# EDA Case Study PPT

Types of Variables

- Customer (applicant) demographic
- Loan related information & characteristics
- Customer behaviour (if the loan is granted)

Customer's Demographics
Employement Length
Employement title
Annual Income
Zip Code
Description

Loan Information & Characteristics
Loan Amount
Funded Amount
Funded Amount Investment
Interest Rate
Loan Status
Laon Grade

| Customer Behaviour variables |
| --- |
| Delinquency year -2 |
| earliest credit line |
| Revolving balance |
| Recoveries |
| Application type |
| Loan purpose |

Data Understanding -Overall Default Rate is 14%
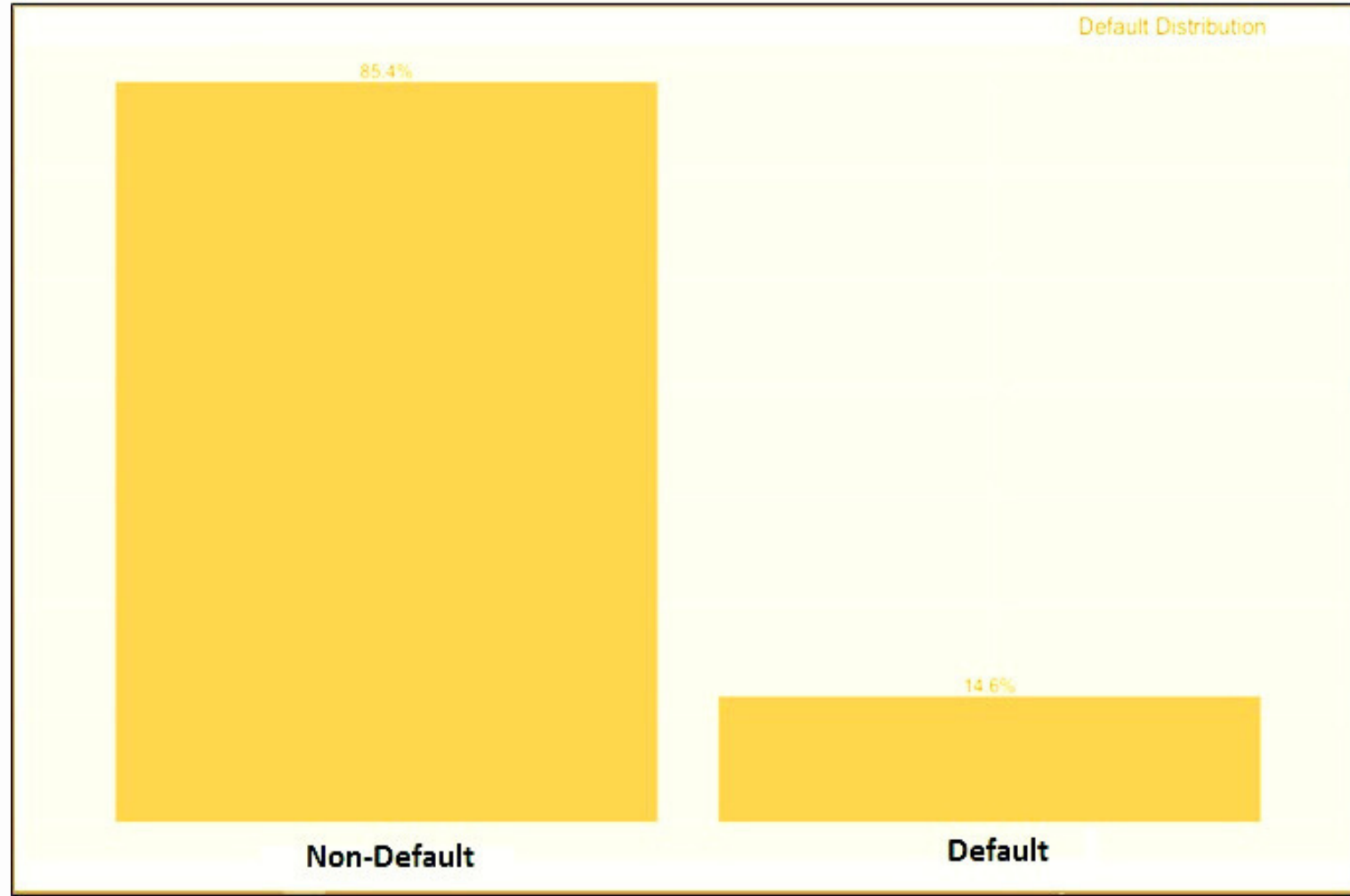
Time Frame of the Data –2007-2011

- 78% increment in applicants in 2011 compared to 2010
- 145% increment in applicants in 2010 compared to 2009

