KY COUNCIL ON POSTSECONDARY EDUCATION
BUSINESS MEETING

September 15, 2020 – 9:00 AM
ZOOM teleconferencing for Committee members
Livestream video for public: https://youtu.be/J2uf0aPlgAA

**Indicates action item*

I. Call to Order and Roll Call

II. Oath of Office

III. Approval of the Minutes*

IV. Proposed Council Resolution*

V. Discussion with Moody's Investors Service – Financial Outlook for Kentucky's Postsecondary Education Market

- Mary Kay Cooney, Moody's Investors Service, Vice President & Senior Analyst, Public Finance Group, Higher Education & Not for Profit Team
- Susan Fitzgerald, Moody's Investors Service, Assoc. Managing Director
- Kendra Smith, Moody's Investors Service, MD-Public Finance

VI. Report from Kentucky Department of Education

VII. Comments from CPE President, Aaron Thompson

VIII. Academic & Strategic Initiatives Committee - Report and Action Items

A. Proposed New Academic Programs for Review & Recommendation*
   1. Northern Kentucky University - Applied Software Engineering (B.S.)
   2. Northern Kentucky University - Doctor of Occupational Therapy (OTD)
   3. University of Kentucky – Health Services Research (Ph.D.)
   4. Murray State University – Agriculture Education (EDS)

B. Revised Policy for New Academic Program Approvals*

IX. Finance Committee - Report

X. Executive Committee - Report

A. Committee Appointments

XI. Recent Research and Data Reports

A. Dual Credit & Student Success: The Effect of High School Dual Credit on Educational Outcomes at Kentucky Public Universities (CPE, Aug. 2020)
B. Preliminary Fall 2020 Enrollment

XII. Campus "Good News" Reports

XIII. Other Business

XIV. Adjournment

DRAFT MINUTES
Council on Postsecondary Education

Type: Business Meeting
Date: June 19, 2020
Time: 9:00 a.m. ET
Location: Virtual Meeting – Council members by ZOOM teleconference. Public viewing at: https://youtu.be/Lh5BmKn1WSw

WELCOMING & CALL TO ORDER

The Council on Postsecondary Education met Friday, June 19, 2020, at 9:00 a.m., ET. Pursuant to Executive Order 2020-243 and a memorandum issued by the Finance and Administration Cabinet dated March 16, 2020, and in an effort to prevent the spread of Novel Coronavirus (COVID-19), the CPE met utilizing a video teleconference. Members of the public were invited to view the meeting virtually on the CPE YouTube page: https://youtu.be/Lh5BmKn1WSw.

Chair Ben Brandstetter presided.

ATTENDENCE

Members attended: Ron Beal, Ben Brandstetter, Kim Halbauer, Lori Harper, Grant Minix, Kristi Nelson, Vidya Ravichandran, Robert Staat, Sherrill Zimmerman and KDE Commissioner Kevin Brown.

Members not in attendance: Lucas Mentzer, Donna Moore, Richard Nelson, and Carol Wright

CPE President Aaron Thompson attended the meeting and served as Secretary of the board, per the CPE Bylaws. Heather Faesy, CPE's senior associate for Board Relations, served as recorder of the meeting minutes.

APPROVAL OF THE MINUTES

The minutes of the April 23-24, 2020 meetings were approved as distributed.

PROPOSED COUNCIL RESOLUTIONS

The Council approved resolutions for the following individuals in thanks of their support and service to postsecondary education in Kentucky:

- John Roush, President of Centre College
- Sherron Jackson, Kentucky Council on Postsecondary Education
- Grant Minix, Kentucky Council on Postsecondary Education

All recipients were present and provided comments following the presentation of the resolutions.

COMMENTS FROM KDE INTERIM COMMISSIONER, KEVIN BROWN

Kentucky Department of Education's Interim Commissioner, Kevin Brown, provided an update on how the P-12 community responded to the school closures caused by the COVID-19 pandemic. He discussed how school districts are approaching the changes needed when school resumes in the fall and the varying guiding documents that are driving those decisions. Finally, he discussed the status of the Kentucky Board of Education Commissioner search. He anticipated a new Commissioner would be announced in August.

COMMENTS FROM THE PRESIDENT

Before beginning his report, President Aaron Thompson discussed the significance of June 19th, or Juneteenth, and what it means to him. He provided a number of updates on the status of the CARES Act and GEER funding, reports in progress in the Data and Advanced Analytics unit, the work the Kentucky Virtual Library to make materials more accessible to the public, and staff's preparation for a request to testify at the July 8 Interim Budget Review Subcommittee on Education meeting. Finally, he thanked the following four staff members for their voluntary work with the Department of Unemployment Insurance in helping the backlog of claims get processed: Amber Doss, Bethanie Butler, Ivy Robinson and Mary Allison.

CAMPUS REOPENING PLANNING UPDATE

Greg Rush, CPE's senior fellow, provide an update on the work of the Council in developing guiding principles and a planning template for the fall 2020 restart. As of the date of the meeting, four institutions had already announced campus reopening plans: Eastern Kentucky University, Murray State University, University of Kentucky and the Kentucky Community and Technical College System.

Robert Jackson, president of Murray State University discussed his campus's plans, a collective effort developed among a team of 200 faculty, staff and administrators. As convener of the Conference of Presidents, he thanked the Council for their work on the guidelines and stated that all Kentucky campuses are working hard to ensure the safety and health of its students and families.

FINANCE COMMITTEE – REPORT AND RECOMMENDED ACTION ITEMS

Committee Chair Ben Brandstetter presented the Finance Committee Report. The Committee met June 9th and received an update on the funding related to the CARES ACT and the Governor's Emergency Education Relief Fund. Staff also presented the methodology and results of the 2020-21 performance funding distribution.

At the April 24th meeting, the Council agreed to allow the postsecondary institutions the discretion to determine their own tuition and fee increases for resident undergraduate students for the upcoming academic year. Each institution was allowed to submit proposals that balance the needs of students and families and the resource needs of the institution. Additionally, the Council approved institutions to submit for approval market competitive rates for graduate and online courses.

Between then and June 9th, six institutions submitted tuition and mandatory fee proposals, each of which were reviewed and approved by the Finance Committee at its meeting. Chair Brandstetter presented the Committee's approval recommendation:

- Kentucky State University: No increase in resident undergraduate base rate for the 2020-21 academic year, and a decrease to their non-resident rate by 37.6 percent.

- Morehead State University: No increase to either the resident or nonresident base rates.

- Murray State University: No increase in resident and non-resident undergraduate base rates and approval of their effort to simply the nonresident base rate by combining the out-of-state and regional rates for students admitted during the summer of 2020 and thereafter.

- Northern Kentucky University: No increase to either the resident or nonresident base rates.

- Western Kentucky University: No increase to either the resident or nonresident base rates.

- Kentucky Community and Technical College System: A 2.9% increase in the base rates for both resident and nonresident base rates, which equates to an increase of $5.00 per credit hour for residents and $10.00 per credit hour for nonresidents.

MOTION: Ms. Zimmerman moved the Council accept the recommendations of approval by the Finance Committee. Dr. Staat seconded the motion.

VOTE: The motion passed.

Three institutions were unable to submit tuition and mandatory fee proposals because their boards had not yet met to review and approve them. Those universities are: the University of Kentucky, the University of Louisville, and Eastern Kentucky University. On behalf of the Finance Committee, Chair Brandstetter requested the Council delegate authority to the Committee to review and finalize those rates on its behalf at a special meeting in July.

MOTION: Ms. Harper moved that the Council delegate the review and approval authority of the 2020-21 tuition and mandatory fee proposals of the University of Kentucky, the University of Louisville, and Eastern Kentucky University to the Finance Committee. Ms. Nelson seconded the motion.

VOTE: The motion passed.

ACADEMIC AND STRATEGIC INITIATIVES COMMITTEE – REPORT AND RECOMMENDED ACTION ITEMS

Committee Chair Lori Harper presented the Academic and Strategic Initiatives Committee Report and Recommendations. The Committee met on May 20, 2020 and discussions centered on COVID-19 student success efforts and campus reopening plans and they received a number of updates regarding ongoing academic and student success initiatives and the planned research for the next academic year. Ms. Harper also presented the Committee’s recommendation to approve the following six new academic programs:

- Two programs at Western Kentucky University - Bachelor of Science in Environmental, Sustainability, and Geographic Studies; Bachelor of Fine Arts in Film Production.

- Two programs at the University of Louisville - Bachelor of Arts in Business Administration; Masters of Science in Materials and Energy Science and Engineering.

- Two programs at Murray State University - Bachelor of Science in Respiratory Therapy; Bachelor of Science in General Studies.

MOTION: Ms. Halbauer moved that the Council accept the recommendations of approval by the Academic & Strategic Initiatives Committee. Mr. Minix seconded the motion.

The motion passed.

EXECUTIVE COMMITTEE – REPORT AND RECOMMENDED ACTION ITEMS

Chair Brandstetter discussed recent Executive Committee meetings where conversations have focused on COVID-19 responses and planning and how those actions intersect with the statewide strategic agenda.

Chair Brandstetter also presented the following action items, which were reviewed by the Executive Committee and recommended for approval by the Council:

- Approval of the 2020-21 Agency Operating Budget, which was based upon the enacted state budget per HB 352 (2020).

- Approval of the amended Council bylaws. Revisions were made to formalize the addition of the two standing committees – Finance Committee and Academic & Strategic Initiatives Committee

MOTION: Ms. Zimmerman moved that the Council accept the Executive Committee's report and recommendations of approval. Dr. Staat seconded the motion.

VOTE: The motion passed.

COMMITTEE ON EQUAL OPPORTUNITIES – REPORT

Committee Chair Robert Staat updated the Council on the annual review of campus progress toward meeting their equal educational opportunity goals set in the Diversity, Equity and Inclusion Policy and thanked the staff and committee members for their hard work.

The following CPE staff presented an overview of the process that was used during the evaluation stage:

- Travis Powell, CPE's general counsel and vice president, discussed the policy, campus plans, and evaluation process.
- Dawn Offutt, CPE's director of Diversity, Equity and Inclusion, discussed the timeline and scoring results of the evaluations. Only one campus did not meet the minimum requirements: Eastern Kentucky University.
- Deverin Muff, CPE's associate of Diversity, Equity and Inclusion, discussed the high impact practices that stood out among the reports provided.

Following the presentation, there were no additional questions, however Ms. Halbauer commended the Committee and the staff for their hard work this year.

COMMUNICATIONS AND OUTREACH

Sue Patrick, CPE's executive director of Communications, provided an update on agency communication activities including a new blog series on the Council's Policy Insight, social media strategies, and the launch of a statewide FASFA Friday campaign. To close out the presentation, she shared a short video that featured President Thompson in his role as a Champion for the Higher Learning Advocates, a bipartisan non-profit working for greater student success. That video can be found at: https://youtu.be/DSWVMAaHAOA.

CAMPUS "GOOD NEWS" REPORTS

Reports from the institutions were provided in the agenda materials.

ADJOURNMENT

The Council adjourned at 11:10 a.m. ET.

MINUTES REVIEWED AND APPROVED BY THE COUNCIL: ________________

A RESOLUTION HONORING AND COMMENDING

JAY K. BOX

for his service to the Kentucky Community & Technical College System
and postsecondary education in the Commonwealth of Kentucky.

WHEREAS, Dr. Jay Box served as the second president of the Kentucky Community and Technical College System from November 19, 2014, through September 30, 2020, and through his leadership and vision, deepened its commitment to academic preparation and workforce training; and

WHEREAS, prior to being named president, Dr. Box served KCTCS as both a vice president and chancellor from 2007-2014, and as president of Hazard Community & Technical College from 2002-2007; and

WHEREAS, Dr. Box has been a passionate advocate for rebuilding America's middle class by forming partnerships between higher education and employers, providing multiple pathways for students' long-term success and ensuring a seamless transfer for those pursuing a four-year degree; and

WHEREAS, Dr. Box has contributed his talents and leadership to numerous national, state and local boards including the American Workforce Policy Advisory Board, the National Council of State Directors of Community Colleges, the Kentucky Business-Education Roundtable, and the Kentucky Chamber of Commerce; among other academic and civic organizations; and

WHEREAS, Jay and his wife, Gayle, have been friends and partners of the Council on Postsecondary Education throughout their careers, and have been passionate advocates for adult education;

NOW, THEREFORE, BE IT RESOLVED, that the Council on Postsecondary Education does hereby adopt this resolution on September 15, 2020, for President Jay Box, congratulating him on his achievements, thanking him for his dedication and service, and wishing him good fortune in his retirement.

Benjamin E. Brandstetter, Chair

Aaron Thompson, Ph.D., President

TITLE: Discussion with Moody's Investors Service – Financial Outlook for Kentucky's Postsecondary Education Market

DESCRIPTION: Representatives from Moody's Investors Service will present to the Council.

PRESENTERS:
- Mary Kay Cooney, Moody's Investors Service, Vice President & Senior Analyst, Public Finance Group, Higher Education & Not for Profit Team
- Susan Fitzgerald, Moody's Investors Service, Assoc. Managing Director
- Kendra Smith, Moody's Investors Service, MD-Public Finance

SESSION DETAILS

Three representatives from Moody's Investors Service will discuss the current credit status of the higher education sector as it confronts unprecedented business disruption driven by the coronavirus pandemic. They will review initiatives universities are taking to adapt, how this could change the higher education landscape beyond the current year, and Kentucky's current status in comparison to other states. Council members and campus presidents will be invited to participate in Q&A following the presentation.

SUPPORTING MATERIALS

The following Sector Comment Reports have been selected by the presenters to help provide background information for the session. They are included in the board materials.

Mounting uncertainty over in-person attendance threatens auxiliary revenue	Aug 31, 2020
Coronavirus will slow pace of demand-risk PPPs for universities	Aug 27, 2020
Coronavirus will accelerate business model transformation with varied credit effects	Aug 26, 2020
Rising pension burdens will add to credit strains for many public universities	Aug 18, 2020
College sports postponements dampen revenue prospects, though interruption in debt payments is unlikely	Aug 12, 2020
Even with potential enrollment gains, colleges face drop in tuition revenue	June 3, 2020
Largest debt issuers are well positioned to weather coronavirus shocks	May 12, 2020
Outlook shifts to negative as coronavirus outbreak increases downside risks	Mar 18, 2020

ABOUT MOODY’S INVESTORS SERVICE

Moody’s Investors Service is a global integrated risk assessment firm that uses data, analytical solutions and insights to help decision-makers identify opportunities and manage the risks of doing business with others. Their work with higher education and not-for-profit organizations lies within the U.S. Public Finance Sector of the organization.

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INVESTORS SERVICE

SECTOR IN-DEPTH
31 August 2020

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CLIENT SERVICES

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EMEA	44-20-7772-5454

Higher Education – US

Mounting uncertainty over in-person attendance threatens auxiliary revenue

As more universities shift to online or hybrid learning for the fall due to the coronavirus, residential universities that rely significantly on auxiliary revenue from services like student housing, parking and dining run a higher risk of revenue decline than universities with broader revenue bases. Institutions that have issued large amounts of debt to pay for auxiliary facilities and depend on the related revenue streams to repay that debt face the greatest challenge. However, universities have the ability to reduce expenses and, if necessary, use reserves. As a result, though some colleges might miss debt service coverage covenants, payment defaults are unlikely, including for more limited pledge revenue bonds.

» **Reopening plans that include online components and lower-density use of facilities will erode auxiliary revenue**. Universities with a greater reliance on auxiliary revenue face a higher risk of lower revenue in fiscal 2021 if the number of students present to use services such as housing, parking, dining and athletics declines. Auxiliary revenue comprises a median 13% of operating revenue for the sector but range from less than 5% to over 30%.

» **Debt service coverage would shrink to below 1x for more than a quarter of our rated entities under a stress scenario cutting auxiliary revenue in half.** Colleges and universities heading into the pandemic with already thin operating performance have less flexibility to adjust to reduced auxiliary revenue.

» **Limited pledge bonds face a greater risk from fewer students on campus as specific revenue streams backing debt decline.** If students are not on campus, specific revenue streams will significantly decline, or be eliminated in some cases, even as tuition, state appropriations and other revenues continue to flow. A comparatively small number of universities issue debt paid from very narrow pledges.

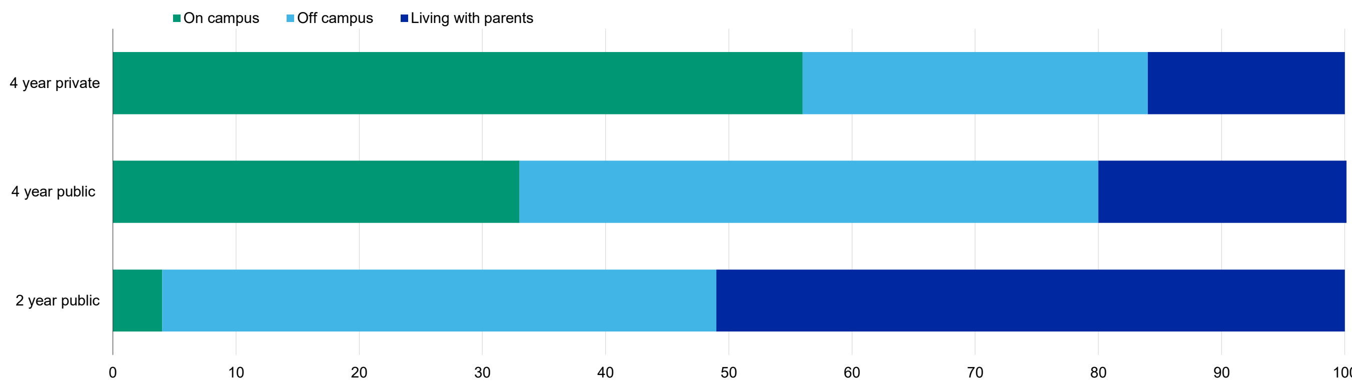
» **Colleges typically have resources at their disposal to avoid missed payments.** Many institutions hold unrestricted reserves that they can use to cover debt service. They can also cut back on costs associated with closed facilities, and refinance debt to lower near-term debt payments or extend maturities. For limited pledges, colleges could provide internal loans to their auxiliary systems, and in particularly difficult situations tap debt service reserve funds.

Reopening plans that include online components and lower-density use of facilities will erode auxiliary revenue

As the likelihood that students fully return to campuses in fall 2020 recedes because of the coronavirus pandemic, universities with a greater reliance on auxiliary revenue face a greater risk of steeper revenue declines in fiscal 2021. While colleges and universities can continue to collect tuition even if students are fully remote, albeit with pressures on pricing, they can only collect auxiliary revenue if students are present to consume services. Typically, residential colleges or those with large athletic and related parking activities rely the most on these sources of revenue, with dormitory revenues generally dominating. The College Board [1] estimated that over 55% of students at private colleges lived on campus in 2016, versus about a third of students at public universities (see Exhibit 1).

Exhibit 1

More students live on campus at private universities than at public universities

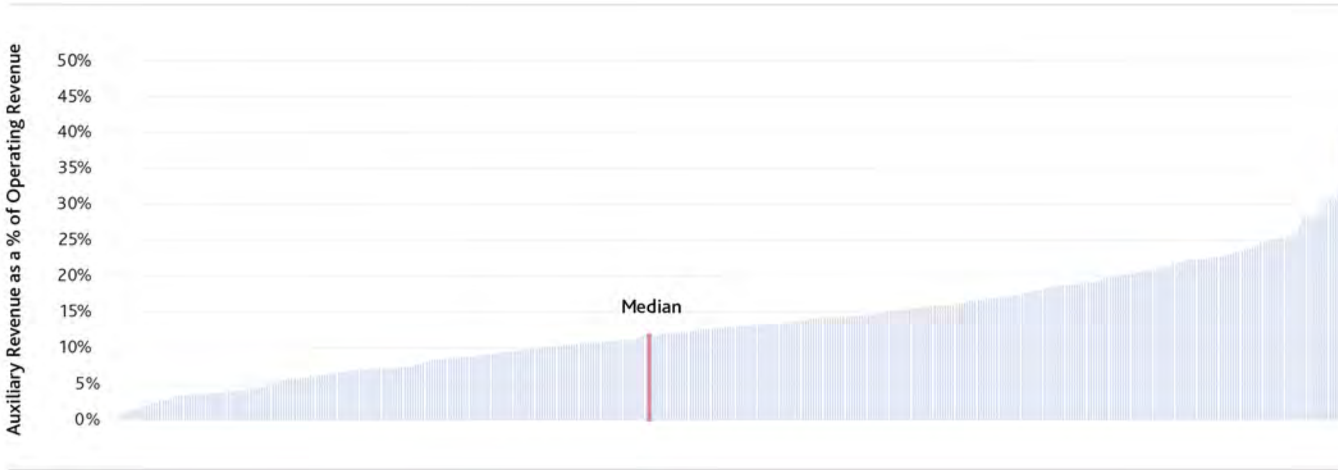


Percentage of students

Sources: The College Board, Trends in College Pricing 2019; Moody's Investors Service

Reliance on auxiliary revenues varies widely, with a few universities collecting well over 30% of operating revenues from this source, others less than 5% (see Exhibit 2), and a median of 13%. For example, for public universities, the University System of New Hampshire, collects 25% of operating revenues from auxiliaries while Temple University collects only 4%.[2] For private universities, Wheaton College (MA) collects around 30% from auxiliaries while Tufts University collects only 6%.

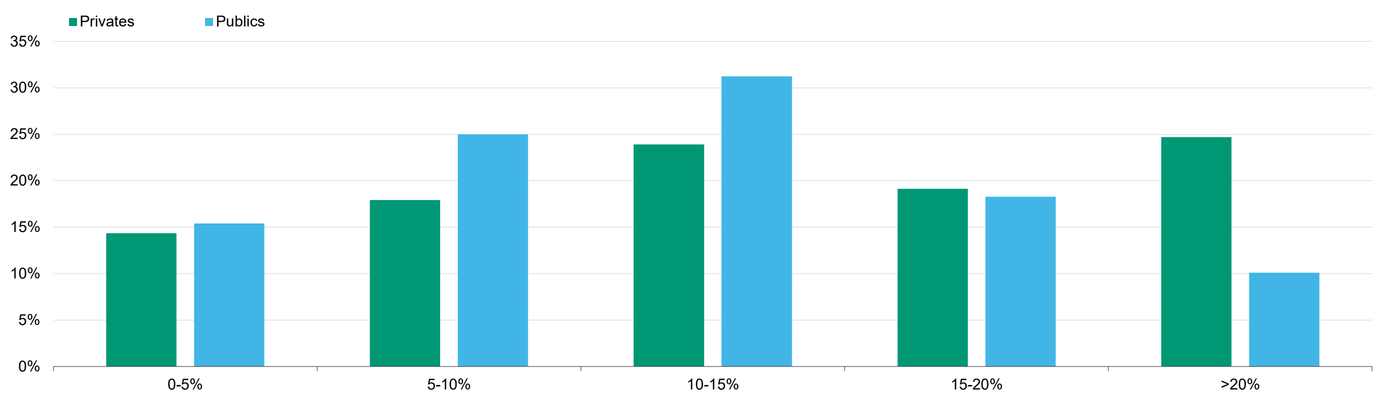
Exhibit 2
Reliance on auxiliary revenues ranges widely among colleges and universities



Includes Moody's rated private and public universities; financial reporting on auxiliary revenues is not always consistent; results can be understated for universities with large medical or research components.
Source: Moody's Investors Service

In general, private nonprofit universities rely on auxiliary revenue more than public universities, with 44% of rated private universities generating more than 15% of revenues from auxiliaries compared with 28% of public universities (see Exhibit 3). This difference in part reflects the greater share of students living on campus at private colleges as well as state appropriations received by public universities.

Exhibit 3
Private colleges and universities have greater reliance on auxiliary revenue than publics
Percent of universities that rely on auxiliary revenues measured as a percent of operating revenues



Source: Moody's Investors Service

Colleges' and universities' reopening plans for fall 2020 and the trajectory of the pandemic will determine how many students will be on campus and in what capacity. These plans are evolving daily and range from full in-person classes to fully online, along with a variety of hybrid options, which will ultimately reduce numbers of students living on campus. The latest Chronicle of Higher Education survey (as of August 28) in conjunction with C2i[3], indicated that only around 21% of institutions planned to be fully or mostly in-person. Some colleges that are planning fully online teaching are still opening residences completely or partially, while others, announced that students should not return to campus in any capacity. Lower numbers of international students, expected given the increased difficulty in obtaining visas and travel restrictions, will compound the effects of these policies.

Many colleges that aim to have students back in residence even if their coursework is online plan to lower the density of housing and set aside space for quarantines and isolation, which would reduce room and board fees. A recent survey of 78 universities (ACUHO)[4] showed only 10 that planned to open dorms at 100% capacity, with 30% of the entities surveyed expecting to open at 70% capacity or below.

The cancellation and reconfiguring of athletic activities will lower income from conference distributions (including media rights), ticket sales, corporate sponsorships, advertising and licensing that colleges and universities with large athletic programs count on. In some cases, expense management will not be able to fully offset the revenue losses. While still evolving, two of the Power Five Conferences including the PAC-12 and Big Ten, announced the postponement of fall college sports, most prominently football. These current moves follow the Mid-American Conference, Mid-Eastern Athletic, Northeast, Ivy League and Patriot League Conferences, which all canceled fall sports.

Other facilities such as dining, student unions, and recreational facilities will operate with spatial restrictions, thereby reducing revenue, and parking fees will also fall as more students, faculty and staff study and work remotely. Furthermore, universities that already had a policy of charging reduced student fees for students that studied online will generate lower revenues as numbers of online students rise.

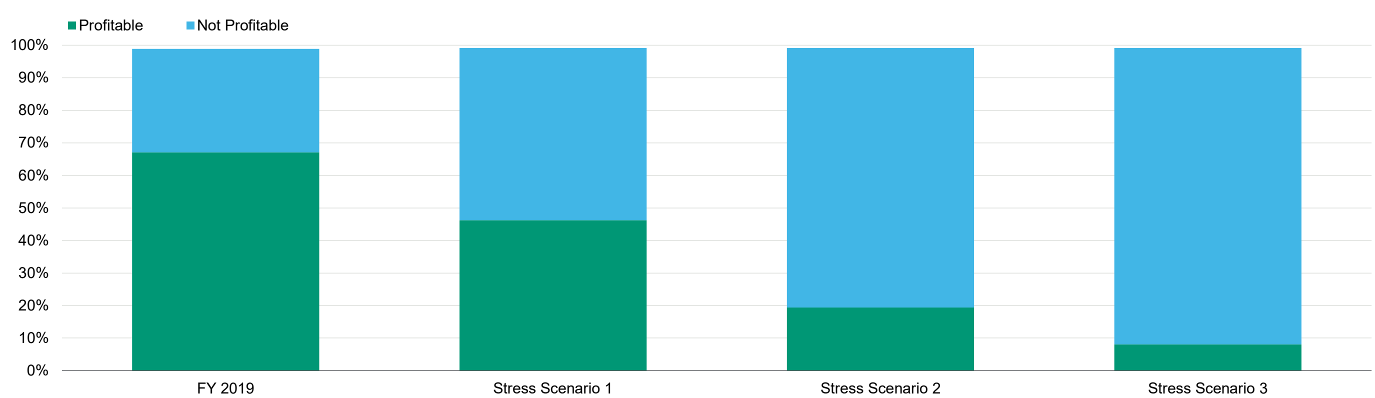
Debt service coverage would shrink to below 1x for more than a quarter of our rated entities under a stress scenario cutting auxiliary revenue in half

The unprecedented reduction in auxiliary revenues in fiscal 2021 will result in thinner operating cash flow margins, reducing budget flexibility for entities with a greater reliance on this source of income. The resulting lower debt service coverage will weaken credit profiles for some institutions that have issued greater amounts of debt to be repaid with auxiliary revenues.

To gauge the magnitude of declines in auxiliary revenues on colleges and universities' operating cash flow and debt service coverage, we conducted three stress scenarios: (1) a 25% decline in auxiliary revenue with an offsetting reduction in auxiliary expenses of 12.5%; (2) a 50% decline with expense reductions of 25%; and (3) a 75% decline with expense reductions of 50%. If all auxiliary activities are halted for the entire academic year, the impact could be greater. These stress scenarios isolate the impact of auxiliary operations, when in reality universities will be facing strains on multiple revenue streams, including tuition and state funding, as well as expense pressures. Across the sector, universities will be taking additional expense containment steps to manage the financial results of their academic enterprise as well.

Declines in auxiliary revenue would diminish the profitability of university enterprises, reducing their financial flexibility. Around two-thirds of our 460 rated entities generate revenues from auxiliary operations in excess of auxiliary expenses[5], but this proportion would fall to 46%, 19% and 8% under our three scenarios (see Exhibit 4).

Exhibit 4
Declining auxiliary revenue reduces university systems' profitability and flexibility



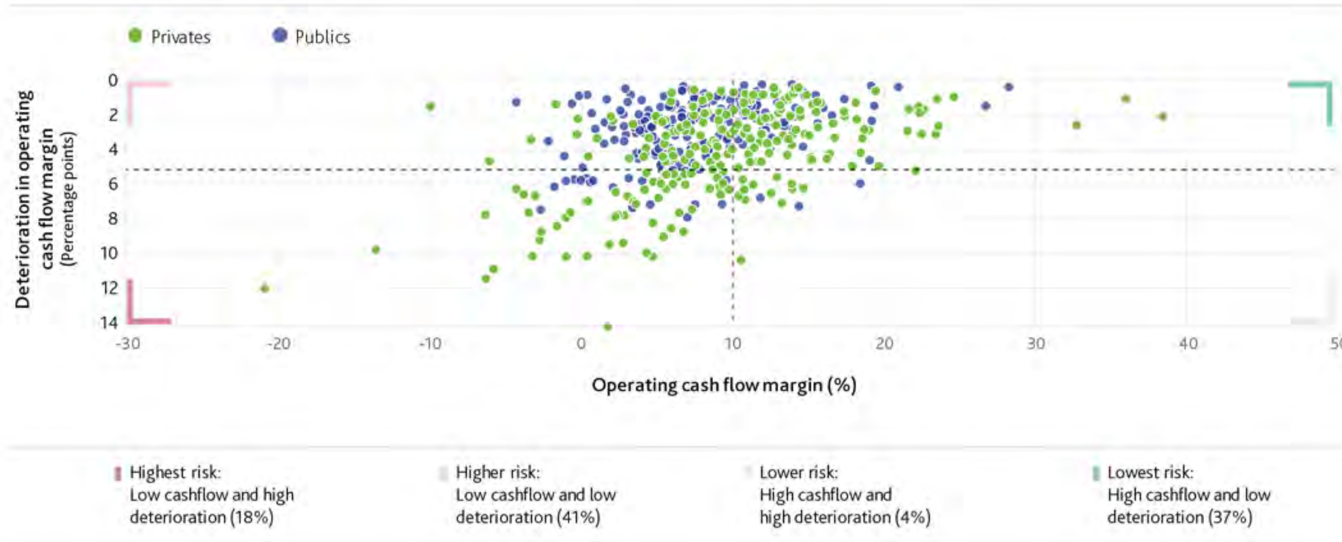
Profitable defined as when auxiliary revenues are greater than auxiliary expenses; data may not fully incorporate depreciation and interest expense.
Source: Moody's Investors Service

Entities with a greater reliance on auxiliary revenues under our stress scenarios will suffer a greater decline in operating cash flow margins, everything else being equal. And if these same institutions had a weaker financial performance heading into the pandemic, financial outcomes will likely be particularly unfavorable. Expense reductions are unlikely to fully offset the decline in revenues because of the need to maintain facilities, depreciation costs and union contracts.

Under Scenario 2, nearly one fifth of the entities would have cash flow margins of less than 10% and a deterioration in margins of 5 percentage points or more (see Exhibit 5 bottom left quadrant). Furthermore, about one third of this greater affected group, or 6% of our total portfolio of rated universities, would be particularly challenged under this stress scenario, with operating cash flow margins of between 1% or -20% and a deterioration of 6 to 12 percentage points.

Exhibit 5

Nearly 20% of Moody's rated universities and colleges would have both narrower and greater deterioration in cash flow margins if auxiliary revenues fall by 50%



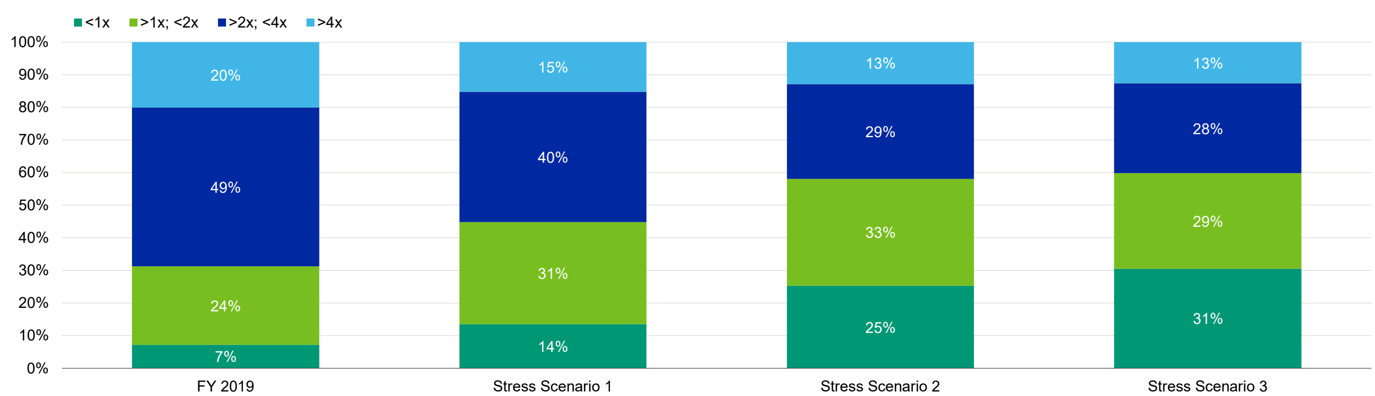
Moody's rated public and nonprofit private colleges and universities; results assume no changes in all other revenue and expense streams

Source: Moody's Investors Service

Applying stressed operating cash flow margins to debt service would more than triple the percentage of colleges with less than 1x debt service coverage to 25% under Scenario 2 from 7% in fiscal 2019 and rise to over 30% in scenario 3, a significant negative credit development (see Exhibit 6).

Exhibit 6

The percentage of universities and colleges with debt service coverage of below 1x rises under stress scenarios



Source: Moody's Investors Service

In addition to the negative credit impact of diminishing the buffer for debt service payments, lower coverage may trigger debt service covenants. Most commonly, if a college breaches a covenant, it is a technical but not payment event of default. In many cases, a remedy is a requirement to bring in a consultant. However, if a potential remedy is debt acceleration, the credit ramifications of a missed covenant could become more severe should bondholders choose to accelerate, precipitating a liquidity event. Careful treasury management and knowledge of specific provisions of bond documents are therefore of paramount importance.

Limited pledge bonds will be more exposed to fewer students on campus as specific revenue streams backing debt diminish

Limited pledge bonds face a greater risk from remote instruction and fewer students residing on campus because these bonds count exclusively on specific revenue streams to repay debt, including room and board fees, parking fees, and athletic fees, among others. These sources might sharply decline even as tuition, state appropriations and other revenues continue to flow. Individual institutions' debt profiles are sometimes characterized by bonds with a variety of pledges, leading to complexity and the need for sound treasury practices. Bonds backed by limited pledges also generally have financial covenants, such as debt service coverage ratios, that might be breached.

Relatively few universities have heavy exposure to limited pledges because many universities moved away from this structure in the 1990s and 2000s. The structure is in some cases a legacy of the past when states funded non-revenue-generating projects such as academic facilities and universities funded revenue-generating projects. However, as states pulled back from funding capital expenditures, these special pledges have lost favor and are now used mainly by universities in around five states including Iowa, Illinois, Florida, Louisiana and Washington.

Factors influencing the financial strength of individual pledges include the inherent credit profile of the overall university, governance and state oversight over university borrowing, essentiality of the auxiliary service, magnitude of pledged revenues (including gross versus net pledges), degree of debt service coverage and presence of reserves (see Exhibit 7).

Exhibit 7
Multiple factors drive fundamental credit quality associated with auxiliary revenue bonds

Source: Moody's Investors Service

Bond pledges can also include a mix of auxiliary revenues or other mandatory student fees, which offer a greater buffer. Some universities in Florida and Louisiana use these pledges. In other cases, an apparently limited pledge is effectively broadened by the inclusion of a portion of tuition that would be sufficient to meet debt service, as in some universities in Illinois. And in Arkansas, while the bonded debt of some individual campuses in the University of Arkansas' system has a security interest in, and is serviced largely from, auxiliary revenues at specific campuses, such bonded debt constitutes a general obligation of the entire system, which mitigates risks.

Universities also have exposure to privately financed student housing projects. The degree of exposure depends on legal provisions and on the affiliation of the university to the project. Even if the contracts with the private provider are non-recourse to the university, in some cases officials will step in to support these projects, particularly if the housing is located on campus and serves undergraduates. While high coverage ratios and good liquidity have allowed many of these projects to survive the abrupt closures of housing facilities in the spring without university support, significantly lower income in the fall will push providers to seek assistance from universities to stem greater income losses.

Colleges typically have resources at their disposal to avoid missed payments

While the fall in auxiliary revenues will be a financial challenge for many universities, most have tools that significantly mitigate the risk of missed debt service payments and are managing their exposure through detailed scenario planning over the next academic year. While broader revenue pledges provide greater bondholder security, universities would likely use multiple tools in their arsenal to prevent a payment default for limited pledge bonds.

For limited pledges, debt service reserve funds provide a mitigant, although draws on debt service reserve funds would typically be a last resort and would signal more fundamental credit difficulties. Some auxiliary systems have other reserves that can be drawn on to cope with unforeseen events. Further, colleges could support limited pledge debt by making internal loans to auxiliary operations. Alternatively, universities might seek to repurpose existing facilities to meet other institutional needs. For example, some are planning to shift resources internally by using space formerly used for auxiliary activities for academic activities to aid with social distancing, thereby generating auxiliary revenue that can be used for debt repayment. Colleges typically view auxiliary operations as core activities of their mission. A debt service default would harm their reputation, potentially limit or significantly raise the cost of future market access, and would result in potentially material credit deterioration. Historically, no rated universities have defaulted on limited pledge debt.

In general, many colleges and universities will be able to cope with reduced auxiliary revenues on a temporary basis because of unrestricted reserves that they can use to cover debt service. Median holdings of spendable cash and investments, for example, more than cover outstanding debt: 1.3x for public universities and 2.0x for private universities. Total cash and investments provide greater coverage, of 1.8x and 3.2x respectively.

In recent months, some institutions have also used capital markets either to bolster liquidity through increasing the size of bank lines or by issuing taxable bonds that will be held on balance sheets for working capital. Similarly, some universities have refinanced maturing or callable debt to take advantage of low interest rates and achieve savings, and in some cases to extend principal maturities in order to provide debt service relief over the next several years. While this practice, sometimes called a “scoop and toss”, has been considered negative because it increases debt service in the longer term and diminishes longer-term debt capacity, it provides budget flexibility amid the currently financial uncertainty. For example, the State University of New York refinanced all scheduled principal and interest due in fiscal years 2021 and 2022 on debt repaid by gross dormitory rents, fees and charges.

In addition, while universities typically have rigid expense bases focused on labor costs, they have been able to reduce expenses through furloughs, salary freezes and rollbacks, and through temporary reductions in employee retirement contributions. While our stress scenarios for auxiliary operations use conservative assumptions when it comes to offsetting expense reductions, institutions will, if required, likely have a greater ability to reduce costs for facilities that are not being used, providing a higher level of coverage.

Moody's related publications

Outlook

» Higher education – US: Outlook shifts to negative as coronavirus outbreak increases downside risks

Sector Comment

» Higher Education – US: College sports postponements dampen revenue prospects, though interruption in debt payments is unlikely

» Higher Education – US: North Carolina legislation protects universities from coronavirus-related lawsuits, a credit positive

» Higher Education - US: Coronavirus will accelerate business model transformation with varied credit effects

Sector Profile

» Higher education – US: Medians - Public universities' operating performance remained sound in fiscal 2019

» Higher education - US: Medians – Private universities produced steady operating performance in fiscal 2019

Sector In-Depth

» Cross-Sector - US: Coronavirus will slow pace of demand-risk PPPs for universities

Endnotes

1 Trends in College Pricing

2 These figures are based on fiscal 2019 data; in some cases lower reliance on auxiliary revenues reflects significant medical or research activities; for example if you exclude the Health System the percentage of auxiliary revenues for Temple University would be around 8%.

3 Davidson College's College Crisis Initiative

4 Association of College and University Housing Officers - International

5 Measuring the profitability of individual auxiliary operations is difficult because of varied cost allocation models.

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SECTOR COMMENT
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Higher Education - US

Coronavirus will accelerate business model transformation with varied credit effects

Many universities will hasten their efforts to bolster online learning and expand certain nondegree/certificate programs with the coronavirus accelerating a transformation in higher education business models. Some universities previously resistant to change will have to take more expansive steps to adapt to the transformation. While highly disruptive over the next one to two years, with varied credit effects on individual universities, the initiatives will ultimately be credit positive for the sector as a whole, driving innovation and growth.

Not all universities, however, have the resources or culture to move quickly and the coronavirus will expedite existential threats for some. Universities having made extensive investments in digital capabilities and with more entrepreneurial and flexible decision-making will be better positioned to adjust. Prior to the pandemic, the sector was gradually adapting to shifts in student preferences, with a more tech-savvy "digital" generation in the wings and employers seeking a workforce adaptable to more rapid shifts in the workplace.

Recent arrangements indicate that public universities, in particular, will continue to expand their digital learning footprint long after the pandemic abates. For example, on August 3, the University of Arizona (Aa2 stable) announced an agreement with fully online, for-profit Ashford University, which has about 35,000 students, aiming to significantly grow its presence in the online education market. Similarly, in a move to expand its online capabilities, the University of Massachusetts (Aa2 stable) announced its intent in June to enter into a strategic partnership with Brandman University, a nonprofit online provider that is a component of the private Chapman University (A2 stable) in California.

The agreements come as many colleges are moving to all online learning or hybrid models for the fall, accelerating shifts in the sector. Post-coronavirus, universities without strong brand names and consistently strong student demand will face greater urgency to adapt than universities among the top tier. As with any industry where change is rapid and fundamental, some universities will emerge stronger with growth in enrollment and associated revenue, while others will struggle and potentially fail. Those that can pivot and invest most efficiently in the technology and infrastructure needed to meet changing demand will prevail.

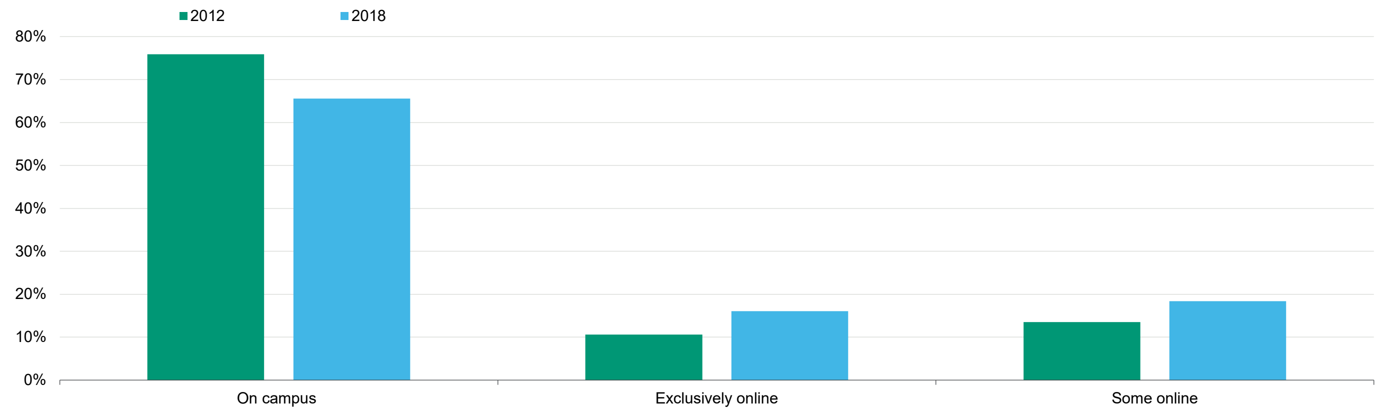
Besides increasing online learning capabilities, many universities will also continue to add nondegree/certificate programs, including for adult learners, to boost enrollment. Programs include opportunities to build career skills via stackable credentials that can ultimately add up to a degree. These credentials have gained popularity in recent years as workers, parents and those wishing to return to school after not following a traditional degree-earning path have shown an interest.

Online learning will continue to expand, forcing many universities to adapt

The move toward online and hybrid education (a combination of online and on-campus) will accelerate (see Exhibit 1) with the pandemic forcing many previously reluctant universities to launch or expand digital capabilities. A robust digital infrastructure and expertise in offering online classes will be crucial for many universities to maintain/gain market share post-pandemic.

Exhibit 1

Online enrollment accounts for a small but rapidly growing share of total enrollment



Sources: Integrated Postsecondary Education Data System (IPEDS) Data Center - National Center for Education Statistics, and Moody's Investors Service

Yet even as the coronavirus drives growth in online learning, the conventional on-campus experience will remain attractive for many traditional-age students. The maturation process from socializing with peers and faculty and exploring cultural, athletic and academic interests in a college setting is difficult to replicate. In addition, some academic pursuits require hands-on learning, such as lab work or clinical interaction. Recent lawsuits by students opposed to paying on-campus tuition for online education during the pandemic highlight that students feel they are paying for the overall campus experience rather than just credentials.

Online enrollment growth will benefit from social distancing practices — even if classes resume on some campuses in fall 2020, hybrid and flipped learning will likely grow with lectures offered online with smaller group discussion sessions. Growth in online education will also be facilitated by the Department of Education's announcement of its final rule on distance learning. This rule, effective July 1, 2021, will allow for more asynchronous online delivery of courses, or portions of courses, in traditional “clock-hour” hands-on programs. This will benefit colleges and universities offering distance education, competency-based education (CBE), and other types of educational programs. There will be greater emphasis on demonstration of learning rather than seat time when measuring student outcomes. This rule will also clarify “regular and substantive interaction” required between the instructor and students for the online programs to qualify for federal financial aid.

The move to online learning is also costly because universities need to invest in building out their infrastructure while maintaining and investing in traditional on-campus education. Additionally, the move can increase exposure to cyber risks. Further, growth in online education will introduce potentially greater enrollment volatility as universities increasingly compete across geographic boundaries on price, customer service, and the most user-friendly digital interface. New nontraditional providers could emerge, further sharpening competition, although their ultimate success will depend both on the quality of their products as well as employer acceptance of their credentials.

Not all universities will be successful at developing high-quality offerings with favorable student outcomes and some will invest what could be considerable funds without ever generating a positive return. Differentiated program offerings, scale and financial flexibility were important before the pandemic and will be even more critical over the next few years of this transition. Instructional design for online and hybrid programs will increasingly become a point of strategic differentiation and while some will outsource portions of that function, the most successful will increase investment in design and production as a core competency.

The University of Arizona and University of Massachusetts arrangements follow the Purdue University-Kaplan transaction in 2018 that created Purdue University Global (Purdue acquired the for-profit Kaplan). In each of these cases, the universities made the decision that the arrangements would enable them to expand their digital footprints more rapidly than building out their own infrastructure. The agreements essentially allow the universities to acquire technological and delivery capabilities and a marketing presence rather than building the functions. At the same time, the universities are entering into long-term contractual agreements that carry costs, partner performance risk, and reputational risks.

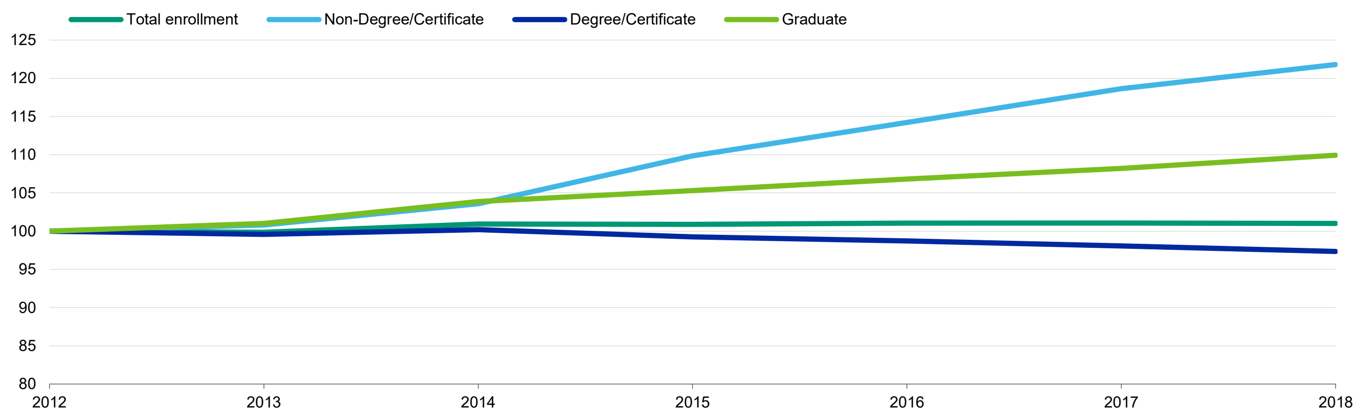
The Purdue transaction highlights some of these challenges. While demand for Purdue Global will contribute to net tuition revenue growth for Purdue University (Aaa stable), competition among online education providers has accelerated, as shown by the Arizona and Massachusetts transactions. Operating revenue for Purdue Global approached $400 million in fiscal year 2019 (ended June 30, 2019), close to 15% of total revenue for the university. However, during its first full year, Purdue Global generated an operating loss of about $40 million, including $28.5 million of one-time brand advertising expenditures. Over time, Purdue Global offers the prospect of boosting Purdue's already-strong credit profile if executed successfully. However, the risk is higher over the next one to two years as the university integrates and manages the disparate brands, programs and reputations of its online and traditional programs. The University of Massachusetts arrangement differs from the other two transactions in that its partner is a well-established nonprofit with generally stronger historical student outcomes, which reduces some of the reputational and mission alignment risks.

