2024

Financial Monitoring and Oversight of Public Higher Education Institutions by States A Descriptive Case Study Analysis

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PA 681: Capstone in Public Administration

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April 12, 2024

Introduction

Higher education in America is at an inflection point with numerous challenges threatening the traditional business model relied on by institutions across the country. These forces include, but are not limited to:

1) A decrease in the number of high school graduates due to historical declines in birth rates (Grawe, 2018; Western Interstate Commission for Higher Education, 2020)
2) Sustained disinvestment by many states in their higher education institutions which has effectively shifted the cost of education to students and families (Kunkle & Laderman, 2023)
3) Increasing skepticism among Americans of the value of higher education, particularly given its rising costs (Kelchen, 2023; Schleifer et al., 2022)
4) Rapid technological advancements leading to widespread adoption of online learning programs (Hamilton, 2023)

The result of these pressures has been escalating private institution closures and mergers as well as consolidations among public institutions (Castillo & Welding, 2023; Kelchen, 2023; Kurzweil et al., 2021; Lundy, 2023; Sanchez, 2024). The acceleration in closures is particularly concerning given the negative impact experiencing a college closure has on various student outcomes such as reenrollment, completion, and time to degree (Burns et al., 2023; National Student Clearinghouse Research Center, 2023). These trends led the State Higher Education Executive Officers Association (SHEEO) to publish a white paper containing recommendations for state coordinating and governing boards to enhance the financial monitoring of their postsecondary institutions (Tandberg, 2018).

Kentucky's public postsecondary institutions have had widely publicized financial difficulties due in part to the aforementioned forces but also largely attributable to financial mismanagement. The most prominent example is the financial distress experienced by Kentucky State University (KSU). On July 20, 2021, Governor Andy Beshear issued an executive order directing the Kentucky Council on Postsecondary Education (CPE) to “provide an assessment of the current financial status of KSU” and “assist the KSU Board of Regents in developing a management and improvement plan with goals and measurable metrics” (Kentucky Council on Postsecondary Education, 2021, p. 6). As part of this study, CPE conducted a financial health assessment and analyzed cash flows and other financial information.

Another Kentucky institution that has recently experienced financial distress is Northern Kentucky University (NKU). In late 2022, it was announced that NKU had a $23.7 million deficit caused by a variety of factors including increased competition for students, declining enrollment, unsustainably high financial aid, and other factors. NKU’s president, Ashish Vaidya, departed from the institution shortly after the announcement and the university’s chief financial officer, Jeremy Alltop, resigned as of October 2023 (Nguyen, 2022; Planalp, 2023). On a positive note, the nearly $24 million deficit was reduced to $9.6 million in the fiscal year 2024 budget with further reductions expected in fiscal year 2025 (Granger & Payne, 2023).

Financial distress among Kentucky’s postsecondary institutions has not been limited to its public institutions. In the past decade, two private not-for-profit institutions, St. Catharine’s College and Mid-continent University, have also closed their doors (Fain, 2016; The Lane Report, 2014).

Considering these financial difficulties, CPE has recommended to the General Assembly that “a process should be implemented for CPE to actively monitor and regularly report to the General Assembly and Governor on the financial health of the state’s public colleges and universities” (Kentucky Council on Postsecondary Education, 2023, p. 70). As such, a primary goal of this study is to aid CPE in determining a process for monitoring the financial condition of the state’s public postsecondary institutions. Given the minimal research in this subject area, a secondary goal is to inform future studies measuring the efficacy of financial monitoring and oversight policies across the states.

This study performs a descriptive case study examination of a sample of higher education agencies in states that actively monitor the financial health of their public postsecondary institutions by analyzing online resources including state statutes, administrative regulations, state constitutions, agency websites, news releases, and other sources. The case studies are limited to states' practices and policies pertaining to public postsecondary institutions because this is CPE's recommendation in response to the study commissioned by Senate Joint Resolution 98 of the 2023 regular session (Kentucky Council on Postsecondary Education, 2023, p. 70). However, due to similarities in methodologies that assess the financial condition of both public and private institutions, the literature review contains references to practices that are or can be applied to private institutions.

Literature Review

The academic literature pertaining specifically to assessing the financial condition of institutions of higher education (IHE) is minimal, however, a number of organizations, and individuals have produced resources recommending metrics and methodologies for assessing an IHE's financial condition and determining its risk of closure (Kelchen, 2020; KPMG et al., 2010; National Association of College and University Business Officers, n.d; Tandberg, 2018; Zemsky et al., 2020). Additionally, insights relevant for this study can be gained by exploring resources related to higher education's regulatory triad, which includes states, accrediting agencies, and the federal government primarily through the U.S. Department of Education (ED). All three prongs of the triad are engaged in higher education accountability to varying degrees, particularly for private not-for-profit and for-profit institutions that are required to report a Financial Responsibility Composite Score by the ED (ASPA, n.d.; Kelchen, 2018; U.S. Department of Education, n.d.). As such, the literature review that follows summarizes key concepts, techniques, and research findings across each of the aforementioned subject areas.

Assessing Financial Condition, Measuring Risk, and Predicting Closure

In recent years, various organizations have called for enhanced financial oversight by regulators to better protect students as consumers and taxpayers who are burdened when students receive a closed school discharge (Colston et al., 2020; Kelchen, 2020; Tandberg, 2018). Improvements in two connected and overlapping financial oversight concepts are commonly included in the pleas: (1) assessing the current financial condition of IHE and (2) determining risk of closure in the future for IHE. While these concepts are closely related, each has a distinct goal. The former is focused on determining the current financial health of IHE while the latter is aimed at predicting financial distress and/or possible closure in the future. Oftentimes, indicators of current financial condition are part of the determination of closure risk. Each concept is important for state policymakers to understand in developing policies and procedures for monitoring the finances of IHE and assessing closure risk. The following discussion provides examples of resources, research, and methodologies related to assessing financial condition and determining risk for IHE.

Assessing Financial Condition

The general purpose financial statements of universities and colleges, which include the Statement of Net Position, Statement of Revenues, Expenses, and Changes in Net Position, and Statement of Cash Flows for public institutions, are often the primary source of data for determining the financial condition of IHE. In his journal article, Analyzing University and College Financial Statements, Howard Bunsis (2015) provides the fundamentals of how users can analyze and gain insights from college and university audited financial statements. Furthermore, Bunsis prescribes four ratios for analyzing university finances including: (1) primary reserve, (2) viability, (3) net asset, and (4) cash flow. Each ratio is categorized as poor, average, or excellent based on a range of values. Appendix A contains a table summarizing the ratio calculation and categories.

The National Association of College and University Business Officers (NACUBO) “convenes those influencing and advancing higher education, is a catalyst of unmatched knowledge, and is a leading advocate for colleges and universities” (National Association of College and University Business Officers, n.d.). NACUBO’s Economic Models Project (n.d.) provides guidance to IHE to promote their sustainability. In order to identify a set of key performance indicators to assess institutional sustainability, NACUBO conducted a survey of chief business officers at colleges and universities through focus groups and other convenings. The metrics deemed most useful through their surveys include: (1) student to faculty ratio, (2) facility utilization rate, (3) net tuition and fees contribution ratio, (4) net tuition per student, (5) primary reserve ratio, (6) tuition discount rate, and (7) debt service as a percent of the operating budget. NACUBO states that declining trends in the first five indicators and an increasing trend in the last two is potentially indicative of problems.

Originally published in 1980 as *Ratio Analysis in Higher Education*, KPMG, Prager, Sealy & Co., and Attain’s handbook, *Strategic Financial Analysis for Higher Education* (2010), is an industry-recognized tool for financial analysis amongst trustees, managers, and analysts and can be applied to both public and private not-for-profit institutions (p. ii). The methodology quantifies an institution’s financial health into a single score, the Composite Financial Index (CFI), which is determined by combining values of four core ratios: (1) Primary Reserve, (2) Viability, (3) Return on Net Assets, and (4) Net Operating Revenues. Each of the ratios corresponds to a financial aspect of IHE including: (1) the sufficiency and flexibility of resources, (2) how debt is managed, (3) how well overall assets are managed, and (4) the sustainability of operating revenues and expenses, respectively. A number of secondary ratios are also recommended which correspond to each of the core ratios (KPMG et al., 2010, pp. 106-107). A full list of the publication’s ratios and their calculations can be found in Appendix B.

As part of their report for the Massachusetts Board of Higher Education (BHE), Ernst & Young LLP’s EY-Parthenon (2018) education practice reviewed current methods for monitoring the financial condition of IHE and introduced a new method, the teach-out viability metric (TVM). Regarding current financial practices, EY-Parthenon found that the Financial Responsibility Composite Score produced by the ED is often relied on by state authorizing agencies and accrediting agencies as part of determining the financial condition of the IHE they oversee. Additionally, some accreditors include the CFI and other non-financial indicators, such as the Higher Learning Commission (Higher Learning Commission, n.d.). Furthermore, EY-Parthenon states that each of these current practices suffers from being a lagging metric and, therefore, is unable to identify financial risk in a timely fashion (pp. 7-10). The TVM EY-Parthenon proposes differs from these metrics as,

> "a screening metric that helps assess when an institution's financial challenges reach an extent that could cause the institution in question to not be able to deliver on the 'promise' made to students upon matriculation. The teach-out viability metric (hereafter referred to as TVM) assesses a four-year institution's ability to provide the resources required to allow currently admitted and enrolled students to complete their degrees within a reasonable timeframe." (p. 12)

In determining the TVM for IHE, the model relies on a number of assumptions concerning the institutions' available assets, enrollment, enrollment-connected expenses, and revenue sources. See Appendix C for an overview of the TVM elements.

While the academic literature directly pertaining to the financial condition of IHE is limited, there are a couple pieces with findings pertinent to the research conducted in this study. Hunter (2012) in his dissertation explores various metrics that are positively or negatively related to the financial conditions of small, private IHE. The study evaluates the relationship between both internal and external variables at 673 private institutions enrolling less than 2,000 students in the 1998-99 or 2008-09 academic years with the ED's Test of Financial Strength score, now known as the Financial Responsibility Composite Score. Hunter's finding indicates that small, private college financial health, as measured by the ED, is influenced by both internal and external variables such as: (1) the tuition discount rate, (2) operating reserves, (3) undergraduate enrollment level, (4) cash on hand, (5) and unrestricted giving. Fischer et al. (2015) explore the characteristics of financially healthy public IHE, as measured by their change in net assets from 2002 to 2012. The sample included 249 public institutions, excluding community colleges, with at least 10,000 students enrolled. Their findings identify the following characteristics that are associated with financially health institutions: (1) substantial net assets, (2) larger enrollments, (3) significant tuition and fee revenues and tuition and fee revenues per full-time equivalent (FTE) student, (4) consistent investment income, (5) lower operating expenses, and (6) lower losses from year to year. Each of these studies sheds light on possible determinants of the financial health of IHE.

Measuring Risk and Predicting Closure

In recent years, more organizations have become interested in measuring the risk of closure of IHE and even predicting if they will happen. Higher education consulting group, U3 Advisors, has calculated that 25% percent of public and private not-for-profit 4-year IHE are at serious risk of closure, with significant variations by state and metropolitan statistical area (O'Neil & Felix, 2020). Kasia Lundy and Mirian El-Baz of EY-Parthenon (2022) have developed the Institutional Viability Metric (IVM) to identify at-risk institutions based on indicators of an institution’s market demand, delivery and outcomes, and financial position. They found that, according to 2019 data, 20% of public and private four-year IHE are at-risk. See Appendix D for an overview of the IVM. Lastly, Kraft et al. (2023) of Bain & Company have developed an interactive tool measuring the financial resiliency of IHE based on institutions’ historical trend data, primary reserve ratio, net margin, and three-year enrollment growth. Their model found that approximately 20% of private nonprofit and public 4-year IHE are weak financially.

