Tennessee Association for Institutional Research

28th Annual Conference

“How IR Can Address the Challenges Confronting Tennessee Higher Education”

August 5-7, 2015
Drury Hotel · Franklin, TN
Thanks to our 2015 Conference Sponsors!

**Gold Level Sponsor**
IBM Business Analytics

**Silver Level Sponsors**
Elucian-Banner
Nvivo

**Bronze Level Sponsors**
Campus Labs
Information Builders
IOTA Solutions
Rapid Insight Inc.
SAS
Tennessee Board of Regents
Tennessee Independent Colleges and Universities Association
The University of Tennessee
Pre-Conference Workshop
1:30 - 4:30 p.m.  
SAS Visual Analytics
By John Berry (SAS Institute, Inc.)

This hands-on workshop using SAS Visual Analytics will show you how to explore relevant data quickly and easily. You can look at large amounts of data, uncover hidden opportunities, identify key relationships, and make more precise decisions faster than ever before. Self-service, ad hoc visual data discovery and exploration put lightning-fast insights within everyone's reach.

Whether you're an institutional researcher with limited technical skills, a statistician, or a data scientist, powerful analytics are at your fingertips. Absolutely no coding required. Sophisticated analytics, including decision trees, on-the-fly forecasting, and scenario analysis, have been seamlessly integrated with ease-of-use features such as auto charting, “what does it mean” pop-ups, and drag-and-drop capabilities. Anyone can understand and benefit from analyzing complex data with SAS Visual Analytics.

Participants are to bring their own laptops for use in this hands-on workshop.

The workshop is sponsored by SAS Institute, Inc.

Dinner on Your Own
Break  
2:30 - 2:45 p.m.  Lobby

Concurrent Session One  
2:45 - 3:30 p.m.

The Tennessee Longitudinal Data Set  
Forest Hill  
By Tammy Lemon (UT Center for Business and Economic Research) and Tom Jenkins (UT Center for Business and Economic Research)

This session will provide an update on the development of the Tennessee Longitudinal Data Set (TLDS). TLDS includes unit-record information from the Department of Education on K-12 students, post-secondary student and financial aid information from THEC, and information from the Department of Labor on most employees in the State. Topics to be discussed include the TLDS dashboards, how IR could use the TLDS data, and future enhancements of TLDS.

Visual Analytics for Student Outcomes: How to Transform Big Data into Value  
Chestnut  
By Tim Beckett (Information Builders)

Institutional research departments have of plenty of customers that need evidence for decision-making. Yet gathering, cleansing, and presenting data are often daunting tasks.

Information Builders helps institutions organize, govern, and share their data. Our software solutions for business intelligence and analytics, integration and data integrity help achieve goals such as student success, affordability, compliance, and doing more with less. And to address the Governor's Data Workforce Initiative, we'll show how production applications are tracking college and university performance today, and linking degrees to jobs with corresponding salary data.

Attendees at this session will learn:
- How to gain visual insights on outliers and trends tied to student data
- How Texas Higher Education Coordinating Board allows the public to visually track postsecondary outcomes of K-12 districts throughout the state
- How THECB and the Texas Workforce Commission have collaborated to allow the public, particularly prospective and current college students, with easy access to recent information on 1) How much students can expect to make in various jobs, 2) What academic programs prepare them for those jobs, and 3) Which schools offer those programs (using data for every public college & university in Texas).

Migration patterns of postsecondary institution graduates: Maximizing efficiency of multiple datasets to answer policy questions  
Lotz

By David L. Wright, Associate Executive Director for Strategic Planning and Policy Research (THEC) and Alexander Gorbunov, Associate Director of Research (THEC)

Tennessee is in constant competition with other states for college graduates and an educated workforce. Although policies have been adopted to keep Tennessee students and graduates in state and attract residents of other states, there is scant knowledge about the graduates who stay in state or move back to Tennessee. A major barrier to getting these answers is the need for data from databases housed in multiple agencies.

This study examines migration patterns of Tennessee public college graduates and Tennessee residents attending out-of-state institutions. It aims to answer the following questions:
- How many in-state students stay in Tennessee after graduation?
- How many out-of-state students who graduate from Tennessee institutions stay in the state after graduation?
- How many Tennessee residents who graduate from out-of-state institutions return to the state?
- How do the employment outcomes vary by institutional and student characteristics?

These research questions require using data from the following datasets: the Student Information System managed by the Tennessee Higher Education Commission; the National Student Clearinghouse; and the Tennessee Department of Labor and Workforce Development. Individuals will be tracked over time as they transition from in-state and out-of-state higher education institutions into the labor force in Tennessee. The nature and complexity of the study emphasize the need for deeper integration of national and state data sources in responding to challenges facing American higher education.

