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Credit Availability for Minority Business Owners in an Evolving Credit Environment: Before and During the COVID-19 Pandemic

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**Credit Availability for
Minority Business Owners
in an Evolving Credit Environment:
Before and During the COVID-19 Pandemic**

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Brett Barkley

Federal Reserve Bank of Cleveland

May 6, 2022 – Inclusive Economic Development
& Recovery Conference



- The views they express here are theirs and not necessarily those of the Federal Reserve Bank of Cleveland, the Board of Governors of the Federal Reserve System, or Federal Reserve Board staff.

Important questions in an evolving credit environment

- Do racial disparities in access to small business financing persist?
 - Cavalluzzo and Cavalluzzo (1998)- 1988-89 National Survey of Small Business Finances
 - Blanchflower, Levine, and Zimmerman (2003) 1998 & 2003 Surveys of Small Business Finances (SSBF)
 - Bostic and Lampani (1999) consider neighborhood effects too with SSBF
 - Bates and Robb (2015) use the Kaufman Firm Survey business start in 2014 and are operating from 2008-11
 - Fed Small Business Credit Survey reports and Robb, de Zeeuw, and Barkley (2018)
- The growth of fintech lenders has widened access to credit.
 - Jagtiani and Lemieux (2017) and Barkley and Schweitzer (2021) show fintech widening credit access for US small businesses
- Did the PPP lending program provide equitable access to its loans?
 - Fairlie and Fossen (2021&2022) reach improved in the second round of PPP
 - Howell, Kuchler, Snitkof, Stroebel and Wang (2021) show fintechs reach more minority-owned firms

Federal Reserve Small Business Credit Survey

- Following the financial crisis, small business reported unprecedented and persistent credit restrictions
- Federal Reserve outreach and early versions of the SBCS confirmed and clarified small business credit problems and evolving credit access options
- The Board of Governors halted the Annual Survey of Small Business Finances in 2003
- Federal Reserve partners with over 100 organizations to survey their members

The Structure of the Small Business Credit Survey

- We use the 2016 to 2020 surveys which have good national coverage and very similar questions
- Credit application responses were collected for the following number employer firms:
 - 2020: 9,407 employer firms
 - 2019: 5,154
 - 2018: 6,614
 - 2017: 8,169
 - 2016: 10,303.
- Survey responses are weighted to match to Census information on firm age, employee size, and industry.

Borrowing outcomes vary by the race of owner

	Race/ethnicity of ownership					Total
	White	Black	Asian	Native American	Hispanic	
	%	%	%	%	%	%
<i>Pre-pandemic (2016-2019)</i>						
Share that applied for financing, past 12 months						
No (n=16,865)	57.3	49.9	62.9	50.4	50.9	57.4
Yes (n=14,238)	42.7	50.1	37.1	49.6	49.1	42.6
Total (n=31,103)	100.0	100.0	100.0	100.0	100.0	100.0
Discouraged						
No (n=13,974)	87.2	65.5	81.0	82.1	75.4	85.5
Yes (n=2,187)	12.8	34.5	19.0	17.9	24.6	14.5
Total (n=16,161)	100.0	100.0	100.0	100.0	100.0	100.0
Financing received						
Denied (n=1,882)	17.0	34.8	20.4	29.4	27.6	18.4
Approved (n=8,934)	83.0	65.2	79.6	70.6	72.4	81.6
Total (n=10,816)	100.0	100.0	100.0	100.0	100.0	100.0
<i>Pandemic (2020)</i>						
Share that applied for financing, past 12 months						
No (n=6,236)	62.7	54.5	64.5	60.1	61.3	62.7
Yes (n=4,059)	37.3	45.5	35.5	39.9	38.7	37.3
Total (n=10,295)	100.0	100.0	100.0	100.0	100.0	100.0
Discouraged						
No (n=5,259)	89.5	65.7	81.1	85.5	80.6	87.8
Yes (n=886)	10.5	34.3	18.9	14.5	19.4	12.2
Total (n=6,145)	100.0	100.0	100.0	100.0	100.0	100.0
Financing received						
Denied (n=694)	20.9	43.7	18.4	15.0	38.5	22.2
Approved (n=2,014)	79.1	56.3	81.6	85.0	61.5	77.8
Total (n=2,708)	100.0	100.0	100.0	100.0	100.0	100.0

