

UNIVERSITY OF MINNESOTA



CENTER FOR TRANSPORTATION STUDIES

R E S E A R C H R E P O R T

**Specialized Transit and
Elderly, Disabled, and Families
in Poverty Populations**

Dawn Spanhake

CTS 01-03

Specialized Transit and Elderly, Disabled, and Families in Poverty Populations

**Center for Transportation Studies/ITS Institute
Dakota Area Resources and Transportation for Seniors**

CTS 01-03B

Technical Report Documentation Page

1. Report No. CTS 01-03	2.	3. Recipient s Accession No.	
4. Title and Subtitle SPECIALIZED TRANSIT AND ELDERLY, DISABLED, AND FAMILIES IN POVERTY POPULATIONS		5. Report Date March 2001	
		6.	
7. Author(s) Dawn Spanhake, P.E.		8. Performing Organization Report No.	
9. Performing Organization Name and Address ITS Institute/Center for Transportation Studies 511 Washington Ave. S.E. University of Minnesota Minneapolis, Minnesota 55455		10. Project/Task/Work Unit No.	
		11. Contract (C) or Grant (G) No.	
12. Sponsoring Organization Name and Address United Way of Minneapolis Area 404 S. Eighth Street Minneapolis, MN 55404-1084		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplementary Notes			
16. Abstract (Limit: 200 words) This report presents results of three separate listening sessions to identify the transportation accessibility issues for a target group of users: the elderly, the disabled, and families in poverty. The sessions revealed that the need for coordinated resources between all service providers, a lack of flexible transportation options, and the need for transportation-oriented developments and better community planning present the greatest barriers for all three populations. In response to those findings, University researchers from operations, policy, and technology areas worked with the Center for Transportation Studies (CTS), Dakota Area Resources and Transportation for Seniors (DARTS), and United Way representatives to identify research needs and topics that could address the listening session issues.			
17. Document Analysis/Descriptors accessibility elderly persons special user groups		18. Availability Statement No restrictions. Document available from: National Technical Information Services, Springfield, Virginia 22161	
19. Security Class (this report) Unclassified	20. Security Class (this page) Unclassified	21. No. of Pages 37	22. Price

Specialized Transit and Elderly, Disabled, and Families in Poverty Populations

Final Report

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March 2001

Published by
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CTS 01-03B

This report represents the results of research conducted by the author and does not necessarily reflect the official views or policy of the ITS Institute or the Center for Transportation Studies. This report does not constitute a standard, specification, or regulation.

ACKNOWLEDGMENTS

The project summarized in this report was a joint effort by Dakota Area Resources and Transportation for Seniors (DARTS) and the Center for Transportation Studies (CTS) and its Intelligent Transportation Systems (ITS) Institute.

The project was sponsored by United Way of Minneapolis Area, with matching funds from the ITS Institute.

Production credits

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EXECUTIVE SUMMARY

In a survey conducted by the United Way of Minneapolis Area, all United Way Vision Councils, representing a spectrum of human issues and services, identified transportation as a barrier to their constituents' success. Armed with this information, the Minneapolis United Way set out to determine its role in reducing transportation barriers, and in doing so established guiding principles to address transportation problems and a transportation action plan for 2000-2001.

*Recently, all United Way Vision Councils identified **transportation** as a barrier to their constituents' success.*

One part of the action plan included providing grants to several service providers to improve transportation services. One such grant was awarded to Dakota Area Resources and Transportation for Seniors (DARTS) to develop a logistics support service for the Minneapolis United Way agencies. DARTS subsequently partnered with the University of Minnesota's Center for Transportation Studies (CTS) and its Intelligent Transportation Systems (ITS) Institute to enhance the project to include a research needs identification phase.

The DARTS / CTS joint project focuses on specialized transit targeted at the elderly, disabled, and families in poverty, and emphasizes the need for the specialized transit system to work for all disadvantaged groups.

The goal of the DARTS/CTS joint project is to gain a better understanding of the issues surrounding specialized transit.

Listening Sessions

Three listening sessions were held, on March 24, April 3, and April 13, 2000, as part of this project. Each session focused on a different population that uses specialized transit:

- Elderly
- Disabled
- Families in Poverty

The listening sessions provided a forum for service providers, along with transit experts and researchers, to discuss needs, issues, and future plans for specialized transit. The session participants provided insight and information concerning the issues they face, and provided potential solutions for the future.

We've come a long way, but people's expectations have grown significantly. As transportation gets better, people expect more.
-Listening session participant

Some issues raised during the sessions were of no surprise:

- More money is needed to meet the needs and expectations of a growing number of specialized transit users.
- Decisions and policies need to consider the effects on transportation options.
- Providers, policymakers, transit users, and the general public need to be educated about transportation options.
- Transportation choices need to be safe.

Common Transportation Barriers

Specifically, when analyzing the comments and discussions from all three listening sessions, three common themes emerged. The issues that appear as the largest barriers for all the populations are:

- The need for coordinated resources between all service providers.
- A lack of flexible transportation options.
- The need for transportation-oriented developments and better community planning.

Coordinated Resources

The one issue that was heard most often during the listening sessions was the need for coordinated resources among the various service providers. This issue goes beyond shared funds to also include the use of shared information, shared drivers, and even shared facilities.

There is a lack of awareness of what is available — we don't know who everyone is, who provides transportation, and if we can work together.
-Listening session participant

Transportation Options

Fixed route transit doesn't always work for trip chaining. More flexible transportation alternatives need to be developed so work, childcare, and miscellaneous trips can be handled with transit.
-Listening session participant

Each population identified the lack of transportation options and lack of flexibility as major issues. However, the specific concerns were slightly different for each population.

For the elderly, the majority of transit users are those who are no longer able to drive. They are accustomed to the freedom and flexibility that car ownership affords and their expectations for transit are very high.

For the disabled, it is not a matter of loss of freedom, as it is with many elderly. Rather, it is a lack of available transportation options that accommodate their disabilities.

Families in poverty possibly require the most flexible transportation options. Many families are single-parent families that require the use of daycare. For those poor who have jobs, but no access to cars, they are perhaps working second or third shifts when transit service is not available. In addition, many families in poverty struggle with cultural and language barriers.

Community Planning

Transit-oriented developments and smarter community planning should be a priority for planners and policymakers. New developments should consider access to jobs, education and training, transportation, and human service facilities.

Incorporate specialized transit into smart growth plans. Make sure people making locational decisions properly account for the impacts of their decisions on transit and specialized transit.
-Listening session participant

Specific Issues for Each Population

Although common themes emerged during the listening sessions, differences among the population groups were also apparent. The specific issue for each group centers on the lack of flexible transportation options.

Elderly

Giving up the flexibility of driving is very traumatic for the elderly, and many will stay at home rather than ask for help or use transit. In addition, they are typically reluctant to use transit due to:

- Lack of flexibility of transportation services (provider does not go to location, long travel times, difficulty in using system due to need for advanced notice, etc.).
- Increasing frailty, both physical and mental. The transit services provided do not meet their needs.
- Perceived safety risk of using transit.

Disabled

The trend for community-based living is compounding the transportation problem for the disabled. Much of the affordable and available housing for the disabled is located in the suburbs, where transportation options are limited.

The developmentally disabled may require supervision. The need for supervision often limits the transportation choices, as many transportation options either do not have supervision available, or the time when it is available is restricted to typical work day hours. Those that require supervision cannot use options where transfers are required, since transfer stations are not staffed.

Families in Poverty

A key word heard during the session on families in poverty was safety. Services are available to help families in poverty and provide a positive environment for the children, but children aren't using them due to lack of safe transportation options.

