

White Man's Moccasins
We Have Their Shoes, They Have Our Land
The Footprints Left by the U.S. Trust Doctrine on Pueblo Indian Peoples and a
Suggestion for Transformation Through an Economic Lens
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ABSTRACT

Because economic advancement has been defined by Western society and not by Indigenous peoples themselves, the material gains of such narrowly defined notions of advancement have long been an elusive dream for many Indigenous communities in the United States. Many reasons have been given as to why significant economic advancement through a Western materialistic lens has been unattainable, including remoteness, the inability to get financing on trust land, and access to markets. These are all valid concerns and challenges, but they are not insurmountable. Another disconcerting reason has been the perception that the federal government through its trust responsibility is to do everything for the tribes, including economic advancement, job creation and economic diversification. Despite the problematic nature of this lens, this work is concerned with both how Indigenous—and particularly southwestern tribal, Pueblo Indian nations—interpret and participate in the drive to achieve measures of prosperity for their communities. Granted, the U.S. government does have a trust responsibility to assist tribes, however, that does not mean tribes are relieved of their obligation to do their part as well. Here, I provide an observation of the notion of government responsibility towards tribes and ultimately suggest that there is a strong and devastating addiction that hinders Indigenous communities and impacts economic advancement. This addiction is not alcoholism, drugs, or domestic violence. Instead, this is an addiction to federal funds and programs, which has diminished Indigenous inspiration to do for self, the motivation to be innovative, and has blurred responsibility of what it means to contribute. I will also include the need to utilize data to develop new economic policies and strategies. Last, I will include a policy suggestion that will be

aimed at operationalizing the trust reform and data concepts. While discussing these challenges, my focus is to moreover offer a suggestion of how to strategize through them. Drawing from Pueblo Indian examples, the argument becomes clear that other Indigenous citizens across the lower forty-eight have an opportunity to break the prescribed mold in order to advance their economies and on their terms.

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Section I: We have their shoes, they have our land

Introduction: A history of dependency

We are at a point in time that we must take off the white man's moccasins and put on our own moccasins. "White man's moccasins" refers to the impact that federal policy and law have had on Indigenous and Pueblo people over the many years since the passage of the U.S. Trust Doctrine in 1831. The doctrine was enacted by congress to protect and provide certain resources like healthcare, natural resources management, and other resources to tribes. However the policies and laws that the U.S. congress created to carry out this doctrine resulted in situations that created division among tribal people such as the blood quantum policy and the Dawes act that took land and shifted from a mindset of land stewardship to land ownership. Unfortunately, many tribes, whether consciously or unconsciously, compounded the situation by implementing similar laws in their own constitutions, ordinances and policies. (Pueblo of Laguna 1958 Constitution, Blood Quantum.) It is now time that tribes take off the White Man's Moccasins that have led to marginalization and subordination. Tribes must put their own moccasins on and create their own indigenous law and policy. Tribes have worn the White Man's Moccasins too long,

We have worn the federal government-issued white man's moccasins, and the government in turn has taken us on a path of subordination, dependency, and infiltrated our Indigenous minds with entitlement thinking, diminished inspiration and innovation, and even contributed to loss of Indigenous cultural identity. This treacherous journey has

taken North America's Indigenous nations through the struggles of genocide/extermination, termination, self-determination, self-governance, and negotiation. This process is well-documented in the literature on colonization and federal policies towards Indigenous populations. For example, Vine Deloria, Jr. (1968) addresses this in his work *Custer Died for Your Sins*. Furthermore, the very body that was set up to organize and ultimately control American Indians in the United States offers a prime example of a paternalistic and assimilation-motivated system of working with Indigenous populations. The quote below that comes from the Bureau of Indian Affairs website points to this idea of what the trust obligation is perceived to be.:

Since its inception in 1824, the Bureau of Indian Affairs has been both a witness to and a principal player in the relationship between the Federal Government and Indian tribes and Alaska Native villages. Over the years, the BIA has been involved in the implementation of Federal laws that have directly affected all American Indians. The Tribal Self-Governance Act of 1994 along with the Self-Determination and Education Assistance Act of 1975 P.L. 93-638 have fundamentally changed how the Federal Government and the tribes conduct business with each other. (Bureau of Indian Affairs:

<http://www.bia.gov/WhoWeAre/BIA/>)

This description of Bureau of Indian Affairs (BIA) activities offers what might be interpreted as a neutral tone in describing policies towards American Indians that were in effect extremely destructive to American Indian populations. The work of Robert Miller addresses some of the root causes of these issues through his examination of the doctrine of discovery and manifest destiny, which allowed colonizing forces to claim ownership

based on discovery and domination based on exploration and essentially land-grabbing (Miller 2011). Thus, the colonizing forces, under what is now the umbrella U.S. government, were able to justify setting up systems and structures like the BIA in order to regulate and manage American Indian populations and their lands. The effects of this are tremendous and lasting: For example, after the U.S. Congress passed the Trust Doctrine of 1831, and based on the Bureau of Indian Affairs narrative outlining its own interpretation of its policies, it could be concluded that Congress may have never envisioned that the Indigenous people of this land would continue to exist much further beyond the creation of that particular doctrine.

At the same time, in light of some of the progress and evolution that the BIA and its parent entity, the U.S. Department of the Interior, have made—from assimilation to self-determination, for example—there remain significant shortcomings in fulfilling the historical U.S. Government-to-Tribal Government relationship and, implicitly, the U.S. trust obligations towards American Indian tribes within U.S. borders. This is not to say that the Federal Government via the BIA has not made some positive impact in various instances, such as the P.L. 93-638 Indian Self Determination Act, the return of the Taos Blue Lake, and the passage of the Pueblo Land Claims Act. The return of Taos Blue Lake was positive and crucial to the spiritual well-being of Taos Pueblo as well as to the expression of religious sovereignty. The Pueblo Land Claims Act was positive in the sense that it gave a sense of assurance that land will remain in the hands of Pueblo control. These were significant impacts to the Pueblo communities. However, overall, federal policies have actually created more challenges and struggles for the Pueblo nations in the Southwest U.S. It is t those challenges and struggles that I now turn.

Ideas of poverty contained within these historical and contemporary struggles is the dominant issue of what is commonly referred to in a widespread manner—in the U.S., internationally, and most importantly, at the local tribal community level—as economic development. This is generally a singular approach focused on generation of revenue and exploitation of local and tribally-controlled resources to meet a bottom line, which is US Dollars. This dominant economic development model is a tool that is aimed at advancing the Indigenous markets and opportunities. However, such a singular economic development idea has been one that has actually produced more deprivation than opportunity. Sen (1999) argues this by discussing that poverty is a deprivation of capabilities rather than low income. (p. 20) It is not deprivation of resource but of spirit. To the contrary, Sen also discusses that economic development via the markets is a mechanism that will allow for freedom through development. Sen argues that with the markets being more widely accepted, it allows for more of the population to participate in the market, thus creating a mechanism that allows for a vehicle to overcome deprivation]. (Sen, 1999, pg. 26)

Much research has been devoted to putting forward a characterization of Indigenous peoples as living in conditions of poverty, which addresses economic poverty but tends to label them as simply “poor,” and ultimately characterizing them as a whole and therefore either directly or indirectly promoting a deficiency model that explores why tribes are financially challenged, maintaining generational poverty levels, and not “advancing.” Because economic advancement has been defined by a Western other and not by Indigenous peoples themselves, the material gains of such narrowly defined notions of advancement have long been an elusive dream for many Indigenous

communities in the United States. Many reasons have been given as to why significant economic advancement through a Western materialistic lens has been unattainable. In their work Kalt and Cornell have looked at what makes some tribes successful economically and why others have struggled. Some of the reasons given have been remoteness, the inability to get financing on trust land, and access to markets. (Cornell, Kalt, 1992) These are all valid concerns and challenges and there is no one specific cause, but these are challenges that are not insurmountable.

In my own experiences as a Pueblo Governor, which I will discuss later in this work, an even more troubling yet weaker reason for lack of economic advancement has been the tribal government perception that the federal government, through its trust responsibility, is to do everything for the tribes, including economic advancement, job creation, and economic diversification. Despite the problematic nature of this lens, this dissertation is concerned with both how Indigenous—and particularly southwestern tribal, Pueblo Indian nations—interpret and participate in the drive to achieve measures of prosperity for their communities. Granted, the U.S. government does have a trust responsibility to assist tribes, however, that does not mean tribes are relieved of their obligation to do their part as well. The trust responsibility of the federal Government to Native American tribes provides for the United States to protect tribal treaty rights, lands, assets, and resources, as well as a duty to carry out the mandates of federal law with respect to American Indian and Alaska Native tribes and villages (*Seminole Nation vs. United States*, 1942 and *Cherokee Nation vs. Georgia*, 1831). Although the trust responsibility is rooted in law, I give my view and observations from that of a tribal leader. Here, I provide an analysis of the notion of government responsibility towards

tribes and ultimately suggest that there is a strong and devastating addiction that hinders Indigenous communities and impacts economic advancement. This addiction is not alcoholism, drugs, or domestic violence. Instead, this is an addiction to federal funds and programs, which has diminished Indigenous inspiration to do for self, the motivation to be innovative, and has blurred our responsibility of what it means to contribute. While discussing these challenges, my focus in this work is to moreover offer a suggestion for how to strategize through them, so revising how we view and define advancement.

Drawing from Pueblo Indian examples, the argument becomes clear that other Indigenous citizens across the lower forty-eight have an opportunity to break the prescribed mold in order to advance their economies on their terms. In this dissertation, the focus is not as much on the historical challenges that U.S. and, more specifically, southwestern and Pueblo Indigenous nations have experienced over the years. These challenges are laid only as foundation to provide brief context. Instead, the focus here is deliberately shifted towards opportunities that reform and transformation can bring, and the stewardship that opportunities can produce. It is important to understand what exactly Pueblo Indian tribes are *reforming from* and what we are attempting to *transform into*. An encouraging element, the notion of stewardship, brings forth the argument that as Indigenous nations and people, Indigenous stewardship is ancient. It is in our Indigeneity, bestowed by our Creator. This ability is not new nor does it exist in solitude (Moore et al., 2007). However, somewhere along the way, we have let it go lax and have become dependent and ‘intoxicated’ by entitlement thinking. As an Indigenous person—a Pueblo Indian person from a specific place—I am of the belief that we have talent, capability, drive, intelligence and vision to do for ourselves (Coffey and Tsosie, 2001).

We are at a place in life's journey that these profound blessings of the creator must be reinvigorated. Current Indian policy has taken us backward in many instances. The "White Man's Moccasins" have taken us on a path that is foreign to our steps as Pueblo peoples. We have always known how to make our own moccasins to size, and we now need to put on our own moccasins that are of our own making in order to break new trail on a new path for our generations to come.

In this dissertation I will discuss the larger landscape of the federal trust responsibility and the call by tribes to reform this federal trust obligation to tribes. I will discuss the trust responsibility and obligation from an observatory position as opposed to a legal or analytical framework. In this dissertation, I will also discuss the importance of data and analytics as a mechanism and absolute tool for framing reform. It is one thing to discuss and pursue reform, but it is equally crucial to have data that supports and allows for innovation in reform. Last, I will suggest a policy that will operationalize an approach to reform specific to the Pueblo tribes of the Southwest. Although the trust reform applies to tribes all across the country, each tribe is very different in the various parts of the country. It is important to see and observe the larger and broader trust landscape, understand some practical approaches and tools to engage in reform and finally, how to operationalize reform through a regional economic reform policy. This dissertation will present this observation and framework for reform.

