded health care services, along with criminal justice policies that resulted in more felons being incarcerated—both with higher costs to state budgets. These public policy choices made by many states during this period frame and inform this study’s analysis of the extent to which the increase in spending for corrections and Medicaid and other health and human services played a role in the decline of public support of higher education in Colorado.
Changes in state support not only affect a student’s cost to attend public higher education, but these changes can also affect outcomes and other measurements of student and institutional performance. Zhang (2006) found that holding all other factors constant, a $1000 increase in state appropriations per student for four-year public higher education institutions is associated with a one percentage point increase in graduation rates. The issue of graduation rates in Colorado in comparison to national averages is a topic discussed by the University of Colorado (CU) Board of Regents. In a March 11, 2009 article in *The Denver Post*, it was stated that CU-Boulder’s six-year graduation rate was 67% while the national average of similar schools was 75% (Anas, 2009). CU Regent Stephen Ludwig said, “The Board needs to explore the reasons why students aren’t finishing their degrees, and consider variables that might take them longer to reach graduation” (as cited by Anas).

Thus, at least some governing board members in Colorado are concerned about graduation rates lagging behind the rest of the country and look for answers from campus leaders. It is also possible that higher tuition costs, due to reductions in state support, are forcing students in Colorado to work more hours to assist with or pay for their education entirely, and that this trend will result in graduation rates declining.

**Political Influence over Public Higher Education**

The political influence into the governance and management of public higher education has been explored by researchers in literature spanning the last several decades. How politics and political influence affect public funding of higher education in other states and Colorado is a central issue in this study.
Glenny and Schmidtlein (1983) stated that governors’ offices and legislative bodies exercise a great deal of authority over public higher education. They asserted:

[The] State legislature and executive agencies, thus, can exercise virtually unlimited control over the public colleges and universities in their state. Reasons for exercise of control are, more often than not, left implicit by state agencies and assumed to derive from general budgetary and administrative powers. (p. 134).

Their research noted that these types of administrative authority had increased over the period from 1960 to 1983 and that a key regulatory function of state governments was the control over programs, campuses, tuition rates, and revenue generation. Glenny and Schmidtlein opined, “Direct policy controls also are exercised over admissions criteria, tuition policy, and institutional size. State controls over professional and other licensures are critical to specific programs” (p. 134). These are important factors in this study as the political environment and controls by central authorities have contributed to the dynamics and changes that have occurred in Colorado over the past four decades.

Christakis (2009) noted that the majority of the nation’s governors have key powers over public higher education, including having budget powers, being opinion leaders for the populace, and making appointments to governing boards who hire presidents and chancellors of institutions. Thus, gubernatorial political influence on the funding of higher education in Colorado plays an important role in the analysis of this study’s data.

A 2009 study examined 49 states for political factors that affect higher educational funding over a 20-year period using a fixed effects regression model. McLendon et al. (2009) found that “strong empirical evidence [exists] that, independent of other factors,
partisanship, legislative professionalism, term limits, interest groups, and gubernatorial power influence [higher education] appropriations levels’’ (p. 705). Nebraska was excluded from the study as it has a unicameral, non-partisan legislature, and one of the key factors examined in this study was partisanship’s effects on state appropriations for higher education. These researchers found that “[the] analysis also points to political influences shaping public choice” (p. 705). Such research and its findings are relevant to the research for this study, which examines these influences in Colorado.

**Previous Research in State Appropriations for Higher Education in Colorado**

In the mid-1970s, policy makers and higher education officials examined the funding prospects and levels in Colorado to identify trends and issues facing higher education. In 1975, the Colorado Commission on Higher Education (CCHE) commissioned a number of studies as part of a master plan for higher education in the state. One such study was a finance task force composed of five public and private sector members from across Colorado that examined funding in Colorado and compared trends and levels to three peer state: Oregon, Arizona, and Washington. The report concluded that “the financial picture of higher education in the near future does not look bright” (Colorado Commission on Higher Education, 1976, p. 3). The report also stated, “Colorado higher education is faced with the problem of too few resources and too great a demand on those resources . . . the problem is now more acute than ever before and will become more acute in the years ahead” (p. 3). Even in the early years of the period of this study, policy analysts and state policy bodies were sounding an alarm about sustaining public funding for higher education in the state. This concern was voiced even though state government was providing an astounding 41.7% of the total revenues for all of
public higher education in FY 1973-74 compared to tuition providing 18.9% of total revenues, according to this CCHE report (p. 7). The report further noted that the state had increased its general fund appropriation to higher education by 14.6% from FY 1972-1973 to FY 1973-74, from $118.3 million to $135.7 million, and this amount was 21% of the total state general fund budget that year.

The magnitude of this year-over-year increase in appropriations for higher education would have been nearly impossible in the state budgets adopted since FY 1978-79, largely because the General Assembly enacted statutory appropriations limits for year-over-year general fund growth and made adjustments to these limits twice over the past 40 years. The 14.6% increase in FY 1973-74 for higher education was more than twice the annual limit in overall general fund appropriation growth limit that was enacted statutorily beginning in FY 1978-79. According to former Joint Budget Committee Staff Director Robert Moore, the legislature adopted a bill known as the “Kadlacek Amendment” in 1977. This statutory provision, named for its primary legislative sponsor, Rep. Jim Kadlacek (D-Greeley), limited general fund appropriations for operations expenses to grow at no more than 7% over the prior year’s appropriation (Colorado General Assembly, 2010b). Any general funds received by the state in excess of this limit were either put into reserves or spent on one-time appropriations for expenses such as tax relief or capital construction projects.

In 1991, the General Assembly limited this provision further with the adoption of the Bird-Arveschoug bill (Colorado Revised Statutes, §24-75-201.1(1) (a) (I)) which reduced the Kadlacek provision from 7% to 6% over the prior year general fund appropriation (Colorado General Assembly, 2010b). This 6% limit was in effect until FY
2009-10 when it was adjusted again by the General Assembly in Senate Bill 09-228 to adjust annual general fund appropriations with a limit of 5% of personal income of the State (Joint Budget Committee, 2010b, p. 6). According to the Joint Budget Committee, in FY 2010-11, the state is well below this new spending limit calculation as, under Senate Bill 09-228, the state could appropriate $10.6 billion in general fund, but revenue forecasts indicate the state will receive $7.0 billion or less. Thus, the state is now $3.6 billion below this revised statutory growth limit (p. 7).

Clearly the early 1970s were “high water” marks for public higher education funding in Colorado, but the CCHE report noted some trends that were questionable regarding the sustainability of this level of support in the years ahead. While 21% of the state general fund budget was large in comparison to the appropriations in FY 2007-08, where the percentage of the state budget for higher education was 10.3% (Joint Budget Committee, 2007) it had declined from 24% of the general fund that had been appropriated to higher education in FY 1972-73. The report noted that this share of the state budget was down significantly from the late 1960s and early 1970s, when “the strongest financial period for higher education—exceeded 25.0 percent” (p. 17). In a prediction about future funding that would be completely understated by today’s terms, the report noted, ”In light of the great demands on the state coffers, the task force has little reason to believe that higher education will receive a larger percentage of state general fund dollars absent a major policy shift in state priorities” (p. 17). Independent of this CCHE report, Archibald and Feldman (2006) found that 1971 was the “peak effort” for state support of higher education in Colorado as a percentage of personal income.
Finally, this CCHE report noted in prescient terms that what the public contributes to higher education is not a function of its “share” of the state budget compared to other functions. The report stated, “The critical measures of state support for higher education are the total number of dollars allocated to higher education and how much of the total cost of operating the public higher education system the state is willing to assume” (p. 17). These statements from a 1976 report are still a matter of concern and debate in Colorado in 2010 as the state continues to struggle to fund public higher education with state support, given all of the other demands and pressures on finite tax resources.

Five years after the 1976 CCHE Finance Task Force report was issued, CCHE published a study entitled, “Financing Colorado Public Higher Education: A Policy Analysis.” This detailed report, issued in September 1981, documented state appropriations for higher education over the prior decade, examined student costs and financing of higher educational services, reviewed financing alternatives, and provided recommendations to the Colorado General Assembly for improvements and investments to meet a projected demand for additional postsecondary services. The additional demand was projected by CCHE and the state demographer due to growth projections for state residents expected during the period from 1981 to 1990. The report indicated that 20% of the state general fund expenditures in FY 1980-81 were appropriated to higher education, a relatively stable number, though in slight decline, given that the 1976 CCHE reported a 21% share of general fund for higher education in FY 1975-76. The report listed a state policy that was important in setting tuition levels in Colorado relative to the public investment in higher education, “Tuition presently is set at 25% of cost for Colorado
residents enrolled in public higher education” (Colorado Commission on Higher Education, 1981, p. V-25). This is a crucial piece of information for this study as this documentation reflects a state policy that was in existence in 1981, which stated that the public should bear 75% of the costs of higher education for resident students, while the students bear 25% of the cost of postsecondary education. This ratio was referred to in another section in the report: “At present all Colorado residents receive about a 75 percent cost subsidy through appropriation of general fund money to higher education institutions” (p. V-30). This ratio was important for several reasons, including the relatively high inflation that was occurring in the state and national economies. As institutions tried to cover inflationary increases, these increases were assumed to be covered 75% by state funds and 25% by tuition payments from students. Additionally, this ratio underscored the public benefits and public responsibility for providing affordable, high quality postsecondary education in Colorado. The report stated, “Colorado’s appropriations for higher education have demonstrated the State’s belief that educated, skilled citizens are of high value and are worth the investment of state resources” (p. I-2).

The fundamental equation for financing resident postsecondary education, Figure 1.1, the policy for Colorado in 1981, translates into Figure 2.1 as follows:

\[
(100\%) \text{ Cost of Education} - (25\%) \text{ Price of tuition} = (75\%) \text{ Public Subsidy}
\]

Figure 2.1 Equation of funding public higher education for Colorado, 1981, from Goldstein (2005) equation.
The policy for Colorado in the early 1980s was to preserve this ratio in a time of growth in student populations and increasing costs due to inflation. The report stated in several instances that higher education officials were concerned that the state could not continue to pay 75% of the expected cost increases, regardless of the reason. Not only was the resident share implicitly stated with these ratios, but non-resident tuition costs were set by policy as well, with 110% of the cost as the set amount for public institutions to charge undergraduate residents of other states enrolling at Colorado campuses. In the early 1980s, warnings were being issued by the state’s coordinating board for higher education that sustaining the current level of support of 20% of general fund revenues appropriated for higher education as well as the 75% subsidy of resident undergraduate education could be difficult for the state to maintain in the years ahead. One main focus of this research endeavor chronicled the reasons that, nearly 30 years later, higher education in Colorado is less than 10% of the state general fund appropriations and is poised to have an even smaller share of the budget after temporary federal American Reinvestment and Recovery Act (ARRA) funds are exhausted.

In 2003, the Colorado General Assembly passed House Joint Resolution 03-1033 which required the research staff of the legislature, the Legislative Council, to report on the interaction of three areas of the Colorado Constitution that were adopted in separate elections and constrained the state’s ability to provide funding for programs and services. The report was completed and released in September 2003 and included an overview of TABOR, Amendment 23, and the Gallagher Amendment and how these provisions were likely to affect the state as it began to recover from the economic decline in 2001 and 2002. During this two-year period of FY 2001-02 and FY 2002-03, the state of Colorado
experienced revenue declines in the state’s general fund account totaling $1.1 billion on a 2000 base of just under $6 billion, or 18% of total spending (Colorado General Assembly, 2003). The General Assembly responded by cutting funding, transferring other funds into the state’s General Fund, and establishing new and higher fees to keep the state’s general fund solvent. The report noted the historic nature of this economic downturn, “Colorado is in its worst fiscal crisis since the Great Depression. State revenue plummeted in FY 2001-02 and declined again in FY 2002-03. Since the early 1940s, the state had only three previous year-over-year revenue declines” (p. 17). Part of the reason that the General Assembly requested this report was that the state of Colorado was, as of 2003, in its most difficult financial position in over 70 years. The report pointed out:

The revenue declines of FY 1962-63 and FY 1980-81 were at least partly attributable to tax cuts enacted by the General Assembly . . . the decline in FY 1944-45 was concurrent with 5.3 percent drop in jobs in 1944 as more of Colorado’s citizens went to fight in World War II. (p. 17)

The 2003 context in which this legislative research report was constructed was a genuine concern among Colorado’s elected officials about how the state could cope with this historic financial challenge, particularly when conflicting Constitutional amendments that had been adopted in 1982 (Gallagher Amendment), 1992 (TABOR) and 2000 (Amendment #23) were impeding possible solutions. For higher education, in response to this downturn, state general fund spending had been reduced by $155.9 million from FY 2000-01 to FY 2003-04, or 21%, from a base of $747.3 million to $591.4 million. This reduction in state general funding for higher education stood in sharp contrast to funding
increases in corrections (+12%), K-12 education (+13%), and Medicaid (+14%) over the same period.

Another historic downturn in state revenues occurred again after the turn of the 21st century as the 2008-2010 economic recession, even worse than the “historic” downturn in 2001 and 2002, threatened continued state funding of public higher education in Colorado. Indeed, the economic downturn of 2008-2010 and its attendant affect on Colorado’s state revenues are much greater than the downturn of 2002-2004. Hoover (2010a) reported that 43 states in the U.S have cut services in the latest recession and, “That includes Colorado, which will have bridged a $2.2 billion shortfall in the current budget year (FY 2009-10) and faces a deficit of at least $1.3 billion next year (FY 2010-11)” (p. B1).

Scholarly research into the Colorado legislature and its history and budgetary processes has been authored by Colorado State University-Fort Collins political science professor John Straayer in his work, Colorado General Assembly, second edition, published in 2000. Straayer discussed the effects of statutory and Constitutional revenue and spending restrictions: “Indeed, one might now question the extent to which representative democracy operates with respect to fiscal matters” (p. 216). In his work, Straayer indicated that not only have the voters imposed restrictions such as TABOR and other limitations, but that the General Assembly also enacted statutory spending limitations in the 1970s [the Kadlacek limit] and an even more limiting restriction in 1991 [the Bird-Arveschoug limit] (Colorado Revised Statutes, §24-75-201.1). All these provisions serve to make budget and revenue decisions more complex for the General Assembly, and these complexities have consequences on funding for state programs,
including higher education. Straayer pointed to how the provisions of TABOR had a potential affect on higher education funding when he quoted a May 3, 1998 *Denver Post* editorial: “More worrisome is a looming problem in Colorado’s far flung higher education system, which may soon have to start turning away students because it cannot spend their tuition money to pay for their education” (p. 237). This concern that tuition collections could be constrained by provisions of TABOR was addressed by the General Assembly in the 2004 Session when it passed Senate Bill 04-189, an act that allowed colleges and universities to become “enterprise” businesses under provisions of TABOR. One provision of this new law, in allowing public higher education to be classified as enterprises under TABOR, is that the cash funds or tuition and other fees generated by the colleges and universities would not count as revenues of the state and affect the year-over-year revenue limits of state government (Colorado General Assembly, 2004, §23-18-202, C.R.S.).

Cronin and Loevy (1993) authored work on Colorado’s politics and government and opined that a key positive aspect of Colorado’s economy is the number of young, well-educated citizens who reside in the state. They cautioned that despite having this talent pool to attract economic development and investment, “Colorado’s investment in higher education and its public schools, however, often have been below that of most other states” (p. 104). This work was published just after the state’s adoption of TABOR in 1992, and this position of relative investment below other states was accurate at that time. However, this statement would, in today’s funding terms, be a tremendous understatement, as Colorado has fallen to 48th in the nation in per capita funding among the 50 states in 2009-2010.
Cronin and Loevy (1993) cited Hodgkinson (1990) as saying that Colorado has one of the highest percentages of residents with a college degree, but “half of them earned their degrees in other states, meaning that the good taxpayers of Michigan, Massachusetts, Indiana and Ohio paid for that education, after which the recipient took it to Colorado” (p. 1). Mortenson (2010) concurs in this assessment: “Colorado has long been able to mask this destruction [disinvestment of public higher education] because so many college graduates educated elsewhere want to live in the state. But the real record is one of massive disservice to the state’s native population.” This trend illustrates a series of key policy concerns for the state of Colorado, assuming that state funding challenges force continued reductions in public support for higher education. Although the local standard of outdoor amenities and livability is enough to attract talented workers from all over the country, at some point the cost of recruiting and moving employees and the ability to retain the best and brightest of Colorado’s own could outweigh the mountains, snowboarding, and gold medal fishing waters of the Rocky Mountain state. The state faces the unknown affect of key local employers becoming even larger “importers” of talent from other states in the future. Colorado’s low- and middle-income families and their prospects to become competitive in a knowledge-based economy will endure a significant blow with the noted financial challenges of the state budget limiting the ability of the state to assist in underwriting higher education costs. Future young residents of Colorado looking to enhance their skills and knowledge through participation in postsecondary education as well as talented faculty may indeed need to look at other better funded states to acquire the opportunities they desire.
**Increases in Tuition Costs and Implications for Equity in College Participation**

The literature shows an apparent inverse relationship between state support and tuition and fee levels. Heller (1999) asserted that tuition and fee levels are also inversely related to college participation. Indeed, Heller’s work pointed out, “Most studies that have examined students' demand for higher education have reached the same basic conclusion: tuition prices (either the "sticker price" or net of financial aid) are inversely related to the probability of enrolling in college, all other things being equal” (p. 66). Taken together, it is apparent that state support of public higher education has a direct and critical affect on the amount of tuition that colleges and universities charge, and this, in turn, has an effect on the affordability for many students and families, particularly if they are averse to taking on debt to finance a college education. Heller also noted, “A related question is whether these increasing tuition prices affect students of varying characteristics (such as race) differently” (p. 66).

Literature in this area includes studies about the differential affect that tuition price increases have on families in different income groups. Heller (2001) said, “In 1971, a family with a median income used 3.7% of its income to pay tuition for a single student attending a public four-year institution. By 1997, this proportion had almost doubled, to 7.0%” (p. 18). Indeed, a report from Pell Institute for the Study of Opportunity in Higher Education (2009) stated this phenomenon in even stronger terms when it declared, “Generally students from the lowest parental income levels faced the largest amounts of unmet financial need” (p. 13). Previous research has found that students with unmet financial need are negatively correlated with expected graduation rates.
As far back as the 1970s, researchers such as Johnson and Leslie (1976) found that increasing tuition at public institutions across the nation would most likely have the greatest and disproportionate affect on low- and middle-class students. In response to public policy proposals to raise public tuition costs to provide additional financial aid for low income students, they found:

It was determined that the proposed increase in tuition was not only inequitable when evaluated within the context of established and generally accepted equity criteria but would also violate seriously the equally established criterion of neutrality. It was further determined that in terms of income groups, the middle-income student and his family would be most affected by the proposed increase in public tuition. (p. 38)

This finding indicates that rising tuition at public institutions, now much higher than ever conceived in the 1970s, has equity implications for different groups of students based on income levels and particularly the middle class. These researchers additionally concluded:

What the various proposals to increase public tuition represent, in fact, are a kind of zero-sum game between middle- and low-income groups. Greater equality of educational opportunity would undoubtedly occur for low-income students under the proposals but only at the expense of significant numbers of students from middle income families. (Johnson & Leslie, 1976, p. 38)

This conclusion has implications for Colorado as a provision of Senate Bill 04-189, codified at §23-18-202(3)(c), Colorado Revised Statutes (C.R.S.), provided that for all undergraduate resident tuition rate increases above the stated rate of inflation, 20% of the
new revenue projected must be set aside and dedicated to need-based financial aid (Colorado General Assembly, 2004). Due to the challenging financial circumstances that the state faced in 2010, the General Assembly modified this language in Senate Bill 10-003 (Colorado General Assembly, 2010c). The new law, passed and signed by Governor Bill Ritter, Jr. on June 9, 2010, provided public institutions of postsecondary education, through authority granted to their governing boards, the ability to increase tuition by 9% annually for undergraduate resident students without express permission of the General Assembly or Governor for a five-year from FY 2011-12 through FY 2015-16. While statements in the legislation encouraged institutions and governing boards to strive to ensure access for low- and middle-income students, the 2004 mandatory provision that 20% of tuition increases above inflation be dedicated to need-based financial aid was repealed in 2010 due to the serious nature of the financial challenges facing the state (Colorado General Assembly, 2010c).

Thus, Colorado public policy from 2004 to 2010 expressly provided for a shift of some of the tuition increases from middle- and upper-income students to provide need-based financial aid for lower income students. In an era of rising tuition costs due to declining state support, significant equity issues for participation in higher education arise as institutions may raise tuition more easily and are not required to add specific amounts to need-based student financial aid.

The issue of equity in access to public higher education in the face of rising tuition costs is not just a challenge for four-year institutions but also for community colleges. Dowd (2003) stated, “An equitable education system was to be achieved through equal opportunity to participate in college. But the cornerstones of low tuition
and open admissions at “Democracy’s college” are being eroded by rising tuition rates and programmatic stratification” (p. 111). In Dowd’s analysis, community colleges were designed to provide the democratic access in our society for affordable and accessible postsecondary educational opportunity, yet similar equity challenges are presented when tuitions are increased as public support declines. Dowd stated:

Community college students (much more than four-year students) are price sensitive; as tuition increases, enrollments decline. Empirical evidence demonstrates that, as community college prices increase, some students will choose the four-year sector, and others will not enroll at all, with low-income students more likely to be priced out of higher education. Increases in tuition are not completely offset by the net price reductions effected by grant aid. (p. 108).

In this sense, Dowd challenges the notion that low-income students will have their net cost of attending a community college ameliorated by financial aid, and this would appear to become a significant barrier for low-income students to attend these institutions. For many low-income students, the community college path is the entry point to postsecondary education.

Mumper (2003) asserted that the rising tuition costs and changes in federal policy toward the financing of higher education through more loans than need-based grants is negatively affecting students, giving them fewer financial options to attend postsecondary education. He stated, “Today . . . just as access to higher education is becoming an even more central element in achieving financial success, the opportunities for low-income students to participate in higher education are being sharply constricted” (p. 98). Mumper believed that the public policies of the past two decades favoring merit aid, which
generally flows to middle- and upper-income students, have had a detrimental effect on the equity of opportunity afforded by postsecondary education. He noted ominously:

In the past two decades, higher education’s role in promoting equal opportunity has steadily declined. Turning to the future, the trends are even more troubling. Public higher education is rapidly becoming a barrier to equal opportunity in America rather than its promoter. (p. 115)

This principle of equity and how it relates to fundamental changes in the financing of public higher education is a critical element to this research study. These changes affect thousands of both current and future Colorado students, at both the four-year and two-year colleges, who are not in the higher income strata.

Thus, increases in tuition and fees for a public postsecondary education do not equally affect all members of the public, and this phenomenon can have implications for which students are able to participate in public higher education. This situation undermines one of the fundamental reasons that public colleges and universities were conceived and developed: to serve the public-at-large, particularly those who could not afford a private postsecondary education.

There is a great deal of scholarly interest and literature surrounding the importance of postsecondary education to the future of the US and its citizens. With over $75 billion of public funds invested annually by state and local governments in public higher education (Palmer, 2010a), it appears clear that policymakers across the nation understand the importance of providing opportunities for citizens, particularly those of limited financial means, to advance their skills and abilities in an increasingly competitive world. These educational and research opportunities benefit not only the
individual but also society generally, as previous studies have shown that a more educated populace has higher civic engagement, and less need of public financial assistance (McMahon, 2009).

Budgetary priorities at the state level have regressed from funding 75% of a resident undergraduate’s college education in 1980 to funding, in some cases at some institutions, 10% of these same costs. Additionally, even this relatively small amount of support is uncertain in an economy in recession and in the post ARRA-funded budget world.

Although the values of a highly educated workforce in keeping the US and its states competitive in a knowledge-based global economy are highly touted, the reality of tax and spending restrictions in Colorado along with federal and state funding mandates make much of the budget choices pre-determined. With harsher consequences in economic downturns, the real consequence is the loss of higher education as a publicly provided good and the re-creation of public higher education as a private good. Such a shift has value implications regarding the societal responsibility to provide equitable educational opportunities for financially disadvantaged individuals. In addition, it has serious implications for the potential loss of public control over levels of financial aid, tuition rates, admissions criteria, along with many other major financial decisions that will be made by institutions that are more tuition-reliant than any time in history.

The review of existing literature illustrates the breadth and dimensions of the research that has been conducted to date about the relevance and importance of postsecondary education and its attendant funding for the US, both now and in the future.
Methodology

Analyzing and documenting the changes in public policy that have affected state funding for public higher education in Colorado over the past four decades involved researching myriad data sources and collecting and combining these data with perspectives and recollections from key policymakers and players familiar with these issues since the 1970s. These data were centered around the research questions presented in Chapter 1 and covered areas of the public policy spectrum, including policy choices surrounding criminal sentencing and incarceration policies, trends in health and human services (most notably Medicaid expenditures and the federal government’s role in financing this health program for low income citizens), policies toward primary and secondary (K-12) education, along with fiscal and budget policies adopted statewide. These areas along with other significant budget drivers such as public pension funding pressures, health care costs for government employees, and increased demand for services from a growing state populace were examined as part of the discovery and evaluation process in conducting this research.

A concurrent mixed methods design was utilized to ensure that not only quantitative data are examined and documented regarding the change in public support of public higher education since 1970, but that qualitative data are also gathered to understand the dynamics and decisions that led to these changes. Bamberger, Rugh, and Mabry (2006) along with Creswell (2009) described concurrent research designs that are applicable to this investigation, as illustrated in Figure 3.1.
This integrative model served as the framework for this research study to present a comprehensive analysis of the dynamics of funding public higher education. Creswell (2009) noted that use of this model assists in confirming or corroborating results from either quantitative or qualitative data. The justification for using both types of data are that neither the quantitative nor qualitative methods alone would sufficiently answer the complex research questions regarding the decline of higher education funding over the past four decades in Colorado. The model shown in Figure 3.1 can also be viewed as a form of inductive data analysis. Creswell stated that inductive data analysis is critical to the gathering of qualitative data:

Qualitative researchers build their patterns, categories, and themes from the bottom up, by organizing the data into increasingly more abstract units of information. This inductive process illustrates working back and forth between the themes and the database until the researchers have established a comprehensive set of themes. It may also involve collaborating with the

participants interactively, so that participants have a chance to share the themes or abstractions that emerge from the process. (p. 175)

This inductive process was important to the research process in this study, as acquiring additional qualitative and quantitative data provided new areas of exploration and resulted in interviews with additional officials who were not originally in the research plan list for interviews.

