Are women of color riskier bets?

by Paula Ochiel, ICA

Women entrepreneurs, particularly women of color, face many challenges trying to raise capital for their businesses. One of the barriers to raising capital that women experience is being perceived as riskier investees. Women tend to start smaller businesses in industry sectors characterized by smaller firms with lower sales and require less start-up and operating capitali. Men tend to start businesses in higher-growth oriented industries, like construction and manufacturing. Firms with higher start-up capital levels are less likely to close and more likely to have higher profits and sales and hire employees[ii].

We (ICA and CNote) conducted a study to find out whether women are riskier borrowers. We focused on loan repayment and evaluated risk based on three factors: the probability of default, the likelihood of delinquency, and expected losses. We assumed that borrowers can repay their loans if their businesses do well financially. Borrowers fail to meet the terms of their loans if their company does not perform well or close. Using historical lending data from six Community Development Financial Institutions (CDFI) in the US, we compared loan repayment between women of color and other groups of borrowers over the last decade. We used a statistical model to predict the likelihood of different groups of borrowers defaulting on their loans based on observed defaulting rates and delinquency rates.

The main takeaways were:

- **Women of color were not riskier borrowers than other groups** of people. There was **no statistically significant difference** in the probability of defaulting and delinquency on loans between women of color and other groups of borrowers. Our hypothesis, that women of color were not riskier, was confirmed.
- **Women had lower credit-risk than men overall.** The probability of defaulting and delinquency was significantly lower for women than for men. The probability of defaulting on loans was 2 to 4.5 percentage points lower for women than men.
- **Women (and women of color) received lower loan amounts but were charged slightly higher interest rates on average than men.** Among borrowers in our dataset, men received $110,000 on average while women received $86,000 — a roughly $24,000 lending gap. Men were charged lower annual interest rates on average (8%) compared to women (9%).

Among firms that were granted loans, women-owned businesses were a safer credit risk than men-owned enterprises. Women were less likely to default on their loans than men. Loans to women were also likely to result in lower losses to lenders partly because of the lower probability of defaulting but also because women received smaller loans. These findings are consistent with prior research that have shown that women repay their loans better than men. In terms of race, women of color had defaulting and delinquency rates that were comparable to those of their counterparts and lower risk than men of color.

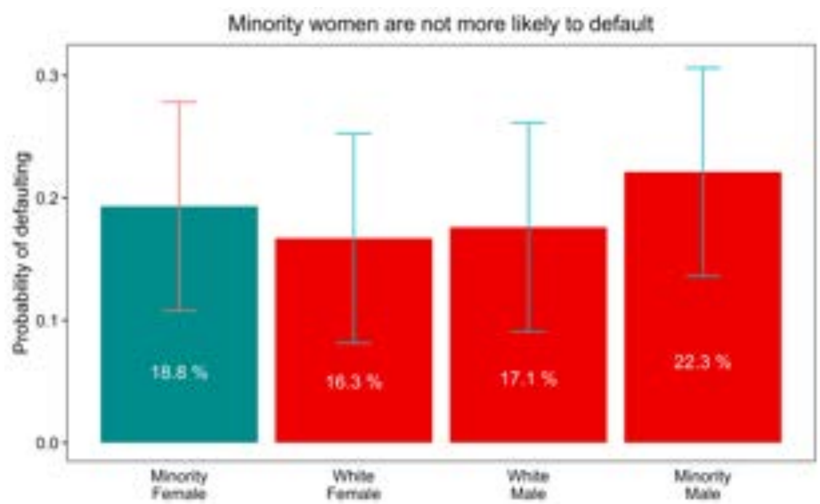
Data and Methodology

Our data is from six CDFI that are part of the Wisdom Fund initiative. The initiative provides a platform for CDFI to collaborate, share ideas, and increase access to capital for women of color. Each CDFI collects detailed data from their clients including individual borrower demographics, characteristics of businesses that they lend to, terms of loans, and loan performance metrics such as defaults, missed payments and losses. We obtained comprehensive credit history data for all borrowers that were granted loans from 2010 to 2019.

