ASSESSING TRANSPORTATION NEEDS ON INDIAN RESERVATIONS

Thomas L. Anding
R. Evan Fulton
Center for Urban and Regional Affairs
University of Minnesota

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BACKGROUND

The involvement of the Center for Urban and Regional Affairs (CURA) in transportation research on Indian reservations began in 1989 when CURA received a small grant from the University of Minnesota's Center for Transportation Studies. CURA was asked to submit a proposal to conduct a pilot survey on one reservation in Minnesota and develop an assessment of transportation needs. This initial work was extended to include reservations in several other states. These additional states (North Dakota, Wyoming, Colorado, and Utah) were participating with Minnesota in broad range transportation research, organized under the North Central Region Transportation Research and Extension Center (NRC-TREC) at North Dakota State University; they were known collectively as the Mountain-Plains Consortium (see Figure 1).

RESEARCH IN MINNESOTA

To begin this work, two formal, focus group meetings were held with members of the Minnesota tribes in March of 1990. The goal of these meetings was to inform the researchers on what the tribes considered to be the relevant transportation issues in their communities; the findings of these sessions were used to develop research methods which would result in successful data gathering and maximize participation by the tribes. In the first focus group, representatives of the four Sioux communities in southern Minnesota met in Minneapolis to discuss the particular conditions of transportation in and around their communities. Later, representatives from the Chippewa communities in northern Minnesota met in Grand Rapids for a similar session.

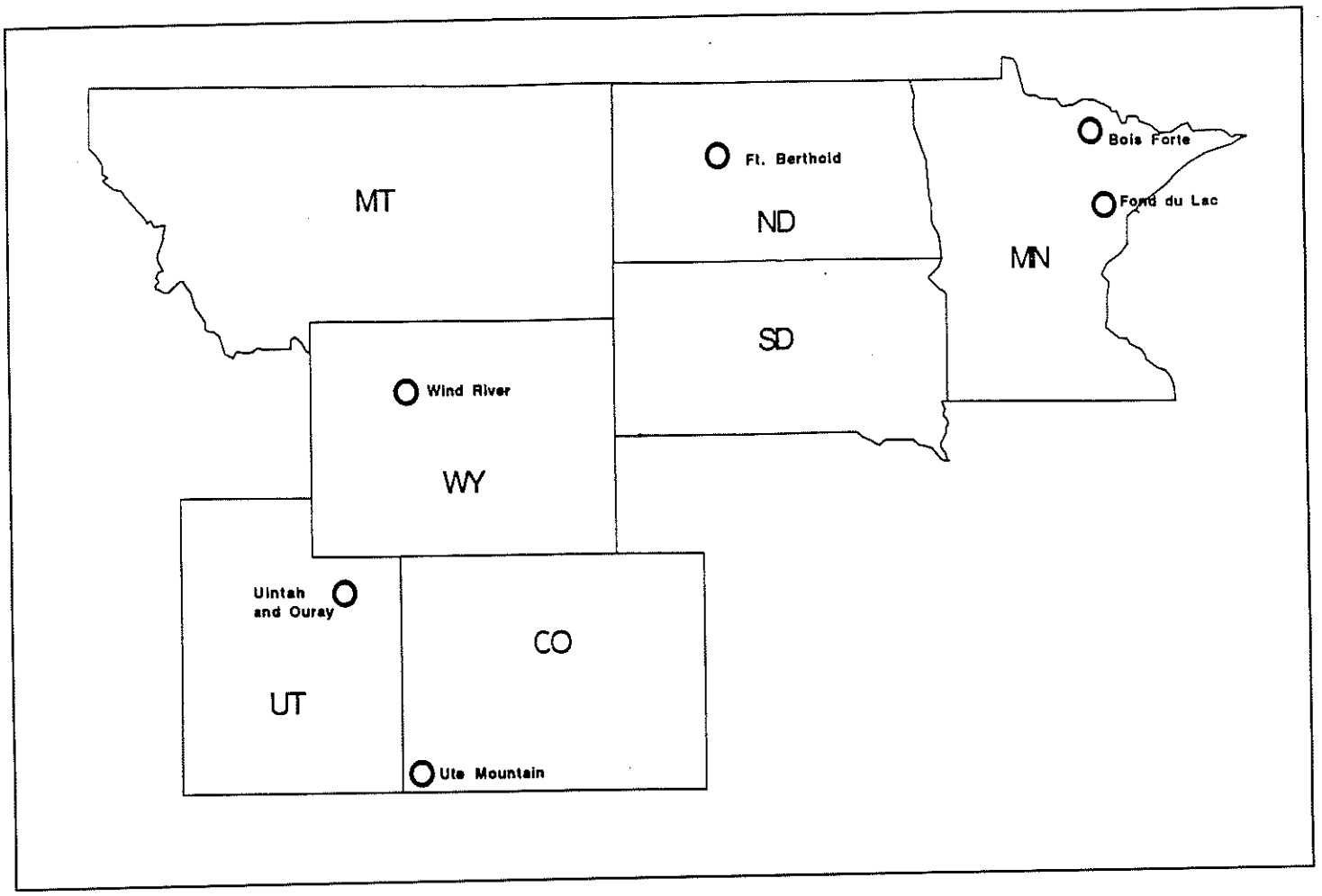

Figure 1. Reservations in Mountain-Plains Study

Out of the focus group sessions came the basis for the questions which made up the survey. The orientation of the project was towards learning about crisis issues and aspects of transportation that tribal members felt were lacking in their communities. For their part, tribal members expressed concern for issues of health and safety, primarily for children and the elderly. These issues branched out to include the availability of community health representatives, the distance to full complement hospitals, the need for driver training for teenagers, and the dangers on rural tribal roads.

One concern expressed in these initial meetings dealt with the nature of research projects and their tendency to gather data but produce little noticeable results. As interested as the tribes were about the issue of transportation, they were less interested in seeing work done that would not produce a direct and positive impact on the tribe. Out of these discussions two policies were implemented. First, the kind of information that would be gathered would need to reflect immediate concerns of the tribes involved, so that the data produced by the research could be immediately used by the tribes for their own purposes. In itself, this impacted the study in two ways: it caused the staff to examine more carefully the kinds of questions being asked and to concentrate on practical applications of the data. The second policy set by these meetings was the decision to use tribal members to conduct the actual surveys.

