




Disinvestment in Higher Education and its Impact on Society: Case of Illinois Public Universities

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Abstract

This research analyzed the disinvestment in higher education in Illinois. This study is an exploratory case study based on interviews with eleven Presidents, Vice Presidents, and Associate Vice Presidents of Enrollment Management from nine Illinois public universities, qualitative analysis, and secondary data. This study revealed four main themes: the challenges in public universities due to disinvestment in higher education, students migrating outside Illinois, the importance of AIM HIGH Grants, and increased creativity in recruiting students by admissions departments. Disinvestment in higher education had the following impacts: increased tuition, diminished enrollment of students, students migrating outside Illinois, deferred maintenance, loss of talented faculty, and reduction of capital projects.

Keywords Disinvestment in higher education · Higher education funding · Public universities · Qualitative study

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Introduction

The findings by Penn Graduate School of Education (2019) indicate that states' disinvestment in higher education "shocks students experience in college have long-lasting impacts on their life outcomes into their mid-30s" (p.1). Among students whose first college is a four-year institution, state appropriation decreases during college lead to a higher probability of having any student loan debt, higher student debt balances, lower credit scores, and decreased likelihood of owning a car and a home. This is common problem of public university not only in the US but also in many countries.

What has received little attention in the literature, however, is whether changes in state higher education funding can directly affect student outcomes, diminish enrollment of students, led students to migrate outside Illinois, defer maintenance and reduce capital projects. The answer to this question has direct policy importance since state appropriations is a policy tool that state policymakers can directly change through the budgeting process.

After the 2008 fiscal crisis, the majority of states cut back their direct investment in public universities and colleges. The State of Illinois had deep budget cuts for public universities. When accounting for inflation, the public university operations funding for FY2018 was less than half of what it was in Fiscal Year 2002 in Illinois (\$736 million in 2018 relative to \$1.5 billion in 2002) (The Civic Federation, 2021). According to Illinois Board of Higher Education (IBHE) (2021), FY2002 was the highest year for state appropriation support for Illinois public universities (\$1.5 billion). Since Fiscal Year 2010, state support for public universities has continued to steadily decline. The state appropriations to public universities from 2010 to 2017 decreased by 22.8%. IBHE reported that General Funds provided around 33% of public university revenue in FY2019, compared with 72% in FY2002 (The Civic Federation, 2021). The public universities cut expenses by 4.5% from 2002 to 2019 (IBHE, 2021).

Between 2004 and 2005 and 2014–2015, per student revenues at public four-year institutions from federal, state, and local governments declined by \$2,280 (\$1,720 in appropriations and \$560 in other government funding) in average in the USA (Baum et al., 2018). According to State Higher Education Executive Officers (2017), Illinois had the highest decrease (-\$4,026) in state and local funding per student from 2005 to 2006 to 2015–2016 (Baum et al., 2018). In comparison, during this period, Wyoming had an increase (\$6,582) in state and local funding per student.

Declining state support for public universities in Illinois has contributed to their increased reliance on revenues from student tuition and fees. In FY2002, University Income Funds (UIF) provided around 28% of the total public university revenue. UIF constituted 62% in FY 2017 and 67% in FY 2019. Between FY2010 and Fiscal Year 2017 the weighted tuition for Illinois public universities increased by 40.9%, or slightly more than 5.8% a year on average, which was well above Consumer Price Index (CPI) (average of 1.7% a year) (IBHE, 2021). As a result of decreasing of state funding, Illinois had the highest increase (\$3,081) in net tuition revenue per student in period from 2005 to 2006 to 2015–2016 (Baum et al., 2018, p.13). The College Board (2020) reported that Illinois' average tuition and fees for in-state students were the fourth highest in the U.S. in the 2020–2021 school year.

As a result of these high tuition and fees for in-state students, 48% of all Illinois high school graduates attending four-year colleges chose to leave the state for school in 2018 (Roman, 2019). Public universities in other states have used these tuition increases as a marketing strategy towards middle-class families in Illinois to persuade them to send their children to a public university outside of Illinois. Therefore, state universities in Illinois lose potential students to other public universities in surrounding states such as Missouri and Iowa. Once students leave Illinois to attend colleges and universities in either Indiana or Wisconsin, they usually do not return to their home state of Illinois.

The purpose of this study was to analyze the disinvestment in higher education and its impact on society based on analysis of Illinois public universities. This study is an exploratory case study based on qualitative method seeking to set a hypothesis about the incidence of a reduction of State fund to public universities on student enrollment. Thus, the hypothesis raised by the article may later be proved or disproved by a quantitative study. This study had the following research questions: (1) What influence had the disinvestment in higher education on society; (2) How has the disinvestment in higher education impacted university's capital infrastructure, retaining of faculty, college enrollment level, and institutions' enrollment strategies?

