Native American Governments' Borrowing Costs: Evidence from Municipal Bond Markets

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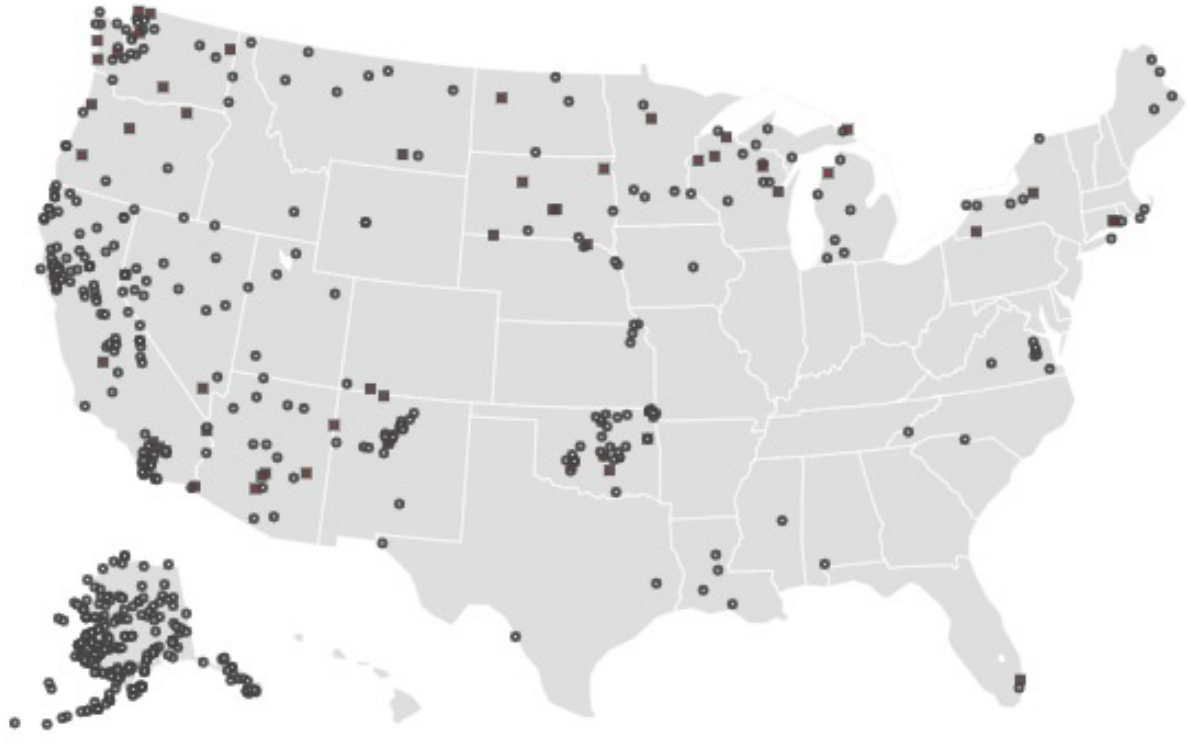
Native American Tribal Governments

574 Tribal Nations

Are recognized as sovereign nations by the U.S. Federal Government

35 States

Contain tribal nation governments



**We use the term "Native American" along with the term "American Indian and Alaska Native" to refer to indigenous individuals who are enrolled members of federally recognized tribes*

