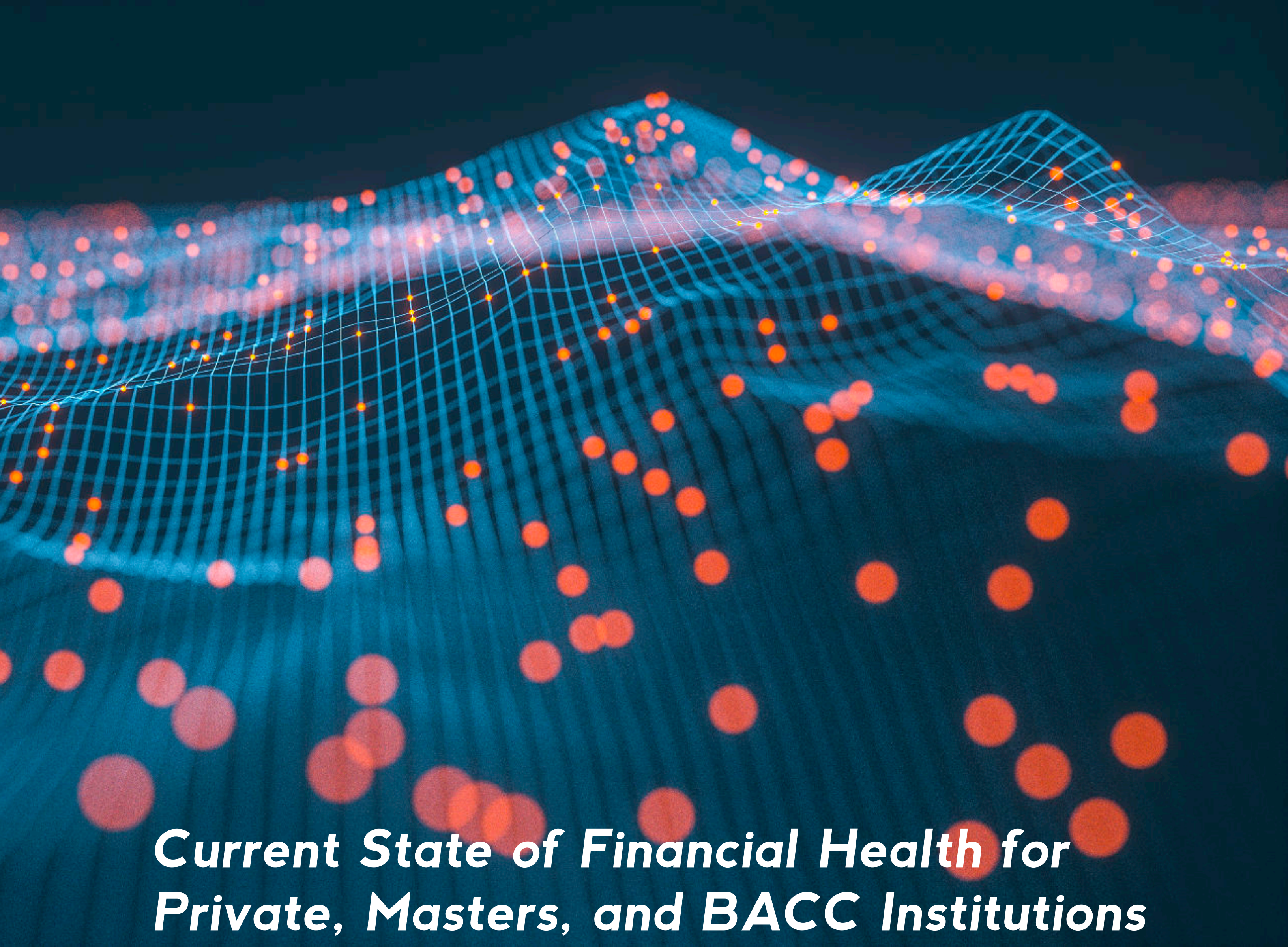


Current State of Financial Health for Private, Masters, and BACC Institutions

By Ron Salluzzo & Phil Tahey

This is our third article on the state of financial health of small private colleges and universities using our proprietary database of financial statements through fiscal year 2019. Given the current environment (May 2020) of operating higher education institutions concerning the coronavirus, or COVID-19, epidemic and related actions taken by federal, state, and local government officials, we projected changes in these financial health indicators through fiscal year 2020. We believe that these events are a **disruptor** to the state of higher education, particularly for small private colleges, and that there will be no return to the old normal.

The analyses and detailed information are contained in the full article below. The following is a summary of our analyses highlights and proposed actions institutions need to take now. We used financial information from the 2013 through 2019 fiscal years audited financial statements and sorted the information into deciles.

The 2019 analysis shows:

- The continued steady decline in financial health as more institutions are below our financial health threshold with another decile (30 institutions) dropping below our threshold and those in the bottom decile having a 93% decline in their health indicator since 2013 (64% for those in the second decile).
- That 34% are Barely Surviving, 35% Surviving, 26% Thriving, and 5% Critically Unhealthy.
- A continued dichotomy with a quickening change between those institutions on good financial health and those that do not.
- That half of the institutions are highly leveraged.
- That changes in equity are continuing to be dependent on investment rates of return which declined in 2019 from 2018.
- That operating margins continue to deteriorate with 40% showing negative margins and another 50% are below our threshold.

Overall, we saw a continued decline in financial health at a quickening pace of decline. Using our prior analogy of the frog in the pot of boiling water, the water temperature continued to increase in 2019.

We have seen other predictions and estimates of the financial state of higher educational institutions. These analyses almost all use IPEDS data or other public sources that are stale—from 2018 or even earlier. We have found that these data sources contain errors and do not contain sufficient information to properly analyze the true state of financial health. Our analysis uses the fiscal year 2019 audited financial statements, which are more current, contain more detailed and useful information, and have gone through a validation process by colleges' independent auditors. We believe that our analysis and projections show a truer picture of reality.

2020 Projections. Using 2019 financial data and considering recent events impacting the financial health of these institutions, we developed projections for 2020. The criteria we used for these projections included:

- Using declines in investment returns ranging from 10% to 20% from July 1, 2019, operating surpluses from 5% to 30%, operating revenues from 10% to 15%, operating surpluses from 5% to 30%, and debt of 2%.

- Under the best scenarios, the wealthier schools (in the top four deciles) can weather these conditions quite well and only showed small decreases in their CFI scores of about 5%. Deciles five through seven showed decreases around 12%, with the third decile showing a 20% decline, the second decile a 40% decline and the first decile a decline of 120%.
- Under the worst scenarios, the wealthier colleges showed declines of 10%, deciles five through seven showed declines of 20%, and the remaining deciles were slightly worse than the best scenarios. The lack of even worse scores are due, in part, to our methodology of putting floors and caps on each of the ratios.
- The chasm between the wealthy and poor colleges continues to widen at a rapid pace. The current issues are exacerbating an already existing set of trends widening this gap.
- Traditional sources of "profits" such as auxiliary enterprises and foreign students used to subsidize other areas and students are unlikely to continue, further exacerbating already dire financial conditions.