This second policy developed out of a tribal concern that the research, if conducted, be successful. The tribal representatives were concerned that non-Indian staff, attempting to conduct research at a tribal community, would be stymied in their efforts. We had learned already that gaining access to tribal members would require official tribal cooperation and our own experience with interviewing convinced us that any kind of mail-back questionnaire would not provide a sufficient response; also, with the added issue of randomness, strategies

such as interviewing individuals at community centers would skew the results. These issues determined that the needs of both the researchers and the tribes would be served by conducting a survey which would be taken door-to-door by tribal members and returned to CURA for processing. Working through the tribal planning offices became the standard approach except in a couple of cases where we were directed to existing transportation offices. Given the amount of information desired and the problems with lengthy questionnaires, we tested numerous questions and several different questionnaire formats during the initial phase of the project.

At the same time, a body of literature and documents were assembled and reviewed. It became clear from this material that transportation work with tribes was minimal. However, several surveys and reports were found which clearly detailed the extent of transportation research previously done. These included a landmark 1980 study of eleven reservations, including Uintah and Ouray in Utah, emphasizing the transit aspects of transportation as well as more recent studies which concentrate on roads and bridges. Actual survey work accomplished, typically, showed up as portions of larger studies, and two of these, from Fort Berthold in North Dakota and Wind River in Wyoming, were particularly detailed. In Minnesota, however, little in the way of needs assessments had been done with any tribe. Gaining an understanding of relevant issues was primarily the result of tribal participation in the focus groups.

The initial survey tests were conducted by CURA researchers at the Prior Lake Community Center under an arrangement with the Mdewakanton Sioux Band of Shakopee, Minnesota. The testing was arranged so that community members coming into the center would serve as the sample population. The survey this group tested for us consisted of thirty-six questions honed down from a batch of over one hundred. Questions were

designed to address relevant crisis issues related to transportation, the availability of personal transportation, activities involving transportation, and the individuals' assessment of local transportation services. Early on, some of these questions evolved into complicated designs which provided useful information, but taxed the patience of the interviewees and interviewers alike. Most of these were transportation, destination and circumstance questions, and were cut in favor of a less complicated cross-section of questions (see Appendix A, survey form).

Once an edit had been made in the survey, a shorter version was taken to the Upper Sioux Community near Granite Falls, Minnesota and was tested on community members arriving at the community center there. Like the first test, the second did not represent a scientific sample population, but this was considered unnecessary in a testing situation. The test at the Upper Sioux Community led again to more refinements of the questionnaire. Where the Prior Lake survey represented a long complex form, the Upper Sioux form was a short nine-question survey. The dissatisfaction over the limited information acquired from the short form, along with circumstances changing at each reservation, resulted in the short form being used only once. The final version of the survey was a twenty-five-question, multiple-choice interview which included eight demographic questions, two open-ended questions, and fifteen questions directly pertaining to transportation issues.

In addition to the survey tests at Prior Lake and the Upper Sioux Community, the survey was also tested at Prairie Island and was later administered to the Lower Sioux Community. Ultimately, CURA conducted formal survey work with two Minnesota tribes: the Fond du Lac Band of Chippewa and the Bois Forte Band of Chippewa. The interviews at these two reservations were conducted by tribal members hired and supervised by the tribal administrations under a contract with CURA. Every household at the communities surveyed

was contacted, and upon completion the surveys were returned to CURA for processing. A report describing the results was prepared for the tribes. To avoid a cost to the tribes for the research and to ensure tribal control over the interviewers, the contracts typically stated that the tribes would be paid a lump sum for the completion of a set number of surveys. The sum was figured from a wage equivalent of a University of Minnesota undergraduate research assistant, the total number of surveys to be completed, an estimate of the number of survey completions possible per day, and a mileage payment for each interviewer. The tribe would then be responsible for hiring interviewers to complete the survey.

At the Fond du Lac reservation, west of Duluth, Minnesota, initial contacts with the tribal planning office gained us access to the tribal administration and subsequent permission to enter into a contract with the tribe and conduct the survey. At Bois Forte, in north-central Minnesota, we first contacted the planning office and ultimately worked closely with the band's executive director. As became typical in the research, the period of time between initial contact and the completion of the survey was about three months, at minimum. This was the result of numerous details to be worked out, including the negotiating and signing of the contracts.

Once the major preparations for the surveys had been made, the interviewers were trained by CURA staff members and became familiar with the surveys. The CURA researchers then largely kept out of the way while the tribal planners and the interviewers mapped out routes and called on the members of the communities. As the completions came in, we reviewed these for omissions and inconsistencies and either turned them back over to the interviewers for additional work or sent them back to Minneapolis for coding. As soon as the data were processed, reports were written and sent to the tribes describing the findings from the surveys.

Initial results from the surveys done at Fond du Lac and Bois Forte in Minnesota indicate that most tribal members have access to some kind of transportation, but that access to transportation tends to be limited to that of the household vehicle or that of a friend. For example, at Bois Forte 75 percent of respondents indicate that the household vehicle is most frequently used, while about 12 percent say they regularly use a vehicle owned by someone outside the household. Typically, if a mode of transportation is available in an area, it is also accessible and utilized by tribal members. At Fond du Lac, about a quarter of the responses indicate that an available mode of transportation was not used.

With regards to health and safety issues, residents of both the Fond du Lac community and the Bois Forte community expressed concern about reservation roads. Road quality is considered very bad to fair by most residents of the two communities, and about half the people say that road quality has not changed during their time on the reservation. In contrast, about two-thirds of the Bois Forte respondents say that roads on the reservation are adequate, while just over half the Fond du Lac respondents say the roads there are not adequate. In crisis situations, however, most people believe that transportation will either be available or would not play a role in obtaining medical care, food, getting to a place of shelter, or personal safety.