A word on reflexivity: Pueblo narrations

What I offer to this conversation on dependency, development, and Pueblo advancement is a series of observations to the evolution and impact of trust reform.

As such, it is important to outline my Pueblo-based background as an emerging researcher which serves as my basis for my approach, interpretations and articulation of my findings.

Throughout my lifetime, I have occupied different roles. My most humbling experience was serving two terms as the Governor for the Pueblo of Laguna, a Pueblo of approximately 8500 enrolled tribal members and a land base of over half a million acres. Our pueblo lands lie in mid-central New Mexico, starting just west of the largest metropolitan city of Albuquerque. The Pueblo of Laguna is divided into six different villages, Seama, Paraje, Encinal, Paguete, Mesita and the village of Laguna which is the capital for the Pueblo. I am trained in business, economics and technology, and so do have experience in the formal schooling realm. But I am also a grandson, a son, a father, and a relative in my Pueblo. I was raised in the village of Paraje in Laguna, and closely taught by my grandparents who raised me in a household where I heard our traditional Keres language, Zuni Language, and English. My grandfather was from the Pueblo of Zuni and used his native tongue on a regular basis. However, he spent the majority of his adult life in Laguna and acquired enough knowledge of the Laguna Keres that he could converse with my grandmother and other elders in Laguna. Although my grandparents used the Keres language primarily, they never required me to speak the language, but I was immersed in the Keres application and thought through them. In many ways, I also became a Keres language thinker—meaning my ways of viewing the world are through a Laguna and Keres language lens. Through my regular exposure to the teachings and lifestyle of my grandparents and the elders and community members that were a part of their network, I came to learn and know about our ancestral Pueblo ways, which also

include physical sites that are central to the cosmovision of Pueblo peoples. Like other Indigenous people around the world, I learned in school and as a young adult that much of the interpretations of our culture and these sites were made by others and that we had little, if any, contribution to this process. As a reflection, that realization is the impetus for this work—to ask questions about the general ways that reform has been approached and how past efforts of reform have impacted Indigenous nations.

In the Pueblo world, oral teaching and methods have been and continue to be used as a key mechanism for oral-based research, to transfer and transform knowledge, and perpetuate practices, beliefs and responsibilities. It is taught that our creator has given us all the tools we need to survive in this world, unfortunately our humanity often overrides these simple yet powerful tools. A couple of the main tools reside at the intersection of heart and mind – curiosity and integrity. When curiosity is the product of this intersection, it breeds thoughts of how do we do better? How can I contribute more? Is there a more impactful way to fulfill my obligations to humanity? How can I properly learn more – research? When integrity is the product of this intersection, it breeds validation: Is what is in my heart consistent with what is in my mind? Is my research for the right purpose and not the wrong reason? Am I being responsible for the knowledge I am bestowed through my oral research? In the eyes of the ancients, oral history and teachings were crucial because our Pueblo societies did not have written systems. However, such an oral system required integrity and validation. Like any society, oral teachings can get reinterpreted or misinterpreted and never corrected. But oral history in Pueblo society is much bigger than simply passing on history, it is a vehicle for research, validation and knowledge perpetuation.

We are often reminded how priceless reminders, advice and a simple conversation are with parents, grandparents, siblings , other relatives and community members. In these reminders and conversations comes the teaching of the ages. It is reminded that taking the time to sit, talk, think and share is our responsibility as this is how we pass the necessary knowledge and tools on to the next generation. However, it is also in these conversation and thinking opportunities that solutions reveal themselves. The solutions that reveal themselves are not profound in the sense that they are complex, can be framed with policy or law, or need funding. Instead, these solutions are profound in the sense that they are simple: do not require policy, law or money. Instead, they require humanity to work together as one. Part of being able to work together is the ability to communicate. The sharing of knowledge, lessons, lessons learned, and new ideas will not have value without basic communication.

In taking this thought process and applying it to the idea of reform, education, research knowledge transfer or any other fundamental activity for human interaction is absolutely critical. Oral teaching, history, and methodologies are necessary in all that we do. Being textbook smart is one thing, but it is just as possible to extract a profound solution to a complex or simple problem from a ten-minute conversation with grandma or grandpa. From a Pueblo perspective, oral approaches develop listening skills, grow relationships and add to the ability to find solutions that a textbook can't give. Oral traditions are a crucial part of the Pueblo communities. This is most likely why our Pueblo languages are not written, but have continued to exist over the hundreds of years to this very day. The language is held in the heart and spirit, not in a book. Articulation in our native language is from a voice within and will be the only way we can truly

articulate our pueblo worldview, in our mother tongue. Oral history is an integral part of the Pueblo knowledge, research and learning system.

What I believe is critical about voice here is that this work offers an opportunity to create a space for one Pueblo voice that in other scholarly or academic spaces might not be viewed as legitimate because of the Western positivist approaches to research and writing. Linda Smith's work on decolonizing methodologies offers some critical examples for how Indigenous peoples have the ability to represent their own interests and to solve their own problems but because of Western academia and the expertise of the Western outsider, Indigenous peoples have been characterized as unable to do so (Smith 1999). Furthermore, Brayboy in telling his own story as a researcher discusses navigating his identities as a "good Indian" and "good researcher," and what that meant to his work and cultural identity (Brayboy and Deyhle, 2000). The idea that these two parts of identity can complement each other and actually strengthen each other is critical. Similarly, my identities and what has led to this work, such as being raised by my grandparents within a Laguna village home, being a doctoral student, and coming into the leadership of the Pueblo answers Smith's call and Brayboy's dilemmas and also echoes the hopes of Indigenous communities—that we will have the chance to speak for ourselves and be heard.

First Economies

The collective Pueblo oral history informs us that this was a time when all Pueblos were one people (Sando 1992). There was no separation, no delineation, nor any differentiation, as is the case today. The people worked together for the betterment of the whole. Everyone had a role within the society and each assumed specific responsibility.

The concept of one people, one land, and one life in this world is the divine purpose for being. Practices of living, working, and worshiping were designed to emulate our Creator (Parsons 1939). The purpose of life was conducted in the faith that when one's part is done, blessings are realized in return for that effort. This was the deeply prevailing mindset in the Chaco Canyon economy. Understandably, the Pueblo people of that time probably did not call it an "economy", but they understood their responsibility to contribute to the "whole." They also recognized individual responsibility as stewards of the resources to create the economies, as well as wisely using the benefits that were reaped. Today, this can be referenced as a model of shared effort in vibrant collective economy prior to the mid-1500s.

One of the earliest examples of this was the community at Chaco Canyon (Scarborough 2005). According to Pueblo oral history, what I offer here is a variation of a Pueblo version of the story of Chaco Canyon. According to what we are taught in our communities, Chaco Canyon existed vibrantly during a time and in a place where our civilization was quite advanced. We had physical infrastructure, and the ancestral Pueblo people created complex societies with irrigation systems, utilized the science of astronomy, and applied economics. It could be said that the Pueblo people of that era were already 'international business people.' For example, it is told through oral tradition that is commonplace in Pueblo communities, that trading was taking place with the Mayans of South America. Furthermore, the local economy was clearly strong and diversified. The Chaco Canyon community grew in size, strength, health and well-being. Oral tradition also relays a belief that elders of the tribe saw themselves as more powerful than the Creator. That sense of power and control had a profound change on the

community (Mills 2000). Individualism, arrogance, and self-sufficiency replaced collective will and engagement. A new paradigm of competition, accumulation of personal wealth, and loss of focus on the precious resources the people shepherded emerged.

Then the environment changed, and with it the climate changed. As a result, rains that were vital for life in Chaco Canyon and surrounding villages diminished; topsoil was lost and the ground hardened; crops failed; livestock perished; and wild game migrated to better lands. The people changed too. No longer able to do what had been done successfully, tempers flared and patience wore thin. People departed Chaco Canyon, searching for more fertile ground and a less hostile environment. It is said that these groups of people are the founders of the Pueblo settlements in the Southwest. The once vibrant and global economy, built on shared commitment to the land, crumbled. Clearly, this singular event was among the first economic collapses in the Western hemisphere.

A New Normal

The hard lessons that the Pueblo people learned from the Chaco period seemed to have taken hold. Not as a single people, but as distinct communities and settlements within Northern New Mexico. Pueblo people in the sixteenth and seventeenth centuries are remembered as farmers and craftsmen, strong protectors of the environment, and at peace with the known world. Peace and stability seemed fragile. This time period would prove to be extremely challenging for all Pueblos. The Spanish, Catholic Church and Mexican governments eventually entered Pueblo land. (Dozier 1983) This was a period of time when the Pueblo people first experienced the imposition of another authority thereby limiting what they could and could not do. Restrictions impacted on how they

made their livelihoods, which ultimately affected Pueblo survival. Agriculture was the basis of their economy and it was the basis of existence.

Their life was known to be free and focused on a shared economy. It was now rapidly shifting to an individual-based economy instead of a shared economy. A new and unfamiliar model created discontent among the people, and raises issues that challenge their way of life; their beliefs, spiritual practices and core values were suspect and questioned. Behaviors that were common and usual were oftentimes ignored. A new authority forced major changes on the Pueblo culture and the ancient ways are threatened. The Pueblo people were forced to pledge their allegiance to the king of Spain and adopt a new religion, Catholicism. If you did not adopt the new religion there could be severe consequences imposed by the church. The forceful conversion of Pueblo peoples was a very early form of manifest destiny. It could be suggested that this conversion was a very early attempt at imposing a form of reform on Pueblo people. Although not recognized at the time, the Spanish government was forcing dependency of the Pueblo people to their system and way of life. Looking back through the lens of the reform process, the Spanish collective government policies might be viewed as the first attempt at social/economic dependency of the Pueblo people. The Spaniards and their church leaders were willing to “take care” of the people, in return for lands, services, taxes, and allegiance to the Crown. Land grants were given to the colonizers and accommodations were made to allow settlers to “employ” Pueblo Indians living near those grants. Forced labor became a new economy around Pueblo lands.

In 1680, after more than eighty years of co-existence with the Spaniard, the stress and tension of Pueblo peoples resisting the Spanish colonization was at the tipping point,

and the Pueblos Revolted. (Sando 1982) This armed revolt was one of the first successful defiant demonstrations by Native people in the southwestern U.S. Pueblo people were unwilling to give in to these oppressors. Interestingly, the revolt was not a single act, but actually series of violent acts involving armed uprising against the oppressors, the church and at time, and other Indians. Raids and land grabs had occurred from tribes external to the Pueblo people, and only one outcome was clear at the time, and that is that the peaceful culture of the Pueblo people had already been fractured.

By the time of the Pueblo revolt, Spain had established an autocratic governing structure and a feudal economy based on tithes to the church, tax collection military influence, and forced labor for the support of the whole Spanish superstructure. The Spaniards left, but returned 12 years later and the cycle began anew. This time the Spaniards realized that they needed Pueblo support in defending Spanish and Pueblo lands from external raids. In 1706, an alliance was forged between Spain and all the Pueblo tribes which lasted until the end of the century. Social and economic dependence and its corollary in addiction, was probably not in awareness at the time. It certainly was not evident in their language. Their prevailing thought was surely more of protecting life and perpetuation of a people. In modern or current terminology, “resilience” is probably the best word to describe the character of these people. The most critical understanding is of their desire and will to not succumb to the oppressor and thereby survive (Sando 1992).

