Presentation Abstracts

Monday, June 27

Morning Sessions

Session 1 – Invited Speaker – A Simple Model for Learning Improvement: Weigh Pig, Feed Pig, Weigh Pig

Keston H. Fulcher (Executive Director of the Center for Assessment and Research Studies and Associate Professor of Graduate Psychology, James Madison University)

"Using Results for Improvement" is championed often in academe. Unfortunately, evidence of such improvement is rare. This presentation begins by clarifying the concept via a simple model of learning improvement: assess, intervene, reassess (weigh pig, feed pig, weigh pig). Attendees will then learn concrete steps to integrate assessment with improvement initiatives. The session closes discussing how higher education can evolve from emphasizing assessment to emphasizing learning improvement. This presentation is based on the presenter's NILOA Occasional Paper that bears the same title: http://www.learningoutcomeassessment.org/documents/Occasional_Paper_23.pdf.

Session 2 – Diversity Matters! The Role of IR and Data in Diversity and Inclusion

Kristin McKinley (Director of Research Administration, Lawrence University), Ellen Peters (Director of Institutional Research and Retention, University of Puget Sound), Jim Fergerson (Director of Institutional Research and Assessment, Carleton College), Carol Trosset (Associate Director of Institutional Research and Assessment, Carleton College), Randy Stiles (Associate Vice President for Analytic Support & Institutional Research, Grinnell College), Jason Rivera (Director of Institutional Research, Dickinson College)

Panelists will discuss a myriad of issues related to diversity and inclusion including the role institutional research and data play in advancing change on their campuses. This panel discussion will start with each campus providing a broad overview of diversity issues on their campus, each highlighting a different aspect or approach, any new practices and/or policies resulting from data findings, and sharing obstacles and successes. An interactive discussion among participants about ways to use data as an impetus for change will follow.

- Carleton will describe data issues around gender identification, sexual orientation, first-generation, and socioeconomic status. In addition, themes from campus conversations and a low income first-generation survey will be shared.
- Dickinson will share how they utilized a Student Engagement Survey and in-person interviews to understand differences in experience based on race/ethnicity and other identity features. Results from the survey and especially the interviews helped to give a voice to students of color and highlighted areas where the institution could grow in terms of diversity and inclusion.
- Grinnell will focus on socioeconomic status including, but not limited to, need-blind vs. need-aware admissions and its impact on net tuition revenue.
- Lawrence will share how identity-based diversity issues (race/ethnicity, gender, sexual orientation, religion, and political leanings) influenced the implementation of cultural competency training as well as staffing and support of newly created positions related to diversity and inclusion. Detailed job descriptions will be available for those interested.
- Puget Sound will share findings regarding religious and political diversity on their campus, focusing on the use of a community participatory framework to effect change.

Session 3 – Developing Student-Led Focus Groups to Improve Institutional Learning

Austin Beiermann (Student, Pacific Lutheran University), Dave Veazey (Director Assessment, Accreditation & Research, Pacific Lutheran University), Elaina Seyfang (Student, Flagler College), Will Miller (Executive Director of Institutional Analytics, Effectiveness, and Planning, Flagler College)

Students from two institutions will discuss their efforts to create student-led focus groups on campus that address key interests of both students and campus stakeholders. Both institutions attended the Wabash workshop in March 2016 to develop projects in which students develop questions, interview students, analyze data, create reports, and disseminate results to the campus community. Such a process embeds deep student learning for the student scholars while also providing unique information for campus stakeholders to consider for decision-making purposes. Students will briefly discuss their local campus context and the rationale for their work in addition to the steps they believe to be most important in considering the use of student-led focus groups to inform institutional improvement. Following the presentation, the students will sit as a panel to respond to questions.

Monday, June 27

Afternoon Sessions

Session 4 – Collecting and Responding to the Results of the HEDS Sexual Assault Survey

Laura Palucki Blake (Director of Institutional Research and Effectiveness, Harvey Mudd College), Marco Antonio Cruz (Director of Institutional Research and Assessment, Pitzer College), Elizabeth Graham (Assistant Director of Institutional Research, Pomona College), Junelyn Peeples (Director of Assessment and Institutional Research, Scripps College), Colleen Wynn (Director of Institutional Research, Claremont McKenna College)

Considerable attention is currently focused on the issue of campus sexual assault. Student activists, legislators, the White House, the justice department, and the media have all heightened awareness of this issue, pressuring colleges to purposefully and proactively address the issue of sexual assault and the climate for sexual assault on campus. Colleges are grappling with the weight of this responsibility. As institutional researchers, we can assist in meeting demands for accountability and helping our campuses make data-informed decisions by surveying students on their perceptions of the campus climate for sexual assault, the campus response to sexual assault, and their experiences with unwanted sexual contact and sexual assault.

