

The Ties That Bind Us: Exploring the Financial Relationship between Native American Tribes and the U.S. Federal Government

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March 31, 2024*

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Abstract

The financial relationship between federally recognized Native American Tribes and the U.S. federal government has evolved over time, reflecting changes in federal policy, the legal status of tribes, and broader societal attitudes towards Native American rights and sovereignty. While some scholars have examined the origins and impacts of historical U.S. government policy changes, treaties, and annuities, we know little about the contemporary financial relationship between the U.S. government and Native American tribes. In this paper, we begin to fill this gap by exploring the current status and influences on the financial relationship between the U.S. federal government and tribes. First, we explore the patterns of financial assistance transactions from the federal government to Native American tribes over the last decade. Cumulatively, this data includes almost 90,000 transactions and over \$18 billion in spending. Next, we provide a theoretical argument and test of the factors that impact differences in the financial transactions to individual tribes from the U.S. federal government. We argue that tribal economic and political characteristics and lobbying efforts will impact the federal funds received by each tribe. To test our hypotheses, we use assistance spending data from the Department of the Interior between 2013-2021 and tribal population, reservation, and lobbying data for all Federally recognized tribes in the lower 48 states. We find that as the proportion of the reservation population in poverty, size of the land and water area of a reservation, and lobbying efforts increase there is an increase in the amount of federal funds received by a tribe. Conversely, as there is an increase in the number of gambling establishments here is a decrease in the amount of federal funds received by a tribe. This study contributes insights to the broader literature examining the causes and consequences of the relationship between the U.S. and Native American Tribes.

Keywords: Native American, Indian Country, Financial Aid, U.S. Federal Government

The relationship between the U.S. government and Native American tribes has been shaped by a complex history of treaties, legislation, and shifting policies that have influenced the economic conditions and development of tribal lands and communities. This relationship has evolved from direct control and assimilation efforts to one emphasizing tribal sovereignty and self-determination, yet it continues to grapple with challenges and legacies of past actions. Together U.S. policies and actions have shaped the trajectory of tribal economies, public health outcomes, and educational attainment (Dippel 2014). The U.S. has been active in treaty-making with tribal nations since the founding of the country and this help form the long-standing and often contentious relationship between U.S. and indigenous nations (Deloria and DeMallie 1999; Prucha 1995; Wilkins and Stark 2017). While there have been institutional changes in the U.S. that impacted treaty-making – like in 1871 when Congress disallowed the president from negotiating directly with tribes – the decrease in favorable treaty outcomes for tribes is rooted in the relative growth in economic and military power of the U.S. (Spirling 2012). Given that the U.S. has had the upper hand in negotiating treaty outcomes since the 19th century, this same advantage likely impacts the modern outcomes for tribes vying for benefits, services, and funding from the federal government.

An important and impactful factor in the relationship between the U.S. federal government and indigenous nations is the financial transactions between these governments. The financial relationship between tribes and the federal government has taken various forms over time, from treaties and annuities in the early years of the United States to contemporary forms of assistance designed to promote tribal self-governance and economic development. In the 18th and 19th centuries, the U.S. government often entered into treaties with Native American tribes. These treaties frequently included provisions for financial aid, such as annuities or compensation for land ceded to the federal government (Wilkins and Stark 2017). However, the implementation of these treaties was often fraught with issues, including delays, corruption, and disputes over the terms. The Indian Reorganization Act of 1934 marked a significant shift in U.S. policy towards Native American tribes, moving away from policies of assimilation and toward recognizing tribal sovereignty. It provided a mechanism for tribes to establish self-government and receive direct financial support

for economic development, education, and welfare.

Moving towards the current financial relationship between the U.S. and tribes, The Indian Self-Determination and Education Assistance Act of 1975 and the Tribal Self-Governance Act of 1994 were landmark pieces of legislation that transformed the relationship between the federal government and Native American tribes. These acts allowed tribes to have greater control over federal funds allocated to them, enabling them to manage programs that were previously controlled by the Bureau of Indian Affairs or other federal agencies. Modern financial transactions to tribes often focus on supporting native electoral and bureaucratic efforts, economic development, infrastructure, healthcare, and education. This includes grants, loans, and technical assistance to support a wide range of tribal initiatives, from business development to infrastructure projects like road construction and water systems.¹

It is key to note that while tribes are eligible for certain funding after gaining federal recognition, they often must apply for it. Once tribes receive funding, tribal governments must navigate how to use federal funds as tools of autonomy and agency, while they still fight over issues of sovereignty and self-determination (Cornell and Kalt 1998). While there is a body of work that has examined the impact of federal funding on tribal initiatives and tribes' broader economic development (Cornell and Kalt 1998, 2010), these works are focused on the impact of funding *on* tribes not *how* tribes received that funding. We know much less about what drives the differences in the funds awarded to different tribes by the U.S. federal government. In this paper, we begin to develop an understanding of these financial relationships between tribes and the U.S. government. To guide our examination of this relationship, we ask two questions: (1) What are the characteristics of U.S. Federal Government financial transactions to Native American Tribes? (2) What impacts the funds awarded to federally recognized Native American Tribes from the U.S. Federal Government?

We present a theoretical framework outlining the factors influencing the financial relationship

¹The U.S. government also provides emergency financial assistance to tribes in response to natural disasters, public health emergencies, and other crises. For example, during the COVID-19 pandemic, tribes received significant financial support through federal stimulus packages.

between the U.S. and tribal governments. Our argument posits that tribal characteristics and tribal lobbying efforts collectively shape the federal funds received by each tribe. We expect tribes that have large enrollments, are economically vulnerable, have gambling establishments, and have larger reservations will receive more federal funding. In addition, we expect tribes that actively lobby federal bureaucratic agencies will be more likely to receive federal funds.

To evaluate our hypotheses, we analyze data on federal assistance going to tribal government entities from the Department of the Interior, retrieved from USASpending.gov, spanning the 2013-2021 fiscal years. We also use data from the U.S. Department of Housing and Urban Development (HUD) and Census Bureau to create variables for tribal population and reservation characteristics, as well as lobbying data on the Interior and Bureau of Indian Affairs from OpenSecrets.org. We find a positive correlation between funding from the Interior and reservation poverty, land and water area, and lobbying activity. We also find interesting regional trends that show federal funding may be influenced by unique conditions that tribes face in specific areas around the US. Further analysis reveals substantial variation in these relationships when breaking down funding by purpose. In particular, we find a stronger correlation between lobbying and funding when looking at funds for self-determination programs.

This research makes three distinct contributions to the scholarly understanding of the financial relationship between the U.S. federal government and federally recognized Native American Tribes. First, we provide the first nuanced insights into the determinants of federal funding for these tribes. By examining a range of factors, our study fills critical gaps in existing literature, offering the most explanation and test to date of the factors influencing the allocation of federal funds to tribal government. Second, our research contributes to the broader discourse on self-determination and the behavior of Native American Tribal governments. Third, our study provides insights to better understand the greater autonomy and agency for these sovereign entities within the complex system of American governance.

The rest of the paper is organized as follows. First, we explore the awards to tribes from the federal government. Second, we present our theoretical explanation for the trends in the federal

funding received by tribes and derive several hypotheses. Fourth, we describe the data and research design used to test our hypotheses. Fifth, we present the results of our hypothesis tests. Finally, we conclude with a discussion of future avenues for research to build on these findings.

