Ability to think critically as a function of accumulated credits: an optimistic view of student learning at community college

Joe C. Montgomery, Dean for Institutional Effectiveness, Columbia Basin College

Track: Data

This presentation relates the efforts of faculty and the IR Office at Columbia Basin College to define standards for student achievement on two SLOs (critical thinking and effective communication) and to gather and analyze evidence of how well students meet those standards. Faculty from 13 disciplines assessed writing samples from 264 students. Students performed better on some aspects of Critical Thinking and Communications than others. Although they generally performed well at understanding and analyzing the data presented, they were much weaker in their ability to identify data limitations and to challenge the validity of specific types of data. In general, students with more credits outperformed those with fewer credits (controlling for age, cognitive ability, and other personal and demographic factors). A number of measurement and methodology issues are addressed, as well as implications for teaching practice.

Can I ask that? Special considerations when asking sensitive survey questions

Karen Matheson, Director of Institutional Research and Information Management, College of Education, University of Washington

Track: Decisions

When developing survey questions there is often a tension between respectfulness and relevancy. While we want to obtain the information we need for program improvement purposes, questions around sensitive topics framed without careful consideration can offend participants, increase survey drop-out or yield inaccurate information. In this session, we will review and critique sample survey questions from a variety of sources with an emphasis on those that focus on the cultural climate within an institution.

Connecting Reflective Practice to Institutional Research – Where is the Bridge?

Jack Bautsch, Director of Institutional Effectiveness, North Seattle College
Julianne Kirgis, Associate Dean for Teaching and Learning and Interim Dean of Arts, Humanities & Social Science, North Seattle College

Track: Data

Assessment Loop Forms (ALFs) are a type of reflective practice that consists of teacher-generated documentation of class-level changes to improve student learning or course design. Come hear about North Seattle College’s 699 ALF submissions since 2010, and what we learned from our data analysis (yes, we finally analyzed all that data!). Join us to hear some of our thoughts about what worked and what didn’t, and how we can improve the ALF both for better understanding of the information submitted and for more targeted data gathering. Help us generate ideas for practice improvements in general for class-level teacher-led assessment.
Embracing Change: How Shifting A Cabinet Level Project Shifted Perspectives Campus Wide

Kate Cohn, Assistant Director for Assessment, University of Puget Sound
Alanna Johnson, Institutional Research Analyst, University of Puget Sound
Emily Mullins, Assistant Director of Institutional Research, University of Puget Sound
Ellen Peters, Director of Institutional Research and Retention, University of Puget Sound

Track: Decisions

Puget Sound’s Office of Institutional Research (OIR) undertook a massive reorganization of cabinet level strategic indicators, which required use of metrics in the creation of a new peer group, a common understanding about the importance of internal vs. external benchmarking, strong collaboration between IR colleagues at Puget Sound and peer institutions and the development of new technical skills. Calling upon the charge to guide strategic decision making through a more meaningful set of indicators, examples and outcomes will be shared.

Exposing Basic Institutional Stats using Interactive Tableau Dashboards

Nevena Lalic, Senior Analyst, University of Washington Office of Planning and Budgeting
Bart Pietrzak, Business Intelligence Solutions Architect, Enterprise Data & Analytics, University of Washington IT

Track: Decisions/ Data

We discuss the challenges of building useful dynamic Tableau dashboards that present an 8-year history of student enrollments, course taking, progress, and graduation at a large public four-year institution. We also address the challenges of publishing such dynamic dashboards to the public while preventing accidental disclosure of personally identifiable information. Finally, we provide participants a sample data model and a sample Tableau dashboard if they wish to implement the model with their own institutional data.

Following the Yellow Brick Road of Data Governance

Susan Maxwell, Research, Reporting, and Data Integrity Professional, Clark College
Carmen McKenzie, Senior Data Consultant, State Board for Washington Community and Technical Colleges

Track: Data

Data-informed decision-making has become a best practice for institutions to measure progress towards achieving strategic goals. Data governance provides a structured plan to ensure the availability, usability, integrity and security of data. This presentation will provide Institutional Researchers with an overview of data governance using a specific example of a non-invasive data governance program that was implemented in 2012. The specific role that Institutional Researchers serve in data governance, lessons learned, and resources available to support data governance development will be explored. Participants will also have an opportunity to explore different aspects of data governance needed at their institution,
including methods to obtain executive support, identifying potential data stewards, and the key steps as they are “Following the Yellow Brick Road of Data Governance.”