We believe that 30% of smaller colleges will face existential pressures and may not recover, at least in their form prior to this upheaval. And given their weakened and worsened financial condition, it may be too late to find affiliation partners. Unless their enrollment increases (net tuition revenues) and their cost structure is significantly reduced quickly, they will probably not survive, either in the short or long terms. The need to declare financial exigency will become more apparent and likely. In fact, we believe all institutions in this category should complete scenario planning that includes an assessment of the process and potential recovery if financial exigency is declared.

We have previously offered several suggestions and proposed action items for colleges to undertake. Unfortunately, most did not. Given the current 2020 situation and likely continued levels of extreme financial stress and upheaval, we believe that a critical sense of urgency is needed with drastic actions.

Proposed Actions Needed Now

- Examine all academic significant cost areas for reductions.
- Examine administrative cost areas including staffing and skill sets needed.
- Review other areas of significant costs, including athletics.
- Review endowment funds donor restrictions and determine approaches to broaden or eliminate restrictions as to use and corpus.
- Re-examine tuition pricing and discounting strategies, especially concerning pricing differentials between on-campus and online learning instruction delivery approaches.
- Enhance recruiting and retention strategies given instruction delivery approaches and student demographic factors, especially foreign students.
- Assess who are the college's competitors in the current and likely future environment, as well as assess your own strengths and weaknesses.
- Prepare ranges of financial projections rather than a single estimate due to increased levels of uncertainty in revenue and costs estimates.

This is our third annual article on the state of financial health of small private colleges and universities. As we were updating our database of over 600 colleges and universities in February and March 2020, the COVID-19 epidemic took hold. Federal, state, and local government officials reacted and closed physical campuses across the country, forcing all institutions to send their students home and move quickly to online education delivery. Disruptions are still occurring on late May 2020, with significant uncertainty as to Fall 2020 classes, housing facilities, student services, athletics, and other institutional areas still unknown.

In addition to our financial analysis through fiscal year 2019, and because of these effects and uncertainties, we projected fiscal year 2020 financial information under various assumptions. These projections, indicated below, are staggering.

Last year, we used the story and analogy of the "Frog in a Boiling Pot of Water " to illustrate the financial condition of small private colleges where their environment is deteriorating at a steady pace, but they are generally unaware of the decline in their financial health and may not realize until it is too late for them to recover. We believe that 2019—and especially 2020—dramatically increased the water temperature in the pot. We anticipate that this trend only worsens in 2020, principally due to COVID-19 issues and the volatility in the investment markets. However, the continued decline would have been predictable even without the current crisis. Some institutions are planning on a return to the prior normal as a resolution, but we would suggest that even that return will not be enough for a substantial number of institutions. We think smaller private colleges and universities are now finding themselves in hot water and can no longer ignore their environment and financial condition. **The events of 2019 and 2020 have resulted in a confluence of negative events that individually may have been addressed but collectively have resulted in an existential threat to many small private institutions.**

In our prior two updates and assessments, we strongly urged small private institutions to take immediate actions to address their financial issues. Unfortunately, almost all did not for a variety of reasons. While many senior leaders bemoaned their financial circumstances, they did very little, if anything, to address and resolve the challenges facing their institutions and higher education generally, the changing landscape of higher education, and which challenges are temporary or permanent. Events in 2020 not only accelerated these matters but also increased their severity.

According to the Carnegie Classification (Categories), there are currently 830 private institutions defined as four-year Masters and Baccalaureate institutions, excluding those defined as Special Focus. In this article, we examine the financial health of more than 300 of these institutions from our proprietary database, providing information and analysis of their financial health and suggesting improvements or needed steps they should consider depending on their state of financial health. While our sample is not statistical, we believe that an extrapolation to the overall population is reasonable. In our data base, 117 institutions have overall financial scores under our minimum financial health threshold value of 3.00. Our extrapolation concludes that about 320 (39%) of the institutions in these classifications are under significant financial stress (i.e., in poor health) and another 290 (35%) would be at significant risk (i.e., fragile health) from either a specific negative demographic event (e.g., enrollment decrease) or a significant economic downturn or negative financial event. These are increases from our findings in 2017, where we believed 31% were under significant financial stress. Note that as with the Frog in a Pot analogy, the financial temperature is rising at a constant but inexorable rate.

Overall, institutions in our sample serve 1,208,000 FTE students, and had 2019 total unrestricted revenues of $36.3 billion ($34.9 billion in 2018) and 2019 total operating expenses of $35.5 billion ($34.2 billion in 2018). The 2019 difference of $800 million is an overall operating margin of 2.4% (2.3% in 2018) of revenues; however, it represents a decline from 2017 of $180 million! Further, more than 100% of the modest improvement of $60 million is contained in the top two deciles.

Our overall assessment of the financial health of Baccalaureate and Masters Categories institutions through 2019 is that the majority are under significant financial stress. Later in this article we will discuss our observations regarding 2020 and the expected impact of the pandemic and the current volatility in the investment markets.

The following is a summary of the outcome of the analysis:

- 39% of the institutions have a CFI score of below 3, our threshold value of financial health.
- Of the institutions in the first and second deciles, 42 (14%) have CFI scores below 1.
- Institutions in the first through fifth deciles have all shown significant decreases in their financial health since FY13 with the first decile showing a 93% decrease and the second decile a 64% decrease! The financial health of institutions in the sixth and seventh deciles (those Surviving) have generally remained flat or demonstrate a modest decline from 2013 to 2019.
- The Thriving Group comprised of the eighth through tenth deciles have seen some increase in their financial health over this period.
- Significantly, the difference in the CFI scores between the first and tenth decile in 2013 was 5.9 (7.9 to 2.0) while in 2019 it was 7.9 (8.0 to 0.1), indicating that the variance between the healthiest and "sickest" of institutions is widening at a rapid rate.

Overall financial health, as measured by the Composite Financial Index (CFI) has been rapidly declining since 2017, due primarily to decreases in investment returns and operating margins. Investment returns over the institutions' spending rate, would generally increase the CFI score. However, investment return rates are have declined since 2017 while endowment payout rates increased slightly. Overall investment returns, as measured by the 2019 NACUBO – TIAA Study of Endowments[1] of was 5.3% in 2019, decreasing from 8.2% in 2018 and 12.2% in 2017.

The bottom four deciles had operating deficits in 2019 and 2018, and 90% under the minimum threshold value of 2.0% in both years. The trend line is very important for operating margins, with 90% showing declining margins since 2013 with many deciles decreasing by 75% or more. These trend lines suggest that at least 40% of institutions have created structural deficits.

An overview of the margin declines in the cohort of institutions in our database indicates that net tuition and fees, representing 50.9% of total expenses, decreased from 51.7% in 2018 indicating that net tuition and fees are covering less of the operating costs of the institutions in 2019 than in 2018. Somewhat tamping the negative trend in operating margin was the increase in endowment draws by YY% between 2017 and 2019. Our experience indicates that these structural deficits

1 2019 NACUBO – TIAA Study of Endowments

will grow over time without significant management intervention, and that the intervention usually requires a fundamental reassessment of the business and academic model of the institution.

While the wealthier institutions generally have larger endowments, the drivers of their superior operating returns are more related to their ability to grow net tuition and other student revenues at least equal to the rate of increase in their institutional costs. In the top decile, the institutions generated operating returns more than the 2% Net Operating Revenues minimum threshold 87% of the time.

