Rider and Non-Rider Opinions of Rural Public Transportation

Brian Geiger
Department of Civil Engineering
Kansas State University
2118 Fiedler Hall
Manhattan, KS 66506
GeigerBC@ksu.edu

Sunanda Dissanayake
Department of Civil Engineering
Kansas State University
2118 Fiedler Hall
Manhattan, KS 66506
sunanda@ksu.edu

ABSTRACT

Public transportation in rural areas has been in existence for decades. Ridership levels, however, are quite low, often because many of the providers are still perceived as only for the elderly or disabled. Ridership is a factor of many things, including age, disability, income, car ownership, and other. Other intangible factors include quality of service, personal opinions, and issues and concerns about using public transportation. This paper primarily discusses the personal opinions of the riders and non-riders that may account for the lower ridership levels in rural Kansas.

In order to acquire the information about the characteristics and opinions of riders and non-riders of public transportation, two similar surveys were sent out with 445 rider and 557 non-rider surveys returned. The questions are either the exact same or as close as possible in order to compare the answers and opinions of the riders and non-riders. Findings of these two surveys can then be used to suggest transit service enhancements to increase the ridership of demand-response transportation.

Riders of demand-response transit systems in rural Kansas are pleased with the service provided as a whole. The majority of the riders fell between being content with the service to being ecstatic with the service provided. Non-riders are ambivalent toward demand-response transit service. They appreciate the fact that in many cases, general public transportation services exist, but they are also generally unwilling to use it themselves.

Key words: demand-response—public transportation—rural transit—transit ridership
PROBLEM STATEMENT

Public transportation in rural areas has been in existence for decades. Ridership levels, however, are quite low, often because many of the providers are still perceived as only for the elderly or disabled. Ridership is a factor of many things, including age, disability, income, and car ownership. Other intangible factors include quality and type of service, personal opinions, attitudes, and issues and concerns about using public transportation. This paper primarily discusses the personal opinions of the riders and non-riders that may account for the lower ridership levels of demand-responsive transit services in rural Kansas.

Public transportation is generally perceived as urban fixed-route bus lines or subways. These public transportation facilities are typically centered in large population, high-density cities. However, bus lines and subways are not the only public transportation available. In less-populated and less-dense areas, public transportation providers exist that adapt to the rural nature of providing public transportation. These systems, often called demand-response systems, function differently than fixed routes.

Demand-response transportation (also called paratransit or dial-a-ride) is transportation consisting of passenger cars, vans, or small buses that will show up at a location after a person has called in a request to the dispatcher. The buses are often wheelchair-lift equipped in order to be more accessible for those who cannot use the stairs. These vehicles do not run on a fixed route or timetable but rather will pick up and drop off people at requested origins and destinations as quickly and efficiently as they can. This often means that unlike taxis, they will pick up or drop off other passengers before continuing on to a rider’s intended destination (Silver 2007). These shared rides operate typically either door-to-door or curb-to-curb and from many origins to many destinations (Transportation Research Board 2003). Door-to-door means that drivers may assist passengers all the way up to, and sometimes inside of, the building the passenger is destined for. Curb-to-curb is where the drivers pull up to the curb of the building to pick up and drop off passengers, similar to a conventional taxi service.

The federal government provides financial assistance to rural transportation agencies through 49 U.S.C. Section 5311, often called Section 5311. Rural areas are defined as having a population smaller than 50,000. Federal funds are provided to the individual states who then distribute the funds to transportation agencies in rural areas. These funds cover up to 80% of the capital costs and up to 50% of operating expenses of the agency (Federal Transit Administration). A provider is not required to operate a demand-response service if it receives Section 5311 funds, but often that is the method used to operate cost effectively and serve the riders as efficiently as possible in rural areas. Section 5311 funds are for general public transportation providers as opposed to similarly distributed Section 5310 funds, as provided through 49 U.S.C. Section 5310, which focus on elderly and disabled riders. This report will primarily focus on Section 5311 providers who serve the general public through a demand-responsive operation system. Although these Section 5311 providers are for the general public, often their ridership consists mainly of the elderly and disabled and, therefore, will be discussed in more detail further in the report.

