

Connecting Communities

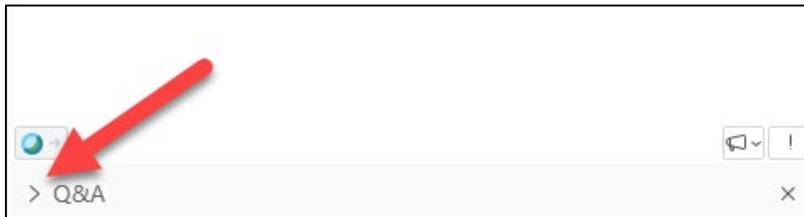


CDFI Symposium Webinar Series: Native American Communities

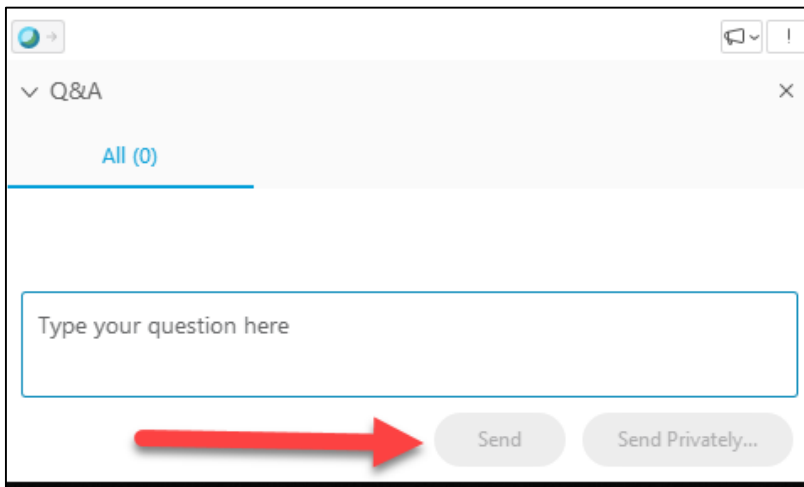
June 10th, 2020

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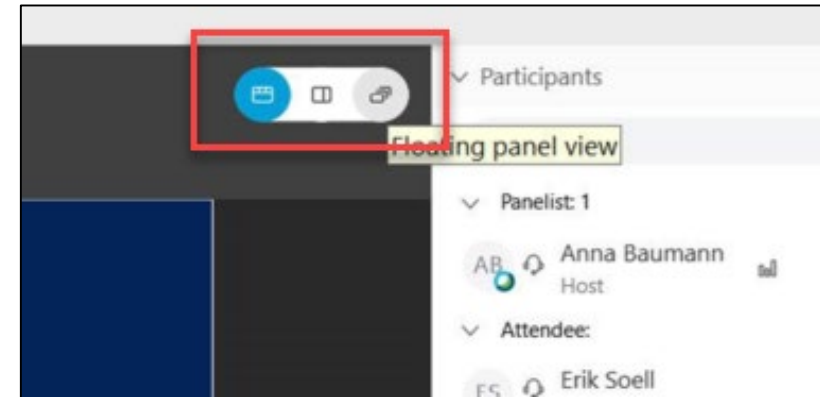


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This event is hosted by the following organizations.



Community Development

The mission of the Federal Reserve's community development function is to promote the economic resilience and mobility of low- to moderate-income and underserved individuals and communities.



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The information, analyses, and conclusion set forth are those of the presenters and do not necessarily indicate concurrence by the Board of Governors of the Federal Reserve System, The Federal Reserve Banks, or members of their staffs.