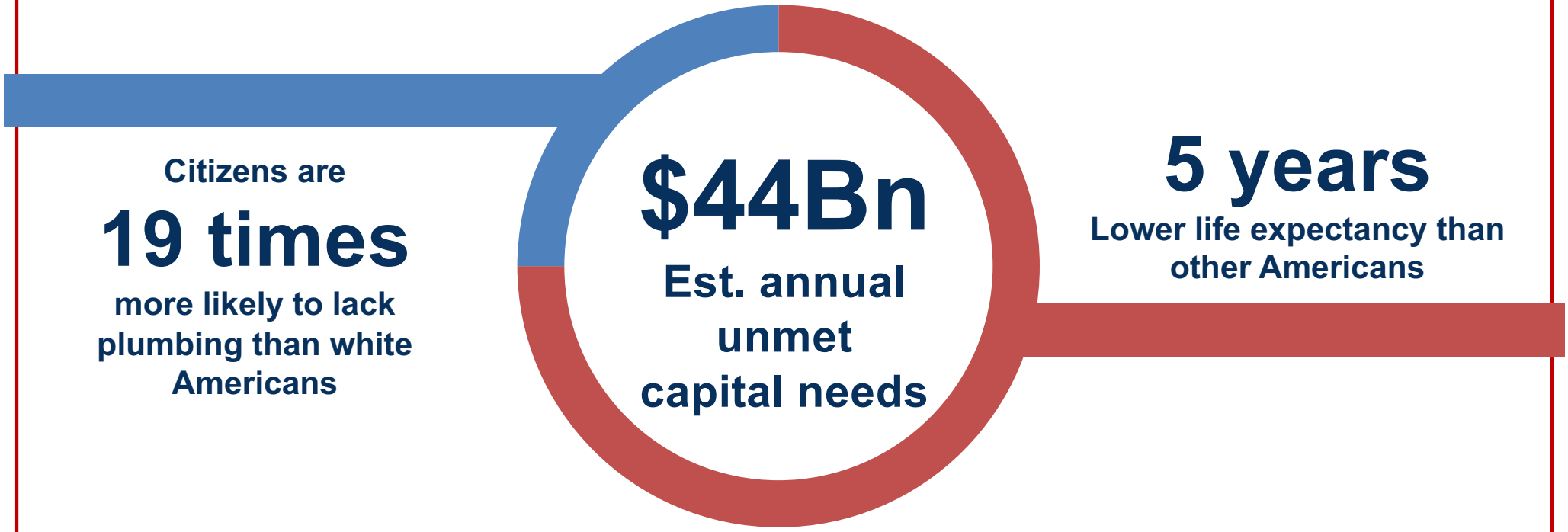
Tribal Nations

Control approximately 100 million acres of land (more land than all but three states) (NCAI 2020)

Represent over 9.7 million citizens (more than 40 state governments) (U.S. Census Bureau 2021)

Are responsible for a broad range of government activities (NCAI 2020)

Tribal Governments' Capital Needs



Source: Clarkson 2007, Way 2016

Regulatory Obstacles in Accessing Municipal Finance

I.R.C. § 7871 (a) establishes that tribal governments be treated as states

However, the IRC places restrictions on tribes that are not present for states

- I.R.C. § 7871 (c) (1) restricts tribal governments to issuing tax-exempt municipal bonds for "essential government functions"
- I.R.C. § 7871 (c) (2) and I.R.C. § 7871 (c) (3) restrict tribal governments from issuing private activity bonds (conduit bonds for qualified projects including airports, hospitals, and rental housing)