Investment in physical assets has been below or just at threshold in eight deciles for most of the periods, resulting in an age of facilities that is above our recommended threshold of 14 years.

Our analysis also continues to lead us to conclude that most Masters and Baccalaureate private institutions are in stark financial condition and under severe financial stress and duress. We see a continued broadening dichotomy in financial health between the wealthiest and least wealthy institutions in these categories. This difference is reflected in their overall financial health, and their ability to produce operating margins and maintain their physical assets.

Institutions in the lower deciles should be very focused on survival, due to financial pressures. Students selecting an institution have a right to believe the institution they select will be viable (i.e., thriving) with investments in the programs they take, expansion in the quality of the institution and a degree that will carry weight in their future endeavors.

To further support our point regarding the number of institutions that are currently experiencing financial stress, two rating agencies (Standard & Poors[2] and Fitch[3]) issued negative outlooks for the higher education industry for 2020 based on their view of demographics, changes in international enrollment, and declining net tuition revenues and increasing discount rates. In December 2019, Moody's Investor Services initially rated the higher education sector for 2020 as Stable which was a change from Negative. However, in March 2020, Moody's revised its outlook to Negative[4], and in April 2020 S&P downgraded its outlook on 84 colleges from stable to negative.

As indicated above, smaller private colleges continued to show declines in their financial health in 2019 with some areas showing significant declines. Net Operating results continued to decline and the structural deficit conditions and extent worsened. Return on Net Assets continue to be driven by investment returns.

The Coronavirus effect significantly affected these smaller colleges as almost all institutions closed their campuses in February and March 2020 and pivoted to online instruction for the remainder of the Spring 2020 semester. Summer 2020 semesters were also either moved online or canceled all together. While information will not be available until fall 2020 as to the true financial impact, many institutions are facing significant declines in revenues and operating results. These decreases are due primarily to:

2 S&P Global Not-For-Profit Higher Education 20120 Sector Outlook: Despite Some Silver Linings, The Sector Continues to Struggle January 15, 2020

3 Fitch Ratings 2020 Outlook: U.S Public Finance Colleges and Universities December 10, 2019

4 Moody's Investor Services, Higher Education: US higher education outlook shifts to negative as coronavirus outbreak increases downside risks March 18, 2020

- Decreases in auxiliary revenues (room, board) where many colleges price these services at significant profit margins and do not allocate any tuition discount to them for various reasons. These positive margins contribute significantly to the college's operating performance. In 2019, the operating margin on auxiliary activities in our sample was approximately 15% accounting for $669 million of the $852 million of net operating results generated. Further, most institutions have or are in the process of refunding portions of the room and board charges for the last portion of the Spring semester.
- Challenges to institutions to refund some portion of the Spring semester's tuition after closing the campus. This has evolved to threat of lawsuits that, even if successfully defended, may further pressure institutional liquidity.
- Equity market values have showed significant declines since their peak in February 2020 and values have greatly varied since the "bottom" in late March 2020.
- With a May 31 or June 30 fiscal year-end, the substantial cancellations of summer programming—academic courses, athletic or other camps, and other usages of the campus—will not be seen until the end of fiscal year 2021, but the impact will be felt almost immediately as deposits and fees will suffer with the cancellations, and the budgeted surpluses and cash generated will not be realized.

In addition to all the uncertainty related to the 2020-21 academic year, this will place substantial pressure on liquidity for many institutions and, by itself, may cause some institutions to close.

The Authors developed financial modeling tools to assess the impact on the colleges in our database under various assumptions for 2020. These scenarios' assumptions propose declines in investment returns ranging from 10% to 20% from July 1, 2019, operating surpluses from 5% to 30%, operating revenues from 10% to 15%, and debt of 2%.

Under the best scenarios, the wealthier schools (in the top four deciles) were able to weather these conditions quite well and only showed small decreases in their CFI scores of about 5%. Deciles five through seven showed decreases around 12%, with the third decile showing a 20% decline, the second decile a 40% decline and the first decile a decline of 120%. Under the worst scenarios, the wealthier colleges showed declines of 10%, deciles five through seven showed declines of 20%, and the remaining deciles were slightly worse than the best scenarios. The lack of even worse scores are due, in part, to our methodology of putting floors and caps on each of the ratios.

While institutions grapple with the immediacy of these fiscal challenges, many are responding with compensation adjustments, suspension of non-essential spending, furloughs, and other temporary measures. However, the bigger issue is examining the real value each institution brings—their value proposition. If an institution cannot state in terms of serving students in all its programs better and/or differently than any other institution, it must fundamentally seek change or substantially modify its mission. Carrying out this process and finding the resources to fund these fundamental changes in an already fiscally strapped organization in uncertain times will be difficult at best and not possible at worst.

These projections, which are staggering, indicate to us that the chasm between the wealthy and poor colleges will continue to widen at a rapid pace. We believe that the current crisis, while unprecedented in its scope, has exacerbated already present issues. The current crises widen this chasm. **We believe that 30% of smaller colleges will face existential pressures and may not recover, at least in their form prior to this upheaval.**

No one is yet sure of what the new normal will be, but without sufficient resources to respond to the challenge, the ability to survive and thrive will be impaired. We believe the paradigm shifts will be significant and permanent as institutions necessarily consider what has been learned in this extremely disruptive time. Some of those shifts may include the following:

- Students and faculty will find some of what is occurring with the current crisis to be a better way of operating the institution—perhaps more online instruction, and some that will be less acceptable—perhaps the lack of on campus experience for students. But whatever the adjusted model becomes, if a traditional institution has impaired usage of facilities, it must have the resources to tolerate a conversion to fewer students on campus who use profitable services, whether caused by online programming or some continuing form of social distancing.
- Institutions will need to prepare against an entirely different set of competitors if online instruction becomes a larger component of their program delivery.
- There may be a reluctance, at least for the coming Fall 2020 semester, for students to return to a campus in certain geographies, either by their own choice or by local government directives.
- The current reliance on international students at many institutions will likely be reduced for some time, and will have a significant financial impact in the coming academic years, especially since these international students tend to pay a higher net tuition rate than domestic students.

Given their weakened and worsened financial condition, it may be too late to internally fund the requirements of the new normal. Further, finding affiliation partners will depend on an ability to offer another institution something in value, whether it is financial strength which many are lacking, or superior programming which requires historic reinvestment. Unless their enrollment increases (net tuition revenues) and their cost structure is significantly reduced quickly, they will probably not survive, either in the short or long term. Absent internal modifications or finding an affiliation partner, the need to examine and perhaps ultimately to declare financial exigency will become more apparent and likely.

Our Data Analysis utilizes our proprietary database of over 600 public and private institutions' financial statements, including more than 300 private institutions in the Masters (Larger, Medium, and Smaller Programs) and Baccalaureate College Arts and Sciences Focus and Diverse Fields categories. The data is from audited annual financial statements for fiscal years ending in 2013 through 2019, the most recent data available.

Our data analysis' purpose is to assess and present our view of the overall financial health of the institutions in these combined Carnegie categories and suggest areas for the institutions' governing boards and senior management to examine. We have focused our data analysis to these categories since we believe these institutions have a similar focus in their instruction programs, are very dependent on student tuition revenues, and face similar severe financial stresses, conditions, and issues. While the Research and Doctoral level institutions also face some of these stresses, they have significant other revenue sources and stresses in their research and medical operations functions and activities.