Expanded programs targeting nontraditional students offer growth opportunity

The coronavirus will also accelerate growth of nontraditional programs such as undergraduate nondegree/certificate programs, where career-advancement courses can be completed discretely and bundled into a degree. While accounting for only 10% of total enrollment (fall 2018) in the sector, undergraduate nondegree/certificate programs are growing at a rapid pace (see Exhibit 2) that will likely continue post-pandemic. Corporate partnerships with institutions for short-term curriculum design will also likely grow as universities increase focus on their value proposition and making their graduates attractive to potential employers.

Exhibit 2

While still a small share, undergraduate nondegree/certificate programs will likely remain a fast- growing market segment
Index 2012 = 100

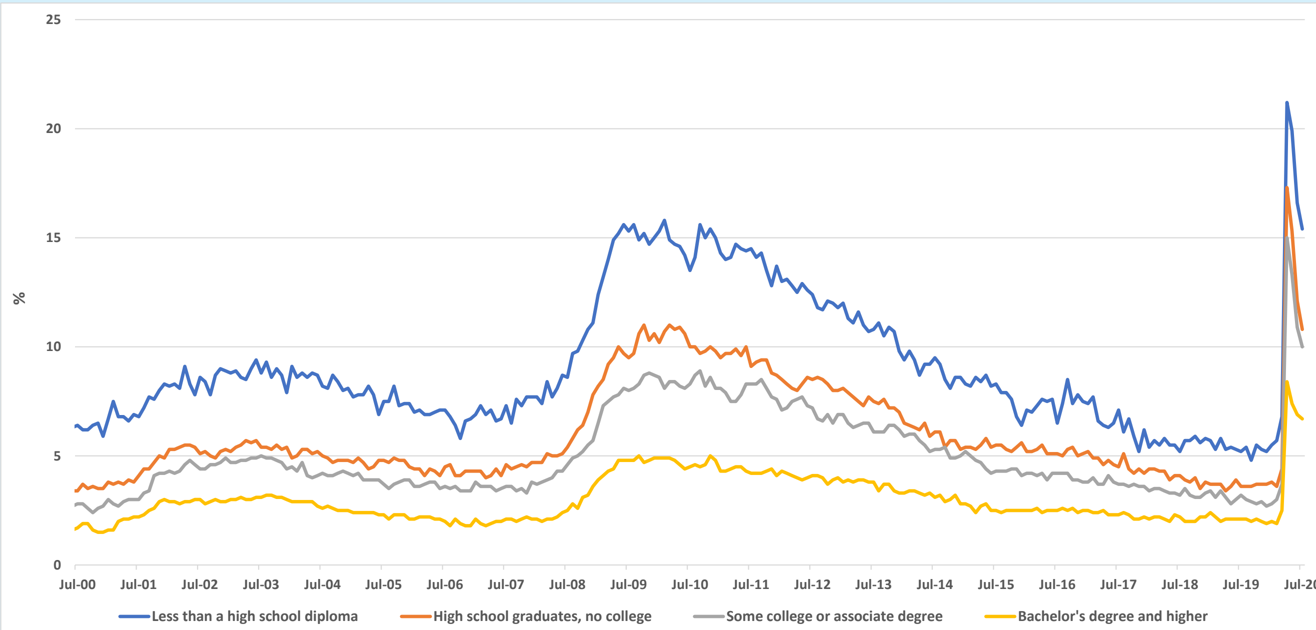


Source: Integrated Postsecondary Education Data System (IPEDS) Data Center - National Center for Education Statistics

Consistently high wage premium and lower unemployment rates will continue to bolster demand for higher education

Despite rising scrutiny surrounding the return on investment, a college degree retains strong economic value, which will drive continued demand for higher education for years to come. College degrees boost earnings and allow graduates to better adapt to economic shocks, as evidenced by the current pandemic, with 6.7% of individuals with a bachelor's degree or higher unemployed as of July 2020 compared to 10.8% unemployment for those with a just a high school diploma (see Exhibit 3).

Exhibit 3
College education is a good predictor of employability with a lower unemployment rate correlating with higher education attainment
Unemployment rate for people aged 25 and older by educational attainment



Source: Bureau of Labor Statistics

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Cross-Sector – US

Coronavirus will slow pace of demand-risk PPPs for universities

Public-private partnerships (PPPs) provide universities with an additional tool to address capital needs, which can be credit positive as universities balance multiple spending and investment priorities. At the same time, poorly conceived and executed PPPs — particularly those with large-scale — leave universities exposed to potentially long-lasting financial and reputational risks. Demand-risk PPPs, which are largely financed by user fees, do not fully absolve universities of risks, which is why we include them in our view of a university's debt profile. Several universities assumed costs of privatized student housing refunds this spring as campuses closed because of the coronavirus, which illustrates the inability of universities to fully transfer demand risk to private partners. Once the coronavirus impact dissipates, universities will intensify their focus on capital strategies, leading to growth in the number of PPPs with various structures. However, use of PPPs, at least over the near term, will primarily be confined to certain asset types as universities reassess capital needs and strategies.

» **Pace of PPP growth will slow over the next one to two years because of the coronavirus crisis.** Housing PPPs could be delayed or deferred as universities grapple with the negative operational and financial effects of the coronavirus over the next year, while utility projects are more likely to proceed.

» **Coronavirus crisis illustrates that universities can never rid themselves of demand risk, particularly for student housing projects.** Despite having no legal obligation to do so, universities assuming costs and refunds for privatized student housing as campuses shut down in the spring illustrates the limitations around transferring this demand risk to partners for these projects.

» **PPPs will remain a growing component of some universities' capital structures long after the coronavirus effects ease.** As deferred maintenance continues to rise and university priorities shift, many universities will turn to PPPs as part of a strategy to achieve capital goals. PPPs will remain more common for public universities, although private universities are also engaging in them.

» **PPPs provide opportunities for universities to help achieve strategic goals and remain competitive, but they carry credit risks.** Well-executed PPPs provide universities with an additional source of capital and expertise, while poorly executed PPPs will continue to carry reputational and financial risks.

Pace of PPP growth will slow over the next one or two years because of the coronavirus crisis

PPPs serve as an additional tool to develop, finance and fund capital needs, adding to the already diverse mix of available resources, a credit positive (see Exhibit 1). Prior to the coronavirus outbreak, sectorwide use of numerous types of PPPs (see Appendix for definitions of PPP types) had rapidly increased as colleges and universities tapped private partners to upgrade or build out various types of capital assets including student housing, parking, dining, mixed-use facilities and, increasingly, utility-related assets and systems. Now, with universities grappling with varying degrees of financial stress and operational disruption because of the coronavirus, many are reassessing near-term capital needs and financing strategies. To a large extent, the pace of sectorwide capital spending and PPP use will slow as universities delay or cancel plans for new facilities and nonessential renovations in an effort to manage expenses and preserve liquidity. In addition, even for universities that want to proceed with PPP projects, the development timeline may face delays as risks related to the coronavirus and future pandemics must be contractually negotiated and addressed before they can proceed.

Exhibit 1
PPP strategies provide an additional resource for funding capital assets

Source: Moody's Investors Service

Once the operational disruption of the pandemic winds down, more universities will likely resume use of PPPs for capital needs. However, at least over the next one to two years, PPP use will be limited to only certain types of assets. For example, universities may pause planned PPPs for student housing or opt to pursue different strategies altogether as they assess demand for different forms of housing. Many housing projects were materially impacted by the coronavirus, which forced campus closures and required most students to vacate on-campus housing. For universities with privatized projects, several paid for student refunds on a pro rata basis, which offset the revenue losses that private partners otherwise would have absorbed.

In contrast, utility-related assets and systems remain poised for increasing PPP use as universities grapple with aging infrastructure while seeking to address various energy efficiency goals. Over the past three years, several universities have monetized existing utility assets and turned over the operation, maintenance and rehabilitation of systems to a private partner through a long-term hybrid PPP arrangement. In 2017, Ohio State University (Aa1 stable) became the first prominent university to undertake this large-scale monetization strategy. In exchange for an upfront payment of $1 billion, which was invested in its long-term endowment, the university entered into a long-term concession and lease agreement with a private energy consortium to operate and maintain the utility system that powers, heats and cools the university's Columbus campus.

The University of Idaho (A1 negative) is currently in the procurement process for a similar arrangement while the University of Iowa (Aa1 stable) closed on a similarly structured $1 billion utility monetization in late 2020. In 2019, Duquesne University (A2 stable) entered into a 40-year energy services agreement with Clearway Energy, Inc. (Ba2 and SGL-2, stable) to monetize its internal utility system while also increasing system redundancy. As with Ohio State and the University of Iowa, the funds Duquesne received from Clearway's upfront payment were added to its long-term endowment.

Coronavirus crisis illustrates that universities can never rid themselves of demand risk, particularly for student housing projects

Recent actions taken by universities related to their student housing partnerships demonstrate universities' limitations in transferring demand risk to a private partner, and support why we include many demand risk and hybrid PPP projects in our calculation of a university's adjusted debt. Nearly all universities were forced to close campuses and transition entirely to online learning during the spring semester because of the widespread business disruption from the coronavirus outbreak. As a result, most students were required to vacate residence halls — including the majority of privatized student housing projects whose debt we rate — and were offered either a prorated refund or a credit to the student's account to be applied in the fall semester. Many universities elected to cover the costs of these refunds and credits, even though they had no contractual obligation to do so, which illustrates the strategic linkage and reputational importance of these projects to the universities.

For example, the University of Toledo (A2 negative) agreed to compensate Collegiate Housing Foundation (CHF) – Toledo, LLC, the owner of the privatized Honors Academic Village project (Baa3 stable) on its campus, for lost rental revenue. The University of California (system rating Aa2 positive), Irvine (UCI) entered into a similar financial agreement with regard to UCI's East Campus Apartments project (Baa1 stable).

Even prior to the pandemic, university risk of having to provide unexpected support for underperforming demand-risk projects was evident. For example, in 2018, the University of Georgia System (Aa2 stable) agreed to provide financial support for certain demand-risk PPP housing units that did not meet occupancy expectations and had higher-than-anticipated operating expenses. Under the amended contractual agreement, the university system agreed to subordinate a portion of its ground rent to the debt service on the private partner's debt in order to support a 1.2x debt service coverage ratio (pursuant to a specific calculation). To the extent any ground rent is subordinated in any fiscal year, that amount must be covered by a letter of credit issued to the university system. This action underscores the strategic importance of the student housing and related assets to the university system, as well as the system's ongoing commitment to the structure.

In other cases, universities have exercised their legal right to not provide financial support to aid failing demand-risk projects. For example, the Park West (Caa1 negative) student housing project, built on university-owned land to serve students attending Texas A&M University (system rating, Aaa stable), initially underperformed occupancy expectations, while rents remain well below underwritten assumptions because of overcapacity in the College Station housing submarket. Project underperformance resulted in financial stress leading to draws on the debt service reserve fund to pay debt service. However, the university does not intend to provide direct financial support, unlike the Georgia system.

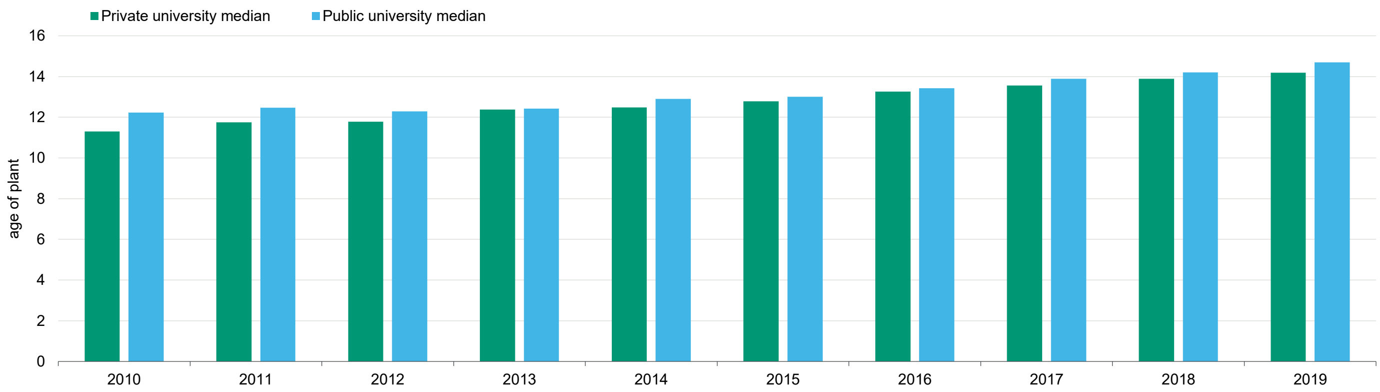
In 2019, the University of Oklahoma did not renew a lease for commercial properties and parking on a demand-risk PPP development located on university-owned land, limiting its financial risks. However, it continues to face reputational and litigation risks and costs. Absent university support, the longer-term financial viability of this mixed-use project is in question.

PPPs will remain a growing component of some universities' capital structure long after the coronavirus effects ease

Across the sector, universities will continue to confront rising levels of deferred maintenance (see Exhibit 2) along with demands to invest in new facilities. In an increasingly competitive market, the quality of facilities will remain an important consideration for prospective students, particularly during a period when universities are more aggressive with recruiting strategies. To meet these infrastructure challenges in an environment in which there are shifting priorities for university financial resources, some universities will likely use PPPs of varying structures to meet capital needs over the long-term.

Exhibit 2

Aging facilities sectorwide necessitate capital spending, driving an increase in PPP activity



Source: Moody's Investors Service

Larger-scale public universities will remain the most active users of PPPs because they have greater ability to attract private capital. PPPs are particularly appealing to the public universities that confront state regulatory or design-bid-build requirements, which serve as barriers to timely project completion. For example, a design-build or a design-build-finance-operate-maintain structure could allow them to benefit from quicker project availability, while also providing for long-term operating and maintenance cost savings that outweigh the higher cost of capital. Further, another benefit to the PPP approach compared to a traditional financing is the inclusion of upfront funds set aside by the partner to ensure that assets are adequately maintained over time to prevent a build-up of deferred maintenance. This also factors into added savings that would materialize over the project life cycle.

PPPs provide opportunities for universities to help achieve strategic goals and remain competitive, but they carry credit risks

PPPs offer universities a host of opportunities but also add exposure to potential risks (see Exhibit 3). The credit impact of a PPP on a university is determined on a case-by-case basis, with initiatives larger in scale and more strategically and financially linked to a university having a greater credit impact. PPP strategies can have a positive, negative or neutral credit impact and the effect can change over time if the performance of the project changes.

PPPs that are well structured and effectively executed benefit universities because they help achieve broader capital, financial and reputational objectives. Specifically, PPP structures offer universities access to an alternative procurement and capital financing tool, third-party expertise, faster construction timelines, partial risk transfers and savings on operations and upkeep. A monetization also provides universities with a new funding source that can be used for other university strategic priorities.

In contrast, PPPs that are not well executed raise the prospect of adverse consequences for universities, often long-lasting. As competitive enterprises, a university's credit quality is closely tied to its ability to deliver a high-quality customer experience that includes attractive facilities and well-functioning infrastructure. A PPP arrangement that fails to positively contribute to the student experience harms a university's ability to recruit and retain students and faculty, and, ultimately, its financial profile. Specifically, PPPs carry a number of potential credit challenges including historically higher borrowing costs, loss of project revenue for demand-risk projects, potential exposure to weak private partners, some loss of operational control, and limitations on complete risk transfer.

Exhibit 3

Partnerships with private entities for capital projects offer universities a host of potential opportunities and challenges

Potential opportunities	Potential challenges
Access to an additional “tool” to finance capital needs	Higher cost of capital, and loss of both cash flow and pledged revenue for demand risk PPPs
Ability for a university to leverage third-party expertise, specify exact level of service desired, and determine how much control it would like to retain	Potential long-term exposure to a private partner with weaker credit quality
Faster construction timeline and approval process, allowing for quicker project availability	Transfer of project operations to private partner may limit university ability to step-in or make changes if they are not contractually agreed to
Protection against project underperformance	Inability to transfer demand risk to private partner, potentially causing unexpected costs if project demand deteriorates
Potential cost savings during construction and over project life cycle due to private sector expertise	Loss of ability to determine pricing for demand risk student housing PPPs, driving up total cost of attendance

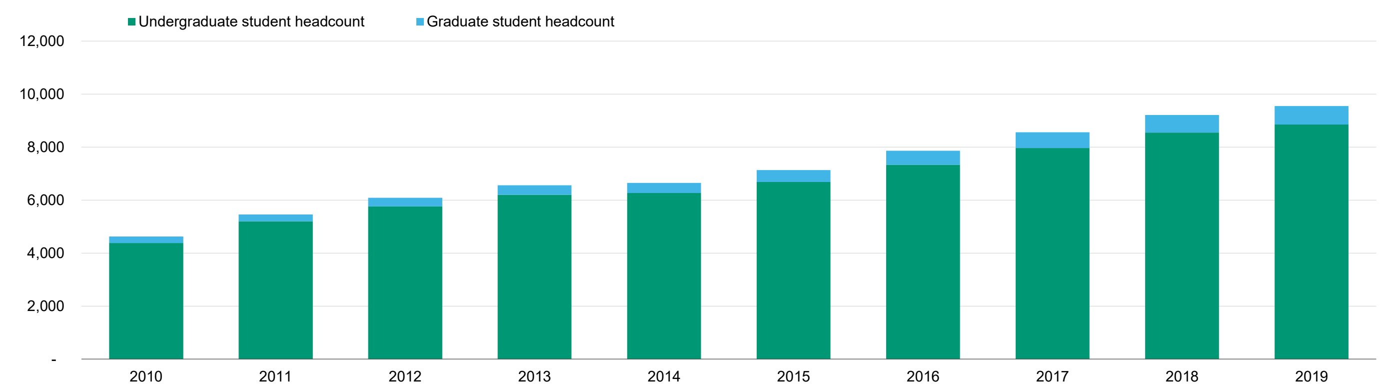
Source: Moody's Investors Service

PPPs may be completed faster than those projects developed and financed by university-issued debt because of the structure of the development process. Many public universities are beholden to state laws requiring a design-bid-build approach which separates the design process from the construction. This requirement can cause several issues in misalignment, and contribute to delays and cost overruns. This traditional development approach also does not consider the cost of long-term operating, maintenance and rehabilitation costs during the construction development process, potentially costing the university more over the life of the asset. Under a PPP, private partners often assume risk by offering a fixed-price, date-certain construction contract, subject to certain risk sharing. As such, this adds an incentive for them to advance their design, build and risk mitigation approach more quickly than traditional projects in order to ensure expedited project availability.

Using the availability-payment PPP model, the University of California (system rating Aa2 positive) partnered with a private developer, Plenary Properties Merced LLC, to develop a massive campus expansion to accommodate its growing enrollment (see Exhibit 4). Construction on the 1.2-million-gross-square-foot project began in August 2016. The private partner delivered each phase on time with the final phase recently reaching substantial completion this summer before the 2020 school year. This timeline would be difficult to replicate under a different procurement strategy. With a cost of about $1.3 billion, the project doubled the campus size by adding academic and research buildings, student life and recreational space, and housing on university-owned land.

Exhibit 4

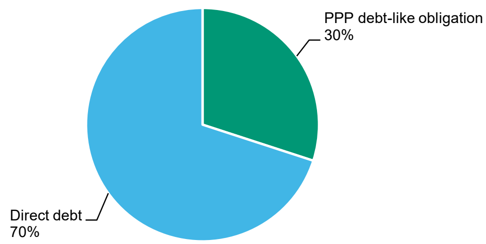
Large-scale campus expansion undertaken through an availability-payment PPP supports UC Merced's rapidly growing enrollment



Source: UC Merced Institutional Research

In certain states, public universities are unable to issue long-term debt independently, or they cannot gain approval from state bodies to issue the debt. For example, Kentucky public universities must receive legislative authorization and executive approval to issue general revenue bonds. In these cases, PPPs offer an alternative capital financing option. The University of Kentucky (UK, Aa2 stable) is an example of a school that has extensively used demand-risk PPP strategies to address its infrastructure needs (see Exhibit 5).

Exhibit 5
University of Kentucky makes extensive use of PPPs to fulfill capital needs



"PPP debt-like obligation" reflects a sum of the recognized deferred inflows from service concession arrangements.
Source: Moody's Investors Service

Today, the university's dining services and about 86% of its student housing stock are provided through separate demand-risk PPP arrangements. Favorably, the student housing projects are performing well, with nearly full occupancy. Strong project performance and ongoing availability of attractive auxiliary facilities helps enhance UK's brand.

However, even if allowed under law, a workaround approach can generate political backlash. For example, in response to the University of Kansas (KU, Aa2 stable) using an out-of-state issuing authority and partnership arrangement to secure financing for a large-scale capital project, the state's fiscal 2017 budget included temporary spending restrictions specially applied to KU.

Public-private partnerships add to adjusted debt under certain conditions

In March 2020, GASB implemented guidance intended to increase transparency and improve accounting and financial reporting around PPPs, providing greater insight into credit risk. PPPs are part of a university's capital structure and from a credit perspective are similar to traditional debt financings issued directly by a university. To fully account for the university's exposure to PPPs, both project debt and equity associated with the partnership are generally included in our adjusted debt metrics if the following three conditions are met:

- » The project primarily serves university constituents;
- » The project is located on land owned by the university and falls under a long-term contractual agreement;
- » Ownership of the project reverts back to the university at the conclusion of the contractual agreement.

Inclusion of these PPP financings in adjusted debt provides for consistency, transparency and standardization across the higher education sector. In addition to PPP financings, our adjusted debt includes a university's direct debt, operating leases and our three-year adjusted net pension liability. The total offers the broadest measure of a university's debt-like obligations and a clear way to evaluate leverage metrics incorporating both direct borrowings as well as contingent obligations.

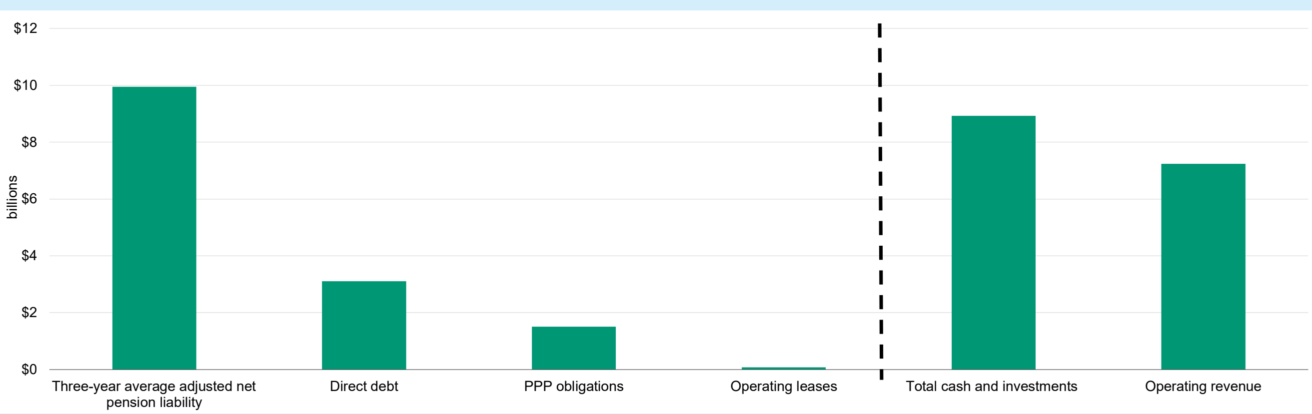
Each year, universities disclose detail regarding their PPPs, highlighting the structure, asset type and financing arrangement. This disclosure provides a proxy that may be included in our adjusted debt. For availability payment and hybrid PPPs accounted for as service concession arrangements in the university's audited financial statement, the recognized deferred inflow can be included as an obligation in our adjusted debt.

Under this structure, Ohio State University's fiscal year 2019 total adjusted debt amounts to $14.6 billion, which is the sum of:

- » $9.9 billion Moody's three-year average adjusted net pension liability
- » $3.1 billion in direct debt
- » $1.5 billion of utility system and other PPP debt-like obligations
- » $79 million of operating leases

Similar to most universities, PPPs remain a relatively small part of Ohio State's capital structure, but nevertheless an important tool to help meet infrastructure needs. Total debt-like obligations are large, but manageable for the university in light of its substantial wealth and operating scale (see Exhibit 6).

Exhibit 6
PPP debt-like obligations are a small part of Ohio State's long-term liabilities, and modest compared to its scale and wealth



PPP obligations include a $1 billion debt-like proxy for a utility system and a $417 million deferred inflow for a parking service concession arrangement.
Source: Moody's Investors Service

Appendix - Definitions of public-private partnerships

Availability-payment PPP: Following construction, the private developer is entitled to payments from the university as long as contract conditions are fulfilled. Availability payments are sized to cover operating and maintenance costs, debt service costs and equity returns over the contracted term that the private entity manages the project. Availability payments are not subject to swings in demand, such as student housing occupancy, and are adjusted typically only for lack of performance or lack of availability of the asset to the public.

Demand-risk PPP or concessions: Under a demand-risk or concession PPP, the project is largely financed by user fees, and the university takes on no or only limited demand risk. This model is often used for student housing and parking. Monetization of existing publicly owned assets under a long-term concession agreement are demand-risk PPPs. A pure user-funded demand-risk PPP does not create a direct financial obligation for the university owner.

Hybrid PPPs: Contracts with characteristics of both an availability-based payment PPP and a demand-risk PPP. Under the hybrid model, the university or governmental procuring authority, sometimes called the offtaker, can be exposed to explicit obligations such as availability payments, or to contingent obligations such as financial guarantees, termination payments or subsidies, if demand falls under certain thresholds. Additionally, there may be more remote contingent obligations such as the risk of contract renegotiations, or a takeover of the project in case of default.

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Rising pension burdens will add to credit strains for many public universities

Unfunded pensions pose heightened credit risks for many public universities driven by increases in annual costs and long-term liabilities. The growing risks come as the coronavirus crisis strains universities' operating performance and adds to revenue constraints. The impact of pension risk on university credit quality depends not only on the magnitude of unfunded liabilities and budget stress from contribution requirements, but also underlying credit attributes such as market demand, operating performance and wealth. While pension contributions tend to be manageable, comprising less than 2.2% of expenses for half of the public universities we rate, growing pension liabilities will push costs up in the absence of pension reforms or greater operating support.

» **Rising pension burdens are an increasing challenge for most public universities.** Higher pension contributions will be required as unfunded pension liabilities continue to grow, rooted in persistently low interest rates, annual pension contribution shortfalls and volatile investment returns. Over half of public universities we rate have adjusted net pension liabilities (ANPLs) that exceed direct debt. The fiscal 2019 median pension contribution was a manageable 2.2% of expenses for universities we rate. Yet pension costs rose a total 19% from fiscal 2015 to fiscal 2019 compared to 14% operating expense growth.

» **Universities with the highest pension liabilities tend to be more vulnerable to economic and fiscal disruptions.** These universities participate in poorly funded pension plans where political constraints and, in some cases, legal restrictions hinder material benefit changes. In the absence of significant pension reforms, these universities are unlikely to see budget or pension liability relief. Underlying socioeconomic and fiscal factors contribute to the challenges facing many of these universities.

» **Universities and systems with the most debt outstanding have financial flexibility to weather pension challenges.** Ranked by debt outstanding, the top-25 universities and systems have a combined \$106 billion in debt (61% of all public university debt we rate). The aggregate adjusted net pension liability for these institutions of \$149 billion, exceeds direct debt. However, this group maintains strong credit quality, with a median Aa2 rating, and benefits from significant scale, good revenue diversity, less reliance on state support, widely recognized brands and strong reserves that will be instrumental in managing rising pension costs.

Rising pension burdens are an increasing challenge for most public universities

While pension contributions are manageable, with a fiscal 2019 median 2.2% of expenses across the universities we rate, pension liabilities exceed direct debt for over half of universities. Pension costs and the associated unfunded liabilities will continue to rise, adding credit risks for most public universities and colleges. The risks are particularly elevated for institutions with highly underfunded retirement plans that are losing ground, rooted in historically low contributions, consistently low interest rates, capital market volatility and a combination of practical and political limitations to reducing pension benefits. The pension challenges come as the higher education sector faces revenue growth hurdles, exacerbated by the economic, fiscal and social effects of the coronavirus pandemic. In the absence of additional state support to assist with pension costs, university cash flow and liquidity will likely remain squeezed, making it more difficult for universities to fund potential increases in pension costs.

Growth in pension liabilities will continue to exceed the growth in universities' direct debt. Rising pension liabilities stem from the continued decline in market interest rates, with investment returns falling below most pension systems' assumed levels. Universities are reining in near-term capital funding to focus on operating uncertainties related to the challenged operating environment amid the coronavirus effects.

Throughout this report, when we refer to "'pension liabilities," we are referring to adjusted net pension liabilities (ANPL). For the public universities and systems we rate, the median Moody's three-year average ANPL rose 26% from fiscal 2015 to fiscal 2019, compared to 2% growth in debt. Our higher education pension measures are recorded within other debt-like liabilities (see blue box below).

Key ratios for higher education pension analysis

Adjusted net pension liability (ANPL) is a point-in-time market value of accrued liabilities less assets set aside to pay for them. The primary difference between the Governmental Accounting Standards Board (GASB) Statement No. 68 net pension liability (NPL) reported in university financial statements and the ANPL is the discount rate used to calculate the liability. The ANPL uses the FTSE Pension Liability Index (PLI), a high-grade taxable corporate bond index, rather than the reported pension plan discount rate.

Other debt-like obligations include unfunded pension liabilities (ANPLs) plus capitalized non-cancelable operating leases. On average, ANPLs are 89% of the other debt-like obligations of universities and systems.

Total adjusted debt is a measure of overall debt and is equal to total debt plus other debt-like obligations.

Spendable cash and investments to total adjusted debt measures the university's ability to repay bonds and other obligations from wealth that can be accessed over time or for specific purposes and is equal to spendable cash and investments divided by total adjusted debt.

Total adjusted debt to operating revenue measures total adjusted debt compared to operating revenue and is equal to total adjusted debt divided by operating revenue.

In fiscal 2019, 53% of the public universities we rate recorded pension liabilities that exceeded their outstanding total direct debt (see Exhibit 1), reflecting the sizable volume and growth rate of unfunded pension liabilities.

Exhibit 1

Over half of public universities we rate have adjusted net pension liabilities (ANPLs) that exceed their outstanding direct debt

Fiscal year 2019 direct debt and ANPL compared to operating revenue, by university and system

Source: Moody's Investors Service

Higher pension contributions are needed to reduce unfunded pension liabilities, but university revenue sources — tuition, auxiliaries, state support and, in the case of academic medical centers, patient care revenue — will remain squeezed amid the coronavirus-induced economic downturn. Annual growth in net tuition revenue has slowed every year since 2012, declining to just 1.7% in fiscal 2019, because of greater competition for students as well as state lawmakers implementing certain tuition limits. State support for public universities saw signs of improvement early in fiscal 2020, but was abruptly halted due to operating challenges related to the pandemic. For fiscal 2021, revenue is highly uncertain given questions about how campuses will safely open for students this fall and most public universities are planning around some level of state appropriation cuts.

Rising pension contribution requirements can crowd out the ability to make investments in academic programs and facilities, leading to an inability to remain attractive in a competitive student market. Over the fiscal 2015 to fiscal 2019 period, pension contributions rose 19% across the public universities we rate relative to expense growth of 14%. For the many institutions with limited pricing power, declining state appropriations and constrained financial resources, their fiscal stability is highly reliant on cost controls. However, universities are often unable to control pension contribution requirements that are determined by pension systems in which they participate. The mix between employee, state and university contributions varies by state and retirement plan. In the absence of additional state support or other benefit changes such as higher employee contributions, universities will increasingly have to address making trade-offs in terms of academic and student services to support required pension contributions.

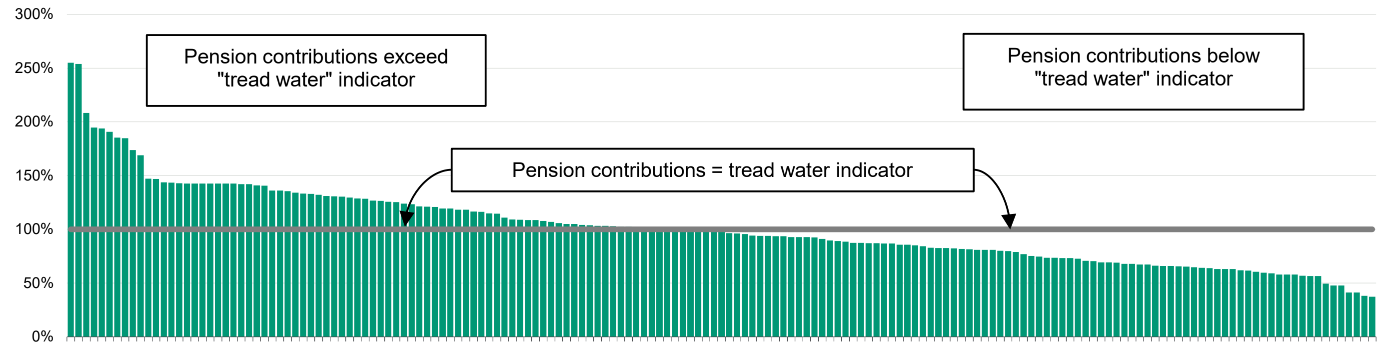
The pension contribution requirements facing universities will remain highly impacted by investment market returns. Most US public pension systems fell short of return targets for the fiscal year that ended June 30, 2020. The funding results as of June 30, 2020 will in many cases drive actuarial contribution requirements up for the fiscal year beginning July 1, 2021. Furthermore, reductions in pension investment return targets, which typically serve as reported discount rate assumptions, will also increase contribution requirements.

Beyond investment performance, many universities will continue to face rising pension contribution requirements with lengthy and backloaded amortization of unfunded liabilities built into actuarial requirements. For many, contributions are not sufficient to reduce the unfunded pension liabilities even under reported assumptions, let alone market-based measures like ANPLs. As of fiscal 2019, 53% of public universities' pension contributions did not meet our "tread water" indicator (see Exhibit 2). The tread water indicator is the contribution required to prevent unfunded liabilities from growing based on reported assumptions.

Exhibit 2

Required pension contributions for nearly half of universities and systems we rate fall short of tread water indicator

Fiscal 2019 pension contributions for universities and systems participating in state-administered, multi-employer cost-sharing defined benefit plans



Source: Moody's Investors Service

Calculating the difference between pension expense and pension contributions

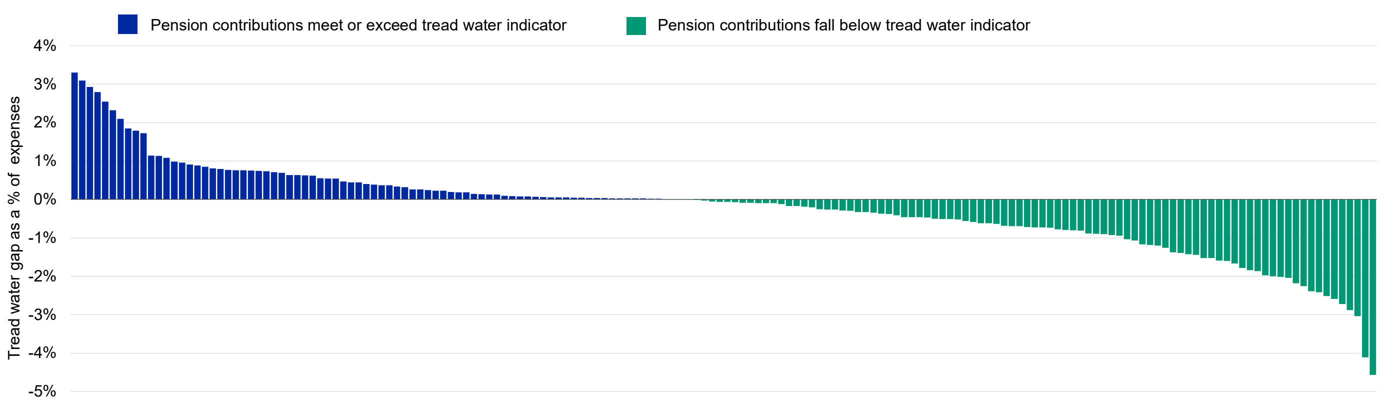
We adjust operating expenses to remove the effects of accounting-related noncash pension expenses. Under GASB 68, reported accrual-basis pension expense for defined benefit (DB) pension plans represents the annual change in reported net pension liabilities, plus the net effect of accounting rule-based expense recognition deferrals. Reported "pension expense" includes both cash contributions for actual payments ("pension costs") plus the noncash items that are related to accounting rules and actuarial assumptions. We calculate the difference between pension expense and cash contributions using year-over-year balance sheet changes in net liabilities and related deferred inflows and outflows.

Pension contributions, and even the cost to tread water, will continue to represent just a modest portion of operating expenses for many of the universities we rate. Further, the tread water gap, which is the difference between the tread water indicator and pension contributions, amounted to 1% or less of operating expenses for 73% of the public universities we rate (see Exhibit 3). Louisiana (Aa3 stable) universities have materially higher contributions compared to their tread water indicator, reflecting one of the highest employer contribution rates among teacher retirement systems in the nation. In contrast, universities in Kentucky (Aa3 stable), New Mexico (Aa2 stable) and Hawaii (Aa2 stable) have the largest contribution shortfalls relative to our tread water indicator.

Exhibit 3

Tread water funding gaps are 1% or less of operating expenses for most public universities, with outliers reflecting pension plan funding differences

Fiscal 2019 tread water gap as a percent of operating expenses



The tread water gap is equal to the difference between the tread water indicator and actual defined benefit contributions.
Source: Moody's Investors Service

Universities with the highest pension liabilities tend to be more vulnerable to economic and fiscal disruptions

The 25 public institutions with the highest pension exposure, measured by three-year average ANPL to operating revenue, face difficult business conditions exacerbated by rising pension obligations (see Exhibit 4). With a median A1 rating**,** they tend to be smaller in terms of enrollment, operating revenue and wealth compared to the public universities we rate**.** The pension plans in the states for most of these vulnerable institutions are highly underfunded and the ability to make significant pension reforms is constrained by political will and, in some cases, limited legal flexibility.

Exhibit 4

Public universities with the highest unfunded pension exposure compared to operating revenue, ranked by three-year average ANPL to operating revenue

Fiscal 2019 data, dollars in millions

Obligor Name	Senior lien rating	Outlook	Total FTE	Operating revenue	Spendable cash and investments	Total debt	Three-year average ANPL	Total adjusted debt	Total debt to operating revenue	Three-year average ANPL to operating revenue	Total adjusted debt to operating revenue
Shawnee State University, OH	Baa3	Negative	3,050	$47	$21	$24	$128	$152	0.5x	2.7x	3.2x
New Mexico State University, NM	A1	Stable	18,275	$480	$251	$147	$1,259	$1,406	0.3x	2.6x	2.9x
Southeastern Louisiana University, LA	A3	Stable	11,977	$156	$82	$106	$396	$503	0.7x	2.5x	3.2x
University of Louisiana at Monroe, LA	A2	Negative	7,340	$124	$19	$66	$301	$368	0.5x	2.4x	3.0x
Wright State University, OH	Baa2	Negative	12,114	$314	$156	$69	$751	$826	0.2x	2.4x	2.6x
University of Akron, OH	A1	Stable	16,254	$365	$265	$389	$872	$1,262	1.1x	2.4x	3.5x
Youngstown State University, OH	A2	Stable	10,885	$177	$259	$77	$424	$501	0.4x	2.4x	2.8x
New Mexico Military Institute, NM	Aa3	Stable	931	$38	$51	$7	$87	$96	0.2x	2.3x	2.5x
McNeese State University, LA	A3	Stable	6,097	$94	$77	$30	$210	$239	0.3x	2.2x	2.5x
Kent State University, OH	Aa3	Stable	30,631	$638	$627	$431	$1,392	$1,826	0.7x	2.2x	2.9x
Colorado School of Mines, CO	A1	Stable	6,289	$291	$304	$320	$635	$956	1.1x	2.2x	3.3x
Louisiana Tech University, LA	A3	Stable	10,353	$164	$44	$110	$356	$466	0.7x	2.2x	2.9x
Cleveland State University, OH	A1	Stable	12,358	$301	$211	$277	$630	$921	0.9x	2.1x	3.1x
Eastern Kentucky University, KY	A2	Stable	12,880	$268	$94	$265	$556	$821	1.0x	2.1x	3.1x
Louisiana State University, LA	A2	Stable	29,190	$1,005	$1,005	$796	$2,062	$2,873	0.8x	2.1x	2.9x
University of Hawaii, HI	Aa2	Stable	34,000	$1,698	$748	$543	$3,469	$4,036	0.3x	2.0x	2.4x
California State University, CA	Aa2	Stable	442,492	$10,343	$6,363	$6,646	$20,911	$27,601	0.6x	2.0x	2.7x
Morehead State University, KY	A2	Negative	6,282	$125	$49	$87	$245	$335	0.7x	2.0x	2.7x
Mississippi Institutions of Higher Learning	Aa2	Stable	69,456	$3,504	$2,048	$1,217	$6,482	$7,826	0.3x	1.9x	2.2x
Bowling Green State University, OH	A1	Stable	16,462	$360	$310	$284	$659	$943	0.8x	1.8x	2.6x
New Mexico Institute of Mining & Technology	A2	Stable	1,482	$133	$93	$9	$242	$253	0.1x	1.8x	1.9x
Truman State University, MO	A1	Negative	4,507	$105	$104	$50	$188	$238	0.5x	1.8x	2.3x
Ohio University, OH	Aa3	Stable	27,326	$748	$829	$594	$1,319	$1,925	0.8x	1.8x	2.6x
Northern Kentucky University, KY	A1	Stable	13,574	$218	$192	$102	$382	$484	0.5x	1.8x	2.2x
Murray State University, KY	A2	Stable	7,660	$177	$206	$71	$308	$380	0.4x	1.7x	2.2x

ANPL stands for adjusted net pensions liability

Source: Moody's Investors Service

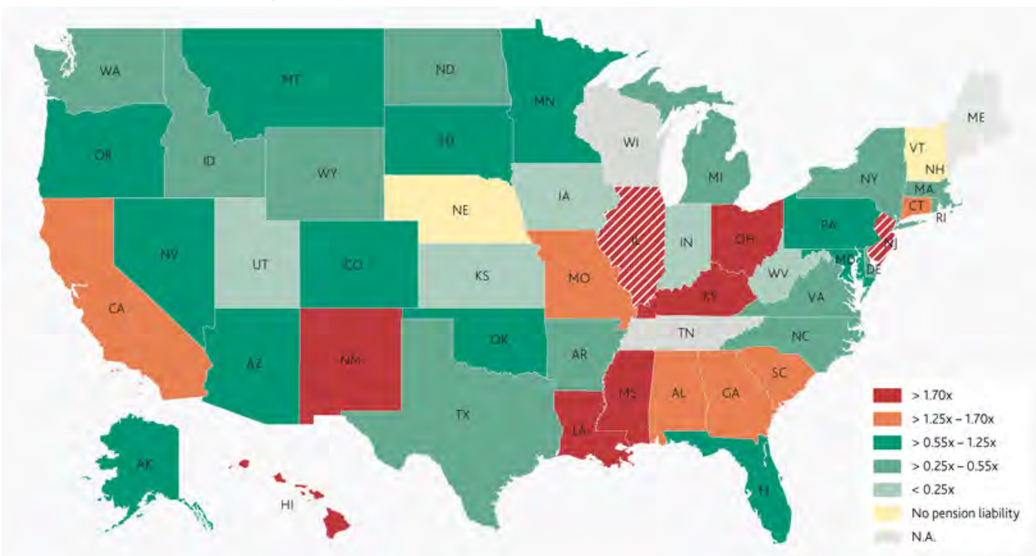
The universities with higher pension exposure tend to have fewer resources, including tuition-pricing flexibility, cash flow and liquidity, to stabilize operations. Leverage is generally already higher than rated peers with heavy use of debt and cash for capital investments, reflecting variable state operating appropriations and more limited capital support. With the exception of certain niche-based universities, such as Colorado School of Mines (A1 stable), New Mexico Military Institute (Aa3 stable) and New Mexico Institute of Mining and Technology (A2 stable), these universities are largely regionally oriented, primarily serving in-state students. Even the large systems, California State University (Aa3 stable) and Mississippi Institutions of Higher Learning (Aa2 stable) serve a majority of in-state students. Tuition sensitivity and affordability concerns rate highly among the students, and in many cases the state legislators, at many of these universities, which limits prospects for strong revenue growth and incremental cash flow to grow liquidity. Among these 25 university, net tuition revenue decreased by a median of 1.2% from fiscal 2018 to fiscal 2019, contrasting with the median 1.7% growth rate of our overall portfolio. Likewise, the median Moody's adjusted operating revenue was $268 million for this group, below the $489 million overall public university median.

Vulnerable state economies and weak demographic trends will exacerbate pension funding needs. Socioeconomic conditions in the states where a majority of these universities are located (see Exhibit 5) — primarily Ohio (Aa1 stable), Louisiana and Kentucky — add further challenges. Universities in these three states have weaker prospects for strong revenue growth, driven by lagging industry sectors, aging populations, below-average income levels and a history of state appropriation cuts in weak economic cycles. Without additional state support, universities will have to fit rising pension contributions into their budgets or risk even more rapid growth in unfunded liabilities. The absence of a growing and dynamic workforce is further exacerbated by lagging growth of high school graduates to fill the pipeline for regional universities. Kentucky and Louisiana high school graduates are projected to increase by 0.6% annually for the fall 2019 to fall 2024 period, while Ohio is facing an annual decline of 0.1% in high school student graduations.[1]

Exhibit 5

Pension liability exposure varies widely across US public universities

Median universities' ANPL to operating revenue by state for fiscal 2019



ANPL stands for adjusted net pension liability. We do not rate university-secured debt for Maine, Tennessee and Wisconsin. Universities in Illinois and New Jersey (both with red stripes in map) have high unfunded pension liabilities, but the states cover on-behalf pension contributions.
Source: Moody's Investors Service

While some universities have lower or an absence of pension liabilities compared to their rated peers, state funding dynamics and legal protections for pension benefits may mask exposure to pension risks. In Illinois (Baa3 negative), universities have no pension balance-sheet liabilities because the state makes payments on behalf of the universities. Given strong legal protections for pension benefits and the state's own financial challenges, driven in part by pension costs, Illinois universities face risk of direct pension cost-shifting from the state or indirect cost-shifts in the form of less state aid. Illinois' State Universities Retirement System (SURS) is significantly underfunded, and the state's constitution strongly protects pension benefits from impairment, meaning reforms that materially reduce accrued liabilities are highly unlikely. In Ohio, employer contributions are capped, but if funding falls below certain levels, plan changes are made. In recent years, this has been addressed by suspending cost-of-living adjustments (COLAs).

Recent efforts by states to bolster poorly funded pension plans or provide a means for employer participants to exit their state plans have been postponed with the focus on coronavirus economic effects. Colorado enacted legislative changes in 2018 to provide $225 million in annual funding assistance for the Colorado Public Employees' Retirement System (PERA). While payments were made in fiscal years 2019 and 2020, the state's fiscal 2021 budget excludes this payment. In Kentucky, decisions about universities exiting Kentucky's Teacher Retirement System (TRS) have also been postponed (see blue box on page 8).

Universities and systems with the most debt outstanding have financial flexibility to weather pension challenges

Nearly one-third of the 25 universities and systems we rate with the most outstanding debt will continue to have high exposure to rising unfunded pension liabilities, but will remain better able to withstand pension challenges due to their underlying credit strengths. Greater diversity of key revenue streams and less reliance on potentially uncertain state operating support provide additional long-term fiscal stability for these large institutions.

The 25 public institutions with the greatest outstanding debt account for 61% of the aggregate debt among public universities and systems we rate. The aggregate adjusted net pension liability for these institutions of $149 billion exceeds their outstanding direct debt. The fiscal 2019 median total debt among these universities and systems was $2.3 billion and median total adjusted debt was $4.3 billion. Not coincidentally, the largest institutions by debt are also among the largest institutions by full-time equivalent (FTE) students, with a median FTE of 66,003 (see Exhibit 6). Even considering total adjusted debt to operating revenue, the median for these largest 25 institutions is 1.2x, on par with the median for all public universities, and far stronger than the 2.8x for the most exposed 25 universities discussed in the prior section.