**Forecasting Tuition Revenue and Enrollments in the Community College Environment**

*A. Mark Macias, Managing Director of Institutional Research, Community Colleges of Spokane*  
*Roger Reed, Data Analyst, Yakima Valley Community College*

**Track: Decisions**

Forecasting enrollments at the institutional level (as opposed to the state or system level) for community and technical colleges (CTCs) has challenged researchers and planners for decades. Unlike selective admissions institutions, most CTCs are considered to be “open enrollment” and have student populations that are much less homogeneous. The current project was motivated by a need of the Community Colleges of Spokane budget office to forecast tuition revenue and enrollments for the following academic year. Based on the assumption that different subpopulations of students within CTCs are influenced by different factors, a multi-component approach was used which disaggregated students into subpopulations to yield better accuracy. The resulting model obtained a MAPE of 1.7%. The predictors examined, along with some of the relationships observed during the variable screening process, will also be discussed.

**Gender, STEM and the returns to post-secondary education**

*Toby Paterson, Economist, Education Research and Data Center, Washington State Office of Financial Management*  
*Greg Weeks, Economist, Education Research and Data Center, Washington State Office of Financial Management*

**Track: Demography, Data**

This paper reports results from ongoing research that utilizes ERDC data to examine the earnings differential between STEM and non-STEM bachelor’s degrees. Males and Females are estimated separately using propensity score matching to mitigate selection bias. The STEM to non-STEM earnings differentials and earnings levels will be presented separately for males and females. This research may suggest the degree to which encouraging young women to pursue STEM degrees may reduce the female to male earnings differential. The necessity of adjusting for selection bias in comparisons such as these will also be discussed.
Going Longitudinal: K12, Community College, and University Data Combined
Jonathan Jacobs, Director of Enrollment Management Research, University of Oregon

Track: Data

The University of Oregon, as part of Connected Lane County, has been working with 16 school districts and Lane Community College to create a system that tracks student outcomes using a longitudinal research dataset. The dataset includes records from preK through bachelor’s degree. Students are matched between systems and identifiers are stripped, replaced with a new “Connected ID.” This presentation will discuss the project to date: Why it was conceived, the development of target measures to track, the identification of a third party data provider, the numerous political and legal obstacles (FERPA!) that needed to be overcome, the design of the match process, the structure of the data warehouse, and the testing of the ETL and matching system. The project is in a data testing and validation stage, with a set of reports on tap to be created using the matched data.

Going the Distance: Examining Three Years' of Data from a Prospective Longitudinal Evaluation Study
Scott Emerson, Research Analyst, Okanagan Planning and Institutional Research, University of British Columbia Okanagan
Stephanie McKeown, Director, Okanagan Planning and Institutional Research, University of British Columbia Okanagan
Drew Pihlainen, Senior Planning Analyst, Okanagan Planning and Institutional Research, University of British Columbia Okanagan

Track: Data

We describe three years’ of results from our prospective longitudinal study used to evaluate the Women in Science and Engineering (WiSE) Mentoring program at our campus. Two key characteristics of our study are: a modified focus group design that emphasises student interactions within sessions to observe how students shape and articulate their program feedback through conversations with each other, and reflect on their own experiences in light of others’ experiences; and the adaptation of the Integrated Learning and Civic Engagement VALUE rubrics as analytical tools. The approaches described here may be directly transferable in supporting program evaluations at other institutions.
Hey buddy, can you spare some change? How to reinvent everything with little money

Jan O’Brien, Manager, Institutional Research, Okanagan College
Senior Advisor at Ministry of Jobs, Tourism and Skills Training, BC Public Service, Victoria, British Columbia, Canada

Track: Decisions

As part of a longstanding partnership, all British Columbia public post-secondary institutions and the BC Ministry of Advanced Education work with BC Stats to conduct annual student outcomes surveys. The results are used for a variety of purposes including institutional program review, system accountability, and education policy planning.