Tribal leaders testify that lack of tax parity impacts access to tax-exempt debt

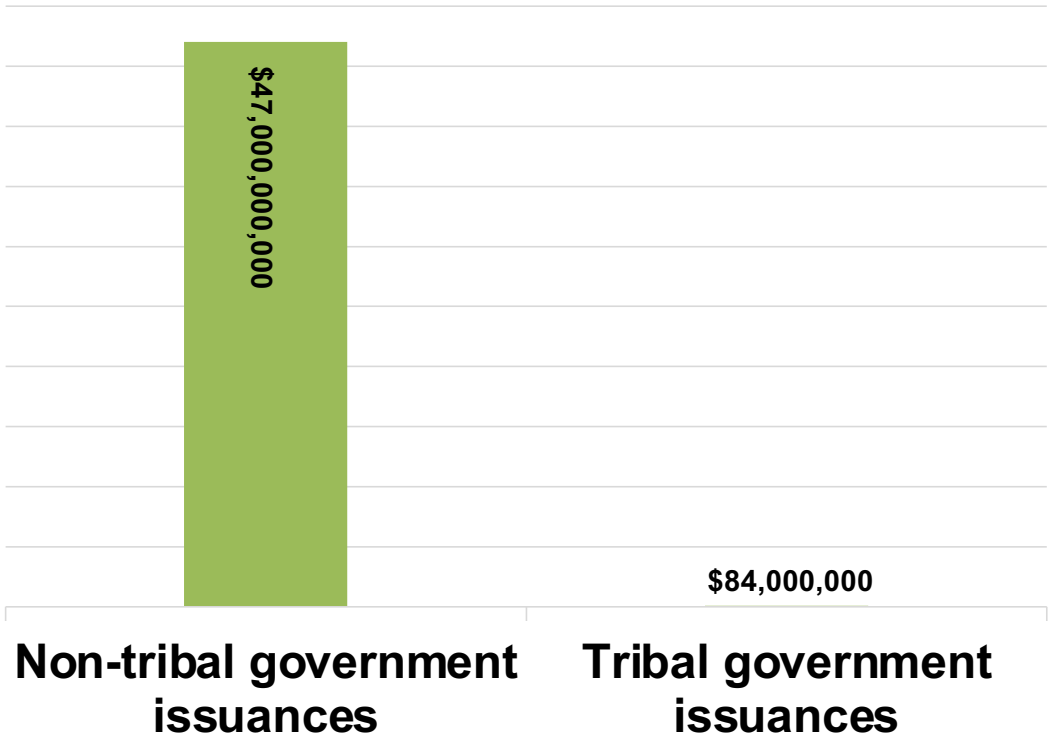
Implications of Regulatory Obstacles for Tribal Governments

559 x Difference

Between tribal and non-tribal government debt annual issuances

17%

Of tribal governments have issued tax-exempt debt



Source: Brashares and O'Keefe 2013, Gregg 2021

Examples of Legislative Activity to Increase Capital Access

Proposed Legislative Acts (Not Passed)

- Tribal Government Tax-Exempt Bond Parity Act of 2007
- Tribal Tax and Investment Reform Acts of 2016
- Tribal Tax and Investment Reform Acts of 2019
- Tribal Tax and Investment Reform Act of 2021
- Build Back Better Act of 2021

Legislative Hearings and Reports

- U.S. Senate Committee on Finance (2006)
- U.S. Department of the Treasury (2011), Report and recommendations to Congress regarding tribal economic development bond provision
- U.S. House Select Committee on Economic Disparity and Fairness in Growth (2022)

Native American Tax Parity and Relief Act of 2022

117TH CONGRESS
2D SESSION

S. 5048

To amend the Internal Revenue Code of 1986 to treat Native American tribal governments in the same manner as State governments for certain Federal tax purposes, and for other purposes.

IN THE SENATE OF THE UNITED STATES

SEPTEMBER 29, 2022

---- Introduced by Senator Cortez Masto (Nevada)

Our Research Question

Once tribal governments successfully access municipal capital markets…

…do tribal governments face higher borrowing costs for their bonds than state and local governments?

Contribution

- Inform policy makers' understanding of the borrowing landscape for tribal governments

- Contribute to emerging literature on minority borrowers' access to capital (Bartlett et al. 2022; Fuster et al. 2022; Ambrose et al. 2021; Begley and Purnanandam 2021; Bhutta and Hizmo 2021; Bayer et al. 2018; Fairlie et al. 2021; Chatterji and Seamans 2012; Dougal et al. 2019)

- Contribute to the growing literature on the economic development of tribal nations (Anderson and Lueck 1992; Anderson and Parker 2008; Akee 2009; Dippel 2014; Brown et al. 2017a, b; Leonard et al. 2020; Brown et al. 2019)

