Tribal Mobility for American Indian Reservations:

Complexity for Tribal Transportation.

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Small Urban, Rural, Tribal Center on Mobility (SURTCOM)

Tribal Transportation Research Report T-1

Tribal Planning Programs, Eastern Washington University

SURTCOM RESEARCH REPORT 2 AUTO DEPENDENCY.

Management Processes using MBOR are part of the strategic planning model for tribal planning (and all planning). In general, it is important to establish a planning process with basic steps answered/described, along with a management process that provides the Mission, Goals, and Objectives, and then has a separate format for the objectives and tasks over time to assure completion of the project. It identifies key activities and assures they are completed.

This report is to demonstrate the application of this management project to our # 2 research report on reservation roads related to tribal auto dependence (and most rural areas). It is critical to use the planning process and management processes to outline how the work will be done, as the foundation for grants and collaborative work on projects. Please make comments and suggestions on the MBO process used and consider a similar process to help outline and manage the other projects.

Mission/Purpose

The Mission of the # 2 SURTCOM research report is to contextualize and identify critical issues of American Indian Reservations related to transportation and their automobile dependency, and to identify mechanisms, policies, and actions for tribes to reduce automobile dependency and meet the needs of all tribal members and residents through effective planning for transportation, community services, and mobility programs.

Goals

1.0. Examine American Indian Tribal Cultures in the western region and their transportation, economic and community patterns prior to contact with Europeans.

2.0 Describe changes to those systems during and after contact (pre-contact, contact and conflict, establishment of reservations (generally as removal or isolation), and policies toward reservations and tribal transportation through self-determination and tribal controls of transportation programs (2010).

3.0 Describe the current conditions of reservation transportation post two thousand including tribal transportation programs and citizen engagement in tribal transportation decision-making to address tribal transportation issues on the reservation.

4.0 Issues and actions to better address American Indian Reservation transportation issues and needs.

Research frameworks need to address density, distance, traditional tribal occupied and used areas, and community/culture of each tribe. American Indian reservations include each tribal culture and its uses, including its historic patterns of land use, economic activity, settlement patterns, and transportation.

Research frameworks also should include Rural, Small Town, and Anglo society and communities and the transitions and conflicts/issues arising from their proximity.

Research frameworks need to identify the dominance of rural area auto settlement dependence (along with rr, fway and other transportation) leading to suburban development and auto orientation/isolation to create suburban settlements and auto dependence.

This mission and the statements of Goals and frameworks are Draft products, and need review, comment, restructuring to reflect the best ideas and concerns of everyone in our group. Please review.

PART 2: Goals, Objectives, and Tasks.

Following MBO, the creation of a list of objectives under each goal helps specify actions needed to achieve those goals through research and work. Likewise, the creation of tasks is to make sure to identify all steps to complete each objective. List Objectives under each Goal, and Tasks under each objective after the objectives are listed.

Objectives under each goal. What steps and actions are needed to complete each goal listed.

Goals

1.0. Examine American Indian Tribal Cultures in the western region and their transportation, economic and community patterns prior to contact with Europeans.

Objective 1.1: Use GIS and a narrative report to identify and describe all reservations within the study area—what we call the Western States.

Objective 1.2: Use GIS and a narrative report to identify and describe Native American culture or cultures within each reservation.

Objective 1.3: Use GIS and a narrative report to identify the location of traditional cultures (show approximate territories on map—may have overlaps) and traditional settlement patterns, economies, land use, and transportation.

Objective 1.4: Identify and describe the pre-contact relationships of community, culture and transportation.

2.0 Describe changes to those systems during and after contact (pre-contact, contact and conflict, establishment of reservations (generally as removal or isolation), and policies toward reservations and tribal transportation through self-determination and tribal controls of transportation programs (2010).

Objective 2.1: Research for data and Create table and description of list of American Indian Reservations, tribal groups assigned to the reservation, current reservation size, and if possible, aboriginal claims or "usual and accustomed" areas in both current reservation and aboriginal territories (I am seeking base maps, this may be hard to find but it would be helpful) in either acres or sq mi.

Objective 2.2. Analysis of data and assessment of best way to describe and present data findings on AI federally recognized reservations.

Objective 2.3. Analysis of related data and GIS/spatial analysis in terms of traditional transportation, settlement, land use, environment and economic uses, and trade/transportation.

Objective 2.4. Research and analyze historical data on type of traditional transportation and its context and meaning within tribal culture(s).

Objective 2.5. Summarize issues of contact and conflict, including migrations from further east into western states.

Objective 2.6. Summarize processes of tribal recognition and trust responsibility agreements with tribes leading to and creating reservations.

Objective 2.7. Summarize the creation of AI reservations and relations to Anglo society.

Objective 2.8. Describe and write with maps or summary tables for draft.

Objective 2.9. Create draft section for review and comment.

Objective 2.10 Review and approval of final draft inc. review by all tribes.

Objective 2.11 Publication.

3.0 Describe the current conditions of reservation transportation post 2000 including tribal transportation programs and citizen engagement in tribal transportation decision-making to address tribal transportation issues on the reservation.

3.1. Identify Contemporary federally recognized AI reservations in terms of environment, population, demographics, social, economic and transportation data using 2000, 2010 US Census, ACS 5 year means for latest year available, and LED data; NAHASDA data; and BIA data in a summary overview for western tribes.

3.2. Describe the recent evolution of tribal transportation programs and services including legislation and changes since 2000 (or since 2010) from IRR to TTP and various ways to access formula funds, as well as summaries of other programs and issues and the tribal assumption as lead of tribal transportation issues.

3.3 Develop draft overview for W. Tribes showing detailed tribal data and maps where available.

3.4. Review of draft and approval.

3.5. Publication.

4.0 Auto dependence in contemporary American Indian Reservations, and the resulting issues, concerns, and possible policies and actions.

4.1. The high cost of automobiles:

Auto Cost (to operate, to maintain, to purchase)

Driving cost (gas, oil and maintenance, tires, brakes)

License (drivers ed difficult, youth education, cost and access to testing, age and qualifications)

Penalties (DUI, felony) that remove voting rights and in some cases ability to have a driver's license).

Transportation need: Drive instead of walk, bicycle, transit or alternative. (Travel for supplies & shopping), work, school or education, special events, meet friends and family, religion, hunting/gathering).

Roads

Safety

Perception of the car in tribal culture—Phillip Deloria, pop culture including films Pow Wow Highways and Smoke Signals, other.

4.2. CCT Case Study—Angelena's survey. Practical frameworks of reasons or issues with the automobile.

4.3. Western States Mobility, Access, and Safety

The need for improved transportation

The need for alternatives

The need to restructure settlement and land use patterns to promote walking and transit.

4.3.1. Isolation of AI reservations and the factor of distance and isolation. This section would utilize some of Jason and Zach's GIS data and maps and descriptions.

4.3.2. Linkages and access for each reservation to key services—what is the need for mobility, especially for employment, youth, elderly, challenged, unemployed (dependency factors) by reservation.