Control Shifts

With Mexico’s declaration of independence from Spain, the Spanish influence on the Pueblos ended after the Pueblo revolt in 1680. This began a 25-year period where issues with land title and land grab was the collective Pueblo primary concern. For

example, while declaring that all Mexico's citizens were equal under the law, The Plan of Iquala and the subsequent agreements within Mexico's Congress, essentially made Pueblo land equally accessible to anyone who wanted it. Whereas religious practices, tribal governance, and economic activities continued with less interruption, the people's focus on land and land rights precluded development in other areas. This was a restrictive time because it further impacted the ability to economically advance in the manner that the Pueblo people desired. This time period did introduce aspects of economic growth that included working for pay and ownership of livestock. From an economic development perspective, this was the first stage of economic diversification. Such diversification also created a major contradiction and conflict in long held values - ownership versus stewardship. Ownership brought new paradigms and unfamiliar ways of working with one another. While difficult, it may have been the start of the next stage of economic advancement, a stage where inspiration and innovation was strong.

While occupation by Mexico was fraught with major land issues, Pueblos were able to maintain their language, customs, spiritual practices and governance. That was all challenged when the United States in its fulfillment of manifest destiny declared this land its own. In the ensuing years following the treaty of Guadalupe Hidalgo in 1824, the Pueblo people continued to see their lands and resources taken by enterprising Americans. In spite of the positive rhetoric in the courts, the Indians were not granted full citizenship nor did they enjoy benefits provided others within the country. Even when New Mexico acquired statehood in 1912, the Pueblos people were not provided opportunity to vote until 1948 when Miguel Trujillo of Isleta Pueblo worked diligently to win the right to vote for Pueblo people in New Mexico. On June 14, 1948 Trujillo attempted to register to vote

in Los Lunas, near Isleta Pueblo, and was refused by the recorder of Valencia County, Eloy Garley, under the “Indians not taxed” provision of the New Mexico Constitution. Enacted in 1912, the denial of suffrage was based on Article VII, Section 1 of the Constitution of New Mexico. Trujillo sued the state of New Mexico for the right to vote. On August 3, 1948, a federal court in Santa Fe ruled that New Mexico had discriminated against its Indians by restricting the vote on the basis, especially since Indians had paid all state and federal taxes except private property taxes on the reservations. Trujillo’s ensuing actions helped pave the way for Indians to vote in New Mexico (Brontisky 1989).

When a society is challenged and restricted for so long, it becomes enticing to look to other sources of relief. It becomes easier to grasp the hand of whatever or whoever is there to pull you up and out. Unfortunately, what appears to be a panacea may quickly become an even more numbing experience. During the early 1970s, we saw the Federal government make a well-intended attempt to assist citizens across the country by enacting and implementing legislation on the War on Poverty. This legislation expanded welfare and other social and economic support programs. Low income was the qualifier for admittance to the programs. These programs are needed for distinct segments of our population—particularly those people who need assistance with food, shelter or other social assistance. Programs such as Aid to Families with Dependent Children (AFDC and Women with Infant Children (WIC), are examples of programs that came out of this era. In the literature, scholars have actually argued that welfare/dependency programs like these that were meant to aid those in need may have actually hindered economic advancement of local and receiving populations. For example,

Dambisa Moyo's work on aid on the African continent may be relevant to examples of Indigenous aid and subsequent dependency here in the U.S. American Indians, like Pueblo peoples, have a long history of federal intervention for aid in the U.S., which for Pueblos like Laguna dates back to the early 1970's. Moyo (2009) provides numerous examples of how international aid in Africa has actually increased poverty in a short amount of time, distancing the original intent of aid, which to the well-intentioned, may have meant allowing people the opportunity to get back on their feet. In reality, the aid process, has cut off people's own ability to stand on their own, along with increasing corruption and other social issues. What is of concern to me as a Pueblo leader and community member is how the concept of aid, the philosophies behind it, and the ways in which it is negotiated with any population can influence and cause misinterpretation of the purpose of aid and assistance. The misinterpretation can result in entitlement thinking or program dependency, as an example.

These programs created a mechanism that allowed for dependence on federal dollars. In some cases, this was "easy" money taken by those that could provide justification for the funds, even if not needed by the community. Tribes invested in the justification and dependency cycle, whether consciously or not. As outlined, one of the most obvious programs was housing. For example, federal funding for housing was accepted with open arms, but you could not qualify for housing unless you were low income. Homes were not always of the best quality, but community members pursued the idea of home ownership not realizing the qualifiers or the societal implications HUD would bring to native communities. The work of June Lorenzo, fellow Pueblo cohort member at Arizona State University and emerging scholar, addresses this issue in Pueblo

communities directly (Lorenzo, forthcoming). As a result, from a tribal economic perspective, this opportunity has resulted in the most devastating action by tribal people in modern economic history. It was devastating from the perspective that our core village areas were emptied and people moved to subdivisions. Again, government-funded homes are welcome resources, but they have come at the expense of breaking up the core social structure of several Pueblo communities. The work of The Leadership Institute at the Santa Fe Indian School¹ and their Summer Policy Academy students who are juniors, seniors, and college-aged Pueblo and New Mexico tribal students addresses these types of issues and offers youth perspectives on the architectural and Pueblo planning issues that intersect with federal government support.

Perhaps these programs were well intended, but they ultimately extinguished self-reliance and further diminished the talents with which Pueblo people had been blessed and deflated collective motivation to succeed. Below is an illustration of this stewardship. The maintenance of homes, internal and external was done collectively and with responsibility. For example, this process of coming together to both build and maintain an adobe Pueblo home brought conversation, nurturing of family and relationships, exposure to lessons of times past. It also reinforced roles and responsibilities. As can be seen in the photo (Image 1), the women took the lead and responsibility for the maintenance of the homes. However, HUD programs and easy access to funding has disintegrated this precious piece of community. Our Pueblo people come from a line of ancestors that built Chaco Canyon, Mesa Verde, Bandelier and many other ancient sites that still stand today. The ability and talent still exist.

¹ For more information on the LI and their initiatives and student projects, please see: www.LISFIS.org

Image 1. Pueblo architecture and community work (source: Center for Southwest Research, University Libraries, University of New Mexico) 1935



The gift of thought

The troubling colonial history of Pueblo nations should not be used as a motivator for pity. To the contrary, such histories should be used to demonstrate Indigenous resilience and fortitude. For example, in Laguna Pueblo, early leaders like Roland Johnson, Victor Sarracino, Vicenti Pedro and several others challenged early historical policies that could have negatively impacted land base, sovereignty and economic advancement. Those that came before us, including ancestors, leaders, and members of past generations fought for our continued existence, not existence simply as a warm body, but existence with mind, body, spirit and an unrelenting obsession to perpetuate our Pueblo way of life.

Drawing on the lessons of our Pueblo teachings, we know that a powerful tool

that has been provided to mankind is the gift of intellect and the mind. We are taught that our “thought mother” (from a Pueblo specific teaching) provides us the ability to think, comprehend, overcome and strategize. As we are taught specifically in the Pueblo of Laguna, Tsis Chee Nah Ghu – Thought mother, bestows us with the ability to think, comprehend, imagine, reimagine and create with our minds and spirit. At the time of creation, the thought mother provided the thoughts and cosmovision of what is to be created. In contemporary times, the belief is that ability still resides in each of us. Through prayer and thought, we petition Her for mental guidance, comprehension, creativity and imagination. She is an ever-present resource that should always be in our mind’s eye. This is the most powerful tool that we have. The power of the mind when coupled with the heart has allowed us to overcome and endure even the harshest of times, as well as appreciate and internalize the most vibrant of times. The mind has also given us the ability and talent to understand the world of nature, science, family structures and how to advance our complex societies. However, this most powerful tool has also become our most powerful nemesis.

There have been well-intended attempts at reform that were intended to give tribes more authority, access to more grant funding, access to more homes. However, this well intended reform also came with parameters that diluted the good intention such as having to be qualified as low income or be an impoverished community. The worse off an individual, community or organization is, the better chances that the particular group will get funded or receive benefits. Tribes exist within a system of minimum standards, a system that awards subordination. Tribes do not exist and are not allowed to exist in a system that awards success and advancement. In fact, if a tribe becomes too

successful, it's penalized. As an example, in the federal Tribal 8(a) Business Development program run by the Small Business Administration (SBA), tribal businesses can be exited from the program if they become too successful. The tribal 8(a) Business Development program exist for the purpose of helping small tribal businesses grow and become successful federal contractors by streamlining the contracting process. However, if a tribal 8(a) business gets too successful (surpasses the revenue threshold or size standards), the firm is exited early from the program. This type of contradictory efforts reinforces the idea of minimum standard existence for tribes.

The well-intended attempts at reform created three undesirable outcomes. The first is that it caused organizations, community and policy to be developed with the idea that the subordination model must always be included in how Indigenous communities get portrayed. Whether this is direct or indirect, Indigenous organizations usually start their stories with how bad off they are. Grant requirements also require this type of tribal-grantee dynamic: "Tell us your problem" it is never "tell us how we can help advance your success". The concerning issue is that the federal policies that have caused conflict, contradiction and subordination have been replicated and in some cases, engrained in tribal constitutions, policies and ordinances. When tribes make their own decisions, they tend to be more successful and less susceptible to the restrictions of government. (Cornell, Kalt, 1992)

The second undesirable outcome is how tribes look at themselves and measure themselves in these contemporary times. It is important that we tell our story from the inside out and not from the outside in. In other words, we must tell our own story. This dilemma of everyone else telling us who we are, how we look and how bad off we are

has severely impacted our own perceptions and our own thought processes of what advancement and success actually mean to us as Pueblo people and using culturally-based and Indigenous language-based ways of understanding these concepts—that may also honor our ancestry and Pueblo histories. As Indigenous nations, we must look at ourselves through our own lens and measure to our own metrics. This does not mean we lower standards for achievement or weaken policies that have proven productive or held tribes to well-disciplined and responsible approaches. It means basing our self-critique on our own merits. Core values and spirituality have been a cornerstone for Indigenous nations, however, these cornerstones are usually absent when metrics are applied to Indigenous people. Instead, a Western monetary, physical or behavioral metric is overlaid and used to interpret the status of Indigenous people, marginalized populations and nations as underdeveloped, poor, and unable to modernize or as the primary targets of modernization that is synonymous with notions of improvement—which may not actually be accurate or true for local people (Esteva. Pg 6.). It is not to say that metrics cannot or should not be used to measure what Indigenous peoples desire in terms of quality of life, but it is important to recognize that dominant notions and metrics alone should not define the Indigenous nations or shape the thinking of Indigenous people. Unfortunately, there are more examples of deficit than there are of advancement.

The third undesirable outcome—and in my mind, the most devastating outcome—is entitlement thinking at the individual level. It hits at the core of who we are as Indigenous people. As mentioned earlier, legislation like The War on Poverty that was enacted in the early 1970s was well intended to aid individuals and families, native and non-native, with everyday resources and access to programs and services that they might

not otherwise have access to. However, this well intended program became an intoxication and addiction to Indigenous nations that has snuffed out inspiration, motivation, and aspiration that was gifted to us to do for self and be a contributing member of society. As with all things, there is another side to the coin. It is also important to point out that this legislation has not been all negative. The legislation has contributed to drastic reductions in child mortality and malnutrition, as well as in overall declines in poverty rates (Matthews, 2014). In current times, other influencers like large per capita distributions have perpetuated this behavior and mindset. It is not uncommon in tribal communities to hear the phrase “the government is supposed to provide that for us...”, or “the tribe needs to take care of this for me”. In many instances, they are things that are the responsibility of the individual or the household and not the responsibility of any government. Like an addiction to alcohol or drugs, proper treatment can help find long-term sobriety for individuals, but it takes will power and self-discipline of the individual to maintain the sobriety. Analogous to this sobriety example, Indigenous nations and communities need to detach ourselves from the policies that have subordinated our progress and our thinking. It is critical that we draw back on the traditional teachings of the powerful resource of thought because if we are to be successful at reform and transformation, we must change our thinking.