Although personal transportation seems to be largely available to Indian tribal members in Minnesota, they also believe that additional or improved transportation would likely improve their quality of life. While basic services are available in these communities, access to jobs, schools, recreational activities and civic duties are at least periodically hindered by car problems and distance. The question of how to improve reliability of the personal automobile and to provide alternatives became a central focus of the project as the work continued.

CURA is continuing contacts with the Bois Forte band to make additional use of the survey results. At Bois Forte there has been discussion of organizing a transit system to bring tribal employees to the Lake Vermillion Casino from the village of Nett Lake, some fifty miles away. At Fond du Lac, survey results have been utilized in general planning and were recently used in a grant application to the federal government.

RESEARCH IN THE WESTERN STATES

As CURA began its work with the Minnesota tribes, other states in the Mountain Plains Consortium approached the University of Minnesota to request CURA's participation in their own research projects. In this way, CURA became involved in additional tribal research in several western states. First of these states to be visited was North Dakota. As with Minnesota, we needed to narrow the choice of a community due to budgetary reasons, and so looked for communities that appeared to be the most remote in terms of access to larger urban centers and those which showed particular transportation conditions which could be highlighted in the survey. In this respect, it became necessary to amend the survey for each community agreeing to participate in the study. Along with the basic set of twenty-five questions, we offered to send up to ten additional questions specific to the community.

North Dakota

In North Dakota we considered several communities and settled finally on the Fort Berthold Reservation of the Three Affiliated Tribes. The reasons this community was chosen were its remoteness from urban centers, and the existence of the reservoir Lake Sakakawea (behind the Garrison Dam), which trisects the reservation. Historically, the Three Tribes inhabited the Missouri River Valley until it was innundated by the reservoir in the early

1950s. Presently access across the reservoir to other parts of the reservation is limited to one narrow bridge near the northern border of the reservation. Tribal communities are separated from services offered at the main reservation town by the reservoir; a drive of up to seventy miles one way is required to access these services from the outlying communities.

At Fort Berthold, the transportation project was first introduced in a meeting with tribal representatives in the summer of 1990. As in meetings with other tribes, the Three Tribes had an agenda regarding transportation they wanted to address. This had to do with the regional accessibility issue and Lake Sakakawea. The tribes want the federal government to build additional bridges across the reservoir to facilitate movement around the reservation. In addition, they have the ongoing problem of fluctuating lake levels which tend to be lower than originally planned by the Corp of Engineers. Based on a general discussion of concerns with tribal officials, CURA developed a set of questions to be added to the general survey for use specifically by the Three Tribes. In addition, the tribes were interested in gathering the best information possible and requested that only the long form be used. They had recently completed a survey of the tribal membership and had members available who were experienced in conducting survey interviews.

A contract was negotiated which would cover the cost of conducting the survey. In this case, the transportation committee which had handled the initial contact with the University passed the management of the survey over to the personnel office which supervised the hiring of interviewers and the administration of the survey. The survey was completed in August of 1991, about one year after the initial contact. The delay in completion was due in part to other work commitments by CURA on the transportation project and the need to postpone the interview procedure until after the winter.

The work at Fort Berthold was completed and a report on the survey was prepared for the Three Tribes in the fall of 1991. In addition to the general survey findings, the results show that over half the respondents do not believe that Lake Sakakawea improves their quality of life. Over 60 percent say that the lake interferes with their travels around the reservation and 73 percent say that reducing this travel would improve their lives. Not surprisingly, 77 percent of the reservation respondents say that constructing a bridge across the lake would reduce their travel distance. Several additional questions show that distance, weather-related conditions, and road quality rank as the three highest concerns for members of the Three Tribes while driving on the reservation.

The Three Affiliated Tribes subsequently incorporated the survey findings into testimony offered by the Tribal Business Council and tribal members before the Senate Select Committee on Indian Affairs and the House Interior and Insular Affairs Committee. These committees were responsible for developing the water bill signed by President Bush which contains compensation to the tribes for land lost under Lake Sakakawea. In part, the data collected by the tribes from the survey contributed to their argument that compensation was justified due to the apparent hardships suffered by tribal members from the loss of land and their inability to now move directly around the reservation (Native American, 11/6/92).

Wyoming and Utah

In Wyoming there is only one reservation, the Wind River. This is the homeland of the Shoshone Tribe and of the Northern Arapahoes. Utah, however, presented a number of options for selecting a community. We decided on the Uintah and Ouray Reservation, home of the Northern Utes. Uintah and Ouray (U & O) was chosen, in part, because of its remoteness, in part, because it is the largest reservation in Utah, and in part, because of its ongoing transportation program.

Throughout the fall of 1990 CURA visited these tribal homelands to discuss ways in which the transportation project could be expanded to include these areas. At the Wind River Reservation we discovered that the present conditions of transportation among the tribes went well beyond the basic needs assessment covered by the CURA survey. The Wind River tribes have a joint transportation board which oversees the operation of SANTA, the Shoshone and Arapahoe Nations Transit Authority. As well, the tribes had recently completed a number of surveys covering, in part, issues of transportation needs. Although we looked at several different options for adding to the work done by the tribes, we were never able to settle on one particular issue, or set of issues from which we could develop a data set. The most likely topic would have been a ridership survey for the SANTA bus line--which offers transportation between several towns on the reservation. However, as this operation was only just getting started and a new transportation manager had just arrived, the timing for such a study was wrong.

At the time of this writing, three years have passed and the transportation manager reports that SANTA services have been refined to improve the delivery and efficiency of the operation. In particular, the program has acquired a number of smaller vans and makes use of vehicles from other tribal programs under a vehicle-sharing arrangement. Though SANTA still offers fixed-route bus service, the smaller vans make on-demand services more practical and better serve the needs of the reservation residents. Access to vehicles belonging to other programs has helped to keep capital costs lower, although providing more on-demand service requires a pool of drivers. With each additional driver comes the cost of training, insurance, and administration. Arrangements can be made which help to offset these additional costs; these include the use of volunteer drivers, van pooling arrangements, and involvement in state programs. Ultimately, the success of the SANTA program can be traced

to the staff members and the SANTA board which supports and guides its development. The managerial infrastructure, which is flexible and authorized to make policy decisions, has allowed the program to quickly adapt to emerging circumstances in the program's early years.

