

Creating Client-facing Interactive Analysis Using Tableau

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A Practical Problem

- Clients often bring issues to IR offices to which they need better understanding, but they often don't provide adequate questions
- We sometimes engage in the time consuming process of helping ourselves better understand the context and helping clients craft better questions—but, often we don't
- As a result, IR analysts typically provide analyses of what they think their clients need by interpreting and extending their requests; we prioritize speed over quality
- This is an ineffective *hit or miss* process of satisfying client requests for analysis

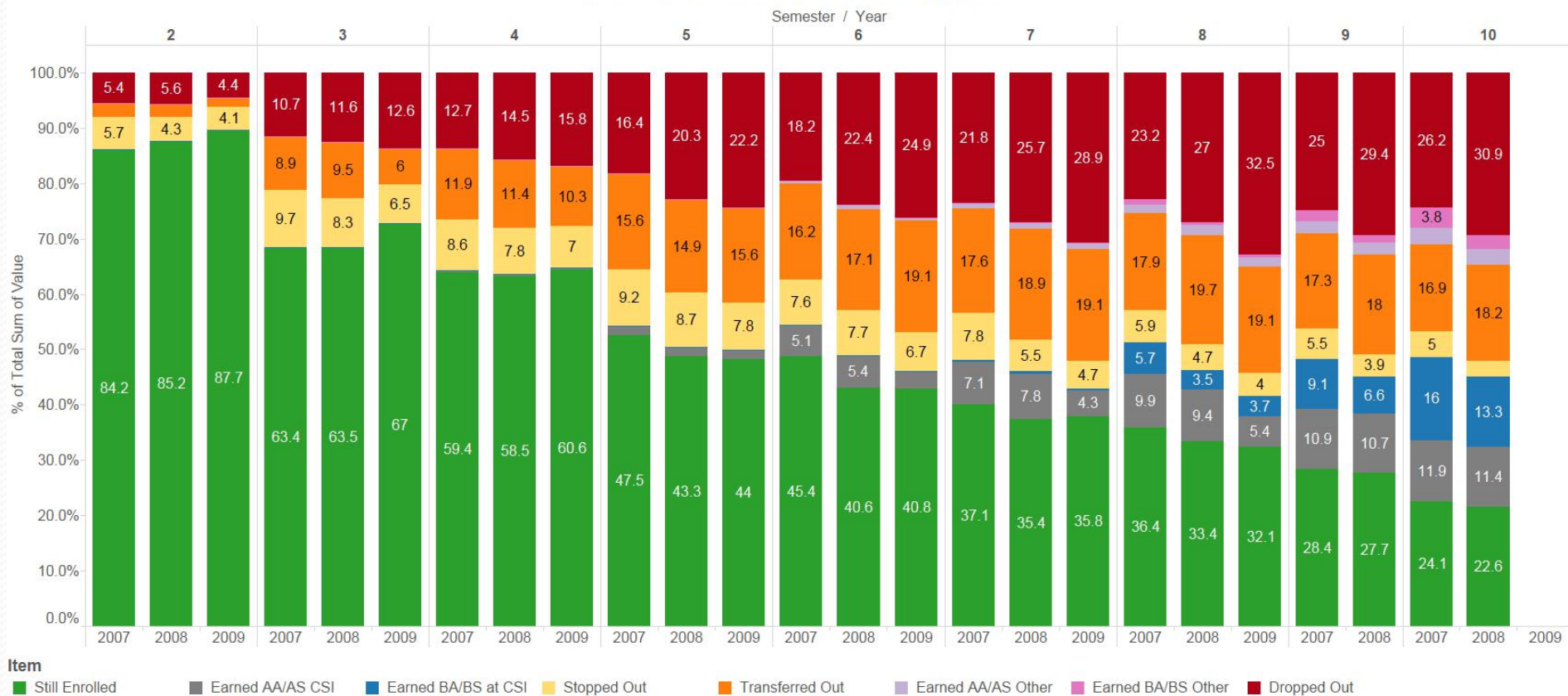
A Practical Solution

- Interactive dashboard or Business Intelligence software provides a way to share data with clients in ways they can manipulate to discover and answer their own questions
- Statistical software vendors like IBM (SPSS), SAS, and Oracle have added BI modules to existing products
- These are typically enterprise-level and expensive solutions. (possible exception: Office 365 Power BI)
- Software programs like Tableau and Qlikview are initially less expensive and possibly more user-friendly