Application Distribution yearly

| Year	Percentage
2007	0.7%
2008	4.0%
2009	12.2%
2010	29.9%
2011	53.2%

Application Distribution yearly
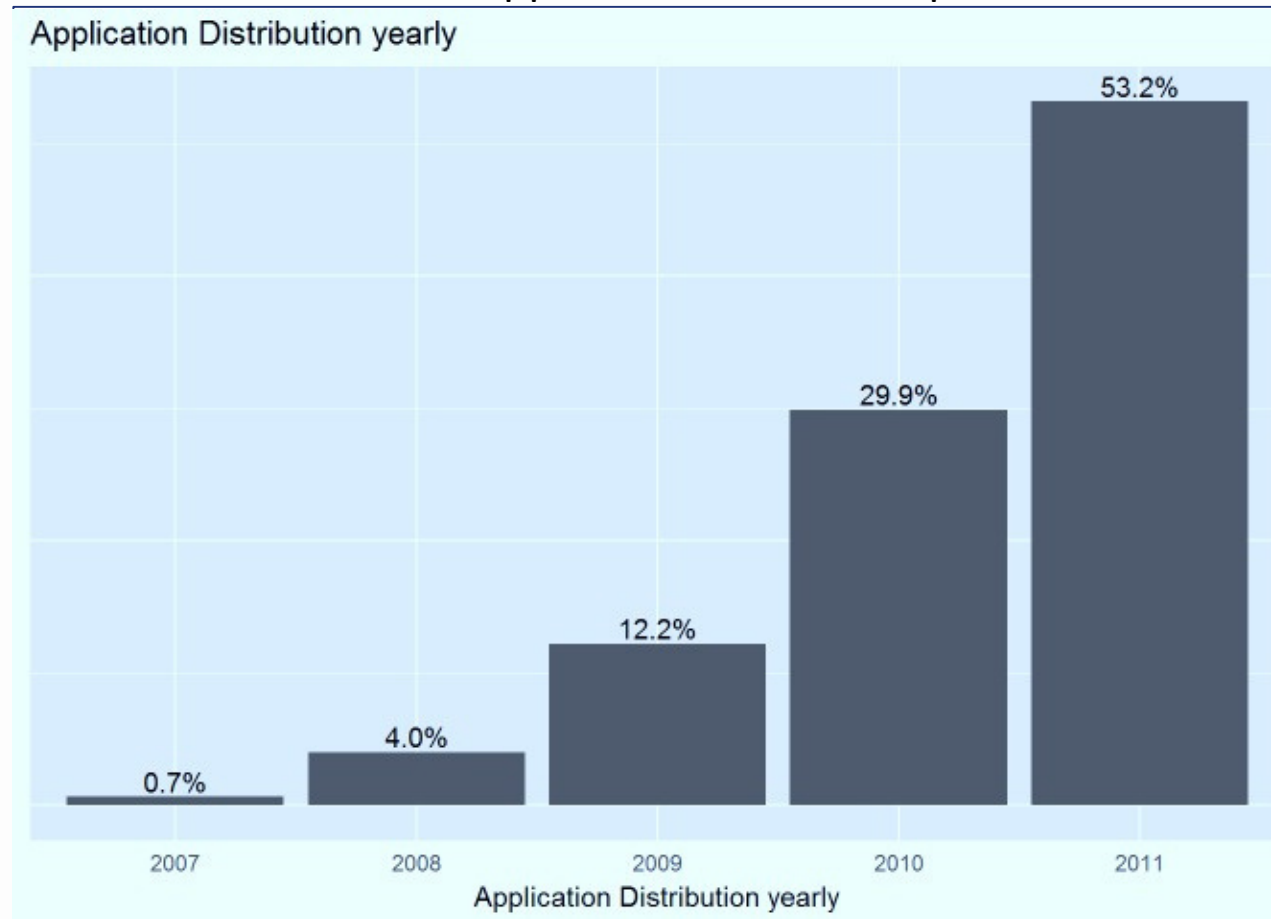
Loan Purpose Distribution : Debt Consolidation Loan is the most popular

- 46.8% debt consolidation loans

- 13% credit card loans

- 7.5% home improvement loans

- 5.6% major purchase loans


Types of Products offers by Lending club
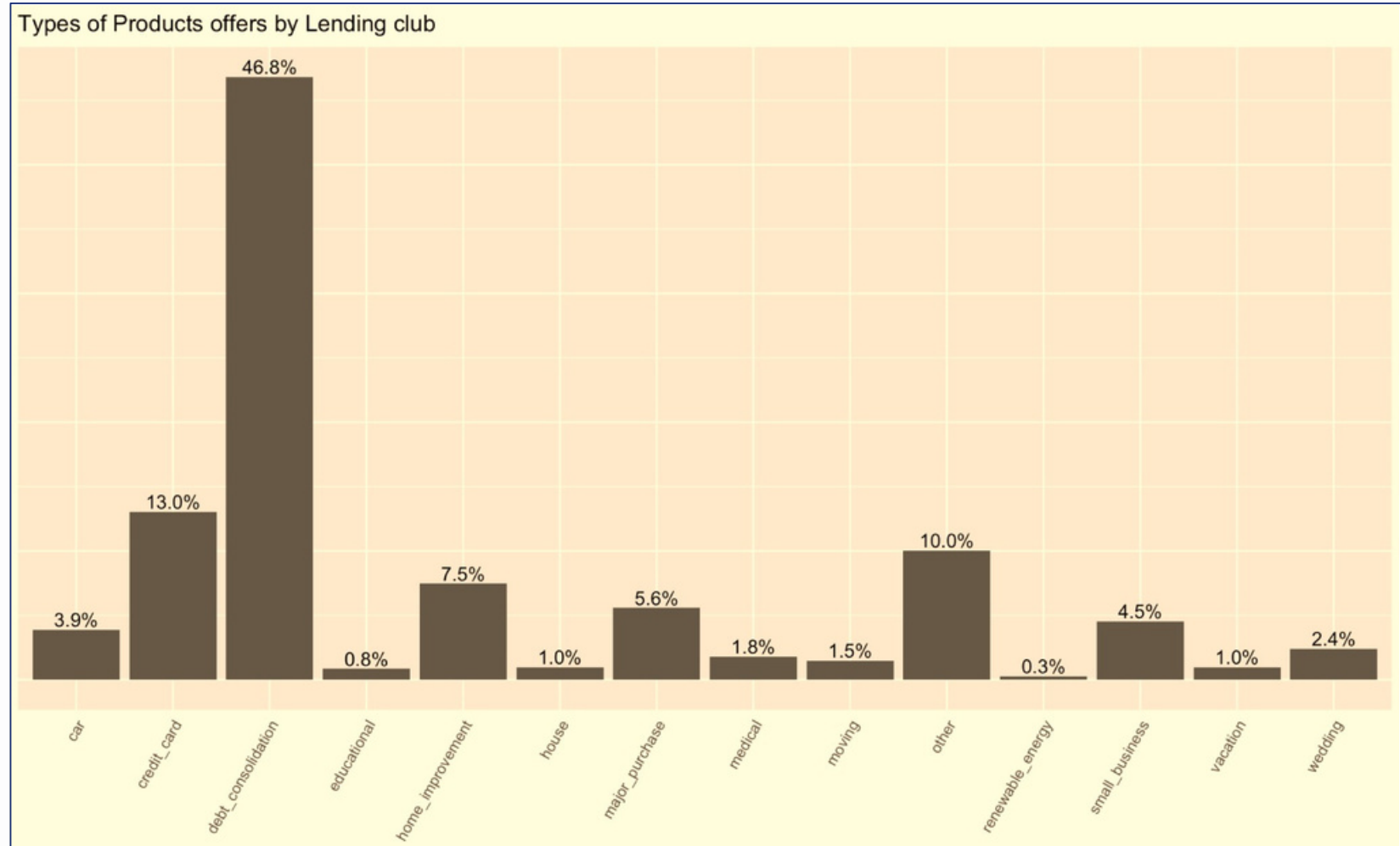
Default Rates By Loan Purpose

