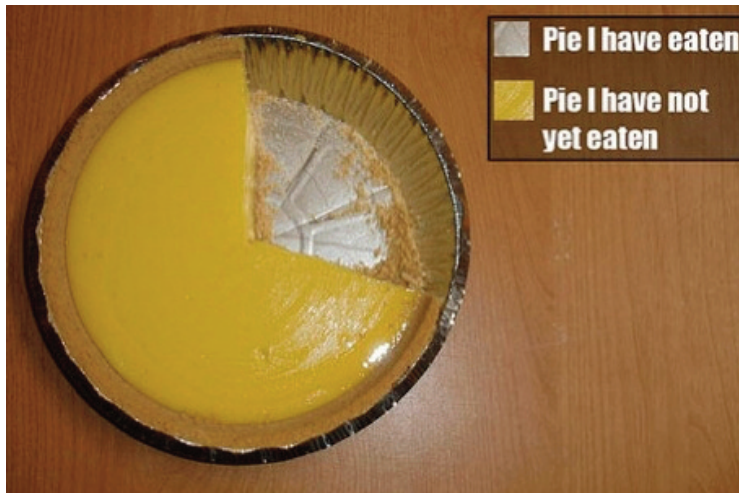


CIE UPDATE

The Center for Institutional Effectiveness

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To Pie Chart or Not To Pie Chart



Within the walls and cubicles of every Institutional Research office across higher education, a debate rages. It is not the typical debate about graduation rates, retention rates or enrollment numbers. Instead it is a fundamental debate that has frustrated the most capable of directors and the newest of assistants. One question stands at the center of this debate—to pie chart or not to pie chart?

Without a doubt, the pie chart is the most recognizable – and the most controversial – form of data visualization. Loved by some, hated by many and consistently used whether it is appropriate or inappropriate, it is a cornerstone of modern data viewing.

The pie chart's main purpose is to show the relationship of portions out of a whole. These portions need to be mutually exclusive and add up to the total being displayed. A simple chart for a simple purpose, but it is more complicated than that.

Two of the biggest issues with pie charts are their inability to show similar amounts and their inability to show a multitude of amounts. A lot of data sets have only minute differences. A pie chart showing that there are 40 McIntosh apples, 38 Granny Smith apples and 43 Honeycrisp apples in a bushel will end up showing nothing with three near identical slices. In a similar vein, a pie chart showing the population of each of the 50 states out of the entire United States population would have way too many slices and slivers to be of any use.

Aside from the visualization issues, a lot of data analysts are weary of how pie charts can be used incorrectly. One of the most famous pie chart fails was back in 2012 when Fox News threw up a graphic of the GOP presidential race showing that 70% of voters backed Sarah Palin, 63% of

voters backed Mike Huckabee and 60% of voters backed Mitt Romney. Based on these figures, an impossible 193% of the voters were polled. A pie chart of percentages needs to add up to 100% for it to have meaning.

So when is the pie chart appropriate? The consensus is, rarely. The best time to use a pie chart is when comparing three to five portions of a total that are noticeably different in order to highlight their differences. If the New York Giants scored 3 points in the first quarter of a football game, 17 points in the second, 6 points in the third and 21 points in the fourth, a pie chart would be perfect to show the Giants' points by quarter. In any other situation, it is best left on the sideline. ■

Institutional Research

The Institutional Research (IR) portion of the Bergen Community College website is the best source for data analyses and reports. Under the **About Us** section of the website and then the **Center for Institutional Effectiveness** section, Institutional Research has ten pages of mandatory reports, voluntary reports, survey analyses, resources and fact sheets. Below is a page-by-page summary of what can be found on the Bergen IR website.

Athletics Data Report Page - The Student Right to Know Act requires an institution that awards athletically-related student aid to disclose data related to the institution's student-athlete population. This page holds the Athletics Data Reports from 2012 to 2016. Each report includes the sports Bergen Community College offered, the number of student participants in each sport, the number of coaches, all athletic expenses and all athletic revenues for each year given.

Fact Books Page - The Bergen Community College Fact Book is generated by the Institutional Research department annually and is the official data source for the college. It presents data relating to enrollment, graduates, faculty and other personnel, college finances and demographics.

Graduation/Transfer Rate Report Page - The Student Right to Know Act requires an institution that participates in any student financial assistance program under Title IV of the Higher Education Act of 1965 (as amended) to disclose information about graduation rates. The Graduation/Transfer Rate Report shows the graduation and transfer rates for full-time, degree or certificate seeking students who started in the fall semester three years prior (150%) to the graduation/transfer date. This page holds Graduation/Transfer Rate Reports for the 2007 and 2008 cohorts.