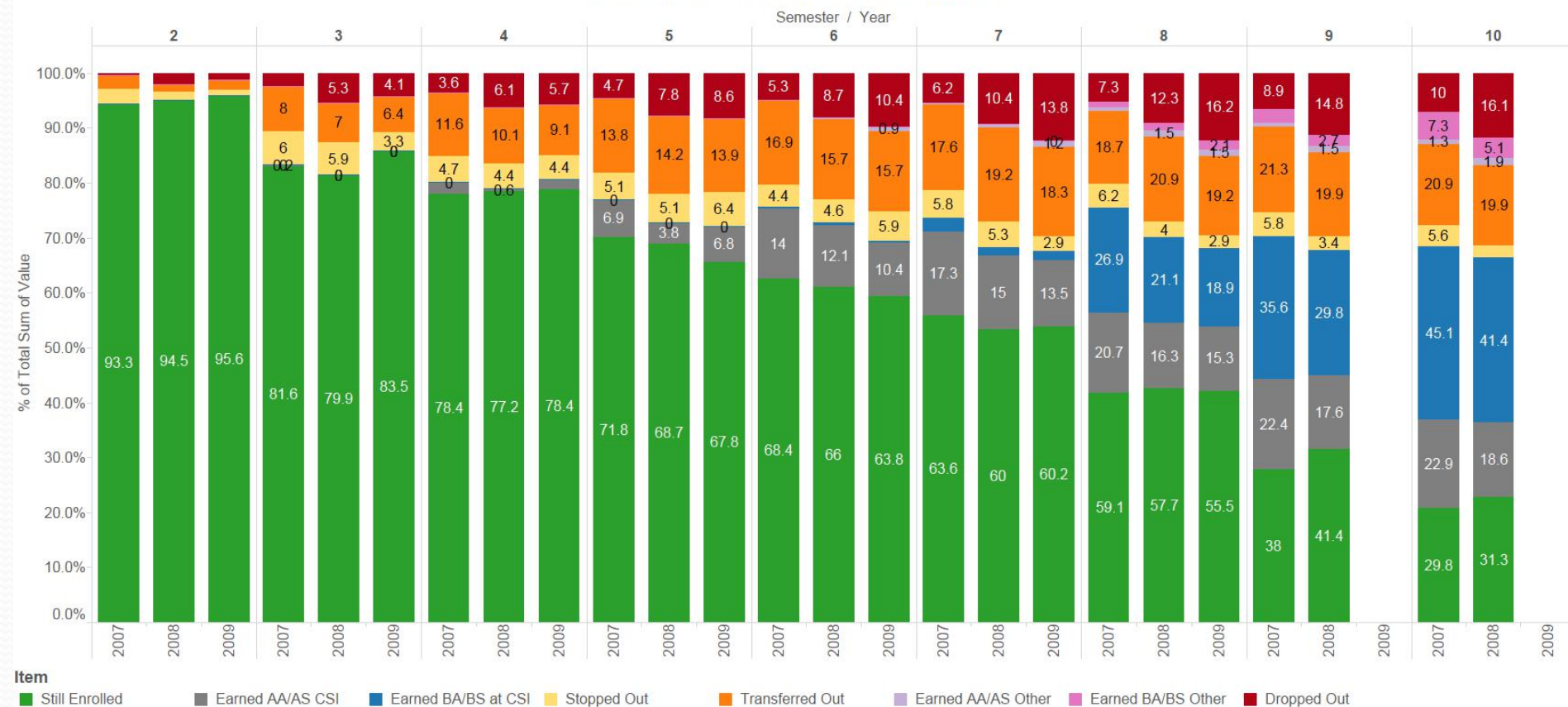
An Example of Client-facing Interactive Analysis at CSI

- The Issue: Stagnant/Declining Graduation Rates
- Charge: “Charge a task force that includes Enrollment Management, Student Affairs and the Office of Institutional Research and Assessment with analyzing transfer patterns, leaver surveys, and relevant qualitative and quantitative data to ascertain the circumstances surrounding departures from CSI, the schools and programs that are destinations, and the reasons for leaving the College.”

