# "An Introduction to the Tribal Governance Database Project" 

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This paper is designed to serve as an introduction to the Tribal Governance Panel Dataset Project, a project that is in the process of compiling a comprehensive set of more than 300 political, economic, sociological, and other indicators for each of the 341 federally-recognized Native American tribes in the contiguous United States. Comparative small-n and large-n quantitative work on Native American tribal governments is virtually non-existent due to the lack of centralized data, an issue that this project aims to remedy. The paper will review existing work on tribal governance, highlighting several contentious conclusions derived from small-n comparative analysis, and suggesting how quantitative analysis might be used to test various established hypotheses regarding the relationship between governance form and various socio-economic outcomes. It will then provide a background behind the dataset and the variables collected thus far. It will also present several preliminary analyses employing a variety of comparison of means techniques in order to illustrate ways in which the data may be analyzed once the database is finalized. Variables that will be examined include per capita income, per capita income growth from 1990 to 2010, economic growth rate from 1990 to 2010, unemployment rate, and unemployment rate change from 1990 to 2010. Finally, the presentation will be used to solicit ideas for collaborative research with interested Workshop-affiliated faculty and students.

## A Background on Native American Public Administration and Governance

Native American tribal governments as a subject of study are relatively neglected by the fields of public administration, public policy, and political science. There are over 570 federallyrecognized tribal governments in the United States, representing a wide variety of groups differentiated by culture, population size, level of economic development, and other factors. Given this heterogeneity, the specific policy and administrative needs of Native American governments
are diverse and potentially defy generalization. But large-n quantitative work might help identify specific institutional forms of governance and other factors that are associated with a variety of economic, political, sociological, and public health outcomes. At the outset, the preliminary picture that is emerging from anecdotal evidence from my interactions with tribes is that economic outcomes may be associated with self-governance status, the size of the tribe, whether it is a casino operating tribe, its relative proximity to an urban area, and whether it is subject to state civil and/or criminal jurisdiction under Public Law 280. Furthermore, the specific administrative styles and needs of a particular tribe appear to particularly differ on the basis of size and self-governance authority. Both of these factors appear to shape the specific mix of administrative functions undertaken by a tribe and the degree to which a given tribal government identifies its own administrative priorities, with the training of finance and budget officers, teachers, contracting specialists, social workers, intergovernmental relations specialists, grant writing specialists, and natural resource managers being associated with particular types of tribal governments differentiated on the basis of size and self-governance authority.

The dearth of scholarship on Native American public administration has been adequately covered elsewhere (Aufrecht, 1999; Brosnan, 1996; King and Beeby, 2008; Mays and Taggart, 2005; Oldfield, Candler, and Johnson, 2006; Ronquillo,2011). As Ronquillo notes, a disproportionate amount of such scholarship is focused on the activities of the Bureau of Indian Affairs. Relatively less attention is paid towards the operation and implementation of Native American tribal bureaucracies themselves, although a growing literature within the broad subfield of intergovernmental relations examines various bilateral and multilateral ties between tribal governments and their federal, state, and local counterparts. However, large and small-n comparative analyses and quantitative work involving Native American tribal governments remain almost non-existent.

Where such research does exist, it tends to be within the domain of small-n comparative qualitative research that suffers from significant external validity issues. For instance, Cornell and Kalt
(2000) employ Qualitative Comparative Analysis to examine a variety of factors behind tribal economic success. A core conclusion the authors provide is that the "general council" form of legislative governance, in which every voting member of the tribe essentially serves as the legislative body and votes on all legislative initiatives, appears to be strongly associated with negative or flat economic growth. However, this conclusion is derived from the inclusion of only two tribes that employ this form of governance, thus representing a potentially major issue of selection bias. A truly large-n dataset that incorporates most, if not all, federally-recognized tribes could better test the hypothesis that the general council form of government is not conducive to economic development, as well as other tentative hypotheses that have originated out of small-n comparative and single case studies.

Furthermore, the relative lack of academic attention paid to tribes hampers the development of training specifically tailored to Native American tribal governments. Programs specific to Native American public administration, where they exist, tend to be at the associate or bachelor degree levels and offered within a handful of community colleges and tribal colleges (Ronquillo, 2011). Notable exceptions include the tribal governance concentration offered at the Evergreen State College, and a former MPA concentration which used to be offered at Arizona State University. While it could be asserted that the general nature of the public affairs curriculum at most universities is appropriate for most, if not all, governance contexts, as I will establish in a moment there are several features of Native American tribal governments which differentiate them from the federal, state, local, and non-profit sectors that are the typical purview of public affairs programs.