Program Dashboards Page - The purpose of the Program Dashboards is to highlight enrollment, demographic and outcome information for the various programs available at Bergen Community College. The Program Dashboards page is the landing page for program-based data going back to 2012.

Quick Facts Page - In keeping with Institutional Research's mission to monitor and publish data trends, the Quick Facts page holds two documents updated annually – the Bergen-at-a-Glance Brochure and the Bergen-at-a-Glance Fact Sheet. Each document provides race/ethnicity,

age, gender and other demographics as well as enrollment, credits, completion and financial information.

Reports Page – Throughout the academic year, faculty and students will request certain data reports from Institutional Research. If these reports are deemed beneficial to the school as a whole, they are shared on the Reports page. Also included on this page are annually updated reports such as the Institutional Profile, the Graduate Profile, the 10th Day Enrollment Profile and the Data Box Report.

Resources Page – Institutional Research consults a large number of resources to complete daily tasks. Websites for national agencies, state agencies, data centers and other organizations can be found on the Resources page. This includes, but is not limited to, the New Jersey Department of Education, the Achieving the Dream organization, the American Association of Community Colleges and the Middle States Commission on Higher Education.

Strategic Planning Page – The Center for Institutional Effectiveness and by extension Institutional Research plays an integral part in the strategic plan including facilitating the process and tracking its progress. The Strategic Planning page is a copy of the page under the Center for Institutional Effectiveness site and it outlines the Strategic Planning process, past iterations of the strategic plan at BCC and the current 2013 – 2018 strategic plan.

TK20 Page – The Center for Institutional Effectiveness uses the Tk20 Campus Wide reporting software system, a comprehensive data management system. It is used for assessment activity at BCC. The TK20 page is the gateway to the TK20 portal, which is accessible with a username and password.

Data Request Form Page – Potentially the most important page on the Institutional Research website is the Data Request Form Page. IR encourages faculty and staff to peruse the various reports and data sheets on the website. However, sometimes specific data on a certain department, course or population is necessary. For these individual requests, IR has set up the Data Request Form. The request form asks about scope of work, the data service needed, the BCC initiative the data request is for and how the data will be used. Submission of the form sends an email to the IR staff and requests are responded to in the order that they are received. ■

Third Annual Conference On Teaching and Student Learning

On September 7 - 9, Drexel University hosted the 3rd Annual Conference on Assessment of Teaching and Student Learning entitled "Academic Quality: Driving Assessment and Accreditation". The conference is designed to bring together individuals who are interested in the study of teaching and learning in order to share ideas/programs and to network. Over 420 attendees, including assessment professionals, provosts, faculty and sponsors, from 28 states and 5 foreign countries attended the event on the Philadelphia campus. The robust program included 165 panelists and presenters and offered 56 concurrent sessions, snapshot sessions, and pre-conference workshops on a broad range of teaching and learning assessment topics. In addition, three plenary sessions were held over the course of the conference.

Dr. Kim, Vice President of Institutional Effectiveness, and the assessment fellows designed an assessment toolkit workshop that was offered at the preconference session. This extended format gave participants the opportunity to delve into the subject matter. Attendees were able to gain

valuable information and resources that they could take back to integrate into their own programs.

Gail Fernandez, Larry Hlavenka Jr. and Sony Tiwari also contributed at this informative conference. Their session, "What'd You Say? How to Communicate During the Self-Study Process", provided participants with the key components of an actionable self-study communication plan and demonstrated how a robust and transparent communication plan maintains credibility and builds trust.

Throughout the three days, attendees visited with exhibitors and networked with colleagues. The conference was an invaluable opportunity for us to work together to ensure that all students have continuous opportunities to apply their learning to the significant, real-world challenges which lie ahead for them. Next year's conference will be on September 6 - 8, 2017. ■

Fall 2016 Conference Presentations

Director of Institutional Research Dr. Tonia McKoy and Research Assistant Jesse Jacondin presented *Bridging the Gap: Reporting Data at a Program Level* at the Northeast Association of Institutional Research at the 43rd Annual NEAIR Conference in Baltimore, Maryland on November 14th, 2016.

Assessment Fellows Joanna Campbell, Gail Fernandez, and Jill Rivera presented *An Assessment Fellows Program* at the Assessment Institute in Indianapolis on October 18th, 2016.

Assessment Resources:

National Institute for Learning Outcomes Assessment
<http://www.learningoutcomesassessment.org/>

Alverno College: Lessons from an Assessment Pioneer
<http://www.learningoutcomesassessment.org/documents/AlvernoCaseStudy.pdf>

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