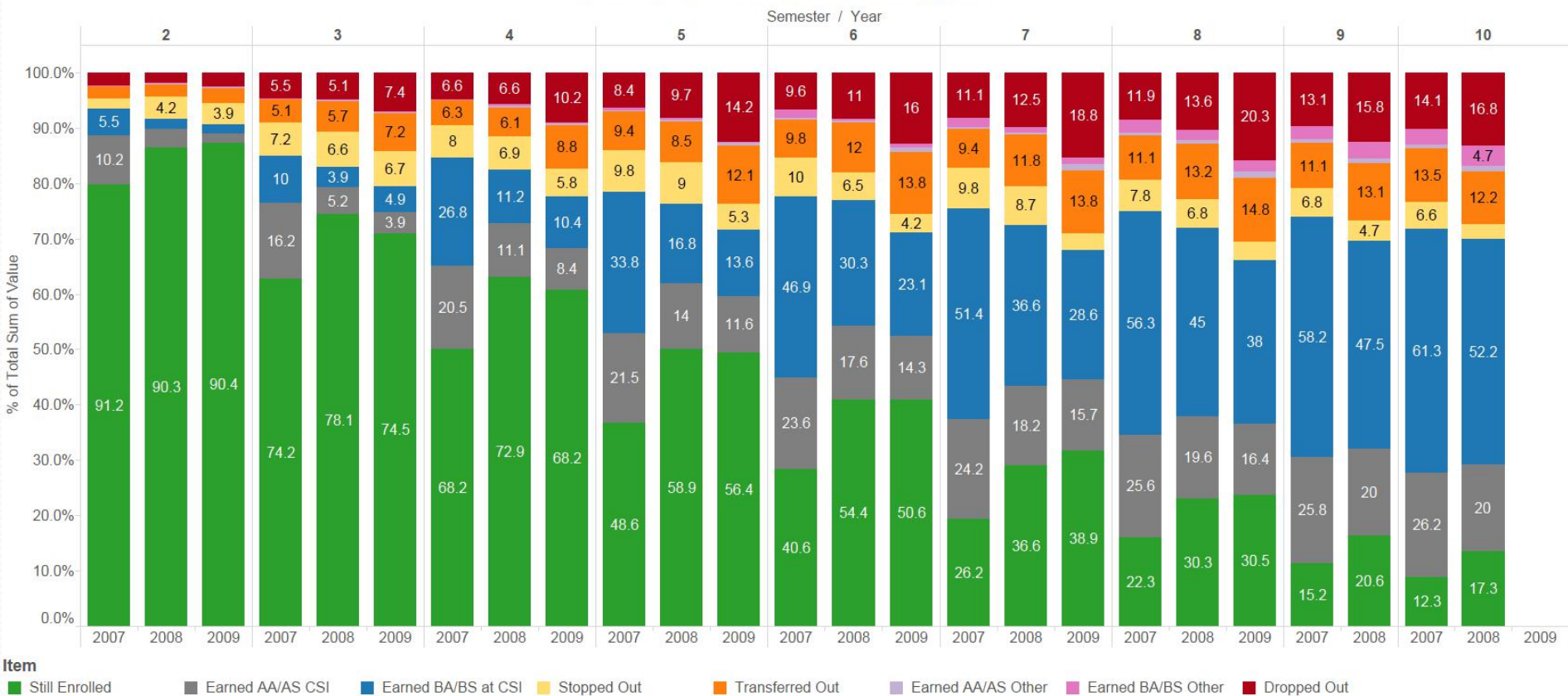
Outcomes by Semester for Full-time First-time Freshmen in Associate Programs: Fall 2007 to Fall 2009 Cohorts




Outcomes by Semester for Full-time First-time Freshmen in Baccalaureate Programs: Fall 2007 to Fall 2009 Cohorts



Outcomes by Semester for Full-time Transfers in Baccalaureate Programs: Fall 2007 to Fall 2009 Cohorts





Goal: Create an Interactive
Dashboard of Longitudinal and
Global Student Outcomes Data
to be Used by Relevant Clients
to Answer the Charge

Data

- Enrollment and Graduation data from local, CUNY and National Student Clearinghouse sources
- Simple First/Last Aggregation of multiple records
 - First degree level at CSI; first degree earned at CSI; last residence; first degree earned at CUNY; first non-CUNY college enrolled
- Administrative characteristics:
 - CUNY: admissions type, file term, degree level, degree program, full/part-time, semesters attended, credits, GPA,
 - NSC: enrolled college, public/private status, degree earned level/program
- Demographics/Correlates of Outcomes: Residence, CSI Choice, Gender, Race/Ethnicity
- Data presented are through Fall 2012

Initial Questions to be Answered in the Dashboard

- To which colleges do CSI leavers go?
- What programs do they leave from?
- From which programs do they graduate?
- What role does CSI choice (at CUNY), residence or other factors play in departure?

Tableau Software

- Tableau Server
 - Connect live to any data source and publish to any Tableau format (Public, Reader) plus enterprise credentialing for custom dashboards
- Tableau Desktop
 - Single user license costs around \$700
 - Connect only to .csv data source
 - Export to Tableau Reader and Public
- Tableau Reader
 - Similar relationship to Desktop as Adobe Reader to Adobe professional
- Tableau Public
 - Free desktop version publishes only to the web

Tableau Software

- Tableau Desktop to publish to a packaged Tableau Reader file which was shared with clients.
- Tableau Desktop to publish CSI's Institutional Profile to Tableau Public which are in turn embedded in OIRE webpages
- Tableau has replaced Excel as the go-to tool for making figures and visuals and, increasingly, tables.
- (I did not get paid to say any of this.)
- (It was, however, \$750 well spent.)