Today’s college and university leaders have been challenged to improve student retention and completion rates. These challenges present an opportunity for campuses to use data to facilitate student success and institutional viability. Business officers are poised to foster campus-wide collaboration to make data-informed decisions that empower staff, facilitate institutional financial health, help students succeed, and improve the return on investment. You can lead your campus in integrating the use of data to increase efficiency, impact the student experience, and, ultimately, improve student outcomes.

Create a data-informed culture on your campus!

**General Sessions Include:**

**The Analytics Revolution in Higher Education**  
**Authors from Lehman College (City University of New York) and The Ohio State University**  
A huge volume of data, decentralization, and external pressures on colleges and universities are contributing to a paradigm shift around data and the use of analytics in higher education. Join book authors for a talk about the value and necessity of using data to inform decision making. Hear how a new paradigm must include leaders who bring people together to contend with data, identify needs, ask questions, and form hypotheses. Although new technologies are necessary, a re-imagined institutional research function combined with administrative and academic leaders who successfully reach across the institution is the only way to meet challenges and effectively change business as usual.

**Ethical Considerations so Analytics Help and Never Harm, Students**  
**New America**  
As higher education grapples with promoting student success using fewer resources, predictive analytics is a promising solution. But like all powerful tools, it must be used well. New America has conducted research into what it looks like to use predictive analytics ethically. This session will present some of the challenges of implementing predictive analytics from recruiting and enrollment through graduation. It will also provide guiding practices to ensure these tools are used ethically. Hear why the unethical use of predictive analytics can be harmful and learn guiding principles for using predictive analytics in an ethical manner.
Concurrent Sessions Include:

Using the Power of Text Analytics to Understand Students
University of Colorado, Boulder
Today’s generation of students have set high expectations for the college experience. But how can institutional leaders know what students need, want, and expect? Hear about UC Boulder’s journey to gain insight into their applicants and how they used data science to reason through tens of thousands admissions essays. Employing topic modeling (a machine learning technique), UC Boulder gained an understanding of applicants that helped increase interest in the university as well as subsequent positive student experiences and success. Presenters explore how data science, understanding ethical boundaries, data governance, innovative use of internal resources, and the vision of leaders can create a cultural change that benefits students and advances the institution. Attendees will gain an understanding of modern data infrastructure, the emerging field of text analytics and potential applications, and new data governance models needed when analytics and data science impact operations.

Performance Metrics: From Vision to Data-Driven Decision Making
Emory University
As a result of leadership changes at the executive level at Emory University, a greater focus on data-informed decision making has emerged. Hear how the Division of Finance embarked upon a process to establish performance metrics to understand our business, increase efficiency and improve performance to meet the mission of the finance division and the institution. Presenters will discuss lessons learned. The importance of flexibility to the success of implementation technologically and functionally and the significance of achieving buy in around chosen metrics will be stressed. Examples that emphasize the value of making decisions rooted in data, rather than identifying data that supports decisions, will also be shared.

Establishing an Analytics Culture that Informs Decision Making
University of North Texas
Colleges and universities must grapple with how to develop analytic approaches to finance, student success, and institutional measures of health while recognizing the challenges of existing processes, protocols, tools, and people. Impacting your institution’s data landscape transcends tools and technology alone. Peter Drucker once stated that “culture eats strategy for breakfast.” Understanding that culture is a key factor in a successful implementation strategy requires organizations to build culture-centric data leaders who can help leverage tools and technology for maximum effect. This session highlights critical steps and considerations to ensure the significant investment made in analytics truly pays off. In just 12 months the University of North Texas has fundamentally altered its data landscape. This interactive session explores how this was accomplished and what can be gleaned for your institution.
Applying Analytics to Inspire the “Ah-Hah!” Moment
Boston College
A system to support needed analytics is only as successful as it is sustainable. Although challenging to implement, Boston College built a well-governed system which takes direction from end-users rather than solely from information technology colleagues. The result: a data infrastructure that is valid, reliable, understandable, and more easily controlled. This presentation will highlight the value of a robust data hub, offers examples that have fostered the use of analytics for decision making, and shares methods that have helped prompt the campus community to pursue their “how do you know?” questions, not only for operational and accreditation-driven obligations, but for the authentic desire to improve academic and co-curricular learning and student success. Hear how one college has gone from simply reviewing data to using analytics for change and improvement.

