The financial landscape of public higher education: Does accreditation solidify an information systems program's future? A case study in Pennsylvania, USA

Gary DeLorenzo, California University of Pennsylvania, USA delorenzo@calu.edu

Fred Kohun, Robert Morris University, USA, kohun@rmu.edu

Robert Joseph Skovira, Robert Morris University, USA, skovira@rmu.edu

Abstract

Within the state public higher education system in Pennsylvania, USA, there are 14 state-owned public universities known as PASSHE. From these universities, two (2) have ABET-CAC accreditation as of 2013. Multiple factors have recently disrupted the financial stability of the state's revenue stream and annual allocation to the PASSHE universities, which has resulted in financial deficit positions for many of the PASSHE universities. With the state legislation's plan to consolidate universities and various programs within PASSHE, this paper discusses how ABET-CAC accreditation can be used as a model to promote the value-added for exemplary information systems programs, and others, to withstand the challenges of consolidation and possible termination.

Keywords: ABET, Accreditation, Computer Information Systems, Information Systems, Financial, Budget

Introduction

The 14 Pennsylvania State System of Higher Education (PASSHE) state-owned universities offer the lowest-cost four-year baccalaureate degree programs in the state. As of 2013, the PASSHE universities have a combined enrollment of about 112,000 students, nearly 90 percent of who are Pennsylvania residents. Four of five will remain in the Commonwealth after graduation to take their first job or to continue their education in graduate school. Nearly 500,000 PASSHE alumni live in Pennsylvania, serving as community leaders in the business, healthcare, public administration and non-profit sectors while generating an aggregate annual income of more than $7 billion. PASSHE is the 13th largest employer in the state, with more than 12,000 professional and support staff. (See http://passhe.edu for more information)

ABET is a non-profit and non-governmental accrediting agency for academic programs in the disciplines of applied science, computing, engineering, and engineering technology. ABET is a recognized accreditor in the United States (U.S.) by the Council for Higher Education Accreditation. ABET reaches into the public, private, and professional lives so that accreditation is proof that a collegiate program has met certain standards necessary to produce graduates who are ready to enter their professions. Students who graduate from accredited programs have access to enhanced opportunities in employment; licensure, registration and certification, graduate education and global mobility. ABET is an integral part of each of these areas because we

accredit over 3,100 applied science, computing, engineering, and engineering technology programs at more than 670 colleges and universities in 24 countries worldwide. Approximately 85,000 students graduate from ABET-accredited programs each year. (See http://abet.org for more information)

With increasing pension and medical care coverage for existing PASSHE employees and retirees, the budget allocation to PASSHE universities has been steadily decreasing since the 1980s while expenses and operating costs have increased. To offset the financial impact, raising tuition costs and increasing student classroom sizes have minimized the financial burden for university administrators.   These actions, it can be argued, may be at fault for the current reported trend of student system wide enrollment decreases. Currently, while student enrollment is stagnant, if not decreasing at the PASSHE universities, legislators at the state level are looking into options to address the overall strategic value and benefit in continuing to provide similar, duplicate programs throughout the 14 universities.

Background and Methodology

The Pennsylvania State System of Higher Education (PASSHE)

Act 188, passed in 1983 and implemented in 1984, created PASSHE (Pennsylvania State System for Higher Education), which included 14 universities in Pennsylvania: Bloomsburg, California, Cheyney, Clarion, East Stroudsburg, Edinboro, Indiana, Kutztown, Lock Haven, Mansfield, Millersville, Shippensburg, Slippery Rock and West Chester.

An overall goal of Act 188 was to deliver a "higher quality of higher education and the lowest cost". The intent was to provide fiscal allocation to the universities as part of the annual state budget with minimal costs and expenses to student, parents, donors and alumni. However, over the past 30 years, PASSHE's failure to deliver on Act 188's promise has resulted in each PASSHE university to pay up to 75% of the operating costs through their own initiatives (Armenti, 2013).

When the PASSHE system first began in 1984, the State share of the PASSHE budget was 63%, and the Tuition+Fees+Other share was 37%; but the State became the "minority stakeholder" in FY 1993 when its share of the university operating budgets first fell below 50%. In the 21 years since falling below the 50% threshold, the State share of PASSHE's budget has plummeted to 25%, while the share provided through Tuition+Fees+Other by the "majority stakeholders"—the students, parents and donors, primarily alumni—shot up to 75% (Armenti, 2012).