Building on our gift of thought and the ability to conceptualize the positive, we must design our own reform with our own clay and hands. In my mind, the most powerful tool to overcome the entitlement thinking, the western influence on how we see ourselves and to find the courage to design and implement our own solutions is inherent in us. We have to be reliant on our ability to think through the solutions. We are at a

place where it is not teaching about culture, its teaching “through” culture so that cultural thought becomes a tool for solutions. So how is this economic addiction to the federal resource overcome?

Reverse Engineering Reform

As we look for and develop solutions and strategies to overcome the addiction to federal programs and resources, we must realize that the solutions are complex and will not be an overnight cure. However, one of the general approaches suggested here, which offers only a simple framework that hints at the need for local solutions, is to consider one that comes from the addiction theory and practice. One of the more popular mainstream models, as an example, is the twelve-step approach. I selected this framework merely as an example, I am not advocating for it or suggesting it is something that should be used to frame Indigenous ways of knowing. The efficacy of the program is debatable, however I am using the model only as an example. However, I also want for my work to be accessible to mainstream populations, and the 12-step program is widely known and has become popularized. As such, I offer its framework here only as a way to promote Pueblo people to consider what kinds of frameworks we might best employ to address our own dependency and aid issues, once we even identify that this may be a problem for us.

Spirituality is a cornerstone for everything done within Indigenous societies. Spirituality is included in building sound economies. Perhaps it is fitting that we start with spirituality to recover from our addiction to federal programs and resources. This mindset is very applicable because it also acknowledges that we are not in control of everything, we must have faith in those things we have no control over. It is also critical

because it demonstrates that there is recognition of things that need to change and a willingness to take action when appropriate.

To begin the process of breaking the federal economic dependence cycle, Indigenous organizations can draw inspiration from the idea of a whole system that understands the process of recovery to be a lifetime of work, never truly ending. The following questions might help us to consider how we can use our own local understandings in order to design ways of considering and then responding to federal and economic dependency issues:

1. What might an Indigenous and Pueblo specific concept of a model to overcome dependency address?
2. How might such a process be designed
3. What are the goals we could and should have in mind—starting from the desire to “recover” from addiction to federal dependency?
4. What principles might be developed, as well as operational considerations that can guide not only healing, but also re-building of self, communities—such as those necessary for economic advancement strategies?

Values might play a critical role in this inquiry for us as Pueblo people. For example, the 12-steps are founded on a set of principles: honesty, hope, faith, courage, integrity, willingness, humility, brotherly love, discipline, perseverance, spiritual awareness and service. Many of these principles are also reported as core values for Pueblo people. The key values for the Laguna people are: obedience, respect, self-discipline, and love-one-another. In our Indigenous thought process, these principles and values always have a partner. As an example, love and respect always work together. Discipline and

obedience are partners. The idea is that none of our values exist in isolation, so our solutions and strategies should not exist in isolation either. Based on these principles and values, a framework can be suggested by which tribes and other groups can assess and determine which programs are in their best interest, and which perpetuate unwarranted dependence.

Table 1. Countering Federal Dependency: Indigenous Principles and Values

Principle	Description
Love and respect for one another	In all that we do as parents, grandparents, professionals, researchers, community members, family members; above all, we need to be compassionate and considerate of others. This is difficult when there is disagreement, anger or harm has been put on others. However, it is important to exercise these values in all that we do. The relevance of these values to reform and transform is that we cannot continue to just be mad and angry at the government, regardless of its atrocities, instead we need to be mindful of what has happened, learn, and move forward in a manner that does not allow us to return to that place of subordination.
Self-discipline and obedience	To affect change, we must be disciplined to a positive and constructive change process. Sometimes change affects us personally and we become the road block or the deterrent to that change. We must have the discipline to stay true to decisions, working in collaboration and staying focused on the outcome.
Honesty and Humility	Change is hard. Like people, organizations and societies can't be forced to change. Change is often confronted with the statement that "This is how we have always done it". That idea of "this is how we have always done it" becomes the defense for those that the current system benefits and the toxin to the constructive efforts of those that are trying to bring improvement for the larger majority. However, in environments where unique ideas and divergent thinking is appreciated and where practices of contribution and reciprocity are strong, change is encouraged and successful change is celebrated. Such and orientation and practice have positive long-term

	economic implications.
Hope	Equilibrium is key to healthy economies, even with disruptive technologies and solutions. When society chooses to ignore economic imbalance because the economy benefits an individual or small group of individuals, discontent is created. When economies are not valued, or the economies hold no inherent value, people may recognize the benefit from innovation or the advantages of expansion or diversification. Growth and expansion requires a change of mind. In all successful economies an involved and talented workforce is critical to success. Yet, workforce development is often overlooked in Indigenous economies. As economies are designed, it is important to develop a workforce that meets the demands of the economy that is being developed. Subordinated thinking must change to emancipated thinking. This leads to confidence. Emancipated, focused and energetic minds will release inspiration, innovation and determination and lead to success.
Willingness and Creativity	Confidence in self and richness in spirituality are contributors to economic strength and stability. Creativity will be the key to further advancements of newly reinvigorated economies. Artistic, technological and intellectual ferment needs to be encouraged and supported. From such a milieu cultures of contribution and abundance are built. Creativity and talent will bring the results of an advance global Indigenous economy to fruition.
Courage	Culture trumps strategy every time, but the culture has to be woven with the grasses of “we” and not “me”. The shift to a new paradigm or in this case, a renewed paradigm will take some courage and confidence. We must shape the values and culture of the economy, set clear goals, and communicate these goals to all our stakeholders. Only a healthy economy can provide abundance for the people. It should also be pointed out that a healthy economy is a convergence of many different and necessary facets. Abundance is not

	<p>limited to just a monetary metric. We must set the big frames of reference and guiding principles within which our people can move without instructions for every step. This will leave enough room for the talented to develop their skills and contributions, and it will allow creativity to unfold. This is enabling and should be encouraged and not feared.</p>
Humility and Trust	<p>Trust instead of fear must be built. There must be reflection time to look at our Indigenous economic models to see what has worked and what hasn't. But this reflection should not be viewed through the lenses of criticism, but through the lenses of a humble wisdom seeker. If mistakes have been made, then they need to be acknowledged and corrected. Experimentation that allows mistakes will lead to innovations. Trial and error, change, and adaptation must be possible at all time.</p>
Perseverance	<p>There must be renewed resilience knowing, that internally inspired action leads to success. We overcome old ways of thinking and acting. We heal. Once the re-emerged economy is established and markets are created, the environment will be open for other markets. Such markets will lead to more complex diversification and investments. Indigenous markets will then be poised to welcome external resources and sources of economic knowledge into our renewed economy.</p>
Family	<p>Changing deeply ingrained behavior is difficult. Everyone's behavior (good and bad) has an impact on the evolution of the economic model. Success can arouse jealousy and idleness will arouse anger. Abundance and increased opportunities will come to those who are engaged in the process, while others, who are not as engaged, and who don't receive the rewards will complain and criticize. The more people can complement one another, the greater will be the harmony in building and sustaining an advanced economy</p>

Integrity and Service	<p>A major deflator to building constructive and positive economic initiatives is when leaders engage in economic advancement activities purpose of self-promotion, self-preservation of simply, selfishness. It is imperative that leaders keep clear of issues that may negatively impact on their integrity. The leaders' focus must be on creating conditions for success. This is not to say that leaders can't and shouldn't participate in seeking and advancing economic opportunities. Likewise, members of community should not create barriers that would taint leaders in advancing economic efforts. Both leaders and community members support interplay between established practices and unrecognized desires. Our community must be encouraged to contribute to forming and shaping the economy. Harmony within tribal government will be sustainable if both work together to strengthen the whole. This is the essence of balanced economic governance.</p>

As the framework is built and implemented to overcome the addiction to government support, it is equally important to build in the metrics that will validate and legitimize the outcomes. The metrics that are designed into the process must be relevant to the community. As a consideration, the metrics that could be considered are the normal job created by the tribe, average medium income and home ownership. However, other metrics that could be used are a decrease in federal funding, policy and constitutional changes that affect membership and economic opportunity, self-investment, new revenue streams not dependent on federal funds, graduation rates from college are all examples of metrics. Metrics will be absolutely necessary for advancement of the type of model suggested here.

It is important to also point out that the model presented above may not conform to the notations of self-determination as we understand it in mainstream society. However, it does point to the notions and corner-stones of self-determination when we think about it in terms of core values and identity. The elements suggested in the model above encourage self-determination at the individual level, which eventually contributes to the larger societal model. In my observation and suggestions, core values become a key element in advancing our economies.

Discussion: Power in numbers

Statistics do not just describe reality – they create it. They interpret reality and influence the way we understand society; they shape the accepted explanations of reality. (Walter and Andersen 2013: 8)

As we build new models of reform and reinvigorate our power of thought, we must also use practical tools such as data to tell our story and to build metrics that are our own. Part of the challenge that North American Indigenous people have faced is having their numbers story told for them, and it is usually a dismal story. As is normal, the storyteller will shape the outcome to their desire. As Pueblo nations, we do not want to generate our own stories with our own data, even though it could offer significant and radical clarity to the real situation on Pueblo lands. Granted there are challenges just like any other community, but our standard of living is also much better in many instances than the outside world believes or perceives it to be. Unfortunately, we bring validity to the negative end of the numbers by not showcasing the positive end.

Indigenous nations have the capability to tell our own number story and design measurements to our own metrics. We are always measured to Western society's

standard, and are usually found to be inadequate. Our dismal statistics are what actually generate money for tribes from granting agencies, foundations and other organizations looking to “make a positive difference” in the statistically poor Native communities. The funding sources that are given based on tribal statistical starvation become economic handcuffs to tribes that could otherwise flourish if focus was put back on the strengths of the community and not the weaknesses. This “want to make a difference” money keeps our tribes subordinated, dependent and of the entitlement mindset. We need to find the power in numbers, but for the purpose of breaking the mold of subordination not perpetuating it.

As tribes move ahead in social and economic development efforts, data will become invaluable in these advancement efforts. However, organizations such as the U.S. Census Bureau that have good intentions can unintentionally impact these efforts in a negative way. As an example, individuals that are of mixed Native American ancestry and also of non-Native ancestry, were recently impacted heavily in New Mexico. Because of their mixed race status, individuals who checked the box of mixed Pueblo and Hispanic, for example, were automatically considered Hispanic and not American Indian. Such ignorant ways of categorizing human beings and Pueblo peoples actually decreased the population of Native Americans in the state. This was a critical problem because it means there are fewer Native Americans in New Mexico. On a wider scale, what could such ignorant and sweeping research and policy implications mean for American Indians across the country? The work of another Pueblo cohort scholar, Michele Suina, from Cochiti Pueblo, actually examines this problem and the link between research and policy in depth. She also advocates for policy adjustments and reform to address the root causes

behind the recent mis-categorization of Pueblo and Indigenous peoples in the state of New Mexico (Suina, forthcoming) So although this data collection effort on the census bureau's part is well intended, in the end, it is actually negatively impactful from a pure funding lens. This is a critical piece to understand because it impacts trust responsibility of the Federal Government and limits resources. The fewer Native Americans that exist, the less federal obligation the federal government has to carry out its trust responsibility. It is critical that tribes develop the expertise to use data and tell our own stories with it because if the data is structured well and validated, this very data could be used to better hold the government to its obligation. It could also help develop better economic models and policy that will break the mold of dependency on federal dollars alone.