Federal Awards to Native American Tribes

Before delving into the factors that impact the financial relationship between tribes and the federal government, it is important to get a sense of what the financial relationship looks like. This paper is primarily looking at Department of the Interior (DoI) assistance data pulled from USAspending.gov. This data includes all transfers of money or in-kind goods to any non-federal entity, but excludes transactions where the federal government is purchasing goods or services. Examining assistance funding from the DoI is particularly valuable in understanding the tribal-federal government relationship because the most important bureaucratic branches for federal tribal administration, the Bureau of Indian Affairs (BIA) and the Bureau of Indian Education (BIE), reside in the department. Other agencies in the Interior office also come into frequent contact with tribes, such as the Fish and Wildlife Service, the Bureau of Reclamation, and the National Park Service.

Identifying tribal recipients in the DoI assistance data is not a straightforward procedure. We look at all awards marked as "Tribal Government" for the business type of the recipient, but this label contains many non-tribal recipients, including non-tribal universities and grade schools, state and local governments, and private companies. We were only interested in awards going to entities that were either (1) a tribal government, or (2) owned/controlled by a tribal government. Recipients from FY 2011 onwards were identified using the federally assigned Unique Entity Identifier (UEI) numbers of award recipients and their listed parent organizations. This means that organizations that otherwise would not look like a tribal entity could be identified as belonging to a specific tribe if that tribe's UEI was given as the parent organization. Prior to FY 2011, UEI numbers and parent organization information are not available for most awards. Coding for this period relied on the other available information given for each entry, such as recipient name, location, and the purpose of the award. We took a conservative approach to coding recipients in this period, and it is almost

guaranteed that some tribal entities were not counted during this period, especially tribal-controlled schools and businesses. One important group of recipients left out of both identification strategies are inter-tribal organizations. Because membership into these groups is not always public, or may have changed over time, we exclude these from our analysis. This means that tribes that if a tribe receives significant funding from other organizations it is a member of, our data will underestimate their true level of funding. In total, we identify 93,913 awards given to tribal entities out of the total 371,414 DoI transactions.

Figure 1 displays how funding to tribal government entities in the contiguous United States has fluctuated in transaction volume and value over time. From FY 2001 to FY 2009, the volume of transactions sending money to tribes was relatively low, ranging from approximately 200 to 1,300 per year. During this period, there were 339 to 340 federally recognized tribes, so a tribe might expect to receive between 0 and 4 assistance awards. Compare this volume to the 2013-2021 period, where the average number of awards given in a year was almost 10,000, or about 28 awards per tribe.

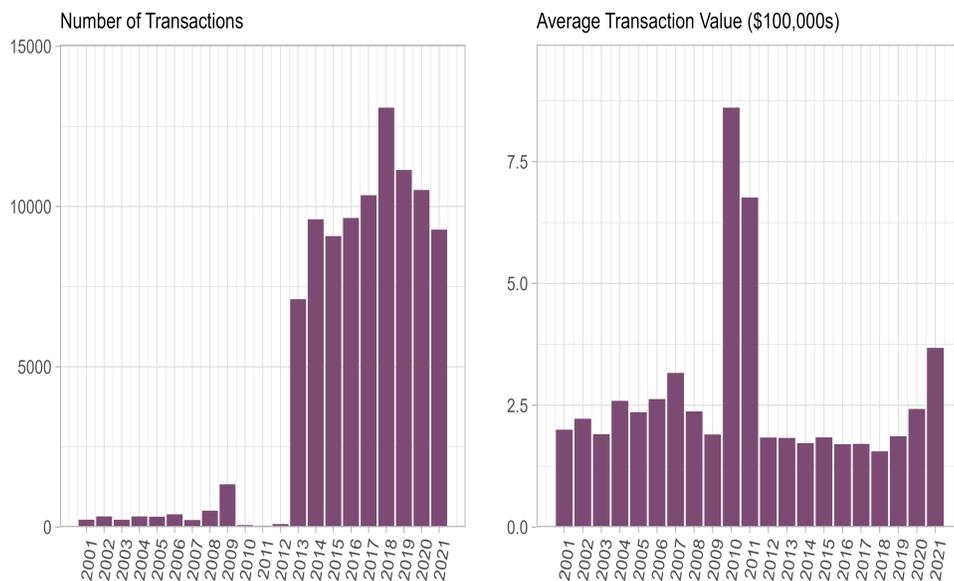


Figure 1: Total number of awards and average award value per fiscal year given by the Department of the Interior to any tribal government entity. Excludes transactions that required zero federal funding or concerned repayment of funds to the federal government.

This disparity could be partially due to the difference in coding discussed previously between the two periods, but a few pieces of evidence point against this being the sole cause. Firstly, this trend in volume is also present in awards by the DoI to non-tribal government entities, albeit a less dramatic overall increase. Prior to FY 2009, 6,400 awards per year were given by the DoI to non-tribal entities compared to 12,000 per year from FY 2013 onward. This points to the DoI becoming more active generally in giving awards in later years. Secondly, the timing of the change aligns with a shift in the political and economic circumstances of the US, including the Great Recession and major federal elections. With such significant changes, it wouldn't be surprising to see a change in the financial relationship with tribes over this time.

These economic and political changes might also play into the other striking feature of the left plot: the lack of awards given from FY 2010 to FY 2012. We have no exact explanation for these gap years beyond assumptions about restrictions on discretionary spending during the Great Recession. This gap is also present in DoI funding to non-tribal entities as well, albeit, again, not to the same extreme.

In total, this data points to a DoI shifted policy by FY 2013, leading to an expansion in funding for tribal governments. Because the pre-2013 period is so different from the more contemporary years, and because of concerns over possible differences arising from how tribal government-related transactions were identified between the periods, we focus on FY 2013 to FY 2021 for the rest of these analyses.

To decompose this data further, we look at which sub-agencies in the DoI are awarding funds to tribal government entities and for what purposes. Figure 2 shows the number of transactions and total transaction value per year broken down by sub-agency. Unsurprisingly, in terms of both volume and dollars awarded, the BIA and BIE are by far the most substantial sub-agency in providing assistance to tribal governments.² The only other sub-agency to make a noticeable contribution relative to the BIA and BIE is the Bureau of Reclamation, which gives out relatively few, but very

²Unfortunately, these two agencies are not separated in the data, so it is difficult to accurately associate individual awards with one of these agencies alone.

high dollar amount awards.