These issues cannot be solved with one simple solution. Rather, a community approach is needed and the community needs to be large and inclusive. This community needs to raise awareness of the transportation issues and needs to start dialogues with organizations and businesses, along with policymakers and developers, to discuss the big picture and identify the roles each can play in the development of solutions to these problems.

Research Needs Identification

CTS invited faculty representing a diverse set of transportation-related disciplines to identify transit-related research topics to address the listening session issues. Researchers from the operations, policy, and technology areas worked together with CTS, DARTS, and United Way representatives to brainstorm various research needs related to specialized transit and the elderly, disabled, and families in poverty populations.

During the brainstorming session, researchers identified several topic areas that have been clustered into the following theme areas:

- Benchmarks / Needs Identification
- Policy
- Economic Implications
- Cultural Issues
- Regulations
- Incentives
- Integration
- Technology

There is a lot of interesting and important work to do in this area of transportation and the elderly, disabled, and families in poverty populations. Finding out the needs of these populations and why these needs are not being met is a good start.
-University researcher

Next steps for CTS include working with University of Minnesota researchers to develop a multi-disciplinary research program related to the specialized transportation research priorities identified. A key issue surrounding transit-related research is available funding. CTS will work with DARTS and others in the transit community to identify potential sources of funding for the research program.

DARTS Logistical Support Initiatives

DARTS found that the needs for coordinated transportation, safe and reliable service, and flexible options identified in the listening sessions echoed the information from previous surveys and community providers. In response to these needs, DARTS identified four key areas of effort that will be the focus and direction of the DARTS Logistics Initiative. The Logistics Initiative will support Minneapolis United Way agencies with these ongoing operational needs:

The informal networks of specialized providers outside of the fixed-route and public services provide a needed service and their role in the community needs more attention. DARTS intends to work not only with CTS to look at long-term research efforts but also to work with foundations, other United Ways and local funders to bring interested parties together.

- Operations Support
- Technology
- Driver Training
- Vehicle Maintenance

Operations Support

Service providers and funders continue to cite coordination between riders and providers as a primary issue. The testing of collaborative initiatives in certain communities and supporting agencies to determine their ability to continue as a provider or to increase their capacity as a specialized service provider will be expanded.

Technology

Included in this area is the investigation of what technologies are available and useful for specialized service providers. Review and testing of current and emerging technologies that have applicability for specialized providers will be ongoing and shared with interested providers. Training of staff on these as well as ancillary applications,

including report-generating applications that can support transportation efficiencies, will also be offered. DARTS will also help determine agency capacity and needs and provide the support to install, implement, and support the technologies.

Driver Training

Finding and maintaining quality staff is critical for any agency. Tailored training to an agency and its specific needs that also provides consistency among providers is needed to support collaboration. That is one area on which DARTS will concentrate these training efforts.

Vehicle Maintenance

DARTS currently offers maintenance on all types of specialized vehicles, but this will be expanded to include preventative services, mechanic/key staff training to maintain the fleet and diagnose problems, and help desk services to triage vehicle problems and direct others to service centers.

Next Steps

Through this logistics effort, each of the four components will be in place for all United Way of Minneapolis agencies and other area nonprofits. Although each component can be treated separately, DARTS will be available to help create an integration plan that can address one or all of these transportation needs and organize them into a unified operational plan.

BACKGROUND

Although the United States possesses one of the safest and most extensive passenger transportation systems in the world, the system is not providing optimal mobility for selected and growing portions of the population, including the elderly, the physically challenged, and those who live in poverty. In addition to these traditional transportation-disadvantaged populations, welfare reform has created a new challenge: providing accessible transportation to families. This population needs before- and after-school transportation, as well as transportation to jobs and daycare, and needs transportation to be flexible to support the requirements of working, and often single, parents.

To meet the transportation needs of these populations, community-based transportation needs to be enhanced to be more than a bus it must be a transportation system that not only includes traditional buses, but also includes many other means that can get people to services and services to people.

The definition of community, however, is becoming a paradox; because of technology, communities are becoming more global and systematic, but a strong desire remains to maintain and accommodate diverse groups at the local level. Everywhere we look, systems are adapting the transportation system needs to adapt as well.

Central to the concept of community-based transit is the challenge of being responsive to the mobility needs of communities that are not in the mainstream or on the main lines of traditional transit services.

Recently, in a survey conducted by the United Way of Minneapolis Area, all United Way Vision Councils, representing a spectrum of human issues and services, identified transportation as a barrier to their constituents success. Armed with this information, the Minneapolis United Way set out to determine its role in reducing transportation barriers, and in doing so established guiding principles to address transportation problems and a transportation action plan for 2000-2001.

One part of the action plan included providing grants to several service providers to improve transportation services. One such grant was awarded to the Dakota Area Resources and Transportation for Seniors (DARTS) to develop a logistics support service for the Minneapolis United Way agencies. DARTS subsequently partnered with the University of Minnesota's Center for Transportation Studies (CTS) and its Intelligent Transportation Systems (ITS) Institute to enhance the project to include a research needs identification phase. The ITS Institute has provided matching funds for this project.

The DARTS / CTS joint project focuses on specialized transit targeted at the elderly, disabled, and families in poverty, and emphasizes the need for the specialized transit system to work for *all* disadvantaged groups. This community-based transportation has different challenges from traditional transit, and the goal of this project is to gain a better understanding of the issues surrounding specialized transit. Community resources provide valuable insight on what is needed to ensure transportation will not be a barrier to community participation. The partnership of the Minneapolis United Way, its agencies, and service providers presents a mechanism for learning how policies, operations, and

technology can be enhanced to meet the mobility needs of individuals, families, and groups that are not able to benefit from the existing system.

The objective of this joint project is to combine CTS educational resources and services with DARTS operational knowledge and skills so that: 1) DARTS can draw on University expertise in the creation of its logistics support services for United Way; 2) CTS can use its outreach services to create a broader understanding of specialized transit needs among stakeholder groups and use that understanding to identify future University research initiatives; and 3) a foundation is built for a long-term CTS and DARTS partnership that develops a University research and education program in specialized transit, using federal and other funds.

The first task in this project included identifying the transportation accessibility issues for a target group of users. An advisory group was formed to work with DARTS and CTS staff to develop a forum to discuss the issues. For a listing of advisory group members, refer to Appendix B. It was determined to hold three separate listening sessions focused on specialized transit and the elderly, specialized transit and the disabled, and specialized transit and families in poverty.

The listening sessions provided a forum for service providers, along with transit experts and researchers, to discuss needs, issues, and future plans for specialized transit. The session participants provided insight and information concerning the issues they face, and provided potential solutions for the future.

The information gathered during the listening sessions has been summarized within this document. Both DARTS and CTS utilized the information gathered at the listening sessions during the second phase of the project. DARTS used the information in its development of a logistics support service for the United Way agencies. CTS worked with University of Minnesota researchers to develop transit-related research topics based on the information gathered during the listening sessions.

SPECIALIZED TRANSIT AND THE ELDERLY

Issues and Challenges: Round Robin Discussion

Participants were asked to comment on issues that they face when providing specialized transit services. The following are those items offered by the listening session participants.

Funding

- Restrictions on funding streams that fund transportation is an issue; we need a way to put money in one pot to serve everyone, so we can serve more efficiently.
- Policymakers and funders don't realize there is a niche called specialized transit and therefore it's not funded. We have the feeling that they want it to go away.
- Policymakers have several agenda items that often conflict; they want to keep people out of nursing homes, but won't spend money on transportation.
- Adult daycare wants those in care at the center during certain times in order to get paid for full days.
- Funding is often performance based (e.g., number of rides/hours, etc.); however, we have more riders in wheelchairs, which take double the time, and performance is not considered adequate. Therefore funding may be decreased.
- Funding is an issue: do we fund at the level of customer expectation, at the level of the Americans with Disabilities Act (ADA), or somewhere in between?