In consideration of the U.S. Census Bureau, it would be important for tribes to drill down on the reasons and logic behind the change in 2000 census and what that means to federal recognition. As is normally done, changes are made to policy, law and other mechanisms that affect tribes, but tribes are normally not included in the development of the change. As tribes move into the future, it will be important for the leadership of the various tribal nations to work with the census and other data gathering organizations on developing more practical approaches to how data is gathered in tribal lands. This could help build a stronger partnership between the government and tribes and could help tribe's build stronger economic models as well.

Another crucial reason that data are so important is because of the blood quantum issue. Natives are the only people that actually have blood quantum policies that are used to qualify a person as a member of a tribe. It will be important to understand the impacts of blood quantum policy on tribes and how blood quantum has contributed to the demise

of strong and vibrant tribes. What is disturbing and “head scratching” confusing is why tribes have continued to use this type of policy and feel they have to use it. Why this is confusing and disturbing is the federal government does not require it. Tribes impose this on us. Even though the concept is a product of the Federal Government, tribes have made it our own and in many cases defend it! This blood quantum policy, second to the entitlement thinking, has been very devastating because it has created division, divisiveness, excluded our children and fractured families. It is time that this devastating concept be reconsidered and it is time that data be used to articulate why this blood quantum policy has not worked for tribes. It has been very successful for the Federal government, but not for tribes.

At an economic level, tribes are not showing the capacity in workforce, education, resources, and economic vitality through data. As tribes look at economic advancement, data on land base, resource and even the ability to do business is key. This serves as not only a storyteller of a tribe, but a marketing tool and validator of a tribe’s or regions economic capacity. Companies want to move into areas that have strong demographics and economic data. Also important is the business infrastructure and policy that allows for business to be conducted in a fair and constructive manner. For tribes, reaching this goal is going to take data and transformation of the trust obligation of the Federal Government to advance. Data will be absolutely crucial in the reform and transformation work that is ahead.

Conclusion: Blazing new trails in our own moccasins

With all that has been done to and taken from the Indigenous people of the U.S., we are still in existence today. We have not been exterminated, nor have we self-

terminated. We, as North American Indigenous nations, have an incredible opportunity to bring innovative transformation to our people and nations. Other than a sore and bruised hand, pounding the table and yelling at the government for what they have failed to do will not get Indigenous nations reform nor will it allow us to transform. We need to consider reforming the trust responsibility from a framework that instills subordinated thinking to transforming it to one that nurtures emancipated thinking. Once we begin this process, as Pueblo peoples, for example, we must identify an economic policy framework that we can focus on. We will need to analyze what are the federal/regulatory obstacles that are in the way of us pursuing and achieving trust responsibility transformation. These identified obstacles and solutions for break-through will become the catalyst to grander scale reform. It must also be considered that reform and transformation must be customized to the different “market segments” of tribes across the country. What might work for the southwest Pueblo tribes may not work for the tribes of the southeast. A national Indigenous economic policy will need to be created that promotes emancipation and creates opportunity, not one that perpetuates subordination of the mind and spirit.

We have many people of this new generation asking the elders, “Why did you let the government require us to do this?” We have a different mind set in this new generation and this new mindset could be the catalyst to the transformation needed for a new and vibrant Indigenous economy and society. We are marketing old stuff to young people. We need a new product. However, we must also begin to segment the market because tribes across the country are different and have different relationships with the federal government. Therefore, a market segment approach needs to be taken with the new generation. As the frustration builds with the new generation, so do the

opportunities. We have more formally educated young people, the passion to spur entrepreneurship and the responsibility to take action. Policy development that funnels the frustrations into opportunities and policy that emancipates the Indigenous market segments is necessary, but so is developing policy that focuses on forward-thinking into the generations ahead.

At some point, we need to take off the white man's moccasins and put on our own. Reinvigorating our thought, breaking molds, telling our own story with numbers and understanding the new market and the courage to step off the worn path on to a new one with new shoes will be the defining moment. Clearly, the Indigenous people of North America have ability and opportunity to overcome economic lockdown and lockout. It is not only our responsibility and obligation to reimagine our future. It is also our responsibility and obligation to advance the work and education to bring it to fruition.

Section II: Data is not new to Pueblo people

Introduction

This work explores the relationship between data and Pueblo peoples of New Mexico and is based on a review of some existing explorations of research and Indigenous peoples, observations made during my time in Pueblo leadership, and examples and cases presented that focus on the Pueblo of Laguna where I served as Governor for two terms. As such, the work presented here has been inspired by and is concerned with the following questions:

1. What is data?
2. How have data been used by the West in relation to Indigenous peoples?

3. How have data historically been used by Indigenous, and more specifically, Pueblo peoples in New Mexico pre-contact?

The third question is an exercise in speculation, and while all three questions offer some ideas and information based on the resources listed above, the impetus for this work is really challenge Pueblo peoples to explore notions of data. Drawing from a Pueblo Indian lens that includes Pueblo sociocultural interpretations, this chapter attempts to therefore extrapolate the meaning of data, derived from and related to research, that has historically been conducted on Indigenous peoples, thus making them subjects rather than active stakeholders with their own histories of data and data collection. Similarly to the work of Abrams et al. (2014) and Sumida Huaman (2014) who called for new definitions of *science* in relation to Indigenous peoples and their related cultural and intellectual practices, the purpose for addressing this issue outlined here is to call for *Pueblo-based and derived definitions of data*.

Many Indigenous nations across the Americas and globally have cultural teachings, sociocultural lessons, social and political histories, technologies, and ways of being anchored in the environment that are both recorded and passed from generation to generation using oral-based data sets, most commonly referred to as the oral tradition (distinct from the primarily European-introduced written or literary tradition). What I refer to here as *Indigenous data sets* can be both physically and orally located in Indigenous stories (sometimes referred to as “myth” or “legend,” which in and of itself is highly problematic), languages, petroglyphs, or at other natural sites sometimes held in stewardship by Indigenous peoples themselves. An orally-based society would have allowed for interpretation, inclusion, flexibility and *a holistic world data-view*, which

would be very different from Western ideologies and methodologies (Smith 1999; Wilson 2009; Walter and Anderson 2013). In fact, this *holistic world data-view* would have been, and often remains, unrecognizable to positivists and the West. I discuss this idea of a holistic world data-view further when providing a description of Chaco Canyon, which is an archaeological and sacred site to Pueblo peoples. This interpretation of data is not one that views data as absolute or based on ideas of precision, to be invalidated or validated by margins of error. In fact, in the orally-based society, any margins of error could actually be seen as opportunities for improvement and pockets of new and critical value where creation of new value and solution to on-the-ground issues are the desired outcome of data capture, access, and utilization.

Regarding value and use, here is an example drawn from Laguna social and oral history regarding cultural practices. This example comes from what our community members are taught in homes and by extended family members and reflects an understanding of our survival as Indigenous peoples in this widespread region of what is now the state of New Mexico in the U.S.: In Pueblo Indian communities of New Mexico, much like the hunters and gatherers of times past, as much of the harvest as possible was utilized for the following: immediate and future nourishment, non-food resources, experimentation, and return to the land for its replenishment. When an animal was harvested, the obvious cuts of meat and desired organs that were edible were not the only things taken from the animal. Those items were taken and cooked, dried, stored, or shared with others when there was abundance. Other items like sinew were used for string; hide was turned into buckskin for clothes and moccasins; and horns and hoofs could be turned into tools. The items that were not edible or usable by the harvester were returned to the

land with the hunters' appreciation, and with the hope that there may be another animal or being that could make use of the items. There was value in every bit of the harvest. As a metaphor, anyone could potentially harvest or gather data, have access to certain types of data, and even generate it. However, if one does not know how to use it to articulate positive solution, gain value, or gain understanding and knowledge, the data itself is useless, notwithstanding the question that led to the collection of data. I argue that like hunting and gathering, data and analytics has been a part of the ages and are not actually new to the Pueblo people.

Preparing the argument: Reflexivity and ways of thinking about and interpreting data

In the epistemological and spatial world of the Pueblo Nations, ancient Chaco Canyon is one of the first examples of significant data creation, capture, analytics, and utilization. This was not in the form of data as we might know it today, which is derived from Western definitions of the meaning, methodology, and purpose of data. Perhaps on the contrary, Chaco Canyon represents a distinct way of conceptualizing data for Indigenous peoples, as this place involved careful observation of the universe, drawings and depictions of these observations and patterns, as well as particular values linked with these processes—like patience and reliance on the gift of spirit and mind. What has become widely known as the Anasazi Sun Dagger demonstrates the advanced data and analytic capabilities of that time period. In recent history, however, Chaco Canyon has been widely studied by primarily Western scientists and archeologists. Many have been well-intentioned in their interpretations and in bringing forward the complexity of Native scientific knowledge, although this has not always been the case historically.

What I offer to this conversation is a series of questions, such as those outlined in the Introduction at the start of this paper. As such, it is important to outline my background as an emerging researcher and to describe from where my interpretations are derived and based on what particular experiences.

My undergraduate degree is in economics and my master's degree work includes some additional study in economics. Interestingly enough, it is a behavioral science, but it uses the tools of precision like econometrics. When I think about economics and data, I gravitate back to the oral teachings of my Pueblo upbringing. I think about the stories, history and terminology used when elders and others have shared our teachings about the animals, the universe, plants and our own unique behaviors. Our Pueblo world and language is not based on absoluteness or exclusivity. Instead, it is based on a holistic view and observation of behavior. Everything has a purpose, a partner and value. As an example, when absoluteness and exclusivity rule the day, there is always right and wrong, winner and loser, a citation to work, or a metric that says one conclusion is more valid than the next. However, in the Pueblo frame of holistic and observation, it is more about relevancy of the data or information, the value the information provides to the situation, the responsibility to the information, and the respect for the irrelevant information at the moment. As I mentioned earlier, there are always partners or helpers. As an example, the moon and sun, the darkness and stars all help one another. When I think about data, I think about what is the understanding or knowledge I am seeking? I consider the sources of information, including oral. I do not discount any information, even irrelevant information. I consider the application of thought and spirituality to the information, not just what I want to hear. This air, sky, sun, grandma and grandpa all have data and they

must all be considered, not just a specific item. Outliers, whatever they may be, must especially not be discounted because they may have the most valuable pieces of information.

As I consider the art of data and analytics, my Pueblo teachings frame my thinking to consider all things, even the unobvious. This is the basis for my thought process as it applies to data.

As a reflection, that realization is the impetus for this work—to ask questions about the general ways that data are defined, collected, framed, and presented, and most importantly for the purposes of reclaiming Pueblo-linked data and also calling for a new definition of data by Pueblo people.

For example, back to Chaco Canyon, the ancestors of today's modern Pueblo people used the diagram to capture data points to track the movement of not only the sun but the moon as well. It is obvious that this is not the type of data or conclusions that could be achieved in a week or two. Instead, this type of analytics and data capture had to be done over a long period of time, speaking to the conscientiousness and ability of Pueblo peoples to conduct longitudinal studies. This data and analytics eventually provided the basis for the tracking of the summer and winter solstices and the creation of one of the first calendars. Benefits that could have been derived from this type of data capture and analytics were to agriculture, hunting, and trade—the timing of planting seasons, the arrival of monsoons, hunting periods and times that would be best for gathering, and the best times to travel for trade. Likewise, this data and analytics also pointed out what should not be done in certain times of the year due to weather or other situations.

