

Assessing Effects of Government Funding on University Policy- An Institutional Theory Perspective

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Abstract

Over the past 80 years' university administrators have exhibited flexibility in their responses to evolving government funding patterns. One possible factor in these changes is the consequences of policy decisions at the federal and state government levels that have resulted in institution wide policy decisions in colleges and universities. These policy decisions have affected department policies and faculty member behaviors. Utilizing institutional Theory allows a discussion of the effect that government policy decisions have on responses within the Higher Education Institutions (HEIs). In this manner, Institutional Theory can be used to discuss how university administrative decisions have affected instruction in the United States—a case that can illuminate on policy and governance in HEIs across the globe and the implications these issues have on infusing critical thinking in higher education pedagogy. In the case of the US presented in this study, government funding patterns of the past 60 years have resulted in university policy decisions that have adversely affected the classroom experiences of students and created environments that do not elicit the same level of thinking from students. Being aware of the cascading effects of these patterns can help key stakeholders in universities to adjust policies to improve instruction and student thinking patterns.

Keywords: critical thinking, entrepreneurial institutional theory, faculty behavior, neoliberalism

1. Introduction

Throughout Western history, the education system has provided a setting to pass down knowledge and to create new concepts by training students to develop higher thinking concepts (Nika & Popescu, 2014). However, the evolution of information as an economic resource in the 21st century has reduced the distinction between the products of HEI instruction and research and the products of corporations (Slaughter & Rhoades, 2010). For this reason, some perceive that the policy and mission changes of HEIs as the result of external forces moving the institutions to become more like corporations (Giroux, 2015; Kandiko, 2010; Olssen, 2016). In contrast, others perceive the policy and mission changes of these institutions as the result of their active adaptations (Jaquette, 2013; Saunders, 2015; Slaughter & Rhoades, 2010). The latter perspective allows an examination of the policy and mission changes of HEIs through the lens of Institutional Theory.

The similarity of HEI function across nations indicates the interconnectedness of policies within the global market system(s). However, it is clear that changing political philosophies and societal needs in the United States of America (USA) have shaped the missions and policies of American HEIs. This underpinning provides the context for testing the applicability of institutional theory in this article. Assessing the application of institutional theoretical lens in HEIs policy and how this is affecting faculty behavior and students acquisition of critical thinking is especially significant with the increasing globalization, defined as “the accelerated movement of goods, services, capital, people and ideas across national borders” (Little & Green, 2009, p. 166), in non-western developed countries as well as developing economies. HEIs remain important spaces in the knowledge economy across the globe particularly in the fourth industrial revolution as they serve as conduits for passing knowledge, ideas, concepts and for generally developing individuals' critical thinking capabilities.

Considering that societal perceptions and expectations affect government funding of higher education, it is crucial to explore some of the policies, reforms, and practices that have an effect on the development of students

critical thinking. Funding changes have had a cascading effect of shifts in university policy and procedures while the revised faculty hiring patterns and expectations have altered how faculty members allocate their time as well as how they approached teaching. Thus, it is imperative to examine how this consequently affects students' critical thinking.

Institutional Theory can illustrate the pattern of the effects caused by these policy decisions through a review of government funding for public institutions of higher education, subsequent higher education institution policies, and the effect of these policies on faculty behavior. It can also be used to shape suggestions for future policy that might provide an environment for enhancing the critical thinking skills of higher education students. Alagaraja and Li (2015) discussed the following five perspectives of Institutional Theory for interpreting institutions behaviors and processes that result in the spreading, termination, and adoption of policies and behaviors. These perspectives are:

- The relational connections with other institutions inside and outside the institution's industry that can include the relationships between institutions of higher learning and government agencies or relevant businesses.
- The normative perspectives address responses to regulatory, statutory, or economic changes.
- The boundaries of the institution that can be altered by expansion, disruption, or renewal of the organization's vision, goals, objectives, and/or mission.
- The generative perspective is the development of entrepreneurial activities, reorganization of structures, or social media movements to create new institutional forms.
- The ethical and moral perspectives are affected by both individual and institutional actions in relation to the values within and without the institution.

These perspectives occur in response to expectations of those invested in the organization, the institutional environment, public opinion, community pressures, and professional organizations. Using these perspectives, the following research questions were addressed:

- Can Institutional Theory be used to provide a reasonable link between government funding and HEI policy in public colleges and universities in the USA?
- What is the relationship among government funding, the level of HEI policy and practices, students' critical thinking, and faculty behavior?

2. Literature Review

2.1 A Historical Review of Higher Education Funding in the USA

Since the late 19th century, public HEIs have been a segment of higher education in the USA (Saunders, 2015; Slaughter & Rhoades, 2010). At the beginning of the 20th century many new HEIs were constructed and new funding sources evolved (Eastman & Boyles, 2015). These developments created internal and external pressures on the institutions to adjust their missions and policies. In particular, expansion of academic units in the natural and social sciences occurred in institutions not under the auspices of religious organizations (Eastman & Boyles, 2015; Jaquette, 2013; Slaughter & Rhoades, 2010). The prevailing social and political philosophy of the time kept the HEIs in a unique role that was separate from industries and corporations and separate from state and federal government (Slaughter & Rhoades, 2010). In addition, the 1915 American Association of University Professors Declaration of Principles made explicit rights of higher education professors that included: Freedom of inquiry and research; Freedom of teaching within the HEIs; and Freedom of speech outside of the institutional setting (Eastman & Boyles, 2015). This declaration was amended in 1925 and 1940, with the 1940 version indicating the separation of the university from influence of the business community by differentiating education from workforce training (Eastman & Boyles, 2015).