In this panel discussion, representatives from each of the five undergraduate Claremont Colleges will provide multiple perspectives on analyzing, reporting, and using sensitive data from the HEDS Sexual Assault Campus Climate Survey on campus (for more information: http://7csexualmisconductresources.claremont.edu/sexual-assault-campus-climate-survey-faqs/).

Specific topics addressed by the panel will include: fostering and sustaining collaboration on the issue of sexual assault across multiple campus constituencies (e.g. Title IX directors, Student Affairs staff, and communications directors); managing institution-wide data needs; and coaching a wide variety of data consumers (presidents, students, faculty, staff, trustees, the public) on what the results mean for the college and how they can be used for improvement.

Session 5 – Invited Speaker – Knowing Where to Hit: From Research to Insights in Small Colleges

Will Miller (Executive Director of Institutional Analytics, Effectiveness, and Planning, Flagler College)

While terms like analytics and insights may be viewed by some in higher education as buzzwords or flavors of the week, no one else on a small campus is better situated to drive conversations than those who hold the keys to institutional data. With terms like effectiveness and data-driven becoming dated and commonplace, the future of institutional research at small colleges will mean far more than simply creating outputs for others to consume. With the proliferation of available tools and techniques, institutional researchers need to move beyond simply being creators of data for others and instead enter a decision-making paradigm by creating insights that help guide an institution. With every insight made and shared with an appropriate audience, institutional researchers can directly contribute to the overall success and future of small colleges. Rather than being mere stargazers or technical experts, institutional researchers will benefit from remembering that every piece of data that comes across their desk directly represents students in some way or form. Integrating big data and predictive analytics does not mean losing the personal touch commonly associated with small colleges; instead, it means being able to have more meaningful conversations more quickly. The future of institutional research involves a clear transition from data as simple output to data insights that help directly motivate action and change for the betterment of students. In a competitive higher education environment—with internal and external pressures mounting daily—it is our job to ensure our institutions are fully prepared to strive.

Session 6 – Approaches to Developing a Data-Informed Peer Group

Neal Christopherson (Director of Institutional Research, Whitman College), Lyrae A. Williams (Associate Vice President for Institutional Planning & Effectiveness, Colorado College)

- *Neal Christopherson* – In 2012, Whitman College adopted a new peer comparison group. Institutional Research was instrumental in developing this new group by gathering data, doing analysis, and ultimately presenting a new peer group to the Board of Trustees. This presentation will discuss this process from initial conversations with our Board of Trustees, through the data collection and statistical analysis, to the actual adapting of the new peer group. Initial conversations with the Board of Trustees developed ideas for what type of comparison group we wanted and the types of schools we should try to include. This influenced which variables would be influential in selecting schools for this group. After gathering data from public sources, three different data analysis methodologies were used, with the results combined to create a list that was presented to the Board. Discussions with the Board further edited the peer group in unexpected ways.

- *Lyrae A. Williams* – Have you ever thought about how a Peer Group might get determined? If you have a Peer Group, have you ever wanted to evaluate the group and see if your institution might want to consider a change? In the summer of 2014, Colorado College asked that question. Is our Peer Group the right group now and do we need to have an Aspirant Group too? Beginning in the fall of 2014, the Office of Institutional Planning & Effectiveness started developing a plan to evaluate the current Peer and Aspirant Group. The resulting plan was based on using data to inform the evaluation and ultimately shaped the decision to change the Peer Group and eliminate the Aspirant Group. In the summer of 2015, the college formerly adopted the Peer Group. This presentation will illustrate the steps, conversations, and metrics that Colorado College used to evaluate their current Peer and Aspirant Groups. The presentation will also include how the Peer Group is used in Benchmarking for the college's Board of Trustees and how the metrics chosen to benchmark are aligned to the mission.

Tuesday, June 28

Morning Sessions

Session 1 – Assessment and Evaluation

I Have My Outcomes Data…Now What? Using Implementation Fidelity to Make Informed Changes to Programming

Madison Holzman (Assessment Consultant to the Student Affairs Division & PhD Student, James Madison University), Nick Curtis (Assessment Consultant for Academic Degree Programs & PhD Student, James Madison University)

Utilizing Developmental Evaluation Methods to Implement Multi-Year Assessment

Robyn Pitts (Doctoral Student/Methodologist, University of North Carolina at Greensboro), Myrah R. Stockdale (Assessment Coordinator, Campbell University)