Policy

- Can we segregate the various populations? Should we look at something more intergenerational?
- We're seeing big cohort changes in our population. The population changes and then the rules and ideas don't fit.
- The 2000 census information could change the way we do business. Will people live longer, have more money, etc.?
- Where is responsibility for the poor, middle poor, etc.? What do we do with those who don't fit the requirements for most services?
- We need a way to link the variety of services together and need to link more globally (e.g., transit-oriented developments).

Client Expectations

- For very small providers (1—5 vehicles), their strength is that they can be creative, but they are vulnerable to rules, regulations. How can we keep the strengths and maximum efficiency?
- We have limited resources to provide services, so we need to review expectations.
- People expect a cab service, but with shared rides the rides are longer and not as convenient. We need to address customer expectations.
- Can we make service as convenient and user-friendly as a car? It's a great goal, but can it be done?
- Expectations and perceptions of the rider are an issue. We are compared to the medical assistance program but we provide door-through-door service.
- Spontaneous travel has to be a true option.

- This is really the first generation that grew up having the convenience of a car. Also, it's the first group with a much smaller proportion of people who are poor.
- People in vulnerable situations paying for services often don't know how long money will last and are not willing to pay, even though they can afford it.

Service Performance

- Timing is an issue you can get the ride you need, but it is not always convenient.
- We need good drivers and a good work force, so we can provide door-through-door service.
- Empty buses are frustrating (if there were some kind of reciprocity then we might be able to fill them).
- Looking at the whole metro area you can get a big variety of services, but there is no consistency of services, and the number of providers and funding streams can cause problems (there are many players and a lot of turf so it is a big barrier to consistency).
- Backup service is an issue. If the main provider can't do it, who can? Integrated information would help.
- The medical profession is moving out of Minneapolis; we have a hard time getting in and out of the city to provide services.
- Insurance providers are often an issue. Clinics are located outside the transportation service district, but insurance does not allow flexibility in going to a physician in the transportation district.
- Getting services to people is difficult.
- There is often a language barrier.
- Travel patterns create problems since the average trip length is 11 miles/person/trip. The trips are longer because needs are becoming more decentralized.
- Nonprofit and social services sectors have responsibility to bring forth new solutions and ideas.
- We can only be creative to a certain extent (regulations and laws get in the way).

Cost for Services

- The cost for a quality work force does not always fit in the budget.
- Cost for services is high. Related to that is the difficulty of finding drivers for low pay, and there is a dearth of volunteers.
- We currently need to spend a lot of time figuring out how to get money to pay for services, so there is not a lot of time for being creative on new services.

Human-Centered Issues

- The population is increasingly becoming more frail, both physically and mentally.
- People who require lift vehicles currently use Metro Mobility. We need more options, especially on weekends and holidays.
- Our service can only serve adults who can get in and out of a car and don't meet the criteria for other options. Community-based care is pushing the need for transportation.
- Most systems don't work well when persons have mild to moderate dementia. They need someone to stay with them during the ride and appointment, etc. We need very

conscious links with volunteers that will support transit that is meaningful and makes schedules work.

- It is very traumatic for elders to give up keys. Most have never used transit, and would rather stay home than use transit or ask for a ride.
- We need to improve driver safety and help older people drive safely longer.
- Often, by the time you take away their keys, they are not able to take transit either. We need to figure out how to include an escort service.

Technology

- Geographic boundaries create problems (e.g., Bloomington daily route services will not go outside city limits).
- It would be nice to have a computerized system with the capability to include other people one system that knows what is going on.
- Vehicle issues: it is difficult finding 4-door cars that are easy to get in and out of (e.g., elderly people cannot get in and out of SUVs).
- Safety issues: for the elderly, it's the safety of driving their own cars versus their perception of using transit safely.

Liability Issues & Volunteer Drivers

- How do you handle liability issues when working with volunteer drivers?
- Often, liability is placed on the back burner. Many rides are provided by neighbors and friends (neighborhood approach) and liability is not considered.
- Volunteers are required to undergo a criminal background and driver's license check and basic training in addition to providing references. Volunteers understand that they are servicing vulnerable people and are willing to provide the information.
- A car check from a certified mechanic should be required.

Potential Solutions: Small Group Discussions

Following the round robin discussion, participants were divided into small groups. Groups were asked to discuss the issues and offer potential solutions. Each group offered its top issue/solution in the areas of policy, operations, and technology.

Group 1: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — A dialogue should be started with the organizations who provide medical care, daycare, meals, and housing to the elderly to encourage them to think about their role in the provision of transportation services. Funding should be part of that discussion but is only one issue. Decisions on where to locate or close facilities and on service hours also have an impact on their clients' ability to secure transportation to make an appointment or attend a function.

Operations — For the dialogue mentioned above to have an impact, there is a need for specialized transit interests to speak with a united and larger voice. Specialized transit lacks visibility as a system as well as the ability to negotiate with medical and other service communities. A resource that offers technical assistance would be a valuable asset to make progress in both areas.

Technology — Information technology capacity should be built up among community-based providers. Before connections can be made to share information, all providers need access to the basic communications infrastructure necessary to coordinate with one another.

Other Solutions and Discussion Points

Policy

- Increase the public awareness of and support for community-based transit (funding is great, but can be restrictive and bring onerous regulation).
- Identify issues related to the co-location of services and develop strategies to overcome barriers.
- Define role of escorts (assistants) that allow the elderly to access transportation and services.
 - Is funding needed?
 - Can volunteers provide it?
- Explore the integration of school transportation systems and community-based transit service.
- Enact incentives to encourage mixed-use developments that decrease the need for transportation.

Technology

- Encourage maximum utilization of vehicle capacity through scheduling; make better use of rolling stock.
- Use technology to bring services to the individual rather than using transportation to bring individuals to the services.
 - In-home medical monitoring
 - On-line connections to retail services

Operations

- Have an inclusive conversation about technology operations to maximize resources and information.
- Create and implement training programs on how to use transit.

Group 2: Top Issues for the Group in the Areas of Policy, Operations, Technology

- Coordinate, promote, and educate people about the diversity of transportation and community services that are available.
- Establish one-point entry for better access to transportation and other community services. Develop the technology and institutions to allow one-point entry. Set up the service so that service providers will not have incentives to battle over turf.
- Develop urban designs that will help to reduce the need for long trips.
- Improve public funding for transit service by making it more equitable and more broad-based.

Other Solutions and Discussion Points

Policy

- Improve urban design so that more things are accessible by walking and so that transit trips are shorter. Find ways to rebuild a sense of community, so that more transit needs can be satisfied by friends and volunteers. Improve the links between the neighbors.
- Educate people about alternative transportation services so that they feel comfortable using transit when they need it.
- Develop new institutions and make old institutions more flexible, so that it is easier for people to use different transit providers. Find ways to simplify the mandates governing different providers, and change mandates so that it is easier for providers to complement each other.
- Make it easier for people to take advantage of the different types of transit services, especially when their travel involves changing conditions. For example, a volunteer may be able to drive someone to a chemotherapy session, but the patient may be too sick to ride back with a volunteer.

Technology

- Develop new technologies to connect transit providers and to make the use of different transportation services seamless.
- Develop new technologies that reduce both dependence on transportation and the need for transportation.
- Develop new technologies that make transit more comfortable to use.

Operations

- Find ways to improve the labor pool, to make driving jobs more attractive, and to share the labor pool across transit providers.
- Improve the use of vehicles across providers. Make it easier for providers to loan vehicles to each other.