Due to recent economic and other events, we also developed certain high-level estimates for FY20 economic events to estimate the impact of these events. We made high level assumptions concerning changes from July 1, 2019 to April 30, 2020 in investment index values, colleges FY20 operating results, operating revenues, debt levels and changes in net assets. Using various scenarios, we modeled these changes to assess the overall change in the CFI score by our deciles.

Our FY19 data analysis assesses the 7-year information using statistical deciles, with medians calculated for each decile. Since we now have an extended period of financial information for many institutions, we calculated deciles using FY19 financial information and performed retrospective analysis using these decile cohorts back to FY13. This approach enables us to track where institutions were at the end of FY19 and their seven-year financial history. As we performed our analysis, we removed any institutions that were not in existence during all seven years. We also removed any institutions that did not meet the required financial disclosures concerning the nature and restrictions over their donor-restricted net assets after they adopted the revised accounting standards for financial display; this lack of proper disclosure rendered us unable to reasonably calculate their expendable net assets.

We believe that our approach has a sufficient number and breadth of institutions in these categories to draw conclusions on the institutions in these categories, eliminating the need for random sampling or having all the institutions in the database.

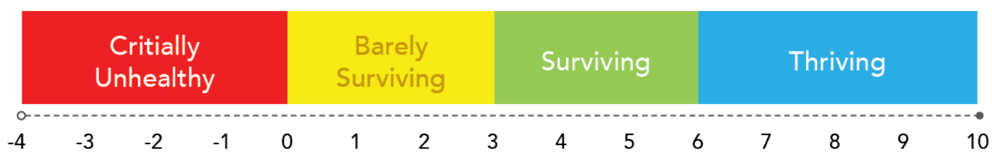
To analyze the data, we used our proprietary tools from our publications Strategic Financial Analysis for Higher Education, Seventh Edition (published in 2010) and the Update to the 7th Edition (published in summer 2016). These publications describe a framework for financial analysis and provide tools and metrics to use, including the Composite Financial Index (CFI) SM, a metric that reports an institution's overall financial health. While our framework describes and uses 25 – 30 ratios, our data analysis has focused on the CFI and its four core ratios, and two ratios that focus on physical plant age and renewal levels.

The CFI is a way for institutions to measure themselves and their progress against four key indicators of financial health: sufficiency of reserves, leverage to acquire physical assets, asset performance, and operating results. The weighting of the individual ratios that comprise the CFI emphasizes the two balance sheet ratios—the Primary Reserve Ratio and the Viability Ratio. In our 40+ years of higher education finance research and analysis, we have found that balance sheet health and wealth are the greatest indicators of an institution's long-term financial health. Operating results fluctuate annually, especially for colleges that have a significant investment portfolio that is subject to market fluctuations. By emphasizing the balance sheet ratios, the CFI focuses attention on two important questions over which institution leaders have control:

1. Does the institution have sufficient reserves to fund operations and cover outstanding debt?
2. Is there sufficient debt capacity to accomplish institutional goals?

We have developed a scoring scale for the CFI as described in our publications. For purposes of this Data Analysis, we determined that a more simplified version of our CFI Score Chart SM is more useful.

MODIFIED SCALE FOR CHARTING CFI PERFORMANCE℠



Institutions need to assess and view their long-term financial health in terms of sustainability (Surviving) and viability (Thriving). Institutions with a CFI score of -4 to 0 are Critically Unhealthy and need to focus on short-term liquidity issues and consider exigency to survive. Indeed, some of these institutions might well question whether survival best serves their students. Institutions with a CFI of 0 to 3 are Barely Surviving (i.e., poor health), those with a CFI Score of between 3 and 6 are Surviving (i.e., fragile health), and those with a CFI Score over 6 are Thriving. Institutions that are Barely Surviving do not have sufficient financial health to be successful in attracting students and have robust program offerings, although they may continue to exist for many years, if not decades. Institutions that are Surviving have sufficient financial health and resources to re-engineer and transform the institution to have it thrive, if successful. Those institutions that are Thriving can use their resources to experiment with new initiatives and expand their mission and program offerings. However, long-term trend analysis of individual institution's financial health is needed, both historically as well as prospectively, to assess if it may likely move from one zone to another.

Our overall assessment of the financial health of Baccalaureate and Masters Categories institutions is that the majority are under significant financial stress (i.e., more than half are fiscally sick or very sick). 39% of the institutions have a CFI score of below 3, the threshold value of financial health. Of the institutions in the first and second deciles, 43 (14%) have CFI scores below 1. Institutions in the first through fifth deciles have all shown significant decreases in their financial health since FY13 with the first decile showing a 93% decrease and the second decile a 64% decrease. The financial health of institutions in the sixth and seventh deciles (those Surviving) have generally remained flat or demonstrate a modest decline from 2013 to 2019. And the Thriving Group comprised of the eighth through tenth deciles have seen some increase in their financial health over this period. Significantly, the difference in the CFI scores between the first and tenth decile in 2013 was 5.9 (7.9 to 2.0) while in 2019 it was 7.9 (8.0 to 0.1), indicating that the variance between the healthiest and "sickest" institutions is rapidly widening.

Composite Financial Index

To understand the causes of the changes in the CFI, we analyzed the four Core Ratios (Primary Reserve, Viability, Return on Net Assets and Net Operating Revenues).

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	7.84	8.38	7.31	6.54	8.24	8.23	7.97
Ninth Decile	7.32	7.66	6.90	6.12	7.09	7.20	6.88
Eighth Decile	5.94	6.69	5.74	4.85	6.33	5.99	6.10
Seventh Decile	5.36	6.24	4.74	4.02	5.61	5.50	5.17
Sixth Decile	4.44	4.80	4.33	3.34	4.44	4.52	4.41
Fifth Decile	4.99	5.23	4.20	3.70	4.70	4.29	3.53
Fourth Decile	3.85	4.03	3.54	2.58	3.79	2.97	2.71
Third Decile	2.97	3.00	2.71	1.94	2.72	2.89	2.10
Second Decile	2.96	3.04	2.48	1.21	2.18	1.79	1.07
First Decile	2.03	1.64	0.98	0.36	1.17	0.81	0.14

Primary Reserve Ratio

The Primary Reserve Ratio compares Expendable Net Assets to Operating Expenses and represents the level of expendable equity to operating size. Based on median values, 20% of the institutions consistently have levels below the threshold value of .4x, the third decile has consistently hovered just above the minimum threshold. The ratios showed a decrease in 2015 and 2016, resulting from poor or negative investment returns as indicated in the annual NACUBO-Common Fund Study on Endowments and the persistent pressures on net tuition revenues. The ratios generally increased across the deciles in 2017 and were relatively constant in 2018 and 2019. ***Threshold Value is .4***