But other firm characteristics vary by race, too

	White	Black	Asian	Native American	Hispanic
<i>Age</i>					
0-2 years	18.9	29.5	25.4	23.6	28.2
3-5 years	12.8	16.1	15.9	16.0	15.8
6-10 years	19.2	23.4	23.7	19.8	24.1
11-15 years	13.8	13.2	13.8	15.4	13.3
16-20 years	9.6	9.6	9.2	12.9	7.5
21+ years	25.8	8.3	12.0	12.3	11.1
<i>Profitability</i>					
At a loss	23.5	37.4	27.4	31.6	27.7
Broke even	18.9	20.7	18.4	23.1	20.1
At a profit	57.6	41.9	54.2	45.3	52.2
<i>Credit score risk</i>					
Low risk	49.7	32.4	51.7	41.6	39.9
Medium risk	14.5	29.9	17.2	23.4	25.8
High risk	3.1	15.7	4.1	9.7	8.8
Did not respond	32.7	22.0	27.1	25.3	25.5

Note: data in this table is 2016-2019

Model for small business credit outcomes

- Binomial logit model(s) for:
 - **credit denial** for businesses that pursued a loan within past 12 months (at time of survey)
 - **“discouragement”** for businesses that did not apply for a loan within past 12 months (at time of survey) because they expected to be denied
- A function of
 - employment size, age of firm, industry, revenue, profitability, credit risk status
 - owner demographic variables
 - controls for changes in state unemployment rates to account for local economic conditions.
 - **Geographic models** add additional zip-code level LMI and racially concentrated indicators

Pre-pandemic Geographic Models of Credit

	Denials		
	CRA Geo	+ Zip >30%	+ Race
Metro. Low Inc	0.278 (0.237)	0.107 (0.260)	0.173 (0.239)
Metro. Mod Inc.	-0.004 (0.123)	-0.103 (0.136)	-0.061 (0.124)
Metro. Middle Inc.	0.155 (0.100)	0.132 (0.101)	0.164 (0.100)
Micro. Low-Mod	-0.173 (0.575)	-0.214 (0.564)	-0.166 (0.579)
Micro. Mid-High	-0.232 (0.167)	-0.232 (0.168)	-0.192 (0.167)
Rural Low-Mod	-0.109 (0.567)	-0.152 (0.540)	-0.076 (0.570)
Rural Mid-High	-0.584*** (0.209)	-0.601*** (0.211)	-0.539** (0.210)
Change in Unem Rate	-0.070 (0.114)	-0.052 (0.114)	-0.068 (0.114)
Hispanic Pop >30%		0.155 (0.124)	
Black Pop >30%		0.232 (0.145)	
Asian Pop >30%		-0.102 (0.254)	
Native Pop >30%		-0.142 (0.915)	
Black			0.903*** (0.111)
Asian			0.119 (0.173)
Native Amer.			0.749** (0.302)
Hispanic			0.548*** (0.143)
Observations	10507	10406	10507
Pseudo R ²	0.012	0.013	0.018

