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The Role of Partisan Politics on Support for Public Institutions of Higher Education

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Public Institutions of Higher Education

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by

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Abstract

Over several decades, a greater share of the expense of earning a college degree has shifted to students and their families as appropriations to public institutions of higher education have declined as a percentage of the overall cost to educate a student. Tuition has greatly outpaced inflation during this period, while inflation-adjusted household income has remained relatively flat. Despite all the benefits that accrue to both the college graduate and society as a whole, for the less affluent, a college education is becoming increasingly difficult to attain. Many decide the financial barriers are simply too great and elect not to pursue a degree.

Political partisanship influences spending on higher education at the state level; Republican lawmakers, in general, are less generous toward higher education than are Democrats. This study attempted to understand whether similar correlations exist between political preferences and support for higher education among adults who may influence policymaking through their voting behavior. A survey was administered to a non-random, convenience sample of adults in four states. Analysis of the data show that overall, liberal respondents who favor the Democratic party and preferred Joe Biden in the 2020 presidential election are generally more supportive of higher education than are conservatives who support Donald Trump and the Republican party. Certain key issues, such as loan forgiveness or in-state tuition for undocumented students, were statistically correlated with level of support for higher education while other issues were not. Demographic factors such as age and hometown population also correlated with level of support. Contrary to expectations, significant differences were not seen between "red" states and "blue" states. Higher education advocates who wish to make a college education more accessible will need to craft messages that can influence voters across the political divide, especially those who remain distrustful of academia.

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My beloved Lhasa Apso, Kayla, often provided quiet and unconditional moral support while lying at my feet as I wrote and rewrote the chapters of this dissertation. Most of all, I am forever grateful for my toughest critic and greatest cheerleader, my wife and life partner. Kimber, without your support, this truly would not have been possible. Thank you for believing I could do this even when I was sure that I could not.

Dedication

This study and dissertation are dedicated to all those students and their families who are struggling to pay for a college education.

Table of Contents

List of Tables

List of Figures

Chapter 1

Introduction

A. Context of the Problem

Since the founding of the United States, education has held a place of high esteem. It has long been considered an equalizing force, a path by which everyone, regardless of economic or social status, may achieve independence and financial stability. Publicly funded colleges and universities have been instrumental in educating students from all walks of life. Yet, these same institutions must compete with other societal priorities (*e.g.* healthcare, K-12 education, law enforcement, etc.) for finite financial resources. The distribution of the costs involved with educating students has shifted over the past several decades. Financial support at the state and local levels covered the majority of those costs (~60%) in the 1980s but had declined to 35% by 2010. The share of the costs covered by tuition and fees, meanwhile, increased from 30% to 50% over that same period (Archibald & Feldman, 2012). Median family income, however, when adjusted for inflation, has remained relatively flat over that same period (Mitchell & Leachman, 2015). Having often to turn to loans to help pay for college, students have been graduating with increasing debt loads. In many instances, they leave college without completing a degree but still owe a large sum of money. Others, particularly those from economically disadvantaged households, may be dissuaded by the costs from enrolling in the first place. Those who do not earn a degree will earn less over the course of their lifetimes compared to those with at least a baccalaureate degree (Tamborini et al, 2015). Those who do graduate but with a high amount of debt delay major life milestones such as getting married and purchasing a home. They are also less likely to work in low-paying public service jobs or start new small businesses that support job creation (Avery & Turner, 2012).

Many factors can affect funding decisions by state legislatures; a thorough, detailed analysis of all these is beyond the scope of this dissertation. But in particular, political partisanship may play a role in how well (or poorly) a given state funds its public colleges and universities. Democrats generally remain committed to government funding, while a significant number of Republicans in recent years have adopted a negative view of higher education and feel that the costs should be largely borne by those pursuing a degree (Kreighbaum, 2019).

McLendon et al (2009) showed that control of the lower chamber of the state legislature and control of the governor's office by Democrats were positively associated with funding levels to that state's public colleges and universities. Unified Republican control, on the other hand, is negatively correlated with funding levels. These authors did not see a relationship between the political ideology of the state's citizens and funding levels, although others have found that when controlling for other factors, more liberal states are more generous with higher education funding than are states considered more conservative (McLendon et al, 2009).

A greater number of Democrats in the state legislature usually correlates to a higher level of support for higher education funding, both in terms of absolute dollars and in spending per $1,000 of the state's median family income. As political polarization increases, Republicans become less supportive of funding, and turn instead to market-based solutions to address access concerns. Compounding the problem, as the unemployment rate rises, Democrats are less successful in securing funding. As the partisan composition of state legislatures shifts rightward due partly to changes in voting coalitions, this polarization becomes more and more likely with the expected effects on funding for higher education (Dar & Lee, 2014).

Education is generally valued for its positive influence on democratic stability, global competitiveness, and economic growth. The recognition of the overall value of education is, for

the most part, broadly recognized across the political spectrum, although in recent years an increasing number of individuals who identify with the Republican party has become less supportive of it (Hartle, 2017). Education matters too. Harris (2018) showed evidence of a growing diploma divide among White voters beginning around 2012. Up until 2008, White voters without a college degree supported Republicans and Democrats in approximately equal numbers. But in 2012, White voters without a degree showed a preference for Republican political candidates. President Trump's attacks on academia may have exacerbated antipathy toward higher education. In 2019, only one-third (33%) of survey respondents viewed education favorably, which was a significant drop compared to just a couple of years earlier, while nearly 6 of 10 respondents (59%) felt higher education had a net negative effect on the nation as a whole. Support for higher education remained high among Democrats, although even here there was a slight decrease compared with a survey conducted two years earlier (Kreighbaum, 2019).

Rising costs have been cited as a failure of higher education. Critics point to administrative bloat as part of the problem, with colleges hiring highly paid administrators who do not in obvious ways contribute to the core purposes of teaching, research, and service. The proliferation of expensive amenities (such as "lazy rivers"), perhaps established to attract students who bring with them federal loans, has contributed to the image of college as a place of luxurious pampering for coddled and entitled students (Stripling, 2017). The idea that students are entitled may have been compounded by the Occupy Wall Street movement, during which indebted students demanded their loans, voluntarily taken out, be forgiven. Their cause was taken up by liberal Democrat Bernie Sanders, a presidential hopeful in 2016. Sanders' platform included free college tuition. Another contender, Senator Elizabeth Warren, had a similar vision. Both became targets for those on the political right. The issue has more recently come under

review by the Biden administration, which has proposed some level of loan forgiveness for indebted young graduates. This has sparked contentious debates on social media, with some demanding to know why students who willingly took out loans should not be expected to repay them, the way generations of others have been held responsible for the debts they have incurred. This is perhaps a reflection of the market-based solutions preferred by those with more politically conservative ideologies; they are more likely to focus on the individual benefits that accrue from a college education rather than the broader ways society as a whole benefits from an educated populace. While Americans mostly, but with some exceptions, agree on the overall value of education, including at the post-secondary level, there is disagreement over who really benefits from it and therefore who should pay for it.

B. Statement of Purpose

The purpose for conducting the study will be to understand if any correlations can be found between political beliefs and attitudes toward state-level financial support for public colleges and universities. Analyses will be conducted using either Multinomial Logistic Regression or Ordinary Least Squares regression in R statistical software. Additionally, the study will seek to understand whether the prevailing level of support for public funding of colleges and universities can be correlated with the statewide political environment, with the popular vote distribution in the 2020 presidential election used as a proxy for an in-depth study of that political environment. The political beliefs and attitudes regarding public funding of institutions of higher education were examined among individuals of legal voting age in four states: one that is considered a traditionally "blue" or Democratic state; one that is traditionally "red" or Republican; and two that are more closely divided, approximated by the distribution of the popular vote in the 2020 presidential election. For the purpose of picking which states to study, only the two major political parties were considered. Minor political parties (e.g. Libertarian,

Green, etc.) were not considered.

Understanding how political beliefs inform opinions on funding for higher education is a necessary prerequisite to addressing the problem of affordable access to higher education. With tuition at public colleges and universities continuing to rise due to decreasing appropriations from state legislatures combined with the increased costs associated with swelling student populations, increasing regulatory compliance requirements, and other factors, recognizing the different views voters have on this issue, and understanding the underlying political worldviews, may help lawmakers, college administrators, parents and others find common ground from which to develop solutions and ensure affordable access for future generations.

C. Research Questions

The objective of this research was to determine if and how support for taxpayer financing of public colleges and universities is influenced by political preferences, both for citizens as well as for lawmakers in state government. Previous research (McLendon et al, 2009; Ortega, 2020) has found correlations between politics and the level of funding that state governments allocate for public institutions of higher education. Generally, Republican-controlled governments show lower levels of support for higher education than do ones that have greater Democratic representation. In this research, the following questions were considered:

1. Did political preferences, identified through a series of politically-oriented questions, positively correlate to one's level of support for taxpayer financing of public institutions of higher education?

2. Were there particular political beliefs that strongly predict taxpayer support of higher education? In other words, did responses to certain questions show a stronger correlation than others to levels of support?

3. Were political ideologies and levels of support for higher education aligned with the

5

political majority in that state? The majority is that party whose presidential candidate received that state's electoral votes in the 2020 election (i.e. in media election coverage, was the state "red" or "blue")?

4. What were the state-level policy implications for the future of publicly funded higher education in the United States?

D. Definitions

Appropriations: Funds provided by the state directly to institutions to support general operations, distinct from funds provided directly to students through state-level financial aid programs (Cummings et al, 2021).

Conservative*: Resistant to change and new ideas; favors capitalism and free enterprise; favors limited spending (Luttbeg & Gant, 1985).

Fees: Based on the account details for this author's course of study, fees charged separately from tuition include the following: library fee; health fee; transit fee; facilities fee; Arts and Science (graduate) College fee; student media fee; network/data systems fee; and student activity fee. Other fees may be charged by other institutions.

Institution of Higher Education (IHE): An educational institution in any state that admits as regular students only persons having a certificate of graduation from school providing secondary education; is legally authorized within such state to provide a program of education beyond secondary education; provides an educational program for which the institution awards a bachelor's degree; is a public or other nonprofit institution; and is accredited by a nationally recognized accrediting agency or association (20 US Code § 1001).

Liberal*: Accepting of change and new ideas; favors government spending; spends more freely; favors social welfare or "give-away programs" (Luttbeg & Gant, 1985).

Partisanship: A social process, often involving other forms of identity, by which people sort into "teams" with an intense devotion to (political) victory (Taylor et al, 2020).

Polarization: A cognitive process involving ideological sorting based on idealized models of how government ought to work (Taylor et al, 2020).

Performance-based funding: A policy in which appropriations to colleges and universities are made dependent on achieving certain outcomes as measured by selected indicators or metrics (Nisar, 2014)

Support: For the purposes of this study, support means being in favor of allocating tax dollars to public colleges and universities to preserve affordable access for students.

Tuition: A sum of money, distinct from fees, charged for teaching by a college or university and which may be set by the state legislature; state systems or boards of education; single or multi-campus boards, or a combination of these (Havranek et al, 2018).

* Definitions of conservative and liberal were based on a study in which participants were asked to come up with definitions for these labels. This is useful for the purpose of this study; how one self-identifies is more instructive than how one is labeled by others.

E. Assumptions

The following assumptions were made in conducting this study:

1. The states selected for distribution of the survey reasonably represent politically liberal ("blue"), politically conservative ("red"), or mixed ("purple") states across the entire nation.

2. A convenience sample comprising individuals who sign up with a company to fill out surveys can provide valuable information regarding relationships between political ideology and support for higher education among the broader US populace.

3. People are generally consistent in their views, and their opinions on any particular issue will be consistent with their overall worldview so that they may minimize the incidence of cognitive dissonance, the discomfort one experiences when simultaneously holding two or more views or beliefs that contradict one another.

4. When answering an anonymous, online survey, people will answer truthfully, in a way that accurately reflects their views.

5. The survey questions used accurately capture respondents' prevailing political preferences as well as their level of support for distributing tax dollars to public colleges and universities.

F. Delimitations and Limitations

A comprehensive examination of political preferences and levels of support for higher education funding across the entire United States was beyond the scope of this dissertation. Instead, this analysis was limited to four states with similar populations and number of public institutions of higher education (See table 1 below.) All four states have a state-level income tax.

Table 1.

Selected Characteristics of States to be Surveyed

State	Population[1]	Number of Public IHEs[2]	Electoral Outcome 2020[3]	Percent of Popular Vote for Trump[3]	Percent of Popular Vote for Biden[3]	Is State "Red" or "Blue"?
Arkansas	3,042,017	33	Republican	62.4	34.8	Red
Connecticut	3,546,588	21	Democrat	39.2	59.3	Blue
Iowa	3,174,426	19	Republican	53.2	44.9	Red
New Mexico	2,109,093	28	Democrat	43.5	54.3	Blue

1. https://worldpopulationreview.com/states
2. https://www.univstats.com/states/
3. http://ballotpedia.org

One state, Arkansas, was selected to represent a traditionally conservative state, what has come to be called a "red" state in popular parlance. Connecticut was selected to represent traditionally liberal, or "blue" states. While the red state-blue state dichotomy is employed in the popular media as a simple tool to show the distribution of electoral votes in a presidential election, it is understood that this merely represents which of the two major political parties holds a simple majority of the popular. Nonetheless, Arkansas and Connecticut were selected because the respective political party tends to have a larger majority than may be found in other states such as Florida or Virginia where the winning party may have a much narrower margin of victory. Iowa and New Mexico were each selected to represent states that were less strongly liberal or conservative, as indicated by the percent of the popular vote that went to either the Republican or the Democratic presidential candidate in the 2020 election. This study was further limited to US citizens of legal voting age (18+), whether or not they are registered to vote. The reason for this limitation is that I wanted to examine the preferences of those who are eligible to vote and therefore are in a position to influence political processes in their states, whether or not they actually choose to do so. While high school teenagers still under the age of 18 undoubtedly are engaged with political issues that affect them, they have not yet reached an age at which they can vote and make their preferences known to political actors in the state capital.

A limitation with any survey concerns selection bias. Due to cost constraints, the difficulty of distributing a survey to a representative sample of adults, and the generally low response rates expected with a survey distributed either through electronic communications or via mail, a convenience sample was used for this study. Prodege is a company that has a large pool of potential respondents who are willing to fill out opinion surveys on a variety of topics for nominal compensation (typically $0.25 to $0.50 for a 10-minute survey). For the purposes of this

study, respondents were targeted in the four states I have selected, with each state targeted for 25% of the total responses collected. However, there is an inherent sampling bias, as the survey was distributed among people who have sought out opportunities to fill out such surveys. There may be important differences, not captured in this study, between individuals who are willing to take a 10-minute survey on political and education preferences and those who are not. The generalizability of any findings based on a convenience sample may be limited, and this study may have lower external validity and higher selection bias compared to one employing the gold standard, random sampling.

Surveys with limited response options may not capture the true diversity of thought on complex issues, instead forcing respondents to choose among limited options. Therefore, highly nuanced beliefs and opinions may be missed. An additional limitation to this study was that, while correlations may exist between ideologies and support for higher education, it is not possible to infer causal relationships. For instance, one may not be able to conclude that individuals support public funding for higher education because they identify with the Democratic party. It could be that such individuals identify with Democrats because they support higher education. It is not always clear whether the opinion on one important issue informs or is informed by one's political identity. For some individuals, one important social issue (e.g. abortion, gun rights, etc.) may be the critical factor that determines one's political allegiance. For others, they may identify with the party with which they align on most issues, and they may adopt that party's stance on others about which they do not feel strongly. Or, they may hold a view on one or a few issues that is out of step with the party. Also, any survey represents a "snapshot" in time and will not reveal trends in attitudes toward higher education that could be revealed in a longitudinal study spanning several years, both at the individual and societal levels.

Such a survey cannot reveal anything about prevailing attitudes toward higher education from years past, nor can it predict the future, which may look very different from today, at least partly due to changes in national demographics. Finally, there is always the risk that respondents are not truthful when answering questions, even when doing so anonymously. Some may simply select answers at random, although these may be identified through the use of attention check (i.e. "trap") questions. Respondents may also fail to be truthful as to whether or not they are eligible (e.g. they may not have reached the age of 18, or they may be old enough but are otherwise ineligible to vote) to take the survey, which will be completed electronically.

Finally, while the states were selected for similarities in population and number of public institutions of higher education, demographics such as age (both median and distribution); racial makeup and diversity; income levels; education levels (e.g. percentage of adults with a college degree); and others were not considered. It is possible that differences in these factors could influence the results in ways that would not be readily apparent in a study limited to a few representative states. Therefore, findings from a survey of Arkansas residents may differ from those in which Texas residents were surveyed, and results in Connecticut may not be predictive of results to be found in California or Hawaii. Despite these limitations, it was believed that the results would reveal any correlations between ideology and support for higher education that exist and would serve as a basis for further study.

G. Significance of the Study

State appropriations to public institutions of higher learning have been decreasing as a share of education cost (i.e. the overall cost to educate a student) for the past three decades. In the 1980s, on average, 60% of the overall cost to educate a student was covered by state and local funding; tuition accounted for approximately 30% of the cost, with federal support providing the rest. By 2010, state and local funding had decreased to 35% of the overall cost.

Federal support increased 50%, but still only covered 15% of the total cost. The remaining 50% of the cost was the responsibility of students and their families (Archibald & Feldman, 2012). Over this same period, tuition rose at a pace far exceeding the rate of inflation. Between 1980 and 2015, tuition tripled and room and board (on-campus housing and meal plans) more than doubled (in absolute dollars), and the cost of textbooks increased at a rate that exceeded that of tuition's increase. Median household incomes, however, remained relatively flat over this period when adjusted for inflation (Oachs, 2016). For a family earning a median annual income, the cost of sending a child to college today requires a much greater proportion of household earnings than it did 40 years ago. Those without the income or savings to cover the costs often turn to loans.

When students borrow heavily to finance their college education, it has significant downstream effects. College graduates with significant loan debt are less likely to accept employment in public service, where starting salaries are lower than in the private sector. Wages for entry-level positions have also fallen in recent years, leaving new graduates with less disposable income with which to make their loan payments and meet their other living expenses. Further, in recent years increasing numbers of students had not earned a degree despite being enrolled in college for at least 6 years. One possible explanation for this may be that students are taking lighter course loads in order to work part-time to help cover their expenses. Those who come from economically disadvantaged backgrounds fare even worse, taking longer to complete a degree program. This may also be partly caused by their needing to take more remedial courses due to being insufficiently prepared for college upon graduating from lower quality high schools in economically disadvantaged districts (Avery & Turner, 2012).

The twin issues of rising tuition and exploding student loan debt have received a great deal of media attention in recent years. The topic was particularly salient in 2012 when the

Occupy Wall Street movement, which began with outrage over unequal wealth distribution in the United States, expanded to include demands for student loan forgiveness. During the 2020 election cycle, some politicians vying for the Democratic nomination floated the ideas of tuition-free college and loan forgiveness. Yet education is increasingly viewed as a private, rather than public, good by the general public. The very value of an education has increasingly been called into question in recent years by many on the conservative side of the political spectrum. This nation's founders differed on many political issues, but one issue on which they were united was support was education. Education has long enjoyed a reputation as a democratic, equalizing force. But nearly 250 years after the Declaration of Independence was signed, that ideal is no longer as universally accepted as it was in the past.

A search for "rising college tuition" on Google Scholar yields over 19,000 results for the period between 2015 and 2022. The popular press has also covered the issue extensively, and the public appears to have an interest in this topic; the issue can be said to be on the public agenda. Yet tuition and fees continue to rise, and there appears to be a disconnect between the public recognition of the problem and implementation of meaningful policies to resolve it.

H. Theoretical Framework of the Study

Cobb and Ross (1997) describe agenda setting as the many ways in which politics interact to influence what issues or problems warrant consideration at a given level of government. In the case of support for public IHEs, which Lowi (1964) might describe as redistributive policy, but which others such as Greenberg et al (1977) argue is too complex to fit neatly into a single category, this primarily means the level of state government, although the federal government is involved in funding but to a lesser degree. Although the issue of college affordability may be said to be on the public agenda, expansion of the problem by motivated "initiators" is necessary to capture the attention of political actors. They must overcome the

actions of opponents who instead seek to either constrain the problem or increase support for alternative solutions to the problem. Without a critical mass of interested stakeholders or interest groups lobbying on behalf of the issue, it is unlikely to become part of the government agenda, or, as described by Kingdon (2011), the decision agenda.

Arnold (1990) suggested that political considerations are an important factor in the decision-making process for legislators. He acknowledges that issues matter, and that personal beliefs and worldviews may certainly inform the way that politicians choose to vote on a given issue, but their primary goal is to get reelected and stay in office. Their decisions, therefore, are constrained to some degree by the preferences of the voters whom they represent. According to Arnold, the first factor a politician will consider when facing a dichotomous choice (whether to vote for or against a particular proposal) is how that vote is likely to affect his or her political future. Support for an option considered likely to threaten that future will usually be rejected in favor of the alternative. In such instances where a vote is unlikely to have much of an impact on future voter behavior, the legislator is free to use his or her conscience as a guide.

Arnold went on to argue that voter preferences are affected by two primary factors: incidence of cost, and causal chains. The cost incidence simply means who bears the cost and who gets the benefits. Generally, legislators assume that voters prefer policies that do not place a significant cost burden on them but that do offer them benefits. Causal chains are the mechanisms by which legislative decisions lead to changes in the incidence of cost. Decisions that are more easily traced directly to cost increases for taxpayers, for example, may be more politically risky.

Issues on which the public is divided, including higher education funding, may be considered no-win situations for legislators; no matter what they do, they risk angering at least

some voters. It's in their interests then to keep such issues off the government agenda so their votes may not be used against them in the future. Bachrach and Baratz (1962) would likely agree, for in their criticism of pluralism, they note that power is used to limit government decision-making to safe, noncontroversial, issues. It is perhaps for this reason that meaningful government action to address college affordability has been so elusive for so long.

Whether considering routine matters of governance or high-salience ones such as affordable access to higher education, Baumgartner and Jones (2010) tell us that as a general rule, Democrats favor centralized control and support policies that further that goal, while Republicans prefer decentralized approaches. Even when political actors feel passionately about a given issue, they may not expend much effort on it if they recognize that they are unlikely to get much support for it from others. On the other hand, they must act carefully when opposing a policy that has broad support, and Arnold (1990) noted that how one votes on a given issue may be used by challengers looking to unseat an incumbent in the election cycle. Rochefort and Cobb (1994) expand on this, noting that government action can be partly attributed to existing structures and procedural norms, but is also, importantly, dependent on the partisan balance of power. For instance, with respect to higher education, those with more liberal leanings may look for system-wide solutions to address the root causes of inflated tuition, while conservatives look to market-based solutions and personal accountability. According to Stone (1989), political actors will attempt to frame an issue in such a way that lends support to their preferred policy solution, by composing causal stories that attribute problems to either deliberate or inadvertent actions of others so they can then claim the right to use government powers to solve them.

Mitchell (1995) adds that fiscal considerations underlie all politics; political actors care about the distribution of costs and benefits because that influences voter preferences, and as

noted by Arnold, receiving votes and staying in power are the primary goals of most elected officials. They may buy support through redistributive policies that bring benefits to more citizens who, in theory, will reward them with votes.

How the issue of college affordability comes to figure on the public agenda is an important consideration. Iyengar et al (1982) examined the role of the media in shaping public opinion. Studies from the 1940s found that people were not readily persuaded by the media but did see existing preferences strengthened rather than altered. A 1972 study showed that the issues most on the public mind were those that were given the most media coverage, although a causal relationship was not established. The present authors conducted a series of experiments and found that when participants were exposed to stories about a particular topic, they increased their level of concern for that issue. and that concern lasted for the course of the study (six days). They concluded that the media, which in 1982 obviously did not include the internet and social media, shapes the public agenda in complex ways. Those who exhibited a tendency to challenge the information they saw on television, for instance, were less likely to internalize the importance of the topic with which that information was concerned. The media has more influence on those who are more likely to uncritically accept the information presented. Today we see how the integrity of the media is routinely challenged by those who insist that everything with which they disagree (on television, online, etc.) is "fake news."