**Mixed Methods Research**

To provide a complete understanding of the historical trends and its implications of the changes over 40 years in public higher education support in Colorado, both quantitative and qualitative data were gathered and linked to the theoretical framework in the study. Miles and Huberman (1994) cited Rossman and Wilson (1984, 1991) who first suggested three broad reasons to link qualitative and quantitative data, “To enable confirmation or collaboration of each other via triangulation; to elaborate or develop analysis, providing richer detail; and to initiate new lines of thinking through attention to surprises or paradoxes, ‘turning ideas around,’ providing fresh insight” (p. 41). Therefore, linking quantitative and qualitative data in this research study served as a form of triangulation strategy, while uncovering new perspectives that were explored and provided the opportunity to incorporate in-depth analysis and richer detail to this research study. Another benefit of combining qualitative and quantitative data during the information gathering process is that it provided an increased ability to review the conceptual framework, comprised of three underlying theories that guided this study. To this point, Miles and Huberman (1994) stated:
Qualitative data can help the quantitative side of a study during _design_ by aiding with conceptual development and instrumentation. They can help during _data collection_ by making access and data collection easier. During _analysis_ they can help by validating, interpreting, clarifying, and illustrating quantitative findings, as well as through strengthening and revising theory. (p. 41)

Use of both qualitative and quantitative data in this research study served to improve the overall analysis and link it to the underlying theoretical framework described in Chapter 1. This framework included combining public choice, chaos, and complexity theories. The use of both types of data strengthened the study beyond what singularly using one or the other type of data could provide.

Bamberger et al. (2006) noted that conducting policy or other types of evaluations, including contextual analyses, into the research design can improve the interpretation of quantitative data. They offered, “Evaluators are always encouraged to consider the utility and feasibility of incorporating contextual analysis into their evaluation design. Contextual analysis assesses the influence of economic, political, organizational, and environmental factors on the implementation and outcome of projects” (p. 206). While the study of public higher education funding over four decades is broader than the evaluation of a single project, as described by these authors, the principle of incorporating contextual analysis into quantitative analysis supports the position that a mixed methods design will provide comprehensive understanding of the chronological changes that have occurred.

Miles and Huberman (1994) noted that there are several research designs for linking qualitative and quantitative data that can be utilized in a mixed methods research
study. The approach to the fieldwork data collection that was most appropriate for this four-decade investigation is illustrated in Figure 3.2.

![Figure 3.2 Mixed methods fieldwork design. From Miles and Huberman, 1994, Illustrative Designs Linking Qualitative and Quantitative Data, p. 41.](image)

This research design illustrates how both qualitative and quantitative data in this study were combined to document and quantify the change in funding for public higher education in Colorado. Miles and Huberman refer to this design as a multiwave survey where the first quantitative survey may draw attention to things that the researcher should look for, which in turn may lead to revisions in the second wave of quantitative survey information examined.

The first wave of quantitative data in this study was documented and presented in Chapter 1 and, in large part, formed the basis of the research questions in this research endeavor. This information confirmed that over the past four decades, Colorado has declined in its public support of public higher education from 6th in 1970 to 48th in the nation in 2010 (Chambers, 1972; Palmer, 2010a). As qualitative information, such as interview transcripts with key policymakers and officials, was gathered regarding these funding changes, additional surveying of quantitative data sources was completed to determine interview protocol changes, or to identify additional quantitative data that clarified this story of four decades of decline, including the shift to other types of funding for higher education and other parts of state government. This cycle was repeated
continually until a complete picture was created and documented in the findings chapter of the study.

**Quantitative Analysis**

As a starting point for the second wave of quantitative information, the study gathered additional data about Colorado state budget appropriations from 1970 through the present. Sources for these data included, but were not limited to, the archives and reports published by the Joint Budget Committee on state appropriations. While some data are currently available in on-line formats on the General Assembly’s website, obtaining data beginning in the early 1970s required on-site review of Session Laws and the associated appropriations reports from each year. This data provided the content for an electronic database of state general fund appropriations for all state agencies, including higher education, so that the study could both analyze trends and examine when major changes in funding for higher education and other sections of the state budget occurred over time.

Additional sources of quantitative data for Colorado included the Grapevine Reports (Palmer, 2010a) available on-line from the Center for Education Policy at Illinois State University. As noted previously, data detailing public operating support for public higher education for all 50 states have been continually documented since 1962, and gathering information on Colorado, and the other seven Mountain West states was important in creating a more complete picture of trends in Colorado as well as in surrounding states. Added benefits of accessing these data are that it provided a way of triangulating data from several sources to ensure that the appropriations and spending
histories are accurate. The official “record” for Colorado’s appropriations history rests within the library of the General Assembly at the State Capitol; however, reports from past years have been found at times to contain errors, particularly if adjustments to appropriations were made in subsequent or special legislative sessions and were not properly documented. Gathering Colorado’s data over time from multiple sources, where possible, helped to reduce validity threats to the results of the analysis.

The descriptive quantitative data compiled from this first stage of the research effort was analyzed and examined to frame the qualitative portion of the analysis that followed. As an example, if data reflected major shifts in funding, either positive or negative, over the period of one or two fiscal years, then, the research process included crafting questions to key policymakers and budget staff who were working with the state budget during these time periods to understand and document the context in which these adjustments were made. This is but one example of why a mixed methods analysis for this research effort was the most effective way to document the funding landscape in Colorado comprehensively. Additionally, consulting with multiple policymakers and practitioners in higher education about some of the quantitative results created a more thorough analysis.

**Qualitative Analysis**

After the first wave of descriptive quantitative data was gathered, assembled and analyzed, the research process moved into the qualitative phase of the study to put these figures and changes over the past four decades into a contextual framework. This step helped explain the forces that have driven these instrumental changes. Under standard
methods for conducting case study analyses, which will be described in greater detail later in this chapter, the author interviewed former policymakers and officials who have knowledge and understanding about policy, fiscal, and budgetary decisions that were made in Colorado from 1970 to the present. A common structured interview protocol was developed for all interviews and subject area protocols were also utilized for those with knowledge in distinct areas of public policy related to the research questions. These protocols are listed in Appendix F. The author utilized a digital recording device to document and archive these interviews for future use, coding responses and referencing materials for compilation into the study results. Prior to any interview being conducted, all participants were provided with a University of Colorado at Colorado Springs Institutional Review Board (IRB) form that was approved as a condition of conducting this human subject research. The IRB approval letter is included in Appendix G. A renewal letter from the IRB extending the approval until August, 2011 is included in Appendix H. The form that was provided to each person interviewed is included in Appendix I, and it detailed the purpose of the study and required participant signature to grant permission to be quoted directly as part of this research project. It also offered an option for participants to review their quotes prior to publishing these as part of this study. Of the 20 officials interviewed, four requested the ability to review their remarks prior to publication, and these requests were honored as part of the research and documentation process.

Maxwell (2005) provides a great deal of information in designing and implementing a qualitative study and has said that it is not as simple as designing a plan and then implementing said plan. He offered:
Thus, to design a study, particularly a qualitative study, you can’t just develop (or borrow) a logical strategy in advance and then implement it faithfully. Design . . . is an ongoing process that involves "tacking” back and forth between the different components of the design, assessing the implications of goals, theories, research questions, methods, and validity threats for one another. (p. 3)

In this sense, constantly re-examining the information received through the qualitative analysis portion of the study required a refocusing on the design and reexamining the initial quantitative data gathered to create a more complete understanding of historical events and the affect on public funding for higher education. This continuous re-examination also supported the mixed methods research design illustrated previously in Figure 3.1.

Creswell (2007) states that there are five approaches to qualitative analysis: narrative research, phenomenology, grounded theory, ethnography, and case study. A review of Creswell’s contrasting characteristics indicates that the case study form for this research project was the best approach. This is due to the focus of this research project on providing a thorough analysis of the funding history of higher education in Colorado over four decades. He said, “Developing an in-depth description and analysis of a case” (p. 78) is the indication that case study should be used instead of the other four approaches he enumerated. The other four foci include exploring the life of an individual, understanding an experience, describing a culture-sharing group, or developing a theory grounded in the field of study. None of these approaches appeared to fit the research questions and project, and thus were rejected as appropriate qualitative strategies. Only the case study
approach provided the opportunity to examine in depth the funding changes over time and investigate the causes of these changes.

Karpiak (2006) found that using complexity and chaos theory in qualitative research can assist in understanding the cycle of chaos and order. While admitting that combining these theories in the social sciences was a novel yet promising concept, she noted:

Chaos and complexity theory can be seen as akin to these [social] experiences. Its defining features include uncertainty, unpredictability, stress, dynamism, chaos and the emergence of a new order. It mirrors human experiences and societal happenings in ways that connect these more closely, and reveals the parallels that exist in the behaviors of individuals, society, and nature. (p. 85)

In this sense, two of the three theoretical lenses proposed for this study appeared well suited for the qualitative research portion of the study. Using structured interviews and open-ended interviews with key policymakers and officials, understanding the uncertainties, unintended consequences, and policy goals that affected higher education funding in Colorado were important to this research study.

Case Study Design

The type of inquiry in this research project, an examination and analysis of public funding of public higher education in Colorado, is well situated in a form of a case study analysis. Yin (2003) stated that the “rationale for a single case is when the case represents an extreme case or a unique case” (p. 40). In this sense, and noted in Chapter 1, Colorado’s relative ranking change since 1971 from 6\textsuperscript{th} in the nation to 48\textsuperscript{th} in 2010
represents a unique status among the 50 states as the largest decline relative to the other 49 states and merits a single case study to identify and chronicle the causes of this change.

Creswell (2007) described an approach best suited for the questions in this research as follows: “A case study is a good approach when the inquirer has clearly identifiable cases with boundaries and seeks to provide an in-depth understanding of the cases or a comparison of several cases” (p. 74). One important aim of this research project was to chronicle, document, and fully analyze the changes in higher education funding over the past four decades in Colorado. This change had not been documented in any comprehensive manner to provide information for Colorado policymakers as well as other states that may also find funding public higher education just as challenging in the future as Colorado has since the early 1970s. In this sense, Colorado’s approach is the case under review in this research, and the seven other Mountain West states along with the remaining 41 states serve as a comparison for the Colorado case.

Yin (2003) described six sources of evidence in a case study analysis that are typically used to perform this type of study and offered that using as many of these sources as possible is the preferred research strategy. The six types of sources are documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts (p. 86). Of these six, documentation, archival record reviews, and interviews with key policy makers and observers who were familiar with public policy choices and the Colorado state budget over the time period from 1970 to 2010 were the primary sources of evidence for this study. While direct observations of current public policy discussions and trends were used as evidence in this study, a heavier reliance on
documentation and archival records was used to gather descriptive quantitative data about state appropriations in key budget categories and in the changes since 1970. The strategy of participant-observation had limited applicability to this study and was not part of the evidence gathered. Likewise, physical artifacts did not play a key part in the evidence gathered in this research study.

Key sources of evidence were structured interviews, including a protocol established, with key policymakers, both past and present, to help understand the policy choices and challenges that existed over the past four decades, when a significant change to higher education funding was occurring. The voters’ decision in 1990 to adopt term limits of eight years in for the positions of Governor and state legislators (Colorado Constitution, 2010a) limited the ability of many current lawmakers to provide insight into policy changes in the years prior to their service.

Thus, interviews with former policymakers and key officials were important to this research project. Data gathered through these interviews were compiled and catalogued by name of the respondent, date of the interview, and stored electronically for review, coding, and incorporation into the study. Themes of the interview were identified and coded for placing the data into categories of information and processed, analyzed and documented in chapter four of the study.

Yin (2003) noted the importance of these interviews functioning on multiple levels: “Case study interviews require you to operate on two levels at the same time: satisfying the needs of your line of inquiry while simultaneously putting forth ‘friendly’ and ‘nonthreatening’ questions in your open-ended interviews” (p. 99). Thus, the goals of these interviews were two-fold: to ensure that the line of questions posed to the
interviewees were answered and also to elicit thoughts, perceptions, and memories relevant to the research, but of which the researcher was unaware. Interviews were conducted in person when possible and also using a speaker phone when a meeting could not be arranged. The protocol utilized for these interviews is included in Appendix F. A list of all of the current and former officials, policymakers, and other individuals interviewed for this research study is detailed in Table 3.1.

Table 3.1 *Current and Former State Officials and Other Key Individuals Interviewed for This Study.*

<table>
<thead>
<tr>
<th>Official</th>
<th>Offices held and experience</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Colorado Governors</em></td>
<td></td>
</tr>
<tr>
<td>Richard Lamm</td>
<td>Colorado’s 38th Governor, 1975-1987</td>
</tr>
<tr>
<td></td>
<td>State Representative 1964-1975</td>
</tr>
<tr>
<td>Roy Romer</td>
<td>Colorado’s 39th Governor, 1987-1999</td>
</tr>
<tr>
<td></td>
<td>State Treasurer, 1977-1987</td>
</tr>
<tr>
<td></td>
<td>State Senator, 1963-1967</td>
</tr>
<tr>
<td></td>
<td>State Representative, 1959-1963</td>
</tr>
<tr>
<td>Bill Owens</td>
<td>Colorado’s 40th Governor, 1999-2007</td>
</tr>
<tr>
<td></td>
<td>State Treasurer, 1995-1999</td>
</tr>
<tr>
<td></td>
<td>State Senator, 1989-1995</td>
</tr>
<tr>
<td></td>
<td>State Representative, 1983-1989</td>
</tr>
<tr>
<td>Bill Ritter, Jr.</td>
<td>Colorado’s 41st Governor, 2007-present</td>
</tr>
<tr>
<td></td>
<td>District Attorney, 1st Judicial District, 1993-2005</td>
</tr>
</tbody>
</table>
**Current and former Colorado higher education officials**

<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Bliss</td>
<td>Vice President for Budget &amp; Finance, University of Colorado, 1999-2002; Vice Chancellor for Administration, &amp; Secretary/Treasurer, Colorado State University System, 1987-1999; Chief Financial Officer, CCHE, 1984-1987; Trustees of the State Colleges, Vice President for Budget &amp; Planning, 1979-1984; Joint Budget Committee Staff 1974-1975 &amp; 1976-79</td>
</tr>
<tr>
<td>Dr. John Buechner</td>
<td>President, University of Colorado, 1995-2000; Chancellor, University of Colorado, Denver 1988-1995; University of Colorado, various leadership roles, 1961-1995</td>
</tr>
<tr>
<td>Kelly Fox</td>
<td>Vice President and Chief Financial Officer, University of Colorado System, 2009-present; Assistant Vice President, University of Colorado, 2006-2009; Director of Budget &amp; Policy, Colorado School of Mines, 2004-2006; Associate Director of Budget &amp; Finance, 2002-2004, Univ. of Colorado; Analyst, Office of State Planning &amp; Budgeting, 2000-2002</td>
</tr>
</tbody>
</table>
Tanya Kelly-Bowry  
Vice President for Government Relations  
University of Colorado System, 1998-present  
State Senate Staff, 1990-1998

David Longanecker  
CEO, Western Interstate Commission for Higher Education, 1999-present  
Assistant Secretary for Postsecondary Education, US Department of Education, 1993-1999  
Executive Director, Colorado Commission for Higher Education, 1988-1993

Robert Moore  
Vice President and Treasurer, Colorado College, 2009-present  
Vice President of Budget and Finance, University of Colorado System, 2005-2009  
Vice President and Treasurer, Colorado School of Mines, 1995-2005  
Deputy Director, Colorado Commission on Higher Education, 1988-1995  
Staff Director, Joint Budget Committee 1977-1988

Richard Schweigert  
Vice President and Chief Financial Officer, Colorado State University System, 2006-present  
Office of State Planning and Budgeting, 1990-1995

Current and former state legislators

Norma Anderson  
State Senator, 1999-2006  
State Representative, 1986-1999
Dennis Gallagher
Denver City Auditor, 2003 – present
Denver City Council, 1995 – 2003
State Senator, 1974-1995
State Representative, 1970-1974

Keith King
State Senator, 2009 – present
State Representative, 1999-2007
House Majority Leader, 2005-2007
School District #12 Board member, 1991-1995

John Morse
State Senator, 2007 - present
Senate Majority Leader, 2009 – present

James T. Rizzuto
President, Otero Junior College, 2001-present
Executive Director, Colorado Department of Health Care Policy and Finance, 1999-2001
State Senator and member, Joint Budget Committee, 1986-1999
State Senator, 1982-86

Former Colorado officials

Charles Brown
Director, Colorado Legislative Council, 1987-2004
Legislative Council Staff, 1974-1985

Other key officials and individuals

Dennis Jones
President, National Center for Higher Education Management Systems, 1969-present
Yin (2003) also pointed out that theory and the theoretical framework of any case study research project is an important guide. The intersection of public choice theory, chaos theory, and complexity theory, as described in Chapter 1, served as an important lens by which this case study analysis analyzed the data gathered. To this point, “The simple goal is to have a sufficient blueprint for your study, and this requires theoretical propositions, usefully noted by two authors as ‘a [hypothetical] story about why acts, events, structure and thoughts occur’” (Yin, 2003, p. 29). This goal was critical to effectively chronicle the four-decade story of the changes to public funding of higher education in Colorado.

Through these mixed methods analyses in a case study format, and via the lens of the theoretical framework previously described and illustrated in Figure 1.5, the researcher of this study addressed the following research questions:

1. What factors have contributed to the relative decline of state support for public higher education in Colorado since 1970?
2. What legal and political decisions, developments, and constraints contributed to public higher education receiving less state support per capita in Colorado compared to other Mountain West states and most of the nation?

3. What options and recommendations are available to the leaders of Colorado to address the issue of public funding of public higher education?

These three research questions were addressed through the acquisition and compilation of data through the research methods previously described. Table 3.2 provides an illustration of the primary type or types of data that will be used in addressing each individual research question.

Table 3.2

*Types of Data Gathered for Each Research Question in the Study.*

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Qualitative</th>
<th>Quantitative</th>
<th>Both</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Factors contributing to funding decline</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>2. Legal and political decisions</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3. Policy options and recommendations</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The data gathered in answering the first research question included both quantitative and qualitative data due to the need to provide a comprehensive understanding of the factors over the past four decades that have affected higher education funding in Colorado.

Neither quantitative nor qualitative data alone provided the complete picture of the events
and decisions over the past 40 years in the political and legislative arenas with respect to higher education funding.

The data gathered and analyzed to answer question 2 with respect to legal and political factors affecting state support for higher education were primarily qualitative, providing insight into quantitative changes in shares of the state budget allocated to different programs. While some data gathered to answer this research question were quantitative, the primary data were qualitative and came from reviews of records and interviews with key officials and former policymakers.

Research question 3 examined options and recommendations that would be available to leaders in Colorado to address the decline in public support for higher education and this came primarily from qualitative data gathered through interviews and a review of some strategies employed by other states to invest in public higher education. While some of the data gathered to address this research question were quantitative, such as a policy change that would be expected to generate a range of new revenues, the primary data gathered, analyzed, and reported were qualitative.

Bias

The author of this evaluation is cognizant of and addresses bias in this research due to the nature of the author’s position in a publicly supported university. The author conducting this evaluation serves as the Chief Business Officer of a public university in Colorado and, as such, would be inclined to be negatively influenced by the loss or potential loss of financial support for a public institution. To mitigate potential bias in this case study analysis, the author used multiple data points and perspectives from a number of key sources of quantitative and qualitative data. Yin (2003) noted that there
are three key principles of data collection in a case study analysis to mitigate investigator bias: use multiple sources of evidence, create a case study database, and maintain a chain of evidence. All of these three principles from Yin were followed as part of the data gathering process in this study. Additionally, the author worked to provide multiple viewpoints from varying political perspectives to ensure that a comprehensive picture was produced in the study. Through triangulation strategies, where multiple and independent data, views, results, and evidence were compared and contrasted to ensure a correct interpretation of facts and evidence, every effort was made to mitigate author bias.

**Validity Threats Addressed Through Follow-Up Review.** To address potential validity threats to the qualitative data gathered, the author submitted drafts of the results to several of the key officials interviewed for this study. This strategy reduced the potential for validity threats by confirming that the findings reported in this study are consistent with the positions and recollections of those interviewed.
Quantitative Results

Both quantitative and qualitative data were gathered to investigate the decline in funding for higher education over the past 40 years. The general fund budget, funded by individual and corporate income taxes and state sales taxes, is the portion of state revenues which fund the general operations of state government and for which appropriations decisions are recommended by the Governor and ultimately budgeted by legislators. It includes the changes in tax policy, ballot initiatives, federal mandates, and increased population and political pressures that have affected how the Governor and legislators have chosen to fund the functions of state government, including higher education that this study analyzes.

The data gathered in the quantitative and qualitative research indicated a clear trend over the past four decades where mandated demands on the State of Colorado’s general fund budget have “crowded out” tax funds available to support public higher education. Other divisions and departments of state government have also been crowded out by the three major mandated or Constitutionally protected portions of the state general fund budget. Several tax policy changes along with growing funding demands in K-12 education, the joint state-federal Medicaid program and human services, state prison and criminal justice system costs, and other issues have served to make continued and sustained public funding of public higher education a tremendous challenge for the General Assembly, Governor, and citizens of the state.
Overview of State Budget Process, Categories, Growth, and Changes Since 1970

The landscape and population of Colorado has changed dramatically over the past 40 years. Population increases as well as statutory and Constitutional changes have added to federal mandates to create a $17 billion budget designed to operate the agencies and functions of the State of Colorado. For budgeting purposes, the General Assembly divides revenue into categories within which it is able to set budgets for state agencies and departments. These categories will be described to provide an understanding of the legislative process, pressures, and restrictions affecting the budgeting process. These categories will set the blueprint for the quantitative data in this study to compare funding of one program, higher education, to the various other state programs appropriated as part of the general fund budget.

The three main funding areas listed in the annual appropriations act include general, cash, and federal funds. In descriptions that follow in this chapter, this study identifies the five major categories of general fund appropriations that are central to the analysis. These five areas (K-12, health and human services, the courts and criminal justice system, higher education, and all other state functions) are critical to addressing the research questions in this study. The quantitative data reflecting these five areas highlight the trends in state funding over the past 40 years. The qualitative interviews of key officials and those knowledgeable of significant events during this time frame address the question of how and why these trends occurred.

There are three main funding parts of the total state budget listed in the annual appropriations act: general funds, cash funds, and federal funds (Joint Budget Committee,
From FY 1993-94 to FY 2007-08, the annual appropriations act and report document also tracked two additional types of funds, labeled general fund exempt and cash funds exempt. These specific designations were placed on funds that were specifically exempt from the provisions of TABOR (Joint Budget Committee, 2009a). For purposes of this study, during the years that these exempt funds were designated and appropriated in the annual appropriations act, the general fund exempt and cash funds exempt were added to the respective total general fund and cash fund appropriation totals for each program area. This classification ensures a complete accounting of all of the funding available to each of the five key programmatic areas of the state budget.

In the last two state fiscal years in this study, starting in FY 2008-09, the general appropriations act has been reformatted to account for a fourth category of funds termed “reappropriated funds.” These are funds that have been transferred from one state agency to another in support of a government program and are essentially counted twice or more in the budget document. The Joint Budget Committee (2009b) appropriations report states, “Reappropriated funds are any amounts that are appropriated a second or more times subsequent to an initial appropriation in the same fiscal year” (p. 587). These reappropriated funds have no significant affect on the analysis contained herein and were not analyzed or accounted for the purposes of this study.

**State of Colorado’s Budget Process and Structure**

The State of Colorado’s annual budget process consists of the General Assembly and the Governor’s office working together to craft a budget each fiscal year. This process must detail not only expenses of the executive branch, which is led by the
Governor, but also must include provisions for expenses of the judicial branch and the legislative branch of state government. All of these requests for funding are forwarded for consideration to the Joint Budget Committee. According to §24-30-204, Colorado Revised Statutes (C.R.S.), the state’s fiscal year is from July 1 of any year to June 30 of the following year. The state budget process is detailed by state statute in §24-37-304 (1)(b), C.R.S. (Colorado General Assembly, 2010a), and is guided by language in the Constitution (Colorado Constitution, 2010h), and requires the Governor’s Office of State Planning and Budgeting (OSPB) to submit a budget request and plan for expenditures within estimated available revenues to the Joint Budget Committee of the Colorado General Assembly by November 1 of each year. Each budget request and plan is for the upcoming fiscal year that begins on July 1 of the following calendar year.

The Joint Budget Committee (JBC) is a joint Senate and House of Representatives committee consisting of six members, three from each house of the General Assembly. Two members from each house are from the majority party, and one member from each house is from the minority party. The chair of the committee rotates each fiscal year between the House of Representatives and the Senate from a majority party member serving on the committee. This joint committee was first established by the General Assembly in 1959, and the statutory construction of the committee is detailed in §2-3-201, C.R.S. As of 2010, this committee and its staff of 16 analysts and support staff draft the annual appropriations bill each year for debate and consideration by the entire Colorado General Assembly (Joint Budget Committee, 2009b). The committee and its staff work with the OSPB on much of what is included in the state budget bill because the Governor, under powers prescribed in the Colorado Constitution, has both veto authority
over entire bills and also line-item veto authority for line items within the budget document (Colorado Constitution, 2010b). Each year since its formation, the committee publishes an annual appropriations report detailing the assumptions and appropriations of various funds included in the general appropriations act as well as any other bills passed during the fiscal year with appropriations of state funds. The main appropriations act is commonly referred to as the “long bill” because it is often the longest single bill that members of the General Assembly will consider each year. The appropriations of state general fund and cash funds generated by the imposition of fees for various programs of state government over the past 40 years were central to the analysis of this study. Figure 4.1 depicts this state budget process over one annual budget cycle.

<table>
<thead>
<tr>
<th>Time Period</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>June – August</td>
<td>Executive review of agency budget requests – OSPB</td>
</tr>
<tr>
<td>September – October</td>
<td>Governor’s office &amp; OSPB finalize Executive budget request</td>
</tr>
<tr>
<td>November 1</td>
<td>Governor submits budget plan to JBC for upcoming fiscal year, judicial branch submits funding request separately</td>
</tr>
<tr>
<td>December – January</td>
<td>JBC briefings and hearings with state departments about funding requests</td>
</tr>
<tr>
<td>January – March</td>
<td>JBC figure setting for funding recommendations in “long bill”</td>
</tr>
</tbody>
</table>
April  
JBC introduces long bill to General Assembly for consideration

May  
General Assembly passes state budget (long bill) and transmits to Governor

May – June  
Governor approves state budget by signing long bill

July 1  
State fiscal year begins with funding levels authorized in long bill

Figure 4.1. State of Colorado budget formulation process.