- Small business: 27%

- House: 17%

- Educational: 16%

- Debt consolidation: 15%
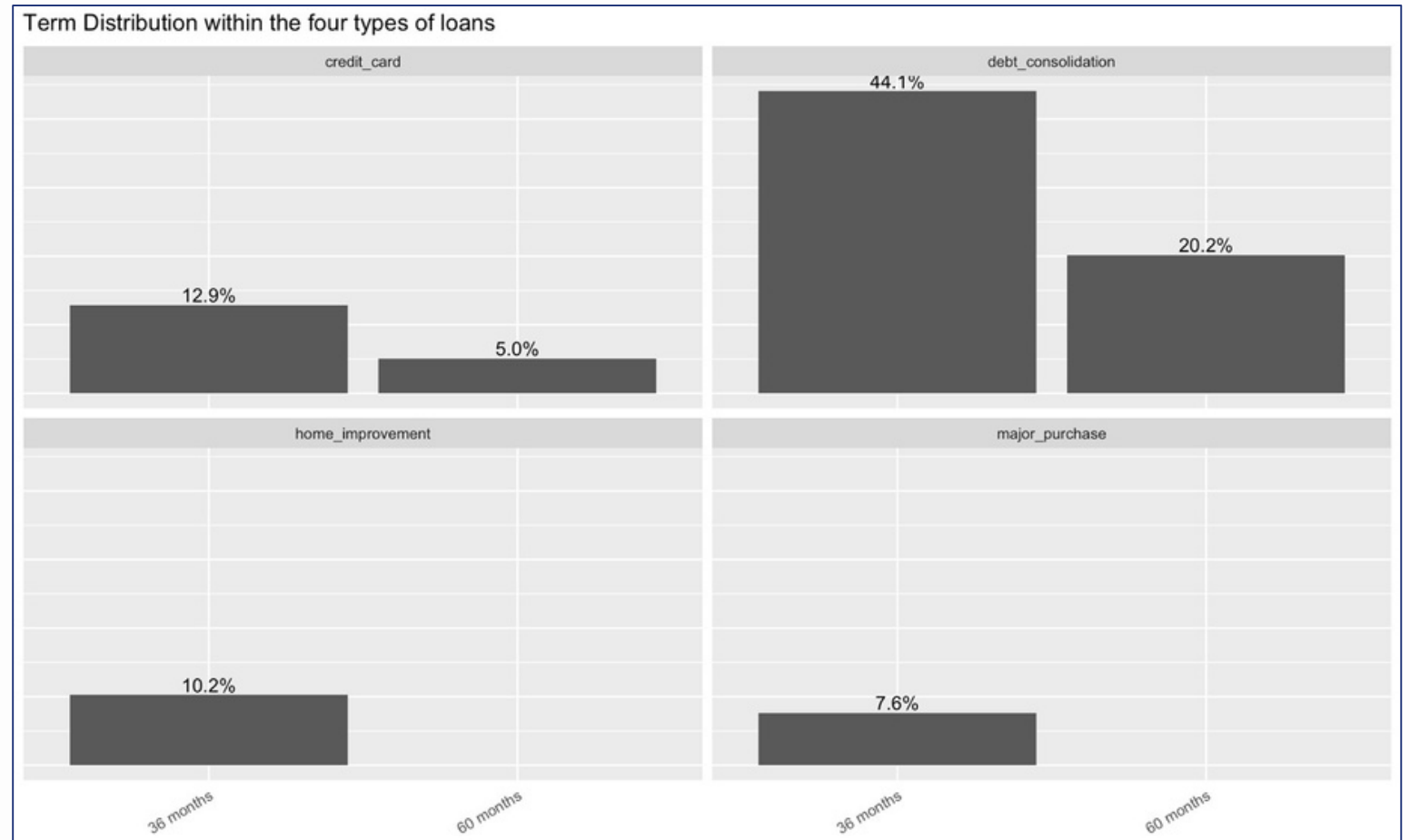
- Credit card: 10%