We used observed cases of defaulting and delinquency in the data to predict the probability of defaulting and delinquency using linear probability regressions. We controlled for differences that may affect loan repayment such as differences in loan terms, types of loans, lender/firm characteristics, and year-level fixed effects. We also controlled for differences in credit-risk factors such as credit scores and loan-to-income ratio.

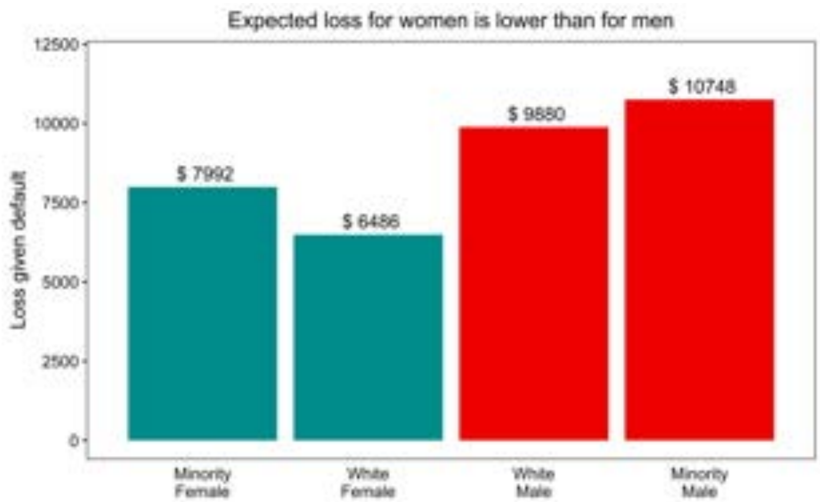
Charts

Key Finding #1: **Women of color were not riskier borrowers than other groups** of people. There was **no statistically significant difference** in the probability of defaulting and delinquency on loans between women of color and other groups of borrowers.