Although this study did not specifically examine how narratives influence people's political beliefs, the narrative policy framework (NPF) may nonetheless be instructive, as rhetoric involving higher education figures prominently whenever the issue is being covered in the media. Shanahan et al (2011) suggest that narrative policy at least partially explains how people may be influenced to support or oppose a particular policy solution. The narrative, or

story, being told proposes a particular viewpoint on a given issue, such as support for public IHEs. Additionally, the story must have at least one character, but often more; this may include a hero, a villain, and a victim. The character need not be a person but could also be an anthropomorphized abstraction. For instance, from one point of view, high tuition may be considered a villain that is making it difficult for the victim (the student) to earn a college degree. From the opposing (usually conservative) point of view, taxes collected to fund IHEs may be the villain, while those seeking to reduce government spending may cast themselves as the heroes to the tax-paying public (the victims). They would likely avoid labeling college-bound students as villains, instead choosing to ignore them. In addition to characters, Shanahan et al (2018) describe additional elements. Like any story, there must be a setting, and here this means the policy problem. College affordability is the issue at hand, but also included are the legislative processes that affect appropriations, as well as the tuition-setting processes that exist, whether controlled by the legislature, college boards, or other entities. The plot of the narrative describes how the characters relate to one another, but it may not follow a linear pattern of beginning, middle, and end which one typically sees in a story. Last, there is a moral of the story, which here means the policy solution, and which will differ depending on what side of the issue one falls on. Jones et al (2014) further describe how narratives influence thinking on given issues. First, people make decisions based on limited information, using heuristics, or cognitive shortcuts. Second, emotions affect how people react to stimuli. Stories make issues personal, which may be why they are so effective. People process information more quickly and view it as more valid when it conforms to, rather than challenges, their existing beliefs, a phenomenon known as confirmation bias. Information sources that align with existing beliefs are preferred over sources that do not align. This may explain why conservatives and liberals prefer different

news outlets, and why those outlets may present information in such a way as to resonate with their audiences. Sabatier (1988) adds that those involved in or concerned about a particular policy issue may resist learning if the available information invalidates their beliefs or implies a certain goal (policy solution) is unattainable. Instead, information may be employed to bolster one's own beliefs or to discredit the beliefs of opponents. This is perhaps why it is so difficult to find solutions to problems on which people are deeply divided. If they are even talking to one another at all, messages being sent may be received and interpreted in ways that were not intended.

Chapter 2

Review of the Literature

A. Introduction

Appropriations from state legislatures to public, 4-year institutions of higher education (IHEs) as a percentage of spending on higher education (i.e. federal + state/local + student/families [tuition and fees; not counting room and board, books, and other expenses]) have steadily declined for the past three decades (Archibald & Feldman, 2012). As this funding has fallen, the cost of attaining a baccalaureate degree has been increasingly shifted to students and their families through rising tuition and fees. Further, the rate of increase in tuition has greatly outpaced the inflation rate during this period, while median, inflation-adjusted household income has been relatively flat over at least the past two decades (Mitchell & Leachman, 2015). Students and their families have often had to rely on financial aid, and while access to aid is positively correlated with degree completion, this relationship turns negative when borrowing passes an inflection point; this inflection point is different, however, for different racial groups. Significant student loan debt deters college graduates from pursuing advanced degrees or accepting employment in lower paying, public sector roles, while also causing them to delay marriage, starting families, or purchasing a home.

Political partisanship may play a role in how well (or poorly) a given state funds its public colleges and universities. Democrats generally remain committed to government funding, while a significant number of Republicans in recent years have adopted a negative view of higher education; a majority of Republican respondents (59%) in an annual survey conducted by the think tank New America felt that the costs should largely be borne by those pursuing a degree (Kreighbaum, 2019). Myriad factors can affect funding decisions by state legislatures, but evidence suggests that Republicans in the governor's mansion or in the state legislature are

negatively correlated with funding levels on a per-student basis (McLendon et al, 2009).

Literature used for this study was collected from the Mullins Library at the University of Arkansas and the library at the University of South Florida. Google, Google Scholar, and Journal Storage (JSTOR) were also used to gather material from refereed journals; opinion pieces; government reports; and reports from non-government entities with interests in education, politics, and other related subjects. Search terms included the following, either alone or in combination: higher education; tuition; college affordability; student loan debt; rising tuition; higher education funding; appropriations; and partisan politics. Materials published more recently (within the past ten years), were preferred but relevant older materials were included as appropriate.

B. The Student Experience

1. Education and Inequality

Education has long been recognized to have a role in the persistence of income across generations (i.e. children of high-income [low-income] parents become high-income [low-income] adults). This occurs via two mechanisms: educational inequality and educational returns. Educational inequality results because high-income parents are more likely to raise highly educated children when compared to lower-income parents. This affects educational returns; highly educated children are more likely to earn a higher income compared to their less educated peers (Blau & Duncan, 1967; Featherman & Hauser, 1978). Both inequality and returns appear to have been increasing in recent decades (Baum et al, 2013; Ziol-Guest & Lee, 2016).

Although education inequality and education returns have been increasing, income persistence has remained relatively stable, at least partly due to an increasing number of people attending college, a phenomenon called educational expansion (Bloome et al, 2018). Although educational attainment is greater among high-income children, overall college completion rates

20

have increased for children from across the financial spectrum (Bailey & Dynarski, 2011). Lower-income children may be less likely to complete college, but those who do may see a greater benefit from having done so (Eide & Showalter, 1999). According to Hout (1988) and Torche (2011), earning a college degree leads to similar incomes regardless of family financial background. Further, according to the National Center for Education Statistics' (NCES) Digest of Education Statistics (2022), there has also been an overall increase in the number of people completing 2-year degrees; the number completing advanced (graduate) degrees; and the number of people completing some college coursework without earning a degree or certificate. As the number of people completing at least some college coursework increased, parental income became less predictive of the income children earned as young adults. This aligns with research by Chetty et al (2017) and Torche (2011) who found that intergenerational income persistence is weaker among those who have earned a college degree, although it is stronger among those with advanced degrees. In other words, income persistence shows a U-shaped pattern in which it is highest among those with either no college or advanced degrees, and lowest among those with a 4-year degree only.

2. Rising Tuition

Approximately 62% of all bachelor's degrees in the United States are awarded by public institutions (Eaton et al, 2019). Between 1980 and 2015, tuition at 4-year, public universities roughly tripled, while the cost of room and board doubled (Oachs, 2016). The rate of increase for textbook prices exceeded that of tuition during this same period. Tandberg (2009) found that tuition at public colleges and universities in the United States (US) began a sharp increase beginning in or around 1988. According to Mitchell and Leachman (2015), tuition in the prior 20 years increased at a rate that greatly exceeded the growth in the median family income. Zhan et al (2016) described a 42% increase in college costs just in the ten-year period between

2002 and 2012 while Halbheer et al (2019) found that the average cost of attendance at a 4-year, public institution (tuition, fees, room and board) was $19,000 for the 2015-2016 academic year, which is more than double what it was in 1985, even after adjusting for inflation. At the University of Arkansas (UA), in-state undergraduate tuition and fees totaled approximately $2,200 in 1995 based on 30 credit hours (Figure 1 below). In 2018, that same total was over $9,000, an increase of over 300% in constant dollars (University of Arkansas, 2021). This far surpassed the cumulative rate of inflation, which was approximately 65% for that same period of time. Had tuition only kept pace with the inflation rate, those same 30 hours would only have
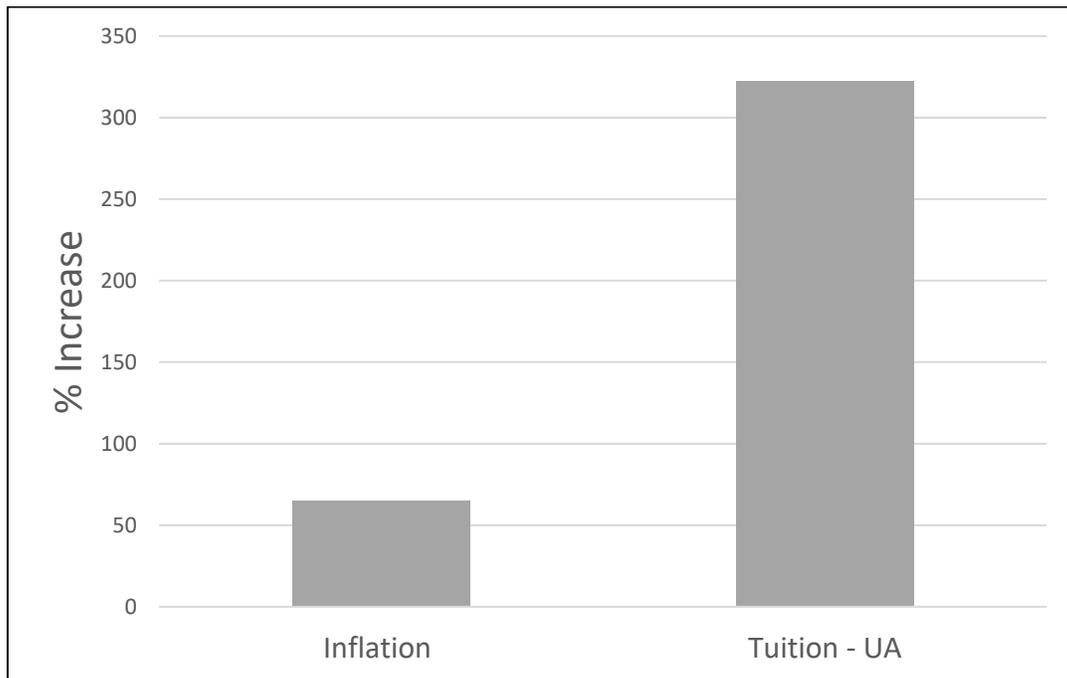
Figure 1. *Rate of Increase (percent) Between 1995 and 2018, Inflation vs. UA Tuition*

cost $3,539 in 2018. With median family incomes remaining relatively flat over the past several decades, the net effect has been to put increasing strain on household budgets.

3. Student Loan Debt and its Impacts

Students and their families often borrow to help pay expenses associated with for college

attendance. That's not necessarily a bad thing, as Zhan et al (2016) found a positive correlation between the availability of student loans and completion of a 4-year degree, but only up to a point. For every $1,000 borrowed, the likelihood of graduating increases by approximately 10%. However, the correlation turns negative once the student borrows $19,500; on average, students become less likely to complete a degree if they borrow more than this amount. The positive effect of borrowing is not uniformly distributed among racial groups however, nor were the inflection points all the same. For White students, the increase in the odds of graduation per $1,000 borrowed was 8.4%; for black students it was 11.7% and for Hispanic students, 13.4%. The loan amount at which the correlation turns negative for white students was $18,452; for black students it was $20,990 and for Hispanic students it is $23,971. To summarize, non-White students may see greater benefits from borrowing overall and may safely borrow more, compared to White students.

       Kelchen et al (2017) remind us that tuition, fees, and books are not the only costs associated with college attendance. For public, 4-year institutions, tuition and fees only account for approximately 40% of that total. Living expenses can account for greater than half that cost. Colleges and universities are obligated to provide estimates called living cost allowances, and these include room, board, transportation, entertainment, and other miscellaneous, personal expenses. While tuition and fees are not easily manipulated, a university that wants to appear more affordable than it really is can do so by underestimating living expenses, which are left to individual institutions, and often the financial aid office, to calculate. In doing so, however, students may qualify for less financial aid. The authors found that significant variation existed in the living cost allowances, even among institutions that are located within a few miles, or even a few city blocks, of one another. Estimates may vary by several thousands of dollars, and this

variation was seen across all geographic areas, from large urban centers to rural communities. While 4-year institutions were more accurate in their estimates compared against 2-year or certificate-granting entities, nearly half provided allowances that differed from estimated real expenses by 20%. They also note that there is a debate as to just how well these allowances mirror actual costs, with some suggesting that lifestyle choices, such as choosing to devote more time to study rather than to part-time employment, can significantly raise those estimates.

Johnson et al (2016) found that in many cases, students are not even aware of how much they have borrowed, or that they have borrowed anything at all. They noted that 13% of respondents in one study stated, wrongly, that they had no student loans at all, while another 10% underestimated the amount they owed by over $10,000. In another study, it was apparent that students were not much better at understanding how much their education was costing them, with only 52% of respondents able to estimate within $5,000 what their costs were for their freshmen year. Of those who had federal student loans, 28% denied having them. Despite this apparent deficiency in understanding, the authors found that for the students they surveyed, cost was the top consideration in selecting what college to attend, and nearly half were concerned about the implications of student loan debt, while the rest felt that borrowing was a necessary investment in their futures.

When students borrow heavily to finance their college education, it has significant downstream effects as well. Graduates with significant loan debt are less likely to accept employment in public service, where starting salaries are lower than those in the private sector. Wages for entry-level positions have also fallen in recent years, leaving new graduates with less disposable income with which to make their loan payments. Further, a growing percentage of students (nearly half in one study) had not earned a degree despite being enrolled for six years.

One possible explanation for this may be that students are taking lighter course loads in order to work part-time to help cover their expenses. Those who come from economically disadvantaged backgrounds fare even worse, taking longer to complete college. This may be partly due to their needing to take more remedial courses due to being insufficiently prepared for college upon graduating from high school (Avery & Turner, 2012). According to Hiltonsmith (2013), two students earning a degree in the same field of study from the same institution may see very different returns on their educational investment, depending on how it was financed. Students who borrowed more will benefit less than those who did not have to rely as heavily on loans.

In 2020, total outstanding debt amounted to $1.5 trillion, owed by over 44 million borrowers (Huffman, 2020). Student loan debt is now the second-largest category of consumer debt, surpassed only by home mortgages. In 2012, the average debt for a student graduating from a public college or university was $25,550; for those who attended private colleges or universities, that number was $32,300. Students who attended for-profit institutions were in even worse shape, graduating with nearly $40,000 of debt. For the graduating class of 2016, the average per student debt load across all types of institutions (public, private, and for-profit) was $37,000. Fewer than 25% of new graduates are debt-free (Friedman, 2018). That number, however, does not tell the whole picture, as over half the outstanding debt (~$750 billion) is held by just 16% of borrowers. A small percentage of borrowers have six-figure student loan debts (Huffman, 2020). Somewhat surprisingly, student loan debt rose has risen most rapidly in recent years for those aged 60 to 69 (Friedman, 2018). Defaults on student loans increased sharply during the most recent recession (Mueller & Yannelis, 2019). And according to NCES (2022), for the 2013 cohort of full-time students beginning a course of study at a public, 4-year institution in pursuit of a bachelor's degree, 62% graduated within 6 years while 38% had not.

This was similar to the rate (63%) for all institutions but slightly lower than for private nonprofit institutions (68%). Females showed a slightly higher 6-year graduation rate (65%) compared to males (59%) at public, 4-year institutions. These numbers were very close to the rates for all institutions (66% for females; 60% for males).

Such high levels of debt are problematic for a number of reasons. First, of all forms of consumer debt, student loans exhibit the highest delinquency rates. In 2015, over one million borrowers were in default on their federal Direct Loans, meaning they were 270 days past due. Often, and perhaps counterintuitively, the problem is that some students borrow too little rather than too much. Instead, they may rely on part-time work, or enroll on a part-time basis. Unfortunately, students who take this approach have less time to commit to their studies and are more likely to leave college without having completed a degree (Perna et al, 2017b). For those who do persist and earn a degree, carrying a high debt load makes it more likely that they will delay marriage and having children; delay buying a home, which is one of the most significant methods by which people build wealth; and delay starting small businesses. This poses great challenges to the overall economic health of the nation, as small businesses employ the majority of people in the private sector (Watson, 2014).

The federal government initially became involved with education lending as a means to strengthen national defense and to meet critical national needs (Watson, 2014). President Lyndon Johnson recognized the importance of ensuring that all students have the necessary financial resources to attend college or university when he signed the Higher Education Act (Public Law 89-329) in 1965. The act has been renewed several times over the years since, most recently in 2008 (Perna et al, 2017a). In addition to making loans accessible so that students may enroll in college, various programs have been implemented to address the debt students have accumulated

by the time they graduate. One such program forgives up to $5,000 in qualified federal loans for individuals who teach for five consecutive years at a qualified educational institution and who do not default on their loans. Up to $17,500 may be forgiven for those teaching math or science. In fiscal year 2018, $103 million was forgiven for 15,700 borrowers under this program. (Huffman, 2020) Another plan, enacted in 2009, will forgive any loan balance remaining after 25 years of timely payments, provided the individual works in a "socially desirable" field. (Layman, 2011) Other service-based programs include Loan Forgiveness for Service in Areas of National Need; Civil Legal Assistance Attorney Student Loan Repayment; and some small programs offered through the Department of Defense (Hegji, 2018).

An additional program for loan forgiveness exists for those who pursue careers in public service. In 2007, a bipartisan Congressional majority enacted the College Cost Reduction and Access Act (Public Law 110-84) which amended the Higher Education Act of 1965. This act established the Public Service Loan Forgiveness (PSLF) Program through which those pursuing careers in certain fields could apply to have their debt discharged after making 120 qualifying loan payments while working in a qualified public service capacity. The 120 payments need not be consecutive, although this does provide the fastest route to having one's remaining debt forgiven. The program is open to anyone with existing qualified loans as well as to future borrowers. Qualified employers included any level of domestic (not international) government (federal, state, or local); non-profit organizations exempt under section 501(c)(3) of the Internal Revenue Code; and certain other non-exempt, not-for-profit organizations if their primary purpose is to provide a qualifying public service. Service in the Peace Corps or AmeriCorps also qualifies (Smole, 2007; Huffman, 2020). The PSLF Program is only available to those who borrowed under the Direct Loans program, including subsidized, unsubsidized, consolidation,

and PLUS loans, the last of which is only available to students enrolled in graduate or professional school. Perkins loans and Federal Family Education Loans (FFEL) are not eligible for forgiveness but can be consolidated under a Direct consolidation loan which does qualify. Loans from private sources are not eligible. Further, loan payments must be made under a qualified repayment plan. The standard 10-year repayment plan, under which a borrower would repay the entirety of her loan in 120 payments, qualifies but leaves no balance to be forgiven at the end of the repayment period. Other allowable plans include the income-contingent repayment (ICR) plan, the income-based repayment (IBR) plan, pay-as-you earn (PAYE), and revised pay-as-you-earn (REPAYE). All these are likely to leave a remaining balance after ten years which may be forgiven under PSLF. Loans that are placed in deferment or forbearance do not qualify, even if a borrow continues to make payments on them (Heisler & Smole, 2018).

Borrowers were first be eligible to request loan forgiveness on October 1, 2017, with the first eligible payments (i.e. those that count towards the required 120) having been made on or after October 1, 2007 (Heisler & Smole, 2018). However, concerns about the impending costs of the program surfaced earlier. The median debt for borrowers who elected to enroll in PSLF is greater than $60,000; 30% of enrollees had debt in excess of $100,000. Undergraduate students may only borrow up to $57,500 through the Direct Loan program, but graduate and professional students borrowing through Direct Loan PLUS may borrow unlimited sums. The Obama administration recognized the impending financial burden the program could place on the federal budget and proposed capping the amount that could be forgiven at $57,500, the borrowing limit for undergraduates. That proposal failed to get enacted, even though the Congressional Budget Office (CBO) estimated that the measure would save $6.7 billion over ten years. Additionally, under the income-based repayment (IBR) plan, borrowers' monthly payments are capped at the

maximum they would have paid under a traditional ten-year repayment plan. In other words, even if their calculated required payments under IBR were greater than what they would have paid under the standard plan, they would never have to pay more than what the standard plan required. According to the CBO, eliminating this cap would save an additional $5.4 billion over ten years. This too, however, failed to get enacted by a divided Congress (Delisle, 2016). Meanwhile, Crespi (2017) estimates that up to 200,000 borrowers per year may eventually request loan forgiveness through PSFL, based on the fact that approximately 20% of the American workforce is employed in some aspect of qualifying public service. With an average debt of $60,000, the program may be expected to cost taxpayers $12 billion per year.

Despite these dire predictions, PSLF has to date cost the government very little. This is not a result of a lack of interest in the program, however, although it has been shown that overall awareness of and familiarity with this program is rather low. Rather, the low cost of the program reflects a high denial rate. A 2018 report from the Government Accountability Office (GAO) found that only 55 borrowers had benefitted from loan forgiveness as of April 2018, six months after borrowers first became eligible to apply. Over one million borrowers had requested employment certification, a voluntary process through which individuals provide their employment information to the Department of Education (DOE) which in turn verifies whether or not the employment is qualified under the program. DOE had processed nearly 900,000 of these at the time of the report. Of those 900,000 borrowers, 19,321 had submitted the application to have their loans forgiven, and 55 of these ($< 1\%$) had their remaining balances discharged. Of the 900,000 borrowers who requested employment certification, 58% had at least one qualifying payment. Borrowers who were denied certification (~280,000) submitted applications with missing information; did not have qualified employment; or did not have a

qualifying (i.e. Direct) loan. Of the 19,321 borrowers who submitted applications for loan forgiveness, 40% were denied because they did not yet have the required 120 qualified loan payments, while others were denied for submitting applications with missing information (Government Accountability Office, 2018).

Several issues have been identified as possible causes for the high denial rate. A GAO report (2019) found that nearly half of all denials for forgiveness were because the borrowers had not yet made 120 qualifying payments. This is easily rectified if due simply to the borrower not having been in repayment for at least ten years. A borrower who first began repaying on his/her loan in 2009, for example, would not yet have made 120 payments if s/he had applied in October 2017. In that case, the borrower may simply reapply when s/he has made the proper number of payments. A more pervasive issue, though, appears to be that borrowers believed they had made the proper number of payments, only to find out that many of them were not counted because they were deemed "non-qualifying" by either the loan servicer or DOE.

This issue may arise for two reasons. First, the loan payments may have been made outside the allowable time period (within 15 days of the due date) or made while the borrower was on a non-qualifying repayment plan; payments that were one day or more past due were automatically disqualified. Second, the payments may have been made while the borrower was not working for a qualified employer or performing a qualified public service.

Only Direct Loans may be forgiven under PSFL. At the time the program was enacted in 2007, these accounted for approximately 21% of outstanding student loans. FFEL, which was discontinued in 2010, and Perkins loans, as well as loans from private sources, did not qualify. Borrowers with non-qualifying loans could consolidate them with the Direct Consolidation Loan which does qualify for forgiveness. However, what borrowers probably do not realize is

that any payments made on a loan prior to consolidation do not count towards the required 120 payments. Following consolidation, the payment count resets to zero. Additionally, only payments made under a qualifying repayment plan counted, and any payments made while a loan is in forbearance or deferment will not count. Complicating matters, a loan may be placed in non-qualifying forbearance if a payment is not processed in a timely manner, through no fault of the borrower. Crespi (2017) notes that financial incentives may have prevented loan servicers from processing consolidation requests in a timely fashion. Of the nine companies contracted to service federal loans, only one handles loans for borrowers seeking loan forgiveness under PSLF. Once a borrower has given notice of her intent to participate in PSLF, her loan is transferred to FedLoan Servicing (FSL), unless FSL is already the loan servicer. That means lost fees for the servicer losing the loan. On the other hand, placing loans into a forbearance status allows the servicer to continue to collect fees while also extending the period of time during which a borrower must make payments.

Even if a borrower makes an on-time payment on a qualified loan while enrolled in a qualified repayment plan, the payment still may not have been counted if the borrower did not have qualifying employment at the time the payment was made. For the first five years the PSLF program was in existence, there was no mechanism by which borrowers could confirm the eligibility of their employers and thus no way to gauge whether they were on track for loan forgiveness. In January 2012, the DOE created an Employment Certification Form. Though not mandatory, borrowers could submit the form with their current employment information and receive verification as to whether or not they were working in a capacity that qualified for loan forgiveness. Borrowers could periodically submit the certification form for reassurance. However, little guidance was provided to either borrowers or loan servicers. In instances where

the certification is denied, little feedback is provided to borrowers to help them understand why their employment did not qualify (Curtis & White, 2019).

Recognizing that many applicants were being denied loan forgiveness, Congress appropriated an addition $700 in 2018 to expand access PSLF to those who did not initially qualify for one reason or another. However, the GAO (2019) found that the majority (~99%) of applications under the temporary expanded program were being denied as well. One confusing aspect of the expanded program is that borrowers must first make application and be denied through the regular program. Upon denial, they are then expected to request reconsideration under the expanded program.