As noted in Figure 1 from 1984-2010 on the trend of Pennsylvania's share of higher education budgets, the share of PASSHE's budget provided by State Appropriation (paid by the taxpayers) fell from 63% to 33.9%; from 2011-2013 (not shown on the chart), the State Appropriation fell to 25%. Separately, the share provided by tuition and fees (paid by students and parents) grew from 37% to 75% from 1984 to 2013 (Armenti, 2013).
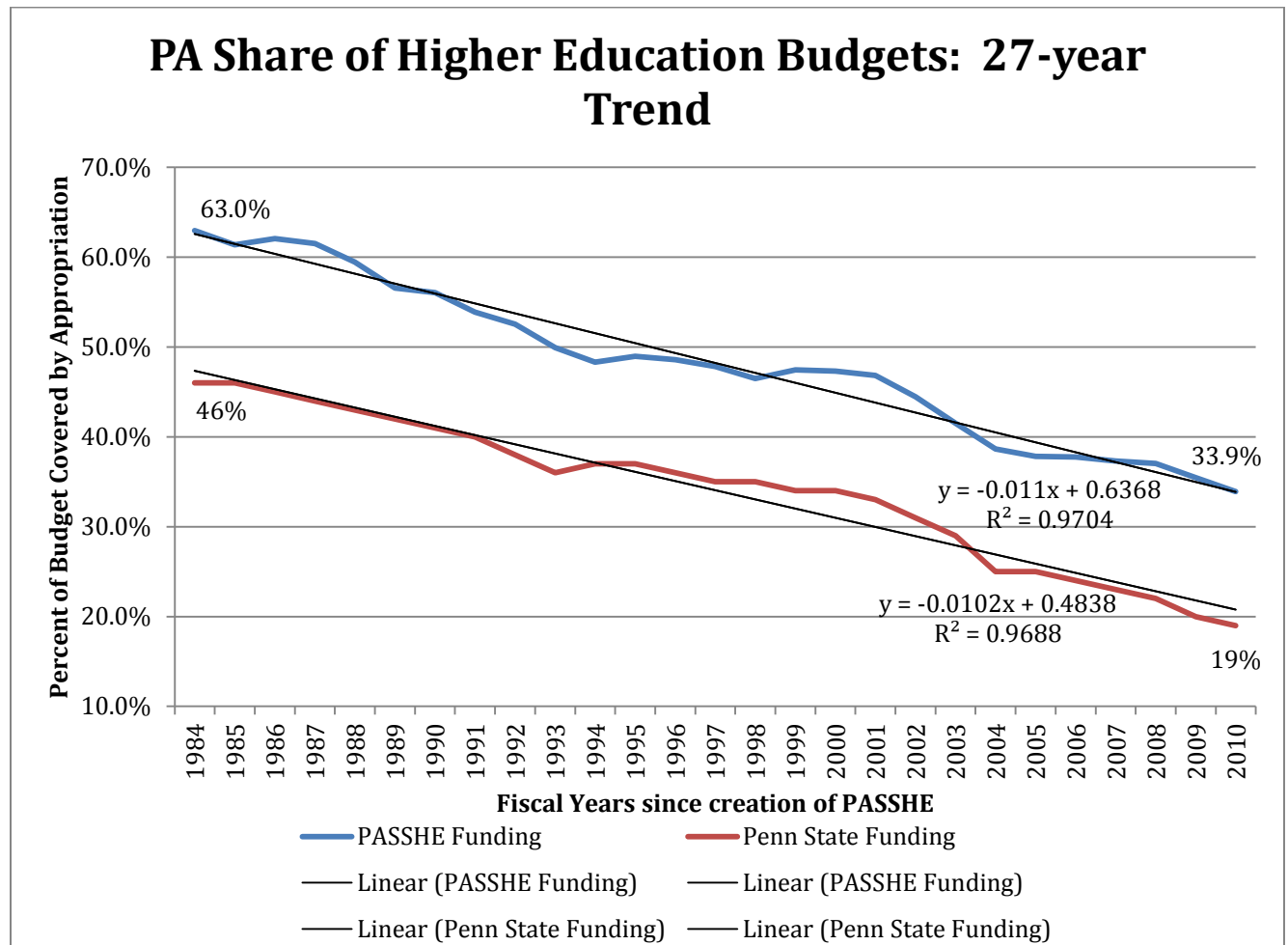
Figure 1