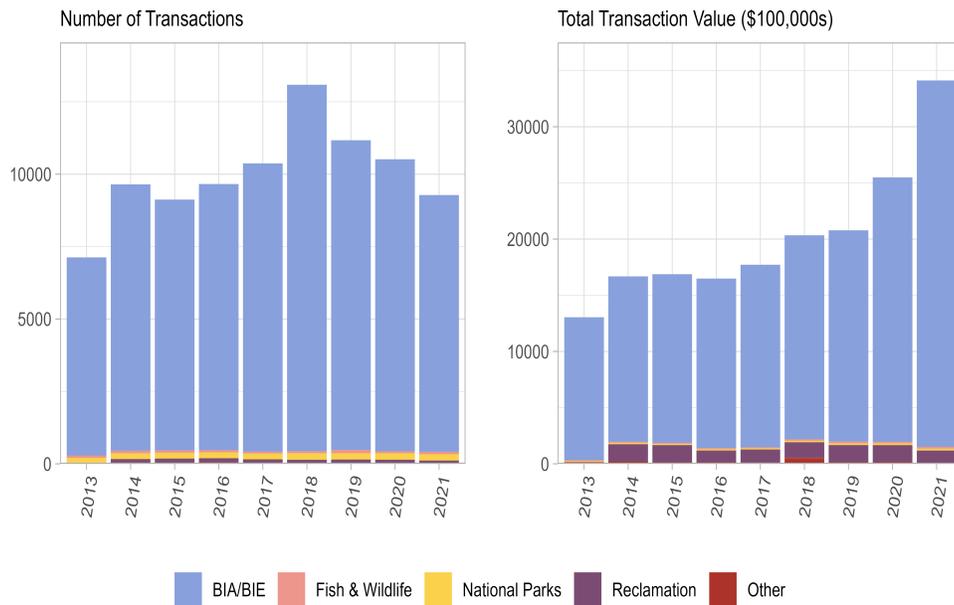


Figure 2: Total number of awards and total funds provided per fiscal year given by the Department of the Interior to any tribal government entity, broken down by awarding sub-agency. Excludes transactions that required zero federal funding or concerned repayment of funds to the federal government.

To get a sense of what this assistance funding is going towards, we group transactions by Catalog of Federal Domestic Assistance (CFDA) numbers. CFDA numbers are meant to note which federal programs an assistance transaction belongs to. Unfortunately, the programs denoted by CFDA numbers may encompass a number of activities or have vague goals. For example, CFDA number 15.02 refers to "aid for tribal governments" to support tribal administration and elections. This label gives us a good idea of what general purpose the assistance funding was. This means that we can categorize the general purpose of transactions, but we have few details on what the funds will actually be used for.

We group transactions into five purpose categories: infrastructure/economic funding, self-determination funding, education funding, conservation funding, and cultural and historical preservation. The infrastructure and economic category contains transactions dealing with economic, business, science, and infrastructure development. The self-determination category includes funding for tribal government activities and services like tribal elections, law enforcement, and judicial

services, as well as BIA contract and compact support where the tribal government takes administrative control over federal programs. The education category includes any funding related education, such as support for tribal colleges or services like Head Start. The conservation category contains funds going towards environmental conservation programs, climate change mitigation, and flooding/drought issues. Finally, the cultural and historical preservation category includes programs like indigenous language revitalization or historical and natural landmark maintenance.

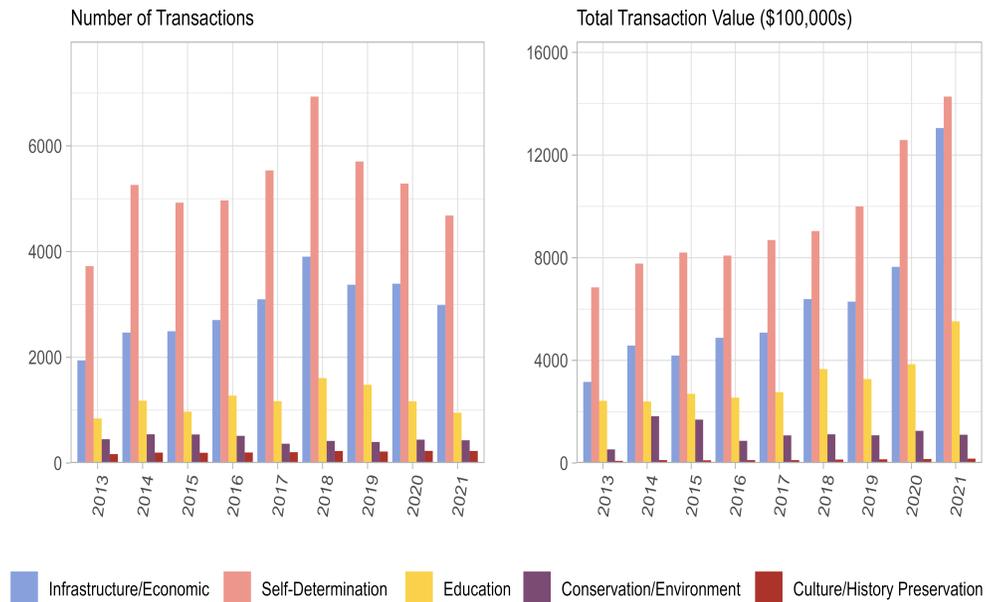


Figure 3: Total number of awards and total funds provided per fiscal year given by the Department of the Interior to any tribal government entity, broken down by funding purpose. Excludes transactions that required zero federal funding or concerned repayment of funds to the federal government.

Similar to Figure 2, Figure 3 display the yearly volume of transactions and total transaction value going to tribal government entities broken down by purpose category. The self-determination category makes up a significant plurality of both the transaction volume and total funding being spent across all years. This is to be expected, as this category includes the funding for tribal administration of federal services. Given that approximately half of all federally recognized tribes have entered into a governing compact with the the BIA to take control over many services in Indian Country, and many others have made contracts with the BIA to carry out federal policy, it makes sense that a large amount of the funding tribes receive would be in this category. Economic and in-

frastructure funding was consistently the second highest in volume and value. In FY 2021, the total value of these funds almost matched funding for self-determination programs, but this is likely due more to temporary increases in funding from policies related to the COVID-19 pandemic, such as the 2020 Coronavirus Aid, Relief, and Economic Security (CARES) Act.

Finally, we shift focus to the tribes receiving these awards. Figure 4 maps tribes by their government headquarters and shows (1) the average number of enrolled members, and (2) the average per capita³ amount of DoI funding received per year, relative to other tribes. The yearly enrollment data is published by the Department of Housing and Urban Development (HUD) for their Indian Housing Block Grant (IHBG) program. We see in Figure 4 that DoI funding is not fully determined by tribe size, as many of the largest tribes have relatively low per capita funding and many of the smallest tribes have some of the highest per capita funding. For example, the Cherokee Nation, the largest tribe by enrollment, receives an average of about \$250 per enrolled member per year, the 11th lowest average in the dataset. The tribe who receives the most money yearly on average from the DoI is the Ewiiapaayp Band of Kumeyaay Indians in California, who received an average of approximately \$92,000 yearly for their seven members. Overall, while there is significant variation in average per capita funding, a majority of tribes receive between \$900 and \$3,000 yearly for each enrolled member. The median average per capita funding was \$1,637.