Eleven Presidents, Vice Presidents, and Associate Vice Presidents of Enrollment Management from nine Illinois public universities (out of total twelve Illinois public universities) participated in this qualitative study. They provided their opinion on changes in funding of their public university and how it affected the university's capital infrastructure, faculty retention, college enrollment, and equity issues. Furthermore, this study highlighted their strategies to persuade middle-class families in Illinois to send their children to a public university in Illinois versus attending a public university in another state. In addition, we analyzed what strategies public universities are using to recruit students to pursue their education at an Illinois public university. The official documents, archival data, and published and unpublished works have been reviewed as sources of data collection and they have supplemented the interview data.

Overall, the study contributes to the public administration scholarship and advances the literature on how to resolve the problems of disinvestment in higher education and students' migrating outside Illinois. The first policy implication of the study is the fact that these problems could be addressed through improvements of state funding strategy. The second policy implication of the study is the need for addressing equity in funding models of higher education. Improvement in state higher education funding could help in eliminating disparities for low income and first-generation college students and providing incentives for institutions to improve enrollment equity.

Literature Review

State Funding of Higher Education

Many researchers proved the importance of state funding on higher education and identified the factors that explained variations in state funding support (Edirisooriya,

2003; Humphreys, 2000; Kane et al., 2005; Martire, 2019; McLendon, 2003; McLendon et al., 2009; Smith, 2014; Tandberg, 2010; Weerts & Ronca, 2006) found the following constraints of states to provide appropriations for postsecondary institutions: demographic, economic, structural conditions, including unemployment levels, enrollment trends, population size, and the extent of the states' private higher-education resources. Economic conditions and the business cycle influence the appropriations for postsecondary institutions (Humphreys, 2000; Kane & Orszag, 2003; Lisytukin et al., 2022; McLendon et al., 2009). Tandberg (2010) showed that interest groups play an influential role in decision making for state expenditures for higher education.

Cutback Management Theory

Cutback management theory is relevant for this study. From its earliest origins in the 1970s, cutback management theory has focused on government response to economic declines and tactics used to manage cutbacks. Research on cutback management largely draws upon Charles H. Levine's 1978 study on "Organizational Decline and Cutback Management". Levine (1978) lays out the main administrative "methods" for cutback management: (1) "stretching the budget" to get through the fiscal year, (2) "rationing demands" by limiting service or charging fees, (3) "selective withdrawal" by redrawing geographic divisions of the organization or terminating specific programs, (4) "retrenchment" by permanently altering the structure, programs, and staffing of the organizations, (5) cutting programs based on low productivity, and (6) cutting personnel according to seniority or engaging in hiring freezes. Cutback management was not intended to be a budgetary system, rather, it is a process. Its objective is to fuse political-economic realities with management strategies that reestablish in the public mind the value of public-sector programs and services. Many scholars analyzed general cutback strategies, such as hiring freezes, pay freezes, furloughs, layoffs, travel restrictions, space utilization, and across-the-board cuts (Behn, 1985; Bowling & Burke, 2006; Guzman & Ermasova, 2022; Klase & Dougherty, 2008; Scorcone & Plerhoples, 2010; Thurmaier & Gosling 2008). According to Guzman & Ermasova (2022), "the first and most painful step in every fiscal stress situation was the dramatic cut in expenditures that consequently resulted in downsizing and delays in provision of essential services for the residents and diminishing quality of life" (p.324).

Levine et al., (1981) proposed the administrative response model of cutback management, where the cutback management process begins with broad, across-the-board cuts and then moves onto elimination of targeted programs and major budget reductions as the severity of revenue restrictions increases. Finally, Levine, Rubin and Willoughby (2009) concluded that the choice of the cutback strategies depends on economic circumstances, as expected due to fiscal pressure and resulting administrative responses.

Negative Consequences of Disinvestment in Higher Education

The ability of higher education to deliver on its promised benefits is determined by the fiscal resources of the universities and colleges (Deming & Walters, 2017; Goldin & Katz, 1998; Hanson, 2021; Heller, 1999; Koshal & Koshal, 2000; Tandberg & Laderman, 2018; Volkwein, 1989; Webber, 2017; Zhang, 2009) found that an institution's financial resources had a relatively large impact on degree completion at two-year and four-year public institutions. Zhao (2019) found "strong evidence of the negative effects of state appropriation cuts in the areas of tuition and fees, student financial aid, instructional and other school expenditures, and degree completion" (p.1). Penn Graduate School of Education (2019) highlights "the role played by declining state appropriations in increasing inequality and stratification of outcomes in the postsecondary sector" (p.2).

Lisyutkin et al., (2022) analyzed the patterns, and possible causes and consequences of public universities decline across nations in general and Russian Federation in particular. Lisyutkin et al., (2022) pointed out.

decline in public higher education systems is a common feature across the Western and developing nations as well as Russia. It is further argued that this global decline was, and still is to a great extent, triggered by a worldwide marketization of the higher education systems, sweeping privatization, and ideological conservative economic theory of market supremacy that led to the major shrinkage of public sectors' resources and even deinstitutionalization of public institutions (p.157).

