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FEDERAL RESERVE BANK OF MINNEAPOLIS

DIGITAL EQUITY GAPS IN NATIVE AMERICAN COMMUNITIES?

An Exploration of the Affordable Connectivity
Program Data

H ROSE TROSTLE, SENIOR POLICY ANALYST
MATTHEW GREGG, SENIOR ECONOMIST
CENTER FOR INDIAN COUNTRY DEVELOPMENT

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**THE VIEWS EXPRESSED HERE DO NOT
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OR THE FEDERAL RESERVE SYSTEM.**



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Roadmap

- Tribal Broadband 101 & The Affordable Connectivity Program
- Data & Definitions
- Preliminary Results

TRIBAL BROADBAND 101 - PRE-PANDEMIC

18 percent of people on Tribal lands did not have broadband Internet access¹

30 percent of people on rural Tribal lands did not have broadband Internet access¹

33 percent of people on rural tribal lands did not have home Internet service²

- 21 percentage points higher than households on rural, neighboring non-Tribal lands²



1. FCC Form 477 Data, June 2020

2. ACS 2015-2019 Data; Bauer, Feir, & Gregg (2022)

THE AFFORDABLE CONNECTIVITY PROGRAM

Monthly Subsidy for Residential Internet Service

\$30 Non-Tribal Lands

\$75 Tribal Lands



INTERVIEWS & FOCUS GROUPS WITH TRIBAL DIGITAL NAVIGATORS AND TRIBAL INTERNET SERVICE PROVIDERS

- Tribal IDs
- Enrollment in Tribal Programs
- Boundaries of Tribal Lands
- Ability for ISPs to participate in the program



WHAT DOES TAKE-UP LOOK LIKE ON TRIBAL LANDS?

DATA & DEFINITIONS

DATA SOURCES



USAC Data

- Updated Monthly
- Subscribers (Households) at the Zip Code level
- Does not distinguish between subscribers on tribal lands and those not on tribal lands

Census Bureau Data

- Population (ACS)
- Families' Income Ratio to Poverty Line (ACS)
- Tiger/Line Shapefiles
- PUMS – State Level

ESTIMATING PARTICIPATION IN THE AFFORDABLE CONNECTIVITY PROGRAM

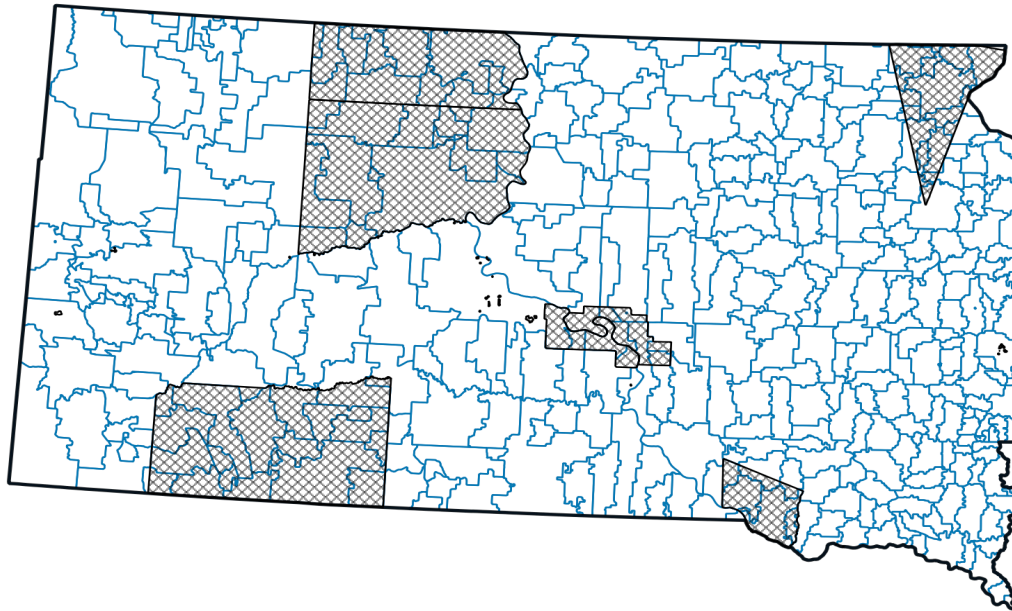
Families at 200% Poverty level

Galperin (2021) State Adjustment Factors

- Qualifying Programs.
 - SNAP
 - Medicaid
 - TANF
 - SSI
 - Lifeline
 - Tribal Head Start
 - And More!