**General fund.** The general fund of Colorado is the state’s main general tax collection account, and these revenues are categorized as general fund in the general appropriations act because they are available for any lawful and appropriate use in support of a public or governmental purpose. These funds are available for the General Assembly and Governor to appropriate and for any function of government that is eligible for general fund support by statute. The Joint Budget Committee (2009b) describes the general fund as follows:

A fund into which general tax revenues, such as state sales and income taxes are deposited. The General Fund is used to pay, in whole or in part, for state programs which benefit the majority of state citizens, such as education and corrections. (p. 586)
The primary sources of general fund revenues come from a statewide sales tax on purchases of eligible goods and some services, from individual income tax payments, and from corporate income tax payments (Joint Budget Committee, 2009b, p. 10). For purposes of this study, only the state general funds appropriated for annual operating expenses are analyzed. In fiscal years in which revenues have been available, the General Assembly also appropriated general fund for capital construction building projects for state agencies. Any general funds appropriated for capital construction in the annual appropriations act have been excluded from this study. In addition to the general fund, there are two other main categories of funds, cash and federal funds, reported, accounted for, and appropriated in the Colorado state budget.

**Cash funds.** A second and growing category of funds is labeled cash funds, and these are generally user fees paid to a governmental entity for a specific purpose and are paid by the users of the service. Examples of cash funds in the state budget include tuition paid by students at public higher education institutions, state parks fees paid to the Colorado Division of Parks and Outdoor Recreation, fuel taxes paid to the Highway Users Trust Fund to help the state, counties, and cities build and maintain roads and bridges, and many other fee-driven functions of state government. The Joint Budget Committee (2009b) appropriations report defines cash funds as:

- Separate funds set up to receive earmarked revenues, such as fees and fines.
- These funds typically pay for the programs for which the revenues are collected.
- Examples are the Wildlife Cash Fund and the Disabled Telephone Users Fund. (p. 586)
Cash funds in the state budget have increased from a total appropriation in FY 1970-71 of $276.5 million to a total of $7,337,997,454 in the FY 2009-10 budget, a 26-fold increase over the past 40 years (Joint Budget Committee, 1970 & 2009b). Indeed, the total appropriation of cash funds for the Department of Higher Education in FY 2009-10 was $1,959,111,777, compared to $660,575,732 of general fund support, a factor of three to one in terms of cash funds to state general fund. This ratio of cash funds to general fund illustrates the phenomenon of the state moving toward cash funding its higher education system with relatively less reliance on state general fund. The cash fund appropriation for the Department of Higher Education is largely tuition payments from students but also includes other cash funded activities on college campuses for functions and operations that are not exempt from the provisions of TABOR, Article X, Section 20 of the Colorado Constitution (Joint Budget Committee, 2009b). Besides tuition revenues, examples of other cash fund appropriations for higher education include fees assessed by student governments that continue to be appropriated by the General Assembly.

Additionally, not all of the funds labeled cash funds generated by higher education are appropriated in the long bill, largely because the Joint Budget Committee and its staff have elected not to account for cash funds that have been exempted from the provisions of TABOR. Despite this policy, these data indicate that, of the state appropriated funding, nearly three times as many funds are being derived from user fees than are provided by tax funds from the state for the public institutions of higher education in Colorado in FY 2009-10 (Joint Budget Committee, 2009b).

After TABOR was adopted by voters in the 1992 general election, a new budget category of “cash funds exempt” was created beginning in FY 1993-94 to account for
cash funds generated by state agencies and departments that were not subject to the overall TABOR calculation annually. This category was discontinued beginning in FY 2008-09 when the term “reappropriated funds” replaced the category of cash funds exempt from TABOR. Thus, from FY 1993-94 through FY 2007-08, cash funds exempt are combined with cash funds to account for the total cash funds appropriated for all of state government and the five programmatic areas included in this analysis.

Cash funds are intended to support the function of the program or agency which collected them and are not generally available to fund other parts of state government. In extraordinary circumstances, at least twice in the past decade, the General Assembly and Governor have moved available cash fund reserves or balances from selected areas of the state budget to assist the state’s general fund which was out of balance due to economic weakness not generating tax dollars at previously issued estimates. In fact, during FY 2009-10, the General Assembly and Governor used five separate legislative acts to transfer $124.7 million in cash funds to balance the FY 2009-10 budget due to declining general fund receipts (Joint Budget Committee, 2010b). These transfers have not always been popular with groups that supported the areas of the budget with these specific fees, but these cash fund transfers are just one indication of how difficult the budget situation has been for the General Assembly and Governor over the past 10 years. Any cash funds or cash funds exempt from TABOR that were appropriated or utilized for capital construction of buildings or major equipment were excluded from the data in this study.

**Federal funds.** The third main category of funds reported in the state budget is federal funds allocated to the state from agencies of the US government. These funds are generally from specific federal programs that provide shared or matching funds with state
funds to support a particular program. The Joint Budget Committee attempts to track most of the federal funds flowing into the state agencies each year for illustrative and historical purposes, but this is difficult, as grants and funds are often awarded directly to executive branch agencies throughout any fiscal year. The Joint Budget Committee (2009b) defines federal funds as:

Funds from the federal government. Some federal funds are grants for identified, limited purposes. Other federal funds support ongoing state-federal programs and may require state matching funds. Examples of programs requiring a state match are Medicaid and highway construction. Federal funds are exempt from the provisions of TABOR. (p. 586)

These direct awards to the state agencies or departments generally do not require an accounting or permission from the General Assembly to accept funding unless a match of state general or appropriated cash funds is necessary to accept these federal funds. An example of the challenge in accounting for all federal funds is when a college or university faculty member at a state institution in Colorado is awarded a federal grant for a specific research program from a federal agency. The annual appropriations act does not account for federal funds awarded to faculty or institutions across the state. An illustration of this phenomenon is included in the FY 2009-10 appropriations act. The total federal funding estimated or “appropriated” to all of Colorado’s higher education system is $170.8 million (Joint Budget Committee, 2009b). The University of Colorado system alone received federal awards and expenditures exceeding $557 million during this same time frame (University of Colorado, 2009). Thus, federal funds for some state
agencies listed in the general appropriations act do not provide a complete accounting of all of the federal funds that flow to state agencies in any given fiscal year. Despite this fact, the FY 2009-10 appropriation total for federal funds for operations of state government departments and agencies was substantial, totaling $4.5 billion (Joint Budget Committee, 2010b).

Other types of federal funds in the long bill include federal matching programs that have implications or requirements which state or local governments must meet to access federal funding. Many of these programs reside in the health and human services areas of the state budget and fund human service programs such as Medicaid, a joint federal-state program for providing health care for citizens who cannot afford care ($1.9 billion), child welfare services, child care assistance, and jobs programs among other areas. Other state departments with large amounts of federal funds include the department of transportation ($760.8 million), the department of education ($497.6 million), and the department of public health and environment ($209.6 million) (Joint Budget Committee, 2009b). Only federal funds that are allocated by the federal government in support of annual operations costs are included in this study, as any federal funds for capital construction have not been included in the data analysis. Additionally, since federal funds are not generally under the control and appropriation power of the General Assembly and the Governor, federal funds for operating expenses are not tracked or included in the analysis for this research. This study analyzes the state actions and responses to changes in funding for public higher education over four decades.
Categorizing the State Budget for Comparison and Analytical Purposes

To analyze budget trends spanning four decades from 1970 to 2010 effectively, it is necessary to group or categorize discrete portions of the state budget into major programmatic areas. The state of Colorado has a Constitutional limit of 20 principal agencies that may be in existence at any one time, and these limits are also set forth in statutory law (Colorado Constitution, 2010c, and §24-1-110, C.R.S.). Since this limit was adopted in 1968, a number of state principal departments have been created, and some principal agencies were merged to maintain the limit of 20 principal state departments. Since 1970, four new principal state departments were created by legislative action in response to changes in the criminal justice program and human services programs. Tracking these changes in the overall organization of state government and grouping appropriations for services effectively over the past four decades into program areas was critical in this study.

For purposes of this study, state government was segmented and categorized into five main programmatic areas: K-12 education, health and human services, the courts and criminal justice system, higher education, and “other”; that is, all functions of state government not in one of the four listed program areas were placed into an “other” category. Through these five categories, the analysis was simplified, and trends and changes were tracked for examination and reporting of the effects on public funding for public higher education in Colorado. A memorandum to members of the General Assembly from the non-partisan Legislative Council staff regarding estimated effects on the state budget from the potential voter adoption of two Constitutional amendments and
one statutory proposition (Amendments 60, 61, and Proposition 101) that will appear on the general election ballot in November 2010 categorized state general fund expenses into five programmatic categories similar to those contained in this study (Colorado Legislative Council Staff, 2010, p. 12).

**Higher education.** A major category of expenditure is the appropriation in support of higher education in Colorado. Since 1970, all of the state’s general fund support for postsecondary education has been contained in the higher education section of the annual general appropriations act. These funds support the public institutions of postsecondary education in Colorado, provide funds for the Colorado Department of Higher Education’s administrative staff who also support the statewide coordinating board, the Colorado Commission on Higher Education (CCHE), and provide statewide student financial aid funds that are allocated by the department to public, and, in certain circumstances, to private institutions in Colorado in support of resident students. While there has been reorganization of some colleges and universities with respect to governing board alignments since 1970, all of the state’s colleges and universities have been a part of the higher education section of the state’s appropriation acts from 1970 to 2010. Thus, additional analysis with respect to this programmatic section of the state budget was not required, other than verifying and calculating the total general fund and cash funds appropriated annually from FY 1970-71 to FY 2009-10. In FY 2009-10, a total of $660.5 million general fund was appropriated to the higher education section of the state budget, representing 8.8% of the total general fund appropriation (Joint Budget Committee, 2009b).
K-12 education. A significant and important budget category is K-12 education, which represents the state’s investment in and support of the 179 public primary and secondary education school districts, including charter school organizations, throughout Colorado, serving an estimated 818,443 pupils in FY 2009-10 (Joint Budget Committee, 2009b). This program has been the recipient of the largest single share of the state general fund budget every year from 1970 to 2010. This general fund appropriation provides support for operations of the state’s public elementary and secondary schools and is combined with local property tax support to fund the operations of these schools and districts. Additionally, the appropriations from the state provide the personnel and operating expenses for the Colorado Department of Education and its divisions and agencies. One such agency of the Department of Education is the Colorado School for the Deaf and Blind. Based on a 40-year review of appropriations records for the Colorado Department of Education, no major financial reorganization of this system has occurred at the state level since 1970, and therefore no changes or computations were required to track general fund appropriations each year from 1970 to 2010. Thus, the total state general fund appropriation for the Colorado Department of Education represents the K-12 program area for purposes of this study. In FY 2009-10, state general fund appropriations for K-12 totaled $3.24 billion.

Health and human services. Another major and growing category for segmenting purposes is termed “health and human services,” and this program area includes a combination of state departments for the purpose of this analysis in each fiscal year of the study. In 1970, the state had one principal agency, the Colorado Department of Social Services, in charge of the vast majority of the human and social service
functions supported and organized by the state. Additionally, the state had a Department of Health that had a variety of functions, from environmental issues to other functions in support of the overall health of Coloradans (Joint Budget Committee, 1970). For purposes of this study, the appropriations for the Department of Social Services and the Health Department were added together and represent the health and human services category from FY 1970-71 to FY 1993-94.

In FY 1994-95, statutory reorganizations of the Departments of Health, Institutions, and Social Services occurred, and three new state departments were created: the Department of Human Services, the Department of Health Care Policy and Finance, and the Department of Public Health and Environment (Joint Budget Committee, 2009a). According to Jim Rizzuto, a Senate member of the Joint Budget Committee from 1986 to 1998 who later served as the Executive Director of the Colorado Department of Health Care Policy and Finance, a major reason for this reorganization was the growing state costs of the joint state-federal Medicaid program and the legislature’s desire to have this program separately managed from other human services functions in the state. “The old structure was too convoluted for us, and we felt like we needed to break out and track the health insurance component [Medicaid] from the direct human services providers [human services] for better budget tracking,” according to Rizzuto. Thus, for purposes of this analysis, from FY 1994-95 through FY 2009-10, the general fund appropriations for the Department of Human Services, the Department of Health Care Policy and Finance, and the Department of Public Health and Environment are combined to represent the state’s investment in the health and human services functions of the state government. Discussions with state budget analysts about grouping expenses of these state
departments over the past 40 years yielded general consensus that this method was an appropriate way to group these expenses for analytical purposes. The fiscal year 2009-10 general appropriations act included $2.29 billion of state general fund appropriations for the health and human services programmatic functions of the state.

**Courts and criminal justice system.** A fourth major category of state government for this study is the courts and criminal justice system. This category was created due in large part to the growth and many changes of this part of the state budget since 1970. In FY 1970-71, the general fund appropriation for the state’s courts and criminal justice system represented just 6.0% of the state general fund budget, with total appropriations of $24.7 million (Joint Budget Committee, 1970). By FY 2009-10, the total program had increased to 14.7% of the state’s general fund budget, with a total general fund appropriation of $1.097 billion (Joint Budget Committee, 2009a). Due in part to a growing share of the state general fund budget devoted to the court system and the criminal justice system, two major reorganizations have occurred within these agencies and departments since 1970.

In 1977, the Colorado Department of Corrections (DOC) was created when it was separated from the Department of Institutions (Joint Budget Committee, 1977). Prior to its establishment as a principal state agency, the DOC was the Division of Corrections within the Colorado Department of Institutions. Additionally, in 1983, the Colorado Department of Public Safety (DPS) was formed by moving law enforcement divisions from the Department of Local Affairs and the Department of Highways (Colorado Department of Public Safety, 2010). The Colorado Bureau of Investigation was moved
from the Department of Local Affairs to the DPS, and the Colorado State Patrol was relocated from the Department of Highways to this new state department. The Department of Public Safety also includes a Division of Criminal Justice which has many functions in support of the state’s criminal justice system. Not only does the Division provide reports and research to the state, but it also manages the state’s general fund appropriations for the community corrections centers statewide (Joint Budget Committee, 2009b). These centers are commonly referred to as “halfway houses” and provide the courts and the DOC with alternative sentencing and placement options for offenders.

Due to these substantial reorganizations since 1970, it was necessary to track appropriations for these divisions prior to their current organizational structure. Thus, the courts and criminal justice program area includes appropriations for the state’s judicial branch, which covers the costs and operations of the court system from district courts, appellate courts, and the Colorado Supreme Court. Additionally, the judicial branch has historically provided probation services for the state for both felony and misdemeanor offenders (Joint Budget Committee, 2009b). Thus, the judicial branch general fund budget is included in this category in each year since FY 1970-71. From 1970 to 1977, the general fund cost of the Division of Corrections in the Department of Institutions was included in the analysis. From 1977 to 2010, the Department of Corrections general fund appropriations were recorded and added to this programmatic area of the budget. From 1970 to 1984, the Colorado Bureau of Investigation and any other criminal justice general fund expense, such as the Colorado Law Enforcement Training Academy, which were part of the Department of Local Affairs, were added to this program area of this analysis. From FY 1984-85 through FY 2009-10, the general fund for the Department of Public
Safety was added to the general fund appropriations for the Department of Corrections and the judicial branch to arrive at a total courts and criminal justice system programmatic cost.

**All other state agencies.** The fifth area of state programs for this study includes a combination of the remaining state agencies’ general fund as one broad “other” category. As of 2010, the 14 principal state departments included in this category are the following: agriculture, the governor’s office, labor and employment, law, the legislature, local affairs, military and veteran’s affairs, natural resources, personnel and administration, regulatory agencies, revenue, state, transportation, and the treasury. Combined, these agencies represented $199.4 million of state general fund appropriations in FY 2009-10, or 2.7% of the total general fund appropriations (Joint Budget Committee, 2009b). Given the relatively small amount of state general fund appropriated to these 14 state departments in FY 2009-10, it is appropriate, for purposes of this study, to group these remaining departments into one category for analysis and reporting.

**Changes in the State General Fund Budget Since 1970**

In 1970, the US Census Bureau estimated that Colorado had 2,207,259 residents, and recent estimates as it undertakes the 2010 census place Colorado at over 5,000,000 residents, an increase of 127% over the past four decades (US Census Bureau, 2009). In FY 1970-71, the state of Colorado collected $430 million in general fund tax revenues and appropriated $414.4 million for use by state government (Joint Budget Committee, 1970). Based on the consumer price index (US Bureau of Labor Statistics, 2009), after adjusting for inflation over the past 40 years, this $414 million represents $2.26 billion in
2010 dollars. By comparison, the state general fund budget for FY 2009-10 was $7.48 billion as a part of a total state budget appropriated with all funds at over $17 billion. The largest shares of appropriations of the general fund budget in FY 1970-71 were to the state’s primary and secondary education system (K-12) and secondly to the state’s postsecondary education system. In the FY 1970-71 state budget, K-12 received $143.3 million of state general fund, or 34.6% of the state’s general fund appropriations (Joint Budget Committee, 1970). In FY 2009-10, K-12 remains the largest single programmatic expense within the Colorado state budget, with 43.3% of the state’s general fund appropriations being dedicated to its functions.

Support for the state’s public higher education system was the second largest recipient of general fund in the FY 1970-71 budget, with a total general fund appropriation of $111.2 million, or 26.8% of the total (Joint Budget Committee, 1970). In FY 2009-10, the higher education system ranks the fourth out of five category areas in this analysis, with 8.8% of the state general fund budget appropriated to higher education.

The next largest programmatic area for state general fund appropriations in FY 1970-71 was the other state departments, with appropriations totaling $80.2 million, or 19.4% of the total state general fund budget. In FY 2009-10, this is now the smallest programmatic area of these five categories in percentage of the state general fund budget, declining to 2.7% of overall appropriations.

In FY 1970-71, the health and human services program area was the fourth largest recipient of state general fund, receiving $54.97 million or 13.3% of the state budget. By FY 2009-10, these expenditures had increased dramatically to $2.29 billion, or 30.6% of
the state general fund, making this program area the second largest recipient of state
general fund.

Finally, in FY 1970-71, for purposes of this study, the category of courts and
criminal justice was the fifth and smallest overall programmatic area of the state budget,
with a total of $24.8 million general fund, representing just 6.6% of the entire state
general fund appropriations base. By FY 2009-10, this program had increased to $1.1
billion for the third largest program share of the state budget at 14.7% of the total state
general fund. These complete and annual data and percentages are listed for review in
Appendix A. A graphic depiction of these changes from these data over 40 years in each
of the five program areas is shown in Figure 4.2.
**Figure 4.2.** Share of the Colorado state general fund appropriations by program, 1970-2010.

This figure illustrates the changes from 1970 to 2010 in the share of the state general fund that has been appropriated to each of these five major programmatic categories. It shows that K-12 has continued to receive at least 35% of the state general fund budget since 1970 and that this percentage is approaching 45% in 2010. Additionally, two major program areas have grown substantially in shares of the state general fund since 1970: health and human services and the courts and the criminal justice system. There are many reasons for these dramatic increases in appropriations over a 40-year period, and these elements will be chronicled and identified in following sections of this study. What is apparent with this illustration is that higher education, along with all of the other state
departments in Colorado, is continually dealing with declining state general fund support as a result of the three largest programmatic areas having grown over the past 40 years to account for nearly 90% of the FY 2009-10 state general fund budget. The trend line for both higher education and the combined programs in the other category indicates a declining share in almost every fiscal year of the analysis. Understanding the important decisions by the General Assembly, the voters, and other policymakers in making public policy and tax choices from 1970 to 2010 that resulted in this trend was central to the investigation of this study.

**Inflation Adjusted Analysis of Appropriations Since 1970**

Another method of examining changes over time in the expenditure of funds is to analyze the appropriations for each program area and adjust these amounts by a factor to account for inflationary costs and changes over time. Price inflation is a phenomenon whereby goods and services tend to cost more to receive the same goods in a future year. It is important to this quantitative analysis not only to chronicle the nominal appropriation data for the state and the categories of expenditures, but also to account for the inflationary impact on the purchasing power of public funds. Accounting for this change, often referred to as the time value of money, can refine the quantitative analysis to ensure that the data are comparable across 40 years.

The US Bureau of Labor Statistics (BLS) (2010) annually publishes an index tracking the cost of a predetermined set of goods and services for the nation, and this measure is referred to as the Consumer Price Index – Urban (CPI-U). Due to the varied nature of the five major programmatic categories in this analysis, it is appropriate to
utilize the national CPI-U as a means of adjusting annual appropriations into constant dollars. The base year of this index was set at 1982-1984 at a figure of 100. In 2010, the CPI-U was estimated by the BLS at 216.7 on this index; thus the amount for the same set of goods and services that cost $100 in 1982-84 would be estimated to cost $216.70 in 2010. At the beginning of the analysis period in this study of 1970, this same CPI-U index factor was 39.7 and the interpretation of this factor would be that this same set of goods and services that was $100 in 1982-84 would have cost $39.70 in FY 1970-71. Thus, the US Bureau of Labor Statistics estimates that using the national consumer price index for all urban consumers, inflation was 446% over the 40-year time horizon—1970 to 2010. These annual amounts calculated by the US BLS are compiled on a calendar year basis using monthly data. For purposes of this study, the monthly amounts for the months that comprise each of the 40 fiscal years in the study were averaged by year to create a unique CPI-U based on each of Colorado’s fiscal years, from FY 1970-71 to 2009-10.

Adjusting the general fund appropriations for each of the five major programmatic areas along with the state general fund collections eliminated inflationary changes in these appropriations over time. A graphic depiction of the rise in the consumer price index is illustrated in Figure 4.3, and a complete annual listing of these fiscal year factors from FY 1970-71 to FY 2009-10 is included in Appendix E.
Using these factor adjustments for each annual general fund appropriation yields a result in constant dollars. This analysis used these CPI factors to translate all annual appropriations and other monetary data from 1970 forward into 2010 dollars. Essentially, general and cash fund appropriation amounts for each of the five major programmatic categories were inflated by a unique factor for each year to create a new data set in constant dollars. As an example, the FY 1970-71 factor is 5.46 times the nominal amount appropriated to translate any FY 1970-71 dollar amount in FY 2009-10 dollars. The calculation to convert nominal dollars into real dollars (Duval, 2010) is shown in Figure 4.4, and the factors for each fiscal year over the period of the study are reported in Appendix E.

*Figure 4.3. Change in the US Consumer Price Index-Urban from 1970-2010, 1982-84 = 100, from US Bureau of Labor Statistics.*
Real Dollar Amount \(_{2010}\) = Earlier Yr Dollar Amount \(_x\) \times \frac{\text{Base Year}_{2010} \times \text{CPI}}{\text{Earlier Year} \times \text{CPI}}

*Figure 4.4.* Calculation to convert earlier year dollar amounts into 2010 dollars. From Duval, 2010.

The general fund appropriations for each of the five program areas over the time period in the study adjusted for 2010 dollars is illustrated in Figure 4.5. A complete listing of these calculated values and the percentages of the adjusted totals are listed in Appendix B.

*Figure 4.5.* Inflation adjusted general fund appropriations from 1970 to 2010 using CPI-U, in 2010 dollars.
The total state general fund budget, after adjusting 40 years of appropriations to account for inflationary changes to 2010 dollars, increased by 231% from an adjusted FY 1970-71 $2.26 billion to $7.4 billion in FY 2009-10. Further, this analysis reveals that the K-12 program area has received appropriations which increased 314%, from $782.2 million in FY 1970-71 adjusted dollars to $3.3 billion in FY 2009-10. Additionally, the health and human services program has increased from an inflation-adjusted state general fund appropriation of $300 million in FY 1970-71 to $2.3 billion in FY 2009-10, an increase of 662% over the 40-year period. While this substantial percentage growth in health and human services represents a much higher state investment over the past 40 years, the courts and criminal justice program area has actually increased in inflation-adjusted dollars faster than K-12 or health and human services. In FY 1970-71, inflation adjusted general fund appropriations for the courts and criminal justice system in Colorado was $135.2 million and in FY 2009-10, this appropriation area had increased 712%, to $1.097 billion. These three major program areas, K-12, health and human services, and the courts and criminal justice system, represented just 53.9% of the state general fund budget in FY 1970-71 compared to 88.6% in FY2009-10.

Analyzing the inflation-adjusted funding for higher education from 1970 to 2010 reveals that the overall funding has generally followed the CPI-U from an adjusted FY 1970-71 appropriation of $606.8 million to an FY 2009-10 general fund appropriation of $660.6 million, an increase of 8.9% over 40 years in constant dollars. If higher education’s general fund appropriations had simply grown at the same rate of the state general fund budget adjusted for inflation, at 231%, the appropriation would amount to $1.4 billion compared to $660 million, a difference of $800 million. Such general fund
budgets, if these were available at this level, would have placed Colorado much higher than the current 48th ranking in overall state funding on a per capita basis. Given the growth of the state and the growth of the student population in public higher education over the past 40 years, it is evident that on a per student inflation-adjusted basis, the state is not providing the support it once did for public higher education in the state. These per student analyses are detailed later in this study.

With respect to all of the other parts of state government, or the fifth main programmatic area for categorization purposes, the changes since 1970 are even more apparent and parallel the trend for public higher education. In FY 1970-71, these departments were appropriated $443.7 million in constant dollars and 40 years later, in FY 2009-10, this amount had declined by 55% of the 1970-71 general fund appropriation, or $199.4 million. Figure 4.5 illustrates the inflation-adjusted percentage change for the total state general fund budget and the five programmatic categories of this study from 1970 – 2010.
Figure 4.6. Percentage change in inflation adjusted general fund appropriations from 1970 to 2010 using CPI-U, in 2010 dollars.

It is a fair assertion that these three major program areas in FY 2009-10, which now represent nearly 90% of the state general fund budget combined, have increased at rates, even adjusted for inflation, that have significantly “crowded out” both public higher education and the other functions of state government from receiving the share of the state general fund budget that had been received in past fiscal years. This crowding out factor for both higher education and other departments of state government forces these operations to adapt to changing conditions and reduce expenses or search for other fund sources to pay for the costs of providing services. These organizations, particularly public higher education institutions in Colorado, have adapted to these changing fiscal conditions and reduction in taxpayer support by making cost adjustments in some cases, but in many ways, the majority of the change has involved shifting the burden of these expenses to the users, in this case: students. The growth of cash funds, particularly in
these two programmatic areas of the state budget, represents an adapting response to fundamental changes in a chaotic and uncertain state fiscal climate. Complexity theory is a frame of reference that assists in understanding these changes that organizations are making as they adapt to a fiscal situation where three main and growing programs continue to place increasing funding demands for general fund support from the state.

