

**GEORGE MASON
UNIVERSITY
HACKATHON**



accenture

ACCENTURE HACK

STUDENT SUCCESS ANALYTICS

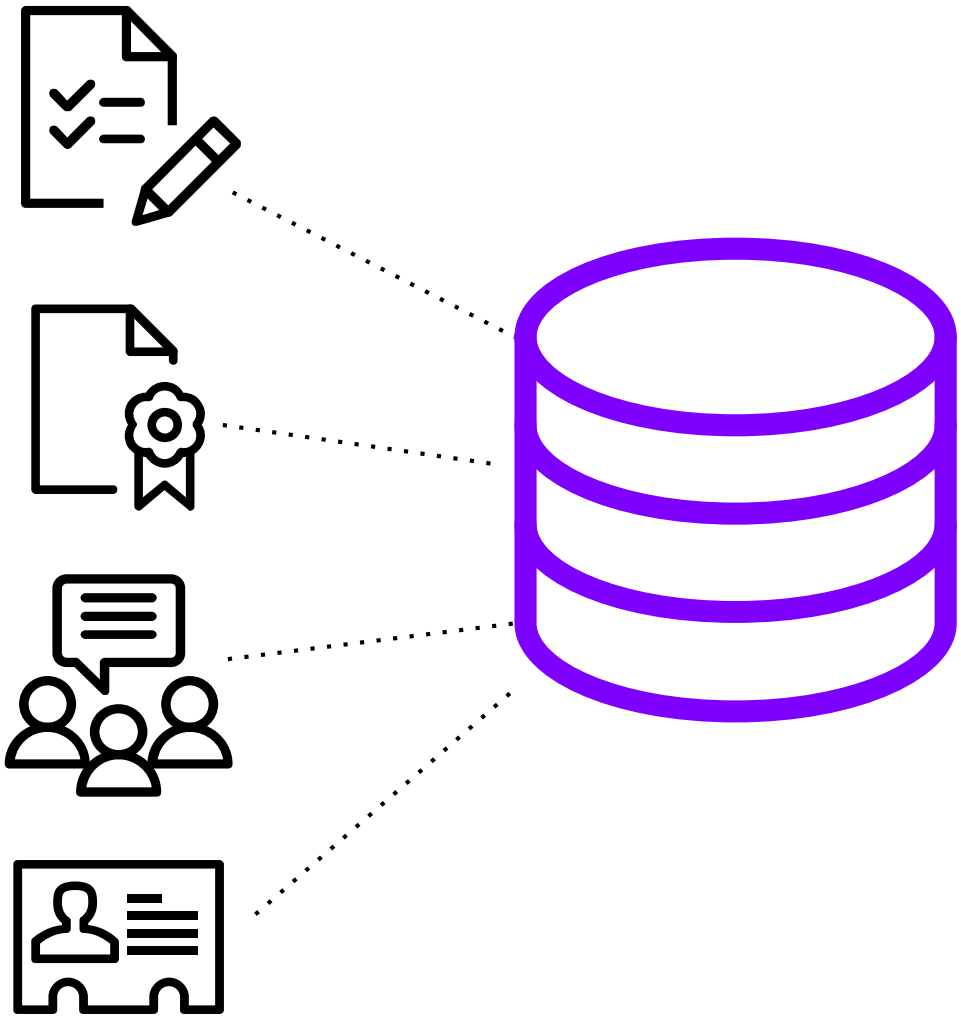
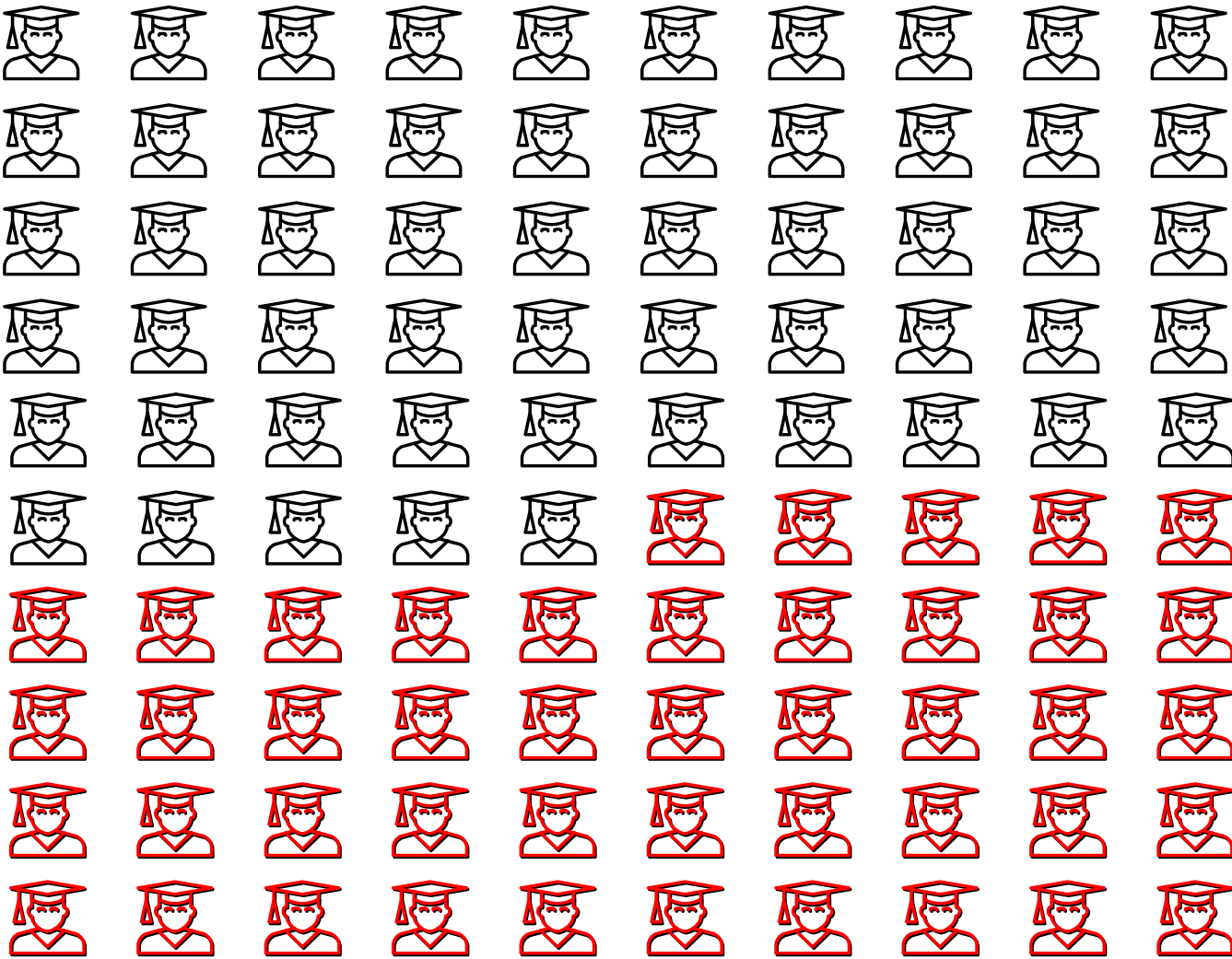
INTRODUCTION