Many scholars proved that governments support public higher education because it produces many public benefits that would be undersupplied if only private institutions provided opportunities to pursue and earn postsecondary degrees (Broadbent et al., 2007; Glaeser & Saez, 2004; Moretti, 2004a; Moretti, 2004b; Rosenthal & Strange, 2008, Zhao, 2017, 2019). The researchers demonstrated the following benefits from public universities that are particularly valuable to society: (1) college graduates share their knowledge and skills with coworkers, which increases those coworkers' productivity and wages (Glaeser & Saez, 2004; Moretti, 2004a, b; Rosenthal & Strange, 2008), (2) cities with a larger share of college-educated people experience greater employment growth (Simon, 1998; Simon & Nardinelli, 2002; Shapiro, 2006), (3) a positive net return for governments (Trostel, 2010), and (4) positive spillovers from university-based research and innovations for private industry (Zhao, 2019; Kelderman, 2012) suggested that many people look to higher education as a way to increase their personal economic status and by dropping funds for higher education many states impart the burden of paying for college on students. Trostel (2010) suggested that on average, people with higher educational attainment earn higher incomes and pay more taxes than do people with lower educational attainment, they are less likely to rely on public assistance or to commit violent crimes.

Many scholars analyzed the current higher education funding and demonstrated a very large range in the shares that different countries assign to the public and private sectors (Kolodner, 2018a,b; Serna & Harris, 2014; Ward et al., 2020a,b; Wolanin

2015; Zhang, 2009). In the USA, four-year institutions have the three largest revenue sources: tuition and fees (20%), government appropriations (18%), and sales and services from hospitals (15%) (Ward, 2020b). The average among OECD countries is 20% of total expenditures for higher education from private payments. Wolanin (2015) provided that example of Korea where 84% of the total expenditures for higher education come from private payments and only 6% from the public sector. In contrast, “in Denmark 0.5% of the total expenditures for higher education come from the private sector and 99.5% from the public sector” (Wolanin, 2015, p.9).

In the USA, each state has a unique strategy for allocating resources to higher education, that typically include one or more of the following approaches: incremental funding, formula funding, and performance-based funding (Ward et al., 2020a,b). Only few states have higher education funding approaches that allocate funds based on the characteristics of the students enrolled or that account for student needs in determining funding levels (Ward et al., 2020b).

Many countries address equity in their own funding models of higher education. Salmi (2018) found that many countries include generalized goals focused on equity: of 71 countries, 58 countries had target goals related to students with disabilities, 57 had goals for low-income students, 43 had goals based on gender, and 40 had goals for minority groups. USA should focus on eliminating disparities for low income and first-generation college students, providing incentives for institutions to improve enrollment equity, promoting economic activity and innovation through the universities’ activities (The Civic Federation, 2021).

The higher education funding should have the following goals: (1) the equity goal to close the gap for students who have been left behind, (2) the sustainability goal is focused on the financial future of both students and institutions, and (3) the growth goal includes investing in talent and innovation to drive the State’s economic development (The Civic Federation, 2021). The disinvestment in higher education limits the fulfillment of these goals. The researchers demonstrated the following negative consequences of disinvestment in higher education: (1) increased unaffordability of public universities, (2) an explosion of student-loan debt (Baylor, 2014; Hanson, 2021), (3) increased tuition (College Board, 2020; Robinson, 2018; Webber 2017), and (4) decrease of share of young Americans (from 25 to 34 years old) with postsecondary credentials (Organization for Economic Co-Operation and Development (OECD), 2014). Webber (2017) estimated a pass-through rate from cuts in state appropriations to increases in tuition and fee revenue of between 25 and 30%. Hanson (2021) demonstrated that total national students loan balance increased from \$0.33 trillion in 2003 to \$1.7 trillion in 2020. From 2008 to 2013, annual borrowing per student increased by a median of \$1,285 (Center for Education Statistics, 2014).

Higher Education Funding in Illinois

In FY 2002, Illinois state appropriations for Higher Education accounted for 72% of total university revenue (Robinson, 2018). Around 28% of funding was derived from University Income Funds (UIF), primarily tuition and fees. By FY 2010, the relation-

ship between state appropriations and University Income Funds had reached parity, with 49% general revenue and 51% University Income Funds (Robinson, 2018).

The 2015–2017 budget impasse has been cited as the source of Illinois' financial difficulties, but a history of fiscal issues has also contributed (Dabrowski & Klinger, 2020; Mendoza, 2018). The budget impasses impacted several areas of public programs and services. Shields (2017) discussed three critical effects of the financial crisis. First, the state of Illinois and several Illinois public institutions' credit ratings were downgraded almost to "junk" bond rating. Second, several education programs and services had to be postponed. Third, the state's total amount of debt tripled. Tuition and fees at Illinois public institutions have increased while operating revenue has decreased (Illinois Board of Higher Education, 2018).

The budget impasse led the state to appropriate only 30% of its fiscal year 2015 to Illinois public universities in FY 2016. As a result, public university appropriations for the FY 2018 were cut 10% relative to the FY 2017 final appropriations (Robinson, 2018). The budget impasse has left public universities operating without state funding or reimbursement for MAP grant dollars, which is money currently being fronted for students by some universities with the expectation of reimbursement by the state. For example, the delayed appropriation and the student MAP money total \$27 million in unrecovered funds for Governors State University (Banks, 2016). In FY 2017, general funds accounted for 37.8% of public university revenue, with University Income Funds (UIF) covering the remaining 62.2% (Robinson, 2018). Table 1 provides the comparison analysis of public universities' actual appropriations in 2002 and 2020. State support for public universities has continued to decline since the FY 2002 (as measured by state appropriation support), and dependence on tuition and fees as a revenue source has increased (Table 1).