**The Growth of Cash Funds as a Substitute for General Fund**

Through examination and analysis of 40 years of appropriations data, it is evident that a large portion of state government expenses have been shifted to user fees whenever possible or feasible to institute a user charge. This is particularly true for higher education and the “catch-all” other category of state departments. In FY 1970-71, the total cash fund appropriation in the annual appropriations act for all state departments was $276.5 million; in FY 2009-10, the total appropriation was $5.57 billion, an increase of 1914% over the 1970-71 level. This increase occurred in a state that increased in population by 127% over the same time period (US Census Bureau, 2010). After adjusting for inflation into constant dollars, the FY 1970-71 cash funds appropriation would be estimated to be worth $1.51 billion in 2010 dollars. Thus, even after adjusting for inflation, cash funds appropriations increased over the 40-year period by 269%. Figure 4.7 illustrates the growth in cash funds by each of the five program areas of the state budget since 1970. These figures are detailed in Appendix C.
Figure 4.7 Cash fund appropriations by programmatic area of state government from 1970-2010, in nominal dollars.

Figure 4.7 graphically illustrates that over the past 40 years cash fund appropriations for higher education and the other category have risen substantially. This phenomenon is due to increasing demands for services in a growing state in the areas of higher education and other parts of Colorado’s state government and the lack of state general fund to support these functions and services. Thus, these parts of the state government are increasingly becoming user-fee or cash-funds driven, from sources like tuition payments, fees, and other direct charges for services. It should be noted that the two areas of the state budget, higher education and the other functions of government, which have the largest decline in state support over the past 40 years, are the two programs that have increased to the highest cash funding among the five programs. Essentially, Figure 4.7 is almost a mirror image of Figures 4.2 and 4.3, in that the categories that have lost the greatest share of state general fund over the past four decades are indeed the programs with the largest
growth in cash funds appropriations. Even accounting for inflation and adjusting these figures over time, the growth of cash funds in the state budget is substantial for higher education, the “other” category of state government, as well as some of the programs which have even received increased general fund over the time period. The inflation-adjusted cash fund appropriations by programmatic area are illustrated graphically in Figure 4.8 and are listed in Appendix D.

![Figure 4.8](image-url)  
*Figure 4.8. Cash fund appropriations by programmatic area of state government from 1970-2010, inflation adjusted to 2010 dollars.*

The shift over four decades toward cash funds being utilized to finance major portions of Colorado’s state budget reflect changes in state policies enacted by the voters and the General Assembly. The following sections chronicle the major changes and significant events since 1970 that have affected each of the five major programmatic areas and how these changes have affected the state’s general fund and cash fund appropriations.
Changes in Higher Education Funding Since 1970

In 1970, not only was Colorado sixth in the nation among the fifty states in per capita funding (Chambers, 1972) for higher education, but its portion of the state’s general fund budget was second only to the K-12 portion of the budget. In FY 1970-71, $111.2 million of state general fund was appropriated to higher education, representing 26.8% of the total state budget. While less than the K-12 appropriation of $143.3 million, higher education received more than twice the amount of appropriations for health and human services ($55 million) and four times the combined appropriations for the courts and the criminal justice system ($24.8 million). Higher education also received more general fund than all of the other functions of state government, $111.2 million versus $80.3 million for all of the other functions not in one of these four programmatic areas (Joint Budget Committee, 1970). Figure 4.9 illustrates the growth of higher education general fund appropriations in Colorado from 1970 to 2010.
These data illustrate that higher education has received a six-fold increase in state general fund appropriations from FY 1970-71 to 2009-10, from $111.2 million to $660.6 million (Joint Budget Committee, 2009b). However, adjusting these figures for inflation over the past 40 years, the result is quite different. Figure 4.10 illustrates the inflation-adjusted general fund appropriations for higher education since 1970.
This analysis indicates that in terms of inflation-adjusted dollars, public higher education was receiving about the same amount of funding in 2010 as it was in 1970, $600 million in FY 1970-71 compared to $660.6 million in FY 2009-10. In terms of the number of students in the Colorado public higher education system from 1970 to 2010, the amount has more than doubled over the 40-year period from a headcount in 1970 of 100,895 (Joint Budget Committee, 1970, p. 54) to 240,551 in 2009 (Colorado Department of Higher Education, 2010b), an increase of 138.4%. Thus, over the 40-year period of this study, average state spending in real terms on a per student basis has dropped by 55% (Figure 4.11). This reduction is from an average inflation-adjusted support of $6,091 per student in 1970 to $2,746 in 2010.
Figure 4.1. Average higher education general fund appropriations per student in 1970 and 2010, inflation adjusted to 2010 dollars.

This reduction in state support, adjusted for inflation and enrollment growth, had a profound and steady effect on the state’s public higher education system and the way expenses to support growth and higher costs were increasingly borne by the students in the form of tuition payments. Due to weak growth in state general fund support for higher education over the past 40 years, cash fund appropriations for the higher education portion of the state budget, mainly represented by tuition, have increased dramatically. Figure 4.12 illustrates the nominal growth of the cash fund appropriations for higher education. These data are listed in Appendix C.
These data illustrate that tremendous growth in the cash fund appropriations for the higher education section of the budget, from $37.7 million in FY 1970-71 to $1.37 billion in FY 2009-10. It should be noted that for appropriations purposes, the cash fund appropriations peaked in FY 2007-08 at $1.79 billion, and two years later, they were appropriated at $400 million less. This was not due to declines in cash fund revenue; rather, this was the year that the Joint Budget Committee and its staff reformatted the long appropriations bill and eliminated the cash fund exempt category designating cash funds to “reappropriated funds.” Despite this reformatting of the state budget in the last two fiscal years of this 40-year analysis, there is a clear and unmistakable trend toward greater use of cash funds to fund the operational costs of the state’s public higher education system. This same phenomenon exists even after adjusting these cash fund appropriations for inflation. Figure 4.13 illustrates the growth in cash funds for the higher
education section of the state budget, after accounting for inflation. The data used to create Figure 4.13 are listed in Appendix D.

Figure 4.13. Cash fund appropriations from 1970-2010 for higher education, inflation adjusted to 2010 dollars.

While these data illustrate that there have been a few episodes of accounting redefinitions for cash funds in higher education over the past 40 years, the trend even in inflation-adjusted dollars is clear. The state has shifted a significant portion of the higher education cost burden to the students and their families by increasing tuition and fees. It is likely that, had state support maintained a growth trajectory for higher education similar to the K-12 trajectory, the increases in tuition and other cash fees would have been lower due to increasing real state support. Absent the ability of the state to maintain its support of higher education, it has allowed institutions to increase tuition rates to compensate for and adapt to this changing funding model. This use of increased tuition revenues to fund higher education is not expected to diminish in the near future.
Tuition Rate Changes from 1970 to 2010

The increase in cash spending authority for public higher education is due mainly to a growing number of students attending public higher education and paying tuition along with increases in tuition and fee rates that have been assessed to cover the costs of a postsecondary education over the past 40 years. Table 4.1 provides a comparison of annual full time undergraduate resident tuition rates for several public institutions in Colorado in 1970 compared to 2010.

Table 4.1

*Comparison of Nominal Resident Undergraduate Annual Full Time (30 Credit Hours) Tuition & Fee Rates at Public Colleges and Universities in Colorado from 1970 to 2010.*

<table>
<thead>
<tr>
<th>Institution</th>
<th>1970</th>
<th>2010</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorado School of Mines</td>
<td>$460</td>
<td>$12,244</td>
<td>2562%</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>426</td>
<td>6,318</td>
<td>1383%</td>
</tr>
<tr>
<td>State Colleges</td>
<td>371</td>
<td>4,454</td>
<td>1100%</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>439</td>
<td>7,932</td>
<td>1706%</td>
</tr>
<tr>
<td>University of Northern Colorado</td>
<td>371</td>
<td>5,451</td>
<td>1369%</td>
</tr>
<tr>
<td>Community Colleges</td>
<td>180</td>
<td>2,945</td>
<td>1536%</td>
</tr>
</tbody>
</table>
Note: 1970 data from Joint Budget Committee, 1970 Appropriations Report, pp. 73-74 & 2010 data from Colorado Department of Higher Education, 2010c. Colorado State University 2010 data are for base tuition and fees at the Fort Collins campus, the State Colleges 2010 data are for Adams State College, the University of Colorado 2010 data are for base tuition and fees at the Boulder campus, the University of Northern Colorado 2010 data are for base tuition and fees, and the Community College 2010 data are for Front Range Community College.

It is apparent that over the past 40 years, the state has allowed public higher education tuition rates to increase, in large part, to compensate for the real decline in public funding on a per student basis. Adjusting tuition rates to 2010 dollars due to inflation, shown in Table 4.2, over the past 40 years yields smaller percentage increases than Table 4.1 but still illustrates substantial increases in real tuition and fee rates since 1970.

Table 4.2

Comparison of Inflation Adjusted Resident Undergraduate Annual Full Time (30 Credit Hours) Tuition & Fee Rates at Public Colleges and Universities in Colorado from 1970 to 2010.

<table>
<thead>
<tr>
<th>Institution</th>
<th>1970</th>
<th>2010</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colorado School of Mines</td>
<td>$2,511</td>
<td>$12,244</td>
<td>388%</td>
</tr>
<tr>
<td>Colorado State University</td>
<td>2,325</td>
<td>6,318</td>
<td>172%</td>
</tr>
<tr>
<td>State Colleges</td>
<td>2,025</td>
<td>4,454</td>
<td>120%</td>
</tr>
<tr>
<td>University of Colorado</td>
<td>2,396</td>
<td>7,932</td>
<td>231%</td>
</tr>
</tbody>
</table>
University of Northern Colorado  2,025  5,451  170%

Community Colleges  983  2,945  200%

Note: 1970 data from Joint Budget Committee, 1970 Appropriations Report, pp. 73-74, adjusted for inflation & 2010 data from Colorado Department of Higher Education, 2010c. Colorado State University 2010 data are for base tuition and fees at the Fort Collins campus, the State Colleges 2010 data are for Adams State College, the University of Colorado 2010 data are for base tuition and fees at the Boulder campus, the University of Northern Colorado 2010 data are for base tuition and fees, and the Community College 2010 data are for Front Range Community College.

A Fundamental Shift Since 1970 in Who Pays for Higher Education in Colorado

These data clearly illustrate that over the past 40 years, the costs of a college education in Colorado for resident undergraduate students has fundamentally shifted from the majority of the expenses funded by taxpayers to the majority now funded by students. As Colorado State University System’s Chief Financial Officer Richard Schweigert pointed out, “We are cost shifting to students—that is all we are doing due to the state basically ignoring its ‘economic engine’—higher education.” This shift has occurred not only due to increasing costs to provide postsecondary educational services but also due to limits of the state’s general fund to support student growth and other demands on the state’s general fund. Such a change has had a profound impact on the equation of public funding and the state policy that was in place in 1980 when the student was expected to pay 25% of the cost of an undergraduate education while the state covered 75%. This equation, for many public institutions in Colorado looks more like the equation in Figure 4.14 than it did in 1980, where in some cases today, students are paying approximately 75% of the cost of their education while the state support has declined to
covering just 25% of the cost. This cost of education varies among the type of public institution in Colorado, but, clearly, for the research universities such as the Colorado School of Mines, Colorado State University, and the University of Colorado, the equation in 2010 is closer to the actual cost share of an undergraduate education.

\[
(100\%) \text{ Cost of Education} - (75\%) \text{ Price of tuition} = (25\%) \text{ Public Subsidy}
\]

*Figure 4.14.* Equation of funding public higher education for Colorado, 2010, from Goldstein (2005) equation.

This shift in funding is the result of changes in other parts of the state budget that have limited the ability of the state to increase its support of students in public higher education at historical levels. Indeed, three major program areas of the state budget have increased at substantial rates, even after adjusting for inflation, over the past 40 years, and these increases have affected the ability of the state to support public higher education at levels anywhere near 1970 levels.

**Changes in K-12 Funding Support from the State Since 1970**

Since 1970, the state support for K-12 education statewide has represented the single largest expenditure of state general fund appropriations. This is due to a number of factors, but one key reason is that since the 1930s, the state has relied on a combination of locally generated property taxes and state taxes to fund the state’s school districts. According to former State Senator Norma Anderson, Colorado first enacted a state income tax in the late 1930s to provide state support to the K-12 schools across the state. According to Senator Anderson, a memorandum she received in the early 1980s from the Director of Legislative Council, Lyle Kyle, stated that the state income tax was enacted in
the late 1930s, and 92% of the funds generated by this tax were to be directed to the public K-12 schools in the state. This income tax was meant to reduce the reliance on local property taxes which previously had provided the entire funding to local school districts. Thus, even 80 years ago, the state began to examine its funding policies and sources for K-12 schools, considering a combination of local and state funding to provide the funds needed to operate elementary and secondary public schools.

In the 1970s, the local property tax was the largest and most important component of total K-12 funding across the state and, in FY 1970-71, the state was appropriating 34.6% of the entire state general fund appropriations for K-12, at $143.3 million (Joint Budget Committee, 1970) to add to the local property taxes collected for support of local schools. The state increased its general fund appropriations every year during the 1970s for K-12, and by FY 1979-80, the state had increased K-12’s share of the total state general fund to 43.1% of total appropriations, at $470.8 million (Joint Budget Committee, 1979). Figure 4.15 illustrates the growth of K-12 general fund appropriations over the past four decades.
Figure 4.15. General fund appropriations from 1970-2010 for K-12, in nominal dollars.

The data illustrated in Figure 4.15 show a continual and increasing state general fund appropriation for K-12 in Colorado in every year except FY 1981-82. General fund appropriations declined from $479.9 million in FY 1980-81 to $471.0 million in FY 1981-82 (Joint Budget Committee, 1981). From reviews of historical records, it appears that the state utilized an adjustment to local property taxes in this year to offset some of the state general fund costs for K-12. This was a one-year phenomenon, as in the subsequent fiscal year, 1982-83, state general fund for K-12 increased to $648.2 million, or an increase of 37.6% over the FY 1981-82 appropriation. With this modest exception, and in every fiscal year since FY 1982-83, state general fund appropriations for K-12 have increased from the prior fiscal year. In inflation adjusted dollars, K-12 has increased from an adjusted base in FY 1970-71 of $782 million to $3.24 billion in FY 2009-10, an increase of 314%. Figure 4.16 illustrates the increase in general fund appropriations from 1970 to 2010 adjusted for inflation.
Colorado has appropriated more general fund each year to the K-12 system statewide for several reasons, including legislative policy decisions, court initiated actions, and voter approved changes to state government finances adopted over the past four decades.

According to Charles Brown, former director of the Colorado Legislative Council staff and recognized school finance expert for the state, the first major public policy initiative that affected K-12 between 1970 and 2010 was the school finance act of 1973.

**Litigation affecting K-12 school funding, 1977-1982.** According to Brown, “The school finance act of 1973 amended the school foundation act of 1969, because the 1969 Colorado act had similarities with a California school finance act that was declared unconstitutional — the 1973 act was a direct result of that [California litigation].” The 1973 act set forth a process to fund school districts with state funds and local property taxes as the two major components of K-12 school finance. This threat, or the actual
filing of litigation against school finance statutory structures or schemes, can and does have an effect on the public policy process and how the General Assembly reacted to funding decisions for K-12, according to both Brown and Senator Anderson. Brown posited, “Litigation in my experience can be a motivator when threatened, but when filed can have a very chilling effect on public policy.” Litigation against the legislature or its funding plans for K-12 contributed to a level of chaos in budgeting and planning. Uncertainty about how the state would fare in court regarding its K-12 funding act made for uncertain and difficult budgetary choices for policy makers.

Brown noted that a lawsuit was filed against the state in the 1976-77 time frame against the 1973 K-12 funding act (Lujan v. Colorado State Board of Education) and that the Colorado Supreme Court ruled in 1982 that the act was indeed Constitutional, “a decision which blew everyone away,” stated Brown, because many were unsure if the state would prevail. This uncertainty was present because the initial trial court in Denver had previously ruled the act unconstitutional in that it violated the equal protection provisions of the state and US Constitutions (Office of Legislative Legal Services, 2005). By FY 1981-82, K-12 was receiving $471 million in state general fund, but by FY 1982-83, this had increased to $648.2 million (Joint Budget Committee, 2009a).

The “Gallagher Amendment” of 1982. Voters in Colorado in 1982 adopted a Constitutional amendment (Colorado Constitution, 2010g) that made significant changes to which classes of real property had the burden of funding property taxes statewide. Termed the Gallagher Amendment because it was sponsored by State Senator Dennis Gallagher (D-Denver), it was placed on the ballot by a 2/3 vote in both houses of the
General Assembly. According to former Senator Gallagher, “People in my first campaign, especially older people [were] complaining about the fact that they could not afford their houses with property taxes the way they were going up and up and up.” This theme lead then-State Representative Gallagher to work with other legislators to create a statutory program offering modest property tax rebates for senior citizens in Colorado. The 1970s were a time of high inflation, and this phenomenon inflated real estate values and made those on fixed incomes less able to pay property tax bills, according to Gallagher. Additionally, the California voters’ adoption of Proposition 13 in 1978 affected public policy discussions in the state, and according to Gallagher, “The fear of the legislators was that there would be a similar proposal [to Proposition 13] offered in Colorado—that the handwriting was on the wall and we actually have to do something about property taxes, on homes especially.”

The Gallagher Amendment to the state Constitution made a number of changes to the amount two different classes of real property across the state would contribute to local property tax collection for the state’s schools. This amendment not only required uniform assessments of property values statewide by county assessors, but also set in the Constitution a procedure that eventually mandated that 45% of the property tax bill statewide would come from residential property taxes and that non-residential property, including commercial and agricultural property, would bear 55% of the property tax burden (Colorado Constitution, 2010g). The difficulty with this fixed ratio is that statewide, residential property values are estimated to now represent over 70% of the total property values. Thus, a continual shift in property tax burden from residential properties to non-residential properties creates challenges for the state. It seems obvious
that voters were concerned about the growth of property taxes and purposely voted for this limit to keep their property taxes as low as possible. The challenge with this legislature-referred and voter-approved public policy change is that, according to a number of officials interviewed for this study, the increasing tax burden on businesses and commercial properties have made it challenging for the state to attract businesses to relocate or expand operations in the state. State Senator Keith King (R-COLORADO SPRINGS) said, “[the] Gallagher [Amendment] kills business in the state because of the 55:45 split; the business personal property tax is tough on businesses in the state and hurts economic development, which in turn makes it more difficult to get a good tax base.” This challenge forced the state to consider increasing its general fund support of public schools to mitigate the effect of the Gallagher amendment on the state’s non-residential properties. The next litigation to affect K-12 state funding would occur in 1987. The state general funding for K-12 in FY 1983-84, the year following the adoption of the Gallagher amendment, was $774 million, and this increased over the next five years to $962 million an increase of 24.3% by FY 1988-89.

**Additional litigation and the public school finance act of 1988.** Another school finance lawsuit *(Hafer v. The State Board of Education et. al)* was filed on February 5, 1987, against the state school finance act, alleging that the act did not provide a “through and uniform” education as required by the Colorado Constitution (Office of Legislative Legal Services, 2005). The state made a motion in court to dismiss the lawsuit, and in October 1987 a district court judge, while dismissing some of the claims, refused to dismiss two claims in the lawsuit. According to the Office of Legislative Legal Services (2005), “Prior to trial on the two remaining claims, the General Assembly enacted the
public school finance act of 1988. Plaintiffs voluntarily dismissed the Hafer suit in May 1988.” Brown concurred with this assessment and offered, “[the Hafer case] gave rise to the school finance act of 1988 and there was an expansion of [state] funding for K-12 as a result.” Young (2006) reported the following on the policy choice of the General Assembly: “Rather than cut the richer [school] districts to increase funding to the poorer ones, the decision was made to increase revenues to cover the additional money required for the lawsuit” (p. 27). Brown concurred in this assessment: “[the strategy] was using the state’s financial power to equalize local resources.” The FY 1989-90 general fund appropriation for K-12 was $1.038 billion, an increase from a prior year appropriation of $962 million, or 7.9% (Joint Budget Committee, 2009a).

**TABOR affects K-12 finance since 1992.** The voters approved and initiated an amendment in the 1992 general election, which created Article X, Section 20 of the Colorado Constitution, a tax and expenditure limitation (TEL) commonly known as TABOR (Taxpayers Bill of Rights, 1992). This TEL included a number of provisions, but the most significant provision that affected K-12 finance was the prohibition of increasing property tax mill levies, or any other tax, without a popular vote of the voters at a general election. Until this prohibition existed in the Constitution, the General Assembly could, at its discretion, adjust mill levies for property taxes for schools as part of the funding plan to combine an expected local property tax amount with state support to support K-12 schools. Beginning in FY 1993-94, the first year that TABOR was in effect, the General Assembly no longer had the power to adjust mill levies in support of K-12 finance. Thus, one financing tool for K-12 statewide, local property taxes, could not be increased, even as costs and growth continued across the state. This new development,
along with the Gallagher amendment’s effect on business and commercial property taxes, forced the General Assembly to look at other ways to provide funding for K-12. The main solution that was in legislative control was to increase the state general fund support for K-12.

The public school finance act of 1994. In 1993 the General Assembly created an interim study committee to examine the effects of TABOR on the school finance act and determine if changes were needed to the school finance act of 1988. According to former State Senator Norma Anderson, “The main reason a new school finance act was created in 1994 was not due to TABOR, but due to complaints from many school districts that the 1988 act treated them unfairly.” The school finance act of 1994 was passed by the General Assembly and adjusted funding categories from the 1988 act, adding a number of new categories in the act to assist districts with specific funding challenges. This act also had to provide a financing mechanism outside of adjustments to local property tax mill levies that could provide the resources for the state’s school districts. According to Brown and Anderson, this act is still in use by the General Assembly and was amended by the Colorado voters in 2000.

Amendment 23’s adoption by voters at the 2000 general election. One major reason that the state has increased its contribution to K-12 each year since 2000 is the passage of a taxpayer initiated referendum, Amendment 23, in the 2000 general election. This amendment to the Colorado Constitution specified that the state must appropriate an increasing amount of its general fund to K-12 each fiscal year for a 10-year period that began on July 1, 2001. The amendment provided that the state increase its general fund
support of the K-12 system by the rate of growth of the official inflation rate plus an additional 1% annually for a ten-year period from FY 2001-02 through FY 2010-11 (Colorado Constitution, 2010e).

Since this amendment was implemented in FY 2001-02, the state general fund appropriated for K-12 has increased in nominal dollars from $2.27 billion in FY 2001-02 to $3.24 billion in FY 2009-10, or by 55.6% over the eight-year time period since its adoption. Additionally, the percentage of the state general fund budget devoted to K-12 increased from 40.5% in FY 2001-02 to 43.3% in FY 2009-10. Finally, the automatic inflation adjustment provision in Amendment 23, along with a 1% increase above inflation and provision for student population adjustments, has served to increase the K-12 state general fund budget, even after adjusting for inflation over this time period. After adjusting for inflation, the FY 2001-02 budget would represent an adjusted $2.75 billion compared to a FY 2009-10 appropriation of $3.2 billion, or a 16.4% increase in funding. This amendment has dictated that more of the state general fund budget be devoted to K-12 education over the past eight fiscal years; however, the trend toward more state funding for K-12 relative to other programs in the state budget began as early as the 1980s.

**Shift in K-12 funding from property taxes to the state.** The continuing shift away from local property taxes toward state funding for K-12 has had tremendous effects on other parts of state government that had historically relied on state general funding for its programs and operations. This phenomenon has also shifted the relative share of state and local funding for K-12 over the past 16 years. According to a report issued by the Center for Colorado’s Economic Future at the University of Denver,
[School] Districts will get a total of $5.7 billion in FY 2009-10. Local property taxes will kick in about $1.9 billion of that and specific ownership taxes slightly less than $150 million. The remaining 65 percent—$3.7 billion—will come directly from the state. A decade ago, the state’s share was much lower—57 percent. (Roberts & Brown, 2009, p. 4)

Additionally, in FY 1994-95, when the 1994 school finance act was adopted, the state to local share of the K-12 expenses statewide was 50% state funding to 50% local property tax funding. This shift from 1994 to 2010 shows that the state is now covering 65% of the total K-12 funding and is a major factor in the continued squeeze on other portions of the state budget that have historically relied on state general fund for operational costs. The state general fund appropriation for K-12 has more than doubled from $1.4 billion in FY 1993-94 to $3.24 billion in FY 2009-10 (Joint Budget Committee, 2009b).

**Student enrollment increases since 1970 and per student funding change.**

Since 1970, due in large part to the state’s growth, the number of students attending public primary and secondary schools has increased by 33%, from 548,302 in 1970 (Joint Budget Committee, 1970) to 818,443 in 2010 (Joint Budget Committee, 2009b). Examining the inflation adjusted amount of state general fund support per student in K-12, and the change from 1970 to 2010, yields a vastly different picture than the public funding per student for higher education indicated in Figure 4.11. In FY 1970-71, the state appropriated an average of $1,427 in inflation-adjusted state general fund per K-12 student. By FY 2009-10, this average amount had increased by 177% to $3,958 per K-12
student. Figure 4.17 illustrates the change in K-12 per student funding over the past 40 years in real dollars.

![Figure 4.17. Average state general fund appropriations in 1970 and 2010 for K-12, inflation adjusted to 2010 dollars, per student headcount.](image)

This mandated shift toward increasing K-12 state funding through general fund support has had significant implications for other program areas of the state budget that are not mandated in the Constitution nor have the force of federal or court mandates to require increased state appropriations.

**Changes in Health and Human Services Funding Since 1970**

The amount of state general fund appropriated to the health and human services program of the budget has grown substantially over the past 40 years, with a number of reasons for this change. Policies created and enacted by the federal government’s “War on Poverty” and “Great Society” since the mid-1960s have led to the creation of
numerous new programs that the federal government authorized to provide an enhanced safety net for many US citizens without financial means for subsistence or medical needs. Many of the programs enacted were designed to be a federal-state partnership where costs would be shared between the federal government and the 50 states, with the states managing the program under federal laws and rules. This partnership that created a type of “social safety net” has, in turn, had tremendous implications for state budgets and the portions dedicated to these health and human service functions. Indeed, in FY 1970-71, the state appropriated a total of $55 million of state general fund for all of these functions (Joint Budget Committee, 1970). By FY 2009-10, this appropriation had grown to $2.29 billion, an increase in nominal terms of 4060% (Joint Budget Committee, 2009b). Figure 4.18 illustrates the increase in general fund appropriations for health and human services program of the state budget since 1970.

Figure 4.18. General fund appropriations from 1970-2010 for health and human services, in nominal dollars.
This figure illustrates the dramatic growth in the state general fund appropriated for the health and human services area of the state budget. The growth has been particularly pronounced since 1990, the latter 20 years of the time period reviewed. In inflation-adjusted terms, the growth of the general fund for this program area has similarly increased at a substantial rate. Adjusting the 1970-71 appropriation to 2010 dollars yields a result of $300 million in 1970-71 compared to an FY 2009-10 appropriation of $2.29 billion, an increase in constant dollars of 662%. Figure 4.19 graphically illustrates this inflation-adjusted growth over the past four decades.

