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CALIFORNIA PATH PROGRAM
INSTITUTE OF TRANSPORTATION STUDIES
UNIVERSITY OF CALIFORNIA, BERKELEY

Advanced Information Techniques and Paratransit Services to Enhance Mobility of Elderly and Disabled Travelers Wan-Hui Chen, Kelley Klaver, Rochelle Uwaine, Paul P. Jovanis

University **d** California, Davis

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Advanced Information Techniques and Paratransit Services to Enhance Mobility of Elderly and Disabled Travelers

by

Wan-Hui Chen, Kelley Klaver, Rochelle Uwaine and Paul P. Jovanis

ABSTRACT

This study was a follow-up study to a previous study conducted to examine the potential for advanced information systems and paratransit services to enhance the mobility of elderly and disabled travelers in the Sacramento area. Computer Assisted Telephone Interviews (CATI) and mail-out-and-call-in surveys were administered, and system attribute and stated preference questions were employed. The results show that it is possible to increase the mobility of elderly and disabled travelers with the provision of important public transit information. Subjects tended to prefer the operator-assisted telephone and automated telephone systems over the computer and television systems due to their familiarity and ease of use. When real-time paratransit and real-time ridesharing were compared to regular paratransit in stated preference questions, real-time paratransit was preferred to regular paratransit while real-time ridesharing was not. The selection between regular paratransit, real-time paratransit, or neither was affected by fare, the group-type-car-availability interaction, and the mobility-aid-group-type interaction. The selection between regular paratransit, real-time ridesharing, or neither was affected by pick-up location and the group-type-car-availability interaction.

KEYWORDS

elderly and disabled travelers, transit, paratransit, real-time paratransit, advanced information systems, stated preference, mobility

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EXECUTIVE SUMMARY

This is a continuation of a study to further examine several advanced transportation services and information systems which were redesigned and reassessed based on the findings in the year-one study. The purpose of this study is to determine whether these systems could enhance the mobility of disabled and elderly travelers in their use of transit, paratransit, or advanced paratransit services through a questionnaire survey (referred to as the year-two survey). The advanced proposed systems included regular paratransit and two advanced paratransit systems (i.e., real-time paratransit and real-time ridesharing), and five transportation information systems: computer, television, operator-assisted telephone, automated telephone, and personal information systems.

The year-two survey was conducted in the Sacramento area with 70 disabled, 150 elderly and 150 general subjects during April and June in 1996 using a Computer Assisted Telephone Interviewing (CATI) survey, and a mail-out-and-call-insurvey. System attribute questions and stated preference questions with quantitative attribute values were employed to determine more specifically if and how advanced services could be used to increase the mobility of the disabled and elderly.

The survey results show that the disabled subjects relied on other people and/or alternative forms of transportation more than the elderly and general subjects to maintain their mobility. The survey results also show that it is possible that the mobility of the disabled and elderly travelers can be enhanced by the provision of important transit information, paratransit and advanced paratransit information. **As** for the ranking of the five information systems, both operator-assisted telephone and automated telephone systems were most preferred by the three groups and the elderly group particularly preferred the operator-assisted telephone system.

Two advanced paratransit services were compared with regular paratransit and the current mode used by subjects. Real-time paratransit (referred to as Instant Paratransit) was preferred by the disabled and elderly subjects. However, real-time ridesharing (referred to as Catch-A-Ride) was not as attractive to them as Instant Paratransit. Log-linear modeling results show that the selection between regular paratransit, real-time paratransit, or neither was affected by fare, the interaction between group type and car availability, and the interaction between mobility aid type and group type. The selection between regular paratransit, real-time ridesharing, or neither was affected by pick-up location and the interaction between group type and car availability.

1. INTRODUCTION

The purpose of this study is to develop and assess several advanced transportation and information systems to determine if these systems could help disabled and elderly travelers meet their travel needs. During the first year of this study, a questionnaire (referred to as the year-one survey) and two laboratory focus groups were employed to examine whether several advanced transportation services and information systems could enhance the mobility of disabled and elderly travelers in their use of transit, paratransit, or advanced paratransit services in 1996 (Chen, et al. (a); Chen, et al. (b), Abdel-Aty, et al.; and Klaver, et al.). Elderly travelers were defined as those aged 65 or over, and disabled travelers were defined as those who had mobility, hearing, and/or speaking impairments (i.e., the visually impaired were excluded). In the year-one survey, elderly subjects were surveyed via a phone interview using a Computer Assisted Telephone Interviewing (CATI) system, and on-site, in-person interviews were conducted for disabled subjects through several service agencies in the Sacramento area. In all, 118 disabled and 260 elderly completed the survey. Two laboratory experiments were also conducted in 1996, which consisted of 11 elderly and disabled subjects from Davis.

Based on the findings in the year-one study, the proposed systems were redesigned and reassessed through an additional questionnaire (referred to as the year-two survey) to determine more specifically if and how advanced systems and services could be used to increase the mobility of the disabled and elderly. The advanced systems included transportation systems (i.e., transportation services) as well as transportation information systems which users could use to obtain transportation service information.

The demand for transportation services by the disabled and the elderly is difficult to estimate. It may depend on numerous service attributes (e.g., travel cost and travel time) and various other factors (e.g., whether they currently drive, whether they can easily obtain information on how to use the service, and weather conditions). In addition, it may not be possible to provide all of the attributes which travelers desire at the same time, such as low cost, short travel time, short waiting time, and same-day service. Usually, travelers need to consider many factors simultaneously before they decide whether or not to use a transportation service such as transit or paratransit. Therefore, this study focused on identifying what service attributes would affect the mode choice behavior of the disabled and elderly. Instead of using qualitative measures (e.g., 'low cost'), trade-off questions with quantitative measures were used to determine subjects' opinions about transportation services through stated preference questions.

Similarly, specific attributes of information systems were considered to determine what types of information are needed and desired by the disabled and the elderly, and what type of information systems (i.e., interfaces) disabled and elderly travelers would like to use in obtaining information for transportation services.

In order to determine the differences between disabled and/or elderly people and the general population, three different groups were recruited and classified as disabled, elderly, or general.

The objectives of the year-two study were:

- 1. To determine trip-making characteristics in terms of trip frequency, mode of transportation, and trip purpose;
- 2. To identify the importance of information system attributes and transportation service attributes;
- 3. To assess the capability of several advanced transportation services and information systems to enhance the mobility of the disabled and elderly; and
- **4.** To determine the most important factors affecting subjects' choice between the proposed services and their current mode of transportation.

2. ADVANCED SYSTEMS IN THE YEAR-ONE STUDY

One advanced transportation system and four advanced information systems were included in the year-one survey: real-time paratransit, and on-board, kiosk, in-home, and personal information systems. These systems were described in the questionnaire as follows.

Real-time paratransit

Real-time paratransit is like the paratransit services you might have heard of, or may now be using. A van would provide you with a 'door-to-door' ride between your home and your destination. You would likely be sharing this vehicle, at least once in awhile. A real-time paratransit system would allow you to make a reservation on the day of a local trip you wanted to make, rather than requiring several days' advance reservation as with today's paratransit.

On-board information system

Suppose transit buses and light-rail trains had information systems located on them. These would be electronic bulletin boards that could display information. The types σ information would include:

- the name and location of the vehicle's next stop
- the expected arrival time at the next stop
- information about any transfers you might have to make to reach your final destination, including the expected arrival time **d** the next vehicle to which you would be transferring
- -emergency phone numbers

Kiosk information system

An information kiosk is an electronic bulletin board that not only displays information, but allows you to choose the type of information displayed. The types σ information that would be available to you would be:

- the map **d** the transit route, including the stops nearest your actual destination
- up-to-the-minute information on the expected arrival time **d** the next transit vehicle
- the exact route **d** your trip
- the number and location of any transfers you might have to make to reach your destination
- whether a wheelchair lift is available on the next arriving vehicle
- emergency phone numbers

• In-home information system

An in-home information system would deliver the same types of information to you at home as the information kiosk provides at transit stops. In addition, the in-home system would provide you with information about ordinary paratransit that requires a reservation made several days in advance and real-time paratransit services. This information might be delivered to you through your television or through a home computer.

Personal information system

A personal information system would provide you with all the information available to you in the in-home information system. However, it would be a small device that you could carry with you.

In the laboratory experiments, three information systems and two transportation services were considered: on-board, kiosk, and in-home information systems; and real-time paratransit and real-time ridesharing. The description of on-board, kiosk, and in-home information systems, and real-time paratransit was similar to that on the questionnaire. The prototypes of these three information systems were demonstrated in the experiments. The description of the real-time ridesharing service is shown below.

Real-time ridesharing would provide door-to-door service similar to the paratransit services; however, users would be sharing their ride with another individual in his/her personal vehicle. To make a reservation, users would contact an agency responsible for generating ride matches. The agency, such as a social service, would then "match" the rider with a registered individual who regularly makes that trip. Users may be provided with a list of names to contact or may be automatically matched depending on the time and date of the trip. The cost of a one-way trip may be slightly higher than both types of paratransit services, but travel times would be significantly lower with this service.

3. SYSTEM PREFERENCE AND MODIFICATION

The year-one survey results showed that the disabled felt that the four advanced information systems would increase their mobility in using transit or paratransit, while the elderly, in general, did not. **As** for real-time paratransit, both the disabled and the elderly showed very positive attitudes toward this service for increasing their mobility.