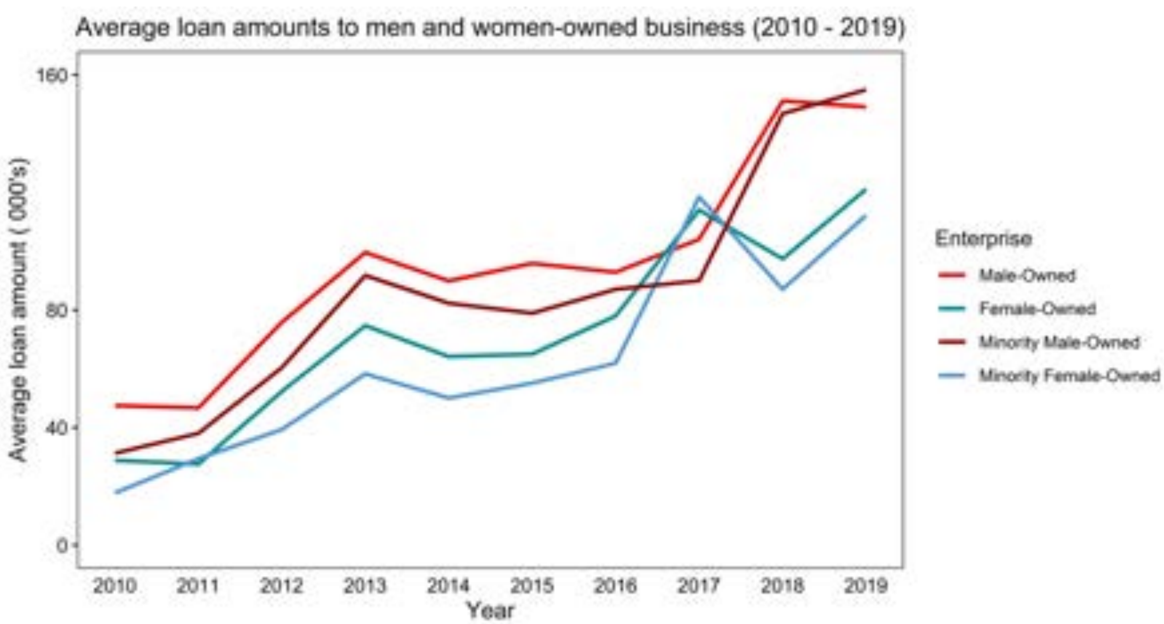


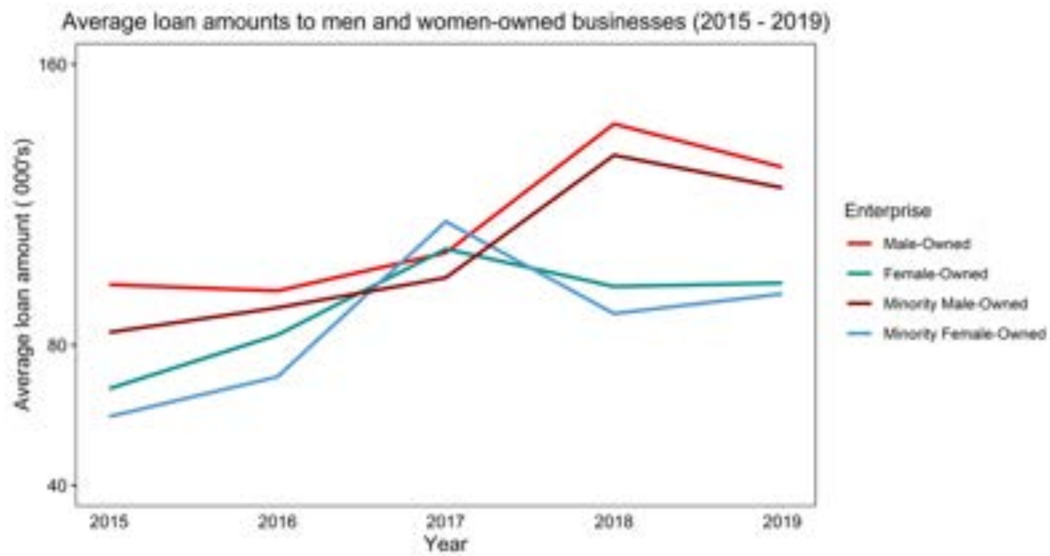
This graph compares the probability of defaulting among women of color to other groups of borrowers. It shows that the default rate among minority females is not statistically different from that of white females or white males, and is lower than minority males. The p-values (relative to white males) are 0.3895, 0.2723, and 0.04184 respectively.

Key finding #2: **Women had lower credit-risk than men.** The probability of defaulting and delinquency was lower for women than for men. Women also had lower expected losses than men as illustrated in the graph below. This observation was attributed to two factors: first, women had a lower probability of defaulting, and second, women received smaller loans than men on average.