- Major purchase: 10%
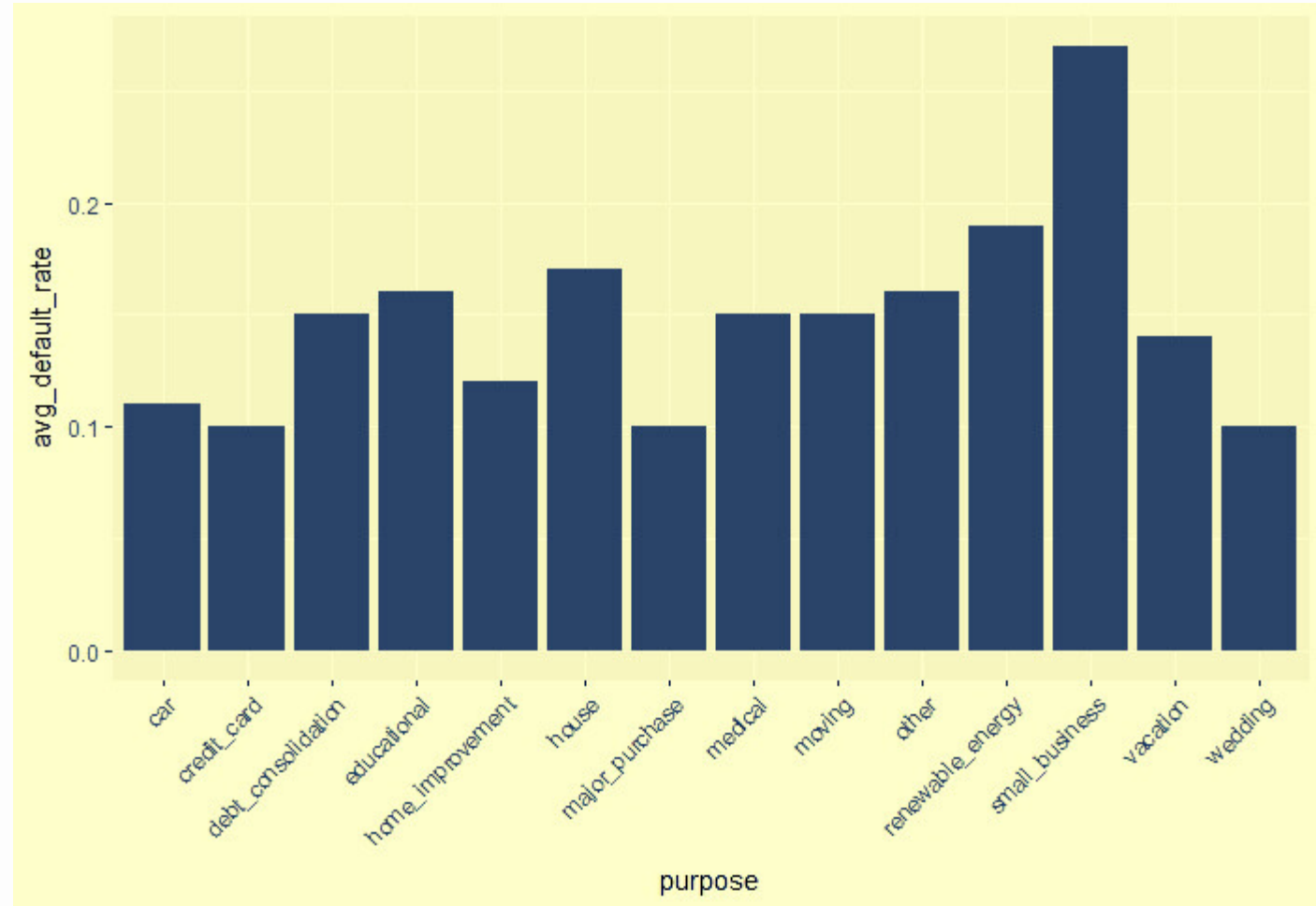
Top-4 Products over time: Credit Card, Debt Consolidation, Home Improvement & Major purchase