Exhibit 6

The largest universities and systems, ranked by debt, have financial strengths to help manage pension burdens

Fiscal 2019 data, dollars in billions

Obligor Name	Senior lien rating	Outlook	Total FTE	Operating revenue	Spendable cash and investments	Total debt	Three-year average ANPL	Total adjusted debt	Total debt to operating revenue	Three-year average ANPL to operating revenue	Total adjusted debt to operating revenue
University of California, CA	Aa2	Positive	268,900	$36.8	$32.9	$23.3	$51.8	$76.6	0.6x	1.4x	2.1x
State University of New York, NY	Aa2	Stable	204,750	$11.8	$5.4	$12.1	$5.2	$17.5	1.0x	0.4x	1.5x
University of Texas System, TX	Aaa	Stable	186,584	$20.9	$28.6	$10.5	$12.6	$23.7	0.5x	0.6x	1.1x
California State University, CA	Aa2	Stable	442,492	$10.3	$6.4	$6.6	$20.9	$27.6	0.6x	2.0x	2.7x
City University of New York, NY	Aa2	Stable	204,107	$4.8	$0.8	$5.6	$1.9	$7.8	1.2x	0.4x	1.6x
Texas A&M University System, TX	Aaa	Stable	122,459	$4.8	$8.3	$5.3	$1.8	$7.2	1.1x	0.4x	1.5x
BOR of The University System of Georgia, GA	Aa2	Stable	291,283	$8.5	$5.2	$4.1	$10.8	$15.1	0.5x	1.3x	1.8x
State University System of Florida, FL	Aa2	Stable	334,720	$14.2	$8.9	$4.0	$8.6	$12.7	0.3x	0.6x	0.9x
University of Massachusetts, MA	Aa2	Stable	66,003	$3.4	$1.6	$3.1	$1.2	$4.5	0.9x	0.4x	1.3x
Ohio State University, OH	Aa1	Stable	62,186	$7.2	$7.3	$3.1	$9.9	$13.1	0.4x	1.4x	1.8x
University of Washington, WA	Aaa	Negative	59,660	$6.2	$4.3	$2.4	$4.1	$6.8	0.4x	0.7x	1.1x
University of Michigan, MI	Aaa	Stable	60,008	$9.1	$12.4	$2.4	$0.0	$2.6	0.3x	0.0x	0.3x
University of Virginia, VA	Aaa	Stable	24,338	$3.6	$8.2	$2.3	$1.3	$3.7	0.7x	0.4x	1.0x
Arizona State University, AZ	Aa2	Stable	110,548	$2.5	$1.6	$2.2	$1.3	$3.7	0.9x	0.5x	1.5x
State System of Higher Education, PA	Aa3	Stable	82,930	$2.0	$1.6	$2.1	$1.9	$4.1	1.1x	1.0x	2.0x
Rutgers, The State University of New Jersey, NJ	Aa3	Stable	62,491	$4.3	$1.4	$2.0	$2.1	$4.3	0.5x	0.5x	1.0x
University of Connecticut, CT	Aa3	Negative	29,260	$1.4	$0.5	$2.0	$1.7	$3.8	1.4x	1.3x	2.7x
Michigan State University, MI	Aa2	Stable	45,732	$2.6	$3.2	$1.9	$0.0	$1.9	0.7x	0.0x	0.7x
University of Missouri System, MO	Aa1	Stable	52,609	$3.7	$3.4	$1.6	$2.9	$4.6	0.4x	0.8x	1.2x
University of Colorado, CO	Aa1	Stable	56,937	$4.5	$3.7	$1.6	$2.6	$4.3	0.4x	0.6x	1.0x
University of Minnesota, MN	Aa1	Stable	61,009	$3.7	$4.2	$1.5	$1.8	$3.4	0.4x	0.5x	0.9x
Pennsylvania State University, PA	Aa1	Stable	85,767	$6.7	$7.1	$1.5	$2.1	$3.8	0.2x	0.3x	0.6x
University of Illinois, IL	A1	Negative	88,784	$6.0	$4.3	$1.5	$0.0	$1.5	0.2x	0.0x	0.3x
University of Arkansas, AR	Aa2	Stable	54,294	$3.2	$1.5	$1.5	$0.2	$1.8	0.5x	0.1x	0.5x
University of Arizona, AZ	Aa2	Stable	44,714	$2.1	$1.1	$1.5	$1.5	$3.1	0.7x	0.7x	1.4x

State University System of Florida Total FTE is for fall 2018

Source: Moody's Investors Service

These institutions have favorable credit attributes that will help absorb rising pension costs, although not without having to make trade-offs to other budgetary expenses. Virtually all of the top 25 by debt are highly rated — the median rating is Aa2 — and have excellent strategic positioning, resulting from strong management teams, sound financial cushions and a well-known brand and reputation that will lead to continued steady student demand. Generally, the larger institutions have more revenue diversity with strong research enterprises and academic medical centers (or affiliations with them). In addition, these institutions tend to be located in urban centers and larger cities, with broad academic programming across both undergraduate and graduate programs, all of which lead to stronger student attractiveness relative to regionally located universities.

Kentucky pension reform measures delayed with coronavirus

The Commonwealth of Kentucky has one of the highest adjusted net pension liabilities compared to revenue among states, and higher education institutions participating in the state's defined benefit (DB) plans are exposed to sizable and rising fixed pension costs. After years well below actuarially required levels, the commonwealth increased its contributions to state systems, as well as contribution requirements of entities that participate in its pension systems, including many universities. However, rising pension costs are likely to be borne by the universities because thus far, the state has not contributed any on-behalf payments for the institutions. Fiscal 2019 legislation allowing public universities to address exit options from the Kentucky Employees' Retirement System – Non-Hazardous (KERS-NH) defined benefit have been postponed one year due to coronavirus related priorities.

Employees of seven public universities participate in either the Kentucky Teachers' Retirement System (TRS) or KERS-NH defined benefit plans, or an optional defined contribution plan. The KERS-NH plan has a reported funding ratio of 13% (11% based on Moody's pension calculations). Employees of the University of Kentucky (Aa2 stable) and University of Louisville (Baa1 negative) are only eligible to participate in defined contribution plans and therefore those universities have no direct pension liability exposure to the state plans.

Kentucky universities and colleges already faced substantial jumps in pension contributions going into fiscal 2021 before the coronavirus pandemic hit. For fiscal 2020, the state granted certain entities, including the participating public universities and colleges, two consecutive years of pension and other post-employment benefits (OPEB) reprieves. The contribution would be 49% of payroll for pensions and OPEBs combined, rather than an estimated 93% of payroll to address the state's plan for increased contributions from the universities. However, in spring 2020, the state legislature passed a bill delaying all pension decisions by one year, with pension costs remaining at the 49% rate. While this provides the universities with a favorable contribution reprieve, the delay will only continue to worsen the KERS unfunded liability.

Additional legislation enacted in fiscal 2019 will allow KERS-NH entities to exercise buyouts from the plan, either through a lump sum or a series of installment payments in exchange for permanently leaving the system. Interested institutions had to request a valuation of their buyout options beginning January 31, 2020. However, the determinations of whether universities will exercise their options has been postponed to fiscal 2021.

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» Higher education - US: Largest debt issuers are well positioned to weather coronavirus shocks, May 12, 2020

Sector Comment

» State government - Kentucky: Pension relief and buyout options for certain governmental entities are credit negative for the state, August 1, 2019

» State and local government - Colorado: Pulling back on pension contributions for fiscal relief is credit negative, July 27, 2020

Cross-Sector Methodology

» Adjustments to Pension and OPEB Data Reported by GASB Issuers, Including US States and Local Governments Methodology, October 7, 2019

Endnotes

1 Based on data from the Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2016

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Higher Education – US

College sports postponements dampen revenue prospects, though interruption in debt payments is unlikely

On August 11, the Big Ten and Pac-12 conferences announced the postponement of fall college sports, most prominently football, as the coronavirus continues to hurt higher education's revenue prospects. The moves by two of the so-called "Power Five" conferences follows the Mid-American Conference canceling its fall sports. Football's dominant role in generating athletic revenue means a potential material revenue shock for athletic departments. In some cases, expense management will not be able to fully offset the revenue losses. However, we expect university leadership to provide extraordinary support to continue paying debt service for athletic related facilities, given the strategic importance of sports to universities.

More broadly, the strength and agility of governance and management, including in responding to public health concerns and maintaining a balance between a long-term sports strategy and the near-term revenue disruption, will help determine the credit impact on a university. Athletic expenses have grown significantly in recent years, including certain fixed costs such as debt service, which will impact universities' ability to adjust to the disruption. Budget difficulties at athletic departments will add to the financial strains facing universities, including a tuition revenue pinch, reduced state funding and incremental expenses to combat the coronavirus.

How the coronavirus spreads will affect universities' willingness and ability to conduct other intercollegiate competition during the 2020-21 academic year, including basketball, which is also a substantial revenue driver.

Universities will use auxiliary and other reserves to support debt service

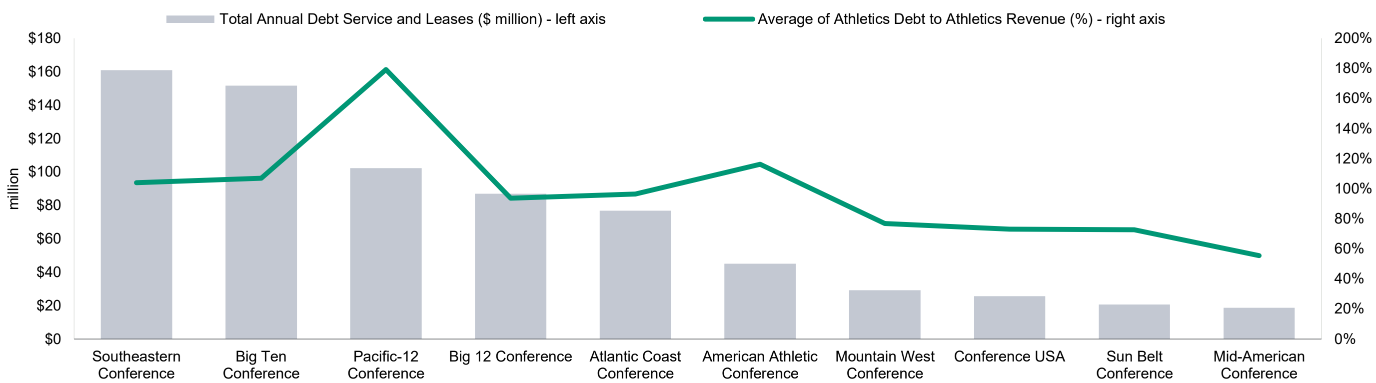
The strategic importance of college sports to universities over the long term will prompt them to deploy financial reserves to close coronavirus-induced athletic budget gaps. The response is especially resonant among universities with the largest athletic debt exposure. Given the revenue shocks, many athletic departments will not be able to cover debt service with net revenue from recurring operations, prompting the need to fill the gap from appropriate auxiliary and/or other reserves. In many cases, this is likely to take the form of internal loans that the athletic departments will need to repay the university over time.

Athletics is more capital intensive than higher education generally. For public higher education overall, the median debt to operating revenue was 58%. For schools competing at the NCAA Division I Football Bowl Subdivision level with debt, the ratio of athletics debt to athletics revenue was 66% in 2018 (see Exhibit 1). Facilities expenses, including debt service, across Division I public universities drove the greatest dollar amount increase between 2013 and 2018 with a 54% increase across the period and growth to $2.3 billion in 2018.

Exhibit 1

Total annual debt service and leases shows great variation across the largest conferences

Public university members of Division I Football Bowl Subdivision conferences



Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information (CAFI) Database

While many universities have used broad revenue pledges or general obligation debt to fund athletic facilities, some use limited-pledge athletic revenue bonds to secure debt that funds athletic investments. Some of the limited-pledge athletic bonds will fail to meet covenanted debt service coverage requirements from pledged revenues in fiscal 2021, with the university's response determining impact on credit quality. Failure to meet debt service coverage covenants may be an event of technical default, and could require use of consultants, but is not a payment default. Also, while some of the limited-pledge bonds have debt service reserve funds that could be used to pay debt service, we expect universities will avoid tapping such funds and instead find other ways to support debt service. A draw on a debt service reserve fund would likely have negative credit ramifications unless the university took immediate offsetting action to replenish.

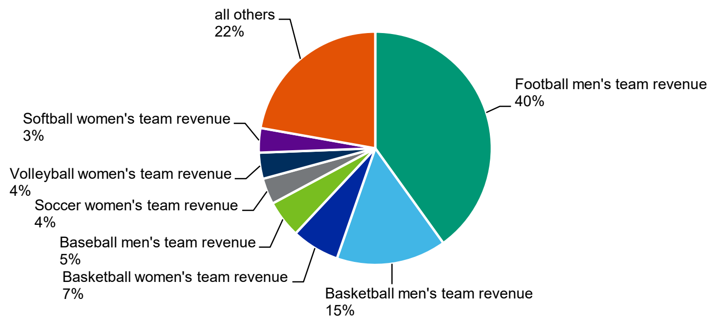
Cancellations will hurt revenue

Universities have become increasingly reliant on media revenue, mostly for football and basketball, to support sports programs. Football is the largest contributer to athletic revenue sectorwide, amounting to $5.8 billion in fiscal 2018, or 40% of total athletic revenue (see Exhibit 2). The football postponements follow the loss of the NCAA basketball tournament in the spring; basketball accounted for 15% of 2018 revenue.

Exhibit 2

Football accounted for the bulk of college sports' $14.6 billion revenue

Breakdown by revenue source, 2018

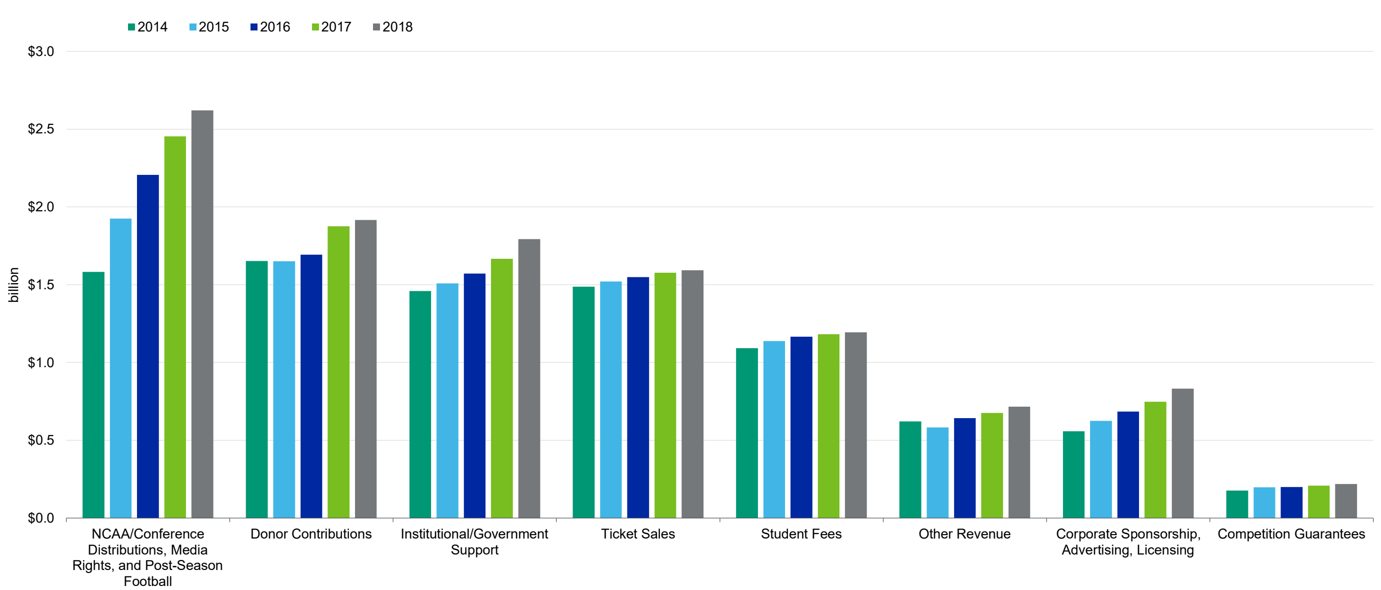


Source: US Department of Education, Equity in Athletics

While multiple sources of revenue are at risk from college sports cancellations, media rights have been the largest and fastest growing source (see Exhibit 3). The lack of ticket sales will also contribute to sharp revenue declines. While some donor support will continue, a material portion of the support is tied to seating priority programs. Donor support may also wane with potential disruptions in household income, tax changes and booster disinterest because of canceled seasons. Student fee revenue will vary not only with enrollment but also decisions regarding potential refunds or rebates of fee revenue.

Exhibit 3

Over the last half decade, college sports have seen outsized revenue growth tied to media content



Data for Division I public colleges and universities.

Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information (CAFI) Database

Cancellation of fall college sports will hurt university operating performance and add to difficulties with expense management

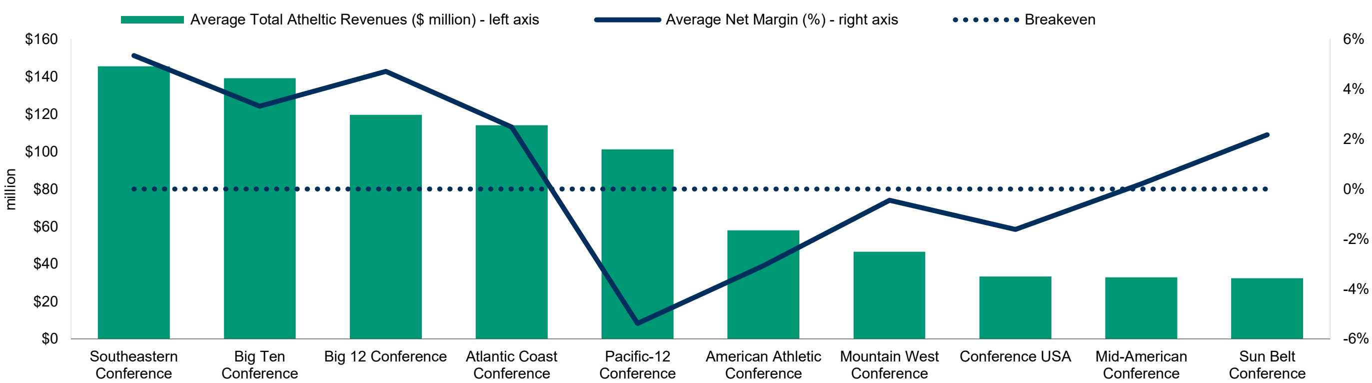
The revenue shocks will curb universities' operating performance and compound an already difficult expense environment on many campuses tied to challenges with tuition and auxiliary revenue as well as state funding. Measuring the profitability of athletic departments is difficult with many material transfers made between universities and their athletic departments each year, combined with uneven cost allocation models. With that caveat, median athletic department profitability ran at a breakeven basis in 2018, a relatively strong revenue year. Of Division I public universities, 37% reported expenses greater than revenues, with a median operating deficit of 3% for that subset.

Deficit athletic operations don't necessarily mean sports programs are not supportive of the universities' credit profiles because sports can heighten university brand awareness, aid in enrollment management and enhance alumni engagement and fundraising. Operating health has varied across athletic conferences as shown in Exhibit 4, with conferences with typically higher athletic revenues tending to have stronger operating performances. Compensation for coaches as well as other athletic support and administrative expenses among NCAA Division I members make up the largest portion of the expense base for a combined 35% and will be a focus for expense management efforts in fiscal 2021. With games canceled, universities will save some money on game day operations and travel expenses.

Exhibit 4

Members of the largest athletic conferences tend to have stronger operating performances

2018 average revenue and performance for public universities by conference



Source: Knight Commission on Intercollegiate Athletics, College Athletics Financial Information (CAFI) Database

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Higher education and community colleges – US

Even with potential enrollment gains, colleges face drop in tuition revenue

The sharp increase in unemployment caused by the coronavirus points to a potential overall gain in fall 2020 enrollment at community colleges and four-year public and private universities. Enrollment generally runs countercyclical to the economy and tends to rise during a downturn. Nonetheless, we project that the combination of two key revenue streams — average net tuition and net auxiliary revenue (primarily housing and dining) per student — will drop between 5% and 13% sectorwide for fiscal year 2021. The declines in household income will drive more students to seek lower-cost options, contributing to the revenue drop and a shift in market share among colleges and universities.

» **High unemployment signals potential for overall enrollment gains.** Past patterns in a down economy indicate total higher education enrollment could rise approximately 2% to 4% for the fall 2020 semester, reversing a multiyear trend. The countercyclical nature of enrollment for both traditional-aged and older students typically yields gains when unemployment grows and students seek to broaden their skill set. Most schools are planning at least some on-campus instruction this fall, though an escalation in risks from another wave of the coronavirus and other dynamics to a lesser degree would curb potential enrollment gains.

» **Even if enrollment grows, net tuition and other student revenue will fall.** The mix of more students attending lower-priced colleges and households struggling to pay for higher education will lead to a decline in key student revenue streams even if enrollment increases. The combination of average net tuition and net auxiliary revenue per student would drop 5% under our low-stress scenario and 13% under our high-stress scenario. Our scenarios incorporate student demand and affordability in light of the economic downturn.

» **Market share shifts are highly likely to favor lower-priced alternatives**. A climate of increased unemployment and decreased household incomes strongly favors lower-priced providers, particularly community colleges. Four-year public and private universities with strong brands should hold their own in terms of student demand and net tuition revenue. Difficulties will accelerate for higher-priced colleges heavily dependent on tuition revenue with less recognized brands. Some colleges will benefit from students wishing to stay closer to home in light of the pandemic.

Seasonality of higher education heightens potential volatility from coronavirus upheaval

Higher education is a seasonal enterprise, especially for those institutions with the academic year defined by a fall and spring semester. This seasonality combined with the primacy of fall as a traditional point of entry heightens the uncertainty around enrollment for academic year 2020-21. Particularly for students seeking an educational product distinguished by a residential experience, enrollment will be partially driven by the pace of relaxation of the strictest social-/physical-distancing measures. Most universities are currently planning to resume on-campus instruction although potentially with modifications. Some universities are developing plans attuned to potential additional waves of the coronavirus. They are modifying fall calendars including staggered start dates, moving to online learning following the Thanksgiving break, and moving to a block schedule (taking one course at a time) for the fall. Colleges and universities with academic quarters are also shoring up winter entry points as some students defer enrollment beyond fall 2020.

High unemployment signals potential for overall enrollment gains

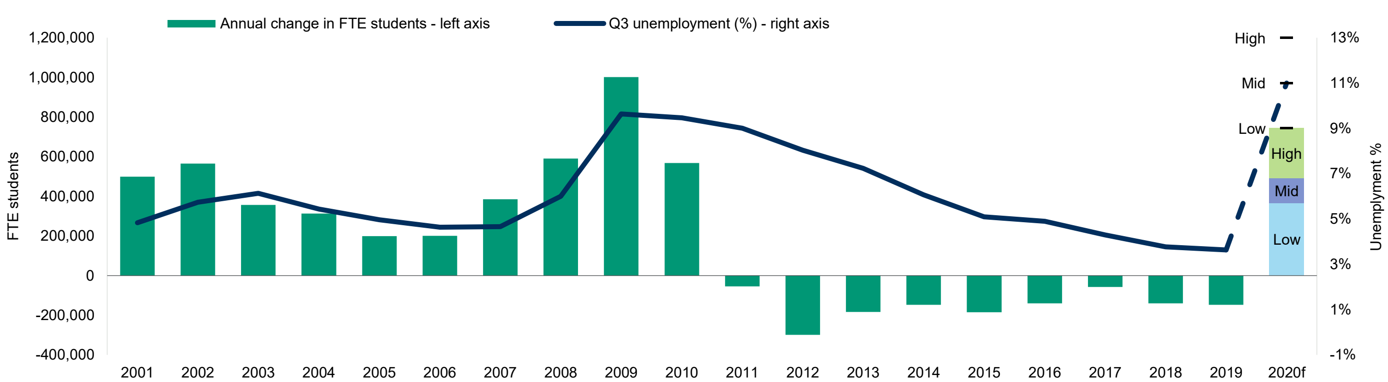
Historical trends in a down economy indicate total enrollment for community colleges and four-year public and private universities could increase in the 2% to 4% range for the fall 2020 semester, reversing a multiyear trend. The countercyclical nature of enrollment for both traditional-age and older students where enrollment increases as the economy weakens typically yields gains in students seeking to widen their skill set, particularly at community colleges. Still, factors such as a potential new wave of the coronavirus and students deferring a year to get the full on-campus experience stand to curb the potential enrollment increases this fall.

Fall 2019 full-time equivalent (FTE) enrollment for US higher education was around 14.6 million. Our projected sectorwide percentage increase in the 2% to 4% range for fall 2020 assumes the past pattern of FTE enrollment and unemployment rising in tandem holds. The base case in our macroeconomic forecast for unemployment in the third quarter is 11%, fitting in a band between 9% and 13%. Exhibit 1 shows our forecasts for enrollment gains for fall 2020 under three unemployment scenarios. Under our low case, fall enrollment will increase 2% (about 366,000) if unemployment is 9%; under our mid-case, enrollment will increase 3% (500,000) if unemployment is 11%; and under our high-case, enrollment will increase 4% (about 620,000) if unemployment is 13%. In April, unemployment reached 14.7%.

Exhibit 1

Sharp increase in unemployment could drive aggregate enrollment gains of around 2% to 4% for US higher education

Annual change in fall FTE enrollment and third-quarter unemployment percentage



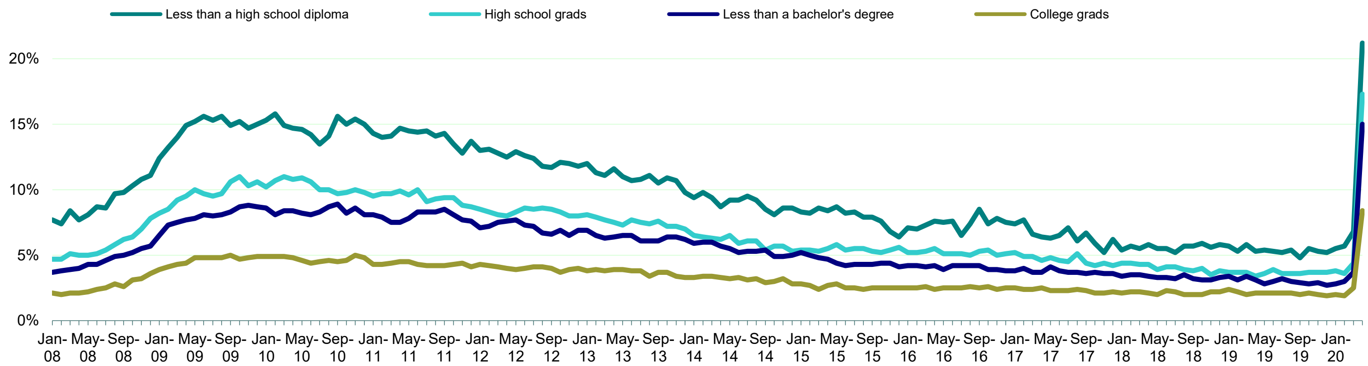
2020f is a forecast for fall 2020 based on low-, mid- and high rates for third quarter 2020 unemployment. FTE enrollment change for 2019 estimated based on full-time and part-time enrollment trend data from National Student Clearinghouse.

Sources: National Center for Education Statistics, National Student Clearinghouse and Moody's Investors Service

The current unemployment surge has substantially impacted people with all levels of educational attainment, though the increase is higher for those with less than a high school diploma (see Exhibit 2). Unemployment for those with a high school diploma was 17.3% in April, compared with 8.4% for those with a bachelor's degree or higher. The rise in unemployment for college graduates, although less severe than those with a high school diploma or less, could drive increased demand for graduate and professional programs. The perceived length of temporary layoffs and the soft labor market will likely play a role in that type of enrollment decision.

Exhibit 2

April 2020 unemployment spike hits all educational attainment levels, with the largest increase among those with less formal education
Seasonally adjusted US unemployment percentage by educational attainment



Source: US Bureau of Labor Statistics: Current Population Survey

While past relationships between unemployment and enrollment should hold for the 2020-21 academic year, the unprecedented aspects of the current public health crisis and economic dislocation include several factors that might upset those ties. Many of the currently unemployed have been furloughed or otherwise consider their employment status to be temporary. This temporary status might make unemployed adults less likely to enroll, especially in longer academic programs. In addition, the current unemployment environment has had an outsize impact on those with less formal education. While many of these newly unemployed may seek educational services, they may not choose to enroll in four-year programs but rather seek out other forms of credentialing.

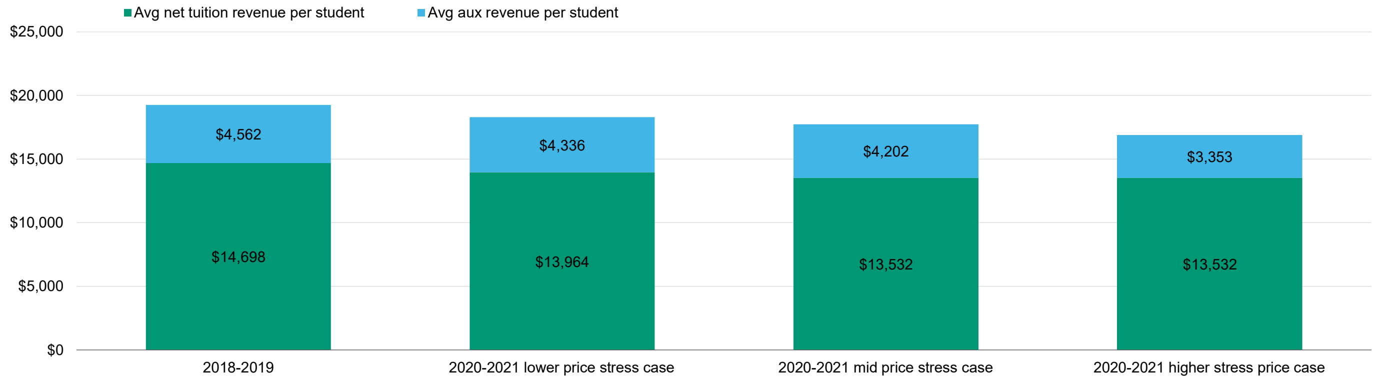
Further, sectorwide enrollment would likely decline if public health concerns intensify and limit on-campus options for students. Currently, most providers are planning to offer on-campus instruction in the fall although often with new protocols. Traditional-age students seeking a residential college experience and those without high-speed internet access or a conducive place to study at home are most likely to defer enrollment if the fall semester moves to online instruction only, which would offset potential enrollment gains for the sector.

Even if enrollment grows, net tuition and other student revenue will fall

Enrollment growth will not necessarily lead to increases in student revenue streams. Our low-, medium- and high-stress scenarios show that the combination of average net tuition and net auxiliary revenue per student in fiscal 2021 will drop by 5%, 8% and 13%, respectively (see Exhibit 3). A blend of varying degrees of student demand and affordability with the weakened economy as a backdrop will drive the drop-off in various revenue sources (see blue box).

Exhibit 3

Average net tuition and net auxiliary revenue per student under three scenarios show declines versus 2018-19 academic year



Source: Moody's Investors Service

A university's auxiliary revenue includes student housing and dining as well athletic revenue and a variety of services. Our high-stress case assumes a 25% reduction in net auxiliary revenue per student. The opening of the regional economy in differing states and localities will play a role in auxiliary and all student revenue performance.

Calculating declines in tuition and auxiliary revenue in 2020-21 versus 2018-19 year

While many colleges and universities faced pricing challenges before the economic downturn, the slowdown will accentuate the difficulty in boosting student revenue. Various levels of student charges, enrollment and changes in market share drive our projections for a combined decline in average net tuition and net auxiliary revenue per student in 2020-21 under low-stress (down 5%), mid-stress (8%) and high-stress (13%) scenarios (see Exhibit 4).

Factors include colleges and universities experiencing:

» students gravitating to lower-cost options including in-state and in-district public colleges

» loss in international student enrollment, a portion of the student body that often pays full price

» colleges competing on price by offering more financial aid, both need- and "merit-" based

» increased competition and changes to the National Association of College Admissions Counselors' (NACAC) standards complicating enrollment management efforts

» softened demand for or availability of auxiliary services such as student housing

Exhibit 4

Even with growing enrollment in low-stress and mid-stress scenarios, student revenue falls

Exhibit based on sectorwide data for Moody's-rated community colleges and not-for-profit four-year public and private universities

		2020-21 revenue declines versus 2018-19 under three scenarios		
	2018-19	Low-stress	Mid-stress	High-stress
Average net tuition revenue per student	$14,698	$13,964	$13,532	$13,532
Average net auxiliary revenue per student	$4,562	$4,336	$4,202	$3,353
Total enrollment		up 4%	up 4%	flat
Net tuition revenue change		down 3%	down 6%	down 6%
Net auxiliary revenue change		down 3%	down 6%	down 25%

Source: Moody's Investors Service

The loss of student revenue will exacerbate other revenue difficulties across the sector. State funding will likely decline for most, if not all, public universities. In addition, depending on consumer confidence and financial market volatility, philanthropy and endowment income could decline for both public and private universities. The combination of these revenue strains will lead to challenging business conditions across the sector, although the largest debt issuers are well positioned to absorb the macroeconic challenges.

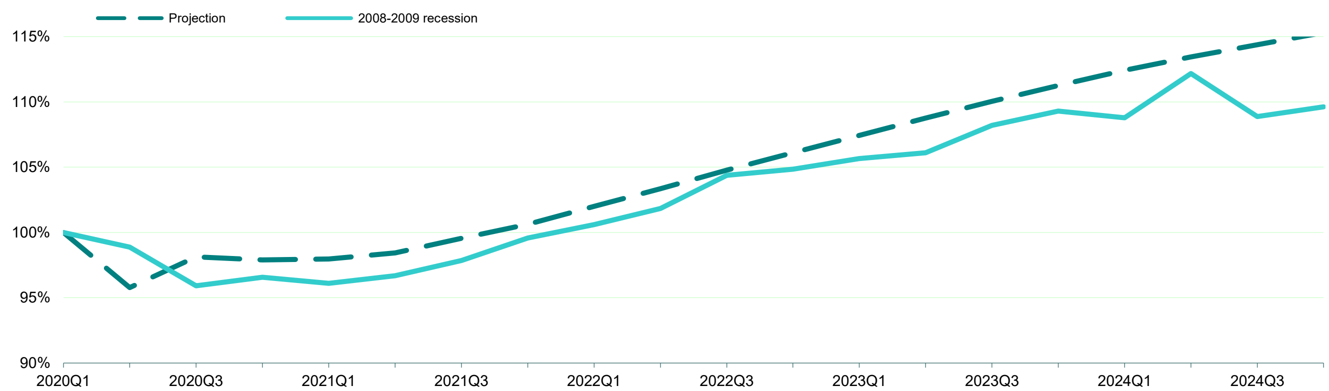
Drop in household income will lead to greater need for financial aid, fueling competition to attract students with pricing changes

Declining household income will translate into higher financial aid need and further limit the ability of some households to pay for higher education (see Exhibit 5). In response, some colleges are offering price incentives and increasing financial aid to compete for students. Students and families have been less willing to take out student loans despite falling interest rates, and the trend of reduced appetite for borrowing will likely only increase with unemployment up. Household income declines for some will be great enough that social considerations such as affordability of housing or food insecurity will deter some students from enrolling. While much of the focus is on the financial needs of entering students, the household income losses will also impact continuing students and drive increasing financial aid appeals.

Exhibit 5

Sharp drop in household income will constrain the higher education choices of students and their families

Average US household income indexed to pre-recession peak quarter



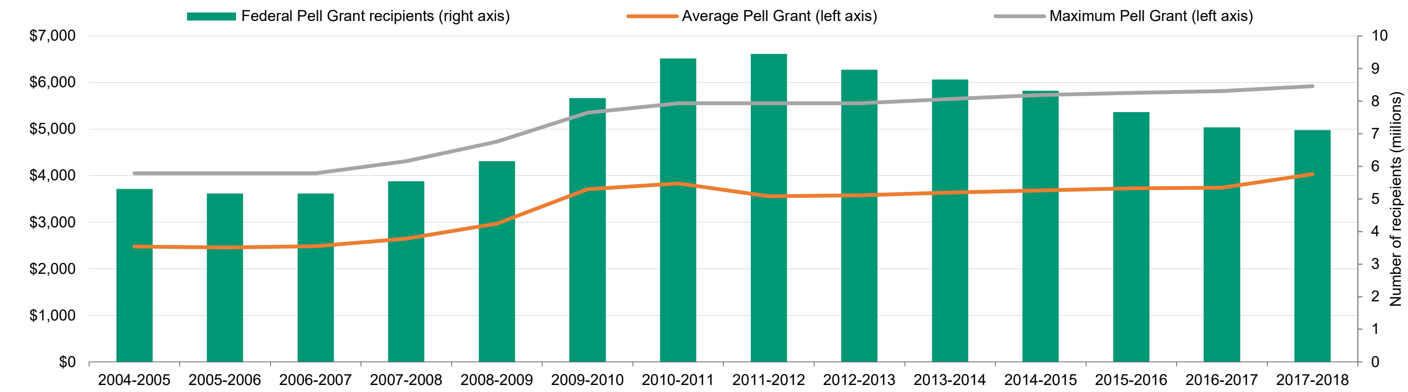
Source: Moody's Investors Service

There was ample evidence of students seeking lower costs even when unemployment was low and household incomes were rising. When comparing individual colleges and universities between fiscal years 2018 and 2019, for example, the median increase in the combination of average net tuition and net auxiliary revenue per student was 2%. However, about a quarter of colleges and universities saw a year-over-year decline, with the median drop for that group at 2%. For some universities, this continued a multiyear pattern of per student revenue softness contributing to fundamental and sustained financial difficulties.

In the last recession, universities were able to offset declines in other revenue streams, including state funding, by shifting costs to students. However, increases in net tuition revenue per student will be more difficult during the current recession. Unlike the 2008-09 recession, when there was a material step up in the Pell Grant maximum award, as shown in Exhibit 6, there are no signs of significant increases in federal financial support for students heading into the 2020-21 academic year. Pell Grants are need-based subsidies for US students that generally don't require repayment. The Coronavirus Aid, Relief and Economic Security (CARES) Act did provide some emergency financial aid funds for the 2020 academic year, increasing student retention prospects.

Exhibit 6

Increase in maximum Pell Grant award following 2008-09 recession supported the ability of consumers to fund their costs of attendance



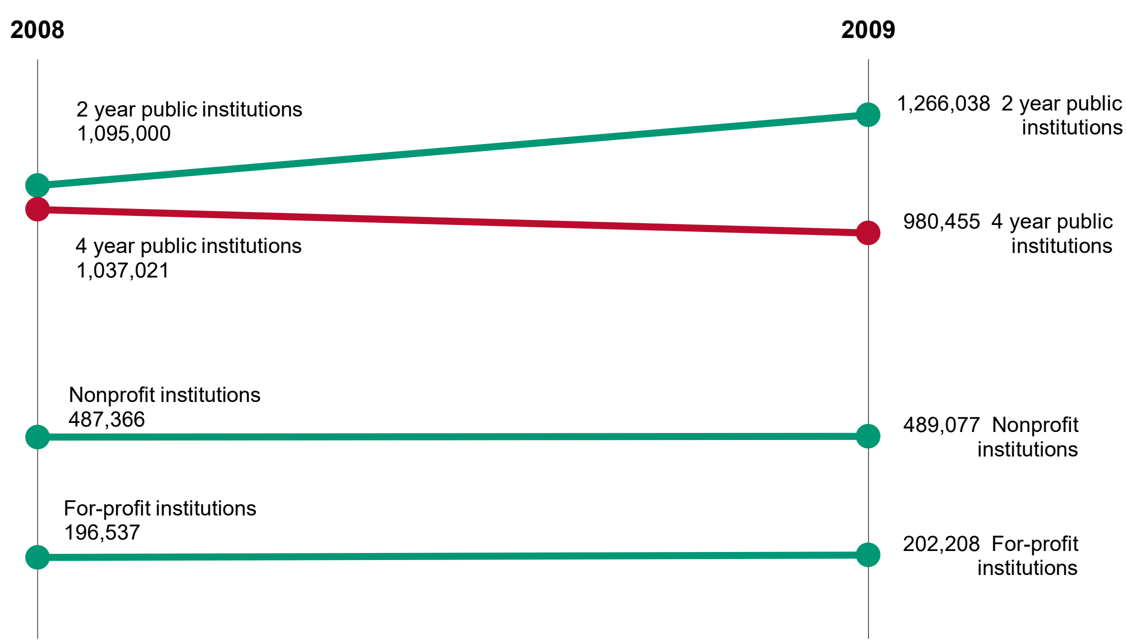
Source: US Department of Education

Market share shifts will favor lower-priced alternatives

The climate of increased unemployment and decreased household income strongly favors lower-priced providers, primarily community colleges along with some public universities whose state support allows for lower pricing (see Exhibit 7). These institutions should be able to gain market share, particularly in states that have historically exported a larger share of students if students choose to stay close to home because of the effects of the coronavirus. Higher-priced colleges and universities, both private colleges and public universities reliant on nonresident students, that have weaker brands will be at greater risk. In particular, universities with less recognized brands and lower returns on investment, as measured by low graduation rates and weaker post-graduation earnings relative to student debt, may be most exposed. In contrast, colleges with the strongest brands among higher-priced public and private universities will have relatively sound student demand and meet net tuition revenue goals.

Exhibit 7

During the 2008-09 recessionary period, first-time undergraduate students overwhelmingly pivoted to two-year public institutions



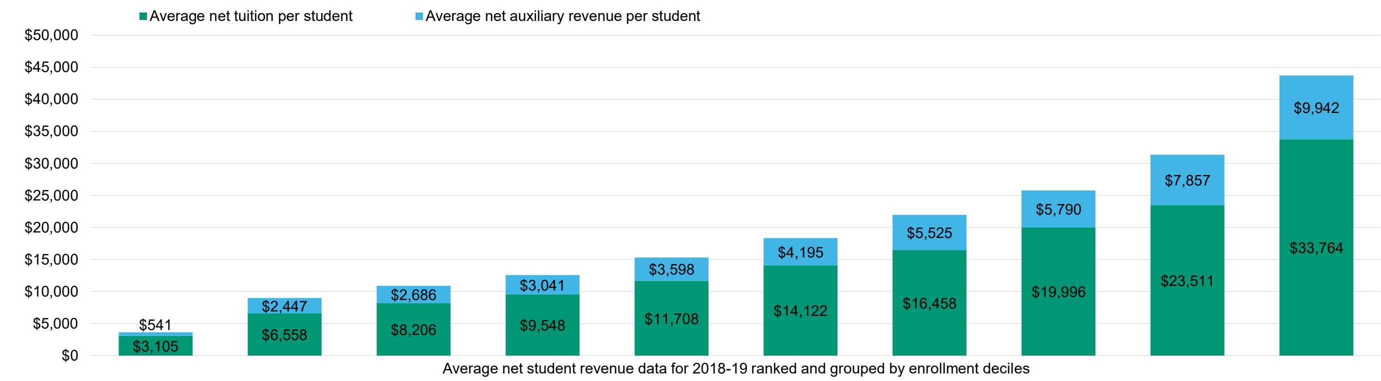
Source: National Center for Education Statistics, 2016 Digest of Education Statistics, Table 326.30

Lower-priced providers including community colleges are likely to gain enrollment and student revenue during the current economic downturn (see Exhibit 8). They have evolved in the last decade and are increasingly adept at serving the needs of a socioeconomically diverse student body. Many two-year public colleges have also gradually pivoted to offer additional degree programs, including four-year degrees and other credentials based on regional demand. The lowest-cost public institutions also include universities in states with above-average state funding, translating into a favorable value proposition.

Exhibit 8

Lower-cost options will grow market share as consumers become more price sensitive

Average net tuition and net auxiliary revenue for fiscal 2019 show segmentation by enrollment decile of US higher education



Moody's-rated community colleges and four-year not-for-profit and public universities
Source: Moody's Investors Service

Quality online and hybrid courses and degree programs will increasingly provide a competitive advantage for many universities serving students of both traditional and nontraditional age. Some of the enrollment gains will come from older students interested in pursuing online programs, and universities with effective marketing, stronger programs and competitive pricing stand to gain market share. While not universal, many two-year and four-year public institutions have invested in online programs and experience, scale and pricing should help fuel market share gains.

Moody's related publications

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» Higher education - US: Outlook shifts to negative as coronavirus outbreak increases downside risks, March 18, 2020

» Community colleges - US: Outlook stays stable as diversified revenue, operating model soften coronavirus impact, May 20, 2020

Sector In-Depth

» Higher Education - US - Federal aid provides modest support for universities coping with coronavirus, April 1, 2020

» Higher Education - Global - Coronavirus will lower student demand and increase costs for universities, April 7, 2020

Sector Comment

» Higher Education - US - Largest debt issuers are well positioned to weather coronavirus shocks, May 12, 2020

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Higher education – US

Largest debt issuers are well positioned to weather coronavirus shocks

Colleges and universities that have issued the bulk of sector debt are well positioned to withstand credit risks posed by the financial and operational shocks from the coronavirus crisis. In contrast, colleges facing more material credit risks, mainly smaller private universities and some regional public universities with operating deficits and thin liquidity before the crisis, account for a relatively small share of sector debt. While the entire sector faces difficult credit conditions, strength of governance and management will be a key determinant of credit quality in the turbulent operating environment (see blue box on page 2).

» **Universities and systems with the most debt outstanding are well positioned to maintain strong credit quality.** This group, both public and private, benefits from significant scale, widely recognized brands and strong reserves. Proactive management teams are engaging in regular contingency planning and analysis and will continue to adjust to a highly uncertain operating environment. About 40% of our rated institutions are Aaa or in the Aa category, with the group accounting for nearly 90% of debt.

» **Around 10% of colleges and universities will be more heavily exposed to substantial financial challenges related to the coronavirus**. This group generally includes regional public and small private institutions with enrollment strains, low liquidity and thin operating performance. They account for less than 3% of sector debt.

» **The remaining 50% of issuers have generally sound credit quality but will face varying degrees of stress.** This group accounts for about 10% of sectorwide debt. Colleges and universities in the group, usually with credit quality in the A- to mid-Baa range, are generally midsized institutions with regional brand names and moderate levels of wealth. Strength of management will be of heightened importance to credit quality as institutions face declining revenue and difficult decisions regarding personnel and programs.

Risks will increase considerably if campuses remain closed in the fall

Our assessment of credit risk in this report uses a base case that universities will resume classes in the fall. However, classes could be offered in a greater variety of formats in addition to the traditional on-campus experience. Also, start dates could be delayed. We have conducted stress tests with varying degrees of loss of both international and domestic enrollment, along with other revenue streams, including endowment income, state funding and philanthropy. Similar to prior recessionary periods, universities with stronger brands or a greater value proposition will likely confront less enrollment volatility, even if operations resume under modified formats. A more significant disruption in enrollment or sustained material investment losses would have a more severe credit impact across the sector.

Universities and systems with the most debt outstanding are well positioned to maintain strong credit quality

Universities with the largest amount of debt have strong credit quality (see Exhibit 1), benefitting from robust market positions and liquidity. These issuers are well positioned to manage through coronavirus-driven operational and financial disruptions, with generally strong management teams that will continue taking immediate action to reduce expenses in line with revenue disruption. As seen in Exhibit 1, about 70% of private university debt has been issued by universities in the top two rating categories. Similarly, over 85% of public university debt carries an Aaa or Aa-category rating. Only about 5% of universities with Aaa and Aa credit quality have negative outlooks.

Exhibit 1

Most higher education debt has been issued by institutions with strong credit quality

% of higher education debt by rating category

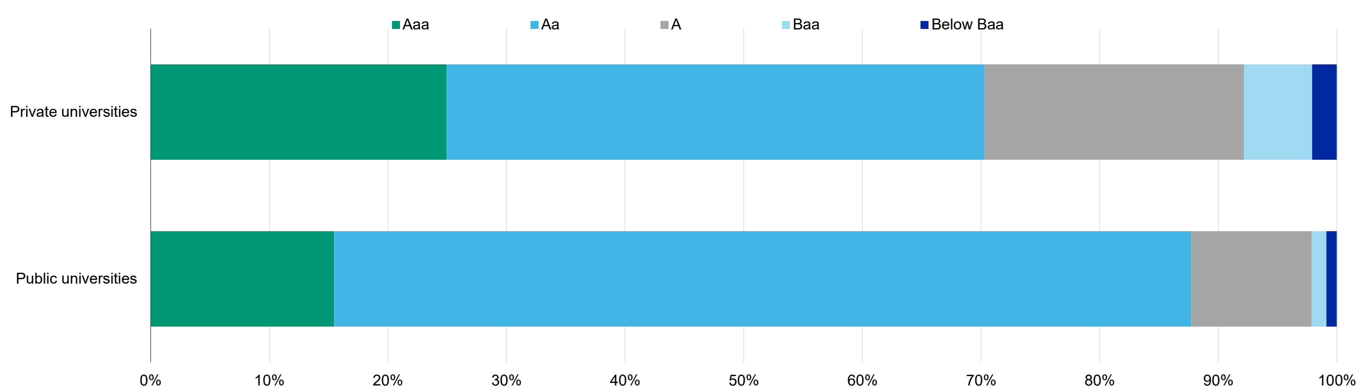


Exhibit covers approximately 465 four-year public and private colleges and universities that we rate with about $281 billion in debt.
Source: Moody's Investors Service

With often nationally recognized brands and broad market reach, these universities and systems will remain attractive to prospective students. While they may face some loss of revenue and shifts in enrollment patterns related to the coronavirus, they are unlikely to endure material or sustained enrollment drops. Some will benefit from an increase in graduate enrollment as students seek to increase their future employment prospects. State funding for many public universities will decline as states confront their own budget reductions.

However, both public and private universities with large amounts of debt typically have strong and proactive management teams that have engaged in contingency and scenario planning. This will enable many to be more strategic in their decision-making as they adjust operations and make measured use of reserves as needed.

Further, with their strong credit quality, the institutions with large amounts of debt will continue to have access to capital markets and benefit from strong relationships with financial institutions. Many are taking actions to bolster liquidity. While some are reducing capital spending, others are borrowing to lock in a low cost of capital for future capital plans.

About 15% of higher education issuers that we rate have over $1 billion of debt outstanding. These universities account for nearly two-thirds of the sector's over $280 billion in debt. Nearly all are rated Aaa or fall within the Aa category.

The 10 largest issuers account for almost one-third of debt in the higher education sector and are all rated Aa2 or higher (see Exhibit 2).

Exhibit 2
10 largest issuers account for over 30% of higher education debt

Issuer	Rating	Outlook	Type	Total FTE enrollment	Total debt (billions)
University of California, CA	Aa2	Positive	Public	268,900	$23.3
State University of New York, NY	Aa2	Stable	Public	204,912	$12.1
University of Texas System, TX	Aaa	Stable	Public	186,584	$10.5
New York University, NY	Aa2	Stable	Private	47,871	$7.5
California State University, CA	Aa2	Stable	Public	442,492	$6.6
Stanford University, CA	Aaa	Stable	Private	16,411	$6.5
City University of New York, NY	Aa2	Stable	Public	204,107	$5.6
Texas A&M University System, TX	Aaa	Stable	Public	141,939	$5.1
Harvard University, MA	Aaa	Stable	Private	20,262	$5.1
University of Chicago, IL	Aa2	Stable	Private	16,635	$4.8
Total					$87.2

FTE stands for full-time equivalent students. Total debt as of fiscal 2019.
Source: Moody's Investors Service

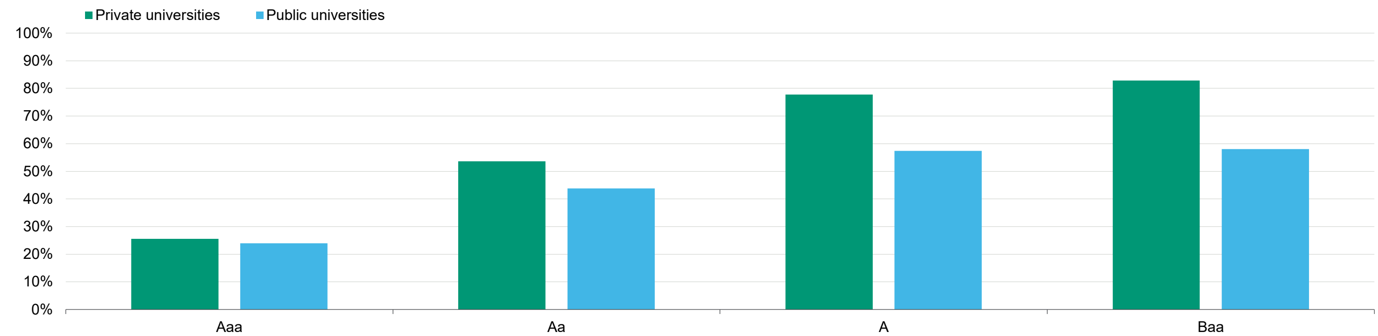
Around 10% of colleges and universities will be more heavily exposed to substantial financial challenges related to the coronavirus

Around 10% of our rated colleges and universities will face more material credit risks resulting from the coronavirus. These colleges have issued under 3% of sector debt. Colleges that fall within this subset typically have a combination of weak student demand, yet a high reliance on student-related revenue such as tuition and fees (see Exhibit 3); thin operating performance; and low liquidity. As a result, effective management is even more essential to sustaining financial stability as the coronavirus effects increasingly take hold. Many are small private colleges with limited wealth or regional public universities in states with weak demographic trends marked by fewer high school graduates. These institutions tend to have ratings in the lower range of the Baa category and below. Over a third of them currently have negative outlooks.