- *Madison Holzman, Nick Curtis* – We strive for our curriculum and pedagogy to improve students' learning. However, what if our outcomes assessment data suggest that students are not learning what we had hoped? When student learning objectives are not met, we know we have to change something to help students reach our intended learning outcomes. However, identifying which aspects of our curriculum to change is difficult. This inability to identify the specific issues underlying our outcomes often results in a lack of action. That is, since our outcomes data do not inform us about what changes to make, we often do not make changes to our curriculum or pedagogy. This lack of data use is problematic, especially if we agree that the purpose of assessment is to obtain data which we can use to make informed changes to programming and in effect, improve student learning. When implementing a curriculum, we assume the planned curriculum was actually implemented; however, this is not always the case. Implementation fidelity assessment data help us understand the extent to which the designed curriculum was actually implemented. We argue that outcomes assessment data cannot be appropriately interpreted without knowledge of how programming was implemented. Thus, implementation fidelity assessment should be situated in the assessment cycle and coupled with the collection of outcomes data. In this session, we will discuss implementation fidelity assessment and how to use implementation fidelity assessment data to inform the interpretations we make about outcomes data.
- *Robyn Pitts, Myrah R. Stockdale* – As higher education assessment specialists our job is to cyclically assess, intervene, and assess our programs. Programs do not change as a result of being assessed or measured but as a result of the interventions that are put in place. This presentation delivers an evaluation framework that supplements the typical assessment cycle—developmental evaluation (DE). Unlike formative and summative evaluation, developmental evaluation makes a point to be situationally sensitive, adaptive, and responsive rather than trying to impose structure or order onto systemic complexity. DE integrates evaluative data into all iterations of program design and implementation, creating a seamless approach to program/project management within a continual assessment context. This approach can be particularly advantageous in assessing atypical or difficult-to-assess programs, like multi-cultural affairs, that may involve longitudinal adaptation, ongoing innovation, complex/uncertain environments, and dynamic/nonlinear realities. The presenters will introduce developmental evaluation methods and discuss possible uses in assessment contexts.

Session 2 – Analytical Curriculum Modeling: Moving Beyond Academic Mapping

Gary L. Donhardt (Director of Institutional Research, University of Memphis)

Analytical Curriculum Modeling determines factors associated with student achievement in course offerings to help admissions counselors and advisors assess student aptitude, intervene when students are having difficulty in critical courses, and if necessary, redirect students to majors where they can find success.

Analytical Curriculum Modeling predicts success in course sequences by providing evidence of the relationship between preadmissions metrics, course grades, and degree completion within programs. Preadmission scores (ACT, high-school GPA, Aleks) predict course successes in the first term. Grades in early course offerings are used to predict success in later offerings and in degree completion. Linear models help determine pivotal courses as those directly influencing other offerings in the sequence. Multiple regression is used to predict success in specific courses and logistic regression used to predict degree completion. The resultant equations inform evaluations of student potential.

Three undergraduate programs are examined. The College of Nursing has a high applicant demand and limited openings for majors. The concern is for pre-nursing majors who do not make it into the program. Are there majors where they can find success? The College of Engineering, with high attrition rates, is interested in examining course obstacles to degree completion. The Architecture program is marked with relatively large incoming classes yet few graduates. Analytical Curriculum Modeling reveals that grades in a pivotal first-term course predict success in six other courses in the sequence yet have no predictors of their own success. An instrument is being developed to help predict success in this critical course.

Session 3 – Invited Speaker – Evidence-Based Best Practices to Reduce Sexual Violence on Our Campuses

Charlene Senn (Professor, University of Windsor)

We have known about the high rates of sexual violence experienced by female university students for over 30 years. Unfortunately, our efforts on campus to reduce sexual violence have been and continue to be largely ineffective. Based on the current state of evidence in the field, Charlene Senn will outline the best practices for effective sexual violence prevention education and will explore the two approaches with demonstrated effectiveness, interventions to empower all campus citizens to take action on sexual violence (bystander approaches) and sexual assault resistance education for women. These approaches are complementary and when used together, are our best hope for a future where sexual violence is no longer common place on North American campuses.

