



# Program Cost Analysis to Support Financial Sustainability & Academic Quality: A Case Study





# Program Cost Analysis to Support Financial Sustainability & Academic Quality: A Case Study



#### CONTRIBUTION MARGIN ANALYSIS CASE STUDY

#### Primary Aim of Case Study

Provide insights into the use of cost & margin analysis in higher education institutions



#### **POLLING QUESTION 1**

Has your institution performed margin analysis for your academic programs?

- Yes
- No
- We are currently in the process
- We started, but experienced complications
- Not sure



#### THE MAIN CHALLENGE

FINDING A SOLUTION TO SUPPORT DECISION MAKING RELATED TO ACADEMIC PROGRAMS

Net Tuition & State Revenues The Problem

Cost of Education





## State tax revenues continue to decline in a significant number of states

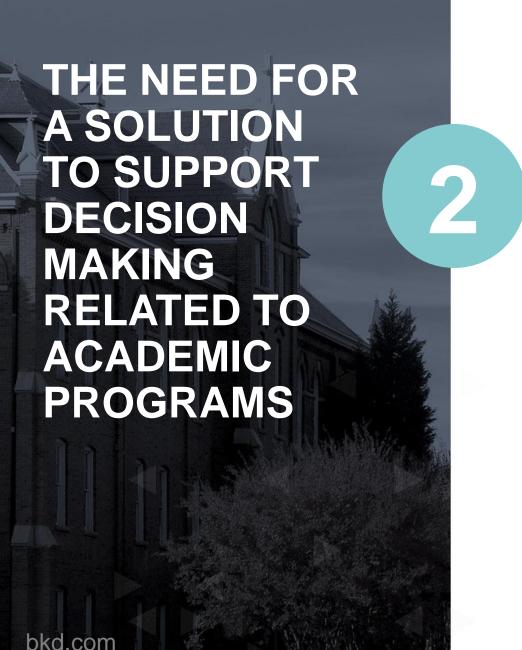
State tax collections declined in 19 states\* 2016

Revenue shortfalls reported in 27 states\* 2017

States enact "very modest" spending increases\* 2018

\*Rockefeller Institute of Government State Revenue Report (June 2017), NASBO Fiscal Survey of States (2017)

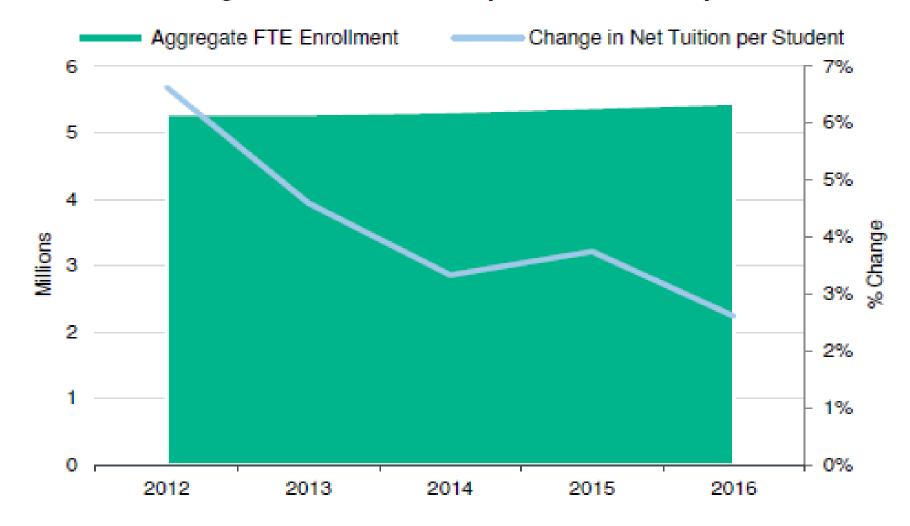




Pricing power (net tuition revenue per student) for public universities moderating across all university sizes