There are some reasons why the state's budget allocation to PASSHE has decreased over the years. On the incoming revenue from the 2008 recession in the USA, sales tax collections, income tax collections and corporate tax collections have been decreasing annually. In addition, as noted in Figure 2, from 1990-2008 on a comparison of budgets, while the state's annual budget decreased allocations to both K-12 and Higher Education, Medicaid benefits increased over 150% from 12% in 1990 and 30% in 2008, with the budget percentage for pensions and medical benefits continuing to increase annually (Armenti, 2013)

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Pennsylvania Budget vs. Average of the 50 States

	K-12	Higher Education	Cash Assistance	Medicaid	Corrections	Transportation	All Other
1990	23%	7%	6%	12%	2%	13%	38%
1998	20%	6%	3%	26%	4%	11%	30%
2000	19%	5%	3%	28%	4%	10%	32%
2003	18%	5%	2%	29%	4%	10%	32%
2004	19%	4%	2%	31%	4%	10%	30%
2006	19%	4%	2%	32%	4%	10%	30%
2007	19%	4%	2%	31%	3%	10%	31%
2008	19%	4%	2%	30%	3%	10%	31%
50 States	22%	10%	2%	21%	4%	8%	35%

Percent of Budget (y-axis label)

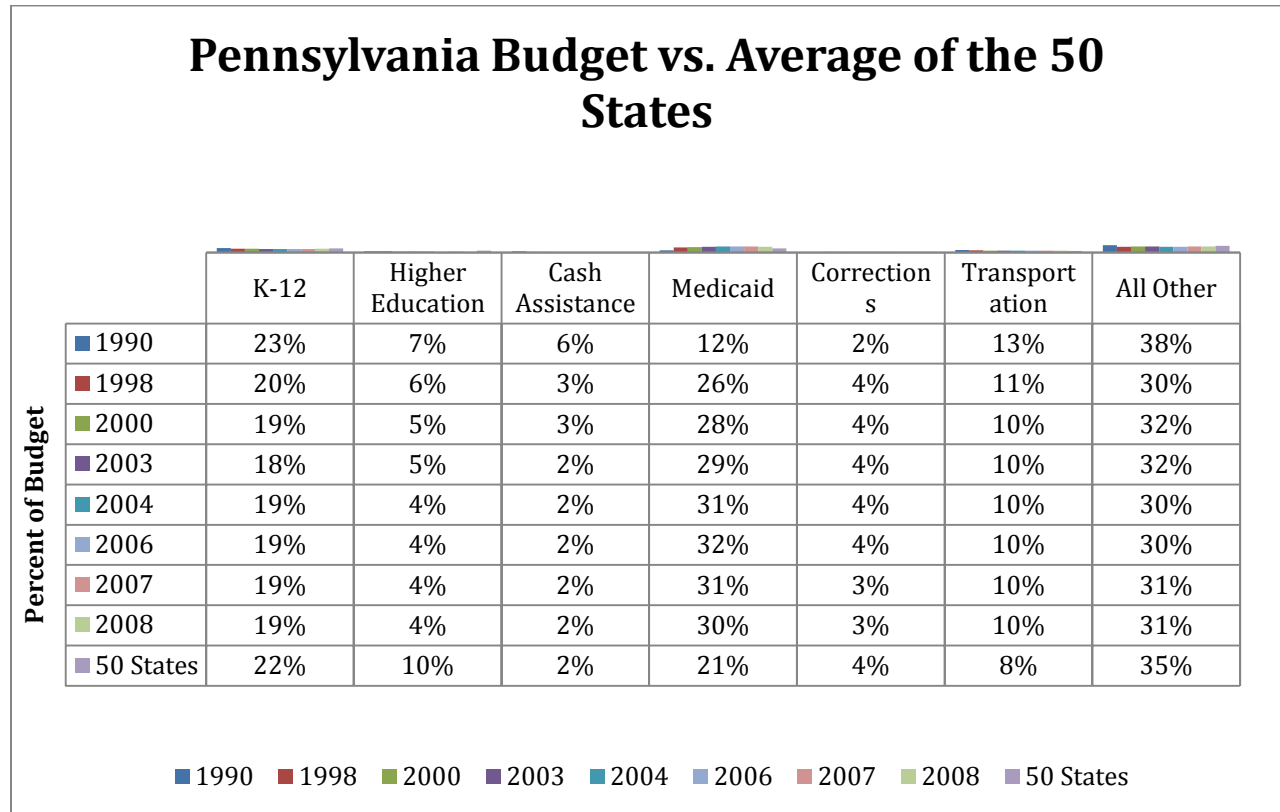■1990 ■1998 ■2000 ■2003 ■2004 ■2006 ■2007 ■2008 ■50 States

Figure 2

Both figures and supporting research continue to confirm the fiscal challenges of the 50 states in the USA, with an impact to PASSHE within the Commonwelath of Pennsylvania.