The second half of the 20th century was a time of significant changes in higher education in the USA. For centuries, the students attending institutions of higher learning represented approximately one percent of the population of their generation and were primarily from wealthy families (Snyder, 1993). However, when the US Congress passed the Servicemen's Readjustment Act of 1944 (G.I. Bill), they changed higher education by providing federal funding for the college education of World War II veterans. This infusion of government funding created a situation wherein the veterans approximately doubled the number of students enrolled in higher education within a few years (Snyder, 1993). The prevailing philosophy of the 20th century through the 1970s was that higher education filled a social need and that government support of higher education fulfilled an important government role toward social good (Giroux, 2015; Kandiko, 2010; Olssen, 2016; Stevens, 2019).

The post-World War II democratization of higher education in the USA by the veterans was followed by increased higher education enrollments throughout the remainder of the 20th century, rising to approximately 20% of the 18 to 24-year-old cohort achieving bachelor's degrees by 1990 (Snyder, 1993). This increase in the number of higher education students changed how society viewed higher education, particularly at public institutions. A college degree had evolved from something a very small proportion of people could achieve to a goal for a much wider segment of the population.

However, economic problems in the 1970s gave rise to a market driven philosophy that has been termed neoliberalism (Giroux, 2015; Kandiko, 2010; Olssen, 2016; Saunders, 2015). Neoliberalism includes economic, social, and political policies and the intellectual constructs underlying those policies (Giroux, 2015; Kandiko, 2010; Olssen, 2016; Saunders, 2015). These ideas and policies operate at the institution and individual levels and at all levels of government. Given the scope of institutions that operate under neoliberalism ideas and policies, the term's definition varies and changes (Saunders, 2015). The consistent constructs of neoliberalism include: A belief in the market's efficiency and ability to self-regulate to create the greatest amount of wealth; Minimal government regulation of the economy; and the importance of the individual as an independent and competent consumer and investor (Giroux, 2015; Kandiko, 2010; Saunders, 2015). The term neoliberalism comes from an update of the 18th century liberal economic theory to apply to current political, social, and economic conditions (Giroux, 2015; Saunders, 2015). In neoliberal thinking, all spheres of human activity and social relations function in economic terms, with the assumption that each individual consumer will make the best personal and social decisions (Saunders, 2015).

According to neoliberal policies, as the role of the government changes; government funded or supported endeavors such as welfare, medical coverage, social security, education, and work as well as environmental safeguards are perceived as programs to be eliminated or shifted to private enterprises (Giroux, 2015; Peters et al., 2015; Saunders, 2015). Instead, the government acts to support the market and to enhance the ability of individuals and corporations to access and operate within the market (Giroux, 2015; Saunders, 2015). Also, neoliberalism assumes that all people are rational individual economic consumers and producers. All behaviors are assumed to be at their best when they are driven by cost/benefit analyses. The neoliberal perspective does not allow for social problems, only individual challenges because social solutions will restrict individual freedom (Giroux, 2015; Saunders, 2015).

As a response to the changes in higher education demographics and neoliberal philosophy, US federal and state budgets for supporting public higher education that was previously high has fallen (Ingleby, 2015; McLendon et al., 2014; Slaughter & Rhoades, 2010; Stevens, 2019). The funding reductions occurred for both general appropriations and capital funding, even though most states have separate sources for these two HEI revenue streams (Ness & Tandberg, 2013). These budgetary decisions greatly affected university funding, faculty hiring practices, and tenure and promotion criteria (Bettis et al., 2005; Serna, 2013). In response to these policy changes, faculty members changed how they allocate their time to match the new policies (Bettis et al., 2005; Milem et al., 2000). The cascading effects of these policy changes may be a factor in the current state of critical thinking skills among university students.

Since 2008, the USA economy has recovered from the Great Recession as have state and HEI revenues. The Great Recession of 2008 caused states to cut university appropriations up to 19% and endowments to private institutions decreased by up to 33% (Brint, Yoshikawa, Rotonidi, Viggiano and Maldonado 2016). However, from 2005-2006 to 2012-2013, faculty salaries increased by 5.5%, non-faculty staff sizes of universities increased by 13%, and endowments doubled (Brint et al., 2016). Brint and colleagues' (2016) survey data from 311 HEIs revealed that most of these institutions ended up physically stronger than before the Great Recession. The institutions resilience resulted from policy changes revenue distribution and other mitigation strategies in response to economic realities during the great recession including: consumer service – increased enrollments and making attending convenient; market service – thinking and acting entrepreneurially by raising tuition and increasing on-line courses; growing and greening – focusing on environmental issues and advantages of the institution; and most schools used a combination of these tools (Brint et al., 2016).

2.2 Institutional Theory

Powell and Colyvas (2008) described institutional theory as the process by which the actions of the institution mold the interests and direction of change for the overall institution, thereby influencing future actions of the leaders at all levels within the institution. They stated that each significant action or policy creates an environment that results in a new set of subsequent policies and actions. These evolving policies occur at multiple levels within the institution so that macro- and micro-institutional effects occur (Powell & Colyvas,

2008). The legislative policy changes affect the higher education institutions at the macro-institutional level. At the larger macro-institution level, higher education administrators, such as the president and provost, create policies for others to follow. Their policy changes produce an environment that causes the administrators of the micro-institution organizations within public HEIs, such as colleges, schools, and departments, to make their own policy changes. These new policies throughout all levels of the public institution of higher education can create the framework for future policies and organizational structure in the macro-institution and micro-institutions of colleges and universities (Amenta & Ramsey, 2010; Powell & Colyvas, 2008).