Group 3: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — New policies are needed that will allow linkages, pooling of money and resources, and the sharing of information.

Operations and Technology — Once the policies have been changed to allow the sharing of information and resources, technology needs to be developed that can utilize the information to provide best services. The information should be behind the scenes — providers have all the information to make decisions, while those requesting services have a user-friendly interface that will not overwhelm them with information.

Other Solutions and Discussion Points

- Is there a way to develop better linkages among the various types of providers (school bus services, regular transit, etc.)?

- We need a way to pool financial resources. If funds are pooled, we need a mechanism to obtain access to the funds.
- In addition to shared funds, we need to be able to share other resources as well. What technology is needed for mobility management such that drivers, vehicles, and information can be shared between the providers?
- A difficult issue is client expectations. Timely, affordable, convenient service is expected, and it is difficult to always meet all the expectations while adhering to the policies and regulations that often limit what we can do.
 - One policy change that would be helpful: working to enhance healthcare choices (HMO, clinic options, etc.). Often, patients must use clinics, etc., that are located in areas that are not serviced by specialized transit in a manner that is convenient to the client.
 - A technology that would help with this issue is a computer software program that would combine information from all providers to provide best route options. The client would then be educated as to what is available and could make choices.
 - More education is needed. People are not aware of the cost of transportation (transit is looked at as a utility, so it should always be available).
- We need to look at the bigger picture. Instead of trying to take people to the places they need to go, we need to encourage them to live in communities where services are in close proximity. We also need to encourage planners (e.g. Metropolitan Council), builders, and developers to create transit-oriented developments.
- Technology is needed that will help break the language barrier.
 - Voice recognition
 - Interpretation

SPECIALIZED TRANSIT AND THE DISABLED

Issues and Challenges: Round Robin Discussion

Participants were asked to comment on issues that they face when providing specialized transit services. The following are those items offered by the listening session participants.

Funding

- Unstable resources, particularly funding resources, make it difficult to plan from year to year.
- There is not an overall coordination of resources between the service providers.

Policy

- We have limited choices of where we can go (due to existing policies), which limits employment opportunities for our clients.
- We are moving people to live where transit is not available. We tend to point fingers at transit providers, but we should look at transit options before moving people into houses.

Client Expectations

- We've come a long way, but people's expectations have grown significantly. As transportation gets better, people expect more.

Service Performance

- There is often a lack of transportation options, especially in the suburbs.
- Providing services to those in wheelchairs can create issues. Due to the ADA time limitations, we have more wheelchairs than we can handle. We even have open spaces on our vehicles since we don't have time to pick up more people.
- We can get people to jobs, but can't always get them there at the time when employers want them.
- Quality of drivers is an issue.
- For people working the second and third shifts, there is no way for them to get to work. It is difficult to find drivers to take them during the night.
- Demand is growing and it is difficult to manage the increased need for service.
- There is a lack of services in some areas.
- Why aren't the disabled using main-line transit?
- Work situations (partial day, partial week, etc.) make group transport more difficult.
- More people are moving to community-based employment, but transportation providers can't handle more people.
- Metro Mobility is very limited on types of services it can provide due to ADA compliance issues (e.g., no more than 50% standing orders; must have services that are similar to regular transit).
- It's tough to get drivers. Drivers are drivers, not daycare providers, and can only handle so much.
- Drivers are drivers because they like to drive. With technology, we're now asking them to become computer gurus.

- What is the level of service that can be realistically done? Door-to-door service to get someone from house into van, etc., is difficult and time consuming.
- Community-based living is compounding issues. Instead of many-to-one, we now have many-to-many service.
- There is a need to coordinate services among all service providers in the disabled community.
- The problem is that you reach a saturation point — you can't provide service to everyone. If we could change the peak demands then it would help, however, the mentality of employers, etc., will need to change, too.
- Fixed route transit doesn't work for many disabled because there are not enough routes.
- Wheelchair-accessible cabs would take a lot of pressure off the current service providers.
- A one-hour bus ride is not realistic any more. We need to look at the different needs of the population.
- There is a general lack of awareness that transit is affected when moving people to different locations (e.g., moving a person to a different location, but still expecting the same transit provider to provide transportation).
- There is a lack of awareness of what is available. We don't know who everyone is, who provides transportation, and if we can work together.
- The populations being served have needs that are constantly changing (jobs, medical, etc.).
- Affordable housing is in the outer suburbs where transit isn't always available.

Cost for Services

- Cost is an issue — the cost to provide the service is high.
- Lower cost transportation is often used to offset higher cost transportation, but many of the public providers are losing those services to the private groups (e.g., the home where the client lives chooses to pay the lower cost option, so the transportation provider loses the per diem).
- Populations are more dispersed and the costs to serve them have increased.
- The population of elderly with disabilities will double or triple by 2030. We will need additional wheelchair-accessible fleets (cost for these fleets is 2 to 3 times more).
- Medical assistance transportation is used by people who can't find other options. What is the excess cost of using medical assistance compared with the costs of using other specialized transit?
- Clients cannot be out alone, since they would not be safe waiting. Therefore, they cannot have a job that goes past 5:00 p.m. since evening attendants are not available. Funding is an issue if attendants are provided in the evening.

Human-Centered Issues

- Rides from regular transit are not reliable (not on time, etc.), and without reliable service, there may be times when riders are unsupervised.

- Isolation for this group of people is an issue. They are isolated by a lack of systems, lack of knowledge of the law, and lack of advocates.
- It s an unwieldy system for those who have to call Metro Mobility, etc., where four days advanced notice is required.
- When riders are required to use crossing systems they often have to be unsupervised, which is not acceptable.
- Some developmentally disabled people have behavioral issues which is very limiting to public service types of transportation.
- Options for people with high needs are very limited.

Potential Solutions: Small Group Discussions

Following the round robin discussion, participants were divided into small groups. Groups were asked to discuss the issues and offer potential solutions. Each group offered its top issue/solution in the areas of policy, operations, and technology.

Group 1: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy

- Incorporate specialized transit into smart growth plans. Make sure that people making locational decisions properly account for the impacts of their decisions on transit and specialized transit.
- Establish a bigger role for businesses (and employers especially) in planning and funding transit. Make sure businesses are aware of transit issues when they make locational decisions.
- Coordinate funding among agencies.
- Determine how much money is spent on transit, and if transit funding subsidizes other services.
- Establish a central way of educating users and caregivers about transit options.
- Gather data for hands-on specialists in transit services. Train specialists to consult with users and caregivers to explain the range of transit options.
- Reduce all types of regulations on transit providers.

Operations

- Determine ways to flatten travel demand during peak periods and to better use resources to deal with peak loads.

Technology

- Improve providers databases and share the databases among providers.
- Make databases easier to use and improve their ability to display data visually.
- Improve database use to coordinate services among providers and to provide more efficient services.

Group 2: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — An educational campaign should be developed to be used with legislators and other stakeholder groups that defines specialized transit and the issues related to it. That background education is necessary before discussions about funding and changing

regulatory requirements can take place. The group felt that any kind of campaign would need to be creative and snazzy to stand out and be remembered by the audiences it is designed for.

Operations — There needs to be a better understanding of why the disabled community is reluctant to or refuses to use mainline public transit. This has operational implications for both public transit systems and the community-based transit systems.

Technology — Technology should be used to develop a system for better service coordination among transit providers and the agencies and organizations they serve.

Other Solutions and Discussion Points

Policy

- Change prohibitive licensing requirements.
- Change programming requirements and options; current policy is focused on getting people out of their residences to services and employment while technology can make it easier for them to access both at home.
- Revisit ADA transportation requirements.
- Hold an honest conversation about who is and is not being served; there is not a consensus about what the need for specialized transit really is.
- Increase funding for specialized transportation.