Advanced Information Systems

Subjects' current trip-making characteristics may be a major reason why the disabled feel these systems can enhance their mobility but the elderly do not. Eighty-nine (89) percent of the elderly subjects currently drive a vehicle; however, only 14 percent of the disabled subjects currently drive. The majority of the disabled take transit or paratransit for work/school trips. For trips other than work/school, the disabled ride as passengers in private automobiles. The disabled subjects tend to be more dependent on other people or public transit than the elderly subjects. Thus, the disabled feel that on-board and kiosk information systems, which provide transit information, and in-home and personal information systems which provide transit, paratransit, and real-time paratransit information, would increase their mobility. Elderly people prefer to drive their own vehicle. While the elderly subjects had a very positive attitude toward real-time paratransit service, they did not have a positive attitude toward in-home and personal information systems which provide real-time paratransit information. The elderly subjects may prefer to obtain this information through other sources.

It was found in the laboratory experiments that the elderly showed interest in using telephone systems to obtain transportation information (Klaver, et al.). Thus, the convenience of information systems in terms of where and when users can access them should be considered in order to allow users to easily and conveniently use the systems as needed.

Of the four information systems, personal information and in-home information systems were considered the most useful information systems. Fifty-five (55) and 26 percent of the disabled and elderly subjects, respectively, considered the personal information system to be the most useful information system, and 14 and 29 percent of the disabled and elderly, respectively, considered the in-home information system to be the most useful information system. Compared with the kiosk and on-board information systems, the personal and in-home information systems were considered more convenient for users to obtain transit and paratransit information, as travelers are able to obtain transit/paratransit information in their homes (i.e., using the in-home system) or anywhere (i.e., using the personal information system). However, to use kiosk or on-board information systems, travelers need to go to bus stops (or train stations) or board a bus (or train) to obtain the transit information. Thus, on-board and kiosk information systems were perceived as relatively inconvenient to use, especially for wheelchair users (Chen, et al (b)).

It seems that disabled and elderly travelers are very concerned about the convenience of an information system. Therefore, in the year-two survey, in addition to the in-home and personal information systems, three other systems were considered. These three systems were: a television, an operator-assisted telephone system, and an automated telephone system. Travelers should be able to access the in-home system not only when they are at home

but also at any place where they have access to a computer (e.g., school or office). Thus, in order not to restrict the in-home information system to home use only, in the year-two survey a computer system was considered instead of the in-home information system. Consequently, five advanced information systems were considered in the year-two survey: computer, television, operator-assisted telephone, automated telephone, and personal information systems.

As there are different information systems, there are also different interfaces to access each of the information systems. A personal information system was described as 'a small device that users can carry with them'. Users may need to buy new equipment to use computer, television, (e.g., interactive television and Web TV) or personal information systems. However, unlike phone systems which provide audio information only, these systems can provide a variety of information formats such as schedule tables and maps with route and location information. Another difference between these systems is that travelers can use the operator-assisted telephone information system only during service hours, while there are no time constraints for using the computer, television, automated telephone, or personal information systems.

Advanced Transportation Services

In the year-one survey, real-time paratransit was described as providing same-day service (requiring a reservation two hours prior to the trip). The difference between real-time paratransit and regular paratransit services is the amount of time in advance that a reservation must be made. Regular paratransit services usually require users to make a reservation a few days prior to a trip. For example, Davis Community Transit provides paratransit service in Davis and requires passengers to make reservations at least 2 days and up to 14 days in advance. Both the disabled and the elderly showed very positive attitudes toward the real-time paratransit service for increasing their mobility. It seems that subjects preferred a transportation service with same-day service, which of course is not surprising as it adds to the convenience of the service. Besides real-time paratransit service, real-time ridesharing, which also provides same-day service, was discussed in the focus groups. The major concerns with real-time ridesharing were personal safety and liability. Subjects preferred to have a public service agency operate this service rather than a private service agency. These two advanced transportation services were also considered in the year-two survey.

Real-time paratransit, referred to as Instant Paratransit, and real-time ridesharing, referred to as Catch-A-Ride, were presented in the year-two survey. The features of regular paratransit as compared with the two advanced services are described below.

Paratransit would provide you with dial-a-ride, door-to-door service in a van. This would require you to make a reservation afew days in advance. A similar service called Instant Paratransit would provide the same type of service, but would allow you to make a reservation up to 2 hours before your trip. Another service, called Catch-A-Ride, would also provide you with the same service; however, you would be sharing your ride in a personal vehicle.

4. SURVEY METHODOLOGY

4.1 Survey Design

In addition to the attribute questions regarding the proposed systems and services which will be described later, some similar questions to those on the year-one survey were included on the year-two survey to determine subjects' physical impairments, current tripmaking characteristics, and demographic background. However, there were some changes made to these questions on the year-two survey. It was found in the year-one survey that level of mobility was an important factor in subjects' perceptions of the advanced systems. Thus, all of the disability-related questions were removed except for questions which determined the following: whether they used a wheelchair, whether they used mechanical aids for walking, and whether they needed a personal assistant for getting into and/or out of a vehicle. It was also found in the year-one survey that trip-making characteristics for shopping, errand, and recreation trips were similar; therefore, shopping and errand trips were merged with recreational trips. Consequently, trip purpose was classified on the year-two survey as work/school, recreational, and medical trips only (effectively reducing the number of different trip purposes). As for demographic background, computer usage may be a good indicator of the acceptance of advanced systems. Thus, three questions related to computer usage which determined the following were included: whether the subject was a computer user, whether the subject had a computer at home, and whether the subject had ever used the Internet. The questionnaire is shown in Appendix A.

Information System Attributes

The following list of attributes refers to various types of transit information. Subjects rated the importance of each of the information attributes for planning/making a trip by transit. The ratings were as follows: *not at all important, not very important, somewhat important, very important* and *extremely important* (or, a five point scale where one was *not at all important* and five was *extremely important*). The order of the questions was randomly determined to avoid question order effect.

• Attributes of information types:

- 1. Bus route map
- 2. Bus schedule table
- 3. Transfer information
- 4. Fare information
- **5.** Stops nearest your location
- **6.** Wheelchair lift
- 7. Seat availability
- 8. Actual arrival time of next bus
- 9. Shelter condition

The second list of attributes refers to information systems. As with the attribute questions about general transit trip making, subjects were asked to consider each of the information system attributes and to indicate whether it was important when they plan a trip. Subjects rated these attributes similarly by using the terms *not at all important*, *not very important*, *somewhat important*, *very important* and *extremely important* (or, a five point scale where one was *not at all important* and five was *extremely important*). The order of the eight attribute questions was randomly determined to avoid question order effect.

• Attributes of information systems:

- 1. Cost of using the information system
- 2. Bus/rail information
- 3. Paratransit information
- 4. Other paratransit/ridesharing information such as Instant Paratransit and Catch-A-Ride services
- 5. Information about community activities
- 6. Multiple trip-planning capability
- 7. Reservation-confirmation capability for paratransit
- 8. Automated 24-hour reservation capability

Besides these system attribute questions, subjects were also asked to rank the five information systems: computer, television, operator-assisted telephone, automated telephone, and personal information systems. Since it was not easy for subjects to remember and rank the systems in a telephone survey (which was intended to be used for this survey) subjects were asked to select the first preferred information system among the five information systems. Then, they chose the first preferred information system among the four remaining systems, and finally, the first preferred information system among the three remaining systems.

Paratransit Service Attributes

The demand for paratransit services by the disabled and the elderly is very difficult to estimate. It may depend on numerous service attributes (e.g., travel cost and travel time) and other factors (e.g., whether they currently drive and whether they can easily obtain information for using the service). Usually, travelers need to consider many of the service attributes and other factors simultaneously before they decide whether or not to use a service. In addition, it may not be possible to provide all of the attributes which travelers desire at the same time, such as low cost, short travel time, short waiting time, and same-day service. Furthermore, with a qualitative measurement, such as "low cost," we still do not know what cost is

considered low by each subject. Quantitative factors such as cost, therefore, must be measured quantitatively and not qualitatively to determine more precisely the subjects' opinion about the attribute. It is better to describe attributes by using quantitative values in questions (i.e., using stated preference questions). However, it is not possible to ask a question including all factors of interest with quantitative values due to the size of the resulting survey. Therefore, this survey was divided into two parts. The first part of the survey was designed to determine the most important transportation service attributes. Then, based on the subjects' responses to the importance of the attributes, the most important attributes were used to form specific trade-off questions (e.g., \$3 and a 30 minute travel time versus \$1 and a 45 minute travel time) for a specific scenario to determine which attributes they considered most important in their mode choice.

The attributes listed below were used to obtain subjects' opinions about alternative transportation services (i.e. those other than more traditional types of public transit such as bus and light rail). Again, subjects rated each of the attributes affecting their choice of transportation service by using the terms *not at all important*, *not very important*, *somewhat important*, *very important* and *extremely important* (or, using a five point scale where one was *not at all important* and five was *extremely important*). The nine attribute questions were randomly presented to avoid a question order effect.

• Alternative Transportation service attributes:

- 1. Cost of ride
- 2. Travel time
- 3. Waiting time for service to arrive
- 4. How far in advance you need to make a reservation for your trip (e.g., 2 days vs. 2 hours in advance)
- 5. Pick-up/drop-off location (e.g., your home or nearest intersection/landmark to your home)
- **6.** Number of additional passengers
- 7. Cost for your companion
- 8. Service provider (e.g., private agency or social service agency)
- 9. Coverage area of service provider (such as within your county or between counties)

In this second part of the survey, the trade-off questions comparing two paratransit services were formed using important attributes found in the first part of the survey with detailed quantitative values. The main purpose of the second part of the survey was to determine which attributes subjects would consider the most important to their mode choice. The trade-off questions were formed by comparing the proposed transportation services (i.e., real-time paratransit and real-time ridesharing) to an existing service (i.e., regular paratransit). The subject could answer either 'proposed paratransit' (i.e., real-time paratransit or real-time ridesharing), 'regular paratransit', or 'neither' to each of the trade-off questions.