Exhibit 3

High reliance on student charges is a challenge for universities with weaker brands, often reflected in lower credit quality

Median % reliance on tuition and auxiliary revenue by rating category, fiscal year 2018



Auxiliary revenue includes a broad variety of sources such as housing, dining, parking and athletics.
Source: Moody's Investors Service

Even assuming fall 2020 operations return to near-normal, colleges and universities already facing competitive challenges will likely confront greater enrollment volatility and will increase financial aid to bolster enrollment prospects. Issuers with higher proportions of international students are also vulnerable to heightened enrollment declines and resulting revenue drop-offs. The most stressed public institutions typically serve students from a limited geographic area who are more likely to be highly price sensitive, limiting a university's ability to raise tuition. With already weak operating performance, they have highly constrained ability to adjust to potential state funding cuts. Historically, however, there have been no defaults on rated public university debt as states typically take some action, such as merging institutions or providing liquidity support, for the most stressed institutions.

In addition, while smoothed endowment spending policies mute the immediate impact of continued investment market volatility, institutions with already thin margins will experience a greater pinch from even a modest decline in endowment levels and gift support.

State and federal assistance, including the recently enacted Coronavirus Aid, Relief and Economic Security (CARES) Act, offers a potential partial offset to revenue declines for fiscal 2020 but at this time does not cover the impacts that will extend into fiscal 2021. The CARES Act provides greater support for universities with a larger share of Pell Grant-eligible students.

Remaining around 50% of issuers have generally sound credit quality but will face varying degrees of stress

While the remaining about half of our rated higher education issuers have solid credit quality in the A to mid-Baa range, they face differing levels of exposure related to the pandemic. Approximately 15% of these institutions have negative outlooks. Much of the group is well positioned to maintain investment-grade credit quality (see Exhibit 4) under stressed scenarios, with sufficient liquidity to withstand a modest decline in revenue over the short term. However, they all will likely need to make difficult decisions around people and programs to offset declining revenue.

Exhibit 4

Most higher education issuers will sustain investment-grade credit quality despite challenges from the coronavirus

Number of issuers by type and rating category

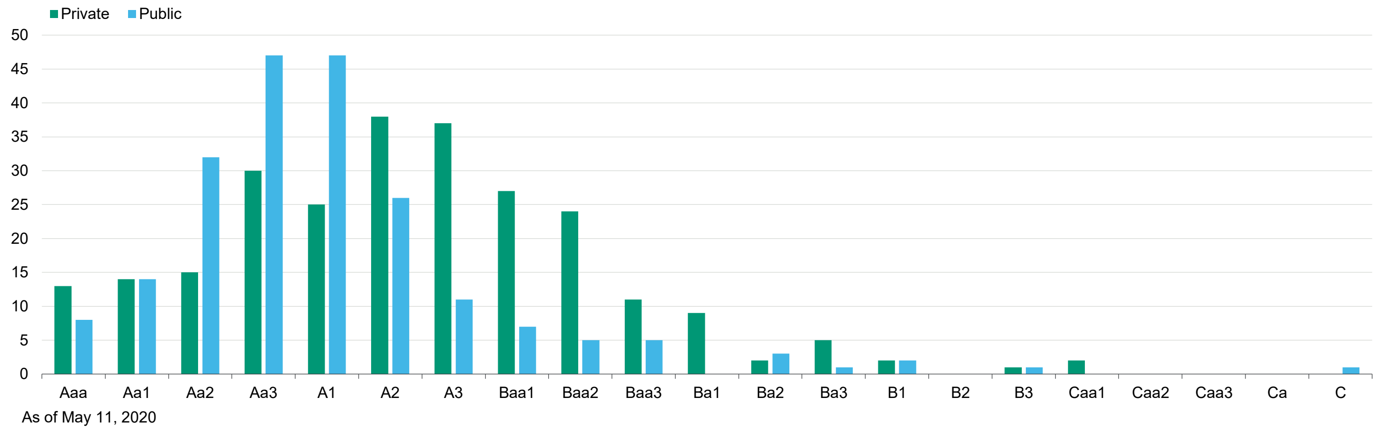


Exhibit covers approximately 465 four-year public and private colleges and universities that we rate.

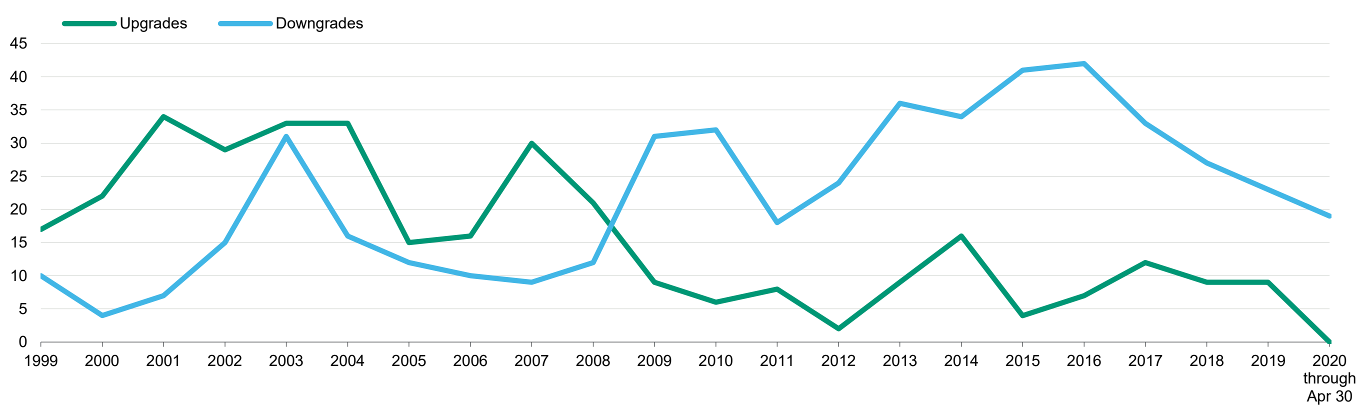
Source: Moody's Investors Service

Universities with the ability to demonstrate a more favorable return on investment, such as higher retention and graduation rates, and those able to differentiate themselves in a crowded market will fare better. Those with stronger governance and management, including a strategic approach to right sizing operations, will also be better positioned to sustain credit quality. Some may declare financial exigency as they seek to move quickly to adapt, and there will most likely be a rise in no-confidence votes of the president and governing board by faculty members. While these actions carry risk of negative headlines and can impact a brand, they may be positive indicators of governance and management's commitment to sustaining long term financial viability as they navigate turbulent times.

Overall, downgrades have exceeded upgrades since the last financial crisis (see Exhibit 5), reflecting preexisting difficult business conditions confronting parts of the sector.

Exhibit 5

Beginning in 2008, downgrades have outpaced upgrades, highlighting pre-coronavirus sector challenges



Source: Moody's Investors Service

Moody's related publications

Sector Profile

» Public Finance - US - Coronavirus effects: Credit drivers and rating consequences, May 1, 2020

Outlook

» Global Macro Outlook 2020-21 (April 2020 Update): Global recession is deepening rapidly as restrictions exact high economic cost, April 28, 2020

» Higher education – US: Outlook shifts to negative as coronavirus outbreak increases downside risks, March 18, 2020

Sector Comment

» Credit Conditions – Global: Coronavirus and oil price shocks: managing ratings in turbulent times, March 17, 2020

Sector In-Depth

» State government – US: Revenue recovery from coronavirus hit will lag GDP revival, prolonging budget woes, April 24, 2020

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

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MOODY'S INVESTORS SERVICE

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OUTLOOK
18 March 2020

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Higher education – US

Outlook shifts to negative as coronavirus outbreak increases downside risks

The outlook for the higher education sector is changing to negative from stable, reflecting both the immediate negative financial impact of the coronavirus outbreak as well as other significant downside risks. While the duration and full financial impact of the current crisis is unknown, universities' response to the outbreak will immediately reduce revenue and drive expenses higher. For fiscal 2021, universities face unprecedented enrollment uncertainty, risks to multiple revenue streams, and potential material erosion in their balance sheets.

» **Ability to respond to rapidly increasing downside risks varies widely across the sector.** The approximately 30% of universities with already weak operating performance will have greater difficulty adapting, with credit stress becoming much more material for approximately 5-10% of the sector under Moody's downside scenario. Inability to resume normal operations in the fall or material declines in enrollment would drive more severe financial stress across a much broader swathe of the sector. Universities with greater budgetary flexibility, due in part to sound operating cash flow and strong liquidity, will be better able to navigate these challenges. Universities differ in their capacity to shift to digital education platforms, underscoring the varying degrees of preparedness.

» **Coronavirus response will immediately hit revenues and drive expenses higher.** Operating performance will tighten across the sector as colleges shift to online educational delivery and incur other emergency preparedness costs.

» **Universities face multiple risks to revenue in 2021.** The sector faces disruption in enrollment patterns, state support, endowment income and philanthropy, and research grants and contracts.

» **Financial market disruption presents several immediate and longer-term challenges.** Disruption of the financial markets will hit both assets and liabilities. Significant investment losses will most immediately hit reserves, decreasing the buffer for responding to operating volatility. If sustained, market losses will also increase unfunded pension liabilities, with accompanying budgetary impacts.

» **What could change the outlook.** A sustained recovery in the financial markets, reversal of the projected economic slowdown in the latter part of the year, and stable enrollment for fall 2020 would contribute to a reversion to a stable outlook.

This outlook represents our forward-looking view on credit conditions in the sector over the next 12-18 months. This sectorwide outlook, however, does not imply the likelihood or direction of rating actions for individual issuers.

Our view of credit conditions for the higher education sector are informed by Moody's global macro outlook dated March 6, 2020. Our current baseline macro forecasts are based on two assumptions: (1) the disruption of economic activity in the first half of this year will be followed by some recovery in global factory production and consumer demand in the second half; and (2) warmer weather in the Northern Hemisphere in the spring and summer will weaken the spread of the virus. However, we will need to monitor both of these assumptions.

Several plausible developments could lead to a far more negative scenario. For example, if the infection rate increases even more rapidly and contagion lasts longer, driving sentiment ever lower, over time the demand shock is likely to dominate, potentially generating downward cyclical dynamics. Therefore, the risks to our baseline forecasts remain firmly to the downside. In particular, a sustained pullback in consumption, coupled with extended closures of businesses, would hurt earnings, drive layoffs and weigh on sentiment. Such conditions would ultimately feed self-sustaining recessionary dynamics. Heightened asset price volatility would also result, serving to magnify and transmit the shock across borders, including to emerging market countries.

As events unfold rapidly, there is a higher than usual degree of uncertainty around all macro economic forecasts. Therefore, in our analysis we are taking into consideration that there is a wider range of potential outcomes, including more severe downside scenarios, over the course of the year.

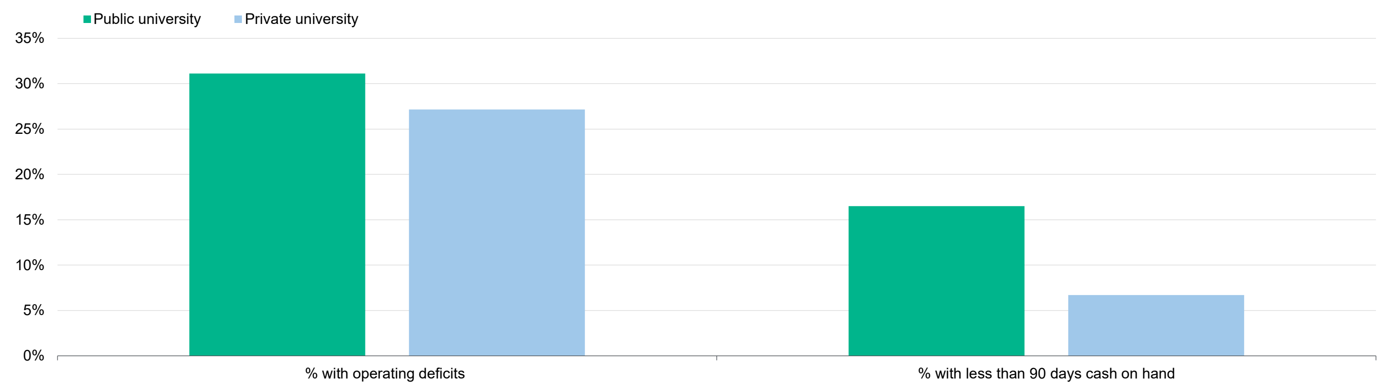
Ability to respond to rapidly increasing downside risks varies widely across the sector

Universities will differ in their ability to navigate the rapidly changing business conditions facing the higher education sector due to the coronavirus outbreak. Sectorwide results for fiscal 2020 will reflect a contraction in operating margins for most universities. Liquidity will decline at many institutions because of weaker operating performance and the current financial market instability. While the negative impact will be sectorwide, it will present a more significant financial challenge for those with already thin operating performance. As seen in Exhibit 1, just over 30% of public universities and nearly 30% of private universities were already running operating deficits. Universities with a combination of weak operating performance and low liquidity, 5-10% of Moody's rated universe, will face more critical credit stress under Moody's downside scenario. The worsening conditions will also challenge the rest of the sector, but a combination of reserves or operating cash flow strength will provide greater flexibility to respond.

Exhibit 1

Universities with thin operating performance and lower liquidity have less flexibility to respond to the outbreak

% of each sector with operating deficits or thin liquidity



Based on most recent available financial statements, fiscal 2019 for most, but fiscal 2018 in some cases

Source: Moody's Investors Service

If there is more material disruption in the fall, including an inability to resume classes or a significant enrollment decline, a greater proportion of the sector will confront more material financial distress. This could lead to some colleges declaring financial exigency. Financial exigency is a unique mechanism used rarely that allows colleges and universities facing severe financial difficulties to relatively swiftly address fixed costs, including tenure, related to the sector's rigid employment structure.

While public universities will face similar stresses to privates, those that are significantly struggling benefit from potential state support. For example, several small public universities in West Virginia have weak operating performance and liquidity. The West Virginia Higher Education Policy Commission (Aa3 stable) has identified some internal reserves that it can use to provide some liquidity relief, and is working with the universities and the state for additional contingency plans. Private universities do not have this layer of additional oversight, support or potential liquidity infusion.

Improvement in technology enables universities to respond in new ways

Technological innovation has provided universities with a greater set of tools to continue offering educational services in alternative formats, which helps to stabilize enrollment as universities quickly ramp up their response plans. The move to solely online delivery of coursework in recent weeks underscores the responsiveness of the higher education sector to health and safety risks for students, staff, faculty and patients (for universities with academic medical centers). Additionally, the federal government has been quick to alter its rules to enable online course delivery without impairing financial aid for domestic students or the eligibility for international students to continue their coursework.

Still, the sector faces a digital divide that highlights the differing levels of potential preparedness. Universities having already substantially invested in digital delivery capabilities stand to respond better than those that have not because of resource constraints or historically not viewing such channels as mission-critical. The digital divide also extends to student access to what have become practically essential services. For example, universities serving a larger low-income population face more difficulties moving coursework online because a higher proportion of students may not have access to access to high-speed internet service.

The crisis will undoubtedly spur colleges and universities to reexamine and further strengthen their emergency management plans and preparedness. Shifting to online-only delivery will also provide valuable insight into opportunities to offer more distance-learning classes, fostering the continued transformation of the sector over an extended period of time.

Coronavirus response will immediately reduce revenue and drive expenses higher

The ramp-up of online learning in response to the coronavirus outbreak will add a variety of additional costs to already constrained budgets. At the same time, universities are bearing other increased costs and loss of revenue associated with emergency management. These include cancellation of study-abroad programs, a loss of room-and-board revenue and cancellation of athletic events, such as the NCAA basketball tournament.

Cost savings from reduced travel and services across campus will offset some of the added expenses, but not all. Some universities have instituted hiring freezes and are looking at other immediate ways to contain expenses in order to preserve performance. Significant investment declines over the last several weeks combined with weaker operating performance are eroding unrestricted liquidity. Some universities have identified the potential for business interruption insurance reimbursement, but the actual ability to collect and time frame to do so is highly uncertain.

Auxiliary facilities and privatized student housing projects face specific business challenges

Differing types of auxiliary facilities, such as housing and dining systems, parking systems, and athletic systems will have immediate revenue declines. As students leave campus, some universities are pro rata refunding room and board. Reduction or discontinuation of in-person instruction and a move to work from home for faculty and staff will lead to a drop in parking revenues. The discontinuation of athletic events, including the cancellation of March Madness and associate revenues, will cause many athletic programs to operate at a deficit for the year. Some public universities issue revenue bonds that are more narrowly secured by these revenue streams. In some cases, pledged revenues on an annual basis may be insufficient to cover debt service for the year. Accumulated reserves would act as a mitigant to annual revenue shortfalls. Further, public universities have historically used internal loans or other mechanisms to support these systems if necessary, because of their integration with the parent, strategic importance, and strong credit links.

Privatized student housing credits are likely to be exposed to the impact of coronavirus. In the very short term, if the affiliated university closes the campus and students vacate the projects, they may be given refunds on a portion of their rental payments. For projects with adequate but not strong levels of debt service coverage this is likely to create a shortfall in funds available for payment of the upcoming debt service. Trustees would then need to draw on the debt service reserve fund to cover the shortfall impairing the credit going forward.

Looking past the spring semester, the impact on projects will depend on enrollment at the affiliated universities and whether there are declines in enrollment, resulting from the virus and changing economic conditions, that could impact occupancy. We will also be monitoring the construction status of projects scheduled to open in fall 2020.

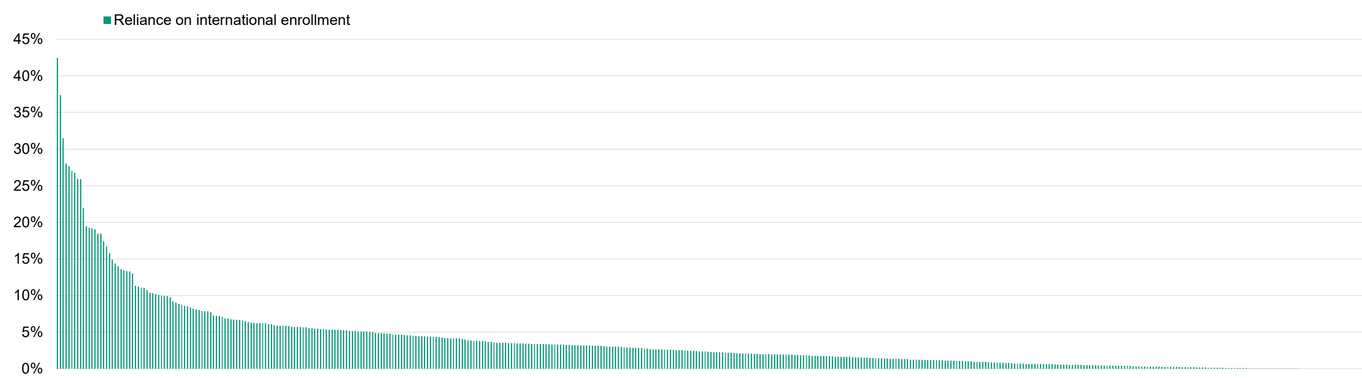
Universities face multiple risks to revenue in fiscal 2021

Downside risks will escalate in fiscal 2021, impacting multiple revenue streams. The sector faces the potential for disruption in enrollment patterns, state support, endowment income and philanthropy, and research grants and contracts.

Disruption of enrollment patterns among international students is a substantial credit risk even in Moody's base case macro scenario starting this fall (fiscal 2021). Enrollment has already been declining because of changes in immigration policy. Concerns around student health and safety, travel and other disruptions could further impair international student demand. International enrollment accounts for about 5% of total sector enrollment, as shown in Exhibit 2. Some universities have greater exposure to a decline in international students, with approximately 10% of Moody's-rated colleges garnering over 10% of their total revenue from this source. International students are an important revenue stream for many universities because they tend to pay full tuition.

Exhibit 2

International enrollment represents approximately 5% of total sector enrollment



Bars represent a significant sample set of Moody's rated universities

Source: IPEDS, Moody's Investors Service

Universities also face enrollment uncertainty in the base case macro scenario for domestic students because the coronavirus has interrupted aspects of this fall's admissions cycle. For example, some colleges are canceling or delaying events for accepted students, which will influence how many students enroll. Colleges with some vulnerabilities in student demand were already confronting potential volatility because of changes last year in the National Association for College Admissions Counseling code of ethics, which introduced the potential for additional late cycle competition.

Retention of existing students for the fall semester 2020 is an additional uncertainty for two reasons. First, many students are confronting significant disruptions in their personal lives and economic circumstances that may make it difficult for them to return to school. This would become even more exacerbated in Moody's downside macro scenario due to the duration of the disruption. Second, some students will struggle with the switch to the online format, which could negatively affect their ability to complete their coursework.

Uncertainty over the upcoming summer term will be an additional challenge for university budgets. While these terms typically enroll smaller numbers of students for most, some universities rely on tuition and room-and-board charges through the summer months. Additionally, many campuses use campus infrastructure for other revenue generating businesses during the summer.

As economic growth slows and risk of a recession rises, state funding for higher education could be at risk. State funding for public universities is often the first item to be cut when states face their own fiscal challenges. Further, the impact of the coronavirus could drive states to reallocate funding to other high-need impacted areas, such as healthcare, reducing available support for public higher education. Currently, state funding is, on the median, about a quarter of public university revenue.

Continuing volatility in the financial markets would drive a decline in endowment income available for operations. It would also drive a reduction in philanthropy, since gift revenue is correlated with both financial market performance and consumer confidence. This would be more negative for private universities, which have a greater reliance on endowment income and philanthropy, but also be a strain for public universities that have become increasingly reliant on gifts and endowment to support aid and capital projects.

For universities with significant research programs or academic medical centers, two other risks are rising. The coronavirus outbreak is interrupting research programs, with some activities halting and others being deferred. The impact could extend to fiscal 2021. Further, the financial performance of academic medical centers face a hit if optional procedures, which typically are reimbursed at higher rates, are deferred. Some of these hospitals also serve as safety net providers, with high Medicaid and indigent populations.

Financial market disruption presents several immediate and longer-term challenges

Disruption of the financial markets will hit both assets and liabilities. Significant investment losses will most immediately impact reserves, especially liquidity and spendable reserves. Since permanent endowments are meant to be held at the original gift value in perpetuity, the impact of investment losses will be magnified for more immediate reserves, as shown in Exhibit 3.

Exhibit 3
Investment losses have a magnified impact on spendable reserves

	Total cash & investments	Spendable cash & investments	Permanent endowment
Original	$500	$300	$200
With a 25% investment loss	$375	$175	$200
Operating expenses	$500		
Original spendable C&I to operating expenses	60%		
Spendable C&I to operating expenses after loss	35%		

Spendable cash and investments equals total cash and investments minus the permanent endowment
Source: Moody's Investors Service

Universities that issue short-term debt and rely on regular access to capital markets for rollover of commercial paper programs and other demand obligations may have greater difficulty placing this paper and are facing rising interest costs. Those that support this debt with their own liquidity are simultaneously face investment declines that has the potential to erode coverage of supported debt. However, most universities that rely on their own liquidity for demand obligations retain significant liquid assets.

As interest rates decline, some universities with interest rate swaps will see increasing liabilities and be required to post collateral, an additional threat to liquidity.

Additionally, sustained investment return losses would bring an increase in pension and OPEB obligations, leading in turn to near-term budget pressures as program expenses associated with the programs rise.

Some universities are issuing commercial paper, drawing on lines of credit, or adding lines of credit to bolster liquidity. Given market turbulence and unknowns about future access to liquidity, this is a credit positive action and underscores the tools available for many universities.

Some universities are already examining their forward capital plans. Despite a low interest rate environment, universities are likely to become more cautious about adding leverage or proceeding with projects that will add to their fixed cost base until the longer-term impact of the current crisis becomes clearer.

What could change the outlook

A sustained recovery in the financial markets, reversal of the projected economic slowdown in the latter part of the year, and stable enrollment for fall 2020 would contribute to a reversion to a stable outlook.

Universities with short-term or other demand debt face additional risks

The rapidly expanding coronavirus crisis presents material risks for municipal issuers' short-term debt portfolio. During market disruptions, similar to those that occurred during the global financial crisis and the September 2001 terrorist attacks, investors typically flee to the safety of US treasuries and related securities, sometimes at the expense of municipal bonds.

- In the near term, a decrease in demand for both long-term and short-term municipal bonds means that short-term debt in particular is susceptible to rapid increases in interest rates to maintain investor interest. Short-term debt susceptible to interest rate risk include variable rate demand bonds (VRBDs), floating rate notes (FRNs), bond anticipation notes (BANs) and commercial paper (CP). Daily reset rates of VRDBs spiked on Thursday and Friday, March 12-13, by nearly 100 basis points, to over 200 basis points.
- If tax-exempt money market fund balances decline, representing a decline in the demand for short-term municipal debt, this would lead to a failed remarketing of VRBDs, resulting in the bonds being put back to the issuer. If these bonds are bank-supported, the issuer will likely face a more onerous, but manageable, repayment schedule with the bank. If these bonds are backed by self-liquidity, issuers will need to have a well-managed treasury operation in order to liquidate the funds necessary to fund the put.
- Similarly, its is possible that BANs and CP, even those issued by highly rated municipal issuers, will find diminished market appetite, which presents rollover risks leading to higher interest costs or, in extreme cases, drains on internal liquidity.
- If the severity and duration of the crises worsens and there is a sustained decline in the demand for municipal bonds, banks may be unable or unwilling to extend credit or liquidity to municipal issuers, resulting in the need for refinancing away from lower short-term rates to higher long-term rates.
- Despite these risks, in most cases highly rated municipal issuers have management experience, liquidity buffers, and market access to address the most acute risks of a market disruption.
- The health of the banking sector, in contrast to 2008, can also help mitigate many risks associated with market disruptions. While there may be some tenders of VRBDs because investors are seeking cash, many of the tenders during the financial crisis occurred because investors were limiting their exposure to bank credit. Additionally, a stronger banking sector means that remarketing agents have greater capacity to hold VRDB inventory and are more able to continue to extend credit and liquidity support.

Moody's related publications

Credit Conditions – Global Coronavirus and oil price shocks: managing ratings in turbulent times, March 17, 2020

Global Macro Outlook 2020-21 (March 2020 Update) Coronavirus will hurt economic growth in many countries through first half of 2020, March 6, 2020

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Jason Glass named Kentucky's next education commissioner

By **Sky Carroll** - July 10, 2020

By Sky Carroll
sky.carroll@education.ky.gov

The Kentucky Board of Education (KBE) announced July 10 that Jason Glass will be Kentucky's next commissioner of education.

"Dr. Glass was identified by the board as our next commissioner following a very extensive and productive national search," said Lu Young, chair of the Kentucky Board of Education. "Throughout this process I have been overwhelmed by the integrity of the process and the quality of applicants for the position of commissioner.

"Dr. Glass's extensive experience, including having served as the chief state school officer in Iowa and as a school superintendent with urban, suburban and rural school communities, along with a strategic vision and a track record for moving a school transformation agenda at the state policy level combine to make him a great fit for the Commonwealth."

Glass has been serving as superintendent and chief learner for Jeffco Public Schools in the metro Denver area since 2017. Prior to that, he served as the superintendent of Eagle County Schools in Colorado and as Iowa's Director of Education, serving as the chief state school officer from 2010 to 2013.

He was previously the senior director of human capital strategy with Battelle for Kids and has held district leadership posts in human resources and research and assessment, worked as vice president of Quality Ratings with Qualistar Early Learning, held several posts with the Colorado Department of Education; and worked as a university instructor while a graduate student at the University of Kentucky, teaching at UK and Georgetown College. Glass began his teaching career as a high school social studies teacher for Hazard Independent Schools. In 2016, President Barack Obama nominated him to the National Board for Education Sciences.

On July 7, the KBE announced that it had selected a candidate to fill the position and would enter contract negotiations. Glass was one of three finalists interviewed for the position.

Young said since the final interview, she and Glass have been negotiating a contract she believes will be acceptable to the full board.

"I am circulating the contract I propose for adoption by the board and will ask to schedule a special called meeting for the purpose of adopting this contract, hopefully within the next week," she said.

Glass will assume the position currently held by Interim Education Commissioner Kevin C. Brown. Upon his hire, the board agreed to Brown's request that he would not be considered a candidate for the permanent position. Brown has been serving in the role since Dec. 18.

"My first action as governor was to overhaul the Kentucky Board of Education by reorganizing it with members who believe in our educators and our public schools – and today, after a national search, the board selected a new leader not based on politics, but on his vision for improving our public schools," said Gov. Andy Beshear. "We welcome Dr. Jason Glass, our state's new commissioner of education, back to Kentucky. Dr. Glass has deep roots in Kentucky education, and his years of public education experience in classrooms, as superintendent and state director of education will help ensure our children come first. Congratulations – now it's time to get to work."

As the leader of the Kentucky Department of Education (KDE), the commissioner oversees the Bluegrass State's K-12 school system and its 650,000 students, as well as acts as superintendent of the Kentucky School for the Blind, the Kentucky School for the Deaf and 53 area technology centers.

A native of Brandenburg, Ky., and a 1990 graduate of Meade County High School, he earned his doctorate in education leadership from Seton Hall University, a master's in political science, a master's in education and a bachelor's in political science and history, all from the University of Kentucky.

As a third generation Kentucky educator, Glass is thrilled to be back in his home state and excited for the future of Kentucky public education.

"I am so incredibly grateful to the board for this opportunity to serve the Commonwealth and I am excited to embark on this effort to improve the future for all of Kentucky's children," Glass said. "Kentucky has given so much to me in a quality public education experience – the opportunity for a world-class university experience and a start to my professional career in the state. My wife Sarah and I look forward to relocating to the Bluegrass State and to our children growing up and going to public school in Kentucky."

Glass is anticipated to begin his new role as Kentucky's chief state school officer in September.

MORE INFO …

- Kentucky Teacher profile: "Kentucky's newest commissioner found his calling, and his family, in education"
- Commissioner Candidate Profile – Dr. Jason Glass
- PDF | Dr Jason Glass resume/CV
- Kentucky's 2020 Commissioner of Education search website

Sky Carroll

TITLE: Report from the Academic and Strategic Initiatives Committee

DESCRIPTION: The following is a summary of the Committee's meeting on August 18, 2020.

PRESENTER: Lori Harper, Chair of Academic & Strategic Initiatives Committee

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The Academic and Strategic Initiatives Committee met on August 18, 2020. The following is a summary of that meeting.

Action items - reviewed and being recommended for approval by the Council on September 15, 2020:

- Reviewed four proposed new academic programs.
- Reviewed proposed changes to the policy for approval of New Academic Programs.

Agency Updates, Reports and Discussion Items

- Update of the fall 2020 campus reopening plans as of mid-August 2020, including the planning efforts made in partnership with CPE, the priorities of the institutions, and a review of the guidance that served as the bases for those plans.
- Update on CPE's research agenda for 2020-21 and the reports expected to release in the coming months.
- Introduction to the CPE Student Advisory Group members and what the group plans to accomplish in the next year.
- Introduction to Amanda Ellis, CPE's Associate Vice President of P-20 Policy and Programs.
- Presentation and update from Gray's Associates on the Academic Program Review project.

The supporting materials and YouTube replay link can be found on the Council Meetings Records Archive webpage at: http://cpe.ky.gov/aboutus/records/index.html.

TITLE: Proposed New Academic Programs

RECOMMENDATION: The Academic & Strategic Initiatives Committee recommends the Council approve the proposed New Academic Programs from Northern Kentucky University, the University of Kentucky and Murray State University.

PRESENTER: Lori Harper, Chair of Academic & Strategic Initiatives Committee

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COMMITTEE REVIEW & APPROVAL

The Academic & Strategic Initiatives Committee reviewed the proposed new academic programs and approved them on August 18, 2020.

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions.

In addition to the Committee's recommendation, Council staff have reviewed the proposed programs and recommend approval by the board. The university-submitted documentation has been included in your agenda packets for review.

PROGRAMS PROPOSED FOR APPROVAL

<u>Northern Kentucky University</u>

- Applied Software Engineering (B.S.) CIP Code 11.0899
- Doctor of Occupational Therapy (OTD) CIP Code 51.2306

<u>University of Kentucky</u>

- Health Services Research (Ph.D.) CIP Code 51.2299

<u>Murray State University</u>

- Agriculture Education (EDS) CIP Code 13.1301

PROPOSED PROGRAM SUMMARY

Institution: **Northern Kentucky University**
Program Name: Bachelor Degree in Applied Software Engineering Degree

Program Description: Provide students with a solid foundation in programming, user experience, software design and development as well as software security. The ASE degree will educate and train the student for jobs in full-stack development, mobile apps and web applications. They would be qualified for a majority of open software development positions.

CIP Code: **11.0899**
Credit Hours: **120**
(Tentative) Institutional Board Approval Date: January 2020
Implementation Date: **August, 2020**

Student Demand

Perhaps 20 students/year early on but the expectation is that the program will grow once it becomes more well-known and graduates earn employment positions. Additionally, we expect early on that students may not know which of the programs (BA ASW or BS CS) to enter. Advising should prepare students but some students may still select a program for which they are not suited. For these reasons, the enrollment of new majors for the first five years is expected as follows: 5, 20, 40, 60 and 75 majors.

Market Demand

This program will not replace any other program. The program will provide students with a degree that will educate and train the student for jobs in full-stack development, mobile apps and web applications. They would be qualified for a majority of open software development positions.

Employer Demand:

	Regional	State	National	Growth Projections
Type of Job		Software Developers, Applications	Software Developers	
Average Wage		$80,322	$103,560	
# of Openings		1700 (by 2026)	+302,500	24% job growth
Type of Job		Computer Programmers	Computer Programmers	
Average Wage		$73,548	$82,240	
# of Openings		-130 (by 2026)	-21,300	-7% (decline)
Type of Job		Web Developers	Web Developers	
Average Wage		$58,095	$67,990	
# of Openings		+200 (by 2026)	+24,400	15%
Type of Job	Computer & Mathematical Sciences	Computer Occupations, Other	Computer Occupations, Other	

Average Wage	$68,010	$80,231	$88,510	
# of Openings	+6,600 (by 2020)	+300 (by 2026)	No info	No info
Type of Job				
Average Wage				
# of Openings				

Academic Demand

This program is designed for students to enter the workforce immediately after graduation.

Unnecessary Duplication

Similar Programs	Comparison of Objectives/Focus/ Curriculum to Similar Programs	Comparison of Student Populations	Access to/Demand for Existing Programs	Feedback from Other Institutions
Program 1: Computer Science (NKU, UC, XU, UL, UK, etc)	As noted in #1, a BS in CS prepares students to be computer scientists, which overlaps software developers. The areas of education are similar in that they both provide a foundation in programming. They diverge in many ways though with a BS in CS providing a foundation in computation (mathematics, theoretical issues in computing, detail on the underlying structure and function of computer components, underlying structure and function of the operating system) while the proposed BA in ASE provides a foundation in large and small software projects including a thorough examination of current platforms and tools, and user interfaces.	There are no applied software engineering programs in the region.	The BS in CS at NKU currently enrolls 273 undergraduate majors. The graduation rate of students attempting Calculus, MAT 129, was 25% according to EAB (Our Enrollment Management).	N/A
Program 2: BS in Information Technology – Software Application Development	The BS in IT at UC is similar to the BS in CIT at NKU, featuring courses in computer networks, system administration, server administration and computer security. This degree at UC has an application	N/A	N/A	N/A

Concentration (UC)	development concentration which provides a greater foundation in programming. However, like a software development degree or a programming bootcamp, it does not provide a solid foundation in algorithms, development tools or platforms.			
Program 3				

Comparison of Objectives/Focus/Curriculum to Similar Programs:
There are no applied software engineering programs in Kentucky or Greater Cincinnati. See the above table for a comparison of programs that have overlapping content.

Comparison of Student Populations*:* N/A

Access to Existing Programs:
There is no existing program for Applied Software Engineering. The Bachelor in Computer Science produces Software Developers, however we argue that the breadth of the Applied CS degree will meet the business need.

Feedback from Other Institutions: N/A

Cost

Projected Revenue over Next Five Years	$9,000,000
Projected Expenses over Next Five Years	$600,000

Will additional faculty be needed?

The additional faculty member is needed for teaching classes to help professionalize our students for earlier work experiences, working with students to find internships and co-op positions, and working with area companies to ensure quality experiences for the students and companies.

Provide a budgetary rationale for creating this new program:

It is anticipated that this program will draw new students to NKU (20 in year 1, 50 in year 2 and 100 thereafter). These will be students that choose to come to NKU due to this degree. It is anticipated that the program may also draw upon students who would have entered one of the other tech-related degree programs at NKU such as the BS in CS, the BS in CIT, or the BS in Media Informatics (MIN). Therefore, we anticipate the enrollment will be higher than 100 per year after year 2.

One hundred new students equate to approximately $1 million in tuition, and the program will 'cost' NKU only one new position created especially for this degree. The new position is needed because we want our ASE degree students to have expanded internships, co-ops, job shadowing opportunities over their 4-year academic studies. This type of support requires building of business relationships for student support, significant organization and oversite beyond what is provided now in our technology degrees. Further, the university is investing heavily in the Department of Computer Science by providing the department several new faculty lines, starting in the fall of 2019. It is expected that some of these faculty will be able to contribute to the ASE program. Several existing courses in computer science, media informatics and other disciplines, will be used as required courses in this program. Additionally, existing courses from the BS in CIT, the BS in CS, and the BS in MIN, will be elective courses for this program. Courses created for this degree will be available for electives in our other technology degrees (CIT, CSC, Information Systems, Media Informatics).

PROPOSED PROGRAM SUMMARY

Institution: **Northern Kentucky University**
Program Name: Doctor of Occupational Therapy (OTD)

Program Description:

The entry level Doctor of Occupational Therapy (OTD) curriculum integrates foundational knowledge, basic theoretical constructs and perspectives, and technical skills development for implementing the Occupational Therapy Process with a focus on systems and settings that represent contemporary and emerging Occupational Therapy practice. The curriculum is designed to prepare students to become evidence-based practitioners in the Evaluation, Intervention, and Outcomes stages of the Occupational Therapy Process for individuals, families, organizations, and communities across geographic locations and cultural settings.

CIP Code: **51.2306**
Credit Hours: **117**
Institutional Board Approval Date: **May 13, 2020**
Implementation Date: **August 1, 2021**

Student Demand

Expected enrollment over the first five years of the program will be about 20 new students per year until the 5 year when we expect it to increase to 24 students. The total expected enrollment during the first five years will be 84, which will be as follows for year 1-5 respectively, 0 – 20 – 40 – 60 – 84. We expect to graduate 20 in the 5th year.

The demand for occupational therapy education is growing. The American Occupational Therapy Association's 2017-2018 Annual Report identified there were 46523 applicants for 8029 student admissions slots into Occupational Therapy programs in 2017. Only 17% of applicants were admitted into occupational therapy programs. Of the 8029 students admitted in 2017, only 702 were admitted into entry-level doctor of occupational therapy programs.

Market Demand

The demand for Occupational Therapist in the United States is growing faster than supply of graduates from occupational therapy programs.

The United States Bureau of Labor Statistics identified Occupational Therapist's Job Outlook for 2016-2026 as having a projected much faster than average growth (24%) in the number of jobs.

The Kentucky Center for Education and Workforce Statistics reported Occupational Therapy is in the Top 25 Fastest Growing Northern Kentucky Local Workforce Area Occupations for 2014-2024. Occupational Therapists Ranked # 6 with a projected 39% growth in jobs.

Students wanting a career as an occupational therapists can choose either an entry-level Masters or an entry-level Doctor of Occupational Therapy Program. In 2017 the American Occupational Therapy Association's Board of Directors voted and in 2018 the Accreditation Council of Occupational Therapy Education voted to support the mandate that all occupational therapy educational programs should transition to the doctorate level within 10 years.

The demand for occupational therapy education is growing. The American Occupational Therapy Association's 2017-2018 Annual Report identified there were 46523 applicants for 8029 student admissions slots into Occupational Therapy programs in 2017. Only 17% of applicants were admitted into occupational therapy programs. Of the 8029 students admitted in 2017, only 702 were admitted into entry-level doctor of occupational therapy programs.

Employer Demand:

	Regional	State	National	Growth Projections
Type of Job	Occupational Therapist – Northern Kentucky/Cincinnati	Occupational Therapist – Kentucky	Occupational Therapist – USA	
Average Wage	$87,172	$81,122	$83,200	
# of Openings	273 for Greater Northern Kentucky/Cincinnati Region	1,352 for Kentucky (2016-2026 Kentucky Center for Statistics)	31,000	40% Regional 23% State 24% National

Academic Demand

The proposed program is an entry-level degree designed to prepare graduates to work as Registered Occupational Therapists. The Graduates must complete their education from an educational program accredited by the Accreditation Council for Occupational Therapy Education and pass the National Board for Certification in Occupational Therapy.

The demand for occupational therapy education is growing. The American Occupational Therapy Association's 2017-2018 Annual Report identified there were 46523 applicants for 8029 student admissions slots into Occupational Therapy programs in 2017. Only 17% of applicants were admitted into occupational therapy programs. Of the 8029 students admitted in 2017, only 702 were admitted into entry-level doctor of occupational therapy programs.

Unnecessary Duplication

Comparison of Objectives/Focus/Curriculum to Similar Programs:
Eastern Kentucky University notified NKU they were transitioning from an entry-level Masters of Occupational Therapy program to an Entry-Level Occupational Doctorate Program in June 2019.

Comparison of Student Populations*:*
Northern Kentucky University serves the Greater Cincinnati region and Eastern Kentucky University is located over 100 miles from Northern Kentucky University

Access to Existing Programs: Eastern Kentucky University is located over 100 miles from Northern Kentucky University. EKU reported in 2019 between 90 and 110 qualified applicants for their entry-level occupational therapy programs were not admitted.

Feedback from Other Institutions: NKU emailed EKU regarding applicant and admission totals for their entry-level occupational therapy programs. EKU receives 80 to 90 applicants for the 20 to 25 slots in the BS to MOT program and 80 to 90 applicants for the 50-55 slots in the Freshman to MOT program.

COST

Projected Revenue over Next Five Years	$5,020,980
Projected Expenses over Next Five Years	$4,546,317

Will additional faculty be needed
Yes, full-time faculty who are licensed as occupational therapists and have doctoral degrees are needed. The new tuition revenue will cover the expenses associated with the new faculty.

Provide a budgetary rationale for creating this new program:
This program will be sustained through tuition income and generate additional funds from operations for the college. The College of Health Professions and Northern Kentucky University will fund the startup costs until sufficient tuition revenue is received to cover expenses.

PROPOSED PROGRAM SUMMARY

Instituion: University of Kentucky
Program Name: Health Services Research
Degree Designation: DOCTOR OF PHILOSOPHY (PHD)
Degree Level : Doctor's Degree Research/Scholarship

Program Description

The National Academy of Medicine defines Health Services Research (HSR) as "the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviors affect access to health care and the quality and cost of health care." The proposed Ph.D. in HSR program will provide students with the theoretical and methodological foundations necessary to conduct creative and independent research on these issues with the ultimate goal of identifying evidence-based policy and management pathways to improve health care access, quality, and costs. The curriculum is designed for students to complete coursework in 4 core areas (1. Health Services Research Theory, Concepts, and Methods; 2. Research Methods; 3. a Disciplinary Concentration; 4. Directed Research in a Substantive Area) as well as an Elective Course, a Grant Writing Course, and a Dissertation. The Health Services Research Theory, Concepts, and Methods core will provide students with a firm understanding of the structure, dynamics, and performance of health services systems, including the institutions, professionals, and policies that comprise these systems and influence access, quality, and costs. The Research Methods core will provide students with critical skills in the design of observational studies and applied statistical analysis. The Disciplinary Concentration will provide students with further specialized knowledge and skills in either health economics or health outcomes. Directed Research will require students to engage in major components of the research process in a substantive area such as health insurance markets, value-based purchasing, rural health, and substance abuse. Lastly, students will complete a course devoted to developing grant writing skills and will complete a dissertation.

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

No

CIP Code: 51.2299
Credit Hours: 54
Institutional Board Approval Date: 5/5/2020
Implementation Date: 8/16/2020

Student Demand

Year 1 - 2
Year 2 - 4
Year 3 - 6

Year 4 - 6
Year 5 - 6

Market Demand
A 2018 article by Frogner, "Update of the Stock and Supply of Health Services Researchers in the United States" in the journal entitled Health Services Research provided statistics on the growth in health services researchers from 2007 to 2015. According to this article, the estimated range in the mean annual growth rate for health services researchers falls was between 2.9 and 4.7 percent from 2007 to 2015. The author points out that the National Research Council Committee to Study the National Needs for Biomedical, Behavioral, and Clinical Research Personnel recommends that growth in the number of health services researchers be similar to annual growth in national health expenditures, which were within the range of growth for health services researchers from 2007 to 2015.

A recent peer-reviewed article by Brown et al. (2018), "Employment Trends among Public Health Doctoral Recipients, 2003-2015," published in the American Journal of Public Health provides information about employment status outcomes related to health services research. Based on analyses of the National Science Foundation's Survey of Earned Doctorates, the authors found 77.3% of graduates of public health doctoral programs with a concentration in health services administration had secured or were negotiating employment.

Several recent graduates of the DrPH in Health Management and Policy program at the University of Kentucky, including alumni now working in research positions for the federal government, have shared with us that they would have preferred a PhD in Health Services Research because it would have better prepared them for their careers.

Employment Demand

	Regional	State	National
Type Of Job	**Business teachers, Postsecondary (health policy, health management, health administration, health se**		
Avg. Wage	$0	$0	$103,330
# Jobs (Postings)	0	0	8
Expected Growth	0%	0%	12%
Type Of Job	**Health Specialties Teacher, Postsecondary (health policy, health management, health administration,**		
Avg. Wage	$0	$0	$103,330
# Jobs (Postings)	0	0	8
Expected Growth	0%	0%	26%
Type Of Job	**Managers, All other, Industry: Insurance carriers (Industry: Insurance carriers; HealthCare & Social**		
Avg. Wage	$90,401	$84,952	$89,845
# Jobs (Postings)	105	74	4750
Expected Growth	9%	9%	8%
Type Of Job	**Medical and Health Services Managers, (Industry: Insurance carriers; HealthCare & Social Assistances**		
Avg. Wage	$116,977	$126,214	$122,351
# Jobs (Postings)	257	148	17085
Expected Growth	19%	19%	21%
Type Of Job	**Postsecondary Teachers, All other (health policy, health management, health administration, health s**		
Avg. Wage	$50,500	$50,500	$80,159
# Jobs (Postings)	6	3	106
Expected Growth	9%	9%	7%
Type Of Job	**Teachers and Instructors, All other ((health policy, health management, health administration, healt**		
Avg. Wage	$0	$0	$76,381
# Jobs (Postings)	2	2	15
Expected Growth	10%	9%	9%

Indicate source of market demand information
Projections are from 2016-2026 and are from Bureau of Labor Statistics, 2018; Average salaries and job postings are from Burning Glass and represent job postings in the last 12 months. BLS/OES data was used when actual job posting data was unavailable.

Academic Demand
NA

Unneccessary Duplication N/A
Similar Program(s):

Cost

Projected Revenue over Next Five Years ($) : 1638407
Projected Expenses over Next Five Years ($) : 1638407

Will Additional faculty be needed? No

Provide a budgetary rationale for creating this new program
Implementation of the program will require a very minimal investment that is far outweighed by demand for health services researchers in the state, region, and nation. Graduates of the program will conduct timely research that will contribute to improvements in health care access, quality, and costs as well as overall population health in the state, region, and nation.

PROPOSED PROGRAM SUMMARY

Instituion: Murray State University
Program Name: Agricultural Education
Degree Designation: EDUCATION SPECIALIST (EDS)
Degree Level : Specialist

<u>Program Description</u>

The Hutson School of Agriculture plans to offer an Educational Specialist degree in Agriculture Education, which allows students to pursue advanced course work in agriculture education above the master's degree level that will seamlessly transition into the EdD in P-20 Leadership, Agricultural Leadership Option. The EdS program will include 30 credit hours of coursework above the master's level. All courses for the proposed program are currently offered. The following courses are required for successful completion of the degree:

ADM 900 – Clinical Practice I: P-20 Leadership
ADM 910 – Clinical Practice II: P-20 Leadership
AGR 627 – Modern Issues in Agricultural Leadership
AGR 720 – Statistical Analysis and Design
AED 735 – Qualitative Inquiry in Agricultural Education
AED 900 – Trends and Advocacy in Agricultural Education
AED 910 – Agriculture Education Stewardship in Practice
AED 920 – Seminar in Agricultural Education Leadership
AED 930 – Training and Presentation Development Strategies for Agricultural Audiences
AED 940 – Agricultural Education Supervision in Practice

Will this program replace or enhance any existing programs(s) or tracks, concentrations, or specializations within an existing program? If yes, please specify

This program will not replace existing programs. The program will enhance the EdD in P-20 Leadership, Agricultural Leadership Option, by allowing students to earn an additional, valuable credential prior to completing their doctoral degree.

