# State of Higher Education in Kentucky

DEANDORTON

DEAN DORTON ALLEN FORD, PLLC

BUSINESS ADVISORS CPAs CONSULTANTS

2017

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# INTRODUCTION

*"Change is the law of life. And those who look only to the past or present are certain to miss the future."*
John F. Kennedy

At Dean Dorton, we spend a significant amount of time serving clients within higher education. Clients we serve in this industry vary in mission, student population, location, funding sources, and structure, among other things, but all of the institutions and their affiliates play a significant role in the future success of the Commonwealth.

In order to analyze the state of higher education in Kentucky, we started with the national outlook as provided by Moody's Investors Service (Moody's), and compared those national projections to the economic reality in Kentucky.

Our report primarily focuses on opportunities to increase total revenue at institutions across Kentucky. We analyzed the most significant revenue streams and the external factors that could impact those revenue streams.

In addition to the Moody's report, this publication relies on our own industry expertise, as well as reports and data from the National Association of College and University Business Officers (NACUBO) and the Integrated Postsecondary Education System (IPEDS), the Commonwealth of Kentucky, and other resources in order to provide analyses and conclusions.

When analyzing the content in this publication, it is important to note that the Kentucky data comes from the most recent data from IPEDS, which is academic year 2013-2014. We analyzed this academic year, in addition to the years preceding it as a basis to provide insights and considerations regarding the future.

# NATIONAL OUTLOOK

Each December, Moody's publishes its *Outlook on U.S. Higher Education* (the Outlook), which analyzes financial projections for a 12- to 18-month period for four-year nonprofit and public institutions, and issues a rating based on the financial projections. The 2017 Outlook (issued in December 2016) gave higher education a stable rating. The stable rating is primarily based on the expectation that sustained aggregate revenue growth would be at or above 3%.

| Negative | Stable | Positive |
| --- | --- | --- |
| Annual revenue growth below 3% | Annual revenue growth at or above 3% | Annual revenue growth above 5% |

The Outlook also noted some concerns that could lower the stable rating as we get closer to the end of the 18-month period. Specific factors cited in the report supporting the 3% growth were as follows:

- Net tuition revenue is expected to grow at a rate of 2% to 3%.
- Incremental increases in state funding are expected (however, this varies greatly from state to state).
- Research funding will remain steady.
- Academic medical center performance will be favorable.
- The steady revenue growth from these diverse revenue streams will lead to steady cash flow margins in the 10% to 12% range for most public institutions and 12% to 14% for private institutions.

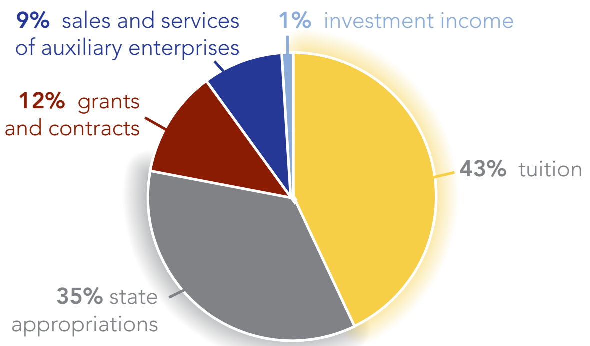
Specific factors that are cause for concern surfacing at the end of the 18-month period (during late 2018) are:

- Expense pressure resulting from increased labor costs
- Pension costs for public universities
- Uncertainty regarding federal policy impacting higher education
- Uncertainty about investment returns and impact on endowments
- Revenues could soften in 2018

# REVENUE

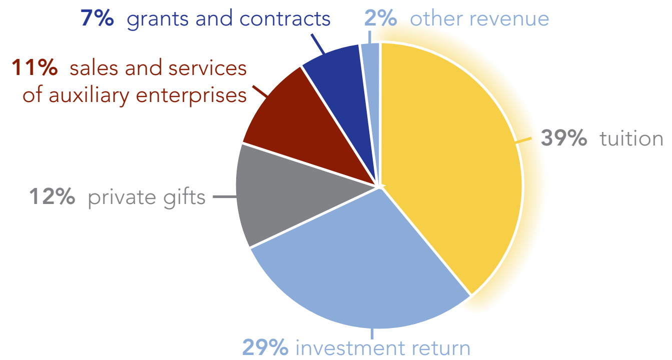
Colleges and universities have a diverse revenue stream that can protect them from a significant decrease in any particular segment of revenue, if total revenue is large enough. In examining the various revenue streams for public and private institutions, we notice that tuition accounts for approximately 40% of the total revenue.

Public, 2013-2014 **




less than 1% local appropriations education district taxes; gifts including contributions from affiliated organizations; capital appropriations; additions to permanent endowments

Private, 2013-2014




Tuition revenue represented a much smaller piece of the total revenue pie just 10 years ago (11%), with grants and state appropriations contributing larger percentages.