³Per capita here refers to enrolled members, not the population living on a tribe's reservation

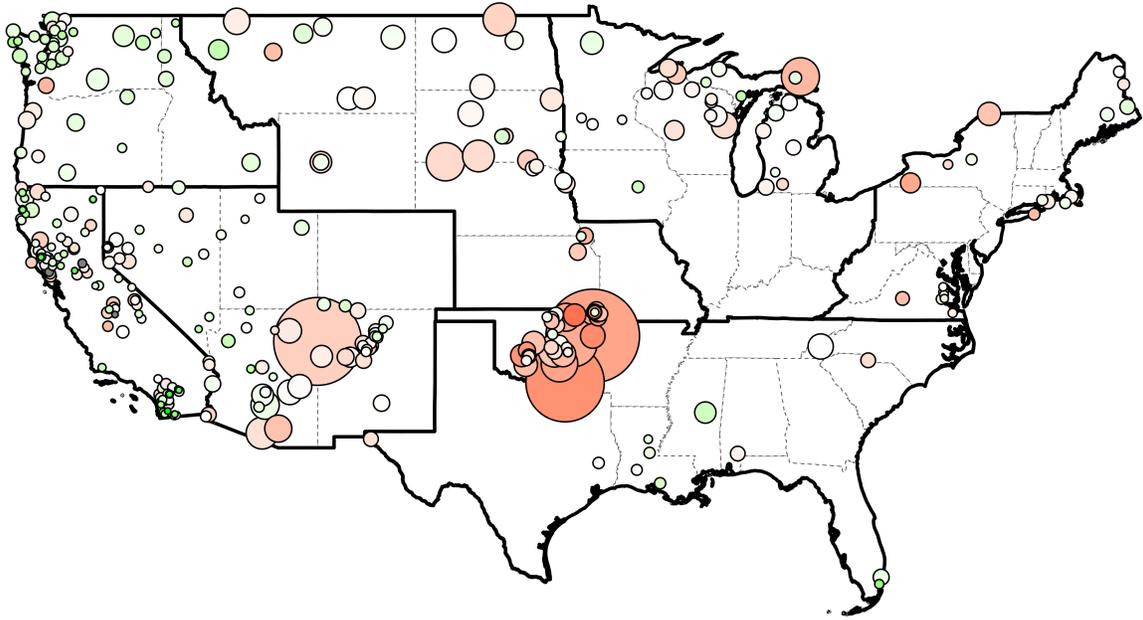


Figure 4: A map of tribal headquarters where the size of each point correlates to its relative enrollment size and the color correlates to its relative average per capita funding by the Department of the Interior from FY 2013 to FY 2021. Red indicates lower relative average per capita funding, and green represents higher. Whiter points represent tribes who received per capita funding closer to the median average per capita funding. Dotted borders represent state borders, solid borders represent regional groupings of states. Excludes tribes that report zero enrollees in the HUD IHBG data or received zero funding from the Department of the Interior during the timeframe.

Figure 4 also points toward significant regional variation in funding. Tribes in Oklahoma appear to receive a relatively low level of per capita funding, while tribes on the West Coast seem to be much more fortunate. In Figure 5, tribes are categorized into quintiles of average per capita funding and the regional share in each quintile is reported. Unsurprisingly, Oklahoma tribes make up the largest share of tribes in the lowest quintile, and no Oklahoman tribe was in the highest quintile. Conversely, tribes in California or the Pacific region make up the largest groups in the highest quintile. In fact, 84% of tribes in Oklahoma (32/38) were in the bottom two quintiles of

average per capita funding while only 31% of tribes in California or the Pacific region (44/141) were in the bottom quintiles.

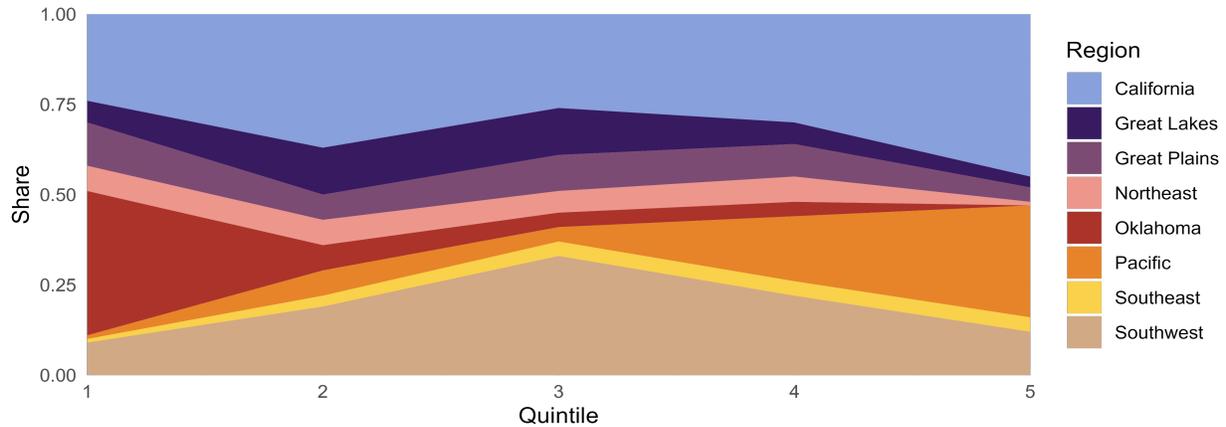


Figure 5: The regional composition of each quintile of per capita funding from the Department of the Interior. Excludes tribes that report zero enrollees in the HUD IHBG data or received zero funding from the Department of the Interior during the timeframe.

Before hypothesizing in greater detail about what more precisely determines the relationship between tribes and the funding they receive, it's worth summarizing some of the overall trends in this data. First, the volume of funds tribes receive from the Department of the Interior has increased dramatically in the past decade. Second, The Bureau of Indian Affairs and Bureau of Indian Education in particular have been very active in funding tribal government activity since FY 2013. Third, a majority of this funding has gone towards funding tribal government administrations and benefiting tribal economies and infrastructures. Third, funding to tribes has not been a simple, linear function based solely on their enrollment level. The theorizing and analysis that follows attempts to address the other potential determinants of the relationship between tribes and the DoI.

The Effect of Tribal Context on U.S. Financial Transactions

We argue that the financial relationship between federally recognized Native American Tribes and the U.S. Federal Government is shaped by factors including a tribe's population and reservation characteristics and lobbying efforts.

Tribal Characteristics

We argue that there are four important characteristics of tribes that allow us to examine a baseline for federal funding: size, economic vulnerability, gambling establishments, and geographic context. Tribal populations may directly correlate with the scale of need and demand for resources. Larger populations often contend with increased infrastructural requirements, healthcare needs, and educational demands, thereby necessitating a proportionate allocation of federal funds to address these challenges. Conversely, smaller tribes may seek targeted support to address their unique circumstances, reflecting a nuanced approach to federal resource distribution based on population dynamics.

Hypothesis 1 (Population Hypothesis): *Tribes with larger enrolled populations will receive more federal funding than tribes with smaller enrolled populations.*

Tribal-level trends in socioeconomic characteristics such as income levels, employment rates, and educational attainment within a tribe, offer insights into the tribe's needs and resilience. Tribes demonstrating a higher degree of economic independence may seek federal funds for capacity-building initiatives, economic development, or cultural preservation efforts. On the other hand, tribes grappling with socioeconomic challenges may advocate for targeted assistance to uplift their communities, recognizing that targeted financial support can catalyze positive transformations and address systemic inequalities.

Hypothesis 2 (Vulnerability Hypothesis): *Tribes that are more economically vulnerable will receive more federal funding than tribes that are more economically developed.*

The presence of gambling establishments on tribal lands may influence the amount of federal funds received. Tribes engaging in gaming activities, facilitated by the Indian Gaming Regulatory

Act (IGRA) of 1988, may witness a boost in their economic capacities.⁴ This may contribute to the financial self-sufficiency of tribes but may also alter the dynamics of their relationship with the federal government.⁵

There are two possible directional impacts on federal funds that may stem from the increased economic independence afforded to tribes with gambling enterprises. The revenue generated from these establishments allows tribes to fund essential services such as education, healthcare, and infrastructure development without solely relying on federal assistance. Consequently, tribes with thriving gaming operations may not seek federal funds for certain programs, emphasizing their ability to internally finance key initiatives and reducing dependence on external sources. Conversely, tribes facing economic challenges or situated in regions where gaming revenues are limited may actively advocate for increased federal funds. The financial disparities between tribes with and without lucrative gambling enterprises contribute to a nuanced landscape where federal allocations are sought to bridge gaps in economic development, social services, and community well-being.