Welcome



Ian Galloway
FRB San Francisco



Peter Grajzl
Washington and
Lee University



Miriam Jorgensen
University of Arizona

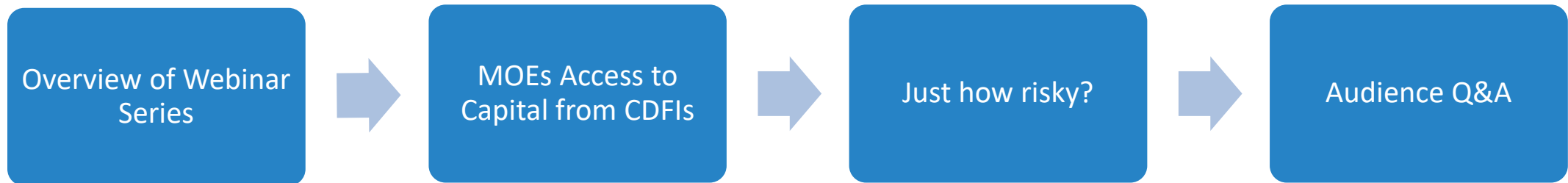


Chrystel Cornelius
Oweesta



Mike Eggleston
FRB St. Louis

Agenda for this webinar



Community Development Financial Institutions and Individuals' Credit Risk in Indian Country



Peter Grajzl
Washington and Lee University
Federal Reserve Bank of Minneapolis

Community Development Financial Institutions and Individuals' Credit Risk in Indian Country

Valentina Dimitrova-Grajzl

Virginia Military Institute, Federal Reserve Bank of Minneapolis

Peter Grajzl

Washington and Lee University, Federal Reserve Bank of Minneapolis

Joseph Guse

Washington and Lee University, Federal Reserve Bank of Minneapolis

Michou Kokodoko

Federal Reserve Bank of Minneapolis

Motivation

Lack of access to finance in Native communities

Practically salient but often de-emphasized reasons:

- Mistrust between tribes and banks

- Mismatch between Native and banking culture

- Possibly redlining

CDFIs:

- Can fill credit gaps, remedy cultural fit problem

- Yet no systematic evidence on actual impact

This paper

Empirically assess effect of CDFI presence on credit risk scores of individuals residing in Indian Country

Credit risk score as salient credit outcome

Combine Equifax-NYFRB Consumer Credit Panel (CCP) with data on CDFI activity, other data

Distinguish between Native and Non-Native CDFIs

CDFIs in Indian Country

CDFI social rather than profit-only mission

Native CDFI: $\geq 50\%$ of activities directed toward serving Native communities and businesses

certified Native CDFIs: 16 in 2001, 71 in 2017

Objectives:

Improve financial outcomes

Promote economic health and social cohesion

Facilitate capacity- and institution-building

Anecdotal evidence of success stories

CDFIs and individuals' credit performance

Two channels of influence

Direct: on CDFI clients

Loans, financial education, credit counseling

Improve clients' credit history

Indirect: via fostering economic activity in community

Job creation, business development

Boost credit performance of non-clients

Data

Geographic sample:

Census 2010 block groups on or within 5 km of federally recognized reservations
(excl. AK, HI, OK)

Data sources:

Equifax-NYFRB Consumer Credit Panel (CCP)

Years 2013-2017

U.S. Treasury Community Development Financial Institutions Individual Level
Reports (CDFI-ILR)

Federal Deposit Insurance Corporation (FDIC)

National Credit Union Administration (NCUA)

2010 Census

Outcome

Equifax Risk Score

Equifax-NYFRB Consumer Credit Panel (CCP)

Range 285-850, yearly avg. 678-695

Designed to "predict the likelihood of a consumer becoming 90+ days delinquent within 24 months"

Measure of credit performance and credit worthiness

Used in prior research on credit in Indian Country

Focal explanatory variables

(No information on actual CDFI clients)

Block-group level measures of individuals' opportunity to exposure to CDFIs

CDFI service area: 100 km radius

CDFI activity proxies: staff size, loan value

Time-varying

Weighted by CDFI service area population and individuals' distance from CDFIs

Scaled: CDFI staff per 1000 residents, CDFI loan value in \$1000s per capita

Baseline empirical approach

Three subsamples based on magnitude of individuals' Equifax Risk Scores in 2013

Lower, middle, upper third

For each third, estimate:

$$\begin{aligned} ERS_{it} = & \sum_{j=1}^3 \beta_j^N NCDFI_{g(i),t-j} + \sum_{j=1}^3 \beta_j^{NN} NNCFI_{g(i),t-j} \\ & + \sum_{j=1}^3 \gamma_j^B B_{g(i),t-j} + \sum_{j=1}^3 \gamma_j^{CU} CU_{g(i),t-j} + \sum_{a \in A} \delta_a |^a [Age_{it}] + \lambda_t + \mu_j + \varepsilon_{it} \end{aligned}$$