Operations

- Increase accessibility of mainline service to the disabled community.
- Develop a common language between social service and transit providers.
- Give providers the capability to cross service areas within the metro area as one way to improve service efficiencies.
- Provide funding for staffed transfer points.
- Honor good drivers — volunteer and paid.

Technology

- Technology should be driver *and* customer friendly; otherwise it fails.
- Further the development of technology that enhances personal service provided for riders.

Group 3: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — An analysis is needed to determine transportation costs and revenue sources for the various specialized transit providers. Related to this, it was determined that within the group, each organization received a different per diem for similar services. The analysis should include a study on the various per diems used: how they are determined, what standards are used, how and when the per diem amount is increased, etc.

Operations — There is a need to develop a way to coordinate transportation services among the various providers. The vision is to have a centralized location for staff, which would allow enhanced coordination and on-site communication among agencies. Vehicles would remain at their current locations.

Technology — Make transportation part of the solution. Rather than finding transportation to take people to services, use transportation to take the services to the people. One example is a large mobile home that would drive around and pick people up throughout the day and then drop them off again at the end of the day. This could be used for mobile school, mobile medical, mobile work, mobile day activities, mobile daycare, etc.

Other Solutions and Discussion Points

Policy

- For medical assistance funds, what is the flow of funding? Public and private service providers should be able to get the same amount for the same service. This is an issue related to the ADA where public providers can only charge the same rate as is charged for non-medical assistance funded clients. So, a large discrepancy occurs when the private provider can charge \$17 per ride while the public provider is limited to \$2 per ride.
- Discussion is needed on cost/benefit analysis for some services. How do we justify the cost of some services when they are not cost-effective but meet the needs of the client? (For example, a client wants to work at the Metrodome. The transportation cost to get the client to and from the job is \$40, but the client will only make \$20. It would be cheaper for the client to stay home, but the opportunity is a benefit to the client.)

Technology

- Use a GPS system to track all vehicles for all providers (would go hand in hand with coordinated service effort). This would allow better use of resources and provide information for coordinated use of resources.
- Develop technology to help reduce driver requirements — monitoring, replacing care attendant for some activities, etc.

Operations

- One difficulty is peak hour saturation — rides are often turned down during peak hours, but buses/vans/etc. are empty at other times. Changing peak hours is one option, but costs increase due to the need for additional staff to work the extended hours. Also, changing peak hour needs requires the buy-in of employers, medical professionals, etc., to allow for appointments, work hours, etc., at times other than the traditional hours.
- Because of some ADA issues, why not create a mobile service where we bring the service to the client, rather than try to take the client to the service?

SPECIALIZED TRANSIT AND FAMILIES IN POVERTY

Issues and Challenges: Round Robin Discussion

Participants were asked to comment on issues that they face when providing specialized transit services. The following are those items offered by the listening session participants.

Funding

- Welfare-to-Work doesn't have money to buy cars.
- Program money is often used to help fix up cars that some Welfare-to-Work families own/have access to (these families tend to have older cars that typically break down).
- Allow use of special funds for transportation. Funds were identified to be used for access issues (cultural, language barriers); transportation is an important component of access.

Policy

- Often different buses/transportation providers are seen following each other around to the same locations. Can't we figure out a way to coordinate and merge routes?
- Some suburbs are outside the transit-taxing district and Metro Transit can't go there.

Service Performance

- Welfare-to-work clients have many locations where they need to be to perform job search responsibilities and it is difficult to meet their transportation needs.
- It is difficult to get to jobs in suburbs with transit.
- Many services/employment opportunities are outside the transit service areas.
- Various hours of beginning work do not coincide with transit.
- Second and third shifts are difficult to get to with transit (most routes don't run during those times).
- Welfare-to-work clients are often not working day shifts, so transportation needs to be available around the clock.
- Businesses in suburbs need workers and they need to step up and work on transportation solutions.
- Agencies can provide after-school programs but they get done at 6:00 p.m. when there is no transportation.
- There seems to be a lack of transit options for anyone, let alone for those in poverty who are struggling.
- Fixed route doesn't always work for trip chaining. We need to develop more flexible transportation alternatives so work, childcare, and miscellaneous trips can be handled with transit.
- There is a disconnect between regular route and specialized transit. We need to see if we can connect what is existing.
- Scott, Carver, and Dakota Counties can't be transversed with transit.
- Specialized transit is geographically focused (St. Paul wants to go to Minneapolis, but service won't cross the river).
- The driver pool is difficult. The need is great and drivers can't be found to meet the needs.

- Volunteer drivers are used, but depending on the number of volunteers, we often cannot meet all the transportation needs of our clients.
- Staff is using their own transportation without adequate insurance coverage.
- Giving everyone a car is not necessarily the answer since some people should not be driving (lost license, mental health issue, etc.), so we need other transit options. Also, since insurance is costly, many poor may not keep their insurance coverage.

Human-Centered Issues

- Families that can afford a car tend to stay in poverty and crisis since money is used for car repairs. For families without a car, parents will use a cab, which can cost a significant amount, so that children can get around safely.
- When the poor can get cars, even if you have a mechanic review the car prior to purchase, provide low cost loans, etc., it seems as though when the loan is done, the car breaks down. The families can't seem to get out of the cycle of poverty.
- Without access to transportation, childcare is difficult, especially if it's not near home or work.
- Jobs are located in the suburbs and the commute is difficult and frustrating. Time is a big factor, and since they are now working 12 hours a day (including bus time), they have problems with access to childcare. Childcare options are not available those longer hours.
- Many children live in poor neighborhoods with crime. Many are children of color, and/or have English as a second language, etc., and don't feel safe leaving their home. Therefore, they are not taking advantage of services available for children. Even just walking a short distance is not safe. We need a Metro Mobility-type service for children.
- Language barriers are an issue. Many clients are recent immigrants. Connecting to suburbs for employment opportunities is often difficult and intimidating.
- There is a lack of awareness of resources available among communities of color, especially with recent immigrants. Language barriers prevent them from using some options. Norms and rules are frustrating to learn (e.g., certain buses are available only for the elderly), so immigrants often give up or don't try.
- There is a discrepancy between where welfare-to-work people live versus where jobs are located.

Technology

- There is a disconnect between all agencies providing transportation services to the same area. We need to use technology to coordinate services and communicate with each other.
- A technology problem: to get services, clients often have to go through a long list of options (via phone, etc.). If clients have any language barriers, then they cannot get service. We need to develop technology to break through the language barriers.

Potential Solutions: Small Group Discussions

Following the round robin discussion, participants were divided into small groups. Groups were asked to discuss the issues and offer potential solutions. Each group offered its top issue/solution in the areas of policy, operations, and technology.

Group 1: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — Insurance requirements for providing transit and rides need to be reassessed. Policy premiums and driver licensing regulations are prohibitive for smaller providers. One possible solution would be to establish a state insurance pool for specialized transit.

Operations — Formal relationships among providers should be established to promote service integration that would allow for funding and resources to be pooled. Organizations and individuals seeking rides should have more than one entry point to help them secure service.

Technology — Technology should be developed that allows users to access information on routes and service times across transit systems. Can real-time service be achieved through better coordination using technology?

Other Solutions and Discussion Points

Policy

- Make connections among affordable housing, jobs, and transportation.
- Revisit the transit taxing district boundaries and the use of property taxes to pay for transit.
- Promote community-based flexible transit service; corporations could be tapped for funding support and receive recognition for their support in visible ways, including putting their names on the vehicle.
- Allow for flexible use of funding from different sources.