ABET Accreditation

Accreditation provides academic institutions the opportunity to demonstrate their commitment to maintaining their programs' quality and that their programs are performing at a high quality level required by the professions in their discipline (Gorgone, 2000). Programs undergo periodic accreditation to ensure that they continue to meet quality standards set by the profession. Once accreditation is achieved for an institution's program, it denotes the program's value where it receives national/international recognition for its quality, promotes best practices in the field of education, directly involves faculty and staff in self-assessment and continuous improvement plans, and drives "learning outcomes" rather than "teaching inputs". (Kohun & Wood, 2003)

ABET is an accrediting body that accredits postsecondary degree-granting programs offered by regionally accredited institutions in the United States and by nationally accredited institutions outside the United States.   It offers accreditation to programs in the areas of Applied Science,

Computing, Engineering and Engineering Technology. The Computer Information Systems, or Information Systems, discipline falls under ABET's Computing Accreditation Commission (CAC), which accredits computing programs at the bachelor's (four-year degree) level. (See http://abet.org for more information).

In Pennsylvania, five schools have ABET-CAC Accreditation in Information Systems. They are California University of PA, Drexel University, Gannon University, Robert Morris University and Slippery Rock University. Of the five, only California University of Pennsylvania and Slippery Rock University are part of the 14 state-owned universities in PASSHE. (See http://abet.org for more information).

Higher Education Financial Constraints

Various media stories published between mid-August and late October 2013 throughout Pennsylvania reported that Clarion, Edinboro, Mansfield and East Stroudsburg had announced plans to cut tenured faculty positions and to take other actions in order to close large budget gaps ranging from $5.5 to $12 million. On December 24, 2013, Slippery Rock University became the fifth PASSHE university to declare financial distress, specifically, a projected $10 million deficit for 2014-15, accumulating to $29 million by 2015-16. (Armenti, 2013)

The fiscal stability for higher education in Pennsylvania, similar to other states in the USA, is full of uncertainty. PASSHE Board of Trustees, administrators at the 14 PASSHE universities and legislators continue to pursue strategies with the intent to develop a number of contingency plans for the future of the state-owned universities. Some of the issues that may result from the level of budgetary uncertainty include retrenchment, layoffs, and furloughs. Options such as terminating low-enrollment programs within PASSHE or completing closing high cost, low enrollment universities are being considered. Also, the fiscal stability of PASSHE and a sound financial future cannot be managed without concern with the collective bargaining faculty union Association of Pennsylvania State College and University Faculties (APSCUF). The union contract has provisions that require various timeframes for notification of action related to faculty job stability.

Private universities in Pennsylvania also have financial challenges to meet operating expenses relative to student enrollment, grants and foundation trust funds for revenue. While private universities such as Duquesne University and Robert Morris University in Pittsburgh, Pennsylvania are in a relatively reasonable state of financial stability, the PASSHE public higher education universities have taken the biggest negative impact on government budget allocation over the years due to the economic crisis at the state level within Pennsylvania.

Plans for Consolidation

Frank Brogan, who the board of governors hired in 2013 as PASSHE Chancellor, outlined his plan to address a decline in state funding and student enrollment through visits to each of the 14 PASSHE universities starting in the fall of 2013. The consistent decline in state funding has placed PASSHE schools in jeopardizing positions, and Brogan attributes the recession as another reason, which he argues is still a very real problem in Pennsylvania. As noted in the

visit to Lock Haven University in November 2013, Brogan noted, "We're still in the recession. Some states are slower to come out of it than others. It's still here, it's still prevalent across the country," (http://passhe.edu). Also, the significant decline in enrollment system-wide, in general, can be attributed to "a decline in population and not students choosing other schools". (See http://passhe.edu for more information)

Brogan noted how the solution is not an increase in tuition in fees, which would place the cost of PASSHE schools too close to other universities, making those schools more realistic options for parents. The result could be students choosing to attend other universities, an obvious unwanted affect.