The makeup of total revenue at private institutions has not changed significantly over the past 10 years. Tuition, investment income, and private gifts remain the most significant drivers of total revenue.

If you have heard the phrase "public education is becoming more privatized," the comparison of these two pie charts shows you exactly what that means. Tuition is becoming an increased portion of the total revenue, while state appropriations decline.

**The University of Kentucky and University of Louisville are the only Kentucky public schools with hospitals. In 2013-2014, their hospital sales and services made up 42% of their overall revenue stream, compared to 34% in 2004-2005. Due to this large outlier information, the public chart above does not include these two universities.

# TUITION

*Tuition accounts for 39% of private institution revenue and 43% of public institution revenue.*

Tuition and student charges constitute the biggest portion of the overall revenue stream in both the public and private sector. Growing the net revenue from students is vitally important for the viability and success of every institution. Student charges consist primarily of tuition and fees, as well as fees for auxiliary services (such as room and board).

Moody's predicts that tuition will increase an average of 3% over the next 12 to 18 months. Total tuition revenue is the product of the amount paid by students multiplied by the number of students enrolled.

**Total tuition revenue = amount paid by students x number of students enrolled**

(***Tuition revenue*** *is not the same as* ***tuition rate****, as that is not always the amount paid by students.*)

Setting the tuition rate is a very complex, individualized process that is controlled by the leadership of any institution (including the board, management, and state officials for public institutions). As such, on the following pages we analyze how institutions can impact tuition revenue through students enrolled, enrollment management, retention, and graduation rates.

By analyzing these areas, we delve further into the factors impacting and opportunities for increasing tuition revenue at Kentucky's colleges and universities.

# ENROLLMENT MANAGEMENT

*According to Inside Higher Ed's 2016 Survey of College and University Chief Academic Officers,* ***colleges are focusing more on enrollment management than they did five years ago*** *and are most likely to say that their college is taking steps to increase enrollment in the coming year over other revenue-generating strategies.*

Enrollment management has become a more well-defined and complex issue in recent years. Three definitions of enrollment management were shared at the SACUBO 2016 College Business Management Institute (CBMI) in Lexington, Kentucky:

**Defined in 1976 by Maguire:** *Enrollment management* is a process that brings together the often disparate functions having to do with recruiting, funding, tracking, retaining, and replacing students as they move toward, within and away from the university.

**Defined in 1990 by Hossler and Bean:** *Enrollment management* is an organizational concept and systemic set of activities designed to enable educational institutions to exert more influence over their student enrollments. Organized by strategic planning and supported by institutional research, enrollment management activities concern student college choice, transition to colleges, student attrition and retention, and student outcomes.

**Defined in 2003 by Kalsbeek:** *Strategic enrollment management* is the evolution of an institution's competitive market position, the development of research-based definition of the desired or preferred strategic market position relative to key competitors, and then marshaling and managing institutional plans, priorities, processes, and resources to either strengthen or shift that market position in pursuit of the institution's optimal enrollment, academic, and financial profile.

The evolution from 1976 to 2003 parallels the changes we have witnessed in the higher education industry in that same time frame. In 1976 and 1990, the definitions of enrollment management were internally focused, i.e. how management wanted to shape the enrollment of their institution. The term *strategic* is used within the 1990 definition.

By 2003, the phrase changed to *strategic enrollment management*. Words like *competitive*, *market position*, and *financial profile* are clear evidence of the shift from an internal to external focus as management works to change the institution's market position and create a competitive advantage.

Competition continues to increase as we move into 2017. During a session on enrollment management at the 2016 CBMI, a representative from a large public institution (not in Kentucky) shared their university's enrollment funnel. The funnel started with an initial contact pool of 100,000 students to successfully enroll approximately 5,000 in the freshman class.

The increased competition can be attributed to at least in part on the changing demographics of the population in the United States, which is directly comparable to what is happening in Kentucky.

# ENROLLMENT MANAGEMENT

**Changing Demographics and the Impact on Enrollment**

Higher education has experienced the end of a significant growth period. The last of the baby-boomers' children graduated from high school in 2012. Before 2012, growth in higher education was sustained by having plenty of new high school graduates to fill the spots left by the freshman that did not return for year two. Today, that is no longer the case.

The Western Interstate Commission for Higher Education's 40th annual *Knocking at the College Door* report provides a predictive analysis of future high school graduates in the nation and provides separate detailed information on each of the 50 states. By analyzing both the national and Kentucky data, one can glean very beneficial information regarding managing institutions into the future.