DEFINITIONS



Tribal Zip Codes

- The intersection of American Indian Areas and ZCTAs
- Percentage of overlap (Exploring different definitions, 25%, 50%, 75%)

Neighboring Non-Tribal Zip Codes

- Distance from centroid of tribal zip code to centroid of neighboring non-tribal zip code (Exploring different definitions)

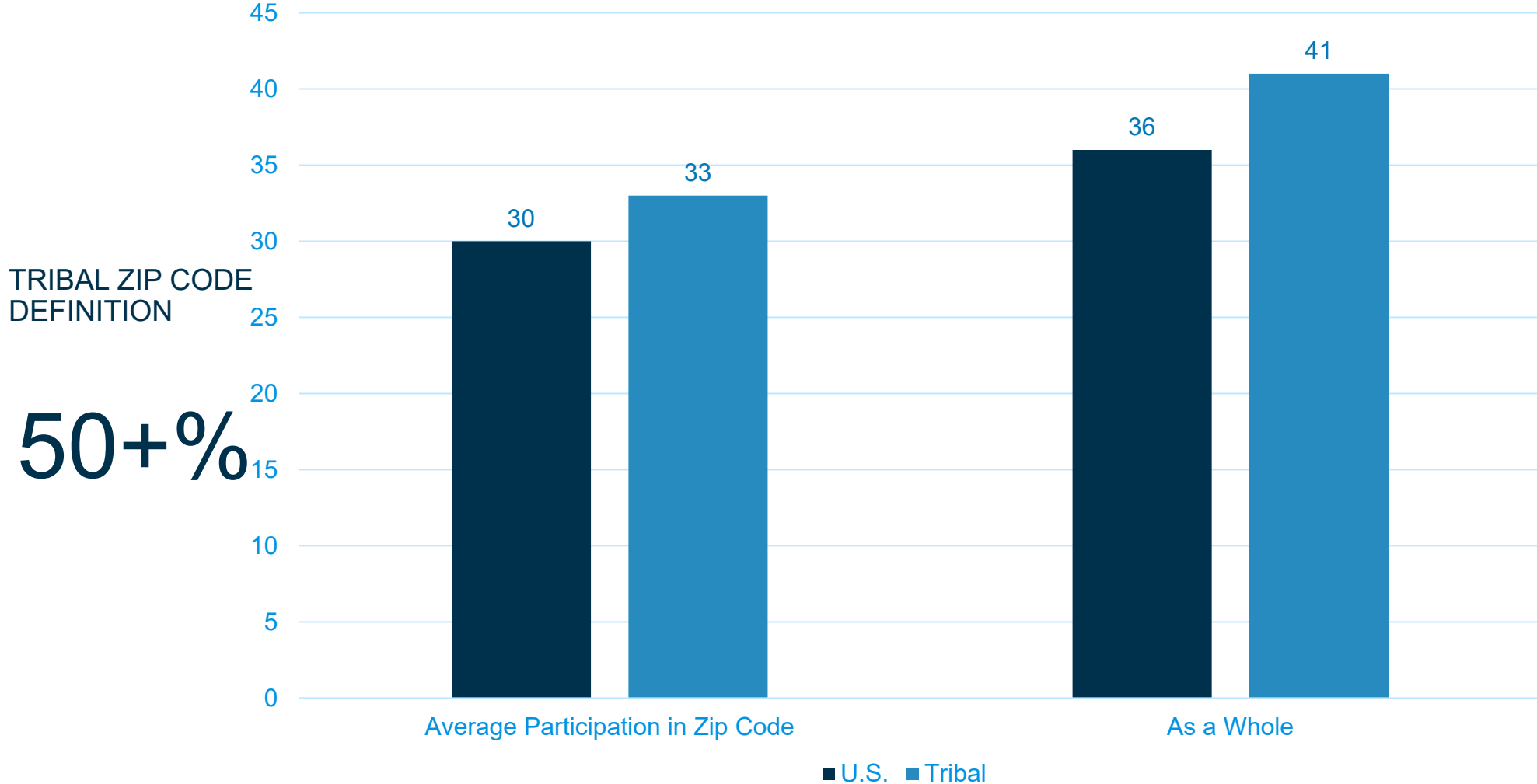
Like Zip Codes

- Comparing similar zip codes between tribal and non-tribal
 - Similarities: population density, percentage in poverty, percentage qualifying for ACP

