

# Why Are Small Business Owners Discouraged From Borrowing?

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## Abstract

We investigate how gender and minority status affect the likelihood that small business owners are discouraged from seeking credit. Our analysis utilizes a nationwide survey of small businesses conducted by the Federal Reserve. The results indicate that female and minority owners are about 6.5% and 9.1% more likely to be discouraged from seeking credit at a bank than for their male and white/non-Hispanic counterparts. Our findings complement previous studies on discrimination in lending and illustrate a negative drag on the U.S. economy.

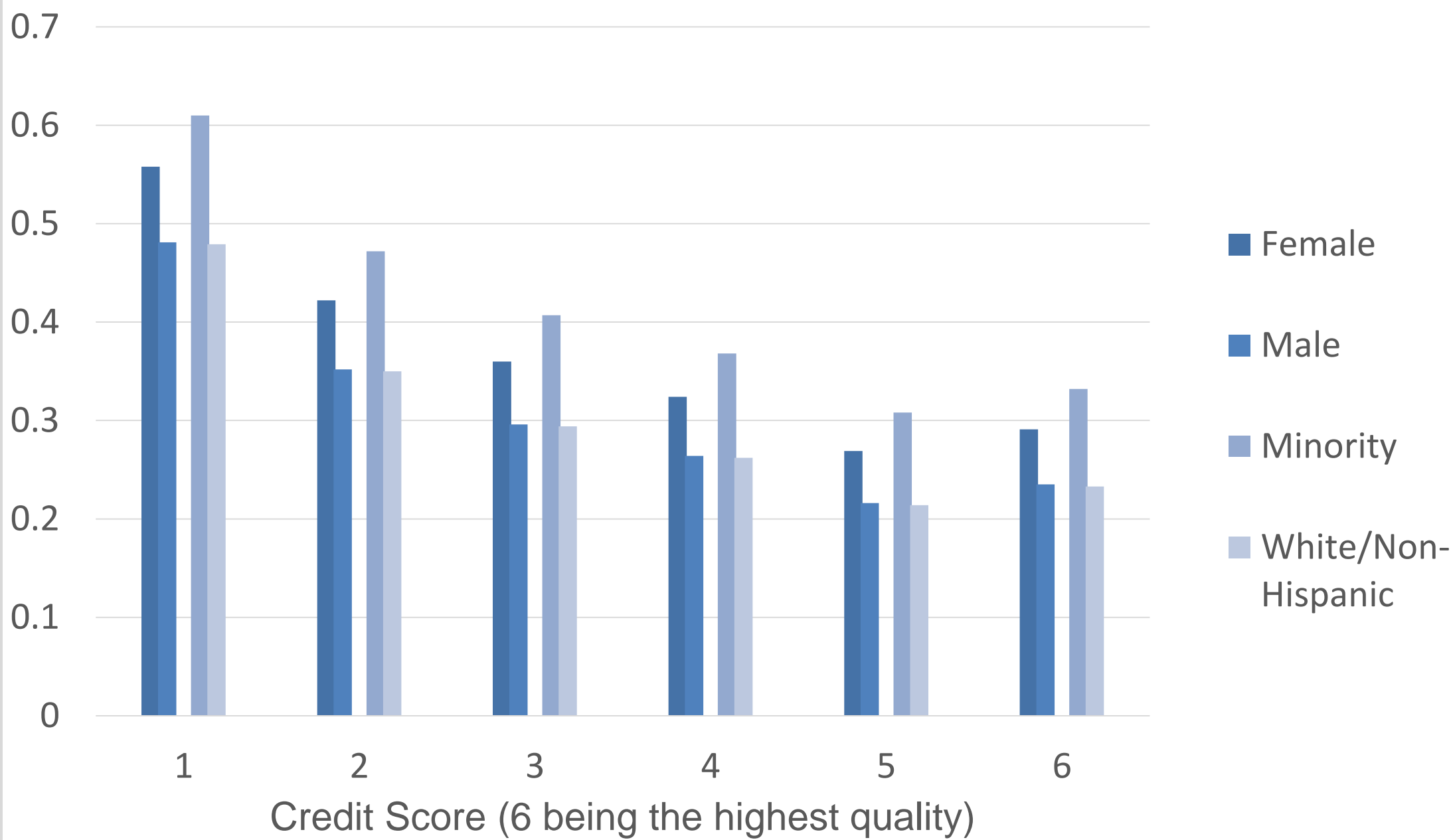
## Introduction

Small business are a fundamental component of the U.S. economy. Previous studies have found nontrivial differences in loan denials between small firms owned by white men and other demographic groups (Gabriel and Rosenthal, 1991, Munnell et al., 1996, Cavalluzzo and Cavalluzzo 1998, Blanchflower, Levine, and Zimmerman 2003). Our study tests whether similar demographic differences exist for small business owners that are *discouraged* from borrowing. A discouraged borrower is defined as a firm that does not apply for a loan due to a fear of rejection.