**According to the Report**

After steady increases in the overall number of high school graduates for the past 15 years, the U.S. is headed for a period of stagnation. The nation is predicted to produce fewer high school graduates in all 10 graduating classes between 2014 and 2023, compared to the highest recorded number of graduates in 2013 (3.5 million graduates).

2017 is projected to be the year of the greatest decline, with 81,000 fewer graduates nationwide (a 2.3% drop). The report anticipates an increase in 2024 to 2026, reaching about 94,000 *more* graduates in 2025 than in 2013. Between 2027 and 2032, however, the average size of graduating classes is expected to be smaller than those in 2013.

While each state can vary significantly from the national average, the projections for Kentucky tell a similar story. Kentucky is predicted to have 45,100 high school graduates, on average, per year between years 2011 and 2032. The total number of graduates in Kentucky peaked in academic year 2012 (over 46,800 graduates), and is projected to be over 43,600 in academic year 2032.

## THOUGHTS TO CONSIDER:

- **Know your market.** Know the geographic market as well as the type of student that you are looking for.
- **Work the enrollment funnel with very detailed information.** There is a percentage of the market that you are 70% to 80% sure that you will enroll. Put additional focus on the 10% to 20% that are strong possibilities but are undecided.
- **Know which programs attract the most students.** What is your school known for? If you aren't sure, conduct an analysis to find your niche(s) and potentially spend more marketing dollars promoting those programs.
- **Look at the changing ethnicities and backgrounds as the high school population changes.** What can you do differently to attract first-generation students?

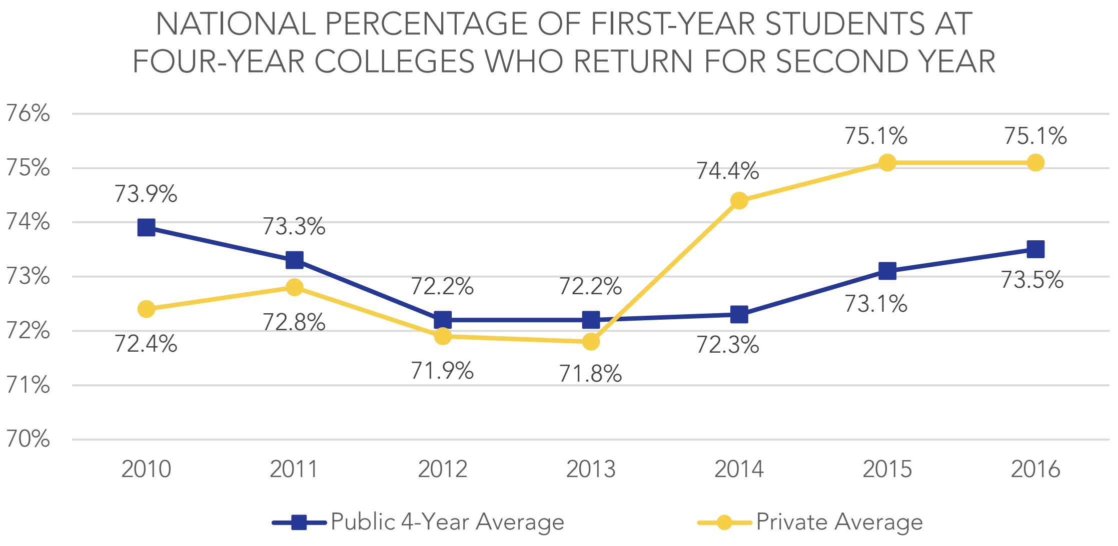
# RETENTION

Retention rates are of significant importance to the financial stability of institutions. Student attrition has a direct impact on tuition and auxiliary revenue today and will for the next three years. Fewer students also means fewer federal and state dollars. As more states begin to use performance-based funding, retention rates take on an even greater importance. From an external perspective, exceedingly low retention rates also send a negative message to potential students and their parents, which could impact future enrollment.

Retention has become an even bigger issue in recent years due to the changing demographics of the high school-age population. As discussed earlier, when students do not return the second year, colleges no longer see a consistent population growth that fuels an increase in newly enrolled freshman to replace those that did not return from the year before.

According to the 2016 *National Collegiate Retention and Persistence-to-Degree Rates* report, issued by the ACT (which does more than administer the college preparatory exam), the first-to-second year retention rates for four-year institutions averaged 73.5%. However, the rates range from a low of 56.6% to a high of 94.3% across the nation.