4.3.3. Safety & Health. This section would rely on safety data on reservations.

4.3.4. Workforce. This section would rely on LED Data.

4.3.5. Transit. This section would rely on transit data—how many tribes have it, what is the usage, what are the needs.

4.3.6. Sidewalks, trails, and access. This would rely on the inventory data for TTP—how many miles of sidewalks and trails are in the TTP inventory? How many exist but are not included? What changes could improve linkages.

4.4. Summary

5.0 Data Driven Models to address auto dependence and create actions for safe, health and adequate transportation on each reservation.

5.1. Land Use/Smart Growth

5.2. Transit

5.3. Trails and walking.

5.4. Safety

5.0 Issues and actions to better address American Indian Reservation transportation issues and needs.

SURTCOM Table of Contents Mobility for Western Tribes

Table of Contents

1.0. The Frameworks and Contexts for Tribal Mobility: An Overview

1.1.New Frameworks for Tribal Mobility.

Transportation knowledge, along with systems to understand, plan, and address tribal transport needs, critical issues, and programs, has been rapidly expanding in the Twenty-First Century, bringing new topics and concerns into transportation research. Transportation for American Indian reservations and their tribal governments is no exception, with new structures and frameworks aiding better understanding of the true issues, needs, and meanings that lead to appropriate actions for effective decision-making. The focus in this research is American Indian/Alaskan Native tribal transportation, emphasizing federally recognized American Indian reservations and their governments established in relation to federal recognition of tribal sovereignty. The purpose of this research report is to identify and discuss critical frameworks and contexts for tribal mobility, from the discovery and occupancy of North and South America by American Indians to new programs for American Reservations around tribal roads, transit, active transportation, identification and addressing needs, and data driven planning.

Three unique contexts for tribal transportation need to be recognized for effective transportation programs, services, and relations to successfully address tribal transportation needs. These are: 1) tribal sovereignty; 2) strategic, data-based decision-making; and 3) empowerment of each tribal government, including elected leaders, staff, and citizens from elders to youth. These planning activities are generally centered on a Tribal Comprehensive Plan with elements around each critical data set (see Figure 1), including transportation. The evolution of tribal transportation planning begins with the Tribal Comprehensive Plan, where the Transportation Element or Transportation Comprehensive Plan required for federal funding reflects tribal thinking about transportation and guides programs, services, knowledge, and actions. These elements are best integrated into all aspects of the Tribal Comprehensive Plan but have often been restricted to more limited frameworks by the

previous program focus on federally funded transportation related actions (almost exclusively related to roadways) which influenced each Tribe's development of longer-term plans (2-5 years). Topics now include sustainability, natural resources, cultural resources, and the environment; active transportation (walking, bicycling, and horseback among others); special populations, issues, and services; equity; safety; freight; and addressing behavioral and attitudinal patterns including drugs, alcohol, and drivers' education and awareness. Most tribal governments have now adopted an administrative structure around a Tribal Transportation Committee or have selected 'portfolio' designates from the Tribal Council, to expand tribal powers for decision-making around transportation concepts within tribal government. All these components continue to expand tribal empowerment around transportation, and can create programs, services, plans, and actions to enact each tribe's priorities across a wide range of opportunities for tribal policies and actions.

The prehistoric and tribal frameworks within the processes of each unique tribal language and culture incorporated mobility, rather than isolating these concepts. Tribal traditional cultures, post-contact tribal histories, and the current mobility of tribal nations offer unique opportunities for the understanding and support of tribes as they gain and provide insight into transportation related aspects of mobility for people, exchange of goods and services, wellness, and success. These can allow the wisdom of tribal traditions to be a part of future tribal transportation meanings and symbols, and help each tribe understand and guide actions into the future that properly define tribal mobility within their unique culture(s). Without such frameworks, tribes lose the wisdom that would let those definitions and understandings create appropriate plans, processes, and programs, not just for settlement and transportation, but for the sovereignty of each tribe.

The new framework for tribal transportation begins with new methodologies and appropriate actions that include listening to the members of each tribe, their pre-history, history, and adaptation to their unique homelands. Since many tribes across our study area did not occupy permanent housing but instead moved frequently in response to the availability of plant and animal resources, the places they occupied were often expansive land areas. Without permanent housing, the typical transportation research models and analysis that are used currently are inadequate and fail to include all components of tribal mobility contexts. Instead,

they focus on extractable data (travel from home to work, travel from home to shop, travel from home to recreation or community activities) and do NOT have the same meanings within reservation contexts. Considerable research in transportation is beginning to recognize and move beyond transportation planning solely for the automobile in order to address the real transportation needs of different populations for access and interaction, as well as broader contexts of processes to recognize diversity and engage/empower decision-makers. Standard, non-Indian mobility concepts were applied to reservations after contact, which led to non-Indian cultural patterns and knowledge pervading Tribal Transportation programs. There continues to be chasms and changes in the treatment of tribal needs, but ties to specific places and regions that were central to Tribal Mobility can remain so today as part of on-going tribal cultural knowledge and self-determination.

1.2. Tribal Mobility as a Context for Tribal Transportation

Tribal Mobility within tribal governments was barely recognized in the reservation era, and many reservations were established to limit and isolate native nations away from contact with settlers. Within the Bureau of Indian Affairs (BIA), tribal transportation was seen as limited in value to native residents but was often promoted with provisions or rights-of-way for settler access through reservation lands. Multiple reservations or "Indian Country" Lands were set up as a home for American Indians, but many were decreased in size and moved to more isolated regions as Anglo settlement expanded. Under the BIA reservation system, the Indian Reservation Roads (IRR) program (1950) was established in partnership with the Federal Highways in the Department of Transportation. The IRR was later renamed the Tribal Transportation Program (TTP) which has since provided tribes with transportation programs and services. This includes formula-based funding directed at tribally identified "projects", with special set-asides for safety and bridges. Though maintenance remains underfunded, maintenance efforts can be selected by tribes to prioritize critical needs instead of new roads, and safety can also be addressed with TTP funds.

During the second half of the Twentieth Century, tribes gained some participation in tribal transportation, especially after the American Indian Self-Determination and Education Act of 1975, which returned to tribal governments responsibility over their own

transportation and a voice on federal and state transportation initiatives that impact tribes. These programs included professional engineers in regional administration for tribal transportation, and individual "Green Book" assessments of transportation issues and needs, which were previously controlled or dominated by non-Indian "experts".

Over time, Native Americans became active in expanding their control over decisions for their own communities, and by the late 20th Century, tribal influence on legislation and involvement in critical transportation issues, needs, and programs led to positive federal program responses. Federal programs worked to provide contracts or compacts to tribes, led by their own tribal transportation programs, who can now choose to operate under the BLA regional engineering structure, the Federal Highway Administration (FHWA) regional engineering structures, or through self-governance agreements for tribes to take full control of all aspects of transportation. In addition, a new tribal transit program was expanded/created to increase tribal mobility under the Federal Transit Authority (FTA), and within both the BIA and the FHWA/DOT safety programs, training and support were provided for tribes to assume responsibilities for transportation. After the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), and especially since 2000 with tribal program awareness and implementation, we have seen major tribal recognition and expansion of the role of tribal transportation, its relation to identifying needs and setting priorities, and its capacity for engagement and empowerment around all aspects of mobility and transportation. Many tribes have their own Tribal Department of Transportations, while some tribes still utilize BIA, FHWA, or consultants in their transportation programs and services.