With each government policy change and resulting macro and micro-institution policy changes in public HEIs, the entire system adapts and redefines the policy baseline, leading to further changes. These changes generally become incorporated into future policies and form the basis for future adaptations (Burch, 2007). In this manner, institutional theory can illustrate how legislative decisions have affected the policies, procedures, and organization of public colleges and universities as institutions and the units within these institutions. The course of policy and procedure evolution may not be easily determined. Scott (2006) said that besides considering the technical work environment, features of the institutional environment, including cultural-cognitive, normative, and regulative features are significant factors and play an important role in shaping not only the organization's structure but also their future behavior.

Thus, institutional theory can be applied to the manner in which government decisions have affected the policy, procedure, and organizational decisions of public institutions of higher education in the USA. Over the past several decades, these institutions have received reduced funding from federal and state legislators and increased government scrutiny of their policies, procedures, and organization (Stensaker & Benner, 2013). During this time, the funding of higher education has gone from being a topic on the outskirts of public policy discussions to a central topic (Stensaker & Benner, 2013).

During the first few decades after World War II the US economy grew briskly and public perceptions were that higher education was an investment in economic growth for society and personal income growth for the students—a use of government funds for the benefit of all society (Giroux, 2015; Kandiko, 2010; Olssen, 2016; Stevens, 2019; Thurow, 1972). The money that federal and state governments invested in education in that era had similar economic impact as similar amounts of money invested into capital for businesses (Thurow, 1972). However, as incomes in the USA became stagnant for a large proportion of the population, the public's willingness to invest in government through taxes reduced and governments allocated smaller proportions of budgets to higher education (Piketty, 2015). In addition, neoliberalism was becoming a dominant political and social philosophy (Giroux, 2015; Kandiko, 2010; Olssen, 2016; Stevens, 2019). Neoliberalism includes the concept that higher education is an individual investment and should be financed as such thus increasing a corporate style structure in administration. Other adaptations included entrepreneurial activities such as administrative partnerships with private organizations and increased faculty focus on external grant funding for research projects. It is worth noting that neoliberalism based HEI policies have increasingly focused on economic efficiency (Saunders, 2015). Another consequence of the change to neoliberal approach was increased tuition at HEIs (Giroux, 2015; Kandino, 2010; Saunders, 2015). An additional consequence was a shift in student aid from grants to loans and student loans increase from 17% of student aid in the 1970s to 58% in 2001 (Slaughter & Rhoades, 2010).

3. Findings and Discussion

3.1 Emergence of Entrepreneurial Model and its effect on Higher Education Institutions

Increased pressures over a series of decades have led higher education institutions to shift their structures and management systems in order to maintain legitimacy within an evolving political and economic environment (Stensaker & Norgard, 2001). Writers like Giroux (1999) and Aronowitz (1998) described changes in perspectives toward HEIs expressed by government and corporate leaders in the late 1990s. These authors described the statements by government and corporate leaders for HEIs to focus their education on training skills needed for employment and for the HEIs to become more economically efficient by following a corporate model. During the late 1990s, increasing numbers of partnerships occurred between corporations and universities as well as some state funding being associated with technical training (Giroux, 1999). In addition, to increase HEI economic efficiency, there were suggestions for HEIs to increase teaching loads of faculty members (Aronowitz, 1998; Giroux, 1999). One aspect of the HEI response has been an increased focus on grant dollars as a criterion for faculty tenure, particularly in Science, Technology, Engineering, and Medical (STEM) fields (Gardner & Veliz, 2014; O'Meara, 2007). These implemented and suggested policy and procedure changes created an environment that encouraged faculty members to be more entrepreneurial and to seek independent, outside

funding through grants. This cascading chain of policy, procedure, and organizational changes follows the predictions of Institutional Theory.

A major outcome of these changes is that public institutions of higher education have become more corporate in their organization and akin to corporations for learning (Bettis et al. 2005) while the institutions and their faculty members have become more entrepreneurial (Gardner & Veliz, 2014). This corporate and entrepreneurial way of thinking has grown in during a time of reduced government funding to HEIs. These reductions have encouraged public institutions of higher education and their faculty members to find alternate funding sources and to adapt their policies and priorities (Slaughter & Rhoades, 2010; Stensaker & Benner, 2013). In response to the challenging environment, public institutions of higher education have become increasingly entrepreneurial in finding funding through grants, endowments, corporate partnerships, and increased student tuition, a response that has expanded to include an increasing number of public institutions of higher education (DiMaggio & Powell, 1983; Gardner & Veliz, 2014; Slaughter & Rhoades, 2010). HEIs administrators create these entrepreneurially based policies and encourage the colleges and departments within them to enact these policies. Thus, the college level administrators and faculty members embrace these behaviors and make them the norm for future policy decisions.

As public institutions of higher education became more entrepreneurial, they have developed policies and procedures that differ from those classically ascribed to universities (Guerrero & Urbano, 2010). This more financially focused structure of quickly translating knowledge from the university to solve real world problems may be altering institutional academic focus, administrator and faculty expectations, and student learning (Etzkowitz, 2016). With administrators and faculty members searching for extramural funding and striving to meet evolving government education policies and entrepreneurial needs, the importance and relevance of traditional academic standards has been questioned (Etzkowitz, 2016). Guerrero and Urbano (2010) stated that some institutions of higher education have become places where entrepreneurship-based knowledge is a major factor in the economic growth, employment, and the global competitiveness of the institutions.