After the comparison between the regular paratransit and proposed paratransit, if the subject chose either of the paratransit services, a follow-up question was used to determine how likely the subject would be to use the service:

Out of ten non-work/school trips how many non-workfschool trips would you make by the service you selected in place of your current means of transportation?

The results of the importance of the transportation service attributes classified by group types are shown in Table 1. Pick-up/drop-off location was the most important attribute rated by all three groups. It is apparent that the three groups felt waiting time is more important than travel time. The disabled and general subjects rated cost, travel time, waiting time, reservation requirement, and service coverage area more than somewhat important. The elderly subjects rated all types of information less then somewhat important with exception of pick-up/drop-off location.

Table 1. Importance of Alternative Transportation Service Attributes by Group Type

Service Attribute	Disabled	Elderly	General
1. Cost of your ride	3.3	2.8	3.4
2. Travel time	3.2	2.5	3.3
3. Waiting time for service to arrive	3.3	2.8	3.5
4. How long in advance you need to make a reservation for your trip (e.g.,2 days vs. 2 hours in advance)	3.4	2.8	3.4
5. Pick-up/Drop-off location (e.g., your home or nearest intersection/landmark to your home)	3.9	3.3	3.6
6. Number of additional passengers	2.1	1.8	2.0
7. Cost for your companion	2.9	2.4	2.7
8. Service provider (e.g., private agency or social service agency)	2.8	2.2	2.1
9. Coverage area of service provider (such as within your county or between counties)	3.1	2.5	3.2

Note: 1: not at all important, 2: not very important, 3: somewhat important,

4: very important, 5: extremely important

Based on these survey results and the concerns to be discussed, the following six service attributes were included to make up the trade-off questions: 1) cost of trip, 2) travel time, 3) waiting time, 4) reservation requirement, 5) pick-up/drop-off location and 6) type of service providers.

Although the service provider was not highly rated on this survey, it was included as an important factor on the stated preference survey. This is because during the laboratory

experiments in the year-one study, the importance of the service provider for real-time ridesharing was highly important to subjects.

Even though the disabled and general subjects felt that the coverage area was more than somewhat important, the coverage area factor is not applicable in this case since the trips in the scenario upon which the trade-off questions were based are all the same. However, this feature should be kept in mind in the design of advanced paratransit. For example, in addition to trips within cities, it is important to know whether the disabled and elderly would like to go to specific places, such as the airport.

The scenario used for all questions in the second part of the survey was: Suppose the respondent needs to get from Fair Oaks to Downtown Sacramento to make a discretionary trip (e.g., shopping, recreational, or medical). On average it takes 30 minutes to make this trip by car. For trips such as this, Paratransit, Inc. a Sacramento-based paratransit company, currently provides a dial-a-ride and door-to-door service for disabled and elderly travelers in the Sacramento area. Users need to make an appointment from two days in advance up to 5:00 p.m. on the day before the trip. The fare is \$2.00. Waiting time is usually 30 minutes or less, but Paratransit, Inc. does not provide the estimated travel time.

In this study, the general subjects' opinions were also of interest to determine any differences between their opinions and those of the disabled and elderly groups. The general population is not usually eligible to use paratransit; however, for the purpose of this study, subjects were told that all people were eligible to use these two transportation services.

Comparison between Paratransit and Real-time Paratransit (i.e., Instant Paratransit)

The description of the paratransit and real-time paratransit services is described below. The real-time paratransit service was referred to as Instant Paratransit in the survey.

Paratransit would provide you with dial-a-ride, door-to-door service in a van. You would need to make a reservation with the service provider from two days before up to 5:00 p.m. the day before your ride. Drivers usually arrive to pick you up at your home within 30 minutes **c** your scheduled pick-up time.

Instant Paratransit would provide you a service similar to Paratransit, but would allow you to make a reservation two hours before your ride.

Both of the services provide subjects with dial-a-ride, door-to-door van service. The reservation requirement for these two services was fixed. That is, regular paratransit requires the subject to make a reservation with the service provider from two days in advance up to 5:00 p.m. the day before the trip; while Instant Paratransit would allow subjects to make a reservation two hours before the trip. The stated preference questions used in the survey consisted of several factors with different attribute levels. The factors were: travel cost, travel time, and waiting time, and there were two levels for each of the three factors. If a 2³ factorial experimental design were used, each subject would have needed to answer eight

questions. In order to reduce the number of questions, a 2^3 factorial experimental design in two blocks was used. The interaction among the three factors was used to generate the two blocks. Thus, each subject was only required to answer four of the eight questions (2^3 =8). See Montgomery (1991) for a detailed description of this design.

Besides these three factors, the reservation time requirement was taken into account as a service feature with a fixed attribute. That is, regular paratransit service does not provide same-day service, while Instant Paratransit does. Instant Paratransit requires only a two-hour advance reservation. Thus, subjects needed to consider four attributes in comparing the two paratransit services for each of the four questions to make a trip similar to the scenario.

Table 2 shows the actual attributes for the trip in the scenario given by Paratransit, Inc., except travel time, which was not available. It was assumed that the travel time for the trip from Fair Oaks to Downtown Sacramento by paratransit was between 45 minutes and one hour and 15 minutes. Table 3 shows two levels for each attribute factor of the Instant Paratransit service.

Table 2. Attributes for Paratransit Service

Attribute	Paratransit
1. Fare	\$2
2. Travel Time	45 min 1 hr. 15 min.
3. Wait Period	within 30 min.
4. Same Day Service	No

Table 3. Attributes for Instant Paratransit Service

Attribute	Instant Paratransit
1. Fare	-1) \$5
	+1) \$3
2. Travel Time	-1) 45 - 60 min.
	+1) 30 - 45 min.
3. Wait Period	-1) within 20 min.
	+1) within 10 min.
4. Same Dav Service	Yes

The 2^3 factorial experiment design in two blocks is illustrated in Tables 4 and 5. Table 4 shows the algebraic signs in a 2^3 factorial experiment design. Table 5 shows the algebraic signs in a 2^3 factorial experiment design in two blocks, the order of questions in each block being randomly determined. The symbols for the three factors are: 'a' denoting fare, 'b' denoting travel time, and 'c' denoting wait period. The trade-off questions were made based on the signs in Table 3, and the attributes for regular paratransit were the same as a base Paratransit, Inc. case shown in Table 2. **As** an example, the comparison table for the third question in block two is shown in Table **6.**

Table 4. Algebraic Signs in 2³ Factorial Experiment Design

Run	Factor					
Number	а	b	С	abc		
1	-1	-1	-1	-1		
2	1	-1	-1	1		
3	-1	1	-1	1		
4	1	1	-1	-1		
5	-1	-1	1	1		
6	1	-1	1	-1		
7	-1	1	1	-1		
8	1	1	1	1		

Note: 'a' denotes fare; 'b' denotes travel time; and 'c' denotes wait period.

Table 5. Algebraic Signs for 2³ Factorial Experiment Design in Two Blocks

Run		Fac	ctor		Block	Actual Run Order*
Number	а	b	С	abc		
1	-1	-1	-1	-1		1
4	1	1	-1	-1	1	3
6	1	-1	1	-1		4
7	-1	1	1	-1		2
2	1	-1	-1	1		3
3	-1	1	-1	1	2	1
5	-1	-1	1	1		2
8	1	1	1	1		4

Note: 1: 'a' denotes fare; 'b' denotes travel time; and 'c' denotes wait period.

2: *: question number

Table 6. Example of Attribute Comparison between Paratransit and Instant Paratransit

Attribute	Paratransit	Instant Paratransit
Fare	\$2	\$3
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 20 min.
Same Day Service	No	Yes

Each of the three subject groups was divided into two subgroups to answer one set of four questions, either those in block one or those in block two. Since car availability was a very important factor in the subjects' opinions of the advanced systems in the year-one survey, car availability was used to group subjects under each of the three groups (i.e., elderly,

disabled, and general). That is, the numbers of drivers, passengers, or the subjects who did not have access to a car were divided evenly between the two blocks. The questions for these two blocks are shown in Appendix B. The four questions for block one are shown in the questionnaire with code R01, and the four questions for block two are shown in the questionnaire with code R02.

Comparison Between Paratransit and Real-time Ridesharing (Catch-A-Ride)

The real-time ridesharing service, Catch-A-Ride, is described below as it was in the questionnaire. As with Instant Paratransit, users are only required to make a reservation two hours before their trip. While Instant Paratransit provides hired drivers to transport travelers in vans owned by the service company, with Catch-A-Ride, users share their ride with another registered individual in his or her vehicle.

Another transportation service, called Catch-A-Ride, also allows you to make a reservation 2 hours before your trip. You would be sharing your ride with another individual in his/her personal vehicle. To make a reservation, you would need to contact an agency responsible for generating ride matches. The agency, such as a social service agency, would then "match" you with a registered individual who regularly makes your trip.

Travel cost, travel time, waiting time, pick-up/drop-off location, service provider, and fare for companion were considered in the design of the trade-off questions for the choice between regular paratransit and Catch-A-Ride. The service attributes for paratransit are shown in Table 7 and are the same as those used in the comparison between regular paratransit and Instant Paratransit. There were two levels for each attribute of the Catch-A-Ride service as illustrated in Table 8. Catch-A-Ride provides same-day service, while regular paratransit does not. As with the previous comparison, the reservation time requirement was taken into account as a fixed factor.