Today, this type of data and analytics is most evident through what is merely considered petroglyphs or rock art. I would argue that this is the furthest thing from art as we define it in contemporary times since attaching the connotation of art to such data hints at the abstract, aesthetic, anecdotal, and can be separated between what is known as high art and primitive art or folk art. Instead, I argue that petroglyphs may have been the first and most advanced form of “big data” and analytics that was intentioned to bring value and comprehension to the world we exist in as Pueblo peoples. The data and analytics were sustainable, reusable, and offered understanding of how to use the resources (natural, man made, time, etc.) in a multi-disciplined manner that would contribute to the advancement of the people and society. Furthermore, the purpose of this data and analytics was not to build a model of dependency, deficit or subordinated [to dominant society] lifestyle that we see current data analytics contributing to in many Indigenous communities. Instead, Pueblo data was used to tell a story of interconnectedness and *inter-being* with our surroundings: *Inter-being* implies that in Indigenous communities, by the very teaching of our creation, we *inter-are* with nature, spirituality, and the man-made human factions. The Pueblo teachings around humankind’s place in nature, which is shared by other Indigenous peoples around the world is that it is not a right to co-exist or deem humanity as superior to everything else; instead it is a responsibility of humanity to understand with great depth and breadth of what our role and contribution is to society (Cajete 1994; LaDuke 2005; Sumida Huaman 2014). Data and analytics allowed for our ancestors to reach these significant conclusions and make society-wide contributions. This global view and advanced

application of data and analytics allowed our Pueblo ancestors to comprehend how humanity is supposed to inter-be with its surroundings and with one another.

One of the key pieces that Indigenous communities and scholars must do as we re-ignite the advanced and global use of data and analytics is to define what data and analytics as Indigenous peoples and to articulate what these mean to Indigenous communities, and to do so starting with local definitions. To this point, I would humbly reach out to Pueblo Indian grandmas and grandpas, formally recognized Pueblo scholars, those community members that are keeping the home fires burning, young Pueblo people, and all the minds and spirits of our Indigenous people to contribute to the emerging definition of Indigenous data and analytics. I would offer the idea that data and analytics in Indigenous communities is information that generates value and is relative, contrary to mainstream society, where data and analytics are about seeking precision and absoluteness. In mainstream society, data and analytics equates to right and wrong, valid or invalid. In Indigenous communities, data and analytics equates to value and contribution, opportunity for improvement. I suggest the idea of value and it being relative on the simple Indigenous-recognized fact that the sun and moon are relatives. Based on a Pueblo principle, these both rise in the east and rest in the west. As they traverse above us, they carry and offer the following: light, protection, resource, information, and knowledge. Although they travel the same path, they cross paths only rarely in an eclipse. The eclipse brings information as well, if one knows what to look for. Like the sun and moon, data and analytics are relatives and bring value relative to a particular frame of reference.

Even in dominant perspectives, data and analytics in Indigenous societies has always been a part of our *intellectual DNA*, which is our ability, based on gift of thought, to observe, to analyze, and to devise solutions based on the interrelationship of observation to our intellect. Intellectual DNA is not unique to Indigenous people, but the application of it introduces an aspect of uniqueness. This relates to an emerging concept of *Indigenous data and analytic repatriation* (Luarkie, forthcoming), which calls for the need to return the data and analytics that have been exploited by non-Indigenous peoples and stripped Indigenous peoples of their own intellectual and data property. This is especially critical as we have been such a studied people—an issue that is most recently notable through projects like the Human Genome Project and those sponsored by the National Geographic Society. On the other hand, our strong connection to what we understood as data and the scientific process has been interrupted by a variety of forces and impositions over the many years of Western, Spanish, and other European influence. As a former tribal leader and practitioner and believer in our traditional Pueblo Indigenous ways, I believe that it is incredibly important that we re-engage in the advanced practices of our ancestors so that we can create our own data and tell our own story based on our own merits and metrics.

External Data Extraction

Having had the honor to serve in a leadership role for my tribe over several years, and having had the opportunity to travel across the country, I have seen Indigenous people in many different contexts. I am continually amazed and inspired by the profound talent, kindness, intellect, capacity, and faith that our Pueblo people are blessed with. I

have seen Indigenous attorneys, medical doctors, scholars, teachers, parents, heavy equipment operators, small business owners, grandmas and grandpas, grandchildren, and many times including those who speak their Indigenous languages, have ideas & solutions, are willing to do their part to address community issues. In my travels, these people have all shared smiles and laughter that are as warm and embracing as a soft and gentle early morning summer sunrise, and this serves as inspiration to this work. Ours are communities and nations that also have an abundance of wildlife and have some of the best trophy hunting, large oil and gas reserves, high percentages of tribal members graduating from high school and college, and some of the most enchanting landscapes that the movie industry has only recently become familiar and infatuated with. These are people that are providing for their families, paying bills, holding down jobs, caring for aging parents, helping their children with homework, continually teaching our Indigenous customs and traditions, and simply living decent lives.

However, when the non-Indigenous data scientists of the world and their resulting statistics and analyses are left alone to tell the story of the Indigenous people, the story is so often a singular story of deficit and deprivation, low levels of education attainment, health disparities, and impoverishment. Walter and Anderson (2013) devote a whole chapter of their publication on *Indigenous Statistics* to examining this deficit approach and the implications it has had on the perception of Indigenous societies, both internally and externally. What is so intriguing in the Pueblo Keres context, is that in our Keres language, we do not even have a word that directly translates to poverty, which results in the question—have we become so brainwashed that we have normalized seeing and defining our communities as impoverished, when in fact, we have abundance in other

elements we may no longer recognize? For too long, others have extracted data from and about our Indigenous communities, only to implicitly provide a false validation that Indigenous communities do not have the level of sophistication or competency to do data collection for ourselves. This type of data practice has encouraged and inspired Indigenous policy and decisions that have in turn perpetuated this idea of deficit and subordination. For example, as a tribal leader that has had the benefit to see the internal workings and hear the intimate deliberations of Indigenous policy development, it is unfortunate in many instances to see how the subordinated thinking of the past policy has continued to influence modern Indigenous policy and strategy.

Historical examples demonstrate this vicious cycle of data use and misuse based on external and flawed definitions of the meaning and purpose of data: When Pueblo groups pursue grant funding, it is important to tell the funding organization how bad off your community is. The worse off a community or organization is, the better chance of being funded. Pueblo tribal policy in turn has then taken up and perpetuated this mindset by creating local policy and tribal law that enforces the standards of being low-income or deprived of some resource in order to qualify for housing or a scholarship. This is a practice that has deep roots back to the late 1800's to early 1900's across the United States. The Meriam Report, published in 1928, was the first federal government study to demonstrate with extensive data, primarily quantitative and some qualitative, that federal Indian policy in the 19th century had resulted in a travesty of social justice to Native Americans. This report, which showed paternalism of the federal government since the passage of the Dawes Act in 1887, was heavily criticized as a national scandal. This report described the poor living conditions on U.S. reservations, terrible disease and

death rates, grossly inadequate care of the Indian children in the boarding schools, and the destructive effects of the erosion of Indian land caused by previous U.S. policy towards its Native peoples, such as through the General Allotment Act (the Dawes Act). The report also pointed out the following. It is important to note here that I have chosen to use a full description of the quote because I believe that reading from the report directly is a powerful experience—visually seeing how American Indian people were framed in the historical narrative is a critical step towards understanding the deep-rooted ways in which colonizing and dominant populations have constructed views about us. After the quote I offer my interpretation of what this report meant and continues to mean to American Indian people in the U.S.

Several past policies adopted by the government in dealing with the Indians have been of a type which, if long continued, would tend to pauperize any race. Most notable was the practice of issuing rations to able-bodied Indians. Having moved the Indians from their ancestral lands to restricted reservations as a war measure, the government undertook to feed them and to perform certain services for them, which a normal people do for themselves. The Indians at the outset had to accept this aid as a matter of necessity, but promptly they came to regard it as a matter of right, as indeed it was at the time and under the conditions of the inauguration of the ration system. They felt, and many of them still feel, that the government owes them a living, having taken their lands from them, and that they are under no obligation to support themselves. They have thus inevitably developed a pauper point of view. When the government adopted the policy of individual ownership of the land on the reservations, the expectation was that the Indians would become farmers. Part of the plan was to instruct and aid them in agriculture, but this vital part was not pressed with vigor and intelligence. It almost seems as if the government assumed that some magic in individual ownership of property would in itself prove an educational civilizing factor, but unfortunately this policy has for the most part operated in the opposite direction. (The Meriam Report, 1928, Pg.7)

As can be seen from the early observations captured in the Meriam report, the pauper point of view has continued into contemporary society in many instances.

I am not applying the blanket pauper point of view across Indian country, but simply pointing out that it is still a common point of view. There are many tribes that have advanced and succeeded outside of the imposed federal model in economics, governance, education, healthcare and many other areas.

The impact on tribes is particularly interesting when Pueblo nations are observed. Interestingly enough, the Pueblos are still where the government found us. We have not been moved or been negatively impacted by the Indian Relocation Act of 1956 (Public Law 959). However, in some instances, we have adopted the ideas and perceptions that other tribes have on their existence such as the pauper point of view. Pueblos and other tribes across the nation are at a opportune time to overturn this perception and advance our economies and societies to economies that are built on sound principles and indigenous models. The models may differ from tribe to tribe, but I believe that the idea and pauper point of view can be changed to a view of advancement and continued positive evolution of our indigenous societies.

In addition, one critical piece to the production and dissemination of the Meriam Report is that such documents may have examined injustice and resulting poverty, but I believe that they also produced poverty. Similar to the work of Esteva (2010) who discussed the ways in which post-World War II, the idea of underdevelopment was created by what have become First World or developed nations, so the idea of poverty was perpetuated on Indigenous peoples in the U.S. Furthermore, Sumida Huaman (2013) notes the following on her work with Indigenous peoples in Peru and the social policies

and globalization processes that heavily impact community rights to redefine development for their own purposes:

Comparative analysis of policies presents examples of lessons learned in the experience of other Indigenous peoples, in this case in the United States. They have been subjected to assimilationist tendencies and now favorable policy talk, both of which reflect the power of others over Indigenous peoples, as well as formulaic strategies for dealing with Indigenous populations. The formula entails colonial and industrial approaches to development and continuous and often simultaneous attacks on Indigenous governance, lands, languages, and knowledge. There are, however, important Indigenous responses...that demonstrate how Indigenous perspectives, meaning worldviews that merge Indigenous epistemologies with critical commentary on the current status of Indigenous peoples, can turn the “Indigenous problem” into a question of social justice and the responsibility of all citizens. (p. 20)

What is interesting about this work is that although there are historical colonial and currently powerful global economic forces that in many ways dictate the participation of Indigenous peoples in development projects where they are characterized negatively and where the resources most precious to them are jeopardized (governance, lands, language, knowledge), what is also pointed out by Sumida Huaman’s comparative work is that Indigenous peoples can and do respond, so the question of *how* they will participate becomes just as important as whether or not they will participate. Another critical piece here that relates explorations of development, colonial and globalizing powers, and Pueblo explorations of data is how articulation of data has tended to validate problems and not solutions, which is related to the blanket application of the analytical conclusion. In addition, only certain narratives of history are privileged when it comes to conversations about Pueblo and Indigenous populations—meaning the power lies in the telling and re-telling of the past. For example, as discussed in the Meriam Report, the predominant conclusion indicates that “Having moved the Indians from their ancestral

lands to restricted reservations [was] a war measure” (The Meriam Report, 1928, Pg. 7). As this relates to the Pueblo nations, the Pueblo people remained (and still do) where the Spanish, Mexican and U.S. federal governments found them over several hundred years ago. Pueblo people were already advanced farmers and solid stewards of the land, resources and their economy. Governance systems allowed for structure, resource management and leadership stability. These are data sets that are entirely absent from sources like the Meriam Report, but are data sets that can only be captured, analyzed and articulated from the internal worldview of Indigenous people within the community.