## An Introduction to the Dataset

Planning work for a dataset to address this paucity of data on tribes, as well as preliminary data collection, has been in the works since 2014. From the outset, I have been interested in constructing a panel data set to incorporate each of the federally-recognized tribes in the contiguous United States,
excluding the over 200 federally-recognized Alaskan Native Corporations due to their completely different political status, which I argue to be entirely non-equivalent to tribes in the lower 48. A core component of the current dataset is the data collected by Akee and Taylor (2012), which employed census-tract data on a variety of variables including population, income, housing, employment, and other variables. Data across a variety of variables were collected in 1990, 2000, and 2010, and originally presented in a cross-sectional format by Akee and Taylor. A first step then was to convert the data into a panel data environment by transposing columnar data of a particular class of data (e.g. income 1990, income 2000, and income 2010) into rows. One advantage of the panel data format, for instance, is that it can capture the effect of major alterations to a given tribe's government structure, such as the 2008 downsizing of the Navajo Nation Council from 88 to 24 members, or the commencement of new activities such as gaming operations.

The original Akee and Taylor dataset did not include any variables pertaining to governance form. Therefore much of the subsequent data collection activity has been focused in this area. Data collection has already been completed on whether tribes are certified to engage in self-governance authority, whether they engage in casino operations, whether they hold special "reserved treaty rights", and the different processes by which they have attained federal recognition (via treaty, executive recognition, congressional recognition, or administrative recognition). I am currently finalizing the collection of every tribal government constitution in order to qualitatively code variables such as executive, legislative, and judicial form. I am currently developing grant proposals to support a teambased approach to coding this information qualitatively, to be informed by relevant theory from the fields of comparative politics and urban/municipal governance. Ultimately this endeavor will yield a more sophisticated typology of tribal governance form, but given the magnitude of this endeavor, this information is not yet ready for detailed analysis. In the interim, other more basic variables pertaining to political and governance issues are in the process of being collected, such as whether a tribe is
subject to state instead of federal jurisdiction under Public Law 280, whether a tribe has tribal membership in particular inter-tribal organizations, whether a tribe participates in off-reservation comanagement of natural resources, etc.

## A Typology of Native American Tribes and Governments

Given the typical scale and scope of tribal governments, which overwhelmingly serve populations in the hundreds or low thousands, with some exceptional outliers such as the Navajo and Cherokee Nations, it might be tempting to assert that tribal governments are akin to municipal governments. There are at least two different arguments against such a proposition, however. First, such a perspective ignores the issue of tribal sovereignty and how this shapes the various intergovernmental relations between tribal governments and other governmental entities in the United States. Unlike municipal governments in the United States, which derive their authority and specific functions from their respective state governments through governing charters, which make these entities much more like an administrative unit within a unitary instead of federal system of government, tribal governments have been recognized as inherent, if somewhat restricted, sovereigns by the federal government (Harvard Project, 2008). The federal government, through the historic act of nation-tonation treaty-making and/or the modern process of federal recognition, establishes a unique government-to-government relationship with Native American entities which essentially grants Native Americans a "status higher than the states" (Deloria, Jr. and Lytle, 1984). However, unlike the relationship between the federal government and the states, each of whom (at least ideally) exercise authority over constitutionally determined spheres of power and increasingly share authority over policy development and implementation functions, the relationship between the federal government and tribes is governed by a sort of social contract which has come to be known as the trust doctrine. In exchange for ceded lands and a certain degree of cessation of sovereignty, under the trust doctrine the federal government pledges to protect tribal property and domestic sovereignty, and provide for the
provision of particular services and protection of specific reserved rights of the tribes (Wilkins and Stark, 2011). Furthermore, from a tribal perspective at least, the trust responsibility also entails the responsibility of the federal government to uphold its legal and political commitment to the tribes, and the obligation to not move against tribal interests without first securing a given tribe's consent (ibid). Of course in practice, the federal government has not always lived up to its trust obligations in regards to these additional perspectives, as a multitude of historical examples attest.

Additionally, a unique aspect of Native American governments lies in the "hybridity" of the various functions that tribal governments perform. Again, unlike their local government counterparts, Native American governments are much more likely to operate enterprises which otherwise would be considered "private sector" enterprises, such as for-profit gaming enterprises, retail operations, and harvesting of natural resource stocks which are collectively owned by the tribe in a way which is roughly analogous to corporate private land rights (Wilkins and Stark, 2011). Secondly, tribal governments in certain instances, as will be explained at greater length in the next sections, are increasingly engaged as implementing authorities for the provision of public goods which have historically been performed by the federal government. In this regard, Native American tribal governments may be seen as both a hybrid form of corporate-governmental organization insofar as a given tribal government is significantly engaged in the production of private goods, as well as often exhibiting characteristics of public-private partnerships to the degree that the government itself serves as a contractor, "strategic partner", or "joint venture" with other entities, particularly the federal government and non-Indian owned private corporations (Skelcher, 2005).