Eastern Illinois University and University of Illinois have the highest decline in Illinois State support (32.2% & 32.3% respectively). Also, Western Illinois University had the large decline of Illinois State support (30.5%), whereas Chicago State University had the lowest decline (16.1%) (Table 1).

The state appropriations make it possible for colleges to provide essential academic services, social-emotional support, and services and provide aid to students to improve and increase completion rates (Lightford, 2021). The Illinois General Assembly, when appropriating funds for Higher Education, members of the legislature use FY 2002 appropriations as the foundation level and then either increase or decrease appropriations depending on Illinois financial outlook for the upcoming fiscal year considering FY 2002 funding levels. The state funds covered 72% of public university costs versus 28% from tuition and fees. Compared to FY 2020, the state covering 35.6% versus 64.4% from tuition and fees. In addition, having consistent state appropriations will have help Admissions Departments at public universities recruit more students.

Increased Tuition and Fees

When the state decreases appropriations for university operations for public universities, tuition and fees are increased to accommodate for reduced funds from state appropriations. Research from IBHE found that between FY 2010 and FY 2017, to

Table 1 Public Universities' Actual Appropriations in 2002 and 2020 *Source: Table created by authors based on Long, D.R. (2002) and State of Illinois (2021).*

University	FY 2002 Actual Appropriations (\$ thousands)	FY 2020 Actual Appropriations (\$ thousands)	Percent of decrease of funding in FY2020 compare to FY2002
Chicago State University	44,027	36,925	16.1
Eastern Illinois University	61,089	41,432	32.2
Governors State University	28,045	21,193	24.4
Northeastern Illinois University	45,045	35,566	21.0
Western Illinois University	65,611	45,598	30.5
Illinois State University	93,588	69,769	25.5
Northern Illinois University	118,867	87,840	26.1
Southern Illinois University	256,905	194,899	24.1
University of Illinois	928,986	628,731	32.3

make up for the reduction in state support, weighted tuition for Illinois public universities increased by 40.9%, or slightly more than 5.8% a year on average (Robinson, 2018).

Between FY 2000 and FY 2017, average in-state tuition at Illinois' four-year public universities more than doubled, increasing by 136%. Over the same period, median household income in Illinois declined by 1.74%. As a result, the net price of attending a public university, total tuition, and fees minus average financial aid, has become unaffordable for many Illinois families. In fact, as of 2017, middle-income families would need to set aside nearly a quarter of their total income to pay the net price of the average public university (Roman, 2019).

Illinois' public universities have the fifth most expensive in-state tuition and some of the highest costs for students in the nation. More selective public universities took in ever-increasing tuition revenue from students who could afford to pay with less state aid.

Decreased Enrollment

Heading into the recession of 2001, Illinois was in what many considered to be a golden age of higher education funding. In 2002, public colleges and universities received allocations worth about twice the buying power compared to current bud-

gets, and tuition and fees were half as necessary for universities' bottom lines. During the early 2000s recession, public higher education enrollment increased by 43,200 students, with 26,700 more Black and Latinx students enrolling, Black and Latinx students made up 26% of all Illinois undergraduates in the year 2000. They represented 62% of the enrollment increase from 2001 to 2021 (Westbrook, 2021).

Between FY 2010 and FY 2018, Illinois total enrollment in higher education dropped nearly 20% (Roman, 2019). In 2002, 29.3% of the four-year college-going Illinois high school graduates enrolled outside the state compare to 48% in 2018 (Roman, 2019). The rate of out-of-state enrollment increased by 19% and reached 65.2%.

According to IBHE (2019), overall undergraduate fall enrollment at public universities "declined -1.5% (-1,788 FTE) from academic year 2018-19 to 2019-20 and -7.7% (-10,134 FTE) when compared to 2015-2016" (p.1). Chicago State University (-38.6%), Western Illinois University (-35.5%), Southern Illinois University Carbondale (-36.4%), and Northeastern Illinois University (-28%) experienced the largest undergraduate enrollment declines from 2015 to 2016 to 2019-2020 (IBHE, 2019).

MAP Grants

Monetary Award Program (MAP) funding helps those Illinoisans facing the most significant financial pressures and the greatest financial needs attend Illinois colleges or universities. MAP grants provide funding for low-income students to attend college and significantly contribute to maintaining and fostering the diverse college campuses in Illinois. According to the Illinois Student Assistance Commission (ISAC), 63% of African American students and 48% of Hispanic students who attend a public university in Illinois receive a MAP grant (Rodgers, 2001). Thus, MAP Grants help both minority and low-income college students succeed while pursuing their post-secondary education.