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	3.99	3.91	3.75	3.33	3.54	3.82	3.79
Ninth Decile	2.19	2.66	2.40	2.06	2.25	2.52	2.62
Eighth Decile	1.21	1.50	1.44	1.31	1.53	1.53	1.67
Seventh Decile	1.13	1.35	1.15	1.01	1.17	1.30	1.26
Sixth Decile	0.73	0.93	0.93	0.77	0.86	0.92	0.93
Fifth Decile	0.84	0.94	0.97	0.79	0.92	0.93	0.88
Fourth Decile	0.65	0.74	0.74	0.57	0.67	0.68	0.67
Third Decile	0.47	0.57	0.56	0.51	0.56	0.61	0.53
Second Decile	0.42	0.48	0.44	0.34	0.43	0.35	0.35
First Decile	0.32	0.27	0.23	0.14	0.17	0.19	0.11

Viability Ratio

The Viability Ratio measures an institution's Expendable Net Assets against its property-related debt amounts, with a minimum threshold value of 1.25x indicating that the institution has sufficient equity to repay its debt, plus some cushion. This Ratio indicates that the institutions in the data analysis are highly leveraged, with about half having scores below the threshold value. These institutions would find it difficult to borrow additional funds if needed for plant renewal, program transformation or re-engineering operations. The lowest 40% (Barely Surviving) have mostly held steady in their Viability Ratio during the period, another indicator of the severe stress they are facing. These institutions would have had difficulties placing new debt, and although normal repayment contractual schedules indicate they have paid down their debt, they were unable to improve debt capacity. Those institutions that are Surviving and Thriving have generally seen an improvement in their Viability Ratios, caused by their investment returns and ability to generate expendable resources from operating surpluses. ***Threshold Value is 1.25***

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	5.49	6.35	4.97	4.36	4.87	5.42	5.53
Ninth Decile	3.21	3.59	3.54	3.22	3.54	4.01	4.20
Eighth Decile	1.64	1.95	2.11	1.84	2.02	2.14	2.54
Seventh Decile	1.65	2.13	1.85	1.64	1.78	1.82	1.91
Sixth Decile	0.98	1.21	1.17	1.06	1.16	1.59	1.47
Fifth Decile	1.32	1.53	1.43	1.27	1.37	1.32	1.21
Fourth Decile	0.91	0.99	1.02	0.80	1.04	0.98	0.94
Third Decile	0.64	0.83	0.84	0.70	0.80	0.87	0.66
Second Decile	0.56	0.64	0.68	0.55	0.61	0.50	0.51
First Decile	0.44	0.47	0.36	0.28	0.25	0.31	0.18

Return on Net Assets Ratio

The Return on Net Assets Ratio measures whether the institution is financially better off than in previous years by measuring total annual economic return. Based on the level and change in both physical and financial assets, this ratio provides the most comprehensive measure of growth or decline in total financial wealth. Those institutions that are Barely Surviving have seen a significant decrease in this Ratio during the period, most often because operating losses have not been offset by sufficient positive investment returns or support. Surviving and Thriving Institutions have generally seen substantial variations in this Ratio over the period with the variances principally caused by changes in their investment returns. We have added the endowment returns to this chart, as referenced by the NACUBO annual endowment study which looks at returns across a broad range of institutions, noting the negative or small investment returns in 2015 and 2016. The average investment return also decreased in 2019 which caused the decrease in this Ratio.

This Ratio fluctuates most of the core ratios and is influenced heavily by investment performance. The significant conclusion is that for three of the years analyzed, the return on net assets exceeded the threshold value of 6% but did not meet the threshold value for four of the years and is very dependent on investment performance[5]. ***Threshold Value is 6%***

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	9.23%	12.04%	1.38%	-4.30%	9.28%	6.93%	3.00%
Ninth Decile	7.81%	11.59%	2.80%	-4.39%	8.44%	5.84%	2.71%
Eighth Decile	10.51%	10.82%	1.64%	-4.10%	8.41%	4.95%	2.53%
Seventh Decile	8.00%	8.50%	1.11%	-1.92%	7.13%	4.35%	1.66%
Sixth Decile	9.99%	11.11%	2.30%	-2.78%	7.31%	3.96%	1.13%
Fifth Decile	9.35%	7.85%	2.90%	-1.22%	7.47%	5.38%	1.50%
Fourth Decile	8.51%	9.76%	1.75%	-1.00%	6.60%	3.78%	0.82%
Third Decile	7.78%	8.33%	1.68%	-2.70%	6.35%	4.00%	0.38%
Second Decile	7.34%	8.17%	3.46%	-0.11%	8.37%	4.04%	0.79%
First Decile	4.25%	7.92%	1.17%	-2.80%	6.62%	4.28%	2.06%
Average Net Annual Investment Return per NACUBO Study	11.7%	15.5%	2.4%	-1.9%	12.0%	8.2%	5.3%

5 2019 NACUBO – TIAA Study of Endowments

Return on Net Operating Revenues Ratio

The Net Operating Revenues Ratio reflects the annual operating surplus or deficit generated, and ignores total investment return, contributions for endowment or plant, and changes in post-retirement obligations and interest rate swap liabilities. This Ratio shows that most of the institutions in the data analysis are under severe operating stress, with 40% having deficits in 2019 and 2018, and 90% under the minimum threshold value of 2.0% in both years. The trend line is very important for this ratio, with those that are Barely Surviving showing not only declines during the period, but also several years of operating deficits. Surviving institutions have also shown a decrease in this Ratio during the period, with nine of the deciles under the 2.0% threshold value. These trend lines show that 84 of the 120 institutions in the first 4 deciles have generated operating deficits and due to the overall financial health of these institutions, they will not have the financial strength to tolerate this operating results. We believe these institutions, representing 28% of our sample, are either at severe risk of failure or are barely surviving and need substantial intervention in their operating model. The next overall category, surviving institutions, have operating environments with an elevated risk for creating structural deficits. The difference between these two groups is the retained wealth in the higher deciles, but structural deficits, over some period, will reduce that wealth. Each institution in this situation should examine needed changes to their operating models to staunch the lower operating results.

Thriving institutions have also seen decreases indicating that they are not immune to operating pressures, but have enjoyed higher operating returns, due to their ability to attract and retain students and maintain their net tuition revenues amounts.

Threshold Value is 2%

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	2.96%	3.96%	2.67%	1.74%	4.69%	3.65%	5.22%
Ninth Decile	4.47%	3.29%	3.95%	2.42%	1.68%	1.38%	0.34%
Eighth Decile	3.28%	2.92%	1.56%	1.81%	1.58%	1.06%	1.06%
Seventh Decile	1.85%	1.51%	-0.24%	-0.10%	1.38%	1.14%	1.45%
Sixth Decile	3.16%	3.00%	2.19%	0.79%	0.37%	0.82%	1.66%
Fifth Decile	4.31%	2.89%	1.57%	1.14%	2.60%	0.83%	1.30%
Fourth Decile	1.10%	1.08%	0.11%	-0.25%	0.48%	-0.93%	-1.48%
Third Decile	0.61%	-0.80%	1.64%	0.23%	-1.05%	-2.25%	-1.00%
Second Decile	1.79%	0.96%	1.50%	-1.24%	-0.71%	-2.37%	-1.93%
First Decile	0.97%	-0.64%	-3.41%	-2.78%	-3.36%	-5.20%	-8.19%

Age of Plant and Physical Asset Reinvestment Ratios

We also analyzed two key metrics related to facilities – Age of Facilities Ratio and Physical Asset Reinvestment Ratio. The Age of Facilities Ratio is a simple to calculate metric that determines the relative age of an institution's physical plant. While not as detailed or accurate as the Facility Condition Index or other plant metrics, it is easily calculated. The Physical Asset Reinvestment Ratio compares the amount spent on capital improvements versus the institution's depreciation expense (a measure of plant asset usage). When assessed together, it provides insight into not only the age of facilities, but also if the institution is maintaining and renewing its plant assets at a sufficient level.