There are several contextual factors which differentiate Native American tribal governments from one another. An a priori assumption of this paper is that the governance needs of individual tribes can be quite distinct based on how these contextual factors array for each individual tribe. It would therefore be erroneous, if not dangerous, to presuppose homogeneity on the part of the 577 Native

American nations which are currently recognized by the federal government. In order to guide theoretical development and future empirical testing, my starting point is a two by two matrix of broad types of Native American governments, which can be differentiated on the basis of two dimensions: selfgovernance status and tribal size.

Self-governance status refers to a political status which is characterized by individual tribes directly performing service delivery of functions formerly performed by the Bureau of Indian Affairs, Indian Health Service, and other federal bureaucracies engaged with fulfilling the government's trust responsibility vis-à-vis tribes. As outlined by the Self-Governance Communication and Education Office:

Self-governance was proposed by Tribes who, twelve years after passage of P.L. 93-638, Title I, the "Indian Self-Determination and Education Assistance Act of 1975," continued to be frustrated with the Federal Indian Bureaucracy. Basically, P.L. 93-638 authorized Indian Tribes and organizations to contract and operate federal service programs within the Bureau of Indian Affairs and Indian Health Services. It was, and to some extent remains, a bureaucracy that was reluctant to change its role from that of a service provider and manager of Tribal affairs to that of a provider of financial resources and an advocate and assistance for Tribal self-governance and control."

Public Law 100-472, which added Title III to the Indian Self-Determination and Education Assistance Act, required the Secretary of the Interior to conduct a research and demonstration project known as the Tribal Self-Governance Demonstration Project, which initially involved fourteen tribes which were authorized for participation for an initial period of five years, which was subsequently extended for an additional three years. Due to the success of this demonstration project, self-governance was codified as official federal policy in 1994 with the passage of Public Law 103-413, which provided permanent authorization to the policy of self-governance and extended to right to participate in self-governance to any tribe which sought to do so.

Essentially, the process of self-governance begins with a planning process whereby tribes petition to be certified as self-governance tribes. Under Public Law 103-413, "a qualified Tribal applicant shall: successfully complete the planning phase including legal and budgetary research, and internal
tribal government planning and organizational preparation; request participation in the Self-Governance by resolution or other action by the Tribal governing body; and demonstrate financial stability and financial management capability for the previous three years by having no material audit exceptions in the required annual audit." After this planning phase, tribes are to send their resolution to either the Department of the Interior Office of Self-Governance or the Indian Health Service Office of the Tribal Self-Governance. Hence, in order to participate in self-governance, tribes must be certified by the relevant federal bureaucracy which would otherwise be in charge of public service provision. After certification, the tribe, in conjunction with the relevant federal bureaucracy, engages in a compacting process whereby the specific services to be implemented by the tribe are negotiated. The implementation of these functions are then codified in the form of a " 638 contract" which provides for a financial transfer from the federal government to the tribe, which is roughly equal to the funding which otherwise would have been spent had the federal government directly provided the service(s).

According to the Self-Governance Communication and Education Office:
"Tribes and Tribal program managers often had to respond to the 638 contract/grant "Scopes of Work" rather than to the elected Tribal Council or needs of their people. Under a Self-Governance Compact, the participating Tribe, the Department of the Interior and/or the Indian Health Service identify "Designated Officials" as the individuals responsible for resolving issues, problems, or for any matter arising under this new relationship. Generally, the Tribes have identified the Tribal Chairman as their "Designated Official" and the Department of the Interior and the Indian Health Service has identified either an Area Director or the Director of either of the Office(s) of SelfGovernance as the Federal "Designated Official". Because of this "new partnership" role, internal Tribal government reorganization takes on additional importance. Tribal reorganization may be as simple as identification of the Tribal Designated Official, or may be a major restructuring of how the Tribal government conducts its business and activities... For Tribes just entering Self-Governance, typically this process will range anywhere from six months to two years."

