



Paper Abstracts

Session 1: Volatility in State Spending for Higher Education: Duration, Impact on Economic Performance, and Political Determinants

Recovery from Cuts: How Long Does It Take for State Spending for Higher Education to Return to Previous Levels?

Jennifer A. Delaney, University of Illinois at Urbana-Champaign

William R. Doyle, Vanderbilt University

State appropriations for higher education are highly cyclical, with downturns in funding during difficult financial times followed by increases in funding when state finances improve. We seek to understand whether the duration of recoveries from cuts in state appropriations for higher education have changed over time, and which characteristics of states are associated with shorter or longer durations for recovery. We use event history, or survival, analysis as the basis for understanding the duration of recoveries. Our panel dataset spans from 1984-2015 and is identified by state-year. It includes measures of state general appropriations for higher education along with economic, demographic, political, higher education system, and geographic diffusion characteristics of each state. We find that the time to recover from cuts has lengthened considerably since the 1980s. In addition, the rate of recovery is longest in Southern and Western states. States with higher tuition have lower hazard rates for recovery, while states with higher state student financial aid tend to recover more quickly from cuts.

An Analysis of How State Economic Performance Impacts State Support for Public Higher Education

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This study uncovers the variability among states in the short-run and long-run impact of state economic performance on state support for public higher education. This research provides evidence that short-run changes in business cycles differentially impact the volatility of state

support to public higher differentially across states. This paper shows that in the long-run, the impact of state economic performance on state support for public higher education varies substantially across states. The findings from this investigation also indicate short-run adjustments in state funding for public colleges and universities to the long-run equilibrium relationship to the economy and other factors also differ across states.

Examining the Effect of State Legislature Demographics on Higher Education Funding

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William Todd Abraham, Iowa State University

Previous research has clearly demonstrated the link between various state-level economic, demographic, higher education, and political system characteristics and variations in state funding for higher education. Yet, aside from examining party affiliation, few have investigated the potentially important influence of state legislators' demographics. This study expands upon previous scholarship by examining how the demographic composition of state legislatures, specifically their average age, gender composition, and education level, relate to the volatility in state higher education funding. Examining state funding for higher education from 2004 to 2016, this study found that the demographic composition of state legislatures indeed had a significant relationship with variations in higher education funding, revealing that increases in the average age and proportion of legislators with advanced degrees had a negative effect. By uncovering these relationships, this study adds to ongoing efforts aimed at constructing a conceptual framework for explaining state higher education funding, illustrating that, along with state-level factors, subsequent studies investigating trends in higher education expenditures may need to incorporate legislator attributes beyond mere party affiliation.

Session 2: Financing Policies for Predictability

Reducing Uncertainty: Do State Finance Policies Protect Against Volatility in Higher Education Funding?

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Sophia A. Laderman, State Higher Education Executive Officers

Dustin D. Weeden, State Higher Education Executive Officers

David A. Tandberg, State Higher Education Executive Officers

Using state-level data from 1980 to 2015, we investigate whether centralized tuition-setting authority, performance funding, and broad-based merit-based aid programs are associated with volatility in higher education appropriations. We incorporate two definitions of volatility, the first as expected minus actual funding, the second as a function of state-specific trends and student enrollment. Results from fixed and random effects models suggest that tuition-setting authority in the hands of the governor or the legislature, as well as with state boards, tends to increase volatility, while performance funding and merit aid policies tend to decrease volatility. The direction of effects are sensitive to the operationalization of volatility, emphasizing the importance of defining volatility. Our findings indicate that states with a coordinated and strategic approach to higher

education finance are better equipped to mitigate volatility, reducing uncertainty in funding across time.

Sustaining Free College Programs in a Volatile Funding Environment

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Christopher R. Marsicano, Davidson College

Steven Pittenger Gentile, Tennessee Higher Education Commission

The proliferation of Promise programs, place-based scholarship programs to increase postsecondary access and attainment, shows a growing interest on the part of policymakers to find new and innovative ways to fund higher education. Yet the nascent nature of promise programs means that policymakers do not yet know how such programs would respond to economic or political volatility. In this paper, we explore the funding structures of place-based Promise scholarship programs and trends in state funding during the Great Recession programs in order to consider the likelihood of policy permanence for Promise programs. We find that some programs are well-positioned for the next economic recession while others might struggle to survive.

Examining the Role of Budget Stabilization Funds for State Funding to Public Higher Education: Evidence from the 50 States using Panel Data

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Most states have employed Budget Stabilizations Funds (BSFs), also known as Rainy Day Funds and Reserve Contingency funds, as a way to deal with countercyclical forces. Since economic turbulence and business cycle changes can render a state's tax revenue capacity variable, researchers have sought to examine whether these funds can help smooth state expenditures during economic contractions. However, to date, we could find no study that has done the same in terms of public higher education expenditures. Hence, our study examines the relationships among BSFs and state expenditures to public higher education. Using a 50 state panel dataset over 18 years we find strong evidence that the presence of a BSF policy is positively related to increased expenditures for higher education. Therefore, it can be inferred that the presence of a countercyclical policy provides a "cushion" for public higher education to some extent. From a policy perspective, if policymakers are looking for a way to help stabilize and make more predictable higher education funding, then well-funded BSFs may be one way to do this. Finally, we call upon researchers to undertake further examination and exploration of the relationships between state fiscal institutions and public higher education economic and finance policies.