The entrepreneurial focus has coincided with and contributed to mission and focus changes in many public institutions of higher education. These changes include the development of multiple techniques and strategies to become more competitive in comparison to other institutions of higher education around the globe (Antonicic & Hisrich, 2001). Institutional responses of HEIs have included shifts in mission in order to maintain public perception of the institution as legitimate and to be appealing to students with good grades, high test scores, and money to pay tuition (Jacquette, 2013; Slaughter & Rhoades, 2010). O'Meara (2007) and Gardner and Veliz (2014) labeled institutions that pursue prestige within the academic hierarchy as 'striving'. This drift of the mission and focus of these HEIs towards the mission and focus of institutions perceived to have more prestige represents the mimetic isomorphism in organizational fields discussed in organizational theory (DiMaggio & Powell, 1983; Morphew & Huisman, 2002). Organizational theory has been applied to academic drift in higher education for over 40 years (DiMaggio & Powell, 1983; Gardner & Veliz, 2014; Tight, 2015). Although Tight (2015) described academic drift as a self-standing theory, he also described academic drift as an example of institutional isomorphism. In his closing discussion, Tight (2015) sets academic drift as a specific example of the institutional isomorphism within organizational theory.

In addition, state governments have changed the structures of their institutions of higher education to make them more appealing to investors, making each institution more diverse in what they offer, as the administrators of the institutions worked to develop their own institutional niche (Beckert, 2010). However, the increased diversity of offerings within the institutions have blurred the missions of colleges and universities within state systems and has increased inter-institution competition within states (Beckert, 2010). These administrative and focus developments in public institutions of higher education have occurred in a setting of changing government funding criteria.

An additional pressure on public HEIs comes from state governments in the form of performance-based funding (Koebel, 2018; Ness & Tandberg, 2013). This aspect of neoliberalism requires these institutions to collect and manage data that demonstrates they are quickly and efficiently graduating students who have the appropriate knowledge and skills to enter the work force (Koebel, 2018; Saunders, 2015). These administrative and financial burdens require between 3% and 11% of an HEI's expenditures (Koebel, 2018). The expansion of federal and state regulations began in 1991 and grew out of business regulation (Koebel, 2018). Data from 2016 reveal that 32 of the states in the USA use some form of performance-based funding for their state supported HEIs; putting these institutions in a market-based competition with each other for state government resources (Ziskin et al., 2018). From these policies, statutes, and regulations the HEIs, their faculty members, and their students are held accountable by these metrics (Kandiko, 2010). This form of accountability affects the relationship between the

institutions and society, between the faculty members and HEI administration, and between students and faculty members (Kandiko, 2010). The relationships have evolved to focus more on market value and less on developing institutions, faculty members, and students who perceive higher education as a means to achieving societal improvements.

In addition, it is evident that legal decisions relative to university regulatory compliance have reinforced advantages for HEIs to maintain their own compliance programs (Koebel, 2018). Many HEIs model their compliance behavior and structure on those found at other institutions – this pattern provides legitimacy to all HEIs that use the model and can be perceived as a means to maximize government funding (Koebel, 2018; Wiseman et al., 2014; Ziskin et al., 2018). Institution Theory indicates that the HEIs would respond in this manner to the requirements for the performance data in order to maintain the perception that they adhere to the normative expectations of the government and public. Both the funding and prioritizing behaviors of state government thus provide a coercive isomorphic force on the HEIs (DiMaggio & Powell, 1983; Morphew & Huisman, 2002). Although many states have adopted performance-based funding, the outcome data do not differ from the states that provide traditional institutions funding (Hillman et al., 2015). This finding indicates that the development of generative institutional responses to the entrepreneurial pressures caused by government and societal application of neoliberal philosophy has not resulted in positive changes for the traditional mission of HEIs, to educate students.

3.2 Patterns of Federal and State Higher Education Funding

Since the Morrill Act of 1862 that created the land-grant colleges, federal and state governments in the United States have been involved in funding public universities (Edgar, 2012; Gladieux, 1995; Scott, 2006; Slaughter & Rhoades, 2010; Saunders, 2015). The G.I. bill in 1944 and the enactment of the National Defense Education Act in 1958 resulted in an increased level of federal government funding of higher education for approximately 25 years until the end of the Cold War (Edgar, 2012; Gladieux, 1995; Lebdusk, 2014; Stevens, 2019). As shown in Figure 1, by the 1970s, federal government funding reduced and the state governments began to assume an increasing proportion of the revenues provided by government to public HEIs (Gladieux, 1995; McLendon et al., 2014; U.S. Department of Education, 2017, 2022).