Table 7. Attributes for Paratransit Service

Attribute	Paratransit
1. Fare	\$2
2. Travel Time	45 min 1 hr. 15 min.
3. Wait Period	within 30 min.
4. Pick-up/Drop-off point	Your home/destination
5. Service Provider	Social Service Agency
6. Fare for Companion	\$2
7. Same Day Service	No

Table 8. Attributes for Catch-A-Ride Service

Attribute	Catch-A-Ride				
1. Fare	-1) \$2.00				
	+1) \$1.50				
2. Travel Time	-1) 45 - 60 min.				
	+1) 30 - 45 min.				
3. Wait Period	-1) within 20 min.				
	+1) within 10 min.				
4. Pick-up/Drop-	-1) Nearest bus stop to your home/destination				
off point	+1) Your home/destination				
5. Service	-1) Private Agency				
Provider	+1) Social Service Agency				
6. Fare for	-1) \$1.00				
Companion	+1) \$0.50				
7. Same Day	Yes				
Service	103				

Since there were numerous factors considered in this trade-off question design, a 2^{6-3} fractional factorial in a two-block design was used to examine all main factors. See Montgomery (1991) for a detailed description of this design. Table 9 shows the algebraic signs in a 2^{6-3} fractional factorial experiment design, and Table 10 shows the algebraic signs in a 2^{6-3} fractional factorial experiment design in two blocks. The order of questions in each block was randomly determined. The symbols for the six factors are: 'a' denoting fare, 'b' denoting travel time, 'c' denoting wait period, 'd' denoting pick-up/drop-off location, 'e' denoting service provider, and 'f denoting fare for companion.

Table 9. Algebraic Signs in 2⁶⁻³ Fractional Factorial Design

Run		Factor						
Number	а	b	С	d=ab	e=ac	f=bc	cd	
1	-1	-1	-1	1	1	1	-1	
2	1	-1	-1	-1	-1	1	1	
3	-1	1	-1	-1	1	-1	1	
4	1	1	-1	1	-1	-1	-1	
5	-1	-1	1	1	-1	-1	1	
6	1	-1	1	-1	1	-1	-1	
7	-1	1	1	-1	-1	1	-1	
8	1	1	1	1	1	1	1	

Note: 'a': fare, 'b': travel time, 'c': wait period, 'd': pick-up/drop-off location 'e': service provider, 'f: fare for companion.

Table 10. Algebraic Signs for 2⁶⁻³ Fractional Factorial Design in Two Blocks

Run				Facto	Block	Actual Run Order [*]			
Number	а	b	С	d=ab	e=ac	f=bc	cd		
1	-1	-1	-1	1	1	1	-1		1
4	1	1 -	1	1	-1	-1	-1_	1	4
6	1	-1	1	-1	1_	-1	-1		3
7	-1	1	1	-1	-1_	1	-1		2
2	1	-1	-1	-1	-1	1	1		4
3	-1	1	-1	-1	1	-1	1	2	2
5	-1	-1	1	1	-I	-1	1		1
8	1	1	1	1	1	1	1		3

Note: 1: 'a': fare, 'b': travel time, 'c': wait period, 'd': pick-up/drop-off location 'e': service provider, 'f fare for companion.

2: *: question number

The trade-off questions were formed based on the signs in Table 10, and the attributes for regular paratransit were the same as the base Paratransit, Inc. case. As an example, the comparison table for the first question in block one is shown in Table 11. The questions for these two blocks are shown in Appendix B. The four questions for block one are shown in the questionnaire with code R01, and the four questions for Block Two are shown in the questionnaire with code R02.

Table 11. An Example of Attribute Comparison between Paratransit and Catch-A-Ride Services

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Attribute	Paratransit	Catch-A-Ride
Fare	\$2.00	\$2.00
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 10 min.
Pick-up/Drop-off point	Your home/destination	Your home/destination
Service Provider	Social Service Agency	Private Agency
Fare for Companion	\$2.00	\$1.00
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, you would share your ride with another registered individual in his/her personal vehicle.

4.2 Survey Method

There were several skip patterns in the questionnaire, which required subjects to skip certain questions based on their answers to others. If a mail-back survey were used in this situation, subjects may have difficulty following the skip patterns and therefore incorrectly complete the questionnaire. Furthermore, to avoid the effect of question order, the order of the attribute questions needed to be randomly determined. Thus, the Computer Assisted Telephone Interviewing (CATI) method was a better administration tool than a mail-back survey. Furthermore, another advantage of CATI is the interviewer's availability to explain any question a subject may have during administration of the survey.

Both CATI and a mail-back survey were considered as methods for implementing the second part of the survey. However, CATI was considered to be unsuitable since the attributes could not be easily described over the telephone. A mail-back survey was also considered inappropriate since response rates are generally low and it takes time to receive responses. Therefore, the second part of the survey was conducted via a mail-out-and-call-in survey method. That is, while completing the first part of the survey over the phone, an interviewer asked the subject his or her home address. The subject was given the option of a regular or large print mail-out questionnaire. The second part of the survey was then mailed out and an interviewer called back a few days later. In addition, a toll-free number was shown on the cover letter. Subjects were told they could call the number at any time to complete the survey. An incentive of \$3 was mailed along with the questionnaire as a way of thanking respondents for their participation in the survey. It was anticipated that with the incentive, toll-free number, and calls made by interviewers, the response rate for the second part of the survey would be higher than that of a general mail-back survey. Additionally, ten pretest surveys were conducted to ensure the clarity of the questions and the ability of the CATI system to produce appropriate data.

4.3 Survey Administration

In the year-one survey, the subjects who were over age **64** and also disabled were grouped with the elderly group. However, mobility impairment was found to be a significant factor in the subjects' opinions of the advanced systems. Wheelchair users especially had a different attitude toward the advanced systems. Because mobility rather than age is a significant factor, in the year-two survey, the subjects who used wheelchairs and were over age **64** were grouped with the disabled group rather than the elderly group. The elderly and general subjects who did not use wheelchairs, but needed personal assistance and/or walking aids, stayed in the same groups. This is because it was assumed that the disabled subjects obtained through an agency possibly had more serious disabilities than the general subjects who needed mobility aids. (There was no question in the survey to determine level of mobility impairment). The disabled subjects were recruited via service agencies, while general group subjects were obtained through random-digit dialing. On the other hand, as persons age, their mobility problems may become more serious. Thus, the elderly subjects who did not use a wheelchair, but needed mobility aids, may have more serious problems than those in the general group.

Strategic Consulting and Research (SCR), which conducted the year-one survey, was instructed to implement the year-two survey by using a phone survey (i.e., CATI) for the first part of survey, and using a mail-out-and-call-in survey for the second part of survey. SCR administrated the survey between April and June of 1997. The target population was comprised of three groups: elderly persons aged 65 or over; disabled persons with mobility, hearing, and/or speaking impairments; and persons who were between the ages of 18 and 64 and who did not use a wheelchair or have hearing/speaking impairments. The phone numbers for the survey were randomly selected in the Sacramento area. Since it is difficult to recruit elderly and disabled subjects, beside the method of random digit dialing, the 260 elderly subjects for the year-one survey were called again. The service agencies which assisted with the year-one survey were again contacted to recruit disabled subjects. In addition, Paratransit, Inc. drivers distributed fliers asking whether passengers would like to participate in the survey (Appendix *C*). A toll-free number was provided and shown on the flier to allow potential subjects to call regarding the survey. The \$3 incentive was also mentioned on the flier.

During the survey period, a minimum of five call attempts was made to each respondent. If a respondent was unable to answer the survey, SCR offered the respondent the option of a callback at a more convenient time. SCR also gave respondents a toll-free phone number which they could call at their convenience.

The first part of the survey was completed by 70 disabled subjects, 150 elderly subjects, and 150 general subjects. The second part of the survey was completed by **55** disabled (79%), 119 elderly (79%), and 92 general (**61%**) subjects in 14 days (from June 16 to June *30*). The response rates were high, which indicates that the mail-back-and-call-in survey method was more useful than a mail-back survey, while the incentive may also have been a factor in the high response rates.

5. SURVEY RESULTS

5.1 Car Availability and Mobility Impairments

Car availability (as a driver or passenger) and/or mobility impairments could affect subjects' trip-making patterns and mode choice for different trip purposes. Therefore, the data for these two factors were explored before investigating subjects' current travel patterns.

Table 12 shows that the majority of the subjects in each group drive a car. A higher percentage of the disabled subjects, especially females, are passengers in cars than those in the other two groups. Similarly, more elderly females ride as passengers in cars than elderly males; more elderly males drive than elderly females. Among the groups classified by gender and car availability, only the disabled females fall below 50 percent for car availability as a driver (45%). Thirty-nine (39) percent of the disabled females have cars available as a passenger, while 16 percent of the disabled females do not have access to a car at all. From these results, it can be inferred that females, both disabled and elderly, are more dependent than males on other people or other modes for their mobility.

There was a contradiction in the results of the year-one survey and the year-two survey. In the year-two survey, the majority of the disabled subjects drove, while in the year-one survey the majority of the disabled subjects had cars available only as passengers (Table 13). A possible reason for this difference could be the range and/or severity of mobility impairments of the disabled subjects in the two surveys. There were more wheelchair users (77%) in the year-two survey than in the year-one survey (27%). Wheelchair users may prefer driving to taking public transit or paratransit. In addition, some of the subjects in the year-one survey also had slight mental disabilities, which may keep them from driving. Mentally disabled people were excluded in the year-two study through screening by interviewers.