Hypothesis 3 (Decreased Need Hypothesis): *If a tribe has gambling establishments, the tribe will be more likely to received lower allocations of federal funds.*

⁴We would like to be clear that while it's true that some tribes have achieved significant economic gains through casino operations, the narrative that casinos are a universal windfall for all tribes does not hold up under close scrutiny. The nuanced and varied realities of casino operations among different tribes, as well as the broader economic, social, and cultural impacts, are simplified for this theoretical framework. The reality is that casinos produce substantially different impacts by tribes at the individual member and government levels.

⁵It is important to note that the impact of tribal gaming is not uniform across all tribes. Factors such as market saturation, geographic location, and the size of the gaming operation contribute to variations in economic outcomes. Additionally, the regulatory framework governing gaming activities, including revenue-sharing agreements with states, further complicates the relationship between gaming revenue.

A second argument, is that the economic success of tribal gaming establishments enhances tribes' lobbying capabilities. Tribes with significant gaming revenues may invest in sophisticated lobbying efforts to influence federal policies and secure advantageous legislation. This proactive engagement in the political process can yield additional financial benefits, as tribes strategically advocate for policies that align with their economic interests and priorities.

Hypothesis 4 (Increased Lobbying Capacity Hypothesis): *If a tribe has gambling establishments, the tribe will be more likely to receive an increase allocations of federal funds.*

Geographic context is important to consider as it may shape the need for federal funding. There are two factors to consider: whether the tribe has a reservation and the location of that reservation. Tribes with reservations often contend with unique challenges and opportunities, fundamentally shaping their financial needs and priorities. Reservations, as sovereign territories, may still require federal funding to support essential infrastructure, education, healthcare, and social services for tribal members. Consequently, tribes with reservations may advocate for federal funds to address the distinct challenges associated with maintaining and developing infrastructure and programs. Conversely, tribes without reservations may face a different set of financial considerations. Their priorities may revolve around economic development, community programs, and cultural preservation initiatives, as they lack the territorial responsibilities inherent to reservation management. Federal funds for these tribes may be directed towards fostering economic self-sufficiency, supporting education and healthcare programs, and preserving cultural heritage, reflecting a different set of needs driven by not having a reservation. To be clear, tribes with reservations still have these types of programs but may be faced with the choice of having to request or allocate funds for infrastructure as well. Further, the historical context and legal status of reservations contribute to the financial dynamics. Tribes with reservations may navigate complex legal and administrative processes associated with land management, tribal sovereignty, and treaty rights, which may also impact the allocation of federal funds. Meanwhile, tribes without reservations may engage in different advocacy strategies, focusing on broader community development and empowerment.

Hypothesis 5 (Reservation Hypothesis): *Tribes with a reservation will receive more federal funding than tribes that do not.*

Hypothesis 6 (Reservation Size Hypothesis): *Tribes with larger reservations will receive more federal funding than tribes that do not.*

The geographic location serves as another influential factor in federal funding, considering the diverse challenges tribes face based on their ecological, climatic, and geographical contexts. Tribes situated in remote or environmentally vulnerable areas may require additional funding for infrastructure resilience, emergency preparedness, or climate adaptation initiatives (Provins Forthcoming). Conversely, tribes in more urban or economically developed regions may channel federal funds towards economic diversification, education, or healthcare, reflecting the nuanced ways in which geographic context shapes financial needs.

Hypothesis 7 (Geography Hypothesis): *Tribes located in different regions of the U.S. will receive different levels of federal funding.*

Lobbying

Tribes may attempt to use lobbying efforts to persuade or exert influence over Congress and bureaucratic agencies during the funding process. At the congressional level, lobbying serves as a direct channel through which tribes articulate their needs, concerns, and policy preferences to lawmakers. By engaging in lobbying activities, tribes not only enhance their visibility but could also increase their chances of being considered on legislative agendas and advocate for increased financial support. The impact of tribal lobbying extends to the bureaucratic agencies responsible for implementing and administering federal programs. Tribes employ lobbying as a means to cultivate relationships with key agency officials, influencing the regulatory and administrative decisions that govern the distribution of funds. By actively participating in the rule-making processes and submitting comments on proposed regulations, tribes can directly shape the criteria and mechanisms through which federal funds are disbursed.

Lobbying both Congress and bureaucratic agencies may amplify tribes' ability to ultimately impact the amount and nature of financial resources flowing to their people and communities. By lobbying, tribes position themselves to shape the policies that govern federal funding, ensuring that their needs are not only heard but also translated into tangible financial support from the U.S. Federal Government. However, the effectiveness of these efforts often hinges on the tribes' ability to articulate their needs, demonstrate the impact of federal policies on their communities, and build alliances with policymakers and bureaucrats. Successful lobbying can result in increased federal funds allocated to specific tribal initiatives or broader support for tribal economic development.

Hypothesis 8 (Lobbying Hypothesis): *As a tribe increases its lobbying efforts, the tribe will be more likely to observe an increase in federal funds during subsequent funding periods.*

Data and Methods

The analysis of this paper is focused on explaining variation in funding from the Department of the Interior, specifically the determining factors behind the variation. To perform this analysis, we construct a panel dataset of federally recognized American Indian tribes from FY 2013 to FY 2021. The dependent variable in these analyses are *DoI funding*, the total value awarded to a tribe by all DoI sub-agencies in a given year, measured in hundreds of thousands of dollars, and *BIA/BIE funding*, which is the same as DoI funding, but subset to funds coming from the BIA/BIE sub-agencies. For more information on how this data was collected and coded, see the previous section that goes into greater detail about the data.

We will discuss the operationalization of each of our primary explanatory variables in turn. First, we account for *enrollment*, the number of members that belong to a tribe, measured in hundreds. Tribal enrollment can be thought of as the best measure of a tribe's population of citizens. Yearly enrollment data is taken from the Department of Housing and Urban Development Indian Housing Block Grant (IHBG) data, one of the only publicly available measures of tribal enrollment for the years covered in this analysis. Tribal enrollment in this data is self-reported by tribes to HUD, in theory, to partially determine the value of IHBGs the tribe will receive. However, enroll-

ment is understood not to greatly impact the value of these grants, and tribes are not required to update their enrollment numbers every year. This means the same enrollment number is typically used for three to five years (Akee, Henson, Jorgensen, and Kalt 2020).

Second, we also account for the *American Indian and Alaskan Native (AIAN) population* on a tribe's land, also measured in hundreds. This data is drawn by HUD in the IHBG dataset from Census Bureau data of individuals reporting their race as AIAN alone or AIAN with another race. It is important to distinguish AIAN population from enrollment. Enrolled members do not have to live on land that belongs to their tribe. Likewise, many individuals, AIAN or not, who live on tribal land do not belong to the tribe associated with that territory. This is especially relevant in Oklahoma where most reservations were considered destroyed when Oklahoma was granted statehood, so significant portions of the population on tribal land in Oklahoma are not members of the associated tribe. Including the reservation population in addition to enrollment size is important because tribes may have greater demand for some services in more of their citizens live on their land. We also include in our analysis the *number of AIAN households below 30% of national median income*. This data is also based on Census Bureau data compiled by the HUD IHBG dataset. This measure is meant to act as a rough measure of poverty on tribal land.