Figure 4.19. General fund appropriations from 1970-2010 for health and human services, adjusted for inflation to 2010 dollars.

This growth has challenged and frustrated many legislators in both parties over the years. Former State Senator Joe Shoemaker was a member of the Joint Budget Committee (JBC) from 1969 through 1976. Senator Shoemaker (1977) described the Department of
Social Services as far back as 1976 as “a ravenous beast that devours tax dollars without end” (p. 8). This description was made when health and human services was just 14% of the state general fund budget at $141 million in FY 1977-78 (Joint Budget Committee, 1977). Former Colorado Governor Bill Owens said that during his two terms in office, 1999-2007, “despite our efforts to reduce costs, the growth of the state spending required to meet the federal mandates in Medicaid and other social programs was one of our greatest challenges in the budget.” This growth in spending for health and human services has contributed to the consequences for other areas in the state budget, most notably public higher education, but many other functional program areas as well.

**Brief history of the Medicaid program and expansion of eligibility and services.** The creation of the Medicaid program was a part of the 1960s era of President Lyndon B. Johnson and his “Great Society” initiatives. According to the Kaiser Commission on Medicaid and the Uninsured (2010a):

> On July 30, 1965, President Lyndon Johnson signed legislation that created the Medicaid program. Medicaid has grown from its origins as a health coverage program for welfare recipients into a public health insurance program for the nation’s low-income population as well as the predominant long-term care program for the elderly and individuals with disabilities.

Indeed, this program started with a simple idea of providing health care coverage to those on welfare and grew to one of the nation’s largest entitlement programs, serving an estimated 55 million Americans through a variety of program expansions (Kaiser Commission, 2010b). According to legislative budget analysts for the state and
researchers for the Kaiser Commission on Medicaid and the Uninsured, the US Congress expanded this joint state-federal Medicaid program substantially in terms of eligibility in the mid-1980s and into the 1990s. This health care expansion included covering the costs of childbirth as well as children born to mothers in the US who previously had no health insurance. In 1984, provisions established by Congress in the Deficit Reduction and Reconciliation Act required states to cover children born after September 30, 1983, up to age five, for those eligible or participating in the Aid to Families with Dependent Children program (Kaiser Commission, 2010a). This same provision also required states for the first time in the program’s history to cover pregnant women who were unemployed. In 1988, Congress added additional mandates with respect to covering catastrophic medical issues and increased Medicaid eligibility for pregnant women up to 100 percent of the federal poverty amount established during this time. In 1989, these federal requirements of the states were increased again when Congress mandated coverage for children up to six years of age and pregnant women whose income was at 133% of the federal poverty amount (Kaiser Commission, 2010a). These mandates were further increased in 1990 when revised provisions required states to phase in coverage for children from 6 through 18 who were living at 100% or less of the established federal guidelines. This expansion allowed states to phase in this new provision from 1991 through 2002, but the trend had been established to continue to provide more medical services and health coverage for more low-income citizens than ever before. According to legislative budget analysts familiar with this historical perspective, the substantial growth in covered medical services, along with a growing population of eligible citizens
and growing health care costs, had substantial implications for the budgets of the states, and Colorado was no exception.

Litigation affects costs of Medicaid in Colorado. On several occasions over the past 40 years, the Colorado Hospital Association and other trade organizations representing health care providers have sued the state in court challenging the level of reimbursement from the state for services provided under the Medicaid program. As early as the 1970s, the state’s hospitals providing services to Medicaid beneficiaries sued the state for what it believed were reimbursement rates and rate increases that were much lower than requested during the annual budget process. According to former State Senator Joe Shoemaker (1977), in an August 10, 1976, deposition taken by an attorney for the Colorado Hospital Association, the attorney questioned the legislator regarding the reason why the Joint Budget Committee had granted hospitals only a 6% rate increase when they sought a 20% increase in rates during the previous budget cycle (p. 5). Shoemaker responded:

It’s about time that State government, administrative-wise as well as legislative-wise, got down to holding tough budget hearings. Otherwise nothing is going to happen except those health care costs are going to go up and up and up. . . . No matter what documents you pick up these days, everybody’s talking about the subject, and they all act as though it’s some mystery. There isn’t any mystery to it at all. It’s simply that nobody is doing any budgeting and nobody is asking the hard budgeting questions, which will be the only check and balance, since there is no profit in this situation. Nobody who had to pay the bill for that would pay the
bill for these costs. The patients, if they had to pay it out of their own pockets, like they have to pay for education or transportation or food or clothing, they’d squawk like hell with these hospitals; but they don’t squawk; they don’t say a thing. (p. 6)

Former Governor Richard Lamm noted, “We have now raised Medicaid so the compensation is now 95% of Medicare compensation—it used to be 50%. . . . This is a big problem for the state.” This pattern of litigation against the state for higher reimbursement for Medicaid continued for the next two decades, and, according to former Executive Director of the Department of Health Care Policy and Finance (HCPF) Jim Rizzuto, these lawsuits almost always have led to higher unit costs for medical services for the state. Rizzuto recalled that during the late 1980s into the early 1990s, the hospitals were again suing the state, alleging low reimbursement rates. The state eventually settled with the hospitals, but the early 1990s represented some of the highest year-over-year general fund budget increases over the past 40 years. These increases account for, in large part, the steep increases in general fund appropriations from 1990 to 1995, illustrated in Figure 4.18.

Rizzuto also recalled that in the late 1990s, after the state moved many of the Medicaid clients into a managed-care system in an attempt to control costs and soon after contract negotiations between HCPF and one Health Maintenance Organization (HMO) had concluded, the company turned to the courts and sued the department and the state, alleging insufficient reimbursement rates. This was almost immediately after the contract agreement had been signed.
This continual and real threat of litigation from the state’s Medicaid providers contributed to the budgetary challenges for the state over the past four decades and required increased general fund appropriations to satisfy the demands of the providers. It also led to a level of chaos in budgeting at the state level, for the successful lawsuits challenging reimbursement rates strengthened the threat of new or renewed litigation, and this affected legislative recommendations and decisions regarding funding levels.

The effect on Colorado’s budget. By FY 1990-91, the health and human services program in Colorado had grown in general fund appropriations to $499.7 million, or 19% of the state general fund budget. A substantial portion of this expenditure was the growing costs of the Medicaid program. This marked the first year in modern Colorado history that the state was spending roughly the same amount of public funds on health and human services as it was on higher education ($502.4 million) (Joint Budget Committee, 2009a). Fiscal year 1991-92 was a turning point in these two major areas of the state general fund budget, as appropriations for health and human services increased to $731.6 million, or 22.3% of the total, while higher education general fund was reduced to $496.9 million, or 17.6% of the total. Major factors in this turning point included the state experiencing a modest recession which reduced state tax revenues, and the state was also facing growing caseloads and costs due to the federal government’s mandated program expansions in Medicaid. The growth trend for state general fund in health and human services has continued to increase since this time, even after adjusting for inflation, as shown in Figure 4.19.

In FY 2009-10, the state of Colorado’s Medicaid program, as the major portion of the health and human services program area of the budget, represented $1.6 billion of the
$2.29 billion total, or 70% of the general fund appropriations (Joint Budget Committee, 2009b). As a portion of the overall state general fund budget of $7.48 billion, Medicaid alone had increased to 21% of the entire state general fund appropriations budget. Indeed, according to Roberts and Brown (2009), the state’s Medicaid population increased from 250,000 in 1994 to over 450,000 by 2008, nearly doubling over a 14-year period (p. 6). Other sources indicate that the number of Colorado citizens covered by Medicaid is even higher than these figures.

According to researchers with the Kaiser Commission on Medicaid and the Uninsured (2010b), in FY 2007-08 the Medicaid program in Colorado covered an estimated 553,800 state residents, or roughly 11.5% of the state’s then estimated population of 4.8 million. Of these insured by Medicaid in Colorado in 2008, nearly 60% were children and 13.8% were disabled citizens. Thus, as the US has wrestled with ways to provide health care for its financially disadvantaged residents, continued growth in health care costs has had significant ramifications for all other parts of state budgets that once relied on the state general fund for a majority of annual operational expenses.

Cash funds also increased in health and human services. Not only has the general fund appropriation increased for the health and human services program area of the budget over the past 40 years, but so have the cash funds being collected or utilized to provide these services. Figure 4.20 illustrates the growth in cash fund appropriations for the health and human services program area of the budget over the past four decades.
Figure 4.20. Cash fund appropriations from 1970-2010 for health and human services, in nominal dollars.

These data indicate that particularly in the past 20 years, the increase in cash funds appropriated to the agencies and departments that are part of the health and human services program has been substantial, nearing $1 billion. The reduction over the past two fiscal years in the analysis can be attributed to category changes developed by the Joint Budget Committee beginning in FY 2008-09. Figure 4.21 illustrates the growth in cash funds in this area adjusted for inflation over 40 years.
Even after adjusting for inflation, it is clear that cash funds appropriated to the health and human services program have increased as the population served and services covered have increased. The recent downward spikes in the last two years of these data are related to reporting changes rather than any loss or reduction of cash funds. As noted previously, the Joint Budget Committee changed the methodology and formatting of funds in the last two fiscal years of this analysis, and this format and reporting change accounts for the decrease from $1.4 billion to just under $1 billion, but does not represent a real decrease in cash funds. The reality of these data show that not only has the general fund increased substantially for the health and human services program of the state budget over the past 40 years, but so has the contribution of fees and other funds that, when combined, represent an investment of state resources of over $3 billion annually.
**Voters expanded health care coverage in Amendment 35 in 2004.** In the 2004 election, Colorado voters expanded government health care coverage in Colorado by adopting Amendment 35, which was an initiative to raise taxes on cigarettes and other tobacco products to raise an estimated $180 million annually for these programs (Colorado Legislative Council Staff, 2004). This initiative was intended to increase tobacco taxes to expand health care coverage in targeted areas as described in the ballot language to include coverage for disease prevention and programs to address tobacco-related health issues. A significant portion of the funding, 46% in 2007, was used to expand Medicaid coverage for children and other low income residents in Colorado (Colorado Department of Public Health and Environment, 2007). According to legislative budget analysts, the programs supported by the new tax were being funded adequately until the recession of 2008-2010 when these revenues dropped significantly.

The challenge for the state at this point is that these new programs that were initiated, expanded, and funded are now expected to have demands on the state general fund budget, due to declining dedicated tobacco tax revenues. It would seem that the state could reduce programs in Amendment 35 due to declining revenues, and has appeared to use this strategy in some ways. However, the state cannot reduce several of the programs entirely due to developments at the national level. The expansion of Medicaid eligibility of certain residents and children in Colorado under Amendment 35’s programs may not be reduced due to federal mandates in the federal health care reform law that passed Congress in 2009. Thus, this program, that was intended to increase health care coverage for certain residents of the state through a new dedicated revenue stream, now must have
this coverage provided in part by state general fund after its fund balances are depleted. This development is expected to increase costs in the future for this programmatic section of the state budget.

**Medicaid expenses to increase due to federal health care reform.** It is clear from the data gathered in this study that the federal-state Medicaid program and its growth since 1970 had a tremendous impact on the state general fund budget. It is unlikely that this situation will improve in the near future and, in fact, the Medicaid funding mandates on the states, including Colorado, are increasing beginning in 2014. According to legislative budget analysts, relying on initial estimates from the Colorado Department of Health Care Policy and Finance dated April 12, 2010, federal law beginning in 2014 will require that Medicaid coverage be increased to 133% of the federal poverty line for all residents of the states. According to these estimates provided to the staff of the Joint Budget Committee, beginning in FY 2016-17, the state will have to increase its general fund appropriations by $30.9 million, increasing to $72.5 million in FY 2019-20. In the first three years of the new federal health care law, the federal government will pay 100% of the expected cost increase and the first year, FY 2013-14, is expected to cost $211.2 million. In FY 2014-15, the Medicaid expansion is projected to cost the federal government $444.8 million and increase to $586.1 million by FY 2015-16. Beginning in FY 2016-17, the State of Colorado has to match this expansion at a 90:10 ratio, and this is expected to cost the state general fund $30.9 million. Some policymakers are not convinced that these estimates sufficiently represent the actual financial impact once health care inflation is compounded over the next four to five years. In fact, Senator King said:
I expect the health care reform law from the federal government will result in additional expenditures to the state of at least $200 to $300 million . . . and I expect that this could be higher than $300 million by the time this law starts hitting the state.

Thus, the increases in Medicaid expenditures expected due to provisions in the new national health care reform legislation will likely result in higher costs to the states, including Colorado, and this will require even greater state general fund appropriations in future budget years.

It is clear from these data that the “Great Society” and “War on Poverty” 1960s-era policies have helped hundreds of thousands of Colorado residents by providing these citizens with medical care and financial support that did not exist 40 years ago. What is also clear is that these policies have resulted in a fundamental shift in priorities of state government spending over the past 40 years. What was a fairly small program in 1970 representing just 13.3% of the general fund budget has grown to become the second largest budget category for state spending in 2010, now consuming nearly 31% of the entire state general fund budget. Contributing factors to these budget increases have been both the federal mandates and the efforts of providers to seek higher reimbursement levels through litigation against the state.

This fundamental shift in spending priorities has had significant negative ramifications to the state’s capacity to fund higher education at levels of funding that existed prior to the exponential growth in Medicaid.
Changes in the Courts and Criminal Justice System Funding Since 1970

Numerous changes have occurred in Colorado’s court and criminal justice system from 1970 to 2010. In FY 1970-71, the state appropriated a total of $24.8 million general fund to all of the functions of this category. This programmatic area is made up of three discrete functions, and each has specific features that have resulted in an increase in general fund appropriations over time. These functions include the state judicial branch, which encompasses courts and probation, the division of corrections in the Colorado Department of Institutions, and the law enforcement functions that previously were located in the Colorado Department of Local Affairs (Joint Budget Committee, 1970). This amount was just 6.0% of the state general fund appropriation. By contrast, general fund spending increased to 14.7% of the total general fund appropriation in FY 2009-10, translating to $1.097 billion of general fund allocated for the judicial branch, the department of corrections, and the department of public safety (Joint Budget Committee, 2009b). Figure 4.22 illustrates the growth in general fund appropriations for these programmatic elements of the state budget. The growth from $24.8 million to $1.097 billion is a nominal increase of 4330% over 40 years.
Figure 4.22. General fund appropriations from 1970-2010 for the courts and criminal justice system, in nominal dollars.

The growth of the court and criminal justice system since 1970 has also been substantial in terms of inflation-adjusted values. After adjusting all of the appropriations for this programmatic element of the state budget for inflation, the growth of this portion of the state general fund budget increased by 712% over the past 40 years, from $135.2 million in 2010 adjusted dollars for FY 1970-71 to $1.097 billion in FY 2009-10. Figure 4.23 illustrates this increase over the past four decades.
Figure 4.23. General fund appropriations from 1970-2010 for the courts and criminal justice system, inflation adjusted to 2010 dollars.

The state has devoted a significantly larger share of the state general fund budget to the courts and the criminal justice system since 1970 for a number of reasons, among them: litigation against the state’s prison conditions, increases in criminal sentence length, the growth of the state’s population, and increased sophistication and technology in prosecution of offenses, combined with Colorado as part of a national trend toward longer periods of incarceration. All have combined to shift a significant portion of the state general fund budget to the courts and criminal justice system.

**Judicial branch funding increases since 1970.** The judicial branch of the Colorado state government has had marked increases in its general fund appropriations over the past 40 years. This branch provides the staff and judges in the state district courts, the Colorado Court of Appeals, and the Colorado Supreme Court. Additionally, the state court system in Colorado organizationally includes the probation officers
statewide. Thus, as probation caseloads grow and additional probation officers are needed to handle the caseloads, increases in staffing and general fund appropriations are required. Finally, the judicial branch budget includes funding for the office of the public defender, which provides Constitutionally guaranteed representation to those without the financial means to retain legal counsel.

The growth of the state since 1970 has increased the judicial branch general fund budget from $15.6 million in FY 1970-71 (Joint Budget Committee, 1970) to $336.4 million in FY 2009-10, an increase of 2056% over the 40-year period (Joint Budget Committee, 2009b). Even after adjusting for inflation, the increase in judicial branch costs was substantial, from an inflation-adjusted amount of $86 million in FY 1970-71 to $336.4 million in FY 2009-10, a real dollar increase of 291%. This growth of the judicial branch budget, in inflation-adjusted terms, exceeds the overall state budget growth of 231% over this time horizon.

One reason for the growth in the judicial branch general fund budget has been the continued growth in the number of offenders in the state’s criminal justice system and how this growth has affected the probation department. As of June 30, 2008, the statewide probation caseload was approximately 70,000 offenders of all types, and the general fund budget for the 1,200 probation staff was $67 million, or 20% of the judicial branch budget (Joint Budget Committee, 2009b, p. 274). While some cash funds, $22.3 million in FY 2009-10, are generated by the probation department in the form of fees that offenders pay for a portion of the supervision costs, this department remains heavily reliant on state general fund to support the costs of this operation. Thus, this form of criminal sanction and its attendant growth over the past 40 years has contributed to the
increasing general fund support for the judicial branch as part of the courts and the criminal justice program area.

Another significant reason that the judicial branch budget has increased over the past four decades is the state’s population growth and the need for more judges and the requisite support staff for district courts to meet the growth in criminal and civil cases. The growth of the state’s population has resulted in the need to add capacity to the court system to meet Constitutional requirements for speedy criminal trials and to meet the number of growing civil litigation filings.

*Sentencing changes and growth of state affect the prison population.* Several significant changes to criminal sentencing laws in Colorado over the past 40 years have affected the number of inmates in prisons and the length of stay that convicted felons serve in state prisons. The increase in the number of offenders under the jurisdiction of the Colorado Department of Corrections (DOC) has also had a profound effect on the amount of the state general fund budget appropriated for the state’s prison system. According to John Suthers, Attorney General for Colorado, the state has gone through a number of sentencing changes since the late 1970s. Suthers said:

The state had an indeterminate sentencing system in the 1970s. This meant that an offender convicted of a crime such as armed robbery, a Class III felony, was subject to a sentence of five to 40 years in prison—but, they were also eligible for probation. The reality was that people committing that crime got sentences ranging from probation to 40 years. This represented a huge range of variability in
sentencing, depending on which judge heard your case. It was a pretty bad situation.

To address this situation, the legislature enacted the “Gorsuch Bill” in 1979, moving the state’s criminal sentencing system from indeterminate to determinate sentence ranges (Cherner, 1995). This bill was so named because the prime sponsor of the legislation was Representative Anne Gorsuch (R-Denver). According to Suthers, “The Gorsuch law went overboard the other way—as the range for a Class III felony conviction changed from a 5 to 40 year range to a 5 to 8 year sentence range.” The Gorsuch law existed until 1985 when it was amended by House Bill 85-1320, commonly referred to as the “Mielke Bill,” with Rep. Don Mielke (R-Jefferson County), as the primary sponsor. This law doubled the upper range of each of the felony classifications in the Gorsuch law; thus, a Class III felony range was changed to a presumptive range of 5 to 16 years, instead of 5 to 8 years (Cherner, 1995). One of the co-sponsors of this bill was Bill Owens, then a State Representative, and he recalled that “Crime concerns were very high on the minds of the public [in 1985], and these prison sentence ranges in Gorsuch needed to be corrected and lengthened—they were far too short.” Suthers agreed with this assessment: “Crime was a top concern of many voters and the public in general as crime rates were increasing; high profile crimes were being committed, and the public demanded that violent criminals be put in prison.”

Colorado was part of a national trend of “getting tough on crime” whereby prison sentences were increased, and many states, including Colorado, built additional prison capacity to incarcerate more felons who were also serving longer periods of time in prison. The costs of staffing and operating prison facilities are substantial due to many
factors, including the 24 x 7 staffing required to maintain constant security and public safety. The increase in criminal sentencing laws, combined with a growing population and increased enforcement and prosecution, led to substantial growth of the jurisdictional population of the Colorado DOC. Indeed, in 1989, the total jurisdictional population of the DOC was 6,971 offenders in prisons and other forms of incarceration (Colorado Department of Corrections, 2002). This was four years after the Mielke bill became law, and the effects of this new sentencing law were being realized by a growing population in the DOC. The general fund appropriations for the DOC had grown to $115 million in FY 1989-90, a 105% increase from the $56 million appropriated in FY 1985-86, the year that House Bill 85-1320 was passed. Indeed, the state of Colorado in 1990 had 7,666 inmates in its jurisdictional population (Colorado Department of Corrections, 2002), and a state population of 3.3 million (US Census, 2009) for an imputed incarceration rate of 233 inmates per 100,000 residents. By the year 2000, the incarceration rate in Colorado had grown to 372 inmates per 100,000 residents, an increase of 60%, and the rate ten years later, in 2010, had increased to 464 inmates per 100,000 residents (The Sentencing Project, 2010), an increase of 25% since 2000.

It is apparent that through the 1990s and into 2010, the state prison population has grown steadily, resulting in the DOC becoming a major component of the state budget with a fiscal year 2009-10 general fund appropriation of $677.8 million (Joint Budget Committee, 2009b) to manage a jurisdictional population of 22,860 offenders as of June 30, 2010 (Colorado Department of Corrections, 2010). This amount for the DOC represents 62% of the total programmatic costs of $1.097 billion of the courts and criminal justice system. Additionally, general fund appropriations for the DOC eclipsed
the total spending on public higher education in FY 2009-10 by $17 million (Joint Budget Committee, 2009b). This illustrates a radical change in spending by Colorado over the past 40 years. The tremendous increase in costs of the criminal justice system to the state has affected the ability to support public higher education with state general fund.

**Litigation affects costs of incarceration in Colorado.** Another significant factor affecting the state funds devoted to incarceration was the filing of litigation against the state regarding its prison conditions and policies. During the late 1970s, litigation was filed against the state by inmates incarcerated in Colorado’s state prisons, alleging inhumane and unconstitutional conditions at the state penitentiary in Canon City. This litigation was filed in federal court in Denver by inmate Fidel Ramos, and his cause was litigated by several state and national organizations. A synopsis of the case is reproduced from a summary of the appeals proceeding by the state in the US Court of Appeals:

Plaintiff Fidel Ramos filed a *pro se* complaint in November 1977 challenging the constitutionality of conditions in the maximum security unit of the penitentiary. The American Civil Liberties Union Foundation of Colorado, the National Prison Project, and the Colorado Coalition of Legal Services entered appearances as counsel for the plaintiff in March 1978 and obtained certification of the case as a class action on behalf of all maximum security prisoners. Following extensive discovery and a five-week trial, the district court ruled that the conditions at the facility deprived the prisoners of constitutional rights. The district court held the following conditions at the prison to be unconstitutional: (1) an inadequate physical environment because of lack of sanitation, heat, ventilation, lighting, and
plumbing; (2) lack of prisoner safety because of the physical layout of the prison and inadequate staff supervision; (3) idleness and lack of exercise; (4) inadequate medical attention; (5) an arbitrary classification system; (6) overly broad visitation restrictions; (7) excessive restrictions on correspondence; and (8) insufficient access to the courts because the law library was inadequate and insufficient time was permitted for library use. (Ramos v. D. Lamm, 485 F. Supp. 122 (D. Colo. 1979))

These findings in federal court were not popular with state legislators, particularly members of the Joint Budget Committee, according to Robert Moore, who was the Staff Director of the committee from 1977-1988. Remedying these court decisions was going to be expensive and included adding staff and significant funding to the Department of Corrections’ budget. In fact, according to Moore, reluctance to comply by several legislative leaders prompted federal judge John Kane, who tried the case, to order the state to appropriate funds to improve the conditions at the penitentiary, with a warning that he could directly order funding from the state treasury if his orders were not followed.

This suit, along with several other factors, forced increases in state general funding appropriated to the Department of Corrections. InFY 1979-80, the DOC general fund appropriation was $22.8 million (Joint Budget Committee, 1979) and by FY 1980-81 it had increased 25.4% to $28.6 million (Joint Budget Committee, 1980). In the following fiscal year, 1981-82, the DOC general fund budget appropriation was $33.6 million, an increase of 17.5% (Joint Budget Committee, 1981). These increases were only for the operating expenses of the DOC; the state was also required to invest capital funds to
improve the conditions of the facility. However, these amounts were not a part of the
study parameters.

The *Ramos v. Lamm* case later was amended and renamed *Diaz v. Romer*
sometime between 1986 and 1990, and three other class-action lawsuits were filed
against the state challenging conditions of confinement. Settlement agreements with the
plaintiffs were crafted by the state for all of the class action cases and included
agreements such as the DOC hiring a full-time medical director, adding a full-time
psychiatrist, establishing a full-time unit for the chronically mentally ill inmates, the
addition of 48 correctional and health care staff, and many other provisions. The
settlement agreement was accepted by the federal district court in 1992, and the 10th
Circuit Court of Appeals affirmed the agreements in 1993 (Corkran, 2006). All of these
agreements required additional state appropriations to comply with the settlement terms,
and the DOC budget was increased as a result of these lawsuits. From 1977 through
1993, the state had endured 16 years of continuing federal litigation in myriad areas of
state prison operations. The general fund appropriations budget in FY 1976-77 for the
Division of Corrections, in the year in which the *Ramos* case was filed, was $16.1 million
(Joint Budget Committee, 1976) and by FY 1993-94, the DOC budget had increased to
$179.4 million, an increase of 1014% (Joint Budget Committee, 2009b). Some of this
increase was due to prison population growth and sentencing changes enacted by the
state, but the litigation filed against the state also increased the costs of incarceration,
which are still part of the correctional system’s budget in 2010.
Changes in Funding the Other Programs of State Government Since 1970

The remaining state departments and agencies that are not included in K-12, higher education, health and human services, or the courts and criminal justice system are facing a reality similar to that of higher education. State general fund appropriations for these areas of state government have not grown at the same rate as other program areas over the period from 1970 to 2010. Figure 4.24 illustrates this change in general fund appropriations over the past four decades.

![Chart showing general fund appropriations from 1970-2010 for the "other" category of state government, in nominal dollars.](chart)

*Figure 4.24.* General fund appropriations from 1970-2010 for the “other” category of state government, in nominal dollars.

This figure illustrates a great deal of volatility in the overall appropriations levels over the past 40 years, particularly in the last 20 years. This is due in large part to reorganizations of state government and realignment of functions due to legislative action and changes in the financing of these state government departments. Overall, total general fund for agencies not part of the larger four categories has increased in nominal terms from $80 million in FY 1970-71 (Joint Budget Committee, 1970) to $199 million in FY 2009-10.
(Joint Budget Committee, 2009b). However, in terms of inflation adjusted dollars, these departments have had to adapt to a significant decline in the purchasing power of the general fund appropriations supporting these operations, as illustrated in Figure 4.25.