Session 3: Political Context/State Funding Unpredictability and College Completion

The Impact of Decline in State Funding and Revenue Diversification on Student Completion

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Glenda Droogsma Musoba, Texas A&M University

Using IPEDS datasets and employing multilevel modeling techniques, we examined the relationship between state funding per FTE, revenue diversification, and graduation rates and how the relationship varies across 4-year public institutions. We also examined the trajectories in graduation rate by institution type and level of minority enrollment controlling for other predictors. The analysis showed a statistically significant relationship between state appropriation per FTE, diversifying revenue, and student graduation rate, which varied across the 4 year public institutions. A 1 unit increase (decrease) in state appropriation per FTE resulted in 0.0005 units increase (decrease) in graduation rate and a 1 unit increase (decrease) in diversifying revenue led to an increase (decrease) of 11.835 in completion rate on average. Despite the level of minority students institutions admitted, the effect of state appropriation per FTE on students' graduation rate was similar across institutions; however, the effect was higher in special focus and baccalaureate universities than in doctoral/research universities. The findings of this study have significant implications for policymakers' funding decisions for institutions of higher education dedicated to providing the public good.

Political Volatility in State Commitment to College Completion Efforts

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Paul Rubin, American Educational Research Association Congressional Fellow

Denisa Gandera, Southern Methodist University

James Hearn, University of Georgia

Our study examines how political party change, along with other state characteristics such as higher education governance structures, might relate to commitment to higher education funding and policy. We employ a two-tail comparative case study of North Carolina and Tennessee, which differ significantly in college completion policy activity yet similarly experienced gubernatorial party change with Republicans replacing Democratic governors in 2010 (Tennessee) and 2012 (North Carolina). We rely on SHEF data and on interviews with state-level elected officials and their staff, representatives from state higher education agencies, and campus officials. Findings show that North Carolina has maintained stronger state support for higher education than Tennessee, which runs counter to the perceptions of many respondents from both states. Tennessee respondents perceive the completion efforts leading to increased state support; North Carolina respondents largely contend that the Republican-controlled state government is committed to K-12 education and other sectors at the expense of higher education. Understanding how state funding trends align (or not) with policy actors' perceptions stands to offer important insights into the future public agenda for higher education. If higher education is indeed become more politicized, then understanding how political volatility relates to policymakers' commitment to higher education is essential.

Do Large Reductions in State Higher Education Support Affect Public Research University Productivity?

Robert Kelchen, Seton Hall University

As a number of states have made significant reductions in state support for public higher education, there are growing concerns about whether these cuts reduce the research capacity of public research universities. In this chapter, I empirically examine whether large reductions in state higher education support are associated with changes in research funding and the number of faculty members receiving major awards. I find little evidence to support the hypothesis that public research universities are losing a significant number of top researchers following budget cuts, which raises questions about the steps universities are taking in an effort to maintain their research enterprise in challenging times.

Session 4: State Funding Unpredictability and Outcomes: Student Fees, University Staffing, and Research Productivity

In the Eye of the Beholder: Volatility in State Funding for Higher Education

Sarah Pingel, Education Commission of the States

Molly Sarubbi, Education Commission of the States

Brian A. Sponsler, Education Commission of the States

This study scrutinizes two distinct dimensions of state higher education funding: predictability, or the ability to project the timing and amount of revenue for higher education, and volatility, or the historical, year-over-year decrease in state support for higher education. Using qualitative interview data drawn from legislators, legislative staff, and state higher education executive officers from three states, we find that perspective matters when it comes to assessing either predictability or volatility in higher education funding. Participants discussed varying definitions of funding effort for higher education, state-level contextual factors that impact higher education funding, and strategies in place to foster predictability. These findings have implications for the higher education research community, where predictability and volatility are terms too often used interchangeably, and the political utility of either concept has yet to be woven into the research literature.

Strategy for Closing the Gap? Universities' Use of Fees and the Volatility in State Appropriation

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This paper documents how public higher education institutions alter mandatory fees in response to the financial support coming from the state. In particular, we examine how different types of fees change over time in relation to the level and volatility of state appropriations. While existing data do not capture what fees are charged at different rates at public universities, we use new detailed data on mandatory fees since 2000 assembled from various sources to document changes in prices and their correlates. The findings suggest that the level of state appropriation is not related to the total amount of mandatory fees but the fees charged for different activities. When state

appropriation observes a cut, institutions charge more fees for operations of facilities, auxiliaries, as well as related academic functions by creating unique fees to support the institutional/educational enhancement. On the other hand, when state appropriation increases by more than 3%, institutions tend to decrease fees across all categories. As these patterns are not documented previously, this study provides implications for the discussion of affordability as well as conditions regarding the consequences of state financial support and governance structure for allowing different levels of authority for setting tuition versus fees.

University Staffing in Times of Financial Uncertainty: The Relationship Between the Volatility in State Appropriations and Part-Time Faculty Utilization

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The use of part-time faculty has received considerable attention in the higher education and general media, and has increased considerably over the last several years. We seek to better understand the factors behind this phenomenon by appealing to a conceptual framework with its roots in public policy. Researchers have found that managers of organizations exposed to high levels of revenue or income volatility will shift to short-term planning and budgeting and will seek out greater budgetary flexibility. In higher education, one way colleges and universities might do this is by increasing their use of part-time faculty who can often be hired on a term-by-term or class-by-class basis. In light of this possibility, this study explores the relationship between volatility in state appropriations and the use of part-time faculty members at public four- year and two-year institutions. We demonstrate a considerable amount of volatility over the period 2000-2012 and find a positive relationship between revenue volatility and the use of part- time faculty at four-year institutions, but no discernable relationship for two-year institutions. Implications for future research and policy are discussed.