HACK ANALYTICS



20 MILLION UNIVERSITY STUDENTS



BACKGROUND

- **Return on investment (ROI) or cost effectiveness analysis is increasingly used** as a comparison point for universities.
- Other than ROI, **success after graduation can be measured in more holistic ways**, such as job satisfaction.
- **Universities can use analytics** to identify students who may need extra support to be successful in their future career.

KEY QUESTION

What attributes can colleges measure in applicants to identify students who need support to be successful after graduation?

ACCENTURE HACK

STUDENT SUCCESS ANALYTICS

DETAILED MATERIALS



HACK ANALYTICS



accenture

FULL QUESTION PROMPT

Students, parents, lenders, and governments are increasingly concerned about post-graduation success when comparing universities. While monetary measures predominate college metrics, success can also mean job satisfaction or finding a job in a particular field. This hackathon will focus on ways that universities can identify incoming students who will have difficulty finding success after graduation so that they can be targeted for additional support.

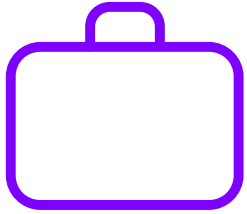
Sub-Questions

1. Using the ELS study, identify characteristics exhibited by 10th and 12th graders that predict how successful a student will be after completing a Bachelors degree. Justify how you measure success.
2. What characteristics are indicative that a student may be less successful? How can a school use this information to target students for intervention? Recommend strategies that will help students become more successful.
3. Demographic and geographic data were redacted in the ELS study data, as were the names of colleges attended. Explain how not having this information could have impacted your model and your conclusions. What redacted variables would you request from this data set and how would you utilize these variables to create a more effective model?

Output:

- A data model that helps predict student success based on the variables available
- A presentation summarizing your results - highlight your key findings and present creative ideas or tools for universities to use and visualize the data going forward

RECOMMENDED SUCCESS MEASURE LIST



KPIs for Employment

- # months unemployed since graduation
- Unemployed at time of survey
- Job in field studied in college



KPIs for Earnings

- Earnings in 2011
- Earnings in 2011 compared to family earnings in 2001



KPIs for Debt

- Debt at graduation
- Debt in 2011



KPIs for Career

- Job Satisfaction
- Job requires a bachelors degree
- Job in desired industry/field

HACKATHON DATA SOURCES

Approved Data Sources

IPEDS College
Data

College
Scorecard.gov

ELS Study
– 2002
through
2012

Key Data Source ELS Study (2002 through 2012)

- Provides Data for Student Level Success KPIs
- Provides College Attendance by Institution Type (e.g., 4-year Public)
- Provides Survey information from 10th and 12th grades

WHERE TO FIND THE DATA

Key Material:

1. [Hackathon ELS Data Set and Variable List](#) (this version is manipulated a bit to make it easier to understand)
2. [ELS Informational Website](#) - Additional information about the ELS study, including questionnaires, users guide

Approved Sites:

1. [ELS Data via eDAT tool](#) - If you would like to extract the ELS data in a different format, it can be found here.
2. [IPEDS Data](#) - Data from a study commonly used to compare universities.
3. [College Scorecard Data](#) - Government website compiling data from multiple sources to compare universities. Includes data from IPEDS.