Adult learners: Academic patterns of progression and completion  
Carter

By Melissa Hunter, Director (APSU)

Adult learners are an increasing focus of Tennessee's Drive to 55 Initiative. This study uses data from one institution to investigate success indicators for its adult learners. Are there intermediate outcomes that successful adult learners achieve along the way to completion? Where does progress typically stall for adult learners? This study offers a starting point to investigate academic patterns adult students follow to progress and ultimately earn a degree.
Concurrent Session Two
3:45-4:30
Update on the Reverse Transfer Project  
Forest Hill
By Gloria Gammell, Reverse Transfer Program Manager, Katie High, Vice President for Academic Affairs and Student Success (UT System), India Lane, Assistant Vice President for Academic Affairs and Student Success (UT System), Jason Taylor, Office of Community College Leadership and Research (University of Illinois) and Assistant Professor, Dept. of Educational Leadership and Policy (University of Utah)

This session will discuss the reverse transfer project and the research and policy implications for institutional researchers.

Strategies for Performance Management  
Chestnut
By David C. Erickson (Ellucian)

For 46 years, Ellucian has served higher education, and we are deeply committed to delivering quality products and providing expert professional services designed to address our clients’ critical needs. Ellucian Perform provides the unique ability to standardize and improve planning processes across your organization, with data from any source, in many ways including strategic planning, outcomes assessment, accreditation and program review. With Ellucian Perform, you will:
- facilitate strategic planning at the system, institution, school, college, division, program, department, or committee level;
- get instant, institution-wide visibility into assessment;
- support both regional and specialized accreditation, making it easy to provide your accreditation teams with the evidence you need;
- provide a flexible structure through which faculty and staff can collect program review data, analyze results, align program goals to institutional goals, and take program improvement actions.

Using Statistics to Focus Recruiting Efforts at a Community College  
Carter
By Rion McDonald, Director of Institutional Research (Columbia State CC) and Matt Lewis, Enrollment Services Operations Manager (Columbia State CC)

Faced with the reality of limited resources, Columbia State is in the process of implementing a statistical model-based method of narrowing down its applicant pool and selecting a subgroup of potentially high-performing students for more concentrated and personalized recruiting.

VFA (Volunteer Framework of Accountability) Reporting at Pellissippi State Community College  
Lotz
By John H. Heuer, Coordinator for Institutional Research (PSCC)

PSCC has participated in VFA (vfa.aacc.nche.edu) reporting since August, 2013. The VFA is in its second year of operation and, currently, 155 colleges are members. Although there are several institutions from Southeast states including KY, GA, and FL, PSCC is the only college in VFA from TN. PSCC has provided information rela-
Concurrent Session Three
10:00 - 10:45 a.m.

Break
9:45 - 10:00 a.m.

Lobby

Keynote Session
8:30 - 9:45 a.m.

“The Economic Outlook of the State and its Impact Higher Education and IR”

Bill Fox, Director of the UT Center for Business and Economic Research

Automating TELS student tracking and reporting

By Patricia White, Director, Business Intelligence and Data Management (Belmont University)

The Tennessee Education Lottery Scholarship program (TELS) prescribes a very specific method for calculating initial and continuing eligibility that differs greatly from normal processing in Banner. Up to the present time, the staff in the Registrar’s Office, Financial Aid, Information Technology and the Office of Assessment and Institutional Research have used a combination of manual processes, batch programs, spreadsheets, paper documents and Access databases to determine eligibility for the state lottery scholarship and for reporting to state agencies. This method of managing the lottery scholarship requirements is not an efficient use of Belmont's resources. Through a joint effort of the offices previously mentioned, a new automated system has been successfully implemented to manage these requirements.

Building a Culture of Collaboration for Academic Assessment

By Denise Gardner, Assistant Provost and Director, and Michael McFall, Associate Director of Assessment, Office of Institutional Research and Assessment (University of Tennessee-Knoxville)

Increasingly, institutions are being challenged to prove that students are learning what they should be and are being suitably prepared for the job market. Many of us have struggled with instituting adequate processes for assessment of student learning, and it often involves a culture change. This session discusses our journey to a successful academic assessment process, starting with support from upper administration, collaboration with faculty, and the involvement of Institutional Research and Assessment, the Teaching and Learning Center, and the Office of Accreditation. Relationships and communication were key to our success. Academic units were provided training and support on how to use the assessment software, creating student learning outcomes, direct and indirect methods of assessment, and closing the loop by using results for improvement. This process has proved to be sustainable beyond our reaccreditation process.