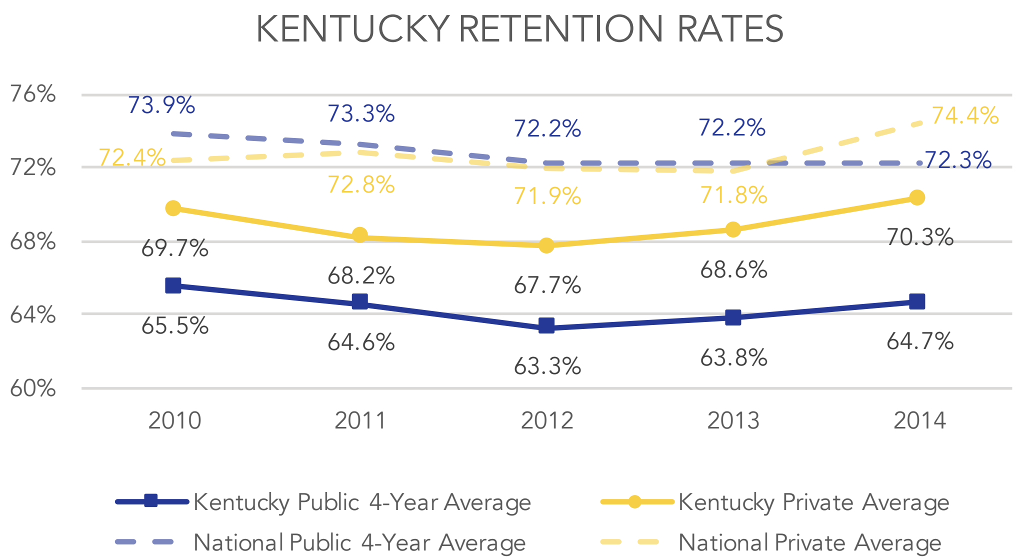
The ACT has been tracking this information for several years. The chart below shows the average retention rates by public and private institutions each year since 2010. It is important to note that average retention rates have changed minimally in the past six years. Public schools have hardly changed and private schools have increased by only 2.5%.




In a perfect world, all first-year students would re-enroll and the institution could count on a four-year tuition revenue stream from each student. However, reality is much different than that; **nationally, an average of 25% of students do not re-enroll their sophomore year**.

# RETENTION

Unfortunately, retention rates in Kentucky are not quite as high as the national average. The graph below illustrates the retention rates for both public and private institutions in Kentucky, as compared to national averages. Looking at 2014 alone, Kentucky public school retention is 7.6% lower than the national average, while our private school retention is 4.1% lower.




Just as recently as January 24, 2017, the University of Kentucky indicated they would shift their merit aid to be much more heavily need-based, based on their data indicating their students become much more likely to drop out if they have $5,000 or more in unmet financial need.

## THOUGHTS TO CONSIDER:

- Gather as much data as you can on your students (e.g. ACT/SAT scores, high school GPA, out-of-pocket costs to attend your institution). Stratify the information between those that re-enrolled and those that did not. What conclusions can you draw from the data? How can you adapt your systems to better support students to increase retention?
- Develop student success programs based on conclusions drawn from the data.
- Retention has a direct correlation with enrollment selectivity. Could adjusting enrollment selectivity increase retention and ultimately increase revenue?
- Are the right academic programs being offered? Are there some that should go away or new ones to be added?
- Is the academic advisory program as beneficial as it could be?

# GRADUATION RATES

Retention rates measure the number of students re-enrolling in year two. However, the ultimate goal is to keep the student enrolled until they graduate. Graduation rates have a significant impact on the financial position of an institution in both the short-term and long-term. Keeping students for four years (or two years, depending on the school) clearly increases revenue for the institution in the short-term, but let's take a look at the long-term advantages.

When students graduate, the odds that they will have higher earning potential increase over those that do not complete their degree.

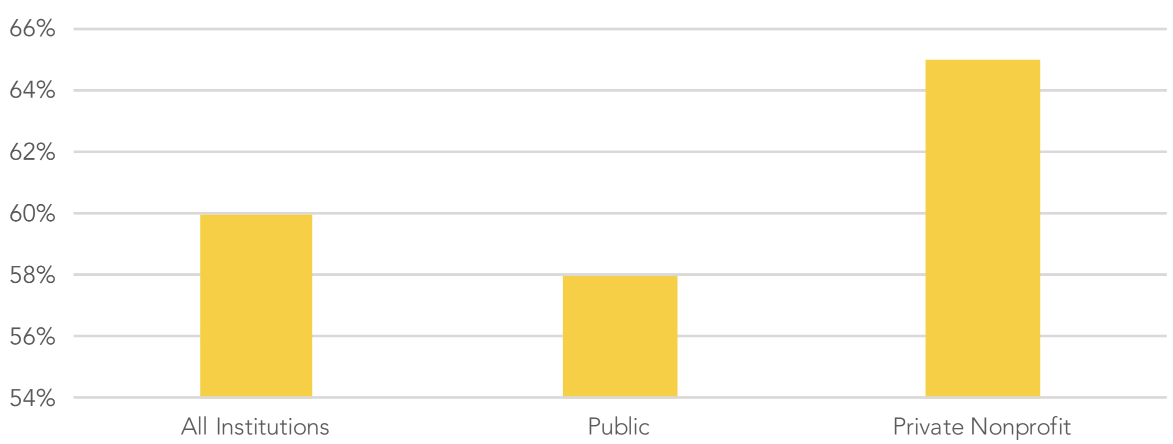
Finishing graduates are also more likely to be in a better financial position to give back to their alma mater and pay back their student loans.