CIP Code: 13.1301
Credit Hours: 30
Institutional Board Approval Date: 6/5/2020
Implementation Date: 8/3/2020

<u>Student Demand</u>

Year 1 - 10
Year 2 - 20
Year 3 - 25
Year 4 - 30
Year 5 - 35

Market Demand

Many states award certification upgrades for completing an EdS degree for secondary high school teachers. The use of distance education has allowed Murray State to deliver graduate course work to agriculture teachers across the country and the number of enrolled students continues to increase each semester. We currently provide a master's degree as well as an EdD in Agricultural Leadership in conjunction with the College of Education and Human Services. The addition of the EdS will allow our students to obtain another credential between the master's level and the doctoral. While there are over 11,000 secondary agriculture teachers in the US, there are very few programs of this nature in the country and none that are available online.

Employment Demand

	Regional	State	National
Type Of Job	**Agricultural Sciences Teachers, Postsecondary (Regional data are not available; estimates provided)**		
Avg. Wage	$76,000	$79,130	$90,890
# Jobs (Postings)	30	110	10810
Expected Growth	6%	6%	11%
Type Of Job	**Career and Technical Education Teachers**		
Avg. Wage	$51,220	$57,490	$56,750
# Jobs (Postings)	30	180	214000
Expected Growth	4%	4%	0%
Type Of Job	**High School Teachers**		
Avg. Wage	$52,990	$56,200	$60,320
# Jobs (Postings)	1190	12250	1072500
Expected Growth	6%	6%	4%

Indicate source of market demand information

Bureau of Labor Statistics' Occupational Outlook Handbook 2019 was used for regional, state, and national salary data, as well as national growth projections. Kentucky Center for Statistics' Kentucky Occupational Outlook to 2026 was used for state job growth projections.

Academic Demand

As stated above, this degree is designed for in-service for the population of over 11,000 secondary agriculture teachers in the country.

Unneccessary Duplication

Similar Program(s): N/A

Comparison of Objectives/Focus/Curriculum to Similar Programs:
According to CPE's program inventory data portal, there are no active EdS in Agricultural Education programs at Kentucky public institutions.

Comparison of Student Populations: N/A

Access to Existing Programs:
The proposed program is available completely online, allowing access to students in the region, state, and nation.

Feedback from Other Institutions: N/A

Cost

Projected Revenue over Next Five Years ($) : 1175040
Projected Expenses over Next Five Years ($) : 100000

Will Additional faculty be needed? Yes
No additional faculty will be needed.

Provide a budgetary rationale for creating this new program
This program is both efficient and effective because it doesn't require any additional faculty lines and uses course work that is already in place. This will simply provide an added credential for agricultural educators. The master's degree in agricultural education prepares the student to transition directly into the EdS. Completion of the EdS will allow agriculture teachers to transition seamlessly into the EdD in p-12 Leadership with the Agricultural Education Leadership option. This program will be taught by current faculty and will only positively affect other programs as mentioned above.
The projected revenue (above) includes online tuition ($544/credit hour) for the estimated number of students each year, assuming each student enrolls for a total of 18 credit hours each year (9 per

TITLE: Revised Policy for New Academic Program Approvals

RECOMMENDATION: The Academic & Strategic Initiatives Committee recommends the Council approve the proposed policy changes to the policy for approval of New Academic Programs.

PRESENTER: Lori Harper, Chair of Academic & Strategic Initiatives Committee

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COMMITTEE REVIEW & APPROVAL

The Academic & Strategic Initiatives Committee reviewed the policy changes to the policy and approved them on August 18, 2020.

SUPPORTING INFORMATION

KRS 164.020 (15) empowers the Council on Postsecondary Education to define and approve the offering of all postsecondary education technical, associate, baccalaureate, graduate, and professional degree, certificate, or diploma programs in the public postsecondary education institutions. It also mandates that the Council expedite the approval of requests from KCTCS for new programs of a vocational-technical and occupational nature.

Over the course of many months, CPE staff have worked with institutional representatives to streamline the current program approval process and align it more closely with the requirements of the SACSCOC substantive change process. Both the updated policy and glossary definitions are included for your review.

OVERVIEW OF CHANGES TO POLICY

- Streamlines the process by eliminating the pre-proposal stage (only one proposal required).
- Expedites process for KCTCS by eliminating NOI.
- Removes 50 percent rule.
- Institutes same process for all certificates.
    - KCTCS Board of Regents reviews all vocational-technical-occupational certificates per KRS 164.296.

New Academic Program Approval

Approved by the Council: *tentatively September 15, 2020*
Effective Date: September 15, 2020

Approval of New Academic Programs: Policy and Procedures

History

Prior to the Postsecondary Education Improvement Act of 1997, institutions notified the Council's predecessor, the Council on Higher Education (CHE), semi-annually of new programs under development. The institution then submitted a program proposal and a two-page executive summary after the proposal had completed all institutional approvals. Staff performed the preliminary review; a Programs Committee made up of CHE members reviewed the proposals; and the full CHE acted upon the staff and Programs Committee recommendations.

In November 1997, the newly formed Council on Postsecondary Education (the Council) directed staff to review academic program policies. Until the new policies were established, staff considered a new academic program only if it documented an immediate, critical need.

- The Council streamlined its academic policies at its September 1998 meeting by directing staff to develop new procedures that "enable institutions to respond quickly to changing market demands and place primary responsibility for quality assurance with institutional governing boards, within broad system-wide guidelines that address statewide needs and protect consumer interests."

- As a first step in streamlining, in April 1999 the Council delegated to the Kentucky Community and Technical College (KCTCS) board of regents program approval authority for new certificate, diploma, associate in arts, associate in science, associate in applied science, and associate in applied technology degree programs at the KCTCS institutions. This delegation was reaffirmed in November 2000.

- At the November 1999 meeting, the Council delegated its approval authority for new academic programs within designated program bands to each institution's governing board while retaining approval authority for first professional programs; engineering programs at the comprehensive institutions and engineering programs at the doctoral level at the University of Kentucky and the University of Louisville; teacher and school personnel preparation programs; health-related programs above the baccalaureate level; associate degree programs at public universities; and other programs falling outside each institution's negotiated program band. Proposals for new academic programs within an institution's program band were subject to a six-week public review by the chief academic officers of Kentucky's public institutions, the president of the Association of Independent Kentucky Colleges and Universities, and others. If there were no significant problems with the proposal, the institution was allowed to complete its internal process of program approval and subsequently implement the program without full Council approval.

The policy was significantly revised at the September 2011 Council meeting. Definitions were aligned to those of the U.S. Department of Education, the Integrated Postsecondary Education Data System (IPEDS) and the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). The program bands were eliminated, a notification of intent process was developed, and the program approval criteria were more closely aligned with that of the review of existing academic programs.

Between 2011 and 2016, there were revisions to IPEDS and SACSCOC definitions. In addition, both CPE staff and institutional representatives identified areas of the policy and processes that needed further clarification or alteration. CPE staff worked with institutional representatives to update the policy and procedures accordingly. In 2017, the policy was revised. The highlights of the updated policy included:

1) A streamlined process for certificates that are not considered substantive changes by SACSCOC.
2) A curricular review in the pre-proposal stages rather than in the full proposal stage.
3) A shorter review period to help institutions better respond to student and workforce demands.
4) A time limit on the submission of pre-proposals and full proposals to help the process progress smoothly and efficiently.
5) A more explicit connection between the academic program approval policy and the review of existing academic programs policy by requiring complete submission of the previous year's program reviews before any new programs can be proposed.

This 2020 policy revision further streamlines the process and aligns the process more closely with the information required by SACSCOC.

Related Legislation

Numerous statutes and administrative regulations define the role of the Council as well as institutional authority in the area of academic programming.

- KRS 164.003 goals for achievement by 2020, including a seamless, integrated system of postsecondary education strategically planned and adequately funded to enhance economic development and quality of life.

- KRS 164.020(15) empowers the Council to define and approve the offering of all technical, certificate, diploma, associate, baccalaureate, graduate, and professional degree at public postsecondary institutions. It also mandates that the Council expedite the approval of requests from KCTCS for new programs of a vocational-technical and occupational nature.

- KRS 164.020(16) authorizes the Council to eliminate, in its discretion, existing programs or make any changes in existing academic programs at the public postsecondary institutions, taking into consideration (a) consistency with the institution's mission and the strategic agenda; (b) alignment with the priorities in the strategic implementation plan for achieving the strategic agenda;(c) elimination of unnecessary duplication of programs within and among institutions; and (d) efforts to create cooperative programs with other institutions through traditional means, or by use of distance learning technology and electronic resources, to achieve effective and efficient program delivery.

- KRS 164.020(19) allows the Council to postpone the approval of any new program at a state postsecondary institution, unless the institution has met its equal educational opportunity goals as established by the Council. In accordance with administrative regulations promulgated by the Council, those institutions not meeting the goals shall be able to obtain a temporary waiver, if the institution has made substantial progress toward meeting its equal educational opportunity goals.

- KRS 164.125 allows the University of Kentucky, upon Council approval, to provide associate, baccalaureate, masters, and specialist programs. It also allows joint doctoral programs in cooperation with other public postsecondary institutions in the state; doctoral and postdoctoral programs; and professional instruction including law, medicine, dentistry, education, architecture, engineering, and social professions.

- KRS 164.295 allows comprehensive universities to provide, upon Council approval, associate and baccalaureate programs as well as master's-degree programs in education, business, and the arts and sciences. It also allows for specialist degrees and programs beyond the master's-degree level to meet the requirements for teachers, school leaders, and other certified personnel. It also allows for advanced practice doctorates. Comprehensive universities may also provide programs of a community college nature as provided in KRS 164.580.

- KRS 164.2951 encourages public postsecondary institutions to limit the credit-hour requirements to 60 credit hours for associate of science or associate of arts degree programs and to 120 credit hours for bachelor of arts or bachelor of science degree programs, except in situations in which the quality and content of the program would be negatively impacted or if required by external accreditor in order to meet specific program standards.

- KRS 164.296 states that no public postsecondary institution shall offer any new program of a vocational-technical occupational nature below the associate degree level without the review of KCTCS board of regents and Council approval. The KCTCS board of regents, with Council approval, may contract with public postsecondary institutions for the operation of specific programs and projects.

- KRS 164.580 allows KCTCS, upon Council approval, to offer associate degree programs. Technical colleges, through their faculty and accrediting procedures, may develop degree programs that shall be considered for approval by the board of regents and the Council.

- KRS 164.815 allows the University of Louisville, upon Council approval, to provide associate and baccalaureate degree programs of instruction, master's-degree programs, specialist degrees above the master's-degree level, doctoral degree programs and joint doctoral programs in cooperation with other public institutions of higher education, and professional degree programs including medicine, dentistry, law, engineering, and social professions.

- 13 KAR 2:110 outlines the criteria and conditions upon which an advanced practice doctorate may be approved at comprehensive universities.

- 13 KAR 2:060 establishes the process for equal opportunity goal setting, measurement of progress, and attainment of a temporary waiver. It is related to KRS 164.020(19).

Policy Fundamentals

- An institution may not submit a proposal unless it has achieved automatic eligibility status or has obtained the appropriate waiver under 13 KAR 2:060.

- An institution may not submit a proposal unless it has submitted all academic program reviews for the preceding academic year, per the Review of Existing Academic Programs Policy.

- Institutions should recommend the Classification of Instructional Programs (CIP) code of the proposed program after careful consideration. CPE will review the recommendation and finalize the CIP code with the requesting institution.

- After a program is approved by the Council, an institution has up to three years to implement the program. If the program has not been implemented within this timeframe, it must undergo the new program approval process.

- If institutions advertise or publish in institutional catalogs a new academic program prior to approval by the Council, the qualifier “pending Kentucky Council on Postsecondary Education approval” must be included until approval is received.

- After a program has been approved and entered into the program inventory, it is the institution’s responsibility to ensure that all information is correct and current. Institutional staff will update program information in the Kentucky Postsecondary Education System (KPEDS) Program Inventory module.

- The Council reserves the right to create special program approval processes for programs that require extraordinary consideration, such as responding to legislative requirements and administrative regulations.

- The Council is the approving body for academic programs. An institution should follow it internal processes and gain approval from its local governing board before the proposal is submitted for approval to the Council.

- Items that do <u>not</u> require new program approval:
  - Inclusion of new degree designations within an existing degree level.
  - Implementation of significant changes to the program provided the CIP code remains unchanged.

<u>Merged and Separated Programs</u>
If two academic programs are combined into one program, the combined program will be considered a new academic program and must follow the policy and procedures related to new academic programs only if it requires a new CIP code to describe accurately the discipline of the combined program.

If an existing academic program is separated into two or more academic programs, at least one of the separated programs is considered a new academic program and must follow the policy and procedures related to new academic programs. The other program will not be considered a new academic program if the existing CIP code remains the best disciplinary descriptor of the program.

<u>Collaborative and Joint Programs</u>
If any partner institution does not currently offer the academic program, that institution must undergo the new academic program approval process and must provide a “Memorandum of Understanding” that clearly outlines program responsibilities and fiscal arrangements among participating institutions.

If two or more institutions create a collaborative or joint program with academic programs that are already offered at each institution, then the program does not need to undergo the new academic program process at either institution. The institutions should notify the Council of the arrangement and provide a copy of the “Memorandum of Understanding” through the KPEDS Program Inventory module.

<u>Suspended and Closed Programs</u>
If a program has been suspended for fewer than five years, an institution may reinstate the program through the program inventory system.

After a program has been suspended for five years, it will be considered closed, and this status will be updated automatically in the program inventory.

If a program has been closed and an institution wants to reopen the program, an institution must complete the new program approval process.

Program Approval Process for KCTCS Institutions

This section outlines the process for approving new diploma, certificate, and associate degree programs for KCTCS institutions.

New Diploma and Certificate Programs

The institution will complete a New Diploma/Certificate Form through KPEDS. Programs will be approved upon receipt of the completed form.

Associate Degree Programs of a Vocational-Technical-Occupational Nature (i.e. AAS)

KCTCS will post a proposal to online program approval system. Institutions and Council staff will have 30 days to respond to the proposal.

- *If no issues are identified with the proposal*, the program will be approved by Council staff and reported as an information item at the next Council meeting.
- *If issues are identified with the proposal*, the institution will address those via the online program approval system, and the review period will be extended. Once the issues are resolved, the program will be approved by Council staff and reported as an information item at the next Council meeting. If concerns cannot be fully resolved, the Council staff will inform KCTCS that it should not proceed with its internal process of program approval.

New Transfer-Oriented Associate Degree Programs (i.e. AA, AS, AFA)

KCTCS will post a proposal to the online program approval system. Institutions and Council staff will have 30 days to respond to the proposal.

- *If no issues are identified with the proposal*, the program will be approved by Council staff and reported as an information item at the next Council meeting.
- *If issues are identified with the proposal*, the institution will address those via the online program approval system, and the review period will be extended. Once the issues are resolved, the program will be approved by Council staff and reported as an information item at the next Council meeting. If the concerns cannot be fully resolved, the Council staff will inform KCTCS that it should not proceed with its internal process of program approval.

Program Approval Process for Universities

This section outlines the approval process for all diploma, certificate, baccalaureate, master's, and doctoral programs at each public university.

New Diploma and Certificate Programs

The institution will complete a New Diploma/Certificate Form through KPEDS. Programs will be approved upon receipt of the completed form.

- KRS 164.296 states that no public postsecondary institution shall offer any new program of a vocational-technical occupational nature below the associate degree level without the review of KCTCS board of regents and Council approval. After review of KCTCS board of regents, the institution will complete a New Diploma/Certificate Form through KPEDS.

All Degree Programs (Excluding Advanced Practice Doctorates at Comprehensive Universities)

The institution will post to the online Notification of Intent system. The notification will then be shared with the chief academic officers at the other public institutions.

- For associate degree programs, the program will only move forward if KCTCS determines, within 30 days of notification, that a community and technical college(s) in the proposing institution's area of geographic responsibility (1) does not have an interest in creating a similar program and (2) does not have the ability to implement the program in a more cost-efficient and effective manner.

If no issues are identified, the institution will then post a proposal to the online program approval system within one year. Institutions and Council staff will have 30 days to respond to the proposal.

- *If no issues are identified with the proposal*, the program will be sent to the Council for approval.
- *If issues are identified with the proposal*, the institution will address those via the online program approval system, and the review period will be extended. Once the issues are resolved, the program will be sent to the Council for approval. If concerns cannot be fully resolved, the Council staff will inform the institution that it should not proceed with its internal process of program approval.

Advanced Practice Doctorates Programs at Comprehensive Universities

The process for approval of Advanced Practice Doctorate Programs is outlined in 13 KAR 2:110.

GLOSSARY OF DEFINITIONS
RELATED TO ACADEMIC PROGRAM APPROVAL

Academic Programming

Academic Program - combination of courses and related activities organized for the attainment of broad educational objectives that lead to a certificate, diploma, associate's degree, bachelor's degree, master's degree, specialist degree, or doctoral degree.

Academic Program Implementation - occurs when the first student matriculates into a program and enrolls in any course specified in the program of study.

Area - primary field of study, typically consisting of more credit hours than a major that does not require a minor and can be completed in lieu of a major-minor combination.

Classification of Instructional Programs code (CIP code) - a six-digit code in the form of xx.xxxx that identifies instructional program disciplines and supports the accurate tracking and reporting of fields of study and program completions activity as required for federal reporting.

Closed Program - academic program that is no longer offered by an institution and has been removed from the institution's catalog and the program inventory.

Concentration - set of courses designed to develop expertise within a major or area at the master's level.

Core - set of courses required by all students within a major or area. It also refers to the set of courses required by all students within a track, concentration, or specialization.

Major - primary area of study defined by a set of course and/or credit hour requirements within a specified discipline or with a clearly defined multi-disciplinary focus.

Minor - secondary area of study that is separate from the major and is defined by a set of course and/or credit hour requirements within a specified discipline or with a clearly defined multi-disciplinary focus.

New Academic Program - a program not previously offered at an institution or one that was previously offered but has been suspended for five or more years or has been closed.

Program of Vocational-Technical and Occupational Nature - certificate, diploma, or associate degree programs (i.e. AAS) designed to prepare students to enter the workforce immediately after graduation in occupations that typically do not require a baccalaureate degree or above.

Specialization - set of courses designed to develop expertise within a major at the doctoral level.

Suspended Program - academic program that no longer accepts new students as of a specified date but allows current or previously accepted students to complete the program. The program can be reopened within five years without going through the new academic program approval process. After five years, if the program has not been reopened, it will be considered a closed program.

Track - set of courses designed to develop expertise within a major or area at the undergraduate level.

Transfer-Oriented Degree - award (i.e., A.A. or A.S.) that normally requires at least 60 semester credit hours that prepares students for entrance into upper-division coursework associated with a bachelor's degree.

Academic Program Delivery Methods

100% Distance Learning Program - academic program in which all of the required courses in a program occur when students and instructors are not in the same place. Instruction may be synchronous or asynchronous.

Accelerated Course - course that can be completed in less than a traditional semester.

Accelerated Program - use of accelerated courses, credit for prior learning, and/or other methods to allow students to complete the program in less than the usual amount of time.

Collaborative Program - academic program under the sponsorship of more than one institution or organization and contains elements of resource sharing agreed upon by the partners. None of the participating institutions delivers the entire program alone, and the partnering institutions/organizations share responsibility for the program's delivery and quality. The credential awarded may indicate the collaborative nature of the program.

Competency-Based Educational Program - outcome-based program that assesses a student's attainment of competencies as the sole means of determining whether the student earns a degree or a credential. Such programs may be organized around traditional course-based units (credit or clock hours) that students must earn to complete their educational program, or may depart from course-based units (credit or clock hours) to rely solely on the attainment of defined competencies. *(SACSCOC)*

Cooperative (Work Study) Program - academic program that provides for alternate class attendance and employment in business, industry, or government. *(IPEDS)*

Correspondence Education - education provided through one or more courses in which the institution provides instructional materials and examinations by mail or electronic transmission to students who are separated from the instruction. Interaction between the instructor and the student is not regular and substantive and is primarily initiated by the student. *(IPEDS)(Similar to SACSCOC)*

Credit for Prior Learning - college credit for the college-level knowledge and skills gained from non-college instructional programs or life experiences, including but not limited to employment, military experience, civic activities, and volunteer service. Credit is evaluated through nationally standardized exams in specific disciplines, challenge exams for specific courses at individual institutions, evaluations of non-college training programs, and individualized assessments.

Credit Hour - an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than: (1) one hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately 15 weeks for one semester or trimester hour of credit, or 10 to 12 weeks for one quarter hour of credit, or the equivalent amount of work over a different amount of time or (2) at least an equivalent amount of work as required in (1) for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours. *(34 CFR 600.2)*

Direct Assessment Competency-Based Educational Program - instructional program that, in lieu of credit hours or clock hours as a measure of student learning, uses direct assessment of student learning relying solely on the attainment of defined competencies, or recognizes the direct assessment of student learning by others. The assessment must be consistent with the accreditation of the institution or program using the results of the assessment. *(SACSCOC)*

Distance Learning Course - formal educational process in which the majority of the instruction in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous.

Distance Learning Program - formal educational process in which the majority (more than 50%) of the instruction (interaction between students and instructors and among students) in a course occurs when students and instructors are not in the same place. Instruction may be synchronous or asynchronous. A distance education course may use the internet; one-way and two-way transmissions through open broadcast, closed circuit, cable, microwave, broadband lines, fiber optics, satellite, or wireless communications devices; audio conferencing; or video cassettes, DVD's, and CD-ROMs if used as part of the distance learning course or program. *(SACSCOC definition of distance education)*

Dual Degree Program- - academic program in which students study at two or more institutions and each institution grants a separate academic award bearing only its name, seal, and signature. *(SACSCOC)*

Embedded Program - consists of required courses of a lower-level degree or credential that are part of a higher-level degree or credential. Such programs usually do not admit students directly, and therefore, students may not be enrolled in these programs. Students are awarded a lower-level degree or credential as these programs serve as an exit option for students who do not complete the requirements for the higher-level degree or credential.

Extended Campus Program - academic program offered at any center, branch, campus, or other site at which postsecondary degree or non-degree work is offered, in addition to the parent campus. It refers to locations both within and outside an institution's area of geographic responsibility.

Joint Program - academic program in which students study at two or more institutions and the institutions grant a single academic award bearing the names, seals, and signatures of each of the participating institutions. *(SACSCOC)*

Modularized Program - academic program in which the majority (more than 50%) of the coursework is offered in modules. *(SACSC*OC)

Module - standalone segment/component of a parent course for which content (description, requisites, outline, competencies, and activities/experiments) has been determined and credit assigned. The sum of constituent segments is equal to the credit of the parent course. Credit is awarded upon successful completion of all modules comprising the parent course.

Degrees and Credentials

Advanced Practice Doctorate - program of study beyond the master's degree designed to meet the workforce and applied research needs of a profession. It requires close cooperation between institutions and employers to ascertain employers' needs. The degree may or may not be necessary for the recognition, credential, or license required for professional practice. It can be classified as either *doctor's degree–professional practice*, if it meets those criteria, or *doctor's degree–other* for IPEDS reporting.

Associate's Degree - award that normally requires at least 2 but less than 4 years of full-time equivalent college work based on at least 60 credit hours. (*combination of IPEDS and SACSCOC)*

Bachelor's Degree - award that normally requires at least 120 semester credit hours or the equivalent. This includes all bachelor's degrees conferred in a five-year cooperative (work-study) program and degrees in which the normal four years of work are completed in three years. (*combination of IPEDS and SACSCOC)*

Degree - award conferred by a college, university, or other postsecondary education institution as official recognition for the successful completion of a program of studies. *(IPEDS)*

Doctor's Degree – highest award a student can earn for graduate study. *(IPEDS)*

Doctor's Degree – Other – doctor's degree that does not meet the definition of a doctorate of research/scholarship or a doctorate of advanced practice. *(IPEDS)*

Doctor's Degree – Professional Practice – doctor's degree that is conferred upon completion of a program providing the knowledge and skills for the recognition, credential, or license required for professional practice. The degree is awarded after a period of study such that the total time to the degree, including both pre-professional and professional preparation, equals at least six full-time equivalent academic years. *(IPEDS)*

Doctor's Degree Research/Scholarship - a Ph.D. or other doctor's degree that requires advanced work beyond the master's level, including the preparation and defense of a dissertation based on original research, or the planning and execution of an original project demonstrating substantial artistic or scholarly achievement. *(IPEDS)*

Master's Degree - an award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor's degree. This degree requires the successful completion of at least 30 semester hours beyond the bachelor's degree. (*combination of IPEDS and SACSCOC)*

Professional Science Master's Degree – a type of master's degree that consists of two years of non-thesis academic training in science, mathematics, or technology and contains a professional component that may include internships and cross-training in business, management, regulatory affairs, computer applications, and communications. The program is designed with the input of one or more employers.

Post-Baccalaureate Certificate – an award that requires completion of an organized program of study beyond the bachelor's degree. It is designed for persons who have completed a baccalaureate degree, but does not meet the requirements of a master's degree. *(IPEDS)*

Post-Doctor's Degree-Professional Practice Certificate – an award that provides advanced training and enhances knowledge in important areas of clinical or research specialization and specialty practice for individuals who hold a professional degree.

Post-Master's Certificate – an award that requires completion of an organized program beyond the master's degree, but does not meet the requirements of academic degrees at the doctoral level. *(IPEDS)*

Postsecondary Certificate or Diploma (at least one but fewer than two academic years) – an award that requires completion of an academic program below the baccalaureate degree in at least one but fewer than two full-time equivalent academic years, or is designed for completion in at least 30 but fewer than 60 semester or trimester credit hours, or in at least 45 but less than 90 quarter credit hours, or in at least 900 but less than 1,800 contact or clock hours. *(IPEDS)*

Postsecondary Certificate or Diploma (at least two but fewer than four academic years) – an award that requires completion of an academic program below the baccalaureate degree in at least two but fewer than four full-time equivalent academic years, or designed for completion in at least 60 but less than 120 semester or trimester credit hours, or in at least 90 but less than 180 quarter credit hours, or in at least 1,800 but less than 3,600 contact or clock hours. *(IPEDS)*

Undergraduate Certificate or Diploma (9-29 semester credit hours) – A program of study that requires completion of an academic program below the baccalaureate degree in less than one academic year and is designed for completion between 9-29 semester or trimester credit hours, or between 13-44 quarter credit hours, or between 300-899 contact or clock hours, by a student enrolled full time

Undergraduate Certificate or Diploma (less than 9 semester credit hours) – a program of study that requires completion of an academic program below the baccalaureate degree in less than one academic year and is designed for completion in less than 9 semester or trimester credit hours, or in less than 13 quarter credit hours, or in less than 300 contact or clock hours, by a student enrolled full time.

Specialist Degree – an award that normally requires 60 semester hours of concentrated and approved graduate coursework beyond the bachelor's degree. It is generally offered in the field of education to acknowledge completion of advanced graduate study designed to help individuals meet licensure requirements or develop additional knowledge and skill beyond the master’s degree but not at the doctoral level.

TITLE: Report from the Finance Committee

DESCRIPTION: The following is a summary of the Committee's meeting on August 18, 2020.

PRESENTER: Benjamin E. Brandstetter, Chair of Finance Committee

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The Finance Committee met on August 18, 2020. The following is a summary of that meeting.

Agency Updates, Reports and Discussion Items

- Reviewed the information being presented to the Interim Budget Review Subcommittee on Education at its August 19 meeting.
- Received an update on the funding provided to campuses through the four pools of CARES Act funding that higher education has been able to access, which are:
    - $13.8 M in GEER Fund Grants
    - $68.1 M in HEER Fund – Grants to Students
    - $68.1 in HEER Fund – Awards to Institutions
    - $6.4 M in HEER Fund – HBCU and SIP Awards
- Received an overview of the discussions from the first meeting of the Postsecondary Education Working Group on Performance Funding, which met on July 30, 2020.

There were no action items.

The supporting materials and YouTube replay link can be found on the Council Meetings Records Archive webpage at: http://cpe.ky.gov/aboutus/records/index.html.

TITLE: Report from the Executive Committee

DESCRIPTION: The following is a summary of the Committee's meeting since the last Council meeting

PRESENTER: Benjamin E. Brandstetter, Chair of Executive Committee

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The Executive Committee met on August 6, 2020. The following is a summary of that meeting.

Agency Updates, Reports and Discussion Items

- Report on the first meeting of the Postsecondary Education Working Group on Performance Funding, which met on July 30, 2020.
- Update of the fall 2020 campus reopening plans, including a review of the guidance provided by CPE.
- Status report on the Academic Program Review project.

The agenda can be found on the Council Meetings Records Archive webpage at: http://cpe.ky.gov/aboutus/records/index.html.

TITLE: Recent Research and Data Reports

DESCRIPTION: CPE staff will brief the Council on a Dual Credit report that released in early September and provide a preliminary look at the Fall 2020 enrollment data.

PRESENTERS: David Mahan, Associate Vice President of Data and Advanced Analytics
Amanda Ellis, Associate Vice President of P-20 Policy and Programs

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1. **Dual Credit & Student Success: The Effect of High School Dual Credit on Educational Outcomes at Kentucky Public Universities**

   This report measured the impact of dual credit on student success at the state's public, four-year universities. It is the first comprehensive study on the topic since Kentucky launched a statewide dual credit policy and scholarship program in 2016 to improve participation.

   Dual credit enrollment in Kentucky jumped 75% in five years, from 23,307 in 2014-15, to 40,821 in 2019-20. As a result, thousands of dual credit students have increased their chance for postsecondary success: they are more likely to persist to a second year of college and earn higher grades in their first year of college. These effects are magnified for low-income and underrepresented minority students, suggesting that high school dual credit is an effective strategy for increasing postsecondary persistence and success for at-risk students.

2. **Fall 2020 Preliminary Enrollment at Kentucky Colleges and Universities**

   Preliminary enrollment information for fall 2020 was collected in June, July, and August. Final enrollment counts were submitted as of September 10th or on an earlier census day as designated by each Kentucky campus. Participating institutions include Kentucky public universities, Kentucky Community and Technical College System (KCTCS), and privates institutions from Association of Independent Kentucky Colleges and Universities (AIKCU).

Dual Credit & Student Success:

Outcomes at Kentucky Public Universities

August 2020

Prepared by the Kentucky Council on Postsecondary Education

About the Council on Postsecondary Education

The Council on Postsecondary Education is Kentucky's higher education coordinating agency committed to strengthening our workforce, economy and quality of life. We do this , diverse and accessible system of postsecondary education.

Key responsibilities include:

- developing and implementing a strategic agenda for postsecondary education that includes measures of progress.
- producing and submitting a biennial budget request for adequate public funding of postsecondary education.
- determining tuition rates and admission criteria at public postsecondary institutions.
- collecting and distributing data about postsecondary education performance.
- ensuring the coordination and connectivity of technology among public institutions.
- licensing non-public postsecondary institutions to operate in the Commonwealth.

CONTENTS

EXECUTIVE SUMMARY

Dual credit programs are collaborations between secondary and postsecondary institutions that enable high school students to enroll in college courses and receive simultaneous academic or technical credit that counts toward high school and college completion. Dual credit is distinct from Advanced Placement (AP) courses, which require students to pass an end-of-course examination to receive college credit.

Nationally and in Kentucky, dual credit participation is on the rise. The total number of high school students taking dual credit grew from 23,307 in 2014-15, to 40,821 students in 2019-20, an increase of 75.1%.

RESEARCH QUESTIONS

A of 3.0 or higher. The dataset includes public and private Kentucky high school students who took dual credit courses and subsequently enrolled at an in-state, public four-

postsecondary outcomes at KCTCS campuses. The research questions are:

- **postsecondary educational outcomes, as measured by their chance of persisting to a second year of college and earning a A of 3.0 or higher?**
- **, income and college preparedness?**

PARTICIPANT CHARACTERISTICS

between college students who had previously enrolled in dual credit (n=26,292; 50.6%) and those who had not (n=25,703; 49.4%) were explored. Findings include:

- **Dual credit students were more likely to be female and white or Asian, and less likely to be part**

  to dual credit opportunities for many students of color.
- **Surprisingly, low-income students were slightly more likely to enroll in dual credit courses. This was not true of students who were both low-income and minority.**
- **Dual credit students were more likely to be "college ready" than non-participants. College readiness is determined by minimum scores on the ACT, SAT or other assessments approved by the Council on Postsecondary Education, as set forth in the statewide college readiness standards.**
- **Starting in fall 2016, the percentage of Kentucky college students with dual credit was higher**

  policy and the creation of dual credit scholarships in Kentucky.

DUAL CREDIT EFFECTS

- Dual credit participants were more likely to persist to a second year of college than students who did not participate in dual credit.
- A of 3.0 or higher (on a 4.0 scale) than students who did not participate in dual credit.
- year GPAs than those with higher GPAs.

EFFECTS ON SUBGROUPS

Likelihood of Persisting to a Second Year of College

-
- Prepared dual credit participants were more likely to persist to a second year of college than
- participants than for higher income participants.
- of white and Asian students.
- , low-income students, raising their likelihood of persisting to a second year of college by 9.3 percentage points.

Likelihood of Earning a First-Year GPA of 3.0 or Higher

- A of male students than of female students.
- A of 3.0 or higher than
- A of 3.0 or higher was greater for low-income students than for higher income students.
- A of 3.0 or higher was greater for white and Asian students than for underrepresented minority students.
- A of non-minority, low-income students, raising their likelihood of earning a 3.0 or higher by 11.1 percentage points.

INTRODUCTION

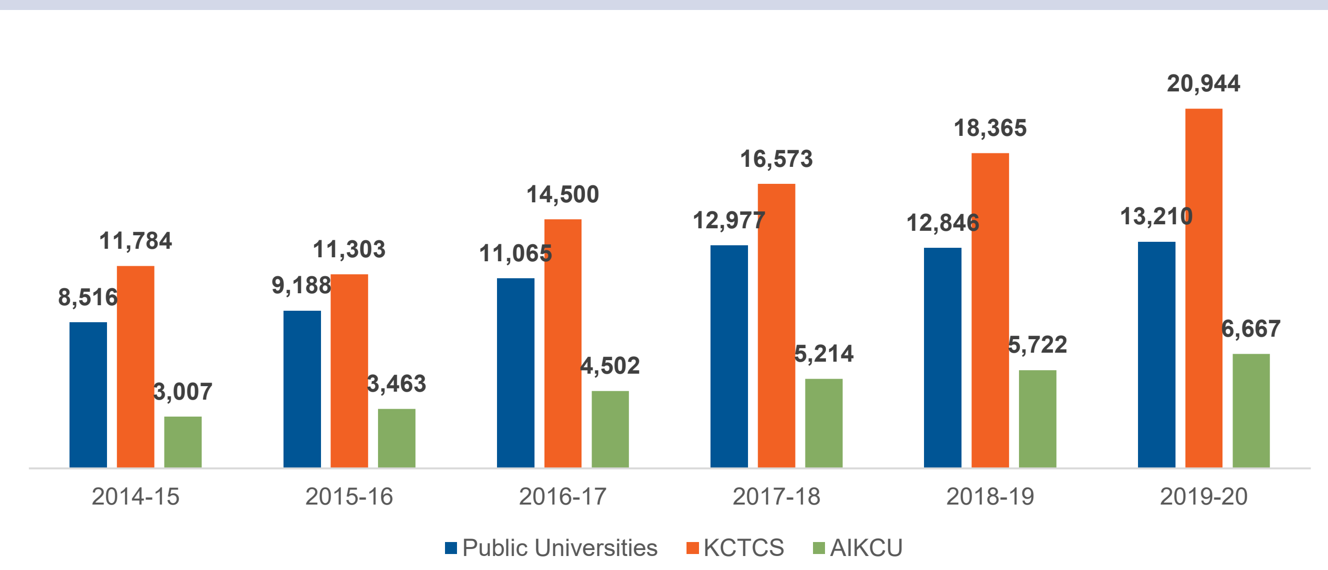
Dual credit programs are collaborations between secondary and postsecondary institutions that enable high school students to enroll in college courses (either at their high school, nearby college or online) and receive simultaneous academic or technical credit that counts toward high school and college completion. Dual credit is distinct from Advanced Placement (AP) courses, which require students to pass an end-of-course examination to receive college credit.

Nationally, dual credit programs are on the rise. According to the National Center for Education Statistics, the number of students taking dual enrollment courses increased 80% to 1.2 million between 2002-03 and 2010-11.[1] Whereas dual credit was once targeted primarily at high-achieving students, today's programs include a variety of general education and career and technical options and are seen as a way to prepare students at all levels for both two-year and four-year institutions.[2]

Dual credit programs are attractive to students and parents for a variety of reasons—they can reduce college costs by decreasing time-to-degree and increase college persistence and completion.[3] Moreover, dual credit can provide more academic rigor and additional course options that are not otherwise available through a high school's curriculum.

Following the national trend, Kentucky has experienced a dramatic rise in dual credit in recent years. The total number of high school students taking dual credit grew from 23,307 in 2014-15, to 40,821 students in 2019-20., an increase of 75.1% (Figure 1).

Figure 1. Dual Credit Participation Across Institutions and Academic Years



Source: Kentucky Postsecondary Education Data System. This graph shows the number of high school students who were enrolled in dual credit courses at public universities, KCTCS or private institutions by academic year.

DUAL CREDIT INITIATIVES

Two initiatives have propelled dual credit participation in Kentucky. First, CPE approved a dual credit policy in The policy advises that high school students should have access to a minimum of three general education and three career or technical dual credit courses over the course of their high school career. The policy also provides guiding principles and evidence-based practices to support and maintain the accessibility, quality

The second initiative is a dual credit scholarship established in June 2016, supported by Kentucky Lottery proceeds. This program allows high school juniors or seniors the chance to earn credit for two college courses at no cost. The W include two Career and Technical Education (CTE) dual credit courses per year. Both initiatives aim to drive

DUAL CREDIT BENEFITS

Numerous policymakers, educators and researchers have found that dual credit leads to positive educational outcomes for students at all levels.

- **Providing rigor and relevance.** Dual credit courses often are viewed as more rigorous than general high school courses.[4] They may increase the relevance of schoolwork by enabling students to access courses related to their career goals and interests, like engineering, business or marketing.[5]

- **Increasing college enrollment.** Participation in dual credit programs has been found to increase the probability of enrolling in college by 16.8 percentage points.[6] One study found that dual credit participants were more than twice as likely to enroll in college.[7]

- **Reducing college attrition and increasing degree completion.** Numerous studies have shown that college students with prior dual credit were more likely to persist to a second year of college and eventually complete a degree. A 2013 study found that dual credit participants were 8 percentage points more likely to complete any college credential and 7 percentage points more likely to complete a bachelor's degree.[8]

- **Strengthening academic performance in college.** Exposure to college-level courses better prepares high school students for the academic demands of college. Studies have shown that dual credit participants have higher college GPAs than non-participants.[9]

- **Reducing tuition costs.** Dual credit can reduce tuition costs by shortening time to degree.[10] One study reported a savings of $5,000 to $24,000 in tuition when students accumulated up to a year of college credit.[11]

- Studies have shown that underrepresented minority [12] Dual credit also has been shown to increase career and college readiness for URM students.[13]

RESEARCH METHODOLOGY

The Dataset

A of 3.0 or higher and returning for a second year of college. The study uses a longitudinal dataset compiled from CPE's Kentucky Postsecondary Education Data System (KPEDS), which includes nearly 52,000 students who graduated from a Kentucky high

2015, 2016 and 2017.

This longitudinal dataset includes a rich array of high school and postsecondary variables, allowing us to follow students as they transition from high school to a Kentucky public university. The independent variable being examined is dual credit participation. A. Gender, income, race, academic preparation, institution and cohort year also were evaluated. For a more detailed description of the measures and variables used, see Appendix A.

Analytic Strategies

educational outcomes. Regression analysis adjusts for the observed confounding variables in the models. Five The interaction terms were: 1) dual credit and gender; 2) dual credit and college readiness; 3) dual credit and low-income status; 4) dual credit and underrepresented minority (URM) status; and 5) dual credit and low-income, URM status.

In an ideal experimental setting, high school students would be randomly assigned to enroll or to not enroll in a dual credit course. postsecondary achievements would then be compared to the control group. However, in Kentucky, dual credit is not randomly assigned but self-selected. In other words, dual credit participation depends on the active choices of students and their

opportunities at the high school. If dual credit students achieve higher grades than non-participants, it could be

two groups, not a function of the dual credit itself. In order to mitigate this selection bias, the study employed

Once the high school cohorts transitioned to a four-year university, there were other potential variations that

faculty ratio.

A more detailed description of these analytic strategies is included in Appendix B.

RESEARCH QUESTIONS

This

GPA at four-year public universities. The study sets out to answer the following questions:

- postsecondary educational outcomes, as measured by their chance of persisting to a second year of college and A of 3.0 or higher?

- , income and college preparedness?

DUAL CREDIT PARTICIPATION

students who enrolled in dual credit (n=26,292; 50.6%) and students who did not (n=25,703; 49.4%) were explored. Findings include:

- **Dual credit students were more likely to be female and white or Asian, and less likely to**

  lack of access to dual credit opportunities for many students of color.

- **Surprisingly, low-income students were slightly more likely to enroll in dual credit courses. This was not true of students who were both low-income and minority.**

- **Dual credit students were more likely to be "college ready" than non-participants. College readiness is determined by minimum scores on the ACT, SAT and other assessments approved by the Council on Postsecondary Education, as set forth in the statewide college readiness standards.[14]**

- **Starting in fall 2016, the percentage of college students with dual credit was higher than**

  credit policy and the creation of dual credit scholarships in Kentucky.

Figure 2. Characteristics of Dual Credit Participants and Non-Participants in the Study (N=51,995)

Variables	All Students (N=51,995)	Participants (N=26,292)	Non-Participants (N=25,703)
GENDER			
Male	44.4%	39.5%	49%
Female	55.6%	60.5%	51%
URM			
Yes	15.1%	11.4%	18.9%
No	84.9%	88.6%	81.1%
UNDERPREPARED			
Yes	12%	7.2%	16.8%
No	88%	92.8%	83.2%
LOW-INCOME			
Yes	38.7%	38.8%	38.6%
No	61.3%	61.2%	61.4%
LOW-INCOME & URM			
Yes & Yes	9.1%	6.8%	11.5%
Yes & No	29.5%	32%	27%
No & Yes	6%	4.7%	7.4%
No & No	55.3%	56.5%	54.1%
SECOND-YEAR PERSISTENCE			
Yes	83.1%	87.6%	79.9%
No	16.2%	12.4%	20.1%
FIRST-YEAR GPA			
<3.0	44.4%	38.4%	50.3%
≥3.0	55.6%	61.6%	49.7%
COHORT YEAR			
Fall 2014	25.2%	23.1%	27.3%
Fall 2015	25.6%	24.5%	26.7%
Fall 2016	24.9%	25.4%	24.4%
Fall 2017	24.4%	27%	21.6%

Dual credit students are all individuals who enrolled in at least one dual credit course in high school.

EFFECTS OF DUAL CREDIT

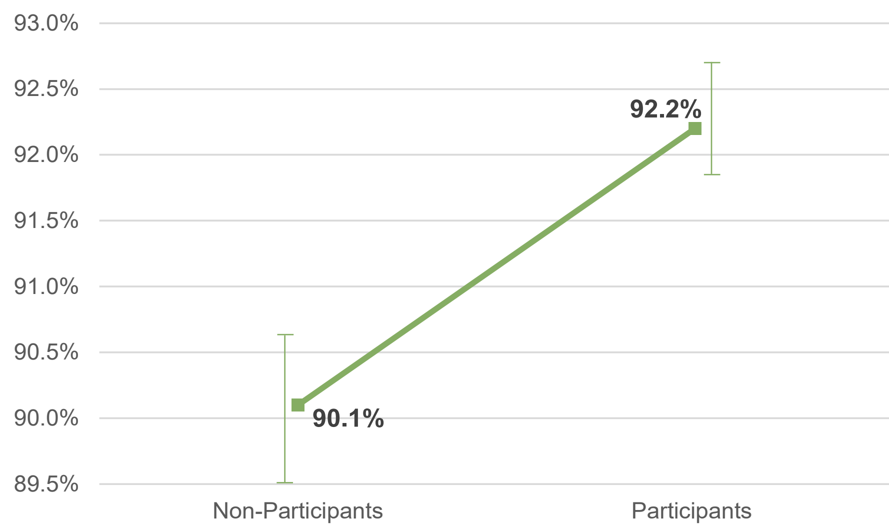
as a general strategy for increasing the likelihood of persisting to a second year of college. Unlike retention, persistence measures whether a student returns to any Kentucky postsecondary institution for a second year,

Dual credit participants were more likely to persist to the second year of college than students who did not participate in dual credit.

The study predicted the average probability of persisting to a second year for dual credit participants and non-participants. The probability of dual credit students persisting to a second year of college was 92.2%, compared to 90.1% for non-participants,

a more detailed explanation of analytic strategies used to obtain this result, see Appendix C.

V
Values: Non-participants (89.5%-90.6%) and participants (91.8%-92.7%).



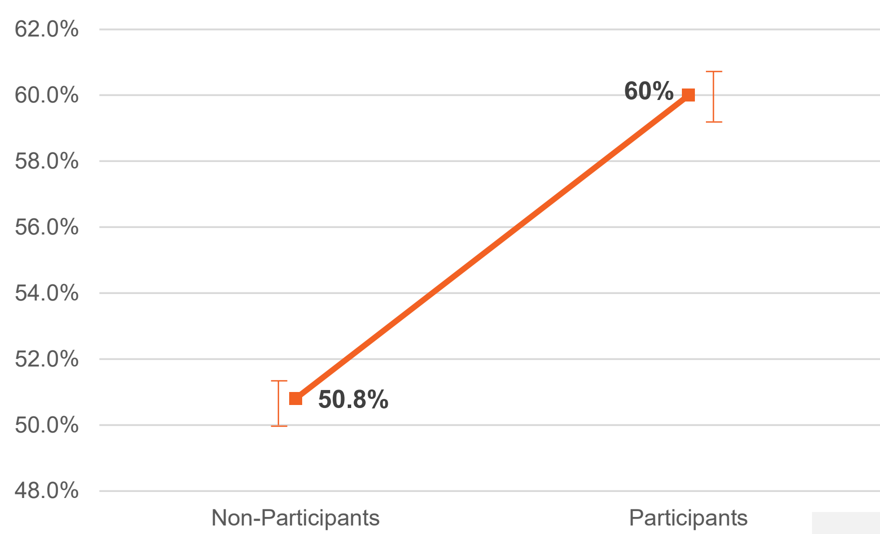
A of 3.0 or higher (on a 4.0 scale) than students who did not participate in dual credit.

The study predicted the average

college GPA of 3.0 or higher for dual credit participants and non-participants. The probability of dual credit students earning a 3.0 GPA
was 60%, compared to 50.8% for non-

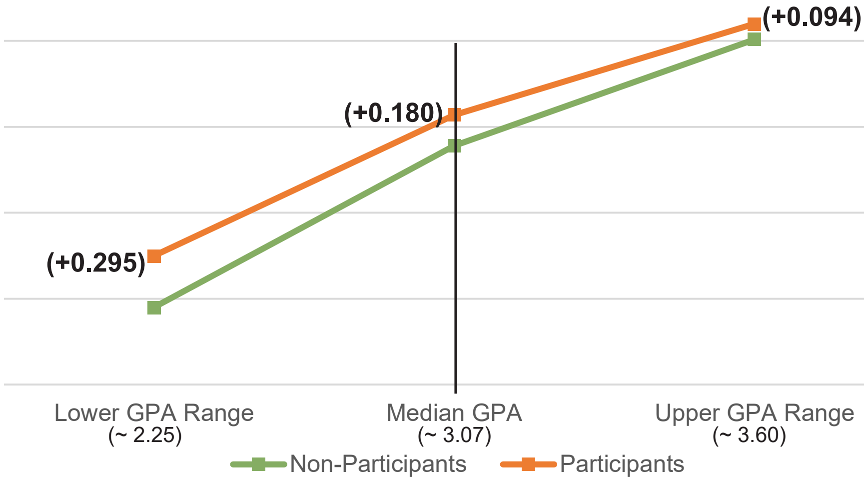
points. For a more detailed analysis, see Appendix D.

V
Values: Non-participants (50%-51.7%) and participants (59.2%-60.9%).



As than those with higher GPAs.

At the lower end of the GPA range (approximately 2.25), dual credit participants averaged 0.295 points higher than non-participants. At the median GPA (3.07), dual credit participants averaged 0.180 points higher than non-participants. At the upper end of the range (approximately 3.6), dual participants averaged 0.094 points higher than non-participants. For more detail about the quantile regression analysis used to obtain this result, see Appendix E.



EFFECTS ON SUBGROUPS

with the exception of underprepared students. These results were calculated using interactions of the student subgroup (i.e., gender, college readiness, income, race) with the dual credit indicator in the analysis models.

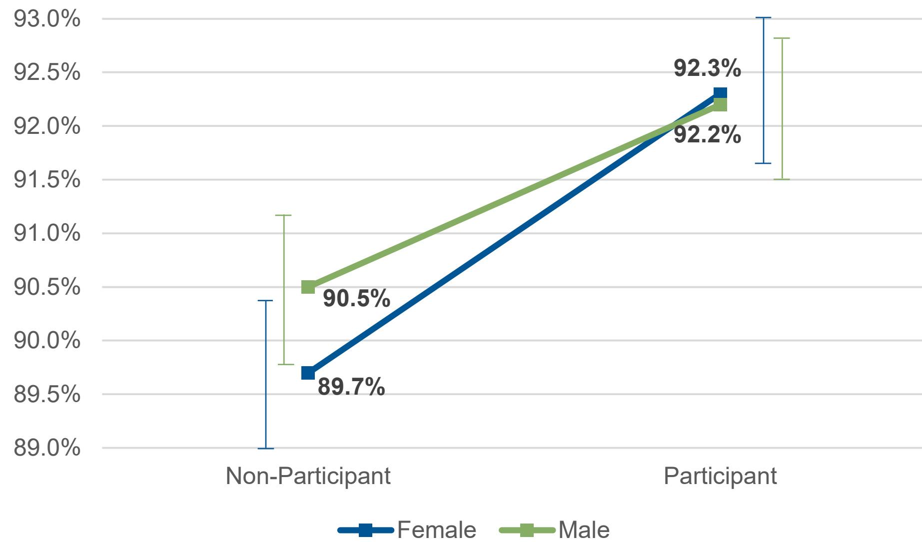
assessment outcome (see

- **males.**

Female dual credit participants were 2.6 percentage points more likely to persist to a second year of college than female non-participants. Dual credit also

increasing their likelihood of persisting to a second year by 1.7 percentage points.