At the Uintah and Ouray reservation a combined motor pool and transit system was already in place. The operation is tribal owned and staffed by tribal members. It has a long history of involvement with state and federal programs, and was included in a 1980 study of transportation: "Rural Public Transportation Projects on Indian Reservations: A Report on Eleven Demonstration Projects" (Crain and Associates 1980). This work reported on an effort to develop transportation on eleven reservations; the U & O reservation received three large diesel buses which were to become part of a tribal transit system. The current transportation manager at U & O, Woodrow Cesspooch, worked on that program with a Utah Department of Transportation official, Lowell Elmer. Because of their long history of working together on tribal transportation, both individuals expressed an interest in working with CURA on some type of project in spite of the well established transportation program.

Several ideas were discussed, including a survey, and ultimately some informal survey work was done by the tribe's transportation manager in the winter of 1991. Mr. Cesspooch utilized the CURA survey on his own initiative and gathered ridership information which he was able to incorporate into his planning and budget development; but the final choice for a formal research project was to compare the use of two new federal program (Section 16b2), transit vans at the reservation, with one equipped with a two-way radio. The research goal was to assess the use of the vans in terms of passenger miles and routing flexibility with and without two-way radios. We hypothesized that a van with a radio would accumulate a greater number of passenger miles when compared with the van

without the radio. The objective of the work was to collect this data in the form of van logs once the vehicles were in operation. We negotiated with the tribe over what information to gather and for what period of time. This work was finally conducted in the spring of 1992.

The findings of this study, while not dramatic, were interesting and useful. The data suggest that having a two-way radio makes running a transit van more cost efficient and provides more routing flexibility. However, as the time period of this study was only six weeks, it may be that a longer study would be necessary to draw firm conclusions. For the research period, the van with the radio made a greater number of trips than the van without a radio (54:43), it accumulated more miles (2,888:1,780), and carried more passengers (207:171). In addition, the radio-equipped van also had a slightly higher average mileage per trip (54 miles:41 miles) than the other van. Over the period of a year, these figures would translate into 21 percent more trips for the radio-equipped van; it would accumulate 39 percent additional miles, carry 18 percent more passengers, and average 25 percent more miles per trip.

Additional work to understand the dynamics of rural transit operations which contribute to their continued service will help policy makers develop funding programs to meet these needs. In particular, the apparent management structure of the Uinta and Ouray transit system and that of Wind River are different, yet both appear to be successful in their ability to provide transit services in rural areas with low population densities and long distances to travel. The U & O system is run by a charismatic individual who seems to apply a great deal of energy and enthusiasm to networking and accessing opportunities; the Wind River system is run by a formal board and management hierarchy. What do these two systems have in common, or what is it that is so different, that both have been able to survive in adverse conditions?

Colorado

In Colorado we approached the Ute Mountain Ute Tribe. Of the two Ute homelands in Colorado, the Ute Mountain reservation seemed slightly more remote lying as it does in an arid corner of the state, serviced by fewer roads, lacking in agriculture and industry, and having less allotment or development. At the Ute Mountain reservation we found a good opportunity to conduct basic survey research and then later, to follow-up with a project designed to address the management issue.

The Utes have a well established administration which includes a planning office from which the CURA survey was conducted. The tribe currently has a transit program administered from the planning office which offers transportation from the main reservation town of Towaoc into a full service town, Cortez, about 15 miles away. That service is provided by an older model van which has experienced a number of breakdowns. At one time the tribe operated a motor pool garage which serviced and maintained official tribal vehicles as well as some private vehicles. This service closed several years ago due to the loss of a key manager. The tribe was aware of the need to reorganize transportation. The administration of a CURA survey was seen as a good starting point for this and so the work proceeded relatively quickly.

The survey was completed in May of 1991 and a report was prepared for the tribe shortly thereafter. In addition to the basic survey questions, the Ute Mountain survey assessed attitudes towards public transportation. Between 60 percent and 90 percent of residents at the two main tribal communities, Towaoc, Colorado and White Mesa, Utah, expressed a willingness to utilize a public transportation system even though they would have no choice regarding who their fellow riders would be. A majority of members indicated that they would sacrifice the flexibility of driving their own car or getting a ride

with someone else if a bus were available. In addition, about half the community members expressed an interest in becoming participants in either vanpools or ride-sharing agreements with other tribal members. The data seemed to support the idea that the tribal transit system could continue to succeed if expanded.

During our time there, we followed up on discussions with Colorado Department of Transportation (CDOT) officials regarding funding for the tribe under the UMTA (Urban Mass Transit Administration) Section 18 and Section 16-b-2, which would provide for additions to the tribe's transit program. The tribal council approved of the idea for additional work and CURA agreed to a partial funding of a research effort that would result in the tribe becoming eligible for those funding programs. The state of Colorado requires an approved Five Year Transportation Development Plan (TDP) for entities applying for funding under the UMTA program, and so this became the focus of the effort between the tribe and CURA.

At the beginning, CURA arranged with the Ute Mountain Planning Office to sponsor a two-day workshop on transportation needs. Tribal members from the Four Corners area and beyond were invited to participate in a forum intended to define what the needs of the tribes were with regards to transportation, and how these needs could be addressed in ways that would promote tribal involvement and improve chances for success. Especially important in the forum were representatives from the Colorado Department of Transportation. The CDOT had worked with another Colorado tribe previously and reported a failure to implement the Five Year Transit Development Plan produced from that grant. Their participation in the forum was intended to promote understanding between the state and the tribe as to what the state was willing and able to do, and what the needs of the tribe

were. This discussion of positions resulted in considerable flexibility on the part of the state over the content of the TDP.

CURA developed a proposal to CDOT for planning funds under Section 8 to begin the process. This was ultimately funded and by December, 1991 the Tribal Planning Office was working with CURA on a Request for Proposals to be sent out to a number of Colorado transportation consultants. In March, 1992 the first of several meetings took place with Rick Evans, a Denver-based transportation consultant whose proposal had been accepted by the tribe. Evans met with members of the tribal transportation committee (which had been selected primarily from members of the tribe's roads committee). Along with CURA, this group met four times between March and June 1992 to discuss the needs of the tribe regarding transportation and the possible options for developing some kind of transportation program. Unlike other TDPs done in Colorado, the Ute Mountain effort took a broad scope approach to the issue. The reason for this was the desire to develop a foundation of transportation management within the tribal administration along with an enhanced transportation program.