Members of the Illinois General Assembly understand the importance of the MAP grant for college students. Therefore, for FY 2018, the appropriation was increased by ten% to 401.3 million dollars. The increased appropriation for MAP Grants for the FY 2018 allowed the ISAC to increase the maximum grant to \$4,869 from \$4,720 where it had been since FY 2011. However, it is lower than the effective maximum of \$4,968 in FY 2002. In addition, due to the lower buying power that the MAP Grant has today, the maximum grant only covers 32% of tuition and fee costs for public universities. In FY 2002, the maximum effective grant covered 100% of public university tuition and fees (Robinson, 2018). This grant makes it possible for students to finance college. However, when state support for MAP Grants is decreased, it prevents students from going to college, and enrollment declines among minority students. According to Hancock (2017), between 2013 and 2017, enrollment among African American students in Illinois fell from 73,370 students to 54,370 students (decrease by 25.9%).

In Fiscal Year 2019, over 160,000 eligible were denied Monetary Award Program (MAP) Grants because the State of Illinois did not allocate enough funding. (Kolodner, 2018a). Therefore, before expanding eligibility for the grant, the state should find

resources to fund grants for existing students eligible for Monetary Award Program (MAP) Grants.

AIM HIGH Grants

As part of an effort to curtail the number of Illinois high school students leaving the state for college, the Illinois General Assembly passed the AIM HIGH Grant Pilot Program, which will provide \$25 million in merit-based aid to be matched by Illinois public universities. The AIM HIGH Grant program was a part of a package of six bills introduced by the 2018 bipartisan higher education working group. The group was tasked with distributing aid to universities based on the proportion of Illinois resident undergraduates each university enrolls.

This grant assists with a full-time undergraduate student's cost of attendance at the university. The AIM HIGH grant is renewable, and if a student receives it once and continues to meet the eligibility requirements, the student will be eligible to receive a renewal grant in subsequent years. The renewal award will be an amount no less than the award in the student's first year of attendance unless the student's cost of attendance is reduced. According to State Representative Kelly Burke, this grant was created for "families whose income is above the threshold for Pell and MAP (grants), so they don't qualify for any of the need-based financial aid. However, the families do not have \$20,000 sitting around for students to go to school" (Schlitz, 2012, Para.4).

Methodology

Method

This paper investigated primary and secondary data to analyze the disinvestment in higher education and its impact on society based on analysis of Illinois public universities. First, this research included secondary data collection: official documents, archival data, and published and unpublished works as sources of data collection. Secondary data collection included Illinois public universities' official records and budget documents (2002–2020), Illinois Board of Higher Education (IBHE) Reports (2002–2021), U.S. Department of Education Reports (2020), College Board reports (2003–2019), National Center of Education Statistics data (2002–2021) and news media appertaining to higher education. Second, the present study collected interview data from eleven Vice Presidents, Associate Vice Presidents of Enrollment Management from nine Illinois public universities (out of total twelve Illinois public universities). The qualitative approach allowed multiple perspectives to be heard and better understand the Presidents, Associate Vice Presidents, and Vice Presidents perspectives on problems disinvestments of higher education and students migrating outside Illinois.

We used website searches to determine the Presidents, Associate Vice Presidents, and Vice Presidents in each public university in Illinois. There are twelve public four year colleges and universities in Illinois enrolling 176,957 students. We emailed the Presidents, Associate Vice Presidents, and Vice Presidents of Enrollment Manage-

ment, in each public university to request a telephone interview or zoom meeting. As a result, we interviewed eleven Presidents, Associate Vice Presidents, and Vice Presidents of Enrollment Management in nine public universities in Illinois: Illinois State University, Governors State University, Chicago State University, Western Illinois University, University of Illinois- Springfield, University of Illinois- Chicago, Southern Illinois University Carbondale (SIUC), Southern Illinois University (Edwardsville), and Northeastern Illinois University. The other three universities didn't get back to researchers. The qualitative approach allowed us to explore what strategies used the public universities to survive during Illinois budget impasse and disinvestment of public universities.

Data Collection

Each interview lasted approximately one hour. Interview questions are a reliable form of instrumentation because the questions lead to collecting in-depth information on the research topic. This instrument was important because it provided the researcher with a firsthand analysis of what approaches Illinois public universities used to persuade middle-class families in Illinois to send their children to a public university in Illinois versus attending a public university in another state. Interview questions also allowed for follow-up conversations for each question, allowing the participant to offer more detailed responses. One author participated in each interview and recorded it. We conducted our analyses separately and then compared our results and discussed any areas where we differed. The authors developed a codebook containing all predetermined codes, including definitions (Creswell, 2014). Data were grouped for a preliminary review, and irrelevant codes were discarded. The remaining codes were reviewed to establish patterns. The researcher then reviewed all coded data, and a preliminary analysis was performed. Themes were created and named from the coded data. Upon completing the thematic analysis, the researcher reviewed initial codes accurately and captured all pertinent concepts related to the research study.

Findings

We found that the first theme related to the challenges in public universities due disinvestment in higher education. This study revealed four themes: (1) challenges in public universities due disinvestment in higher education, (2) students migrating outside Illinois, (3) the importance of AIM HIGH Grants, and (4) increased creativity in recruiting students by admissions departments.