 Table 12. Car Availability by Gender and Group Type

Group		Male			Female	
Туре	Driver	Passenger	Neither	Driver	Passenger	Neither
Disabled	19 (73%)	4 (15%)	3 (12%)	20 (45%)	17 (39%)	7 (16%)
Elderly	69 (91%)	5 (7%)	2 (3%)	58 (78%)	13 (18%)	3 (4%)
General	91 (96%)	0 (0%)	4 (4%)	54 (98%)	0 (0%)	1 (2%)

Table 13. Car Availability by Gender and Group Type (Year-One Survey)

Group	Male				Female		
Туре	Driver	Passenger	Neither	Driver	Passenger	Neither	
Disabled	8 (14%)	29 (52%)	19 (34%)	7 (11%)	36 (58%)	19 (31%)	
Elderly	117 (94%)	4 (3%)	3 (2%)	110 (82%)	14 (10%)	3 (2%)	

Table 14 shows the aid types used by the three groups. Seventy-seven (77) percent of the disabled subjects used a wheelchair. There were more subjects in the disabled group needing walking aids and/or personal assistance than in the elderly and general groups. Only very few subjects used walking aids and/or needed personal assistance in the general group.

Table 14. Aid Use For Mobility Impairment

Aid Type	Group Types				
	Disabled	Elderly	General		
Wheelchair	54 (77%)	0 (0%)	0 (0%)		
Walking aids	47 (67%)	20 (13%)	5 (3%)		
Personal assistance to get in/out of a vehicle	24 (34%)	10(7%)	0 (0%)		
Personal assistant to travel by transit	25 (36%)	4 (3%)	1 (1%)		

Table 15 shows car availability classified by age for wheelchair users. It is evident that car availability for both old and young wheelchair users is similar. For the subjects who do not use wheelchairs but need personal assistance and/or walking aids, a higher percentage of the disabled subjects (81%) drove than the elderly subjects (52%) as shown in Table 16. There were only six subjects who needed mobility aids in the general group, and five of them drove. These results may not be totally related to their level of mobility impairment; however, it reveals the difference of car availability between the old and young subjects who did not use wheelchairs but needed personal assistance and/or walking aids. Car availability was and could still be a factor in subjects' preference of transportation services. Thus, it seems reasonable to group the elderly wheelchair users into to the disabled group, and keep the

subjects who did not use a wheelchair but needed personal assistance and/or walking aids in the original groups.

Table 15. Car Availability Classified by Age for Wheelchair Users

Age	Car Availability					
	Driver	No				
Old (>=60)	9 (47%)	7 (37%)	3 (16%)			
Young (<60)	16 (47%)	11 (32%)	7 (21%)			

Table 16. Car Availability for Subjects Requiring Personal Assistance/Walking Aids by Group Type

Group	Car Availability					
Туре	Driver	Passenger	No			
Disabled	13 (81%)	3 (19%)	-			
Elderly	14 (52%)	9 (33%)	4 (15%)			
General	5 (83%)	-	1(17%)			

5.2 Trip Frequency and Mode Use Classified by Trip Purpose

Table 17 shows the mean numbers of trips made by subjects for different trip purposes in the week preceding the survey. The trip purposes were classified as worldschool, recreational (including shopping, recreational, and errands), and medical trips. The results illustrate that the general group made more worldschool trips than both the disabled and elderly groups. This is because there were more subjects in the general group who were employed full-time than in either the disabled or elderly group. The general group also made more recreational trips than the disabled and elderly groups, while the disabled group made the most medical trips. Compared with the elderly group, the disabled subjects made more medical trips and made fewer recreational trips. It appears from these results that the decreased mobility of the disabled and/or their dependence on others for trip making may be negatively affecting their quality of life.

These results for worldschool and recreational trips made by the disabled and elderly groups are similar to the results in the year-one survey shown in Table 18. The disabled and elderly groups made about the same number of medical trips. This may be because there was a higher percentage of wheelchair subjects (77%) in the year-two survey than in the year-one

survey (27%); as they age, wheelchair users may need more medical care than non-wheelchair users.

Table 17. Mean Number of Trips Per Week by Trip Purpose and Group Type

Group	Trip Purpose								
Туре	Work/School	N	Recreational	N	Medical	N			
Disabled	3.5	10	2.7	70	0.9	70			
Elderly	3.1	14	4.4	150	0.4	150			
General	5.1	122	5.8	150	0.5	150			

Table 18. Mean Number of Trips Per Week by Trip Purpose and Group Type (Year-one Survey)

Group	Trip Purpose						
Туре	Work/School	Shop	Recreation	Errands	Medical		
Disabled	4.7	1.1	1.7	1.1	0.4		
Elderly	2.3	1.8	1.9	2.1	0.5		

Tables 19-21 show transportation mode usage classified by trip purpose. As expected from previous findings, (Table 12), automobiles are the major mode for all trip purposes for the three groups. However, the percentages of the general group are higher than those of the elderly group, which in turn are much higher than those of the disabled group for all trip purposes. For the disabled and elderly groups, the second most frequently used mode for making recreational and medical trips is to ride in a car as a passenger. Thus, more of the disabled and elderly subjects are dependent on other people for recreational and medical trips than the general subjects. The percentages using paratransit are less than 10% for the disabled and general groups, particularly for the elderly group, possibly indicating that there is some deficiency with paratransit services, such as lack of same-day service or lack of information about the service. There may be psychological and cultural factors as well contributing to the low reported use of paratransit.

Table 19. Mode Usage by Group Type for Work/School Trips

Group		Transportation Mode					Total
Туре	Driver	Passenger	Paratransit	Transit	Walk	Other	Number
Disabled	7 (70%)	1 (10%)	0 (0%)	2 (20%)	0 (0%)	0 (0%)	10
Elderly	13 (93%)	0 (0%)	0 (0%)	1 (7%)	0 (0%)	0 (0%)	14
General	109 (89%)	2 (2%)	0 (0%)	3 (3%)	5 (4%)	3 (2%)	122

Table 20. Mode Usage by Group Type for Recreational Trips

Group		Transportation Mode					
Туре	Driver	Passenger	Paratransit	Transit	Walk	Other	Number
Disabled	36 (51%)	21 (30%)	6 (9%)	2 (3%)	2 (3%)	3 (4%)	70
Elderly	125 (83 %)	21 (14%)	1 (1%)	1 (1%)	2 (1%)	0 (0%)	150
General	136 (91%)	5 (3%)	0 (0%)	0 (0%)	8 (5%)	1 (1%)	150

Table 21. Mode Usage by Group Type for Medical Trips

Group		Transportatio Mode					
Туре	Driver	Passenger	Paratransit	Transit	Walk	Other	Number
Disabled	36 (51%)	21 (30%)	6 (9%)	4 (6%)	0 (0%)	3 (4%)	70
Elderly	120 (80%)	25 (1 7 %)	1 (1%)	3 (2%)	0 (0%)	1 (1%)	150
General	131 (87%)	6 (4%)	0 (0%)	0 (0%)	6 (4%)	7 (5%)	150

5.3 Use of Public Transportation

Tables 22 to 24 show the subjects' use of transit, taxis, and paratransit. Not many subjects reported having taken a public transit bus or light rail in the previous month (only 13% of the disabled, 9% of the elderly, and 15% of the general subjects). There were similar findings for taxi usage as only 6% of the subjects in each of the groups took a taxi in the previous month. **As** for paratransit service, few disabled subjects reported using it in the previous month (10%), while only one out of 150 elderly subjects (1%) used it.

A higher percentage of the disabled subjects (74%) know about paratransit than elderly subjects (67%) as illustrated in Table 25. It is possible that fewer elderly use paratransit because they do not know about this service, or they still prefer driving to using paratransit. However, their use of paratransit (compared to the awareness of this service) is considerably low. Thus, the lack of awareness of paratransit cannot be criticized for the infrequent use of the service.

Table 22.	Transit	Usage t	oy Grou	p Type
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Last Time Transit Taken	Group Type					
	Disabled	Elderly	General			
Previous month	9	14	23			
1 to 6 months	2	12	26			
7 months to one year ago	5	7	16			
more than one year ago	37	80	81			
Never	17	37	4			
Total number of subjects	70	150	150			

Table 23. Taxi Usage by Group Type

Last Time Taxi Taken	Group Type			
	Disabled	Elderly	General	
Previous month	4	9	9	
1 to 6 months	2	5	27	
7 months to one year ago	5	7	15	
more than one year ago	40	70	77	
Never	19	59	22	
Total number of subjects	70	150	150	

Table 24. Paratransit Usage by Group Type

Last Time	Group Type		
Paratransit Used	Disabled	Elderly	
Previous month	7	1	
1 to 6 months	4	1	
7 months to one year ago	2	0	
more than one year ago	3	3	
Never	54	145	
Total number of subjects	70	150	

Table 25. Awareness of Paratransit by Group Type

Awareness of	Group Type		
Paratransit	Disabled	Elderly	General
Yes	52	100	114
	(74%)	(67%)	(76%)
No	18	50	36
	(26%)	(33%)	(24%)

5.4. Suggestions and Concerns About Transit and Paratransit Services

In the second part of the survey, beside the trade-off questions for selecting the transportation service between regular paratransit and Instant Paratransit or Catch-A-Ride, the subjects may tell the interviewer their suggestions and concerns about the transit and paratransit services. Many of the 107 subjects who had given their suggestions and/or concerns had a positive attitude toward those paratransit services, especially the Instant Paratransit service (i.e., the real-time paratransit providing same-day service). Some of them mentioned that they were concerned about cost, waiting time and on-time service.

Regarding the two advanced services, some of the subjects were concerned about the cost for Instant Paratransit. The most popular concerns mentioned about the Catch-A-Ride service were safety, insurance and liability, since they would be required to share their ride with a registered individual in his/her vehicle. This concern was also raised by some subjects in the two focus groups in the year-one study. Due to this concern, in the year-two survey, the

alternative of pick-up locations was considered to explore if non-home pick-up would help. However, the survey results show that the subjects prefer to be picked-up at home rather than at an intersection/landmark. The main reasons and concerns regarding pick-up location mentioned in the survey included: convenience for disabled and very old people; weather (i.e., too hot or raining) and safety while waiting outside. Thus, non-home pick-up could not relieve subjects' safety concerns about real-time ridesharing service.