Tuesday, June 28

Afternoon Sessions

Session 4 – Three Perspectives on the Connection between Assessment and Faculty Development

Developing an Assessment Culture: An Overview of Resources for Faculty Development in Assessment

Nick Curtis (Assessment Consultant for Academic Degree Programs & PhD Student, James Madison University), Madison Holzman (Assessment Consultant to the Student Affairs Division & PhD Student) James Madison University)

Engaging Faculty in the Assessment of Student Learning

Paula Haines (Director of Assessment, University of Massachusetts, Lowell), Jeanne Mullaney (Assessment Coordinator, Community College of Rhode Island)

Using HEDS Data to Generate Action for Faculty Development: What Do the Results Mean for Faculty and Next Steps

Caroline M. Kobek Pezzarossi (Faculty Administrator for Faculty Development, Gallaudet University), Lindsay Buchko, (Director of the Office of Institutional Research, Gallaudet University)

- *Nick Curtis, Madison Holzman* – Student learning outcomes assessment is critical. The goal of assessment is to provide a systematic process for faculty and staff to make better decisions about student learning. In particular, assessment results can help faculty ascertain which aspects of the curriculum and pedagogy are effective and which need improvement. Though assessment practice is increasingly prevalent, clear expectations for what constitutes quality assessment are less common. It is important to consider the factors that lead to improved assessment quality. On our campus, we have evidence that program-specific assessment practices have consistently improved. To understand what drives improved assessment practice, we interviewed faculty members from the most improved programs. According to faculty members, "use of resources" was most helpful for improving their program's assessment practices. Thus, we believe that the availability of high-quality resources is critical for assessment improvement. Our institution provides many resources to faculty members to assist them in their assessment endeavors. We realize that faculty members are at different developmental stages of assessment expertise. Some faculty members may be facilitating assessment for the first time (beginners), others may be more experienced but yearning to learn more (intermediates), and others may be assessment experts (experts). Regardless of developmental stage, all faculty members can enhance their understandings of assessment through faculty development. As faculty members enhance their assessment knowledge and aptitude, they simultaneously help to foster a culture of assessment. We will review various resources and faculty development opportunities that have assisted faculty members in improving their assessment.

- *Paula Haines, Jeanne Mullaney* – The Multi-State Collaborative to Advance Learning Outcomes Assessment (MSC) project currently involves 12 states and includes over 80 public and private 2- and 4-year post-secondary institutions. Because this project is centered on authentic student work that is collected and assessed with the AAC&U VALUE rubrics for critical thinking, quantitative reasoning, and written communication, the MSC has been an engine for indispensable faculty participation and engagement. Presenters will discuss and demonstrate activities implemented at a community college, a university, and at the state level to involve and enhance faculty participation in assessing student learning outcomes, interpreting the data gathered, and implementing changes based on that interpretation.
- *Caroline M. Kobek Pezzarossi, Lindsay Buchko* – The HEDS Teaching Quality Survey was launched at Gallaudet on October 26, 2015 via email to all students in their second to fourth year of school. A 34% response rate was collected from students. Using data from the HEDS Teaching Quality Survey, researchers in the Office of Institutional Research at Gallaudet University disaggregated the responses of our students by ethnicity to better understand the specific experiences of these students. Results yielded statistically significant areas of strength and improvement. Results were shared at the faculty senate and upper management team meetings with a university-wide announcement of the results bilingually via paper and video. This presentation will explain the process of transforming data to action: collection of the data, analysis of the findings, sharing it with the community, and moving towards action for future faculty professional development events. We will outline strengths, challenges, and recommendations for next steps.

Session 5 – Assessment at Liberal Arts Colleges

Learning In and Out of the Classroom: A Liberal Arts College Contemplates Competency-Based Education

Zeke Bernstein (Dean of Research, Planning, and Assessment, Bennington College)

Asking More Meaningful Questions: Developing an Inquiry-Based General Education Program Rubric

Jennifer McGee (Assistant Professor, Psychology, Oxford College of Emory University), Brenda Harmon (Senior Lecturer and Laboratory Director, Chemistry, Oxford College of Emory University)

- *Zeke Bernstein* – Despite widespread acknowledgement that higher education is in a period of significant change, institutions continue to rely on conventional structures for teaching, learning, and assessment. One of these structures is the credit hour, which tracks student learning based on hours spent in a classroom. At Bennington College, faculty and key staff are in the midst of a years-long effort to fundamentally shift the way we conceive, deliver, and assess the student experience. The core of our work is formal recognition that learning happens everywhere: in classrooms, residence halls, co-curriculars, and in the required internships that every Bennington student completes every year. In parallel, we are delineating a set of college-wide learning outcomes—skills that we expect every student to develop in their time at Bennington. Eventually, all student learning, in- and out-of-the-classroom, will be assessed in relation to these skills. Here I will address several questions that drive our work: How can an institution triangulate evidence from various contexts to form a complete picture of student learning? What are the analytic tools needed to track the student experience? And how do we reconcile the tension between content bound by disciplines and skills that transcend content?