Challenges in Public Universities Due Disinvestment in Higher Education

We specifically asked a question about how the disinvestment in higher education affected the public universities. Participants, either a Vice President or Associate Vice President of Enrollment Management of public universities in Illinois, were asked to share their experiences by answering the following question: What influence does the level of resources public universities receive from the state have on retaining students

to pursue their post-secondary education in their home state of Illinois versus attending an out-of-state public university?

All study participants noted that as a result of historic underfunding and cuts to institutions of higher education, Illinois public universities have had to increase tuition and fees, which effectively priced out students from both low- and middle-income families. Below were some of responses:

If the Illinois General Assembly was to increase appropriations that match the inflation level, our university would be able to make significant investments in student retention through student success programs and services. In addition, increase university sponsored scholarships to students which helps increase enrollment.

The lack of investment in Higher Education by the Illinois General Assembly has force our university to raise tuition and fees. The increase in revenue does not allow the university to invest in recruiting students or retention of current students through student support services. However, the increase in revenue only allows them to replace the revenue they are missing from the State of Illinois.

Adequately funding higher education is essential. However, when the state decides to disinvest in higher education, it impacts university initiatives such as the recruitment and enrollment of new students and the retention of current students. It also reduces the course offerings that universities can offer students. My institution has lost many talented faculty members to other public universities because they could not match the salary that other universities were offering. If the state was to increase appropriations to institutions of higher education, salary adjustments to faculty members would be one area where the additional revenue would be used. Faculty members bring value to university through research and their repetition. Faculty repetitions is a selling point to potential families.

If the General Assembly would increase investments in higher education, my division would be able to increase marketing dollars. In addition, it would allow the division to think about innovation around strategic enrollment planning which then sets my institution on a sustainable enrollment path instead of year-to-year planning hoping that the legislature passes a budget in a timely matter. My institution currently has over one billion dollars in deferred maintenance. If my institution decided to drastically increase enrollment, we would not have the room for the additional students because we do not have the necessary funds to renovate buildings such as science labs.

We would use additional funds for deferred maintenance and offer more financial aid to students from low and middle tier families.

The University tapped its operating reserves set aside for physical plant repair and maintenance projects and another emergency use. But it is not the way to do business. Emergency funds are not intended to be used for regular university operations; they have to be replaced. We cannot forever put off repairs and maintenance.

In addition to the freeze on travel and hiring, the university has put on hold two major and much needed projects: renovation and improving the university's admissions processes.

Disinvestment in higher education had the following impact: increased tuition and fees, decreased more financial aid to students from low and middle tier families, diminished enrollment of students, reduced the course offerings, deferred maintenance, loss of talented faculty, and reduction of capital projects.

Students Migrating Outside Illinois

States experience varying levels of out-migration (i.e., residents leaving the state to attend college) and in-migration (i.e., nonresidents coming into the state to attend college). New Jersey experiencing the largest negative net migration (28,500 students). Negative net migration of beginning college students was 20,198 students in Illinois (National Center for Education Statistics, 2020). In fall 2018, Illinois had of residents out-migrating to attend college in a different state (36,746) but gained 16,548 nonresidents in-migrating to attend college in the state (National Center for Education Statistics, 2020). In comparison, California experienced the largest number of residents out-migrating to attend college in a different state (44,800) but gained 37,800 nonresidents in-migrating to attend college in the state, for an overall negative net migration of beginning college students (National Center for Education Statistics, 2020). Approximately three-quarters of states (37 out of 50) and the District of Columbia had a positive net migration of beginning college students in fall 2018 (National Center for Education Statistics, 2020).

Most participants of this study told about problems in enrollment due to high level of students migrating outside Illinois. Below were some of their responses:

However, when we followed-up with admitted students who chose not to come to our campus, the fear of closing because of state funding problems was one of the top reasons why they chose to go out of state.

Disinvestment in higher education pushes the next generation of taxpayers out of Illinois, and once they leave Illinois, they do not come back after they graduate college.

AIM High Grant

Most participants argued that the AIM High Grant has been a major success and help to Illinois Public Universities. It has helped increase enrollment from students who come from middle-income families. In addition, AIM High Grants have been a game-changer for students who are not eligible for MAP Grants or income-based financial aid. Participants felt that when the statute expires in 2024, it should be permanently extended.

AIM High Grants was a topic of discussion with 80% of the participants. The AIM HIGH Grant Pilot program, funded by the State of Illinois, provided merit-based

awards to undergraduate students beginning with the 2019–2020 award year. The award was designed to encourage Illinois students to attend an in-state university, improve college affordability, and reduce student loan debt. For example, Illinois State University received \$4 million from the AIM High Grant funds. As a result, in 2019, Illinois State University had its largest freshman class in 33 years of 3,900 students. Associate Vice President of Enrollment Management attributes that large freshman class to the AIM High Grant (Rhodes, 2019). In addition, the AIM HIGH Grant allowed Illinois State University to restructure its financial aid programs for middle-income families. That is why in 2019, Illinois State saw an increase in both freshman and new transfer students because, on average, Illinois State University awarded students who were eligible for AIM HIGH Grant of \$5,919 (Zarnikow, 2020, p.14).