Tennessee Outcomes-Based Funding Formula – Looking Back on Five Years of Innovative Finance Policy

By Crystal L. Collins, Director of Fiscal Policy Analysis (THEC) and Steven Gentile, Director of Fiscal Policy Research (THEC)

The financial crisis of 2007 fundamentally changed the state and federal resources allocated to campuses. At the same time, there have been increasing calls for greater accountability, effectiveness and efficiency. Campus leaders are recognizing the need to change their business models. This became more apparent when Dr. Fox presented the economic outlook for the State of Tennessee at special retreats for the UT Board of Trustees and the TBR Board of Regents. This presentation provides an update to the presentation he made at the Boards of Trustees and Regents. This presentation has significant implications for institutional researchers as Tennessee campus leaders develop new business models and implement more accountability, effectiveness, and efficiency measures.
As part of the Complete College Tennessee ACT (CCTA) of 2010, Tennessee introduced an outcomes-based funding (OBF) formula that transformed how state appropriations were distributed to two- and four-year institutions. Prior to the OBF model’s implementation, state funds were appropriated based almost entirely on enrollment. In 1979, a small performance funding piece was introduced to reward institutions for success in meeting certain state policy goals for higher education. But institutional behavior did not change as expected. State officials wanted to develop a more effective outcomes-focused funding formula in order to leverage its ability to promote state policy issues.

The Tennessee OBF formula now distributes appropriations based on the production of outcomes that further the educational attainment and productivity goals of the state Master Plan. Outcomes such as degrees, certificates, student progression, workforce training and research are valued and rewarded. After five years of implementation, Tennessee has an opportunity to review how institutions have responded to this change in the state funding incentive structure.

In this presentation we will review how funding has changed in response to outcome production and also investigate how specific outcomes have changed over the course of the five years. We will also review other research that has investigated how institutional behavior has changed, making connections to the data used to build the funding recommendation each year. Finally, we will discuss the most common campus feedback and lessons learned. Participants will have a better understanding of how their or their peers’ institutional practices have impacted funding.

This presentation will discuss each of the six stages and the characteristics and skills needed to succeed at each. In addition, skills for successfully moving through each stage will be presented.

(Note: This presentation won the Best Presentation Award at the California Association for Institutional Research (CAIR) 2013 conference and was one of the top 10 rated presentations at the 2014 AIR Forum.)

**From Admission to Advancement - Using Predictive Analytics to Focus Marketing, Retention and Outreach**

By Nicole Alioto (IBM)

What if we could predict not only who is most likely to leave the institution but also why? What if we could determine which students are most likely to be successful in an academic program? What if we could pinpoint the likelihood an alumnus will donate to the institution? With predictive analytics, institutions can garner insights from and about students, determine contributors to key outcomes, identify which students are most likely to enroll, leave or donate, and align outreach efforts more efficiently. Utilizing IBM SPSS solutions, colleges and universities will have the ability to leverage data sources and determine how to better allocate resources to maximize marketing campaigns, retention interventions, and alumni giving efforts. In this session, attendees will learn about the possibilities that exist in their structured and unstructured data and see how IBM SPSS solutions transform these data sources to rich, analytical insight.

**Assessment of Redesign of High Enrollment, High Impact Courses**

By Sherry Marlow Ormsby, graduate student (University of California, Riverside)

In the Spring of 2014, TBR initiated a request for proposals from system institutions encouraging application for available course revitalization grants. Eligible applications included high enrollment gateway classes submitted by teams of two or more faculty members. Faculty members submitting proposals were asked to identify how revitalized courses would enhance student learning and success. Ultimately 56 proposals were selected through a peer-review process and pilot courses implemented in the Fall of 2014.

Faculty team members were required to complete a
pre-implementation and end of term survey describing
the revised student learning outcomes, assessment method
for student learning outcomes, redesign model utilized,
scaling plans, and any identified resource needs. Assessment
of the course pilots included a quantitative analysis
of grade distributions from the piloted courses sections
compared to both non-piloted sections from the same
term and also from the prior Fall. Additional qualitative
analysis was conducted based on the faculty surveys.

This presentation will highlight some of the qualitative
and quantitative findings from the assessment of the pilots.
The assessments will be used to help the system office and
institutions determine which revitalized courses are best
suited for scaling grants and should be further explored.
Additionally, the findings will inform future course revital-
ization grants from the system office.