Many of them mentioned that they were concerned about the coverage area, especially the places where they go for medical trips, and the airport. Some subjects would like to know if the service vehicle is equipped with a lift for wheelchair users.

6. INFORMATION SYSTEM PREFERENCES

6.1. Importance of Transportation Information System Attributes

Subjects were asked to rate each of nine information attributes shown in Table 26. Each was rated according to the importance as perceived by the subject: *not at all important, not very important, somewhat important, very important* and *extremely important*. The survey results showed that the three groups thought all types of information were somewhat or more than somewhat important, with the exception of the wheelchair lift information, which the elderly and general groups did not feel was very important. This is not surprising, however, as the information is not important to them because it is not relevant to them. Since the disabled comprise only a small part of the population, there is a possibility that the need for wheelchair lift information may be ignored if the information system is designed for general use. Thus, while designing an information system, a designer should always consider to provide wheelchair information. Similarly, seat availability information was very important for disabled travelers. Thus, a reservation service could benefit the disabled population. In general, the three groups thought information about the stops nearest their location, transfer information, and bus schedules were relatively important.

Table 26. Importance of Transit Information by Group Type

Information Attribute	Group Type		
	Disabled	Elderly	General
1. Bus route map	3.8	3.4	3.8
2. Bus schedule table	<u>4.0</u>	<u>3.5</u>	<u>4.0</u>
3. Transfer information	<u>4.1</u>	<u>3.7</u>	<u>3.9</u>
4. Fare information	<u>3.6</u>	3.3	<u>3.7</u>
5. Stops nearest your location	<u>4.3</u>	<u>3.7</u>	<u>4.0</u>
6. Wheelchair lift	<u>3.9</u>	2.6	2.3
7. Seat availability	4.0	<u>3.3</u>	<u>3.2</u>
8. Actual arrival time of next bus	<u>3.9</u>	<u>3.4</u>	<u>3.9</u>
9. Shelter condition	<u>3.9</u>	<u>3.5</u>	<u>3.6</u>

Note: 1: not at all important, 2: not very important, 3: somewhat important, 4: very important, 5: extremely important

In order to determine how likely these information attributes would be to affect the subjects' transit use, the following question was asked after the attribute questions:

How many, out **d** 10 doctor appointments/medical trips, would you make by transit if the information items you rated very important or extremely important were available?

The results are shown in Figure 1. It can be seen that even if all very or extremely important information were available, 201 subjects (55 percent) said that they would not use transit to make any of their next 10 medical trips. However, 45 percent of the subjects reported that with the important information available, they would make at least one of their next 10 medical trips by transit. Eighteen (18) percent of the subjects reported that they would make all of their next 10 transit trips by transit if the important information were available.

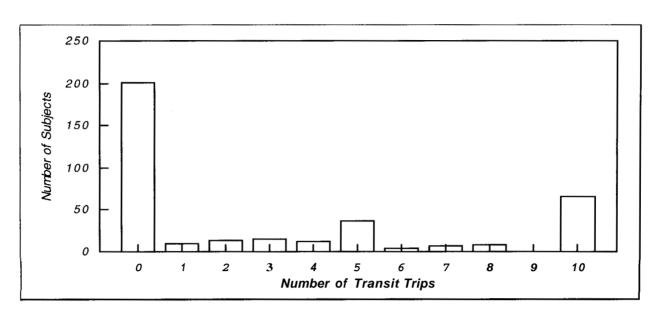


Figure 1. Subject's Reported Use of Transit if Important Information were Available

The subjects' transit use classified by group type if important information were available is shown in Table 27. Although between 40 percent and 63 percent of the subjects in the groups reported they would not use transit to make any of their next 10 doctor appointments, 23 percent of the disabled, 17 percent of the elderly and 15 percent of the general subjects reported that they would make all of the 10 trips by transit. These percentages for the disabled and elderly subjects are higher than the frequency with which they currently use transit (i.e., at the time of the survey, only 13 percent of the disabled, 9 percent of the elderly and 15 percent of the general subjects had taken transit in the previous month). Thus, the provision of the needed transit information can increase the mobility of the disabled and elderly subjects in their use of transit. The median value of the number of the transit trips for the disabled group (i.e., 3) is higher than that of the elderly and general groups (i.e., 0 for both groups). It is evident that the disabled subjects especially would consider the use of transit if the important information were provided. The disabled subjects considered all the nine transit information types (shown in Table 26) to be more than somewhat important, and the following information types were considered very important: bus schedule table, transfer information, nearest stop location, and seat availability. Transfer information should take into account whether the connecting routes are equipped with a wheelchair lift. That is, the transfer information should consider not only the buses with the shortest connecting time but also wheelchair accessibility for wheelchair users. In addition, seat availability could be provided through different ways, such as a reservation service and/or reserved seats on a bus.

Table 27. Subjects' Use of Transit Classified by Group Type if Important
Information Were Available

Number of Transit	Group Type			
Trips made for 10 Doctor Appointments	Disabled	Elderly	General	
Sample Size	70	150	150	
0	28 (40%)	94 (63%)	79 (53%)	
1 to 6	19 (27%)	27 (18%)	40 (27%)	
6 to 9	7 (10%)	3 (2%)	8 (5%)	
10	16 (23%)	26 (17%)	23 (15%)	
Mean	3.9	3.8	2.9	
Median	3	0	0	
Standard Deviation	3.9	2.5	3.7	

Subjects were also asked to consider the eight information system attributes shown in Table 28, and to indicate whether each was important when planning a trip. Subjects rated these attributes by using the terms not at all important, not very important, somewhat important, very important and extremely important. The survey results showed that the subjects' opinions about these system attributes were varied. In general, disabled subjects felt that the attributes were more important than the elderly and general subjects. The three most important attributes for the disabled subjects were: paratransit information, advanced paratransit information, and reservation-confirmation capability for paratransit service. It is evident that the information about paratransit and advanced paratransit services was considered more important by the disabled subjects than the elderly and general subjects. The three most important attributes for the elderly subjects were: bus/rail information, cost of using the information system, and reservation-confirmation capability for paratransit. The three most important attributes for the general subjects were: cost of using the information system, bus/rail information, and automated 24-hour reservation capability for paratransit. It is interesting to note that the general subjects considered the cost of using the system to be more important than either the elderly or disabled subjects did. In fact, the general groups rated the cost of using the information as the most important among the eight attributes. This could be because of the relative 'freedom' of the general subjects and their current level of mobility. In other words, for the general subjects, any inconvenience or cost is a deterrent from using alternative transportation services/systems.

Table 28. Importance of Information System Attributes by Group Type

Information System Attribute	Group Type		
	Disabled	Elderly	General
1. Cost of using the information system	3.5	3.0	<u>3.7</u>
2. Bus/rail information	<u>3.4</u>	<u>3.1</u>	<u>3.4</u>
3. Paratransit information	<u>3.6</u>	2.9	2.8
4. Other paratransit/ridesharing information (e.g., Instant Paratransit and Catch-A-Ride services)	<u>3.6</u>	2.9	2.7
5. Information about community activities	2.9	2.6	2.8
6. Multiple trip-planning capability	<u>3.0</u>	2.8	3.0
7. Reservation-confirmation capability for paratransit	<u>3.6</u>	3.0	3.2
8. Automated 24-hour reservation capability.	3.4	2.8	3.3

Note: 1: not at all important, 2: not very important, 3: somewhat important,

4: very important, *5:* extremely important

6.2 Preferences among Five Information Systems

Besides rating the importance of the attribute of an information system, subjects were also asked to rank the five systems. The information systems rated were computer, television, operator-assisted telephone, automated telephone, and personal information systems. The computer system was described as an interactive system, similar to an automatic teller machine, which allows users to obtain transportation information at home, work, school, or at the library through a computer. The television system is similar to the computer system. It allows users to interactively obtain information as requested through a television instead of a computer for the computer system. The operator-assisted telephone and automated telephone systems are two commonly used telephone systems. The personal information system was described as a small device that users can carry with them to obtain travel information any time and anywhere.

It would not be easy for subjects to remember and rank the five systems in a telephone survey. To overcome this problem, subjects were asked to select the first preferred information system among the five systems; then, they selected the first preferred information system among the four remaining systems; and finally, the first preferred information system among the three remaining systems was selected.

The rank value for the first preferred information system was given as one; the rank value for the second preferred information system was two; and the rank value for the third preferred information system was three. The rank value for the two remaining preferred information systems was four.

The rank values were averaged and the ranking results of the information systems are shown in Table 29. For the disabled subjects, the first choice was the operator-assisted telephone system (ranking mean = 1.9), and the second choice was the automated telephone system (ranking mean = 2.1). A t-test was used to examine if the ranking means of the automated and operator-assisted telephone systems were significantly different. The p-value of the t-test was 0.11, indicating that the two telephone systems were equally preferred by the disabled group (as indicated in the table by the asterisks). For the elderly subjects, the first choice was the operator-assisted telephone system (ranking mean = 1.8), and the second choice was the automated telephone system (ranking mean = 2.4). The p-value of the t-test for the elderly subjects was 0.00, indicating that the elderly subjects significantly preferred the operator-assisted telephone system to the automated telephone system. For the general subjects, these two telephone systems were equally preferred.

The three groups ranked the computer, television, and personal information systems differently. The disabled and elderly subjects ranked the television system as the third preferred system, while the general subjects ranked the computer system as the third preferred system. Not surprisingly, the elderly ranked the computer as the least preferred.