Reports had been available to institutions and the public via a PDF-based system developed in the mid-1990s. With the system showing its age and on the verge of becoming unreliable, we were able to provide a variety of replacement reporting tools with a very small amount of savings from data collection. The presentation describes the process and pitfalls of change.

How common is the Common Data Set?

Terence Merritt, Senior Institutional Research Analyst, Oregon State University

Track: Data

When institutions report data in the Common Data Set are they following a common understanding of definitions? One way to measure this is to see if data reported in the CDS is internally consistent and consistent with data reported elsewhere, primarily IPEDS. This study looks at how institutions report first-time full-time freshmen, transfer students, and faculty on the Common Data Set and compares it with IPEDS. The results indicate that universities are interpreting CDS definitions differently.

Incorporating Context into the Interpretation of Student Evaluations of Teaching

Joanne Quan, Analyst, Institutional Research and Planning, Simon Fraser University

Track: Demography

In developing an improved instrument and process for student evaluations of teaching, a recurring concern arising from the university community was that evaluation results should not be interpreted without incorporating contextual information about the course (e.g. class size, CGPA of students, year level of students, etc.). To address this issue, Institutional Research and Planning created and tested a model that takes into account contextual factors and will indicate whether an achieved evaluation score is above, below, or within expectation. The model predicts what score an instructor would get, given the set of contextual factors that are outside of their control. The presentation will focus on how the model was developed and then apply it to some sample data.
Institutional Reporting and Census Processing: Lessons Learned Two years After Moving to PeopleSoft

Fran Hermanson, Executive Director, Institutional Research, Washington State University
Corinna Lo, Data Architect, Institutional Research, Washington State University

Track: Data

Washington State University has migrated student information system to Oracle PeopleSoft. The first term of full production is Fall 2012. However, at the time of “go live” there had been little resources allocated to review and validate the delivered subject areas in the purchased enterprise data warehouse. The subject areas were found to be limited and data were not validated. Meanwhile, there was an abundance of unmet reporting needs, from operational central offices to the Provost, colleges, departments, and campuses, for both official census and operational purposes.

In this session, we will talk about how we navigated through the great and unknown OBIEE warehouse in the last two years. We will then talk about our Census process, and some of the customization work done in OBIEE. There will be a demonstration of our OBIEE dashboards and Census subject area for Institutional reporting, planning and analysis. The session will conclude with our lessons learned over the last two years.

Learning Outcomes Assessment Across the Disciplines: Balancing Flexibility and Clear Standards

Bob Duniway, Assistant VP for Planning and Director of Institutional Research, Seattle University

Track: Data

Standards for assessment of student learning set by regional accreditors attempt to strike a difficult balance. They must respond to public demand for evidence that the courses and degrees offered by accredited institutions provide real educational value. They must also be flexible enough to allow for the variety of educational objectives across different institutions and degree programs. Responding to these standards effectively is no less difficult. This session presents a model of academic program assessment that successfully balances clear requirements for assessing student learning with the flexibility to make sense within a variety of disciplines and degree levels.
Multiple points of assessment: Planning and implementing a 360-degree review of student learning outcomes at City University of Seattle
Susan Seymour, Director, Office of Institutional Effectiveness, City University of Seattle

Track: Data

There is a great need to document evidence of student learning outcomes, but single points of assessment undermine methodological validity whereas complicated assessment systems create administrative challenges. Over the past several years City University of Seattle has been implementing a comprehensive student learning outcome assessment strategy that assesses student learning from multiple perspectives. This presentation reviews the administrative, technological, and process components of a strategy that collects multiple measurements of student learning related to Program Learning Outcomes as well as competencies such as communication, working in teams, information literacy, and critical thinking.

Portland Community College Survey of Non-Returning Students: Experience Using the Qualtrics Survey Tool and Nvivo Qualitative Software
Alyssa Eggbrecht, Research Analyst, Portland Community College
Rob Vergun, Research Analyst, Portland Community College
Michael Vernon, Research Analyst, Portland Community College

Track: Data

In the Spring of 2014, the PCC Office of Institutional Effectiveness surveyed students who enrolled in Winter 2014 but did not return in the subsequent spring term, using both closed- and open-ended questions. Using Qualtrics, we were able to link individual-level responses to the survey questions with enrollment information in the PCC Banner students database. Moreover, using the Nvivo we were able to link themes and keywords from the open-ended survey responses to responses in the close-ended survey items. We will present both the survey results, as well as our experience using Qualtrics and Nvivo as survey data software tools.