Therefore the decision to seek out self-governance status should not be taken lightly, and many commentators suggest that the administrative and transaction costs of the process outweigh any of the potential benefits. It is perhaps not surprising then that not all tribes have pursued self-governance
status. This decision to not seek out self-governance status is not simply related to the administrative overhead and other technical concerns, however. As Ron Allen, former chairman of the Jamestown S'Klallam tribe in Washington State, one of the original fourteen tribes which participated in the Tribal Self-Governance Demonstration Project, notes:
> "A number of tribal governments refused to assume the management of their service programs under the Indian Self-Determination Act. Although I understand their decision, I disagree with it. These tribes believe that the U.S. government has failed to live up to its treaty obligations. They fear that if they manage their own service programs at the low levels of federal funding under the act, they will release the federal government from its obligation to Indian tribes... Tribes must come to the realization that the federal government will never fully live up to its obligations to our peoples and that we must take control of our destinies through our own resourcefulness." (Harvard Project, 2008).

As this quote suggests, a major political fault line that exists between different tribal governments is whether they choose to directly implement their own service delivery programs or prefer to have the federal government do it for them under the government's trust obligations. Such a decision has major ramifications for the range of administrative tasks that each tribal government is faced with, as will be fleshed out in a moment. According to the Indian Health Service, there are currently 108 tribes of the 566 federally recognized tribes which are currently certified as self-governance tribes. In total, more than $\$ 400$ million dollars are dispersed annually to all of the certified tribal governments eligible to participate in self-governance programs through the use of 638 contracts.

The second dimension I have designated as "Tribal size" meanwhile refers to the population size of a particular individual tribe. This dimension essentially attempts to capture the concept of economies of scale in regards to governance: ceteris paribus, tribes under a particular population threshold are assumed to have significant constraints on their abilities to perform a diversified set of governance functions. The question which emerges here is what the appropriate population threshold should be. According to the US Census Bureau, the top ten tribes by membership population in 2010 ranged from the 308,013 members of the Navajo nation to the 23,583 members of the Blackfoot Nation. On the
other end of the distribution are a great number of very small tribes with membership populations of 500 or less. This effect is accentuated by the inclusion of the more than 200 Alaska Native Corporations, which are the formal governance bodies of Alaskan Native Americans and which have a different political status than federally recognized tribes in the lower 48. The majority of federally recognized tribes have populations of under 1,000, with approximately 105 tribes having either membership totals or service area populations which exceed this figure.

However, simply using this 1,000 population figure to differentiate tribes in terms of their size potentially obscures capturing the core concept of economies of scale in governance. Ongoing research is attempting to identify a threshold which would more accurately capture this concept. By comparing the size of public sector employees of a given tribe to the overall population of that tribe, preliminary evidence suggests that those tribes that have populations above 3,000 have a greater likelihood of having a more diversified set of functions, while tribes with populations of less than 700 or so tend to be limited in their scope and frequently governed by so-called "IRA Constitutions", which were developed in the 1930's under the auspices of the Indian Reorganization Act. These constitutions developed tribal councils along the lines of a "business council" which was predominately charged with operating tribal for-profit enterprises and negotiating land acquisitions.

Despite the methodological and measurement concerns outlined above, I believe that the resultant typology still serves as a useful jumping off point for a preliminary analysis of the relationship between governance and economic development. By combining the variables of tribal size and selfgovernance status, four idealized types of tribal governments have been developed, and specific exemplar tribes of each type can be identified. Table One provides a schematic of this typology based upon the dimensions outlined in this section:

Table One: A Basic Typology of Native American Governments
Self-Governance Status

|  | Certified | Non-Certified |  |
| :---: | :---: | :---: | :---: |
|  | Large | Robust | Dependent |
|  | Small | Aspirant | Limited |

Those tribes which are characterized by having relatively large population sizes and which are certified self-governance tribes are characterized as "robust" tribes, indicating those tribes that maintain public sectors of significant size and a diversified set of governance functions that overlay a relatively wide range of policy areas. An exemplar of this type would be the Cherokee Nation of Oklahoma. These types of tribes are posited to be more likely to have a need for a wide range of functional administrative expertise in order to carry out their diversified self-governance activities. "Robust" governments are more likely to resemble municipal governments in the United States, insofar as they engage in a wide range of public service provision activities. As such, the conventional wisdom employed by many - that tribal governments are merely like local governments in the United States - is in many ways applicable here, while it is an erroneous assumption for other political types. However, the degree to which these tribal governments also demonstrate high degrees of hybridity as outlined previously, especially in regards to whether they operate for-profit business enterprises and/or gaming operations, serves as discriminating factor between these tribal governments and most local governments. Regardless, these governments are likely to face a much more pronounced need for technically-specific public servants such as budget officers and human resource managers, due to their larger scale, as well as contracting officers and intergovernmental relations specialists due to the high degree of transactions inherent in self-governance. As a result, for individuals serving these "robust" tribal governments, much of the conventional training available in established public affairs programs is likely to be of value to these individuals.