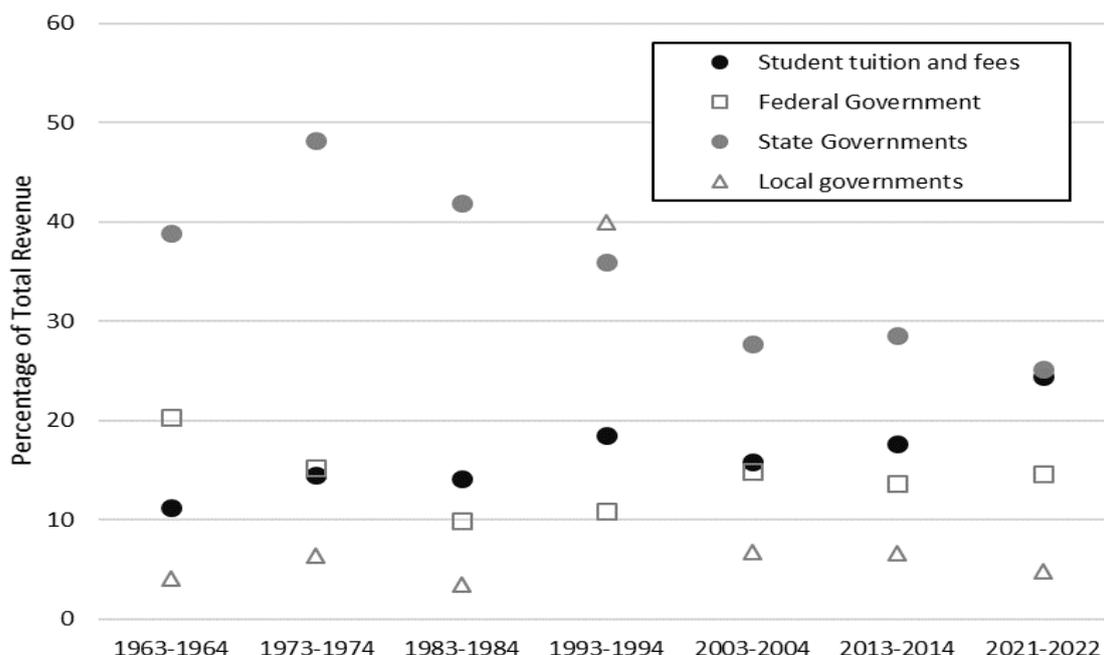


Figure 1. Percentage of public institutions of higher education revenue from student fees and US federal, state, and local governments (U.S. Department of Education, 2022)

This shift in funding and a neoliberal perspective resulted in greater concern by state legislators over how the money was being spent. As a result, state legislatures created merit-based funding, savings plans, tuition

programs, and a number of other programs and policies that influenced a number of the policies and procedures implemented by the public HEIs (Jaquette, 2013; McLendon & Perna, 2014; Ness & Tandberg, 2013; Tandberg & Hillman, 2014; Ziskin et al., 2018). As discussed in Institutional Theory, the decisions of the state legislatures affected the policies and procedures of the HEIs through coercive isomorphism.

The National Center for Education Statistics tables provide USA higher education data across a variety of years. To view funding trends across 50 years, one year from each decade was selected. The data from the selected tables indicate that funding in higher education has shifted since the 1960s, with reductions in federal and state funding and little change in local government funding (U. S. Department of Education, 2017, 2022). The data from the 1963-1964 school year to the 2021-2022 school year indicate that the percentage of average revenue to public institutions of higher education coming from student tuition and fees rose from 11.2% to 24.4%. Over the same period, the percentage of public institution revenue from the federal government, including grants, fell from 20.4% to 14.6%. Similarly, the percentage of public institution revenue from state governments, including grants, fell from 38.8%, to 25.2%. Finally, the percentage of public institution revenue from local governments remained fairly constant during this period, starting at 4.1% and ending at 4.8%. The greatest declines in government funding occurred from 2002-2012, when state financial allocations for public higher education revenue across 48 states declined from an average of 27% to 21% (Dunn, 2015; Stevens, 2019). Data on general fund and other state fund expenditures for higher education reveal that only six states, Illinois, Michigan, Missouri, New Hampshire, Ohio, Oregon, and Pennsylvania, maintained at least 90% of their higher education expenditures from 2001 to 2021 (National Association of State Budget Officers, 2002, 2012, 2022). In contrast, these data show that 15 states, Arizona, Georgia, Iowa, Kentucky, Mississippi, Montana, New Jersey, North Dakota, Oklahoma, Rhode Island, South Carolina, South Dakota, Tennessee, Utah, and Virginia, reduced their higher education expenditures during this time period by at least 50% (National Association of State Budget Officers, 2002, 2012, 2022).

Given the strong decrease in state funding, mild decrease in federal funding and the steady rate of other funding, public universities needed to search for funding; in the process, universities adapted their policies to appeal to the agenda of the government and extramural funding sources (Alagaraja & Li, 2015; Bettis et al., 2005; Ziskin et al., 2018). In fact, the percentage of total funding for public higher education institutions represented by the combination of student tuition and fees and all levels of government fell from 63.3% and 69.8% in the 60s and 70s to 44.6% in 2022. This drop in the percentage of funding from traditional sources created the need for university administrators and faculty to develop entrepreneurial strategies in order to fully fund their institutions. HEI adaptations to this system include technology transfer centers, research centers, and patent centers (Slaughter & Rhoades, 2010; Ziskin et al., 2018).

Table 1. Current-fund revenue of public institutions of higher education by year in thousands of dollars

Source	1963-1964	1973-1974	1983-1984	1993-1994	2003-2004	2013-2014	2020-2021
Tuition and fees from students	601,100	2,734,731	8,123,318	20,825,388	35,150,615	48,070,012	74,372,560
Federal Government	1,027,600	2,872,402	5,719,603	12,252,891	33,053,729	37,395,005	44,561,105
State Governments	2,084,500	9,117,429	24,157,316	40,536,393	61,417,171	78,116,162	76,603,657
Local governments	220,000	1,199,621	1,984,184	4,508,603	14,888,345	18,196,103	14,587,059
Capital Appropriations					4,808,048	7,578,049	6,078,738
Endowment earnings	27,400	89,238	315,109	639,343	8,159,155	6,412,426	5,479,989
Private gifts and grants	116,300	502,639	4,671,987	4,521,452	7,340,712	9,161,088	9,494,392
Other educational and general revenue	319,700	1,504,263	1,362,205	3,067,638	19,608,284	21,333,928	27,354,697
Auxiliary enterprise revenue	904,700	872,135	11,263,071	26,404,242	37,495,229	46,846,534	45,655,824
Total Revenue	5,301,300	18,892,458	57,596,793	112,755,950	221,921,288	273,109,307	304,188,020