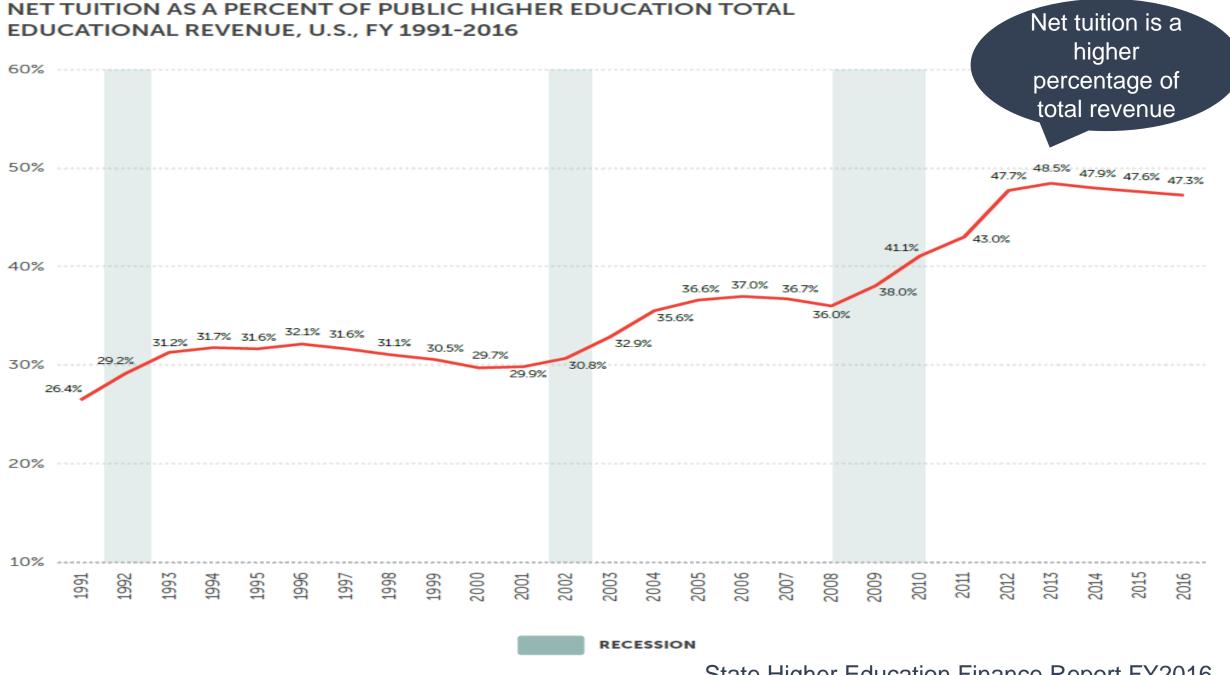


#### Enrollment steady while net tuition per student drops



Note: FTE stands for full-time equivalent. SOURCE: 2017 Moody's Medians Public Higher Education

Source: Moody's Investors Service





## Private colleges struggle to maintain financial margin

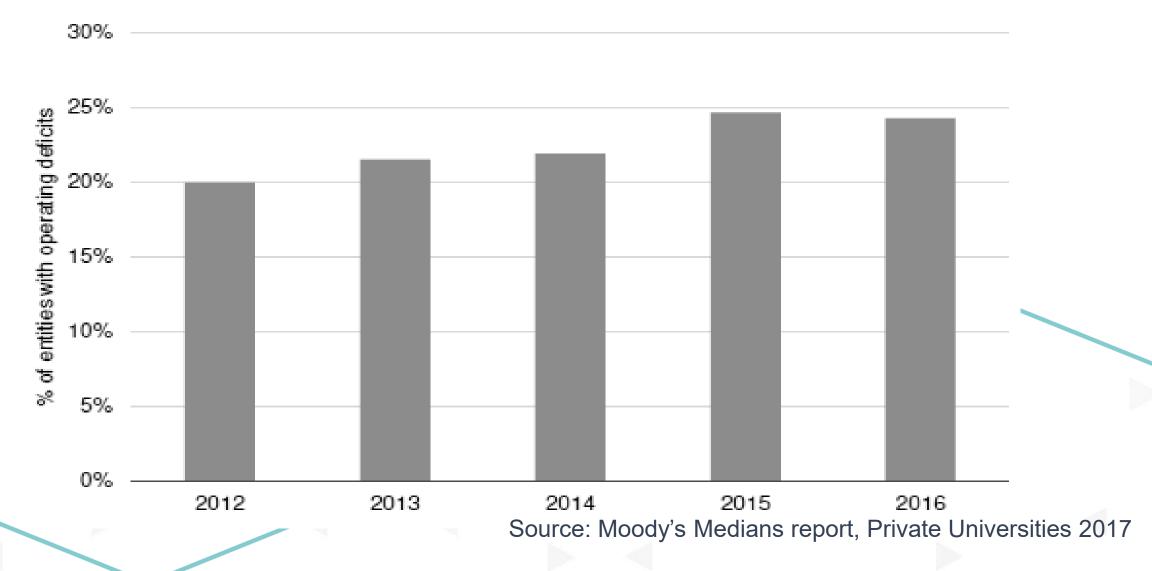
224,000 fewer people enrolled into undergraduate programs in the fall of 2017 affecting institutions in 39 states\*