An increasing number of scholars have also become interested in determining early warning signs of institutional closures and in predicting how many IHE will close. Robert Kelchen (2020) explored whether predicting college closures is feasible using publicly available data on private nonprofit and for-profit institutions that closed between 2002 and 2019 from Federal Student Aid' Postsecondary Education Participants System (PEPS), the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS), and other ED resources. While Kelchen's model identifies sharp enrollment and total revenue decreases as powerful predictors, a low percentage of the IHE classified as being at the highest risk of closure actually closed in the next few year (i.e., within 4 years), which suggests policymakers should be hesitant when using indicators to predict institutional closures (p. 23). In their book *The College Stress Test: Tracking Institutional Futures Across a Crowded Market*, Zemsky et al. (2020) calculated the degree of market stress facing IHE across the public four-year, public two-year, and private four-year not-for-profit sectors to predict their risk of closure. Their analysis found that approximately 10% of IHE face substantial market risk, 60% face minimal or no market risk, and 30% will inevitably struggle in the future. Lastly, Britton et al. (2023) examined the variables affecting the survival of Historically Black Colleges and Universities (HBCUs) using IPEDS data from 1988 to 2017. Their findings indicate that factors positively associated with HBCU persistence include: (1) an urban locale, (2) the provision of remedial academic program offerings, and (3) higher levels of student services expenses. Factors negatively associated with HBCU survival include: (1) an open admissions policy, (2) protestant affiliation, (3) provision of student employment services, and (4) offering occupational programs. It is also critical to note that their findings show that the factors associated with the survival of HBCUs differ from IHE that are predominantly white, resulting in clear implications for policymakers to understand the unique missions and markets of IHE when assessing their risk.

The Regulatory Triad

As discussed, all three prongs of the higher education regulatory triad - state higher education agencies, the federal government, and accrediting agencies - have an interest in monitoring the finances of IHE, particularly private nonprofit and for-profit institutions for the ED. The following sections provide examples of research and other resources pertaining to each member of the regulatory triad's monitoring of IHE finances, including actions and sanctions that can result, in order to inform similar efforts by state governments (Tandberg, 2018).

Federal Government and the U.S. Department of Education

The federal government, primarily through the ED as authorized under the Higher Education Act, plays an important role in the regulatory triad as it recognizes accrediting agencies as reliable and determines the eligibility of IHE for federal financial aid (i.e., Title IV federal financial aid programs) (ASPA, n.d.; EY-Parthenon, 2018). One component used by the ED in determining the financial health and eligibility of private nonprofit and for-profit institutions is the Financial Responsibility Composite Score (FRCS), which is a composite of three financial ratios: (1) primary reserve, (2) equity, and (3) net income (U.S. Department of Education, n.d.). IHE can be subjected to various sanctions should their FRCS fall below acceptable thresholds which can entail increased oversight, heightened cash monitoring, posting of letters of credit, and loss of participation in Title IV financial aid programs (U.S. Department of Education, n.d.). Some have argued that publicizing institutions' scores and imposing these sanctions can accelerate closures IHE (Kelchen, 2020, p. 23).

The FRCS has been widely criticized by governmental agencies, institutions, and policymakers alike. In a 2017 study, the U.S. Government Accountability Office found that, "The composite score has been an imprecise risk measure, predicting only half of closures since school year 2010-11" (para. 2). Following the Great Recession, the National Association of Independent Colleges and Universities (NAICU) (2012) published a report with recommendations for improving the ED's financial monitoring practices and stated that the ED does not calculate the FRCS correctly (Blumenstyk, 2011). As a result of the coronavirus pandemic, NAICU (2020) wrote a letter to former Secretary of Education, Betsy DeVos, requesting she use her authority to temporarily suspend the ED's financial responsibility standards for three years (National Association of Independent Colleges and Universities, 2020). Most recently, federal policymakers have proposed a bill referred to as *The College Cost*

Reduction Act that includes substantial higher education reforms including, but not limited to, adjustments to the FRCS (Committee of Education and the Workforce, 2024).

Over the past decade, scholars have increasingly turned their attention to institutional and student effects of the FRCS and related federal sanctions. Kelchen (2018) studied a panel dataset of 4,073 private nonprofit and for-profit IHE from 2006-07 to 2013-14 using data from IPEDS and the ED to test whether IHE without a passing score respond by adjusting their expenses, revenues, or enrollment. His findings indicated that institutions do not substantially alter their fiscal practices and/or priorities in response to not passing the FRCS. In their article, "Where Do Students Go When For-Profit Colleges Lose Federal Aid?", Cellini et al. (2020) investigated the impacts of federal sanctions imposed in the 1990s on private for-profit IHE. The authors found that a federal sanction impacting a for-profit institution's access to federal aid corresponded with a 68% decline in enrollment the following year, however, this is between 60% and 70% offset by an increase in enrollment at nearby community colleges while overall enrollment in the area drops by two percent. Lastly, Darolia (2013) examined how losing federal financial aid eligibility affected institutions' enrollment and found that losing access to federal aid is associated with enrollment declines, particularly first-time students, at institutions offering two-year or less programs and at for-profit institutions. Each of these studies is useful in informing the design of potential financial oversight policies and possible sanctions.

Accrediting Agencies

Another group of critical players in the higher education regulatory triad are accrediting agencies. Accrediting agencies are nongovernmental organizations that must be recognized by the ED to help determine an institution's eligibility for federal financial aid programs (Council for Higher Education Accreditation, n.d.). Accreditation is another requirement for IHE to participate in federal financial aid programs and, in some cases, state financial aid programs. In general, accreditation's purpose is to provide assurance of the quality of an institution and/or its programs (Council for Higher Education Accreditation, n.d.). As previously mentioned, assessing the financial standing and capacity of IHE is part of the ongoing accreditation process to varying degrees and it has been shown that IHE were more likely to forfeit their accreditation for financial reasons than due to academic issues (Council for Higher Education Accreditation, 2006; Council for Higher Education Accreditation, 2002; Higher Learning Commission, n.d.; Kelchen, 2017; U.S. Government Accountability Office, 2015). Similar to sanctions imposed by the ED, actions taken by accrediting agencies can affect institutions' access to federal student aid and general perception, although they've been accused of not acting against IHE often (Fuller & Belkin, 2015).

A subset of the academic literature pertaining to accreditation is particularly relevant to this study as it focuses on the impacts of sanctions by accrediting agencies on institutions. Sanctions are a potential element of state government financial oversight policies and a topic the state coordinating agencies are encouraged to consider (Tandberg, 2018).

Christopher Burnett of the University of Houston has published two recent articles on the accreditation sanctions and their role as signals of quality for students. Burnett (2021) investigated how sanctions by accreditors affect enrollment at community colleges as an unintended consequence. He posited that enrollment at sanctioned institutions would decline if accreditation truly acts as a signal of quality to students, employers, and the public. His results suggest that, after controlling for other variables, a sanction was associated with a 2.32% drop in enrollment. Furthermore, Burnett (2022) expanded his analysis of the relationship between accreditation sanctions and enrollment to other higher education sectors. His findings indicate that sanctions by accreditors lead to FTE enrollment declines across sectors. These studies reinforce how important it is for policymakers to consider possible unintended consequences of taking actions against IHE and publicizing them as they develop and reform oversight policies.

Lastly, Burnett (2020) examined if HBCUs were more likely to be sanctioned by regional accreditors when controlling for an institution's financial resources and student outcomes (i.e., graduation rates). He specifically observed HBCUs located in southern states where most are accredited by the Southern Association of Colleges and Schools Commission on Colleges using data from IPEDS from 2012 to 2017 (SACSCOC). Burnett's results show that HBCUs are disproportionately sanctioned (i.e., denied substantive changes or put on warning status or probation) compared to non-HBCU IHE. This demonstrates how imperative it is for IHE oversight practices to account for missional diversity in their design.

State Government Agencies

The final role within the regulatory triad is filled by state governments, and particularly state higher education departments and offices of attorney generals. State authorization, another item required by the ED for institutions to participate in federal financial aid programs, refers to states' authority to license postsecondary institutions to operate in their boundaries (ASPA, n.d.). It is often typically the first formal act establishing the legal operation of a postsecondary institution and acts as the foundation that accrediting agencies and the ED build upon (Tandberg et al., 2019, p. 4). The process does not pertain to public institutions, which are authorized by statutes or state constitutions, and typically consists of three activities: (1) initial authorization of new institutions residing in the state, (2) reauthorization for institutions that have already been authorized, and (3) authorization of institution located out-of-state, typically through a reciprocity agreement (Tandberg et al., 2019, p. 9). State governments seeking to improve or establish financial monitoring practices for their public IHE would benefit from observing similar practices that already exist as part of authorization processes across the U.S.

The academic literature on state authorization is sparse and often not the primary focus of studies (Ness et al., n.d., p. 6). In response to this reality, the State Higher Education Executive Officers Association (SHEEO) launched a research project in partnership with Arnold Ventures to study efficacy and other aspects of state authorization processes (State Higher Education Executive Officers, n.d.). Unfortunately, the results of the following studies indicate that there is little to learn because rigorous assessments of the financial viability of IHE is not a component of most state authorization processes.

In their inventory of the state authorization landscape, Ness et al. (n.d.) clearly illustrated the significant variations in the rigor (i.e., stringency) of states' authorization processes using an ordinal scale that was based on four metric types often required as part of the process: (1) organizational and governance, (2) academic, (3) consumer protection, and (4) student outcome. Within the consumer protection category, which included required financial information such as audited financial statements, only 17 states had a high level of stringency. This is likely due to a lack of resource and staff expertise. Furthermore, even among the most stringent states in this category, nearly all of the states did not attempt to assess institutions' risk of closure through items like multiyear financial statements and budgets. Only the Minnesota Office of Higher Education collected such information (pp. 39-41). These findings demonstrate that most states are not actively engaged in rigorous analysis of the financial viability of the institutions they license, despite often collecting information like audited financial statements.

Tandberg et al. (2019) provided a number of recommendations for improving state authorization after exploring the variation in processes across the states. One particularly pertinent recommendation stated that:

> "States generally require institutions seeking authorization to provide finance-related information and data. For new institutions, states may ask for a proposed budget as well as current resources on hand. For existing institutions and those seeking renewal, authorizers ought to require the annual submission of audited financial statements and any additional financial information they need to measure the financial viability of the institutions and to ensure they are operating in accordance with relevant laws and regulations. Authorizers should examine institutional revenues (including government student aid as a share of total revenue), and institutional expenditures, including their advertising budget as a percentage of total expenditures, instructional expenses as a percentage of total expenditures, and reinvestment of gross revenues to support educational and student support purposes and programs." (p. 21)

Furthermore, the authors go on to recommend implementing indicators like the CFI and other financial and non-financial indicators as recommended to coordinating agencies for monitoring both public and private institutions in Tandberg's (2018) white paper, *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendations for SHEEO Agencies*.

Research Design

To inform CPE in determining their preferred process for assessing the financial condition of Kentucky's public postsecondary institutions, this study performs a descriptive case study analysis of higher education agencies in five states that monitor the financial health of their public postsecondary institutions (Brikci & Green, 2007, p. 24). The five agencies include: (1) the Ohio Department of Higher Education, (2) Louisiana Board of Regents, (3) Mississippi Institutions of Higher Learning, (4) North Dakota University System, (5) and Pennsylvania State System of Higher Education. The sample states were selected based on their inclusion in SHEEO and CPE reports (Kentucky Council on Postsecondary Education, 2023, pp. 61-62; Tandberg, 2018, pp. 13, 15).

The descriptive case study analysis is conducted by examining publicly available information (i.e., information accessible online) including state statutes, administrative regulations, state constitutions, board policies and procedures, agency websites, news releases, and other online sources. Because CPE is a member of SHEEO, the framework for analyzing each state's content is based on six recommendations found in the SHEEO white paper, *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendations for SHEEO Agencies* (Tandberg, 2018, p. 13). The recommendations include:

1) determine the data that will be gathered, sources, and the institutions monitored,
2) determine the indicators that must be calculated,
3) decide how frequently the metrics will be calculated (e.g., annually),

4) identify ameliorative actions that may be required and at what point action will be taken,
5) produce a regular report covering the financial health and risk of institutions,
6) convene the department's leadership for discussion and necessary decision making.

By analyzing the current policies and practices at the sample higher education agencies through this framework, this study produces clear, actionable insight into how CPE can implement SHEEO's recommendations.

Limitations

The findings in this study and resulting recommendations are subject to a few notable limitations. First, as with most case study research designs, the findings and recommendations produced by this research may not be generalizable to all U.S. states. Each of the five sample higher education agencies operates within a unique economic, demographic, and political environment which may or may not be similar to the environment in Kentucky or any other state. Furthermore, the sample higher education agencies vary in their authorities and roles within their state's postsecondary education landscape with some acting as governing boards and others as coordinating boards (North Dakota Legislative Council, 2012; State Higher Education Executive Officers Association, n.d.). Because of these differences, the financial monitoring practices in place in the sample states may be more or less feasible in others. As such, it is important for these differences to be considered when determining the appropriate processes in another state.