Many people who use the demand-response transit systems in rural areas are elderly or handicapped. Twenty-one percent of Americans older than 65 do not drive and more than 600,000 people age 70 and over stop driving each year nationwide (El Nasser 2007). This will only become more pronounced in the near future with the increasing age of the large baby boomer section of the U.S. population. The U.S. will be experiencing a significant increase in population of the elderly in the coming years. The elderly population age 65 and over was 34.5 million in 1999, and by 2030, there will be about 70 million elderly. (Sungyop and Gudmundur 2004). This significant shift in demographics will increase the number of potential drivers with reduced driving abilities. Abilities related to driving are a decrease in vision, an increase in response time, and other functions necessary for driving. Demand-response transportation should be available and widely publicized in order to be an encouraged alternative option to driving.
Transit agencies in rural areas are often focused on the elderly and disabled riders. This is due to the fact that most people in rural Kansas prefer to drive if possible and given the choice. It has been shown, however, that the elderly prefer modes other than public transit (Rhindress 2008). An AARP (formerly known as the American Association of Retired Persons) study found that “seniors aged 75 or older widely preferred driving. Elderly who are no longer drivers almost universally considered riding with friends or family the next best alternative” to driving themselves (Rhindress 2008). This preference for travel modes other than public transportation is something providers must overcome to increase their ridership.

Many factors affect whether or not a person will chose to ride transit in rural areas. Transit Cooperative Research Program (TCRP) Report 122: Understanding How to Motivate Communities to Support and Ride Public Transportation, created the chart shown in Figure 1 for low-density areas showing the relative power in driving support for transit from different attributes. Solid dark bars represent having more effect than those with cross hatching, which in turn have more effect than those with dotted bars. The most obvious finding is that those who use transit support it (Rhindress 2008). It also shows that if one rates driving his or her own car favorably or owns more cars, the less he or she supports transit. Age is also on the list, showing that the older you are the less you support transit. This may be due to transit being perceived as more difficult to use than other modes of transportation.

Source: Rhindress, M. Understanding how to Motivate Communities to Support and Ride Public Transportation. Transit Cooperative Research Program, Report 122, 2008, pp. 15

**Figure 1. Net impact on transit support in low-density markets**
Potential public transportation clients’ lack of information about public transportation is a common issue for transportation providers. A study in Washington, D.C., found that even when transit service is available for seniors, 47% stated they did not have enough information to use the services (Burkhardt et al. 1999). Even those who are part of city commissions and approve the budgets for public transportation do not always realize that public transportation is for everybody, not just the elderly or disabled (Smith 2008). Rural and small town residents though, tended to be more aware of alternative transportation modes than urban and suburban residents (Kostyniuk and Shope 2000).

Although one would like to think the elderly will stop driving when they no longer feel safe to drive, this isn’t true in all cases. During a focus group with the elderly and their adult children, some of the elderly stated that “even if they knew they should stop, they would not and would keep driving ‘until the end’” (Kostyniuk and Shope 200). Another stated, “I don’t want to give up my license. Someone will have to take it before I give it up.” While this lack of concern for others’ safety is serious, perhaps it could be avoided with prior planning and encouragement to try public transportation modes. Discussions with adult children found that 75% of them feel that their relatives, typically their parents, either “do not know or will not admit when it is time to stop driving” (Kostyniuk and Shope 2000). Another study looked into older drivers age 65 and above that thought they would be stopping soon and could only find a single driving senior who thought they would stop driving within the next two years (Schatz, Stutts, and Wilkins 1999). They therefore had to re-write their criteria to include those who thought they might not be driving five years from then, as the elderly were highly unlikely to think about stopping driving on their own in the near future.

Thinking about ceasing or curtailing driving for the elderly is not something the elderly enjoy. The focus group comments from seniors or their adult children about older driver cessation conducted in five locations across the continental United States show how hard it is to get even those, who by most accounts should be using public transportation, to ride public transportation (Schatz, Stutts, and Wilkins 1999). Increasing ridership for public transportation is not just the responsibility of the transportation provider, it is a social and safety issue for all.

RESEARCH OBJECTIVES AND METHODOLOGY

To achieve the objective of this study, two surveys were created for the public. One was for riders of public transportation and the other for non-riders. The surveys collected demographic and opinion data for each survey in order to compare the two groups. Survey responses were then tabulated and conclusions were drawn from the data and opinions of the public.