Operations

- Support neighborhood-based, community-building service provision; you would know the person providing the ride.
- Collaborate with employers on transportation provisions, such as employer-driven commuting services or mentorship programs for new employees.
- Consider vehicle sharing among agencies that could help provide service during non-traditional work hours — weekends/evening/night shifts.
- Develop an education program for riders on how to use transit.
- Implement better security measures at transit stops.
- Offer better training for drivers who provide services that gives them a greater ability to serve different populations.
- Identify emerging transportation needs for immigrant and refugee populations; talk directly to the constituents who would be served.

Group 2: Top Issues for the Group in the Areas of Policy, Operations, Technology

Policy — We need to provide transportation-oriented development and better community planning. Developments should consider access to jobs, education and training, transportation (housing near transportation alternatives), and human services facilities.

Operations — We need to develop a way to coordinate transportation services among the various providers. The vision is to have a one-stop shop with information available on all services including what services are available, limitations, etc. The information would be accessible via the Internet and would be used by agencies and individual users.

Technology — We need to develop technology that will deal with the language barrier issues. Two specific applications were cited:

- MTC call line — provide expanded number of language choices.
- Provide technology at bus stops or on the bus to help with language issues.

Other Solutions and Discussion Points

Policy

- Transit taxing boundaries should be revised as the metro area expands. We need to look at the tax base for this tax.
- We should get businesses more involved in transportation. Are there incentives for them to help get people to the jobs?
- Make funding available for families (sliding fee scale) to use for transportation.
 - Needs to be flexible and take into account what is available in the area.
 - Can a system that already provides transportation (e.g., by taxi) get access to funds?
- Currently, the use of taxis for medical purposes and the elderly can be paid by the agency. How can we get the same policy for Welfare-to-Work families?
- We should look at policies concerning community providers — what is available, what are the limitations, would this work for welfare-to-work families?
- There is a need for affordable housing with access to jobs, services, and transportation that is *safe*.
- More and more grandparents are raising grandchildren. Issues include:
 - funding they get versus what is allowed for foster care
 - generational differences

Operations & Technology

- We need to provide transportation options such as commuter rail, transit, specialized transit, etc.
- For cross-generational use of vehicles, how do we meet all riders needs (e.g., child seats, wheelchair access, etc.)?
- Buses should have more bike racks.

ANALYSIS AND CONCLUSIONS

While each population group considered in the listening sessions is distinct, the problems among the three groups were quite similar. It is true that there are issues that arise only for specific populations, but for the most part, what was heard at each of the three sessions was more similar than different. Within this section of the report is a description of those issues that were common among all groups, along with a discussion of issues that were more problematic for one particular population.

The Elderly, Disabled, and Families in Poverty: Similar Issues

Some issues raised during the sessions were of no surprise: more money is needed to meet the needs and expectations of a growing number of specialized transit users; decisions and policies need to consider the effects on transportation options; providers, policymakers, transit users, and the general public need to be educated about transportation options; transportation choices need to be safe; everyone — users, employers, providers, policymakers — is affected by the transportation system and we all need to work together.

Specifically, when analyzing the comments and discussions from all three listening sessions, three common themes emerged. The issues that appear as the largest barriers for all the populations are:

- Need for coordinated resources among all service providers.
- Lack of flexible transportation options.
- Need for transportation-oriented developments and better community planning.

Coordinated Resources

The one issue that was heard most often during the listening sessions was the need for coordinated resources among the various service providers. This issue goes beyond shared funds to also include the use of shared information, shared drivers, and even shared facilities. With many agencies providing similar services, there needs to be a way to work together to provide the most effective transportation options for all the populations.

I often see different buses/vans following each other around to the same location. Can't we figure out a way to coordinate and merge routes?

-Listening session participant

Using shared and integrated information would allow agencies and users to have access to a wider range of transportation options; where one provider is not able to fill the transportation needs, another may have a workable solution. At this time, there are no links among the various agencies, so users are often left without options.

Nearly every listening session participant commented that a major issue was the lack of qualified drivers. Especially for the elderly and disabled populations, the drivers must have additional skills to deal with the populations' special needs. It is difficult finding enough skilled drivers to fill all the service providers' requirements. With a coordinated effort, the driver pool might also be shared and scheduled to use the drivers most efficiently.

In order to make the sharing of resources a viable solution, policies related to funding and service boundaries need to be revisited. Specialized transit tends to be geographically oriented transportation cannot extend beyond the defined boundaries. These geographic boundaries limit access to services and limit the transportation options. These boundaries need to be eliminated, or at the least, redefined to work for a coordinated transportation effort. Along the same lines, the policies related to funding should be revisited to determine if they are appropriate for a system that wants to work to provide efficient and equitable services to all the populations.

Transportation Options

Each population identified the lack of transportation options and lack of flexibility as a major issue. However, the issues for this particular area were slightly different for each population.

For the elderly, the majority of transit users are those who no longer are able to drive. Most have never used transit and they would rather stay home than use transit or ask for a ride. They are accustomed to the freedom and flexibility that car ownership affords and their expectations for transit are very high. A large number of trips for this population group are to/from medical facilities.

For the disabled, it is not a matter of loss of freedom, as it is with many elderly people. Rather, it is a lack of transportation options available that accommodate their disability. The disabled use transportation for a variety of activities from work to play and often have special transportation requirements based on their disability. The number of vehicles that are equipped to handle wheelchairs does not come close to the number required to provide transportation options. The developmentally disabled may require supervision, yet staff is only available during standard working hours, so again, the transportation options are limited to the standard 8:00 a.m. to 5:00 p.m. working hours.

Families in poverty possibly require the most flexible transportation options. Many families are single-parent families that require the use of daycare. Without convenient transportation options, they may spend several extra hours commuting an 8-hour work day becomes a 12-hour day when the commute time is factored in. Daycare is often not available for these extended hours. For those poor who have jobs but no access to cars, they are possibly working second or third shifts when transit service is not available. In addition, many families in poverty struggle with cultural and language barriers. They may not understand the various rules associated with the different transportation providers, or they might not have adequate language skills to communicate where they need to go, so they don't even try.

There seems to be a lack of transit options for anyone, let alone for those in poverty who are struggling.
-Listening session participant

Community Planning

How can the current system be improved to meet the needs of all the populations? What changes will produce benefits relatively quickly? These are questions that need to be answered to address the short-term issues. But the bigger picture is important as well. Rather than trying to provide transportation to take all the people to all the places they want and need to go, people should be encouraged to live in communities where services are in close proximity. And, businesses and services should also be encouraged to locate in the communities where people live.

Transit-oriented developments and smarter community planning should be a priority for planners and policymakers. New developments should consider access to jobs, education and training, transportation, and human service facilities.

Decisions on where to locate or close facilities and on service hours also have an impact on our clients' ability to secure transportation to make an appointment or attend a function.
-Listening session participant

Specific Issues for Each Group

The specific issue for each group centers on the lack of flexible transportation options available to them, as was briefly described above. More detail on the differences between the three groups is outlined below.

The Elderly

The elderly are living longer and becoming more frail, both physically and mentally. They also have high expectations of transportation services. Many of the elderly are using transit due to life changes that no longer allow them to drive their own vehicles.

Giving up the flexibility of driving is very traumatic for the elderly and many will stay at home rather than ask for help or use transit. In addition, they are typically reluctant to use transit due to:

- The lack of flexibility of transportation services (provider does not go to desired location, long travel times, difficulty in using system due to need for advanced notice, etc.).
- Their increasing frailty, both physical and mental, and because the services provided do not meet their needs.
- The perceived safety risk of using transit.