Source: Author's own, based on U. S. Department of Education

With university policy actors focusing on the agendas of state legislatures, federal agencies, and extramural funding sources, the administrators and faculty at public HEIs became more business-like in their operations, and developed more efficient management policies and procedures (Olssen, 2016; Saunders, 2015). HEIs responded to the Great Recession in a variety of ways; for example, large public universities adapted by using enrollment growth, tuition increases, and recruitment of out-of-state and international students (Brint et al., 2016). In addition, these changes have led HEI administrators to use grant-funded research activity and the increased use of adjunct professors, graduate students, and part-time faculty to teach classes as methods to reduce institution costs (Bettis et al., 2005; Saunders, 2015; Slaughter & Rhoades, 2010). These institution level policy changes have resulted in public HEIs changing the composition of their faculty and changing tenure criteria.

3.3 University Policy Effects on Faculty Status, Tenure, and Faculty Time Allocation

With decreasing state funding, many public institutions of higher education have altered their policies regarding faculty hiring and tenure criteria, resulting in a lower proportion of tenure-track faculty members (Giroux, 2015; Olssen, 2016; Serna, 2013). One of the consequences from this change has been the increased proportion of part-time and adjunct faculty members, particularly in the humanities and fine arts (Saunders, 2015). For instance, in 1969, 49.6% of faculty were employed as regular faculty with tenure in universities (National Center for Education Statistics, 1971). However, by 2011 the percentage of tenured faculty members decreased to 29% (Figlio et al., 2015) and has been relatively steady at 28% in 2017 (Chronicle of Higher Education, 2019). The decrease in the percentage of tenured faculty has had an effect on learning outcomes and shared governance tasks as demonstrated from a survey of HEI deans conducted by Kezar and Gehrke (2014). These HEI deans indicated that non-tenure-track faculty tend to have less time to meet with students and reduce the number of faculty members available for necessary shared governance tasks (Kezar & Gehrke, 2014). In addition, the deans reported that having a large proportion of non-tenure-track faculty members limits creativity in the curricular design and that it would be more ideal to have no more than 25% of the faculty members hired as non-tenure-track (Kezar & Gehrke, 2014). However, these HEI administrators operate in the manner similar to administrators at other institutions to maintain legitimacy with their peers and to demonstrate their ability to operate efficiently to the government and outside supporters (Kandiko, 2010).

Beyond the lower proportion of tenure-track faculty members, the proportion of full-time faculty members is also lower across various institutions. In 1964 approximately 67% of faculty members were full-time instructors (U. S. Department of Education 1965). As shown in Figure 2, this number increased to 70.3% in 1974 and then decreased to 65.1% by 1984, to 58.9% by 1994, to 55.4% by 2004, and to 53.2% by 2014 (U. S. Department of Education, 1975; 1987; 1995; 2005; 2017). The proportion of full-time faculty members became equal to the part-time faculty in 2011, but has increased in the past few years (U. S. Department of Education, 2017). However, considering that the majority of higher education faculty members have part-time appointments (Murray, 2019), these faculty members spend less time interacting with students and tend to have lower expectations for student performance than full-time tenure-track faculty members (Kandiko, 2010). These findings indicate that the policy of institutions of higher education has shifted away from having full-time, tenure-track faculty members. From an entrepreneurial model perspective, these trends reveal that universities can offer a greater number of courses without the budget effects of employing full-time tenure-track faculty members (Kaniko, 2010; Murray, 2019). However, these institutional changes have an impact on learning outcomes as the part-time faculty members, who are almost all non-tenure-track, engage in the less effective pedagogical methods as reported by Kezar and Gehrke (2014) thus consequently reducing the quality of student learning (American Association of University Professors, 2014).

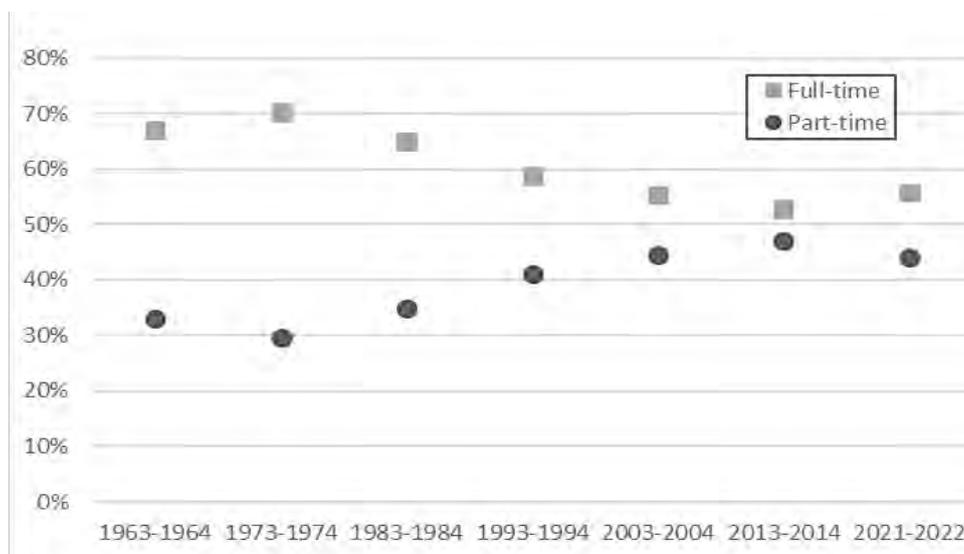


Figure 2. Percentages of higher education faculty members who were full-time and part-time across decades (U.S. Department of Education, 2022)