Lastly, this study's reliance on information that is publicly available and accessible online limits the depth and breadth of content that can be analyzed. As illustrated by the backlash that ensued when Edmit, an ed-tech company, tried to publish a list of private colleges that are at risk of closing, information on the financial condition of postsecondary institutions is often a confidential issue with policymakers and institutions concerned about increased transparency leading to self-fulfilling prophecies for those flagged as distressed (Fain, 2019). Similarly, the Louisiana Board of Regents does not publish financial health and risk reports online. Greater detail on these states' practices could be gained by accessing these reports. Furthermore, while state statutes, administrative regulations, and board policies often provide a wealth of information, the sample agencies may be employing additional analyses and leveraging findings for decision making in ways beyond what is disclosed in these public-facing resources. As such, future studies would benefit from collecting additional information through surveys and interviews with agency officials.

Case Studies

The following section of the study presents the findings of the descriptive case study analyses for six state higher education agencies. A summary table of each organization's financial oversight policies and practices applied to public IHE using the aforementioned framework can be found in the appendix. Additionally, contextual information retrieved from various news and other sources is provided to address topics such as the impetus for implementing the policies.

Ohio Department of Higher Education

The Ohio Department of Higher Education (ODHE) is the higher education coordinating/policy board for the state of Ohio (State Higher Education Executive Officers Association, n.d.). Led by Chancellor Mike Duffey, ODHE provides guidance to the governor on higher education policy and oversees the state's public universities and community colleges (Ohio Department of Higher Education, n.d.). ODHE's primary duties include: (1) approval of new degree programs, (2) administration of state grants and scholarships, and (3) designing and promoting higher education policies with a statewide perspective.

The department's financial monitoring and oversight activities began in 1997 with the passage of Senate Bill 6 (SB 6) of the 122nd General Assembly (Ohio Department of Higher Education, 2024). SB 6 gave ODHE the authority to identify financially distressed public IHE, place them on fiscal watch, and transfer the power and duties of a board of trustees to a conservator and alternative governance authority. The legislation also appropriated $10.3

million to address a deficit at Central State University (CSU) and keep it open through the end of the fiscal year (General Assembly of Ohio, 2024). Legislators in Ohio had debated removing all state funding for CSU (Fisher, 2007). Since then, CSU, the state's only public historically black college, has entered into fiscal watch but exited after repositioning itself well. Other IHE, like Wright State University, Shawnee State University, and Zane State College, have often operated on the edge of fiscal watch (Filby, 2019, 2017; Ohio Department of Higher Education, n.d.; WYSO, 2015).

As can be seen in the summary table in Appendix E, ODHE's financial monitoring and oversight authorities, methodology, and actions pertaining to the state's public IHE are precisely prescribed in state law and administrative regulation. This is unique among the sample organizations and could be seen as both a benefit and a barrier. In one sense, performing the prescribed duties under specific legal authority could potentially improve compliance by the IHE overseen by ODHE and help ensure uniform analysis. An example of this can be found in the chancellor's ability to withhold state funds from institutions that do not submit the required quarterly report. This is an important potential advantage of this approach for higher education coordinating boards, in particular, which typically lack the level of institutional control held by governing boards (Ernst & Young LLP, 2023, pp. 31-36). However, this approach could also be disadvantageous as its prescriptive nature does not provide ODHE flexibility to adapt and adjust processes to incorporate lessons learned without seeking a statutory change or engaging in the rulemaking process. For state higher education entities developing financial monitoring and oversight policies, the potential advantages and disadvantages of establishing these activities in state law and administrative regulations, as opposed to through internal board policies, should be considered along with the entity's existing authorities related to institutional accountability.

Another noteworthy characteristic of ODHE's financial oversight policies is the number of interventions applied to IHE identified as financially distressed and placed on fiscal watch. Per Ohio Administrative Code 126:3-1-01(D)-(E), the board of trustees of an institution on fiscal watch must: (1) develop and adopt a financial recovery plan with the intention of exiting fiscal watch within three years, (2) consult with the state auditor concerning current financial accounting and reporting issues that may be out of compliance, (3) create a process for performing monthly reviews of revenues, expenses, and encumbrances aligned with the financial recovery plan, (4) submit to the ODHE chancellor a quarterly report identifying adjustments to the financial recovery plan and significant areas where the institution is not complying, and (5) report annually, at a minimum, to the speaker of the house of representative, senate president, governor, chancellor, legislative service commission, state auditor, and director of the Office of Budget and Management concerning progress made on the financial recovery plan and areas of noncompliance with the administrative code (Legislative Service Commission, 2023). Furthermore, per Ohio Administrative Code 126:3-1-01(G), for an institution on fiscal watch that is "experiencing a serious failure of financial administration and has failed to take decisive action to restore financial health", the chancellor, with agreement by the Office of Budget and Management, can certify the appointment of a conservator and an alternative governance authority, which entails a suspension of the powers and duties of the board of trustees and the president or chief executive officer (Legislative Service Commission, 2023). Instituting an alternative governance authority is intended to be temporary and can be terminated based on the institution achieving sufficient fiscal stability and other criteria.

Despite the extensive list of interventions imposed on IHE under fiscal watch, ODHE's determination is based on a relatively few financial indicators, including both financial ratios and reportable events[1], and no non-financial indicators (e.g., enrollment). The financial indicators are

[1]Per Ohio Administrative Code 126:3-1-01(A)(5)(b), reportable events are narrative statements provided in response to questions included in quarterly reports intended to identify difficulties with cash flow and any substantial issues in the institutions' current budgets such as an institution requesting an advance of state funds, failing to make required retirement system contributions, failing to make payroll or payments to vendors, failing to make required debt service payments, reporting substantially reduced reserves or a large operating deficit due to a budget revision, and projecting a significant negative variance between budgeted and actual revenues and expenses for the year.

similar to the CFI developed in *Strategic Financial Analysis for Higher Education* and recommended by SHEEO (KPMG, Prager, Sealy & Co., LLC, & Attain, 2010; Tandberg, 2018). Per Ohio Administrative Code 126:3-1-01(A)(4)-(G), ODHE analyzes data retrieved from the institutions' audited financial statements to compute a composite score based on an institution's viability ratio, primary reserve ratio, and net income ratio (Legislative Service Commission, 2023). Each ratio is weighted and summed to compute a composite score ranging from 0 to 5 and IHE scoring 1.75 or less could be placed on fiscal watch if other criteria are also met, such as reporting one or more reportable events, one or more substantive audit findings, or a composite score of 1.75 or less for consecutive years. Similarly, a composite score of 0.75 or less can result in the appointment of a conservator and an alternative governance authority. A disclaimer of opinion on the most recent audited financial statements triggers fiscal watch regardless of the institution's composite score.

A final feature of ODHE's practices concerns how much transparency into institutions' results the agency provides. ODHE makes institutions' financial ratios, composite scores, and quarterly financial reports available on its website (Ohio Department of Higher Education, 2024). The website also provides policy background and an overview of the methodology behind the metrics.

Louisiana Board of Regents

The Louisiana Board of Regents (LBR) is the higher education coordinating/policy board responsible for the Louisiana Community and Technical Colleges System (LCTCS), Louisiana State University System (LSU), Southern University System (SU), and the University of Louisiana System (UL) (Louisiana Board of Regents, n.d.; State Higher Education Executive Officers Association, n.d.). Per Article VIII, Section 5 of the Louisiana Constitution, LBR is charged with statewide, postsecondary planning, coordinating, and budgetary responsibilities while the aforementioned system boards manage the operations of their respective campuses (Louisiana Board of Regents, n.d.; Louisiana State Legislature, n.d.). LBR's activities include but are not limited to: (1) developing the statewide Master Plan, (2) administering the postsecondary funding formula, and (3) approving and terminating academic programs and units.

LBR's financial monitoring and oversight activities resulted from an engagement with Deloitte to create an aspirational brand for higher education in Louisiana (Louisiana Board of Regents, 2016a). The outcome, "Elevate Louisiana: Educate and Innovate", was approved in December 2015. LBR took on a number of agency initiatives associated with Elevate Louisiana, including "Develop and Adopt a Policy on Financial Early Warning Systems and Financial Stress", in recognition of "The New Reality for Higher Education" and the financial challenges facing IHE (p. 33). The board meeting materials acknowledge that, "It serves no useful purpose for the Board of Regents to wish for better days and assume a return to appropriation levels of the past" (p. 33). Ultimately, the "Elevate Louisiana: Financial Health Analysis" policy was approved at the board's June 29, 2016, meeting (Louisiana Board of Regents, 2016c, pp. 83-84). The policy prescribes the data and methodology to be used in assessing the financial condition of Louisiana's public IHE. LBR's methodology is based on Ohio's model and contains the same metrics and terminology, although ameliorative actions differ.

The only "Elevate Louisiana: Financial Health Analysis" report available online displays institutions' results for fiscal year (FY) 2014-15 (Louisiana Board of Regents, 2016b). In the report, four institutions were identified as financially distressed and placed on fiscal watch. The institutions included: (1) Louisiana State University Health Sciences-Shreveport, (2) Southern University at New Orleans, (3) Grambling State University, and (4) Southern University at Shreveport (Guidry, 2016a, 2016b). Each of the institutions was required to submit a corrective action plan to the LBR that identified the cause(s) of the financial distress and how leaders would address them.

As can be seen in the summary table in Appendix F, LBR's financial monitoring and oversight policies closely resemble ODHE. Louisiana's model collects the same financial data, although only annually, from year-end audited financial statements on all Louisiana public IHE and computes four financial indicators consisting of: (1) the composite score, (2) primary reserve ratio, (3) viability ratio, and (4) net income ratio. Furthermore, the composite score is calculated on a scale of 0 (i.e., poor financial health) to 5 (i.e., excellent financial health) with institutions' scoring 1.75 or less for two consecutive fiscal years identified as financially distressed and placed on fiscal watch. Institutions on fiscal watch are required to submit corrective action plans to the LBR.

One of the most significant differences between ODHE and LBR's policies is how they are authorized. Unlike ODHE, Louisiana's financial oversight policies are not specifically prescribed in state law and administrative regulation but, instead, are adopted by the board (Louisiana Board of Regents, 2016c, p. 83-84). The LBR has general authority under Louisiana Revised Statute 17:3134(A)(1) requiring it to perform a "systematic, ongoing evaluation of quality and effectiveness in the public institutions of higher education in Louisiana that may be used to initiate curriculum, programmatic, funding, policy, or planning changes in higher education" (Louisiana State Legislature, n.d.). This general accountability power could also be interpreted as providing the LBR with power to engage in financial oversight activities. As discussed, this approach provides the board flexibility to modify its policy without requiring a change in statute or administrative regulation but could also result in diminished compliance institutions should LBR's authority be questioned.

Another area of significant difference between the ODHE and LBR's policies is the number of ameliorative actions available to the agencies. As shown in Appendices E and F, due in part to how ODHE's authorities are prescribed in state law, the agency is able to intervene in more ways than is possible in Louisiana. LBR's required actions for IHE placed on fiscal watch are limited to submitting a financial improvement plan (Louisiana Board of Regents, 2016b). Furthermore, because LBR relies solely on financial information obtained from year-end audited financial statements, there are less conditions where an institution could be placed on fiscal watch.

A final difference between ODHE and LBR's financial monitoring and oversight policies is the level of transparency with which institutions' outcomes are communicated. As seen in Appendices E and F, the agencies take very different approaches. LBR does not publish institutions' results online, with the exception of FY 2014-15, while ODHE regularly posts outcomes to their website, including trend data (Louisiana Board of Regents, 2016b; Ohio Department of Higher Education, 2024). This difference represents a critical decision required of agencies seeking to establish financial monitoring and oversight policies and practices. In determining if and how institutions' outcomes will be communicated, state higher education agencies must acknowledge the benefits and injuries that could result from public sanctions (Cellini et al., 2020; Darolia, 2013; Kelchen, 2018). For instance, while increased transparency may be desirable to legislators and students as they make decisions, campus leadership may argue publicizing which institutions are financially distressed could result in a self-fulfilling prophecy where institutions' distress is further exacerbated by accelerated enrollment declines. A potential counter argument could be that transparency provides institutions with sufficient incentive to maintain a strong financial condition without requiring additional interventions. Ultimately, agencies' decisions on this point will vary based on their unique priorities and philosophies.