The Age of Facilities Ratio indicates that most institutions analyzed are struggling to maintain their plant assets, as eight deciles are over 14 years with seven deciles over 15 years. This is the higher end of the range we consider appropriate for institutions in these Categories. This Ratio has increased in all the deciles, indicating that institutions are deferring some capital improvements, especially larger projects. Further assessment of the Physical Asset Reinvestment Ratio also indicates a decline in capital spending with those Barely Surviving and Surviving institutions showing the greatest decrease as they reduce their capital spending to save cash for operations.

Age of Facilities Ratio

Threshold Value is 12 to 14 years

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	13.84	14.04	14.24	14.71	13.69	13.99	13.97
Ninth Decile	13.72	13.97	14.22	14.36	14.33	15.05	15.33
Eighth Decile	13.51	14.77	15.58	15.92	16.48	16.24	16.73
Seventh Decile	13.69	14.21	15.19	15.73	16.55	17.03	18.08
Sixth Decile	12.45	13.17	14.00	13.96	14.24	14.73	14.23
Fifth Decile	11.94	12.12	13.47	13.23	13.20	13.70	13.99
Fourth Decile	13.48	13.52	14.38	15.18	15.73	15.71	17.09
Third Decile	12.65	12.88	13.00	13.43	14.20	14.43	15.13
Second Decile	14.25	14.03	14.28	15.19	16.41	15.77	16.53
First Decile	15.11	15.48	16.92	16.30	16.58	17.19	18.26

Reinvestment of Plant Ratio

Threshold Value is 1.00

	2013	2014	2015	2016	2017	2018	2019
Tenth Decile	1.62	1.45	2.01	1.76	1.82	1.57	1.49
Ninth Decile	1.43	1.57	1.25	1.03	1.28	1.37	1.46
Eighth Decile	1.24	1.26	1.18	1.47	1.21	1.05	1.00
Seventh Decile	1.01	1.01	0.86	0.74	0.84	0.87	0.83
Sixth Decile	1.23	1.10	1.21	0.98	1.25	1.13	1.40
Fifth Decile	1.52	1.04	1.09	1.11	1.15	1.21	1.48
Fourth Decile	1.55	1.38	1.01	1.15	1.06	1.10	1.06
Third Decile	0.96	1.00	0.96	0.88	1.07	0.91	0.86
Second Decile	1.08	1.01	0.91	1.04	1.05	1.31	0.82
First Decile	0.99	0.81	0.84	0.83	0.74	0.77	0.81

In our last two Updates and Analyses, we offered numerous suggestions and courses of actions that institutions needed to implement. We also noted that, while seeing an increase in acknowledgment of the issues and pressures by institutional boards and senior leadership, and an understanding that these matters are significant and/or dire, we did not see a strong response to them. Many held either a firm belief that things would get better and return to normalcy, or that their strategies would work given a longer period and more resources allocated to them. We predicted that denial of the new paradigms will most likely result in additional failures in the coming years.

The continued slow steady decline in 2019 and lack of adequate responses resulted in lack of adequate financial resources for many institutions as the COVID-19 epidemic began in Spring 2020. Now, institutions have seen decreases in their already inadequate levels of expendable net assets, decreases in operating revenue and margins (or further deficit increases), and need to make significant financial decisions in ether a crisis environment with little time or margin for error.

We acknowledge that financial health neither necessarily implies superior academic quality or programming, nor successful student outcomes. However, lack of sufficient financial resources will exacerbate any financial crisis as institutions lack sufficient resources to deal with sudden decreases in resources and/or increases in outflows. In addition, lack of financial resources will assuredly negatively affect the ability of an institution to maintain or modify existing programs or instruction delivery methods, develop new programs, allow sufficient training and development of faculty and staff, and provide sufficient resources for continued upkeep of physical facilities. Each of these must have continued investment, in some balance, to ensure that the institution continues to thrive.

As noted above, the Thriving institutions would appear to be financially sound and will be able to manage changes resulting from the current conditions, and even further improve their financial health. The institutions defined as Barely Surviving or Surviving need to think quickly and agilely about reshaping their institutions now without time to delay. And those Critically Unhealthy institutions now must face mergers/affiliations, closures, or other "distasteful" actions.

We believe that the comments below apply to all institutions in varying degrees because, regardless of overall financial health, there will be continuing unabated pressure on the primary revenue sources (net tuition and other student related revenues (room, board)) and the financial health of even currently sustainable institutions will weaken.

We have summarized our recommendations into the following eight areas:

- Review cost structures across academic and administrative areas, including scenario planning
- Re-assess costs and benefits of the institution's inter-collegiate athletic programs, including level and conferences membership.
- Enrollment-related trends and effectiveness of interrelated enrollment strategies, especially concerning in-person versus online instruction delivery methods
- Relationship between net tuition revenues and direct cost of instruction
- Breadth of programs versus current and future market trends

- Physical plant growth and costs
- Other options such as affiliations with other institutions
- Consider whether financial exigency is an appropriate action.

Review cost structures across academic and administrative areas, including scenario planning. Many institutions are already undertaking a significant review of their cost structures in their academic and administrative areas. However, many of these initiatives are following prior reviews and focusing on traditional items such as compensation level freezes, deferral of capital projects and maintenance, reducing administrative or academic support staff, and others. These are being done without a longer-term view of the institution's instructional delivery models and student services needs under different operating environments. For example, if more of the instructional programs are on-line versus in-person, the levels of technology infrastructure and support, instructor and academic support, student services counseling methods and support, and others need to be assessed not through a reduction lens but a level of quality lens. Further, if certain administrative and other support employees can work from home, productivity metrics must be developed and employed while the level of support needed for them, including administrative space, needs to be re-assessed.

In addition, the impact of reduced students on campus requiring room and board services and other space needs such as laboratory space, is also essential. As noted above, auxiliary services generate substantial operating margins and any reduction in those margins will impact the college's overall financial health. These services often have significant vendor contracts and/or out-sourced services. Those contracts and arrangements need to be re-examined for future student levels. Other major contracts should also be re-examined across the institution.

All salary and staffing levels should be re-examined and assessed as to what is required, should have or nice to have criteria. Athletic affiliations costs and athletic department personnel levels and compensation should also be re-examined,

All these efforts are not a single panacea or should be reviewed as a point estimate. Rather, institutions should initiate scenario planning approaches and exercises to the different possibilities that may be encountered. This approach has been used by many for-profit companies as part of on-going strategic and long-range planning processes but has not been embraced by higher education institutions in their processes. There should be ranges of estimates developed for multiple scenarios with focus groups or other key stakeholders involved in both developing the scenarios as well as evaluating the results, and making recommendation to senior management and the Trustees.