- In 2007 & 2008, Lending Club focused on major purchase loans

- In 2009, they started lending money for home improvement purpose also

- In 2010, they started lending loan for debt consolidation
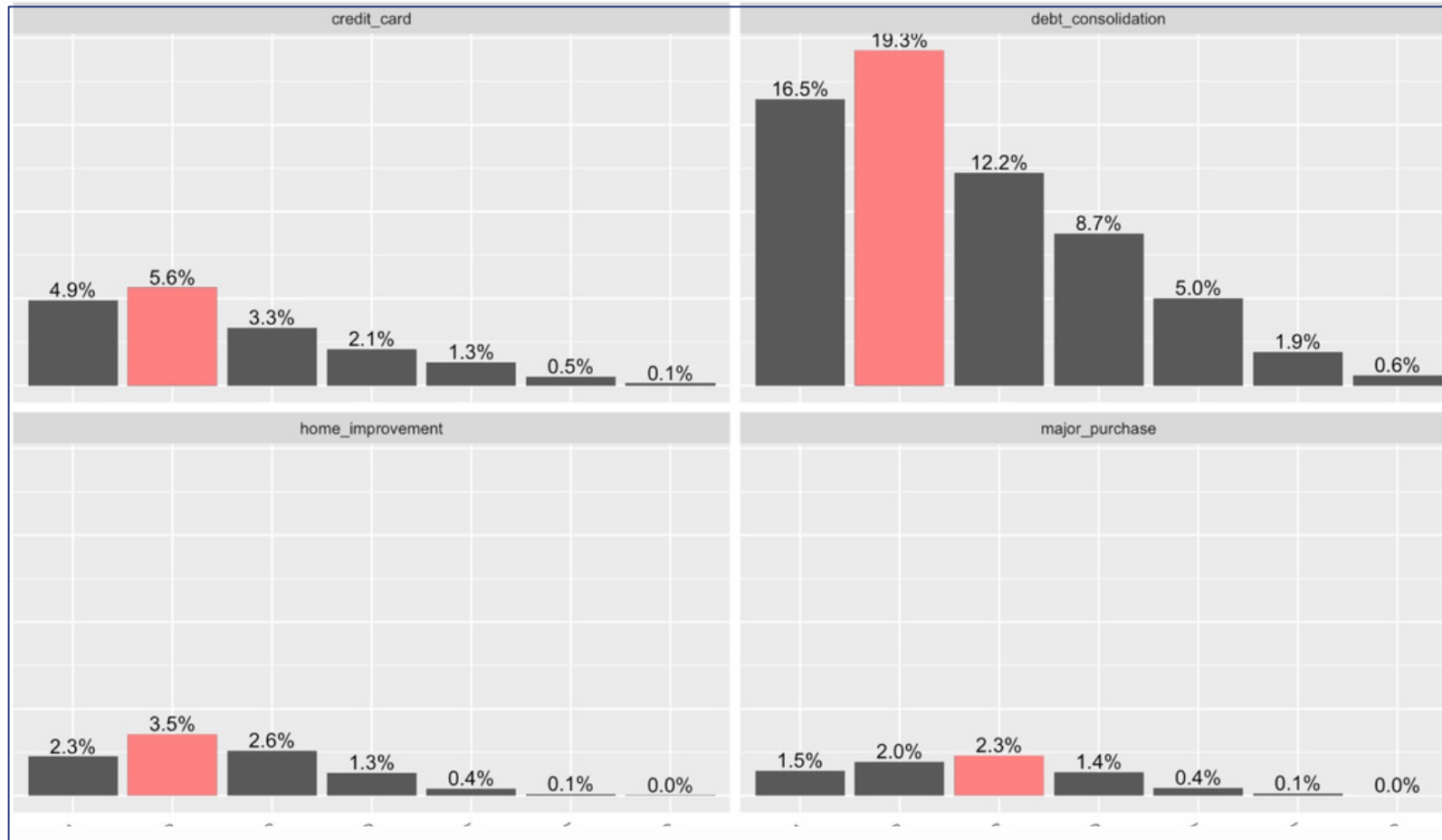
- In 2011, credit card loans were introduced

Product-wise Distribution:2007-2011
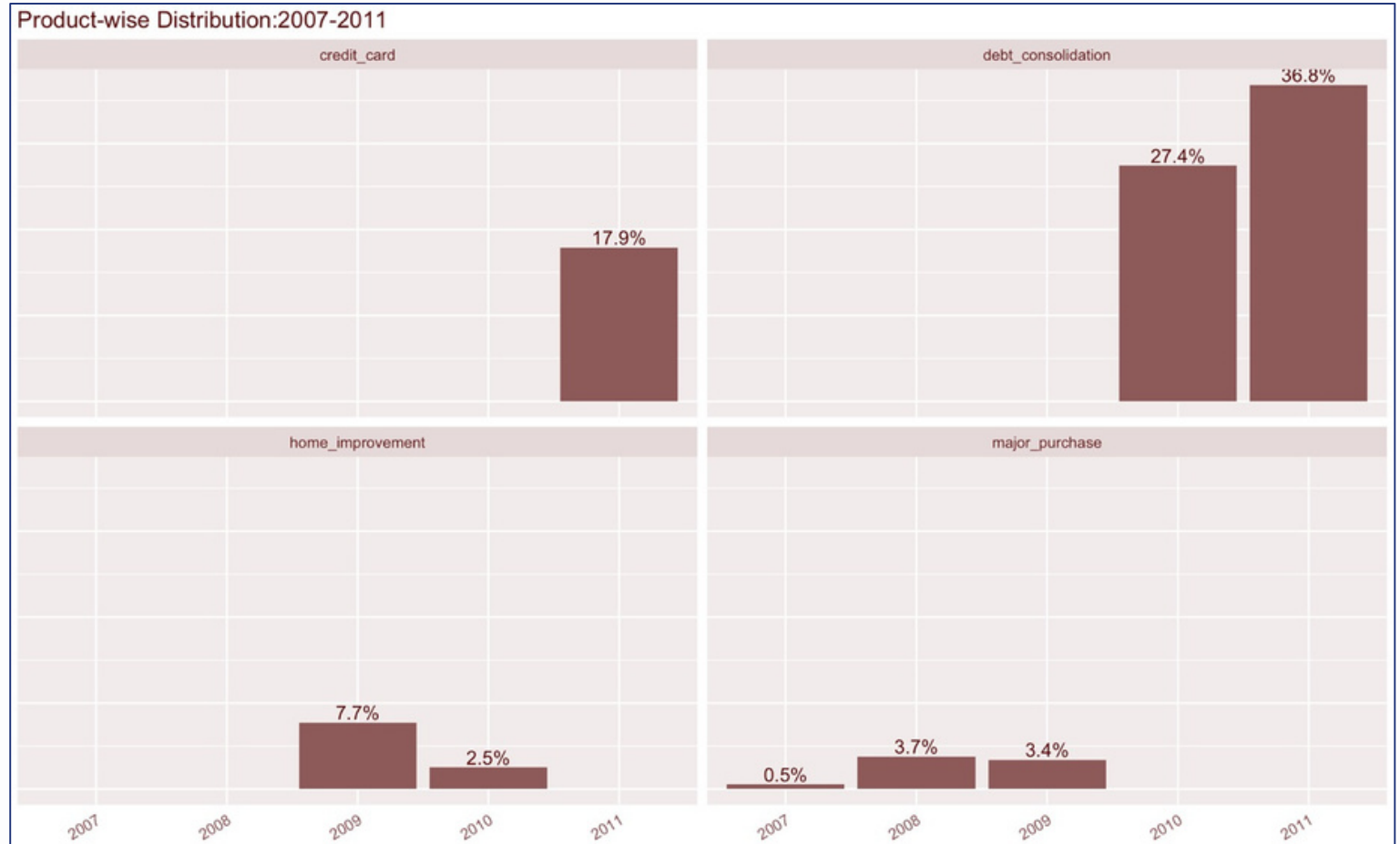
Term Distribution in Top-4 products