Figure 4.25. General fund appropriations from 1970-2010 for the “other” category of state government, adjusted for inflation to 2010 dollars.

This figure illustrates the four-decade decline in inflation adjusted general fund dollars, from over $400 million in FY 1970-71 to $199 million in FY 2009-10, or a 50% decline over the period. Due in large part to the growth of K-12, health and human services, and the courts and criminal justice system, this greater share of a growing state budget has forced other agencies to adapt to a fiscal situation that makes state general fund difficult to increase or even keep over time. Like the higher education portion of the state budget, these other agencies and departments have had to turn to other sources of funding such as user fees or cash funding mechanisms to support their operations. Figure 4.26 illustrates
the increase in cash fund appropriations from 1970 to 2010 for this “other” category of state government.

This figure illustrates clearly how these other agencies and departments of state government have responded to the decline in general fund support. The result is similar, if not more pronounced, to the phenomenon that has happened to public higher education since 1970. It is apparent that a shift in funding of operational costs for these other agencies, including such agencies as the Department of Revenue, Department of Natural Resources, Department of Local Affairs, Department of Law, and others has led to the collection and imposition of cash fees. Even accounting for inflation over the past 40 years, the growth in cash fund appropriations is substantial. Figure 4.27 illustrates the growth of cash funds after accounting for inflation.
Figure 4.27. Cash fund appropriations from 1970-2010 for the “other” category of state government, adjusted for inflation to 2010 dollars.

The decline in the cash appropriations in the early 1970s can be attributed, in large part, to how cash funds were accounted for in the general appropriations act. For various reasons, the Joint Budget Committee or its staff have elected to show or not show certain cash funds as part of an agency’s overall budget. Despite these challenges that lead to some volatility in the data, it is an unmistakable trend that these “other” state departments and agencies are increasingly relying on cash fees and less on state general fund to provide the operating resources for these functions of Colorado’s government.

Several state departments operate with no state general funds. As noted previously, Colorado has a Constitutional limit of 20 principal departments of state government, and all agencies and divisions of the state reside in one of these departments. Over the past 40 years, several departments have been shifted to more fee-based operating funding, and three operated in FY 2009-10 without any state general fund,
despite at one time having some general fund moneys appropriated. These agencies and departments have adapted to a climate of scarce general fund resources and have become self-sustaining by utilizing strategies to provide dedicated fee-based funding to provide the needed resources to serve the public.

The Department of State, headed by the Colorado Secretary of State, had $852,906 in general fund appropriated in FY 1982-83 along with $986,307 of cash funds for a total budget of $1.8 million. Since 1983, no state general fund has been appropriated to this department, as it has been entirely cash funded through fees charged to the public. Indeed, in FY 2009-10, the budget for the Department of State is $20.9 million, all from cash funds (Joint Budget Committee, 2009a). Among its other duties, this office oversees voter registration, conducts elections statewide, licenses businesses, and is the repository for a number of private sector recordings. It is ironic that the State department in Colorado has operated for the past 27 fiscal years without any state general fund support.

The Colorado Department of Labor and Employment (CDLE) also has had no general funds as part of its operating budget since 2006, when it last had $140,666 in general fund, an insignificant portion of its total $153.8 million fiscal year budget. From FY 1982-83 through FY 1986-87, the department averaged $2 million in general fund appropriations every year in support of its operations. However, with cash and federal funds replacing general fund, CDLE has had no state general fund appropriated for the final three years of the 40-year study period, from FYs 2007-08 through 2009-10, despite having operating budgets averaging approximately $150 million annually.
The Colorado Department of Transportation (CDOT) is the state’s primary manager of the state and federal highway network and primarily operates with funding from the state’s dedicated Highway Users Tax Fund (HUTF). These funds are classified as designated user fees or cash funds by the state. Since FY 1982-83, CDOT has had five non-sequential fiscal years where state general funds averaging $300,000 were appropriated in support of the state’s transportation needs. Since FY 2001-02, no state general fund has been appropriated to CDOT, as it has relied exclusively on cash and federal funds for its annual operating budget. The FY 2009-10 budget for CDOT totaled $973.5 million, and of this amount, $614 million were cash funds and $355 million were federal funds (Joint Budget Committee, 2009a).

The Colorado Department of Regulatory Agencies (DORA) is fast becoming nearly a 100% cash-funded department, with its funding sources changing dramatically over the past 20 years. Among its many responsibilities, this agency is charged with regulating certain businesses and providing licensure of professions that are specified in state law. In FY 1982-83, the total budget for DORA was $19.3 million, and of this amount, $6.0 million, or 31%, was from the general fund, and $13 million, or 67%, was from cash funds. In FY 2009-10, 27 years later, the total budget for DORA was $80.8 million, with $1.67 million, or 2%, from the general fund and $69.3 million, or 86%, from cash funds (Joint Budget Committee, 2009a). The remainder of the FY 2009-10 budget for DORA comprised federal and reappropriated funds, but the trend is clear: the state has, over the past three decades, determined that the operating costs necessary to fund DORA will be borne by fee-paying citizens and businesses, and not the general fund.
These departments in state government, along with others not included in K-12, health and human services, or the courts and criminal justice program areas, continue to adapt in this complex budget climate of scarce general fund resources and examine other ways in which their programs can generate funding, most often with the creation or increase in fees. Some might argue this trend is a form of “indirect taxation” imposed upon the public. This adaptation to scarcity of general fund is a prime example of complexity theory at work, as these agencies have worked to adapt to these challenging fiscal conditions by finding other sustainable sources of funding to provide state services.

**Replacing general fund with cash funds—two examples.** An example of the use of cash funds, or fees, instead of general fund for a government activity was highlighted by Attorney General John Suthers. He noted that as he was asked to make additional general fund budget reductions of approximately $1 million by the Joint Budget Committee and the Governor’s office, he began looking at functions in the Department of Law that could be either eliminated or funded in another way. One such example was the Department of Law and Department of Public Health and Environment units that were responsible for administering cleanup programs at hazardous waste sites across Colorado designated as “Superfund sites” by the federal government. Suthers said:

We looked at the CERCLA (Comprehensive Environmental Response and Compensation and Liability Act) program, which is a program we operate jointly with the Health Department that could possibly have its costs cash funded instead of using general fund, because at one time the unit was funded through “tipping fees.” We went to the legislature with a proposal that would increase “tipping
fees” on trash haulers at landfills across the state which would pay for the costs of the CERCLA staff in both agencies. The legislature passed the bill and it became law, and now this unit has a cash-funded source instead of it being paid by the general fund. Additionally, we have set a board in place to regulate the tipping fees and oversee the annual expenditures so that a large cash balance is not created in the future, so the legislature will not be able to “raid” it in the future [to balance the general fund budget] as it did in years past.

This development is but one example of the shift in funding for many functions of government from general funds to user fees as a response to the scarcity of general fund revenues due to increases in K-12, health and human services, and the courts and criminal justice system. This is a form of “indirect taxation” that the public may not even be attuned to in that restrictions on state revenues and weak tax collections force governmental agencies such as the Department of Law, higher education, and others to seek funding from users of services rather than rely on general fund that continues to have increasing demands for use in K-12, health and human services, and the courts and criminal justice system. It is likely that the increase in tipping fees will ultimately be borne by the public through higher costs to dispose of residential and commercial waste at sanitary landfills.

A second example of replacing general fund with cash funds is a continuing trend for the Colorado State Parks, a division of the Colorado Department of Natural Resources. Recent news articles indicate that like higher education, the CERCLA unit, and other parts of state government, the state parks system is bracing for further state general fund reductions and planning to offset at least some of this lost revenue with
cash funds in the form of fee increases to park users. A recent story in the *Denver Post* noted, “The public likely will be asked to pay more in user fees to sustain the increasingly popular system” (Finley, 2010a). The story continued, “This week, the Colorado State Parks Board is poised to pass fee hikes aimed at making up half of anticipated loss of $2.6 million in state funding.” In addition to these fee increases, the system has made budget and service reductions as well, according to this report.

The increases in fees were approved: “As expected, [Parks] board members Thursday voted unanimously to hike fees for daily passes by $1 and by $10 for annual park passes. Fees for camping, cabins and yurts also were raised” (Finley, 2010b). This subsequent story noted that not only were fees increased in anticipation of budget reductions, but a ranking system was established to prioritize which parks would close and which would remain open if the expected state budget reductions next fiscal year are approved. It should be noted that this financial situation with the state parks is quite similar to other functions of state government, including higher education, but may be an indicator of a future funding landscape: “State funding that once covered 40 percent of parks system spending is expected to end next year” (Finley, 2010b).

This move toward more user-fee funding of state programs and agencies, such as the CERCLA unit in the Department of Law, the state parks, and increasing tuition and fee rates in public higher education, can be one form of unintended, or perhaps intended, consequences in a state with restrictive revenue limits in Colorado’s version of a TEL, TABOR. It is unlikely that the voters, when adopting TABOR in 1992, understood that the state government could look to other forms of “indirect taxation” through user fees once overall revenue limits were established in the TEL. While TABOR provisions do
account for all non-enterprise revenue generated by the state, except for federal funds, it is unlikely that voters understood that higher education, state parks, the state CERCLA unit, and many other divisions are or may soon be enterprise status under TABOR, with revenues not counted in TABOR’s limits. This trend shifts a significant portion of the financial burden of these services from the state as a whole to those individuals who desire the services offered.

This phenomenon is one form of chaos theory in action, as the adoption of TABOR since 1992 has clearly lead to other forms of indirect taxation most likely not envisioned when the voters approved the provision. Additionally, complexity theory is one lens to analyze these organizational responses to the chaos of the state general fund budget. These organizations are adapting and finding other ways to fund their public services through user fee creation or increases.

Concerns, opinions, and priorities of key decision makers are important influences in complex decision-making processes. Both public choice and chaos theory are lenses through which these decisions can be analyzed. These conflicting forces must be considered as they significantly affect the outcomes and add to the uncertainty of budgetary decisions.
Qualitative Results

A great deal of quantitative data has been presented illustrating the shift of higher education funding from public support to individuals. In this section, the qualitative data collected through interviews for this study will shed light on the concerns and views of policy makers and key officials during the years of funding reduction for public higher education. These current and former leaders generally agreed that higher education is important and must be supported in some way. They also provided a general consensus on the major issues and decisions that led to the budget shift over the past 40 years. These officials all had concerns about the current economic outlook, and most were troubled about the future prospects for state budgets and the implications for public higher education.

These officials also raised interesting issues and perspectives that were new themes for the study and would not have been uncovered if quantitative data alone had been the basis of the analysis. Their opinions and perspectives inform the recommendations in the following chapter.

Four Current and Former Colorado Governors’ Views of the State’s Fiscal Situation

Interviews were conducted with three former Colorado Governors and the current Colorado Governor whose combined service as Colorado’s Chief Executive totals over 35 years, from 1975 to present. Their memories, current views of the budget situation, and the changes described in this study were important to chronicle the historical, current and executive perspectives. The prior roles and years of service to the state for these
officials are listed in Table 3.1 of this study. Three of the Governors interviewed, Bill Ritter, Jr., Richard Lamm and Roy Romer, are Democrats while the fourth Governor interviewed, Bill Owens, is a Republican.

State of the budget situation in Colorado in 2010. These four CEOs were asked to react to the state of the budget situation in Colorado as of 2010. Governor Lamm was very concerned about the situation and described Colorado’s budget as “somewhere between horrible and disastrous.” Governor Romer was not as current on the specifics of the state of Colorado’s budget as the other three Governors, but was aware of serious challenges facing the state and elsewhere. Romer said:

It is a tight time, and it is the case with many states that they’re really having a very difficult time and they’re having to cut [budgets], but I don’t know any more and I haven’t looked at the [Colorado] budget and haven’t looked at how they’re cutting.

Governor Owens, who most recently held the office in 2007, was also concerned about the state budget:

I am very concerned . . . the current administration did not get on the cuts needed early enough [during this economic downturn] and has backfilled the budget with so much one-time money. Really tough choices are coming for the next Governor [to be elected in the November 2010 election] who is going face a huge challenge because the budget problem has been “kicked down the road,” and he will be forced to make some gut-wrenching decisions.
Governor Owens believed that the current recession is the largest contributor to the current difficulties facing the state and that “the budget situation is dangerous; with Medicaid and the fact that K-12 continues to increase regardless of what happens to the rest of the budget makes this a challenging time.” Owens did note that the current budget situation would have been even more difficult had the voters not adopted Referendum C in 2005, which provided for a five-year “timeout” from TABOR and permanently corrected the ratchet effect of TABOR (Colorado Revised Statutes, 2005,§24-77-103.6). Governor Lamm also noted the passage of Referendum C as one bright spot in an otherwise difficult fiscal situation for the state. Lamm complimented Owens for the political courage it took to craft and support this proposal saying, “That [supporting Referendum C] was not easy, for Romer and me it was easy, but it was against his political base . . . I think he stood up where he was needed.”

Governor Ritter, who has led the state in the midst of the budget challenges that have affected Colorado since 2008 summed up his views of the current budget situation as of 2010:

The state budget is in a terrible place. Partly it is that [we have endured] the worst recession since the great depression, we came into it with a “thin” budget to begin with, we have mounting caseloads, we have 97% of the budget spent in five subject matter areas, and those five subject matter areas, many of them, if you think about prisons, Medicaid, and even K-12, they are very much case load driven.
Governor Ritter noted that one of the most difficult challenges of the state budget that he and his administration has faced is that these caseload increases occurred in large part to the recession and its effects on the people of Colorado. He noted:

Certainly Medicaid is caseload driven as are prisons unless you want to let people out of prison to balance the budget which is a terrible policy idea. You wind up with a caseload driven budget for a significant part of the budget – human services is likewise caseload driven, and it is the safety net which becomes more important during a recession. So you have increasing demands and you have less revenue to meet increasing demands which have required a great deal of “high wire” budgeting for now two full calendar years but over [the past] three fiscal years. We have had to look at ways to transfer funds out of cash funds, looked at ways to increase revenues by looking at eliminating [tax] exemptions and credits, and we have had to cut [budgets]. There is a variety of different mechanisms we have used but we have used everything we have.

Thus, all four Governors interviewed agreed that the state is facing a serious fiscal situation with respect to obligations and how these key state services will be funded in the future given the increasing demands for services and the lack of state resources to meet these demands.

**Four views of the greatest effects on the state budget.** The four Governors were asked about the greatest impact, positive or negative, on the state budget during their term as Governor. Governor Romer cited TABOR as having a tremendous impact on
Colorado’s budget situation, as it limited the ability of the state to generate needed revenue. Romer said:

TABOR put a limit on revenue and revenue growth, and it set limits within which we had to work. That was the biggest change. The second change was the growth in cost in the health and human services area, and the third was the growth of prisons. . . . The push for longer sentences really increased the cost of those areas. Those were the major events. Now public [K-12] education . . . kept eating a substantial . . . and an increasing portion of the budget.

Governor Lamm cited the permanent tax cuts enacted by the General Assembly in 1999 and 2000 when the state was refunding excess revenues to the public due to a strong and growing economy and TABOR limitations as having a major effect on the Colorado budget. Governor Lamm was also concerned about the public obligations and spending patterns not just in Colorado but across the nation and noted his worry about whether Colorado could withstand the growth of Medicaid expenditures along with the “current depression/recession [of 2008-2010]” as the major forces on the state budget. Governor Owens stated that the greatest impact on the state budget has been the recession and, when asked, defended the permanent state tax cuts that took place while he was Governor: “I will always believe that the money earned by the private individuals and families is better in their hands than in the hands of the government.” Regarding the greatest impact on the state budget, Owens said:

The recession has just killed us and thankfully, frankly, imagine if that ratchet effect was still in place and we hadn’t fixed it, what it would be doing to the state
budget right now—we’d never be able to recover. The budget situation is
dangerous. Medicaid, the fact that K-12 continues to increase regardless of what
happens to the rest of the budget . . . it’s a challenging time.

Governor Ritter’s view of the greatest impact on the state budget was:

We had a recession in the early part of the decade, so Governor Owens had to live
through that and one of the things he did was cut higher education’s budget
because it is not Constitutionally protected in any way – he [Owens] had to go in
there and make cuts. When I became Governor, he [Owens] had already built
back some of the money in higher education but for the new money that we had
available, we devoted a great deal of that to higher education. Over two fiscal
years, that was $120 million in new money and that got institutions back to their
pre-recession funding level, where higher education institutions were in 2001, we
got back to the 2001 number in FY 08-09. While this was good, we hit this
recession that caused us to take a significant downturn [and once again reduce
budgets for higher education].

Governor Ritter also concurred in Governor Owens’ assessment that addressing the
TABOR “ratchet effect” through Referendum C had an impact on the state budget noting:

In pre-Referendum C, everybody was looking at this situation and seeing a “train
wreck” coming because using as your base the prior year base and you dip in
[revenues from] the prior year, was the issue – the ratchet effect – it was basically
like trying to climb a canyon wall when your base budget is at the bottom.
Referendum C allowed us to change the base year – that number one was helpful -
it also allowed us to use funds that came in over and above the TABOR limit – use those and direct those in certain respects, and that helped make it [TABOR] less of an issue [for the state budget].

Thus, all four CEOs acknowledged that Colorado is facing some very challenging financial issues in the near term in balancing the state budget, despite some relief from the TABOR constraints specified in Referendum C’s adoption in 2005.

**Gubernatorial views about public higher education and funding.** The four CEOs were asked about their views on the importance of higher education to the state and their perception of higher education funding in Colorado, both now and over the past 40 years. All four Governors felt that public higher education is important for the future of the state and its economic well being. As could be expected, the Governors did not see the current financial situation facing higher education in the same way. Governor Lamm was concerned about the funding trends and what the future holds for public higher education in Colorado, saying, “It is a weigh station on the road to privatization.” Governor Romer said:

> I favored education as the most important investment that the state could make for the short and the long term. I was pushing hard for job creation and business development and higher education was a very critical piece of that.

Governor Owens also stated that higher education is important to the state, noting:

> I think it is essential. I think it has always been part of what makes Colorado special, despite some of what I think is the misperception about the dollars spent
People love the University of Colorado, they love the system—they love our colleges and universities. Having said that, it would be wrong for me to pretend that I’m very impressed with what we get for what [resources] we put in.

Governor Owens expressed concern about workloads in higher education and the lack of a year-round use of many colleges and university facilities in the state. He also expressed concern about faculty tenure in higher education and that this system may have outlived its usefulness, given all of the other legal protections afforded workers that were not in place when tenure was first created. Governor Owens stated that tenure and the lack of a year-round schedule present in other parts of the economy drive costs higher than necessary and need to be addressed by higher education. Governor Romer expressed similar concerns about the productivity and measurement of outcomes for higher education. Romer said:

I think in higher ed, we have got to find a way to be more supportive of it, even though we know this [lower funding] trend will continue. Secondly, we’ve got to find a way to improve the quality that we produce with the dollars that we spend. We are not as efficient and effective in getting quality out of our education for the dollars spent. We . . . in any field of endeavor, if you can’t measure what you are doing and the rate of improvement, then you can’t help control costs. I’ve spent a lot of time in K-12 . . . there’s no way you can improve K-12 unless you measure progress over time so you know what works and what doesn’t work and how to improve the productivity. We don’t have that [accountability] structure in higher education.
Governors Owens and Romer, thus, share similar concerns about accountability that are most likely indicative of some of the public’s concerns about the rising costs of higher education and the efficiency of the traditional academic calendar for taxpayers and the public. Romer commented with respect to both private and public higher education:

The costs have risen much too fast for the kind of product that they produce. You just look at the vacation schedule of higher education. [Higher education has] a terribly inefficient way of handling everybody’s time and resources, [particularly with respect to] facilities usage.

This concern for efficiency in higher education could also be a contributing factor to why the public and their elected officials are reluctant to support public higher education with additional public resources.

Governor Owens’ higher education funding views are different from Governors Romer, Ritter, and Lamm in that he believes that it is irrelevant how much comes from the state and believes that total revenue is what should be examined and compared on a per student basis. Owens’ source of information, through a data source called the “Sourcebook on States,” indicated to him that Colorado is in the mid-range of states nationally—closer to 25th rather than 48th in total funding for public higher education. He acknowledged that higher education is proportionately much less than it used to be as a portion of the state general fund budget, but felt comfortable with that change over time since total revenues available to higher education had, from his memory, typically grown each year during his two terms as Governor. Owens was less concerned than the other Governors about the financial situation facing higher education, saying,” I think that
Colorado’s higher education system is adequately funded compared to national norms even though state funding is much less than other states.” He did indicate that looking back on his eight years as Governor he would have made some different budget choices if he would have been able to do so. Owens said:

We would not have had to spend so much on K-12 or Medicaid and I would have spent slightly more on higher education, and about the same on corrections. I would have spent less on K-12 because it is on automatic pilot and there’s very little accountability and would have spent less on Medicaid because it’s a program that’s out of control.

Governor Ritter summed up his views of the importance of public higher education in Colorado as it relates to economic development and attracting businesses to the state:

When you have a conversation with anybody who is considering moving a company here, the two most important things in that conversation are the status of your higher education system and your infrastructure, typically that means your transportation and rail system. Companies care a great deal about that. I don’t think you do economic development just for the sake of doing economic development per se, it is not some sort of a scorecard about the number of jobs you create. It really is about quality of life. I did economic development [projects] because I believed there were ways to do it that would enhance the quality of life for the people of this state. At the same time, you can decide to invest in higher education, it helps with economic development but it also helps enhance the quality of life for the people who live in this state.
Ritter also noted that higher education needs to be considered an investment, rather than an expense of the state. He said:

I think there are all of these different ways to think about higher education as an investment. Whether you think about it in terms of human capital, or think about it in terms of the economic development that you can do to enhance the quality of life in this state, this has been made possible because you have invested in your higher education system. I am not sure that the people of this state appreciate how important higher education has been to what I would call our “competitive edge” and how much our “competitive edge” is at peril if in fact we don’t find a way to fund higher education at a level that is respectable and allows us to continue to have kids in this state to have the kind of access [to higher education] that I experienced as a native Coloradan in the 1970s.

The four most recent CEOs of the state understand the challenges facing higher education and, for the most part, recognize the contributions that public higher education gives to Colorado. While they differ on their views of the depth of the funding problem facing public higher education in the state, they generally agree that Colorado needs these institutions to provide postsecondary educational opportunities to residents of the state.

**Four different views about what is required.** The three former Governors and current Governor were asked what the state needs to do with its current fiscal situation. To this question, Governor Lamm said:

I will publicly join anybody that says we have to raise state taxes. We have to raise the gas tax for our roads we have to raise state taxes, but I don’t think that’s
going to answer all of the problems [with higher education]. We obviously have to rethink what we do about health care. I don’t think any American can realistically expect anything more than a “Kaiser level” of health care. I belong to a Kaiser HMO and it’s perfectly fine for me. [Many] Americans’ expectations [with respect to health care] just simply are contrary to what we can fiscally afford.

Thus, Governor Lamm felt that state revenues need to be increased, but appeared uncertain whether such an increase would solve the funding issues facing public higher education due to demands in the health care portion of the budget. He noted that the state must deal with health care costs and needs to rethink the ability of the state to provide certain medical services. Governor Romer noted that he had pushed for a state sales tax increase for education in 1992 during his term as Governor, but that this initiative failed at the polls. Thus, as far back as the early 1990s, Romer felt that the state had a revenue problem with funding K-12 education. Romer shared Lamm’s concern about health care and its impact on the state’s budgets, saying:

I’m desperately worried now about the costs of medical care in this country and, to be frank, nobody likes to use this word, but we have to be smart about rationing care. I mean rationing it in a way of not discriminating, but just saying that there are certain procedural functions that are appropriate in certain cases and some that are not. We spend much too much on defensive medicine techniques, and there are all kinds of things we can do to lower our cost of medicine which the free
market system has not allowed us to [do] yet. I think about it a lot because I’m not now Governor; if I were I’d have to be grappling with it hard.

Governor Romer also stated that the state has a continuing revenue problem noting:

We’ve got to find a more rational revenue base, an adequate revenue base, and we’ve got to be more disciplined in the way we try to deliver services to people, restrain some areas, and we’ve got to be more efficient in education. And in terms of the tax base, the awkwardness in the way we do sales tax, we tax some items, but not services . . . we don’t tax internet sales. I mean that’s really crazy. I can’t remember all the details of the Gallagher Amendment and all their reaction, but we just are not rational the way we barely say we’ve got to have so much revenue to run the government—how do we get it? We just don’t do that smartly.

Governor Owens shared similar concerns as Lamm and Romer with respect to the budget challenges facing Colorado, particularly in K-12 education and health care, and with respect to the future he said:

The next Governor is going to have to put a tax increase on the ballot and many of us will probably oppose it because my friends who are more liberal have to address Medicaid and they have to address Amendment 23. They’ve got to address those problems before I would ever increase taxes in Colorado.

Thus, while Governor Owens felt that the state has a revenue challenge, he stated that the state must first address some of its mandated spending areas before asking the voters for a tax increase. All three former Governors share the concern of limited revenues and
growing health care costs and the implications for the state budget in the future as areas of major concern.

Colorado’s current Governor also believes that many challenges are ahead for the state budget and how it relates to higher education funding. He said:

Prior to the recession, initially I would have said focus on changing TABOR, but in a way this limits and mandates spending. Now that’s less of an issue. We need to change how we put things in the [state] Constitution. The problem is the ease which things can get on the ballot, difficult if not impossible to pass them. I recall that TABOR [was on the statewide ballot] multiple times, but it is difficult to explain how difficult it would be to change. A University of Denver panel recommended Referendum O to make it harder to put items on the ballot – but this didn’t pass. I believe we have to think of some other way to approach voters, to still have an initiated process, but not allow our Constitution to become recipe for budget disaster. We still have that potential of that happening – it might be farther out, but this potential still exists.

Ritter also noted that he believes that the state has to inform the public about the importance of public higher education to the quality of life in Colorado. He noted:

We have to make the case to public about why higher education matters to everybody in the state. We need to convince people that the higher education system is worth investing in – I believe over time it will need some form of dedicated revenue. We can’t keep cutting higher education when we go thru an
economic downturn. That level of vulnerability will cost us in terms of our own “competitive edge.”

Thus, all four Governors stated that there are tremendous challenges for the state as it considers how to adequately fund its higher education system while many other fiscal challenges are present in funding other areas of the state budget.