The rate of decline in enrollment is faster than last year\*

\*National Student Clearinghouse



#### **Approximately 25% of Private Colleges Are Generating Operating Deficits**







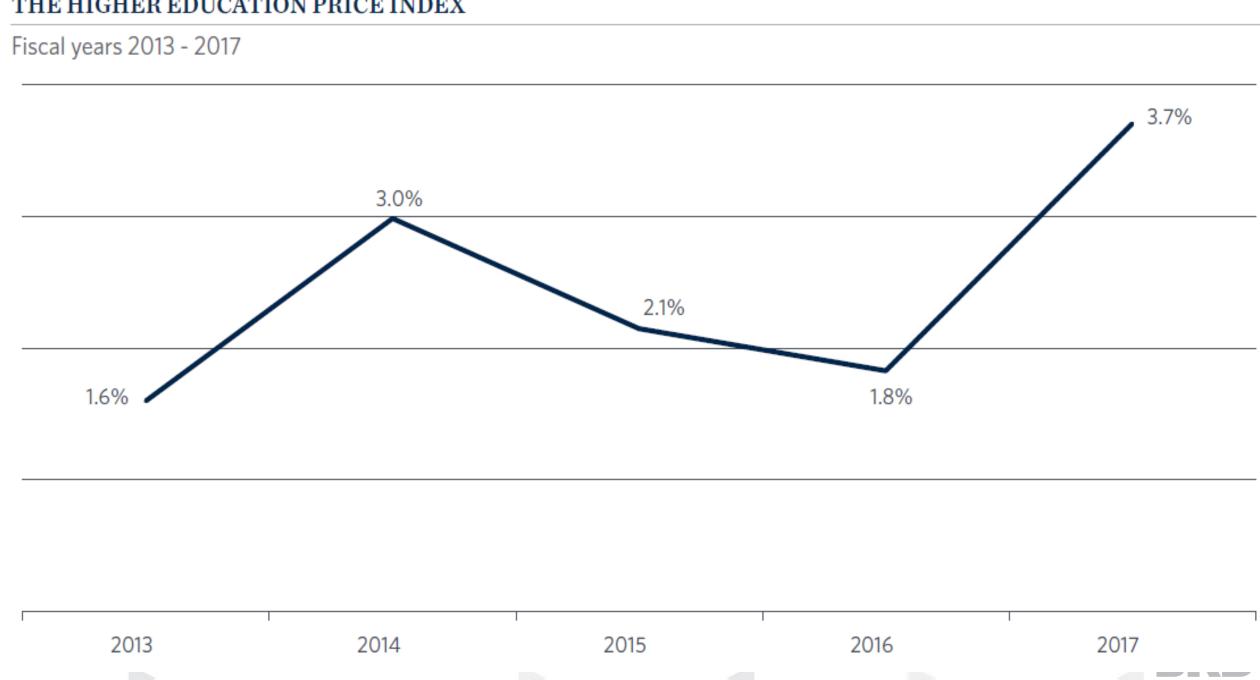
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Not only are revenue increases constrained, costs are rising



#### HIGHER EDUCATION PRICE INDEX 1961 - 2017 12% 10% **HEPI Year-Over-Year** 8% 6% 2% **Cumulative HEPI** Source: commonfund.org

#### THE HIGHER EDUCATION PRICE INDEX



Source: commonfund.org

#### **POLLING QUESTION 2**

We are searching for new revenues outside academic programs (facilities rental, services, sales of intellectual property, etc.)

- True
- False
- We haven't yet, but will in the next 12 months
- I don't know



#### **MAJOR THEME**

Contribution Margin Analysis does NOT provide the answers to the key questions ... It provides the DATA needed to target the right questions

Margin analysis provides you with the tools to make data-informed resource allocation decisions



## PAIN POINTS EXPERIENCED BY OUR CASE STUDY PARTICIPANTS

Not sure where to start or how to approach

Limited resources/capacity

Have tried, but by the time they get anywhere, data is stale

Not sure what data is needed or what to do with it

Hard to understand & see the "big" picture" through Excel



## GLOBAL PAIN POINTS

What does everything mean?

Lack of common terminology & definitions

Benchmarking disciplines & fields are hard to come by easily

- Internally
- Delaware Cost Study
- Peers

Lack of well-known & well defined targets for margin contributions



#### **GLOBAL PAIN POINTS**

Great job of capturing main campus data, but not so much for distance education & other "off-campus" educational activities

Became clear that data standardization would be beneficial

Faculty load information in Banner sometimes not input correctly

- Expectation?
- Inputting semester actual?