The rate at which students pay back their student loans has an impact on an institution's ability to maintain eligibility to participate in the federal student aid program.

If default rates exceed certain thresholds, the U.S. Department of Education can place negative consequences on the institution.

The graph below illustrates the 2014 national graduation rate (2008 cohort) from the first institution attended for first-time, full-time bachelor's degree-seeking students at four-year postsecondary institutions.

NATIONAL GRADUATION RATES WITHIN 6 YEARS



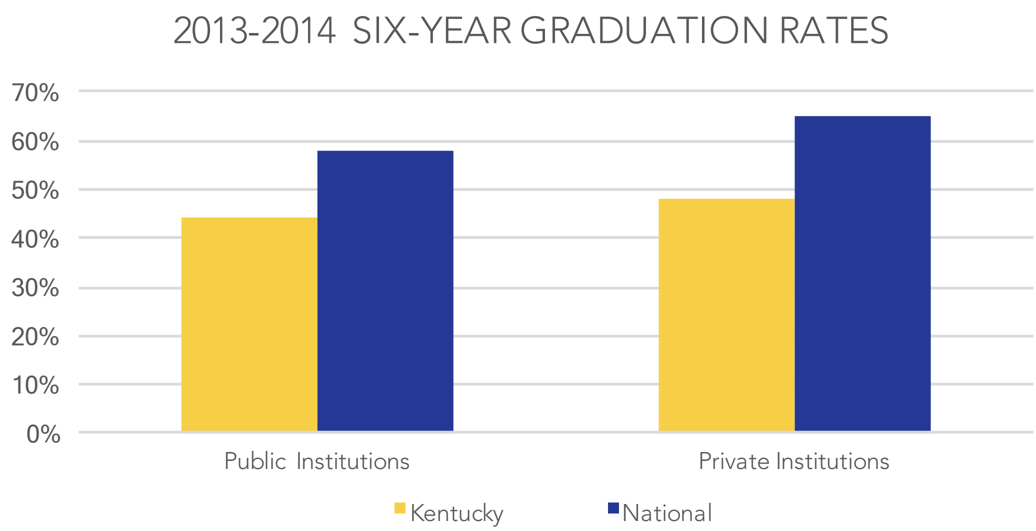

Source: The Condition of Education 2016

# GRADUATION RATES

**Graduation Rates in Kentucky**

As the Department of Education's College Scorecard continues to evaluate institutions on metrics such as affordability and performance, graduation rates and student loan debt amounts will remain significant factors for students and parents as they are selecting an institution. Many students today take as long as six years to graduate at a four-year institution.

The graph below illustrates average graduation rates in Kentucky, as compared to the national average.




Average graduation rates in Kentucky are hovering between 40% and 45% at four-year public institutions and nearly 50% for private institutions. There is definitely an opportunity to examine the data and draw some conclusions for how Kentucky schools can make adjustments to increase graduation rates and impact financial stability in the short-term and the long-term.

Kentucky is currently developing a performance-based funding model for higher education. Graduation rates could have a significant impact on funding at public institutions, depending on how performance will be evaluated in the new model.

**THOUGHTS TO CONSIDER:**

- The same strategies used for increasing retention rates can also be used for increasing graduation rates. Analyze the data to tell the story, and then make the necessary adjustments.
- Develop metrics to track your institution's progress, as well as the return on investment for each new program implemented.