Questions for both rider and non-rider surveys were developed based on knowledge gathered through the literature review. The starting point of the questions for both surveys was the U.S. Census Bureau’s proposed 2010 questionnaire and its American Community Survey questionnaire (U.S. Census Bureau; U.S. Census Bureau 2008). In addition, questions from the Transit Performance Monitoring System (TPMS) results reports were used (American Public Transit Association 2002; American Public Transit Association 2004). By using similar-worded questions to previous large studies, it was assumed that it would decrease problems with the survey questions. Other questions were then added related specifically to transit and rural areas from perceived issues from the literature review (Sungyop and Gudmundur 2004; Schmocker et al. 2005; Crain and Associates 2000; Cherrington 2007).

Distributing the rider survey was fairly straightforward. The Kansas University Transportation Center (KUTC) contains a list of all transit providers in Kansas by county. The pertinent information from each listing was then recorded into spreadsheet format to be filtered. Criteria for transit providers to be contacted consisted that they must serve towns with a population less than 50,000 and have the “General
Public” clientele box checked on the KUTC site. From this shortened list, providers were contacted by phone and asked to distribute the surveys through their drivers to users of their system. The surveys were inside pre-paid, self-addressed envelopes to make it as easy as possible for riders to return them and to enable the highest possible response rate. There were 3,260 surveys distributed to transit providers in rural Kansas. There were 445 valid rider responses and 24 invalid rider responses received, generating a response rate of 14.4% for the rider survey. There were 1,735 surveys distributed to those willing to hand out non-rider surveys in rural Kansas. There were 557 valid non-rider responses and 28 invalid non-rider responses received, generating a response rate of 33.7% for the non-rider survey.

RIDER AND NON-RIDER COMMENTS AND OPINIONS

There are notable differences in the demographics and opinions of riders and non-riders who responded to the surveys. Table 1 shows that females were over-represented in both types of surveys as compared to the general population of the state of Kansas. Figure 2 shows that many of the riders of public transportation were elderly. These transit using elderly nearly 50% of the time do not have a current driver’s license and nearly 40% of the time they have a handicapped parking permit.

Table 1. Gender of rider and non-rider survey respondents

<table>
<thead>
<tr>
<th>Gender</th>
<th>Riders</th>
<th>Non-Rider</th>
<th>State of Kansas</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Percentage (%)</td>
<td>Frequency</td>
</tr>
<tr>
<td>Male</td>
<td>96</td>
<td>21.6</td>
<td>167</td>
</tr>
<tr>
<td>Female</td>
<td>335</td>
<td>75.3</td>
<td>382</td>
</tr>
<tr>
<td>Invalid</td>
<td>1</td>
<td>0.2</td>
<td>0</td>
</tr>
<tr>
<td>Blank</td>
<td>13</td>
<td>2.9</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>445</td>
<td>100.0</td>
<td>557</td>
</tr>
</tbody>
</table>

Figure 2. Age of rider and non-rider survey respondents
When non-riders had vehicle problems, they are not likely to turn to public transportation for mobility due to several other options, primarily the availability of personal vehicles that could be used instead (see Figure 3). Riders, however, were unlikely to turn to driving if transit was unavailable, as seen in Figure 4. Only 15% of riders said they would drive if transit was unavailable, with 25% of riders not taking their previous trip at all. Twenty-five percent of riders said they would ride with somebody else, implying that either they do not have a vehicle to drive or were unable to drive themselves. This was supported by further data that showed that 60% of riders of public transportation did not have a personal vehicle they could have used to make the trip in the first place.

Non-riders were asked if they knew a public transportation provider existed in their area. The majority (43%) said that no public transportation existed in their area, 20% said they didn’t know, and 35% said that public transportation does exist in their area. The percentage that said that no public transportation exists in their area seemed higher than it should be considering almost every county in Kansas has a demand-response transit provider. Therefore, it is assumed that while non-riders do not know whether a service exists in their area, it may exist. It was later found that with increasing age of non-riders, about 55% of non-riders age 75 realized that public transportation exists in their area much more than those who were younger, where only about 25% of them realized public transit was available.
If transit service were not available, how would you make this kind of trip?

