

## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD



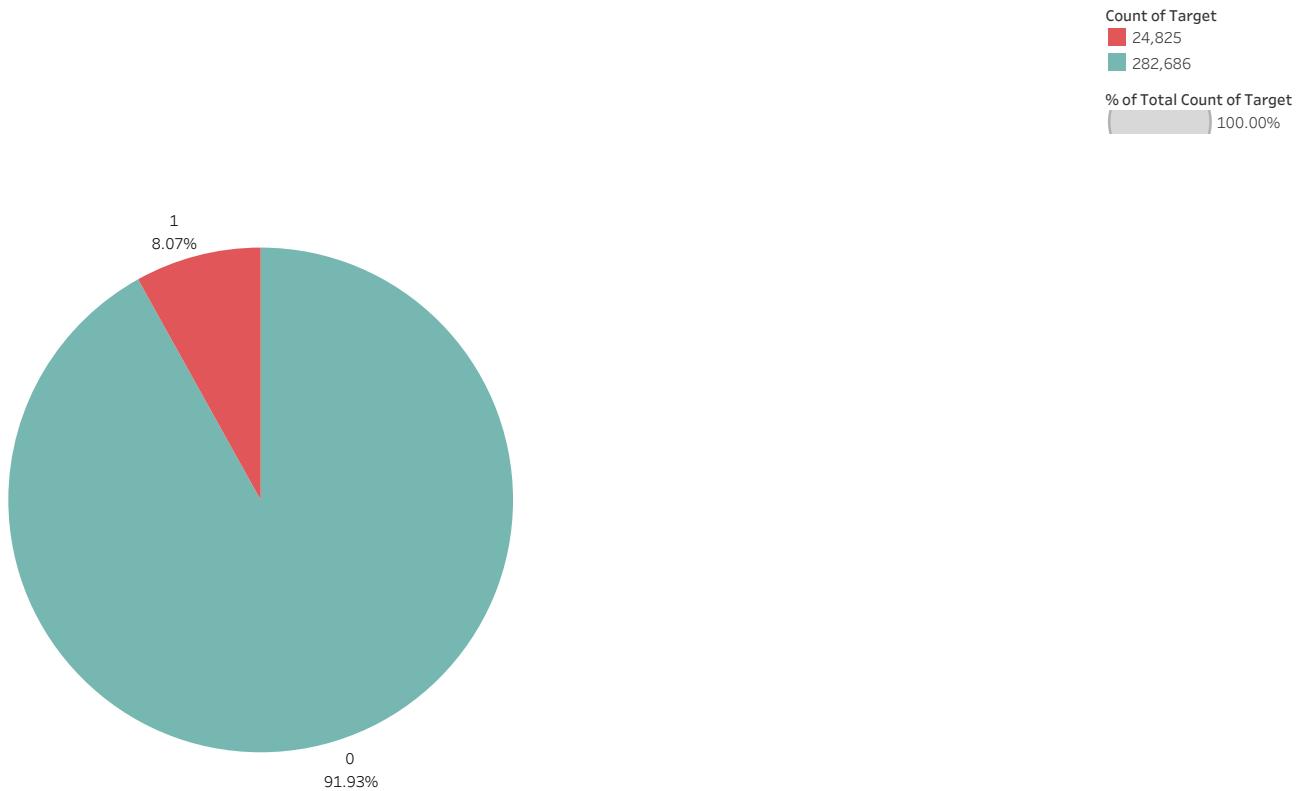
# Classifying Loan Defaults

Classifications by Logistic Regression  
and Machine Learning

By Rodrigo Rezende and A.J. Hammond

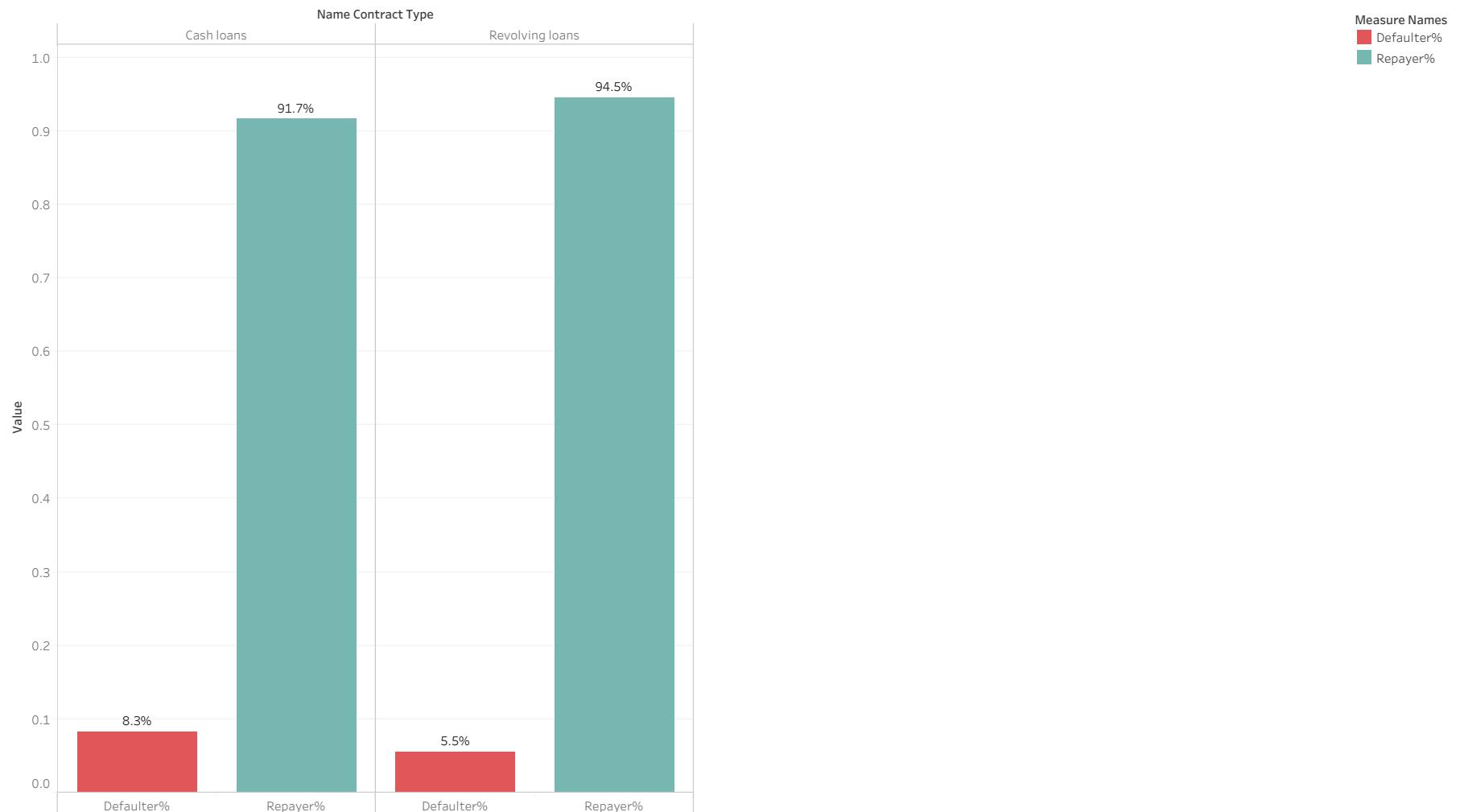
## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD
-------	------------------	--------------	----------------------------	-------------------	------------------	---------------------------------------	-------------	-----------