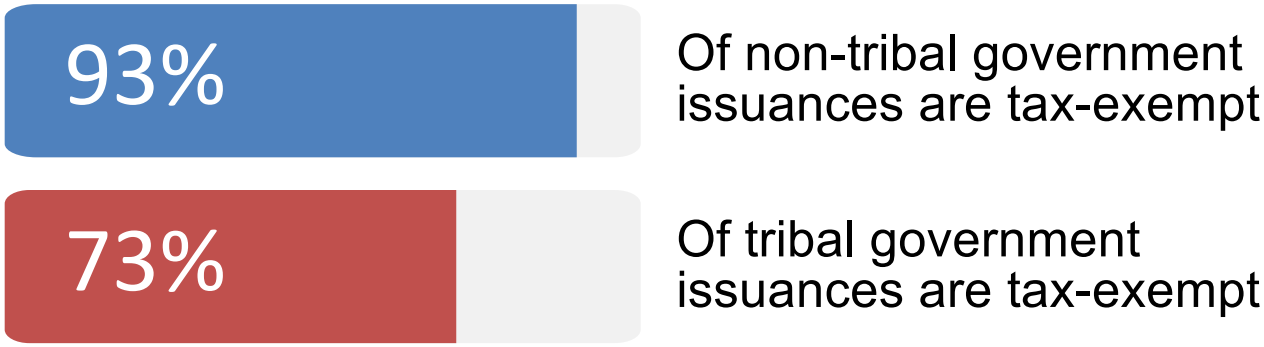
Data

- We search the Mergent Municipal Bond Securities Database from 1982 – 2021 for 621 tribe name keywords
- Identify a sample of 362 bonds issued by 56 tribal nations from 1992 – 2021, totaling $4.9B
- State and local government comparison group:
  - In the same states and years as tribal government issuances
  - With similar capital purpose, tax status, offering type, and security type as tribal government issuances
  - With nonmissing yields
  - Results in 939,773 to 925,854 bonds issued by state and local governments.

Our Descriptive Evidence

- Tribal issuances account for 0.01% of all municipal debt issuances
  - AIAN individuals account for 2.9% of the US population (US Census Bureau 2020)

- Tribal issuers are less likely to issue tax-exempt debt than state and local issuers



Bond Issuance Sample Statistics

	Tribal Governments			Non-Tribal Governments			Difference in Means	
Variable	N	Mean	SD	N	Mean	SD	Tribal - Non-Tribal	t-stat
Yield	277	577.369	183.502	939,773	287.898	165.192	289.471***	(29.16)
Price	277	98.380	11.010	939,671	103.353	10.950	-4.978***	(-7.56)
Advisor	277	0.134	0.341	939,773	0.706	0.455	-0.573***	(-20.94)
Amount	275	12.354	31.527	928,185	3.561	27.744	8.793***	(5.25)
Bank Qualified	277	0.181	0.385	938,986	0.368	0.482	-0.188***	(-6.48)
Callable	277	0.386	0.488	939,773	0.427	0.495	-0.041	(-1.38)
Competitive	186	0.048	0.215	939,773	0.502	0.500	-0.453***	(-12.36)
General Obligation	277	0.079	0.271	939,773	0.437	0.496	-0.357***	(-11.99)
Insured	277	0.108	0.311	939,773	0.295	0.456	-0.187***	(-6.82)
Maturity	277	10.520	7.129	939,773	9.564	6.691	0.951*	(2.36)
New Money	277	0.798	0.402	939,773	0.546	0.498	0.252***	(8.42)
Puttable	277	0.000	0.000	937,851	0.002	0.041	-0.002	(-0.68)
Rating	277	18.760	6.109	939,773	10.900	9.191	7.861***	(14.23)
Rating (if rated)	75	10.030	5.766	563,968	3.499	1.969	6.528***	(28.69)
AAA Rated	75	0.053	0.226	563,968	0.202	0.402	-0.149**	(-3.21)
AA Rated	75	0.027	0.162	563,968	0.339	0.473	-0.312***	(-5.72)
Below AA	75	0.920	0.273	563,968	0.458	0.498	0.462***	(8.02)
Unrated	277	0.729	0.445	939,773	0.400	0.490	0.329***	(11.19)
Revenue Bond	277	0.697	0.460	939,773	0.317	0.465	0.379***	(13.56)
Sinking Fund	277	0.332	0.472	939,773	0.078	0.268	0.254***	(15.80)
State Taxable	277	0.079	0.271	939,314	0.095	0.293	-0.0153	(-0.87)
Taxable	277	0.274	0.447	939,773	0.071	0.257	0.203***	(13.18)