  Finally, I will share something of a thought experiment: a reimagining of education as a curated set of learning opportunities, all of which contribute towards the development of specific skills. We see this as not unlike competency-based education, where academic progress is measured not by seat time, but through assessment of student learning.
- *Jennifer McGee, Brenda Harmon* – Oxford College is an undergraduate division of Emory University, where ~925 students spend their freshman and sophomore years in an intimate liberal-arts intensive community before matriculating to Emory College to finish their junior and senior years. Oxford's General Education Program

(GEP) is founded on Ways of Inquiry courses (INQ). These courses are designed to engage students in disciplinary discovery, to encourage them to develop more meaningful questions to facilitate problem solving, to help students make connections between multiple disciplines, and give them space to integrate disciplinary thinking skills into their lives. Because the GEP is cross-disciplinary, our assessment initiative aims to measure the transitive effect of INQ courses to situations inside and outside the classroom.

This session will present a pilot study for developing a cross-disciplinary rubric intended for classroom and institutional assessment. We decided to start with assessing the ability of students to become more adept at asking good disciplinary questions and being able to articulate WHY those questions are good questions. Our process involved holding three separate student focus groups consisting of individual written responses to either an artifact, short text, or logic puzzle followed by group interaction and reflection which was recorded and transcribed. Following the focus groups, a team of faculty and students studied the written responses and transcribed conversations to develop a rubric through the process of a Q-sort. This rubric will be used to assess learning in individual classrooms as well as in future focus groups.

Tuesday, June 28

Late Afternoon Poster Sessions

Poster 1 – Closing the Academic Advising Loop: The Usefulness and Pitfalls of Building Your Student Success Software System In-House

Narren J. Brown (Associate Director of the Center for Teaching, Learning & Assessment, Grinnell College)

This poster will provide an overview of the process that Grinnell College undertook to build its in-house student success software platform and how those data have been used to inform both our practice and policy. This conversation will focus on what evidence was used at each step in the building process, paying particular attention to data gathered from various "pilot studies" and how that evidence guided and helped to garner support for the larger project. In conclusion, I will illustrate how the evidenced gathered from our in-house student success software system is being used to guide the conversation on which commercial platform to buy.

Poster 2 – Institutional Research Using Non-Cognitive Factors of Community College Students

Rebecca Dean (Director of the Academic Center for Excellence, NHTI, Concord's Community College), Denis Normandin (Associate Vice President of Academic Affairs, NHTI, Concord's Community)

This presentation will focus on the collection and use of early assessment data to determine how non-cognitive factors impact a community college student's progress in a class. NHTI, Concord's Community College in Concord, NH recently piloted an Early Alert system. This system allowed faculty and staff to identify behaviors within the first three weeks of the semester that might impact a student's success on campus. After outreach and follow-up, data was collected to determine trends in the identified non-cognitive factors impacting a student within the first three weeks of the semester. Data collected also included the following qualitative factors: status in course at mid-term time, course GPA, term GPA, cumulative GPA, and persistence to the following semester. The data indicated that students with at-risk behaviors within the first three weeks of the semester were more likely to not to pass the course with a C or higher or to have as high a GPA as compared to the average GPA of the college.

Poster 3 – Creating a Culture of Excellence in Higher Education

Bridget P. Dewees (Assistant Vice President Institutional Effectiveness, Claflin University)

Students have so many choices when it comes to selecting a college or university, service excellence can make the difference in the selection process! Take a journey through a higher education institution's quest for excellence. Participants will gain insights to effective strategies for building, assessing, and maintaining a culture of service excellence on their campuses. Included in the presentation are relevant strategies used by Claflin University for the initial assessment of service excellence, assessment of progress, and their model for sustaining service excellence in higher education.

Participants will learn how to build a culture of excellence on existing organizational mission, vision, and values and will leave with several ideas to immediately start a journey of excellence on their campuses! Learn how establish service excellence goals, set annual reviews of progress, celebrate those who model service excellence and continuously improve your institution.

Poster 4 – Assessment Liaisons: Sharing the Load, Increasing the Benefits

Lisa Friedenberg (Professor of Psychology, University of North Carolina at Asheville)

Creating faculty buy-in to assessment of student learning can be challenging, but we are learning how to make our case more effectively. We champion embedded assessment, using activities within courses to evaluate both the progress of individual students and the progress of a group of students on a learning outcome. At UNC Asheville, we have another strategy to bring faculty into the culture of assessment: we designate assessment liaisons. Preparing for our last SACSCOC reaffirmation, with two of us trying to get all the Institutional Effectiveness (IE) materials in order, was enough for me. I received permission from the Provost to begin an assessment liaison program. Each academic department designates a full-time faculty member as an assessment liaison who is responsible for compiling the unit's assessment data, entering it into our assessment software platform, and initiating discussions within the department and with the department and the dean about the results of assessment. Assessment liaisons receive training on student learning outcomes, direct and indirect assessments, embedded assessment, and our software platform. They have regular contact—at least twice a year—with those working on IE issues. They serve for 3 years, the length of our IE reporting cycle, and receive annual stipends plus an additional stipend in the year the unit reports to the IE Committee. Assessment liaisons have become our strongest assessment allies, echoing our message within our academic departments. For us, sharing the assessment load with faculty in each department has led to more and better data.