The transportation textbook *Sustainable Transportation* states: *"*Mobility and mobility investments help us travel freely wherever we might want to go" But new Tribal Mobility frameworks are able to function beyond the realm of simple transportation, to now also provide ways to identify and address cultural resources, knowledge, sacred sites, meanings within places, and a myriad of values and needs that form transportation systems. Tumlin goes on to state that "Mobility investments are mainly capital facilities like an added highway, a rail

extension, or a bicycle path." Mobility investments can address much more, and include transportation components that preserve significant sites, knowledge of tribal language, and historic sites (on- or off- reservations), and address concepts like safety that center on attitudes and behavior for well-being. This paper will provide an overview of Tribal Mobility, and its use as a context to understand and address transportation issues within the unique structures and cultures of American Indian reservations and the people who interact with them.

The final section of this paper will identify the Study Area for research on Tribal Mobility for this SURTCOM Tribal Mobility research effort and will provide preliminary frameworks of understanding for 71 federally recognized American Indian Reservations. There is a large variation of circumstances for tribal communities across the nine states in our study area–Washington, Oregon, Idaho, Montana, Wyoming, North and South Dakota, Utah, and Colorado– with very distinctive geographical regions from the Pacific NW Coast, Coastal and Cascade Mountains, the Colorado Plateau and Great Basin, the Rocky Mountains, the Plateaus, and the Great Plains. It is important to understand that each tribe historically and currently includes highly mobile peoples with special understandings of land, resource, transportation, and mobility. While there are environmental conditions that connect broad areas of cultural similarity in historic types of food and materials available, tribes today live under a wide variety of unique circumstances. Some tribal reservations are in cities and urban centers while others are in rural areas. Some tribes have large land bases of over one million acres, while others have a smaller land base, or none established. This preliminary assessment provides a description of the tribes, their relation within the region, and their relationship to key resources and activities. Our focus is not to provide one framework for all tribes, but recognizing tribal sovereignty, to identify and address academic transportation mobility issues including land base and population, relations to non-Indian lands (rural, suburban, urban), relative isolation of reservations across the region and for each reservation, and preliminary analysis of access to key resources, particularly health care. This will help frame the conditions on each reservation in a regional context and show the range of differences that need to be addressed in a Tribal Mobility perspective toward transportation, especially in terms of programs and services that each tribe would identify and carry out.

We hope this research report will become a useful contribution to on-going efforts by tribes and transportation programs to re-context tribal transportation needs around Tribal Mobility, and to expand research, awareness, understanding of current programs and activities, and the creation of individual tribal plans, programs and services. Tribal Mobility can be one of many concepts and processes utilized by tribes to assess and engage their reservations, to reassess transportation, and to use new and existing tools, techniques, and processes to better define their transportation planning, programs, and actions through tribal leadership and decision-making.

1.3 Appropriate Frameworks and Contexts for Tribal Mobility on each American Indian Reservation

Frameworks and Contexts for American Indian Reservations in the West.

Original discovery, settlement, and occupancy began in prehistoric times over 30,000 years ago, with Pre- and Formative cultural eras prior to the first contacts with Europeans in the Americas.

Early history of contact was centered on what has become termed the “settler culture” of the French, Spanish, and W. Europeans who migrated first to the East Coast of what is now the United States and continued to expand and resettle across the continent to the detriment and destruction of American Indian cultures, peoples, lands, and rights.

Restructuring by the federal government since the 1920’s, through 1975’s American Indian Education and Self-Determination Act, slowly recognized and supported fully tribal self-determination and education to carry out and implement self-governance on reservations within contexts of each reservation’s culture(s) and direction. New Transportation programs and efforts of the Twenty-First Century identify and address the full range of issues, needs, and interests of American Indian reservations as sovereign nations as led and carried out by tribal programs and leadership.

Following the Intermodal Surface Transport Efficiency Act (ISTEA) of 1991, transportation greatly expanded its scope of programs, services, frameworks, and contexts, and during the past two decades transportation itself has continued to broaden its scope using data-driven analysis of issues. Many aspects were previously absent in tribal transportation programs, including sustainability, environmental and natural resource protections, and relations around each American Indian tribe's critical resources; the actual needs of all American Indian people, particularly those on reservations but including regional perspectives; and empowerment of American Indian reservations through engagement of all aspects of reservation communities. These will be discussed in more detail in this report.

Through the inventory and analysis of over 71 reservations across 9 states, data will be described and analyzed as the basis for understanding of tribal systems and concepts at play within each of the 71 tribes. Analysis of this data will be developed to help to understand key factors in tribal mobility, specifically isolation, but also descriptive of the conditions for each individual reservation. Frameworks of descriptive and simple statistical assessment of this data provide a framework here for future, more detailed research on tribal mobility within and across the study area, and for all the U.S.

Tribal Mobility incorporates complex contexts of systems of transportation, but with a tribal specific framework.

2.0 Frameworks and Contexts for Assessing Tribal Mobility

Frameworks and contexts for assessing tribal mobility often first address a general lack of full understanding of the overall world’s history in relation to American Indians, the uniqueness and diversity of tribal discoveries and settlement, the development of sustainable and individualistic tribal cultures, and of occupancy of both North and South America as a precursor of European settlement and rediscovery. European failure to recognize their complex relations between people, lifeways, culture, richness of language, and successful economies, due to ethnocentrism, arrogance, racism, and a desire for what the tribes had previously possessed–especially land and resources, led to a disastrous history of interactions centered on

exploitation, eviction, genocide, and removal of American Indian peoples. This was done in a parallel context of European recognition through formal legalistic codes of concepts imposing European sovereignty over each tribe and culture, despite recognition of tribal lands and ownership. (Land tenure systems?) As Roxanne Dunbar Ortiz (2015) points out in her *Indigenous Peoples' History of the United States*, the invaders were the "settler cultures" of the Europeans which diminished, if they did not destroy or greatly assimilate, the rich tribal cultures they encountered.

This initial framework and context for understanding American Indian peoples recognizes that prehistoric immigrants from Asia "discovered" and spread across North and South American starting sometime near or before 30,000 BC and settled into separate and distinct cultures that adapted to extreme ranges of environment and resources that shaped all aspects of tribal society. Columbus did not "discover America" as it was already settled by a great diversity of peoples, cultures, languages, and successful communities. Each tribe's intimate relationship with the land and resources successfully pre-existed Europeans, with great innovation and knowledge held within each tribe's culture.

The second framework and set of contexts for American Indian peoples was the rich diversity of tribes and cultures, often in relation to the physical environment and resources. Tribal adoption and extensive knowledge of locales, naming, and place-making within each individual culture was attuned to the unique specificity of their knowledge. Each tribe demonstrated successful occupancy of lands and resources which allowed for survival and success. Each individual tribe was aware of other sets of knowledge, as well as their own, reflected within each language and dialect of the tribes.

The third framework acknowledges the forced disruption of these tribes, the diminishment of their lifeways, lands, and resources, indicative of the widespread ignorance of the great successes, knowledge, and complex systems (including transportation) that developed within each of those cultures. There was a general failure to identify, value, and learn from the strengths and knowledge of these tribal cultures. Despite disruption by colonizing forces, tribes survived, maintaining tribal language, culture, knowledge, and skills. A great accomplishment

by contemporary American Indian cultures has been their ability to preserve and recover tribal ways and values despite European pressures.