Among the issues which came out of these meetings was a firm agreement that whatever programs were to be developed, nothing would help more than a clear management plan. A significant portion of the TDP therefore was devoted to outlining the role and duties of a transportation manager. Typically, a TDP is done by a transportation manager and a committee formed of interested parties and policy makers with the objective of developing a transit system. In this case, addressing the issue of management was itself a major goal of the work.

By June 1992 a plan had been outlined first by the transportation committee and then by Rick Evans. Over the summer, several minor revisions were made and in late September

the plan was adopted by a resolution of the Ute Mountain Tribe. Currently, the Tribe has begun implementing the plan by organizing a vehicle loan program. It has also begun the next step in the process by preparing an application to the state of Colorado for federal funding under Section 16-b-2 and Section 18. Once this application is received, the state will compare the content of the transportation plan with the extent of implementation. If the state is satisfied that a vehicle provided through the program will enter into an ongoing transportation program which will ensure its optimum use and maintenance, the tribe will be eligible to receive one. The timetable for implementation is flexible and only minimal implementation is necessary for consideration for a vehicle.

If implemented to its full extent over the next five years, the objectives of this transportation plan will be to provide an integrated program to maintain and replace official tribal vehicles, offer official vehicles for loan, and operate the tribal transit system. The goal of the program is to alleviate transportation problems which hinder the success of other tribal programs which serve the daily needs of the Ute Mountain people.

FINDINGS

There are two types of findings that came out of this work—survey results and a more subjective, anecdotal discussion of reservation transportation as to what is needed if transportation is to expand, and what needs to be done to expand it. Both are discussed here.

If an assessment of transportation needs on Indian reservations could be summed up in a single word, that word would be *management*. Transportation is a fundamental aspect of participating in society, of engaging in economic enterprise, of gaining access to goods, services and opportunities. From the individual to the organization, transportation requires management. The concept of transportation (whether manifest in a single, privately-owned

automobile or in a fleet of vehicles running fixed routes on demand) requires that certain tasks be performed beyond simply running from point to point. These tasks embody not only the ideas of vehicle maintenance, obtaining training and licenses, or scheduling of services, but also involve concepts of behavior required in organization and management. If management is thought of as a series of tasks and ideas, then it invariably involves issues of attitude, values and custom. Along with adopting a mode of transportation comes a series of assumptions about what transportation is for and how it works. If these assumptions are not shared by the transportation user, the end result is that transportation does not function as it was intended.

The overall survey results indicate that nearly eight out of ten reservation community residents rely on a household vehicle, a car, truck, van, or motorcycle to provide their daily transportation needs. Just 10 percent of these vehicles are under one year old, another 10 percent are under two years old. Over 25 percent of tribal members operate vehicles that are between five and ten years old and another 20 percent use vehicles that are over ten years old. Almost half the vehicles used on reservations are over five years old. Compare this to the cumulative 20 percent of individuals who had to turn down a job because of a car problem or the 15 percent who lost a job because of a car problem. The data show a significant consistency. While issues of employment, education, health, and safety are typically not transportation problems for most tribal members, but in those cases where they become transportation issues, it is obvious that a car problem or a distance problem interferes with peoples' access to these needs.

Conditions faced by many tribes which affect mobility are not much different from barriers faced by other rural residents. Distance, road and weather conditions, and access to maintenance facilities are common problems. In winter weather, it is just as far for tribal

members to drive as it is for many other rural residents. However, on reservations these barriers are compounded by poorly defined responsibility for addressing these conditions. At the Bois Forte reservation officials pointed out problems of winter road plowing; the main road into the village of Nett Lake sits in St. Louis County and crosses the reservation line about eight miles east of the village. In the winter, county snow plows turn around at the border of the reservation, leaving the reservation portion of the road to the Bureau of Indian Affairs to plow, which can take a couple of extra days. At Fort Berthold, among members of the Three Affiliated Tribes, about half the respondents use unpaved access roads to get from their homes to main highways and almost all of these people, 92 percent, say that these roads are sometimes impassable due to weather-related causes.

In addition, effects of alcohol use, minimal driver education, and older cars often filled to capacity, contribute to an appearance that tribal members face transportation-related problems in excess of their rural, white counterparts. In spite of this, transportation and transit issues tend not to rank high among some tribes which must focus on more immediate social and economic concerns. Tribal adminstrators are aware of the fundamental role played by transportation in these more immediate social and economic issues, but scare adminstrative resources require tribes to prioritize planning efforts. The administrative and individual priority on transportation may be also accounted for by the absence of experience in utilizing centralized transportation services; current attitudes toward transportation result from having to make do with few transportation alternatives. Regardless that transportation organization and management have not been planning priorities among some tribes, cumulatively, the survey indicates that over 90 percent of the tribal members queried believe that better transporation will improve their quality of life at least a little.

Providing individual tribal members with reliable personal transportation in rural areas could be achieved initially by providing large financial subsidies to purchase automobiles. However, this does not ensure that transportation will be achieved over the long term. Along with the availability of transportation is the need to perform the ancillary tasks necessary to make it work. For example, at the Ute Mountain reservation considerable discussion went into the need to ensure that additional tribal vehicles be integrated into an ongoing program of maintenance and repair. Currently, the tribal transit program suffers numerous breakdowns due to a lack of maintenance, and the practice has been to replace vehicles with inexpensive used ones rather than spend money on repairs and regular maintenance.

In addition, at the Uintah and Ouray reservation in Utah, the transportation manager complained of a lack of participation in the transit program there. His assessment of the situation was that many tribal members were not interested in riding public transportation, either because of concern over other riders, or because of unfavorable associations made with those who ride public transit, especially transit equipped to handle wheelchairs and the elderly. As a consequence of these personal issues, public transit use is lower than it might be at Uintah and Ouray, even though it is widely available. The result is that even though personal transportation is sometimes unreliable, it is still perceived as preferable to riding public transit. Tribal members make do with what arrangements they can make; sharing rides with family and friends is especially common, as is walking. In some instances, the proximity of extended family members living in a small community makes getting a ride relatively easy, although riders must be flexible with regards to time.