Poster 5 – The Higher Education Demand Index

Nathan Grawe (Ada M. Harrison Distinguished Teaching Professor of the Social Sciences, Professor of Economics, Carleton College)

Media outlets like *The Chronicle of Higher Education* repeatedly warn of a coming demographic storm. Immigration, migration, and fertility patterns foreshadow a tilt in the US population toward the Hispanic southwest and away from the Northeast and eastern Midwest, even as the number of college-aged students contracts sharply. Presuming college demand will necessarily reflect these population trends, analysts quickly jump to prescriptions for institutional changes ranging from recruitment strategies that target racial subgroups to new student support services and pedagogical methods. Given that nearly 70 percent of high school students expect to attend some college, the broadest measures of college demand certainly will follow population trends. However, most institutions operate in a small sub-part of this market. For instance, schools ranked among top colleges and universities draw from student pools that look very different from the population as a whole.

Using data from the 2002 Education Longitudinal Survey to estimate the probability of college-going, the Higher Education Demand Index (HEDI) adjusts headcount data from the 2012 American Community Survey to create forecasts of higher education demand by state and metropolitan area with breakdowns for institutions of different types by race/ethnicity, parent education, and family income. HEDI forecasts, which often run in stark contrast to the dominant narrative, provide input into campus planning that is specific to institutional type and geography. The good news: with careful planning, the forecasts suggest opportunities for HEDS institutions to navigate the storm if they examine HEDI predictions in light of their own recruitment data.

Poster 6 – Designing and Implementing Online Dashboards to Track STEM Disciplines

Kevork Horissian (Assistant Provost for Institutional Research & Assessment, Bucknell University), Rita Liu (Assistant Director of Institutional Research & Planning, Bucknell University)

Business intelligence (BI) technologies are increasingly being used to help institutional research offices display, analyze and disseminate data to support strategic planning, campus decision making, and fundraising. This poster outlines the process of creation of specific Tableau dashboards to support our data needs for planning and reporting in the STEM disciplines. The Office of IR & Planning has been receiving multiple requests for STEM reports related to various grant applications, preparing progress reports for those grants, enrollment requests from faculty and departments, as well as comparing different fields and groups within STEM. Unfortunately, many of those requests have come on an ad hoc basis and with very short timelines. Given our scarce resources, we wanted to develop a comprehensive solution that will allow our clients to get the information they needed at their fingertips. In our presentation, we will discuss the following: (1) What are the questions that we want to answer? (2) What data are needed for the dashboard? (3) How are the Tableau visualizations developed? (4) How does the profile of STEM major students differ from non-STEM students? Presenters provide snapshots of a series of dashboards designed to mark progress toward strategic plan objectives, particularly in the areas of enrollment management and student success.

Poster 7 – Who, What, Where, When, & How? The Five W's of the Effectiveness of Georgia Institute of Technology's Policy Library: Designing an Effective Assessment Tool

Lauren Lopez (Institutional Research Analyst, Georgia Institute of Technology), Tiffany Watson (Policy Analyst, Georgia Institute of Technology)

Think tanks, scoping, development, and implementation. This is the general process of planning, but it is critical not to stop after implementation. The purpose of this presentation is to appropriately design assessment tools that are used to determine if an initiative was implemented effectively. Georgia Institute of Technology uses a Policy Library as a central depository through this website http://policylibrary.gatech.edu/. Tiffany Watson, Policy Analyst, designed a survey to collect data on the usefulness and effectiveness of the Policy Library in providing users with quick and accurate policy information. This survey was designed using a Likert scale and open-ended questions. It was critical for the surveyor to know what was working and why, and the design of the survey allowed for deeper understanding on the effects of the website.

Poster 8 – Becoming Data Lean: Improving Data Digestion On-Campus

Christine Ross (Associate Dean of Institutional Effectiveness, Hampden-Sydney College), Casey Iannone (Consultant, Campus Success, Campus Labs)

The continued growth of data has led to a data glut throughout many institutions. It seems that every academic year or semester a new data source (NSSE, FSSE, IPEDs, Campus Climate, LMS Systems, etc.) is created, peaking the interest of a campus constituent who immediately visits an IR office looking for answers. This interest, inevitability, turns into questions being raised and some kind of report being created to be used within the decision-making process.