Mississippi Board of Trustees of State Institutions of Higher Learning

The Mississippi Board of Trustees of State Institutions of Higher Learning is the governing board for the state's universities, also known as the Mississippi Institutions of Higher Learning (MIHL) (State Higher Education Executive Officers Association, n.d.). The board is established under Article 8, Section 213A of the Mississippi Constitution and the MIHL includes Alcorn State University, Delta State University, Jackson State University, Mississippi State University, Mississippi University for Women, Mississippi Valley State University, the University of Mississippi, and the University of Southern Mississippi (Mississippi Institutions of Higher Learning, 2024b; *The Constitution of the State of Mississippi*, 2022). The board's activities include allocating resources across institutions, reviewing academic programs, providing fiscal accountability and oversight, comprehensive planning, and more (Mississippi Institutions of Higher Learning, 2024a).

MIHL began its formal financial monitoring and oversight activities in April 2017 when the board added section 713, Institutional Financial Sustainability, to its policies and bylaws (Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, pp. 142-143). The policy contains four parts pertaining to: (1) the purpose of the policy, (2) planning for annual budgets, (3) minimum criteria for determining financial sustainability, and (4) potential impacts on institutions' major projects and encumbrances. Section 713 was passed when state legislators had cut the MIHL's funding by over $105 million, which led to increased financial stress at some institutions (Ciurczak, 2017). In a 2019 credit opinion, Moody's acknowledged MIHL's financial oversight as a contributing factor for improving its outlook from negative to stable (Mississippi Institutions of Higher Learning, 2019).

MIHL's financial oversight activities are performed under general statutory authorities it is provided. Section 37-101-7 of the Mississippi Code states that,

> "It shall be the duty of the Commissioner of Higher Education to make constant inquiry into the problems of higher education, to survey and study carefully the organization, management and all other affairs of each institution under the control of said trustees, to make report of all findings and recommend such changes as will increase efficiency and economy in the operation of each institution, and to perform such other duties as the board may prescribe." (*Miss. Code Ann. § 37-101-7*, 2023, para. 2)

Furthermore, per Mississippi Code Section 37-101-15(b), "The board shall have general supervision of the affairs of all the institutions of higher learning, including the departments and the schools thereof" (*Miss. Code Ann. § 37-101-15*, 2023, para. 2). Each of these authorities could be interpreted as authorizing the board to engage in financial oversight of its institutions.

As can be seen in the summary table in Appendix G, MIHL's financial monitoring policies and practices are very comprehensive. The agency publishes the *Financial Ratios and Trends* report annually which discusses data collection and methodology and reports results of the system's institutions (Mississippi Institutions of Higher Learning, 2023). MIHL uses a methodology that is largely based on ratios prescribed in *Strategic Financial Analysis for Higher Education* and shown in Appendix B (KPMG et al., 2010; Mississippi Institutions of Higher Learning, 2023, p. 1). In total, 34 financial indicators are monitored across system members as calculated using year-end audited financial statements. These metrics are grouped by the aspect of institutional finances they inform: (1) resource sufficiency and flexibility, (2) resource management (debt), (3) asset performance and management, and (4) operating performance. These categories and the questions the metrics intend to answer are identical to those defined in *Strategic financial Analysis for Higher Education* (KPMG et al., 2010, p. 107). Despite calculating the ratios required for computing the CFI, MIHL does not calculate a CFI for its universities. Additionally, the system's analysis does not formally include any non-financial indicators.

Despite using a robust set of metrics to assess the financial condition of its universities, the intervening actions specifically mentioned in MIHL's Institutional Financial Sustainability policy are relatively limited (Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 142-143). Furthermore, the language gives considerable discretion to the commissioner of higher education and board regarding whether or not to act. The policy requires the commissioner to organize a meeting with the executive officers of the universities to determine a basis for recommending each institution's proposed budget to the board that accounts for its financial condition. As part of this process, the commissioner may define financial targets or objectives for each institution. Additionally, the policy states that performance with regard to achieving institutional financial sustainability will be an element of the commissioner and board's evaluation of executive officers. Lastly, the board may delay consideration of any capital projects or other items that would incur significant expenditure commitments or debt burden should a university not comply with the minimum criteria for financial sustainability.

The Institutional Financial Sustainability policy defines the minimum criteria for financial sustainability as having: (1) adequate financial reserves, (2) adequate liquidity, and (3) adequate debt service coverage (Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 143). The policy does not specifically state the ratios or levels that will be used to determine adequacy across these areas, however, the following information was obtained from the *Financial Ratios and Trends* report and a letter on the topic to Delta State University from the Commissioner of Higher Education, Alfred Rankins Jr., Ph.D.:

- Financial reserves: Long-term liability to unrestricted net assets ratio of less than 1.5x
- Liquidity: At least 90 days of cash on hand
- Debt service coverage: Debt service coverage ratio of at least 1.5x (Mississippi Institutions of Higher Learning, 2023; Rankins, Jr., 2023)

As mentioned, should an institution not meet these conditions, the board may postpone progress on significant projects requiring large expenditure commitments.

Mississippi provides excellent transparency into institutions' financial outcomes by posting the most current version of the *Financial Ratios and Trends* report to the MIHL website (Mississippi Institutions of Higher Learning, 2024c). As discussed, transparency is often desired by legislators and students and can provide incentive for institutions to remain financially sustainable while also inviting the possibility of self-fulfilling prophecies.

North Dakota State Board of Higher Education

The North Dakota State Board of Higher Education (SBHE) is the governing board responsible for overseeing the North Dakota University System (NDUS) (North Dakota University System, 2018b; State Higher Education Executive Officers Association, n.d.). The SBHE is established under Article VIII, Section 6 of the North Dakota Constitution (*ARTICLE*

VIII EDUCATION, n.d.; North Dakota State Board of Higher Education, 2019). Additionally, the majority of the SBHE's statutory authorities, including its powers and duties, can be found in Title 15, Chapter 10 of the North Dakota Century Code (North Dakota Legislative Branch, 2024a; North Dakota State Board of Higher Education, 2019).

The SBHE has responsibility for the control and administration of all of the institutions it oversees, which are collectively known as the NDUS (*ARTICLE VIII EDUCATION*, n.d.). The board's authority over NDUS institutions is comprehensive with Article VIII Section 6(6)(b) stating that it can "do each and everything necessary and proper for the efficient and economic administration of said state educational institutions" (North Dakota State Board of Higher Education, 2023c). The NDUS consists of the state's 11 publicly supported colleges and universities including Bismarck State College, Dickinson State University, Minot State University, Lake Region State College, Valley City State University, Dakota College at Bottineau, Williston State College, Mayville State University, North Dakota State University, North Dakota State College of Science, and the University of North Dakota (North Dakota University System, 2018a, 2018b).

The aforementioned constitutional and statutory authority provided to the SBHE and described in Policy 100.6 is the probable source of general authority for the NDUS's financial oversight activities (North Dakota State Board of Higher Education, 2023c). Title 15, Chapter 10, Section 72 of the Century Code requires the SBHE to disclose information on an institution's reserves and CFI, which are both components of the NDUS financial monitoring methodology, to finalists for an institution's presidency (North Dakota Legislative Branch, 2024a). However, given the circumstantial nature of this statute, it is unlikely to be interpreted as the source of authority for regular financial oversight activities. Furthermore, Title 35 of the North Dakota Administrative Code states that SBHE is not required to publish rules in the Administrative Code (North Dakota Legislative Branch, 2024b). Instead, the board's means of performing its duties is through adopted policies and rules (North Dakota State Board of Higher Education, 2023a). As such, the financial monitoring and oversight activities are performed primarily according to board policies.

The SBHE has adopted two policies that are of primary importance to NDUS's annual financial monitoring report, called the *Annual Financial Review Report* (North Dakota University System, 2023). First, Policy 302.3 establishes the SBHE Budget and Finance Committee along with its responsibilities (North Dakota State Board of Higher Education, 2023b). The committee's purpose is to "ensure the NDUS fiscal stability and long-term economic health" (para. 1). Among its various responsibilities, the Budget and Finance Committee is required to receive the *Annual Financial Review Report*. Second, Policy 810.1 defines two types of reserves, undesignated and designated, and sets a target level of undesignated appropriated fund reserves between 5-7% of the prior year's general fund and net tuition revenue to be maintained by NDUS institutions (North Dakota State Board of Higher Education, 2014). Should an institution's reserves fall below 5%, the college or university becomes subject to increased financial oversight and reporting and must submit a plan for increasing its reserves to meet the target. This reserve information is required to be part of the *Annual Financial Review Report*.

As can be seen in the summary table in Appendix H, NDUS monitors many of the same financial indicators as other states in this study but also includes a few unique measures. The similarities are because the methodology incorporates indicators from *Strategic Financial Analysis for Higher Education*, including the CFI (KPMG, Prager, Sealy & Co., LLC, & Attain, 2010; North Dakota University System, 2023, pp. 2-5). However, NDUS is distinct in that these metrics are included largely due to them being analyzed by its accreditor, the Higher Learning Commission (HLC) (Higher Learning Commission, 2024). The report displays the thresholds HLC uses to assess institutions' CFI and the associated outcomes but does not indicate this information triggers any actions by the SBHE. NDUS's report differs from those discussed to this point in that it includes contextual information through a non-financial indicator, FTE fall enrollment, and state-level funding data from the SHEEO's *State Higher Education Finance Report* (North Dakota University System, 2023, pp. 6-7).

Similar to Ohio and Mississippi, the SBHE and NDUS have elected to provide a high level of transparency into institutions' results by publishing current and previous years' reports to its website (North Dakota University System, n.d.-b). Furthermore, each report shows five years of results for most metrics. Lastly, as mentioned, the *Annual Financial Review Report* is provided to the SBHE Budget and Finance Committee, per Policy 302.3 (North Dakota State Board of Higher Education, 2023b).

Pennsylvania State System of Higher Education

The Pennsylvania State System of Higher Education (PASSHE) is one of two SHEEO member agencies in the state and functions as the governing board for 10 public universities through its Board of Governors (Pennsylvania's State System of Higher Education, n.d.-b; State Higher Education Executive Officers Association, n.d.). PASSHE, led by its chancellor, Dr. Daniel Greenstein, has undergone significant transformation in recent years through the System Redesign initiative (Pennsylvania's State System of Higher Education, 2022, n.d.-a). Motivated largely by increasing financial pressures faced by PASSHE universities, the initiative resulted in an emphasis on improving universities' financial stability and sustainability. Furthermore, System Redesign prompted the consolidation of six total institutions into two, Pennsylvania West University (PennWest) and Commonwealth University. Today, PASSHE universities include Cheyney, Commonwealth, East Stroudsburg, IUP, Kutztown, Millersville, PennWest, Shippensburg, Slippery Rock, and West Chester (Pennsylvania's State System of Higher Education, n.d.-b).

PASSHE was established by Act 188 of 1982 (i.e., Nov. 12, 1982, P.L.660, No. 188) and is provided extensive authority over its members including the power to "establish broad fiscal, personnel and educational policies under which System universities shall operate" and "make, issue and enforce board policies, procedures and standards for the management and conduct of the instructional, administrative and financial affairs of the system" (Goin Jr., 2023; Pennsylvania General Assembly, 2020, pp. 12, 14). It is under these general fiscal powers that the PASSHE Board of Governors (2023) adopted *Policy 2019-01-A: University Financial Sustainability Policy* on October 16, 2019. The policy "provides a proactive framework by which university and System leaders can collaborate to enhance an institution's financial success" (p. 1). The framework includes definitions, review processes, and evaluation criteria for assessing and enhancing universities' financial stability which are implemented according to PASSHE administrative procedure (Office of the Chancellor, 2023). Appendix I provides a summary of PASSHE's financial oversight activities using the aforementioned SHEEO framework.

As shown in Appendix I, PASSHE takes a unique approach to collecting and analyzing data as part of monitoring the financial stability of its universities compared to the other agencies in this study. First, PASSHE is the only agency in this study that relies solely upon data retrieved through its internal data system (Office of the Chancellor, 2023, pp. 10-12). Although other governing boards in this study do not use this approach, this source is usually limited to governing boards as coordinating boards typically don't have access to institutions' internal accounting data. Second, PASSHE incorporates the most non-financial indicators of the agencies included in the study (pp. 1-3). Metrics like enrollment are utilized as a leading indicator while a variety of student to employee ratios are used to assess productivity. Lastly, although PASSHE monitors a total of 14 indicators that are used in developing University Sustainability Plans, only four measures are applied to determine and categorize universities by where they fall along the financial health spectrum, called Procedure Indicators (pp. 1-4). The Procedure Indicators, with the exception of enrollment, are similar to common ratios emphasized across the other states in this study and measure universities' operating performance and reserves and are derived based on the *Strategic Financial Analysis for Higher Education* methodology (p. 16).