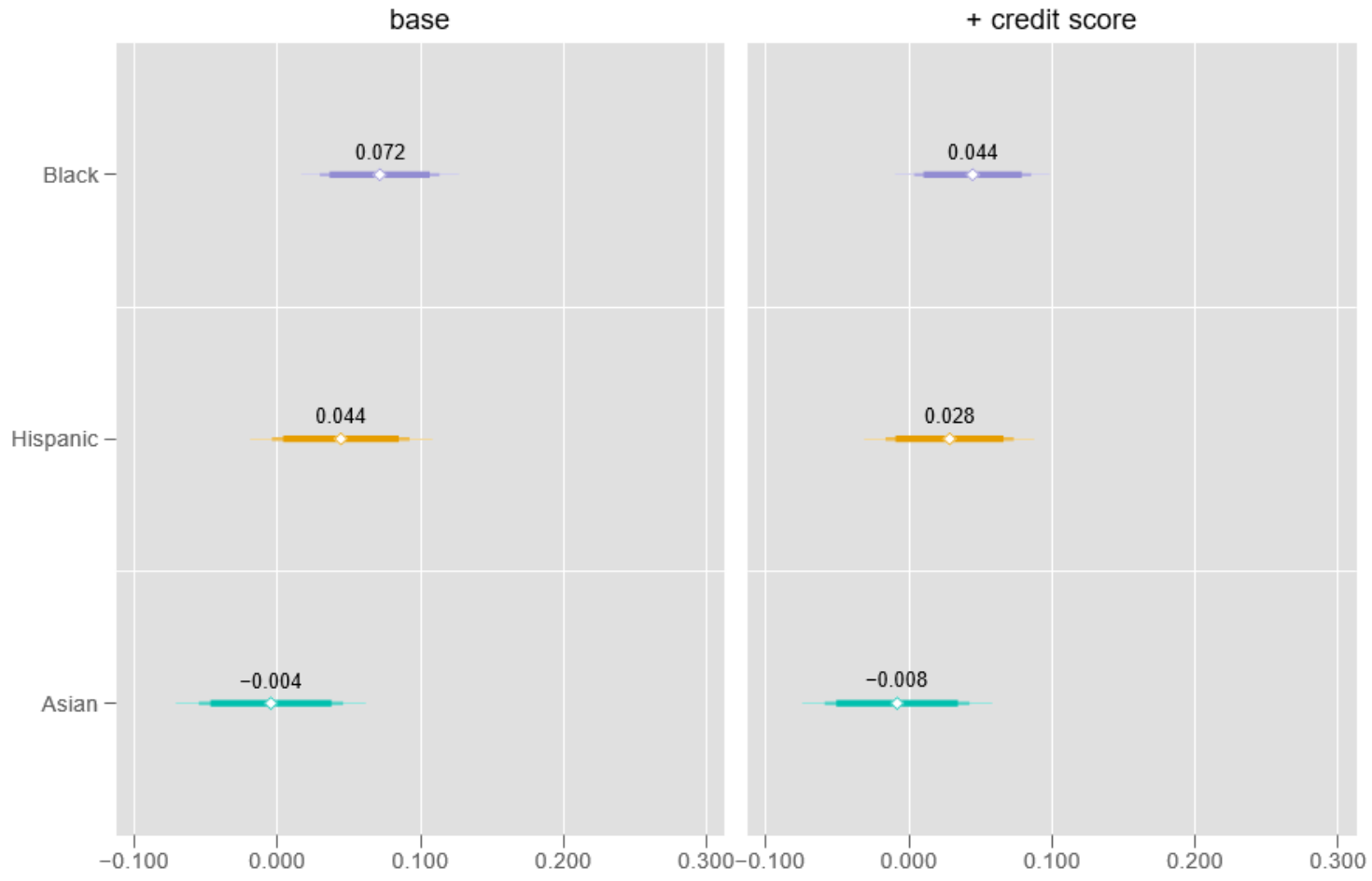
- Approximate-CRA and racially concentrated geographies are not predictive of denial
- But race of owner matters

Note:
Standard errors in parentheses

Results reported are for 2016-2019. Select variables shown. All models also include Census division, YoY change in state unemployment rate, and year indicator variables.