The Disabled

The trend for community-based living is compounding the transportation problem for the disabled. Much of the affordable and available housing for the disabled is located in the suburbs, where transportation options are limited. The disabled are being moved without consideration of how the move may affect a person's transportation options it is often assumed that the current options will be available at all locations. Oftentimes, this is not true.

The developmentally disabled may require supervision. The need for supervision often limits the transportation choices, as many transportation options either do not have

supervision available or the time when it is available is restricted to typical work day hours. Those that require supervision cannot use options where transfers are required, since transfer stations are not staffed.

Families in Poverty

A key word heard during the session on families in poverty was safety. Many families in poverty are living in unsafe neighborhoods. Parents are afraid to let their children walk a few blocks to a family center where many services are available to them. Rather, they must stay at home or wait for someone to pick them up. Unfortunately, there are not many transportation options available for this young population. We have services available to help these families and provide a positive environment for the children, but children aren't using them due to a lack of safe transportation options.

Conclusions

These issues cannot be solved with one simple solution. Rather, a community approach is needed and the community needs to be large and inclusive. This community needs to raise awareness of the transportation issues and needs to start dialogues with organizations and businesses, along with policymakers and developers, to discuss the big picture and identify the roles each can play in the development of solutions to these issues.

Those who provide transportation, especially the smaller services that provide specialized transportation, need to join forces and speak with a united voice. Currently, specialized transit lacks visibility as a system, which limits its ability to negotiate with service communities and discuss policy changes with governing agencies. A coordinated effort would potentially open more doors and lead to short- and long-term changes.

For more long-term solutions, the University of Minnesota researchers should play a strong role. Researchers can use the information identified at the listening sessions to develop research projects, the results of which often lead to new or modified policies, operations, or technology.

RESEARCH TOPIC IDENTIFICATION

CTS invited faculty representing a diverse set of transportation-related disciplines to identify transit-related research topics to address the listening session issues. Researchers from the operations, policy, and technology areas worked together with CTS, DARTS, and United Way representatives to brainstorm various research needs related to specialized transit and the elderly, disabled, and families in poverty populations.

Working Session Brainstorming Results

The complete list of brainstorming results has been clustered into common theme areas, listed below.

Benchmarks / Needs Identification

- Develop benchmarks on both formal and informal transportation strategies.
- Compare the Minneapolis area to other cities and countries.
- Develop case studies of what is going on elsewhere.
- Perform a Travel Survey and Activity Analysis for the three groups.
- Determine what the needs are. Groups are trying to provide a service, but don't know the real needs. Ask a good sample of users what their needs are.
- Determine if the problem is a need, a want/desire, is required, etc. How do you assess these needs? How does this relate to policy?

We need to perform a systematic analysis of what it is the users want and need then tailor the solutions to their stated needs.

-University researcher

Policy

- Look at one size fits all versus specialized transportation system.
- Policy + Technology: Address the need for policy and technology developments and how they are interrelated. New technologies may be useless unless new policies are developed. Are new policies and new technologies developed with different time frames?
- Look at a process to include a Transportation Impact Statement for new developments. The impact statement would include transit, pedestrian, and travel considerations.

Economic Implications

- Topic areas related to economic implications:
 - Subsidies
 - Redistribution of money (e.g., spending at the front end rather than later)
 - Productivity (especially with disabled and welfare-to-work populations)
 - The amount people are willing to pay for better access
 - Economic impacts of providing, or not providing, transportation

Cultural Issues

- For those whose transportation needs are not being met, why is that? What have we learned from other cultures that are dealing with similar issues?
- What are the social isolation issues? How do new and potential technologies affect these issues?
- What decisions do people make related to transportation?
 - Suboptimal decision making: not considering the transportation implications when deciding where to live, what services to use, etc.
 - Living in rural areas where transportation options are very limited
 - Moving to locations based on access to services and transportation
 - Not having a choice: policies have fewer people in nursing homes, which leads to assisted living or living with children, etc. We need to differentiate between those who can and can not make choices.

Regulations

- We need to break the traditional ways of thinking for buses, jitneys, taxis, etc.
 - Deregulation of transportation systems
 - Provision of vouchers
 - Taxi industry deregulation
- What are the policy issues that limit transportation options and flexibility?
- What are the zoning code issues? Times have changed, yet old zoning laws are still in place; this needs some review.

How do current zoning codes, land use practices, and engineering standards inhibit the mobility of these special groups?
-University researcher

Incentives

- How can fiscal incentives be used to redevelop transit corridors to encourage transit use?
- What are the incentives that need to be built into the system for the three populations?
- What if the public transit system is free?
- What are the implications of commercial sponsorship of the transit system?

Integration

- Strategies for integrating transportation systems and the populations
- System analysis — mapping of the issues through integration
- Determining the barriers to an integrated tracking system

Technology

- Road-worthy personal transportation vehicle for the elderly and the disabled
- Cars that drive themselves
- The Internet — a source that is not being used enough. Some possibilities:
 - Provide short-term solutions
 - Provide remote services: social interaction, medical checks
 - Combine capabilities with bus information

- Safety Issues
 - Use biometrics to ease safety concerns
 - Use smart cards for transit riders — screen riders using biometrics
- Technology solutions that make transportation options wheelchair accessible and easier to use than what is currently available

Next Steps

CTS will work with University of Minnesota researchers to develop a multi-disciplinary research program related to the specialized transportation research priorities identified. A key issue surrounding transit-related research is available funding. CTS will work with DARTS and others in the transit community to identify potential sources of funding for the research program.

DARTS LOGISTICAL SUPPORT INITIATIVES

The goal of the DARTS/CTS joint project, to gain a better understanding of the issues surrounding specialized transit, created a basis for further action by DARTS. It was evident from the issues raised and the input from a wide array of service providers that more discussions are needed to engage others in the recognition of the role of community-based transit providers. The informal networks of specialized providers outside of fixed-route and public services provide a needed service, and their role in the community needs more attention. DARTS intends to use this information as a basis to continue to work not only with CTS to look at long-term research efforts but also to work with foundations, other United Ways, and local funders to bring interested parties together.

More directly, DARTS found that the needs for coordinated transportation, safe and reliable service, and flexible options echoed the information from previous surveys and community providers. DARTS listened intently to this input, and in response has identified four key areas of effort that will be the focus and direction of the DARTS Logistics Initiative to support Minneapolis United Way agencies with these ongoing operational needs: Operations Support, Technology, Driver Training, and Vehicle Maintenance.

Key Areas of Effort

Operations Support

Service providers and funders continue to site coordination between riders and providers as a primary issue. This includes addressing the issues of boundaries, service planning, and direct operations support in the scheduling and dispatching of all types of trips. Operational reviews will be the initial benchmark service that will help direct further needs and targeted support.

The need to coordinate rides and providers continues to be the most often cited issue for the service providers and funders.

The testing of collaborative initiatives in certain communities and supporting agencies to determine their ability to continue as a provider or expand their capacity as a specialized service provider will be expanded. Bus sharing, backup bus and driver pools, and other types of resource identification and utilization opportunities will be included.

Technology

Included in this area is the investigation of what technologies are available and useful for specialized service providers. Providers all look to increase their efficiencies, but in some cases, new technologies are not affordable or require integration, training, and support that one agency is not able to provide by itself. Current DARTS operational tests that are looking at deployment of a high tech solution to coordination while keeping the high touch quality service aspects of the nonprofit provider will be shared with providers.

DARTS will share how to deploy high tech solutions with high touch quality service.

Review and testing of current and emerging technologies that have applicability for specialized providers will be ongoing and shared with interested providers. Training of staff on these as well as ancillary applications, including report-generating applications that can support transportation efficiencies, will also be offered. DARTS will also help determine agency capacity and needs and provide the support to install, implement, and support the technologies.