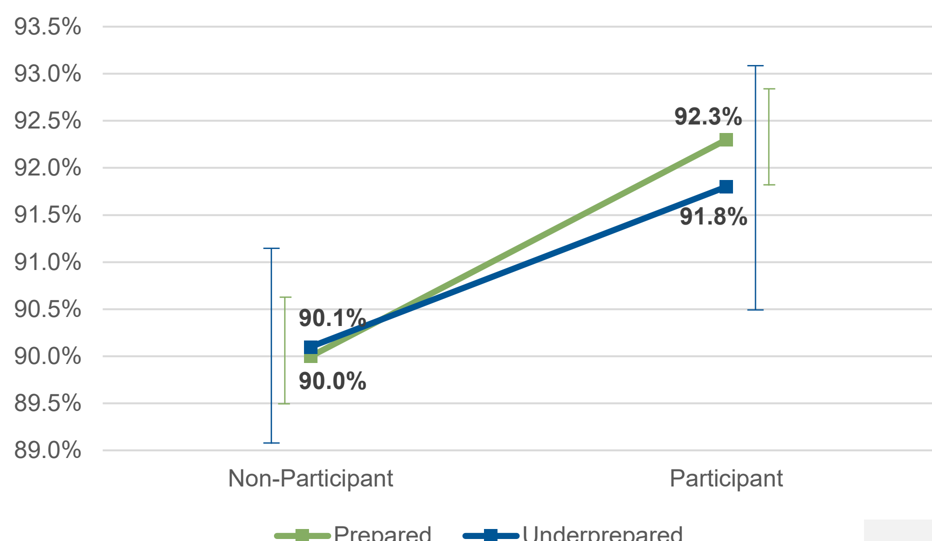
V
Values: Female non-participants (89%-90.4%) and female participants (91.7%-93%). Male non-participants (89.8%-91.2%) and male participants (91.5%-92.8%).



- **Prepared dual credit participants were more likely to persist to a second year of college**

For prepared students, dual credit participation increased their likelihood of persisting to a second year by 2.3 percentage points. Without dual credit, students shared a similar chance of persisting, regardless of academic preparation. The increase in the probability of persisting to a second year for underprepared students was not

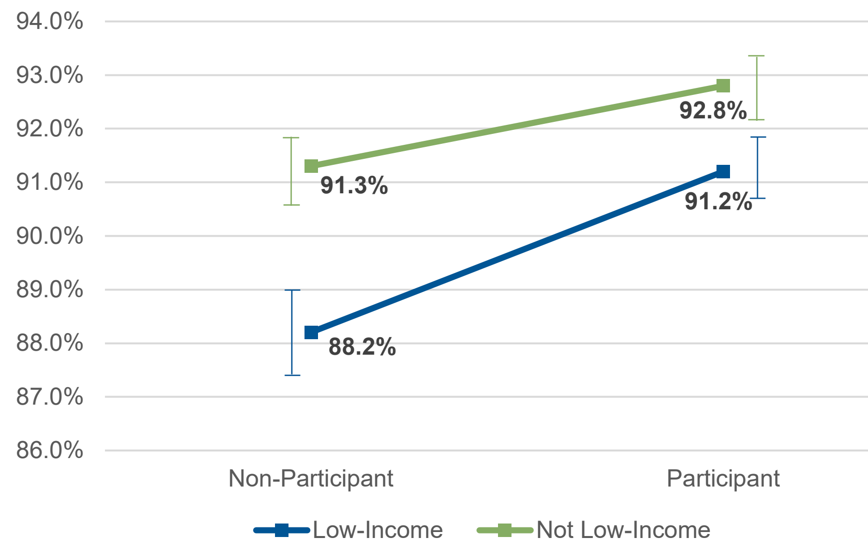
V
Values: Prepared non-participants (89.5%-90.6%) and prepared participants (91.8%-92.8%). Underprepared non-participants (89.1%-91.2%) and underprepared participants (90.5%-93.1%).



participants than for higher income participants.

On average, low-income dual credit participants were 3 percentage points more likely to persist to a second year of college than low-income non-participants. The

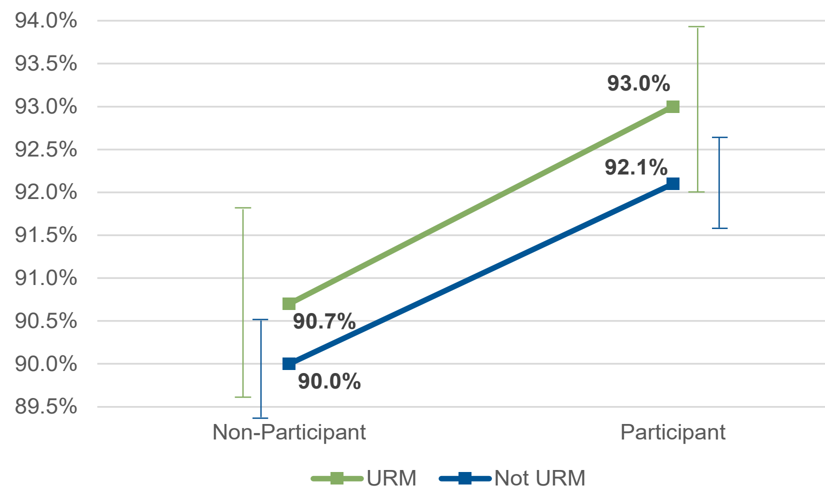
percentage points greater than for higher income non-participants. With or without dual credit, higher-income students had a better chance of persisting to a second year. However, dual credit narrowed the gap between these subgroups from 3.1 percentage points to 1.6 percentage points.



V
Values: low-income non-participants (87.4%-89%) and low-income participants (90.7%-91.9%). Non low-income non-participants (90.6%-91.9%) and non low-income participants (92.2%-93.4%).

underrepresented minority students than of white and Asian students.

On average, URM participants were 2.3 percentage points more likely to persist to a second year of college than URM non-participants; white and Asian participants were 2.1 percentage points more likely to persist to a second year of college. Dual credit slightly widened the gap between these two groups, to



V alues: URM non-participants (89.6%-91.8%) and URM participants (92%-93.9%). Non-URM non-participants (89.4%-90.5%) and non-URM participants (91.6%-92.6%).

, low-income students, raising their likelihood of persisting to a second year of college by 9.3 percentage points.

Non-minority

students. Interestingly

in terms of their persistence to a second year of college, suggesting that dual credit access for at-risk students should become a greater priority. See the table on page 32 (Appendix F) for more detail.

EFFECTS ON SUBGROUPS

A for all of subgroups observed, with the exception of underprepared students and higher-income, URM students. These results were calculated using interactions of the student subgroup (i.e., gender, college readiness, income and race) with the dual credit indicator in the

models for each assessment outcome (see

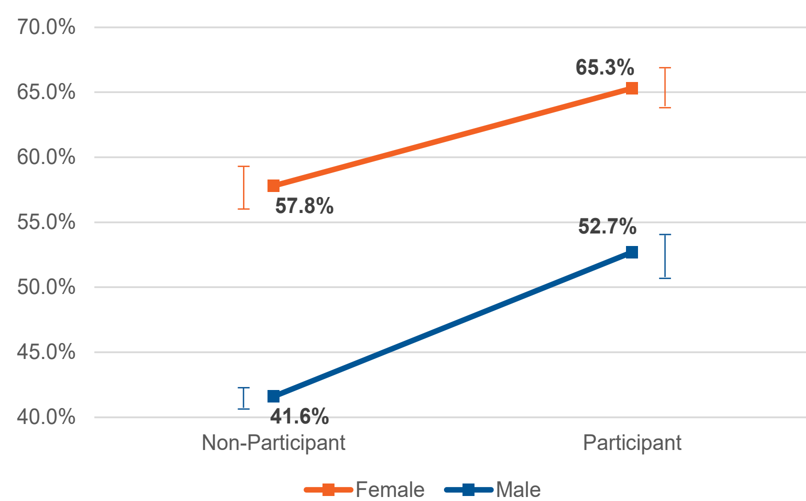
- A of male students than of female students.

Male dual credit participants were 11.1 percentage points more likely to earn a 3.0

participants, while female participants were 7.5 points more likely. With or without dual credit, females had a much better chance of earning a 3.0 or higher, but dual credit

and female students (from 16.2 percentage points to 12.6 percentage points).

V
Values: Male non-participants (40.4%-42.9%) and male participants (51.4%-53.9%). Female non-participants (56.7%-58.9%) and female participants (64.2%-66.3%).

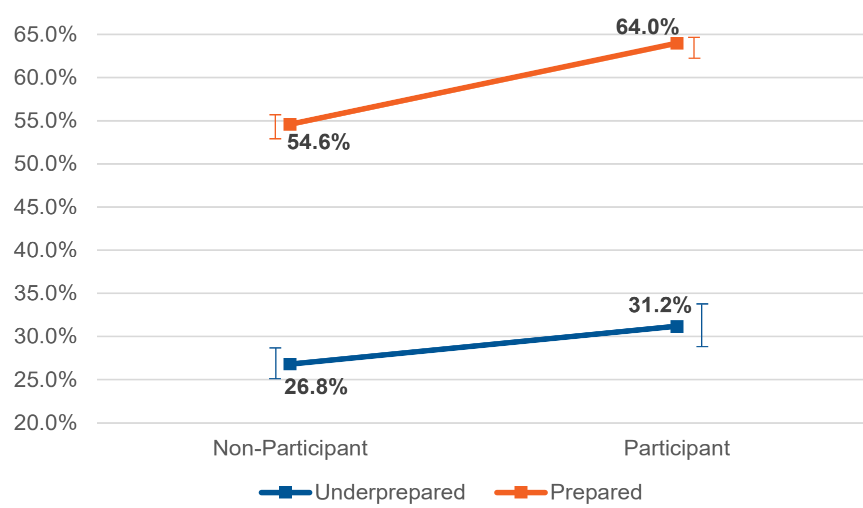


- **Prepared dual credit participants were more likely to earn a 3.0 or higher than**

Overall, college-ready students were much A of 3.0 or higher than students failing to meet college readiness benchmarks, regardless of dual credit participation. For academically prepared students, dual credit participation increased this likelihood by 9.4 percentage

GPA of underprepared students was not

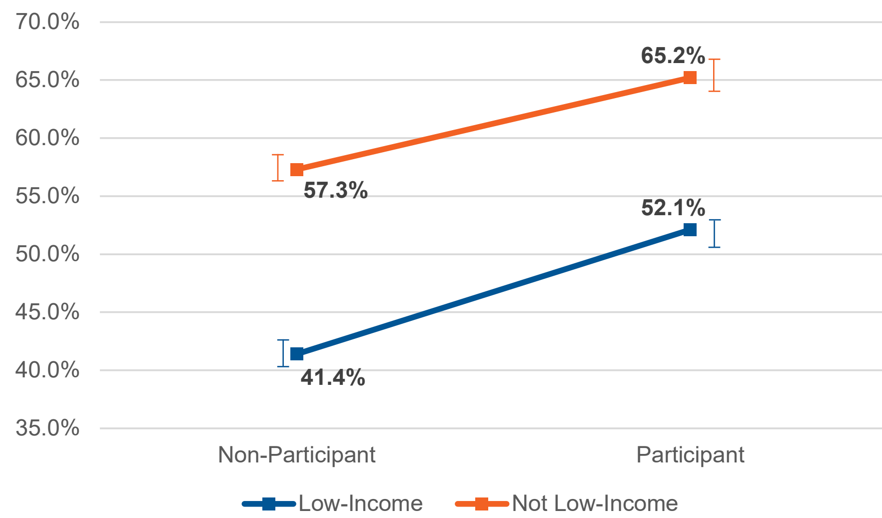
V
Values: Underprepared non-participants (25%-28.6%) and underprepared participants (28.3%-34.1%). Prepared non-participants (53.7%-55.5%) and prepared participants (63.1%-64.8%).



■ A of 3.0 or higher was greater for low-income students than for higher income students.

Dual credit increased the likelihood of A of 3.0 or higher by 10.7 percentage points for low-income students and 7.9 percentage points for higher-income students. With or without dual credit, higher-income students had a better chance of earning at least a 3.0 GPA. However, dual credit narrowed the gap between these two groups from 15.9 percentage points to 13.1 percentage points.

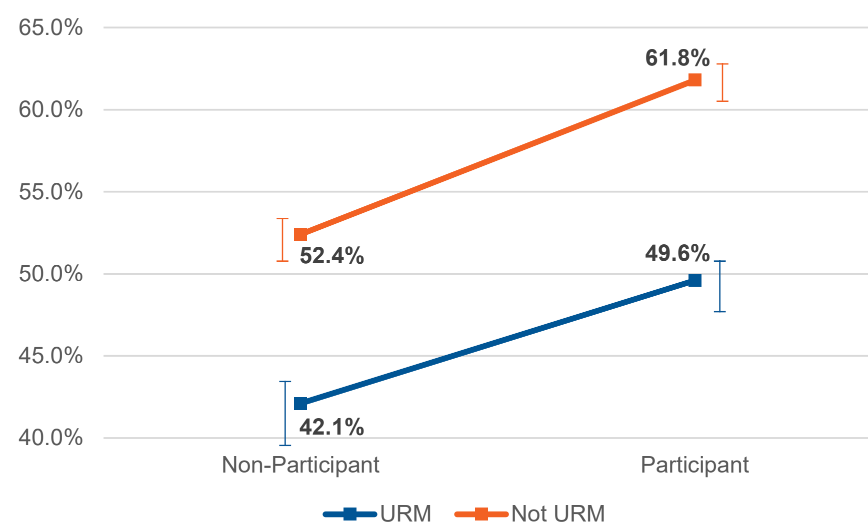
V
Values: Low-income non-participants (40.1%-42.8%) and low-income participants (50.8%-53.3%). Non low-income non-participants (56.2%-58.4%) and non low-income participants (64.2%-66.2%).



■ A of 3.0 or higher was greater for white and Asian students than for underrepresented minority students.

On average, dual credit increased the A of 3.0 or higher by 9.4 percentage points for non-minority students and 7.5 percentage points for URM students. Dual credit participaton slightly widened the gap between these subgroups, from 10.3 points without dual credit to 12.2 points with dual credit.

V
Values: URM non-participants (39.9%-44.3%) and URM participants (47.5%-51.8%). Non-URM non-participants (51.5%-53.3%) and non-URM participants (61%-62.7%).



■ A of non-minority, low-income students, raising their likelihood of earning a 3.0 or higher by 11.1 percentage points.

In terms of the probability of earning at least a 3.0 GPA , non-minority most from dual credit, followed by URM, low-income students. Interestingly, higher income students, regardless of race,

suggesting that dual credit access for at-risk students should become a greater priority. For more detail, see the table on page 35 (Appendix G).

RECOMMENDATIONS

students, to determine their underlying causes. While dual credit increases outcomes for nearly all participant Thus, increasing

CPE's "Dual Credit Policy for Kentucky Public and Participating Postsecondary Institutions and Secondary Schools" outlines best practices for administering dual credit courses. Additionally, this study

■ Improving outreach and advising for middle and high school students, particularly those who are low-income and minority, to educate them about the availability and

Although Kentucky has increased participation in dual credit since 2016, courses still may not reach the

counseling professionals, an even stronger message could be tailored and disseminated to at-risk high school students in K-12 districts across the state. CPE and KDE should facilitate closer collaboration among high

increasing college readiness and reducing college costs.

■ Ensuring dual credit courses are accessible at local high schools during the school day to the greatest extent possible.

Currently, dual credit is comprised of multiple options: some courses are taught by high school teachers, some take place at a KCTCS campus or university, some are online, and some occur outside of the regular school day
high school campus during the regular school day would reduce barriers associated with transportation, scheduling and other costs. Doing so may require districts to incentivize more teachers to obtain the necessary

instruction (in most cases, 18 hours of master's degree credit in the subject being taught). Schools also should examine whether unnecessary prerequisites are required for dual credit participation and if so, consider their removal or amendment.

■

opportunities and help cover associated costs.

funding is available to help low-income students cover additional dual credit coursework and associated indirect costs.

FOR FUTURE STUDY

college, additional research is needed to address some of its limitations and expand its depth and breadth.

- **Include additional demographic characteristics and variables.** Given restrictions in the longitudinal dataset of this study, we were only able to include some demographic characteristics in the matching model to predict the likelihood of enrolling in a dual credit course. Because prior academic performance and motivation are key predictors of dual credit enrollment, additional research would match students within each high school using eighth-grade GPA or other characteristics as a measure of academic motivation. A next step is to merge CPE's dataset with KDE's dataset to obtain better estimates of the causal relationship between high school dual credit and postsecondary achievement. Furthermore, the current dataset did not include information about the intensity of dual credit enrollment, such as total dual credit hours taken

  outcomes is critical. Further research also is needed to assess dual credit's impact on other postsecondary outcomes, like college completion and employment.

- **Examine outcomes for dual credit participants who attend KCTCS.** CPE is planning a second report This report

  academic outcomes at KCTCS.

- **Survey dual credit students, teachers and other stakeholders.** It would be helpful to better understand the perceptions and experiences of stakeholders who are involved in dual credit, such as students, instructors, advisors and school administrators. To facilitate this, surveys could be designed and administered, and focus groups and individual interviews could be conducted.

In conclusion, additional qualitative research would help us gain further insights into the accessibility, transferability
Through these approaches, CPE would gain a more complete picture of Kentucky dual credit programs and participants.

APPENDICES

APPENDIX A

MEASURES

Independent Variable:

Dual credit. This variable indicates whether students enrolled in a course for which they received both high school and college credit.

Outcome Variables:

Second-year persistence. This variable indicates whether or not students returned to any higher education

First-year GPA. This variable indicates the average GPA
year of college, excluding grades from remedial courses. We used GPA as both a continuous and categorical variable for this study. For the continuous variable, the points range from 0.0 to 4.0. The categorical variable
A<3.0 and 3.0≥GPA. (Note: W A as one of the confounding variables to predict second-year persistence.)

Confounding Variables:

Underrepresented minority (URM). This variable indicates whether students categorized themselves as (a) Hispanic or Latinx, (b) American Indian or Alaska Native, (c) Black or African American, (d) Native Hawaiian or
, or (e) Two or more Races.

Low-income. This variable indicates whether or not students received any Pell Grant at entry or during

Gender. This variable indicates whether students categorized themselves as (a) female or (b) male.

College underpreparedness. This variable indicates whether or not students are underprepared for college based on CPE college readiness standards (http://www.cpe.ky.gov/policies/collegereadiness.html).

First-year GPA. This variable is one of the outcome variables. We included it in the models as one of the confounding variables to predict the second-year persistence.

Cohort year.
Kentucky, including fall 2014, 2015, 2016 and 2017.

Institution name. This variable indicates the four-year public institution in Kentucky where
students enrolled during the cohort years of fall 2014, 2015, 2016 and 2017. They include: (a) Eastern Kentucky University, (b) Kentucky State University, (c) Morehead State University, (d) Murray State University, (e) Northern Kentucky University, (f) University of Kentucky, (g) University of Louisville, and (h) Western Kentucky University.

ATTRIBUTES OF THE VARIABLES

Variable Name	Type	Categories
Independent Variable		
Dual Credit	Binary	(a) Yes (b) No
Outcome Variables		
Second-Year Persistence	Binary	(a) Yes (b) No
First-Year GPA	Binary	(a) GPA $<$ 3.0 (b) GPA $\geq$ 3.0
	Continuous	Points Range on a 4.0 scale
Confounding Variables		
Underrepresented Minority	Binary	(a) Yes (b) No
Gender	Binary	(a) Yes (b) No
Underprepared for College	Binary	(a) Yes (b) No
Cohort Year	Categorical	Fall 2014 Fall 2015 Fall 2016 Fall 2017
Institution	Categorical	Eastern Kentucky University Kentucky State University Morehead State University Murray State University Northern Kentucky University University of Kentucky University of Louisville Western Kentucky University

APPENDIX B

ANALYTIC STRATEGIES

A, second-year persistence), and cohort year participation (fall 2014, 2015, 2016 and 2017) between students who enrolled in dual credit and those who did not.

outcomes, as measured by students' A. Regression analysis adjusts for the observed confounding variables in the models. The confounding variables included in this study were found to be associated with the interested outcome variables suggested by both theories and previous empirical studies. Binary logistic regression models were used for the dichotomous outcome variable: second-year persistence.

A, the underlying assumptions were tested to determine whether to use an Ordinary Least Squares (OLS) regression model for the continuous GPA variable. A violation of one of the assumptions was found, showing that the error term was not normally distributed. Additionally, the distribution of the continuous GPA was highly left skewed. OLS regression can be misleading, as it relies on the mean as a measure of centrality for a normal distribution. Thus, the original continuous GPA variable was placed into two categories: GPA<3 and 3≥GPA. A binary logistic regression was conducted using this new categorized GPA A

across four cohorts, regardless of whether a student had a dual credit experience or in which sector the dual credit experience took place. However A

s institutional support, selectivity, student-faculty

A might be

account for the variations across institutions and by cohort.

was disaggregated further by student race, gender, income and college readiness. These estimates were calculated by introducing interactions of the student subgroup with the dual credit indicator in the analysis

The interaction terms are: (a) dual credit and gender, (b) dual credit and college underpreparedness, (c) dual credit and URM, (d) dual credit and low-income, (d) dual credit and URM and low-income.

assigned either to enroll or to not enroll in a dual credit course.
on students' postsecondary achievements would then be calculated. However, in Kentucky, dual credit is not randomly assigned, but self-selected. Choosing to apply for a dual credit course depends on the active choices of students and their parents. These choices typically depend on student academic performance, motivation,

higher eighth-grade GPA or motivation apply for dual credit courses, then the postsecondary performances of these students might appear better than non-dual credit students because of potentially unobserved

Given the availability of the longitudinal data, student demographic characteristics for this study included gender, race, low-income, cohort year, and region in the matching model to predict student likelihood to enroll in a dual credit course. Ideally, students would be matched within each high school using their eighth-grade GPA and a measure of their motivation. Thus, due to this limitation, PSM was used as a trial on the preferred
A for this study.

holding other confounding variables at their means. Therefore, MEM can provide a clearer interpretation of
A by isolating
Adjusted Predictions at the Means (APM) were also computed and reported to present the average predicted probabilities while holding other confounding variables at their means.

All analyses were conducted using Stata SE/14.0 statistical software.

APPENDIX C

THE EFFECT OF DUAL CREDIT ON SECOND-YEAR PERSISTENCE

Overall, dual credit had a positive impact on students' second-year persistence across all the models, as shown in the table below.

percentage points higher than a non-dual credit student (p<0.001). The result on the matched sample after PSM also indicates that dual credit students were more likely to persist to a second year.
this outcome even slightly increased by 0.1 percentage points after matching, compared with Model 4.

	Model 1	Model 2	Model 3	Model 4	Model 5 (PSM)
Dual Credit (Marginal	0.077*** (0.003)	0.021*** (0.003)	0.022*** (0.003)	0.020*** (0.003)	0.021*** (0.008)
Dual Credit (Odds Ratio)	1.782*** (0.043)	1.305*** (0.042)	1.314*** (0.042)	1.300*** (0.042)	1.305*** (0.052)
[1]Covariates	NO	YES	YES	YES	YES
	NO	NO	YES	YES	YES
	NO	NO	NO	YES	YES
Observations	51,995	48,554	48,544	48,544	30,792
Pseudo R^2	0.013	0.342	0.342	0.348	0.347
Log-likelihood	-23022.128	-14087.754	-14079.213	-13963.874	-9006.964
AIC	48472.593	28189.508	28179.255	27961.794	18047.928
BIC	45490.311	28251.039	28267.157	28111.183	18189.624

Note. [1]Covariates included gender A.
Robust standard errors are in parentheses.

$^*P \leq .05$. $^{**}P \leq .01$. $^{***}P \leq .001$.

AVERAGE PREDICTED PROBABILITY OF PERSISTING TO A SECOND YEAR OF COLLEGE

The following table presents the average predicted probability of persisting to a second year of college for both dual and non-dual credit students after holding other confounding variables at their means. In Model 4, the predicted chance of second-year persistence for dual and non-dual credit students were 92.5% and 90.5% respectively , the chance of persisting to a second year for both groups was relatively smaller: 92.2% for dual credit students and 90.1% for non-dual credit students.

	Model 1	Model 2	Model 3	Model 4	Model 5 (PSM)
Dual Credit	0.876 (0.002)	0.924 (0.002)	0.924 (0.002)	0.925 (0.002)	0.922 (0.002)
	[0.872, 0.880]	[0.920, 0.927]	[0.921, 0.928]	[0.921, 0.929]	[0.918, 0.927]
Non-Dual Credit	0.799 (0.002)	0.903 (0.002)	0.902 (0.002)	0.905 (0.002)	0.901 (0.002)
	[0.794, 0.804]	[0.898, 0.907]	[0.898, 0.906]	[0.901, 0.909]	[0.895, 0.906]

Robust standard errors are in parentheses.

APPENDIX D

THE EFFECT OF DUAL CREDIT ON FIRST-YEAR GPA

Overall, dual credit had a positive impact on students' A for all the models, as shown in the table below. A equal to or greater than 3.0 on a 4.0 scale for a dual credit student was 8.2 percentage points higher than for a non-dual credit student (p<0.001). The result on the A equal to or greater than 3.0 during their freshmen year. point after matching compared with model 5.

	Model 1	Model 2	Model 3	Model 4	Model 5 (PSM)
Dual Credit (Marginal	0.119*** (0.004)	0.079*** (0.005)	0.075*** (0.005)	0.082*** (0.005)	0.092*** (0.006)
Dual Credit (Odds Ratio)	1.623*** (0.030)	1.378*** (0.027)	1.356*** (0.027)	1.400*** (0.028)	1.453*** (0.036)
[1]Covariates	NO	YES	YES	YES	YES
	NO	NO	YES	YES	YES
	NO	NO	NO	YES	YES
Observations	48,693	48,544	48,544	48,544	30,792
Pseudo R^2	0.010	0.078	0.080	0.086	0.085
Log-likelihood	-33100.468	-30768.623	-30689.704	-30476.934	-19373.641
AIC	66204.936	61549.247	61397.408	60985.868	38779.282
BIC	66222.522	61601.988	61476.520	61126.511	38912.643

Note. [1]Covariates included gender, URM, low-income, college underpreparedness.
Robust standard errors are in parentheses.

**P ≤ .05. **P ≤ .01. ***P ≤ .001.*

AVERAGE PREDICTED PROBABILITY OF OBTAINING A FIRST-YEAR GPA EQUAL TO OR GREATER THAN 3.0

A that is either equal to or greater than 3.0 for both dual and non-dual credit students after holding other confounding variables at A that is either equal to or greater than 3.0 for dual and non-dual credit students was 59.8% and 51.6%, respectively. In Model 5, after matching, the gap widened - it was 60.0% for dual credit students and 50.8% for non-dual credit students.

	Model 1	Model 2	Model 3	Model 4	Model 5 (PSM)
Dual Credit	0.616 (0.003)	0.595 (0.003)	0.594 (0.003)	0.598 (0.003)	0.600 (0.004)
95% Intervals	[0.610, 0.622]	[0.589, 0.602]	[0.587, 0.600]	[0.592, 0.605]	[0.592, 0.609]
Non-Dual Credit	0.497 (0.003)	0.516 (0.003)	0.519 (0.003)	0.516 (0.003)	0.508 (0.004)
95% Intervals	[0.491, 0.503]	[0.510, 0.523]	[0.512, 0.525]	[0.509, 0.522]	[0.500, 0.517]

Robust standard errors are in parentheses.

APPENDIX E

THE EFFECTS OF DUAL CREDIT AT DIFFERENT QUANTILES OF FIRST-YEAR GPA

Based on the quantile regression analysis results in the table below, dual credit was found to have a stronger A A. Compared with non-dual credit students, dual credit participants had an average of 0.295 points higher at the A, 0.180 points higher at the 50th, and 0.094 points higher at the 75th. In sum, the As were greater.

Variable	25th Quantile	50th Quantile	75th Quantile
Dual Credit	0.295*** (0.021)	0.180*** (0.013)	0.094*** (0.009)
[1]Covariates	YES	YES	YES
	YES	YES	YES
	YES	YES	YES
Observations	30,792	30,792	30,792
Adjusted R^2	0.100	0.085	0.069

Note. [1]Covariates included gender, URM, low-income, college underpreparedness.
Robust standard errors are in parentheses.

**P ≤ .05. **P ≤ .01. ***P ≤ .001.*

APPENDIX F

AVERAGE PREDICTED PROBABILITY OF SECOND-YEAR PERSISTENCE ACROSS SUBGROUPS

Gender

Overall, dual credit had a positive impact on second-year persistence for both female and male students; however
increase of 2.6 percentage points in the probability of persisting to a second year for female students, and an increase of 1.6 percentage points for male students, as indicated in the table below. Without dual credit, male students were more likely to persist to the second year of college than female students (after controlling for other confounding variables). On average, the predicted probability of persisting to a second year of college for a non-dual credit male student was 0.8 percentage points higher than a non-dual credit female student. The relationship was reversed with dual credit. A dual credit female student was slightly more likely to persist to a second year of college than a dual credit male student. However
the average predicted probability of male and female students with and without dual credit overlapped. This evidence indicates that although there were gaps between male and female students with and without dual

Subgroup	Non-Dual Credit	Dual Credit	
Model 1: Interaction between dual credit and gender			
Gender			
Female	0.897 (0.004)	0.923 (0.003)	0.026*
	[0.890, 0.904]	[0.917, 0.930]	
Male	0.905 (0.003)	0.922 (0.003)	0.017*
	[0.898, 0.912]	[0.915, 0.928]	
	0.008	0.001	

College Preparation

a non-dual credit prepared student had a 90% chance of persisting to a second year, while an otherwise comparable prepared student who enrolled in dual credit had a 92.3% chance of persisting. The increase
Although a dual credit underprepared student had a 1.7 percentage points increase in the probability of persistence, the increase was not statistically

Overall, dual credit widened the gap between college-prepared and underprepared students. Without dual credit, prepared and underprepared students shared a similar likelihood of persisting to a second year. With dual credit, an underprepared student was 0.5 percentage points more likely to persist than a prepared student. However
overlapped.

Subgroup	Non-Dual Credit	Dual Credit	
Model 2: Interaction between dual credit and preparation			
Underprepared			
Yes	0.901 (0.005)	0.918 (0.002)	0.017
	[0.891, 0.912]	[0.905, 0.931]	
No	0.900 (0.003)	0.923 (0.002)	0.023*
	[0.895, 0.906]	[0.918, 0.928]	
	0.001	0.005	

Income

Dual credit had a positive impact on second-year persistence for both low-income and non-low-income students. A non-dual credit non-low-income student had a 91.3% chance of persisting to a second year, while an otherwise comparable dual credit non-low-income student had a 92.8% chance. The low-income students showed similar results. On average, dual credit low-income students were 3.0 percentage points more likely to

than non-low-income students. With or without dual credit, non-low-income students were more likely to persist to the second year of college than low-income students. However, dual credit narrowed the gap between the

Subgroup	Non-Dual Credit	Dual Credit	
Model 3: Interaction between dual credit and income			
Low-Income			
Yes	0.882 (0.004)	0.912 (0.007)	0.030*
	[0.874, 0.890]	[0.907, 0.919]	
No	0.913 (0.003)	0.928 (0.006)	0.015*
	[0.906, 0.919]	[0.922, 0.934]	
	0.031*	0.016*	

Race

Dual credit students were more likely to be persist to a second year of college than non-dual credit students for both URM and non-URM subgroups. With dual credit, there was an increase of 2.3 percentage points in the probability of persisting to a second year for URM students, and an increase of 2.1 percentage points for

students were more likely to persist than non-URM students. However

Subgroup	Non-Dual Credit	Dual Credit	
Model 4: Interaction between dual credit and race			
URM			
Yes	0.907 (0.005)	0.930 (0.005)	0.023*
	[0.896, 0.918]	[0.920, 0.939]	
No	0.900 (0.003)	0.921 (0.003)	0.021*
	[0.894, 0.905]	[0.916, 0.926]	
	0.007	0.011	

Income and Race

Overall, whether or not they participated in dual credit, non-low-income non-URM students had the highest probability of persisting to a second year, while low-income URM students had the lowest probability. However,

non-low-income non-URM students and low-income URM students, from 12.2 percentage points to 8.8 percentage points. Additionally
income URM students and low-income URM students, from 8.0 percentage points to 4.9 percentage points. Moreover
of 9.3 percentage points in their chance of being retained for a second year. Low-income URM students

Subgroup	Non-Dual Credit	Dual Credit	
Model 5: Interaction between dual credit, race and income			
URM & Low-Income			
No & No	0.853 (0.004)	0.901 (0.003)	0.048*
	[0.845, 0.861]	[0.895, 0.908]	
No & Yes	0.747 (0.006)	0.840 (0.005)	0.093*
	[0.735, 0.759]	[0.830, 0.850]	
Yes & No	0.811 (0.013)	0.862 (0.012)	0.051*
	[0.786, 0.837]	[0.839, 0.886]	
Yes & Yes	0.731 (0.012)	0.813 (0.010)	0.082*
	[0.709, 0.755]	[0.792, 0.833]	

Note. For all tables, covariates included gender
GP
Robust standard errors are in parentheses.

**P ≤ .05.*

APPENDIX G

AVERAGE PREDICTED PROBABILITY OF EARNING A FIRST-YEAR GPA OF 3.0 OR HIGHER ACROSS SUBGROUPS

Gender

A of both male and female students. The predicted probability of obtaining a GPA equal to or greater than 3.0 for both groups with dual credit was greater than for their non-dual credit peers.

1.1 percentage points. Male students

Additionally A equal to or greater than 3.0, with or without dual credit. The predicted probability for female students with or without dual credit was 57.8% and 65.3%, respectively. By comparison, the probability was 41.6% for male non-participants and 52.7% for male participants.

, dual credit narrowed the gap in the A equal to or greater than 3.0 between female and male students, from 16.2 percentage points to 12.6 percentage points.

Subgroup	Non-Dual Credit	Dual Credit	
Model 1: Interaction between dual credit and gender			
Gender			
Female	0.578 (0.006)	0.653 (0.005)	0.075*
	[0.567, 0.589]	[0.642, 0.663]	
Male	0.416 (0.006)	0.527 (0.006)	0.111*
	[0.404, 0.429]	[0.514, 0.539]	
	0.162*	0.126*	

College Preparation

A equal to or greater than 3.0 than underprepared students, regardless of dual credit. Prepared students with dual credit were 9.4 percentage A equal to or greater than 3.0 than their non-dual credit peers. For A equal to or greater than 3.0 was 4.4 percentage points greater with dual credit than without dual credit. However, this increase was not

Subgroup	Non-Dual Credit	Dual Credit	
Model 2: Interaction between dual credit and preparation			
Underprepared			
Yes	0.268 (0.009)	0.312 (0.015)	0.044
	[0.250, 0.286]	[0.283, 0.341]	
No	0.546 (0.005)	0.640 (0.004)	0.094*
	[0.537, 0.555]	[0.631, 0.648]	
	0.278*	0.328*	

Income

A of both low-income and non-low-income students.
The predicted probability of obtaining a GPA equal to or greater than 3.0 for both groups with dual credit

Additionally A equal to or greater than 3.0 than low-income students, with or without dual credit. The predicted probability for non-low-income students was 57.3% without dual credit and 65.2% without dual credit. By comparison, for low-income students, it was 41.4% without dual credit and 52.1% with dual credit.
, dual credit
A equal to or greater than 3.0 between low-income and non-low-income students - from 15.9 percentage points to 13.1 percentage points.

Subgroup	Non-Dual Credit	Dual Credit	
Model 3: Interaction between dual credit and income			
Low-Income			
Yes	0.414 (0.007)	0.521 (0.007)	0.107*
	[0.401, 0.428]	[0.508, 0.533]	
No	0.573 (0.003)	0.652 (0.005)	0.079*
	[0.562, 0.584]	[0.642, 0.662]	
	0.159*	0.131*	

Race

A of both URM and non-URM students. Non-URM
The predicted probability of obtaining a GPA equal to or greater than 3.0 for both URM and non-URM students with dual credit was greater than for their non-dual credit peers.

Additionally A equal to or greater than 3.0 than URM students, with or without dual credit. The predicted probability for non-URM students without dual credit was 52.4%, compared to 61.8% with dual credit. For URM students without dual credit, it was 42.1%, A of at least 3.0 for both URM and non-URM students increased, but dual credit slightly widened the gap between URM and non-URM students - from 10.3 percentage points to 12.2 percentage points.

Subgroup	Non-Dual Credit	Dual Credit	
Model 4: Interaction between dual credit and race			
URM			
Yes	0.421 (0.011)	0.496 (0.011)	0.075*
	[0.399, 0.443]	[0. 475, 0.518]	
No	0.524 (0.005)	0.618 (0.005)	0.094*
	[0.515, 0.533]	[0.610, 0.627]	
	0.103*	0.122*	

Income and Race

A for three of the noted subgroups (with the exception of non-low-income URM students). Compared to the other three categories, low-income non- 1.1 percentage-point increase in the probability of obtaining a GPA
most from dual credit, with an increase of 8.6 percentage points. Students who were neither URM nor low-income had the greatest probability of obtaining a GPA equal to or greater than 3.0. The probability for non-participants was 58.8%, and for participants it was 66.9%. Students who were both URM and low-income had the lowest probability, at 32.8% for non-participants and 41.4% for participants. Participation in dual credit slightly narrowed the gap in probable GPA between non-low-income non-URM students and low-income URM students, from 26.0 percentage points to 25.5 percentage points. Additionally, participation in dual credit

16.8 percentage points to 13.5 percentage points.

Subgroup	Non-Dual Credit	Dual Credit	
Model 5: Interaction between dual credit, race and income			
URM & Low-Income			
No & No	0.588 (0.006)	0.669 (0.005)	0.081*
	[0.576, 0.599]	[0.658, 0.679]	
No & Yes	0.430 (0.008)	0.541 (0.007)	0.111*
	[0.416, 0.445]	[0.526, 0.555]	
Yes & No	0.496 (0.018)	0.549 (0.017)	0.053
	[0.462, 0.530]	[0.515, 0.582]	
Yes & Yes	0.328 (0.013)	0.414 (0.014)	0.086*
	[0.302, 0.354]	[0.387, 0.440]	

Note. For all tables, covariates included gender
GP

**P ≤ .05.*

NOTES

NOTES

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CPE REPORT

Eastern Kentucky University News for the Council on Postsecondary Education

EKU APPOINTS NEW PRESIDENT, VICE PRESIDENT WITH FOCUS ON DIVERSITY, EQUITY AND INCLUSION

Eastern Kentucky University has announced two major hires in the top echelons of the university's hierarchy. Dr. David McFaddin and Dr. Dannie Moore are Eastern's newest president and vice president, strategic Initiatives and chief diversity, equity, and inclusion officer, respectively.

McFaddin was named Eastern Kentucky University's 14th president after a special meeting of the Board of Regents Aug. 20. The board voted unanimously to remove the interim from his title and will work out a contract with the president before December.

"Today is truly the culmination of everything that is good about this institution. My job is to serve. Yes, I'm expected to lead. Yes, I'm expected to be accountable, but more importantly, I'm here to support and provide for our students, for our faculty, staff and for every one of my cabinet members. I have the most amazing group of people who are dedicated to this institution in a way that I wouldn't want to serve with anyone else," McFaddin said. "I think you will see the best of us will come next. The best for this institution is ahead of us and EKU is in good hands because they are absolutely amazing people who will fight day and night to make sure that opportunity is not just here today, but for generations to come."

A native son of Kentucky, President McFaddin holds a doctorate in educational leadership and policy studies from EKU. He also holds a master's degree in business administration from the Gatton College of Business and Economics at the University of Kentucky and a B.A. summa cum laude from EKU with a major in public relations.

Dr. Dannie Moore was hired in late June. He has more than 16 years of executive higher education administrative experience, including leadership roles in multicultural and student affairs.

Moore is an experienced university administrator familiar with Kentucky's higher education system. He spent the last nine years at Northern Kentucky University (NKU). "We had an outstanding pool of candidates following a nationwide search for this position, and Dr. Moore brings the ideal mix of qualifications and experience for this executive level role as a seasoned diversity, equity and inclusion practitioner," said McFaddin.

"I champion innovative initiatives that increase recognition, understanding and value of diverse perspectives and backgrounds," Moore said. "Students, faculty and staff all benefit when universities commit to interactive and meaningful partnerships. I am eager to make connections with EKU's academic and co-curricular departments to develop a cohesive community of resources with all campus stakeholders."

FEMALE DUO BLAZES TRAIL IN CANCER RESEARCH

Shortly after joining Eastern Kentucky University, Dr. Lindsay Calderon, associate professor of biological sciences, and Dr. Margaret Ndinguri, associate professor of chemistry, met at a grant writing workshop.

"From there, we started working together, and it has been a blessing," Ndinguri said. "A good partner to work with really helps a lot." "It's been fun actually," Calderon said about her research partnership with Ndinguri. "We've had a good time."

With a united goal of advancing the healthcare provided to patients afflicted with cancer, the pair set out on what has become a life-altering journey. "Our short term plan is to mold the system through our research endeavors and our long term plan is through our students who will become our future physicians," Ndinguri said. They are reaching their career milestones through a unique interdepartmental collaboration that spans gender, race and background. They said they hope their collaboration is the embodiment of EKU and a model that should be strived for at all universities across the nation.

That first meeting sparked both a personal and professional relationship that, with some luck and continued research, could someday save the lives of men and women with the most difficult-to-treat cancers. The pair is on the cusp of creating a drug that would be considered revolutionary in reproductive cancer diagnostics and treatments.

Calderon and Ndinguri discovered a chemical compound targeting specific types of cancers. Typical cancer scans target major receptors on the cell surface when diagnosing or treating cancer. But some less common forms of reproductive cancers, including triple negative breast cancer and metastatic ovarian cancer, along with a few other non-reproductive cancers, lack those major receptors. Triple negative breast cancer is one of the most prevalent forms of breast cancer in young women aged 20-34, contributing to 56 percent of African American and 42 percent of white women breast cancer cases.

"So, it is a disease that afflicts women in the prime of their lives, and the younger you are diagnosed with it the more likely you are to succumb to the disease," the duo said.

EKU VETS CENTER DEDICATED

Eastern Kentucky University has long been known as an institution that supports veterans, and it has now unveiled a space that strengthens that support.

EKU's newly renovated Powell Building now boasts a 3,000 square foot facility dedicated to veterans attending the University. The EKU Veterans Education and Transition Support (VETS) Center was unveiled Tuesday morning, with Rep. Andy Barr and President Dr. David McFaddin speaking as the event was live streamed. The space occupies the former Jaggers Room in the Powell Building, named for Dr. Richard E. Jaggers, professor emeritus who retired in 1962. Several of Dr. Jaggers' family members were in attendance.

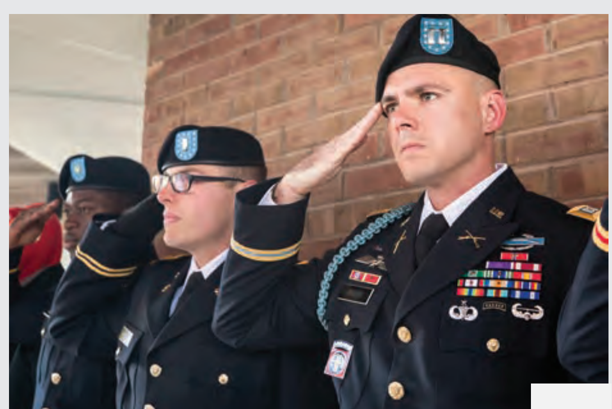
President McFaddin said it is a space that represents what veterans mean to EKU.

"We know the kinds of students our veterans are. They show up. They're dependable. They're dedicated to themselves and they're dedicated to others, and that's what being a Colonel means at EKU," McFaddin said. "We need to think about this (space) in a way that recognizes the service of these men and women."

The center boasts a 1,500 square feet open area designed for EKU veteran and military students to socialize, study, hold events and includes lounge furniture and group work stations, a customer service desk staffed by VA student employees, charging stations, a retractable large-screen projector, computer stations and printers and a hospitality station with café-style seating.

"We know the kinds of students our veterans are. They show up. They're dependable. They're dedicated to themselves and they're dedicated to others, and that's what being a Colonel means at EKU"

— Doctor David McFaddin, EKU President



KCTCS GOOD NEWS REPORT

SEPTEMBER 2020

KCTCS HAS
RECORD BREAKING YEAR

Despite disruption to the spring semester, the Kentucky Community and Technical College System (KCTCS) awarded a record number of credentials to a record number of graduates. Additionally, the record number of credentials awarded pushes the total number of credentials awarded to half a million since KCTCS was created.

For the 2019-20 academic year the 16 KCTCS colleges awarded 39,291 credentials, which included degrees, diplomas and

The system also saw an increase of 7 percent in the number of credentials awarded to underrepresented minorities. Since the implementation of performance-based funding in 2015-16, KCTCS has seen a 40 percent increase in credentials awarded to underrepresented minorities, which helps continue to close the achievement gap. This compares to a 26 percent increase for other students.

KENTUCKY
COMMUNITY & TECHNICAL
COLLEGE SYSTEM

Credentials in science, technology, engineering, math and health care (STEM+H) also increased from 13,155 in 2018-19 to 13,787 in 2019-20. Further, credentials in the state's top demand segments increased from 28,944 to 31,143. In 2019-20, nearly

job sectors.

KCTCS also had 19,423 graduates, up more than 7 percent over last year.

"This is stunning information given the many changes our students faced in the spring because of COVID-19," KCTCS President Jay K. Box said. "It wasn't easy, but they found a way to persevere under challenging circumstances and adapted to the new remote instruction like true champions. I'm extremely proud of them and of our faculty that had to turn on a dime to teach in a new way."

After moving to all remote instruction in March,

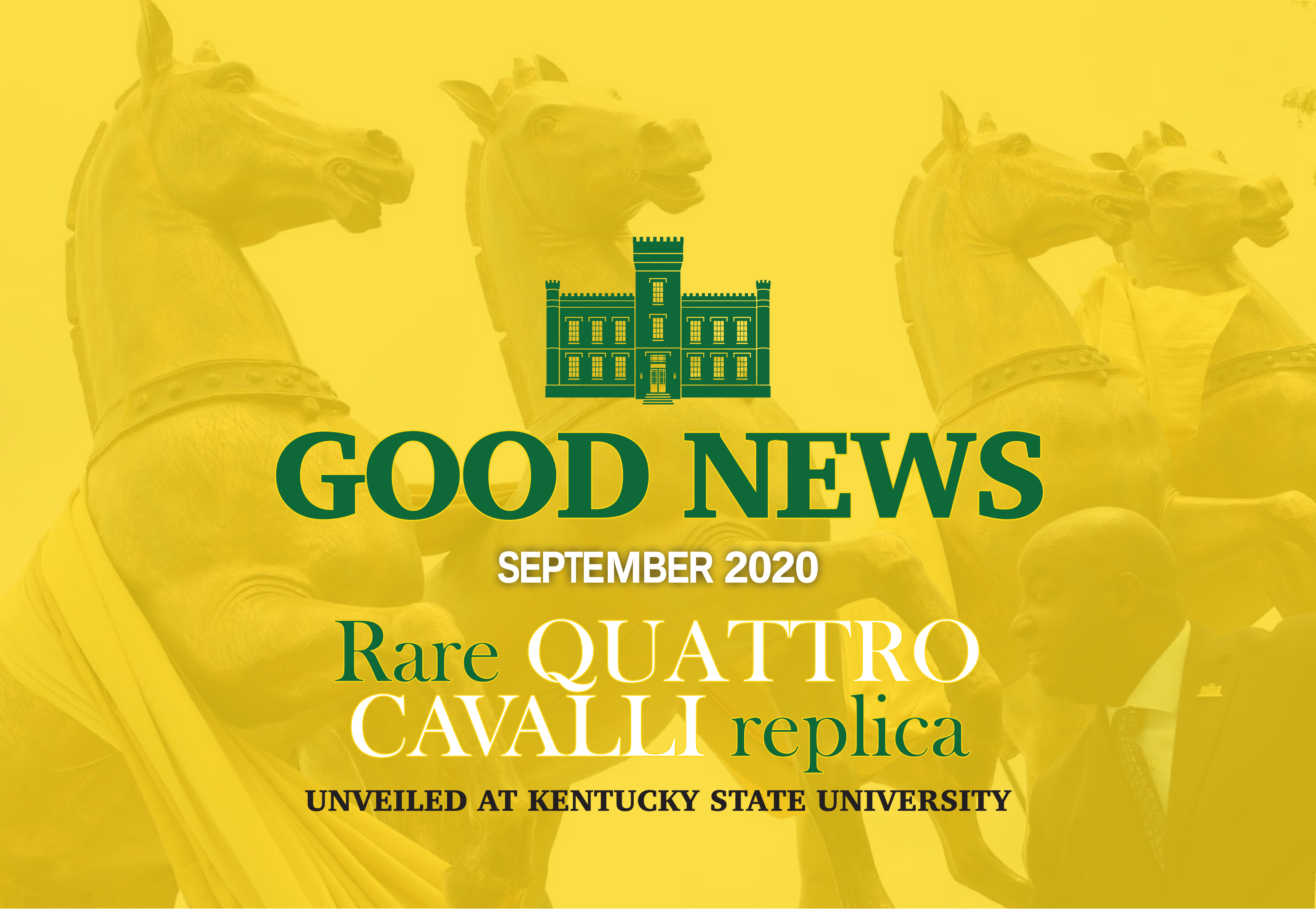
in their parking lots to assist students who had no access to broadband. Faculty also worked

courses on their phones because they did not have laptops or home computers.

Colleges kept food pantries stocked and gave away gift cards to help students who needed food or other necessities.

"Without a doubt, spring 2020 was the most challenging semester we've faced," Box said. "I'll be retiring in a few weeks and will leave KCTCS with a sense of pride because of what our

this spring, but every semester. Seeing us reach a milestone of half a million credentials awarded to Kentuckians since the system was created is especially gratifying."