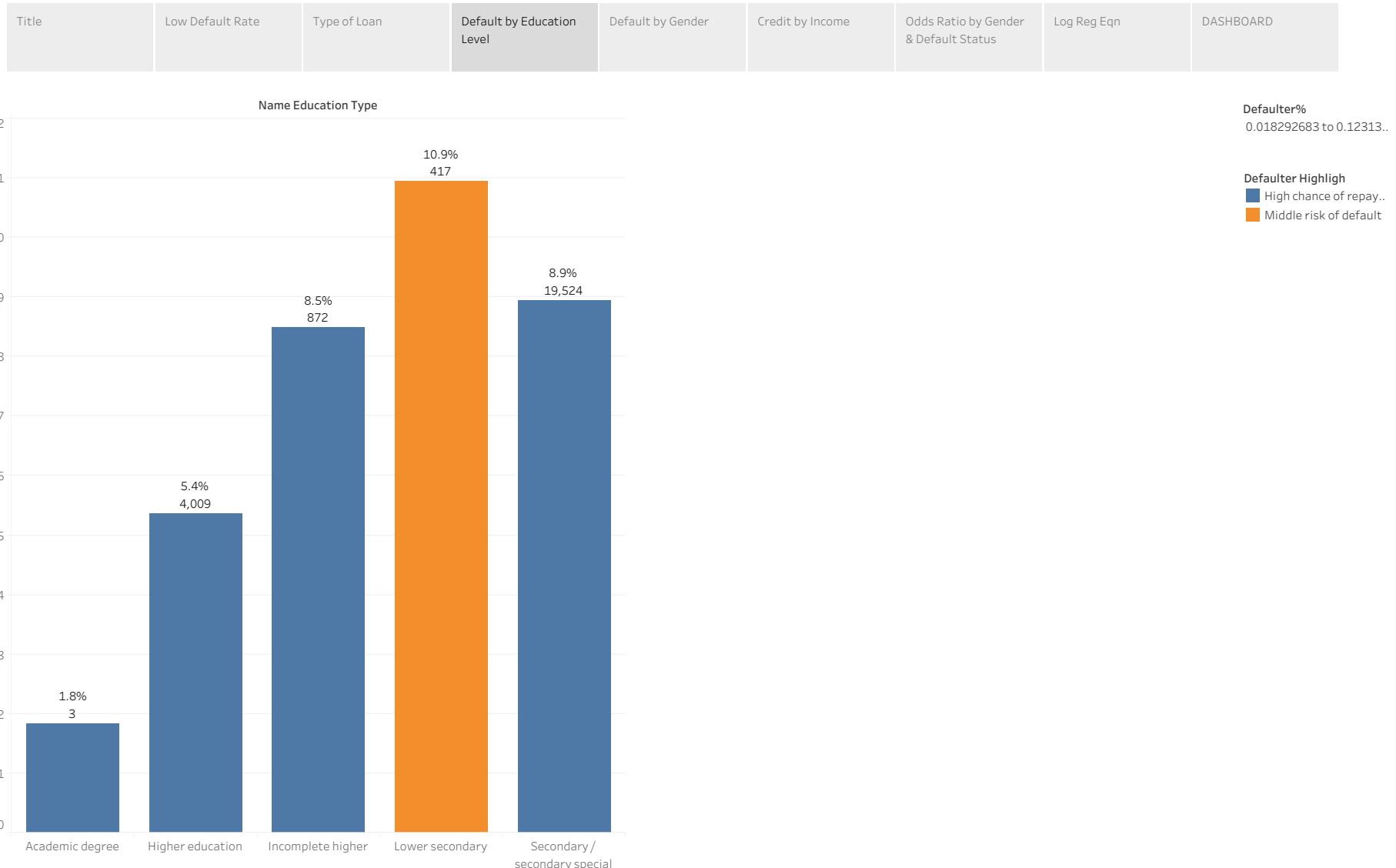


## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD
-------	------------------	--------------	----------------------------	-------------------	------------------	---------------------------------------	-------------	-----------