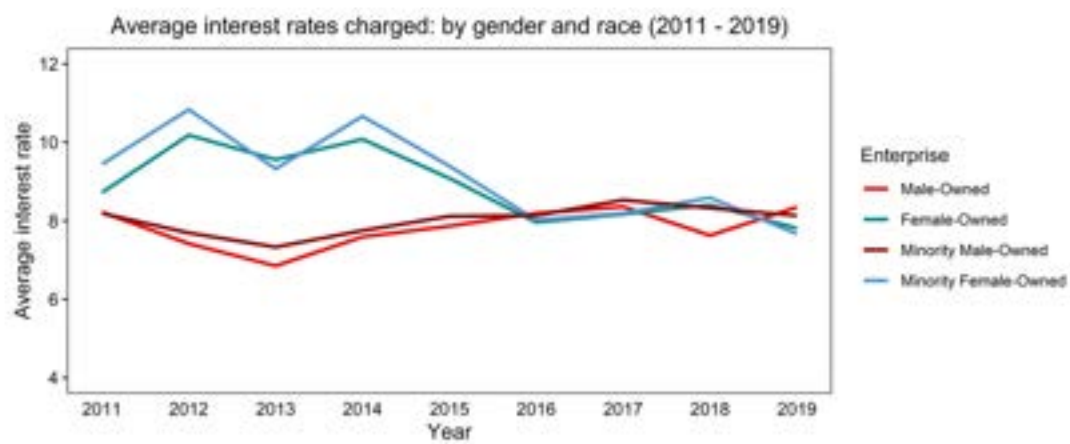


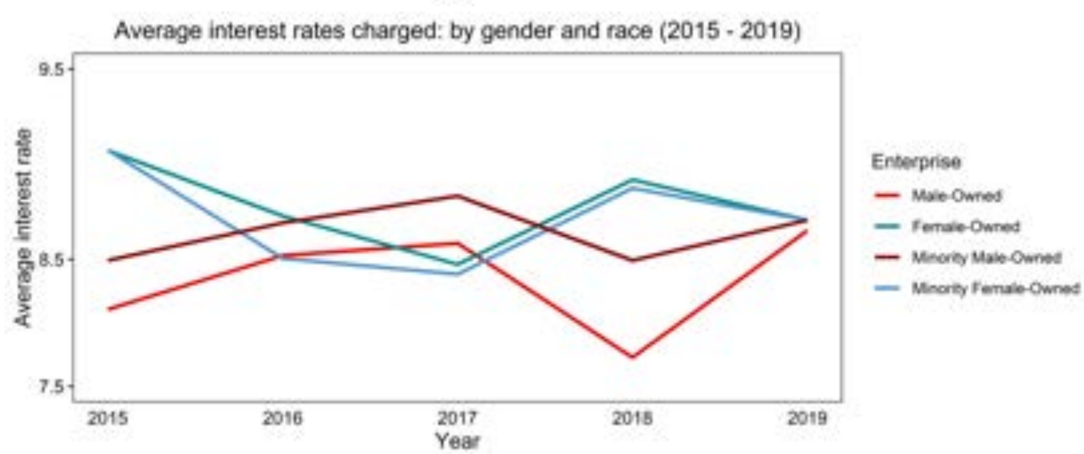
Key finding #3: / A point of concern: **women (and women of color) received lower loan amounts and were charged slightly higher interest rates.** Men received $110,000 on average while women received $86,000.





Men were also charged lower annual interest rates on average (8%) compared to women (9%). However, this discrepancy decreased gradually from 2016 to 2019 as illustrated by the line graphs below. When we controlled for firm-level differences, we found that the gap in interest rates disappeared, suggesting that interest rate differences are largely driven by operational differences among CDFI.





The study's objective was to provide descriptive and empirical evidence on how women compare to men in terms of credit risk. Our key finding is that women (and women of color) are not riskier borrowers than men, confirming that women-owned businesses are just as good a bet, if not better, than men.

However, our study also raised several unanswered questions. We did not have sufficient data to evaluate why women received smaller loans than men, even though they were more likely to repay them. Even when we controlled for factors like industry, loan types, and loan purposes, there was still a gap in loan amounts between men and women. Several reasons might explain this persistent gap. These include but are not limited to the likelihood of higher aversion to debt and risk among women, potential bias against women in loan risk assessment and underwriting criteria, or lack of information. More research is needed to explore why women consistently receive smaller loans.

CDFI typically offer more favorable loans to borrowers and often primarily serve people left out by mainstream financial institutions like low-income communities and women. CDFI, therefore, play a critical role in bridging the gap in access to capital and financial infrastructure among women, low-income and minority communities. It is surprising that even among CDFI, women receive smaller loans than men and are charged slightly higher interest rates. There is also a need to explore further, on the one hand, existing structural biases and behavioral differences based on gender that may prevent women from maximizing credit opportunities, and on the other hand, structural barriers that may constrain CDFI. For example, systemic barriers such as the type of capital they source constraints CDFI and prevent them from offering loans at the most reasonable terms to their clients.

Based on these results, we should re-evaluate systems and processes that prevent women and minority entrepreneurs from accessing the capital they need to succeed. Additional research could also provide insight into how to increase capital access to women and minorities, systemic barriers that prevent CDFI from effectively meeting the needs of underserved communities, and what we can do to improve these systems.

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[i] Office on the Economic Status of Women, (2016), accessed at https://www.oesw.leg.mn/PDFdocs/Why%20do%20women%20start%20disproportionately%20fewer%20businesses%20than%20menv2.pdf

[ii] Ibid.