

# DATA SCIENCE IN INSTITUTIONAL RESEARCH

*How Institutional Research (IR) is improving decision making*

## Association for Institutional Research reports

# 89%

of IR, student affairs, and IT professionals invest in predictive analytics to increase student success.

<http://bit.ly/analytics-for-student-success>

IR uses data analytics and visualizations to answer questions that drive student success, develop new programs, revise policies, identify trends and more.

## ANSWER QUESTIONS THAT FACILITATE DECISION MAKING



Where is the data?



Should grade forgiveness be extended to transfer students?



How can we make salaries equitable?

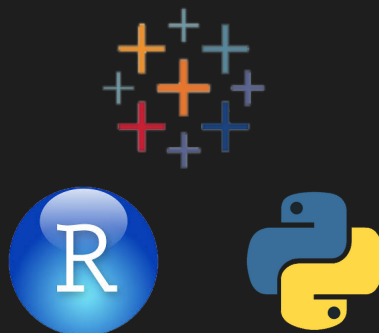
## DATA SCIENCE BEGINS & ENDS WITH YOU

### Step 1. Collaboration

The data analytics process begins with your questions about programs, process improvements, or anything you wish to explore. Together we create an outline for a study focused on three or four research questions.

### Step 2. Data Collection

The majority of our data comes from Tech's Enterprise Data Warehouse (EDW). We use SQL to extract the appropriate data elements to answer your questions.



### Step 4. Review the Findings

Data Science is an ongoing process of discovery. Unexpected insights may lead to new questions and further inquiry and even help answer long-standing issues in a new way.

### Step 3. The Findings

This stage is an iterative process of analyzing the data, drafting documents and obtaining feedback to develop the final product, whether it is creating a static report with visualizations or a dynamic dashboard.