Another example of how data can tell a story of depravation when told by external sources is in the area of housing and overcrowding in Indian country. There was a time in Pueblo cultural history when it was a value to have grandma and grandpa in the house, along with mom and dad. In Laguna and other Pueblos today, we note that this is how language was passed on, lessons of how we should conduct ourselves, and family and community history was taught (Romero 1994; Sims 2001). But now, an external metric says that this is a condition of overcrowded living, which contributes to unhealthy and unsafe living conditions. As a result, the conclusion is that more low-income housing is needed in Indian country to resolve the overcrowding. As reported back at the Laguna Pueblo Convocation (2012), a gathering of Laguna Pueblo community members and Pueblo and Indigenous researchers and field experts, this approach has probably been one of the most devastating contributors to the loss of language, family structure and strength, and communal stability. With housing programs that have created sub-division models, families and life have been taken out of the heart of the village and moved to the sub-divisions. Grandma and grandpa have been left in the village and the grandchildren have

lost the daily connection to the ages. This is not to say housing entirely has been bad because additional housing has contributed to the replacement of dilapidated or structurally unsafe homes. However, it is to say that with a different and internal understanding of how to improve housing in these contemporary times, the data and analytics would have painted a very different picture if told by our own data tellers. There is more to the numbers in Indigenous community and economic advancement than simply being a savior for a problem that was created by the saviors themselves.

Data Access and Utilization

So what is the alternative? I argue that it is time that Indigenous nations re-think participation in big data and analytics. By not participating in this area of big data and in designing our own research, Indigenous nations give a perceived level of permission to external groups and sources to continue with interpreting our world. This data storytelling by external sources will continue to subordinate our Indigenous nations and will not allow for empowerment and emancipation of the mind to overcome deficit. We come from a bloodline of people that determined solstice patterns, understood astronomy, could predict weather patterns, and could articulate the inter-relationships and impact of all these forces with some sense of accuracy and confidence. These understandings helped to build stability in community, economies and spirituality. It is time we re-emerge these inherent data and analytic talents for the advancement of our Indigenous nations.

Interest in Indigenous data and analytics is creating a similar swell of excitement that could go viral across Indigenous territories when the value of examining the entirety of what these bring is clearly and broadly articulated. In the work of Walter and

Anderson (2013), they also point out that Indigenous research methodologies are emerging and developing at a rapid rate. This exponential growth in Indigenous research as it relates to data will be game changing if structured and re-framed from the lens of the Indigenous people. Currently, the idea of access to data is a big area of advocacy concern, and there are bodies of Indigenous peoples and researchers who are attempting to look into these issues today. The National Congress of American Indians (NCAI) in Washington D.C. is currently doing a great deal of work around these issues, particularly the relationship between research, researchers, who should be doing research, how research should be done in American Indian and Alaska Native communities, who should own research and why, how to protect communities, and perhaps most importantly, the relationship between research and policy development. For more information, refer to the NCAI and their work on tribal research (<http://www.ncai.org/initiatives/ncai-policy-research-center>).

In many ways, access to public data has been omnipresent, and unfortunately, Indigenous nations simply have not largely engaged in a level of data access that has resulted in what might be considered game-changing strategies, investment models and forecasting or economic advancement methodologies. Part of this reason may be due to the trust obligation of the United States to the Indigenous nations, whereby Indigenous peoples are actually owed a series of responsibilities that are supposed to be carried out by the U.S. government. These include protection of lands, healthcare, civil rights, to name a few. These obligations can found in a number of sources such as the 1831 Trust Doctrine, P.L. 93-638 The Indian Self Determination and Education Act, and the Indian Civil Rights Act. To a certain degree, especially regarding treaty rights, the argument that

American Indian populations and governments are owed caretaking by the U.S. government is true. But at the same time, such a mindset is rather troubling and problematic and should not be to the detriment of our own advancement as Indigenous peoples exercising self-determination (Luarkie, forthcoming). In my work that is forthcoming, I discuss the long and storied history of the federal government's trust relationship and responsibility to tribes. I discuss how we (tribes) may have mutated the relationship and its definition, but also how the imposers have exploited that obligation as well. Tribes are at a crucial point in the journey of having the opportunity to not only reform the trust relationship, but transform the relationship.

I argue that perhaps as a result of an American Indian, and in my case, a Pueblo Indian, dependency mindset, there has historically not been an interest to gather data for the purpose of analytics for policy, economic, education or society advancement. Further, data and analytics were typically not considered to be resources that could help identify new opportunity for Indigenous economic advancement. The few and rare Indigenous organizations that may have had the foresight to recognize the value of data have not advanced at the pace that they otherwise could have partly because the challenge is their own peers opposing the use or exposure of such data. The perceived fear is that if such data is exposed and tells a different story, it may cause decreases to federal funding and other resources to the Indigenous nations. However, we all know exposure or not, resources to Indigenous nations has steadily declined over the years. Contrary to the flag of sovereignty and self-determination that is so strongly waved by both the federal government and tribal nations attempting to regain control of their own governments and pieces of their societies, fear of losing federal dollars should not be a deterrent to

Indigenous advancement: Federal dollars as the final determinant of whether or not Indigenous advancement and success will be achieved is a faulty strategy. As part of the reform and transformation, it will be necessary for tribes and the government to consciously strategize on policy and language that is not subordinating and contributory to the notion of entitlement or dependency. Instead, the focus must be on emancipating policy that draws on the resources, talents and desired outcomes of the indigenous nations. Reforming or transforming to policy and law that compounds the current issue and limitations faced by indigenous nations will be the undesired outcome.

Another contributor to the intentional minimal access of data and analytics by Indigenous nations is knowing what to do with the data once it is retrieved. Data can be used in the manner that everyone else is using it, or it can be used innovatively like our ancestors used it. To have true value and relevance, Indigenous people must articulate definition of and utilization of Indigenous data and analytics. Data must be first defined—what does it mean to us as Pueblo people, for example? Then, data must be used to reframe and refocus our outlook on policy and advancement (economic, education, healthcare, for example). Data should also be used to allow for the creation of a figurative mirror that will allow Indigenous nations to critically look at our internal policies and behaviors that have hindered our advancement. As an example of a research question that can be data-rich—Has the system and practice of [declining] federal dollars and aid provided to Pueblo communities actually caused improvement and innovation in our communities? Such a question could be expanded for other Indigenous nations around the globe. One speculation of a response might be to consider multiple factors, which will inevitably lead to additional questions. For example, with fewer federal funds

available, have Indigenous nations been forced to be more reliant on inherent talents and resource to sustain and advance themselves? How so? What are some practices in this regard?

Indigenous nations that have taken on the challenge to “do for themselves” and determine their destiny have seen a resurgence of excitement and inspiration in their communities. For example, Pueblo communities are beginning to re-examine what is most important to them as a people culturally. The work of The Leadership Institute at the Santa Fe Indian School held a Pueblo Convocation in 2012 whereby community members, Pueblo leaders, policymakers, tribal administrative officials, funders, and other stakeholders came together to listen to the ten most critical areas facing Pueblo people today. Clearly outlined was the concern about Pueblo languages, which are unique and spoken by only Pueblo peoples in this southwestern region of the United States and in Pueblo communities. Some Pueblos have only a handful of speakers left, while others have speakers numbering in the low thousands. These languages are endangered. The work of Pueblo and New Mexico scholars like Romero (1994; 2008) addresses this. At this time, Pueblo language programs both in school and in communities are growing and strengthening. This may reflect that a reconnection to culture and tradition is being renewed, and education linked with cultural well-being appears to be a priority, and community sharing in addressing these challenges is required. With this shift, this return, what now becomes the more relevant and value-added metrics that must be tracked. Data and analytics can help identify self-imposed limitations as well as solutions to overcome these limiting self-impositions. What this might mean is that no longer do unemployment

rates, poverty guidelines, or low-income requirements drive research and data collection strategy.

It will be important for Indigenous nations to seriously consider their economic models and application of data tools. If Indigenous nations don't consider new models and tools, they potentially compound the struggles with language loss, blurring of the Indigenous worldview, shrinking economies, and increased reliance and dependency on federal and state resources. The statistical, data and analytical story of deficit is validated and continues to be told. Like the nightly news, bad news sells and those that can tell the worse story will continue to receive government support, but this support will cause those that are addicted to remain in a state of dependency and government controlled growth. To this end, it becomes crucial for Indigenous nations to not only access data, but to learn what to do with it and how to use it strategically, innovatively and educationally.

New paradigms for Indigenous analytics and metrics

Although Indigenous nations have been newcomers, for the most part, to the Western modern world of data and analytics, their expansion and penetration has been rapid. As the earlier section of this paper discusses, it is important to not only have access to data and actually access it, it is equally important to know what to do with the data once it is accessed. There has to be a identified outcome and goal for the analytics of the data. Equally important to the access and utilization of data is what actually gets defined as a metric that creates value and relevance. The deficit model that Walter and Anderson (2013) discuss so eloquently is a model that perpetuates the mindset of poverty, limitation, subordination, dependency and addiction. The metrics that are most commonly used and

that have been normalized to illustrate the status of Indigenous nations must be revisited and redefined. But the Indigenous communities themselves must define them.

In thinking about new models and elements to measure from an Indigenous lens, I would offer the concept of the community balance sheet (Figure 2).

Balance Sheet				
Indigenous Data and Analytics , Inc.				
For Period 2015 to 7th Generation (all numbers in \$000)				
ASSETS	2015	2022	2065	2115
Our People & traditions of the ages	\$1,000	\$2,000	\$3,000	\$4,000
Human and Natural Resources	\$100	\$200	\$300	\$400
College Completion	\$500	\$600	\$700	\$800
Financial Sophistication	\$600	\$700	\$800	\$900
Native Language	\$50	\$60	\$70	\$80
Sovereign Status	\$20	\$40	\$60	\$80
Graduation Rates	\$300	\$400	\$500	\$600
Total Assets	\$2,570	\$4,000	\$5,430	\$6,860
LIABILITIES				
Reliance on trust obligation	\$300	\$200	\$258	\$250
Non-innovation policy	\$500	\$400	\$300	\$300
Limited use of data and analytics	\$200	\$200	\$200	\$200
Self responsibility mind-set	\$900	\$900	\$800	\$700
Internal research by external researchers	\$1,000	\$1,000	\$900	\$800
New methodologies in old systems	\$1,000	\$1,000	\$900	\$800
Limited Indigenous Econometrics	\$900	\$1,000	\$900	\$800
Total Current Liabilities	\$4,800	\$4,700	\$4,258	\$3,850
SHAREHOLDERS' EQUITY				
"Skins" in the game (Capital stock)	\$300	\$300	\$300	\$300
Retained earnings (Economic Sovereignty)	(\$2,530)	(\$1,000)	\$872	\$2,710
Total Shareholders' Equity	(\$2,230)	(\$700)	\$1,172	\$3,010
TOTAL LIABILITIES & EQUITY	\$2,570	\$4,000	\$5,430	\$6,860

Although the balance sheet is not an Indigenous concept, it can be a tool to capture and measure the elements crucial to modern Indigenous communities in a way that can create encouragement and empowerment. In the asset section, we capture and measure data that demonstrates value-add and relevancy to the talents and capacity of Indigenous nations. These measurements fuel empowerment as opposed to fueling subordination and deprivation. When these metrics are tracked, the story that ultimately gets told is one that is very different from what is being told today. This does not mean that the

challenges of society go away or are ignored; it simply means the focus is now on solutions as opposed to problems. A problem-based strategy is very different from a solution-based strategy. For too long and with deep normalization, the “Indian Problem” has been kept alive and well through the interpretation and presentation of deficit data-telling of Indigenous nations by non-Indigenous data-tellers.