2.1 Tribes, Tribal Cultures, and Tribal Mobility: Pre-Contact

Long before European contact, tribal societies existed in North America for thousands of years. Indian peoples

> "Built irrigation systems that allowed them to farm in the deserts. They cultivated new strands of crops, and built settled and populous communities based on corn, beans and squash. They traded and exchanged commodities and ideas across far-reaching networks. They fought wars, established protocols of diplomacy, and learned to communicate with speakers of many different languages. They developed various forms of architecture suited to particular environments, different seasons, and shifting social and economic purposes. They built societies held together by kin, clan and tradition." (Calloway, 2004, p. 16).

Mobility: Prior to the shift to horse culture, natives traveled great distances and hunted on foot. When the first Spaniards ventured into the southern plains in the 1520s, they saw herds of buffalo and they noted that the Indians of the region traded an incredible number of hides into the interior. The nomadic hunters traded with farming groups on the edges of the Great Plains, but they did not yet travel by horseback. Tribal villages often sent runners from camp to camp to carry messages. One family from the Coeur d' Alene Tribe of Idaho was called "Walking Antelope" because they were fast runners, but not as fast as a running antelope. Tribal people followed the trails of the animals and thanked the animal people for the trails. These pathways would become migration routes for settlers as they moved into Indian country, and later, highways running through lands of which tribal peoples had been dispossessed.

Europeans often characterize natives simply as nomadic hunters that lived in isolation. Long before European contact, much of Indian America was farming country crisscrossed by well-traveled networks of trade and communication. For centuries, Indian people had been

developing and farming corn. Hunting people regularly developed reciprocal economic relations with farming people. Prized items were traded over vast distances, usually along river systems, from community to community or by wide-ranging individual traders. (Hornbeck et at., 1995).

1. **Traditional Villages**

Mobility—On Water Ways Canoes

As tribes throughout the Great Plains traveled along river systems like the Missouri river, the coastal tribes navigated the ocean. Canoes lay at the heart of tribal existence in the Pacific Northwest, relying on the Salish Sea, Columbia River, and numerous inland lakes. The coastal tribes, such as the Quinault people depended on the ocean's bounty of seafood. The coastal tribes engaged in a thriving trade economy that, without the canoes, would have been hampered by the thick forests, mountains, steep valleys, and deep rivers. Nor would land travel have allowed for the extensive socializing among the tribes of the regions. Canoe carvers used giant cedar logs, known for their strength, buoyance, and resistance to decay. (Wilkinson, 2005, p. 376). These watercraft could reach fifty feet long and eight feet wide, and could transport up to 10,000 pounds of cargo, such as fish, seal, and whale. They traveled up and down the coast, especially north to British Columbia for trade and to visit with sister tribes. (p. 376). Similarly, the peoples of the Columbia Plateau had transportation systems over land and over river bodies. One such transit system was on the Columbia River where one important location was called "snya'kwtan" which was a crossing point where dugout canoes were left permanently on both sides of the rivers to ferry people and goods. (George, 2003, p.32)

Movement of Peoples onto Plains, 1500-1800

Long before Euro-Americans pushed west onto the Great Plains, Indian Peoples had been moving in and across the vast grasslands. Some peoples, like the Quapaws, Osages, Omahas, and Poncas, followed river valleys west before horses reached the plains. Others like the Cheyenne, Comanches, and Lakota, migrated deep into the plains to take advantage of the spread of horses. Some peoples were still in motion and competing for position on the plains when the Americans arrived. Adapted from the Settling of North America: The Atlas of the

Great Migrations into North America from the two Ellis Island and Beyond by Helen Hornbeck, Janice Reiff, and John H. Long. eds.

3. Horses increased tribal mobility:

Horses transformed the lives and cultures of Indian peoples across the continent, but especially on the plains. "The Plains Indians' way of life was the product interplay between their environment, vast herds of roaming buffalo, and horses introduced by the Spanish invaders in the south. The animals spread by trade and raids, and reached virtually every tribe on the Plains in the mid-eighteenth century" (Calloway p.260). Horses transformed the Plains Indians into mobile communities, capable of traveling great distances and fully exploiting the rich resources of their environment (Calloway p. 260). The buffalo that Plains Indians began to hunt from horseback provided the tribes with food, shelter, clothing, tools, and weapons; it became the economic life emphasized the man's role as warrior and hunter (Calloway p. 261). Warriors raided for horses and fought for honor; tribes clashed over hunting grounds and resources. Before horses the tribal people had hard lives and horses changed daily life.

4. Upside Down Faces Arrive (Salish Translation for fur trappers): European Contact

Hundreds of sovereign nations existed in what is now the United States when popular history claims Christopher Columbus "discovered" this continent in 1492. "Beginning with Jamestown, Virginia, in 1607, people from England, France, Spain, and the Netherlands began settling on the eastern seaboard" (Pevar, 2012). Unfortunately the tribal nations were too trusting and did not understand the true motivations of the Europeans. Many Europeans viewed the natives as simple savages and believed in concepts like "Manifest Destiny" in which Christians had the right to take tribal land. The settlers remained on peaceful terms with the Indians only when it served the newcomers' interests.

Indians remained extremely powerful throughout the 1700s, and relations between the Indians and settlers increasingly turned violent. (Pevar, 2012). There were wars with the Pequot (1634-38), the Dutch settlers in New York fought with the Delaware Indians in 1643,

and English settlers went to war against the Wampanoag Confederacy. However, toward the end of the century the balance of power in North America began to shift away from the Indians (Pevar, 2012). American Indians lost their homelands while under threat of the U.S. military's genocidal tactics, including indiscriminate warfare, weaponized diseases, starvation, and dehumanization. When Europeans arrived on the continent, they introduced germs and viruses that exploded into "virgin Soil epidemics" among Native American populations who lacked immunity to these new diseases. Epidemics of smallpox, measles, bubonic plague, influenza, cholera, and other killer diseases spread like wildfire through Indian societies. (Calloway, 2004. P. 68). In some cases, entire populations perished; 90 percent mortality rates were common. One estimate suggests that the Native population of North America fell by 74 percent between 1492 and 1800 (Calloway, 2004. p. 68).

The first widely known European record of contact in the Great Plains and the Plateau region is in the journals of Lewis and Clark, from their 1804-1806 expedition (Ross, 2011). Gradually, the Northwest Company of Montreal, Canada had pushed over the Rockies under the leadership of their great explorer David Thompson, who would later establish the first trading post on the Columbia River (Ross p. 52,53 quoting Sperlin 1913-17). There are many different names by which the "newcomers" were called. In the Salish language, a dialect spoken by tribes in Montana, Washington, and northern Idaho, the word for Europeans was "Suyapi". This term translates to "Upside Down Face," which the Caucasians received because many fur trappers had full beards but little on top of their heads.