Unlike other forms of debt, student loans may not, except in very rare situations, be discharged by a declaration bankruptcy. Prior to 1976, bankruptcy under either Chapter 7 or Chapter 13 included the dismissal of student loan debt. The rules changed when some members of Congress argued that allowing student loan debt to be discharged essentially rewards students for failing to honor a legal obligation. The 1976 amendments to the Bankruptcy Code placed restrictions on the discharge of federally guaranteed student loans; additional amendments enacted over the next 30 years excluded more classes of loans and creditors from bankruptcy protections and narrowed the scope of allowable circumstances under which student loans may be discharged. A successful petition to have student loan debt cancelled through bankruptcy requires one to meet all three criteria of the Brunner Standard: 1) the debtor is unable to meet a minimal standard of living based on his/her current income and expenses; 2) there is unlikely to be a change in the borrower's financial status in the future; and 3) the petitioner has so far made a good-faith effort to repay the loan(s). In practice, this is a standard that few are able to meet. (Watson, 2014) While there have been occasional efforts to reverse this trend and provide relief

to students who find themselves burdened with enormous student loan debt, opposition from the loan industry and some members of Congress has to date prevented any meaningful change (Baker, 2012).

C. Cost and Price Setting

1. Falling State Support

One reason why college students and their families are paying more for higher education is that taxpayers are paying less. Funding for a public college or university comes from several sources. Appropriations from the state and local jurisdictions have traditionally been the largest source of funding, covering the greatest portion of the total calculated cost to educate a student, but this portion has steadily decreased over time (Archibald & Feldman, 2012). Federal funds account for a small percentage of the overall per-student education cost, with students and their families left to cover the difference. State and local funding for public colleges and universities covered nearly 60% of the total cost to educate a student in the early 1980s. The federal government contributed approximately 10%, and the remaining 30% was paid by students in the form of tuition and fees (Figure 2 below). By the start of the following decade, state and local governments were only funding 50% of that cost, and by 2010 their share had further declined to 35%. While federal funding had increased by 50% (to 15% of the overall total), students and their families were by then covering 50% of the total cost, a 67% increase in share from the 1980s (Archibald & Feldman, 2012). Students in some states have faced even worse situations. Between the onset of a major financial crisis in 2008 and 2013, Arizona decreased spending on higher education by 50% while tuition rose by 70% (Goldberg, 2015). Arkansas passed a tax cut in 2015 that was projected to reduce total state revenues by $100 million annually. Prior to the tax cut, the state was already spending approximately $13 million less per year on education than it was prior to 2008 (Mitchell & Leachman, 2015). A similar story may be found elsewhere

across the nation. A majority of states (47 out of 50) spend less today per student (on average, 20% less) than they did prior to the recession. In response, schools have been forced to cut spending wherever they could. Many have cut full-time faculty positions and rely more on part-time adjunct instructors who receive no benefits and no guarantee of work from semester to semester. Course options have been reduced and in some cases branch campuses have been closed. Critical services such as access to computer labs and libraries have also been reduced. Meanwhile, enrollment continued to grow. From the onset of the recession through the 2013-2014 academic year, enrollment at US colleges and universities increased by approximately 900,000 students (Mitchell & Leachman, 2015).
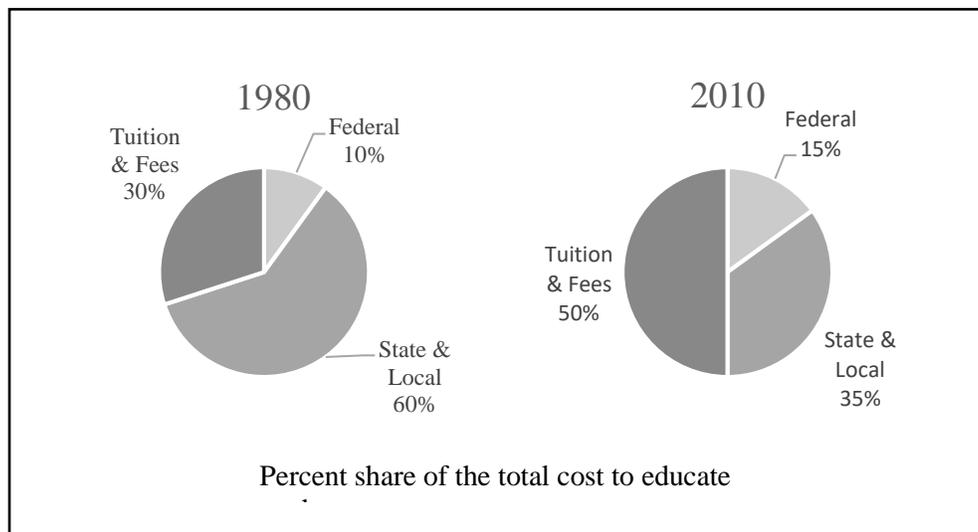
Figure 2. Funding for Public IHEs by Source, 1980 and 2010 (Percent of Total)

Hersh and Merrow (2015) note that beginning in the latter half of the 20th century, market considerations rose in importance and have since come to influence nearly all aspects of life in the United States. Many, perhaps most, colleges and universities have adopted mindsets that incorporate features of classical economics, including competition, supply and demand, and profitability. This market orientation has worked in tandem with the traditional focus on the

individual that predominates in the US, as opposed to a more collectivist orientation seen elsewhere. This has contributed to the current environment in academia in which IHEs are less focused on their core academic missions and more on meeting the desires of their target customers (i.e. students and their families). Kerr (1994) would likely agree, as he notes that since the 1960s, students have gained increasing influence over their educational experience, and are increasingly focused on what can be called the consumer aspects of college, those that are found outside the classroom and that contribute to the typical college experience. The market-based focus is perhaps best summarized by a quote from a former vice president of enrollment at Carnegie Mellon University who said, "The objective of the enrollment process is to improve your market position" (Hersh & Merrow, 2015, p. 114). They are also critical of the annual rankings of colleges and universities published by US News and World Report. In the early 1980s this magazine began its annual tradition of ranking America's IHEs, using criteria many of which were highly subjective and impossible to quantify. But statistical validity was beside the point; college-bound students and their parents paid attention to those rankings, and colleges and universities began responding in ways, not always licit, aimed at improving their rankings and having stronger appeal for their customers; by some estimates, these marketing efforts cost academic institutions approximately $5,000 per enrolled student.

2. Other Factors Contributing to Rising Tuition and Fees

The costs of operating a college or university and educating students have continued to rise, irrespective of who is responsible for covering them. Hersh and Merrow (2015) are particularly critical of the proliferation of elaborate facilities designed by renowned architects that have significant aesthetic appeal, but which contribute little to the educational mission of the institution. In addition to the design and construction costs, they point to the maintenance costs and energy costs associated with operating such facilities, which are rarely used to their fullest

extent by students. Expenditures on athletic facilities are also roundly criticized, particularly because their use is reserved for a very small percentage of the student body. They maintain that the provision of services such as counseling, not directly associated with the educational mission, are yet another way costs are driven upwards, along with the necessity of maintaining a legal staff to defend the institution against all manners of lawsuits.

Varga and Lingrell (2018) point out that colleges spend hundreds of millions of dollars on amenities for the sake of prestige; in doing so they can increase a) the number of applications they receive; b) their enrollments; c) their selectivity score (the more applications they reject, the more selective they are considered to be, and this factors into the US News and World Report rankings); and d) prestige. They liken it to the battle for supremacy in space waged between the United States and the former Union of Soviet Socialist Republics during the cold war. That battle proved to be very costly to both nations; in a similar way, IHEs have found themselves forced to increase tuition to cover their expenses to a point that may no longer be sustainable. Indirectly, schools that employ this strategy may be unintentionally discriminating against less wealthy students whose families are unable to pay the higher tuitions and are unwilling to borrow enough to do so.

In Transformational Change (D'Ambrosio & Ehrenberg, 2007), competition in academia is described as being distinct from that in business and industry, where costs are driven down and productivity is increased. Competitive pressure works in the opposite direction in higher education because students and their parents demand smaller classes with more direct faculty contact. They too note the demand for fancy facilities, even while they, along with the smaller classes, may not be shown to have a clear positive correlation with student educational outcomes.

Hirsch and Weber (1999) and Mitchell and Leachman (2015) note that even while state

appropriations have declined over time, the demand for a college education has continued to rise, and the costs associated with educating more students necessarily rise as well, both in absolute terms and on a per-student basis. They point out that those costs often exceed what the institution collects in the form of tuition plus appropriations, and the gap has only grown over time. The number of non-teaching staff has risen at most IHEs over time, and they attribute this at least partly to the need for administrative personnel to address the ever-increasing government demands and regulations being imposed. As one example of this, to address the perceived growing threat of foreign influence in academia, in 2021 the Florida legislature passed a law which imposed significant new requirements on research institutions to screen applicants for research-related positions if they met certain criteria. However, the legislature did not provide any additional funding so that research-intensive universities could comply ("Statutes & Constitution," 2021). However, Hedrick et al (2009) found that, while administrative costs on a per-student basis did rise during the 1990s, the data did not support the view that administrative bloat was a significant factor for the rise in institutional costs. Last, Hirsch and Weber (1999) point out that government funding agencies are often unwilling to fully fund the overhead costs that are incurred in the conduct of government-sponsored research. Newfield (2016) argues that sponsored research, contrary to popular perception, is actually often a money loser for universities. He notes that the indirect costs associated with sponsored research must often be paid for out of the university's own funds. Further, he argues that the widely accepted belief that STEM (science, technology, engineering, and mathematics) research "carries" other disciplines, such as the humanities, is misplaced and that the reverse is actually true due to the high indirect, or overhead, costs involved.

Moody (2022) adds that inflation is currently having an impact on tuition rates, as

colleges and universities, like everyone else, are having to cope with the increased costs of everything needed to operate, including, among others, fuel, utilities, food, and health care. Because the expenses of running a college often exceed the sum taken in through various sources, including tuition, cuts often have to be made, and these can often have negative impacts on student experience. This is particularly true in states where legislation exists to limit tuition increases. This is discussed in more detail in the section on tuition-setting practices.

3. Factors Affecting State-level Funding

A tension often exists between the state legislature and the governor, and perceptions differ as to who has more power in the budget process. Executive budget officers tend to believe the governor has the upper hand, while legislative budget officers typically feel the governor has less influence. These perceptions are to some degree dependent on the degree of independence of the legislature in the appropriations process and how willing it is to serve the policy goals of the executive office. In many states, legislative budget officers will either prepare a budget separate from that prepared by the governor's office or use the governor's budget to serve as a starting point for their own budget. In some cases, they may do both. Where the legislature is more dominant with respect to budgeting, it is also expected to demonstrate greater efficiency and more disciplined fiscal control. When the governor is dominant, the legislature may feel emboldened to act more irresponsibly in a fiscal sense, while the burden of balancing the budget is left to the executive branch (Abney & Lauth, 1987).

Hoffman (2006) points out that all fifty states employ fiscal staff to develop, analyze, and monitor budgets. Such staff are necessary because of the difficulty in developing annual or biennial budgets, owing to the complexity of public programs, combined with a general animus towards taxes and an emphasis on performance and accountability. Despite their unelected status, fiscal analysts are well positioned to influence the policy decisions of elected officials. Their

work products may be highly visible, as when they prepare written analyses of budget requests or give presentations at committee meetings. Less visible means of influence include the preparation of questions for legislators to pose to those making budget requests; keeping legislators abreast of particular salient topics of interest to the voting public (K-12 education; law enforcement; healthcare; etc.); and building relationships. Analyst influence increases in those states where term limits exist because legislators are less able to accumulate sufficient expertise and thus rely more heavily on the budget office staff. Where those staff members have frequent interactions with the governor, they are more likely to be objective in their analyses, perhaps owing to a degree of comfort with the relationship. The author found that, while analysts may use their influence to provide legislators with budget information that allows them to act as a check against excessive executive power, they generally refrain from offering their personal advice or trying to further their own policy preferences.

Shadoan (1963) recognized the importance of economic conditions in the budget process, yet it is often poorly understood. Policies may be enacted to allow states to either adjust to or affect the economic situation. When the forecast predicts a decrease in revenues, state governments may postpone borrowing; when the forecast looks more favorable, they may expand programs, reduce taxes, or build reserve funds. The author notes that forecasting became more challenging when states moved away from a reliance on property taxes, which were relatively stable over time, to income and consumer taxes, which could show more variability from year to year. Understanding the prevailing economic conditions that affect the amount of taxes collected thus becomes essential to planning. Kearns (1994) adds that periodicity matters as well. Contrary to the conventional wisdom, she found that states spent less if they used an annual budgeting process compared to those, like Arkansas, that used a biennial budget.

Li (2017) notes that high unemployment rates increase the likelihood of budget cuts, while increased tax revenues and increasing income inequality are protective against such cuts. Between 2007 and 2012, a period of recession, real dollars per full-time equivalent student decreased 23% on average, while tuition revenues increased by 19%. Appropriations during this period fell in 48 of 50 states. This was, as she states, a period when the usual incrementalism that characterizes budget processes was interrupted by significant punctuations. From 1947 through 2006, higher education experienced numerous such punctuations, exceeded in number only by the policy areas of Medicare and Occupational Health. In her study, Li found that of several possible determinants of state spending, some were important while many others had little to no impact. Economic conditions did matter; wealthier states with lower unemployment rates spent more on higher education. Income inequality was also positively associated with spending. The political environment also mattered. As a general rule, liberals are positively associated with higher education spending while conservatives are negatively correlated. This phenomenon will be further investigated in the section on politics and higher education (see below). However, somewhat surprisingly, Li found that a unified state government, whether controlled by Democrats or Republicans, was more likely to cut spending compared to those states where power was divided. She found that regionality played no role in spending; states that were geographically near one another were no more likely to show similar spending patterns than were states that were farther apart. Demographics were also shown to have little effect, despite the assumption that states with aging populations would favor Medicare spending at the expense of higher education. Having a higher proportion of typical college-aged voters did not correlate with greater spending on higher education, perhaps a reflection of the greater age diversity of college enrollees.

Delaney and Doyle (2011) showed evidence that spending on higher education could be described by the balance wheel model. In this model, higher education receives greater increases compared to other programs during times of economic growth, perhaps because education enjoys widespread popularity among the public (generally speaking). On the other hand, unlike with most other programs, revenues can be adjusted by manipulating (raising) tuition and fees, and therefore higher education typically sees greater cuts when there is a downturn in the economy. However, while the authors found this to be the case with appropriations for the operation of institutions, this was not the case with respect to capital outlays. Capital outlays refer to those monies used to build, maintain, or expand existing facilities; these are typically one-time projects. Delaney and Doyle (2013) found that the balance wheel model does not sufficiently explain funding for capital projects. Instead, they found that a counter-cyclical, quadratic model best explains spending on these projects. That is, capital outlays increase when total state spending decreases. Despite the belief that such projects are inherently more political in nature compared to general appropriations, the authors found no evidence to support that perception.

There are many reasons why budgets to higher education have seen cuts at the state level. Tandberg (2009) described several factors influencing the state legislatures when they allocate funding to higher education. Higher levels of funding are correlated with having a higher number of interest groups focused on higher education relative to the overall number of interest groups active in a particular state. Larger, more powerful interest groups with significant economic clout are more influential than weaker groups with less economic power. States that have more competitive elections (i.e. those where one political party does not have a solid hold on state-level politics) tend to be supportive of higher education. Political candidates in these states must appeal to a wide range of constituents, and because education offers diffuse benefits it is

generally supported by most voters. When those voters turn out on election day in large numbers, funding for higher education is higher than when voter turnout is low. Yet these conclusions are contradicted by Tandberg (2010) in which he conducted a statistical analysis of data from the Grapevine survey, part of the Grapevine Project at Illinois State University, and from the Bureau of Economic Analysis. In that work, Tandberg found no statistically significant impact on appropriations from states that could be considered more electorally competitive (e.g. battleground states). There was likewise no significant effect found for voter turnout. Powerful governors, though, may act as a check on legislative funding, and, as described above, vice versa. Competing interests may cause the governor to reallocate funds away from higher education and spend those funds on other areas that enjoy political support, such as law and order initiatives (including the building of new prisons). Political ideology matters: states that are more liberal tend to spend more on education. Related to ideology is political partisanship. Democrats historically have supported higher levels of funding for education than do Republicans who prefer market-based policy solutions. Tandberg (2010) also found evidence that, contrary to expectation, centralized governance structures in higher education were negatively associated with funding for higher education, possibly because institutions do not actively lobby on their own behalf, instead leaving that responsibility to their governing boards. Additional findings were contrary to expectations. He found a positive correlation between the number of students enrolled in private institutions and funding levels. Further, a high percentage of traditional college-aged young adults was also negatively associated with funding. Tandberg speculates that this may because many of them are in college and not participating directly in political processes in their states.

To an extent, state legislatures are constrained by laws regarding budgets. Most states,

according to the National Conference of State Legislatures (Snell, 2021), have some form of a balanced budget requirement. Depending on exactly how that requirement is understood, Vermont, Alaska, Wyoming and North Dakota are the only states that do not explicitly require that revenues and expenditures balance one another out each fiscal year.

With competing demands on finite financial resources, higher education is frequently targeted for budget cuts because unlike other state-run programs, colleges and universities can raise tuition and fees in response to declining appropriations. Between 2008 and 2012, states implemented spending cuts of up to 45% of the budget gap (the difference between revenues and expenditures) they faced (Mitchell & Leachman, 2015). Economically, Halbheer et al (2019) suggest that appropriations should be based on enrollment levels and they should be increased only to the point at which diminishing social returns are equal to the expected return on alternative investments. In their analysis, this "push" funding had a similar impact on enrollment, graduation rates, and the perceived value of education when compared to direct financial aid to students (i.e. "pull" funding).

4. Tuition-setting Practices in the States

College tuition varies greatly across the United States. For the 2014-2015 academic year, the average annual published tuition and fees for students attending an in-state, public college or university totaled $9,139 nationwide (number of credit hours was not specified). At the low end of the range were Wyoming ($4,646), Alaska ($6,138), and Utah ($6,177). At the high end were Pennsylvania ($13,246), Vermont ($14,419), and New Hampshire ($14,712). Arkansas fell below the mean at $7,567. Florida was an even better bargain at $6,351. There does not appear to be a direct correlation between tuition and the cost of instruction, as Utah's calculated cost (per full-time student) was $6,584 while Wyoming's was $12,436. Pennsylvania, with higher average tuition, had instructional costs that were lower than Wyoming's at $9,777 and Vermont's were

lower still at $11,554. Instructional costs were based on the 2012-2013 academic year but should not have changed significantly by the 2014-2015 academic year. Tuition rates do not appear to be directly correlated to median household income either. In 2013, the national median income for a family of four was $80,356. In Wyoming, the median income was $80,477; in Alaska, $95,010, and in Utah it was $72,274. In states with the highest average tuition (Pennsylvania, Vermont and New Hampshire) the median incomes were $84,396, $82047, and $94,432, respectively. Perhaps unsurprisingly, there does appear to be a negative correlation between tuition and per-student funding from the state. Alaska, with one of the lowest in-state tuition rates, showed the highest level of per-student funding for the 2014-2015 academic year ($18,550). Wyoming has the second-highest level of per-student funding at approximately $14,500. New Hampshire, with the highest average tuition, had the lowest level of state funding at $3,660. New Hampshire may be handicapped by the fact that, like a handful of other states, it has no state income tax. New Hampshire also has no sales tax, and a rather limited ability to otherwise raise funds that may be distributed to the state's five public, 4-year colleges and universities and seven public community colleges (Baum & Johnson, 2015).

A 2008 report from the Western Interstate Commission for Higher Education indicated that states fall into one of three categories with respect to tuition-setting: high tuition/high aid; moderate tuition/moderate aid; or low tuition/low aid. High-priced Pennsylvania and others compensate to some degree for their high sticker prices by using some of the funds from state appropriations to offer financial aid to those who need it. The rationale offered is that by using available funding for aid rather than to reduce tuition levels, the state avoids subsidizing a college education for middle- and upper-income families who are better positioned financially to bear the costs. Instead, support is made available to lower-income students who need it the most.

Low tuition/low aid states include Arizona and Tennessee. Advocates of this strategy believe that low tuition is essential to avoid discouraging potential students, even those who would be eligible for financial aid packages, from thinking that a college education is simply too unaffordable to pursue. Assistance may be available for the neediest students, but it is very limited. Last, states following the middle pathway, including Connecticut and Iowa, have tuition and financial aid levels that closely mirror the national average and may be adjusted as needed to remain competitive with other states. Supporters of this philosophy believe that tuition levels must be appropriate to support high quality instruction, but not so high that it presents a barrier to economically disadvantaged students (Badoloto, 2008).

A survey by the Education Commission of the States (Zinth & Smith, 2012) showed that setting tuition for public colleges and universities can be a function of the state legislature; state systems or boards of education; and single or multi-campus boards (See Table 2 below). In some cases, authority to set tuition and fees may be shared among one or more of these, or a governing board or the legislature may set tuition for most schools but with exemptions for individual schools. Such is the case with the University of Vermont. In Arkansas, boards of trustees set tuition and fees for the campuses which they oversee; the legislature can, however, decrease appropriations to offset any tuition increases. In Florida, tuition has been set by the state legislature since 2008 and is indexed to the inflation rate. The only other state where the legislature sets tuition is Louisiana. In California, the two state systems (University of California and California State University) set their tuition rates while the state legislature determines the fees. A plurality of states, however, delegates tuition-setting authority to state-level systems or boards (23 out of 50) and only one, Idaho, gives that authority to a state Board of Education (rather than a state Board of Higher Education).

Table 2.

Tuition Setting Authority in Each US State

State	Authority	Notes	State	Authority	Notes
Alabama	4,5		Montana	3	
Alaska	3		Nebraska	4,5	
Arizona	3		Nevada	3	
Arkansas	4,5	Increases may be offset by reduced appropriations	New Hampshire	3	
California	3		New Jersey	4,5	
Colorado	4,5	Tuition policies currently set based on institutional mission	New Mexico	4,5	
Connecticut	3,5		New York	3	
Delaware	5		North Carolina	3	
Florida	1		North Dakota	3	
Georgia	3		Ohio	4,5	
Hawaii	3		Oklahoma	3	
Idaho	2		Oregon	3	
Illinois	4,5		Pennsylvania	3,5	
Indiana	4,5	Commission for Higher Education makes nonbinding recommendations	Rhode Island		Unclear at time data were collected
Iowa	3		South Carolina	4,5	
Kansas	3		South Dakota	3	
Kentucky	3		Tennessee	3	
Louisiana	1		Texas	3,5	
Maine	4		Utah	3	
Maryland	4,5		Vermont	3,5	
Massachusetts	3		Virginia	5	
Michigan	4,5		Washington	4,5	
Minnesota	3		West Virginia	5	
Mississippi	3		Wisconsin	3	
Missouri	4,5		Wyoming	5	

1 – State Legislature   4 – Multi-Campus Boards
2 – State Board of Education   5 – Single Campus Boards
3- State Systems or Boards of Higher Education
Source: https://www.ecs.org/clearinghouse/01/04/71/10471.pdf

Most states, including Arkansas, currently have no law or regulation in place that limits

how much tuition can be raised in a given year. In 2018 Governor Asa Hutchinson did, however,

promise a tuition freeze at all public, 4-year colleges and universities in exchange for increased

appropriations in the amount of $10 million (Mershon, 2018). Eleven states have codified rules

under which IHEs may raise tuition. Many of these quantify the maximum increase allowable in a given year. Florida, already one of the least expensive states in which to attend a public college or university (as a state resident paying in-state tuition), limits increases to a maximum of 6% per year. Ohio limits increases to 2% over the previous academic year and Oregon only allows increases greater than 5% under certain conditions. Michigan threatens to withhold performance-based funding from any school that increases tuition by the greater of 4.4% or $587. Missouri ties tuition increases to the consumer price index, while the state of Washington allows increases that are limited by average annual percentage increases in median wages over the past several years. Oklahoma places different restrictions on comprehensive IHEs (e.g. University of Oklahoma and Oklahoma State University) and regional universities (e.g. University of Central Oklahoma); rates of increase must be lower than the average for similar institutions elsewhere. Rhode Island, with just three public IHEs (University of Rhode Island, Rhode Island College and the 2-year Community College of Rhode Island) does not place any quantitative limits on tuition increases but does not allow increases for the year after appropriations are made by the legislature. In Tennessee, a Commission must determine what increase may be allowed and the state's IHEs are obligated to comply. West Virginia requires that certain tuition increases (> 10% in a single year or >7% per year averaged over a rolling three-year period) be submitted for approval to the state's Higher Education Policy Commission (Education Commission of the States, 2021).