Next, we included measures of tribal land in three forms. First, we include a binary variable for whether a tribe has any *land base*. This includes a reservation, off-reservation trust land, an Oklahoma Tribal Statistical Area (OTSA), or a Tribal Designated Statistical Area (TDSA). A tribe's control and responsibilities to their land may vary depending on what type of land base they hold, but treat them as equal in this analysis. Second, we calculate the *total area of land* belonging to a tribe in square miles. Third, we calculate the *total area of water* belonging to a tribe in square miles. We separate out water from land because certain kinds of DoI funding may be dependent on one but not the other. For example, a common purpose for awards given to tribes is to deal with dam infrastructure or manage waterways and fisheries. Tribes without access to water, therefore, might not be eligible to receive these funds.

We operationalize *gaming activity* as the number of locations where tribal governments have

gambling available, typically in the form of standalone casinos or slot machines placed in public areas. To measure lobbying activity, we look at quarterly lobbyist filing data compiled by OpenSecrets.org. Specifically, we look at clients who paid a firm to lobby either the DoI or the BIA in a given year and connect these client names to tribes. We only count a lobbying client as a tribal government if the client name clearly refers to a tribe. This means that lobbying done through inter-tribal networks or tribal businesses are mostly excluded from our operationalization of this data. From this connection, we can estimate for each year how many quarterly reports a tribe was listed as a client for. We turn this into a binary measure to capture in a given year whether a tribal government participated in lobbying the DoI or BIA, or did not participate.

Finally, we also include *regional variables* to examine differences in geographic locations. We categorize every tribe into either the Southwest, Southeast, Pacific, Northeast, Great Plains, Great Lakes, California, or Oklahoma region. We made California and Oklahoma separate regions for this analysis because they stand out from other geographic areas for a number of reasons. California has more tribes than any other state, and many of these tribes are extremely small in both enrollment and land size. Oklahoma also has a high number of tribes, including many of the largest tribes by enrollment, and as previously mentioned, tribal land and the AIAN population may not determine Oklahoman tribes' funding in the same way it does other tribes because of how tribal land exists in Oklahoma. The Southwest region is the comparison group for the final analysis and is thus dropped from the proceeding models.

It is important to note that native nations are a heterogeneous group with significant variation in almost all of these variables. Table 1 reports some descriptive statistics on each variable, and it is clear that there are significant outliers. Despite these outliers, we do not log any variables in our analysis because almost all variables include the value zero, and the log of zero is undefined.

The unit of analysis in this paper is the tribe-fiscal year. If a tribe reported receiving zero funding from the DoI for the entire time period included in this analysis or reported zero enrollment in the HUD IHBG data, they were dropped from the analysis. In total, 2,929 tribe-fiscal years were included in all following analyses.

Table 1: Table 1: Descriptive Statistics

	Mean	SD	Min	Median	Max
Interior Funding (\$100,000s)	59.5	144.5	0.0	17.5	3098.3
Infrastructure Funding (\$100,000s)	18.3	68.7	0.0	3.5	2700.1
Self-Determination Funding (\$100,000s)	28.0	63.2	0.0	9.6	1050.1
Education Funding (\$100,000s)	9.3	41.4	0.0	0.0	788.6
Conservation Funding (\$100,000s)	3.5	25.9	0.0	0.0	794.7
Culture Funding (\$100,000s)	0.4	0.5	0.0	0.0	7.7
BIA/BIE Funding (\$100,000s)	54.6	132.7	0.0	16.7	3096.2
Enrollment (100s)	61.4	267.1	0.1	11.3	3195.6
AIAN Population (100s)	43.6	147.8	0.0	12.5	2176.1
AIAN Population Below 30% Median Income	285.0	1037.7	0.0	84.0	18682.0
Land Base	1.0	0.2	0.0	1.0	1.0
Land Area (mi ²)	489.7	1914.8	0.0	11.6	27425.0
Water Area (mi ²)	11.6	49.0	0.0	0.0	541.6
Gaming Sites	1.4	2.1	0.0	1.0	21.0
Lobbying – Interior	0.3	0.5	0.0	0.0	1.0
Lobbying – BIA	0.2	0.4	0.0	0.0	1.0

Results

Table 1 displays the results for the OLS models estimating the effects of tribal population, geographical characteristics, and lobbying on the amount of funds provided to federally recognized tribes by the Department of the Interior and the BIA/BIE. All models include year-fixed effects and use robust standard errors clustered at the year level.

Model 1 includes all federally recognized tribes in the lower 48 states and the full set of DoI agencies. Tribal enrollment has a positive but not statistically significant impact ($p > .1$) on the amount of federal funds that are given to a tribe. Similarly, as the population of American Indian population on a reservation increases there is a negative but again not statistically significant effect ($p > .1$) on the amount of funds given to a tribe by the federal government. Considering the direction of these results together, larger tribes receive more money from the federal government but this effect is moderated by the number of American Indians that are living on a tribe's reservation. However, these results do not provide evidence in support of Hypothesis 1 given the lack of statistical significance. As the amount of a tribal reservation population that is 30% below the median income, increases, there is a positive, statistically significant effect ($p < .01$) on the amount of federal funding received from the federal government. This indicates support for Hypothesis 2 where tribal populations that are more economically vulnerable will receive more funding from the federal government.

A tribe having at least one gambling establishment has a negative and significant effect ($p < .01$) on federal funding. This provides some support for Hypothesis 3 that tribes with gambling establishments have a decreased need for federal funding and fails to provide support for Hypothesis 4 that having gambling establishments increases interactions with the federal government. There is a negative and statistically insignificant relationship ($p > .1$) between tribes that have any land base (reservation, OTSA, TDSA) and federal funding. This is in the opposite direction of our expectation presented in Hypotheses 5. Given the negative indicator for reservation population and for having a reservation, there needs to be both more theoretical and empirical exploration of

<i>Dependent Variable:</i> Funds received per year		
	Interior	BIA/BIE
Enrollment	0.126 (0.097)	0.136 (0.095)
AIAN Pop	-0.057 (0.091)	-0.050 (0.092)
Pop Below 30% Median Inc	0.062* (0.020)	0.053* (0.019)
Land Area	0.014*** (0.003)	0.013*** (0.002)
Water Area	0.051* (0.018)	0.086*** (0.012)
Land Base	9.550 (5.834)	10.436+ (5.611)
Gaming Sites	-4.707* (1.567)	-4.808** (1.416)
Lobbying Activity	27.219*** (3.956)	17.442*** (2.781)
California	-22.245*** (2.342)	-19.779*** (2.224)
Great Lakes	16.846** (4.030)	20.272*** (2.078)
Great Plains	65.139*** (5.784)	48.343*** (3.834)
Northeast	-13.882** (3.573)	-8.512+ (3.694)
Oklahoma	-31.943*** (3.971)	-26.436*** (2.101)
Pacific	20.119*** (2.159)	28.629*** (1.533)
Southeast	47.879*** (6.127)	62.801*** (5.828)
R2 Adj.	0.644	0.639

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models include year fixed effects and 2929
tribe-years. Standard errors clustered by year.

these findings.⁶ Both variables for the size of the reservation land and water area are positive and significant ($p < .01$ and $p < .1$, respectively). These findings provide support for Hypothesis 6.