Profiling Transfer Students in BC: Patterns and Success of BC Transfer Students from 2008 to 2013 (Preliminary Findings)
Robert Adamoski, Associate Director, British Columbia Council on Admissions and Transfer
Anna Tikina, Research Officer, British Columbia Council on Admissions and Transfer

Track: Demography

The BC Council on Admissions and Transfer has published “Transfer Student Profile Reports” periodically since 1991. The current presentation provides an overview of the most recent findings covering the period 2008-2013, including trends in student mobility, demographics of transfer students, and transfer student success. The presentation also links student mobility trends with post-secondary retention issues.
Setting the Stage for Revising Tuition Rates: Considering Rates, Calculating Financial Need, and Projecting Revenue

Carol Diem, Director of Institutional Analysis, Office of Planning and Budgeting, University of Washington

Track: Decisions

We will discuss one approach to projecting incremental net tuition revenue resulting from adjustments to tuition rates taking into account related financial aid implications, and some tools that allow decision-makers to assess the likely consequences of various tuition decisions "on the fly." We will then open up the discussion to allow participants to share their own approach and compare the merits of each.

Student Drop-out Risk Index Model – Making it Work for Your Institution

Erin Holmes, Associate Vice Provost for Institutional Research, University of Alaska Anchorage

Track: Demography/Decisions

This session will outline steps taken to adapt a Student-at-Risk prediction model to meet the needs of a particular institution, discuss statistical methods used and outline the outcomes and next steps of the process.

Student Risk Analysis and MAP-Works

Sophia Sansone, University of Massachusetts, Boston

Track: Demography

This presentation will focus on how existing institutional student information has been used at UMass Boston to identify students with high risk of not completing their undergraduate degree. This risk analysis is done by populating a third-party software system (MAP-Works) with data related to a student’s likelihood for success. Attendees of this presentation will receive a list of variables loaded into MAP-Works, and asked if these variables might prove useful in predicting the likelihood of student success or failure at their own institutions.

The Discovery Core: Academic Support Built In and Qualitative Assessment through the e-Portfolio

Jennifer Atkinson, Discovery Core Convener and Lecturer, University of Washington Bothell
Russell Cannon, Director of Institutional Research, University of Washington Bothell
Ismaila Maidadi, Program manager: First Year and Pre-Major Programs, University of Washington Bothell
Danielle Rowland, Reference and Instruction Librarian, University of Washington Bothell

Track: Demography

At this session, you’ll learn about how our first year program supports its students (50% first-generation) with an e-Portfolio based sequenced curriculum and course-integrated academic support systems.
These include the campus library, writing and communication center, quantitative skills center, career services, student affairs, global initiatives, undergraduate research, community-based learning, and advising. We’ll also share other institutional practices that have contributed to student success and led to extraordinary retention rates as well as how the program is assessed. First year students at the University of Washington Bothell complete the Discovery Core, a year-long sequence of three courses, each of which satisfies general education requirements. The Discovery Core begins with a 10-credit or 5-credit, co-taught, interdisciplinary course, and culminates with a first-year e-portfolio with a 80% first year retention rate of students who participate.

The Faculty Workload Puzzle: Humans vs. Technology
Lori Fulton, Institutional Effectiveness Coordinator, Pacific Northwest University of Health Sciences
Erin Hepner, Assistant Professor of Family Medicine, Pacific Northwest University of Health Sciences
Bernadette Howlett, Chief Research Officer, Pacific Northwest University of Health Sciences

Track: Decisions

A small, stand-alone, rural medical school with limited teaching personnel, was challenged by non-standard reporting of faculty workload data in a format that could not be aggregated. As a result, faculty workload was determined in an informal, subjective manner in the absence of data. Having limited resources and only 3 months to resolve the problem, the school instituted a project to identify and implement a solution. The purpose of the project was to identify a tool to solve the data collection problem that was also acceptable to the faculty and affordable. A key element of the project was to meet a new accreditation reporting requirement regarding allocation of faculty time for scholarly activity. Due time constraints and faculty preferences, a temporary solution was implemented (an Excel workbook), which proved so successful that the permanent solution was reconsidered.