- Lending club has given out 36 month term period loan for major purpose and home improvement.
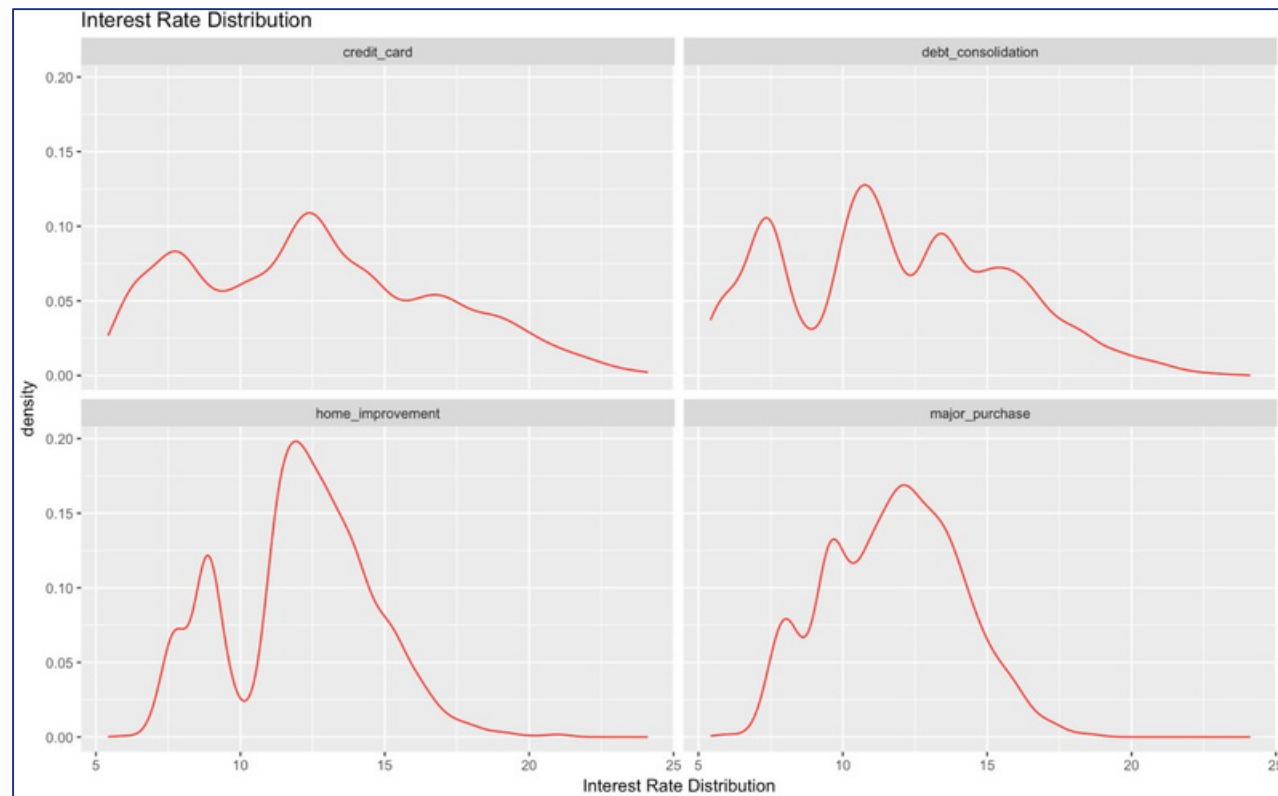