### Summary Statistics

	Gender		Race / Ethnicity	
	100% Female Owned	Male Owned	100% Minority Owned	White Owned
Discouraged Borrower (% answering “yes”)	22.2	13.7	29.4	13.6
Credit Score Index (mean, 6-pt scale)	3.55	3.87	3.37	3.87
Lender Relationship Length (months)	121.8	131.7	133.0	104.6
Pre-Existing Loan (% answering “yes”)	49.5	68.6	61.6	65.3
Financial Institutions Used (Number)	2.02	2.70	2.42	2.58
Owner Age (average)	51.1	52.5	49.2	52.6
Owner Education (% bachelor degree or higher)	45.5	48.2	44.8	48.0
Unpaid Balance on Credit Card (% answering “yes”)	26.0	18.2	27.2	18.8
Past Bankruptcy (% answering “yes”)	2.9	2.1	4.2	2.0
Observations (number)	626	2613	357	2882
Percent of Full Sample	19.3	80.7	11.0	89.0

### Probability of Discouragement by Credit Score



## Methodology & Model

The data in our study comes from the 2003 Survey of Small Business Finances administered by the Board of Governors of the Federal Reserve. Our sample consists of 4240 small businesses from over 6.3 million for-profit, non-financial, non-farm, non-subsidary small businesses in the U.S. The analysis is done using a logistic regression where the probability of discouragement is a function of a owner demographics, lending relationship factors, and financial characteristics.

## Selected Results

The summary statistics indicate small businesses owned solely by females and minorities comprise about 19% and 11% of our sample. However, these demographic groups constitute a larger share of the discouraged borrower cohort, amounting to about 22% and 29%, respectively. Interestingly, there does not appear to substantial differences for many of the other variables based on gender and race/ethnicity.

For brevity, we limit our discussion of our formal analysis to the marginal effects reported in regression (3). The marginal effects indicate that for a firm with average characteristics, female and minority owners are about 6.5% and 9.1% more likely to be discouraged from seeking credit at a bank than for their male and white/non-Hispanic counterparts. These differences exist even after controlling for relevant variables identified in the literature as impacting credit decisions.

Across the various credit scores females indicate higher levels of discouragement than males. This difference ranges from 7.7% to 5.3% and is greatest at the weakest scores. Similarly, minority business owners indicated higher levels of discouragement at all levels of credit scores with arrange of 9.5%-13% higher levels of discouragement than white/non-Hispanic owned businesses.

### Logistic Regression: Marginal Effects

#### --Probability of Being a Discouraged Borrower--

Explanatory Variables		(1)	(2)	(3)
Credit	Credit Score Index (6-pt scale)	-39.3*** (4.76)	-34.5*** (4.93)	-24.6*** (4.85)
	Lender Relationship Length (logged months)	-4.26*** (1.02)	-3.23*** (1.06)	-2.96*** (0.997)
Relationship Variables	Pre-Existing Loan (yes/no)	-33.7*** (3.06)	-30.1*** (3.10)	-26.6*** (2.94)
	Accounts w/ Different Banks (number)	0.454 (0.605)	0.852 (0.598)	1.73*** (0.557)
	Owner(s) Age (number)		-0.304*** (0.104)	-0.209** (0.0994)
Owner Demographics	100% Female Owned (yes/no)		8.91*** (2.63)	6.48*** (2.46)
	100% Minority Owned (yes/no)		9.64*** (03.07)	9.11*** (2.85)
	Owner Education ≥ Bachelor (yes/no)		-6.57*** (2.19)	-4.66** (2.03)
Risk / Financial	Unpaid Balance on Credit Card (yes/no)			19.5*** (1.88)
	Past Bankruptcy (yes/no)			28.6*** (6.85)
Observations		1,529	1,511	1,492
The dependent variable is a binary variable equal to 1 if the firm indicated they had been discouraged from borrowing over the past three years, and 0 otherwise. *** p<0.01, ** p<0.05, * p<0.1.				

## Conclusion

Our results indicate female and minority-owners of small businesses are more likely to not seek credit from a lending institution when they need this credit. These differences are slightly more severe for firms with poor credit scores, but large differences remain even for firms with the best credit scores. While our study does not suggest why female and minority owners tend to be relatively more discouraged from borrowing, these differences are consistent with the related literature that investigate discrimination in the credit markets.

## Selected References

Blanchflower, D., P. Levine, and D. Zimmerman. 2003. Discrimination in the small business credit market. *Review of Economics and Statistics*, 85:930–43.

Cavalluzzo, K., and L. Cavalluzzo. 1998. Market structure and discrimination: The case of small businesses. *Journal of Money, Credit, and Banking*, 30 (November):771–92.

Gabriel, S. A., and Rosenthal, S. 1991. Credit rationing, race, and the mortgage market. *Journal of Urban Economics*, 29 (May): 371–79.