Turning to regional variation, there is substantial regional variation in federal funding. The reference group is Southwest for our regional variables. Tribes in the Great Plains, Southeast, and Pacific regions receive significantly more federal funding than tribes in the Southwest ($p < .01$, $p < .01$, $p < .01$, respectively). Northeast and Oklahoma regions receive significantly less federal funding than tribes in the Southwest ($p < .01$, $p < .01$, respectively). There is no significant difference in the federal funding received by tribes in the Great Lakes and California compared to tribes in the Southwest. While we did not have specific directional expectations for the regions, these findings support the general expectation in Hypothesis 7 that there would be regional variation.

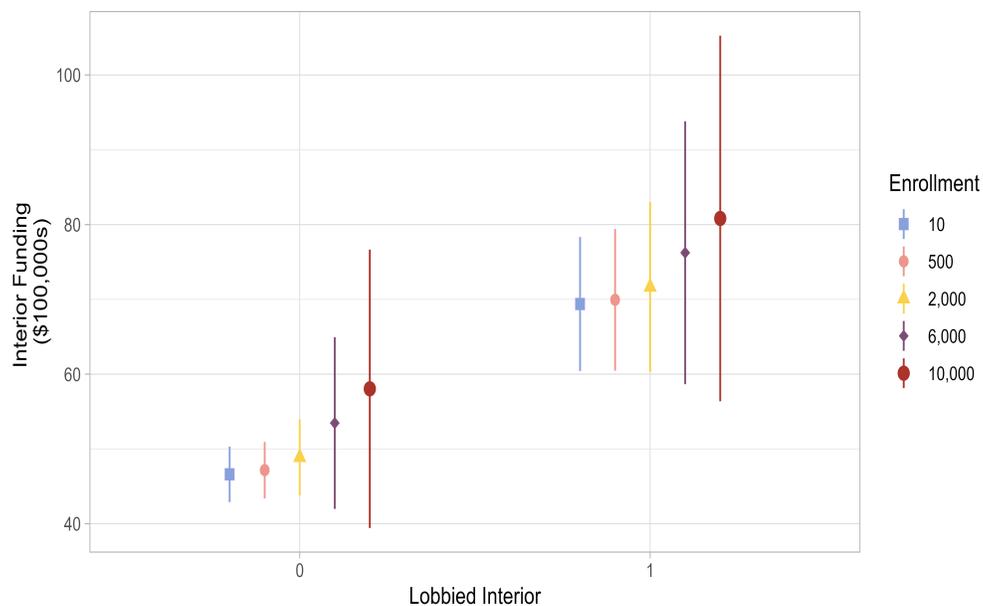


Figure 6: This figure displays the predicted value of DOI funding when a tribe does or does not engage in lobbying, conditional on enrollment size. All other variables are set to the mean value in the dataset, and the region and year are California 2020.

Finally, lobbying activity has a positive and statistically significant impact on the amount of federal funds received by a tribe ($p < .01$). This provides evidence in support of Hypothesis 8.

⁶It may be the case that we see persistent differences in results using another measure such as federal funding per capita.

To examine this effect in more detail we plot the predicted value of DoI funding when a tribe does or does not engage in lobbying, conditional on enrollment size in Figure 6. There is a clear difference in the amount of federal funding received by tribes at all levels of enrollment. This persistent effect brings to light the substantial role of individual tribes' lobbying efforts in the ability to advocate for and receive federal funding.

Model 2 includes all federally recognized tribes in the lower 48 states but restricts DoI agencies to just the BIA and BIE. This is a stricter test of our hypotheses given that these agencies are specially operating to interact with Native American tribal governments and populations. The substantive and directional results of Model 2 are consistent with the results of Model 1. For some variables, the level of significance becomes stronger (e.g. Water Area).

We recognize that it is not just the *amount* of funding but the *type* of funding that is being awarded that may be impacted by some of our variables of interest. Table 2 displays the results for the OLS models estimating the effects of tribal population, geographical characteristics, and lobbying on the number of funds provided to federally recognized tribes by the Department of the Interior for specific funding categories including infrastructure, self-determination, education, conservation and culture. All models include year-fixed effects and use robust standard errors clustered at the year level. By breaking down the models into specific funding categories, we can see the impact of each of our hypothesized covariates on the types of funding received by individual tribes.

We can see that enrollment has a positive and significant impact on the amount of self-determination, education, and cultural preservation funding. However, it has a negative and significant impact on conservation and no significant impact on infrastructure. In contrast, the amount of AIAN population on the reservation has a negative and significant impact on self-determination, education, and cultural preservation. There is no significant impact on infrastructure or conservation, albeit the results are positive and negative, respectively. There is a positive and significant impact on federal funding for self-determination, education, and cultural preservation as the proportion of the reservation population that is low-income increases.

Dependent Variable:
Interior Funds received per year

	Infrastructure	Self-Determination	Education	Conservation	Culture
Enrollment	0.072 (0.094)	0.050* (0.015)	0.017*** (0.003)	-0.012* (0.004)	0.000** (0.000)
AIAN Pop	0.144 (0.099)	-0.109** (0.032)	-0.050* (0.019)	-0.042 (0.027)	0.001 (0.001)
Pop Below 30% Median Inc	-0.020 (0.021)	0.045*** (0.005)	0.022*** (0.004)	0.015* (0.006)	0.000 (0.000)
Land Area	0.007+ (0.004)	0.006** (0.001)	0.002* (0.001)	-0.001 (0.001)	0.000** (0.000)
Water Area	0.064+ (0.028)	0.072*** (0.004)	-0.070*** (0.013)	-0.016*** (0.003)	0.000* (0.000)
Land Base	3.894 (5.172)	7.505*** (1.077)	-1.861*** (0.285)	-0.196 (0.200)	0.207*** (0.034)
Gaming Sites	-1.570 (1.558)	-3.680** (0.757)	-0.234 (0.143)	0.789* (0.287)	-0.012 (0.008)
Lobbying Activity	8.058+ (3.730)	14.320*** (1.357)	0.818 (1.093)	3.958** (1.100)	0.065+ (0.029)
California	-4.439*** (0.736)	-11.564*** (0.960)	-1.644* (0.608)	-4.553* (1.431)	-0.044* (0.014)
Great Lakes	3.797 (2.496)	9.014*** (1.715)	10.258*** (1.647)	-6.365* (2.320)	0.141*** (0.025)
Great Plains	43.371*** (5.327)	12.721*** (0.800)	10.253*** (1.516)	-1.466 (1.504)	0.260*** (0.032)
Northeast	-1.292 (1.219)	-7.289*** (0.934)	0.392 (1.774)	-5.829* (1.979)	0.136+ (0.072)
Oklahoma	-7.949* (3.194)	-9.690*** (0.699)	-7.272*** (1.315)	-7.061** (1.664)	0.029 (0.025)
Pacific	6.095*** (0.717)	13.917*** (1.149)	3.960** (0.993)	-3.887+ (2.067)	0.034 (0.024)
Southeast	3.043 (3.162)	-2.974* (1.057)	55.743*** (7.012)	-8.058* (2.556)	0.126 (0.103)
R2 Adj.	0.280	0.737	0.370	0.065	0.135

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

All models include year fixed effects and 2929 tribe-years. Standard errors clustered by year.