In a 2010 survey administered by the State Higher Education Executive Officers (Bell et al, 2011) state financial officers were asked for their opinions on a variety of topics, including their philosophies on setting tuition. Of the 74 responses, an equal number (14) indicated that tuition should either be "as low as possible" or "moderate" (p.5). Unsurprisingly, no respondent

had the opinion that tuition should be high. The most popular response (23/74) was that tuition policy is guided by budgetary needs. Numerous rationales were offered for the responses given. Again, as noted elsewhere, administrators feel they must adjust tuition rates in response to decreased funding from the state. At the same time, they recognize that tuition must be set at levels that promote broad access. Although IHEs strive for excellence, it is imperative that their cost structures do not make them exclusive, as in excluding those of modest financial means. They rely to some extent on benchmarking against peer institutions but may also show deference to guiding principles from the state. For approximately half the respondents, economic conditions in the three years prior to the survey's administration had forced their states and IHEs to adopt policy-setting strategies that were in direct opposition to their general philosophies on tuition-setting.

Appropriations from the state were the number one factor affecting the rate at which IHEs set tuition for in-state undergraduates. The remainder of the top ten factors were: 2) tuition for the prior year (incremental budgeting is a well-known strategy that was covered in Theories of Public Policy); 3) the mission of the college or university; 4) tuition charged by peer institutions; 5) financial aid availability; 6) instructional costs; 7) philosophical considerations regarding how the cost of education should be shared between the state and the student (as I have shown elsewhere, philosophical differences on this point often correlate to political affiliation); 8) the overall fiscal policies of peer states; 9) the Consumer Price Index (CPI); and 10) where they exist, policy caps on tuition, in terms of either percentage or absolute dollars (Bell et al, 2011).

At many colleges and universities, two students sitting side-by-side in an introductory, general education course may not pay the same tuition, even if they are both in-state residents.

Several states have implemented "differential tuition," or tuition that varies based on one or more factors. For instance, according to the SHEEO survey (Cummings et al, 2021), more than half of all states (28) may charge different tuition rates for different majors. Coursework in a lab-intensive major (chemistry, microbiology, engineering, *etc.*) may cost more on a per-hour basis than courses in music performance that have lower costs of instruction. In recent years, distance learning, whether asynchronous or, more recently, via videoconferencing (e.g. Zoom, Teams) has been offered at a lower rate than in-person instruction, although whether distance learning offers the same quality of instruction remains a subject of debate. Twenty-six states charge different rates for in-person versus distance learning. Nearly half (24) of all states charge different rates for non-credit courses, and 15 of them set tuition for upper level courses (typically 300(0)- or 400(0)-level) differently than for lower level (typically first and second year, 100(0) and 200(0)-level) courses. Fifteen states charge higher tuition for any credit hour above a certain threshold of accumulated hours, perhaps to discourage students from remaining in college too long without earning a degree.

The majority of states charge out-of-state students higher tuition than that charged to in-state students. In four states, non-resident students are charged tuition that covers the entire calculated cost of instruction. In another 12 states, non-residents are charged a rate that may vary based on what in-state students are paying; in none of these states is the non-resident tuition less than twice the in-state rate. Many other states do not have an official policy on setting tuition for non-residents. In some cases, though, reciprocity agreements exist, either at the state level or the institutional level. In those cases, in-state tuition may be offered to residents of other, often neighboring, states. In most states, either the institution or a governing board has the authority to set tuition for nonresident students (State Higher Education Executive Officers, 2011).

D. Politics and Higher Education

1. Policy Theory and Government

Mitchell (1995) makes the point that fiscal considerations underlie political decisions. Elected officials may be considered rational individuals, but they are also self-interested. In a pluralistic society such as exists in the United States, policy decisions are informed by many people whose views are often in conflict in one another. Governments cannot act with a singular purpose because it is populated by people with disparate views, and collectively they do not act in the same manner as individuals. Lindblom (1959) states that this leads to policy incrementalism, in which marginal changes are seen over time, and government budgets are a quintessential example. Radical changes occur infrequently because widespread consensus does not exist on most issues, including how higher education is funded. The status quo prevails, until it does not.

Baumgartner et al (2009) counter that while incrementalism prevails much of the time, occasionally "punctuations" or sudden disruptions may occur. In looking at changes in spending as an indicator of importance given to a particular issue, most of the time changes of only a few percentage points are observed, whether positive (increased spending) or negative (spending cuts). They describe spending as subject to a kind of friction that resists change, until enough force (such as public support) exists to overcome that resistance and cause a large shift. That friction may be due to lack of interest in changing the status quo. Failing to get enough people, or the right people, involved in a policy issue bodes poorly for the success of that effort. Overcoming powerful interest groups that prefer the status quo is another challenge. Further, as Baumgartner et al (2018) remind us, people have limited attention spans and tend to move on to other topics fairly quickly, as they typically devote attention to one issue at a time in sequential manner. On the other hand, decisionmakers in government have to address multiple issues in

parallel, and they rely on heuristics, or cognitive shortcuts, because there is not enough time to fully understand all the information involved for a given issue. It is perhaps for this reason that rational decision-making, while ideal, rarely works in practice. Chaffee (1983) elaborates on this by pointing out that rationalism requires an orderly sequence of events that simply does not reflect real world decision-making. Rationalism assumes that entities have specific goals and that those responsible for making decisions to achieve those goals have complete knowledge and understanding of all the information necessary, including all possible alternatives and every conceivable consequence. Were this the case, the heuristics noted above would be unnecessary.

Even so, Jones and Baumgartner (2012) show that, even in a political system characterized by long periods of stasis, sudden changes occur more frequently than one might expect. The claim also that political ideology may not have a large impact on issue prioritization. History shows examples of elected officials, especially presidents, acting in ways contrary to expectations based on their party affiliation. As two examples, they note Republican President Richard Nixon passed more pro-environmental legislation than any Democratic president before or since, and Democrat President Bill Clinton introduced a significant punctuation to the welfare system. The authors suggest that while, political leaning is not irrelevant, it may matter more who is paying attention to a given issue.

2. Performance-based Funding

Starting with Tennessee in 1978, some US states began experimenting with the concept of tying appropriations for IHEs directly to performance metrics. While previously the focus had been on "inputs" such as enrollment numbers, performance-based funding (PBF) is based on the idea that IHEs will adapt their behavior to achieve certain desired outcomes needed to protect their funding. Performance set-asides were either offered as "extra" money on top of base funding, or a small percentage carved out of a college's existing budget (called base reallocation).

Because new funds are rarely available to provide additional funding, the latter option was more frequently used. Between 1979 and 2007, 26 states tried to implement some form of PBF, but 14 eventually discontinued it (Kaikkonen, 2016). There was a resurgence in interest in the mid-2000s as influential organizations such as the Bill and Melinda Gates Foundation; the National Governors Association; and the National Conference of State Legislatures expressed concerns over college completion rates. However, evidence that PBF achieves the intended results is scant. The State of Washington created the Student Achievement Initiative (SAI) in 2007, aimed at tying appropriations to 2-year community colleges and technical schools to performance metrics, including the number of associate's degrees awarded. When compared to similar schools in other states, Hillman et al (2015) found no increase in either retention rates or in the number of Associate of Arts (AA) degrees awarded. Instead, there was an increase in the production of program certificates which usually took less than a year to complete, and which were awarded retroactively by some colleges. While the state had aimed to increase the number of degrees awarded, certificates were also included as a performance metric, albeit a less desirable one. Even so, it appeared that the SAI program had the opposite effect of that intended.

Kaikkonen (2016) notes that the timing of implementation for any performance-based funding mechanism is dependent to some extent on timing. During challenging economic times, colleges and universities may be narrowly focused on preserving existing (base) funding, and when the base reallocation version of PBF is employed, rather than the bonus money model, IHEs view it as a threat to their funding and resist. Nisar (2014) concurs, pointing out that most PBF policies were enacted in the 1980s and 1990s, a period of economic growth, but abandoned when economic growth slowed. While acknowledging the recent resurgence in interest in PBF and accountability, he too points out that most reviews have shown only limited success, which

may be at least partly explained by one or more of the following theories. Under Resource Dependent Theory, the success or failure of any initiative depends on how much money is tied to it. Where implemented, most states used PBF for only a small percentage of any one school's budget, a portion that was too small to really influence meaningful change. Neo-institutionalism holds that the effectiveness of new constraints that exist in a PBF model depends on how well they blend with existing, formal constraints including institutional mission and history. Where antagonism exists toward a controlling government body such as a state legislature, success is less likely. Last, Principal Agent Theory holds that principals (in this case the federal or state government) want agents (IHEs) to perform certain tasks or provide particular services (e.g. achieve certain educational outcomes). Because the costs of monitoring behavior are high, principals instead rely on a limited number of indicators which do not accurately represent the big picture.

Kaikkonen (2016) adds that stakeholder involvement is essential; PBF failed where college leaders were not consulted or involved in the development of metrics by which their institutions would be graded. Layzell (1999) recommends that a bottoms-up approach be used rather than a top-down one. Faculty and staff should be involved in the process and the financial stakes should be clearly communicated to the institution's stakeholders. The number of performance measures be kept reasonable (20 or fewer) and may include such metrics as first-year retention rates; graduation rates; economic impact; employer satisfaction; percent of graduates placed in positions within their fields of study; and average starting salaries. However, he warns that a one-size-fits-all approach would be inappropriate, and while quantitative data are easy to understand and preferred by policymakers, they cannot alone tell the whole story of a college or university's success. Qualitative data should also be considered.

Accountability and performance-based funding for higher education have also been employed to some extent in Ontario, Canada (Lawrence et al, 2022), as well as in several European nations such as Belgium, Denmark, Finland, Norway, Sweden, and the United Kingdom (Nisar, 2014).

3. The Role of Partisan Politics

Education is increasingly viewed as an individual good, rather than a societal one. Cuts to education have occurred at the same time that welfare programs have seen broad cuts. During the mid-1980s, there was a noticeable shift away from the policies of Presidents Johnson and Carter, with a greater share of the cost burden being placed on individuals and loans playing a more significant role (Elliott & Lewis, 2015). While perhaps more noticeable in the United States, this trend was not uniquely American. From 1970 to 2009, the government share of the cost of higher education in Canada fell from 80% to 61% (Falvo, 2012 and "Spending on postsecondary education," 2011). Further, tuition increased 22% in just six years from 2002 to 2008 (Girdharry et al, 2010).

Among the many factors that affect the level of appropriations to higher education in a given state, politics plays a significant role. McLendon et al (2009) showed that control of the lower chamber of the state legislature and control of the governor's office by Democrats were positively associated with funding levels to that state's public colleges and universities. Unified Republican control, on the other hand, shows a negative correlation with funding levels. The authors did not see a correlation between the political ideology of the state's citizens and funding levels, although others have found that when controlling for other factors, more liberal states are more generous with higher education funding than are states considered more conservative. Tandberg (2010), on the other hand, found that unified control of the legislature was negatively associated with funding for higher education, regardless whether that control rested with

Democrats or Republicans. His findings did, however, agree with those of McLendon in that more Democrats in the legislature was positively associated with funding levels, as was having a Democratic governor, although he notes this may be due to a Democratic tendency to spend more overall, rather than a preference for higher education specifically.

Ortega (2020) found that Republican governors demonstrated a propensity for cuts to higher education. As one example, in 2015 the Republican governor of Arizona cut funding by $99 million. The following year the Republican governor of Kentucky slashed funding by $41 million. Democratic governors, meanwhile, were more likely to support increased funding to certain educational institutions, especially those that grant associates degrees, as well as historically black colleges and universities. Of course, there are exceptions to this trend. In 2018, Republican Governor Asa Hutchinson of Arkansas requested an increase of funding in the amount of $10 million for the state's public colleges and universities. In exchange, he asked the recipient schools to freeze tuition (Merhon, 2018).

Beland and Oloomi (2016) did not find that the governor's political party had a significant effect on total spending, but they did find that Democratic governors allocate a larger share of the total budget to education and to health compared to Republicans. Under Democratic governors, appropriations to education overall (i.e. K-12 and higher education) are 2.4% higher on average while funding on other areas including highways; natural resources; parks and recreation; government administration; and interest on debt) was lower by 2.3% on average. Democratic governors eligible for reelection were also more likely to raise taxes, while lame-duck Democratic governors were more likely to lower them. Hill and Jones (2017) agreed that partisanship affects the distribution of spending more so than the absolute amount of spending. They conducted a regression of state budget data between 1990 and 2013 that revealed different

spending patterns between Democrats and Republicans. They found only weak evidence that Democrats spend more on education overall, but the way funding was distributed was markedly different from Republican spending. At the K-12 level, districts with a higher percentage of non-white, minority students receive more funding under a Democratic governor, and more funding is directed at colleges and universities with higher shares of minority students. They found that these differences could be attributed to real policy preferences (what they term the citizen-candidate model), rather than mere political opportunism (what they call distributive politics).

The American Association of University Professors (AAUP, 2017) showed that overall, state appropriations to higher education increased by 4% on average in 2015 and 2016, but this came on the heels of an average 16% decline in spending between 2009 and 2013. Following the 2014 election, Democrats held a legislative majority in only 29% of states that reported data, but 6 out of 10 states with the largest increases in 2015-2016 either had Democratic control or leaned Democratic. This compares to the 8 out of 10 states with the lowest percentage change in appropriations that were controlled by Republicans. The steepest year-over-year declines in funding after 2014 occurred in Republican-led states (Arizona, -6.1%; Wyoming, -8.1%; and Arizona, -14%). The AAUP further found that in 2015-2016, trifectas, in which a single party controls both chambers of the state legislature and the governor's office, existed in 31 states. Five of the seven states with Democratic trifectas had percentage increases in higher education funding that were above the national average (4.1%). Over half the states with Republican trifectas were below the national average. Among the 10 states with the largest increases in appropriations in 2015-2016, seven of them were trifectas, but not all of those were Democratic trifectas. Democratic trifectas existed in the coastal states of California, Connecticut, and Oregon, while Republican trifectas existed in Nevada, North Dakota, Texas, and Wyoming.

Franklin et al (2013) suggests that state budgets are manipulated to influence swing voters in battleground states such as Florida and Ohio. As an example, they note Republican opposition to a commuter rail proposal that would have connected major cities in Ohio because such a project may have helped incumbent President Obama in the 2012 election. The stated reason for the opposition, however, was due to projected operating costs. Generally, state legislators take policy positions that they feel will help the presidential candidate of their party. They may even change their behavior, for example by opposing spending initiatives that they might have supported in a non-election year. Such behavioral shifts may be motivated by an interest in gaining party support at the national level and in developing a national reputation to perhaps further their political careers.

Although most Americans view postsecondary education positively, these views are increasingly being influenced by one's political identity. Hartle (2017) reported that 72% of Democrats and Democrat-leaning independents view higher education positively, while only 36% of Republicans and Republican-leaning independents shared this view. Nearly six out of ten felt higher education had negative effects overall. Only two years earlier, over half of Republicans felt positive about education. From 2015 to 2017, there was a 33% decline in the percentage of Republicans who viewed education favorably. This change may have been at least partly due to the election in 2016 of Donald Trump, who readily embraced the popular (among conservatives) belief that the college campus was a place of liberal indoctrination, where conservative speech was unwelcome and actively silenced. The public too may be influenced by articles in the popular press regarding the high salaries university executives command, especially presidents or chancellors. While they may recognize that a lucrative salary is necessary to attract the talent required to run a large institution with thousands of employees and

numerous competing interests, it surely does not help to see stories in the media about college leaders being given 7-figure payouts to leave their posts early due to poor performance or other reasons. Myskow (2022) points to several recent, high profile examples that probably did not resonate well with taxpayers, including Joyce McConnel who will get over $1.5 million to resign from Colorado State University two years early; Mark Kennedy, who received $1.3 million to leave the University of Colorado system after only serving for two years; and Harlan Sands who was paid almost $1 million to resign from Cleveland State University, even after having recently received a 5-year contract extension.

Even when the two parties do agree about the value of a college education, they are sharply divided over how that education should be paid for. Among Democrats, 80% favor substantial government investment on the grounds that education yields broad societal benefits. Only 37% of Republican feel this way; nearly 60% believe the benefits accrue to the individual, thus the individual should bear the cost (Kreighbaum, 2019). Doyle (2007) found that Republicans are more like to place the blame for student's difficulties in paying tuition on colleges and universities that raise tuition, which they may believe is due to inefficient operations. Democrats instead suggest that a deliberate choice to reduce appropriations is to blame. While Republicans are likely to emphasize accountability, Democrats tend to be more concerned with what effects policies will have on different groups, especially those that have been marginalized or underrepresented in the past. They believe that many qualified people are excluded from higher education because of an inability to pay, while this belief is shared by relatively few Republicans. Among "strong" Republicans (those with views that are very aligned with Republican party principles), a majority (58%) believed that low-income students, regardless of race or ethnicity, have an equal or better opportunity than others of attending

college. Only 48% of "strong" Democrats agreed with this claim.

Among the public, higher education is considered important for future success, and people believe education should be accessible to all. They do expect that students will put in the effort to succeed, what Doyle (2007) calls reciprocity. The degree to which public opinion affects policy is difficult to determine. On a national level, the incumbency rate is greater than 90%; most politicians do not have a reasonable expectation of being voted out by their constituents. However, political actors, nationally and at the state level, may engage in rational anticipation, seeking to understand policy preferences of those whose votes they need, and acting accordingly.

During the 2018 midterm elections, exit polls showed that 61% of White voters without a college degree voted for Republican candidates while only 45% of college-educated White voters did so. White voters with a college degree favored Democratic candidates, who collected 53% of their votes. Among those without a college degree, only 37% preferred Democratic candidates. Dubbed the "diploma divide," this is a trend unique to white voters. Such trends are not apparent among other racial groups. Prior to the 2012 midterms, this divide was not very noticeable. White voters without a college degree voted for Democrats and Republicans in nearly equal numbers up through the 2008 election. Four years later, non-college educated whites favored Republicans by a wide margin. The divide may have widened further under the Trump administration, with college-educated white voters feeling unrepresented by a party that had been captured by the president (Harris, 2018). President Trump frequently claimed that colleges and universities were essentially liberal enclaves where the concept of free speech was no longer a respected principle. His negative messaging may explain why a 2017 poll showed that one-third of Republican-leaning respondents held a favorable view of higher education, but two years later

59% of respondents who identified as Republicans felt higher education was harming the nation. Democrats, meanwhile, continued to have favorable views of education, although their numbers were down slightly from just two years earlier (Kreighbaum, 2019).

Mattingly et al (2018) suggest that political correctness has harmed free expression on college campuses but is probably not the root cause of the problem. While free speech has always been a cherished and essential liberty, it has been balanced by reasonable limits established to protect others from harm (e.g. threats of violence, defamation). In the current environment, there is strong disagreement about the merits of restricting certain language or ideologies that may be considered offensive by various groups. While politically correct language arose to challenge speech that was deliberately offensive, it is now used, sometimes derisively, to describe excessive politeness; the evasion of truth; or liberalism. On campus, the debate shifted from a moral consideration of what people should or should not say to a policy argument about what people should or should not be allowed to say. Speech codes have proliferated on campus to regulate what might be considered offensive speech, but in doing so they have often limited constitutionally protected free speech. Students themselves seem to be unsure what to think about the matter. In one Gallup poll, 78% of respondents believed that universities should create environments where students are exposed to all types of speech, even that which might be considered offensive. But 69% of them supported policies that would restrict intentionally offensive language.

The authors conclude that charges of political correctness are used as a mechanism to delegitimize others and disengage from discourse with them. Political correctness is in their view a symptom, not the underlying cause. What the real problem is, they suggest, is a lack of respect and appreciation for diversity in its many forms, including cultural as well as ideological, which

presents as an inability to recognize our shared humanity and to engage in civil discussions with people who are different from one another. Academia, they propose, should be promoting that respect and encouraging students from diverse groups to engage with one another and learn about one another, rather than imposing speech codes that attempt to limit expression.

E. Summary

A college education has long been highly regarded as a way to achieve a measure of financial independence. Those who have earned a 4-year degree typically out-earn those without a degree over the course of their working careers. For their part, states have historically been willing to support institutions of higher education with public funds, whether because they believed in the principle of affordable access or because they appreciated the return on investment, or a combination of both. Beginning in the 1980s, however, most states have steadily reduced their levels of commitment to public IHEs, shifting a greater share of the cost burden on to students (customers, in the minds of those who prefer a market-based orientation). As a result, the cost of attending a public, 4-year college or university has steadily increased over time. Students and their families, whose inflation-adjusted incomes have remained relatively flat over time, increasingly turn to student loans to help meet their expenses. In some cases, this may be by design, with some states deliberately choosing to fund IHEs at lower levels while making financial aid more accessible. Other states choose to make big investments in higher education but offer little in the way of aid. Still other states take a middle approach. Many states are constrained to some degree by their governance structure and by existing laws that stipulate how funds are allocated and when and by how much tuition may be raised.

The cost of attendance may be dissuading some high school graduates from pursuing higher education, while for others the costs and expectation of significant debt upon graduation may be affecting which colleges they choose to attend and how long it takes them to earn a

degree. The burden of student loan debt, which except in extraordinary circumstances cannot be discharged through a bankruptcy filing, affects the types of employment college graduates are willing to accept. Indebted graduates are less likely to accept lower-paying positions in the public sector, instead preferring better paying jobs, when available, that will allow them to meet their repayment obligations. Though repayment assistance is available through certain government-sponsored programs, only a small percentage of graduates actually benefits from them. Debt also figures prominently when considering whether to marry, to have children, and to buy a first house. Those major life milestones typically get delayed by those who exit college carrying a lot of debt.

Support for public funding of higher education is increasingly influenced by one's political preferences, or it may be that those with definite viewpoints on education tend to identify with one major political party or the other. In recent years, voters who prefer Republican political candidates have, as a general rule, been less supportive of public funding, preferring instead that students themselves fund their own education (i.e. they prefer "market-based" solutions). Voters who identify as Democrats tend to be more supportive of public funding, perhaps because they focus more on the collective, societal benefits that accrue from higher education, while their peers on the right focus primarily on the individual benefits. In recent years, even the value of education itself has been called into question by some politicians, although there is a longer history of the college campus being derided as a place of liberal orthodoxy.

The intertwined issues of tuition and student debt are likely to remain on the public's agenda for the foreseeable future, as frustrated students lobby for debt forgiveness and lower tuition (or often, free college). Politicians have taken notice, with candidates for national offices

including higher education reform on their platforms, and with President Biden engaging with

Congress on loan forgiveness for indebted students.

Chapter 3

Research Methods

Political officials, including governors and state senators and representatives, are elected to serve the interests of their constituents. As described in Chapter 1, one of a politician's primary concerns, if not the top one, is to win votes and get reelected. The way to do this is to act in a way that aligns with the will of the majority of voters. With myriad issues to deal with, and with voters sharply divided on many of them, it can be difficult to know what policies to support, thereby gaining favor with a majority of the electorate. The vote of each politician is critical, especially so for the funding of higher education, which has important implications for both individuals seeking a college degree as well as collectively for the nation. The purpose of this study is to examine whether any relationships (correlations) exist between an individual's political views and level of support for public institutions of higher education (IHEs), including the use of taxpayer monies to provide funding for them.

This chapter describes elements of the study including the research design; sample population; instrumentation; and collection and analysis of data. It concludes with a brief summary.

A. **Research Design**

A given research project may be described in multiple ways. Although correlations must not be mistaken for causation, this project may be categorized as explanatory research. Nardi (2013) described explanatory research as an attempt to answer "why" questions; in this case, why does the level of support for higher education funding vary among American adults? Perhaps it varies according to where one stands on the political spectrum, ranging from strong conservative to strong liberal. Baglione (2015) distinguished between public policy research, which, being empirical, aims to use data to answer one or more research questions, and political theory, which

is normative, studying what "should be." This project was an attempt to understand the relationship between political mindset and attitudes on higher education; it was thus empirical in nature and did not seek to advance one policy solution over another. It was what Creswell (2014) described as correlational. It was not experimental in that there was no manipulation of one or more independent variables in controlled settings to determine what effects, if any, this may have on one or more dependent variables. Instead, statistical analyses were employed to see what, if any correlations exist among the variables, and to what extent. Causal relationships were not inferred, for without further research it cannot be apparent whether one's political identity informs one's attitudes toward higher education (e.g., "I identify as a Republican, therefore I prefer minimal public investment in higher education and believe students should bear the majority of the cost of their education") or one's attitudes on select policy problems determines one's politics (e.g., "I support broad public investment in higher education, so I identify with the Democratic Party.")

Surveys are one tool that can be used to quantitatively assess attitudes or opinions on various topics. Survey research involves a sample from which the investigator hopes to draw conclusions about the broader population from which the sample pool was drawn (Creswell, 2014). The study involved a quantitative analysis aimed at determining whether and to what extent correlations exist between political preferences (independent variable) and the degree of support for colleges and universities, including public funding (dependent variable), as determined by responses to a Qualtrics-based survey comprising 22 questions (not counting the informed consent question). A Likert-type scale (range of 1-5) was used for the questions measuring this support.