In univariate comparison, tribal nations pay

double

the interest rates on their debt than other governments

Research Design

$$Yield = \alpha_1 + \beta_1(Tribe) + \beta_2(Control\ Variables) + \beta_3(\text{State} \times \text{Year Fixed Effects}) + \beta_4(\text{Rating Fixed Effects}) + \varepsilon$$

Control Variables Include:

Ln(Amount)	Ln(Maturity)	Insured
Taxable	Callable	Competitive
Sinking Fund	Revenue Bond	Advisor
Rating	New Money	State Taxable
Puttable	Bank Qualified	

Determinants of Initial Bond Yield

	(1) Yield	(2) Yield	(3) Yield	(4) Yield	(5) Yield	(6) Yield
Tribe	289.471***	185.733***	171.159***	251.464***	160.281***	153.787***
	(13.16)	(7.56)	(7.32)	(9.37)	(6.84)	(6.82)
Control Variables Included	No	No	No	Yes	Yes	Yes
State-by-Year Fixed Effects	No	Yes	Yes	No	Yes	Yes
Rating Fixed Effects	No	No	Yes	No	No	Yes
N	940,050	940,050	940,050	926,039	926,039	926,039
R-sq	0.00	0.39	0.40	0.35	0.63	0.63

Given the average non-tribal yield of 288 bps and average tribal loan amount of $12.4M…

Tribal governments pay

53%

higher rates than non-tribal governments

Results in

190K

higher annual interest

**Control variables not tabulated for brevity*

Determinants of Initial Bond Yield: Subsample Analysis

	(1) Yield	(2) Yield	(3) Yield	(4) Yield	(5) Yield	(6) Yield
	Rated Bonds	**Tax-Exempt Bonds**	**Insured Bonds**	**Bonds without Call Options**	**Loan amounts of $1M or more**	**Fixed Rate Bonds**
Tribe	64.442**	146.042***	89.972**	168.373***	151.714***	147.614***
	(2.37)	(5.48)	(2.13)	(6.02)	(5.91)	(6.41)
Control Variables Included	Yes	Yes	Yes	Yes	Yes	Yes
State-by-Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Rating Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
N	558,026	860,298	271,077	530,410	352,559	907,750
R-sq	0.80	0.68	0.52	0.57	0.7	0.64

When comparing tribal issuances with non-tribal issuances with identical credit ratings…

Tribal governments pay

22%

higher rates than non-tribal governments

Results in

79K

higher annual interest

**Control variables not tabulated for brevity*

Empirical Robustness

- Propensity score match with replacement, matching exactly on state, year, month, Insured, Taxable, and Revenue Bond (match 92 tribal bonds with 62 non-tribal bonds)
- Nearest neighbor propensity score match without replacement (match 36 tribal bonds with 43 non-tribal bonds)
- Entropy balancing
- Alternative fixed effects specification a la Baker et al. (2022): 1) maturity-by-rating-by-issuance year-month, 2) bond size decile, 3) issue size decile, 4) use of proceeds, and 5) state
- Robustness of Credit Rating
  - In lieu of Rating, we include an indicator for Rated + Rated*Rating in the model

Conclusion

- Native American tribal governments pay a premium of 64 to 251 basis points on their municipal debt
- Given that the average tribal (non-tribal) municipal yield is 577 (288) basis points, this premium results in a 22 to 87% higher cost of borrowing for tribal bonds
- This translates to approximately $79,000 to $310,000 in higher annual interest payments for the average tribal issuer

Future Research

- What factors impact tribal governments' borrowing costs?
  - Tribal nations' access to casino revenues is associated with a lower cost of borrowing
  - Using higher quality auditors is associated with lower borrowing costs

Contribution

- We show that tribal governments' challenges in accessing municipal bond capital do not end when they are able to access municipal markets
- Rather, tribal governments experience significantly higher borrowing costs than state and local governments that may temper the benefits of their borrowing

Thank you!

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