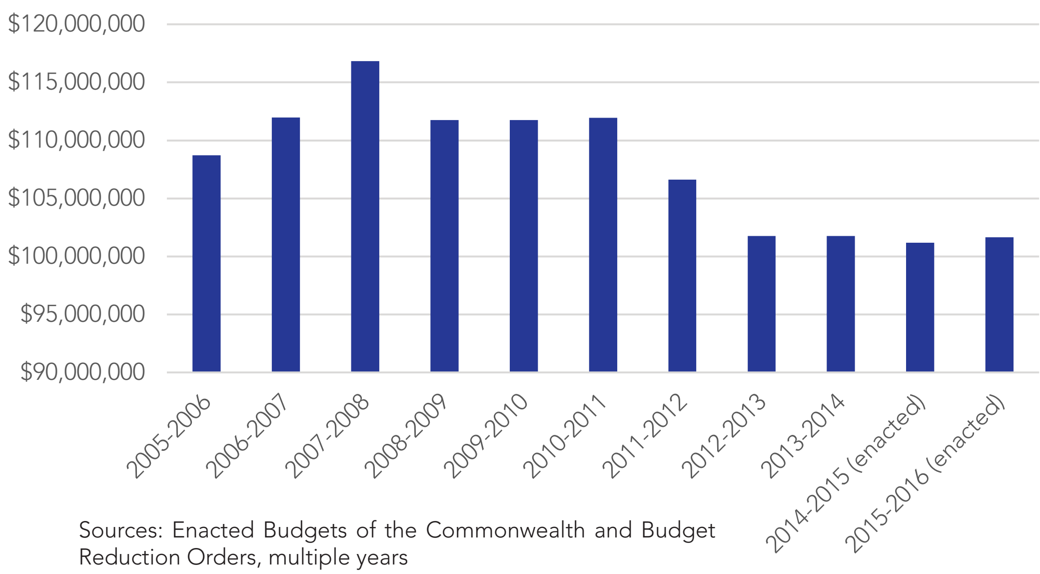
# STATE FUNDING

*State funding represents approximately 35% of total revenue at public institutions.*

As illustrated in the chart below, state funding for public Kentucky colleges and universities has continued to decrease since the 2007-2008 academic year. The future of Kentucky state funding is expected to remain one of the lowest in the country. The Commonwealth is one of 12 states to cut funding per student in the last year and one of only four states to cut funding per student in the last two consecutive years.

While most of the country has begun restoring education funding to pre-recession levels; Kentucky is one of the few that continues to cut education funding. Furthermore, beginning in 2018, Kentucky universities will be allocated funding based on competitive metrics, which could mean even further state funding cuts to certain institutions.

KENTUCKY PUBLIC POSTSECONDARY INSTITUTIONS
NET GENERAL FUND APPROPRIATION DATA




Sources: Enacted Budgets of the Commonwealth and Budget Reduction Orders, multiple years

From the 2007-2008 recession through the 2015-2016 year, state spending on higher education is down an average of 18% (or $1,598 per student) nationwide; however, in Kentucky the numbers are much larger. Kentucky is only one of nine states that has cut funding by more than 30%. Since the recession, Kentucky has cut funding by 32% (or $2,771 per student). During this same time period, the average tuition at a Kentucky public four-year institution has increased by 33.3% per year or ($2,389 per student).

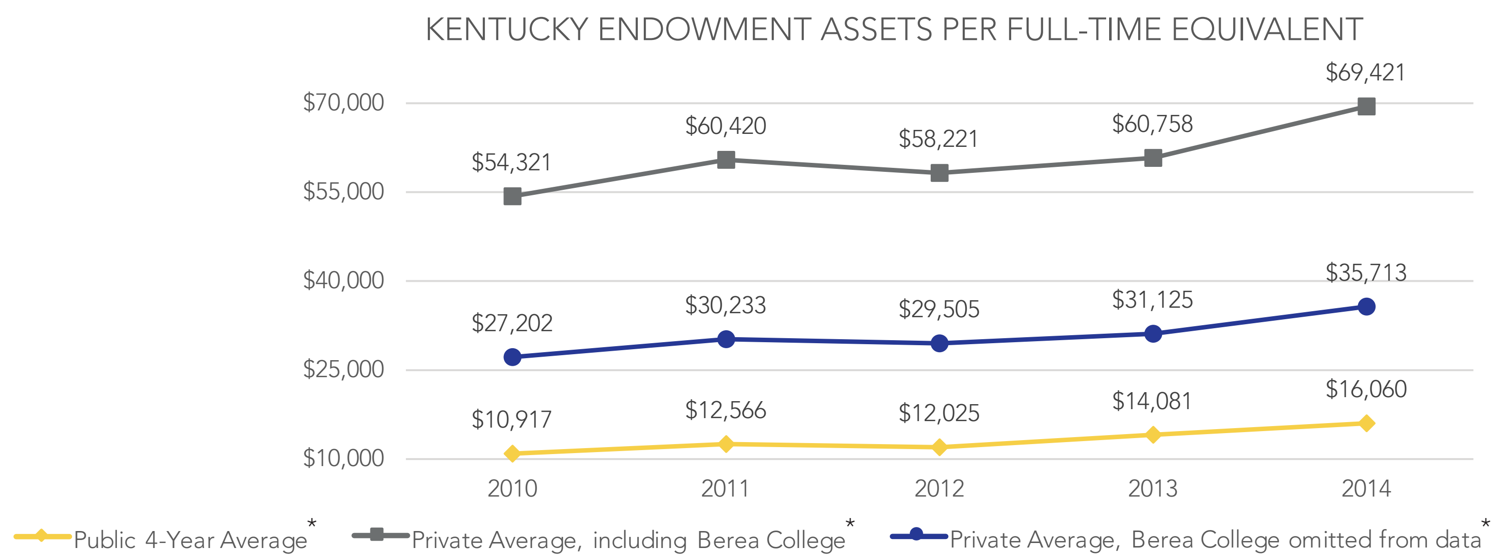
# ENDOWMENTS

*Endowment (or investment) income represents 29% of private institution revenue and 1% of public institution revenue.*