Because the study involved collecting data from people, it was submitted for review to

the University of Arkansas Institutional Review Board. It was determined to be exempt under category 2 of the Common Rule which governs human subjects research. A copy of the exemption letter can be found in Appendix A.

B. Sample

The study employed a convenience (nonprobability) sample comprising voting-eligible (18 years of age or older) adults in four states: Arkansas, Connecticut, Iowa, and New Mexico. These four states were selected to represent either conservative states, which have come to be referred to in the media as "red" states, and liberal, or "blue" states. Of course, any state will have mix of people from all across the political spectrum, with a diversity of thought on contemporary social issues. There was no assumption that political ideologies and opinions on social issues or public policy matters are uniform among all of a state's citizens. However, over time, some states do demonstrate a consistent pattern of majority support for either conservative or liberal policy solutions, as indicated by their voting choices. Voters who have a more conservative mindset tend to favor Republican candidates for political office, while liberal-leaning voters prefer Democrats. For the purpose of the study, Arkansas and Iowa were selected to represent conservative, or red, states while New Mexico and Connecticut represent liberal, or blue, states. This was based on the popular vote for presidential candidates in the 2020 election. A majority of voters in both Arkansas and Iowa selected Donald Trump, while majorities in New Mexico and Connecticut showed a preference for Joe Biden. These four states were selected from among all possible "red" and "blue" states because they have similar populations, approximately similar numbers of public colleges and universities, and all have a state income tax. These characteristics were described in Table 1 in Chapter 1. Table 3 below describes additional characteristics of the four states included in the study.

Table 3.

Additional Characteristics of States to be Surveyed

State	Median Age	Under 18 (%)	Employment Rate (%)	Median Household Income ($)	Bachelor's Degree or Higher (%)
Arkansas	38.3	23.3	54.8	49,475	23.8
Connecticut	41.1	20.6	61.7	79,855	40.0
Iowa	38.3	23.1	64.3	61,836	29.3
New Mexico	38.1	23.1	53.2	51,243	28.1
United States	38.2	22.4	59.6	64,994	32.9

Source: https://data.census.gov/cedsci/

Respondents were drawn from a large pool of individuals who had previously registered with a market research company called Prodege. Prodege was founded in 2005 and is headquartered in El Segundo, California. The company currently has 120 million members worldwide. The company has detailed information on its US members, including gender, marital status, age, household income, ethnicity, and education level. However, only responses to the survey were collected by this researcher. Those who sign up with Prodege are provided opportunities to participate in survey research, earning a nominal fee for each completed survey (typically $0.25 - $0.50 for a 10-minute survey). Prodege employs internal quality control processes to remove respondents who repeatedly respond to surveys in a random or illogical manner. The targeted number of respondents was tailored to closely fit the demographics of the US adult population as a whole through the selection of sampling parameters in Prodege.

The target sample size was determined using a formula described in Rea & Parker (2005, pp 146-147). That formula is

$$n = \left(\frac{(0.5)(Z_a)}{\text{ME}p} \right)^2$$

where *n* is equal to the sample size; 0.5 is the highest possible value of the true proportion, which is unknown for a large population; Z_a is set to 1.96 when the confidence interval is set to 95%; and ME*p* is the margin of error, which for this study was set to ± 5%. The formula is appropriate for use whenever the population size is large. The population of voting-eligible residents in the four states selected for the study is 9.2 million (258 million in the US) The target sample size for this study was 385 when rounded to the nearest whole number. Based on the populations of the four selected states and their respective portions of the sum of their populations, appropriate settings in Prodege were selected to target the following number of responses from each state: Arkansas – 99 (25.5% of the sample size); Connecticut – 115 (30.1%); Iowa – 103 (26.6%); and New Mexico – 68 (17.7%).

C. Instrumentation

The study employed a survey of 23 questions that respondents were expected to have been able to complete in under 10 minutes, and it was delivered using the Qualtrics survey platform. Question 1 provided information about the survey and asked respondents if they were willing to complete it; this was the mechanism by which informed consent was obtained. Only respondents selecting "Yes" were shown the rest of the questions.

Questions 2 through 5 were written to develop an understanding of the respondent's political ideology. Categories for Questions 2 and 3 were borrowed from the Pew Center. Question 4 was written by the researcher to understand whether a respondent's choice of presidential candidate was consistent with self-identified political identity as described in Questions 2 and 3; Question 5 intended to gauge how respondents feel about the fiscal management capabilities of their state government. Questions 6 through 17 were written by the

researcher to gauge respondents' agreement, as determined by use of a 5-point Likert-type scale, on a variety of questions that, taken holistically, may give an indication of the overall level of support for higher education, including public funding for it. Questions 19 through 23 were designed to gather information about the respondents themselves, including which of the four states they live in; whether they live in a low, medium, or high population area; their age bracket; their highest level of education completed; and annual household income. Question 20 asks respondents about their rural-urban location based on Census Bureau definitions; Question 21 used age brackets employed in research conducted by Pew Research Center; Question 22 asks about the respondent's level of education; and Question 23 asks about annual household family income.

The survey instrument, including the short-hand name assigned to each question or statement used in the R scripts, can be found in Appendix B.

1. Reliability

A survey should have high reliability if it is to be a useful research tool. Rea & Parker (2005) recommend asking the same question in a different manner or asking two questions for which the response can be expected to be the same, to help establish the internal validity, or consistency, of the responses. Question 4 asks for whom the respondent voted in the 2020 presidential election (or, if not voting, which candidate was hoped to win). It is expected that a respondent's preference would align with self-reported political identity. We would expect someone who identifies with the Republican Party, or who is self-described as politically conservative, to have supported Donald Trump and a self-identified liberal Democrat to have supported Joe Biden. Of course, this may not hold true 100% of the time, as people can and do cross party lines at election time, and Donald Trump was a uniquely polarizing figure whose support, or lack thereof, may not have aligned 100% with voters' political identity. Nevertheless,

one would expect political ideology and identity to align with a preference for the corresponding presidential candidate much of the time. If this is not the case, then Question 4 may not be a reliable predictor of level of support for higher education and may be discarded from the analysis. A second internal check can be found in Question 12, which addresses the same issue as Question 6 but is worded slightly differently. The reliability of a set of responses may be called into question if one agrees or disagrees with both questions, as they state somewhat opposite positions on the issue of who benefits from higher education. If there is a high incidence of inconsistency in responses to these two questions (i.e., high level of agreement or disagreement with both) then those questions may not be properly worded in such a way as to accurately assess respondents' attitudes on the benefits of higher education.

2. Validity

Validity refers to the degree to which the study produces accurate and meaningful results (Marczyk et al, 2005). The study attempted to understand whether there are correlations between political ideology and attitudes regarding higher education support. Where a well-designed study with high internal validity may allow the researcher to rule out alternative explanations and conclude that manipulation of the independent variable caused variations in the dependent variable, the researcher recognizes that causal relationships cannot be inferred from correlations. External validity is a recognized concern with any study, but perhaps especially so with one employing a convenience sample. A study with high external validity is one in which the results are generalizable to the larger population which the sample is intended to represent.

To assess the study's validity, social science investigators with experience conducting survey research were consulted and asked to review the instrument and judge whether it is appropriately constructed to answer the research questions posed by the study. Survey questions

were edited based on the feedback from these investigators.

D. Collection of Data

Data for the study were collected from a pool of potential subjects who had registered with Prodege, a market research provider. Parameters were set such that responses were solicited from subjects in four states; the demographics of the sample pool were otherwise intended to be representative of the overall US population in terms of sex, race, age, etc. The survey itself was administered via Qualtrics. A copy of the survey instrument may be found in the Appendix. The survey was distributed to potential respondents through Prodege during the fall, prior to the midterm election. The response numbers were set for each of the four states as described above. Data were collected over approximately two weeks in October and November 2022. No identifiable information was collected as part of this study.

Prodege used the parameters selected by this researcher selected to identify potential respondents who meet those criteria. Eligible members saw this survey "opportunity" when they logged into their accounts. They were provided a survey number, the number of questions in the survey, and the incentive they will receive from Prodege (paid via a website called swagbucks.com) for completing it. If interested, they could click "Start Survey" to complete it. Once the target number of responses was met, the survey was "closed" by this researcher.

E. Data Analysis

A quantitative analysis was applied to the data collected from this survey. Data from Qualtrics were downloaded into an Excel file. Using *R* statistical software, Multinomial Logistic Regression (MLR) or Ordinary Least Squares (OLS) regression was applied to determine whether statistically significant relationships exist among measures of political preference and support higher education.

Research Question 1: Did political preferences, identified through a series of politically-oriented questions, positively correlate to one's level of support for taxpayer financing of public institutions of higher education?

Survey questions 2 through 4, which attempted to assess a respondent's political preferences, and question 5, which attempted to understand how a respondent feels about his/her state government's fiscal prudence, were each compared against a model comprising responses to statements 6 - 11, 13 – 15, and 18. The hypothesis is that someone who has a high degree of support for higher education will be more likely to express a high level of agreement with these statements. Additionally, political preferences were compared against a model comprising statements 12, 16, and 17; someone who agrees strongly with these may be less supportive of higher education and may favor market-based solutions to funding. A political index, combining questions 2 through 4, was also created and compared against the same models. Responses were converted to a numerical scale. For question 2, "Democrat" was coded as 1 and "Republican" as 2; responses of "Other" were coded as 0. For question 3, the five options, from "Very liberal" to "Very conservative" were coded from 1 to 5, respectively. For question 4, "Joe Biden/Kamala Harris" was coded as 1 and "Donald Trump/Mike Pence" was coded as 2. Responses of "Other/No Preference" were coded as 0.

Next, numerical responses to the higher education questions used in the two models above were added to create two overall "indices" of support for higher education (a "positive" index and a "negative index"); each of these was then compared against individual questions regarding political preferences (2 – 4) as well as the political index. A lower index score on the first, "positive" index (Higher Ed Index 1) is indicative of greater support for higher education, while a higher score indicates less support. For Higher Ed Index 2 (the "negative" index), the

72

opposite is true. A lower score on this index indicates agreement with the statements and therefore a less favorable view of higher education.

Research Question 2: Were there particular political beliefs that strongly predict taxpayer support of higher education? In other words, did responses to certain questions show a stronger correlation than others to levels of support?

Responses to statements 6 through 18 were examined individually to determine if strong correlations exist between political preferences and particular beliefs on higher education. For instance, someone who identifies as liberal, a Democrat, or who voted for Joe Biden may feel very strongly that student loan debt is a significant problem but may exhibit more moderate levels of agreement on other points, such as a willingness to pay higher taxes to help reduce loan debt for college students. Responses to questions 2, 3, and 4 (individually) were compared against responses to each of statements 6 through 18. Those statements that have higher degrees of correlation to one's political preferences may be more predictive than others of one's level of support for higher education.

Research Question 3: Were political ideologies and levels of support for higher education aligned with the political majority in that state? The majority is that party whose presidential candidate received that state's electoral votes in the 2020 election (i.e. was the state called "red" or "blue" in the popular media)?

To answer this question, responses to questions measuring support for higher education were compared for each of the four states to see if significant differences exist between conservative, "red" states (Arkansas and Iowa) and liberal, "blue" states (Connecticut and New Mexico). Blue states were coded as "0" and red states were coded as "1." These were treated as the independent variable and compared against the higher education indices described above for

Research Question 1. The degree of correlation between a state's political majority and level of support for higher education may indicate how uniform that support is; a lower correlation may signify a greater diversity of views on higher education, irrespective of the political majority.

Research Question 4: What were the policy implications for the future of publicly funded higher education in the United States?

The purpose of the study was to conduct an objective analysis to determine whether correlations exist between political ideology and support for higher education funding, rather than to advocate for a particular policy solution (*e.g.* increased state-level funding of higher education to reduce the cost burden on students), the results may nonetheless suggest the direction higher education funding is headed, even while recognizing that results from the study may not be readily generalizable to the entire nation. For example, the data may support the hypothesis that individuals who are more politically conservative are less supportive of taxpayer funding of higher education, preferring instead market-based solutions that shift more of the cost of attendance onto students and their families. States that historically have been, on the whole, more conservative, will likely pass policies that differ from those states with a more liberal political environment. Demographic factors such as age, education level, household income, and rural versus urban settings may give an indication of what policies may be more likely to be favored in a given state; states with a younger median age, for example, may be more likely to favor greater public investment in higher education compared to those with older populations. Responses to question 20 -23 were each compared against the higher education indices described for Research Question 1 above.

F. Chapter Summary

       To determine whether correlations exist between political ideology and the degree of support for higher education, a 22-question survey (not counting the informed consent question) was developed and administered via the online Qualtrics survey platform to a nonprobability, convenience sample group comprising respondents from four states: two traditionally conservative or "red" ones and two liberal or "blue" ones. Respondents were drawn from among a large pool of individuals who had registered with a market research company (Prodege) for the purpose of filling out opinion surveys for nominal compensation. The data were analyzed in R statistical software using Multinomial Logistic Regression or Ordinary Least Squares regression to address the research questions proposed by this study.

Chapter 4

Results

A. **Summary of the Study**

Employing a 22-question survey administered to a convenience sample of respondents from four states, the study attempted to understand whether there are correlations between individuals' political preferences and their level of support for public institutions of higher education. With the cost to attend a 4-year college or university continuing to rise each year, it is becoming increasingly challenging for those of modest financial means to earn a degree. Many of those who do pursue post-secondary education find themselves with significant student loan debt which they must start repaying shortly after graduating, while some leave college before completing a degree yet still owing thousands of dollars in loans. Still others may be discouraged from pursuing higher education at all, despite the financial benefits that come to those with a degree, compared to those without one. Significant loan debt causes young adults to delay typical life milestones such as getting married, starting a family, and buying a house. Indebted graduates are also less likely to accept employment in the low-paying but essential public sector, or to start new small businesses. Except in the rarest of circumstances, student loan debt cannot be discharged through bankruptcy proceedings.

The survey used in the study was designed to assess the political preferences of individuals and determine whether those preferences correlated with their attitudes toward higher education. Demographic information was also collected. Responses were collected from 394 individuals living in four states (Arkansas, Connecticut, Iowa, and New Mexico) via Prodege, a company with which people may register to participate in survey research for nominal compensation. The survey was administered to qualified respondents aged 18 years or older through the Qualtrics online survey platform. Responses were collected over a two-week period

76

between October 19 and November 4, 2022. Individuals who answered "No" to Question 1 (Informed Consent) did not complete the survey. Of all respondents from Prodege who saw the invitation to complete the survey and clicked on the link to view it, approximately 80.4% completed it. According to the project website at Prodege, the average time to complete this survey was three minutes. A summary of survey responses can be found in Appendix C.

B. Demographics

Responses were collected from residents of four states; the distribution of responses is shown in Figure 3 below.
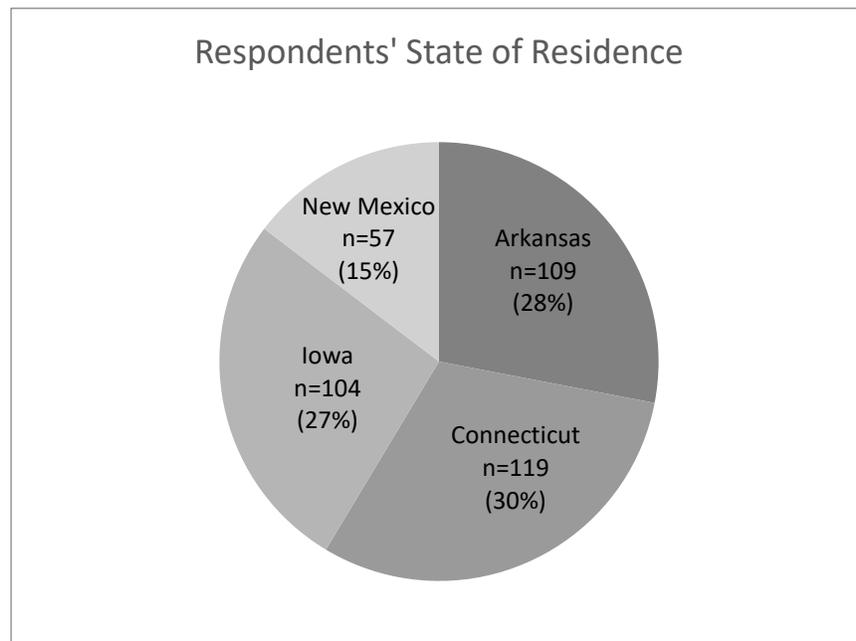
Figure 3. *Respondents' State of Residence*

Respondents were asked about the population of the area in which they lived. Approximately 35% (n=135) of respondents lived in urban areas with 50,000 or more people, while 15% (n=59) of respondents lived in low population or rural areas with fewer than 2,500 people. Similar percentages of respondents lived in areas with 2,500 to 24,999 people and 25,000 to 49,999 people (27% and 23%, respectively; n=107 and n=89). See Figure 4 below.
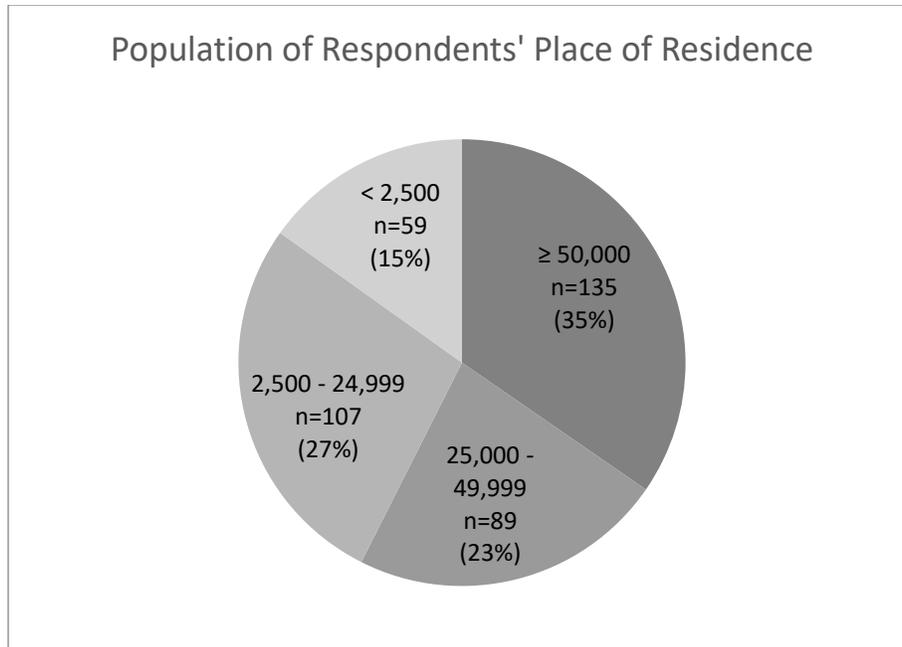
Figure 4. *Respondent's Place of Residence (Population)*
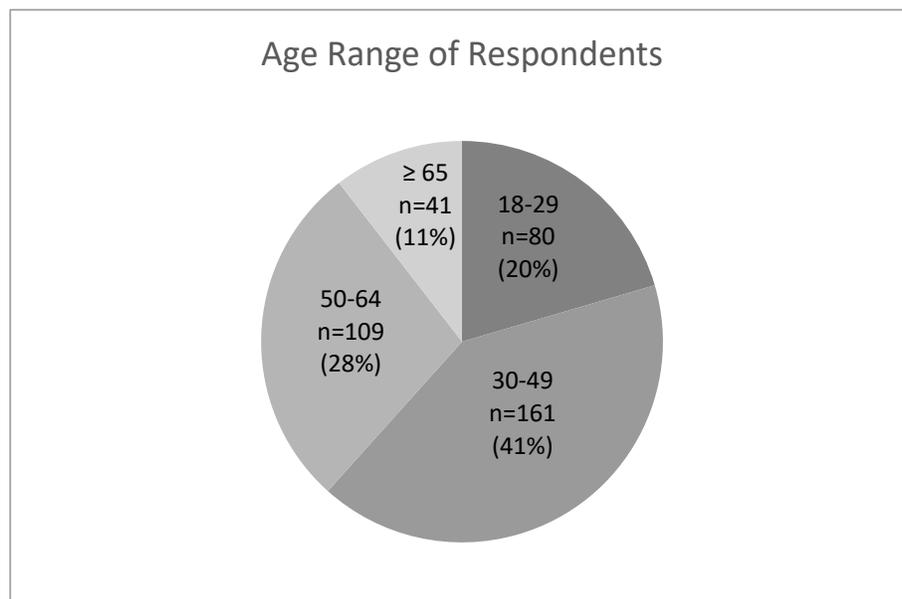
Figure 5. *Ages of Respondents*

Responses were solicited from individuals 18 years of age or older. The largest group of respondents (41%, n=161) were aged 30 to 49 and the smallest group (11%, n=41) were 65 years of age or older. One-fifth of respondents (n=80) were aged 18 to 29 and the remaining 28% (n=109) were in the 50 to 64 range. These are shown in Figure 5 above.

Survey respondents were asked to indicate their level of education, ranging from less than a high school diploma to a doctoral or professional degree. An equal number of individuals indicated either a high school diploma or a 4-year degree, while an equal number indicated less than a high school diploma or a doctoral or professional degree. Approximately one-fifth (21%) of respondents had some college, and the rest had an associate's degree or certificate, or a master's degree. The breakdown by education level is shown in Figure 6 below.
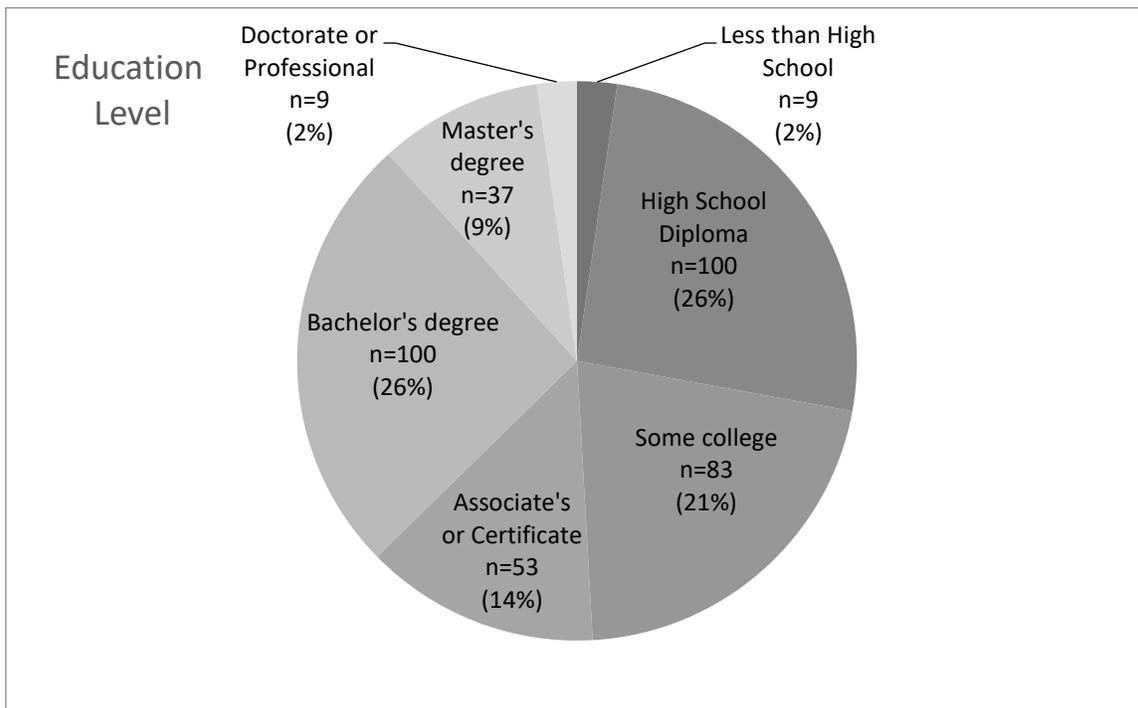
Figure 6. *Education level of respondents*

Last, respondents were asked to indicate their annual household income. More than one-third of respondents indicated an income in the range of $30,000 to $74,999. Approximately one-fourth of respondents indicated incomes less than $30,000. Roughly one-fifth had a household income between $75,000 and $125,000; the remaining 18% of respondents indicated income of more than $125,000 per year. These results are shown in Figure 7 below.
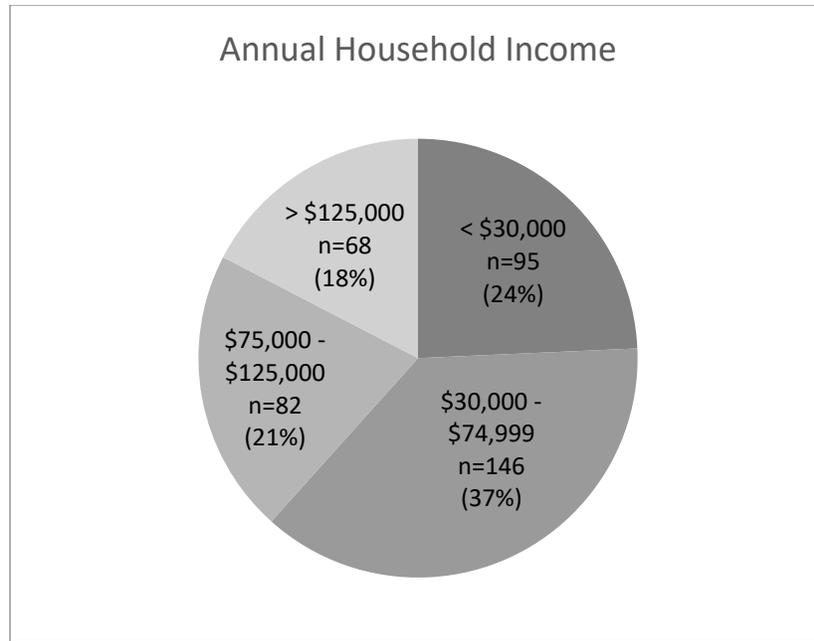
Figure 7. *Annual household income of respondents*

A summary of demographic data, by state, can be found in Appendix D.