Drive a car 15%
Ride with a relative 19%
Ride with a friend 14%
Walk 12%
Use a taxi 2%
Invalid 9%
Blank 3%
I would not have made this trip 26%

Figure 4. Rider alternative mode of transportation

Rider Opinions

Rider ratings of the transit services are given in Table 2, where it can be seen that they have a positive view of their service for each question asked. Two of the survey enhancements suggested for riders from these questions would be to decrease trip length and improve communication with the dispatcher. Decreasing trip length is often in contrast to operating efficiently from a provider’s perspective, but these improvements are what riders are requesting. The questions were weighted based on the responses given to make them easier to compare. An “Always” answer was weighted at 5, a “Never” answer was weighted at 1, and “Invalid” and “Blank” were removed. The weighted averages were then ranked from highest to lowest. The ride length question was inversely weighted due to the nature of the question.

Table 2. Rider opinions of public transit

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Weighted Average</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are drivers friendly and helpful?</td>
<td>4.836</td>
<td>1</td>
</tr>
<tr>
<td>Are drivers safe and competent?</td>
<td>4.823</td>
<td>2</td>
</tr>
<tr>
<td>Are drivers good at waiting for people to board the vehicle or assisting them in boarding the vehicle if needed?</td>
<td>4.814</td>
<td>3</td>
</tr>
<tr>
<td>Do you regard transit as affordable?</td>
<td>4.786</td>
<td>4</td>
</tr>
<tr>
<td>Is transit convenient?</td>
<td>4.706</td>
<td>6</td>
</tr>
<tr>
<td>Are you getting to your appointments on time?</td>
<td>4.683</td>
<td>5</td>
</tr>
<tr>
<td>Is the interior of the vehicle clean?</td>
<td>4.682</td>
<td>7</td>
</tr>
<tr>
<td>Are the seats on the vehicle comfortable?</td>
<td>4.662</td>
<td>8</td>
</tr>
<tr>
<td>Is the temperature of the vehicle comfortable?</td>
<td>4.634</td>
<td>9</td>
</tr>
<tr>
<td>Are buses easy to get into and out of?</td>
<td>4.586</td>
<td>10</td>
</tr>
<tr>
<td>Are you satisfied with the service you received from calling the transit dispatcher?</td>
<td>4.329</td>
<td>11</td>
</tr>
<tr>
<td>Is the ride longer than expected?</td>
<td>4.058</td>
<td>12</td>
</tr>
<tr>
<td>Would you recommend riding transit to a family member/friend/neighbor/associate?</td>
<td>3.789</td>
<td>13</td>
</tr>
</tbody>
</table>
A further set of questions asked riders to order their priorities for improvements to the transit system. These have been weighted in Figure 5 with their top response given 5 points and their lowest response given 1 point. This is the inverse of ordering asked on the questionnaire. This question turned out to be more difficult than was first thought, with some responders leaving various answers blank, while others marked a single ranking through all of the options. Therefore, this is the average of all non-blank responses and will include the above issues in the average.

![Figure 5. Rider transit improvement ideas](image)

Riders’ primary improvements would be to know how long it will be until the vehicle picks them up and to extend the operating hours of their transit service. Costs did not seem to be a significant concern of the riders, possibly because it is their only source of mobility. Shortening the time window that buses can pick up riders would let potential riders do things other than sit and watch for the bus to show up. Extending transit service hours was a typical request from riders in their written comments shown later in this paper, although it is illustrated here and can be compared easily with other possible service enhancements.

**Rider Comments**

The last three lines of the rider survey were reserved for written suggestions to improve the transit service. However, it turned into more of a general comments section, which proved equally insightful into the thoughts of the respondents. Total comments in this section were 249 out of 445 surveys returned. Select rider comments are included below.
“Drivers need to drive slower. If you’re in a wheelchair and the back of the bus, you get bumped up and down a lot. That’s hard on backs and necks, etc. Need better suspension, soft rides, for disabled. Thank You!”
“Everything is fine.”
“Have no complaints.”
“I am 95 years old and use a cane. I have trouble with my balance. I ride the mini bus and it is wonderful, and I am sure the transit buses are also and just what the people here need. Thank you.”
“I am very pleased with the service—I have no complaint at all – good drivers, very kind and helpful—they make the trip go fast and also enjoyable as well. It is a wonderful service.
“I am very satisfied with our current service.”
“I call, they come.”
“I think that the dispatcher should stay out of personal medical problems.”
“I would be selfish and out of line to ask for more hours. I feel so fortunate to enjoy the privilege to have this fine service.”
“I’m most satisfied with schedule and dispatcher. Drive the BEST. Would like to see more people take advantage, maybe ads to others—seniors in community. Many thanks!!”
“I’m so happy we have buses. Otherwise I could not go to the center to eat.”
“It is just fine.”
“No improvements, they do a good job.”
“None—only if could be available on Saturday and Sunday.”
“Start 15 minutes earlier than 8 a.m. so I could be at work before 8 a.m.”
“To be available for Sunday for church and Saturday.”
“Weekend service.”
“Would like the bus to run at least 10 p.m. weekdays.”