Meanwhile, a tribe with a small population size that has not been certified as a self-governance tribe is characterized as a "limited" tribal government, which is likely to be primarily engaged in the
operation of business enterprises, leaving the responsibility of public service delivery to the federal government. An exemplar of this type would be the Hoh Tribe of Washington State, a tribe of 102 members with a reservation of just 1.9 square kilometers. Owing to their smaller sizes, in conjunction with the higher likelihood of these tribes being located in more rural areas, the limited opportunities for economic development are likely to dominate the policy agenda of these groups. As a result, these groups must prioritize tribally-owned and operated enterprises, at the expense of engaging in more conventional public service activities. This essentially constrains their ability to engage in selfgovernance activities regardless of their potential desire to do so. In these instances, the emphasis on private business operations is likely to make these governments relatively less interested in conventional public administration, emphasizing instead the need for professionals with training from the realm of business administration.

Those tribes with smaller populations which have successfully negotiated self-governance status are termed "aspirant" tribal governments owing to the ambition that these tribes demonstrate to take on the implementation of as many public services as possible. An exemplar of this tribal type would be the Pueblo of Sandia in New Mexico, a tribe of under 500 members who operate a very successful gaming enterprise. As a consequence of increased gaming revenue, the tribe employs over 2,000 individuals in the greater Albuquerque area, and engages in self-governance in the areas of public health, public works, and natural resource management. As a consequence of their small size, however, much of these functions must be performed by individuals who are not tribal members, which I hypothesize serves as a constraint to the pursuance of additional self-governance responsibilities. Furthermore, the economic development potential for aspirant government types may be particularly constrained by their relative access to non-Indian human capital. In these instances, tribes may articulate a desire to be more active in a greater range of self-governance activities, but acknowledge that their ability to do so is constrained by their own relative lack of human capital. Because of this
situation, aspirant government types are likely to face a predominant need for human resource management professionals in order to facilitate the expansion of self-governance services through the employment of non-members. Aspirant governments that are characterized by significant gaming operations and/or a close proximity to urban areas are likely to demonstrate a more diversified set of self-governance activities. In short, I believe there to be two potentially distinct types of "aspirant" governments: those that do engage in a limited set of self-governance activities, but are constrained in their ability to diversify due to human capital and other resource constraints, and those that engage in an unusual degree of direct service provision relative to their population size, due to their enhanced financial status and access to non-Indian human capital. As a result, the need for human resource management professionals is likely to be relatively more pronounced for these types of tribes.

Finally, those tribes that have relatively large populations and which, for whatever reason, have eschewed formal participation in self-governance are termed "dependent" tribal governments. Owing to the larger size of these groups, they are more likely to engage in a broader range of issue areas than "limited" tribal governments. It is suspected that while these governments nominally oversee a larger number of departments, offices, or agencies, the relative size of these agencies are much smaller than equivalent agencies in "robust" tribal government types. This is due to the relative dependence these tribes have on the federal government's direct service provision of a wide range of public services on these reservations. As a result, it is hypothesized that the ratio of the size of the public sector to the overall population is likely to be lower than other tribal types, owing to the relative dependence on federal agencies for the provision of these services. This is not to say that "dependent" tribal governments do not operate a relatively diversified set of governance functions, again owing to their relatively large population size. Rather, the size of these departments are likely to be stunted and characterized by professional functions overwhelmingly characterized by intergovernmental negotiation processes vis-à-vis the BIA or HIS, rather than direct service delivery. It is thus hypothesized that these
groups would generally have a greater need for intergovernmental relations specialists than other government types. An exemplar of this type could be the Crow Nation of Montana, which despite its relatively large population of 12,000 members, and despite nominally having multiple "departments", appears to focus its governmental activities on business enterprises, education, and transit.

Using this typology as a baseline, it is also important to consider how other specific contextual factors impact the range of administrative functions undertaken by a particular tribal government. As alluded to previously, whether a tribe operates a gaming operation, and the degree to which it is successful, may have a significant effect on subsequent decisions to diversify the range of public services offered by the tribe and/or whether to engage in self-governance. This is furthermore potentially tempered by the tribe's relative proximity to urban areas. As research suggests, the potential for gaming success is relative to the available market for gaming that can be tapped into (Rand, 2006). Tribes located in close proximity to major urban areas, so long as they are not competing with other gaming enterprises which could sap those markets, are more likely to reap major economic gains from gaming. For smaller tribes, urban proximity also may have an effect on the decision to engage in selfgovernance, as the decision to engage in formal self-governance contracts may well depend on the available pool of well-qualified non-Indian public administrators if the existing human capital of the tribe is constrained due to smaller membership. Of course it is entirely possible that in the case of "limited" or "dependent" tribal governments which operate profitable gaming enterprises, this new largesse could be directed not towards self-governance, but per capita financial disbursements, all while the tribal government chooses to rely upon the federal government for the provision of public services for the very political justifications outlined previously. Thus the impact of tribal gaming on tribal public administration may possibly be different for each government type, and questions revolving around these issues are ripe for future empirical examination.