Standard errors clustered at the block group level

Effect of CDFI exposure, CDFI staff, OLS

Outcome variable: Equifax Risk Score			
CDFI exposure based on: CDFI Staff			
	Sample based on 2013 Equifax Risk Score distribution		
	(1) Lower third	(2) Middle third	(3) Upper third
<i>Native CDFI exposure</i>			
1-year lag	24.889*** (9.114)	23.677 (14.941)	6.510 (5.381)
2-year lag	17.591 (15.515)	3.788 (13.549)	-4.899 (5.969)
3-year lag	2.437 (5.766)	9.584 (15.169)	-2.803 (5.312)
<i>Non-Native CDFI exposure</i>			
1-year lag	-6.670 (10.231)	-7.180 (7.824)	-4.436 (3.849)
2-year lag	-3.093 (10.388)	-12.557 (8.342)	-5.368* (3.249)
3-year lag	-11.061 (11.772)	-27.712*** (10.216)	-3.880 (4.185)
Individual FE	Yes	Yes	Yes
Individual Age FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Bank and credit union controls	Yes	Yes	Yes
Observations	379070	411419	439605
R-squared	0.682	0.694	0.693
<i>Cumulative exposure effect</i>			
Native CDFIs [<i>p</i> -value]	44.916 [0.041]	37.049 [0.223]	-1.192 [0.901]
Non-Native CDFIs [<i>p</i> -value]	-20.824 [0.360]	-47.449 [0.009]	-13.684 [0.071]

Notes: Computed using data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel.

Effect of CDFI exposure, CDFI loan volume, OLS

Outcome variable: Equifax Risk Score
 CDFI exposure based on: CDFI Loans

	Sample based on 2013 Equifax Risk Score distribution		
	(1) Lower third	(2) Middle third	(3) Upper third
<i>Native CDFI exposure</i>			
1-year lag	82.041** (36.427)	134.062*** (43.592)	23.937 (21.147)
2-year lag	18.030 (38.411)	-6.018 (44.739)	-1.929 (17.091)
3-year lag	-83.419*** (18.990)	-80.056 (53.119)	8.940 (16.066)
<i>Non-Native CDFI exposure</i>			
1-year lag	22.139 (18.355)	12.843 (12.456)	1.284 (5.125)
2-year lag	-7.145 (18.264)	25.527 (15.187)	9.170 (5.599)
3-year lag	-18.444 (23.013)	-12.823 (15.539)	1.793 (6.797)
Individual FE	Yes	Yes	Yes
Individual Age FE	Yes	Yes	Yes
Year FE	Yes	Yes	Yes
Bank and credit union controls	Yes	Yes	Yes
Observations	379070	411419	439605
R-squared	0.682	0.694	0.693
<i>Cumulative exposure effect</i>			
Native CDFIs [p-value]	16.652 [0.817]	47.988 [0.681]	30.949 [0.307]
Non-Native CDFIs [p-value]	-3.450 [0.925]	25.547 [0.376]	12.248 [0.216]

Notes: Computed using data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel.

Endogeneity concerns

Main: CDFIs plausibly adjust their activity based on observed credit outcomes in their geographic area

OLS underestimates true effect

Parsimonious dynamic panel specification

IV approach, with internal IVs based on past values

Reasonably strong for Native CDFI exposure

Excl. restriction tenable (but an assumption)

Focus on lower third sample only

Effect of CDFI exposure, CDFI staff, IV-2SLS

Outcome variable: Equifax Risk Score		
CDFI exposure based on: CDFI Staff		
Sample: Lower third based on 2013 Equifax Risk Score distribution		
	Bank and credit union presence viewed as:	
	(1) Exogenous	(2) Endogenous
Lagged Equifax Risk Score	0.367*** (0.004)	0.366*** (0.004)
Lagged Native CDFI exposure	77.676*** (13.729)	77.635*** (14.055)
Lagged Non-Native CDFI exposure	77.470* (39.703)	72.440* (39.339)
Bank and credit union controls	Yes	Yes
Individual FE	Yes	Yes
Individual Age FE	Yes	Yes
Year FE	Yes	Yes
Observations	364536	364536

Notes: Computed using data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel.