Transitioning from a Data Provider
Cora Nixon, Research Analyst 4, Effectiveness and Strategic Planning, Bellevue College
Stephanie Hurst, Faculty, Communication, Arts & Humanities, Bellevue College
Robin Jeffers, Assessment Coordinator, Effectiveness and Strategic Planning, Bellevue College

Track: demography decisions

This interactive session will explain how the traditional role of data provider was transformed into one that affects policy and effects processes and procedures at institutional and classroom levels. We will describe a team-based approach to identifying inequities in student populations, addressing methodology and presenting data. Participants will be asked to engage with the data and draw their own conclusions, then suggest possible actions. Finally, we will reveal how we acted on these data. Participants will leave with a model for being an agent of change.
Using Regression Discontinuity Design to Evaluate the Effects of Introductory Math Courses
Russell Cannon, Director of Institutional Research, University of Washington Bothell
Ismaila Maidadi, Program manager: First Year and Pre-Major Programs, University of Washington Bothell

Track: Data

Randomization is often either impossible or politically untenable; regression discontinuity analysis can provide many of the same analytical benefits when evaluating the effect of treatments assigned based on defined cutoffs, such as assignment to “introductory math” based on a placement exam score. The presentation will focus on the math placement exam given to all incoming first-year students at the University of Washington Bothell and our attempt to use RD to examine outcomes including performance in first math course, registration for an advanced math course and retention while also noting cautions around crossover, sample size, and the use of parametric vs non-parametric models.

Using Tableau and Public Data Sets to Tell Stories that Serve Your Institution and Others
Russell Cannon, Director of Institutional Research, University of Washington Bothell

Track: Demography

A wide variety of public datasets have potential value for both individual institutions and wider audiences. When the underlying data itself is public, tools like Tableau Public can facilitate both the blending and sharing of this data with colleagues while also making it easy for end users to limit views to those most relevant to them. This presentation will focus on an example that transforms the FAFSA completion tables produced the Office of Federal Student Aid to support high school counselors into an exploration of FAFSA filing rates that can be used by state agencies and institutional admissions offices to target support.

Using Washington state P20 data for Community Technical College and Baccalaureate Feedback Reports: Challenges, opportunities and results
George C. Hough Jr, Education Research Analyst, Education Research and Data Center, Office of Financial Management, Forecasting Division

Track: Demography

This presentation will begin with a discussion on how data linkages are created between data systems in the P20 Data Warehouse (a longitudinal data system that includes de-identified data about Washington State resident’s early childhood, kindergarten through 12th grade, higher education, and workforce experiences and outcome). Next, the development of research cohorts will be explored – fixing students by some defining dimension of time or experience. A discussion of adding characteristics to the student cohorts will provide a discussion of the richness these data possess. Finally, examples of tracing
cohorts of students from Washington State’s public Colleges and universities through completion, employment and/or further enrollment, and earnings will be displayed.

**Visions and pathways: Predictive retention model for first year students**

*Elizabeth A. Lee, Associate Director of Analytics and Research, Central Washington University*
*Daniel Matthews, Director of Analytics and Research, Central Washington University*
*Sigrid Davison, Associate Director of Analytics and Research, Central Washington University*
*James DePaepe, Executive Director of Organizational Effectiveness, Central Washington University*

Track: Demography

This research focused on using a comprehensive, innovative approach to predicting first year student persistence over the first 12 quarters of pursuing an undergraduate degree. Eight years of admissions, enrollment, graduation, census, financial aid, and remedial course work data provided the comprehensive foundation for the study. Factors with the most explanatory power were used to determine stratified groups allowing the testing of predictions and the assignment of a risk index. Merging these data with National Clearinghouse data provided more insight for planning future coaching and advising. Interventions applied by student services to address the “at-risk” first year student retention rate are also discussed.