All participants of the study indicated that AIM HIGH had a positive impact on college affordability. AIM HIGH has reduced debt; helped avert high loan indebtedness; reduced unmet need and out-of-pocket costs for Illinois students; the grant has especially improved affordability for full-time, on-campus students, many of whom are minorities and first-generation college students; and promoted affordability. Below were the responses:

My institution did not have much institutional and foundation aid before AIM HIGH. AIM HIGH has been a game changer for students who come from lower- and middle-income tier families who would not been eligible for state aid because of their families EIC level. This is a great program, and the state needs to keep funding this grant.

AIM HIGH hits the populations that is not eligible for income level financial aid. In addition, this grant has allowed this institution to ramp up our scholarship offerings to students.

The legislature needs to keep funding the AIM HIGH Grant when the legislation that established the grant expires in 2024.

Admissions Departments' Creativity

Seven of the eleven study participants noted that Admissions Departments have become creative in recruiting students because of a lack of funds for traditional marketing and recruitment strategies. In addition, because of the COVID-19 global pandemic, traditional college fairs and visiting high schools were not allowed because of mitigations put into place by the governor. Below are the following responses:

The division of Enrollment Management began working with Alumni Engagement to find alumni who are high school teachers and then mail them swag packs of posters for them to hang around their classrooms to get the word out about our institution. Considering the division have limited funds for marketing and advertising. However, this fiscal year because of COVID-19, the Vice President of Finance and Planning for the university did give the division \$300,000 for TV marketing in the Chicagoland Area. As a result of this investments, deposits

for the first time-in-college (FTIC) students are up 6.5% compared to the same time last year. In addition, transfers student deposit is up 2% compared to the same time last year.

The office of Enrollment Management has limited dollars because of financial aid takes a significant portion of the department budget. Therefore, we most had to get creative in recruitment strategies. Our campus has a landing gear for airplanes, so once a year we fly admission counselors from the Chicagoland area high schools and community colleges to our campus. They spend the day on campus and get to learn what we have to offer to students and answer any questions that admissions counselors might have. This has help us recruit future students.

Money is not always the solution to fix the problem. Sometimes it requires to the enrollment management team to conduct strategic enrollment planning to increase freshman and transfer enrollment. Look at requirement strategies to see what is working and what is not working. After seeing what is not working, fix those problems and then look at creative solutions to recruit students.

Some students are not good test takers, but they are excelling in the classroom. ACT and SAT testing was canceled in 2020 because of COVID-19. Therefore, admission departments did not have test scores to make admissions and scholarship decisions. My admissions team had to use GPA Scores, personal statements, and letters of recommendations to make admissions and scholarship decisions. This allowed the admission department to see the overall student as a whole and not making decisions based off a test score. As a result of using GPA Scores, personal statements, and letters of recommendations for the 2021–2022 school year, we are seeing more students from a diverse background and are able to offer them higher value scholarships because we do not have to account for test scores.

Conclusions

The primary purpose of this study was to improve our understanding challenges public universities due disinvestments to higher education in Illinois. This study collected interview data from eleven Presidents, Associate Vice Presidents, and Vice Presidents of Enrollment Management in nine Illinois public universities from at total twelve public universities (75% response rate). We identified four themes: (1) the challenges in public universities due disinvestment in higher education; (2) students' migrating outside Illinois; (3) the importance of AIM HIGH Grants; (4) increased creativity in recruiting students by admissions departments. Presidents, Associate Vice Presidents, and Vice Presidents of Enrollment Management highlighted that disinvestment in higher education had following impact: increased tuition and fees, diminished enrollment of students, reduced number of the course offerings, deferred maintenance, loss of talented faculty, and reduction of capital projects. This exploratory case study based on qualitative method set a hypothesis about the incidence of a reduction of State fund to public universities on increased tuition and fees, diminished enrollment

of students, reduced number of the course offerings, deferred maintenance, loss of talented faculty, and reduction of capital projects. The hypothesis raised by this study may later be proved or disproved by a future quantitative study.

When the state decreases appropriations for university operations for public universities, tuition and fees were increased to compensate for the lack of funding from state appropriations. Research from IBHE found that between Fiscal Year 2010 and Fiscal Year 2017, to make up for the reduction in state support, weighted tuition for Illinois public universities increased by 40.9%, or slightly more than 5.8% a year on average (Robinson, 2018, p.3). If public universities were increasing tuition and fees year after year to make up for state funds, that created a situation where students were being pushed out to attend a public university outside of Illinois because their families cannot afford the tuition and fees. Additionally, not many scholarships were being offered because they came from a middle-class family and have an EIC that prevented them from receiving state or federal aid outside of student loans. During historic 736-day budget impasse and the spending reductions, total enrollment in Illinois public universities declined by over 20% between 2009 and 2020.