C. Data Analysis

Multinomial logistic regression (MLR) measures the probability of obtaining a sample as a function of the parameters used in the model; coefficients are those that make the sample most likely. It is used when the dependent variable is categorical rather than continuous. For instance, when examining several independent variables to determine whether a respondent is likely to identify as a Democrat or a Republican, MLR is the appropriate analysis. It assumes that all the relevant independent variables, and no extraneous ones, are included in the model. Additional assumptions are that there is no measurement error, cases are independent, the sample size is greater than 100, and collinearity among the independent variables is not present (Song class notes, 2021). In the study, MLR was used to determine whether a respondent was likely to identify as either a Republican or a Democrat, compared to the reference group "Other," when considering the responses to questions about higher education. It was also used to determine

which major party (i.e. Democrat or Republican) presidential candidate respondents were likely

to prefer in the 2020 election, compared to the reference group "Other/No Preference" when

looking at responses to higher education-oriented questions.

Ordinary Least Squares (OLS) was used for all other analyses. OLS is a type of

regression that minimizes overall error to ensure the model best represents the relationship

between one or more independent variables (X_1, X_2, etc.) and the dependent variable (Y).

Distances between observed (dependent variable) values and the predicted values based on the

model equation are minimized. In OLS, the squares of the differences between the observed Y

values and the predicted Y values ($\hat{Y}$) are summed; the squares of the differences are used rather

than the absolute differences to avoid having positive and negative values cancel one another

out. In that case, the absolute difference could be zero, or close to it, which would wrongly imply

that the regression model is stronger, or more predictive, than it really is. Because the squares of

the differences are all positive, they cannot cancel one another out. Given certain assumptions,

listed below, the OLS regression model best represents the relationship among the independent

and dependent variables. The assumptions include a) errors are normally distributed; b) errors are

independent of the independent variable(s); c) errors are independent of one another; d) errors

have a constant variance; e) the regression model is linear rather than quadratic; and e) any

independent variable that influences the dependent variable is included. For all analyses, a

threshold of $p = 0.05$ was used for statistical significance. In the R software package, a result is

considered statistically significant if Pr(>|t|) in OLS or Pr(>Chisq) in MLR is less than p. The

"Estimate" is a measure of the correlation (negative or positive) between the independent

variable(s) and the dependent variable; a greater magnitude indicates a stronger correlation (Song

class notes, 2021).

All models used in the R software scripts for the analyses are described in Appendix E.

D. Reliability

The study employed a convenience sample of individuals registered with Prodege. Prodege uses proprietary algorithms to remove registrants who, according to those algorithms and analyses, fill out surveys quickly in a random fashion, without regard for the actual questions. In this way the company offers customers assurance that survey responses are a genuine reflection of the respondent's opinions.

As an additional check, responses to question 2 (political self-identification) were compared to question 4 (2020 election) responses. While not a perfect indicator, as voters can certainly cross party lines at election time, we would expect that those who identify as Democrats are more likely to vote for a Democratic presidential candidate, while Republicans are more likely to prefer the Republican candidate. This is, in fact, what the data showed. Compared to the reference group "Other," Republicans showed a strong preference for Donald Trump and Mike Pence (correlation coefficient = 3.409) over Joe Biden and Kamala Harris (coefficient = 0.117). Democrats showed a preference for Biden (coefficient = 2.507) but were more likely than Republicans to cross party lines and vote for Trump (coefficient = 1.003). These relationships were statistically significant, with $Pr(>Chisq) = 2.2\ e^{-16}$.

A second check was made by comparing responses to statements 6 (societal benefits of higher education) and 12 (self-paying for college). There was a weak, positive relationship between the responses to these two questions. The coefficient of correlation was 0.041; however this was not statistically significant, with $Pr(>|t|) = 0.368$, which is significantly higher than the 0.05 threshold. While a negative relationship was expected (i.e. someone showing strong agreement with one statement was expected to disagree with the other), the wording of both questions was such that they are not precise opposites of one another. One could agree or

disagree with both. Someone might believe, for example, that higher education offers broad

societal benefits, but still feel that most benefits accrue to the individual and therefore she or he

should bear the majority of the cost. It may be too that a five-point scale did not capture the true

range of opinion on this and other issues compared to a scale that uses more reference points.

E. Research Question 1

A model (model 1) comprising responses to statements 6 - 11, 13 – 15, and 18 ("Higher

Ed 1") was compared against political party self-identification (factored), with "Other" as the

reference group. These ten statements were grouped together because it was expected that those

who hold positive attitudes toward higher education would be more likely to agree with them. In

this analysis, three of the ten statements had correlations that were statistically significant at the p

= 0.05 level: 9 (*loandebt*); 15 (*forgive*); and 18 (*undocumented*). A summary is shown in Table 4

below. Variable names correspond to questions or statements from the survey instrument as

described in Appendix B.

Table 4.

Summary of Model 1 – Higher Ed 1 and f.demrep

Independent Variable	Dependent Variable (Political Party)	Coefficient	Pr(>Chisq)
loandebt	Republican	0.3161	0.0382
	Democrat	0.6028	
forgive	Republican	0.1481	0.0002
	Democrat	-0.4339	
undocumented	Republican	0.1631	0.0376
	Democrat	-0.1763	

Responses to statements were ordered from 1 – Strongly Agree to 5 – Strongly Disagree.

Compared to the reference group "Other", both Republicans and Democrats expressed more

disagreement with the statement that loan debt is a significant problem for college graduates, as

indicated by the positive coefficients. Surprisingly, the relationship was almost twice as strong for Democrats as it was for Republicans (0.6028 versus 0.3161). Disagreement with President Biden's plan to forgive up to $10,000 in student loan debt was associated with identification as a Republican, as indicated by the positive coefficient. Unsurprisingly, agreement with this plan was associated with Democrats. Similarly, support for offering in-state tuition to undocumented students was associated with Democrats and not Republicans; however, those relationships were statistically significant but not very strong.

A second model ("Higher Ed 2"), comprising responses to statements 12, 16, and 17, was also compared to political self-identification. It was expected that those with less positive views of higher education would be more likely to agree with these statements. In model 2, a statistically significant relationship existed only for statement 16 (agenda). A negative coefficient of -0.5148 existed for Republicans; high levels of agreement with the idea that colleges and universities promote a liberal agenda was correlated with identification as a Republican, whereas a positive coefficient (0.1332) existed for Democrats indicating they were more likely to express disagreement with this idea. Pr(>Chisq) for *agenda* was a statistically significant $1.606\ e^{-7}$.

Models 3 and 4 compared self-identification (*libcon*), on a continuum from Very Liberal to Very Conservative, against Higher Ed 1 and Higher Ed 2, respectively. In model 3, correlations for three statements (*worth, forgive,* and *undocumented*) were statistically significant. These are shown in Table 5 below. All three relationships were weakly positive; disagreement with each of the three statements was associated with a more conservative political identity.

In model 4, summarized in Table 6 below, the relationships for both *selfpay* and *agenda* were negative and statistically significant. Conservatives were more likely to support (agree

84

with) the idea of students paying their own costs for an education and to believe that colleges

promote liberal ideologies at the expense of education.

Table 5.

Summary of Model 3

Independent Variable	Dependent Variable	Coefficient	Pr(>|t|)
worth		0.1190	0.0342
forgive	libcon	0.2166	$3.94e^{-5}$
undocumented		0.1610	.0012

Table 6.

Summary of Model 4

Independent Variable	Dependent Variable	Coefficient	Pr(>|t|)
selfpay	libcon	-0.1084	0.0281
agenda		-0.2726	$2.87e^{-8}$

The next two models (5 and 6, respectively) compared the responses for either Higher Ed

1 or Higher Ed 2 to respondents' preferred candidate in the 2020 presidential election;

Biden/Harris and Trump/Pence were compared against the reference group "Other/No

preference." For model 5, the relationships between four variables and presidential candidate

were statistically significant: *worth, manage, forgive,* and *undocumented.* The results are shown

in Table 7 below. Agreement with the statement that a college education remains worthwhile

despite rising costs was associated with those who preferred either Trump/Pence or Biden/Harris,

compared against "Other/No Preference." The relationship was approximately 2.5 times stronger

for Biden/Harris. Agreement with the statement that institutions of higher education do a good

job managing their appropriations was associated with those who showed a preference for

Trump/Pence; those more likely to disagree with that statement were likely to prefer

Biden/Harris. This was a surprising result; the expectation was that support for Trump/Pence

Table 7.

Summary of Model 5

Independent Variable	Dependent Variable-Presidential Candidate	Coefficient	Pr(>Chisq)
worth	Trump/Pence	-0.1866	0.0234
	Biden/Harris	-0.4635	
manage	Trump/Pence	-0.1618	0.0188
	Biden/Harris	0.3024	
forgive	Trump/Pence	0.1991	$7.33e^{-6}$
	Biden/Harris	-0.4707	
undocumented	Trump/Pence	0.3597	0.0001
	Biden/Harris	-0.1946	

would be associated with a belief that colleges and universities mismanaged the funds they receive from their state governments. As expected, responses to both the loan forgiveness statement and the statement on in-state tuition for undocumented students aligned along party lines. Disagreement with each statement was correlated with a preference for Trump/Pence, while agreement was associated with a preference for Biden/Harris.

For model 6, the only statistically significant relationship was for *agenda*; a belief that academia promotes a liberal agenda was associated with those who preferred Trump/Pence (correlation = -0.1996) while disagreement was associated with the Biden/Harris ticket (0.5445). Pr(>Chisq) for this relationship was $1.62e^{-10}$.

While not strictly a measure of political preference, statement 5 (*funds*) asks how responsibly respondents feel their state governments mange taxpayer funds. This was compared against Higher Ed 1 and Higher Ed 2 in models 7 and 8, respectively. In model 7, statistically significant relationships existed between responses to statement 5 and three of the ten statements in Higher Ed 1: *loandebt, manage,* and *undocumented.* Belief that student loan debt is a significant problem is associated with a belief that state governments do not use taxpayer dollars responsibly. However, positive relationships existed between the belief that state governments

are responsible and both the belief that colleges and universities manage their appropriations responsibly as well as support for offering in-state tuition to undocumented students.

Table 8.

Summary of Model 7 and 8

Model	Independent Variable	Dependent Variable	Coefficient	Pr(>|t|)
7 (Higher Ed 1)	loandebt	funds	-0.1613	0.0459
	manage		0.3019	$2.44e^{-6}$
	undocumented		0.1412	0.0087
8 (Higher Ed 2)	selfpay	funds	0.14435	0.0094
	agenda		-0.1342	0.0134

When comparing *funds* against Higher Ed 2 (model 8), statistically significant relationships existed for the variables *selfpay* (coefficient = 0.14435, Pr(>\|t\|) = 0.0094) and *agenda* (coefficient = -0.1342, Pr(>\|t\|) = 0.0134). Agreement that students should bear the cost of their own education was associated with a belief in responsible state-level governance, while a belief that colleges promote a liberal agenda was negatively associated with a belief in responsible state governance. Models 7 and 8 are summarized in Table 8 above.

A political index was created by combining the responses for statements 2, 3, and 4. Responses of "Other/No Preference" were coded as 0; index scores therefore ranged from 1 to 9. A higher index meant conservative-leaning, with a preference for the Republican Party, while a lower score was associated with a liberal ideology and a preference for Democrats. This was compared to Higher Ed 1 (model 9) and Higher Ed 2 (model 10). In model 9, four variables showed a statistically significant correlation with the political index: *socben*, *worth*, *free*, and *manage*. For three of these (*socben*, *free*, and *manage*), the coefficients were positive; disagreement was associated with a more conservative index. The coefficient for *worth* was negative, meaning disagreement was associated with a more liberal index, contrary to

expectations. In model 10, *selfpay* and *agenda* showed correlations that were significant at the

0.05 level. The respective coefficients and p-values were -0.4225, $Pr(>|t|) = 0.000341$ and

0.2670, $Pr(>|t|) = 0.20088$. Agreement that students should pay the majority of the costs of their

education was associated with a higher, more conservative political index. A belief that colleges

promote a liberal agenda was surprisingly associated with a lower, more liberal, political index.

These are summarized in Table 9 below.

Table 9.

Summary of Model 9 and 10

Model	Independent Variable	Dependent Variable	Coefficient	$Pr(>|t|)$
9 (Higher Ed 1)	socben	polindex	0.31920	0.01165
	worth		-0.43156	0.00123
	free		0.38084	0.00190
	manage		0.29805	0.03087
10 (Higher Ed 2)	selfpay	polindex	-0.4225	0.000341
	agenda		0.2670	0.020088

For the next eight models (11 – 18), responses to statements 6 - 11, 13 – 15, and 18 were

combined to create an index of support for higher education ("Higher Ed Index 1"). Similarly,

responses to statements 12, 16, and 17 were combined to create a second index ("Higher Ed

Index 2"). In each case, a lower sum signifies greater agreement with the statements for that

index and a higher total signifies greater disagreement.

In model 11, Higher Ed Index 1 was compared against respondents' political party

preference (*demrep*), with "Other/No Preference" being the reference. For Democrats, the

correlation coefficient was a statistically significant -4.4609 $(Pr(>|t|) = 1.23e^{-8})$. A lower score on

the index, signifying greater agreement, was associated with identification as a Democrat, which

was expected for this index. A higher score, signifying disagreement, was associated with

identification as a Republican (coefficient = 1.4573), but this correlation was not significant at

the 0.05 level (Pr(>|t|) = 0.0658). For model 12, the reverse was true. A higher score on Higher Ed Index 2 was associated with identification with the Democratic Party (coefficient = 0.4236) but this relationship was not statistically significant (Pr(>|t|) = 0.2169). This index was negatively associated with Republican identification (coefficient = -1.1913). A lower index (greater agreement with the statements in that index) was, as expected, more likely for those who identify with Republicans. This relationship was statistically significant, with Pr(>|t|) = 0.0008.

Next, the two higher education indices were compared against identification on the liberal-conservative continuum (*libcon*). Higher Ed Index 1 (model 13) was positively associated with this variable, meaning that a higher score on the index (signifying greater disagreement) correlated to a higher score (i.e. more conservative) on the liberal-conservative scale; this conformed to expectations. This was a fairly strong relationship, with a coefficient of correlation equaling 2.5128 and Pr(>|t|) = $2e^{-16}$, which is essentially zero. For Higher Ed Index 2 (model 14), the relationship was negative, although not as strong (coefficient = -0.8706, Pr(>|t|) = $2.51e^{-12}$). A higher score (greater overall disagreement) on the index was associated with a lower score on the liberal-conservative scale. That is, those who disagree with the statements in this index were more likely to identify as liberals, while those with a lower score (greater agreement) were more likely to score higher (more conservative) on the liberal-conservative scale. This too was expected.

Models 15 and 16 examined the relationship between the two indices and the preference for presidential candidate in the 2020 election. Compared to the reference group "Other/No Preference," a higher score on Higher Ed 1 Index correlated positively with a preference for Trump/Pence (coefficient = 3.5371, Pr(>|t|) = 0.0001) and negatively with a preference for Biden/Harris (coefficient = -2.7393, Pr(>|t|) = 0.0021). As expected, a higher score on this index,

which signifies greater disagreement with that index's statements, was associated with a preference for Donald Trump, while a greater level of agreement (i.e. a lower total score) was associated with those preferring Joe Biden. The opposite relationship was seen for Higher Ed Index 2, as expected. Agreement with that index's statements, indicated by a lower overall score, was associated with Trump supporters (coefficient = -1.0277, Pr(>|t|) = 0.0109) while disagreement (i.e. a higher score) was associated with Biden supporters (coefficient = 0.9012, Pr(>|t|) = 0.0226). Table 10 below summarizes the results for models 11 through 16.

Table 10.

Summary of Models 11 -16

Model	Independent Variable	Dependent Variable	Coefficient	Pr(>|t|)
11	Democrat	Higher Ed Index 1	-4.4609	$1.23e^{-8}$
12	Republican	Higher Ed Index 2	-1.1913	0.0008
13	libcon	Higher Ed Index 1	2.5128	$2e^{-16}$
14	libcon	Higher Ed Index 2	-0.8706	$2.51e^{-12}$
15	Trump/Pence	Higher Ed Index 1	3.5371	0.0001
	Biden/Harris		-2.7393	0.0021
16	Trump/Pence	Higher Ed Index 2	-1.0277	0.0109
	Biden/Harris		0.9012	0.0226

Last, each higher education index was compared against the political index described above. In model 17, a positive relationship existed between Higher Ed Index 1 and the political index, with a correlation coefficient of 0.3644 (Pr(>|t|) = 0.00673). As expected, a higher political score, indicating a more conservative outlook, was associated with greater disagreement (higher total score) with the statements comprising this index, while agreement was associated with a lower, more liberal political index. For Higher Ed Index 2, the correlation coefficient was 0.006703 and Pr(>|t|) = 0.906. A negative coefficient was expected (agreement with these statements was expected to be associated with a lower, more conservative political index), but

the results were not statistically significant. These relationships are depicted in Figures 8 and 9 below.

polindex effect plot
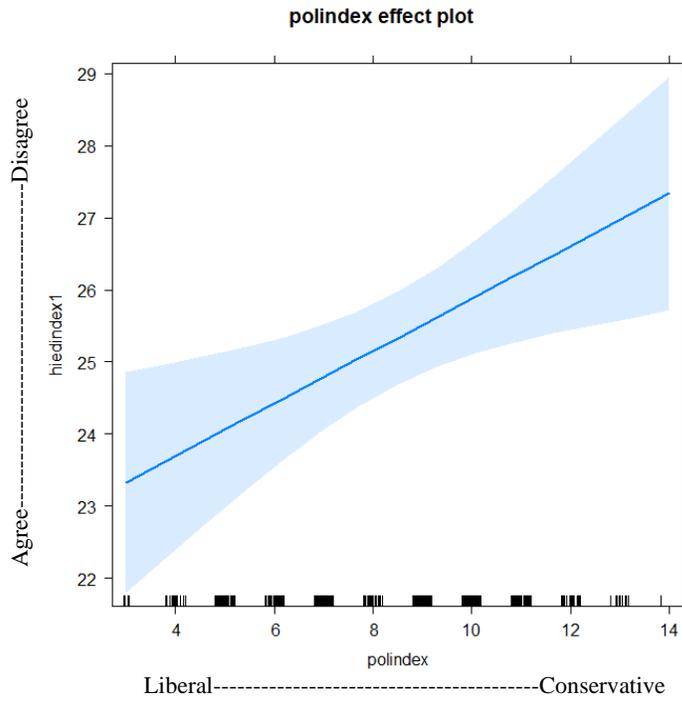
Figure 8. *Higher Ed Index 1 as a function of Political Index*

polindex effect plot
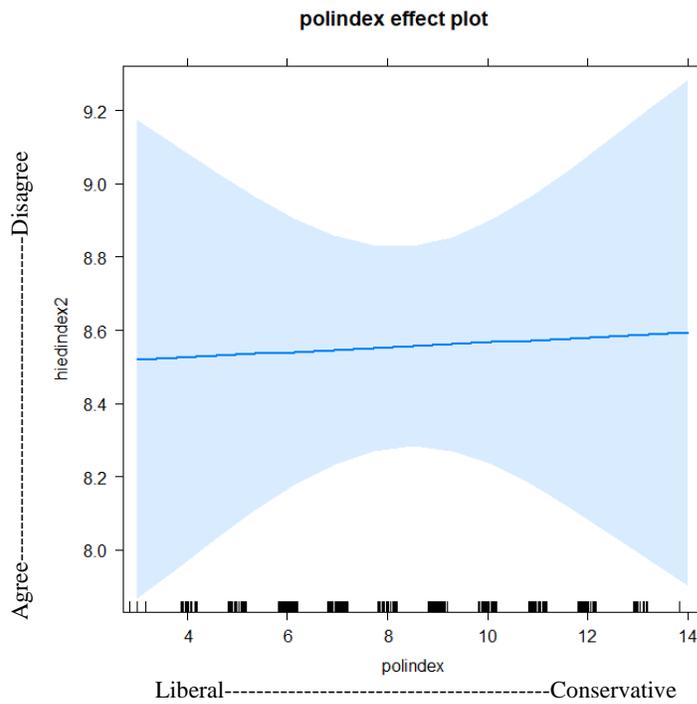
Figure 9. *Higher Ed Index 2 as a function of Political Index*

Research Question 1: Did political ideology, identified through a series of questions regarding political preferences, positively correlate to one's level of support for taxpayer financing of public institutions of higher education?

The data lent some support to the idea that support for higher education is linked to political preferences. Those who are more conservative-leaning tended to be more critical of higher education, while greater support for higher education was found among those on the more liberal side of the spectrum. No causal relationships were inferred.

F. Research Question 2

To address research question 2, responses to statements 6 through 18 were individually compared against the following three variables: preference for political party (*demrep*, factored); political identification on a liberal-conservative scale (*libcon*); and preference for presidential candidate in the 2020 election (*election*, factored). For the two factored variables, *demrep* and *election*, the reference group was "Other" or "Other/No Preference," respectively.

Political party preference was a factor for every statement regarding higher education except statement 17 (*pay*). For all others, there was a statistically significant correlation for either "Democrats" or "Republicans," or in some cases, both, compared to "Other." For all but one of these, the correlation conformed to expectations. A negative correlation existed between "Democrats" and all but one statement from Higher Ed Index 1. The exception was for *socben*, which stated that a 4-year college education offers broad societal benefits. There were no statistically significant correlations between "Democrat" and those statements comprising Higher Ed Index 2 (12 [*selfpay*], 16 [*agenda*], and 17 [*pay*]). "Republican" was positively correlated with some statements from Higher Ed Index 1 (i.e. disagreement) and negatively associated (signifying agreement) with two statements from Higher Ed Index 2 (*selfpay* and *agenda*). For statement 18 (*undocumented*), there was a positive correlation with "Republican" (coefficient =

0.3186), but this just missed the threshold for statistical significance, with Pr(>|t|) = 0.052.

When each statement was compared against question 3 (*libcon*), which asked respondents to describe their political views on a continuum from "very liberal" to "very conservative," a statistically significant correlation existed for all but statement 6 (*socben*). In each case, the correlation conformed to expectations. Statements comprising Higher Ed Index 1 all showed a positive coefficient of correlation, meaning those who considered themselves more liberal (lower score on *libcon*) showed more agreement with those statements, while those who considered themselves more conservative showed higher levels of disagreement. The reverse was true for statements 12, 16, and 17.

Each statement except 14 (*manage*) and 17 (*pay*) showed a statistically significant relationship with either Biden/Harris or Trump/Pence. In some cases (statements 10 [*adfund*], 15 [*forgive*], 16 [*agenda*], and 18 [*undocumented*]), the relationship was statistically significant for both Biden/Harris and Trump/Pence, compared to the reference group "Other/No Preference." All correlations except one conformed to expectations, with those supporting Biden/Harris showing agreement with those statements that reflect a positive view of higher education while those supporting Trump/Pence demonstrating disagreement. The exception was for statement 6 (*socben*). The correlation was positive between Biden/Harris and *socben*, meaning those who preferred the Democratic presidential ticket in 2020 were more likely, compared to the reference group, to disagree with this statement. This does agree with the relationship described above in which those who identified with the Democratic Party also showed more disagreement with this statement. A summary of statistically significant relationships is shown in Table 11 below.