Universities can fall into one of four categories based on their Procedure Indicators: (1) Overall Stability, (2) Financial Sustainability Plan One, (3) Financial Sustainability Plan Two, or (4) Financial Sustainability Plan Three (Office of the Chancellor, 2023, pp. 4-8, 16). Appendix I shows the criteria used to categorize institutions and corresponding actions that can be taken by the chancellor and Board of Governors. Depending on where a university's financial health falls, PASSHE leadership can take a wide array of actions ranging varying in severity from requiring increased financial monitoring and reporting and submission of a financial improvement plan to mandating workforce reductions or an indefinite suspension of university operations (PA State System of Higher Education Board of Governors, 2023, p. 2-3). The array of intervening actions available to PASSHE leadership is comparable to those at ODHE.

Lastly, as shown in Appendix I, universities' results over time are shared with university and system leadership and are made available on the system's website (PA State System of Higher Education Board of Governors, 2023, p. 2; Pennsylvania's State System of Higher Education, n.d.-c). A distinct feature of PASSHE's annual review and reporting of results is the inclusion of institutions' chief academic officers. This is an appropriate decision given the important role a variety of productivity measures (e.g., student to faculty ratios) play in a university developing a Financial Sustainability Plan. Overall, PASSHE maintains a high-level of transparency into the financial condition of its universities.

Summary of Findings

Appendices J through N contain tables comparing the five agencies included in this case study to identify common elements across their financial monitoring policies and practices. The comparison tables show the prevalence of policy features grouped into five categories: (1) authority and implementation, (2) data sources, (3) monitoring metrics, (4) ameliorative actions, and (5) transparency and reporting. The analysis shown in these tables is based on the information contained in each agency's summary table (see appendices E through I). There are a number of themes found in the tables that are relevant for CPE as it determines a process for monitoring the state's public institutions.

- **Authority and Implementation**. The ODHE is the only agency with its financial monitoring and oversight authority and activities specifically prescribed in statute and accompanying administrative regulations. The remaining agencies rely on general powers provided to their boards, such as enacting fiscal policies or establishing an accountability process, to monitor the financial condition of their institutions. Given three of the five agencies analyzed are governing boards with comprehensive power over their colleges and universities, this finding is not surprising, however, the LBR, a coordinating board has also opted to perform its oversight under general authorities.
- **Data Sources.** Year-end audited financial statements are the most common source of data for assessing institutions' financial health. This if true for both coordinating and governing boards, with the exception of PASSHE, however, two of the three governing boards also leverage internal financial/accounting and student records in their analysis. Reliance on year-end audited financial statements is not surprising given the general perception within higher education that audited statements are trustworthy. Furthermore, four of the five agencies perform calculations annually, aligning well with the source.
- **Monitoring Metrics.** Financial indicators related to analyzing institutions' debt, operating performance, and reserves are used across all five state agencies. Composite scores (e.g., CFI or variation) and metrics evaluating liquidity and revenues/expenses were also frequent features. This is indicative of the significant influence that KPMG, et al.'s *Strategic Financial Analysis for Higher Education* has had on the sector. Lastly, despite their potential as leading indicators and cost-drivers, non-financial indicators are not used often as part of financial oversight activities.
- **Ameliorative Actions.** The most frequent actions taken by the sample states in response to institutions' results are requiring submission of a financial improvement plan,

formally identifying institutions as financially distressed, and requiring increased financial monitoring and reporting. There are more consequential actions available agencies that were identified in the analysis, such as prompting a temporary change in institutional governance or indefinitely suspending operations, however, these are mainly only available in Ohio and Pennsylvania. The number and seriousness of the ameliorative actions available to PASSHE is indicative of the substantial financial distress facing the system, as manifested in its recent consolidation of six universities.

- **Transparency and Reporting.** Four of the five agencies maintain a high level of transparency into institutions' results by posting the most current financial analyses to their websites and including multiple years of data. While this may seem surprising, this finding is likely because the sample state agencies were selected because they were included in other reports. Transparency was probably a required to conduct the research.

Together, the summary and comparison tables provide both detailed descriptions of the sample agencies' financial monitoring policies and common elements across them. Both perspectives are valuable for CPE as it develops its own policies and procedures.

Conclusion

Considering recent financial difficulties at NKU and KSU, CPE has recommended to the General Assembly that "a process should be implemented for CPE to actively monitor and regularly report to the General Assembly and Governor on the financial health of the state's public colleges and universities" (Kentucky Council on Postsecondary Education, 2023, p. 70). The primary purpose of this study is to aid CPE leadership in developing this process. This study achieves this goal by performing detailed case study analysis of financial oversight activities in five states using a framework based on recommendations from SHEEO. Additionally, the study identifies key themes across the states that emerge from the analysis. As such, CPE is better equipped to develop its financial monitoring process. It may be the case that leadership decides to model Kentucky’s policies and procedures after those in a single state. Alternatively, the Council could adopt policies and procedures using elements from each of the sample states or just those most commonly employed across them. Ultimately, CPE must consider what policies are best suited to Kentucky.

A secondary goal of this study is to inform future research in state financial oversight of public higher education institutions. Currently, a complete inventory of policies and procedures across the U.S. does not exist. This study demonstrates the potential value of creating a national inventory to inform policymakers and deploys a possible framework by which these policies and procedures could be examined across the U.S. Given the higher education industry is currently at an inflection point, with greater disruption still to come, understanding which state policies are effective and determining how that effectiveness is measured will become an increasingly crucial area of public policy research. However, the foundation of this important research is understanding what states are currently doing. This study begins building this foundation.

Appendix A

Summary of Ratios

Table A1.

Ratio	**Numerator**	**Denominator**
Primary Reserve	Total Reserves	Annual Expenses
Viability	Total Reserves	Total Debt
Net Asset	Change in Net Assets	Total Revenues
Cash Flow	Operating Cash Flows	Total Revenues

Table A2.

Ratio	**Poor**	**Average**	**Excellent**
Primary Reserve	Less than 10%	15% to 25%	More than 50%
Viability	Less than 30%	50% to 100%	More than 250%
Net Asset	Anything Negative	1% to 3%	More than 5%
Cash Flow	Anything Negative	1% to 3%	More than 5%

Note: Summary of ratios. Adapted from “Analyzing University and College Financial Statements,” by H. Bunsis, 2015, *Journal of Collective Bargaining in the Academy*, *0*(7), p. 24.

Appendix B

Strategic Financial Analysis for Higher Education's Ratio Definitions

Table B1.

	PRIVATE INSTITUTIONS	PUBLIC INSTITUTIONS
LIQUIDITY		
	Sources of Liquidity	Sources of Liquidity
	Uses of Liquidity	Uses of Liquidity
Note - Ratio should be calculated using a short-term measure and an intermediate term measure as discussed in Chapter 4		
RESOURCE SUFFICIENCY AND FLEXIBILITY		
PRIMARY RESERVE RATIO	Expendable Net Assets	Expendable Net Assets + Component Unit (C.U.) Expendable Net Assets
	Total Expenses	Total Expenses + C.U. Total Expenses
DEBT MANAGEMENT		
VIABILITY RATIO	Expendable Net Assets	Expendable Net Assets + C.U. Expendable Net Assets
	Long-Term Debt	Long-Term Debt + C.U. Long-Term Debt
DEBT BURDEN RATIO	Debt Service	Debt Service + C.U. Debt Service
	Total Expenditures	Total Expenditures + C.U. Total Expenditures
DEBT SERVICE COVERAGE RATIO	Adjusted Change in Net Assets	Adjusted Change in Net Assets + C.U. Adjusted Change in Net Assets
	Debt Service	Debt Service + C.U. Debt Service
INTEREST BURDEN RATIO	Interest Expense	Interest Expense + C.U. Interest Expense
	Total Expenditures	Total Expenditures + C.U. Total Expenditures
PORTFOLIO PRINCIPAL DURATION METRIC	For each issue outstanding, the sum of (Par Outstanding x Principal Duration Term)	For each issue outstanding, the sum of (Par Outstanding x Principal Duration Term)
	Total Par Outstanding	Total Par Outstanding
ASSET PERFORMANCE AND MANAGEMENT		
RETURN ON NET ASSETS RATIO	Change in Net Assets	Change in Net Assets + C.U. Change in Net Assets
	Total Net Assets	Total Net Assets + C.U. Total Net Assets
PHYSICAL ASSET REINVESTMENT RATIO	Capital Expenditures	Capital Expenditures
	Depreciation Expense	Depreciation Expense
AGE OF FACILITY RATIO	Accumulated Depreciation	Accumulated Depreciation + C.U. Accumulated Depreciation
	Depreciation Expense	Depreciation Expense + C.U. Depreciation Expense
FACILITIES BURDEN RATIO	Facility Operation Expenses	Facility Operation Expenses + C.U. Facility Operation Expenses
	Property, Plant & Equipment, Net	Capital Assets, Net + C.U. Property, Plant & Equipment, Net
DEFERRED MAINTENANCE RATIO	Outstanding Maintenance Requirements	Outstanding Maintenance Requirements + C.U. Outstanding Maintenance Requirements
	Expendable Net Assets	Expendable Net Assets + C.U. Expendable Net Assets

Appendix B

Strategic Financial Analysis for Higher Education's Ratio Definitions

Table B2.

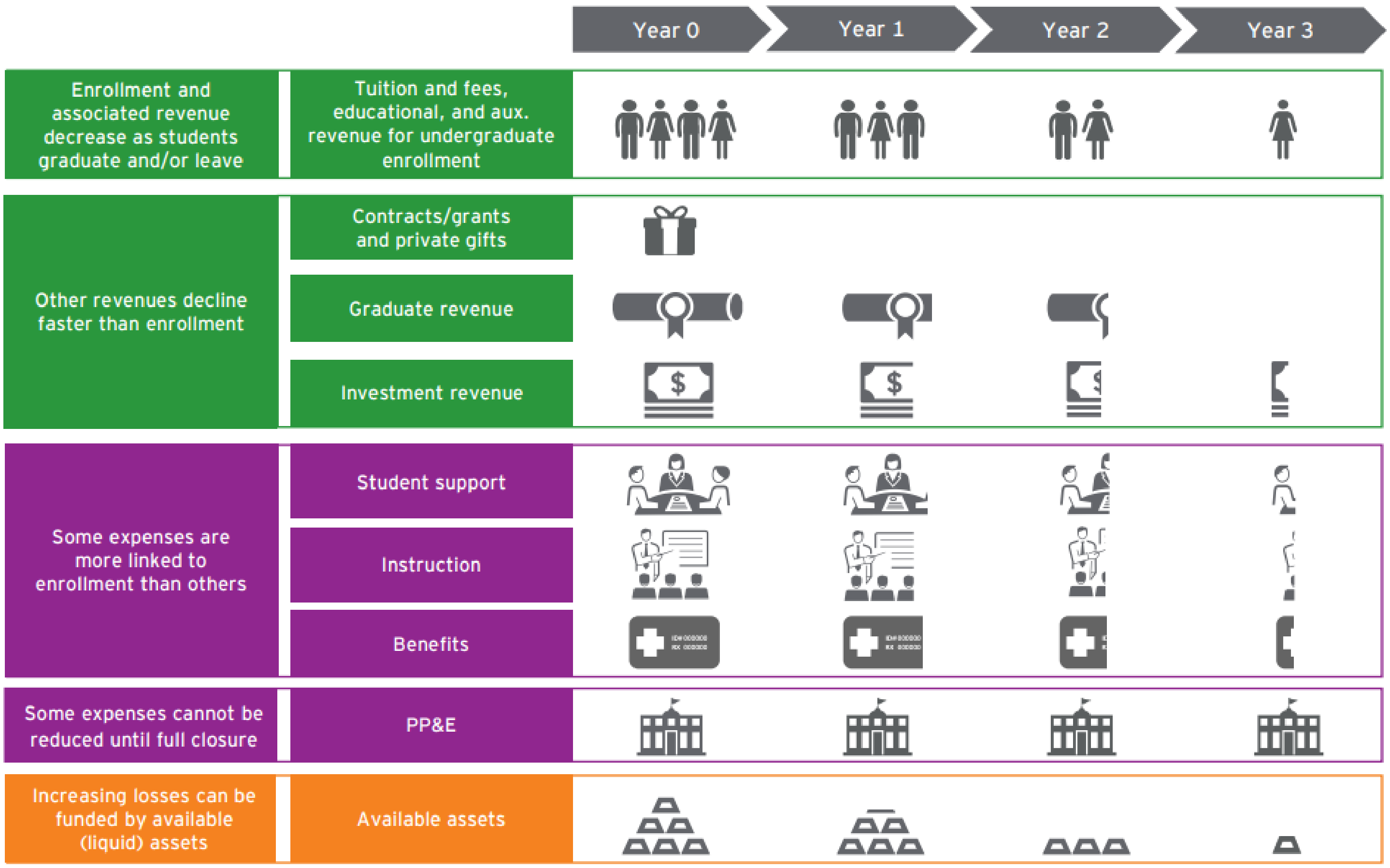
	PRIVATE INSTITUTIONS	PUBLIC INSTITUTIONS
OPERATING RESULTS		
NET OPERATING REVENUES RATIO:	Excess (Deficiency) of Unrestricted Operating Revenues Over Unrestricted Operating Expenses	Operating Income (loss) + Net Nonoperating revenues + C.U. Change in Unrestricted Net Assets
	Total Unrestricted Operating Revenues	Operating Revenues + Nonoperating Revenues + C.U. Total Unrestricted Income
CASH INCOME RATIO	Net Cash Provided by Operating Activities	Adjusted Net Cash Provided by Operating Activities + C.U. Net Cash Provided by Operating Activities
	Total Unrestricted Income, Excluding Gains and Losses	Adjusted Operating Income + C.U. Total Unrestricted Income, Excluding Gains
NET TUITION AND FEES CONTRIBUTION RATIO	Net Tuition and Fees	Net Tuition and Fees
	Total Expenses	Total Expenses
NET TUITION DEPENDENCY RATIO	Net Tuition and Fees	Net Tuition and Fees
	Total Unrestricted Operating Revenues	Total Adjusted Operating Income
NET TUITION PER STUDENT FTE RATIO	Net Tuition and Fees	Net Tuition and Fees
	Full-Time Equivalent Students	Full-Time Equivalent Students
DEMAND RATIOS	Specific Types of Expenses	Specific Types of Expenses
	Total Unrestricted Operating Revenues	Total Operating Income

