

# Prosper Loan Data Story

## First Version:

<https://public.tableau.com/profile/nan5353#!/vizhome/ProsperLoanDataVisualizationV1/student?publish=yes>

## Final version:

<https://public.tableau.com/profile/nan5353#!/vizhome/ProsperLoanDataVisualization/Story1?publish=yes>

## **Summary:**

This Tableau story aims to throw light on default rate of different borrowers in peer to peer lending investment. Through visualizing default rate data by borrowers' income, occupation, prosper score, state, and related return, the audience can choose borrowers more wisely based on their risk tolerance. To minimize the probability of default, risk averse investors should find borrowers who have higher Prosper score, higher income, offer relatively lower interest rates are a good fit. In term of occupation, students are usually more likely to default with one exception: graduate student. Plus, a risk averse investor should pay more attention to borrowers located in North Dakota, Maryland and Iowa State as the average default rates of these states are as high as 0.29, 0.37, 0.36.

## **Design:**

The story is started with a line chart to indicate the trend of the number of loan records and the total amount over time. Dual axis makes it possible to display two visuals in the one plot and we can compare the patterns over time.

Next, I create a map to display the default rate of borrowers from different states. Color is used to display the magnitude of default rates clearly.

For categorical data as occupation, I choose bar chart which allows easy comparison of the number of loan records by occupations.

Then the borrower rate and the related default rate are displayed as a collection of points. This scatter plot enables an audience to obtain a visual comparison of the two variables and observe the correlation. Further, student data is encoded in a different color to emphasize the observation I want to convey.

## **Feedback:**

- Adjust the storyline: the distribution plots came first then dive into detail of default rate of each group
- Rename columns and rows to make row and columns more readable to the audience.
- Some story points have too much information which might make readers overwhelmed.
- The pattern of the student borrowers is hard to tell in the visual. Try to use color encodings to make it more clear.

## **Resources:**

Tableau Data Visualization Cookbook

[https://www.packtpub.com/mapt/book/big\\_data\\_and\\_business\\_intelligence/9781849689786/6/ch06lvl1sec59/showing-the-percentage-of-totals](https://www.packtpub.com/mapt/book/big_data_and_business_intelligence/9781849689786/6/ch06lvl1sec59/showing-the-percentage-of-totals)

Tableau Help: Get Started with Calculations in Tableau

[https://onlinehelp.tableau.com/current/pro/desktop/en-us/calculations\\_calculatedfields\\_create.html](https://onlinehelp.tableau.com/current/pro/desktop/en-us/calculations_calculatedfields_create.html)