Beyond the personal constraints on transportation, there is a divergence between the needs of the tribes and the options available to them from federal programs. The programs

offered by the federal government typically assume that there is a well placed and ongoing management structure which can adopt federal opportunities into their existing frameworks. Not only may the tribes require broader management development programs to provide administrative infrastructure, but they must also respond to the immediate transportation needs of tribal members. The federal programs assume the existence of management structures into which the programs can fit and thrive. If such a structure does not exist, or if assumptions about management on the part of the tribe do not provide the proper environment, the programs will suffer. To respond to this, both tribal governments and state governments need to be flexible.

Management is a necessary part of any transportation system. Many tribes now manage their transportation systems. To the extent that any tribe expands a transportation system, management must expand as well. The kind of expansion needed to participate in state and federal programs involves extensive planning, accountability and follow-up. Where a tribe does not have the resources to develop its own transportation system, transportation agencies and transportation providers should be prepared to negotiate alternative arrangements to provide these services. These arrangements should have the goal of ultimately placing management in the hands of the tribe. While professionals can develop transportation management plans, implementing plans should be done by the tribal members—these are the people who will best know how to make the necessary changes.

MINNESOTA WORKSHOP: WRAP-UP

The last phase of the Indian Reservation Transportation Project concluded in late June 1993 with a workshop held at Cass Lake, MN. The program was attended by members of the Minnesota Chippewa Tribe, representatives of the Minnesota Department of Transportation, and a transit provider serving northern Minnesota. The purpose of the

workshop was to discuss issues which would enhance transportation coordination among these groups. These issues were identified by CURA through research done over the past three years. From this work it became clear that the tribal band members recognized the importance of better transportation as a way to improve their quality of life. Previously, the Minnesota Department of Transportation (MNDOT) had expressed an interest in working more closely with the Minnesota bands. Now, under the Intermodal Surface Transportation Efficiency Act (ISTEA), MNDOT has a mandate to provide services to these governments. The local transportation provider offered to provide services which could meet many of the tribal needs. In return, that operation would benefit from increased participation in MNDOT programs and the ISTEA.

The workshop began with an overview of the studies done by CURA; this set the focus of the discussion on personal transportation needs. The CURA research shows that access to reliable vehicles and distance to services are significant problems on remote reservations. The work has also shown that many tribal members must rely on their own vehicles or those owned by family members or neighbors to get around. Tribal management of transportation services are typically limited to small scale operations serving specific clients, such as those in elderly, handicapped, and social service programs. Except in two specific cases, the management of tribal transportation programs has been largely ad hoc. In specific cases, one is managed by a charismatic individual who invests considerable personal energy in his work, while the other is managed by a highly structured organization consisting of a board of directors, a transportation manager, and other employees who have consistent funding and a clear program mandate to provide transportation services.

In between these management styles many tribal governments struggle to provide basic services to members and have not the funding, the personnel, or the time to invest in

transportation management. Traditionally, the Bureau of Indian Affairs has taken responsibility for tribal transportation matters, but this has been limited to construction and maintenance of Indian reservation roads, the IRR system. Funding for other kinds of transportation work, such as transit and para-transit systems, has not fallen under the scope of BIA responsibilities. Federal funding for these kinds of programs is administered through individual states under the FHWA (Federal Highway Administration) and FTA (Federal Transportation Administration). Typical relationships between states and tribes have prevented much tribal access to these funding sources except in the two specific cases mentioned.

Randy Halvorson, the Director of Transit for MNDOT, pointed out the need for his organization to understand the management requirements of the Minnesota bands--which would make it possible for them to participate in state-administered programs. Halvorson indicated that counties in Minnesota which provide transit services and obtain federal subsidies are required to service the needs of all potential transit users. Everyone agreed that there are cultural differences, including political organization, social considerations, and local histories which make participation between counties, the state, and the bands difficult. Tribal participants, the transportation providers, and the state all expressed a willingness to work on extending cooperation and understanding to ensure that tribal peoples have access to the transit opportunities they need.

Tribal planners attending the workshop made it clear that their historic lack of participation in such programs was not due to a lack of interest, but more a lack of resources to work through the historical and bureaucratic issues involved. Don Mohawk, of Arrowhead Transit, expressed the willingness of the private providers to offer services to the bands; this quickly brought the workshop into resolve. It is clear that the state is mandated

and willing to work with the tribes. It is also clear that the tribes do not have the time or resources to develop their own management systems and develop their own transit programs--but existing transit providers could fill this gap. Everyone seemed to agree that if the tribes and the state can come together to work out the administrative requirements for transportation funding, this funding can aid in hiring the transportation services needed from private providers. By the time the workshop broke for lunch there was a sense that enhanced coordination could be worked out.

Having existing providers hire out transportation services to tribes makes sense in several ways. It means that the tribes do not need to invest in the administration of transit systems; capital purchases, maintenance, insurance, and licensing can all be arranged through the provider. However, since funding to the bands subsidizes band programs to purchase services, the Minnesota bands can negotiate for benefits, such as on-demand services, hiring preferences, training, and employment experience. Using volunteer drivers and having locally coordinated scheduling can provide the creative arrangements necessary for adapting a transit system to a new market. These kinds of arrangements can also save money. Jon Bloom, a MNDOT planner, explained that there is not as much money in ISTEA as had been hoped for. Planning for transportation is shifting from seventy years of road building to maintenance and the movement of people and goods. To ensure that there is enough funding to go around, Bloom emphasized that new ways of doing things, a broadening focus on what is possible, and rethinking the logic of artificial boundaries have become the goals of MNDOT planners. Part of this new focus was a suggestion that MNDOT reserve a spot on its enhancement committee for the Minnesota Chippewa Tribe (which represents six of the seven Chippewa reservations in Minnesota).

