

Figure 1 Scatterplot showing the relationship between the US dollar amount requested for a loan and the resulting interest rate for the loan. 2498 loan samples are included. Plot points are colored by FICO credit score of the borrower. The FICO score coloring illustrates a negative correlation between FICO score and interest rate -- as credit score decreases the loan interest rate increases.

A linear regression model was fit for all data points, finding a \$1 increase in amount requested is associated with a 0.00017% interest rate increase (95% CI: 0.00016% - 0.0002%). To determine if this positive correlation held true when taking into account FICO credit score a linear regression model was fit for each of five score tiers.

For borrowers with a credit score of 641-678 a \$1 increase in amount requested is associated with a 0.00025% interest rate increase (95% CI: 0.00022% - 0.00027%).

For borrowers with a credit score of 679-716 a \$1 increase in amount requested is associated with a 0.00024% interest rate increase (95% CI: 0.00022% - 0.00026%).

For borrowers with a credit score of 717-754 a \$1 increase in amount requested is associated with a 0.00019% interest rate increase (95% CI: 0.00017% - 0.00022%).

For borrowers with a credit score of 755-792 a \$1 increase in amount requested is associated with a 0.00012% interest rate increase (95% CI: 0.00009% - 0.00016%).

For borrowers with a credit score of 793-830 a \$1 increase in amount requested is associated with a 0.00002% interest rate increase (95% CI: -0.00004% - 0.00007%).

The positive association between loan interest rate and loan amount requested holds when taking into account FICO score, although the correlation weakens with increased FICO score.