Finally, whether or not a tribe is subject to state criminal and/or civil jurisdiction under Public Law 280 is likely to have an effect on both the functional needs of the tribe and the degree to which criminal justice as a policy area is held to be a significant priority for the tribe. Briefly, Public Law 280 is a holdover policy from the so-called "era of termination" of federal Indian policy, which predated the current era of self-governance and self-determination. While public safety on Indian lands is part of the recognized powers of tribal self-government, the Federal government bolstered its concurrent criminal jurisdiction on Indian lands through the passage of the General Crimes Act of 1817 and Major Crimes Act of 1885. The General Crimes Act sought to clarify the jurisdictional grey area of crimes between Indians and non-Indians by granting Federal jurisdiction in these areas pursuant to the following restrictions: situations where an Indian committed a crime against another Indian, instances where an Indian defendant had already been prosecuted under the local law of the tribe, and instances where special jurisdiction was already granted to the tribe through a prior treaty (Jimenez and Song, 1998, 1650). Later Supreme Court precedent in the case of United States v. McBratney found that this Federal jurisdiction did not extend to crimes committed between non-Indians on Indian land, and instead found that States would have jurisdiction in these types of cases (ibid). In 1953, with the passage of Public Law 280, the federal government transferred its concurrent criminal and civil jurisdiction to certain state governments.

Originally the law was only intended to transfer jurisdiction in California (Melton and Gardner). But, as it made its way through Congress, other states were added. The version passed by Congress in 1953 included five mandatory states: California, Minnesota, Nebraska, Oregon, and Wisconsin. Alaska was added when it became a state in 1959. These "mandatory states" received extensive criminal and civil jurisdiction over tribal lands. In addition to the mandatory states, any other state could exercise the option to take jurisdiction from the federal government at any point in the future by petitioning Congress (U.S. Department of the Interior, Indian Affairs, FAQs). This option was controversial from the
beginning because it did not require tribal approval (Melton and Gardner). It was so controversial President Eisenhower even expressed that he had "grave doubts" about the lack of a consent provision and included a Signing Statement to record his objection (Goldberg and Campagne 2006). To date Arizona, Florida, Idaho, Iowa, Montana, Nevada, North Dakota, South Dakota, Utah, and Washington have exercised the option to take jurisdiction under PL 280 (Melton and Gardner). Collectively these states are known as "optional" PL 280 states, and when combined with the original mandatory states, cover the vast majority of Indian country in terms of the number of federally recognized governments, land area, and Indian population. The only states with significant Indian populations not falling under PL 280 rules are Colorado, Kansas, New Mexico, Oklahoma, and Wyoming. For the most part, those tribes that have been subjected to state jurisdiction are highly critical of the law, as it represents to them an unconstitutional imposition of a government-to-government relationship with a lower order of government, which violates their inherent sovereignty as informed by the "nation-to-nation relationship", as well as the fact that the quantity and quality of policing services are most often inadequate from the tribal perspective. This intrusion of state authority furthermore serves as a constraint on the development of tribally-operated justice systems, as the ability of tribal police to arrest and prosecute various offenses is fundamentally constrained by the state's role in policing on tribal lands.

An additional complication is that in the original mandatory states, certain tribes were eligible to be granted an "exemption" from Public Law 280 authority if they could demonstrate "adequate" law enforcement and legal system capacities. Furthermore, with the 1968 Amendments to the law, tribes that had already been subjected to state jurisdiction could now apply for a retrocession of that authority. Thus, there is an incredibly complex patchwork of criminal authority on tribal lands which not only varies from state-to-state, but also between different tribal governments located in the same state,
to the extent that some tribes have been granted initial exemptions or subsequent retrocessions while others have not.

## Preliminary Analyses

The dataset is now at a point where preliminary data analysis can occur. As a means of illustrating some of the more basic applications that are already possible to perform, I examine several economic performance indicators and whether some of the basic tribal categories identified above are associated with relatively higher economic performance. Five such economic variables have been drawn from the dataset: Per Capita Income in 2010, Per Capita Income Growth from 1990 to 2010, Economic Growth Rate from 1990 to 2010, Unemployment Rate in 2010, and Unemployment Rate Change from 1990 to 2010.