To recap this session the group listed a number of ideas from which future discussion could proceed:

- The need for new kinds of partnerships to be created.
- How needs of reservation populations could be served.
- Existing providers are the key to serving reservations.
- New and creative funding arrangements through new partnerships.
- MNDOT to facilitate networking between tribes, state, and private providers.
- Integrated use of existing tribal facilities with private facilities.
- Merged management systems for licensing, insurance and funding.
- Involvement of the counties and county-based transit providers.
- Shared training and personnel involvement in new programs.
- Involvement of existing community health representatives and ad hoc transportation programs on the reservations.
- Work with employers, especially casinos, for routing and scheduling purposes.

The afternoon session of the workshop began with a presentation by transportation consultant Twila Martin-Kekahbah of Belcourt, North Dakota. Martin-Kekahbah is a former chair of the Turtle Mountain Chippewa Tribe and now works as a partner in the consulting firm Kashpaw Enterprises. Her presentation outlined some of the implications of the new ISTEA on Indian tribes and these were discussed. Most broadly, she pointed to a frustration felt by tribal leaders as the optimism (brought on by the publicity around the ISTEA) faded once it became clear that the rhetoric did not reflect the reality of the Act. Although the Act provides a guaranteed percentage of funding to the tribes, the amount of funding is limited and access is hindered by the extensive planning required to apply for funding. Basic management among the tribes, she said, is limited, and while there are different levels of

tribal preparedness, for the most part the tribes are generalists when it comes to managing their affairs. The requirements of the ISTEA assume that target populations have access to professional planning staffs who can devote time and resources to developing the necessary transportation improvement plans.

Martin-Kekahbah pointed out that the BIA, with its Indian Reservation Roads program, and the counties surrounding Indian reservations both have the professional staff needed to develop ISTEA plans. These plans generally will focus on road construction and maintenance. Tribal transportation needs, she reflected, typically involve aspects of transit and para-transit not covered by the BIA and from which tribes have often been excluded at the county level. State transit programs, while open to tribes, have served the needs of tribes in only a few cases. There has been a tradition of passing transportation responsibility from the state to the BIA. With the mandate that the states now serve the transportation needs of tribes under the ISTEA, the tribes still face the effort of focusing limited resources on the development of transportation plans. Because county governments already have access to state programs, Martin-Kekahbah believes that the states should help build cooperative networks between the tribes and the local counties to serve tribal needs. These needs do not always overlap. For example, non-Indian health care will likely be obtained away from Indian sources of health care, but there are other areas where common needs can be found. Tourism, employment, and tribal casinos might be issues around which cooperative networks could be built.

The counties could support tribal efforts to obtain funding by aiding them in infrastructure development. Although many tribes have a good tourist base often centered on casinos, they lack many of the basic community needs which would support a transit program: no telephones, no zoning or street addresses, often no paved streets or street

drainage facilities. Counties and states involved in planning programs--such as a geographical information system (GIS)—could enhance tribal planning by including reservation areas in these programs and working with tribal staff to develop infrastructure. In return, the tribes provide the region with resources for gaming, tourism, employment, cultural and educational experiences. Tribal reservations are experiencing rapid change and development, both which are sought after and imposed upon. Because tribal governments lack the resources to examine every project in detail, the tend to develop what Martin-Kekahbah calls blanket priorities. These broad sets of priorities might involve the construction of a casino with a notion of developing an economic base, but without the planning staff to examine details, good ideas sometimes end in frustration.

Transportation is a primary factor in limiting the economic base on many reservations. Tribal governments have development thrust upon them by the demands of the tribal members and the promises of entrepreneurial investors. Forging ahead with projects without obtaining or understanding the necessary infrastructure requirements leads to economic failures and political erosion. Planners need to ensure that the optimism produced by ISTEA does not lead to the same end. While the opportunities it offers sound good, the question of what is needed to access these opportunities and the questions of how these opportunities will impact on tribal sovereignty and how these will benefit tribal members often go unanswered until the answers become too apparent. If nothing else comes out of the ISTEA for the tribes, Martin-Kekahbah hopes that counties, states, and the federal government will see the extent of complications in tribal politics and the problems of managing tribal development. By building new cooperative networks, counties, tribes, local community colleges and universities can produce a better foundation upon which programs like the ISTEA can serve the tribes.

CONCLUSIONS AND RECOMMENDATIONS

In summary, the major conclusions and recommendations for the project as a whole are as follows:

1. The quality and availability of personal transportation on the rural reservations included in this project do not meet the needs of the residents. Supplemental transit and para-transit must be provided to meet these needs. While the quality of reservation roads remains far from perfect, there has been considerable improvement. As a result, road condition is no longer the highest priority for future action on these reservations. Survey results clearly indicate that important daily life activities such as access to jobs, education, and health care have been adversely affected by the lack of transit or para- transit. Focusing on the movement of people and not vehicles is called for in future transportation planning efforts to offset the shortcomings in existing personal transportation.

2. There are no easy, quick-fix, low cost solutions to the provision of needed supplemental transportation options. In addition to the more conventional provision of transportation, innovative and sometimes unconventional substitutes must be tried. These should include but not be limited to, volunteer drivers, informal taxi operations, and car and van pooling designed to overcome the cultural barriers preventing more use by reservation residents.

3. Clearly, more attention to management of existing and future transportation resources on the reservations is needed. The establishment of well-run full-service motor pool operations for some reservations is a next step. Transportation advisory committees with representation from the broader reservation community, as well as operational

and service providers, should be established and used on a regular basis. Increasing the professional staffing in the transportation area should also be a goal.

4. Building more cooperative efforts with state agencies is necessary to improve reservation transportation infrastructure. The state Departments of Transportation have the technical assistance and funding needed to assist tribal governments in improving transportation access. While many states have no history of cooperative efforts in the area of tribal transportation planning and programming, the current situation clearly calls for such action. The federal ISTEA legislation mandates such cooperative efforts, and it is clearly in the best interests of future reservation transportation to see that this is done.

5. Current providers of transit in areas around reservations provide excellent opportunities for cooperative planning and delivery of services. This is especially true for "checkerboard" reservations where the population and land ownership is mixed native American and non-native American. In most of these mixed population areas some services already exist, but a substantial need continues to go unmet.

