Data Analytics
Project

By: Alex Cheung, Steven Pham, Nicholas Tang

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Project Proposal

Proposal

Background

The data analysis project uses data from 1000 students across various demographic groups and academic backgrounds.

The dataset includes information such as **age, gender, year in school, major, monthly income, financial aid received, and expenses** in different spending categories.

Spending categories include **tuition, housing, food, transportation, books & supplies, entertainment, personal care, technology, health & wellness, and miscellaneous** expenses.

Purpose

The purpose of this analysis is to analyze student spending habits to determine levels of financial literacy and to determine what factors may influence their financial health and budgeting strategies. Through key demographic and statistical metrics, this analysis can assist **financial planners, lending institutions and loan officers** to better assess the needs and risk of student borrowers.

Data Dictionary

String/Object

gender
year_in_school
major
Preferred_payment_method
Econ Major?
Upperclassmen?
Financial Status*
High/Low Aid*
Entertainment spender*

Integers/Floats

monthly_income
financial_aid
tuition
housing
food
transportation
books_supplies
entertainment
personal_care
technology
health_wellness
miscellaneous
Debt-Ratio*

Boolean

Positive Budget?*

* Flag Variable

02

Research Questions

Research Questions

Question 1

Do students with an Economics major have greater levels of financial literacy? (IE. Saving more/Spending less)

Question 2

For Students receiving financial aid, are students with less total aid more financially literate?

Question 3

Does a student's college year affect spending habits (Do upperclassmen spend more than underclassmen for leisure ex: entertainment)?
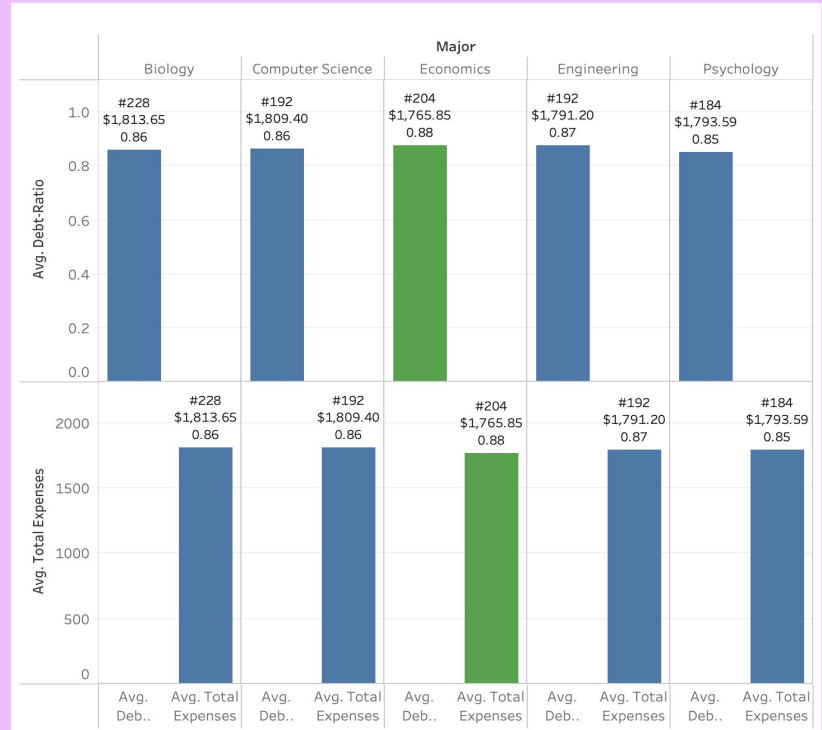
Do students with an Economics major have greater levels of financial literacy? (IE. Saving more/Spending less)

🖳 Insights

Economics Students exhibit higher levels of financial literacy
- **Highest Debt Ratio among all majors**
- **Economics majors' average total expenses was approximately $20 lower than the Engineering majors (2nd lowest)**

For students receiving financial aid, are students with less total financial aid, more financially literate?

🎙️ Insights

Students that receive more financial aid:
- Higher Debt Ratio
- More income than expenses
- Slightly higher in Total Average Expenses

Students that receive less financial aid:
- Less income
- Similar in Total Average Expenses.
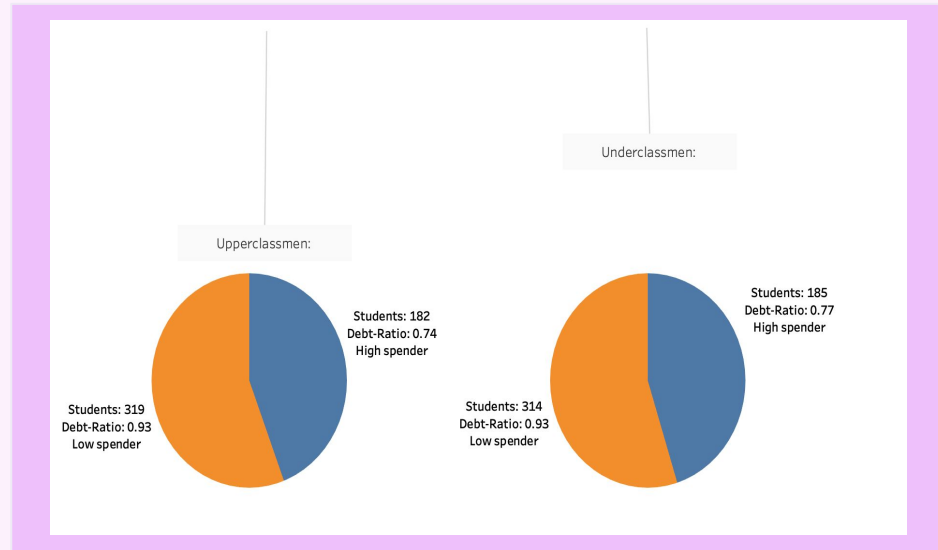- Lower than average by major

High/Low Aid

Students: 130
Total Expense: 1,816.21
Debt-Ratio: 1.06

Students: 870
Total Expense: 1,791.93
Debt-Ratio: 0.84

Students: 130
1,816.21
1.06

Students: 870
1,791.93
0.84

Does a student's college year affect spending habits (Do upperclassmen spend more than underclassmen for leisure? (ex: entertainment)

📈 Insights

Upperclassmen spending
- **Comparatively very similar between all 4 classified groups.**
- **Debt-Ratio is slightly higher for underclassmen, high spenders**
- Takeaway:
  - **Upperclassmen spend more**

Underclassmen:

Upperclassmen:

Students: 182
Debt-Ratio: 0.74
High spender

Students: 319
Debt-Ratio: 0.93
Low spender

Students: 185
Debt-Ratio: 0.77
High spender

Students: 314
Debt-Ratio: 0.93
Low spender

03

Results
And
Recommendations

Results

Major, and amount of financial aid is useful in determining financial literacy levels of students. College Year is not a useful indicator of financial literacy and budgeting.

Economics/Business majors have the greatest level of financial literacy with the highest income/expense ratio and the lowest Average Total Expenditure.

Students that received less financial aid were slightly more financially responsible than grouped by major, but were still disadvantaged compared to those who received aid.

Recommendations

Recommend future analysts to look further into depth at key demographic variables such as expanding to include other major fields and extracurriculars.

This dataset only included 5 major fields which simplified the overall understanding of our research questions. If this dataset had included more majors and other key variables it would have better explained some expense categories and would have improved the visualization of our current data.

Thank you