If you ask individuals what becomes of those NSSE binders, nine times out of ten you will hear something about a shelf (whether physical or digital), regardless of the amount of time, money, or resources consumed in its creation. Stephen Few said, "We are overwhelmed by information, not because there is too much, but because we don't know how to tame it." This points to a growing pool of data that goes unused or put on a shelf to be viewed when there is more time.

Such responses are not due to the quality of a given report, but from an exponentially increased flow of data and our inability to make meaning of it all. This idea of diving into a report when there is more time has plagued higher education professionals for some time. As such, this presentation will look to discuss alternatives to what many deem as "traditional" reporting with the aim of aiding decision makers in overcoming this paralysis and making use of data to discern the signal from the noise.

Poster 9 – Information System Data Flows at Beloit College

Ruth Vater (Director of Strategic Research and Planning, Beloit College)

Data availability is essential not only for institutional research, but also for successful operations. However, as departments and divisions migrated away from the main ERP to "best-of-breed," cloud-based information systems, Beloit College discovered that it had data in some areas of campus that needed to be better shared with other areas of campus.

Beloit College assembled a team of staff to enhance how information flowed between information systems on campus. What information systems did we have? Did these systems share information between one another or did they work in isolation? Were these data flows automated processes or did they require manual interventions such as uploads?

Entering the project, we believed we had four information systems of record (PowerFAIDS for financial aid, Slate for enrollment, Jenzabar EX for current students and operations, and The Raiser's Edge for development and alumni relations), and a few supplementary systems in other offices like international education and the library. Ultimately, we found that we had 26 information systems.

In this poster, I'll share a schematic of primary and secondary information systems at Beloit College and how information flows between them. Sharing these schematics with president's cabinet members can be very helpful for decision-makers because they often do not work directly with very many, or even any, of these information systems.

Poster 10 – Using Individual-Level Institutional Data: STEM Persistence, Trajectories, Trends, and Outcomes

Mary M. Walczak (Associate Dean for Natural Sciences and Mathematics, Professor of Chemistry, St. Olaf College), Kathryn Ziegler-Graham (Associate Professor of Statistics, St. Olaf College)

We used transcript and demographic data for students entering a highly selective residential liberal arts college between 2002-2013 to answer meaningful institutional-level questions about experiences and programs relevant to Science, Technology, Engineering, and Mathematics (STEM). Specifically, we looked at general trends in retention/persistence; investigated a "new building effect;" and compared participation in an integrated introductory chemistry and biology course sequence to traditional discipline-specific sequences. Since our students do not declare a major upon matriculation, we categorized a student's initial intention to major in STEM using the courses in which they enrolled during their first semester. Using similar strategies we also categorized students as STEM/non-STEM at the end of sophomore year. Major at graduation was used to identify STEM/non-STEM students at a third and final point. Relying solely on institutional-level data provides an unbiased analysis with minimal missing data. This project engaged students participating in undergraduate research. Not only did this provide an opportunity to be a collaborative researcher/statistician/data analyst, students brought deeper understanding and were able to contextualize the problem in a relevant and sometimes personal way.

Poster 11 – An Evidence-Based Discussion of Aligning Objectives, Experiences, and Assessment in the First-Year Seminar to Carry the High Impact into the Second Year and Beyond

Dallin George Young (Assistant Director for Research, Grants, and Assessment, National Resource Center for The First-Year Experience and Students in Transition, University of South Carolina)

As campus professionals work to provide support and create meaningful experiences for students from the first year into the sophomore year, there is a need to create a seamless approach to transition initiatives in the first two years of college. Calls for effective and high-impact program implementation suggest there needs to be an alignment between the stated goals and purposes, the educational activity, and the assessed outcomes. Thus, this alignment in first-year programs is fundamental as it sets the groundwork for efforts to support sophomore student success.

This session will use evidence gathered from the 2012-2013 National Survey of First-Year Seminars and the 2014 National Survey of Sophomore-Year Initiatives conducted by the National Resource Center for The First-Year Experience and Students in Transition to discuss how colleges might create comprehensive and integrated approaches to supporting students during their first two years of college. Findings from these two national surveys will be used to: (a) outline the most frequently reported objectives for first-year seminars and sophomore-year initiatives, (b) identify the most frequently reported educational activities in first-year seminars (e.g. course topics) and sophomore-year initiatives (e.g. academic advising, residential initiatives, high-impact practices, and major and career initiatives), (c) identify the objectives most frequently assessed in first-year seminars, and (d) encourage a discussion toward action based on the degree to which these fall in alignment.