GOOD NEWS

SEPTEMBER 2020

Rare QUATTRO CAVALLI replica

UNVEILED AT KENTUCKY STATE UNIVERSITY

Kentucky State University unveiled a rare replica of the Quattro Cavalli statue on its campus Friday, Aug. 21.

Quattro Cavalli, also known as the Horses of Saint Mark's, are one of the world's most mysterious statuary.

"The rich history of pure bred, agile, swift, and strong horses a cornerstone of Kentucky life. As the Commonwealth's Home of the Thorobreds, we are appreciative of the opportunity to share these awe-inspiring figures with the community. The Quattro Cavalli now sit upon a hill like a sentinel on watch at the entry of our campus," Kentucky State University President M. Christopher Brown II said.

While the original set of four gilded copper horses are on display inside St. Mark's Basilica in Venice, a replica stands in position on the loggia. The only replica in the United States resides at Kentucky State University.

The Italian horses, positioned to look onward, upward and forward, will serve as a vital tourism landmark and community gathering place to learn the significance of this replica of one of the most magnificent statues to survive from classical antiquity.

"The Quattro Cavalli were positioned on campus to face toward the Capitol rotunda — reinforcing the role of Kentucky State University as the state's only federally sponsored historically Black land-grant university. The horses are racing onward, upward and forward," President Brown said.

Under normal circumstances, the replica would have been unveiled to welcome the class of 2024. However, with the ongoing global pandemic, the unveiling was modified to adhere to federal, state and local guidelines.

KENTUCKY STATE UNIVERSITY HOSTED INAUGURAL HBCU MENTAL HEALTH SUMMIT

In the midst of a global health pandemic and deepening racial tensions, the Kentucky State University Division of Student Engagement and Campus Life and its Center for Emotional Wellness recently hosted the two-day inaugural HBCU Mental Health Summit.

A virtual event, held during Minority Mental Health Month, brought together 130 mental health professionals, faculty, student affairs staff, consultants and graduate students from more than 25 HBCUs to explore issues related to the theme of "Supporting Students in the Era of COVID-19 and Racial Trauma." Featuring nationally recognized keynote presenters, breakout workshop and strategy sessions, networking opportunities, town hall meetings, and a celebration of HBCUs program, the Summit was a powerful opportunity for learning and sharing of critical information to advance services to students at this critical moment.

The talents of the Kentucky State University community were featured prominently in the Summit. Mental health counselor LaShonda Sims Duncan delivered transformational mindfulness moments, with her colleague William Mynk facilitating a spirited lunch-and-learn session. In addition, a panel of Kentucky State students in the L.E.A.D. 1886 Leadership Academy shared their experiences actively participating in protesting, supporting rallies, learning away from campus, and the interruption of activities such as sports, running for office and Greek life.

Panelists included Yasmine Harper, Ashley Hayes, Miana Wallace, Gyannella Vega-Ortega, and SGA President-Elect Kirk Miller. Dr. Lori Hicks, interim chair of the School of Humanities and Performing Arts, also presented a highly received workshop entitled "Mind Music: The Role of Music in Mental Health." Dr. Linda J.M. Holloway, associate professor of counseling and program coordinator at Alabama State University, said, "If it had not been for this amazing program, this information would not have been put forth into the atmosphere. You are touching lives! I hope you all do it again and again. The Summit was excellent."

Tecla Coleman, a graduate student at Dartmouth University who will be interning in the fall at Kentucky State, affirmed these sentiments: "I'm loving all of this, I needed this," Coleman said. "Not just as a practicum experience, but for my life." This Summit, as well as the upcoming HBCU Student Leadership Summit, was envisioned by Dr. Derek Greenfield, Vice President for Student Engagement and Campus Life/Chief Diversity Officer, as an effort to help students. "The HBCU world needs these opportunities to build community and strengthen our skill sets to best support our wonderful students, and Kentucky State deserves to be the leader for this work," Greenfield said.

Dr. Pernella Deams, Dean of Student Leadership, Conduct, and Health, and Dr. Anthony Andrews, Director of the Center for Emotional Wellness, served as co-chairs for the Steering Committee and joined Dr. Greenfield as facilitators for the Summit. "I was excited to see the HBCU community and our partners collaborate with a focus on the wellness and the voice of students during this time," Deams said.

KENTUCKY STATE UNIVERSITY ALUMNA PROMOTED TO LIEUTENANT COLONEL IN THE ARMY NATIONAL GUARD

A Kentucky State University alumna was recently promoted to the rank of Lieutenant Colonel in the Army National Guard.

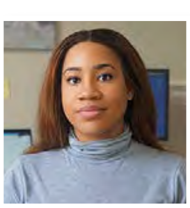
La'Shawna Waller, who earned undergraduate and graduate degrees from Kentucky State, now holds the rank of Lieutenant Colonel and serves as the operations officer for the Army National Guard G-9, Installations and Environment Directorate. Waller earned a master's in special education by taking online courses while she was deployed in Kuwait.

Waller graduated from Kentucky State University in 2005 with a Bachelor of Science in biology. She was commissioned as a Quartermaster Officer in May 2005 from the University of Kentucky ROTC program and assigned to the Kentucky Army National Guard. As of June 1, she holds the rank of Lieutenant Colonel. In an interview in the Spring 2017 Onward and Upward magazine, Waller said, "Starting the program while deployed helped me focus on something else rather than my deployment. It was a type of mental escape for me." Waller also holds a Master of Science in environmental management from Webster University. She is currently pursuing an Ed.D. from Peabody College at Vanderbilt University in leadership and learning in organizations. Waller's military education includes training in human resources; engineering; command and general staff officers course; reserve component national security; and defense strategy.

Waller has served in two combat tours and has held a variety of leadership positions at the operational and strategic levels. Waller's awards and decorations include the Bronze Star Medal, Defense Meritorious Service Medal, Army Meritorious Service Medal (with two Oak leaf clusters), Army Commendation Medal (with 3 oak leaf clusters), Army Achievement Medal, Army Reserve Component Achievement Medal (with one oak leaf cluster), Armed Forces Reserve Medal with M device, and the Army Staff Identification Badge.

Waller currently resides in Alexandria, Virginia where she is heavily involved in the community. Waller currently serves as the president for the DC Area Kentucky State University Alumni Chapter. She attends Alfred Street Baptist Church and is a member of the Voices of Triumph Choir. Waller is also a member of the Northern Virginia Alumnae Chapter of Delta Sigma Theta Sorority, Incorporated.

KENTUCKY STATE UNIVERSITY ALUMNA DEVELOPS SOFTWARE FOR FORTUNE 500 COMPANIES



A Kentucky State University alumna found her calling by chance during her time as an undergraduate on the Hill.

Jordan Perry, class of 2015, switched her major from undecided to IT security to software development, which led to her career path. Perry said she switched to software development because she likes to think of herself as an artist.

"I enjoy creating," Perry said. "Through code and various frameworks, the options of creation are limitless." After graduation, Perry has been developing software for various Fortune 500 companies, from Walmart to BMW.

"I've had the pleasure of developing across multiple platforms such as mobile, web and in-car applications," Perry said. Perry said the most important thing she learned at Kentucky State was how to be resourceful and to not be afraid to ask for help.

Her best advice to current or future Thorobreds? "My best advice is take that course, even if it's not in your major but sparks your interest," Perry said. "You might find your passion from going out on a whim." Perry added, "Enjoy these years of learning and connecting. Don't underestimate the value of networking."

MOREHEAD STATE UNIVERSITY

SEPTEMBER 2020

MSU earns national ranking for RN to BSN program

Morehead State University's RN to BSN program has been nationally ranked by NursingProcess.org. Out of 169 accredited programs in the Southeast Region (Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia), MSU was ranked in the top 5 (#4).

A full list of rankings can be found at www.nursingprocess.org/best-rn-to-bsn-programs/.

MSU's RN to BSN program trains students with the knowledge, skills and professional attitude to take nursing careers to the next level. Students who possess an unrestricted RN license are eligible, and the curriculum is delivered entirely online in an interactive web-based platform. Upon graduation, students will provide advanced nursing care and improve healthcare for a diverse patient population. The RN to BSN program was also ranked as one of the top online RN to BSN programs in Kentucky in 2019 by RegisteredNursing.org.

For more information about MSU's nursing programs, visit **www.moreheadstate.edu/nursing**, email **nursingdept@moreheadstate.edu** or call **606-783-2296**.

MSU receives national Best for Vets ranking as employer of military veterans

Morehead State University has long been nationally recognized for its commitment to student-veterans and putting them on a path to success. Now, MSU is earning high marks as an employer of veterans.

Military Times has named MSU to its Best for Vets: Employers 2020 list. It was one of 144 organizations that made the list, which examined a company or organization's efforts to reach out to veterans and provide them a setting to succeed. Rankings criteria are based on Military Times' years of research and interview with veterans while factoring in feedback from human resources professionals and veterans' advocates.

MSU has previously been recognized by Military Times, along with Viqtory Media and U.S. Veteran Magazine, as being a veteran-friendly institution. Dr. Silas Session, director of military initiatives at MSU, said everything from its academic programs and connection to ROTC to the University's overall welcoming atmosphere that has led to recognition as an ideal fit for both student-veterans and veteran employees.

Additional information for veterans, national guardsmen and reservists, and military families is available at **www.moreheadstate.edu/veterans**, or by contacting Session at 606-783-9416 or **ssession@moreheadstate.edu**.

MSU earns Tree Campus Higher Education Designation

For the fifth consecutive year, Morehead State has been designated as a Tree Campus for 2019 by the National Arbor Day Foundation.

The Tree Campus Higher Education designation, formerly called Tree Campus USA, is awarded annually, and recognizes efforts made in the previous year to promote healthy trees and engage students in conservation.

Tree Campus USA, a national program launched in 2008 by the Arbor Day Foundation, honors colleges and universities and their leaders for promoting healthy trees and engaging students and staff in the spirit of conservation.

For more information about sustainability efforts at MSU, **visit www.moreheadstate.edu/sustainability**.

Eagle Essentials helps provide essential items to MSU students in need

Some students may endure financial hardships that make it difficult for them to pursue higher education at Morehead State University due to the inability to afford adequate food and essential items. This led MSU to create Eagle Essentials to provide students with everyday items at no cost, including non-perishable food items, hygiene products and school supplies.

For student convenience and safety during the COVID-19 pandemic, MSU announced new hours of operation and safety procedures for Eagle Essentials access and donations effective Aug. 17. MSU students may stop by anytime during these hours to pick up food and toiletry items. Students will be required to wear a mask or face-covering in accordance with MSU Student Face-Coverings Compliance. An Eagle Essentials attendant will supply a written list of available items. After making selections, the attendant will bag up all items while wearing a mask, maintaining a minimum of six feet of social distance and following cleaning and safety protocols.

To learn more about Eagle Essentials, visit **www.moreheadstate.edu/eagle-essentials**.

MURRAY STATE UNIVERSITY

GOOD NEWS REPORT

AUGUST 2020

Fall 2020 enrollment information reflects significant increases in number of key categories

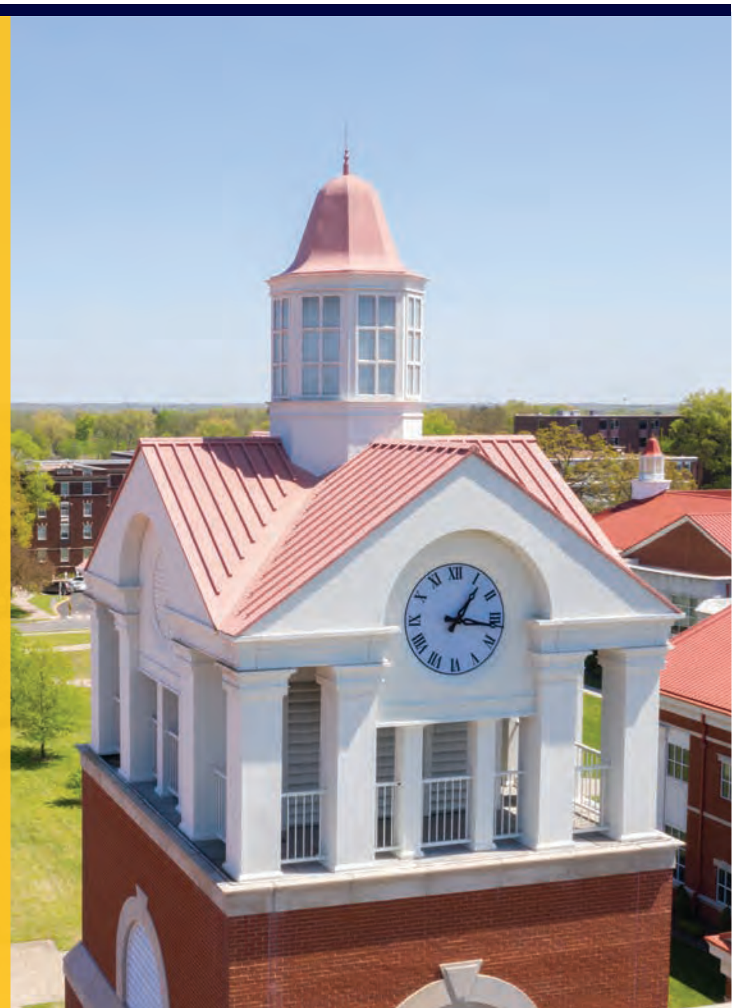
Enrollment data in several key categories reflect continued increases and positive momentum for the 2020-21 academic year.

Based on University data as of Aug. 25, this year's entering freshman class of 1,481 students reflects a significant increase of 4.2 percent from the fall 2019 freshman class. This marks the second straight year of freshman class growth; the fall 2019 class was up 7.7 percent from fall 2018 after being down nearly 9 percent from 2017.

The number of new graduate students and new transfer students also reflect major increases from the previous fall at 7.6 percent and 20 percent, respectively.

Murray State continues to see an increase in student retention and progression towards graduation. The University's first-to-second year retention rate of baccalaureate degree-seeking students is 80.8 percent, an increase of 1.5 percent from last year.

"I am very proud of our enrollment management team, administrators, faculty and staff who have worked very hard on our recruiting and retention efforts," said Murray State President Dr. Bob Jackson. "Our work and focus on student recruiting, retention, scholarships and financial aid initiatives coupled with telling our story to students and families are making a difference. Most importantly, I am grateful for our students who have chosen a high-quality, nationally-ranked institution which is recognized as one of America's best college values, to pursue their goals and dreams."



Murray State introduces School of Engineering

Murray State has introduced the School of Engineering — a renaming of the former Institute of Engineering within the Jesse D. Jones College of Science, Engineering and Technology — as part of a continued effort to support and grow engineering educational opportunities.

The newly-named School of Engineering offers a variety of experiential learning-based academic programs, including an engineering physics program with tracks in mechanical, electrical and aerospace engineering, which are EAC/ABET accredited. In addition to engineering physics and several engineering technology programs, the School offers a Bachelor of Science in civil and sustainability engineering.

Additionally, the School offers programs in construction management and architectural design, physics and cybersecurity and network management — Murray State's program of distinction that was recently accredited by the National Security Agency.

Prestigious national publications recognize University for educational quality, value and successful career outcomes for students

Murray State has once again been highlighted as a best value for students seeking a college degree by multiple national publications.

The University led all public institutions across Kentucky in Washington Monthly's "Best Bang for the Buck" South region category. Further, among ranked master's degree granting public institutions in Kentucky, Murray State ranks the highest, has the highest graduation rate, the lowest net price for families earning below $75,000 per year and the best ranking for the research score.

Murray State has also been named to Money's "2020 Best Colleges" list, which ranks the University as the No. 1 regional public institution in Kentucky, and by higher education research resource Niche in its "2021 Best Colleges in America" rankings.

Program through School of Nursing and Health Professions achieves 100 percent certification pass rate

The August 2020 graduating class of the Murray State University doctor of nursing practice family nurse practitioner program achieved a 100 percent certification pass rate.

Students worked to complete the rigorous Doctor of Nursing Practice program, which enabled the students to obtain national certification as family nurse practitioners. Certification allows these young professionals to meet the health care needs of many underserved communities, both in Murray and across the country.

Student Support Services awarded federal funding

Murray State's Student Support Services (SSS) has been granted federal funding for the next five years through the United States Department of Education.

For more than 40 years of operation, the University's SSS program has provided academic and other support services to low-income, first-generation or disabled college students to increase retention and graduation rates, while also striving to foster an institutional climate supportive of each student's success.

University names inaugural recipients of Regents Fellowship

Kaitlyn Black
Mass communications from Memphis, TN

Chanella Clark
Education and clinical mental health from Aurora, IL

Devonna Crocker
Postsecondary education administration from Owensboro, KY

Abril Sosa
Clinical mental health and school counseling from Atoka, TN

Murray State is proud to announce the first group of recipients of the new Regents Fellowship. The one-year fellowship is designed to assist underrepresented minority students at Murray State with career development opportunities while completing their graduate degree.

Each recipient will earn a stipend of $3,750 each semester along with a $1,000 semesterly scholarship. The fellowship may be renewed for up to one additional year.

"The Regents Fellowship will allow me, as a minority student, to complete my graduate studies in journalism at Murray State University," Regent Fellow Kaitlyn Black said. "The fellowship will also allow me the distinct honor of serving my University."

Student participates in Congressional Civil Rights Pilgrimage

Murray State freshman Azzie Cunningham (pictured at right) from Asheville, North Carolina, joined members of Congress, luminaries, award-winning authors and renowned civil rights activists for the Congressional Civil Rights Pilgrimage this past spring in Alabama. It would be the last pilgrimage of legendary civil rights leader U.S. Rep. John Lewis, who passed away earlier this year.

Cunningham traveled to Montgomery, Birmingham and Selma, Alabama, to take part in the annual event sponsored by The Faith and Politics Institute. She joined her uncle, U.S. Rep. Joe Cunningham of South Carolina, and flew from Washington, D.C with more than 40 members of Congress. The group included the late Lewis, who marched with Dr. Martin Luther King, Jr. on the historical "Bloody Sunday" in Selma, Alabama, on March 7, 1965.

Students named to Kentucky Council on Postsecondary Education Student Advisory Network

Three students have been selected to the Kentucky Council on Postsecondary Education (CPE) Student Advisory Network. Molly Logsdon, Walter Steely and Aaron Nethery will collaborate with the advisory network to discuss state-level higher education policy and advise CPE President Dr. Aaron Thompson on matters of student interest.

"I'm very excited to be serving on the new CPE advisory panel," said Logsdon, a junior communication disorders major from Crestwood, Kentucky. "I think this is such a great opportunity to represent Murray State and to advocate for student needs across the state."

Faculty members earn Kentucky Association for Career and Technical Education awards

A pair of faculty have earned awards from the Kentucky Association for Career and Technical Education (KACTE).

Dr. Kemaly Parr, who serves as an assistant professor and program coordinator of the University's career and technical education program, was recognized as the KACTE Postsecondary Teacher of the Year. Agriculture education professor Dr. Kimberly Bellah of the Hutson School of Agriculture was named the KACTE Teacher Educator of the Year.

Both were honored during a socially-distanced awards presentation held in Louisville, Kentucky, in lieu of a traditional KACTE summer conference.

GOLD RUSH

SEPT. 2020 NORTHERN KENTUCKY UNIVERSITY

TRENDING UP

ENROLLMENT GROWTH

13%
Increase in Summer Courses

17%
Graduate Programs Grew Over

3,068
Degrees & Credentials Conferred

COLLEGE CORNER

NKU's Haile/US Bank College of Business (COB) launched a new initiative to help local family businesses and support the region's economy. With many small businesses needing assistance adjusting to the pandemic's disruptive climate, students and faculty in the COB are helping implement technology-based tools and services—from accounting software to developing a web presence at no cost.

"We see more businesses that are negatively impacted by the ongoing pandemic, and many of them do not have the resources to pivot in our digitally centric world," said Dean Hassan HassabElnaby.

LEARN MORE: https://tinyurl.com/y6rdfv7d

NKU JOINS CINCINNATI CHILDREN'S HOSPITAL FOR RESEARCH COLLABORATIVE

NKU students are playing a key role with Cincinnati Children's Hospital international research partnership—from working on the project in Africa to Implementing health care solutions in rural areas across the nation.

The American Health Association awarded Cincinnati Children's Hospital Medical Center $2.5 million as part of the Strategically Focused Research Network. Children's teamed up with NKU, eight other institutions and the Rheumatic Heart Disease Research Collaborative in Uganda, to develop mobile technologies and increase care for those living with the disease.

"Our students have opportunities to work on this project locally and in Africa," said Dr. Valerie Hardcastle, Institute for Health Innovation executive director and VP for Health Innovation.

Children's leads the practice and technology development that is taken to Uganda. As the Rheumatic Heart Disease Research Collaborative in Uganda implements the new practices, NKU plays a pivotal role in analyzing data and translating its successes domestically including NKU's Department of Mathematics and Statistics and the College of Health and Human Services.

"The technologies developed could change how health care is provided in rural areas where WIFI and cell phone coverage is still problematic," said Dr. Hardcastle. "Our goal is to spread access to portable, internet-based technologies that are easy to use and don't require robust connections."

LEARN MORE: https://tinyurl.com/y5938ojc

NKU AND THE ANTHONY MUÑOZ FOUNDATION INCREASING ACCESS FOR STUDENTS

NKU and the Anthony Muñoz Foundation expanded their partnership and recognized six local high school seniors this summer. The students received scholarships up to $20,000 at the 19th annual hall of fame dinner. Four of the six recipients are currently attending NKU. "Community partnerships like this are as critical as ever. We are opening the possibility of a four-year degree to students who may not have had NKU on their radar," said NKU President Ashish Vaidya.

Last summer, NKU created the Educational Diversity Scholarship to support the Anthony Muñoz Foundation's mission of impacting the Tri-state's youth. Muñoz's passion for helping students reach their dreams of attending a local college or university complements NKU's singular focus on advancing student success aligned with the region's needs. "The Foundation believes that a student's potential should not be limited by their circumstances. Within our Impact Programs, we work to remove as many barriers as possible for students to thrive," said Muñoz. "We are fortunate to have so many strong collaborators empower deserving students to achieve their goals." **LEARN MORE:** https://tinyurl.com/y63xsqmr

THE SCOREBOARD

Norse Athletics celebrates its 50th season this academic year, showcasing highlights, accomplishments, and historical tidbits of Norse Athletics since 1971-72 across all of its digital channels every weekday over the next academic year, including interviews with notable Norse alumni.

A commemorative 50th season logo will be used across the department's social media channels in content celebrating Northern Kentucky's rich athletic history.

LEARN MORE: https://tinyurl.com/y5tn6p2m

FACULTY FOCUS

NKU will always have an endowed faculty position awarded to a woman through the support of Dr. Carol Swarts, a longtime university friend. Her gift underscores the university's commitment to building the visibility and prominence of women in tech—something we've been working more on for than a decade. NKU is also one of the country's top-ranked universities and the highest ranked in the region for graduating women in computing.

Dr. Alina Campan has been selected as the inaugural STRAWS Professor of Computer Science. Her groundbreaking research on data mining and data privacy earned a Yahoo Research Best Paper award in 2008. She collaborates with faculty in Journalism, Computer Science and Statistics to understand the spreading of social media's disinformation.

LEARN MORE: https://tinyurl.com/y2zudtz2

BRIEFS

GRAPHIC DESIGN PROGRAM NAMED KENTUCKY'S BEST

NKU's program leads the Commonwealth, according to Animation Career Review. Housed in the School of the Arts, the program ranks first on the 2020 Top Kentucky Graphic Design Programs list. Animation Career Review, a free online resource for students aspiring for design-related careers, evaluated each program's graduation rates and employment data, reputation and overall value to compile its list.

The visual communication design tracks at NKU are designed to develop each student as a creative communicator.

LEARN MORE: https://tinyurl.com/y46dmtbr

ALL RISE

Chase College of Law created the All Rise program to help its graduates reflect the diversity of the society they serve. The program removes obstacles for low-income, first-generation or racially diverse students by offering financial support and professional development during all three years of law school. The All Rise program is an initiative created through NKU's 2020 Innovation Challenge.

"Our mission is to educate a diverse group of future lawyers who will bring knowledge, awareness and a capacity to lift up all who seek their services," said Dean Judith Daar.

LEARN MORE: https://tinyurl.com/y6sbjlz9

NKU RECEIVES $2M STUDENT SUCCESS GRANT

NKU's TRiO program helps hundreds of Pell-eligible, first-generation or disabled students graduate and have meaningful careers. The grant provides personalized support like academic coaching and career planning to help students graduate. The program is what makes the difference for many NKU students.

"Student success is not just graduating. It's building a community of support, from jumpstarting students' careers to finding unique ways of learning," said Kim Scranage, VP of Enrollment and Degree Management.

LEARN MORE: https://tinyurl.com/y3m7ygjc

ARTS & SCIENCES' PROFESSOR EARNS HIGHEST PSYCHOLOGICAL HONOR

Dr. Justin Yates became the second faculty member in NKU's history to earn Fellow status from the Midwestern Psychological Association. He received the recognition for his lasting impact and service on the psychology discipline.

"As a student, I was fortunate to engage in research. This sparked my aspirations of becoming a professor and conducting research with my own students," said Dr. Yates. "I'm thankful for my students' hard work. I wouldn't have received this recognition without their support."

LEARN MORE: https://tinyurl.com/y6st3ok2

ALUMNI NEWS

THE ACT LADY

Jen Henson ('04) always knew she would be a teacher since she spent her time playing school as a child. After spending more than two decades as an educator and earning her Master of Education at NKU, she started her own company—Jen Henson ACT Prep. Henson tailors her curriculum for each student based on their individual needs and has taught students all over the country on Zoom and FaceTime.

"At NKU, there was so much choice and opportunity for students to shine in the way they needed to instead of fitting inside a box," said Henson. "My favorite part about all of this is changing a life. I see a student go from, 'I cannot beat this test, I cannot go to college' to breaking down that barrier with them. It's incredible."

LEARN MORE: https://tinyurl.com/y52k9kny

WKU moves to test optional for admission beginning Spring 2021

Beginning with the spring 2021 semester, WKU will no longer require standardized test scores, such as the ACT or SAT, for most applicants for admission.

"WKU is excited to be among the first of Kentucky's public four-year universities to become test optional," Vice President for Enrollment and Student Experience Ethan Logan said. The University began considering the move to test optional last year, and in the process various internal constituencies endorsed the change.

Logan said that a number of factors led to this decision. "Numerous national studies have indicated that a student's high school GPA is the better predictor of college success than performance on a standardized test," he said.

Logan also pointed to bias in standardized tests against students with limited access to test preparation opportunities.

"WKU is an institution of access and opportunity, and the research is clear that standardized tests contain inherent bias against underrepresented, first-generation and low-income students," he said. "While we have taken significant action to limit the influence of the ACT and SAT in our internal admission and scholarship processes over the past few years, this change represents another important step toward ensuring that WKU is accessible to students who have demonstrated hard work over four years of high school, regardless of their performance on a single test."

WKU eliminated the ACT requirement for most of its scholarships last year and has long given more weight to GPA over test scores in determining students' admission eligibility.

In addition, Logan said many rising seniors, who still need access to higher education, have missed opportunities to take the tests because of the COVID-19 pandemic. See https://www.wku.edu/news/articles/index.php?view=article&articleid=9019

WKU Finance professor wins Frankel Fiduciary Prize

Dr. Ron A. Rhoades

The Institute for the Fiduciary Standard has announced that the 2020 Frankel Fiduciary Prize honoree is Dr. Ron A. Rhoades, Associate Professor of Finance and the Director of the Personal Financial Planning Program at WKU.

Rhoades is one of the most prolific authors of papers and comment letters on fiduciary duties for investment advisors and broker-dealers in this century. Over more than 30 years he has served on innumerable industry boards, commissions, and task forces to further fiduciary understanding.

Rhoades, one of the nation's leading experts on fiduciary law as applied to financial services, recently testified before the U.S. Department of Labor regarding its fiduciary rule proposal. He has submitted three comment letters on the DOL's proposed rule, "Improving Investment Advice for Workers & Retirees." See https://www.wku.edu/news/articles/index.php?view=article&articleid=9033

Three to join WKU's Hall of Distinguished Alumni

John Asher, the longtime face and voice of the Kentucky Derby; Dr. Jack Britt, a leader in agriculture and education, and Travis Hudson, the coach of Lady Topper Volleyball, will join the 29th class of WKU's Hall of Distinguished Alumni during WKU's 2020 Homecoming Celebration.

Asher landed his dream job at Churchill Downs in 1997 and became Vice President of Racing Communications in 1999. As publicist for the track, Asher was charged with promoting and protecting its legacy. In 2001, he helped lead the $126 million renovation of the historic facility.

He received a bachelor's degree in Journalism from WKU and was well-known for his support of and enthusiasm for his alma mater. Asher died Aug. 27, 2018, at the age of 62.

Britt has been making a difference in the fields of agriculture, education, research and entrepreneurship since his days on the family farm in Warren County.

Britt's career included leadership roles at three land-grant universities. In 1998, he joined the University of Tennessee System as Vice President for Agriculture and presided over academic programs at the Knoxville campus as well as extension programs and agricultural and forest research stations across Tennessee. In 2004, he was named University of Tennessee Executive Vice President and led the development and implementation of the UT System's strategic plan. He retired in 2007.

In the past 25 years, **Hudson** has turned the WKU Volleyball program into a consistent conference champion and a player on the national stage. He came to WKU with a goal of becoming the first person in his family to earn a college degree.

Hudson joined the WKU Volleyball program in the early 1990s, served as an Assistant Coach for three years and was Interim Head Coach on two occasions. In 1995, Hudson was named Head Coach at the age of 24, making him the nation's youngest head coach at the time.

Hudson continues to push his players to climb higher on the court and in the classroom. The Lady Toppers boast a 100 percent graduation rate in Hudson's tenure and have earned numerous academic awards. See http://alumni.wku.edu/s/808/index.aspx?sid=808&gid=1&pgid=5092&cid=8568&ecid=8568&crid=0&calpgid=3340&calcid=6969

22 Gatton Academy seniors named National Merit semifinalists

Twenty-two seniors from The Gatton Academy of Mathematics and Science in Kentucky have been recognized as semifinalists in the 2021 National Merit Scholarship Competition. Since The Gatton Academy's inception in 2007, 183 students have been named National Merit Semifinalists. See https://www.wku.edu/news/articles/index.php?view=article&articleid=9054

Association of Independent Kentucky Colleges and Universities

News highlights

Two new presidents began tenures on July 1

President Milton C. Moreland at Centre College and President Brien Lewis at Transylvania University. Dr. Moreland was previously provost at Rhodes College (TN); President Lewis was president at Catawba College (NC).

AIKCU unveils new look

AIKCU utilized a Capacity-Building Grant from the Council of Independent Colleges to undertake a brand analysis and redesign project over the summer. Each of the 18 independent college and university members are represented in the new AIKCU logo, collectively creating a new symbol through proximity — their shared goals. The new look draws upon but modernizes AIKCU's traditional blue and gold color palette.

Dr. OJ Oleka speaks at the University of Pikeville Opening Convocation

AIKCU members successfully return to campus

After all the diligent planning of the spring and summer, AIKCU colleges and universities have safely welcomed students and faculty back to campus this fall. Students are happy to be back on campus and following the new enhanced safety guidelines.

AIKCU overall first-year enrollments hold steady

Despite the uncertainty of the pandemic, preliminary data suggests first-year student enrollments held relatively steady this fall at Kentucky's independent colleges and universities. While we're still waiting on broader preliminary enrollment data from CPE, internal surveys show the overall entering first-year class to be essentially the same size it was in fall 2019.

Several AIKCU members had very good years, including Georgetown College with its largest first-year class on record, Kentucky Wesleyan College with its sixth straight year of enrollment growth, and Thomas More University with its second highest enrollment ever.

PowerPoint Slides
referenced during the meeting

September 15, 2020

<u>Section V - Discussion with Moody's Investors Service – Financial Outlook for Kentucky's Postsecondary Education Market</u>

- Slides titled, Presentation to Kentucky Council on Postsecondary Education (22 pages)

<u>Section XI - Recent Research and Data Reports</u>

- Slides titled, Dual Credit & Student Success (8 slides)

- Slides titled, Fall 2020 Preliminary Enrollment at Kentucky Public Universities, KCTCS and AIKCU (6 pages)

Moody's
Investors Service

Access is everything™

Presentation to the Kentucky Council on Postsecondary Education

September 15, 20

Access is everything™

Expertise
A comprehensive view of the global markets through our ratings and research.

Credibility
Over 100 years of experience delivering forward-looking, independent, stable and transparent opinions.

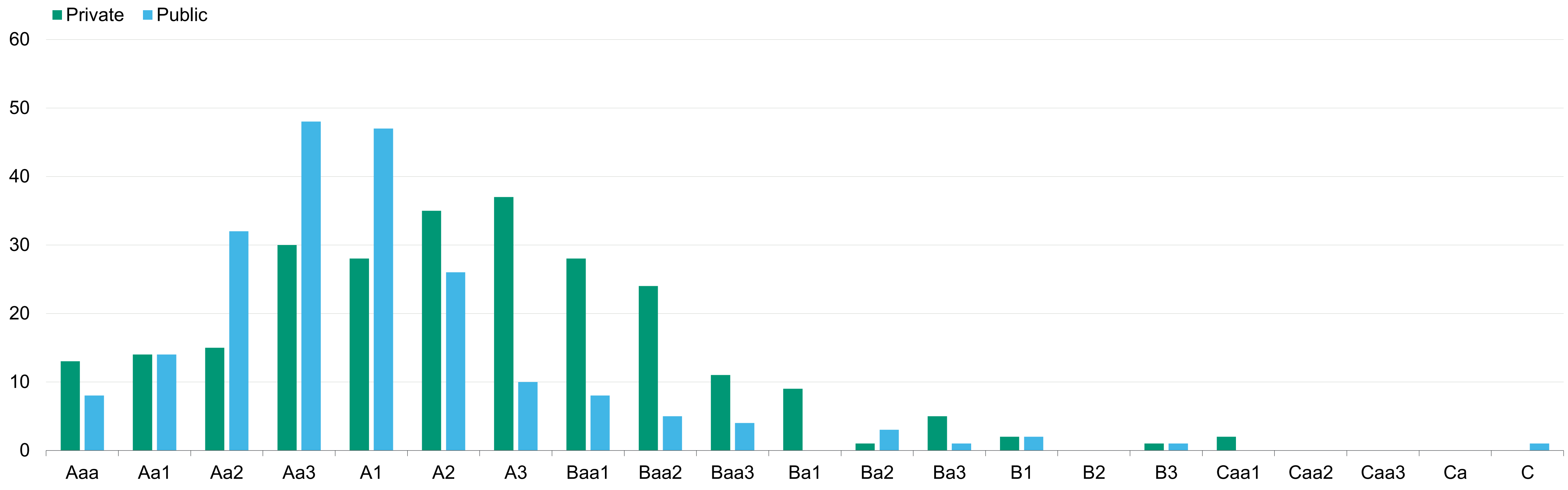
Engagement
Meaningful interactions across multiple channels between our analysts and market participants.

Agenda

1. Introduction
    - Higher education sector overview
    - Drivers behind outlook revision
    - Enrollment and tuition prospects
    - Auxiliary revenue bonds and housing
    - Longer term challenge: pensions
    - Recent credit actions
2. Questions & Answers
3. Recent research

US four-year higher education sector highly rated

Bell curve for publics peaks at Aa3, privates at A3

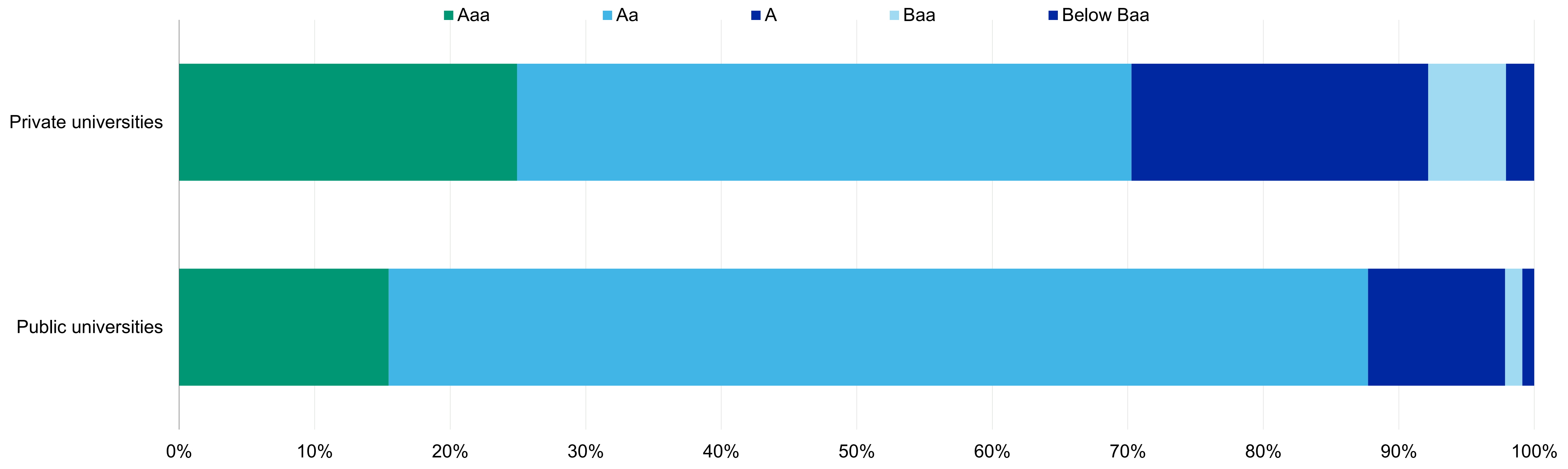


Source: Moody's Investors Service

Vast bulk of US debt is rated Aa3 or higher

Over $280 billion of outstanding sector debt

About 70% of private university debt and nearly 90% of public university debt rated Aa or higher



Source: Moody's Investors Service

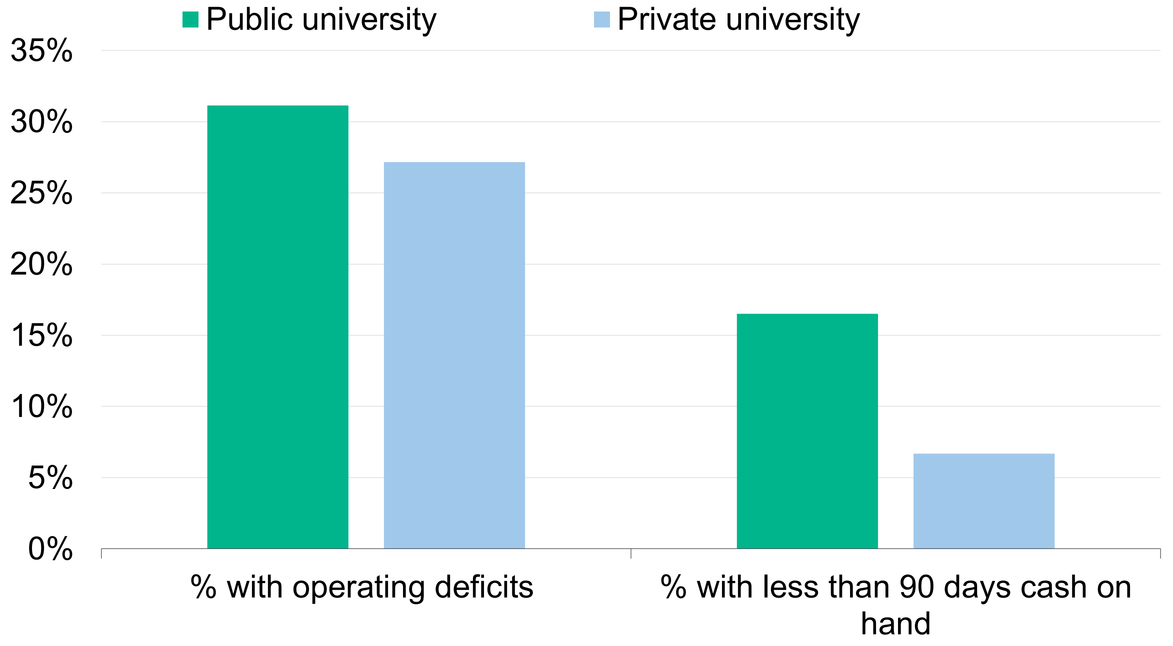
Higher education outlook to negative in March

1. **Fiscal 2020 will be hit by revenue declines and expense increases.** Many campuses have moved to online instruction, impacting auxiliary revenues.

2. **Multiple revenue streams face threats in fiscal 2021.** Tuition, state funding, endowment income and gifts all at high risk. Academic medical centers confront further challenges.

3. **Balance sheets will be impaired if financial market instability continues.** Reserves will decline and pension liabilities will rise, leading to significant loss of financial flexibility.

About a third of US unis already have operating deficits



Source: Moody's Investors Service

Multiple factors underpin overall sector strength

Inherent strengths

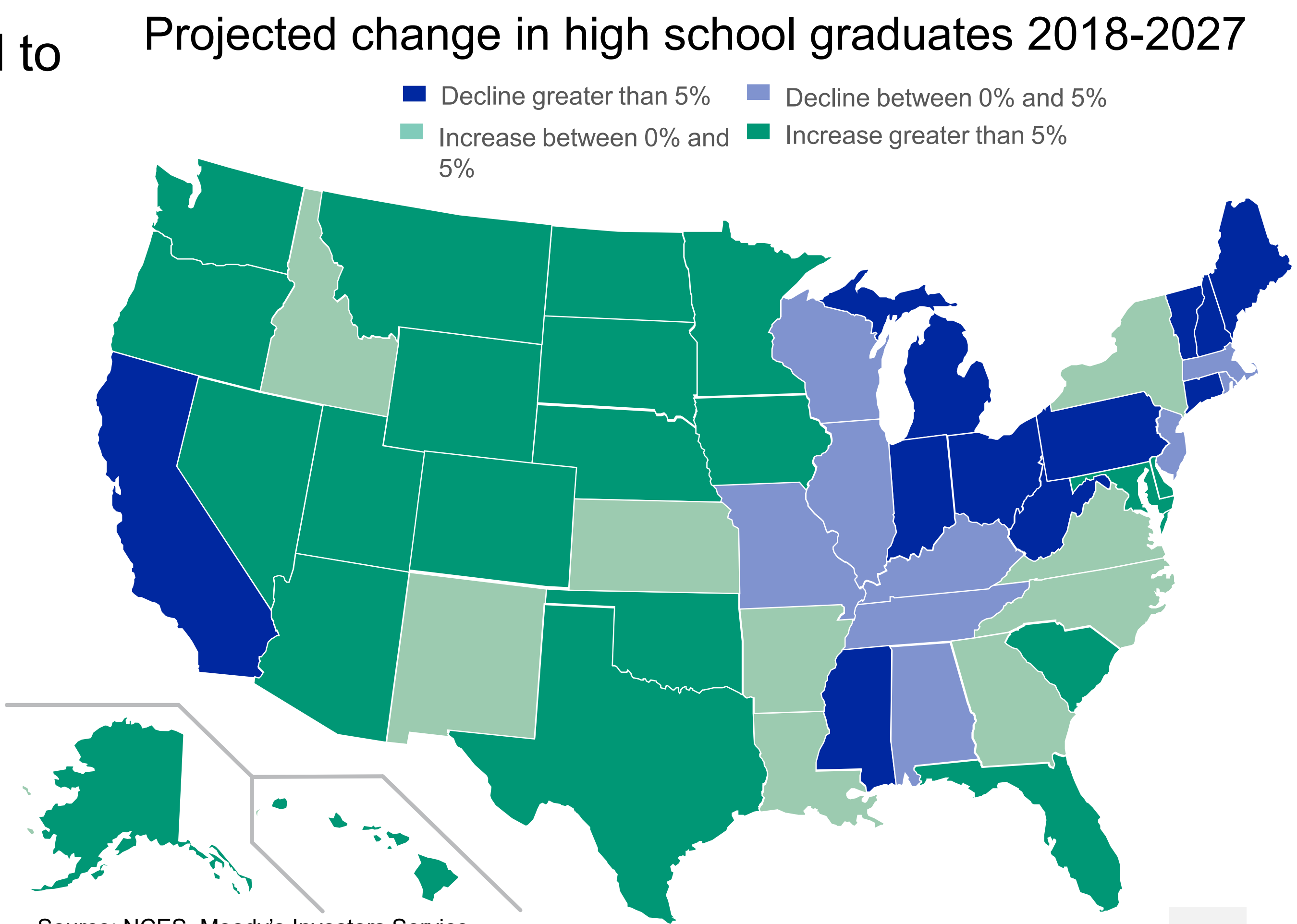
- Increasing demand because of individual ROI
- Strong government support because of public good element: education, research, health
- Multiple vested constituents: alumni, government, local communities
- Mission driven philanthropic support
- Long term horizon leads to accumulation of significant cash and reserves
- Adaptable to changing consumer preferences over time

Inherent challenges

- Limits on pricing power, both market and policy, with less willingness to take on student loans
- Shifting demographics, with declining numbers of high school graduates in some states
- Focus on accountability, scrutiny of ROI
- Rigid labor force, including tenure and unions
- Shared governance structure can constrain rapidity of action

Prolonged period of flat enrollment over next decade

- » Total college enrollment currently projected to rise just 2.4% between 2018-2028 (NCES)
- » Demand will be influenced by a number of factors:
  - – Numbers of high school graduates
  - – Participation rates
  - – Economy
  - – Employer demand for further education
  - – Return on education investment
  - – Federal and state support



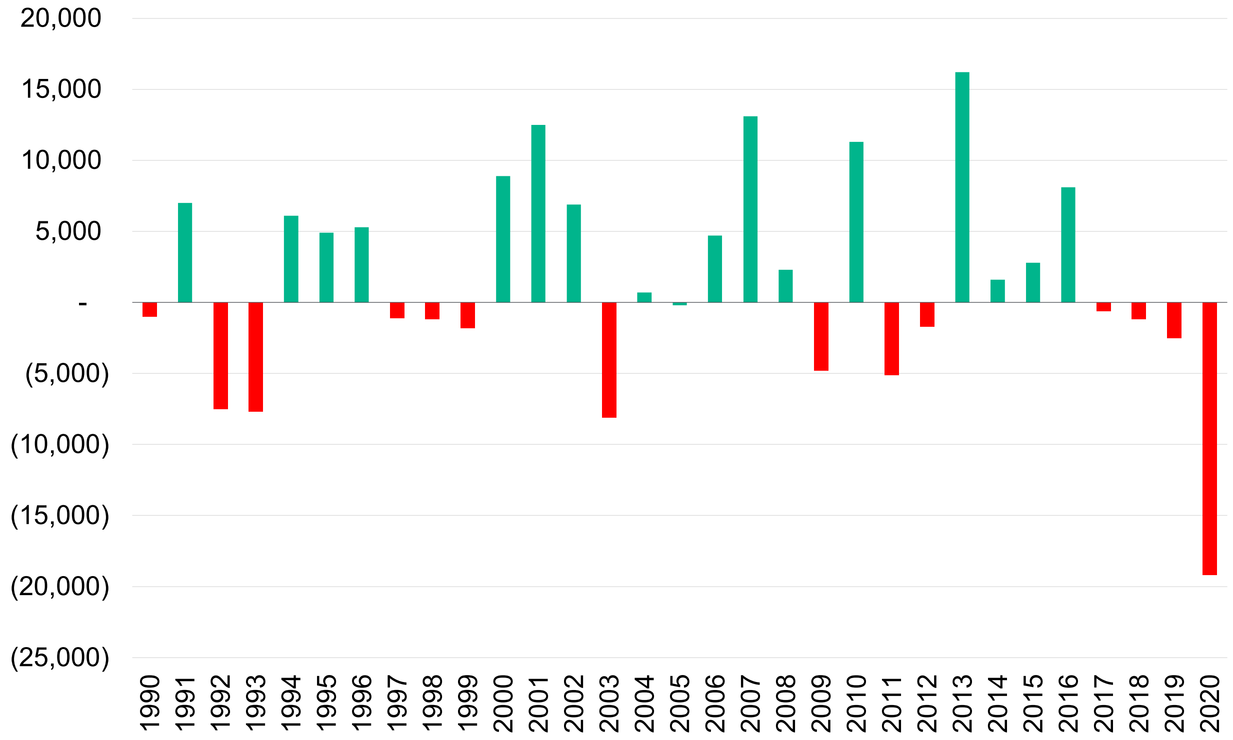
Source: NCES, Moody's Investors Service

Quick action helped 2020, big questions for 2021

- 2020
  - Immediate reduction of labor costs
  - Federal relief act provided partial offset
  - Bolstering liquidity, scaling back capital
- 2021 and beyond uncertainties
  - Campuses open or closed? Enrollment up or down?
  - State funding down, but by how much?
  - Additional federal relief?
  - More permanent cost reductions?
  - Impact on endowment, reserves, pensions?
  - Litigation?