PRELIMINARY RESULTS

U.S. VERSUS TRIBAL ZIP CODE PARTICIPATION

: Participation in the Affordable Connectivity Program



TRIBAL ZIP CODE DEFINITION

50+%

TRIBAL – NEIGHBORING NON-TRIBAL ZIP CODES

TABLE: PARTICIPATION IN THE AFFORDABLE CONNECTIVITY PROGRAM

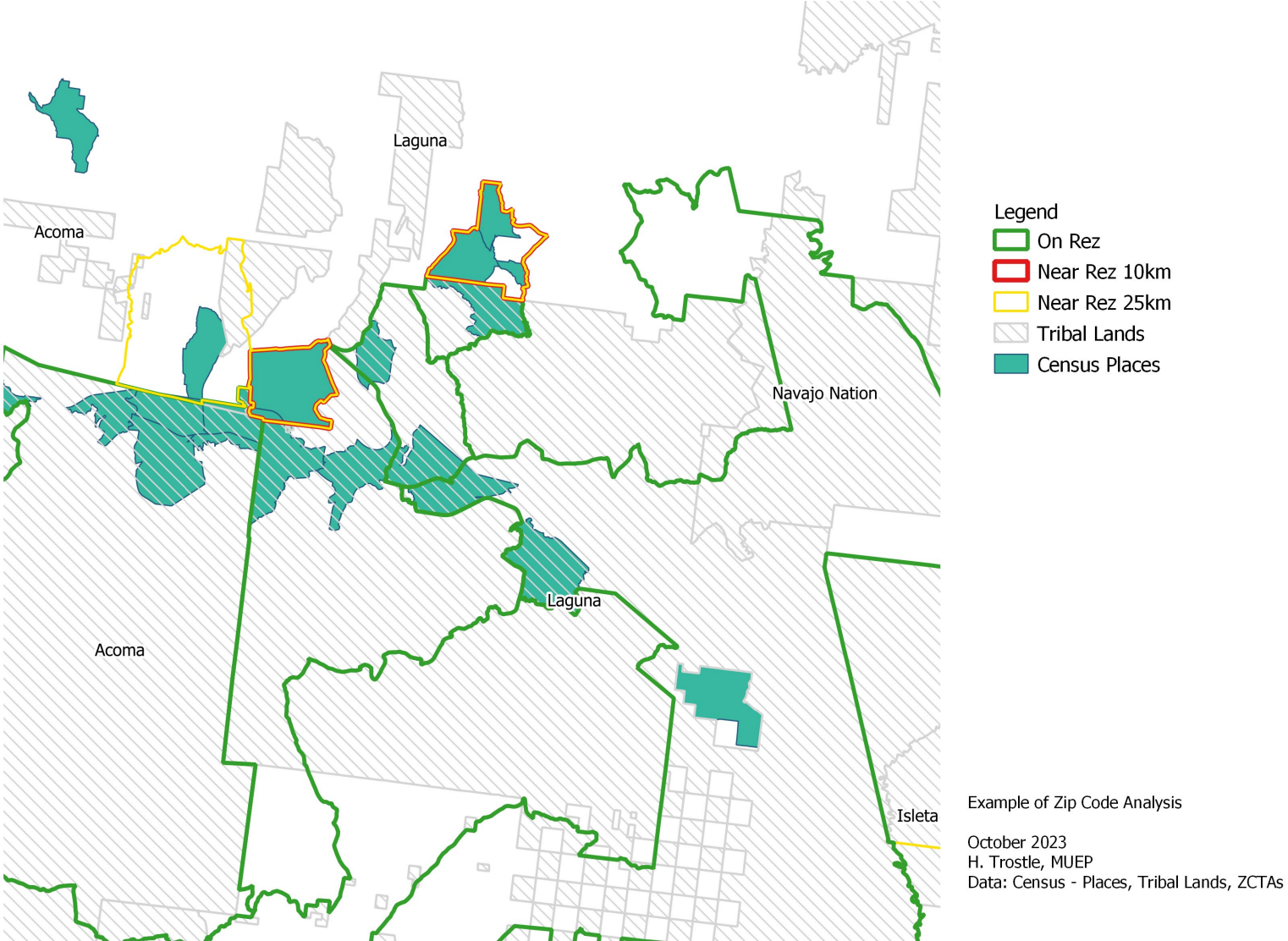
TRIBAL ZIP CODE DEFINITION

50+%

Distance	All		No OTSA		No OTSA, No Navajo	
	Tribal	Near	Tribal	Near	Tribal	Near
10km*	32.30	40.43	30.88	40.78	32.30	40.43
25km	32.30	30.07	30.88	31.17	32.30	30.07

*p-value < 0.05

Exploring Tribal Zip Codes and Neighboring Non-Tribal Zip Codes



Map of New Mexico: 50% Tribal Lands Definition, 10km and 25km, with Census Places

COMPARING LIKE ZIP CODES

Accounting for:

- Population density
- Share of households without Internet (pre-pandemic)
- Per capita income
- Number of households
- Population of zip
- Share of white population

Take-Up is Higher in Tribal Zip Codes than comparable non-Tribal Zip Codes

POTENTIAL EXPLANATIONS OF FINDINGS



- Border Towns
- Similarities between Tribal Lands and Neighboring Rural Areas
- Tribal ACP Outreach
- The Larger Financial Incentive (\$75 instead of \$30 monthly)

TAKE-AWAYS


There is a substantial gap in participation of the ACP between nearby neighboring non-tribal zip codes and tribal zip codes.

Tribal zip codes have more participation in the ACP than comparable non-tribal zip codes.

Participation on tribal lands is higher than the U.S. average.



**THE AFFORDABLE CONNECTIVITY PROGRAM
STILL DOES NOT REACH EVEN 50% OF
ELIGIBLE HOUSEHOLDS**



**THESE ARE PRELIMINARY RESULTS.
FINAL RESULTS SUBJECT TO CHANGE.**

Contact:

H. Trostle h.trostle@mpls.frb.org
218-820-2664

Matthew Gregg
Matt.Gregg@mpls.frb.org



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THANK YOU