The majority of the riders fell between being content with the service to being ecstatic with the service provided. Some riders described their personal situation and why they use the service. Often it was due to age or a physical handicap. A small number of riders wanted extended service hours. These requests included both hours of the day and days of the week service extension. Reactions were mixed on the drivers, with responses ranging from thanking them for their kindness to asking them to slow down and be more patient. This question was obviously very provider and driver specific, although overall showed drivers seem to be a non-issue for current riders in most cases. These comments aligned with the survey questions covering opinions of transit. As can be seen from the cross section of comments, users of public transportation in rural Kansas are generally quite pleased with the service being provided. The only two suggestions that arose throughout the comments were hours of operation and customer service. Riders typically wanted weekend, usually Saturday, service over longer daytime hours. A small number of riders had complaints about the dispatcher’s service and friendliness, while an even smaller number had complaints about the driver.

Non-Rider Opinions

A large percentage of non-riders had never used public transportation in their area, or were unsure if it even existed in their area. This was aptly demonstrated in the high percentage of “Don’t Know” responses each of the questions generated. When questioned about the cost of ownership for personal vehicles, or the increases in gas prices through the summer and fall of 2009, the results were mixed, although less people “Don’t Know” and the answers were fairly evenly divided through the remaining five conventional answers.
The last question on the survey asked if non-riders would recommend public transportation to others. While a full 29% still didn’t know if they would recommend it, the majority of the others responded either “sometimes” or more positively. Very few responded negatively, even when on a previous question 42% had said it was either “Never” or “Rarely” available when they needed it themselves. The underlying current seemed to be that public transportation was for other people in rural areas, but not oneself.

It can be seen in Figure 6 that non-riders would like greater geographic coverage from their transit service along with a lower cost to ride. Perhaps the most interesting answer is that while 43% of non-riders didn’t know if it was hard to get information about transit; having transit information available would be the least likely to encourage them to ride, according to Figure 6. This seemed to show that many of the non-riders had no desire to ride, even if given information about transit.

![What improvements would encourage you to use transit more frequently?](image)

**Figure 6. Non-rider transit improvement ideas**

Even though a lower cost to ride was the second highest indicator to increasing transit usage, a similar question in Table 3 shows that only 3% of non-riders think transit was “Never” or “Rarely” affordable. These two responses conflict, leading one to assume that the majority of riders would not switch or use public transportation based on a single service improvement. It is doubtful that majority of the non-riders would use public transportation even if it were free because the service would not conform to the freedom of choice a personal vehicle allows people in rural areas.
Table 3. Non-rider opinions of public transit

<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Weighted Average</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is public transportation safe to ride in?</td>
<td>4.006</td>
<td>1</td>
</tr>
<tr>
<td>Do you regard public transportation as affordable?</td>
<td>3.958</td>
<td>2</td>
</tr>
<tr>
<td>Would you recommend using public transportation to a family member, a friend, neighbor or associate?</td>
<td>3.625</td>
<td>3</td>
</tr>
<tr>
<td>Is public transportation convenient?</td>
<td>3.441</td>
<td>4</td>
</tr>
<tr>
<td>In general, I avoid the use of public transportation if I can help it?</td>
<td>3.272</td>
<td>5</td>
</tr>
<tr>
<td>Are you concerned about the cost of owning a personal vehicle?</td>
<td>3.152</td>
<td>6</td>
</tr>
<tr>
<td>Does the recent increase in gas prices make you more likely to use public transportation?</td>
<td>2.906</td>
<td>7</td>
</tr>
<tr>
<td>Is it hard to get information about public transportation?</td>
<td>2.816</td>
<td>8</td>
</tr>
<tr>
<td>Is the bus late or unreliable in your opinion?</td>
<td>2.564</td>
<td>9</td>
</tr>
<tr>
<td>Is public transportation available when I need it?</td>
<td>2.136</td>
<td>10</td>
</tr>
</tbody>
</table>

Non-Rider Comments

The last three lines of the survey were reserved for suggestions to improve local public transportation. However, it turned into more of a general comments section, which proved equally insightful into the thoughts of the respondents. Out of 557 surveys returned, 236 non-riders made some sort of comment on in this section. A small cross section of comments is included.