An institution's endowment funds are greatly affected by external factors that cannot always be controlled by the institution itself. It is important to understand the trends and variables that control endowment gifts and corresponding returns on investments.

Overall, the majority of institutions have experienced an increase in gifts to their endowment year after year; however, the returns on investments of these gifts have not always experienced the same increase. According to the 2016 NACUBO Commonfund Study of Endowments, fiscal year 2016 investment rate of returns for endowments averaged -1.9%, bringing the 10-year average annual return down to 5.0%. Most endowments report they need to earn 7.4% in order to maintain their purchasing power after expenses, inflation, and investment management costs, according to the NACUBO study. 2016's long-term return figure is well below this 7.4%.

Institution endowment spending has increased by 8.1% on average from 2015 to 2016, according to the study, and 74% of respondents increased endowment spending to support their school's mission.




Endowment assets per full-time equivalent (FTE) for public and private institutions increased approximately 14% in fiscal year 2014. This increase was the result of increased gifts and high returns on investments. As noted previously, fiscal year 2016 did not experience the same returns and it can be expected in future years that endowment assets per FTE decrease dramatically as the return on investments decreases and endowment spending increases. Closely monitoring the asset classes that endowment funds are invested in, as well as increased efforts in obtaining gifts, can effectively help offset the increase in endowment spending.

* The public piece of the graph above does not include university foundations, which are the source of most of public endowment assets. Berea College is a work college that uses endowments to pay for its students' tuition. Berea's massive endowment skews the state's endowment asset data, so this chart illustrates endowment assets for private schools both including and excluding Berea College data.

# GIFTS

*Gift revenue represents 12% of private institution revenue and less than 1% of public institution revenue.*

Most institutions have an opportunity to increase their revenue through alumni giving. Often times, those in development are focused on getting the "home runs" — they want to land the $1,000,000 donation, the namesake on the building. Fundraising professionals are missing a significant opportunity when focusing primarily on these "home run" donations.

The 2015 donorCentrics Annual Report on Higher Education Alumni Giving, produced by Blackbaud, indicated that 2015 was "another consistent year for higher education." While the consistency in number of donors and the increase in the median gift amount per donor is positive ($960 to $962 for private schools and $576 to $608 for public schools), the report still indicates significant opportunities.

The median participation rates for alumni giving is only 18% for private schools and a mere 6% for public schools. This means that very few alumni are giving back to their institution and represents a significant opportunity for those in development to increase giving revenue. Increasing the percentage of giving alumni (even small amounts, such as $100) can add up to significant amounts of revenue.

## THOUGHTS TO CONSIDER:

- Research top fundraising schools to find out what they're doing to make their endowment programs successful. How can you adapt that idea for your institution's alumni? You don't have to reinvent the wheel.
- Develop fundraising metrics to gauge progress and drive improvements:
  - Amount spent per dollar raised
  - Amount raised as a percentage of education and general
  - Amount raised per student and/or alumnus
  - Average dollar raised per professional
- Conduct a survey to find out why alumni are not donating, then create a strategic plan.