Instead, Brogan said PASSHE needs to focus on "revamping academic programs, general education requirements and online courses". Specifically, Brogan said, "PASSHE must evaluate Pennsylvania's economy and the industries that are growing or declining and then offer academic majors that match growth". The effort will also ensure graduates find jobs in Pennsylvania and therefore stay in the state after graduation. (See http://passhe.edu for more information)

Additionally, Brogan stated that the PASSHE system needs to consider "downsizing academic programs that are creating an over saturation of degrees in a particular field" One specific example Brogan discussed was in education, where often times students who obtain teaching degrees are forced to leave Pennsylvania to find a job.

Strategic Direction

In addition to Chancellor Brogan's vision on the future of PASSHE, the board of governors, university administrators and legislators continue to pursue options on alternatives that meet an overall strategic plan. One of the tactical efforts in assessment and creation of a strategic plan should include criteria to determine optimum programs, and universities, that promote for long-term offering with the state. Areas to consider within the criteria could include eliminating duplication of programs and services via consolidation. Those programs that meet a high, value-added offering could include high student enrollment programs, solid job placement opportunities and success stories within the discipline and well regarded faculty as compared to low student enrollment in disciplines not successful in student job placement. But how can the criteria be defined, and the results determined, that ensure that each program is highly successful with an independent assessment? One answer is through accreditation, which identifies those high quality program offerings.

There are information systems (IS) programs within all of the 14 PASSHE universities at some level, either as a management information system program within the business college or department, a computer information systems program within computer science or math, or some type of hybrid solution of the two. A review and assessment of each IS program within the PASSHE state system, against criteria, would identify those programs that could be leaders in their discipline and be considered for long-term program offering while others not rated as highly could be considered for consolidation into one of the leader programs, or possibly even face termination.

If the criteria for a program's long term stability includes criteria which supports high quality service offerings, and includes accreditation such a ABET's CAC accredited approval, which endorses an independent review, an opportunity exists within PASSHE's strategic direction to include both California University of Pennsylvania and Slippery Rock University as the standard programs to emulate for the information systems discipline.

ABET Accreditation as Competitive Advantage

While accreditation may be perceived as costly in the short run with no perceivable gains, ABET CAC does not necessarily meet that profile. ABET CAC is not like Association to Advance Collegiate Schools of Business (AACSB) with its prescriptive requirements that directly translate into high costs. Categories of qualification based on degree, field of study, and research publication in a closed supply labor market (like Ph.D.'s in Accounting) insure high cost faculty payrolls with little evidence of student outcome performance increase. For example, the number of Ph.D. graduates in Accounting is very small yet is required as part of a business school faculty with AACSB accreditation. The faculty starting salaries are significantly higher than other academic disciplines because of this supply and demand situation. Yet it can be argued that a Ph.D. in Accounting with its inherent research basis may not be best suited for teaching accountant students who aspire to become practitioners and CPAs—not researchers. ABET CAC focuses on curricular coverage of a body of knowledge that constitutes the discipline of information systems. Faculty PhD credentials in a *related* information systems area is expected, however, practitioner experience is usually the norm. The ABET accreditation requirements while assuming Ph.D. or equivalent experience level faculty, require, as part of the standard that *some* of faculty have a Ph.D. in IS—not all. Practitioners are accepted and welcomed. All faculty members, as part of the standard, are required to have time and be able to evidence their currency in the profession. The focus of this accreditation is on quality and student outcome assessment to validate this quality as IS professionals—not research or limiting the supply of graduates.

Conclusions and Future Research

While many have questioned and /or criticized the overall long term value of professional accreditation like ABET CAC, it is such accreditation that provides a context for distinction, standards, and both national and international recognition. The problem becomes one of developing a viable metric that can be applied to the value added afforded by accreditation. Such a metric could enhance student interest and understanding as to how an ABET CAC accredited program can provide a significant return on investment of education monies in period of slow economic growth. Employer input and involvement in the establishment of a viable objective assessment mechanism to both provide for quality improvement in the accredited programs, but also an endorsement of the first tier employee selection from accredited programs. This in turn can not only facilitate the increase in enrollment, but also provide the basis for a center of excellence within the confines of the university. Centers of excellence, then provide the basis for industrial program support, models to be embedded in competitive funding programs such as National Science Foundation's Science, Technology, Engineering, and Mathematics (STEM) Grants. The case of PASSHE's not so unique challenge to significantly

cut costs in a university system by initially eliminating program duplication can be a powerful endorsement of the accreditation process. Quality and recognized programs bring students to the university and pay for themselves many times over.

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