**Views from Higher Education and Other Officials About Funding**

Several current and former state higher education officials were interviewed to chronicle their perspective on the decline in funding for public higher education since 1970. While the perspectives shared with the author are similar to those expressed by Colorado’s last four Governors, some different themes emerged as a result of these interviews.

*The State has the financial capacity to fund higher education.* There was general consensus among those interviewed that Colorado has the wealth and resources to support a public higher education system, yet it is a challenge to have tax dollars appropriated to higher education when so many other demands are on the state from a funding perspective. Despite this factor, longtime higher education official David Longanecker, currently the President and CEO of the Western Interstate Commission for Higher Education (WICHE), noted, “Colorado has great wealth compared to other state and the tax capacity to support public higher education—it simply chooses not to do so.” Longanecker noted that Colorado has been on a “WICHE Watch List” for over 10 years, since 2000, due to its funding challenges. Currently on the WICHE Watch List with Colorado are Arizona, Nevada, and Oregon due to revenue weaknesses and WICHE’s
view that funding for public higher education is at risk in these states. Longanecker noted that all three of the other states on the list with Colorado started with a larger per student public funding base than did Colorado, and this was a concern for him, particularly because he served as the Executive Director of the Colorado Commission on Higher Education in the early 1990s.

Longtime state and higher education official John Bliss noted:

I think Colorado has a better economy than many states and we don’t tax all that much compared to other states. New Mexico—they tax the heck out of people. So if you look at capacity, I think we have the capacity. I am not confident that we will do a lot with that. We have an educated population. I think that is a real strength.

Along these same lines, higher education expert Dennis Jones, who has been working in the field of higher education finance and analysis for 41 years with the National Center for Higher Education Management Systems, described Colorado’s funding for higher education as “fundamentally disastrous and . . . it is not going to get better anytime soon.” He noted that as he examines funding for higher education across the US, one key point is clear, “the student has replaced the state as the stable funding partner for higher education in Colorado.” Jones also stated, “In spite of what anyone says, Colorado is a low-tax state and has got much more wealth to tax than it is effectively taxing compared to any other state.”

Mesa State College President Tim Foster, who was head of the Colorado Commission on Higher Education during the Owens administration said, “Given the
state’s fiscal position, when I came to Mesa State, I saw this [budget situation] coming, and we knew that the social contract that this state had with higher ed was over.” Foster indicated that Mesa’s solution was to eliminate levels of management and to move to a linear tuition structure where students pay for each credit hour as an overall strategy to address the loss of the state’s “social contract” with higher education. By social contract, he meant that the 1980s-era policy where the state paid two-thirds of the cost of a college education and the student paid one-third of the cost.

Thus, in the views of many who work with or in higher education, or are observers of public higher education in Colorado, it seems that the state has the wealth to support postsecondary education at a level competitive with other states. The challenge is that weak tax revenues and the three major recipients of state general fund continue to leave little room for sustained investment in public higher education. As noted previously, Colorado was sixth in the nation in per capita funding for public higher education in 1970, and the state’s population and income has only increased since that time. It seems apparent that the state did in fact at one time support public higher education at a level that was comparable to other states but cannot do so given the current fiscal and political constraints.

**Imported college graduates have little affinity for Colorado institutions.**

Another challenge identified by several officials interviewed for this study was the paradox that Colorado generally ranks high among the 50 states in the percentage of the population with college degrees, but that many of these residents have moved to Colorado after attaining their education in other locales. Thus, several observers believe that many of the college-educated residents of Colorado have little affection or strong
loyalty toward the state’s colleges and universities because their alma maters are in other states. Former CU President John Buechner said he had recently had such an interaction with an executive in Boulder who moved to Colorado with two degrees from the Massachusetts Institute of Technology:

There’s a sociological factor here. The influx of people into Colorado, not only the numbers, but the higher education level that they have [attained], one would make the assumption that they would be an influencing group for more investment in higher education in Colorado. However, those people have gone to school in California or Massachusetts or wherever—and their loyalties are not to dear old CU or CSU. So from some of these people’s point of view, they see these higher education institutions are interesting but not necessary. Further, many moved to Colorado to escape high tax, urban settings, and raising taxes for higher education in this state is just not important to them.

Former CCHE leader Longanecker agreed that this was a problem for Colorado. He noted:

Most of our educated people were educated elsewhere, their hearts and minds are elsewhere — so when they think higher education, and they get anxious about what might be happening to higher education, they are actually more concerned about what’s happening to Ohio State University than what’s happening to Colorado State University. This is a factor since many of our best educated folks were educated elsewhere.
Thus, one factor potentially limiting the support in Colorado for public higher education is the number of citizens who do not have an affinity or care about the future of the public institutions.

**TABOR is a problem for higher education and the state.** All of the current and former state officials interviewed for this study acknowledged that TABOR has had a tremendous impact on the state budget. Most agreed that TABOR was a problem, particularly for higher education. Former CU Vice President John Bliss noted, “TABOR prevented higher education in the 90s from increasing tuition due to these funds counting against the state’s TABOR limit.” Current CU Vice President Kelly Fox concurred in this assessment:

One of the unintended consequences of TABOR for higher education was that with respect to tuition rates—it artificially held down tuition rates for many years—because revenue increases were directly refunded out of the state’s general fund [under TABOR’s revenue limit formula], and this caused problems for the entire state. This is the primary reason why our tuition revenue base is low compared to many other states and why catching up [in growing tuition revenues] is so hard now.

What this meant to higher education was that from the time TABOR’s provisions were enacted in 1993 and until 2004, when Senate Bill 04-189 provided a mechanism to allow the state’s colleges and universities to become enterprises under TABOR, artificial limits on revenue growth for the state forced the state to hold down tuition rates and collections through the state budget bill. Once the state’s colleges and universities were granted
“enterprise status” under TABOR in 2005, the cash fund revenues generated from tuition and certain fees no longer counted against the state’s revenue limits (Colorado Constitution, 2010i, & Colorado General Assembly, 2004). The elimination of this restriction allowed the state to consider increased tuition and fee increases above increases allowed from 1993 to 2004.

This 11-year restriction limited the resources that colleges and universities in Colorado had to compete for faculty and staff compared to competitors in other states. As stated previously, the market for talented faculty and staff in many ways is a national market, and when the combined resources of state support and tuition revenues lag behind similar institutions in other states, Colorado institutions have more difficulty in creating compensation packages that are attractive for scholars and staff.

TABOR also prevents the General Assembly and Governor from making changes to tax provisions such as property taxes that in the past were the most important funding source for K-12 schools statewide. This limitation prevents mill levy adjustments that were possible prior to 1992, but now are prohibited. The combination of TABOR and school finance policy since 1992 has served to increase general fund appropriations for K-12 substantially at the expense of public higher education and other functions of state government.

**Conflicting provisions in the Colorado Constitution.** When those interviewed for this study were asked questions about some of the greatest challenges in the budget-setting process for the state, a common theme emerged that conflicting language within the Colorado Constitution was a major cause for concern. Those current and former
officials felt that the conflicts between TABOR, Amendment 23, and the Gallagher Amendment were making budget setting and financing of state government more difficult, leaving the General Assembly and Governor with fewer options in balancing the needs of the citizens of the state. *The Denver Post* editorial board has also identified this problem in editorials it has authored and sounded an alarm for leadership in the state to take action to address this problem (Editorial, Fix state budget conflicts quickly, 2008).

This interplay of these three amendments forces property taxes lower and limits the General Assembly’s ability to finance K-12 by balancing local property taxes with state support. Adding to this dilemma is Amendment 23, adopted in 2000, that mandated increased annual state spending for K-12 by inflation and growth, plus an additional 1% for a 10-year period from 2001 to 2011. This provision was adopted by voters and has no exception if the state revenues declined from a previous year, which occurred twice in the decade during which Amendment 23 was in effect. Thus, funding increases for the largest program of state government were put on “auto pilot” by the voters, irrespective of whether the state had the funding to make these increased appropriations.

The fallout of these conflicts was that an increasing share of state general fund appropriations were prioritized by the voters for K-12 education, at the expense of the remaining programs operated by state government, including public higher education. This result is illustrated in Figure 4.1 as the share of the general fund budget appropriated to K-12 increased from 39.9% in FY 2000-01 to 43.3% in FY 2009-10 (Joint Budget Committee, 2009a). These conflicting provisions were adopted by voters during elections in 1982, 1992, and 2000. Thus, over the course of 18 years, public policy choices were made by voters that had consequences for the other programs of state government. It is
unclear if voters understood that these continuing amendments to Colorado’s basic
governmental document would have such consequences for public higher education and
the rest of state government, but this illustrates a portion of the chaos that the state faces
when ballot initiatives affect state finances in profound ways.

**Term limits have added to chaos in governing Colorado.** Most of those
interviewed for this study were asked about the impact of voter-mandated term limits on
the amount of time that elected officials may serve in state offices and the impact to the
governance of the state (Colorado Constitution, 2010d). All of those interviewed who
answered this question believed that term limits have been detrimental to the knowledge
base of the General Assembly and Governor. Former Governor Owens acknowledged
that he had changed his position on term limits, after being a co-sponsor for the ballot
initiative proposed in 1990. He said,

> This is one area where I have changed my position over the years —I think term
> limits have hurt the institutional memory of the General Assembly. On the
> legislative side, I tend to think it’s a big mistake, and I was part of the process that
> brought term limits to Colorado. I was probably the 2nd name [as a co-sponsor]
> on the term limits bill authored by Senator Terry Considine.

These term limits, where an officeholder is limited to eight years in office as a state
representative, state senator, or Governor, has contributed to the chaos and uncertain
climate of leading and governing the state. Members of the legislature in office in 2010
do not have the direct knowledge of events or the reasons for public policy initiatives of
the past because these officials were not in office at the time. Long-time state and higher education official John Bliss shared his view of term limits:

To me, I think, the legislature as a whole has a much shorter horizon than it used to. It used to be that people were there for a while and had an understanding and long term commitment to higher education. It is so hard to bring people up to speed on that [issue or subject], and by the time you do, they are out of office. I don’t deal with legislators anymore, but there is no institutional memory in the legislature anymore.

These current officials must rely on the institutional memories of staff members and oftentimes the lobbyists, many of whom have been fixtures in the legislative process for years or even decades. These lobbyists generally support one view of an issue—this is what they are paid to do for their clients—and this can present a distorted or incorrect interpretation of past events. Thus, getting unbiased and balanced information to members of the General Assembly and Governor is not easy since term limits were adopted by voters in 1990. This function has been shifted to legislative staff, executive branch agency staff, and other officials who were present and recall the events and reasoning behind such changes in past deliberations. The former Director of Legislative Council Charles Brown summed up his view of term limits and their effect on the General Assembly:

Without question—I think that certainly having less experienced legislators has been a detriment to the institution. I see the impact of term limits in several areas, both in the formal and informal leadership of the legislature. The executive
committee and the caucus chairs and all of those positions are held by relatively new members but also who really runs the show if you have a freshman chairman of the JBC? It is probably the staff and the special interests because of the lack of experience by the members. The loss of what I always called institutional ballast, the seasoned members who could take someone to the side room in the House chambers and tell them to get in line. Losing that institutional ballast was a big loss. You know, those folks who were experts in transportation or criminal justice—everyone would follow them, and they are all gone now. In response to that, what the institution has done is move in the direction of partisan staffing to the detriment of the General Assembly.

Former State Representative and current Mesa State College President Tim Foster concurred in this assessment and offered, “I think term limits have had the biggest negative impact on the state budget because . . . the legislature does not care about out-year consequences . . . the JBC of the past always took a very long view.” Foster noted that he was one of the few Republicans to oppose this measure when he was in the legislature but that the proposal in the early 1990s was very popular and was easily placed on the ballot and passed by the voters. Colorado’s current Governor, Bill Ritter, Jr. concurred in this assessment of term limits saying:

A leader has 2 to 4 years, no more than two terms as Speaker of the House or President of the Senate, sometimes they only have one term—their’s no “heft” in that. This [condition] makes a real difference in party loyalty, really in the way
people view the job, there’s no premium in becoming statesmen—in trying to look beyond elections—to really ask the question where should the state wind up . . . this has been my experience.

Of all the current and former officials interviewed for this study, none thought that term limits had improved the governance or legislative process in Colorado. This is likely to continue into the future, as there has been little public policy discussion about any effort to modify or repeal this provision—which would again require voter approval. Some local communities and counties have, with voter approval, repealed term limits for local elected officials, but to date there has been no concerted effort to repeal this Constitutional provision statewide, with scant public discussion about this topic.

Overall, term limits have, in the opinions of those who were interviewed, been a negative factor for the state budget process and have contributed to the chaos of governing the state and understanding budget histories. This climate of elected officials lacking the institutional knowledge that prior generations of lawmakers had, adds to the challenge facing public higher education in Colorado. None of the current elected officials were in office when the state’s 1980s era policy was to cover 67-75% of the cost of a resident’s undergraduate education. The legislature has accepted the funding strategy of having public higher education increase its cash funding by raising tuition rates for students instead of maintaining a state responsibility for a given portion of their tuition, and this will likely have serious consequences for the state and its citizens.

**Business community views of decline in funding higher education.** One alternative hypothesis that could be considered for the reduction in public support for
public higher education in Colorado since 1970 is that businesses are accepting if not supportive of this move because out-of-state college graduates relocate to Colorado in large numbers, and such a strategy could be a way to keep corporate taxes low. To answer this alternative hypothesis, the author interviewed several hiring authorities from the private sector and also posed the question to some of the state officials interviewed for this study.

The officials interviewed were asked questions from the human capital protocol questions established and listed in Appendix F. Is the business community in Colorado, which relies heavily on skilled workers trained by public higher education institutions, concerned about higher education funding in the state? Little evidence was found to suggest that business leaders and those who represent businesses are unconcerned about public higher education’s funding decline in Colorado. Additionally, no current or former state officials could ever recall hearing a business leader in the state voice such an opinion. Several of those interviewed, along with selected private sector hiring authorities, said that not only do their businesses count on finding the best graduates among Colorado colleges and universities when they have a job opening, but that having a strong and vibrant postsecondary system was important to their current employees as well. Companies need to keep valued employees within their ranks, and several business leaders interviewed noted that having good colleges and universities within the state was particularly important for employees with children approaching college age.

Discussions with two leaders of Chamber of Commerce organizations about the problems facing public higher education would be expected to be reflective of member attitudes within the organization. Both of these senior officials expressed deep concern
about the situation facing higher education, and neither could recall an instance when a business in their membership ranks held the view that paying lower taxes for public higher education in the state would help their businesses both find and retain talent. These officials also noted that they were aware of increased partnerships and philanthropy between member businesses and public higher education institutions, and that these initiatives were further evidence of their members’ support for public higher education in the state.

Additionally, as part of the data-gathering process for this study, the author spent time with business leaders in a metropolitan community who regularly meet to help guide the political views and positions of the local Chamber of Commerce. During these discussions, it was apparent that these citizens were concerned about the trends and funding changes for public higher education and what these meant for their local institutions. None expressed any support for the notion that their businesses would benefit from lower corporate taxes if public higher education funding was reduced or eliminated entirely. In fact, one business leader in attendance noted, “In my mind, the “American dream” has two key elements: home ownership and an affordable college education. I am very concerned that Colorado is 48th in higher education funding, and I have a daughter at Colorado State University.” Thus, it appears that the business leaders who were interviewed for this study were concerned about the state of funding for public higher education, but few had any ideas for solving this problem.
Discussion and Conclusions

This study chronicles the dramatic changes in public funding for public higher education in Colorado over the past 40 years and details the “crowding out” effect that three major areas of the state budget have had on higher education and other state functions. The notion of “first to worst” resembles Colorado’s funding for higher education on a national scale since 1970. This change embodies a shift in funding toward mandated spending for Medicaid and K-12, and budgetary demands for a growing prison and probation population, within a chaotic political environment of voter initiated tax and expenditure limitation (TEL) amendments, high stakes litigation against the state, term limits restricting institutional knowledge, and an economic recession that has dramatically restricted tax revenues. The myriad of additional political pressures and ethical responsibilities adds to the uncertainty and confusion.

It seems apparent that this decline in public support for public higher education was not a policy direction taken by any previous or current elected official or officials in Colorado; however, budget challenges and growth trends have been compounded by decades of litigation in these three major program areas and have reduced the state general fund available for higher education, along with other functions of state government.

State leadership has some important work to do, as the implications for higher education represent issues that face the entire state. Leadership in Colorado needs to recognize the forces at work and redefine priorities either to support the economic engine of higher education and extend access to financially challenged citizens as it has for
Medicaid and K-12 education, or to suffer the consequences of potentially being the only state without a public system of higher education. States with robust economies, even in downturns, have strong higher education systems which support a strong workforce, stable high paying jobs, and a first-rate quality of life in a healthy economy for all its citizens. Leadership is needed to do the “heavy lifting” to get to this place.

**Why Funding Public Higher Education Is Important to Colorado**

As highlighted by some of the scholarly research reviewed in the first two chapters of this study, public higher education was built to serve the citizens who do not have the financial means to attend a private postsecondary college or university. Also previously noted is the fact that 75-85% of the higher education capacity in Colorado resides in the public system, with a fall 2009 enrollment exceeding 240,000 students. Not only does the state’s public higher education system provide technical, associate, baccalaureate, master, and doctoral degrees as a central facet of the educational component, but these institutions also perform public services and bring millions of dollars of research into the state annually. The state’s colleges and universities also assist start-up businesses and even organically create Colorado businesses from the innovations and research performed by faculty and their research teams. Simply, higher education is an economic engine for the state in many ways. Longtime state official Charles Brown, formerly the Director of the Colorado Legislative Council, summed up the importance of public higher education:

I don’t think anyone realizes the 800 pound economic “gorilla” that higher education is today for our state. It is the biggest employer in the state, it imports
hundreds of millions of dollars of research support, it spins off incubator type industries, it keeps our workforce educated, and we certainly import a lot of people from other places. The intellectual capital companies want their employees to keep their skills at top-notch levels. What are we doing? We aren’t just shooting ourselves in the foot; we are blowing one foot off when we defund higher education.

Brown’s views appear to be shared by policy makers and leaders in other states who, in the most recent national data provided by the Grapevine Report, indicated that cumulatively the 50 states are spending over $75 billion on public higher education (Palmer, 2010b). And yet, Colorado, with one of the most educated populaces in the US, is wavering, due to further general fund budget cuts that are expected, between $660 million and perhaps a new amount in FY 11-12 closer to $300 to $330 million in public investment in its higher education system. Both of these amounts pale in comparison to the remaining $74.4 billion in public funds supporting higher education in the other 49 states. Colorado must get serious about funding its public higher education system at a competitive level or potentially risk irreparably damaging one of its key state assets.

**Summary of Findings**

**Leadership—watch it happen, make it happen or wonder what happened?**

The shift in general fund appropriations, was indeed, not apparently intentional by state officials, but they and the citizens of the state have let it happen and let it continue. All share in the blame. According to the State Constitution, the decisions regarding funding state government work is to be determined by elected representatives of the people. Our
elected representatives are supposed to understand the needs of the state, the local needs of their districts, and weigh the choices to provide for the needs and desires of the populace today while thoughtfully considering the long-term well being of the state and the welfare and environment of future generations.

This 40-year period has resulted in funding decisions that have little to do with the priorities of the citizens, but everything to do with both the federal government making funding decisions for the state and the taxpayers making funding decisions for the state, all in a vacuum without considering the common good of the state or any long-term implications. The ability for our representatives to consider what is the best investment for state tax revenue has been removed for a large portion of the state budget. The remaining share of the budget must fund the needs and desires of the populace and provide for shortfalls and/or long-term investment to improve Colorado for future generations. Higher education funding falls within this share and there is little choice but to increase tuition and cash funding to backfill for declining general fund support. John Morse, the state senator who was the prime sponsor of Senate Bill 10-003, which allows higher education the flexibility to raise tuition, said:

From my standpoint there’s a three-legged stool with respect to higher education funding—those three legs are federal, state, and user dollars. We really don’t have control over the federal dollars; they sort of come and go, the state dollars are going to go [away], what are you left with? You are left with something closer to a one-legged stool, on the backs of users.
The frustration of legislators being “handcuffed” in their ability to make any changes is second only to the frustration of the public facing rising tuition costs and the shift toward rising fees for possibly many more state services. There has been a climate of distrust of public officials and their authority over taxes and use of revenues. Voter initiated tax restrictions in the form of TABOR and voter approved protected funding streams for K-12 have helped craft these “handcuffs” for our legislators and Governors. Term limits for elected officials emerged from this distrust and were an attempt to get fresh ideas in elected offices and remove the entrenched obligations and predetermined advantages assumed to plague long-serving public officials. The downside of term limits has been to remove the richness of institutional knowledge that adds to the understanding of how and why past funding decisions were made and the ability to inform future decisions. With term limits, each new legislator must recreate the wheel and possibly repeat past mistakes, because there is little continuity of service to build effectively on past experience in the legislature.

The legislative, legal, federal, and economic influences on the changes in funding priorities for the state of Colorado have been explained within this study. The following timeline in Table 5.1 highlights the significant events that affected funding decisions for higher education, reducing support from 26.8% of the state general fund budget in 1970 to 8.8% of the budget in 2010. This study goes beyond Kane, Orszag, and Gunter’s (2003) work in that increased appropriations in the K-12 system and the courts and criminal justice system have, along with Medicaid spending that these authors cited, contributed to the “crowding out” effect that higher education funding has experienced over the past four decades. Figure 4.6 illustrates this “crowding out” effect; as K-12, health and human
services, and the courts and criminal justice system increase, higher education and other
totals are stagnant or in fact decreased.

Table 6.1

_Timeline of Significant Political Decisions, Voter Decisions, or Other Major Factors with an Impact on the Colorado General Fund Budget._

<table>
<thead>
<tr>
<th>Year</th>
<th>Higher Ed State GF %</th>
<th>Significant Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>26.6%</td>
<td><strong>Colorado ranks 6th in nation for funding higher education on per capita basis</strong></td>
</tr>
<tr>
<td>1975</td>
<td></td>
<td>Hospitals lawsuit on Medicaid reimbursement rates</td>
</tr>
</tbody>
</table>
| 1977 |                      | _Ramos v. Lamm_ filed against DOC  
K-12 litigation filed against state  
Kadlechek 7% GF limit adopted |
| 1978 |                      | California adopts Proposition 13 |
| 1979 |                      | Colorado adopts sales tax cuts |
| 1980 | 21.7%                | Gallagher Amendment adopted  
_K-12 funding affected_ |
| 1982 |                      | Mielke sentencing bill adopted  
_future prison costs to increase_ |
| 1985 |                      | K-12 lawsuit settled by new school finance Act – _Hafer_  
Hospital lawsuit on Medicaid reimbursement rates |
| 1988 |                      | Term limits for elected officials adopted  
Bill to withdraw state from Medicaid vetoed |
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
<th>Description</th>
</tr>
</thead>
</table>
| 1992 | Arveschoug-Bird 6% GF limit adopted | TABOR adopted by voters  
State sales tax increase of 1% for education not approved by voters |
| 1994 | New K-12 Finance Act adopted | TABOR revenue surpluses  
Permanent tax cuts enacted by state |
| 1999 | | 14.1% Additional permanent tax cuts enacted by state  
Amendment 23 adopted by voters - *mandatory increases for K-12* |
| 2000 | | Post 9-11 economic recession |
| 2004 | | Amendment 35 adopted by voters - *increases health care mandates*  
Senate Bill 04-189 adopted - *Higher education institutions become enterprises under TABOR* |
| 2005 | | Referendum “C” adopted by voters – *five year TABOR “timeout” for state* |
| 2008 | | Second significant economic recession of decade |
| 2010 | | 8.8% *Colorado ranks 48th in nation for funding higher education on per capita basis* |

**Theoretical Framework and the Research Questions of This Study**

The events on this timeline illustrate public choice theory in action. This study has discussed the forces that have affected the resource choices in Colorado’s political environment over the past 40 years and has considered which factors have contributed to
the relative decline of state support for public higher education in Colorado since 1970. The federal mandates, self-imposed legislative expenditure restrictions, voter-approved TELs and dedicated funding streams, increases in population, successful litigation against the state, distrust of public officials, variable revenue sources, and various political agendas have directly affected the budget or indirectly influenced the environment in which budgetary decisions were made.

The legal and political decisions, developments, and constraints that have contributed to public higher education receiving less state support per capita in Colorado has been detailed. However, the reason that Colorado ranks behind the other Mountain West states and most of the rest of the nation is complex. Several fiscal factors are shared by the other Mountain West states and the nation. Federal mandates for Medicaid funding are national mandates for all 50 states of the union. The trend toward higher sentencing terms and being tough on crime is a widespread trend influencing much of the country. Term limits are common in other states, and the national recession affects many sectors of every state’s economy. The vast majority of higher education institutions charge tuition, and the amount of state support to offset tuition varies by state, but the ability to cash fund this function of state government makes it vulnerable in any state budget when cuts are inevitable.

The issues that make Colorado unique in this environment also add to the chaos of the funding process. No other state has a TEL as restrictive as Colorado’s TABOR, especially in a declining economy, and no other Mountain West state has a restriction similar to TABOR. Colorado has an unusually easy process for creating voter-initiated ballot initiatives and Constitutional amendments; in fact, according to the University of
Denver, Colorado’s Constitution is the easiest in the US to amend due to the low threshold for required signatures (University of Denver, 2007, p. 11). Thus, a single political campaign has the ability to permanently modify funding streams in the state Constitution and influence funding decisions by statute. This obviously precludes the review of such funding decisions with each new fiscal year and appropriations bill within a current economic and political environment. Colorado’s population grew substantially more than any other state in the Mountain West, other than Arizona, and the accompanying strain on state resources influenced budgetary decisions. Although Colorado is a wealthier state compared to most of its neighbors, as illustrated in Table 1.5, the citizens have not chosen to support increased tax revenues to support state functions and services. Higher taxation per capita in neighboring states and lack of revenue restrictions have allowed those states to fund higher education more robustly and make it accessible to more of their citizens through lower tuition rates.

Chaos theory has been described as the study of complex nonlinear dynamic systems. This seems to be an understatement for the state revenue budgeting process in Colorado over the past 40 years. The timeline in Figure 6.1 illustrates the concept that small disturbances multiply over time. Any one of these events by itself would not have had the dramatic result realized by the combination of all of these influences. But the small changes made each year as part of the budgeting and election process has caused a profound shift in funding priorities. As a result, higher education’s survival has been dependent upon the ability of its leaders to reinvent itself as more of a self sustaining entity. This is complexity theory in action, as this phenomenon is clearly an adaptation to changes by institutions of higher education on the edge of chaos in the state. By
leveraging gifts, research dollars, and limited state funding, higher education has raised tuition rates substantially and cut expenses as well to be able not only to survive, but also to provide a competitive, high quality education available to as many qualified students as it can.