Poster 12 – Using Learning Analytics to Predict At-Risk Students in Online Graduate Public Affairs and Administration Education

Anne Zahradnik (Assistant Professor, Marist College)

Grades have long been considered an insufficient indicator of student success by learning outcomes assessment practitioners. A grade is an indicator of how a student is doing, but it gives no information on why a student is performing at that level. This study shows that a variety of directly-measured behaviors give insight for answering the question of why a student is earning a particular grade, demonstrating that it is worthwhile to track these behaviors. Such information as recency of log-ins and course component access, frequency of log-ins and course component access, and patterns of interaction between students on discussion forums can provide important insight into specific behavioral changes that will help student persistence and retention. Use of these types of tools can be further aided by faculty discussions that help benchmark common expectations for participation and classroom engagement, for both students and faculty members. Using data generated by students in an online Master's in Public Administration program, drawn from the Marist College Open Academic Analytics Initiative, we identified and analyzed characteristics and behaviors that best provide early indication of a student being academically at risk, paying particular attention to the usage of online tools. We find that fairly simple learning analytics models achieve high levels of sensitivity (over 80% of at-risk students identified) with relatively low false positive rates (13.5%).

Wednesday, June 29

Morning Sessions

Session 1 – Program Cost Analysis: Small Colleges Can Do It, Too

Meg Wright Sidle (Director, Institutional Research and Effectiveness, University of Pikeville)

Have you ever been asked by your Dean or President how much a particular academic program costs at your institution? Those of us at small colleges and universities may not have the time or knowledge to put together such a program cost analysis. While the Delaware process of Instructional Costs and Productivity is available and very good, it doesn't always translate to the reality of a small institution where only one or two faculty may be assigned to some programs. Small schools also may not need all of the variables found in the Delaware system (e.g., research expenditures, public service expenditures, graduate assistants). This session will demonstrate how to take data you already have for other reports (e.g., state reporting in the areas of admissions, enrollment, class rosters, and graduates) and combine them in a way to provide such data as Total Instructional Expenditures, Total Instructional Expenditure per FTE Student, Direct Instructional Expenditures (Gen. Ed.), Direct Instructional Expenditures (Program), FTE Students Taught, Total FTE Faculty, and Program Need. This demonstration will use Microsoft Excel and provide detailed instructions to the participants.

Session 2 – Making Institutional Research Central Across the Campus

Ellen Peters (Director of Institutional Research and Retention, University of Puget Sound), Jason Rivera (Director of Institutional Research, Dickinson College), Randy Stiles (Associate Vice President for Analytic Support & Institutional Research, Grinnell College), Mike Tamada (Director of Institutional Research, Reed College)

Institutional Research is a constantly evolving and developing field. In the past, IR was generally used as a reporting mechanism to various internal and external constituencies. However, the role of IR has grown into something far more advanced with a growing focus on enrollment management and planning, assessment, retention modeling, and various other areas. Institutional Research is uniquely situated on campus as an area to help disparate areas and offices across campus come together and find common ground. Also, when colleges and universities are coming under increased scrutiny from students and faculty, as well as external sources, IR can play an important role in helping understand various aspects of college life that address this scrutiny. From issues of diversity and inclusion, understanding pay scales, or helping the Board of Trustees (amongst others) understand the general health of the institution, Institutional Research can and should be playing a central role in understanding and helping to address these issues. The panel will discuss their own experiences with the expanding role of IR at their institutions. We will also discuss strategies and techniques for helping to make IR a central role in various projects across campus. The importance of establishing the IR office's value through smaller projects and presentations will also be discussed.

Session 3 – Articulating the Function of Institutional Research: An Interactive Conversation

Gina Johnson (Strategy Director for IR Capacity Initiatives, Association for Institutional Research)

In 2016, the Association for Institutional Research (AIR) celebrated its 50th anniversary. The event marked the founding of the professional association for institutional research, allowing institutional researchers a level of professionalization of their work through formal organization. Reflections from members involved in AIR in its early days, and current leaders in the field, addressed the need for those in the profession to take the anniversary as an opportunity to not only revisit its history, but explore the possibilities for its future. We know what institutional research has been, but what is it now, and what can, and should, it be going forward?

This session will provide an opportunity to explore the articulation of the function of institutional research. The session will begin with an overview of the findings of recent work by AIR to explore higher education institutional research in 2016 and reflect on where the field aspires to be in the coming decades. The focus of the second half of the session will be a collegial discussion on the topic of articulation of the function of IR in the present and near future to identify what institutional research is capable of, and how institutional researchers can collaborate with colleagues to enhance the capacity of institutions of higher education to effectively use data, information, and analysis in a rapidly changing environment.