To make progress on the above stated recommendations will require that the provision of improved transportation for the residents of rural reservations becomes a clearly stated high priority by tribal, local, and state government. This will be very challenging, but if reservation life is to be improved as it should be, the challenge must be met. The potential is great for major steps forward in the provision of improved transportation on these reservations.

APPENDIX A

INDIAN RESERVATION TRANSPORTATION SURVEY

Indian Reservation Transportation Survey

Center for Urban and Regional Affairs
University of Minnesota
330 Humphrey Center
301 19th Avenue South
Minneapolis, Minnesota 55455
(612) 625-1551

Please write your answer below the question or circle the number which corresponds to the answer closest to your opinion or your current situation. All individual responses will be kept confidential.

Q1. What do you and those in your household use most often for transportation? (CIRCLE ONE)

1. Car/truck/van/motorcycle
2. Horse/draft animal
3. Boat with a motor
4. Boat without a motor
5. Snowmobile
6. Aircraft
7. Taxi
8. Bicycle
9. Public transportation
10. Walking
11. Other ⇒ Please specify: _____

Q2. Have you or another member of your household ever been concerned about the safety of the roads or highways that are used on the reservation?

1. Yes
2. No

Q3. How would you describe the overall quality of the paved roads on the reservation when driving conditions are good and the weather is dry? (CIRCLE ONE)

1. Very bad
2. Bad
3. Fair
4. Good
5. Very good
6. Excellent

Q4. Are there ways to get around in your area which members of your household choose not to use for some reason?

1. Yes ⇒ Please explain: _____
2. No

Q5. Are the roads on your reservation adequate for your household's needs and methods of transportation?

1. Yes
2. No

Q6. Overall, has road quality gotten better, stayed about the same, or gotten worse during the time you've lived on the reservation? (CIRCLE ONE)

1. Gotten better
2. Stayed about the same
3. Gotten worse

Q7. Overall, has availability of transportation gotten better, stayed about the same, or gotten worse during the time you've lived on the reservation? (CIRCLE ONE)

1. Gotten better
2. Stayed about the same
3. Gotten worse

Q8. If you or another member of your household were ill or injured, would automobile transportation be available to get you to medical care?

1. Yes
2. No

Q9. In general, are the services needed by members of your household available on the reservation? (For example: health care, education.)

1. Yes
2. No

Q10. As far as you know, have tourists, hunters, fishermen, or other visitors to your reservation ever complained or been discouraged from coming here because of transportation problems on the reservation? Transportation problems would include such things as distance, bad roads, or the lack of gas stations or mechanics. (CIRCLE ONE)

1. Yes
2. No
3. Don't know

Q11. How much do you think better transportation would improve life for your household? (CIRCLE ONE)

1. A great deal
2. Somewhat
3. A little
4. It would not improve

Q12. How many vehicles belong to members of your household? (WRITE ONE NUMBER FOR EACH ITEM)

_____ a. Number of cars
_____ b. Number of trucks/vans (up to 3/4 ton)
_____ c. Number of motorcycles
_____ d. Number of other vehicles ⇒ Please specify type:

_____

Q13. For each age category below, please tell us how many household vehicles are that old, and if they run.

Age	Runs	Doesn't Run
Under 1 year	_____	_____
1-2 years	_____	_____
2-5 years	_____	_____
5-10 years	_____	_____
Over 10 years	_____	_____

Q14. How often do you get around by: (CIRCLE ONE ANSWER FOR EACH ITEM)

	Use regularly	Use sometimes	Don't use
a. Household vehicle	1	2	3
b. Vehicle owned by someone outside your household	1	2	3
c. Taxi	1	2	3
d. Public transportation	1	2	3
e. School bus	1	2	3
f. Other (Please specify) _____	1	2	3

Q15. Has anyone in your household had any of the following things happen because of one of the listed transportation problems? (CIRCLE ALL THAT APPLY)

	NOT A TRANSPORTATION PROBLEM	TRANSPORTATION PROBLEM		
		Distance	Road quality	Car problem
a. Had to turn down a job	1	2	3	4
b. Lost a job	1	2	3	4
c. Was not able to vote in an election	1	2	3	4
d. Had to turn down or lost an opportunity forschool education	1	2	3	4
e. Faced a health crisis requiring medical attention which was unavailable	1	2	3	4
f. Faced a threat to personal safety and transportation was unavailable to get away	1	2	3	4
g. Had to skip one or more meals because of a lack of transportation to get food	1	2	3	4
h. Went without shelter	1	2	3	4

Please answer the following questions about yourself. This information will be used only to compare people's answers. It will not be used to identify you in any way.

Q16. What year were you born?

___ ___ ___ ___

Q17. Are you male or female?

1. Male
2. Female

Q18. How many adults age 18 and over live in your household, including yourself?

___ ___

Q19. How many children under the age of 18 live in your household?

___ ___

Q20. What is the highest level of school you have completed? (CIRCLE ONE)

1. No school
2. Grade school (grades 1 through 8)
3. Some high school
4. High school graduate
5. Some college or technical school
6. Technical school graduate
7. College graduate

Q21. Which of the following best describes you? (CIRCLE ALL THAT APPLY)

a. Working full-time for pay
b. Working part-time for pay
c. Retired
d. Unemployed
e. Student
f. Homemaker
g. Disabled

Q22. How many years have you lived on the reservation?

__ __

Q23. What was your total household income before taxes in 1989? (CIRCLE ONE)

1. Under $4,999
2. Between $5,000 and $9,999
3. Between $10,000 and $14,999
4. Between $15,000 and $19,999
5. Between $20,000 and $24,999
6. Over $25,000

Q24. In your opinion, what would it take to make public transportation work properly on the reservation?

Q25. What other comments would you like to make about transportation on the reservation?

Thank you for your time and cooperation. Please return this survey in the enclosed postage-paid envelope to: Center for Urban and Regional Affairs, 330 Humphrey Center, 301 19th Avenue S., University of Minnesota, Minneapolis, MN 55455.