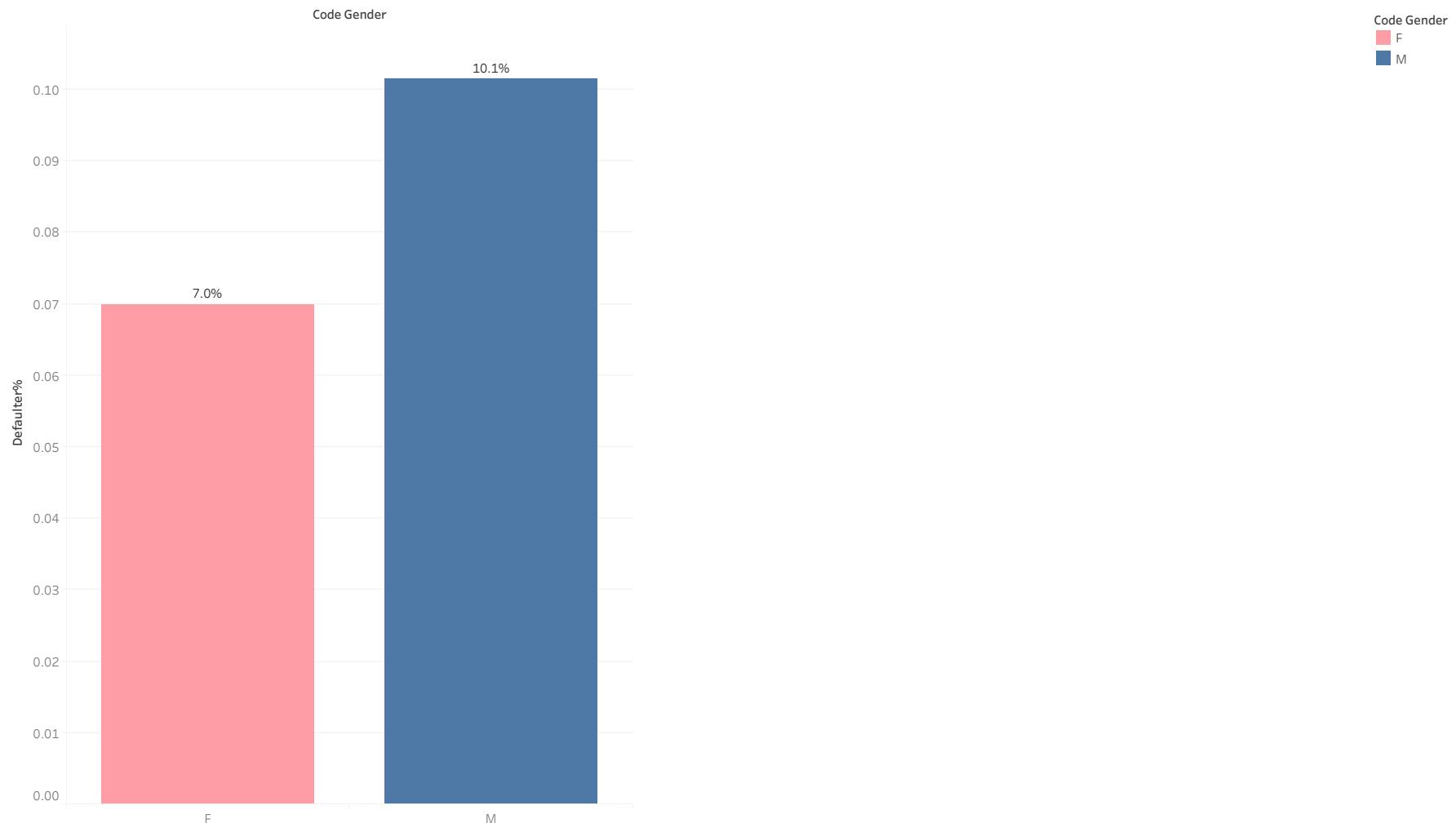


## Midterm Story

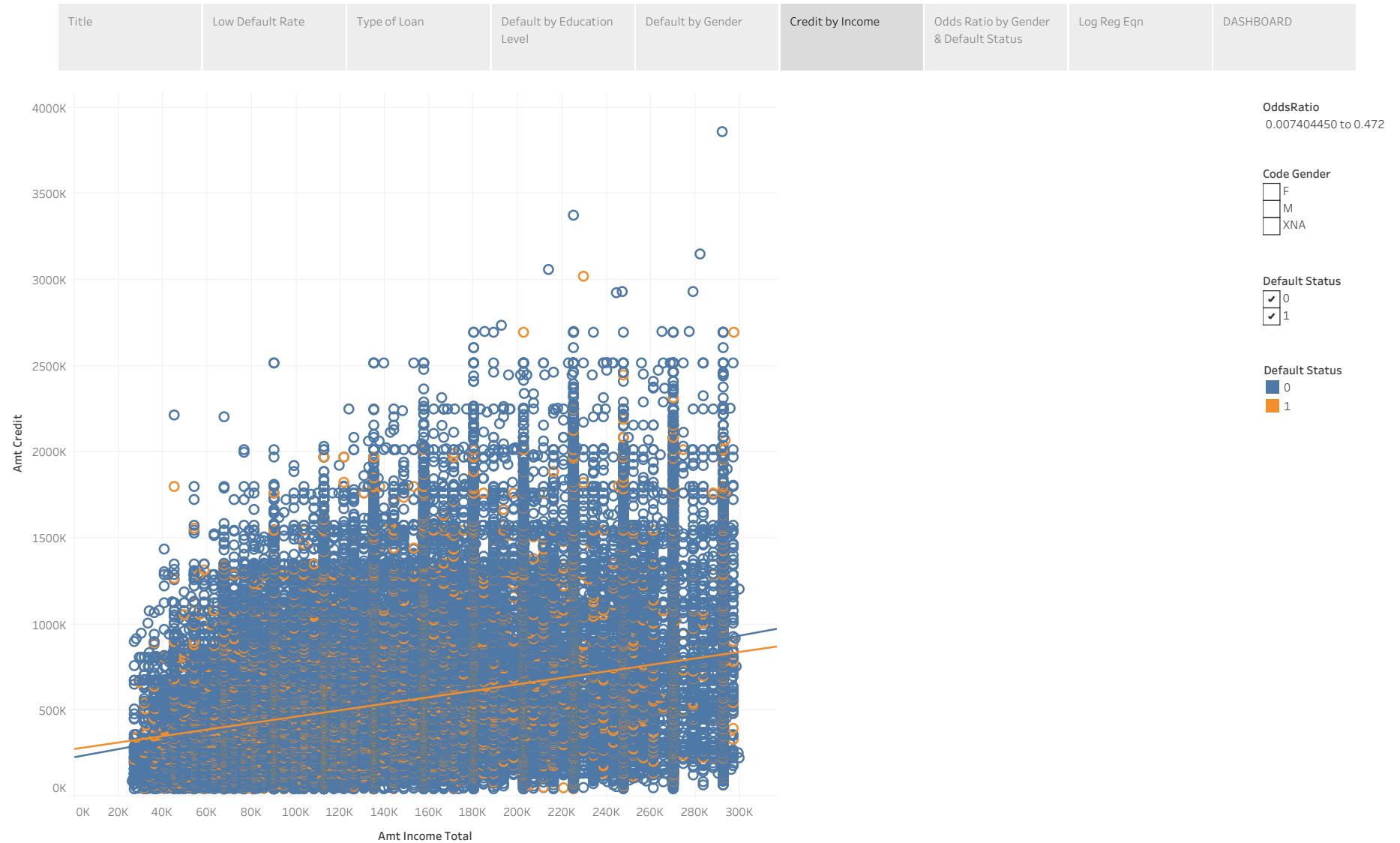


## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD
-------	------------------	--------------	----------------------------	-------------------	------------------	---------------------------------------	-------------	-----------