In addition to the policy shift concerning the proportion of full-time, tenure-track faculty members, the criteria used for granting tenure to faculty members has changed over the past fifty years. In 1968, Wilcox (1973) surveyed over 300 college and university English departments and found that only 35.4% of the English departments used written scholarship as a primary or secondary tenure criterion, with teaching performance as the primary criterion. A subsequent survey of English departments in 2006 found that over 75% of the departments responded that written scholarship was a primary criterion for earning tenure (Stanton et al., 2007). Thus, teaching has lost a central role in tenure decisions concerning faculty members and the changes in tenure criteria make it more difficult for some faculty members to obtain tenure (Carter, 2012; Leslie, 1998).

One consequence of these policy changes at the department levels is that those who obtain tenure must structure their work schedule to reduce teaching time and increase research time (Bettis et al., 2005; Saunders, 2015). Since current HEI faculty are evaluated based on their capacity to secure grants and implementing those grants creates additional responsibilities, these faculty members have less time for teaching and mentoring students (Eastman & Boyles, 2015; Kandiko, 2010; Saunders, 2015). Education under these conditions results in citizens who are less skilled at self-critical reflection (Eastman & Boyles, 2015). The aforementioned changes in faculty hiring indicate that the public HEIs have shifted their policies and procedures in response to governmental funding pressures and are adapting to the entrepreneurial model.

To address the aforementioned funding challenges, more entrepreneurial university policies have been formulated to encourage faculty members to participate in research and apply for grant funding (Bettis et al., 2005; McLendon et al., 2014). Notably, to accommodate the increased pressures to generate outside funding via research grants, course loads for tenure-track faculty members have been reduced. These tenure-track faculty members spend less time advising students, assigning long papers, and assessing students through essay exams, as many recognize that their research has greater weight when they undergo tenure review (Bettis et al., 2005; Eastman & Boyles, 2015; Kandiko, 2010; Massy & Zemsky, 1994; Milem et al., 2000; Slaughter & Rhoades, 2010). Because increased research activity is associated with higher rankings and increased private and federal grant money, the focus on additional research has extended to the middle and lower level institutions of higher education (Jaquette, 2013; Milem et al., 2000). The reduction in time focused towards lesson planning, meeting with students, and encouraging reflective thinking can affect students by providing fewer opportunities for engaging in critical thinking activities. Thus, the reduced time spent by faculty on teaching as a response to higher education policies and funding model changes at the institution and department levels may be a factor associated with poorer students critical thinking ability. A consequence of the reduced time spent on assignments and assessments might help develop critical thinking skills and reduced time allowed for teacher-student interactions such as mentoring (Eastman & Boyles, 2015; Massy & Zemsky, 1994; Milem et al., 2000).

Historically, there was little precision in the evaluation of faculty members' classroom activities (Singell et al., 1996). However, by the end of the 1940s, many changes in college teaching were occurring. For example, the teaching of English composition evolved from discussions of grammar and writing on obscure topics in the first half of the 20th century to writing that was relevant to the interests of the students (Lebduska, 2014). This change can be viewed as an effect of the sudden increase in higher education enrollment that the G.I. Bill had on higher education faculty, a trend that has continued into the 21st century. Although many faculty members were overworked due to the sudden and large increase in the number of students, they felt it was their duty to honor the service of the veterans in their classrooms (Lebduska, 2014). Thus, the faculty members changed the structure of their courses to accommodate the larger enrollments in their courses.

More recent macro-institution and micro-institution policies in HEIs may affect faculty-student interactions during class and student critical thinking skills. Faculty members who are non-tenure-track and/or part-time employees of the institution fear the chance of being dismissed over a class discussion (Stancato, 2000). These adjunct and part-time faculty members have awareness that their employment is tenuous, an intellectually limiting situation (Eastman & Boyles, 2015). Stancato (2000) stated that many faculty members are reluctant to engage in discussion of certain topics, as these topics can be controversial. However, these topics might facilitate critical thinking skills as they would require the students to evaluate the topics and the reasons for their opinions. Faculty members who wish to facilitate the ability to analyze current issues or emotionally charged issues fear doing so without the security of tenure or a full-time appointment. They must only analyze socially acceptable topics, avoiding controversy. However, many faculty members believe that this takes away from the student's chance to learn and to discuss important topics (Stancato, 2000).

The rising tuition and loan amounts of students has been accompanied by a change in what they perceive as the purpose of higher education. They have become less focused on learning, challenging themselves to think differently, challenging their own beliefs, or exploring academic content not in their perceived work direction

(Saunders 2015). Saunders (2015) reported that student goals of higher education have shifted over the past 50 years. Consistent with a neoliberal philosophy, 21st century higher education students report less support for government action to allay social and economic issues (Saunders, 2015). This priority shift has been accompanied by a reduction in liberal arts and teaching program enrollments as students select higher education majors that they perceive as most individually beneficial, such as business and health professions (U.S. Department of Education, 2019).