Driver Training

Finding and maintaining quality staff is critical for any agency. As was consistently mentioned throughout the groups, all types of passengers need the safety and security of trained and helpful drivers to make the service a viable option for the clients. The need to meet the specialized transportation service (STS) rules that require agencies to perform initial and refresher training before they can provide specialized service was cited as an example of one such need.

As is evident, each group had specific client-related staff service issues and differences in these needs. Tailored training to an agency and its specific needs that also provides consistency among providers is needed to support collaboration. That is one area on which DARTS will concentrate these training efforts.

Vehicle Maintenance

Although not mentioned as an immediate need, mechanical repairs, preventative maintenance, and key staff training are all critical to the success of any agency providing specialized service. This includes support to help determine when and where to get service or when it is time to retire a vehicle from service that is no longer road-worthy. This supports the safety of the passengers and drivers and helps ensure that this is not a stumbling block to vehicle sharing and service coordination.

Preventative maintenance and key staff training are all critical to the success of any agency providing specialized service.

DARTS currently offers maintenance on all types of specialized vehicles, but this will be expanded to include preventive services, mechanic/key staff training to maintain the fleet and diagnose problems, and help desk services to triage vehicle problems and determine where to get needed service.

Next Steps

Through this logistics effort, each of the four components will be in place for all United Way of Minneapolis agencies and other area nonprofits. Although each component will be able to be treated separately, DARTS will be available to help create an integration plan that can address one or all of these transportation needs into a unified operational plan. This integration can assist the agency or agencies in determining the viability of continuing to provide service or whether to consider serious alternatives.

With a stronger base of community providers, DARTS and the providers will also now be in a better position to formulate and affect issues related to community-based transportation. The providers will have more consistent information about their services and what is provided. This information then creates a basis for a more unified voice for the needs of specialized transit.

APPENDIX A — LISTENING SESSION ATTENDEES

Specialized Transit and the Elderly: March 24, 2000

<u>Name</u>	<u>Affiliation</u>
David Anderson	Center for Transportation Studies
Gina Baas	Center for Transportation Studies
Max Donath	ITS Institute, University of Minnesota
Bruce Dreier	Scott County Transit
Hal Freshley	Department of Health Services - Minnesota Board on Aging
Dick Graham	Dakota Area Resources and Transportation for Seniors
Barbara Green	Little Brothers — Friends of the Elderly
Hedy Haas-David	Jewish Family & Child Services, Minneapolis
Judith Hansing	City of Bloomington
Carolyn Hawkins	Volunteers of America
Mark Hoisser	Dakota Area Resources and Transportation for Seniors
Dave Jacobson	Metropolitan Council/Metro Mobility
Robert Johns	Center for Transportation Studies
Nan Just	East Metro SAIL
Jane Kretzmann	Bush Foundation
Andrew Krueger	Dakota Area Resources and Transportation for Seniors
Sarah Brodt Lenz	Minnesota Department of Transportation
Melinda Ludwiczak	City of Bloomington
Rob McDonough	HIS — Washington County
Malcalm Mitchell	Lluido At-Home/Block Nurse Program
Jeanne Nordstrom	Community Action Council
Carolyn Rodriguez	Metropolitan Council
Dawn Spanhake	Center for Transportation Studies

Specialized Transit and the Disabled: April 4, 2000

<u>Name</u>	<u>Affiliation</u>
David Anderson	Center for Transportation Studies
Gina Baas	Center for Transportation Studies
Dawn Bramel	Community Connections Partnership
Debra Dam	Lifeworks
Max Donath	ITS Institute, University of Minnesota
Dale Fagre	PRISM
Dick Graham	Dakota Area Resources and Transportation for Seniors
Cindy Guddal	Courage Center
Mark Hoisser	Dakota Area Resources and Transportation for Seniors
Dave Jacobson	Metropolitan Council/Metro Mobility
Robert Johns	Center for Transportation Studies
Liz Johnson	PRISM-Elder Express
Tim Kirchoff	Anoka County
Dianna Krogstad	Metro Workcenter and TRAC
Andrew Krueger	Dakota Area Resources and Transportation for Seniors
Kevin McCaleb	Midwest Special Services
Cliff Miller	Minnesota State Council on Disability
Ed Mundt	Owobopte Inc.
Dawn Spanhake	Center for Transportation Studies
Tim Vichiollo	Opportunity Partners
Julie Zbaracki	Partnership Resources, Inc.
Larry Zurn	EMSOCS

Specialized Transit and Families/Poverty: April 13, 2000

<u><i>Name</i></u>	<u><i>Affiliation</i></u>
David Anderson	Center for Transportation Studies
Gina Baas	Center for Transportation Studies
Jim Crotty	Boys and Girls Club
Max Donath	ITS Institute, University of Minnesota
Carol Dunsmore	Children s Home Society
Rick Furk	CET — St. Paul Public Schools
Dick Graham	Dakota Area Resources and Transportation for Seniors
Mark Hoisser	Dakota Area Resources and Transportation for Seniors
Maria Jimenez	West Side Connects at Neighborhood House, St. Paul
Robert Johns	Center for Transportation Studies
Mary Gallagher Johnson	Resources for Child Caring
Andrew R. Krueger	Dakota Area Resources and Transportation for Seniors
Glenna Laurey	Indian Family Services Inc.
Jeanne Nordstrom	Community Action Council
Jan Palumbo	Carver County Workforce Services
Mary Riley	CAP Agency
Carolyn Rodriguez	Metropolitan Council/CAC
Dawn Spanhake	Center for Transportation Studies
Gaoly Yang	Metro American Automobile Association

APPENDIX B — DARTS/CTS JOINT PROJECT ADVISORY GROUP

Attendees

<u>Name</u>	<u>Affiliation</u>
John Barrett	RISE, Inc.
Nacho Diaz	Metropolitan Council
Hal Freshley	Minnesota Department of Human Services/MN Board of Aging
David Johnson	Metropolitan Health Plan
Byron Laher	United Way of Minneapolis Area
Mona Patterson	Pillsbury Neighborhood Services
Wayne Takeshita	Hennepin County Adult Services
John Tocho	Minnesota Department of Transportation
Mike Wynne	Pillsbury Neighborhood Services

Invited

<u>Name</u>	<u>Affiliation</u>
Anthony Wagner	Pillsbury Neighborhood Services
John Kostishack	Otto Bremer Foundation
Jane Kretzmann	Bush Foundation
Dan Bartholomay	McKnight Foundation
Robert Benke	Minnesota Department of Transportation
Claire Chang	St. Paul Foundation

APPENDIX C — RESEARCH IDENTIFICATION PARTICIPANTS

Attendees

<u>Name</u>	<u>Affiliation</u>
John Adams	Department of Geography
Gary Barnes	Center for Transportation Studies
Karen Chapple	Humphrey Institute of Public Affairs
Ken Kriz	Humphrey Institute of Public Affairs
Lance Neckar	Department of Architecture / Landscape Architecture
Mary Vogel	Department of Architecture / Landscape Architecture
David Levinson	Department of Civil Engineering
John Bloomfield	Human Factors Research Laboratory
Kathleen Harder	Human Factors Research Laboratory
Nikos Papanikolopoulos	Department of Computer Science and Engineering
Rajesh Rajamani	Department of Mechanical Engineering
Max Donath	ITS Institute, University of Minnesota
Susan Carter	United Way
Dick Graham	Dakota Area Resources and Transportation for Seniors
Mark Hoisser	Dakota Area Resources and Transportation for Seniors
Robert Johns	Center for Transportation Studies
Gina Baas	Center for Transportation Studies
Dawn Spanhake	Center for Transportation Studies