Table 29. Mean Values of Ranking Five Information Systems

Interface	Group Type						
Туре	Disa led Elderly		Disa led Elderly		Gen	eral	
	Ranking Mean	Ranking Order	Ranking Mean	Rankin g Order	Ranking Mean	Ranking Order	
Computer	3.4 (1.1)	4	3.6 (0.8)	5	2.7 (1.2)	3	
Television	3.1 (0.9)	3	2.9 (1.0)	3	3.2 (0.9)	5	
Automated Telephone	2.1 (1.0 j	1	2.4 (1.0)	2	2.5 (1.2)	1	
Operator-Assisted Telephone	1.9 (0.8)*	1	1.8 (1 .0)	1	2.5 (1.2)	1	
Personal Information Device	3.7 (0.9)	5	3.3 (1.1)	4	3.1 (1.2)	4	

Note: (): standard deviation; *: no significant difference at a).05 significant level.

In the year-one survey, the subjects were asked to select the most useful information system among on-board, kiosk, in-home and personal information systems. The results showed that the personal and in-home systems were considered the two most useful information systems. In order not to restrict the "in-home" information system to home use only, a computer system was considered instead of the in-home information system in the

year-two survey. In spite of the accessibility of the computer and personal information systems, the two telephone systems were preferred over the computer and personal information systems. The traditional means for obtaining information is still preferred (i.e., telephone). One of the reasons for this preference may be the convenience, accessibility, and familiarity of the telephone. Users can easily find a telephone to use almost anywhere, and they know how to operate it without any problem. In addition, they would not have to purchase any new equipment (e.g. computer, TV) to use the systems, as most people already have a telephone in their home.

Using network systems, such as the World Wide Web via a computer and Web TV via a television, to obtain information is becoming more popular than ever. **As** these systems become more popular among the elderly population, the computer and television systems may be more preferred.

As shown in Tables 26 and 28, the following information system attributes were considered important by the subjects: schedule tables, transfer information and stops nearest their location, reservation-confirmationcapability, and 24-hour reservation capability. Computer and television systems are capable of showing information through tables and maps, and easily providing reservation-confirmationfunctions, and users can access the systems at any time. Much of this information cannot be easily delivered over the phone.

6.3 Modeling Results for the First Choice among Information Systems

Log-linear models were employed to determine the factors affecting subjects' most preferred system for obtaining transportation information. The explanatory variables considered included subjects' group, gender, age, education level, household income level, and employment/schooling status. Since familiarity with computers could be an influential factor in the preference of information systems, two additional factors were taken into account: whether the subject was a computer user and had used the Internet, and whether the subject had a computer at home.

If subjects reported having any trouble seeing faces from more than 10 feet, they were excluded from this study. However, although people with major visual impairments were excluded from this study, those with minor visual impairments may have been included, and slight visual problems could affect information system preference. A subject's request for a large print questionnaire was interpreted as an indication of a slight visual problem. Subjects' mobility impairments were also taken into account. All variables, along with the number of subjects in each variable category, are shown in Table 30.

A variable pre-selection procedure was used to remove insignificant variables. Chi-square and Cochran-Mantel-Haenszel tests were used to remove insignificant factors with the consideration of interactions; then, log-linear model techniques were employed to remove indirect factors. Finally, log-linear models were used to find the best model to represent the relationship between the influential factors including interactions.

Table 30. Variables for Subjects' Demographics and Computer Use

Notation	Variable	Category or Range	N
	Description		
gp	Group type	d: Disabled	70
		e: Elderly	150
		g: General	150
gender	Gender	1: Male	197
		0: Female	173
age	Age	1: Young (age<=39)	61
		2: Middle aged (40= <age<=59)< td=""><td>114</td></age<=59)<>	114
		0: Old (age>=60)	194
edu	Education level	1: High (some college or more)	281
	Education level	0: Low (high school graduate or less)	89
income	Household's annual	1: High (income>=40,000)	134
	income level	2: Refused	65
		0: Low (income<40,000)	171
empsch	If the subject works	1: Yes	146
	and/or goes to	0: No	224
	school		
comphom	If the subject has a	1: Yes	164
е	computer at home	0: No	206
compint	If the subject is a	1: Yes	74
	computer user and	2: Computer user but never used the	117
	has used the	Internet	
	Internet	0: No	179
mobaid	Aids for mobility	1: Uses wheelchair	54
	impairment	2: Does not use wheelchair but needs	18
		personal assistance while getting	
		in/out of a vehicle	2.1
		3: Does not use wheelchair or require	31
		personal assistance, but uses	267
		walking aid	267
		0: No aid required	
lprint	If the subject needs	1: Yes	87
F .	a questionnaire	0: No	283
	with large print		

After the variable pre-selection procedure, the factors influencing the choice of the first preferred system (denoted by S) consisted of whether the subject was a computer user and had used the Internet (denoted by C), and whether the subject had a computer at home (denoted by H). Two log-linear models were obtained, one by a forward variable selection procedure and one by a backward variable selection procedure. The final model for these two procedures was the same and is referred to as Model A: [SC][SH][HC]. That is, the choice of

the first preferred system is affected by whether the subject was a computer user and had used the Internet, and whether the subject had a computer at home. The standardized residuals for the model are shown in Appendix E. All standardized residuals were normally distributed and less than 1.0, indicating a good fit of the model.

Based on the model, the expected number of subjects selecting each of the information systems as their first choice was computed and is shown in Table 31. The corresponding percentages are shown in Table 32. Of the groups classified by computer/Internet use and having a computer at home, all groups preferred an operator-assisted telephone system over the other systems, except for the subjects who were computer users, had used the Internet, and also had a computer at home. Not surprisingly, they preferred a computer system. The second highest percentage for the preferred system for all subgroups was the automated telephone system.

The subjects who had not used a computer/the Internet preferred an operator-assisted telephone system (51% of the subjects who had a computer at home, and 55% of the subjects who did not). The subjects who used a computer/the Internet, but did not have a computer at home, preferred operator-assisted telephone (28%), automated telephone (27%), and personal information systems (26%) almost equally. Thus, previous computer experience had an effect on the preferred information system for those who had a computer at home.

Table 31. Expected Numbers for the First Choice among Five Information Systems

Have a	Use			Interf	асе Туре		
Computer at home	Computer & Internet	Computer	TV	Operator- Assisted Telephone		Personal Information	Total
	No	1.6	18.5	83.1	28.4	20.3	152
No	Comp*	1.6	5.6	13.6	8.5	5.8	35
	Yes	1.8	1.9	5.3	5.1	4.9	19
	No	1.4	1.5	13.9	7.6	2.7	27
Yes	Comp*	7.4	2.4	12.4	12.5	4.2	39
	Yes	33.2	3.1	18.7	28.9	14.1	98
То	otal	47	33	147	91	52	370

Note: * : Computer users but have never used the Internet

Table 32. Percentages of Expected Numbers for the First Choice among Five Information Systems

Have a	Use	Interface Type							
Computer at home	Computer & Internet	Computer	TV	Operator- Assisted Telephone	Automated Telephone	Personal Information	Total		
	No	1%	12%	55%	19%	13%	100%		
No	Comp*	5%	16%	39%	24%	17%	100%		
	Yes	9%	10%	28%	27%	26%	100%		
	No	5%	6%	51%	28%	10%	100%		
Yes	Comp*	19%	6%	32%	32%	11%	100%		
	Yes	34%	3%	19%	29%	14%	100%		

Note: *: Computer users but have never used the Internet

Table 33 shows computer usage for the three groups. The majority of the disabled subjects (54%) did not have a computer at home, and did not use a computer/the Internet. Consequently, this subgroup of disabled subjects preferred the operator-assisted telephone system. However, the second highest percentage of these subjects (19%) had a computer at home, were computer users, and had used the Internet. This subgroup of disabled subjects preferred the computer and automated telephone systems.

The majority of the elderly subjects (63%) did not have a computer at home, were not computer users, and had not used the Internet. This subgroup preferred the operator-assisted telephone system. This verifies the finding in Table 29 that elderly subjects significantly preferred the operator-assisted telephone system over the other four systems. The majority of the general subjects (46%) had a computer at home, were computer users, and had used the Internet. This subgroup preferred the computer system.

Table 33. Subjects' Computer Usage

Computer	Use	Group Type				
at home	Computer & (Internet	Disabled	Elderly	General		
	No	38 (54%)	94 (63%)	20 (13%)		
No	Comp	3 (4%)	11 (7%)	21 (14%)		
	Yes	5 (7%)	0 (0%)	14 (9%)		
	No	5 (7%)	17 (11%)	5 (3%)		
Yes	Comp	6 (9%)	12 (8%)	21 (14%)		
	Yes	13 (19%)	16 (11%)	69 (46%)		

Note: * : Computer users but have never used the Internet

7. ADVANCED PARATRANSIT SERVICES

7.1 Comparison Between Paratransit and Real-Time Paratransit

As described in the questionnaire design section, stated preference questions were used in the second part of survey to find significant factors in subjects' choice between paratransit and real-time paratransit (referred to as Instant Paratransit in the questionnaire) according to the set of service attributes given in each question. The real-time paratransit attributes were taken from the highest ranked attributes in the first part of the survey and consisted of fare, travel time, and wait period, and were compared with regular paratransit and its attributes. A 2³ factorial design in two blocks was used to design the questions. Subjects were asked to state whether they would choose regular paratransit, Instant Paratransit, or neither for each set of given attributes.

The selection results for the three groups are shown in Appendix F. The results illustrate that, in general, comparing current transportation modes, more subjects in the disabled and elderly groups selected either regular paratransit or Instant Paratransit than subjects in the general group. Out of 10 discretionary trips, the subjects in the disabled groups stated that they would make more trips by regular paratransit or Instant Paratransit than the subjects in the elderly and general groups.