Table 11

Summary of Statistically Significant Relationships – Research Question 2

Model	Independent Variable[1]	Dependent Variable	Coefficient	Pr(>|t|)
19	Democrat	socben	0.2943	0.028
20	Democrat	socioecon	-0.3192	0.0096
	Republican		0.2584	0.0420
21	Democrat	tuitioncost	-0.3773	0.0007
22	Republican	loandebt	0.2975	0.0183
23	Democrat	adfund	-0.5358	$1.98e^{-5}$
24	Democrat	worth	-0.5513	$5.2e^{-5}$
25	Republican	selfpay	-0.4172	0.0059
26	Democrat	free	-0.6566	$6.09e^{-5}$
27	Democrat	manage	-0.3758	0.0032
28	Democrat	forgive	-0.9260	$1.09e^{-7}$
	Republican		0.4574	0.0097
29	Republican	agenda	-0.6706	$4.02e^{-5}$
31	Democrat	undocumented	-0.7832	$1.17e^{-6}$
33	libcon	socioecon	0.2072	$5.25e^{-6}$
34	libcon	tuitioncost	0.1278	0.0016
35	libcon	loandebt	0.1833	$3.89e^{-5}$
36	libcon	adfund	1.4607	$2e^{-16}$
37	libcon	worth	0.2242	$5.97e^{-6}$
38	libcon	selfpay	-0.5270	$1.12e^{-6}$
39	libcon	free	0.3617	$1.78e^{-9}$
40	libcon	manage	0.1662	0.0003
41	libcon	forgive	0.5814	$2e^{-16}$
42	libcon	agenda	-0.4278	$1.18e^{-13}$
43	libcon	pay	-0.1858	0.0002
44	libcon	undocumented	0.4652	$5.07e^{-15}$
45	Biden/Harris	socben	0.3677	0.0191
46	Trump/Pence	socioecon	0.4561	0.0018
47	Biden/Harris	tuitioncost	-0.3026	0.0187
48	Trump/Pence	loandebt	0.3718	0.0095
49	Biden/Harris	adfund	-0.3257	0.0248
	Trump/Pence		0.3340	0.0242
50	Biden/Harris	worth	-0.5740	0.0003
51	Trump/Pence	selfpay	-0.5040	0.0039
52	Trump/Pence	free	0.6624	0.0007
54	Biden/Harris	forgive	-0.7002	0.0003
	Trump/Pence		0.8295	$3.25e^{-5}$
55	Biden/Harris	agenda	0.6839	0.0002
	Trump/Pence		-0.3745	0.0406
57	Biden/Harris	undocumented	-0.4874	0.0076
	Trump/Pence		0.7213	0.0001

1 – Factored variable in models 19-31 (f.demrep) and 45-57 (f.election). Reference Group is Other for f.demrep and Other/No Preference for f.election.

Research Question 2: Were there particular political beliefs that strongly predict taxpayer support of higher education? In other words, did responses to certain questions show a stronger correlation than others to levels of support?

Certain issues resonated more strongly than others with respondents. For instance, support for student loan forgiveness was divided along party lines, with Democrats and Joe Biden supporters favoring forgiveness while Trump supporters and Republicans were opposed. For all issues but one (the societal benefits of education), self-described liberals and conservatives (*libcon*) were on opposite sides.

G. Research Question 3

To answer research question 3, the two higher education indices (Higher Ed 1 and Higher Ed 2) were compared against respondents' state of residence. In this analysis, one state served as the reference for the other three states. Four models were run for each index, so that all four states could be the reference against which others are compared. When either Arkansas or New Mexico were the reference states, there were no significant correlations found for either index. When Connecticut was the reference state, there was a statistically significant correlation for Iowa. Respondents from Iowa were likely to have a higher total score in Higher Index 1, signifying greater overall disagreement with the statements comprising that index. The coefficient of correlation was 1.7289, and Pr(>|t|) was 0.0460. There was no corresponding, statistically significant correlation for Higher Index 2. When Iowa was the reference state, the effect was the same for Connecticut but in the opposite direction. The coefficient of correlation in that case was -1.7289 and Pr(>|t|) was 0.0460.

Next, responses from Arkansas and Iowa were combined and treated as "red states," while responses from Connecticut and New Mexico were combined and considered "blue

states." This was based solely on the candidate who was awarded each state's electoral votes in the 2020 presidential election. For Higher Ed Index 1, there was a weak, negative correlation for blue states compared to red ones. Blue states were correlated with a lower overall score (greater agreement) on that index (coefficient = -0.5691) but this relationship was not significant at the 0.05 level (Pr(>|t|) = 0.388). Blue states showed a very weak, positive correlation (i.e. greater overall disagreement) for Higher Ed Index 2 (coefficient = 0.03282) compared to red states, but this too was not statistically significant (Pr(>|t|) = 0.906).

Research Question 3: Were political ideologies and levels of support for higher education aligned with the political majority in that state? The majority is that party whose presidential candidate received that state's electoral votes in the 2020 election (i.e. in media election coverage, was the state "red" or "blue")?

The data did not definitively support the conclusion that higher education support is aligned with the political majority in each state. With the exception of the comparison between Iowa and Connecticut, statistically significant differences were not seen among the states, nor between "red" states and "blue" states.

H. Research Question 4

To answer research question 4, the two higher education indices (Higher Ed Index 1 and Higher Ed Index 2) were compared against demographic factors examined via survey questions 20 – 23. A statistically significant correlation existed between Higher Ed Index 1 and the population of respondents' community. Population options were ordered from larger to smaller in the survey instrument. A coefficient of 1.0716 (Pr(>|t|) = 0.0004) suggests that living in a smaller town or community is correlated with a higher level of disagreement (i.e. higher score on the index). The relationship is shown in Figure 10 below. A weak, positive correlation was also

shown for Higher Ed Index 2 (coefficient = 0.0238) but this relationship was not statistically significant; Pr(>|t|) = 0.852.

Next, the two indices were compared against age of respondents. Age options were ordered from younger to older. As with population, a statistically significant relationship existed between respondent age and Higher Ed Index 1 but not between age and Higher Ed Index 2. Shown below in Figure 11, the coefficient of correlation between age and Higher Ed Index 1 was 2.2849 and Pr(>|t|) = 8.56e^{-11}. Being older corresponded strongly to a higher index score, suggesting that age is negatively associated with support for higher education.
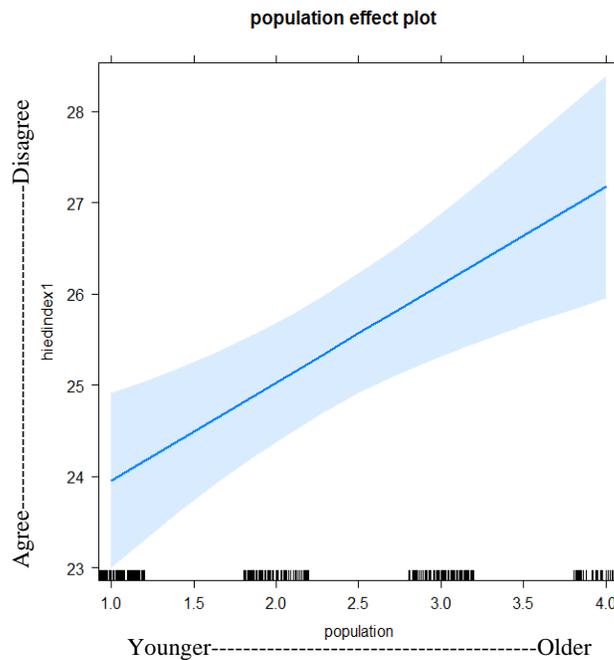
Figure 10. *Higher Ed Index 1 as a Function of Community Population*
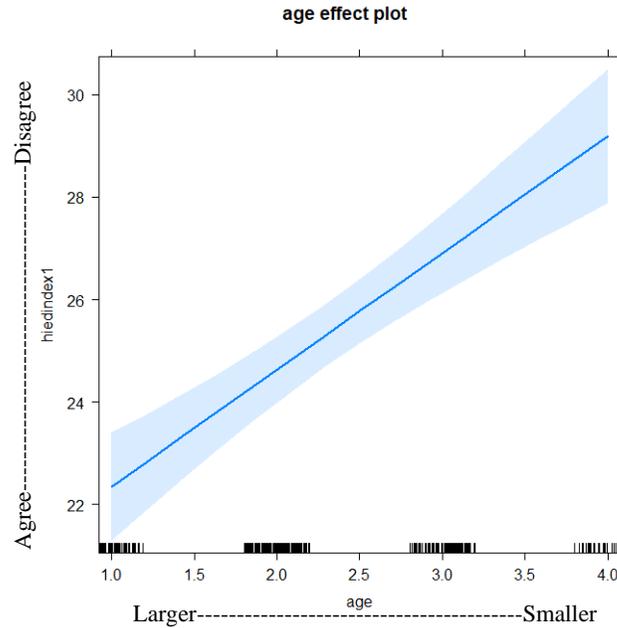
Figure 11. *Higher Ed Index 1 as a Function of Respondent Age*

The two indices were then compared with education level. Education responses ranged from less than a high school diploma to a graduate or professional degree. With a coefficient of -0.2086 and $Pr(>|t|) = 0.342$, more education was associated with greater agreement (lower total score) on Higher Ed Index 1, but the relationship was not statistically significant. For Higher Ed Index 2, the coefficient of correlation was 0.1809, (positive, signifying disagreement with those statements), and the correlation was very close to statistical significance, with $Pr(>|t|) = 0.0501$. This relationship is shown in Figure 12 below.

Last, the indices were compared against respondent income level. A statistically significant relationship existed between Higher Ed Index 1 and income level, with a correlation coefficient of 0.6939 and $Pr(>|t|) = 0.0292$. A higher income was associated with lower overall support for higher education, a finding that was contrary to this researcher's expectations. This relationship is shown in Figure 13 below. A negative coefficient of correlation was found between Higher Ed Index 2 and income; those with higher incomes were more likely to agree
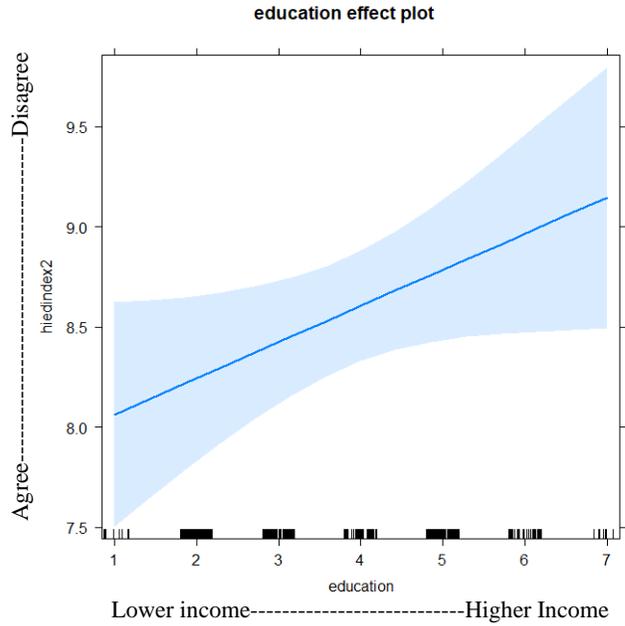
Figure 12. *Higher Ed Index 2 as a Function of Respondent Education Level*

with the statements comprising this index. This was also contrary to expectations but aligns with

the findings for Higher Ed Index 1. However, at $Pr(>|t|) = 0.0527$, this relationship (coefficient =

-0.2601) missed the 0.05 threshold for statistical significance used throughout this study.
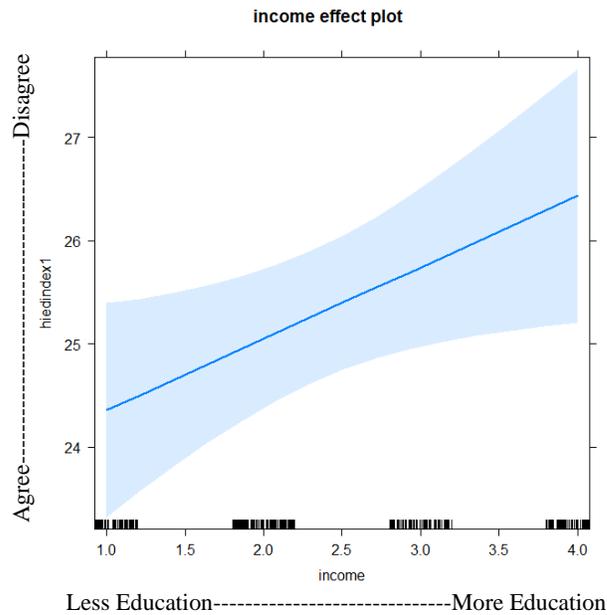
Figure 13. *Higher Ed Index 1 as a Function of Respondent Household Income*

Research Question 4: What were the state-level policy implications for the future of publicly funded higher education in the United States?

Demographic factors will likely figure strongly in which policies get implemented at the state level. States with older, more rural populations may be less successful in reversing the trend of the last 30 years that has pushed a greater share of the cost of a college education onto students, compared to those states with younger, more urban populations. Elected officials in diverse states with both rural and urban populations, and whose voters are dispersed across all age groups, may find that education policies have to compete with other social issues, and the level of support they receive for higher education may depend on how they frame the issues.

I. Summary

Responses to a Qualtrics-based survey were collected from a convenience sample of 394 respondents and analyzed using R statistical software. A threshold of $p = 0.05$ was employed; any correlation with a p-value equal to or less than this threshold was considered statistically significant.

Research Question 1 attempted to determine whether a correlation existed between one's political preferences and support for higher education. The data suggest that higher education enjoys greater support from those who prefer Democrats rather than Republicans, supported Joe Biden over Donald Trump in the 2020 election, and who self-identify as more liberal on a liberal-conservative continuum.

Research Question 2 attempted to determine whether viewpoints on certain issues showed correlations to political preferences. Responses to individual statements regarding higher education were compared against respondents' political party preference, self-identification on a liberal-conservative continuum, and preferred candidate int the 2020 presidential election. The analyses showed that statistically significant relationships existed in several cases, and they

mostly conformed to expectations. A liberal perspective and a preference for Democrats (compared to the reference group "Other") and a preference for Biden/Harris (compared to "Other/No Preference) were correlated with greater support for, or a more favorable view of, higher education. The one outlier was the response to the statement that a college education offers broad societal benefits. A preference for Democrats and for Biden/Harris was correlated with greater disagreement with that statement.

Research Question 3 attempted to determine whether overall support for higher education was correlated with respondents' state of residence, and also with red states versus blue. The data mostly did not support this idea. The only statistically significant relationship was found with Higher Ed Index 1 when comparing responses from Iowa to those from Connecticut. Connecticut, a "blue" state, was associated with a higher level of support for higher education when compared to "red" Iowa. A comparison of "red" (Arkansas plus Iowa) versus "blue" (Connecticut plus New Mexico) states did not yield any statistically significant findings.

To address research question 4, the two higher education indices were compared against demographic factors. The analyses suggest that higher education is better supported among those living in larger cities and by younger respondents. Education level did not appear to correlate to a statistically significant level with support, and, contrary to expectations, a higher household income was associated with lower overall support for higher education.

Chapter 5

Conclusions and Recommendations

A. Summary of the Study

The cost of a college education has steadily increased for at least the past three decades, at a rate that has greatly outpaced inflation. As the share of the total cost to educate a student covered by appropriations from the state has decreased, more of the cost has been shifted onto students and their families in the form of rising tuition and fees.

There have been numerous studies showing that the partisan makeup of government at the state level has an influence over the appropriations process, particularly with respect to public institutions of higher education. This study attempted to determine whether political preferences are also correlated with the level of support for higher education among adults aged 18 or over. A non-random, convenience sample of adults from four states was presented with a survey comprising several statements regarding higher education; respondents were asked to express their level of agreement (or disagreement) with those statements using a five-point Likert-type scale. A total of 394 responses were collected and analyzed in R statistical software via either Ordinary Least Squares regression or Multinomial Logistic regression. The analyses showed some overall support for the hypothesis that support for higher education was stronger among those with a more liberal political self-identity, and among those who identify with the Democratic Party. Those with a more conservative view and who identify with the Republican Party showed higher levels of agreement with statements that could be interpreted as critical of colleges and universities. Responses to particular statements proved to have stronger associations with political preferences than did other statements. There was no significant difference between respondents from "red" states compared to "blue ones" although respondents from conservative Iowa showed lower levels of support for higher education when compared to those from more

liberal Connecticut. Older respondents, and those living in smaller communities, were less

supportive of higher education compared to younger respondents or those living in larger towns

or cities. Possibly this supports the conventional wisdom that inhabitants of rural areas tend to be

more conservative and "traditional" when compared against their more liberal, urban

counterparts. Education level was not a statistically significant predictor of support, and a higher

household income was associated with lower support for education.

Research Question 1 asked if political preference correlated to support for taxpayer

financing of public institutions of higher learning. Data were analyzed in several ways, including

through the use of two higher education indices, created by summing the numerical values of

either statements 6 – 11, 13 – 15, and 18 (Higher Ed Index 1) or statements 12, 16, and 17

(Higher Ed Index 2). Self-identified liberals showed higher levels of agreement on Higher Ed

Index 1, while conservatives showed greater agreement on Higher Ed Index 2. Those who

preferred Democrats were more likely to agree with the statements on the first index, while

Republicans were more likely to agree with those on the second. Supporters of President Biden

were more likely to agree with the statements on Higher Ed Index 1 and less likely to agree with

those on Higher Ed Index 2. The relationship was the reverse for supporters of former President

Donald Trump.

Research Question 2 posed the idea that particular beliefs may be more predictive of

taxpayer support for public colleges and universities. To answer this question, responses to

statements were individually compared against respondents' political party preference, their self-

identification on a liberal-conservative continuum, and their preferred candidate for president in

the 2020 election. Responses to most statements, when examined this way, showed a statistically

significant relationship with the independent variable, and with few exceptions, these conformed

103

to expectations. Liberal Democrats who supported the Biden/Harris ticket showed greater levels of support for higher education than did conservative Republicans who preferred Trump/Pence. Among the strongest relationships (i.e. those with the correlation coefficient of greatest magnitude, whether positive or negative) were those involving the statement on loan forgiveness. Agreement with President Biden's plan to cancel thousands of dollars in student loan debt was correlated with a preference for Democrats and the Biden/Harris presidential ticket in 2020. Unsurprisingly, disagreement with that plan was strongly associated with a preference for Trump/Pence, and to a lesser degree a preference for the Republican party. Democrats and Biden supporters also showed agreement with the idea of offering in-state tuition to undocumented students, while Republicans and Trump supporters opposed this idea.

Research Question 3 attempted to determine whether support for higher education was correlated with the prevailing political views in a given state. For this, Arkansas and Iowa were both treated as "red" or conservative-leaning states, while Connecticut and New Mexico were considered to be "blue" or liberal-leaning states. This was based solely on which party was awarded each state's electoral votes in the 2020 presidential election. This is admittedly a flawed assumption, as no state is 100% blue or red, or even close to it. As noted in Table 1, the electoral outcomes in each of the four states in 2020 was as follows: Arkansas – 62.4% Trump (Republican) and 34.8% Biden (Democrat); Connecticut – 59.3% Biden and 39.2% Trump; Iowa – 53.2% Trump and 44.9% Biden; and New Mexico – 54.3% Biden and 43.5% Trump. It is perhaps not surprising then that the only statistically significant relationship with respect to the states was seen when comparing Iowa to Connecticut. Higher levels of support for education, as determined by the two higher education indices, were seen for Connecticut when compared to Iowa. When responses for Arkansas and Iowa were combined as "red states" and compared

against the combined responses for New Mexico and Connecticut ("blue states") there was no statistically significant relationship. In other words, while a higher level of support for higher education was expected for "blue" states, analysis of the data did not support that hypothesis.

Last, Research Question 4 asked what the policy implications were for the future of publicly funded higher education in the United States. To answer this question, the two higher education indices were compared against respondents' demographic information. The analyses showed that support for higher education was negatively associated with living in a town or community with a smaller population. This suggests that states with more rural populations may be less supportive of post-secondary education compared to those states with more urban populations, all other factors being the same. Age of respondents was also examined, and higher levels of support for higher education were found among younger respondents. All other factors being the same, public colleges and universities may enjoy greater support in those states with a younger population compared to those with older citizens. Education level of respondents was associated with greater support for higher education, but the relationship was not statistically significant, so one cannot conclude from this study that a better educated citizenry will be more supportive of education beyond high school. Last, contrary to this researcher's expectation, states with higher-earning households may be less supportive of higher education compared to those with lower earning power.

B. Conclusions

This study involved a relatively small sample size (n = 394) so caution must be exercised in drawing conclusions from these findings. Statistically significant relationships were found, but without further study it is not possible to establish causal relationships. Do individuals express skepticism about higher education because they identify with Republicans, perhaps based on their stances on other social issues such as gun rights or abortion, or do they identify with

Republicans because they are distrustful of academia? The data do support the idea that those individuals who have a more conservative worldview, who supported President Donald Trump in the 2020 election, who live in more rural settings, and who are older may be less supportive of state-level policies that favor public institutions of higher education. Liberal-leaning respondents who preferred Joe Biden in the 2020 election and who live in urban areas with higher populations are more likely to hold favorable views toward higher education. However, many factors influence voter preferences, and more study is needed to understand how these factors combine and intertwine to affect voting behavior. For instance, while a majority of Connecticut respondents preferred Joe Biden in the 2020 election, suggesting that this state should be more supportive of higher education, according to www.worldpopulationreview.com, Connecticut also has one of the ten highest median household incomes in the United States, and the study found that higher incomes were associated with lower support for higher education. This is clearly a very complex issue.

As national demographics change, states with younger, more urbanized populations may find it easier to gain support for public funding of colleges and universities, while states with older, more rural populations may find that other competing interests, such as healthcare or law enforcement, are given greater priority and support by voters. Larger, diverse states may find it challenging to pass education policies acceptable to a majority of their populations, although some states, such as Florida, have been successful at funding the state's colleges and universities and keeping tuition at affordable levels even while the voters are closely divided (According to CNN, the Florida popular vote in the 2020 election was 51.2% for Donald Trump compared to 47.9% for Joe Biden.)

President Biden's plan to offer either $10,000 or $20,000 in student loan forgiveness,

depending on loan type (e.g. Pell versus non-Pell), has been challenged in the courts, and will be reviewed by the Supreme Court in February of 2023. It seems very unlikely that Republicans and Democrats will come together in agreement on solutions to what some have called a crisis in higher education, either at the state or federal level. But if post-secondary education is to remain within reach of all students who strive for it, regardless of their socioeconomic status, it should not be taken as a given that this is an intractable problem that cannot be solved.

C. Recommendations

The United States is a large, diverse nation, and drawing broad conclusions from a small study of 394 respondents from four states with relatively low populations would be inadvisable. The following are recommendations for further study.

1. Expand the study to include all 50 states and the District of Columbia, to better capture the diversity that exists across the nation. What holds true in "red" Arkansas may not be true in much larger, "red" Texas.

2. Increase the sample size. A larger sampling of individuals from across the entire nation may show trends that were missed in this study.

3. Employ a random sample. This study used a non-random, convenience sample of respondents who had registered with a particular company for the express purpose of earning nominal compensation to fill out surveys such as the one used in this study. Random sampling is the gold standard for surveys and is more likely to remove biases that may be built into the study whenever using non-probability sampling methods.

4. Refine the survey instrument. While one must carefully balance the need for meaningful data against the risk of study participants failing to complete surveys that are too long (i.e. they may succumb to survey fatigue), the survey instrument must be carefully designed so that it measures what it purports to measure. Employing a seven

or a nine-point Likert scale may lead to the emergence of more granular detail than can be found with a five-point scale. Open-ended questions too would allow respondents to precisely explain their beliefs or preferences, rather than being locked into selecting among a few set options. Interviews with willing participants from across the entire political spectrum may be informative as to how they arrive at their beliefs and how those beliefs influence their voting behavior.