5. 1828-1887: Removal of the Indians – Trail of Tears

When Andrew Jackson became president in 1828, what previously had been an unspoken policy became a publicly stated goal: removal of the eastern Indians tribes to the West. The removal policy that Jackson commenced became "the dominant federal Indian policy of the nineteenth century. The rapid growth in the population of the United States increased the desire of whites to obtain Indian lands in the East and fueled westward expansion" (Pevar, 2012, p. 7). In 1830, Congress passed the Indian Removal Act, which authorized the president to "negotiate" with eastern tribes for further relocation west of the Mississippi River. This

removal policy brought tremendous suffering to the uprooted tribes and disrupted the established lifeways of Indian peoples. Thousands of southeastern Indians were forced, often at gunpoint, to gather what possessions they had and march west. Thousands of Cree's, Cherokees, and others died on the journey on what Alexis de Tocqueville, a French visitor to the United States, called the "Trail of Tears" (Calloway 2004, p. 216) As many as a quarter of the Cherokees died on their trail of tears in 1838.

In the North, implementing the removal policy meant dealing with a variety of tribes and bands, many of which had migrated from one region to another, and many of which were already living on a fraction of their former lands (Id. At 217). For tribes that were relocated, it meant difficulty providing even basic sustenance for their families in foreign lands.

6. Establishment of Reservation:

The United States was attempting to resolve the "Indian Problem". The Indians would be confined to tiny reservations and be subject to increasing interference by individual states, as they saw their lands being whittled away (Calloway p. 219) In the Pacific Northwest, the United States Cavalry under Colonel Wright burned down tribal villages of the Spokane, Palouse, and Coeur d' Alene, hung tribal leaders, and burned food storages for tribal villages. In an effort to further crush the spirits of the tribal people and stop their mobility, the U.S. killed, by shooting and clubbing, 900 tribal horses before throwing them in the Spokane River.

When Chief Moses, one of the last recognized chiefs of the Colville tribes, was leading his dispossessed people to their assigned reservation, his son tragically drowned while they crossed the Columbia River. In his grief, he swore he would never be made to leave his land again. In Montana, the Salish-Kootenai tribal elders recall waking up in the Bitter root Mountains and the U.S. Cavalry were standing outside their teepees to march them to reservation. If you attempted to leave the reservation you may get shot. (Oral testimony by Bitter Root Salish Elder, Arlee Montana, date unknown).

As the Indian wars came to an end, Indian people were subjected to a different kind of attack. The federal government's intent was the confinement of tribal peoples to reservations. "Euro-Americans, wanted to "civilize" Indians and have them lead sedentary lives on fixed plots of land, be self-supporting, and practice Christianity." (Calloway, p. 336) With the defeat of resisting groups, many of the Indian "ringleaders" were rounded up and sent away as prisoners of war, while their people were herded onto reservations. "The reservation was the context in which the process of detribalization was to occur" (Calloway, p. 336). Tribal people declined into poverty after they were confined to a reservation.

Sustainability --- No longer possible on reservation

Indian people who had once moved seasonally for subsistence purposes, or had lands with rich soil, were now compelled by poverty to move about for survival. Previously, the very definition of traditional tribal life was sustainability. The Brundtland Commission of the United Nations in 1987 defined sustainability as; "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (The World Commission on Environment and Development. (Tumlin, 2012, p. 200) Rhoades in his American Indian Health text, describes events that have created "natural experiment" we are forced to consider the health ramifications for Native Americans, once nomadic and semi-nomadic people–moving with the seasons eating high nutritional value food–were being placed on reservations and given government rations of flour and lard. Reservations were established on the most barren land available, which could not support the traditional tribal systems for sustenance. Tribal people that once lived in balance with nature and had a sustainable lifestyle were now confined to foreign territories and diets.

Many tribal cultures in the Pacific Northwest utilized temporary structures like teepees or tule lodges to move with the seasons. During the winter they would have more permanent structures like pit houses. Now they were told they would be shot if they left the reservation…. cite. "For Indian people, land loss means a shift from mobility, prosperity, and independence to confinement, poverty, and dependence and also separation from familiar sites linked to individual, family, and tribal memories." (Calloway p. 340)

Reservation policy resulted in Native American communities that still experience the repercussions of large-scale displacement of the populations and rapid destruction of their culture.

7. Extreme Social Engineering – results of social impact on tribal people and their communities.

After 1867, the government determined to confine the nomadic tribes of the Plains on small reservations where the Indians could be segregated, supervised, and educated in civilized ways. United States peace commissioners met with delegates of the Kiowas, Comanches, Plains Apache's, Southern Cheyenne's, and Southern Arapahos at Medicine Lodge in Kansas in 1867. The army launched a series of campaigns to punish Indian raids and "bring in" tribes who refused to accept confinement (Calloway, 2004, p.270).

Religious and Federal Practices that were hard on tribal communities. The United States began forcing Indian children to go to Boarding schools to be educated and "civilized". The result was the harsh reality of dissolving family connections. By 1887, more than two hundred schools had been established under federal supervision, with an enrollment of over fourteen thousand Indian children, most of whom were forcibly removed from their families (Pevar, 2012). The authoritarian rule of these boarding schools is notorious. Children were severely punished and even whipped, if they spoke their native language or practiced any of their traditions.

All of this would lead to generations of historical and emotional trauma. Reformers championed the idea that American Indians would be better off if they were completely assimilated. This philosophy resulted in policies that encouraged Christianity and the suppression of tribal identity, and separation of young people from their families. Indian Boarding Schools (Rhoades p. 272).

8. Hydropower Dams – cut off Salmon and Transportation – River systems

Traditional tribal economies and systems of trade that had been in existence for thousands of years collapsed in ruins after the construction of hydropower dams on rivers throughout the West. Tribal villages and cultural sites were flooded by artificial lakes, and in many regions, the fishing cultures were greatly disrupted. Traditionally, tribal people held ceremonies, April for the coming of the Spring Salmon (chinook) runs, but now the dam's blocked salmon runs to the fishing grounds that people had fished on the Columbia River since time immemorial. Columbia River tribes had salmon feasts in the spring to celebrate the coming of the salmon. Pacific Northwest tribes have lived here and fished here since time immemorial. They prepared deer meat and salmon filets for the feasts. The traditional foods, sometimes called first foods, like camas roots and huckleberries would be prepared. Inside the longhouse they would drum and sing songs and would bless the water that carried the salmon. We pay special attention to drinking water because it nourished our body. Although natives lived modestly, they were very good at hospitality and would serve their guests lavish feasts.

When they explained to the tribe how the hydropower dams would work the people asked "what about the salmon?" "What will we feed our children?" (Sadie Boyd). The response was that the government would provide food rations that would be delivered to the reservation. Tribal people recounted that often when the food rations arrived, they were spoiled. Calvin Garry, Spokane Tribal Elder, said "my grandmother, when the wagon of government rations arrived at the reservation the salted pork had maggots in it. We had nothing else to feed our children. So, we scrapped out the maggots and boiled it to feed our children."