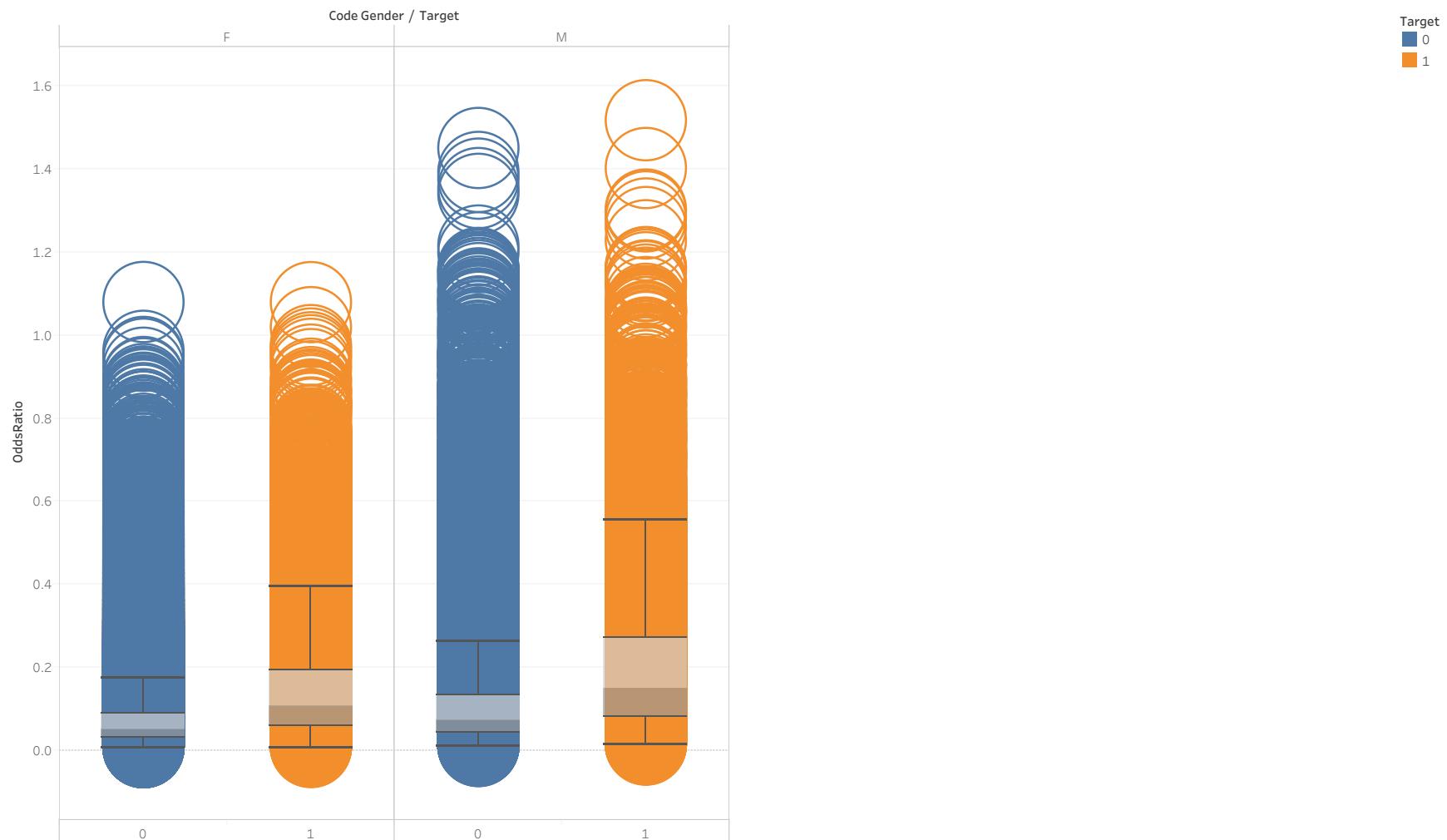


## Midterm Story



## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD
-------	------------------	--------------	----------------------------	-------------------	------------------	---------------------------------------	-------------	-----------



## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD

# Logistic Regression

**Odds Ratio =**

$\exp(-0.1555 + 0.3315 * [\text{Male}] - 0.0096 * [\text{AGE}] - 2.2543 * [\text{Ext Source 2}] - 2.9586 * [\text{Ext Source 3}] + 0.1879 * [\text{Region Rating Client W City}])$

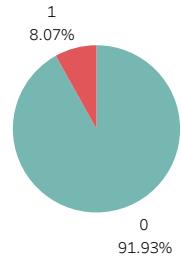
## Midterm Story

Title	Low Default Rate	Type of Loan	Default by Education Level	Default by Gender	Credit by Income	Odds Ratio by Gender & Default Status	Log Reg Eqn	DASHBOARD
-------	------------------	--------------	----------------------------	-------------------	------------------	---------------------------------------	-------------	-----------

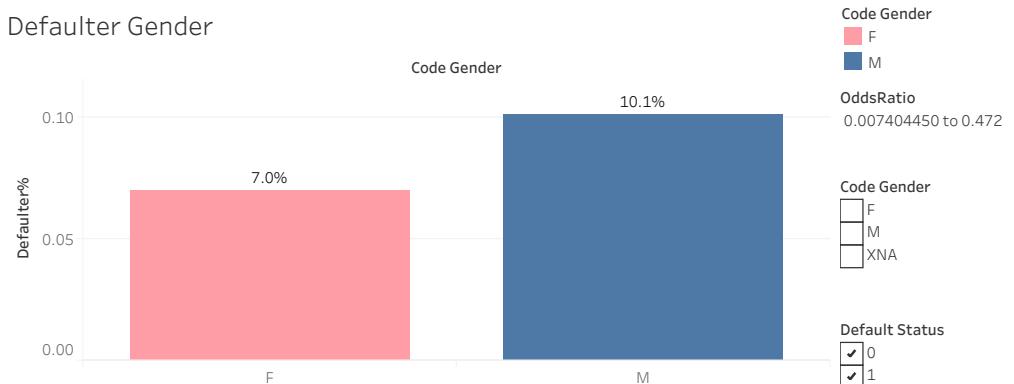


## Loan Defaulter Characteristics

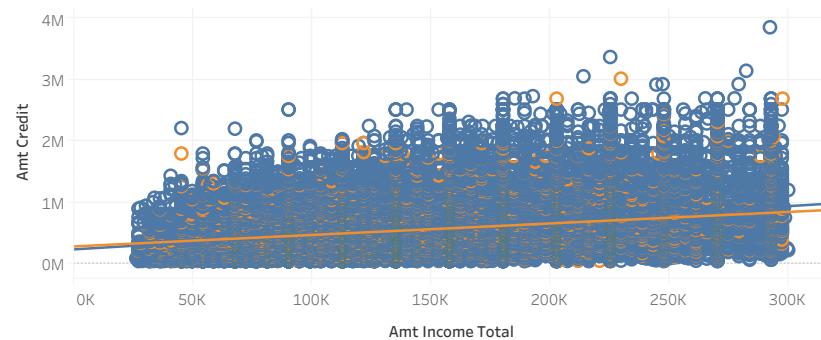
Defaulters vs Repayers



Defaulter Gender



Credit by Income



Contract type % (Defaulters vs Repayers)