5. Consider the influence of timing. It may be that the salience of an issue such as college affordability fluctuates over time. The administration of a survey that adds timing as a variable may reveal, for example, that support for higher education strengthens or weakens during an election year. Perhaps attitudes are affected by political rhetoric and become more intense during presidential election years compared to midterm election or non-election years, and opinions may be more pronounced in the months leading up to an election compared to the months afterward.

6. A long-term, longitudinal study may be useful to see if individual preferences evolve over time, as they become older and their life circumstances change (e.g. income, where they live, etc.)

Elected officials with the responsibility to enact policies and allocate funds must appeal to voters from across the political spectrum. Recommendations for policy implementation at the state level include:

1. Focus on areas where compromise is possible, especially where neither party has enough political power to enact legislation without support from the other. Recognize that some policy solutions, such as tuition-free college, while workable in Europe, are unlikely

to gain broad, bipartisan support in the United States.

2. Carefully craft messages that accentuate the positive and allow political opponents to cast themselves as heroes when advocating and voting for policies that support access to higher education. Employ lessons from the Narrative Policy Framework which tells us that stories make an issue personal and can be more persuasive than facts and figures.

3. Consider policies that give greater incentives to companies that offer tuition assistance or loan forgiveness to employees, including new hires. Such policies may gain support from Republicans who favor market-based policy solutions.

At the federal level, President Biden's effort to offer loan forgiveness to students has faced legal challenges. Democrats may be more successful in implementing new loan forgiveness programs similar to the Public Service Loan Forgiveness program which had been passed bipartisan support. Volunteer activities, for example, or a commitment to create a certain number of jobs through entrepreneurial activity in exchange for debt forgiveness, may help garner the necessary support from Republicans who otherwise oppose loan forgiveness. The federal government might also consider restricting the availability of loans used to attend schools of questionable merit, based on their graduation rates and job placement records, particularly for-profit schools, some of which have declared bankruptcy in recent years, leaving some students with uncompleted degrees and thousands of dollars in debt.

D. Discussion

From a policy perspective, it is important to remember that, as noted in Chapter 1, the primary goal of many, if not most, elected officials, is to be reelected. To do this, candidates for political offices, whether incumbents or newcomers, must appeal to a majority of likely voters. Messaging is important, particularly for those audiences that are skeptical of the societal benefits of a well-educated populace, or those who recognize the benefits but nonetheless prefer market-

based solutions in which the majority of the costs of an education are shifted onto students and their families, rather than onto taxpayers. For instance, because there was a correlation between a conservative political ideology (or a preference for either Republicans in general or for Donald Trump) and a belief that colleges and universities focus less on education and more on promoting a liberal agenda, proponents might consider narratives that challenge that perception. Loan forgiveness initiatives, supported by liberal Democrats and opposed by conservative Republicans, might be tied to some type of service commitment, similar to the Public Service Loan Forgiveness, described in Chapter 2, which had been passed at the national level with bipartisan support. Higher education advocates should likely recognize that free (to students) college education, while workable in some European nations, is not likely to enjoy wide support in the United States. Instead, they may wish to emphasize the data that show how college graduates drive economic growth through entrepreneurial activities, including the creation of small businesses which spur job creation. This is a message likely to resonate well with business-friendly Republican voters. Because a conservative view was correlated with a belief that college and university employees are overpaid, the messaging might also emphasize a) that the proliferation of highly paid administrators can be linked to the ever-increasing laws and regulations governing the college campus and the need to hire skilled professionals to ensure the college or university remains in compliance; and b) that, contrary to popular myths of overpaid and underworked faculty, many colleges and universities increasingly rely on non-tenured adjuncts who have no certainty that they will remain in the college's employ from semester to semester. While adjuncts are undoubtedly committed to their roles, their precarious positions are less than ideal when trying to create the best possible educational experience for enrolled students. Unfunded mandates create unnecessary challenges for academia as well. The state of

Florida passed legislation in 2022 pertaining to foreign influence but did not include appropriations to assist colleges and universities in hiring the personnel necessary to ensure compliance with it. At the same time, academic institutions must demonstrate that they are being good stewards of the taxpayer monies they are provided, and demonstration of a positive return on investment for the appropriations they receive can go a long way in ensuring continued support. Further, because most states have a balanced budget requirement, advocates must skillfully demonstrate why higher education spending should be prioritized, as there is a finite pool of money to go around, with many competing interests demanding their share. Those looking to influence lawmakers might consider how instructive the narrative policy framework may be in crafting their message. Shanahan et al (2011) suggest that stories may be influential when proposing policy solutions. A story that presents struggling students and families as victims of high tuition and Republican lawmakers as potential heroes who can save the day by passing legislation to help ease the financial burden may be a way to generate bipartisan support in today's highly polarized political environment.

E. Summary

The findings presented in this study support further investigation into how political preferences might influence attitudes toward higher education (or vice versa) which in turn can affect voter behavior at election time. Expanding the study to additional states and collecting data from a much larger, random sample of adults may lend further support to the findings here or may uncover more nuanced trends that show not all "red" or "blue" states are the same with regard to how they manage post-secondary education. It may be possible that states with a narrow majority behave differently from ones in which one party or the other holds a strong majority that has been unchallenged for several years. Higher education advocates, including institutions of higher learning, must craft messages that will appeal to enough voters across the

political divide to influence elected officials who generally want to ensure their continued

political survival.

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Appendix A: IRB Exemption Determination

UNIVERSITY OF ARKANSAS

To:	Jason G. Ramage
From:	Douglas J Adams, Chair
	IRB Expedited Review
Date:	10/11/2022
Action:	**Exemption Granted**
Action Date:	10/11/2022
Protocol #:	2209423743
Study Title:	The Role of Partisan Politics on Support for Public Institutions of Higher Education

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Michael T Miller, Investigator

Appendix B: Survey Instrument (administered via Qualtrics)

1. Informed Consent. (Those who select 'No' will be directed to the end of survey.)

2. Politically, do you consider yourself a:

   ☐ Democrat
   ☐ Republican
   ☐ Other, please specify _____

   adapted from https://www.pewresearch.org/methods/2016/05/02/demographic-political-and-interest-profiles/

   Variable shorthand name: *demrep*

3. Recognizing that your views may vary depending on the issue, please pick the category that best describes your political views overall.

   ☐ Very liberal
   ☐ Liberal
   ☐ Moderate/middle of the road
   ☐ Conservative
   ☐ Very Conservative

   adapted from https://www.pewresearch.org/methods/2016/05/02/demographic-political-and-interest-profiles/

   Variable shorthand name: *libcon*

4. In the 2020 presidential election, if you voted, for whom did you vote? (if you did not vote, select the candidate you wanted to be elected)

   ☐ Joe Biden/Kamala Harris (Democrat)
   ☐ Donald Trump/Mike Pence (Republican)
   ☐ Other or no preference.

   Variable shorthand name: *election*

5. I think my state government uses taxpayer funds in a responsible manner.

   ☐ Strongly agree
   ☐ Agree
   ☐ Neither agree nor disagree
   ☐ Disagree

☐ Strongly disagree

adapted from https://www.pewresearch.org/politics/2022/06/06/levels-of-government-federal-state-local/
Variable shorthand name: *funds*

For the following questions, please indicate your level of agreement or disagreement, using the following choices:

☐ Strongly agree
☐ Agree
☐ Neither agree nor disagree
☐ Disagree
☐ Strongly disagree

6. A 4-year college education offers broad societal benefits.

   Variable shorthand name: *socben*

7. Families should not have to incur significant debt to pay for college.

   Variable shorthand name: *socioecon*

8. State governments should ensure that tuition costs at public colleges and universities are kept at an affordable level for the average student.

   Variable shorthand name: *tuitioncost*

9. Student loan debt is a significant problem facing graduates today.

   Variable shorthand name: *loandebt*

10. Providing adequate levels of funding for public colleges and universities in my state is an important priority for me.

    Variable shorthand name: *adfund*

11. Despite the rising costs, a 4-year college education remains a worthwhile investment for most.

    Variable shorthand name: *worth*

12. A college degree primarily benefits the person earning it, so he or she should pay most of the cost.

    Variable shorthand name: *selfpay*

13. A 4-year college education should be free to students.

    Variable shorthand name: *free*

14. Colleges and universities do a good job managing the funds they receive from the state.

    Variable shorthand name: *manage*

15. I support President Biden's decision to forgive up to $10,000 in student loan debt.

    Variable shorthand name: *forgive*

16. Colleges and universities focus less on education and more on promoting a liberal political agenda.

    Variable shorthand name: *agenda*

17. College/university employees are paid too much.

    Variable shorthand name: *pay*

18. I support offering in-state tuition to undocumented students.

    Variable shorthand name: *undocumented*

19. Please indicate where you live:

    ☐ Arkansas
    ☐ Connecticut
    ☐ Iowa
    ☐ New Mexico

    Variable shorthand name: *state*

20. Please describe the population of the community in which you live:

    ☐ 50,000 or more
    ☐ At least 25,000 but fewer than 50,000
    ☐ At least 2,500 but fewer than 25,000
    ☐ Fewer than 2,500

    Ranges from the Census Bureau:
    https://www2.census.gov/geo/pdfs/reference/GARM/Ch12GARM.pdf

    Variable shorthand name: *population*

21. Please indicate your age:

☐ 18 – 29
☐ 30 – 49
☐ 50 – 64
☐ 65+

Age brackets from:
 https://www.pewresearch.org/politics/2012/05/15/section-1-survey-comparisons-and-benchmarks/

Variable shorthand name: *age*

22. Please indicate your highest level of education completed:

☐ Less than high school diploma
☐ High school diploma
☐ Some college, no degree
☐ Associate's degree or certificate
☐ Bachelor's degree
☐ Master's degree
☐ Doctorate or Professional degree (MD, DVM, JD, etc.)

Variable shorthand name: *education*

23. Please indicate your annual household family income:

☐ < $30,000
☐ $30,000 - $74,999
☐ $75,000 - $125,000
☐ > $125,000

Income brackets adapted from: https://www.pewresearch.org/politics/2012/05/15/appendix-details-about-the-database-matching/

Variable shorthand name: *income*

Appendix C: Summary of Survey Responses

Question/ Statement #	Brief Description[1]	Response	Frequency[2]
2	Political self-identification (party) *demrep*	1 - Democrat	161
		2 - Republican	138
		3 - Other	95
3	Political self-identification (liberal-conservative *libcon*	1 - Very liberal	37
		2 - Liberal	79
		3 - Moderate/middle of the road	172
		4 - Conservative	63
		5 - Very conservative	42
4	2020 Election *election*	1 - Biden/Harris	182
		2- Trump/Pence	155
		3 - Other/no preference	57
5	Responsible use of state taxes *funds*	1 - Strongly Agree	43
		2 - Agree	100
		3 - Neither agree nor disagree	129
		4 - Disagree	82
		5 - Strongly Disagree	39
6	Societal benefits of higher ed *socben*	1 - Strongly Agree	24
		2 - Agree	33
		3 - Neither agree nor disagree	133
		4 - Disagree	145
		5 - Strongly Disagree	59
7	Incur debt *socioecon*	1 - Strongly Agree	150
		2 - Agree	134
		3 - Neither agree nor disagree	81
		4 - Disagree	20
		5 - Strongly Disagree	7
8	Tuition kept affordable *tuitioncost*	1 - Strongly Agree	182
		2 - Agree	146
		3 - Neither agree nor disagree	53
		4 - Disagree	6
		5 - Strongly Disagree	7
9	Loan debt problem *loandebt*	1 - Strongly Agree	180
		2 - Agree	137
		3 - Neither agree nor disagree	54
		4 - Disagree	13
		5 - Strongly Disagree	10
10	Provide adequate funding *adfund*	1 - Strongly Agree	93
		2 - Agree	150
		3 - Neither agree nor disagree	110
		4 - Disagree	30
		5 - Strongly Disagree	11
11	Higher ed worthwhile *worth*	1 - Strongly Agree	74
		2 - Agree	136
		3 - Neither agree nor disagree	120
		4 - Disagree	44
		5 - Strongly Disagree	19
12	Self-pay for college *selfpay*	1 - Strongly Agree	69
		2 - Agree	97

		3 - Neither agree nor disagree	128
		4 - Disagree	76
		5 - Strongly Disagree	24
13	Free tuition *free*	1 - Strongly Agree	85
		2 - Agree	65
		3 - Neither agree nor disagree	118
		4 - Disagree	74
		5 - Strongly Disagree	51
14	HIED management of funds *manage*	1 - Strongly Agree	28
		2 - Agree	74
		3 - Neither agree nor disagree	187
		4 - Disagree	73
		5 - Strongly Disagree	32
15	Support for debt forgiveness *forgive*	1 - Strongly Agree	137
		2 - Agree	96
		3 - Neither agree nor disagree	58
		4 - Disagree	39
		5 - Strongly Disagree	63
16	Promoting liberal agenda *agenda*	1 - Strongly Agree	65
		2 - Agree	101
		3 - Neither agree nor disagree	111
		4 - Disagree	61
		5 - Strongly Disagree	56
17	HIED pay too high *pay*	1 - Strongly Agree	48
		2 - Agree	61
		3 - Neither agree nor disagree	164
		4 - Disagree	91
		5 - Strongly Disagree	30
18	In-state tuition for undocumented students *undocumented*	1 - Strongly Agree	46
		2 - Agree	79
		3 - Neither agree nor disagree	118
		4 - Disagree	56
		5 - Strongly Disagree	93
19	State of Residence *state*	1 - Arkansas	109
		2 - Connecticut	119
		3 - Iowa	105
		4 - New Mexico	57
20	Population of residence *population*	1 - ≥ 50000	137
		2 - At least 25,000 but fewer than 50,000	90
		3 - At least 2,5000 but fewer than 25,000	107
		4 - Fewer than 2,500	59
21	Age of Respondent (range) *age*	1 - 18-29	81
		2 - 30-49	163
		3 - 50-64	109
		4 - 65+	41
22	Highest level of education *education*	1 - Less than high school diploma	10
		2 - High school diploma	100
		3 - Some college, no degree	83
		4 - Associate's degree/certificate	53
		5 - Bachelor's degree	101

		6 - Master's degree	38
		7 - Doctorate/Professional	9
23	Annual household income *income*	1 - < $30,000	96
		2 - $30,000 - $74,999	147
		3 - $75,000 - $125,000	82
		4 - >$125,000	69

1 - The assigned name of the variable, for analyses in R, is shown in italics.

2 – If one or more respondents did not answer a particular question, the total number of responses for that question will be less than 394.

Appendix D: Demographics Summary by State[1]

Arkansas (n=109)		
Demographic	Response	n
Population of residence *population*	1 - ≥ 50000	30
	2 - At least 25,000 but fewer than 50,000	19
	3 - At least 2,5000 but fewer than 25,000	36
	4 - Fewer than 2,500	23
Age of Respondent (range) *age*	1 - 18-29	22
	2 - 30-49	49
	3 - 50-64	27
	4 - 65+	11
Highest level of education *education*	1 - Less than high school diploma	5
	2 - High school diploma	35
	3 - Some college, no degree	25
	4 - Associate's degree/certificate	16
	5 - Bachelor's degree	16
	6 - Master's degree	11
	7 - Doctorate/Professional	1
Annual household income *income*	1 - < $30,000	32
	2 - $30,000 - $74,999	46
	3 - $75,000 - $125,000	12
	4 - >$125,000	19
Connecticut (n=119)		
Population of residence *population*	1 - ≥ 50000	38
	2 - At least 25,000 but fewer than 50,000	47
	3 - At least 2,5000 but fewer than 25,000	31
	4 - Fewer than 2,500	3
Age of Respondent (range) *age*	1 - 18-29	20
	2 - 30-49	46
	3 - 50-64	37
	4 - 65+	16
Highest level of education *education*	1 - Less than high school diploma	0
	2 - High school diploma	28
	3 - Some college, no degree	20
	4 - Associate's degree/certificate	11
	5 - Bachelor's degree	46
	6 - Master's degree	11
	7 - Doctorate/Professional	3
Annual household income *income*	1 - < $30,000	24
	2 - $30,000 - $74,999	37
	3 - $75,000 - $125,000	29
	4 - >$125,000	29
Iowa (n=105)		
Population of residence *population*	1 - ≥ 50000	39
	2 - At least 25,000 but fewer than 50,000	14
	3 - At least 2,5000 but fewer than 25,000	28
	4 - Fewer than 2,500	23
Age of Respondent (range) *age*	1 - 18-29	19
	2 - 30-49	43
	3 - 50-64	31
	4 - 65+	12
Highest level of education	1 - Less than high school diploma	1

education	2 - High school diploma	20
	3 - Some college, no degree	20
	4 - Associate's degree/certificate	20
	5 - Bachelor's degree	28
	6 - Master's degree	12
	7 - Doctorate/Professional	4
Annual household income *income*	1 - < $30,000	25
	2 - $30,000 - $74,999	38
	3 - $75,000 - $125,000	27
	4 - >$125,000	14
New Mexico (n=57)		
Population of residence *population*	1 - ≥ 50000	27
	2 - At least 25,000 but fewer than 50,000	9
	3 - At least 2,5000 but fewer than 25,000	12
	4 - Fewer than 2,500	9
Age of Respondent (range) *age*	1 - 18-29	17
	2 - 30-49	24
	3 - 50-64	14
	4 - 65+	2
Highest level of education *education*	1 - Less than high school diploma	3
	2 - High school diploma	17
	3 - Some college, no degree	18
	4 - Associate's degree/certificate	5
	5 - Bachelor's degree	9
	6 - Master's degree	4
	7 - Doctorate/Professional	1
Annual household income *income*	1 - < $30,000	14
	2 - $30,000 - $74,999	23
	3 - $75,000 - $125,000	14
	4 - >$125,000	6

1 – Four respondents did not indicate their state of residence; their demographic data are excluded from this table.

Appendix E: Models Used in R Analyses

RQ	Model[1]	Description[2,3]	R Script
1	1	Party vs. Higher Ed 1	Model1<-multinom(f.demrep1~(all IVs in Higher Ed 1)
	2	Party vs. Higher Ed 2	Model2<-multinom(f.demrep1~(all IVs in Higher Ed 2)
	3	Liberal/Conservative vs. Higher Ed 1	Model3<-lm(libcon~(all IVs in Higher Ed1))
	4	Liberal/Conservative vs. Higher Ed 2	Model4<-lm(libcon~(all IVs in Higher Ed2))
	5	2020 Election vs. Higher Ed 1	Model5<-multinom(f.election1~(all IVs in Higher Ed 1))
	6	2020 Election vs. Higher Ed 2	Model6<-multinom(f.election1~(all IVs in Higher Ed 2))
	7	Funds vs. Higher Ed 1	Model7<-lm(funds~(all IVs in Higher Ed 1))
	8	Funds vs. Higher Ed 2	Model8<-lm(funds~(all IVs in Higher Ed 2))
	9	Political Index vs. Higher Ed 1	Model9<-lm(polindex~(all IVs in Higher Ed1))
	10	Political Index vs. Higher Ed 2	Model10<-lm(polindex~(all IVs in Higher Ed2))
	11	Party vs. Higher Ed Index 1	Model11<-lm(hiedindex1~f.demrep)
	12	Party vs. Higher Ed Index 2	Model12<-lm(hiedindex2~f.demrep)
	13	Liberal/Conservative vs. Higher Ed Index 1	Model13<-lm(hiedindex1~libcon)
	14	Liberal/Conservative vs. Higher Ed Index 2	Model14<-lm(hiedindex2~libcon)
	15	Election vs. Higher Ed Index 1	Model15<-lm(hiedindex1~f.election)
	16	Election vs. Higher Ed Index 2	Model16<-lm(hiedindex2~f.election)
	17	Political Index vs. Higher Ed Index 1	Model17<-lm(hiedindex1~polindex)
	18	Political Index vs. Higher Ed Index 2	Model18<-lm(hiedindex2~polindex)
2	19	Party vs. socben	Model19<-lm(socben~f.demrep)
	20	Party vs. socioecon	Model20<-lm(socioecon~f.demrep)
	21	Party vs. tuitioncost	Model21<-lm(tuitioncost~f.demrep)
	22	Party vs. loandebt	Model22<-lm(loandebt~f.demrep)
	23	Party vs. adfund	Model23<-lm(adfund~f.demrep)
	24	Party vs. worth	Model24<-lm(worth~f.demrep)
	25	Party vs. selfpay	Model25<-lm(selfpay~f.demrep)
	26	Party vs. free	Model26<-lm(free~f.demrep)
	27	Party vs. manage	Model27<-lm(manage~f.demrep)
	28	Party vs. forgive	Model28<-lm(forgive~f.demrep)
	29	Party vs. agenda	Model29<-lm(agenda~f.demrep)
	30	Party vs. pay	Model30<-lm(pay~f.demrep)
	31	Party vs. undocumented	Model31<-lm(undocumented~f.demrep)
	32	Liberal/Conservative vs. socben	Model32<-lm(socben~libcon)
	33	Liberal/Conservative vs. socioecon	Model33<-lm(socioecon~libcon)
	34	Liberal/Conservative vs. tuitioncost	Model34<-lm(tuitioncost~libcon)
	35	Liberal/Conservative vs. loandebt	Model35<-lm(loandebt~libcon)
	36	Liberal/Conservative vs. adfund	Model36<-lm(adfund~libcon)
	37	Liberal/Conservative vs. worth	Model37<-lm(worth~libcon)
	38	Liberal/Conservative vs. selfpay	Model38<-lm(selfpay~libcon)
	39	Liberal/Conservative vs. free	Model39<-lm(free~libcon)
	40	Liberal/Conservative vs. manage	Model40<-lm(manage~libcon)
	41	Liberal/Conservative vs. forgive	Model41<-lm(forgive~libcon)
	42	Liberal/Conservative vs. agenda	Model42<-lm(agenda~libcon)
	43	Liberal/Conservative vs. pay	Model43<-lm(pay~libcon)
	44	Liberal/Conservative vs. undocumented	Model44<-lm(undocumented~libcon)
	45	Election vs. socben	Model45<-lm(socben~f.election)
	46	Election vs. socioecon	Model46<-lm(socioecon~f.election)
	47	Election vs. tuitioncost	Model47<-lm(tuitioncost~f.election)
	48	Election vs. loandebt	Model48<-lm(loandebt~f.election)
	49	Election vs. adfund	Model49<-lm(adfund~f.election)
	50	Election vs. worth	Model50<-lm(worth~f.election)
	51	Election vs. selfpay	Model51<-lm(selfpay~f.election)
	52	Election vs. free	Model52<-lm(free~f.election)
	53	Election vs. manage	Model53<-lm(manage~f.election)
	54	Election vs. forgive	Model54<-lm(forgive~f.election)

	55	Election vs. agenda	Model55<-lm(agenda~f.election)
	56	Election vs. pay	Model56<-lm(pay~f.election)
	57	Election vs. undocumented	Model57<-lm(undocumented~f.election)
3	58	State vs. Higher Ed Index 1	Model58<-lm(hiedindex1~f.state)
	59	State vs. Higher Ed Index 2	Model59<-lm(hiedindex2~f.state)
	60	Red State/Blue State vs. Higher Ed Index 1	Model60<-lm(hiedindex1~f.redblue)
	61	Red State/Blue State vs. Higher Ed Index 2	Model67<-lm(hiedindex2~f.redblue)
4	62	Population vs. Higher Ed Index 1	Model62<-lm(hiedindex1~population)
	63	Population vs. Higher Ed Index 2	Model63<-lm(hiedindex2~population)
	64	Age vs. Higher Ed Index 1	Model64<-lm(hiedindex1~age)
	65	Age vs. Higher Ed Index 2	Model65<-lm(hiedindex2~age)
	66	Education vs. Higher Ed Index 1	Model66<-lm(hiedindex1~education)
	67	Education vs. Higher Ed Index 2	Model67<-lm(hiedindex2~education)
	68	Income vs. Higher Ed Index 1	Model68<-lm(hiedindex1~income)
	69	Income vs. Higher Ed Index 2	Model69<-lm(hiedindex2~(income)

1 – Models 1, 2, 5 and 6 use Multinomial Regression; all other models use Ordinary Least Squares Regression. Variables in some models are factored rather than continuous and are indicated as "f.variable" in the R Script column.

2 – Higher Ed 1 means responses to questions 6-11, 13-15, and 18. Higher Ed 2 means responses to questions 12, 16, and 17. Political Index combines responses from question 2 – 4 (responses of "Other" coded as 0). Higher Ed index 1 sums numerical responses to questions 6-11, 13-15, and 18. Higher Ed index 2 sums numerical responses to question 12, 16, and 17.

3 – Except as where described above, description means the assigned name of the variable (see Appendix C)