Note : For long-term debt, institutions should either substitute Total project related debt or use a definition that is clearly articulated and communicated.

Note: Ratio Definitions. Reprinted from *Strategic Financial Analysis for Higher Education*, by KPMG, Prager, Sealy & Co., and Attain, 2010, pp. 143-144.

Appendix C

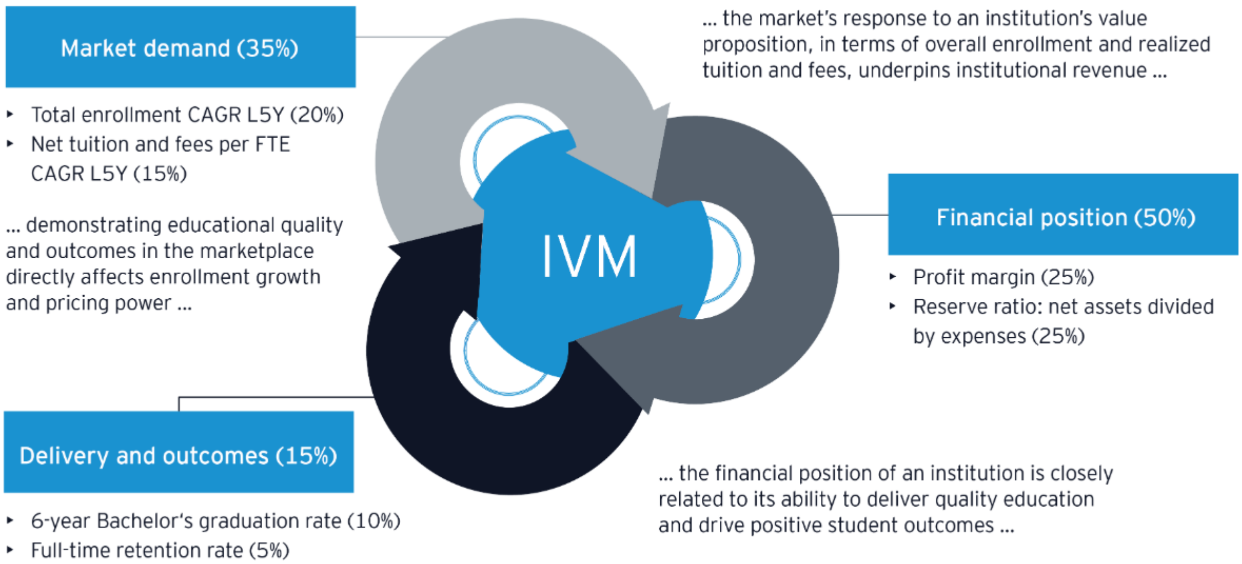
Overview of TVM Methodology



Note: Overview of TVM Methodology. Reprinted from *Transitions in higher education: Safeguarding the interests of students*, by EY-Parthenon, 2018, pp. 14.

Appendix D

Overview of EY-Parthenon's Institutional Viability Metric



Note: Overview of EY-Parthenon's IVM. Reprinted from "Six key financial and operational metrics pinpoint higher ed risk", by Kasia Lundy and Miriam El-Baz, 2022, https://www.ey.com/en_us/education/strategy-consulting/six-key-financial-and-operational-metrics-pinpoint-higher-ed-risk.

Appendix E

Summary of Financial Monitoring Policies and Practices for the Ohio Department of Higher Education

Topics[1]	Subtopics[1]	Ohio Department of Higher Education	Source(s)
Are financial oversight activities specifically authorized and prescribed in state law and administrative regulations?	Is there specific statutory authority?	Yes.	Ohio Rev. Code Ann. §§ 3345.71-.76
	Are there administrative regulations?	Yes.	Ohio Admin. Code 126:3-1-01 (2023)
What data is collected, from what sources, and on which institutions?	Which institutions/sectors are monitored?	Public universities, community colleges, technical colleges	Ohio Rev. Code Ann. §§ 3345.011, .71(A)
	What data sources are used?	Year-end audited financial statements, quarterly financial reports, auditor of state information (e.g., substantive audit findings), other information available to the chancellor or state auditor	Ohio Rev. Code Ann. § 3345.72(E)
	What data is collected?	Expendable fund balances (i.e., net assets), plant debt, total revenues, total operating expenses, total non-operating expenses, change in total net assets, reportable events[2]	Ohio Rev. Code Ann. §§ 3345.73 Ohio Admin. Code 126:3-1-01(A)(4)(a) (2023) Ohio Department of Higher Education, 2024
What metrics are calculated from the data?	Financial indicators	Composite score[3] (e.g., 0 to 5), calculated using: - Viability Ratio[4] - Primary Reserve Ratio[5] - Net Income Ratio[6] Reportable events, including: - Requesting an advance of state funds. - Failing to make required retirement system contributions. - Failing to make payroll or payments to vendors. - Failing to make required debt service payments. - Reporting substantially reduced reserves or a large operating deficit due to a budget revision. - Projecting a significant negative variance between budgeted and actual revenues and expenses for the year. Substantive audit findings.	Ohio Admin. Code 126:3-1-01(A)(4) (2023) Ohio Department of Higher Education, 2024
	Non-financial Indicators	None.	Ohio Admin. Code 126:3-1-01 (2023)
How often are the metrics calculated?	Are metrics calculated annually?	Yes.	Ohio Admin. Code 126:3-1-01(A)(4) (2023) Ohio Department of Higher Education, 2024
	Are metrics calculated quarterly?	Yes.	Ohio Admin. Code 126:3-1-01(A)(5) (2023) Ohio Department of Higher Education, 2024
What ameliorative actions can be taken and at what point?	What actions are taken based on institutions' results?	- Identification as financially distressed (e.g., placed on fiscal watch). - Increased financial monitoring and reporting. - Submission of a financial improvement plan. - Consultation with the state auditor. - Mandatory reporting to legislative and government leadership. - Temporary change in governance (e.g., conservatorship). - State funding for the institution is withheld.	Ohio Rev. Code Ann. § 3345.72-.76 Ohio Admin. Code 126:3-1-01 (2023)
	What thresholds are used for determining actions?	An institution is identified as financially distressed (i.e., placed on fiscal watch), subjected to increased financial monitoring and reporting, required to submit a financial improvement plan, and required to consult with the state auditor if any of the following conditions are met: - Failure to submit fiscal year financial statements as required.	Ohio Admin. Code 126:3-1-01(B), (G)(1) (2023) Ohio Rev. Code Ann. § 3345.72(H)

Appendix E

Summary of Financial Monitoring Policies and Practices for the Ohio Department of Higher Education

Topics[1]	Subtopics[1]	Ohio Department of Higher Education	Source(s)
		- Failure to obtain a year-end audit as required. - Composite score of 1.75 or less for two consecutive fiscal years. - Composite score of 1.75 or less and determination by the chancellor that the institution has not taken clear action to address its financial health. - Composite score of 1.75 or less and at least one reportable event in the period. - Composite score of 1.75 or less and at least one substantive audit finding. - A disclaimer of opinion on the most recent audited financial statements. A temporary change in governance (e.g., conservatorship) occurs when either of the following conditions are met: - Composite score of 0.75 or less and consensus opinion of the chancellor of higher education and office of budget and management that there is a serious failure in financial administration without clear action to improve financial health. - Identified as financial distressed (e.g., placed on fiscal watch) for three consecutive fiscal years and consensus opinion of the chancellor of higher education and office of budget and management that there is a serious failure in financial administration. State funding for the institution can be withheld if an institution does not submit the quarterly report until the report is submitted.	
Are results reported publicly (e.g., on an organization's website)?	Are current reports available on the organization's website?	Yes.	Ohio Department of Higher Education, 2024
	Are multiple years of results reported (i.e., time-series)?	Yes.	Ohio Department of Higher Education, 2024
Are results regularly shared across agency leadership to discuss and determine any necessary actions?	Are results shared with leadership?	Not indicated in online resources.	Not applicable
	If so, with whom?	Not indicated in online resources.	Not applicable

Note: Author's analysis of online resources.
[1]Based on the six recommendations discussed in *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendation for SHEEO Agencies,* by David A. Tandberg, 2018, p. 13.
[2]Reportable events are narrative statements provided in response to questions intended to identify difficulties with cash flow and any substantial issues in the institutions' current budgets.
[3]A composite score of 5 indicates the highest level of financial health.
[4]Calculated as expendable fund balance (i.e., net assets) divided by plant debt.
[5]Calculated as expendable fund balance (i.e., net assets) divided by total current funds expenditures and mandatory transfers (i.e., total operating expenses).
[6]Calculated as net total revenues (i.e., change in total net assets) divided by total revenues.

Appendix F

Summary of Financial Monitoring Policies and Practices for the Louisiana Board of Regents

Topics[1]	Subtopics[1]	Louisiana Board of Regents	Source(s)
Are financial oversight activities specifically authorized and prescribed in state law and administrative regulations?	Is there specific statutory authority?	No. Financial oversight activities are performed under general statutory authorities and administered according to board policy.	La. Const. art. VIII, § 5(A) La. Rev. Stat. § 17:3134 Louisiana Board of Regents, 2016, pp. 83-84 Louisiana Board of Regents, 2016, pp. 32-34
	Are there administrative regulations?	No. Financial oversight activities are administered according to board policy and procedures.	La. Rev. Stat. § 17:3134(C)(2) Louisiana Board of Regents, 2016, pp. 83-84
What data is collected, from what sources, and on which institutions?	Which institutions/sectors are monitored?	Public universities, community colleges, technical colleges	Louisiana Board of Regents, 2016, p. 2
	What data sources are used?	Year-end audited financial statements	Louisiana Board of Regents, 2016, p. 84
	What data is collected?	Expendable net assets, plant debt, total revenues, total operating expenses, total non-operating expenses, change in total net assets,	Louisiana Board of Regents, 2016, p. 1 Louisiana Board of Regents, 2016, p. 84
What metrics are calculated from the data?	Financial indicators	Composite score[2] (e.g., 0 to 5), calculated using: - Viability Ratio[3] - Primary Reserve Ratio[4] - Net Income Ratio[5]	Louisiana Board of Regents, 2016, p. 1 Louisiana Board of Regents, 2016, p. 84
	Non-financial Indicators	None.	Louisiana Board of Regents, 2016, p. 1 Louisiana Board of Regents, 2016, p. 84
How often are the metrics calculated?	Are metrics calculated annually?	Yes.	Louisiana Board of Regents, 2016, p. 1 Louisiana Board of Regents, 2016, p. 84
	Are metrics calculated quarterly?	No.	Louisiana Board of Regents, 2016, p. 1 Louisiana Board of Regents, 2016, p. 84
What ameliorative actions can be taken and at what point?	What actions are taken based on institutions' results?	- Identification as financially distressed (e.g., placed on fiscal watch). - Submission of a financial improvement plan.	Louisiana Board of Regents, 2016, p. 1
	What thresholds are used for determining actions?	An institution is identified as financially distressed (i.e., placed on fiscal watch) and required to submit a financial improvement plan (i.e., corrective action plan) at the June Board of Regents meeting if it reports a composite score of 1.75 or less for two consecutive fiscal years.	Louisiana Board of Regents, 2016, p. 1
Are results reported publicly (e.g., on an organization's website)?	Are current reports available on the organization's website?	No.	Not applicable
	Are multiple years of results reported (i.e., time-series)?	No.	Not applicable
Are results regularly shared across agency leadership to discuss and determine any necessary actions?	Are results shared with leadership?	Not indicated in online resources. Online resources indicate an annual report was scheduled to be presented to the Louisiana Board of Regents at their April meeting, however, the report has not been made publicly available since 2016 and, therefore, the continuation of this practice is not able to be verified.	Louisiana Board of Regents, 2016, p. 1
	If so, with whom?	Not indicated in online resources. See note above for "Are results shared with leadership?"	Louisiana Board of Regents, 2016, p. 1

Note: Author's analysis of online resources.
[1]Based on the six recommendations discussed in *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendation for SHEEO Agencies,* by David A. Tandberg, 2018, p. 13.
[2]The composite score ranges from 0 (poor financial health) to 5 (excellent financial health).
[3]Calculated as expendable net assets divided by plant debt.
[4]Calculated as expendable net assets divided by total operating expenses.
[5]Calculated as change in total net assets divided by total revenues.