Immediate labor force cuts to preserve liquidity

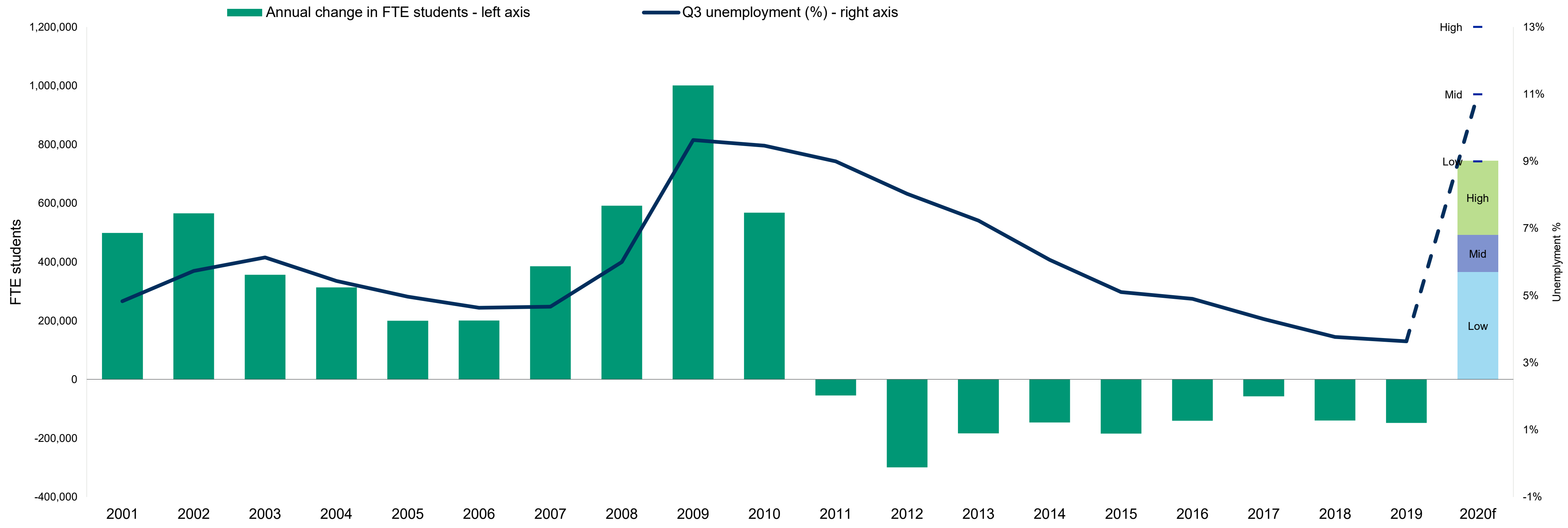
Feb to March change in # of employees at US colleges



Source: Chronicle of Higher Education, derived from US Bureau of Labor Statistics

Sharp increase in unemployment will drive enrollment gains of around 2% to 4% for US higher education

Annual change in fall FTE enrollment and third-quarter unemployment percentage

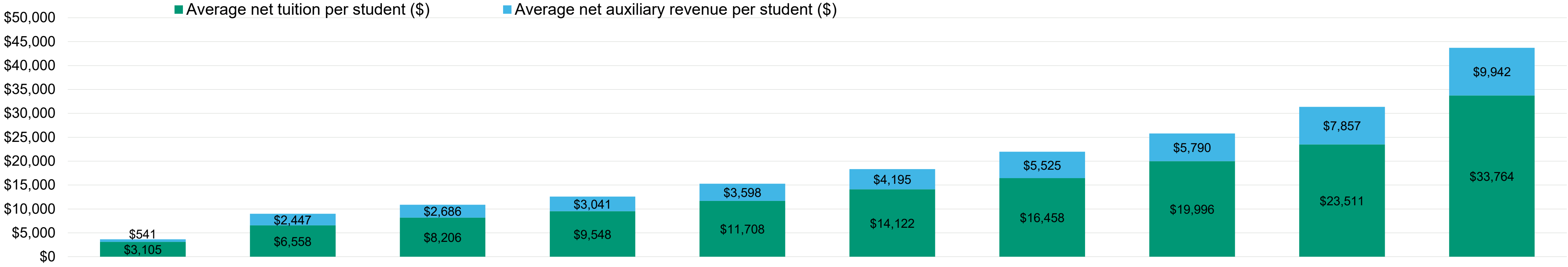


2020f is a forecast for fall 2020 based on a low-, mid- and high-value for third quarter 2020 unemployment, FTE enrollment change for 2019 estimated based on full-time and part-time enrollment trends from National Student Clearinghouse

Sources: National Center for Education Statistics, National Student Clearinghouse and Moody's Investors Service

Student revenue will decline; pricing strength varies

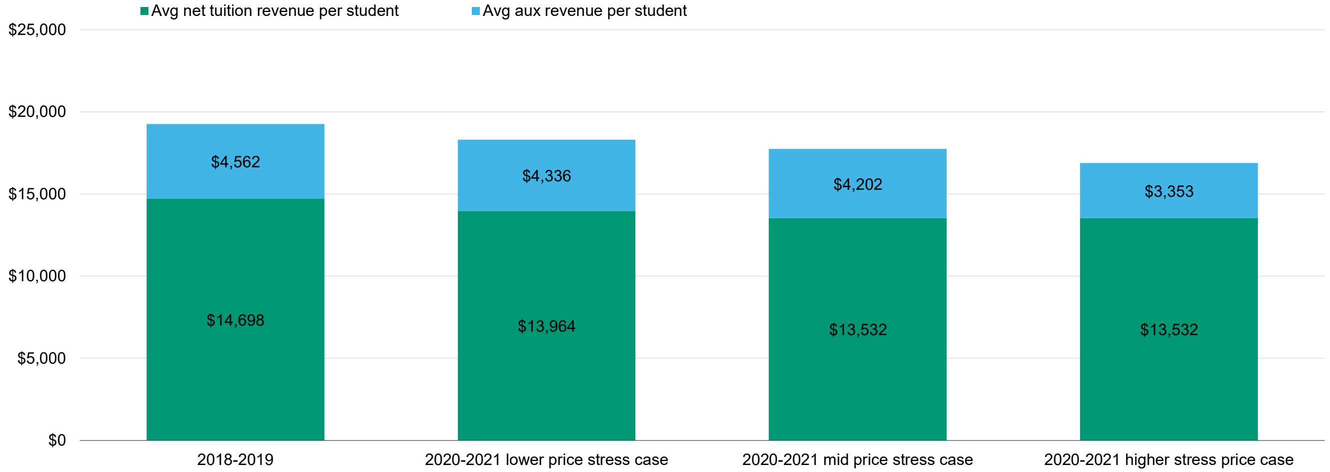
US public and not-for-profit higher education ranked by net student charge data for 2018-2019 and grouped by enrollment deciles



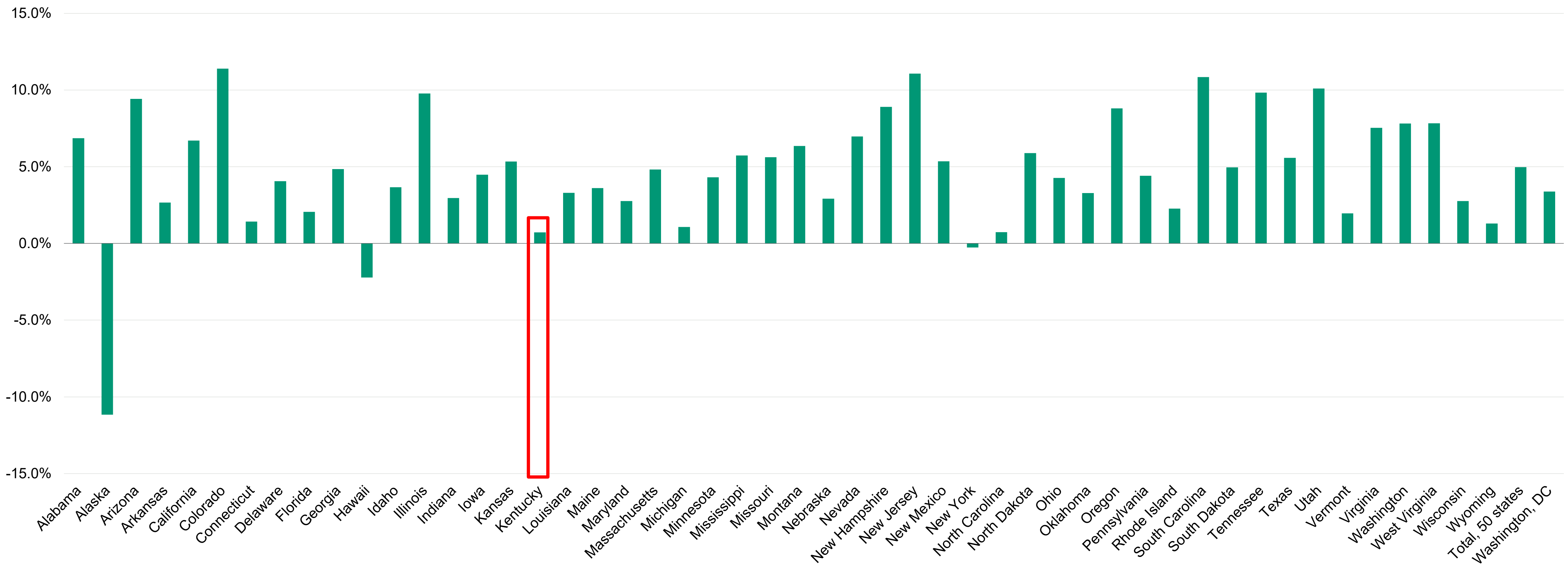
Drivers of net price change in 2020-2021:

- Students gravitating to lower-cost options including in-state and in-district public colleges
- Loss in international student enrollment, a portion of the student body that often pays full price
- Colleges competing on price by offering more financial aid, both need- and “merit-” based
- Increased competition and changes to the National Association of College Admissions Counselors' (NACAC) standards complicating enrollment management efforts
- Softened demand for or availability of auxiliary services such as student housing

Average net tuition and net auxiliary revenue per student under three scenarios show declines of 5%, 8% and 13% versus 2018-19 academic year



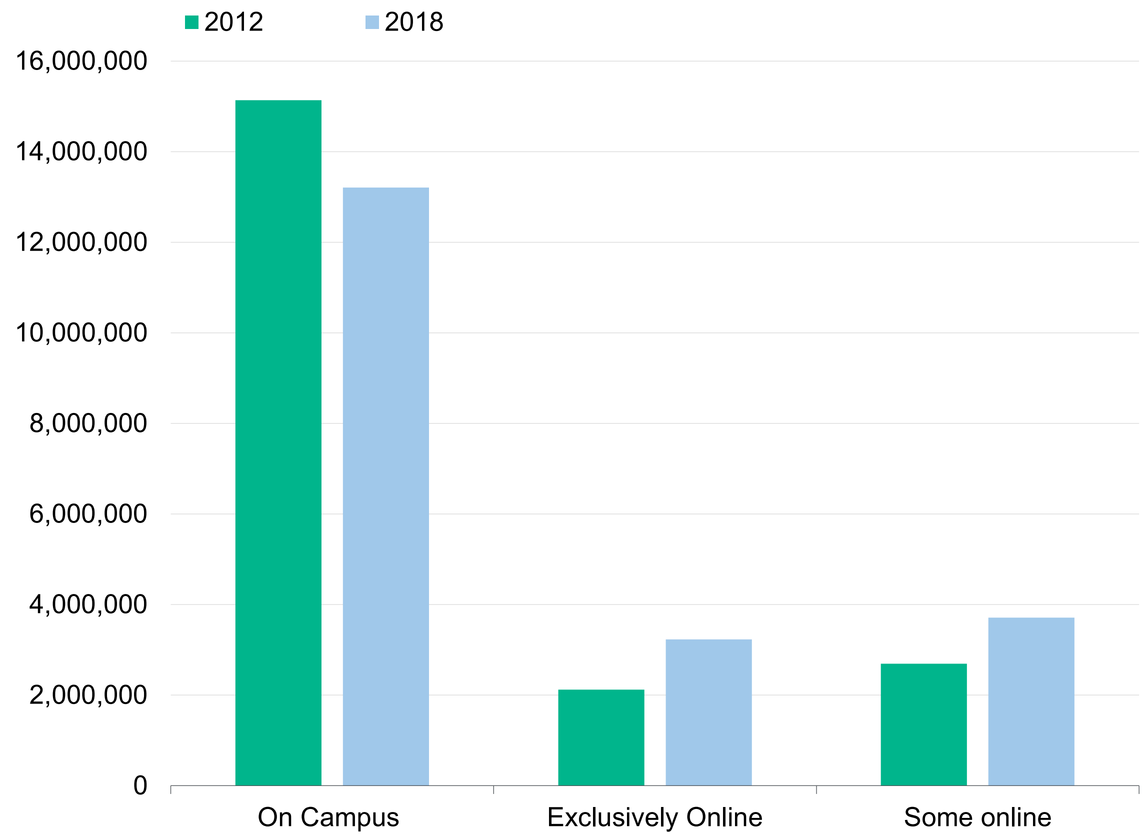
State support up for most in fiscal 2019-2020
But likely to be hit significantly over the next 2-3 years years

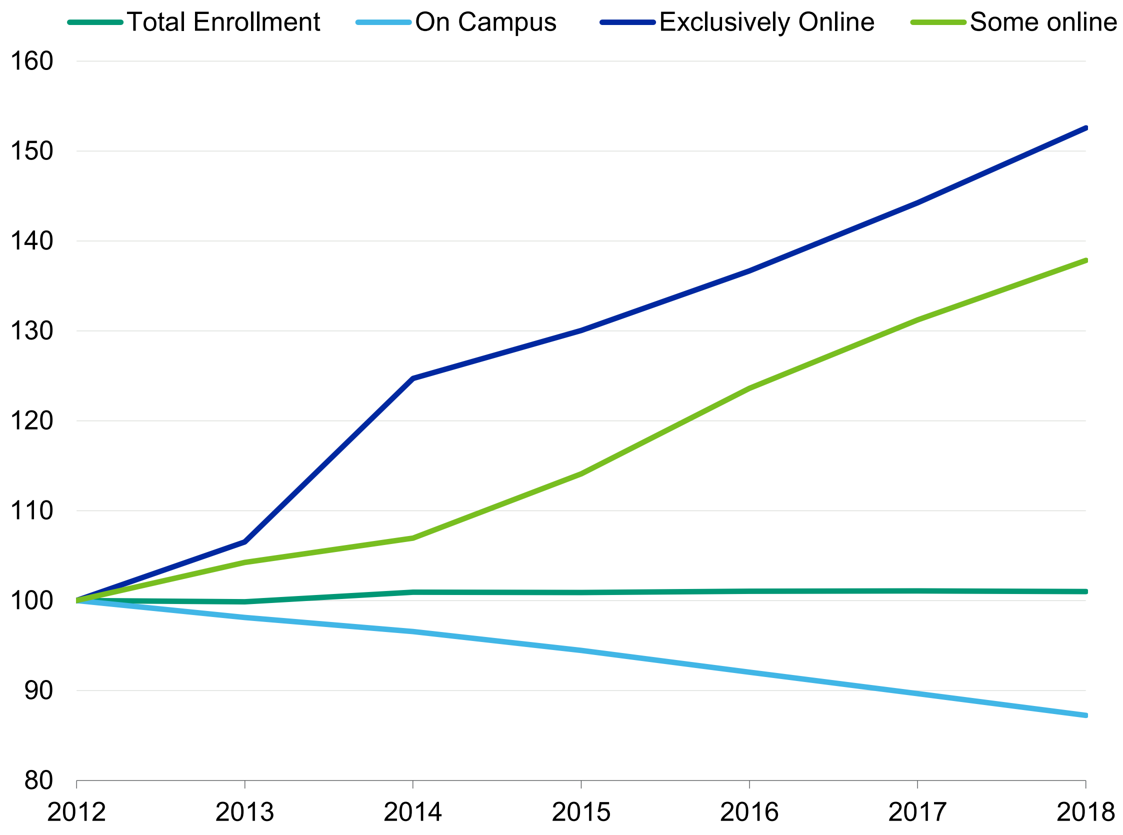


Source: College of Education, Illinois State University: Grapevine Data; Moody's Investors Service

Technology gradually transforming higher education

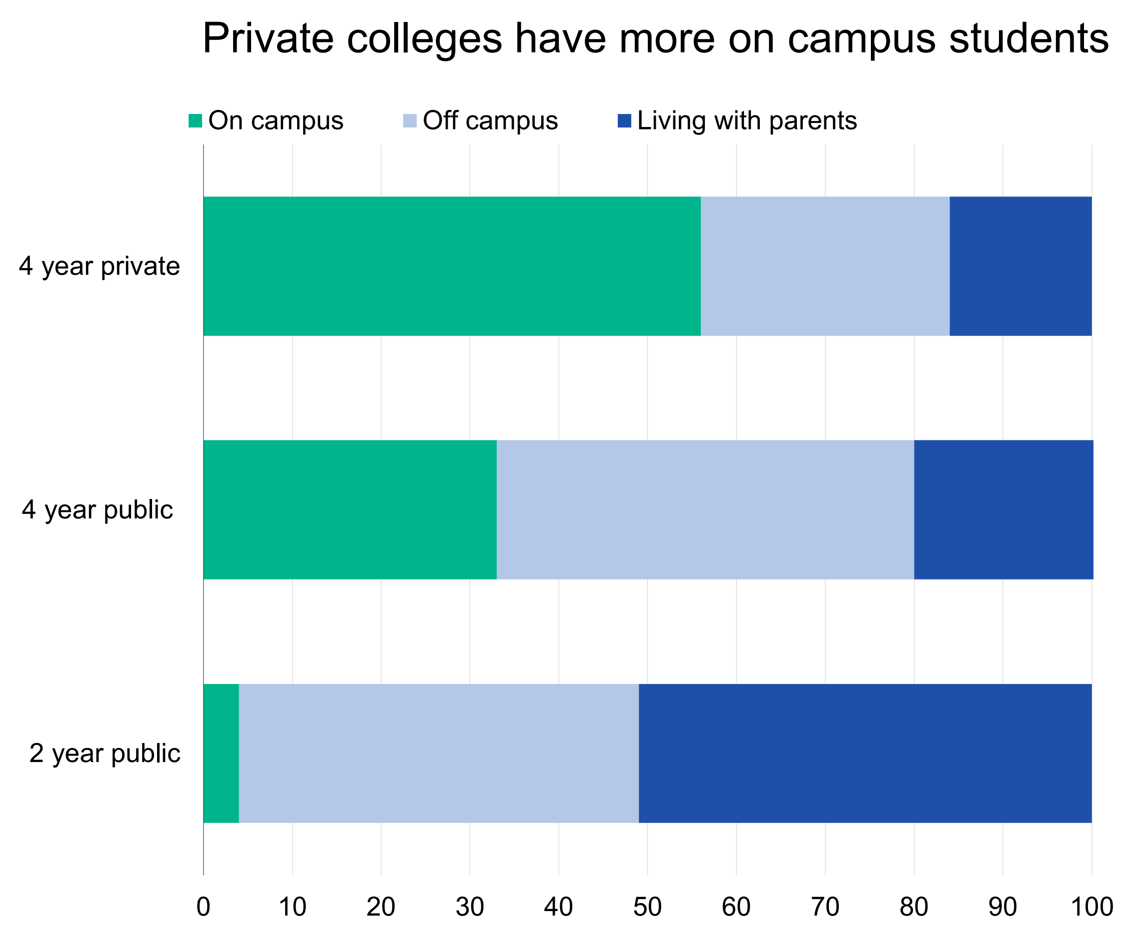
Online enrollment small but rapidly growing share

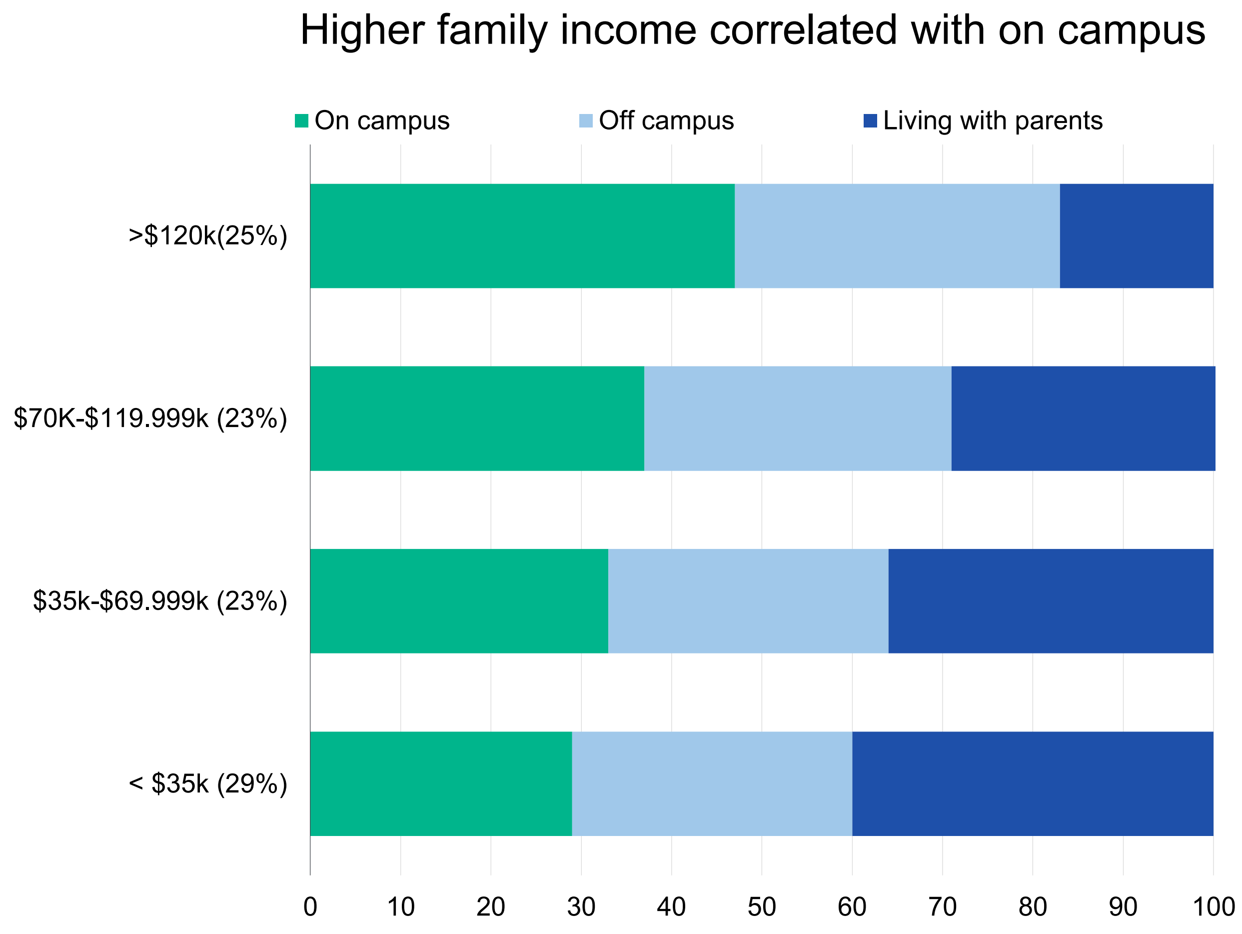




Source: IPEDS Data Center - National Center for Education Statistics

Housing mix depends on type of institution and income



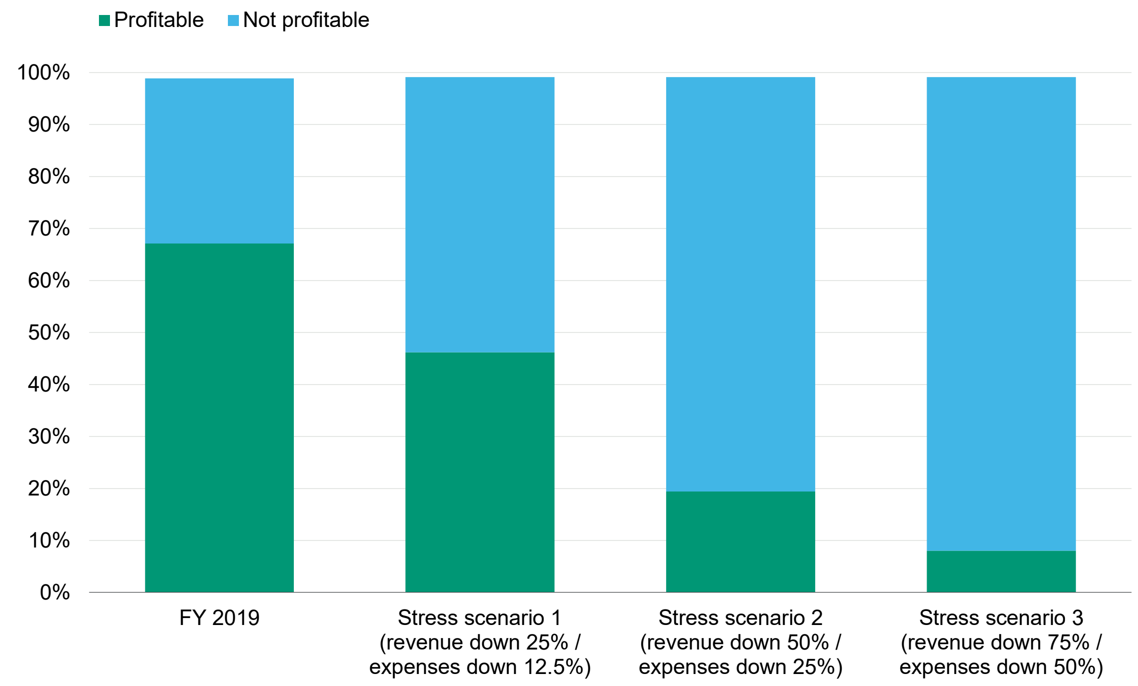


Source: College Board, *Trends in College Pricing 2019*

Auxiliary revenue impacted by lower usage

Uncertainty around auxiliaries' profitability, especially those with debt

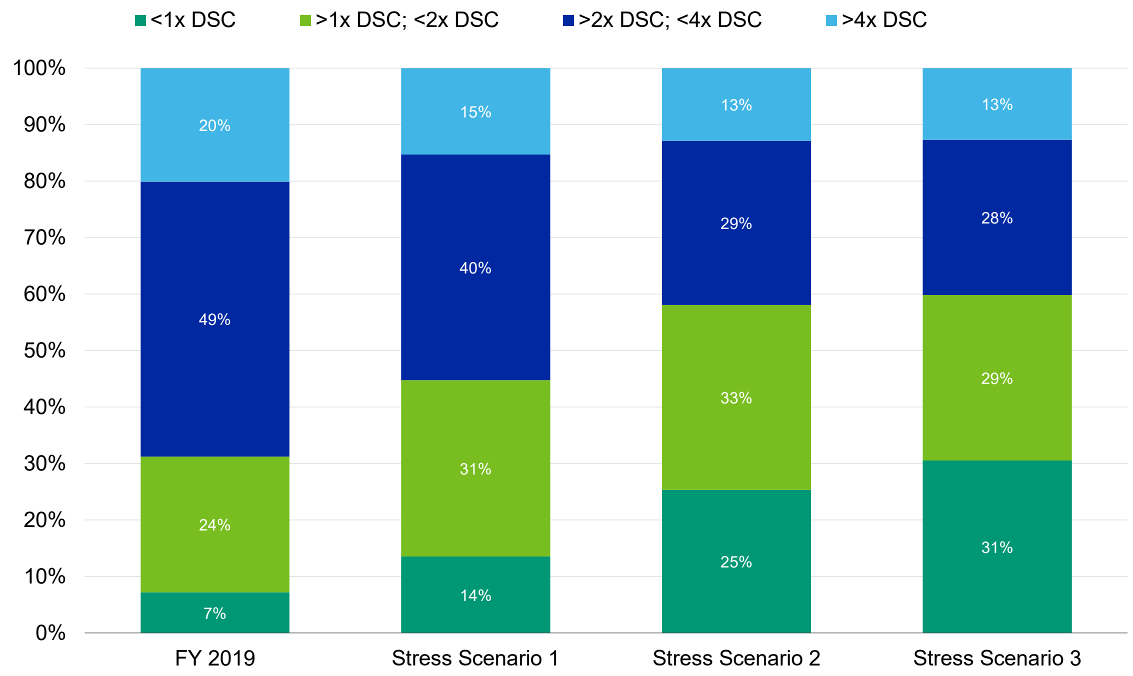
Declining auxiliary revenue reduces fiscal flexibility



Profitable defined as when auxiliary revenues are greater than auxiliary expenses; data may not fully incorporate depreciation and interest expense.

Source: Moody's Investors Service

Auxiliary debt service coverage diminishes with decreasing revenue



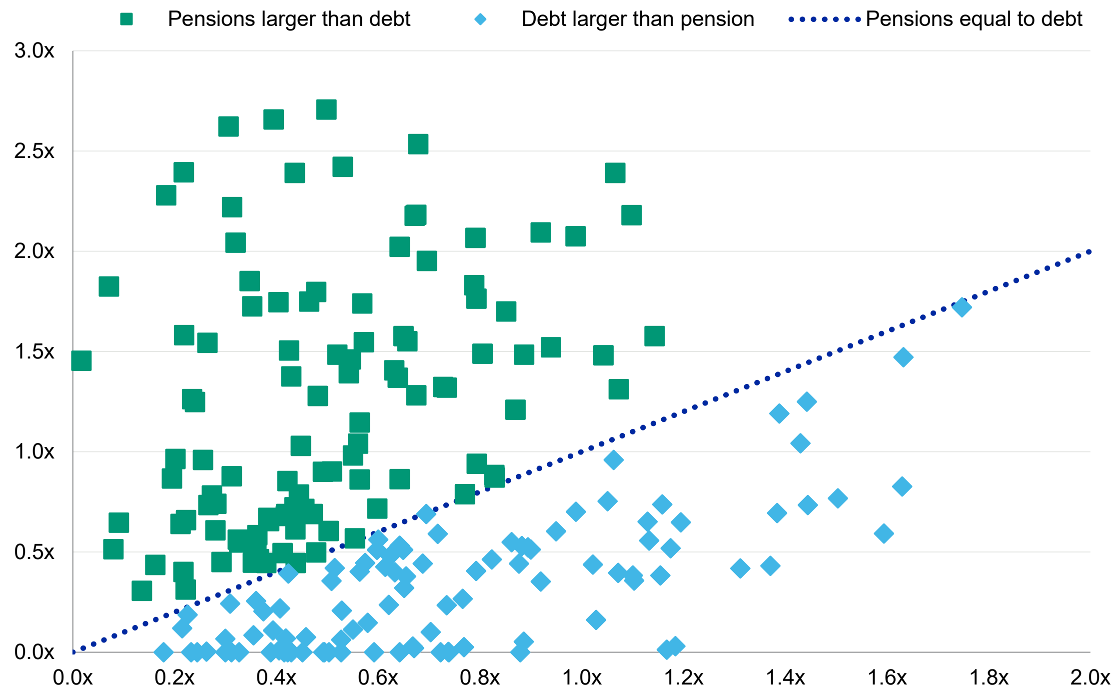
Projected debt service coverage under multiple revenue decline scenarios.

Source: Moody's Investors Service

Pension burdens will continue to add credit strain for many

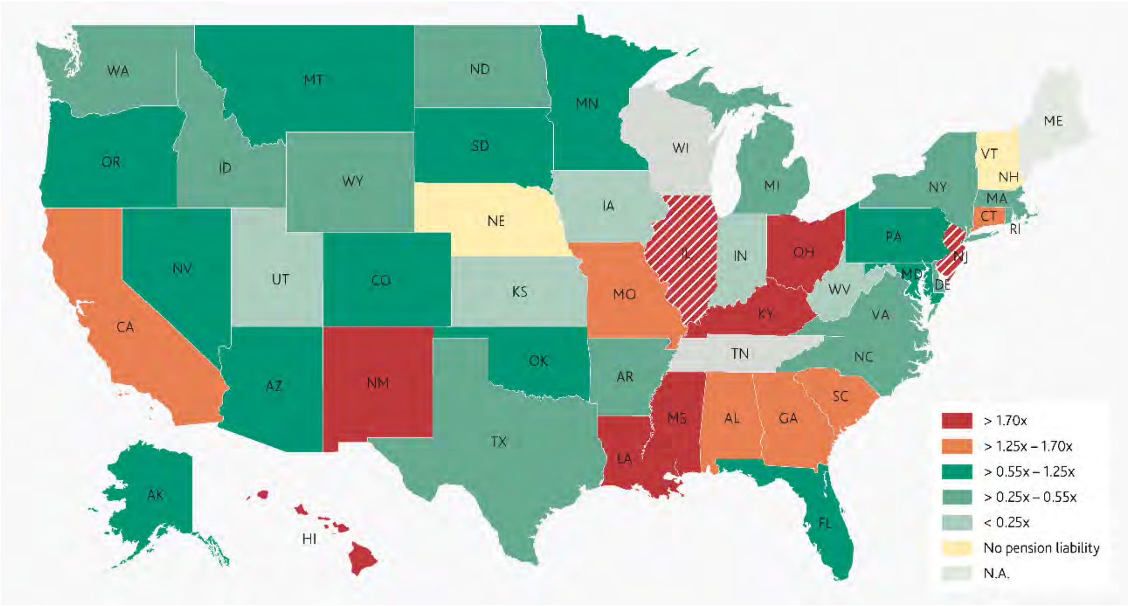
Universities with the highest pension liabilities tend to be more vulnerable to economic and fiscal disruptions

Over half of rated universities have pensions that exceed direct debt



Source: Moody's Investors Service

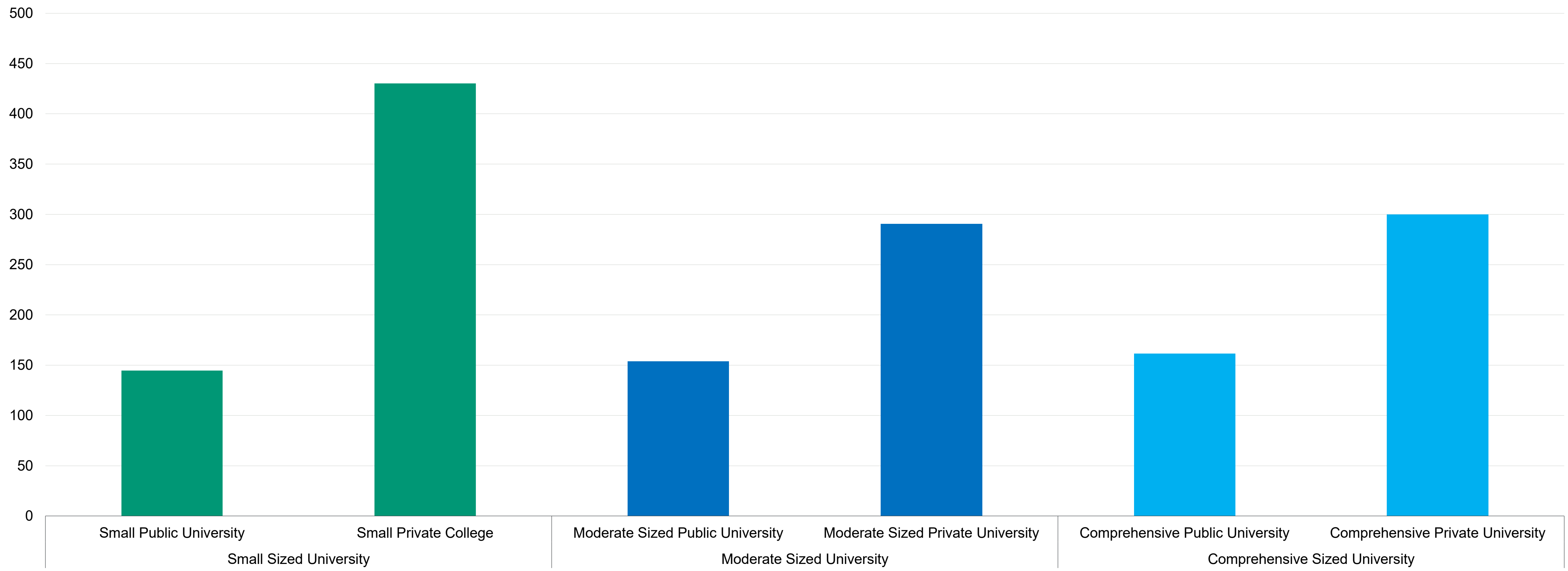
Pension liability exposure varies widely across US public universities



Source: Moody's Investors Service

Liquidity is critical as universities navigate uncertainties

Median monthly days cash on hand, by institution type



Recent credit action examples

Rating or outlook changes stem from underlying weaknesses exacerbated by coronavirus impacts

- Western Washington University, WA – A1, outlook revised to negative from stable (September 8, 2020)
  - Already weak operating performance
  - Fiscal performance weakness due to 10% decline in fall 2020 enrollment and related declines in tuition, auxiliary and fee revenue, and potential future declines in liquidity
- Fort Lewis College, CO – downgraded to A3/stable from A2/negative (August 27, 2020)
  - Ongoing student market challenges
  - Negative fiscal impacts in fiscal 2020, expected to continue in fiscal 2021
  - State appropriations cut of roughly 5%
- Alabama State University, AL – Ba2, outlook revised to stable from negative (September 10, 2020)
  - Very high fixed costs, narrow surpluses and use of line of credit for operations
  - Benefitting from CARES Act funding for student funding, in addition to funds from the HBCU and governor's relief funds

Questions & Answers

Recent research

» Higher Education – US: Mounting uncertainty over in-person attendance threatens auxiliary revenue, 31 August 2020

» Cross Sector – US: Coronavirus will slow pace of demand-risk PPPs for universities, 27 August 2020

» Higher Education – US: Coronavirus will accelerate business model transformation with varied credit effects, 26 August 2020

» Higher Education – US: Rising pension burdens will add to credit strains for many public universities, 18 August 2020

» Higher Education – US: College sports postponements dampen revenue prospects, though interruption in debt payments is unlikely, 12 August 2020

» Higher education and community colleges – US: Even with potential enrollment gains, colleges face drop in tuition revenue, 3 June 2020

» Higher Education – US: Largest debt issuers are well positioned to weather coronavirus shocks, 12 May 2020

» Higher Education – US: Outlook shifts to negative as coronavirus outbreak increases downside risks, 18 March 2020

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Dual Credit & Student Success:
The Effect of High School Dual Credit on Educational Outcomes at Kentucky Public Universities

Presented at Council Meeting – September 15, 2020

David Mahan, Ph.D.
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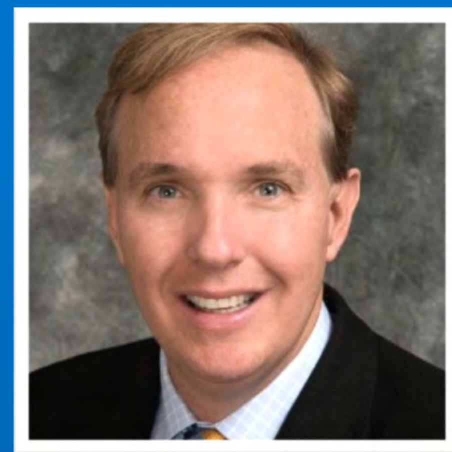
CPE
Higher Education Matters

Jie 'Grace' Dai
Senior Associate, Data & Analytics



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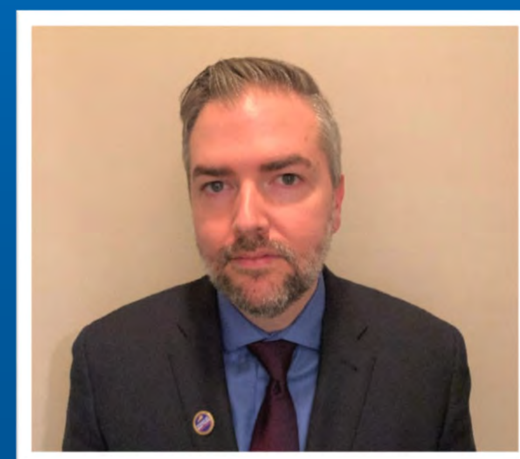
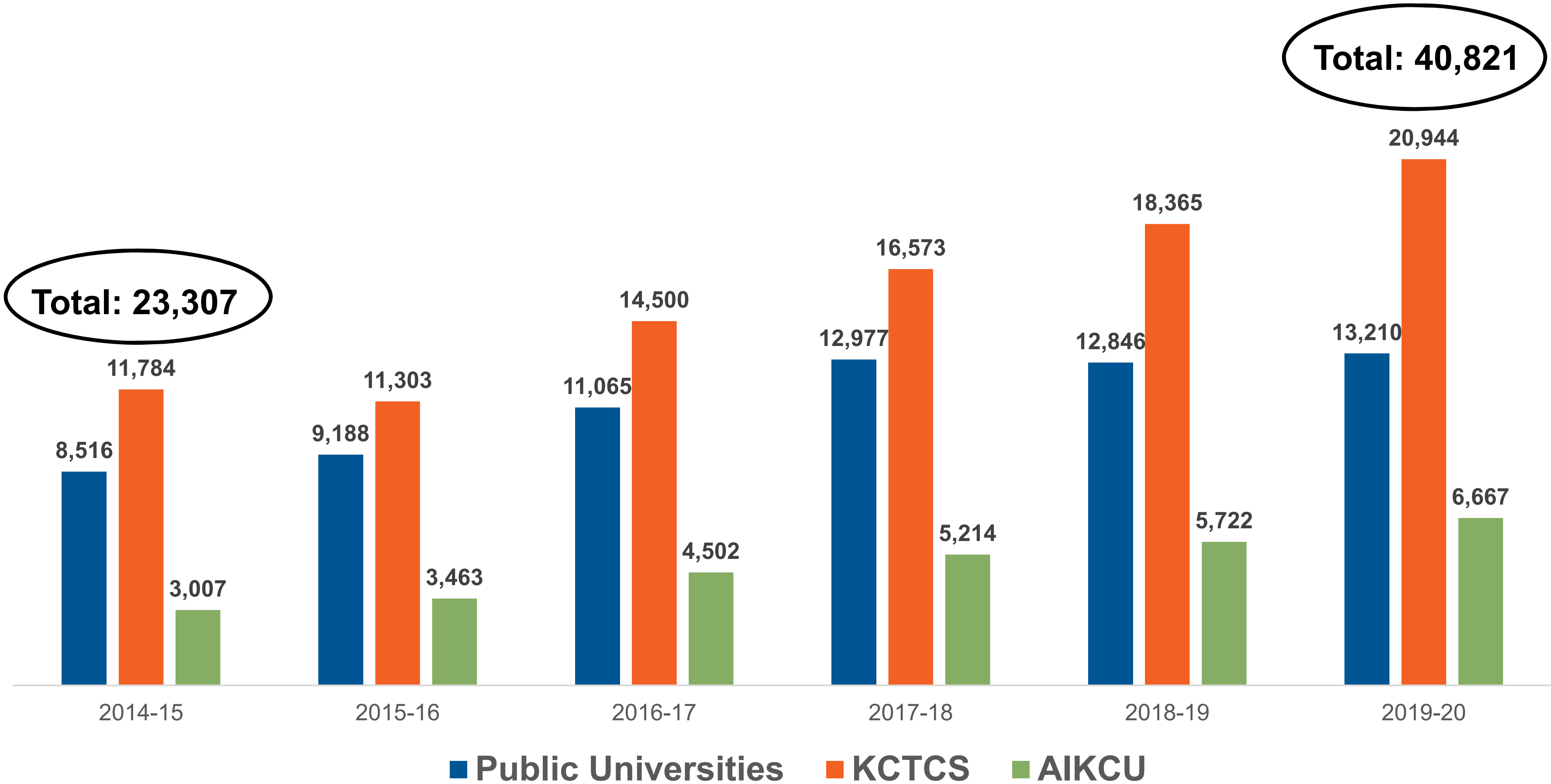


Dual credit participation has increased 75%.



Background

Research questions

- What are the effects of dual credit participation on students' postsecondary educational outcomes, as measured by second-year persistence and first-year GPA?
- Do these effects vary by race, gender, income and college preparedness?

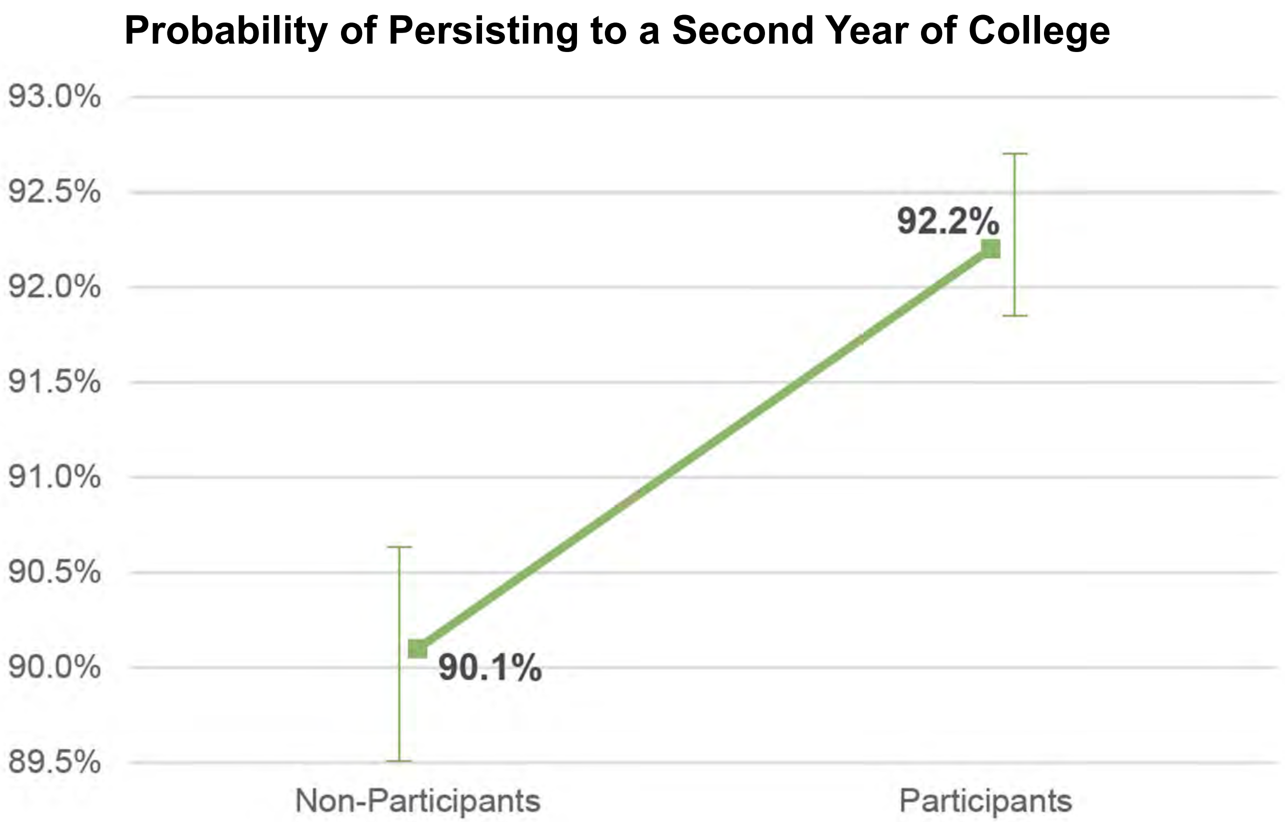
Data sample

- This study included nearly 52,000 students who graduated from a Kentucky high school and enrolled full-time at an in-state, four-year public institution for the first time during the fall of 2014, 2015, 2016 and 2017.

Dual Credit Participant Characteristics

- More likely to be female and white or Asian
- Less likely to be part of an underrepresented minority (URM) group.
- Slightly more likely to be from low-income families (but less likely if both low-income and minority).
- Starting in 2016, the percentage of Kentucky college students with dual credit is higher than the percentage without, possibly due to CPE's dual credit policy and Kentucky's dual credit scholarships.

Dual credit participants were more likely to persist to a second year of college.



<u>Strongest Effect</u>

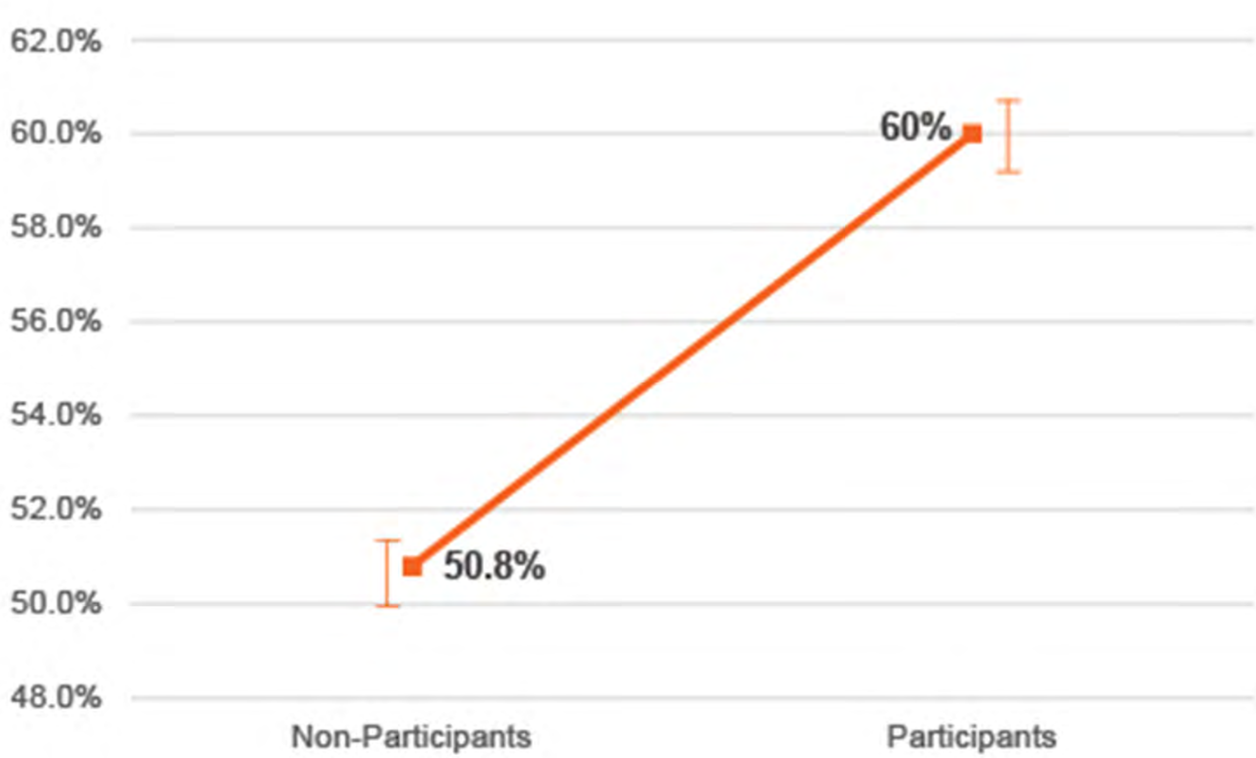
- Low-Income/White or Asian
- Low-Income/URM

<u>No Effect</u>

- Underprepared

Dual credit participants were more likely to obtain a first-year GPA of 3.0 or higher

Probability of Earning a First-Year GPA of 3.0 or Higher



<u>Strongest Effect</u>
- Low-Income/White or Asian
- Low-Income/URM
- Male
- C and B grade level students

*outcome variable continuous first-year GPA

<u>No Effect</u>
- Underprepared
- Not Low-Income/URM

Questions?

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