Non-rider comments were much more diverse overall than rider comments. While it was more difficult to group large numbers of comments together, some types of comments did show up multiple times. Some non-riders said public transportation would be great in their area and they would like it to be available. These are interesting comments because they did not say they would use it, only that they wish it were available. Others said they lived in rural areas, so it wasn’t practical for public transportation to operate that far out from the city. A few said it was only for seniors or disabled, but most seemed to indicate it was not available at all.

- “Available 7 days/week until 6 p.m. Have at least one day per month (possibly the 1st) when someone would carry in packages for me.”
- “Better paved street, better drainage of rain water in street on Pierre.”
- “Buses are more for senior citizens. Most younger people won’t use it.”
- “Expanded hours/days.”
- “Fixed routes.”
- “I don’t use it. So, I don’t care.”
- “I live in a rural area. I don't see public transportation ever working here.”
- “I live in a small town. The city bus customers are mainly the elderly or handicapped.”
- “I live in town, but I farm full-time. My farthest piece of land is 45 miles from home. Public transportation is not a viable option for me. I drive a lot of miles every day.”
- “I was unaware of Manhattan's public transit system until recently. I am afraid that most people are likewise unaware of its existence. Better advertising would be advised.”
- “I would like to see public transportation in our area period.”
- “It is not available.”

Geiger, Dissanayake 11
• “I've not thought about it.”
• “Like to actually have one!”
• “None in rural area—limited amount for seniors, I think.”
• “Not interested at all at this time. 20 blocks from work. Ask me again in 20 years!”
• “Nothing unless you can lower the cost of gas.”
• “The closest location we have is 30 miles south of here. I wouldn't ride the bus anyway—I prefer to drive myself—it's convenient—but it's a great service for those that don't have a vehicle.”
• “To establish service to the aging rural population.”
• “We are in such a rural area—I can't see it would be used except by the elderly with no relatives.”

Results from the open-ended question to non-riders showed a wide range of opinions. Some people stated that it didn’t exist in their area, which may or may not be true. Others wanted longer service hours and fixed routes. Some people just wanted to have “it,” which they may not realize are not fixed-route services and are instead demand-response for rural areas.

CONCLUSIONS

Riders of demand-response transit systems in rural Kansas are pleased with the service provided as a whole. The only repeated suggestion or complaint the riders provided was their desire for increased operating hours and days. All areas of questions about using public transportation systems in rural Kansas scored well with riders.

Ridership is significantly skewed toward the elderly, disabled, and those who either choose not to drive or are unable to drive. For most of the riders, public transportation is their only reliable method of mobility and they are transit dependent for mobility. Only 15% of riders would drive themselves if public transit were unavailable. Other methods either take longer or constantly require asking for favors from others to drive them around.

Non-riders are ambivalent toward demand-response transit service. They appreciate the fact that in many cases general public transportation services exist, but they are also generally unwilling to use it themselves. Interest in public transit among non-riders is low, even when it was obvious many non-riders did not know if a transit service existed in their area or thought it did not exist. These are typically choice riders and are unlikely to switch to demand-response transit due to their other mobility options. Many non-riders recognized the fact that the elderly in particular use the service, and a handful put forward that they may even use it themselves in the future as they increased in age. In their current state though, non-riders typically have access to a personal vehicle and find the hassle of calling in advance and then waiting for a public bus in rural areas less convenient than just driving themselves.
ACKNOWLEDGMENTS

Authors wish to acknowledge the University Transportation Center at the Kansas State University for funding this project. Sincere appreciation also goes to all those who helped with conducting the surveys.

REFERENCES

Schatz, Sally, Jane Stutts, and Jean Wilkins. 1999. "The Decision to Stop Driving: Results of Focus Groups with Seniors and Family Members." Transportation Research Board.