Appendix G

Summary of Financial Monitoring Policies and Practices for the Mississippi Board of Trustees of State Institutions of Higher Learning

Topics[1]	Subtopics[1]	Mississippi Institutions of Higher Learning	Source(s)
Are financial oversight activities specifically authorized and prescribed in state law and administrative regulations?	Is there specific statutory authority?	No. Financial oversight activities are performed under general statutory authorities and administered according to board policy.	Miss. Code Ann. § 37-101-7 (1972) Miss. Code Ann. § 37-101-15(b) (1972) Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, pp. 142-143
	Are there administrative regulations?	No. Financial oversight activities are administered according to board policy and procedures.	Miss. Code Ann. § 37-101-15(c) (1972) Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, pp. 142-143
What data is collected, from what sources, and on which institutions?	Which institutions/sectors are monitored?	Public universities	Miss. Code Ann. § 37-101-1 (1972) Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 142 Mississippi Institutions of Higher Learning, 2023, p. 1
	What data sources are used?	Year-end audited financial statements	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 143 Mississippi Institutions of Higher Learning, 2023, p. 1
	What data is collected?	Financial data: - Unrestricted net assets - Expendable net assets - Total expenses - Non-expendable net assets - Total net assets - Total assets - Total current assets - Total current liabilities - Total cash, cash equivalents - Short-term investments - Daily operating expense average (365 days) - Unrestricted long-term investments - Total long-term debt - Long-term liabilities - Other long-term liabilities - Annual debt service (principal + interest) - Operating expenses - Nonoperating expenses - Depreciation expense - Principal payments on capital debt, leases - Interest payments on capital debt, leases - Net operating income (loss) - Net nonoperating revenues (expenses) - Change in total net assets - Total net assets, beginning of the year - Change in expendable net assets - Expendable net assets, beginning of the year - Total financial assets - Total physical assets - Total net assets - Net investment in capital assets - Cash paid for capital assets - Accumulated depreciation - Operating revenues - Nonoperating revenues - Gross tuition revenue - State appropriations revenue - Gifts, grants, and contracts revenue - Auxiliary enterprise revenues - Patient care revenues - Salaries, wages, and fringe benefits expense - Contractual services expense - Commodities expense - Instruction expense - Research expense - Public service expense - Institutional support expense - Academic support expense - Student services expense - Operation of plant expense - Student aid expense - Auxiliary enterprise expense - Hospital expense Non-financial data: - Student FTE enrollment (fall)	Mississippi Institutions of Higher Learning, 2023, pp. 2-25

Appendix G

Summary of Financial Monitoring Policies and Practices for the Mississippi Board of Trustees of State Institutions of Higher Learning

Topics[1]	Subtopics[1]	Mississippi Institutions of Higher Learning	Source(s)
What metrics are calculated from the data?	Financial indicators	Resource sufficiency and flexibility: - Primary reserve ratio - Secondary reserve ratio - Capitalization ratio - Current ratio - Days of cash on hand Resource management (debt): - Viability ratio - Long-term liabilities to unrestricted net assets - Debt burden - Debt service coverage Asset performance and management: - Return on total net assets - Return on expendable net assets - Composition of equity - Financial net assets ratio - Physical net investment in capital assets - Physical asset reinvestment - Age of facilities Operating performance: - Net operating revenue ratio Contribution (i.e., revenue) ratios: - Gross tuition, - Gross tuition per FTE - Gifts, grants, & contracts - Auxiliary enterprises - State appropriations - Hospital operations Demand (i.e., expense) ratios: - Salaries, wages, & fringe benefits - Payments to suppliers - Instruction - Research - Public service - Institutional support - Educational support - Operations and maintenance - Student aid - Hospital operations - Auxiliary enterprises	Mississippi Institutions of Higher Learning, 2023
	Non-financial Indicators	None.	Mississippi Institutions of Higher Learning, 2023
How often are the metrics calculated?	Are metrics calculated annually?	Yes.	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 143
	Are metrics calculated quarterly?	No.	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 143
What ameliorative actions can be taken and at what point?	What actions are taken based on institutions' results?	The board policy states the Commissioner or board may use the results to: - Determine financial targets/objectives for institutions - Recommend institutional budgets for board approval - Evaluate Institutional Executive Officer performance - Postpone debt-financed projects and/or other expenditure commitments	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 142-143 Rankins Jr., 2023
	What thresholds are used for determining actions?	The board may postpone major project and/or expenditure commitments if an institution does not meet minimum criteria for institutional financial sustainability including: - Adequate financial reserves: Long-term liability to unrestricted net assets ratio of less than 1.5x - Adequate liquidity: At least 90 days of cash on hand - Adequate debt service coverage: Debt service coverage ratio of at least 1.5x	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 143 Mississippi Institutions of Higher Learning, 2023 Rankins Jr., 2023
Are results reported publicly (e.g., on an organization's website)?	Are current reports available on the organization's website?	Yes.	Mississippi Institutions of Higher Learning, 2024
	Are multiple years of results reported (i.e., time-series)?	Yes.	Mississippi Institutions of Higher Learning, 2023
	Are results shared with leadership?	Yes.	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 142-143

Appendix G

Summary of Financial Monitoring Policies and Practices for the Mississippi Board of Trustees of State Institutions of Higher Learning

Topics[1]	Subtopics[1]	Mississippi Institutions of Higher Learning	Source(s)
Are results regularly shared across agency leadership to discuss and determine any necessary actions?	If so, with whom?	Board of Trustees of State Institutions of Higher Learning, Institutional Executive Officers	Mississippi Board of Trustees of State Institutions of Higher Learning, 2023, p. 142-143

Note: Author's analysis of online resources.
[1]Based on the six recommendations discussed in *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendation for SHEEO Agencies,* by David A. Tandberg, 2018, p. 13.

Appendix H

Summary of Financial Monitoring Policies and Practices for North Dakota State Board of Higher Education

Topics[1]	Subtopics[1]	North Dakota State Board of Higher Education	Source(s)
Are financial oversight activities specifically authorized and prescribed in state law and administrative regulations?	Is there specific statutory authority?	No. Financial oversight activities are performed under general statutory authorities and administered according to board policy	N.D. Const. art. VIII, § 6 N.D. Cent. Code § 15-10-72 North Dakota State Board of Higher Education, 2023b North Dakota State Board of Higher Education, 2023c North Dakota State Board of Higher Education, 2014
	Are there administrative regulations?	No. Financial oversight activities are administered according to board policy and procedures.	N.D. Admin. Code 35 North Dakota State Board of Higher Education, 2023a
What data is collected, from what sources, and on which institutions?	Which institutions/sectors are monitored?	Public universities, community colleges, technical colleges	N.D. Const. art. VIII, § 6(1) N.D. Cent. Code § 15-10-01,01.2 North Dakota University System, 2018 North Dakota University System, 2023 North Dakota State Board of Higher Education, 2023c
	What data sources are used?	Year-end audited financial statements, State Higher Education Finance (SHEF) Report, internal accounting records, NDUS Department of Institutional Research	North Dakota University System, 2023 North Dakota University System, n.d.-a North Dakota State Board of Higher Education, 2014
	What data is collected?	Financial data - GASB 68 pension liability/expense - GASB 75 OPEB liability/expense - Component unit (CU) unrestricted net assets - CU temporarily restricted net assets - CU total net assets - CU change in net assets - CU net investment in plant - CU total expenses - CU change in unrestricted net assets - CU total unrestricted revenues - CU long-term project related debt - Expendable net position - Long-term debt - Unrestricted net position - Annual operating expenses - Current assets - Current liabilities - Income (loss) before state appropriations for capital assets and capital grants and gifts - Total revenue - Operating revenue - Non-operating revenue - Increase (decrease) in net position - Net tuition and fees - Net Liquid Assets[2] - Long-term liabilities[3] - Compensated absences - Undesignated and designated appropriated fund reserves[4] Non-financial data - FTE fall enrollment SHEF data - Total education revenues per FTE - Education appropriations per FTE, including state and local appropriations	North Dakota University System, 2023 North Dakota State Board of Higher Education, 2014

Appendix H

Summary of Financial Monitoring Policies and Practices for North Dakota State Board of Higher Education

Topics[1]	Subtopics[1]	North Dakota State Board of Higher Education	Source(s)
What metrics are calculated from the data?	Financial indicators	Composite Financial Index (CFI): - Primary reserve ratio - Net income ratio - Viability ratio - Return on net assets ratio Other financial indicators: - Current ratio - Working capital ratio - Operating income margin ratio - Net income margin ratio - Net tuition and fees per FTE - Net tuition and fees dependency - Change in net liquid assets[2] - Change in long-term liabilities[3] - Undesignated appropriated reserves[4] - Total appropriated reserves[4] - State appropriations, excluding capital appropriations - National ranking of total education revenues per FTE - Change in total education revenues per FTE - National ranking of education appropriations per FTE, including state and local funding - Change in education appropriations per FTE, including state and local funding	North Dakota University System, 2023
	Non-financial Indicators	FTE fall enrollment	North Dakota University System, 2023
How often are the metrics calculated?	Are metrics calculated annually?	Yes.	North Dakota University System, 2023 North Dakota State Board of Higher Education, 2014
	Are metrics calculated quarterly?	No.	North Dakota University System, 2023 North Dakota State Board of Higher Education, 2014
What ameliorative actions can be taken and at what point?	What actions are taken based on institutions' results?	- Submission of a financial improvement plan.	North Dakota State Board of Higher Education, 2014
	What thresholds are used for determining actions?	- Institutions must hold undesignated appropriated fund (i.e., general fund and tuition) reserves[4] between 5-7% of the preceding fiscal year's realized net tuition and general fund revenue. - If reserves are below 5% at fiscal year-end, institutions must report to the Vice Chancellor for Administrative Affairs by the end of the first quarter of the succeeding fiscal year, including a plan for reaching and sustaining a 5% reserve. - Institutions planning to decrease reserves to less than 3% must notify the Vice Chancellor for Administrative Affairs in writing.	North Dakota State Board of Higher Education, 2014
Are results reported publicly (e.g., on an organization's website)?	Are current reports available on the organization's website?	Yes.	North Dakota University System, n.d.-b
	Are multiple years of results reported (i.e., time-series)?	Yes.	North Dakota University System, n.d.-b North Dakota University System, 2023
Are results regularly shared across agency leadership to discuss and determine any necessary actions?	Are results shared with leadership?	Yes.	North Dakota State Board of Higher Education, 2023b
	If so, with whom?	State Board of Higher Education Budget and Finance Committee	North Dakota State Board of Higher Education, 2023b

Note: Author's analysis of online resources.

[1]Based on the six recommendations discussed in *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendation for SHEEO Agencies,* by David A. Tandberg, 2018, p. 13.