9. American Indians and the Automobile: 1904 – 1950s

In his book "Indians in Unexpected Places," Philip Deloria writes about how the perception of twentieth-century Indians and automotive technological advances have a strange intersection. That there is an "ironic unnaturalness" in which non-Indians viewed Indians driving cars. Michael Murphy, Christian Missionary, questioned "isn't it strange to see an automobile on the Indian range," being driven by an Indian person? (Deloria, 2004, p 141) Deloria writes that there is a "palpable disconnection between the high-tech automotive world and the primitivism that so often clings to the figure of the Indian" (2004, P. 138). Deloria refers to a 1904 photo of

Geronimo at the wheel of a Cadillac when discussing expectations emerging from ideas of social evolution and racial differences. There is a story and song that Geronimo had apparently once driven a Cadillac around the grounds of Ft. Sill, Oklahoma, while living under house arrest.

Deloria states that he reverses "the geography of expectation, shifting from discussions that place Indian people in urban, national, and international spaces to considering instead the ways in which Indian people engaged modernity in relation to reservations, thought to be premodern in their isolation" (Id. at p. 139). Deloria states that "cars serve a utilitarian function".

|Coeur D' Alene man, Phillip Wildshoe and family, in his Chalmers automobile|
(please see picture on Next Page of Phillip Wildshoe and his family in car in 1916)
Digital ID: (b&w film copy neg.) cph 3c01166 http://hdl.loc.gov.loc.pnp/cph.3c01166
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In the Inland Northwest, tribal people understood the utilitarian value of the automobile early on. As early as 1916, Philip Wildshoe, a Coeur d" Alene tribal member, son of Chief Pierre Wildshoe, purchased a brand new Chalmers automobile with his crop income. According to family and other tribal members, Phillip Wildshoe and his wife Eugenia were the first family on the reservation to own an automobile and were known to follow the baseball team to games (interview Patricia Swan and Caryl Dene Swan).

Barry Moses blogged about Spokane Indians using automobiles in the 1920s and 1930s to visit traditional, off-reservation camas grounds to dig for roots. The arrival of affordable automobiles allowed some native peoples to resume or expand the seasonal rounds of their grandparents. Philip Deloria recognized that Christian missionary expectations "believed in evolution and social development, and they placed Indian people on the familiar progressive

trajectory of social Darwinism. Indians, they thought, could and would leave behind their supposed lives as hunters and gathers (my added) and primitive farmers and evolve into modern people fully capable of using white technology---they just hadn't done so yet" (Deloria, 2004, p.143) Clearly, as Deloria suggests, Indian people engaged modernity in relation to reservations and traditional homelands, and their own tribal cultural practices.

Deloria notes that "Over the course of the twentieth century, automotive Indians may not have appeared in American culture as often as the warlike Indians that did in Hollywood films (that seemed to celebrate the forced migration and death of natives), but they have lived behind the wheel in all kinds of powerful ways. For example, Joseph Garry, grandson of Chief Spokane Garry, traveled from reservation to reservation promoting tribal issues for ATNI and later NCAI and slept in the back seat of his car. (Saving the Reservation")

10. Meriam Report: The Problem of Indian Administration—1928

The Meriam Commission was charged with investigating the treatment of American Indians by the United States. The investigation covered nearly all reservations, and the report looked at educational, industrial, social, and medical activities of the BIA, as well as Indian property rights and economic conditions. "The health of the Indians compared with that of the general population is bad" (Institute for Government Research 3). With regards to health services, the report stated that hospitals and sanatorium schools maintained by the Indian Health Service lacked staff and equipment. The report went on to say that "the most important single item affecting health is probably the food supply" (Institute for Government research , 221). The poverty was a result of the allotment policy of the Dawes Act of 1887, of which the Meriam report concluded: "In justice to the Indians it should be said that many of them are living on lands from which a trained and experienced white man could scarcely wrest a reasonable living… Frequently the better sections of the land originally set apart for the Indians have fallen into the hands of the whites, and the Indians have retreated to the poorer lands remote from markets" (Institute for Government Research, 5).

For American Indians, poverty has been maintained, and its effect exacerbated, by longstanding patterns of discrimination and disenfranchisement. (Rhoades p. 271) The Cost: long separations from their families and culture (O'Neil 1995).

11. Housing on Reservation – and mobility

The government helped the tribes build small cabins on the reservations that were called, "Washington" houses. These were wooden shacks that were paid and financed by the tribe. Many of our reservation towns in the Pacific Northwest center around the Bureau of Indian Affairs agency buildings. Our original town square will be the BIA agency and the homes of the BIA agents and their families. Non-Indian families came to the reservation and worked for the BIA managing and making the major decisions for the tribes.

Today on most reservations most of the housing is built by the tribe's housing authority. Due to the complex nature of land tenure, tribal members have not had a lot of success finding financing to pay construction companies to build homes on the reservation. The tribal trust land is technically held in trust by the United States government for the benefit of the tribe or individual Indian. Often banks are not sure how to deal with trust property and are not sure how to collect a debt in tribal court if the loan forecloses.

Life was quickly changing for tribal people. The BIA put a stop to cultural ways. Tribal members lost the knowledge of how to carve canoes and loss of their salmon changed their lives in its entirety.

12. Relocation, Assimilation – 1940, 1950s Urban Cities

Tribal communities began to see a new mobility–reservation life was no longer sustainable and native peoples had to move to cities. "The combination of land loss and limited opportunities in commercial fishing and logging, the result of widespread deforestation, caused many Chippewa to move away from their traditional areas. By the 1930's one-quarter of them lived in cities." (Charles Wilkinson, Blood Struggle p. 155). The United States government began a formal relocation program in 1954 with the purpose of relocating tribal people from

reservations to urban cities and terminating federal government responsibilities towards tribal governments and Indian people.

Some Indian individuals and families looked for jobs and new lives in American cities long before the BIA program provided incentives (Calloway, 2004, p. 438). Some Indian people saw their move to the cities as a chance to escape BIA paternalism, economic insecurity, and second-class citizenship. In 1954, 2,163 Indians relocated to cities with direct assistance from the Bureau's relocation program. They received financial assistance to cover all or part of the costs of transportation to the place of relocation and short-term subsistence. These services included assistance in establishing a residence and securing employment. They relocated to 20 different states, and both the Los Angeles and Chicago metropolitan areas continued to be the chief centers of relocation. (Calloway, 2014. P. 439)

II. Modern Day Tribal Mobility

1. Motor Vehicles – Culturally –

Some tribal people refer to their car as their War Pony. Tribal people once decorated our horses and now they decorate their cars with eagle feathers hanging from the rear-view mirror. Philip Deloria states in "Indians in Unexpected Places" that cars "make one visible, asserting publicly that drivers and riders are certain kinds of people," and that the automobile has been among our most evocative symbols. Mobility, speed, power, progress; these things matter and Americans of every race, class, gender, and origin have found ways to express them in automotive terms (Deloria. 2004, p. 138).

Deloria notes that the symbolism built on cars and Indians intersects on our highways, where we see Jeep Cherokees, Pontiacs, Azteks, Dodge Dakotas, and other "Indian cars." For decades, American Indian tribal names have helped to propel automobiles out of showrooms" writes Glenn Collins in the New York Times (June 21, 2013). Remember an era when Pontiac's sales brochures carried illustrations comparing its 6-cylinder engines to six red-painted, feathered cartoon Indian braves rowing a canoe. Many other instances of tribal theme and imagery were adopted as marketing tools.