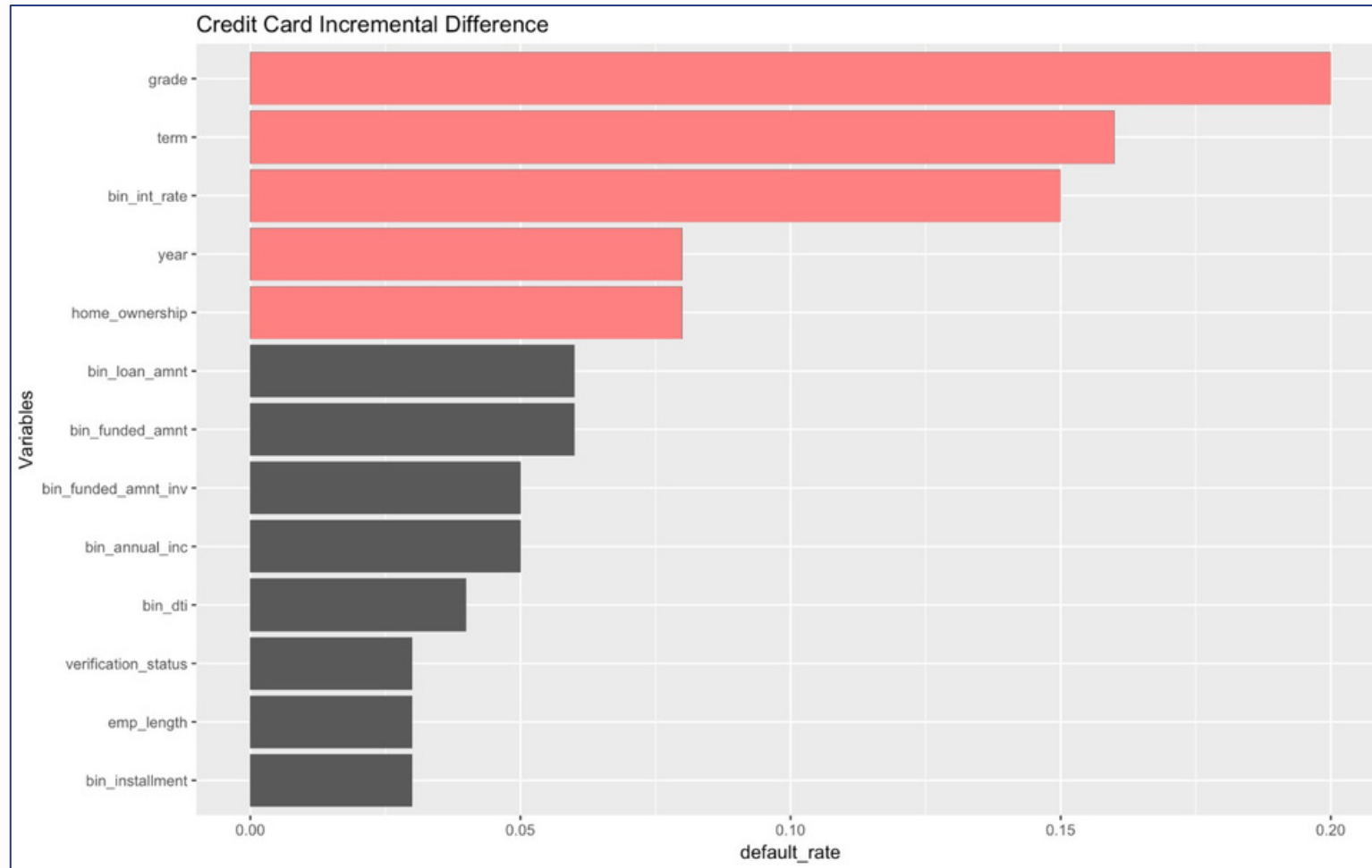# Grade Distribution in top-4 products
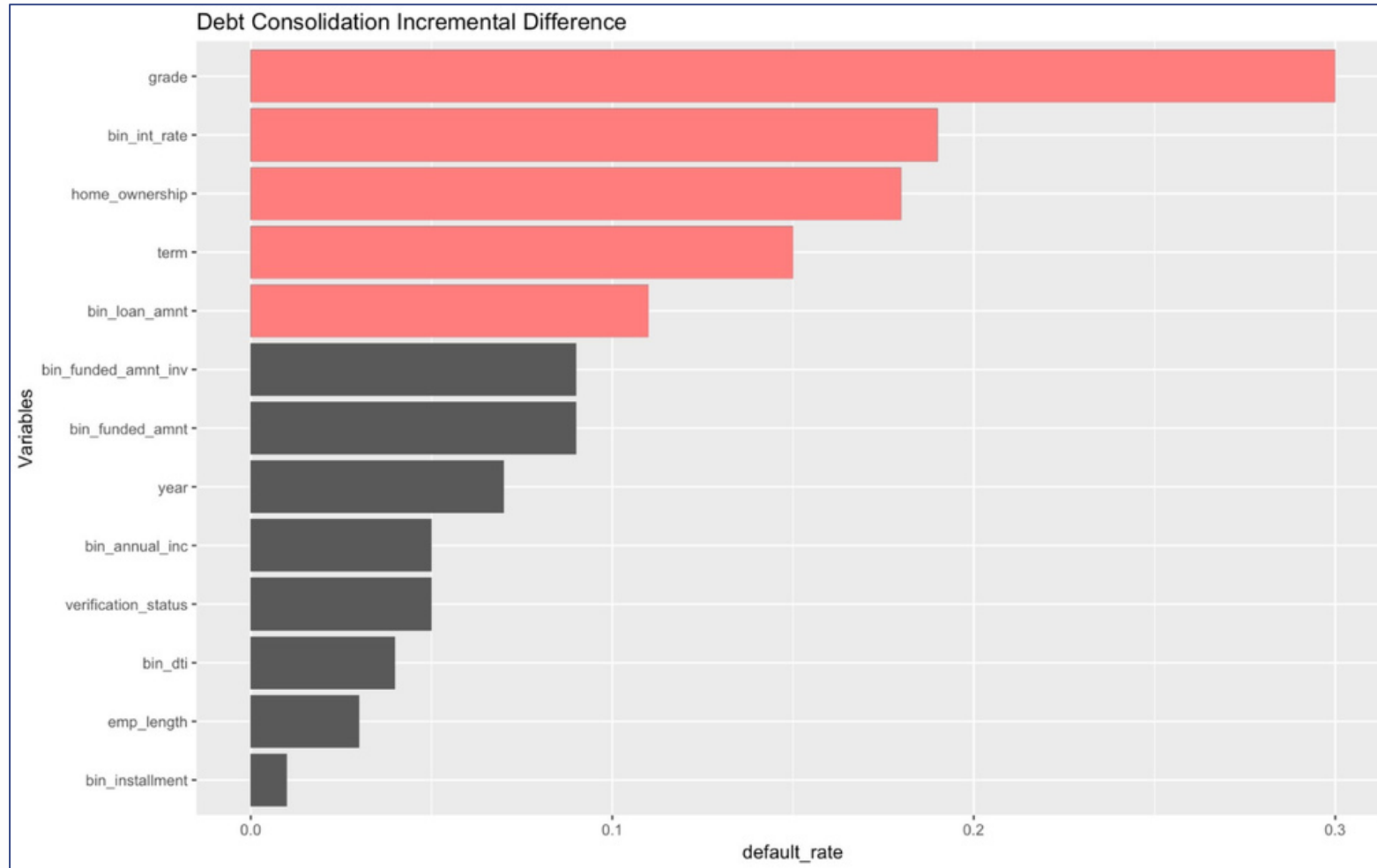
Average Interest Rate in top-4 products