The liabilities section illustrates those elements that have contributed to the challenges and limitations of Indigenous nations. These are elements that have been engrained over the many years of federal policy imposition, as well as self-imposed internal policy. The disconnect with the Indigenous worldview and reliance on external interpretations have, in theory, validated the liabilities of Indigenous nations. However, what is encouraging and inspiring is that each of the liabilities listed can all be converted to assets. The shareholder’s equity is the commitment and contribution of the Indigenous nations to the effort to overcome and/or advance. As in any plight, there has to be “skins in the game” to have incentive to see that the effort makes it across the goal line. The contribution to the effort has a vast range. It can be simply coming to the realization that change has to be made and taking small steps to affect change, to bold steps that are as far reaching as constitutional changes. There has to be relevancy to the citizens of the Indigenous nation and the change of investment and measurement has to be translational to the common Indigenous citizen, it has to make sense to them. In order to see a re-emergence with substance, the citizenship must buy-in and be engaged.

The line items in the balance sheet are simply to demonstrate the concept. The line items could be anything that an Indigenous community deems of value and relevance, and that is measurable. As Indigenous nations think about what needs to be researched,

corrected, or the myths that need to be busted, we need to equally think about what are themes that need to be created to do this work into the future and are they measurable. This is important because the measuring tool will have to be designed with relevance to the key outcomes of the research, data and analytics. In addition, the tool has to be easily explainable, plug-and-playable, and the content has to be relevant to the community. As the measuring tool gets developed and advances, it also has to be supported with credibility and credentials to be valid in any society. It will be critical to think about and identify the audience that these metrics will be intended for. This is where innovation, creation, design and inspiration serve as the renewed frame and platform for this new paradigm.

Like financial statements (cash flow, balance sheet, profit/loss), they all have their purpose and tell a particular part of the story. But together, they can tell an intriguing financial tale of an organization. Similarly, there will be the need to develop other analytic and tracking tools to track other elements of data. As an example, the Census bureau in New Mexico recently committed a major faux pas that was quite potentially damaging to Indigenous populations in the state and perhaps elsewhere. What it had allowed for was the option to select a mixed race identity on the census form. If a Pueblo person was an enrolled tribal member, but also had non-Native blood and picked mixed race or identified as mixed with Hispanic, to the Pueblo person could be viewed as totally Hispanic and not regarded officially as an American Indian person in the state. The questions around this are controversial and emotional. The work of a new Pueblo scholar, Michele Suina, examines this in her work on research and a policy recommendation specifically on this case that is being presented before Pueblo tribal leaders (Suina,

forthcoming). As Pueblo peoples and researchers ourselves, we must ask ourselves the following questions, a) Was this intentional of the federal government, or was it an unintended outcome, and b) How does Pueblo identity get captured and measured, and what does it mean to even attempt to measure this in our communities. Similarly, another emerging Pueblo scholar, Shawn Abeita from the Pueblo of Isleta, is asking these questions around blood quantum measurements that both Pueblo communities and the federal government use in order to determine membership and ultimately affiliation and the extent of participation that a Pueblo/Native person can have in their home community. He is reframing this around the idea of belonging (Abeita, forthcoming). I believe that questions like these represent important explorations—what does measurement mean to Pueblo peoples? It will be crucial to design tracking tools that allow the Indigenous nations to accurately and with a high level of confidence track and utilize key indicators.

A metric that is not captured now is how well Indigenous nations and citizens are taking care of ourselves in the non-formal economy. Industries like tourism are measured from a more global scale, but what about the local artisan selling jewelry, food vendors, or the local ranchers? These are major metrics and market contributors in Indigenous communities that add to the diversity of Indigenous societal advancement and economic diversification. These are probably the best stewards of resource and inspirers of innovation, but the least understood from a contribution and community well-being lens. These are also areas that have been formally ignored as possible areas of opportunity. Indigenous nations are not seen as statistically significant, therefore, the level of attention will never be given to the plight of Indigenous people unless we structure the data ourselves and tell the data-story ourselves. Until we tell the story ourselves, the external

sources will continue telling our story for us and painting the Indigenous nations as insignificant.

The Case of the Spiegel Law Firm

The experience that the Pueblo of Laguna had in the 1960's with the Spiegel law firm underscores how crucial it is for tribal leadership to understand data, analytics and how to interpret such data for self understanding and articulation to others. This case is not specific to research, and it is not about financial models or investment strategies. Instead it is a case that deals with data and the exploitation of that data for personal gain by the law firm the tribe had on contract. The law firm was contracted to perform legal services for the tribe. However, the law firm was savvy enough to get themselves engaged to also advise the tribe on some initial investments. Like many tribes at that time, investments were a new area and few on the tribal council had little or no experience in the field. Further, there was even less of an understanding on market data. The law firm knew this and this became the Achilles heel for the tribe. With enough understanding to present market and investment data to the council, the law firm begins to influence and advise where the tribe should move its investment. The story being told to the council by the law firm in investor clothing was that the market was having issues and funds needed to be moved. This market fluctuation and concern was validated by the many newspaper clippings and market reports that were given to the council by the law firm. Based on the data, it all made sense, so there was a level of comfort that the law firm in investor clothing was right on point. Therefore, funds should be moved. After many instances of this type of presentation and authorizations, it was discovered that the law firm in investor clothing had taken the tribe for millions of dollars. The law firm was

fired, but the tribe was left with a Bernie Madoff type of situation, no real way to recover the lost investments. This was done by the law firm in investor clothing with data storytelling.

Having had the honor to serve as a Governor has provided me insight as to how crucial the understanding and interpretation of data is. Data can influence a decision in a good way, but it can also influence decisions in manner like that described above. Whether a Governor, CEO, CFO, or any one that has fiduciary responsibility for the resources and assets of others bares an incredible responsibility. As tribes continue to move ahead with technology, data and new economic models, it is imperative that data be a part of this movement. But the data has to be relevant, understood, and interpretable. This is an experience that no tribe should have to see.

Conclusion: Data Mind and Data Policy

The world of Indigenous big data and analytics is an extremely exiting and profoundly intriguing one. However, the challenge currently is how do we gain more participation to identify questions and explore ideas for solutions from within Indigenous nations—not simply because data is the buzz-word at the moment, but for the reason that data and analytics that are framed with value and relevancy can be game changers for Indigenous nation advancement. It is also very important to understand the reasons for the apprehension that Indigenous nations have for releasing data and participating in research that ultimately extracts their data: There are multiple levels and examples of Indigenous data exploitation that have resulted from previous agreements and promises from external researchers. Indigenous data has been used to the detriment of the

Indigenous nations by researchers and organizations, including those that are supposed to help and protect the Indigenous people through the trust obligation. Examples of this are the Bureau of Indian Affairs entering into long-term leases with non-Indigenous factions that have resulted in the non-Indigenous factions benefiting significantly and the Indigenous nations being handcuffed and deprived of access to their own resource. To this end, we need to create policy that protects our data sources and data sets, but also creates policy that encourages empowerment and emancipation as mentioned earlier. It is important to develop some solid base-line policy that is standard in nature, but it is also important to customize data and analytic policy to regions and specific to tribes where necessary. The caution though is not to develop policy that makes data and analytics so difficult that it becomes unfeasible to develop this capacity. In other words, don't make things so sacred that no one can participate.

As we enter this new era of data and analytics, we need to enter with open eyes, open hearts and revitalized inspiration to view the future with new lenses. It is equally important to understand what we are seeing in the rear-view mirror. The ancestors of Chaco Canyon and those that came before us laid a path marked with intellect, confidence, vision and a reliance on our own Indigenous knowledge and data sets. They also included purpose as a key component to data and analytics. There was an intended outcome. But what gave the ancestors the idea that tracking the movement of the sun and the moon would generate many benefits to society? It is this same curiosity, inquisitiveness and desire for improvement and the well-being of our Indigenous nations that must be rediscovered and that must serve as the inspiration for the pursuit of new

data and analytic outcomes. The data and analytic outcomes of the future may look very different, but there must be faith in their value and relevancy.

Like our Pueblo ancestors did with the Sun Dagger, reflecting keen understanding of what the West defines as astronomy and other areas of scientific advancement, we must reignite the meaning and understanding of this incredibly profound gift of data and analytics. Let's emerge the definition together, for this will bring a global Indigenous understanding of how we tell our own data story and what are the appropriate metrics to articulate and illustrate the intellect, talent and advances of what Indigenous nations should be.

Section III: Going Forward—A Policy Suggestion

Opportunity

This policy will be enacted to advance the primary purpose of the All Pueblo Council of Governors. The purpose is:

To advocate, foster, protect, and encourage the social, cultural & traditional well being of our Pueblo nations. Through our inherent & sovereign rights, we will promote language, health, economic, and educational advancement of all Pueblo people (All Pueblo Council of Governors Articles of Association)

When strong communities, economies and education systems are present, the odds are that we will have healthy children, families and vibrant Pueblo communities. The opportunity is ever present to advance our Pueblo communities and economies in a manner that is inclusive of all children, families, men, and women. Like the mission of the W.K. Kellogg Foundation in New Mexico, of which many Pueblo affiliated organizations have Kellogg Foundation funding, This policy will always have the Pueblo

children, families and communities as the primary beneficiaries.

Challenge

Throughout Pueblo lands, there is not immunity from the categorization and labeling of poverty, low graduation rates, high drop out rates, and minimal employment

opportunities. These are all contributors to unhealthy communities, lack of opportunity for young people, and lack of recognition of diversified solutions and contributions.

There has also been a disruption to the historical efforts of Pueblos working together for the advancement of the Pueblo nations. This disruption has been influenced by the silo approach to economic and community advancement, gaming, policy (internal and external) and the perception of colonization. These are challenges that can be overcome through collaboration and resource leveraging.

Solution

This policy will serve as a baseline and reference point for broader economic policy that will encourage Pueblo collaboration and resource leveraging for the purpose of job creation, industry development and community advancement. The following elements must be incorporated to execute this policy:

- Demographic, economic, education, health, financial, natural resource and any other type of data collection that is relevant to Pueblo communities and economies.
- Analytics of all data for the purpose of identifying opportunities as well as areas for improvement.
- Identification of industries that Pueblos can develop outside of gaming.

- Development of marketing and education material of sovereign status and contributions to economic advancement that Pueblo nations contribute to the economic story and attractiveness of New Mexico.
- Development of broader, overall trade, fiscal and economic governance policy.
- Development of metrics to measure impact and results.
- Activating the APCG Economic Development Committee with business leaders and thinkers

Evidence

There are many examples of successful collaboration among the Pueblos when we have worked as a unit. As an example, the Pueblo Land Claims Act, Pueblo support of the return of the Taos blue lake, the passage of gaming legislation. Collaboration and leveraging of resources is not new to the Pueblos. As the policy is implemented, it must be with the same belief as the Kellogg Foundation in that: “We believe that one measure of a society is the importance it places on the optimal development of all of its children. We envision a future and a society where every child thrives, and we invest in areas to advance that vision.” The development and implementation of a sound economic policy will be crucial to that advancement of our Pueblo communities and it will be crucial to delivering on the vision of a “society where every child thrives”.

Acknowledgment

The All Pueblo Council of Governors recognizes the importance of investing in our communities and our children through economic vehicles. Therefore, the All Pueblo Council of Governors hereby adopts this policy and agrees to activate the Economic

Development Committee.

Chairman

Attest: Secretary

Date

Date

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