Consider the Pentagon's tradition of naming military aircrafts after Native American tribes: Apache attack helicopter, Black Hawk utility helicopter, Lakota utility helicopter. According to Michael Peck, in a July 8, 2014, article, there are 20 aircraft, helicopters, or missiles named after Native American tribes. Some people consider it an honor to have a helicopter named after a tribe and some tribes have given their blessing.

Philip Deloria also refers to a "Native critique of automotive expectation, a scene in the Spokane writer Sherman Alexie's 1998 film Smoke Signals." Two native women drive up in an "ndn [read "Indian"] car," battered and capable of being driven only in reverse. Deloria shares that "its movement draws our attention to the idea of Indian backwardness and to the familiar expectation of forward motion, a white American ideal that connects technological advance with social progress. And so, the car moves forward…backward (Deloria, p. 141).

Tribal people appreciate cars and the advantage they provide. They allow us a freedom to come and go and drive in any weather day or night. Tribal members can travel to any area of the reservation in comfort. Author Jeffrey Tumlin writes, "Far more powerful than its pragmatics, however, is the car's ability to shape our emotions. Sitting behind the wheel we are wearing a suit of seemingly invincible armor. The car is not just a tool we use, but an extension of ourselves" (Tumlin, p. 139). It's a means of projecting power and allure. Tribal People, like many others, sometimes see their car as part of their identity.

Traditionally, when we rode in battle, we might paint our horses and hand feathers from their mane. Today we may paint images on our cars, have decals and hang an eagle feather from our rearview mirrors. It is symbolic of prayer/blessing for safe passage. Sometimes the motor vehicle may be part of a "costume, something we put on in order to craft a persona" (Tumlin, p. 139). Cars can make us feel strong. If we are poor, cars can make us feel wealthy. We can play our music and as Jim Boyd sings headed down the "Pow-Wow" highway 49, Jim Boyd sings a song about Indian cars:

> "I left my broke down pick-up truck down at Crow Fair and I'm Colville Reservation bound tonight. I live my life from day to day, hand to mouth, the only way, when payday come its pow-wow 49. Well, I'll fix my truck this week in time for rolling and I'll work all week and get my sleep tonight. When Friday comes, I'll go my way, cause

I don't know no other way, when payday comes is highway 49, I make my reservations for the road now, every weekend holds a pow-wow in summertime. I will hit that celebration with a vengeance, when I roll down pow-wow highway 49. Roll down Pow-wow highway 49, I keep my eyes wide open for the road, because my reservation ride does 85, I've got lots more miles left to go and a couple months before the snow. So, I am heading down on pow-wow 49." Jim Boyd, Colville Tribal Chairman, album of the year.

2. **Safety SAFE Passage**

3. **Accessibility** – help us get the things we want and need, Get to grocery store.

Provide most of needs of daily life within walking distance – while maintaining the social and economic benefits of being tied to a large region.

High-speed internet – reduces the need for movement –we don't have high speed internet on many reservations.

Dispersed land-use patterns – require excessive capital investment. Mobility – oriented systems that emphasize on the automobile creates problems of dependency.

4. **Mobility and Health Outcomes – American Indian Health by Everett Rhoades, M.D.**

Tribal Public Health – Indication of public health – Obesity, heart disease, and type 2 diabetes – rates of waling. Transportation systems that do not make daily walking a pleasure for all citizens will tend to result in significant public health costs.

Today on the reservation many tribal members live a sedentary lifestyle made possible by the automobile. Traditionally tribal people kept our bodies moving by walking, fishing, hunting, picking berries, digging roots and making trips to other villages. "All of our body systems-

digestion, healing, immunity, thinking – are designed to function optimally while walking: (Tumlin p. 23)

Poverty and access to health food. It is generally conceded that poverty in Indian Communities further limits access to healthy food supply. P. 212.

Most traditional foods are low in fat and sugar and high in nutrient alue: salmon, berries, roots, venison.

Alcohol and Substance Abuse

Prohibition of selling alcohol to Indians: In 1802, Congress authorized the president to take any measures necessary to prevent or restrain the traffic of liquor to Indians. (Rhoades p. 281)

A stronger provision was enacted in 1832, with prohibition of the selling of alcoholic beverages to Indians throughout the United States and its territories. (Mankill, 1995 . (Rhoades p. 281)

My grandmother's era: Indians could not get alcohol – so all kinds of crazy stories to get lighter skinned Indians to buy booze and drinking of other substances like anti-freeze punch and people going blind. Driving around Colville Indian Rez. "Can't beat em, join em."

Today, many reservations remain technically "dry," although the enforcement of prohibition is not very effective, and alcohol can still be obtained. Today many pow-wows are dry! (p.281)

Physical and Social Consequence of excessive alcohol consumptions: Adverse physical and social consequences of excessive alcohol consumption are endemic among many Indian communities. May (1996) estimated that 17.3 percent of all Indian death in Indian Health Service (IHS) Areas between 1987 and 1989 were alcohol related.

Deaths directly attributable to alcohol including those caused by alcoholic liver disease, alcoholic cardiomyopathy, alcohol dependence, alcohol overdose. Cirrhosis of liver (tube and drain), violence, no driver's license, relationship damage. (Rhoades P. 282)

In review of eight studies of drinking among Indian tribes, May (1996) noted that the percentage of adult tribal members who were drinkers ranged from 30 percent for Navajos surveyed in 1969 to 84 percent for Ojibwe surveyed in 1978. (Rhoades p. 284)

He concluded that (1) a larger proportion of Indian men than women drink; (2) many reservations are characterized by high abstention rates, particularly among women; (3) many previously heavy-drinking Indian men moderate their alcohol use or quit drinking in midlife; (4) abstinence rates tend to be higher among reservation-based than urban Indians; and (5) in some tribes, problem drinking is small percentage (p. 284)

Alcohol specific deaths are 10 times more prevalent among Indian men aged 25-34 and 24 times more prevalent among Indian women aged 25-34 than among U.S. residents of comparable age (Indian Health Service 1997)

The distribution of Indian alcoholism mortality rates by age and gender is shown in Figure 16.3.
Alcohol deaths of both genders begin to occur in the age group 15-24 years, following sharp increase, particularly among men aged 45-54. (p.284)

The association of alcohol and injuries has been well documented (Gilliland 1995)

Alcohol-associated injuries include automobile injuries, hypothermia, drowning, falls, poisoning, and job-related deaths, especially in construction or farming jobs. P. 286 Example: Nephew fell off roof at Housing – Methadone program

Alcoholism has highly detrimental effects on Indian health. Alcoholic veterans with liver disease were younger and had more severe liver disease with higher mortality rates non-Indian. (p.287)

Alcohol abuse among Indians is implicated in other adverse medical and social outcomes, such as abdominal tuberculosis, driving while intoxicated, gambling, violent crime, autistic behavior in offspring, and suicide. P. 287

Acceptance of the view that they suffer from hereditary vulnerability to alcoholism may diminish Indians self-efficacy (one's belief in own ability) in moderating alcohol use and may create a self-fulfilling prophecy leading to higher rates of alcohol abuse by adolescents and adults.