Value-Added Academic Intelligence
Georgia Gwinnett College and the University of Georgia’s Carl Vinson Institute of Government
This session’s goal is to help campuses with limited resources see how they can leverage existing systems and talent to develop data analytics that inform campus business decisions. There are inherent challenges in transforming big data into actionable intelligence for improved efficiency and increased student success. In partnership with the Carl Vinson Institute of Government, Georgia Gwinnett College developed a data analytics platform that provides a single source of truth that leadership can use to inform decisions around student recruitment and retention. The panel will focus on how the analytics platform was developed and demonstrate how the tool works. They will also address emerging methodologies from data science and machine learning, data discipline, automated monitoring, promoting a culture of data democratization, improved decision making, and strategic resource allocation.

Extending Academic Analytics: Making the Most of Hard Work
Rochester Institute of Technology
In 2014, Rochester Institute of Technology (RIT) embarked on an initiative to determine the financial viability of all academic programs (Academic Program Review). Panelists provide an overview of their internally developed framework, improvements through lessons learned, and how the data from the system is continually leveraged for additional business analytics. The presentation focuses on how the APR analysis is continually repurposed for other uses such as: graduate program growth, resource needs to grow existing programs, auxiliary and building occupancy metrics, and program and discipline trends.
Employing Analytics to Inform Student Success in Enrollment Management
University of South Carolina
This session will present a variety of case studies and in-depth examples of how data analytics has been used to inform strategic enrollment management at the University of South Carolina. Examples will pertain to high-risk student subgroups (i.e. first-generation, low-income), financial aid, student success programs and services, and undergraduate admissions. Participants will leave the presentation with a framework to guide research and analytics on their campus in addition to a compilation of analytics project examples, data visualizations, and resources. For example, a project life-cycle template will be provided with five key components that can be the structure that guides research, data management practices, and analytics on any campus.

Evolving data reporting into business intelligence
Chandler-Gilbert Community College
As institutions with limited resources look for ways to improve outcomes for high need students, college leaders seek new insights for directing efforts and developing a path forward. All colleges collect significant amounts of data but are often poorly positioned to turn that data into actionable management information. To meet these demands, Chandler-Gilbert Community College realigned financial management and institutional research efforts to leverage the collective strengths of these departments to turn disparate data into actionable insights that supported decision makers. The panel will provide an overview of how the strengths of the research and business offices were leveraged to support the use of data on campus. Presenters summarize three examples that address aligning and embedding staff within service areas, employing predictive analytics for new student retention outreach, and deploying consolidated data dashboards to drive departmental analysis and improvement.

Integrating Course Scheduling into Budgeting Analytics
Stephen F. Austin State University and Ad Astra
Hear how advanced analytics can transform course scheduling from a mundane function into a strategic planning priority. Using analytics and drawing upon data from the “Higher Education Scheduling Index” (a benchmarking database from more than 185 institutions comprised of operational metrics such as course enrollment, faculty, and resource allocation), Stephen F. Austin State University was able to more effectively meet student course demand. With the help of a consultant, the university analyzed historical enrollment patterns, student academic history, and degree rules to forecast the number of seats and sections that should be offered. Despite a significant budget cut, the panel shares how aligning data, using models, and engaging faculty and administration, led to greater course access for students, decreased reliance on part-time faculty, improved facility utilization, generated revenue, and improved results with fewer resources.
Big Ideas, Bigger Results!
The Ohio State University
Student affordability pressures are causing universities to identify new and innovative ways to control costs, with support units taking a lead role. This session will show how to mobilize leaders and staff to identify ideas that will lead to significant cost savings and business performance improvement. Participants will learn how to facilitate a team of leaders to brainstorm innovative ideas, use data and objective criteria to identify those that should be pursued, create improvement teams to tackle the issues, and apply analytical tools and techniques to ensure that true savings and process improvements are realized. Presenters will walk attendees through institutional examples that evaluated cost versus benefit, ease of implementation, staff and student impact, and risks. Once target projects were chosen, each phase was driven by data. The results: Cost savings and new knowledge.