Moving to some of our geographic variables, as there are increases in land area there is a positive and significant impact on federal funding for self-determination, education, and cultural preservation. Further, as there are increases in water area there is a positive and significant impact on federal funding for self-determination, education, conservation and cultural preservation. Interestingly for the results pertaining to land base, there is a positive and significant impact on federal funding for self-determination and cultural preservation, however, there is a negative and statistically significant impact on education funding. It is not immediately clear why we would find these results and warrant future consideration by scholars of indigenous education. Gaming establishments have a negative and significant impact on self-determination funding and a positive and significant impact on education funding. Lobbying activity has a positive and significant impact on the amount of self-determination and conservation funding a tribe receives from the federal government.

Finally, there are interesting regional patterns for certain funding categories that is highlighted in this analysis. While there are too many to elaborate on fully, I will note a few of these important regional patterns. First, California and Oklahoma tribes are less likely than Southwest tribes to receive funding in almost every category. Second, tribes in the Great Lakes, Great Plains, and Pacific are far more likely to receive funding than Southwest tribes across most categories. Third, while the direction of the effects are mostly consistent by region, this is not the case for the Southeast. Tribes in the Southeast receive much more education funding than the SouthWest (and compared to tribes in other regions) yet they receive little funding in areas of self-determination and conservation.

In summary, we find evidence in support of our Need (Hyp. 2), Decreased Need (Hyp 3), Reservation Water and Land Size (Hyp 5), Geography Hypotheses (Hyp. 7), and Lobbying (Hyp 8) hypotheses. We find limited or no support for our Population (Hyp. 1) and Increased Lobbying Capacity (Hyp 4).

Discussion

This paper has examined the factors that shape the allocation of federal funds to Native American Tribes. We argued that population and geographic characteristics, lobbying effects, and inter-tribal networks impact the amount of federal funds received by tribes. The empirical findings not only lend support to hypotheses positing the impact of population size and vulnerability, gambling establishments, and reservation characteristics on federal funding but also highlight crucial timing frames and regional variations in these relationships. The evidence suggests that tribal population dynamics, reflecting both size and community vulnerability, significantly influence the amount of federal funds received. The presence of reservations and the economic success of tribal gaming enterprises emerged as salient factors in the amount of federal funding received by tribes. In future iterations of this manuscript, we plan to include an empirical examination of the effect of tribal lobbying activities and inter-tribal networks on federal funding outcomes.

This research has provided an initial insight to the financial relationship between tribes and the U.S. Federal Government and there are several directions for research by scholars and practitioners. First, future studies could expand the scope to include data from agencies beyond the Department of the Interior. Examining the patterns and determinants of federal funding across diverse agencies could offer a more comprehensive understanding of the broader federal landscape and its implications for tribal governance and development.

Second, exploring the types of federal funding allocated to tribes represents an important avenue for future inquiry. Investigating whether certain types of funds are more sensitive to population dynamics, lobbying efforts, or specific regional characteristics can shed light on the targeted areas where federal support is most crucial for tribal self-determination and development.

Third, a critical area for future research involves delving into the U.S. government's perspective on changes in federal funding over time. Understanding the policy shifts, legislative considerations, and administrative priorities that spur variations in federal funding can provide valuable insights into the evolving dynamics of the tribal-federal relationship. This could involve examining historical policy documents, legislative debates, and executive branch priorities to unpack the U.S.

government's motivations and decision-making processes.

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Appendix

<i>Dependent Variable:</i> Funds received per year		
	Interior	BIA/BIE
Enrollment	0.115 (0.096)	0.136 (0.094)
AIAN Pop	-0.020 (0.091)	-0.039 (0.095)
Pop Below 30% Median Inc	0.060* (0.020)	0.052* (0.019)
Land Area	0.013** (0.003)	0.013*** (0.002)
Water Area	0.039+ (0.018)	0.073*** (0.014)
Land Base	10.474+ (5.278)	11.345+ (5.203)
Gaming Sites	-5.283** (1.469)	-5.323** (1.238)
Lobbying Activity (Count)	7.440*** (0.841)	5.931*** (0.666)
California	-22.292*** (2.355)	-19.856*** (2.183)
Great Lakes	16.647** (4.082)	19.621*** (2.289)
Great Plains	71.825*** (6.585)	50.621*** (4.203)
Northeast	-13.658** (3.602)	-7.960+ (3.785)
Oklahoma	-29.725*** (3.888)	-25.573*** (1.574)
Pacific	20.385*** (2.278)	28.807*** (1.405)
Southeast	36.103*** (5.571)	55.862*** (5.149)
R2 Adj.	0.647	0.641

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001
All models include year fixed effects and 2929
tribe-years.

Dependent Variable:
Interior Funds received per year

	Infrastructure	Self-Determination	Education	Conservation	Culture
Enrollment	0.069 (0.094)	0.045* (0.015)	0.016*** (0.003)	-0.014* (0.004)	0.000*** (0.000)
AIAN Pop	0.155 (0.100)	-0.094* (0.030)	-0.044+ (0.019)	-0.038 (0.027)	0.001 (0.001)
Pop Below 30% Median Inc	-0.021 (0.021)	0.044*** (0.005)	0.022*** (0.004)	0.015* (0.006)	0.000 (0.000)
Land Area	0.007+ (0.004)	0.005** (0.001)	0.002* (0.001)	-0.001 (0.001)	0.000** (0.000)
Water Area	0.059+ (0.030)	0.070*** (0.004)	-0.074** (0.015)	-0.016** (0.003)	0.000** (0.000)
Land Base	4.263 (4.771)	7.688*** (0.952)	-1.542** (0.373)	-0.147 (0.207)	0.212*** (0.033)
Gaming Sites	-1.775 (1.471)	-3.877*** (0.744)	-0.349 (0.213)	0.732* (0.282)	-0.014 (0.008)
Lobbying Activity (Count)	2.253*** (0.369)	3.315*** (0.444)	0.942+ (0.450)	0.909** (0.229)	0.022* (0.007)
California	-4.453*** (0.871)	-11.835*** (0.904)	-1.333+ (0.614)	-4.628* (1.493)	-0.043* (0.014)
Great Lakes	3.766 (2.554)	8.894*** (1.724)	10.236*** (1.704)	-6.390* (2.342)	0.141*** (0.025)
Great Plains	46.277*** (5.671)	14.879*** (0.954)	11.347*** (1.695)	-0.973 (1.490)	0.294*** (0.033)
Northeast	-1.222 (1.284)	-7.267*** (0.943)	0.514 (1.713)	-5.819* (1.973)	0.137+ (0.070)
Oklahoma	-7.171* (2.466)	-9.287*** (0.705)	-6.353*** (1.159)	-6.954** (1.720)	0.040 (0.023)
Pacific	6.155*** (1.071)	14.493*** (1.176)	3.423** (0.870)	-3.718+ (1.989)	0.032 (0.023)
Southeast	0.476 (2.646)	-5.566** (1.186)	49.520*** (5.890)	-8.393* (2.614)	0.066 (0.095)
R2 Adj.	0.282	0.738	0.366	0.065	0.140

+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001

All models include year fixed effects and 2929 tribe-years.