Why do Indians drink? This perspective (historical) stresses the limited time Indians have had to develop norms promoting healthful drinking practices. Sociologic theories highlight the role of poverty, unemployment, and other social problems of Indians as determinants of substance abuse (Ferguson 1976). Some Indians can control. Life stress theories suggest that threats to self-esteem, anomie (break down of values), and other forms of acculturation distress led to drinking as a coping response.

Comorbid psychiatric and medical conditions are prevalent among Indian alcoholics. These include organic brain disorders, probable pathologic gambling, depression and panic disorder and other psychiatric disorders. (Many transfer addictions) p. 291.

Treatment programs, aftercare programs and services. Lack of support. Lack of resources, going back to the reservation where there is little employment and high rates of recidivism.

One controversial issue is the prohibition of alcohol on the majority of reservations. Some contend that prohibition exacerbates alcohol problems by discouraging development of proscribing norms. (we are not social drinkers) P.293

Border towns that take advantage of dry rez.

Also, this contributes to "binge-drinking" patterns that is associated with many alcohol-related problems. *This is huge problem p 293 Additional investigation of psychosocial and biological factors of substance abuse needed.

A particular concern is the high rate of substance use among adolescent Indian girls. I had an aunt buy me bottle at my 15th b-day. Another time my friends and I played "drink, drank, drunk," board game w/mom's bottle.

Disadvantaged socioeconomic status of many Indians may explain some problems/findings.

Need more rigorous evaluation of substance abuse and even studies of social drinkers.

Causes of Mental Health Disorders: (Chapter 18) Other issues that American Indians face is that there is geographic isolation for some reservations and cultural identity conflicts that result from encroachment of a dominant technological society.

Their significant behavioral health risks are also related to well-known historical events, including forced relocation of entire communities from traditional lands to distant, often harsh terrain, attempted extinction of tribal language and culture through boarding schools and assimilation.

The Rise of Cardiovascular Disease – Rhoads Chapter 10 – Diabetes. Smoking

Obesity:

Behavioral and lifestyle conditions related to diet and physical activity play a critical role in the development and extent of obesity (Bouchard 1992(. Most American Indian populations developed obesity only in the past few generations, and this change is believed to be related to the relative abundance of high-fat foods accompanied by rapid changes from an active to a sedentary lifestyle (Welty 1991; Broussard et al. 1991). Several dietary practices may contribute to obesity, including the wide use of butter, lard, whole milk, fry bread, and fried meats and vegetables, as well as the generous use of fats in preparation of beans. Sweets and snacks may account for high calorie intakes in some groups (Gilbert et al. 1992). (Rhoades p. 203)

The Pima Indians of Arizona, who have the highest reported prevalence of obesity and type 2 diabetes, were compared to members of a population of Pima ancestry living in a remote mountainous location in northwestern Mexico, whose lifestyle contrasts with the Arizona Pima. Obesity and type 2 diabetes were less prevalent among people of Pima heritage living a "traditional" lifestyle than among the Pimas living in an "affluent" environment. Greater energy expenditure may protect against the development of obesity and cardiovascular disease. (Rhoades P. 204).

Food: food from subsistence farming, hunting and gathering was replaced with food from the trading posts and government food programs (commodities). Traditional preparation of food over direct heat has been replaced with pan frying. (Rhoades p. 212)

The recent proliferation of fast-food restaurants and convenience food stores on or near the reservation also encourages the Consumption of high-fat, high-sugar foods (Broussard et al. 1995).

5. **Tribes are reviving old traditions to fight obesity. Canoes Journey.**

They have now revived their Tradition Tribal Transportation by Canoes with the Canoe Journey.

2.2.1. Tribal Mobility and Sustainability

Inserted text titled: Tribal Mobility and the Concepts of Sustainability. Dw

Tribal Mobility and the concepts of Sustainability.

American Indian culture is an immense subject, involving subsistence, technology, art, religion, language, and social and political organizations. Different tribes, bands, villages and communities had varying customs, traditions, esthetics, and tools. (Waldman 2000, 25).

Throughout much of the study area these resources were very limited, and dependent on great skills for fishing, hunting and gathering, detailed knowledge of land and resources to be exploited. Many across the study area did not establish permanent settlements or villages but travelled at various times across the year to take advantage of fish runs or bison migrations, and also plant and animal variations from low deserts and plateaus to mountains. These became integrated into tribal culture, knowledge, language and activities – mobility was at the heart of traditional societies around critical and complex strategies for resource use, exchange, and survival.

There was and remains critical connections between geography and the physical environment and the peoples who settled across large regions, with small groups making adaptations and identifying critical and sufficient resources for sustainability. The underlying physiography of North America identifies the major distinctive physiography of the continent, and applied to our study area, identify the key physiographic areas and regions where tribes settled and developed unique cultures, languages, and lifeways.

Much of the adaptation was related both to the previous cultures that combined big-game hunting supplemented by plants, so Paleo-Indians were also gatherers, and within our study area, agriculture was used on a limited basis, while fishing, hunting and gathering were the major means to sustainable development. (Waldman 2000, 25-27). As a result of these regions, applied to our region, we can Identify the key physiographic regions and recognize cultures and tribes over time that developed strong and unique cultural systems and economies.

The Study Area.

Many Indians in the North, such as those of the Pacific Northwest, came to have many other of the period 's typical cultural traits without agriculture-- village life, complex social organization and so on. (Waldman, p. 5)

For this research we wanted to include a range of cultures and tribes centered on the Western States. Eastern Washington University operated the Northwest Tribal Technical Assistance Program center (NW TTAP) from 1993 through September 2017, and we joined SURTCOM in 2016/17 to expand and continue this effort, to include areas served by Montana State University's Center on Mobility, adding Tribal Mobility to their previous research focus on rural and small urban centers in the West. The study area was expanded, and despite states within the US not existing until after the 1820s, it was important to establish an Eastern boundary for the study area, which combined physiographic regions, climate and rainfall (following recognition of the 100th Meridian by Stegner (REF) and others. This included tribes in North and South Dakota, but not Nebraska and Kansas for our research. We did not include Oklahoma, New Mexico, Arizona, or California because of the large numbers of tribes. and their uniqueness in terms of evolution and development, as well as tribal settlement. Each has large numbers of tribes, and very diverse status. It was felt that the study area of nine or ten states represented tribes with commonalities across tribal cultures and regions, yet as sovereign nations, further expansion would limit the ability to carry out research and work with individual tribes and regions.

TRIBAL CULTURES WITHIN OUR DEFINED STUDY AREA

Within the selected study area, we have identified 9 states and 71 Federally recognized American Indian Reservations (not including Nevada). All tribes are different with different histories geographically and culturally. Despite great diversity within the physical geography, climates and resources across the region, we extend from the Coast along the Pacific Northwest across plateaus, mountains and into the great plains and to the 100th Meridian where we can identify the end of the arid Steppe plains and beginning of the Humid Continental (long summer) climates, and from the border between the US and Canada on the north to the edges of the Colorado River and the distinctive boundaries of areas not included: the Southwest (Arizona, California and New Mexico), and the complex tribal history including settlements and tribal resettlements of Oklahoma. Kansas and Nebraska. We want to partner

and work with tribes in these areas, and support and include research on areas outside our tribes and encourage the processes and research to be applied and/or replicated.

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