The data consistently supported that increased funding for Illinois public universities would increase college enrollment and prevent tuitions increases. Strategically organized local, state, and federal higher education resources could ensure that the students and institutions with the greatest needs would receive the most support. The higher education funding should have the following goals: (1) the equity goal to close the gap for students who have been left behind; (2) the sustainability goal is focused on the financial future of both students and institutions; and (3) the growth goal includes investing in talent and innovation to drive the State's economic development (The Civic Federation, 2021). Our findings are consistent with suggestions by Wolanin (2015) that "balances support for higher education more evenly among the public, households, and other sources in the private sector results in a much higher absolute level of support for higher education" (p.10). According to Ward et al., (2020b), "States should strategically marshal local, state, and federal higher education resources to ensure that the students and institutions with the greatest needs receive the most support (p.12).

The results from our analysis suggest that state appropriations have negative effect on enrollment of students, number of the course offerings capital infrastructure's maintenance and capital projects, deferred maintenance, and led to loss of talented faculty. These findings are consistent with suggestion by scholars Reeves & Lomax, 2019; Rhodes, 2019; Robinson, 2018; Rogers, 2011; Roman, 2019; Schlitz, 2018; Ward et al., 2020a; Westbrook, 2021). The study found that increased investment in higher education may increase student enrollment from middle-class families. Offering merit-based scholarships to students who came from lower to middle-income families, who would not be eligible for any state support, was a vital recruitment tool that Presidents, Associate and Vice Presidents of Enrollment Management must persuade middle-class families in Illinois to send their children to a public university in Illinois versus to a public university in another state. These are important findings not only for Illinois but for other countries too because they indicate the importance public spending on higher education, which has been declining significantly over the last several decades in many countries.

This study explored ways to help increase enrollment in Illinois public universities. The Illinois experience offers essential insight into the dangers of disinvestment in higher education while at the same time it reveals likely innovative that can emerge from almost a chaotic situation with long term positive effects for societal benefits. We found that government assistance programs AIM HIGH Grants, increasing state appropriations, and admission departments' creativity for recruiting students were vital tools that could help Illinois public universities grow enrollment.

Finally, the purpose of this research was to recommend specific approaches to the Illinois Legislature to fund public universities adequately, equitably, and stably in Illinois. In 2021, Illinois Legislature recognized the seriousness of the problems of disinvestments in higher education (Ostro, 2021). On August 24, 2021, Governor Pritzker signed legislation that will create a Higher Education Evidence-Based Funding Commission to evaluate higher education funding in Illinois. This Commission was created to recommend adequate, equitable, and stable funding for the State's higher education institutions and agencies (Lightford, 2021). The Commission will make recommendations to the General Assembly and IBHE on how to establish an adequate and stable equity-based funding model.

Our study recommends that policymakers should provide robust financial support for public higher education, particularly small public universities, which were the most vulnerable to the negative consequences of disinvestment to higher education in Illinois. We suggest that improving the affordability of postsecondary education would improve the situation of students from moderate- and low-income families, promote the economic and social mobility within our society, and provide the social, economic, and fiscal benefits associated with public higher education.

Limitations

This study was limited by the qualitative case study design and the voluntary nature of the participants. Although the study offers an in-depth perspective from the eleven Presidents, Vice Presidents, and Associate Vice Presidents of Enrollment Management from the nine public universities in Illinois, the sample size is relatively small. Future studies can be concentrated on the perspective of other stakeholders such as students, families, and State officials.

The use of a limited number of universities in Illinois reduced the generalizability of the findings. Although our sample size limited the ability to generalize the results to other states, the findings were useful in adding to our knowledge in this important area. However, the use of in-depth interviews was helpful to gain a greater understanding of practices and challenges than would be possible through another method. Because little was known about Illinois public universities budgeting and financial problems, and still less about strategies that were used by the public universities to survive during Illinois budget impasse and disinvestment of public universities, these results should be useful in building theory and developing models that can be tested in a quantitative manner.

In addition, some universities might not face challenges in attracting middle-class families in Illinois because the individuals from that type of family were not an average student who attended that university. Nevertheless, this study aimed to collect

data to provide insight into strategies to persuade middle-class families to enroll their children in a public university in Illinois rather than enrolling out of state.

Future studies could do qualitative study by using survey instruments in all-region public universities and receive various responses and perspectives on reversing students' migrating outside Illinois. This study could be replicated using historical data to establish better trend lines of funding higher education. More extensive analysis could identify other trends in data and provide additional inferences about the relationship between state funding and higher education. Further analysis of state legislative decision making for higher education finding allocations could include changes in tuition, research and development expenditures, outsourcing decisions, and enrollment patterns.

Appendix

Questions during interviews:

- • What influence does the level of resources public universities receive from the state have on retaining students to pursue their post-secondary education in their home state of Illinois versus attending an out-of-state public university?
- • How has the disinvestment in higher education impacted your institution's enrollment strategies?
- • How would a tuition increase cap in exchange for an increase in state appropriations impact your institution and its enrollment strategies?
- • What legislative recommendations would you recommend that the Illinois General Assembly can adopt to help increase the enrollment of students from middle-class families to Illinois public universities?
- • What would the effects of ISAC updating the formula be for your institution? Would this updating the formula allow more students from middle-class families to be eligible for MAP Grant funding?

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Conflict of interest None.

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