# CONCLUSION

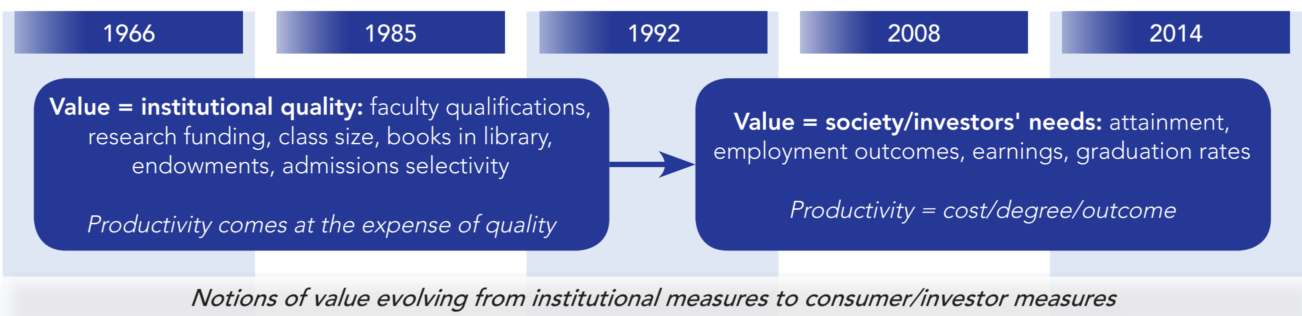
**So, what does all of this mean?**

A stable outlook which projects an increase in revenue of 2% to 3% on a national level is nothing to get excited about, given that inflation in late 2016 was 1.7%. If expenses are expected to increase with inflation, then that leaves little room for institutions to generate the excess cash flow needed to reinvest in their institutions. Many institutions have been cutting expenses over the last several years and cutting any further would require significant restructuring.

After looking at all of the revenue streams, Kentucky schools will be lucky if they hit that 2% to 3% increase, given the stagnant high school population, the fact that the state is still cutting funding for public schools, and retention and graduation rates are below the national averages. **However, there is significant opportunity for those schools that are willing to change.**

A recent NACUBO webinar on the Return on Investment (ROI) of Student Support Services discussed the "Evolving Notions about the Value of Higher Education in Terms of Quality and Outcomes." We believe the graphic below accurately displays the change that institutions are experiencing.

**Evolving Notions About the Value of Higher Education in Terms of Quality and Outcomes**




Source: NACUBO

The schools that will have a different outcome than the picture painted here are the schools that are willing to do the hard work to make significant changes:

- Calculate the financial return on all programs offered; make the hard decision to stop offering the programs that are not providing the necessary return and/or do not fit with your mission.
- Develop a strategic plan for moving forward which includes evaluation of existing programs, evaluation of unique external opportunities, and revisiting the institution's mission.
- Develop dashboards that include leading, as well as lagging indicators for enrollment, administration, resources, fundraising, and campus support.

It takes strong management, along with the support of a strong governing board, to make these changes. It might be temping to defer time and energy related to making these significant changes; however, doing so could put your institution further behind. They are not easy, but they are necessary in today's environment.

# ABOUT DEAN DORTON

Many successful colleges and universities have not thoroughly integrated their long-term goals. Dean Dorton's college and university team can fill your need to develop and implement internal controls, new accounting standards, and risk management programs that enable institutions to achieve strategic goals now and in the future. The breadth and depth of our college and university team makes your institution's financial goals more efficient and effective, allowing you to focus on providing the best education possible to future generations.

Dean Dorton's college and university industry team has more than 200 years of combined experience providing professional services to the higher education community. We established our college and university team to maximize the quality and delivery of our services. Our team exists both to serve our college and university clients more efficiently and to continue deepening our knowledge of the industry, especially as our clientele in this group continues to grow.

We're active in many aspects of the industry, and offer a vast array of services such as:

## Assurance

- Financial statement audits, reviews, and compilations
- Single Audits under OMB A-133 (Uniform Grant Guidance)
- Agreed-upon procedures
- New accounting standards and implementation including GASB and FASB standards
- Compliance audits
- Outsourced accounting and payroll services
- Internal audit services
- Internal controls and accounting manual assessments and consultation
- Risk management services
- Fraud hotlines

## Tax

- Federal, state, and local income tax preparation and compliance
- Income tax planning
- Charitable gift planning, analysis, and structuring assistance
- Tax exempt bonds
- Employee benefit plan, payroll tax, W-2, and 1099 compliance and consulting
- Sales and use tax planning
- Exempt status consulting
- Endowment and annuity services
- Estate and gift tax planning and administration

## Consulting

- Assistance with bond issues and debt refunding
- Business plans and operations reviews
- Controllership outsourcing
- Cost of alternative analysis
- Review of anti-discrimination policy and procedural requirements
- Litigation support services
- Forensic accounting and fraud investigation
- Due diligence procedures
- Federal reporting requirements
- Health and welfare plan consulting
- Forecasts and projections

## Technology

- Technology assessments and consulting
- Data security and risk assessments
- IT project management
- Business process improvement
- Software selection and systems integration
- Network design management and support
- 24/7 server and network monitoring
- IT equipment procurement
- Software sales, implementation, training, and data conversions
- PCI compliance
- IT audit — general controls
- IT risk assessments

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Dean Dorton is a full-service accounting and business consulting firm which provides services to clients of all sizes in a variety of industries. The firm has grown to be one of the largest Certified Public Accounting firms based in the Commonwealth of Kentucky.

At Dean Dorton, our philosophy centers on an unyielding commitment to provide services that exceed our clients' expectations and are consistently superior to our competitors in quality and timeliness. Further, we strive to do so in a setting that is satisfying professionally and personally for firm employees.