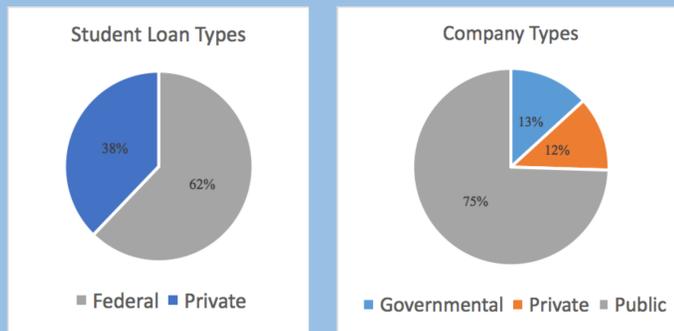


Introduction

- There are many options for getting student loans today: you can go through a big company or a small company; get a federal loan or a private loan, etc.
- The aim of this research project is to explore how these factors affect your satisfaction and to find out if companies discriminate in any way based on these factors.

Data Processing

- The data I used came from the Consumer Financial Protection Bureau. The CFPB is an organization that collects and resolves complaints for businesses in the financial sector.
- I started by collecting and cleaning all the data for student loans in 2017
- This left me with around 16,000 complaints spreads amongst 60 companies.
- For all 60 companies, I found out if they were publicly traded, private, or governmental organizations.



References

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Federal vs. Private Student Loans: What the Data Tells Us

Jacob Zollinger

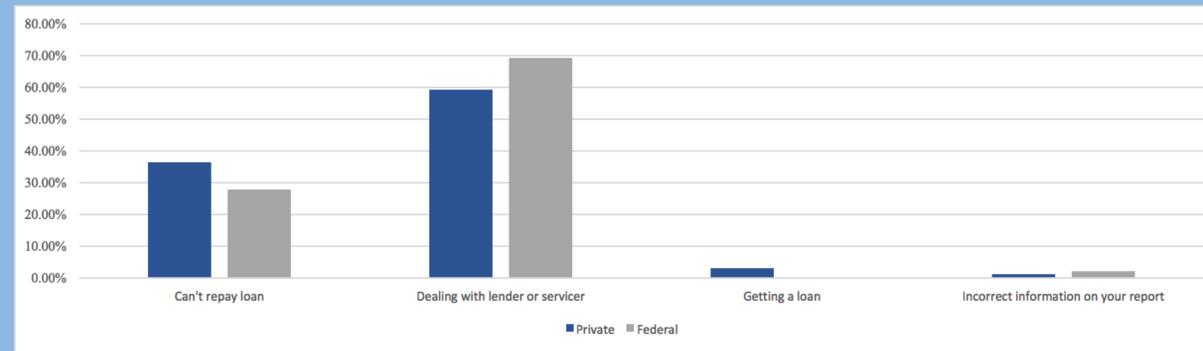
Faculty Advisor: Zsolt Ugray

Summary of Hypotheses

Hypothesis (H ₀)	Summary of Results	Interpretation
Customer support is equally good for federal and private student loans	<ul style="list-style-type: none"> • Federal - customer support complaints make up 43% of all complaints • Private - customer support complaints make up 29% of all complaints • Difference - 14% • P(T<=t) two-tail - 4.6% 	Customer support for federal student loans is significantly worse than for private student loans (95% significance level)
Repaying loans is equally difficult for federal and private student loans	<ul style="list-style-type: none"> • Federal - loan repayment complaints make up 11% of all complaints • Private - loan repayment complaints make up 13% of all complaints • Difference - 2% • P(T<=t) two-tail - 48.96% 	Loan repayment difficulty is not significantly different between federal and private student loans (95% significance level)

Loan Type

Distribution of Complaints



2 Biggest Areas – Are They Statistically Significant?

Customer Support

	Federal	Private
Mean	0.4331615	0.295603662
Variance	0.062786169	0.043287373
Observations	45	45
Pearson Correlation	-0.913046537	
Hypothesized Mean Difference	0	
df	44	
t Stat	2.056830914	
P(T<=t) one-tail	0.022830614	
t Critical one-tail	1.680229977	
P(T<=t) two-tail	0.045661227	
t Critical two-tail	2.015367574	

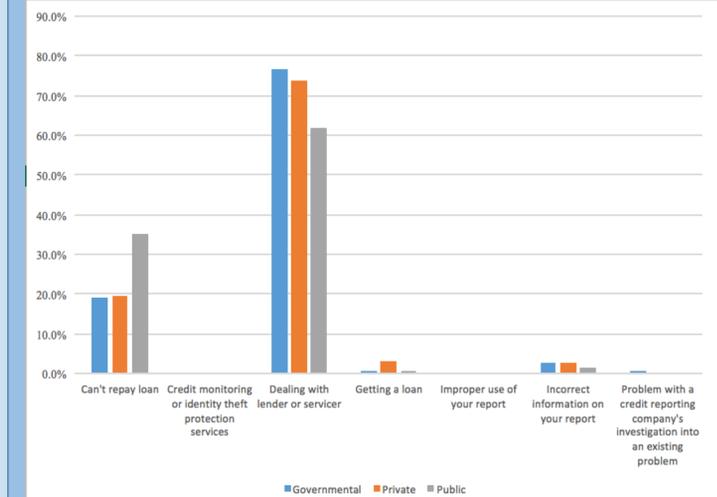
Loan Repayment

	Federal	Private
Mean	0.110021606	0.130203715
Variance	0.005924503	0.013025559
Observations	32	32
Pearson Correlation	-0.43893223	
Hypothesized Mean Difference	0	
df	31	
t Stat	-0.699192731	
P(T<=t) one-tail	0.244822431	
t Critical one-tail	1.695518783	
P(T<=t) two-tail	0.489644863	
t Critical two-tail	2.039513446	

- At a 95% confidence level, the difference between federal and private customer support is statistically significant. Loan repayment is not.
- This makes sense, because I would expect companies to put more resources in supporting their private loan customers vs. federal, because with private loans, their reputation is more connected with customer support, whereas with federal loans, they are merely servicing them, so any negative outcome would reflect less on them and more on the federal government.

Company Type Distribution of Complaints

	Governmental	Private	Public
Can't repay loan	19.0%	19.7%	35.1%
Credit monitoring or identity theft protection services	0.2%	0.0%	0.1%
Dealing with lender or servicer	76.6%	73.8%	62.0%
Getting a loan	0.5%	3.1%	0.9%
Improper use of your report	0.2%	0.2%	0.0%
Incorrect information on your report	2.8%	2.7%	1.6%
Problem with a credit reporting company's investigation into an existing problem	0.7%	0.4%	0.3%



- According to the chart, public companies have the most complaints about loan repayment, but the least related to customer service.
- This may be because larger publicly traded companies can afford larger customer service departments to handle customer complaints.
- Larger companies may also have more resources to enforce the terms of their loans, leading to more complaints about paying loans back.

Limitations

- Most private companies don't make their data available to the public, that means information like the total number of private student loans is impossible to find.
- In order to meaningfully compare federal and private loans, I used percentages instead.