Higher education has had the ability to adapt to these changing conditions, and this flexibility has been broadened by Senate Bill 10-003 which acknowledges major future state funding cuts and provides for expanded flexibility for tuition increases. Among other provisions, this bill stated in the introductory section, “The on-going challenges facing the state continue to force drastic cuts in all areas of the state budget, especially in funding higher education” (Colorado General Assembly, 2010c). It continues:

The general assembly finds, therefore that, due to the immediate and daunting economic challenges facing the state institutions of higher education, it is in the best interests of the state to immediately grant to the institutions greater flexibility in setting tuition rates and with regard to institutional operations. (p. 3)

The bill allows institutions of higher education to increase tuition rates on undergraduate resident students by 9% per year for five consecutive fiscal years, without legislative or gubernatorial approval, as an attempt to provide additional cash funds in lieu of a planned major reduction in state general fund support in FY 2011-12. Additionally, the bill also includes authority to increase tuition above 9% annually if the institution submits a five-year plan to the Colorado Commission on Higher Education to preserve affordability and access for resident undergraduate students and such a plan is approved by the commission. This bill includes a historic provision informing the institutions of higher
education in the state to plan for a reduction of general fund support of 50% in FY 2011-12 due to several factors including the expiration of federal ARRA funding and continued expected weakness in state tax revenues. The bill states:

On or before November 10, 2010, each governing board shall submit to the commission [Colorado Commission on Higher Education] and to the joint budget committee of the general assembly a report describing, with regard to each institution under its governance, the governing board’s plans to fund the institution in the following fiscal year if the general assembly reduces overall state funding for higher education by fifty percent. (Colorado General Assembly, 2010c, p. 11)

The artificial and temporary assistance provided by the federal government in terms of ARRA funding for struggling state budgets only added to the chaos of the situation, as it constructed a “cliff” for which states must brace when the federal funding expires and state revenues have not fully rebounded. It should be acknowledged that the cliff of funding cuts would have happened sooner if not for the stimulus funds being extended to the states. Because higher education in Colorado was significantly backfill-funded by these ARRA funds, as complexity theory would predict, the effect of the cliff will force higher education to further adaptations.

Options for Addressing State Funding Decline for Higher Education

Increase cash funding. Complexity theory explains the adaptive drive that higher education continues to display in its striving to return to order and to maintain its funding and function. The historic evolutionary strategy for higher education over the past 40
years has been to increase cash funding for shortfalls in state funding. The evolution continues moving the higher education system from a public good that benefits both the student and society to a private good, benefitting and being paid for by individual students. It is apparent that in the short run, this is the preferred and perhaps only strategy that the General Assembly is willing to support to deal with public higher education funding.

**Local taxing district funded colleges.** Another option for public funding that could be considered would be to create local taxing districts to support public higher education institutions that were once state-taxpayer supported. This type of funding is currently used by two public institutions in Colorado: Aims Community College (ACC) in Greeley and the Colorado Mountain College (CMC), with various locations on the Western slope of the state. Both of these colleges are currently two-year district colleges, but these institutions also receive annual state general fund support. In addition to state support, these colleges receive property taxes from those residents and business that reside within the college district boundaries. In fact, some of the state’s community colleges, including Northeastern Junior College in Sterling, that are a part of the State Board of Community Colleges and Occupational Education (SBCCOE) were once locally supported district colleges that were converted by legislative acts into the state system.

Such support from a local taxing district would most likely require a change in governance structure as it is likely that local representatives would want to create some oversight over tax funds generated locally in support of an institution of higher learning. Tuition structure for district residents would be lower than tuition rates for other state residents and non-residents. This is currently how both ACC and CMC operate in the
communities they serve. There are several complications involved with such a plan, but it is an idea that at least one college President interviewed for this study admitted to considering if state support continued to decline or eventually disappear.

Such an idea may be considered in other states, and one state, Oregon, has begun discussions about this potential change in governance and tax support. Keller (2010) said, “Oregon’s universities proposed in July [2010] a ‘new compact’ with the state that would give them more control over tuition, borrowing, and spending, and the ability to establish local governing boards” (p. 76). Thus, one other “low-tax” state, Oregon, is discussing the possibility of moving at least some of their universities to local funding and, potentially, local control.

The challenge of such a plan is that some areas of the state have the wealth and potentially the wherewithal to consider a local higher education tax; however, other regions of the state may not be able to execute such a plan due to the lack of financial ability of the community to support the college or university. Thus, under this plan, local resources would begin to determine which colleges would receive funding rather than statewide need. During the time period from just after statehood until the late 1950s, Colorado did have statewide property tax mill levies to support public higher education (McGiffert, 1964). These mill levies were abandoned in favor of other forms of progressive tax support in the 1960s. Thus, while there is historic precedence to use property taxes to support public higher education, this mechanism has not been used, with a few exceptions for some district junior colleges, for over 50 years. A plan to use local property or sales taxes to fund higher education would require legislative authorization, local voter approval due to TABOR, and a great deal of local discussion
with communities that are served by these institutions about taxing power and capacity that has historically rested with local governments and school districts.

**Tax increase.** One of the areas addressed by several current and former officials was the need for increased tax revenue to support public higher education. During these difficult recessionary times, many of those interviewed were skeptical that a tax increase would be adopted by the voters. The provisions in TABOR require that “any new tax, tax rate increase, mill levy above that for the prior year, valuation for assessment ratio increase for a property class, or extension of an expiring tax, or a tax policy change directly causing a net tax revenue gain to any district” is voted on in advance before enacted (Colorado Constitution, 2010i).

Thus, the Colorado General Assembly and the Governor do not have the power to increase taxes or add a new tax to support higher education without submitting such a proposal to a public vote. In the interviews conducted for this study, each respondent who was asked the question in the protocol was skeptical that a tax increase for higher education could pass in the current economic climate, although many were in favor of a tax increase. There was some general consensus among most of those interviewed that at some point, the state will need to find a stable revenue source for higher education. Most felt that such an initiative would have to wait until the national and Colorado economy improved before any potential tax increase was placed on the ballot.

An additional challenge for public higher education is that any tax increase to fund operations will have to be of substantial magnitude to bring the state support to a competitive level with other Mountain West states, along with the rest of the nation. In a study commissioned by CCHE and conducted by the National Center for Higher
Education Management Systems (NCHEMS) in 2009, these public policy researchers estimated that Colorado would need to double its public investment, from $600 million to $1.2 billion annually, to bring the state up to competitive levels with other states, according to Dennis Jones, President of NCHEMS. Such an increase would place Colorado somewhere in the 25th to 27th place among state rankings in public higher education funding, according to Jones and recent CCHE estimates. Thus, any plans to provide new revenue to higher education that is not of this magnitude will not be effective in making the state more competitive with other states in the amount of public funding provided to higher education, and thus more competitive in tuition rates and compensation for quality faculty.

While many are skeptical that the state would support a tax increase in the current difficult economic times, in May 2010 the state of Arizona posed a tax increase question to its voters to support in part its public higher education system. Hebel (2010) noted:

College officials anxiously awaited the outcome of a measure on the state’s May primary ballot that was seen, in part, as a test of how much higher education was valued in the state. The measure, Proposition 100, asked voters to approve a temporary sales-tax increase of one cent on the dollar, estimated to generate $900 million in annual revenue. Ahead of the vote on Proposition 100, Arizona legislators identified budget cuts to be made if the measure failed. Those included a 12-percent reduction in funds for universities and an 11-percent cut for community colleges. The measure ended up winning handily, with more than 60 percent of voters favoring it. Had the tax increase failed, university officials said,
the resulting budget cuts would have led to the elimination of hundreds of jobs, furloughs, and cuts in student aid and academic programs. (p. 70)

Thus, the state of Arizona’s voters had the chance to maintain public funding for its public higher education system and voted to increase taxes during a difficult economic time rather than reduce funding by an estimated 11-12%. Yet in Colorado, the mood among those interviewed for this study was not to even consider posing such a question to the Colorado electorate when a 50% reduction in funding for Colorado public higher education is being contemplated under provisions of Senate Bill 10-003. Additionally, during the election cycle underway, no candidate for office has publicly campaigned for or spoken in favor of referring a measure to increase taxes, even temporarily, in the state to solve the looming budget problem Colorado will face in the years ahead.

If the state were to look at increasing taxes to address the continued road to privatization for public higher education, it must consider some mechanism to dedicate these revenues or protect them in the state Constitution. Otherwise it is possible, if not probable, that other budget demands in the three major budget areas already receiving nearly 90% of the general fund will require even more appropriations in the future. This outlook forces consideration of enacting some mechanism, such as a Constitutional provision, to protect any new funds intended to support public higher education in Colorado. Most of the current and public officials interviewed for this study were hesitant to support a “Constitutional protection” or “dedicated” revenue source for higher education because such an effort would further erode representative government in Colorado. Many noted that these segmentations of the budget or specific provisions for
one program are a major reason that the state budget is difficult to manage and plan for effectively.

Senator Morse said, “I could not support a dedicated revenue source for higher education—we have to get back to representative government.” Several other officials interviewed for this study held similar concerns about a dedicated revenue source to higher education. Governor Ritter differed in this view and said, “Absent a new and dedicated revenue source for either K-12 or higher education we are going to wind up impacting the things we should be investing in most – that is how I see it”. Additionally, Ritter said:

Now the real question is how do we sustain funding, because we have a lot of TABOR limit to play within for higher education and really for K-12, those have become, in my mind, the single biggest issues we have as a state from a budgeting perspective.

It was the general consensus that ballot initiatives such as TABOR, the Great Outdoors Colorado Amendment of 1994 that dedicated lottery proceeds to parks and open space, and Amendment 23 have limited the General Assembly’s budget flexibility and that more “protected” or “segmented” funds would only serve to make the overall budgeting process even more challenging and less flexible.

**Poised on the Edge of “Uncharted Waters”**

It is at the intersection of public choice theory, chaos theory, and complexity theory that this uncertain and dynamic budgetary process has been described and that the evolution of public higher education in Colorado has emerged. The question in the
crosshairs of all three theories remains as to how state leaders, voters, and higher education leaders choose to address the future.

In the short term, the national economy is not projected to fully rebound for perhaps five years, and the state economy will likely follow this trajectory. If current trends continue, Medicaid will continue to dominate state budgets. The implications of a new national health care plan are unclear, but most accounts call for increasing state support and state matches to meet increased federal funding mandates. The protected funding stream for K-12 will continue indefinitely as an amendment to the state Constitution; however the 1% over inflation adjustment requirement in Amendment 23 will expire in 2011 (Colorado Constitution, 2010e). As the economy recovers, the provisions of TABOR will restrict how much new revenue the state will be allowed to retain and appropriate. While the ratchet effect in TABOR was addressed in Referendum C in 2005, the state will still face year-over-year TABOR revenue limits that may again prompt taxpayer refunds at some point in the future—even as higher education investment continues to lag behind most of the rest of the US. With such austere revenues in this economic recession, the limited growth allowed in future year revenues will take a very long time, if ever, to recover to pre-recession levels.

Short of serious sentencing reform, prisons, probation and court, and judicial branch expenses are expected continue to rise but assuredly not recede significantly. Thus the squeeze on non-mandated spending will continue. Distrust of public officials and lack of willingness by voters to invest in their state continued with three ballot initiatives on the November, 2010 ballot which, if adopted, would have reduced income and property taxes, reverse auto taxes to 1920s-era levels, and preclude the state from
issuing debt of any kind. *The Denver Post* editorial page described these three voter-initiated measures:

We’ve argued that Amendments 60, 61 and Proposition 101 are like a set of Trojan horses that look like gifts to taxpayers but which would, if allowed inside the gates, utterly cripple our local and state government’s ability to provide critical services. The so-called reforms would cut property and income taxes, stop the state from traditional borrowing, greatly restrict local governments from doing the same, and cut or eliminate many fees, like those for vehicle registration. (Editorial, 2010, September 1)

These three measures were not approved by the Colorado voters in the November, 2010 election. However, due to Colorado’s low signature threshold in getting measures placed on the ballot, it is possible that initiatives or propositions like these could once again be on Colorado’s ballots. Should this trend in toxic and draconian cuts to revenues succeed at some point, not only will there be no revenues to appropriate, there will be fewer services or assistance available for Colorado citizens, and public safety, protective regulation, and other oversight could be eliminated at the state level, property values may drop further, and a state on the brink of financial insolvency may not be able to attract or support existing primary employers or their employees. This is the question that Charles Brown raised that was documented previously—that is, if Colorado, with all of its attendant economic benefits, cannot financially support a public higher education system, the outlook for economic development and competitiveness with other states appears bleak.
Colorado leadership and Colorado voters have a choice. Informed leadership has watched as representative government has been weakened by mandates and single program foci. It is time to be proactive instead of continuing to react to the restrictions placed upon the state’s resources.

In the short term, there is little choice but to utilize increased cash funding for higher education and any other state services that can find a way to assess and collect a user fee. The inevitable cuts in jobs and services are part of the short term budget balancing strategy as well. Public higher education institutions are stretched thin, and the expected state cuts dig deeper into the heart of the institutions. Solutions and options, however difficult, are an important mission and the obligation of state government to its citizenry. There are several choices to be made.

State leaders must commit themselves to the priorities for state government as caretakers of the state, its citizens, and future generations. Leadership toward positive priorities of the state, reinforced against short-term interests or narrow purposes, will help citizens see it is in their best interest for everyone to chip in a little for the good of all. If the funding trends shown in this study are not corrected, public higher education in Colorado may be a notion of the past. It is possible that an example of one college within a public university perhaps moving toward privatization is a guide for the future. A recent article from The Financial Times noted:

A leading business school in the University of California is preparing to forgo public funding amid rising uncertainty over the state’s economy and its ability to pay for higher education. The UCLA [University of California at Los Angeles] Anderson School of Management plans to fill the funding gap with private
donations. . . . Its decision to opt out, which is awaiting the approval of Mark Yudof, president of the UC system, is a clear sign of the broad changes that lie ahead for the network. (Garrahan, 2010, p. 2)

Thus, at least one college at UCLA is seriously examining the costs and benefits of moving toward privatization, even within a public university. It is also important to note that such an effort means that this school will have to replace $16 million of its $90 million annual budget with new sources of revenue. While potentially feasible for a school in the greater Los Angeles area, it is unlikely that many schools in Colorado could attract a sufficient level of private funding annually to make up for relinquishing state funding. Yet, the Anderson “experiment” at UCLA, if approved, may be what Colorado faces if leaders do not step forward with solutions to keep public higher education in the state affordable and accessible.

Leadership is required today to protect what is important and valuable and to provide for the growth of the state and economy, provide for those less advantaged, and preserve the quality of life and opportunities for future generations. In order for leaders to do this, they must remove or modify artificial restrictions that have been placed upon the state and create an environment where leaders are trusted and enabled to lead. Initially, the state must consider limiting the ability for ballot initiatives to be placed on the ballot and especially limit the ability, or increase the number of signatures needed, for ballot initiatives to amend the state Constitution. This is the environment in which destructive items can be easily placed on the ballot which, if adopted, can drastically hurt the ability of the state to provide for its citizens. Leadership is needed to refer voters an alternative requirement to make amending the state Constitution require more signatures
from registered voters will only strengthen the election process by ensuring only proposals with broad support are brought to the ballot.

Ongoing artificial budget restrictions must be removed and allow elected representatives to weigh the merits of all funding and choose appropriately. Trustworthy leaders must show how they will openly and fairly make these decisions to gain the trust of voters. Unfortunately, term limits make it difficult for leaders to gain the experience needed to gain the trust of the electorate—these limits must be dealt with as well.

In light of the new national health care reform, health care expectations must be managed, and the ability of individuals or for-profit entities, in health care, corrections, or otherwise to sue the state should be limited.

TABOR must be managed. The provisions restricting recovery from economic downturn must be changed, and the basis for tax revenues must be changed to include adjusting annual revenue growth by per capita income growth instead of the Denver-Boulder Consumer Price Index (CPI). This is the suggestion proffered by former State Representative and JBC Chair Brad Young (2006) (R-Lamar), who believes that using CPI-U as the inflationary factor for TABOR is a continual and annual reduction of government revenues and that a more appropriate index is to have government grow at the rate of personal income growth of the state. This is an idea that should be considered by state leaders and referred to voters to modify TABOR.

If all that is presented to voters is a tantalizing tax cut, short-sighted voters may fall for the bait. Leaders must not fall prey to these same tactics and hold firm to the principles that will grow the state in the long run even if these decisions are not
politically popular or easy. Those who would sell the state short should be exposed for their short-sightedness and self-serving agendas.

**Future Research Options**

Future research opportunities could include examining the effects of the drop in public funding for Colorado higher education on the region, on college participation, particularly by income levels of students, on businesses in the region, and on local economies. Research might take any one of the other major budget categories and analyze reasons for these discrete budget changes and how these categories have evolved since 1970. Additional research might also analyze attitudes and fears surrounding state taxes and voter-initiated tax and expenditure restrictions and the resulting affects on public higher education. There are also opportunities to perform in-depth examinations or studies of the increasing trend of user fees being increased in many areas of government operations and what these dedicated funding sources mean for the budgeting processes and governance of state and local governments.
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## Appendix A

### Colorado General Fund History, Operating Budget, 1970-2010

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Appendix B
Total State General Fund Appropriations, adjusted for inflation to 2010 dollars.

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### Appendix B (Continued)

Total State General Fund Appropriations, adjusted for inflation to 2010 dollars.

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<th>%</th>
<th>Other $</th>
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## Appendix C


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Appendix D


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Appendix E

U.S. Consumer Price Index-Urban (CPI-U), 1970-2010, and factor used from calculation in Figure 4.4 to adjust dollars each year to 2010 dollars, by state fiscal year.

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Appendix F

STRUCTURED INTERVIEW PROTOCOL FOR QUALITATIVE DATA GATHERING

BURNETT DISSERTATION

2010

Date:________________________  Tape Machine: Folder____  File_____  

Location:______________________________________  

Name:________________________________________  IRB Form signed?_______  

Position(s)/experience and dates:

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

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General Overview Questions – Common to all protocols

1. What is your overall impression of the state of Colorado’s budget situation as of 2010?

2. What factors do you think have had the greatest impact on the state budget, both positive and negative?

3. Give me your perception of the change in public funding higher education in Colorado over the past decades.

4. What do you believe are the major drivers of expenditures of state tax money for the State of Colorado, both now and in the past several years?

5. Do you think that the state has a revenue challenge or perhaps a spending challenge?
K-12 Funding Specific Questions

1. What have been the key legislative, court, or voter-mandate decisions over the past several years that have impacted state tax support for K-12 education in Colorado?

2. How do local property tax revenues work with state funding to finance K-12 expenditures in Colorado?

3. How has the Gallagher Amendment affected K-12 school finance issues in Colorado since its adoption in 1982?

4. What are the challenges to funding K-12 that are unique among different major groups in the state budget?

5. Overall, what do you see as the major challenge for the state in providing state funding for K-12 both now and in the future?

TABOR Specific Questions

1. What do you believe the impact has been to the state budget since the adoption of TABOR in 1992?

2. How do you think TABOR’s existence in the Colorado Constitution has affected funding for higher education since 1992?

3. What are your thoughts about the voter-approved Referendum C in 2005 that provided a five-year “timeout” for TABOR revenue limits for the state?

4. What are your overall thoughts and impressions about TABOR and its impact, both from a budgetary and political standpoint, on the State of Colorado since its adoption?
Higher Education Specific Questions

1. Please discuss how you perceive the changes in state funding for public higher education in Colorado over the past several decades.

2. What do you think are the reasons behind the change in funding for public higher education in the state?

3. What do you see as the impact of less funding for public higher education in Colorado?

4. What alternatives do you think policymakers have for dealing with the funding of public higher education in Colorado in the future?

5. What are your overall thoughts about public funding for public higher education in Colorado?

Corrections Specific Questions

1. What do you believe are the key reasons that Corrections spending, as a percentage of the state General Fund budget, has increased over the past several decades?

2. What do you believe were the political dynamics and reasons for increased prison spending by the State of Colorado over the past several decades?

3. What options do you think the State of Colorado has with respect to containing prison spending in the future and is this viable politically?

4. What are your overall thoughts about prison spending and public safety in Colorado over the past decades?
Medicaid Specific Questions

1. When did the state budget begin seeing increases in Medicaid expenditures that made developing the overall budget challenging? In your opinion, why did these changes occur?

2. What are the factors driving higher Medicaid expenditures for the state at this time?

3. What are the prospects for Medicaid budgets given the national health care reform recently enacted by the Congress?

4. Overall, what are your thoughts and views of the impact of the Medicaid program on the budget for the State of Colorado?

Public Policy Choice Specific Questions

1. How would you describe the process in Colorado for determining appropriations for different areas of the state budget?

2. What are the competing interests that higher education faces in requesting state support for the operations of its colleges and universities?

3. How do lawmakers view state appropriations for public higher education in Colorado?

4. What are your overall views of the environment in which appropriations are made to different areas of the state budget in the legislative and executive processes? Have term limits had an impact on the legislative process?

Human capital issue specific questions

1. Do you think businesses in Colorado that need college-trained talent are concerned about the economic challenges facing public higher education in Colorado?
2. What do you think about the notion that businesses in Colorado do not want to support public higher education with tax dollars and instead use a strategy to import college-trained talent from other states?

3. Do you have any general thoughts or insights into how hiring managers or businesses generally view the graduates of higher education in Colorado?

4. Do you know of any businesses with operations in Colorado that specifically recruit out of state students due to lack of availability of talent from Colorado institutions?
Appendix G

University of Colorado at Colorado Springs
Institutional Review Board

1420 Austin Bluffs Parkway
P.O. Box 7150
Colorado Springs, CO 80933-7150
(719) 255-4150; swurtele@uccs.edu

Memorandum

TO: Brian Burnett
FROM: Sandy K. Wurtele, Ph.D.
IRB Chair

DATE: August 23, 2010
RE: Reduction in Public Funding for Postsecondary Education in Colorado
(IRB #09-160) Expedited

Thank you for submitting your Request for IRB Renewal. Given that there have been no substantive changes affecting the risk/benefit ratio the above-referenced study has been approved for another year, with a new expiration date of 8-23-11. Note: Please include the new expiration date on your informed consent document.

Once human subject research has been approved, it is the Principal Investigator’s (PI) responsibility to report changes in research activity related to the project. The PI must provide the IRB with all protocol and consent form amendments and revisions. IRB must approve these changes prior to their implementation. All advertisements recruiting study subjects must also receive prior approval by the IRB. The PI must promptly inform the IRB of all adverse and serious adverse events to subjects. If the project is to continue beyond the expiration date, the PI must submit for a renewal before the expiration date. Failure to comply with these federally mandated responsibilities might result in suspension or termination of the project.

Thank you for your concern about human subject protection issues, and good luck with your research.

Cc: Office of Sponsored Programs
Al Ramirez, Ph.D.
Appendix H

University of Colorado at Colorado Springs

Institutional Review Board

1420 Austin Bluffs Parkway
P.O. Box 7150
Colorado Springs, CO 80933-7150
(719) 255-4150; swurtele@uccs.edu

Memorandum

TO: Brian Burnett
FROM: Sandy K. Wurtele, Ph.D.
IRB Chair

DATE: October 11, 2009

RE: Reduction in Public Funding for Postsecondary Education in Colorado
(IRB #09-160) Expedited
UCCS Speedtype (-) Proposal Number (-)

Thank you for submitting your Request for IRB Review. The above-referenced protocol has been approved, with an expiration date of 10-11-10. **NOTE: Please include the IRB number and expiration date on your informed consent document.**

Once human subject research has been approved, it is the Principal Investigator’s (PI) responsibility to report changes in research activity related to the project. The PI must provide the IRB with all protocol and consent form amendments and revisions. IRB must approve these changes prior to their implementation. All advertisements recruiting study subjects must also receive prior approval by the IRB. The PI must promptly inform the IRB of all adverse and serious adverse events to subjects. If the project is to continue beyond the expiration date noted above, the PI must submit a Request for Renewal prior to that date. Failure to comply with these federally mandated responsibilities may result in suspension or termination of the project.

Thank you for your concern about human subject protection issues, and good luck with your research.

Cc: Office of Sponsored Research
Al Ramirez, Ph.D.
Appendix I
INFORMED CONSENT FORM

Researcher: Brian D. Burnett
bburnett@uccs.edu

Name: __________________________________________
Address: _______________________________________
Phone: _________________________________

Thank you for agreeing to participate in this study which will take place from October, 2009 to October, 2010. This form outlines the purposes of the study and provides a description of your involvement and rights as a participant.

The purposes of this project are:

1) to fulfill a dissertation requirement for PhD program in Education Leadership, Research and Foundations, under the direction of Professor Al Ramirez at the University of Colorado at Colorado Springs.

2) to understand the political, budgetary and policy reasons behind the change in state support over the past four decades for public higher education in the State of Colorado

The methods to be used to collect information for this study are explained below. From this information, I will write a case study about this phenomenon, including, if appropriate and relevant, your role in this phenomenon.

I will be interviewing key policy makers who made policy decisions or others who closely observed these decisions from 1970 to 2010 to understand the key events, executive and legislative decisions that shaped the changes in the state general fund appropriations over this period of time.

I will use the information from this study to write a dissertation describing the causes of the change in state support for public higher education in Colorado and include affects of the change in state support on a number of key performance indicators such as graduation rates, loan levels, persistence rates and college participation rates. You are encouraged to ask any questions at any time about the nature of the study and the methods that I am using. Your suggestions and concerns are important to me. Please contact me at any time at the address/phone number listed above.
I guarantee that the following conditions will be met:

1) Information you provide, your name or any responses to my questions attributed to you will not be used without your express permission.

2) If you grant permission for digital audio recording, no recordings will be used for any purpose other than to perform this study, and will not be played for any reason other than for this study. At your discretion, these digital files will either be destroyed or returned to you.

3) Your participation in this research is voluntary; you have the right to withdraw at any point of the study, for any reason, and without any prejudice, and the information collected and records and reports written will be turned over to you.

4) If you request a review, you will receive an e-mailed copy of the information you provide before it is finalized in the dissertation so that you have the opportunity to suggest changes to the researcher, if necessary. You would be given a minimum of 14 days to respond to a request for review if desired.

Please check one:

___ I do NOT wish to review my remarks before publication or attribution

___ I DO wish to review my remarks before publication or attribution, please e-mail these to me at:____________________________________

Do you grant permission to be quoted directly?

Yes _____ No _____

Do you grant permission to have this interview digitally recorded?

Yes _____ No _____

I agree to the terms contained herein:

Respondent ___________________________ Date ________________

I agree to the terms contained herein:

Researcher ___________________________ Date ________________