Re-assess costs and benefits of the institution's inter-collegiate athletic programs, including level and conferences membership. Costs for inter-collegiate athletic programs have grown an at enormous rate over the last several years and represents a financial burden for smaller institutions. Often, Finance Committee and Board members are unaware of these costs as they are often part of student services or other budget financial areas. In addition, some Presidents either refuse to acknowledge the levels of these costs or believe that there is an enormous benefit to their size and scope.

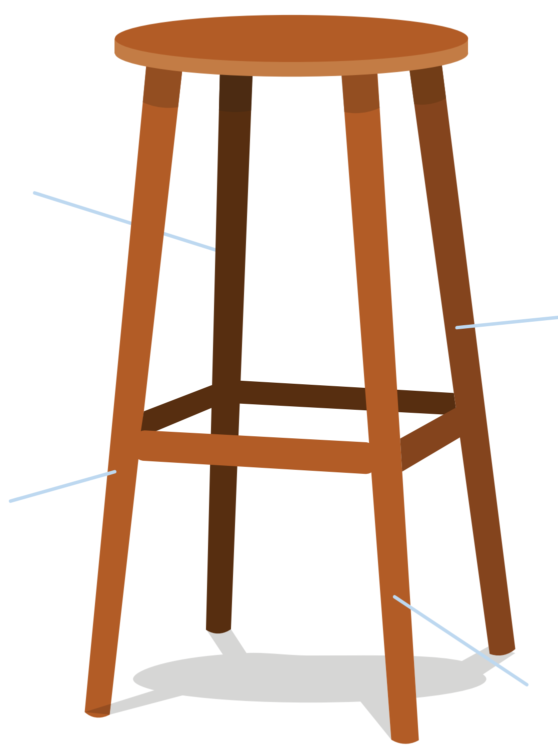
Given the current and projected financial health of small institution, Trustees can no longer ignore these costs and must assess both the costs and benefits of the current athletic programs. Many athletic conferences are making plans for Fall 2020 and face a high level of uncertainty as to how, and even if, athletic sports will be conducted in the 2020-21 academic year, especially if conferences include institutions from different states that must follow their specific state health guidance.

Over the last several years, we have called for increased transparency and reporting of financial information concerning inter-collegiate athletics and have offered various suggestions for improvement. We included many of these suggestions in our publication Bridging the Stewardship Gap – Toward Effective Finance Committees. We believe that an in-depth assessment needs to be performed which should include members of the institutions, Finance, and other affected Board committees.

Examine enrollment related trends and effectiveness of the four key Inter-related enrollment strategies. The Board and senior leaders need to take an objective look at the financial condition of the institution. If enrollment and net tuition revenue trend lines have been negative, the plan to adjust the trend lines needs to be realistic. As an example, all institutions in this study are student revenue dependent, with some up to as much as 90% of their operating revenue sources. The management of this critical revenue source will be the primary determinant of the institution's financial success. We add that the success of the students will be the determining factor in the overall institutional success.

Think of net tuition revenue as a four-legged stool, with each of the legs needing to be the same length as the other three or the stool will not support the sitter. The legs' same length is the balance and interactions between these four factors, which will often conflict with each other. Two of the "legs" are related to the student enrollment while the other two are related to the net tuition pricing. In essence, volume and rate, respectively.

The Net Tuition Revenues Stool℠



The two volume-related "legs" are a) student recruitment and b) student retention. We purposefully use student recruitment instead of admissions because the process to identify and obtain students is an active, not passive process. The two rate-related legs are the overall tuition pricing strategy and the institution's discounting strategy. We firmly believe that there needs to be a discounting strategy rather than what we see in many institutions, which is solely a discount budget. These four areas require strategies and policies that are coordinated and complimentary with each other, extending to allocating resources to ensure that each policy (stool leg) works with the others (same length). If not, the stool will not be balanced and supportive of the institution's mission and goals.

Examples of ways these four factors may get out of balance with each other and not work together holistically include:

- If recruited students are academically or emotionally unable to meet the rigors of the institution, retention will suffer; expanding student enrollment and perhaps lowering standards will require greater resources to retain those students through academic mentoring, career counseling, student support and such.
- If pressure is to fill the classes is so great that unaffordable discounts are offered, net tuition will not meet institutional needs; the institution's tuition pricing strategy should be questioned since significant discounts are required to meet enrollment goals, as well as student retention may be affected.
- If discounts are too low, recruitment will suffer, which may also result in lower student quality to make enrollment goals.

Our experience indicates that if an institution plans on increasing enrollment at the same time it is reducing its discount rate, success is likely dependent on selected programs that, by reputation and performance, can command higher net pricing. It is unrealistic to assume that traditional programs that created the need for greater discounting will sustainably allow for a reduction in those discounts while simultaneously attracting more students.

When designing a plan to create sustainable increases in net tuition revenues, a potentially successful recruitment plan needs to consider at least the following factors:

- Viability and marketability of existing programs
- Regional and national interest in the programs the institution is investing in
- The economic factors affecting primary recruitment areas.

Each of the four strategies need to be explicitly defined as to their individual goals and objectives, as well as how they interact and support the other three strategies, including addressing their inherent conflicts. Changing any of the four strategy legs needs an explicit statement as to which programs will attract more students, where the students will come from, and the rationale why potential students would select this institution instead of a competitor. Assessing how well each of the legs is working with the others is a continuous process of self-examination, feedback, and subsequent change. It is difficult but required.

Given the current environment and uncertainty as to recruitment, retention, pricing and discounting strategies, identification and coordination of these strategies are critical. Assessments under various instruction delivery models need to be made, with ranges of estimates under various scenarios. This may result in entirely different strategies for in-person instruction, on-line instruction, or some hybrid approach(es).

While these may be considered separate, it is imperative that a holistic view and integration be done since one delivery model will impact the others and will also create conflicts between them. And while many will be focused solely or primarily on risks, institutions should also remember that the "flip side" of the risk coin is opportunity with potential expanded markets for students and academic programs.

Compare the relationship between net tuition revenues and the direct cost of instruction. Often, we see studies that examine various institutional costs against selected peer institutions. These studies are important to understand overall strategy but are incomplete because they do not consider the affordability within the institution. As an example, assessing the cost of instruction will generally include comparisons of compensation and benefits to other institutions, assessments of how many courses professors teach, and an attempt to reduce under-enrolled sections of courses.

The issue with these analyses is that they ignore the affordability of the overall program. Based on our experience, if the direct cost of instruction exceeds about 35% of net tuition revenues, and the institution is more than 70% tuition dependent, there is a high degree of likelihood that the institution will generate structural deficits, unless there is under-investment in other areas. This is primarily due to the need to incur positive margins to cover plant, technology, compliance, student services and other administrative costs.

A comparison of net tuition revenue per credit hour to net direct cost per credit hour will highlight affordability issues. This analysis leads to an understanding of under-enrolled majors, costs of course releases for faculty, underutilization of facilities, etc. Often under-enrolled sections will need to be held because the section is part of upper level major's program and the course must be held if the student is to complete the required course of study on time.

Instruction costs under in-person, on-line and hybrid delivery methods must also be determined and evaluated. These may vary significantly and should include all related direct and assignable costs including instruction assistance, technology, and materials.

This usually results in a disproportionate allocation of resources to a small portion of the student base, likely impairing the ability of the institution to invest in program renewal that affects more students.