Tennessee Outcomes-Based Funding Formula –
Looking Ahead at Changes to the State’s Finance Policy

By Crystal L. Collins, Director of Fiscal Policy Analysis (THEC)
and Steven Gentile, Director of Fiscal Policy Research (THEC)

As part of the Complete College Tennessee ACT (CCTA)
of 2010, Tennessee introduced an outcomes-based funding
(OBF) formula that transformed how state appropriations
were distributed to two- and four-year institutions. State
funds are now appropriated based primarily on outcomes,
such as degrees and certificates, rather than enrollment.
With the implementation of this innovative finance policy,
the Tennessee Higher Education Commission (THEC)
agreed to revisit the formula on an annual basis, imple-
menting any disruptive changes at the end of a five-year
cycle. In early 2015 — after five years of the formula’s
implementation — THEC convened a Formula Review
Committee to review and make necessary changes to the
formula. The new formula will be used immediately this
fall to determine fiscal year 2017 state appropriations.

In this presentation we will review the process by which
THEC facilitates a review of the formula — how feedback
from institutional, system, and government stakeholders is
collected, and what role these stakeholders play in the pro-
cess — as well as provide a first look at the components of
the new funding formula. Changes to the formula include
— but are not limited to — new outcome definitions, ad-
dition of new focus populations, and new premium levels.
We will also review how these changes relate to the state’s
new higher education 2015-2020 Public Agenda. Partici-
pants will gain an understanding of the new formula that
will ultimately benefit their respective institutions as well
as the state of Tennessee.
2015 TENNAIR Officers
President: Dennis Hengstler, The University of Tennessee System
Secretary: Rion McDonald, Columbia State Community College
Treasurer: Matt Rehbein, Lipscomb University
Past President: Nathaniel Perry II, Tennessee State University
Web Manager: Joseph Chappell, Tennessee Tech University

2015 Conference Program Committee
Dennis Hengstler, The University of Tennessee System
Mary Lucus, Belmont University
Chris Tingle, Tennessee Board of Regents
Tracy Rokas, Belmont University
Patrick Meldrim, Tennessee Independent Colleges and Universities Association
David Wright, Tennessee Higher Education Commission
Glenn James, Tennessee Tech University
Joseph Chappell, Tennessee Tech University
Kimberly Martin, Volunteer State Community College
Brian Hester, The University of Tennessee System
Donna Tudor, Trevecca Nazarene University
Matt Rehbein, Lipscomb University
Rion McDonald, Columbia State Community College
Nathaniel Perry II, Tennessee State University
NVivo is your platform for analyzing all forms of unstructured data for your assessment or evaluation project. Quickly interrogate data using powerful search, query and visualization tools. Get the big picture or get into the details. Uncover subtle connections, rigorously justify findings and effortlessly share your work.

Find out what’s possible

➢ You can collect, organize and analyze open-ended survey responses, social media, videos, PDF files, web pages and audio content from interviews and focus groups.

So whatever your materials, whatever your field, whatever your working style, NVivo provides a workspace to help you at every stage of your assessment or evaluation research project. So start exploring today!

Deliver a better student experience

Today’s students expect more. Deliver more. Because your students’ experiences are directly linked to your institution’s success.

At Ellucian, our sole focus is higher education. We work with a global community of more than 2,400 institutions in 40 countries to develop the technology and services that help institutions evolve to meet student needs. And we continually invest in our solutions to make sure they exceed expectations.

To learn more, visit www.ellucian.com
Introduction

Capabilities that enable an organization to consume data faster — to move from raw data to insight-driven actions — are now the key differentiator to creating value through analytics. In addition to this focus on speed, our latest analytics research reveals several significant evolutions in the era of big data.

Based on survey responses of more than 1,000 business and IT executives from more than 60 countries, our 2014 analytics research revealed four transformative shifts affecting the fast-paced digital marketplace:

1. A solid majority of organizations are now realizing a return on their big data investments within a year.
2. Customer centricity still dominates analytics activities, but organizations are increasingly solving operational challenges using big data.
3. Integrating digital capabilities into business processes is transforming organizations.
4. The value driver for big data has shifted from volume to velocity.

By Glenn Finch, Steven Davidson, Christian Kirschniak, Marcio Weikersheimer, Cathy Reese and Rebecca Shockley

In 2014, several important shifts occurred in the world of big data — shifts that business executives around the globe cannot afford to ignore. The most significant shift is that velocity is now the competitive differentiator for big data. Our sixth annual analytics study reveals a group of organizations differentiating themselves with speed-driven data and analytics practices that significantly impact business performance and competitive position. To compete in today's digitally infused marketplace, other organizations need to emulate these outperformers by acquiring, analyzing and acting on data with a focus on speed to action.

63% of organizations realize a positive return on analytic investments within a year.

69% of speed-driven analytics organizations created a significant positive impact on business outcomes.

74% of respondents anticipate the speed at which executives expect new data-driven insights will continue to accelerate.