Using National Data to Drive Institutional Effectiveness
Henderson State University and University of North Carolina, Asheville
As demands for accountability increase—colleges and universities must be accountable for the resources received and the results achieved—business officers are facing critical resource allocation decisions. Frequent questions that need an answer include: Are there relationships between expenditures and efficiency and effectiveness? Can institutions reduce costs without reducing quality; if so, in what expenditure categories? Can institutions improve effectiveness by increasing expenditures in certain categories? Do institutional characteristics influence efficiency and effectiveness? This session provides useful tools that can answer these questions and inform actions to do better. Presenters address the use of nationally available data and peer benchmarks to identify institutional gaps, generate institution-specific questions and hypotheses, and pursue action plans.

The Importance of Analytics in Your Institution’s Advocacy Work
NACUBO Federal Affairs and Research Staff
Data can be used to inform campus decisions that meet institutional goals—including improving student retention and completion rates, focusing on equity, and revamping business models to improve return on investment. These data, with accompanying visualizations, can highlight your institution’s story to internal audiences and are just as compelling with lawmakers and the public. Business officers, institutional researchers, and other data specialists on campus have access to valuable information that government relations colleagues can use to craft a narrative that explains an institution’s good work. Colleges and universities cannot afford to ignore an advocacy tool as valuable as hard data when the public is questioning the value of higher education and lawmakers have shown their willingness to pass punitive measures. This session will feature a facilitated discussion between the panelists and attendees. Possibilities will be highlighted through examples.
Analytics: Good for the Environment and Operating Costs
**University of Arizona and Slippery Rock State University**

Many colleges and universities are striving for both financial and environmental sustainability. Campus sustainability has had a positive impact on operational savings, advancement in the community, and improved student recruitment and retention. What data are campuses using to “go green” and what data do they use to guide them in doing so? In this session, you will hear examples from campuses about data they used to inform decisions and track progress on changes made to increase campus sustainability efforts. Panelists will provide examples of how they used data analytics—and data visualizations—to lower costs, reduce energy consumption and greenhouse gas emissions, modernize strategies, utilize space more efficiently, and move toward achieving carbon neutrality.

How Indiana University Improved Decision Making
**Indiana University**

Hear how a decision support initiative was structured to evaluate financial, student, personnel, and course data to answer key strategic management questions across academic schools and departments. A cross functional team of administrators, institutional researchers, information officers, and academics guided the development of Academic Metrics 360 (AM360). AM360 is very effective at prediction and scenario planning—around academic programs—for leaders. It is also used heavily by departments to support critical decisions related to number of sections to offer, sequence, timing, and other related considerations. AM360 uses state of the art technology and open-access to increase transparency and reinforce one version of the truth.

Using Data, Analytics, and Technology to Improve the Student Experience
**Georgia State University and CampusLogic**

Colleges and universities benefit from having data-focused cultures that drive student success, retention, and completion. Georgia State University (GSU) embraces data, analytics, and technology to improve student success with personalized interventions tied to data triggers across the student journey. Join this session to learn how GSU utilized their data-focused culture to address challenges in their financial aid and student accounts offices. Using data allowed staff to identify bottlenecks in financial aid and student accounts processing, as well as track performance and create outreach campaigns. Ultimately, GSU was able to improve the verification review cycle and shorten turn-around time which, in turn, reduced the risk of verification melt, and—ultimately—improve student success.