I performed independent sample t-tests for each of these variables using the grouping variables of "tribal size" (using the 3,000 member threshold discussed previously), "self-governance authority", and "casino operations". There are statistically significant differences between small and large tribes for Per Capita Income, Income Change Per Capita, and Economic Growth Rate, with smaller tribes exhibiting higher average per capita income (\$17,886 vs. \$13,653), larger per capita income growth (\$7,058 vs. $\$ 4,316)$, and better twenty-year economic growth rates than larger tribes (74.78\% vs. 49.18\%). The results for tribal size are presented in Table Two below.

## Table Two: Independent Samples T-Test for Tribal Size

| Independent Samples Test |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Levene's Test for Equality of Variances |  | t | df | Sig. (2-tailed) | t-test for Equality of Means |  |  |  |
|  |  | F | Sig. |  |  |  | Mean Difference | Std. Error Difference | 95\% Confidence Interval of the Difference |  |
|  |  |  |  |  |  |  |  |  | Lower | Upper |
| PerCapincome2010 | Equal variances assumed | 14.479 | . 000 | 2.675 | 269 | . 008 | 4233.03934 | 1582.54445 | 1117.29106 | 7348.78761 |
|  | Equal variances not assumed |  |  | 3.170 | 258.962 | . 002 | 4233.03934 | 1335.47868 | 1603.25888 | 6862.81979 |
| Unemployment2010 | Equal variances assumed | 8.223 | . 005 | -. 150 | 173 | . 881 | -. 00088 | . 00583 | -. 01237 | . 01062 |
|  | Equal variances not assumed |  |  | -. 148 | 146.913 | . 883 | -. 00088 | . 00594 | -. 01261 | . 01086 |
| UnemploymentChange2 010-1990 | Equal variances assumed | 12.413 | . 001 | -. 222 | 173 | . 825 | -. 00139 | . 00629 | -. 01381 | . 01102 |
|  | Equal variances not assumed |  |  | -. 216 | 133.708 | . 830 | -. 00139 | . 00646 | -. 01417 | . 01139 |
| IncomeChangePerCap | Equal variances assumed | 20.820 | . 000 | 1.932 | 269 | . 054 | 2742.44222 | 1419.81088 | $-52.91263$ | 5537.79707 |
|  | Equal variances not assumed |  |  | 2.295 | 257.586 | . 023 | 2742.44222 | 1194.99884 | 389.23101 | 5095.65344 |
| EconomicGrowth | Equal variances assumed | 18.970 | . 000 | 1.799 | 269 | . 073 | . 25599 | . 14229 | -. 02416 | . 53614 |
|  | Equal variances not assumed |  |  | 2.181 | 244.500 | . 030 | . 25599 | . 11739 | . 02477 | . 48721 |

Report

| PopSize | IncomeChange <br> PerCap | EconomicGrowt <br> h | PerCapIncome2 <br> 010 |  |
| :--- | :--- | ---: | ---: | ---: |
| Small | Mean | 7058.5048 | .7478 | 17886.4774 |
|  | N | 171 | 171 | 171 |
| Large | Mean | 4316.0625 | .4918 | 13653.4381 |
|  | N | 100 | 100 | 100 |
| Total | Mean | 6046.5335 | .6534 | 16324.4703 |
|  | N | 271 | 271 | 271 |

Interestingly, there are no statistically significant differences between self-governance and non-self-governance tribes across the five economic variables. Casino operations, however, do demonstrate moderately significant results, with Unemployment Rate and Per Capita Income Change being significant at the $p>.10$ level, and the Unemployment Rate Change variable being significant at the $p>.05$ level. Descriptively, casino operating tribes enjoy a lower average unemployment rate than non-casino operating tribes ( $6.97 \%$ vs. $8.62 \%$ ) along with a decreasing unemployment rate change from 1990 to 2010 of $-.36 \%$ compared to an increasing unemployment rate of $1.9 \%$ for non-casino operating tribes in
the same time period. Furthermore, casino operating tribes enjoyed a larger per capita income change between 1990 and 2010 (\$6,733 vs. \$4,124).

Table Three: Independent Sample T-Tests for Casino vs. Non-Casino Operating Tribes



Despite the lack of significant results between self-governance and non self-governance tribes, I next ran a series of One-Way ANOVA procedures using the four-fold typology developed in this paper.