Effect of CDFI exposure, CDFI loan volume, IV-2SLS

Outcome variable: Equifax Risk Score		
CDFI exposure based on: CDFI Loans		
Sample: Lower third based on 2013 Equifax Risk Score distribution		
	Bank and credit union presence viewed as:	
	(3) Exogenous	(4) Endogenous
Lagged Equifax Risk Score	0.366*** (0.004)	0.366*** (0.004)
Lagged Native CDFI exposure	156.502*** (55.610)	165.660*** (57.255)
Lagged Non-Native CDFI exposure	-360.787 (268.246)	-354.550 (255.070)
Bank and credit union controls	Yes	Yes
Individual FE	Yes	Yes
Individual Age FE	Yes	Yes
Year FE	Yes	Yes
Observations	364536	364536

Notes: Computed using data from the Federal Reserve Bank of New York/Equifax Consumer Credit Panel.

Robustness checks

Varied CDFI service area radius

Examined binary outcome 'thin' file

Used pre-financial crisis years

Summary

First empirical study of role of CDFIs in Indian Country

Equifax Risk Scores of individuals with lowest initial scores

positively assoc. with presence of Native CDFIs

not robustly assoc. with presence of Non-Native CDFIs

Results suggestive of importance of cultural fit

Caveats and future research

Possibly underestimate true effect of Native CDFIs

Do not account for non-certified Native CDFIs, certified Native CDFIs not funded by CDFI Fund

CCP data likely capture few Native CDFI clients

Future research: collect and investigate data on actual CDFI clients and CDFI client-specific activity

Discussants



Miriam Jorgensen
University of Arizona



Chrystel Cornelius
Oweesta

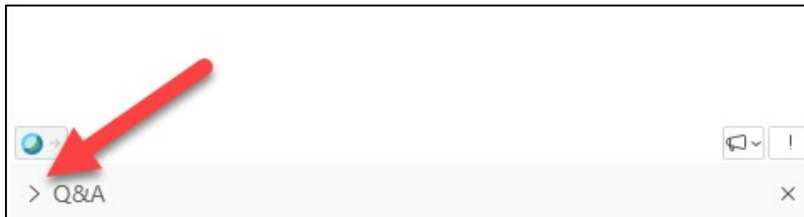
Question & Answer



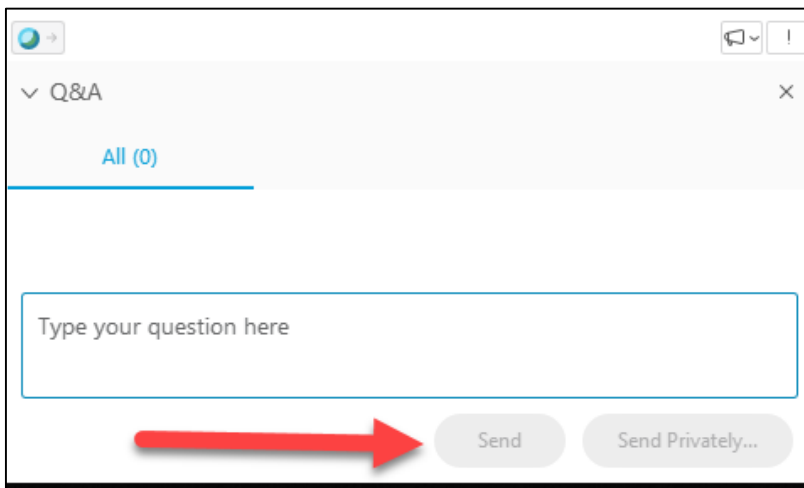
Ian Galloway
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CDFI Symposium Wrap Up



Mike Eggleston
FRB St. Louis

Next Steps

- All session materials are available on our web site and in the next few days we will post an audio file of today's session.
- Information about future sessions will be posted on our website along with archived materials from past sessions: <https://bsr.stlouisfed.org/connectingcommunities>