3.4 Alternate Reasoning behind the Reduced Critical Thinking Skills of College and University Students

A focus of this paper is the use of institution theory to illustrate the chain of policy decisions that may contribute to changes in college students' critical thinking skills. The chain has been traced from the federal and state governments to public HEIs at the macro and micro-institution levels to faculty member decisions on how to use their time and how to teach their courses. However, other contributing factors to these thinking skills changes is a limitation of this study thus need to be acknowledged. One potential factor is the effect of technology on how people organize their thinking and solve problems. Carr (2011) said that although the internet has led to an era of easy access to a wide array of information and to opportunities to participate in social conversation around the world, some perceive that it is ushering in a new age of mediocrity and the beginning of the "dumbing down" of intelligence. Carr (2011) indicated that what people identify as information within a set of media content has been altered by the technology used to present the content. He builds on Marshall McLuhan's (1964) iconic statement that "The medium is the message". In this aphorism, McLuhan (1964) stated that the route the message takes is becoming more important and influential than the information itself. Building on this foundation, Carr (2011) stated that the abundance of video content and headlines that serve as image captions available via digital content providers such as YouTube and Facebook can be construed as information, even if there is little to no informative content present. Thus, the reader/observer's perspective is shaped by the image and headline without the substance needed to create a rational opinion on the topic. In fact, the videos may have underlying political messages that the observer does not process while agreeing with the opinions stated in the video (Bowyer et al., 2017).

Taking these perceptions and concerns regarding information available on the internet and through social media, we can apply them to a deeper understanding of technology, education, and critical thinking skills. Studies have reported the benefits of use of technology in school settings to improve communication and learning, such as Schmid's (2008) analysis of the potential benefits of using multimedia in the classroom. However, we must especially be aware of those raised with these technological innovations as part of their educational environments, such as millennials and coming generations, and the effect of these internet and social media intense education experiences (Schmid, 2008). In a recent study, experimenters had subjects from different generations participate in online courses as part of a health science program (Ransdell et al., 2011). The groups of participants included people who were millennials, generation x, and both younger and older baby boomers. The millennials, who were defined as digital natives because of their regular exposure to on-line technology throughout their lifetime, exhibited the greatest reliance on other students to process the material and the poorest ability to apply the skills being taught. The older generations exhibited interactive participation with the websites used for the courses, and better skill at applying the skills taught to new situations (Ransdell et al., 2011).

To relate these results back to the topic of interest, it can be said that the application of knowledge in decision-making and/or problem solving can be thought of as a critical thinking skill (Ennis, 1985). The ability of those of an older generation to better apply the learned knowledge to an environment outside the context it was taught can be an illustration of their learning style that was not surrounded and supported by the technological innovations of the internet and social media which provide answers to most questions at the click of a button. The younger participants in Ransdell et al.'s (2011) study exhibited less ability to apply their knowledge in a general sense and to think critically. This result may be a consequence of their reliance on and acceptance of content provided by the internet and social media to shape their thinking. Thus, the differences in how the people in these age cohorts learn is an important aspect of the strategies they used and the ways that they applied their knowledge to decision making and problem solving.

4. Conclusion and Policy Recommendations

Per the concepts of institutional theory, changes to the system and its procedures will change future institution policies. An awareness of the effects of policy, procedure, and organization changes through the hierarchical chain from federal and state governments down to the macro- and micro-institutions of universities, and finally to faculty member behaviors on the critical thinking of students can provide a means of reviewing these changes and proposing new directions for addressing the critical thinking issue within HEIs. If the previously stated

changes in government and higher education institution policies, procedures, and organization could have a negative effect, then alterations in those policies may provide a means to enhance critical thinking in students. Developing these types of policies benefiting critical thinking is necessary, as critical thinking is imperative to the functioning of the modern economic world (Smith & Stitts, 2013). However, establishing causal relationship between the decreased funding and HEI hiring policies on students critical thinking is a major limitation of the current study that needs to be demonstrated in future studies.

As noted by Upton and Warshaw (2017), universities need to promote the teaching of critical thinking skills as a component of the core mission of the university. Promoting these skills need not be viewed as trying to recreate some previous version of higher education or as antithetical to contemporary higher education missions and goals. The entrepreneurial aspect of contemporary institutions of higher education requires future administrators and faculty members to have the skeptical reasoning, decision making, and problem-solving processes that are developed by critical thinkers. Thus, forward thinking administrators of institutions of higher education with a history of extensive external grant funding should promote the development and hiring of faculty members who can effectively teach these critical thinking skills.

Therefore, administrators at public institutions of higher education need to develop policies and procedures at the macro-institution level that will encourage micro-institution policies and procedures that reward these instruction skills in faculty members with full-time positions and make them a basis for accruing tenure. In this manner, Institutional Theory predicts that the new policies will become the basis for future ones and these policy changes may lead to faculty member behaviors that will create better learning environments for students. Also, since potential employers of HEI graduates have expressed the need for workers who exhibit strong critical thinking skills, the perception of HEIs as vital social institutions by these external forces will be enhanced. This enhanced perception may be a force that alters government policy and statutes that affect public so that they provide more support to public HEIs. If the neoliberal philosophy is maintained, it is possible that demonstrate increased critical thinking skills among students will be added to the metrics used to determine funding levels for public HEIs. However, these institutional level changes at the government and school level may be perceived by the legislators as a tool to boost the state's economy. As Burch (2007) stated, in this manner the new set of policies and procedures at both the government and institution of higher learning levels will incorporate an environment for the enhancement of critical thinking in the policies and procedures that will be generated in the future.

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