Review programs offered with numbers of graduates by program and compare current programs to current and future market trends. In order to attract a wider range of students, many institutions over a long period of time have added major programs, as well as graduate and certificate programs. Most have been quicker to add than to delete offerings, leading to unaffordable institutional scope creep. The number of programs supported, over a long-term historic horizon (e.g., 30 years in 5-year increments) would help understand how resources are deployed. Should the trend in average enrollment by program demonstrate significant declines in many programs, resources are fragmented, adding to the institutional financial burden.

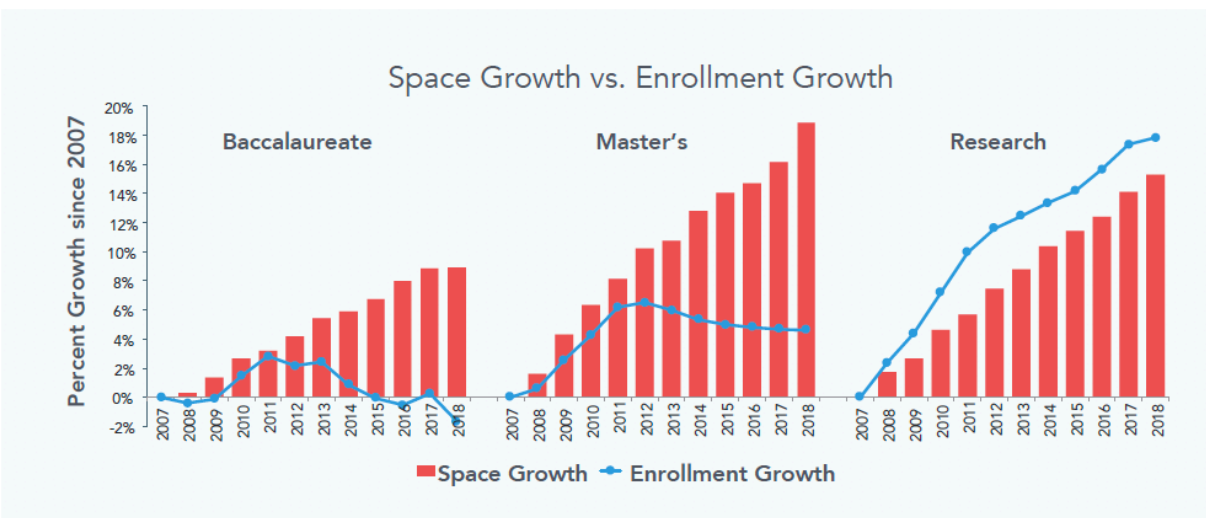
Current conditions now make this analysis imperative, both currently and in the future. A part of this analysis would be the number of students graduating and expecting to graduate from each of the programs, correlated to national or regional interest in the discipline to understand whether some program modification or marketing could cure the lower enrollment, or if the lower enrollment is a result of waning interest in those programs.

We would expect some disparate graduation rates from the most popular to least popular programs, but if a handful of the majors graduate most of the students, the resource allocation model is distributing resources to service a disproportionately small number of students. However, beyond the financial implications of under-enrolled programs, the institution must challenge whether the same small number of students being taught all their upper level courses by the same few professors is good pedagogy.

Assess overall investment in physical plant assets, including needs under future instruction models and changes in square footage per student. When institutions begin to face fiscal difficulties, the level of maintenance of existing facilities tends to diminish. Smaller institutions generally have determined their "value proposition" as smaller class sizes, frequent and close interactions among students, faculty and staff, and sufficient physical plant to accommodate a personal instruction delivery model. Conditions have changed and as institutions re-examine their instruction delivery models, they also need to assess the amount and type of physical assets, including technology. Technology assets (networks, connectivity, software, hardware, etc.) have been generally difficult for many smaller institutions due to both their complexity and costs compared to the skill sets of institution staff and financial resources available. In addition, technology security issues are increasing and current movement toward on-line instruction will exacerbate stressed compliance and delivery functions.

These changes come after an explosion of investment in capital that exceeded the growth in student enrollment over the last 10 years. Student life changed dramatically over the last 30 years to meet the demands of a very different student base in terms of living quarters, dining options and incremental facilities for recreation, gathering, and counseling. Emphasis on sciences required more lab space with up-to-date equipment. Use of academic facilities has narrowed the effective academic week to require expanding classroom space to accommodate students and faculties in a smaller window of teaching hours.

The charts below demonstrate the difference in growth rates in enrollment and space by types of higher education institutions[6]. Curiously, the institutions showing more enrollment growth than space growth are research organizations who have made substantial investments in research facilities in this 10-year period.



6 Adapted from 2018 State of Facilities in Higher Education Report by Sightlines

Perhaps the most significant change that likely is required related to facilities is establishing rigid control over both technology and facilities. These controls would include:

- Assessing overall investment in physical plant, including changes in square footage per student currently employed and needed. Our experience indicates that there has been a dramatic increase in the square footage per student, which has added substantially to the operating costs of the institution, even in an environment where some maintenance has been deferred (which would be a further cost add-on).
- Completing usage and density studies of existing space might lead to rescheduling and/or repurposing space—both would save money.
- Considering whether some space should be taken offline to save operating costs
- Determining how to best deploy technology assets and resources through in-house, outsourcing, or affiliated approaches, or some combination

Consider whether the best option for the institution is to affiliate with other institutions. After examining the institution's current and projected financial situation, its current experiences on using on-line instruction methods, and existing relationships with other institutions (including athletic affiliations), the most rational next step may be to find partners to forge alliances that preserves the promises to existing students and ensures that future students will have the opportunity to experience what is best about the institution. This may include elimination of some programs directly but continued involvement with affiliations or consortia to deliver them.

We do believe that closures or mergers will continue, and at an increased pace. Much like our proverbial frog, the Boards and Senior Leadership in each institution need to ask: "What current conditions that, if uncorrected, could challenge the independent continuance of our institution in both the near (1-3 years) and long-term (5-10 years)?

Our analysis indicates that 40% of the Masters and Baccalaureate institutions are under significant financial pressure (Barely Surviving). The trend lines have been declining for the past five years and will likely increase or continue at a faster pace. Another 30% are currently in reasonable, but not superior financial position (Surviving). These institutions, generally experiencing declining financial condition and operations, are subject to the same external pressures but will have difficulties finding the resources to allow a transformation of the institution so they can move to a more solid financial footing. Continuing sudden downturns, whether in investment markets, philanthropy, or continued operating budget revenue sources, indicates that these institutions will not be able to maintain their status quo and current levels of financial health.

Considering the various forms of affiliations and potential partners is a time-consuming and lengthy process, institutions must act quickly to assess these alternatives and options while still having reasonable levels of financial health, versus when facing crises in cash shortages and liquidity shortfalls.

Declaring Financial Exigency. Declaring financial exigency is the "third rail" of institutional governance, operations, and finances. Few institutions have taken this step and for those that have only some have survived. Even considering this step requires careful planning and communications among internal and external stakeholders. While state laws may differ, there are certain protocols that are common from Association of Governing Boards and the American Association of University Professors. Some institutions may have already had provisions in their charters or by-laws concerning exigency. These steps do require significant time to perform. Institutions may want to consider this event as part of their scenario planning exercises described above.

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