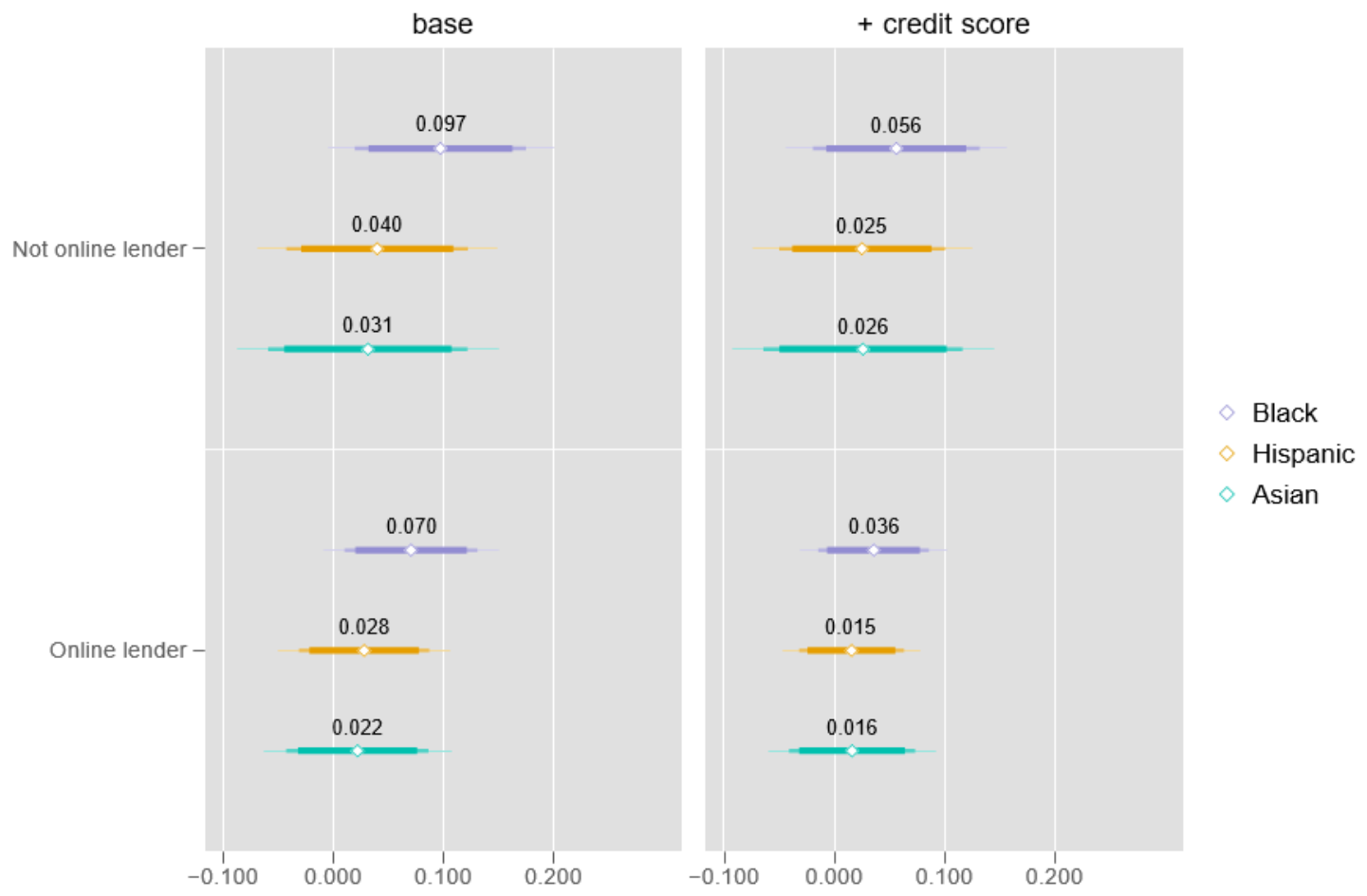
* p < 0.10, ** p < 0.05, *** p < 0.01

Predicted probabilities of being denied credit



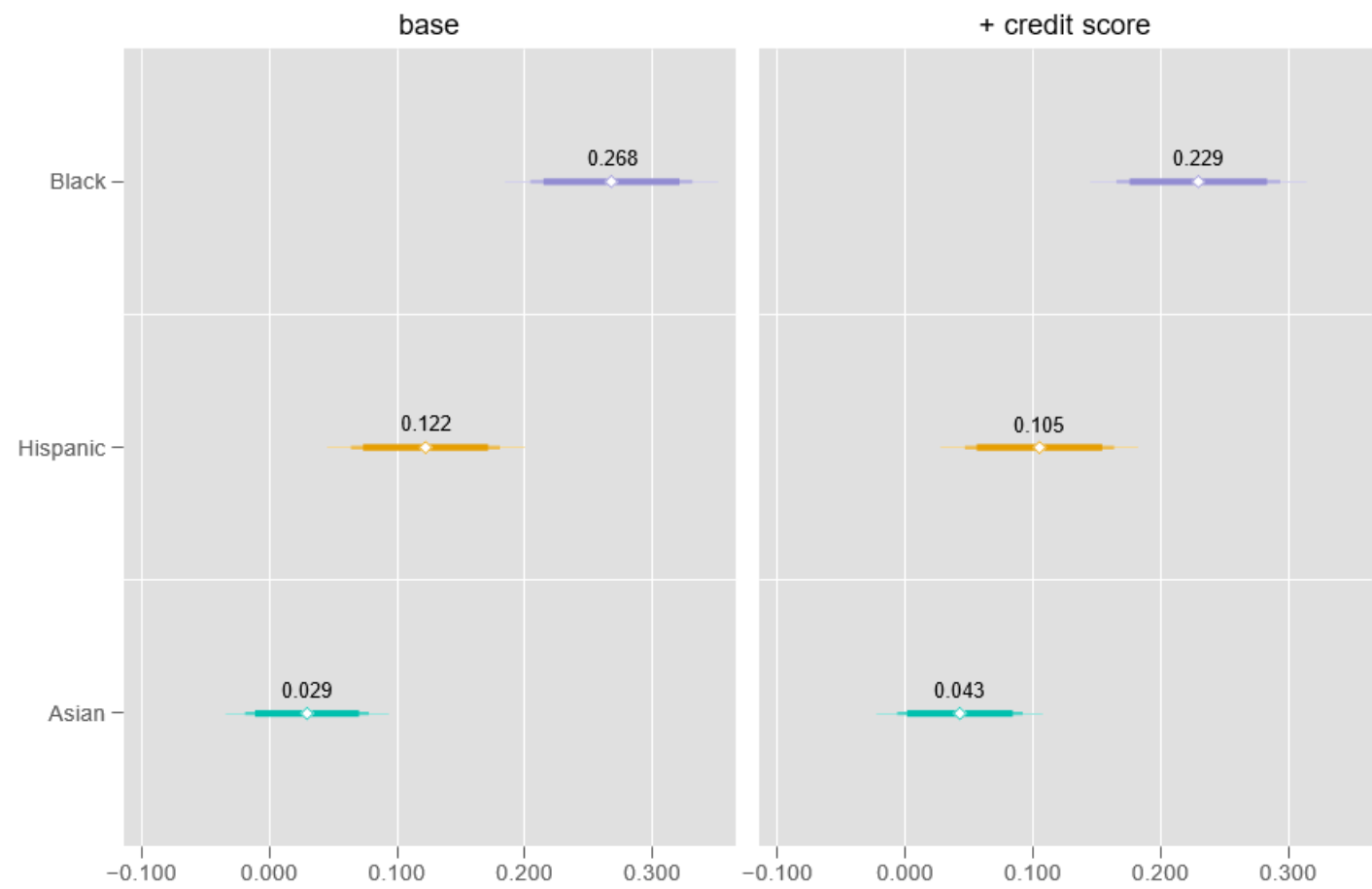
Note: Predicted probabilities are relative to white-owned firms, 2016-2019. Probabilities are reported as average marginal effects.

Credit denial, race, and fintech



Note: Predicted probabilities of being denied for financing, 2016-2019, at an online relative to white-owned firms. Probabilities are reported as average marginal effects.

PPP lending left many minority borrowers out



Note: Predicted probabilities of being less than fully approved for PPP financing relative to white-owned firms, 2020. Probabilities are reported as average marginal effects.

Conclusions and policy direction

- Pre-pandemic, substantial credit disparities by race have continued, particularly for Black-owned businesses
- CRA may be effective at evening lending across LMI geographies, but it does not overcome differences in credit access by race
- Fintechs do not appear to have reduced credit disparities
- Challenges continued in 2020 data, with minority-owned businesses were less likely to receive the full amount of PPP amount applied for