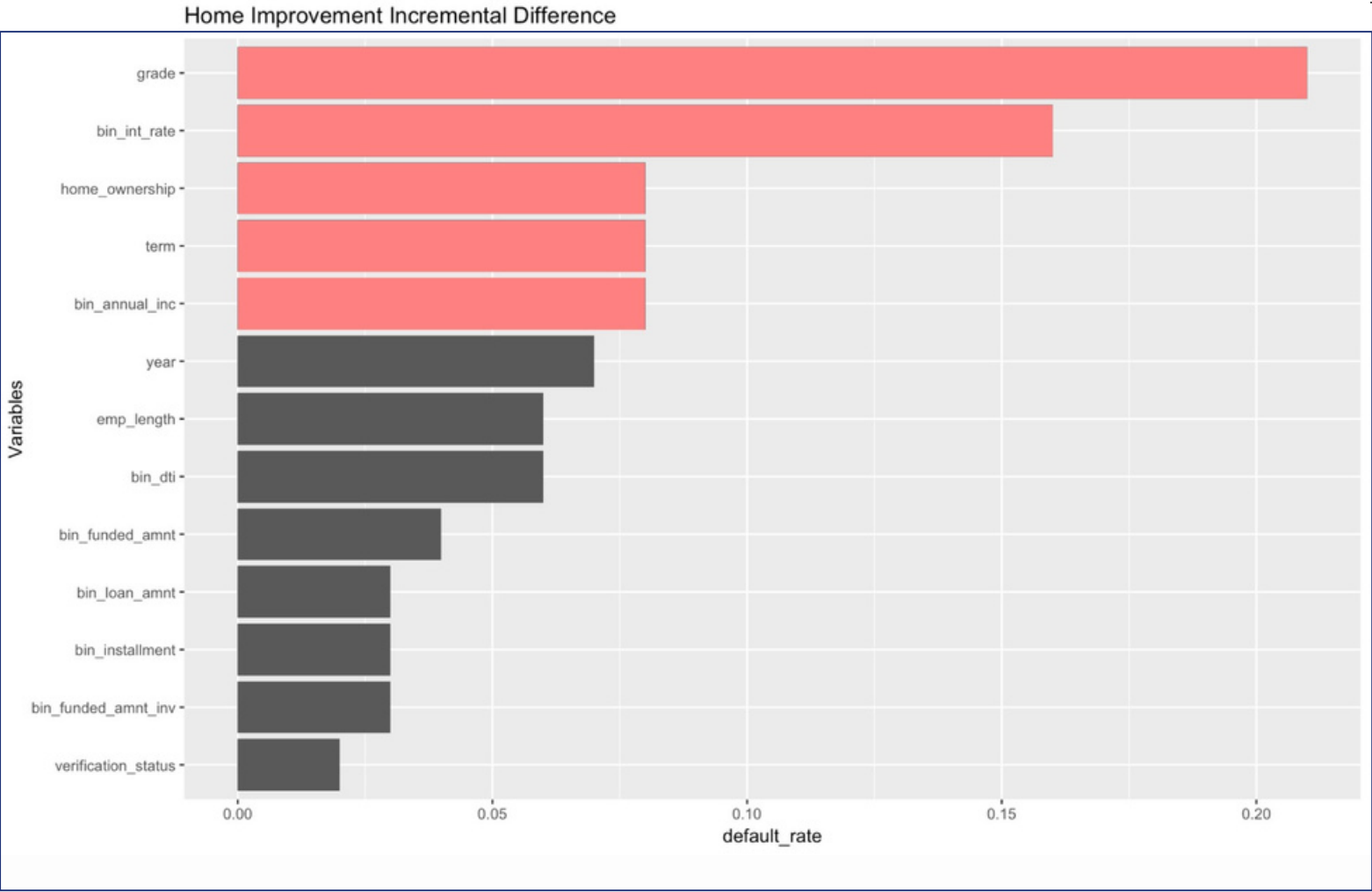| Credit Card	Debt Consolidation	Home improvement	Major purchase
11.62%	12.40%	11.29%	10.80%

Important Variables: Credit Card

Important Variables–Debt Consolidation

Important Variables -Home Improvement

Home Improvement Incremental Difference

Important Variables–Major Purchase

Major Purchase Incremental Difference