Lack of the right tools to combine financial data with qualitative program review data



## WHAT IS CONTRIBUTION MARGIN?

## Net tuition revenue less instructional & direct operating costs

#### **Tuition**

- + Fees
- -Institutional aid

Net tuition revenue

- -instructional comp & benefits
- -other direct expenses

**Contribution Margin** 

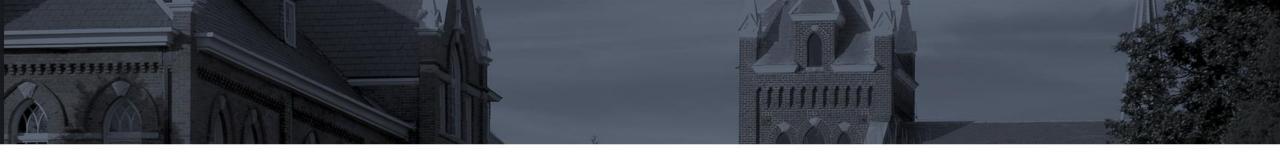


#### **POLLING QUESTION 3**

Analytics will be critical to our institution's success in the next five years.

- Agree
- Neutral
- Disagree
- Not sure





#### HOW THE BKD TOOL HELPED

Process Observations Effect on Strategic Decisions

Next Steps Considered

**Notes from Analyst** 

Conclusions



### Process Observations



## CASE STUDY PARTICIPANTS PROCESS OBSERVATIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

Conclusions

Started with a small, but cross-disciplinary team including finance, academics & top leadership. Working in a team was helpful

We took the time with the smaller group to thoroughly review the first iterations of data that came back & made adjustments

Our small initial team took time to make sure we understood the data, its sources & the related definitions. Defining terms was important to success



## CASE STUDY PARTICIPANTS PROCESS OBSERVATIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

Conclusions

After small group worked to scrub the data, only then was it rolled out to deans. Sometimes deans also distributed to department chairs, but not a pervasive practice

Board of directors also got a view of some data after the initial group scrub

Next step in some cases was to incorporate data into a larger university program review



## Effect on Strategic Decisions



## CASE STUDY PARTICIPANTS EFFECT ON STRATEGIC DECISIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

Conclusions

The CMA provided trends data that enabled us to see the direction that our prior strategic directions were taking us

We realized our current analysis was indeed right on track & helped us have the confidence to pursue revenue based solutions that we were considering

We changed our focus from cost cutting to gaining a confident perspective of other dynamics



## CASE STUDY PARTICIPANTS EFFECT ON STRATEGIC DECISIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

Conclusions

We gained a data supported understanding of the need to expand alternative revenue sources including additional programs (enrollment) contributions & other alternative revenue sources

We learned that our margins had not fallen & helped us understand that our cost control strategy was effective

We gained a defensible starting point to make confident, mission oriented decisions we wanted to make that were actionable



#### **POLLING QUESTION 4**

I'm confident about the sustainability of my institution's financial model over the next 10 years.

- Agree
- Neutral
- Disagree
- Not sure



### Next Steps Considered



## CASE STUDY PARTICIPANTS NEXT STEPS CONSIDERED

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

Conclusions

Thinking about benchmarking program costs with Delaware Cost Study data. Also thinking about adding internal & external demand data

Thinking about working with BKD Data Analytics team to bring analysis onto internal Tableau Server based system

Most schools still needing to add additional years of data & incorporate the analysis into longer term planning including strategic planning integration



Notes from Our Internal Institutional Research & Data Analysts



### CASE STUDY PARTICIPANTS NOTES FROM OUR INTERNAL INSTITUTIONAL RESEARCH & DATA ANALYSTS

Process Observations Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

**Conclusions** 

CFOs see their data but have not been able to understand it fully in the context of course size & margin generated at the course level. Only when they saw the underlying details did they gain that full understanding

Large lower division courses subsidize smaller upper division offerings. But how much does it take (large lower division classes) to create the right mix so that adequate overall margin is generated? Completing the margin analysis helped schools understand the dynamics

We have been able to deal successfully with the complexities of the faculty load & research funding issues

### Conclusions



## CASE STUDY PARTICIPANTS CONCLUSIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

**Conclusions** 

Initial implementation resulted in small program phase outs & small class cancellations

Recognition that the first review was really just a start. Able to make some initial decisions, but most wanting to continue to review data for longer term review & conclusions

We were able to turn the corner & crystalized our thinking on what was needed



## CASE STUDY PARTICIPANTS CONCLUSIONS

Process Observations

Effect on Strategic Decisions

**Next Steps Considered** 

**Notes from Analyst** 

**Conclusions** 

Really needed the jumpstart to get decisions made

Real data from an objective third party (BKD) was what it took to gain acceptance of the data on campus & what it meant for us as a leadership team



## Questions?



## Thank You!

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