[2]Net liquid assets is calculated as cash, current investments, and current receivables minus current liabilities.

[3]Long-term liabilities exclude GASB 68 and 75 pension and OPEB liabilities as well as liabilities for compensated absences.

[4]Undesignated appropriated fund (i.e., general fund and tuition) reserves have not been earmarked for a specific purpose. Designated appropriated fund reserves have been retained for a specific purpose.

Appendix I

Summary of Financial Monitoring Policies and Practices for Pennsylvania State System of Higher Education

Topics[1]	Subtopics[1]	PA State System of Higher Education	Source(s)
Are financial oversight activities specifically authorized and prescribed in state law and administrative regulations?	Is there specific statutory authority?	No. Financial oversight activities are performed under general statutory authorities and administered according to board policy.	Goin Jr., 2023 Pennsylvania General Assembly, 2020 PA State System of Higher Education Board of Governors, 2023
	Are there administrative regulations?	No. Financial oversight activities are administered according to board policy and procedures.	Pennsylvania General Assembly, 2020 PA State System of Higher Education Board of Governors, 2023 Office of the Chancellor, 2023
What data is collected, from what sources, and on which institutions?	Which institutions/sectors are monitored?	Public universities	PA State System of Higher Education Board of Governors, 2023 Office of the Chancellor, 2023
	What data sources are used?	Office of Advanced Data Analytics (e.g., SAP Business Warehouse and Student Data Collection Plan Submissions)	Pennsylvania's State System of Higher Education, n.d.-c Office of the Chancellor, 2023, pp. 10-16
	What data is collected?	Financial data: - Net operating revenues (expenses) - Net nonoperating revenues (expenses) - Operating revenues - Nonoperating revenues - Unrestricted and expendable net assets - Total expenses - Unrestricted cash and cash equivalents - Expendable net assts (excluding those for capital projects) - Total debt - E&G expenditures - GASB 68 pension liability/expense - GASB 75 OPEB liability/expense - Compensated absences liability Non-financial data: - Student FTE - Total faculty FTE - Instructional faculty FTE - Fall student FTE - Fall faculty FTE - Student headcount - Staff FTE - Staff headcount - Retention rate - Graduation rates	Office of the Chancellor, 2023, pp. 1-4, 10-16
What metrics are calculated from the data?	Financial indicators	Procedure Indicators[2]: - Operating margin ratio - Primary reserve ratio - University minimum reserves[3] Other Board-Affirmed Metrics[4]: - University debt ratio (i.e., Viability ratio) - E&G expenditures per student FTE	Office of the Chancellor, 2023, pp. 2-3

What metrics are calculated from the data? (cont.)	Non-financial Indicators	Procedure Indicators[2]:
		- Enrollment:
		  o Annualized student FTE
		  o Projection
		- Retention rate (2nd fall)
		- 4- & 6-year Graduation rates
		- Student support ratios[5]:
		  o Annualized academic year FTE ratio
		  o Annualized academic year instructional FTE ratio
		  o Fall FTE ratio
		  o Headcount ratio
		
		Other Board-Affirmed Metrics[4]:
		- Student to nonfaculty ratios:
		  o Annualized FTE ratio
		  o Headcount ratio
			Office of the Chancellor, 2023, pp. 1-3

Appendix I

Summary of Financial Monitoring Policies and Practices for Pennsylvania State System of Higher Education

Topics[1]	**Subtopics[1]**	**PA State System of Higher Education**	**Source(s)**
How often are the metrics calculated?	Are metrics calculated annually?	Yes.	PA State System of Higher Education Board of Governors, 2023, p. 1 Office of the Chancellor, 2023, p. 4
	Are metrics calculated quarterly?	No.	Office of the Chancellor, 2023, p. 4
What ameliorative actions can be taken and at what point?	What actions are taken based on institutions' results?	- Identification as financially distressed. - Increased financial monitoring and reporting. - Submission of a financial improvement plan. - Authorization of intra-university[6] or within system liquidity loans. - Workforce reductions. - Mandatory peer consultation/review. - Targeted external audits. - Appointment of temporary executive for enhanced oversight. - Temporary or indefinite suspension of university operations. - Assumption of institution operations by system leadership.	PA State System of Higher Education Board of Governors, 2023, p. 2-3 Office of the Chancellor, p. 4-8
	What thresholds are used for determining actions?	Universities are categorized into the following four categories based on a review of the financial and non-financial indicators by the institution's chief academic officer, chief financial officer, president, Council of Trustees, and the chancellor. Universities classified in plan two or three, or deemed incapable of addressing their financial difficulties, may be subject to further action by the chancellor including improvement plan changes, workforce reductions, increased reporting, peer review, external audits, and appointment of a temporary executive for enhanced oversight.	Office of the Chancellor, 2023, p. 4-16
		Overall Stability: - Enrollment: Increasingly or <2% decrease over 2 years - Operating margin: >= 2% or positive trend (3-year moving average) - Primary reserve: >= 40% (3-year moving average) - University reserves: >= 180 days cash on hand Actions: None	
		Financial Sustainability Plan One: - Enrollment: 2-5% decline over 2 years - Operating margin: 0-2% (3-year moving average) - Primary reserve: 20-40% (3-year moving average) - University reserves: 90 to <180 days cash on hand Actions: Submission of financial improvement plan, increased financial monitoring and reporting.	
		Financial Sustainability Plan Two: - Enrollment: 5-10% decline over 2 years - Operating margin: Negative (3-year moving average) - Primary reserve: 0-20% (3-year moving average) and significant negative trend - University reserves: 30 to <90 days cash on hand Actions: Submission of financial improvement plan, increased financial monitoring and reporting, authorization of intra-university loans[6].	

Appendix I

Summary of Financial Monitoring Policies and Practices for Pennsylvania State System of Higher Education

Topics[1]	Subtopics[1]	PA State System of Higher Education	Source(s)
		Financial Sustainability Plan Three: - Enrollment: >10% decline over 2 years - Operating margin: Consistently negative year over year - Primary reserve: Negative year over year - University reserves: <30 days cash on hand Actions: Submission of financial improvement plan, increased financial monitoring and reporting, authorization of within System liquidity loan.	
Are results reported publicly (e.g., on an organization's website)?	Are current reports available on the organization's website?	Yes.	Pennsylvania's State System of Higher Education, n.d.-c
	Are multiple years of results reported (i.e., time-series)?	Yes.	Pennsylvania's State System of Higher Education, n.d.-c
Are results regularly shared across agency leadership to discuss and determine any necessary actions?	Are results shared with leadership?	Yes.	PA State System of Higher Education Board of Governors, 2023, p. 2 Office of the Chancellor, 2023, p. 4
	If so, with whom?	Executive Leadership Group[7], chief academic officers, chief financial officers, and university Councils of Trustees[8]	PA State System of Higher Education Board of Governors, 2023, p. 2 Office of the Chancellor, 2023, p. 4

Note: Author's analysis of online resources.
[1]Based on the six recommendations discussed in *Monitoring and Assessing the Financial Health and Risk of Colleges and Universities: Recommendation for SHEEO Agencies,* by David A. Tandberg, 2018, p. 13.
[2]The four indicators used to assess an institution's financial health as prescribed in the procedures. Additional indicators are intended to inform universities' operations, risk management, and planning processes.
[3]Cash necessary to cover at least 90 days of operating expenses as determined using the financial statements of the prior year.
[4]These metrics are used in conjunction with Procedure Indicators in University Sustainability Plans.
[5]These ratios divide different student counts (e.g., FTE and headcount) by a variety of faculty count measures (e.g., FTE, headcount, instructional FTE, etc.) to analyze productivity.
[6]Loans between the auxiliary and E&G funds within a university.
[7]A leadership group made up of the chancellor of the state system and university presidents.
[8]See Article XX-A, Section 2009-A of the Act of Nov. 12, 1982, P.L. 660, No. 188 for more details on the powers and duties of university Councils of Trustees (Pennsylvania General Assembly, 2020).

Appendix J

Comparison Table: Authority and Implementation

Authority and Implementation					
	Ohio (ODHE)	Louisiana (LBR)	Mississippi (MIHL)	North Dakota (SBHE/NDUS)	Pennsylvania (PASSHE)
Governance:	Coordinating	Coordinating	Governing	Governing	Governing
Is there specific statutory authority?					
Are there administrative regulations?					

Note: Author's analysis of online resources.

Legend

= Yes.

= No. Activities are performed under general statutory authorities and administered according to board policy/procedures.

Appendix K

Comparison Table: Data Sources

Data Sources					
	Ohio (ODHE)	Louisiana (LBR)	Mississippi (MIHL)	North Dakota (SBHE/NDUS)	Pennsylvania (PASSHE)
Governance:	Coordinating	Coordinating	Governing	Governing	Governing
What data sources are used?					
Internal accounting records	Not Used	Not Used	Not Used	Used	Used
Quarterly financial reports	Used	Not Used	Not Used	Not Used	Not Used
State auditor findings	Used	Not Used	Not Used	Not Used	Not Used
State Higher Education Finance (SHEF) Report	Not Used	Not Used	Not Used	Used	Not Used
State/system student records	Not Used	Not Used	Not Used	Used	Used
Year-end audited financial statements	Used	Used	Used	Used	Not Used
Other	Used	Not Used	Not Used	Not Used	Not Used

Legend
- = Used
- = Not Used

Note: Author's analysis of online resources.

Appendix L

Comparison Table: Monitoring Metrics

Monitoring Metrics[1]					
	Ohio (ODHE)	Louisiana (LBR)	Mississippi (MIHL)	North Dakota (SBHE/NDUS)	Pennsylvania (PASSHE)
Governance:	Coordinating	Coordinating	Governing	Governing	Governing
Are metrics calculated annually?					
Are metrics calculated quarterly?					
Financial Indicators:					
Asset performance and composition					
Composite score (e.g., CFI or variation)					
Debt					
Liquidity					
Operating performance					
Reportable events[2]					
Reserves					
Revenues/expenses					
State-level higher education funding					
Substantive audit findings					
Non-financial Indicators:					
Enrollment					
Faculty productivity					
Nonfaculty employment					
Student success					

Legend
= Yes/Used.
= No/Not Used

Note: Author's analysis of online resources.

[1]This table groups the detailed metrics displayed on each agency's summary table into major subjects.

[2]Reportable events are narrative statements provided in response to questions intended to identify difficulties with cash flow and any substantial issues in the institutions' current budgets.

Appendix M

Comparison Table: Ameliorative Actions

Ameliorative Actions					
	Ohio (ODHE)	Louisiana (LBR)	Mississippi (MIHL)	North Dakota (SBHE/NDUS)	Pennsylvania (PASSHE)
Governance:	Coordinating	Coordinating	Governing	Governing	Governing
What actions are taken based on institutions' results?					
Appointment of temporary executive for enhanced oversight					
Assumption of institution operations by system leadership					
Authorization of intra-university or within system liquidity loans					
Consultation with the state auditor					
Determination of financial targets/objectives for institutions					
Evaluation of institutional executive officer performance					
Identification as financially distressed					
Increased financial monitoring and reporting					
Institution submission of a financial improvement plan					
Mandatory peer consultation/review					
Mandatory reporting to legislative/gov't leadership					
Postpone debt-financed projects and/or other expenditures					
Recommendation of institutions' budgets for approval					
Targeted external audits					
Temporary change in governance					
Temporary or indefinite suspension of university operations					
Withhold state funding for the institution					
Workforce reductions					

Legend
= Available.
= Not available.

Note: Author's analysis of online resources.

Appendix N

Comparison Table: Transparency and Reporting

Transparency and Reporting	Ohio (ODHE)	Louisiana (LBR)	Mississippi (MIHL)	North Dakota (SBHE/NDUS)	Pennsylvania (PASSHE)
Governance:	Coordinating	Coordinating	Governing	Governing	Governing
Are current reports available on the organization's website?	Yes.	No.	Yes.	Yes.	Yes.
Are multiple years of results reported?	Yes.	No.	Yes.	Yes.	Yes.
Are results shared with leadership?	Not indicated in online resources	Not indicated in online resources	Yes.	Yes.	Yes.
If so, who are results shared with?					
Chief academic officers			No.	No.	Yes.
Chief financial officers			No.	No.	Yes.
Institution presidents/chief executive officers			Yes.	No.	Yes.
Institution boards/councils			No.	No.	Yes.
State/system board			Yes.	Yes.	Yes.

Legend
- = Yes.
- = Not indicated in online resources
- = No.

Note: Author's analysis of online resources.

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