The only variable that demonstrated statistically significant results was Per Capita Income 2010. Table Four presents the average per-capita income for all four tribal government types:

## Table Four: Per Capita Incomes for Aspirant, Limited, Dependent, and Robust Tribal Types

## PerCapIncome2010

| Tukey HSD ${ }^{\text {a,b }}$ |  |  |
| :---: | :---: | :---: |
| TribeType | N | Subset for alpha $=0.05$ 1 |
| Dependent (Large, Non Self-Governing) | 9 | 13350.7827 |
| Robust (Large SelfGoverning) | 91 | 13683.3710 |
| Limited (Small, Non SelfGoverning) | 102 | 16859.8024 |
| Aspirant (Small SelfGoverning | 69 | 19404.1709 |
| Sig. |  | . 286 |
| Means for groups in homo displayed. <br> a. Uses Harmonic Mea <br> b. The group sizes are mean of the group si levels are not guaran | ous su <br> ple Siz al. The used. | ts are <br> 27.323 . <br> rmonic I error |

Employing Tukey post-hoc pairwise comparisons, the only statistically significant difference was between Aspirant and Robust tribal types, with "Aspirant" tribes having an average per capita income of $\$ 19,404$ compared to $\$ 13,683$ for "Robust" tribes. While not statistically significant, it is interesting to note that both of the small tribe categories have higher per capita incomes than larger tribes.

A potential driver behind this difference between large and small tribes is the additional impact of casino operations. I posit that the higher average incomes for smaller tribes may reflect the situation of certain very small tribes (~30-300 members) that operate very successful and large gaming operations, whose success serves to spread the extra largesse among a small number of tribal members.

In order to test this hypothesis, I then ran a Two-Way ANOVA that incorporated the Casino/Non-Casino grouping variable to test the interactive effect between tribal type and casino operations. While the interactive effect between tribal type and casino did not prove to be statistically-significant, a comparison of means yields interesting results worthy of further investigation. For each of the four types, casino operating tribes had greater per capita income, but the magnitude of difference was the greatest among Aspirant tribes ( $\$ 20,792$ vs. $\$ 16,225$ ). It is also worthwhile to note that non-casino operating Aspirant tribes had a higher per capita income (again, $\$ 16,225$ ) than all other combinations other than casino-operating "Limited" tribes, which had an average income of \$18,093. I hypothesize that this effect is related primarily to simple scale issues, with smaller tribes exhibiting a wider range of variance than larger tribes simply as a result of their smaller population sizes (see Table Five below).

## Table Five: Comparisons of Average Per Capita Income

Report

| PerCapIncome2010 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| TribeType | Casino | Mean | N | Std. Deviation |
| Limited (Small, Non SelfGoverning) | No | 15167.4541 | 43 | 11111.18483 |
|  | Yes | 18093.2088 | 59 | 11908.63232 |
|  | Total | 16859.8024 | 102 | 11614.03402 |
| Aspirant (Small SelfGoverning | No | 16225.7475 | 20 | 7888.99361 |
|  | Yes | 20792.1793 | 48 | 21788.18503 |
|  | Total | 19449.1111 | 68 | 18843.00769 |
| Dependent (Large, Non Self-Governing) | No | 12038.5995 | 1 | . |
|  | Yes | 13514.8056 | 8 | 3034.47571 |
|  | Total | 13350.7827 | 9 | 2880.82785 |
| Robust (Large SelfGoverning) | No | 11299.3467 | 7 | 2827.82513 |
|  | Yes | 13882.0397 | 84 | 7495.59379 |
|  | Total | 13683.3710 | 91 | 7268.15418 |
| Total | No | 15040.1338 | 71 | 9674.33720 |
|  | Yes | 16782.5814 | 199 | 13657.10412 |
|  | Total | 16324.3822 | 270 | 12737.06660 |

It is important to note here that because of the extreme standard deviations exhibited among the smaller tribes, the ANOVA assumption of homogeneity of variance is violated (there is also a small sample size issue present, in that there is only one instance of a non-casino operating "Dependent" tribe). Therefore, these results cannot be viewed as reliable. However, I submit that this preliminary analysis demonstrates descriptive differences that are potentially promising, and that the violation of the assumption of homogeneity of variance may be addressable through the inclusion of additional cases (there are several instances of missing data for several individual cases, owing to the preliminary stage of data collection) or through the typical procedure of data transformation. Furthermore, the impact of factors of close urban proximity and subjection to Public Law 280 authority, as discussed previously, will be employed in future MANOVA operations, once coding of these variables is completed. For instance, the development of a categorical urban proximity indicator can be employed to get at a clearer examination of the effect of casino operations, in light of the enormous variation that exists between casino operating tribes.

Regardless, the purpose of this paper has been to introduce readers to the database project itself, and to perform preliminary analyses in order to demonstrate the types of procedures that might be performed in the future. Additionally, because of the preliminary stage of data collection, I am currently unable to perform any panel data regression techniques, but I would like to emphasize that these types of procedures will ultimately be an emphasis of future analyses.