Log-linear models were used to find the influential factors in mode choice. Besides the service attributes shown in Table 34, the trip-making related factors shown in Table 35 were considered. The same modeling process as used in system preference (see section 6) was used. That is, a variable pre-selection procedure was used first to remove insignificant factors. Then, log-linear models were used to investigate the relationship among the influential factors affecting the selection between the two paratransit services. After applying the variable pre-selection procedure, it was found that the selection between regular paratransit and Instant Paratransit (denoted by **S**) was affected by fare (denoted by F), car availability (denoted by C), group type (denoted by G), and mobility aids (denoted by M).

Table 34. Variables of Service Attributes for Real-Time Paratransit in Stated Preference Questionnaire

Notation	Variable Description	Category or Range
1. fare	Fare for Instant Paratransit	1:\$3
		0: \$5
2. ttime	Travel time for Instant	1: 30 - 45 min
	Paratransit	0: 45 - 60 min.
3. wtime	Waiting time for Instant	1: within 10 min.
	Paratransit	0: within 20 min.

Forward and backward selection procedures were used to yield the best model for each approach using BMDP-4F . The best models for both approaches are illustrated in Table 36, and the Pearson chi-square statistics of Model B and Model C indicate that both models fit the data very well. The following criteria were used to select the base model between these two models: adjusted R^2 values (higher values indicate a better fit) and Akaike information criterion (lower values indicate a better fit). The comparison results show that the best model is Model B: [SMG][SGC][SF][MC]. In addition, Model C is a nested model of Model B; therefore, ΔG^2 between these two models was used to examine whether Model B could be simplified to Model C. The ΔG^2 is equal to 9.22 with 5 degrees of freedom and the p-value is 0.00, which indicated that Model B can not be simplified to Model C. According to these results, Model B was chosen as the best model. That is, the selection among regular paratransit, real-time paratransit, or neither was affected by fare, the interaction between group types and car availability, and the interaction between mobility aid types and group types.

 Table 35. Variables for Subjects' Trip-Making Characteristics

Notation	Variable Description	Category or Range	N
1. carav	Car Availability	1: Car available as a driver 2: Car available as a passenger 0: No car available as a driver or passenger	31 1 39 20
2. transit	Transit use	1: Used transit in the last year 0: Have not used transit in the last year	114 256
3. taxi	Taxi use	1: Used taxi in the last year 0: Have not used transit in the last year	83 287
4. para	If the subject is aware of and has used paratransit in the last year	1: Know about and have used paratransit 2: Know about but have not used paratransit 0: Are not aware of paratransit	16 250 104
5. wstrip	If the subject made at least one work/school trip the week before the survey	1: Yes 0: No 2: Not an employee or student	142 4 224
6. wsmode	If the subject usually drives to go to work or school	1: Yes 0: No 2: Not an employee or student	129 17 224
7. rectrip	If the subject made at least one recreational/ errand trip the week before the survey	1: Yes 0: No	320 50
8. recmode	If the subject usually drives to go to a recreational trip or run errands	1: Yes 0: No	297 73
9. medtrip	If the subject made at least one medical trip the week before the survey	1: Yes 0: No	134 236
10. medmode	If the subject usually drives to go to medical appointments	1: Yes 0: No	287 83

Table 36. Model Selection for Selection between Paratransit and Real-Time Paratransit

Approach	Best Model	Adjusted R ²	Akaike	G^2	d.f.	Pearson χ² (P-value)
Forward	Model B:		-39.13	16.87	28	14.13
Selection	[SMG][SGC][SF][MC]					(0.99)
Backward	Model C:		-29.91	36.09	33	33.16
Selection	[SF][GC][SC][MC][SMG]	ı				(0.46)

Based on the best model, the expected values for mode choice are shown in Table 37. The standardized residuals for the best model (i.e., Model B) were shown in Appendix E. All standardized residuals were less than 1.2, indicating the model fit the data well.

The modeling results shown in Table 37 were then simplified according to the influential factors to easily determine the effects of the influential factors (i.e., main effect of fare, the interaction effect between group type and car availability, and the interaction effect between mobility aid type and group type shown in Tables 38, 39, and 40, respectively).

Table 37. Expected Numbers for Paratransit Selection Based On Model B

Fare	Car	Group	Mobility		Selection	3,33,1	Total
	Access	Type	Aid	Paratransit	Instant	Neither	
					Paratransit		
Low	Driver	Dis	Yes	17.7	40.1	10.8	68.6
(\$3)			No	0.0	0.0	0.0	0.0
		Eld	Yes	6.5	3.2	8.8	18.4
			No	47.5	75.3	53.9	176.7
		Gen	Yes	0.6	3.8	0.0	4.4
			No	17.5	88.6	73.9	180.0
	No	Dis	Yes	13.8	22.1	5.4	41.3
			No	0.0	0.0	0.0	0.0
		Eld	Yes	7.7	6.1	4.9	18.7
			No	4.5	11.4	2.4	18.3
		Gen	Yes	1.0	0.8	0.0	1.8
			No	2.2	1.5	0.0	3.7
High	Driver	Dis	Yes	27.3	28.9	11.2	67.4
(\$5)			No	0.0	0.0	0.0	0.0
		Eld	Yes	10.0	2.3	9.2	21.4
			No	73.1	54.2	56.2	183.5
		Gen	Yes	0.9	2.8	0.0	3.7
			No	26.9	63.8	77.1	167.8
	No	Dis	Yes	21.2	15.9	5.6	42.7
			No_	0.0	0.0	0.0	0.0
		Eld	Yes	11.9	4.4	5.1	21.4
			No	6.9	8.2	2.5	17.6
		Gen	Yes	1.5	0.6	0.0	2.1
			No	3.4	1.1	0.0	4.4

Table 38 shows that comparing Instant Paratransit (\$3 or \$5 fare) to regular paratransit (\$2 fare) when the fare for Instant Paratransit was low (48%), more subjects selected Instant Paratransit than when the fare was high (34%). In addition, when the fare for Instant Paratransit was high (\$5), the percentages for the two services were equal. It is evident that the same-day service provided by Instant Paratransit is desired, although the fare for the service is higher (\$3 or \$5) than that of regular paratransit service (\$2).

Table 38. Instant Paratransit Selection Influenced by Fare

Fare	Num	ber of Subjec	cts	Percentage			
	Paratransit	Instant	Neither	Paratransit	Neither		
	Paratransit		Paratransit Instant Paratransit				
Low (\$3)	119	253	160	22%	48%	30%	
High (\$5)	183	182	167	34%	34%	31%	

Table 39 shows that disabled drivers (51%) and non-drivers (45%) preferred Instant Paratransit most. In the elderly group, non-drivers have a more positive attitude toward both regular paratransit and Instant Paratransit than drivers. Instant Paratransit and regular paratransit were almost equally preferred by elderly non-drivers (about 40%) and drivers (34%). Thirty-two percent of elderly drivers preferred neither of the services. Most general subjects were drivers and preferred Instant Paratransit (45%). However, 42 percent of the general drivers selected neither of the services, and only 13 percent of the general drivers preferred regular paratransit.

Table 39. Instant Paratransit Selection Influenced by Car Availability and Group Type

Group	Car	Numi	Number of Subjects			Percentage			
Type	Availability	Paratransit	Instant	Neither	Paratransit	Instant	Neither		
	_		Paratransit			Paratransit			
Dis	Driver	45	69	22	33%	51%	16%		
	No	35	38	11	42%	45%	13%		
Eld	Driver	137	135	128	34%	34%	32%		
	No	31	30	15	41%	40%	20%		
Gen	Driver	46	159	151	13%	45%	42%		
	Nο	8	4	0	67%	33%	0%		

Table 40 illustrates that the disabled subjects preferred Instant Paratransit (49%), while those who needed mobility aids in the elderly group preferred regular paratransit (45%). The majority of the elderly subjects did not need mobility aids, and they preferred Instant Paratransit (38%). About one third of the elderly subjects reported 'neither' of the services. Most general subjects did not have mobility impairments, and they preferred Instant Paratransit (44%) to general paratransit (14%); however, 42 percent of the general subjects preferred 'neither' of the services.

Table 40. Instant Paratransit Selection Influenced by Group Type and Mobility Aid

Group	Mobility	Num	ber of Subjec	ts	Percentage			
Туре	Aid	Paratransit	Instant	Neither	Paratransit	Instant	Neither	
			Paratransit			Paratransit		
Disabled	Yes	80	107	33	36%	49%	15%	
	No	0	0	0	_	-	-	
Elderly	Yes	36	16	28	45%	20%	35%	
	No	132	149	115	33%	38%	29%	
General	Yes	4	8	0	33%	67%	0%	
	No	50	155	151	14%	44%	42%	

Table 41 shows the percentages of the expected frequencies greater than 10 (as shown in Table 37) classified by all influential factors. Apparently, in the disabled group, when the fare for Instant Paratransit was low (\$3), (which is higher than regular paratransit (\$2)), both drivers (58%) and non-drivers (54%) preferred Instant Paratransit. On the other hand, when the fare for Instant Paratransit was high (\$5), drivers preferred Instant Paratransit (43%), while non-drivers preferred regular paratransit (50%). The selection for 'neither' service was between 13 and 17 percent. It is evident that the disabled subjects liked Instant Paratransit and regular paratransit.

For the elderly group, when the fare for Instant Paratransit was low, the subjects with no mobility impairment liked Instant Paratransit (43 percent of the drivers and 62 percent of the non-drivers), while the subjects with mobility impairments liked regular paratransit (35 percent of the drivers and 41 percent of the non-drivers). The majority of the drivers who needed mobility aids did not like either of services (48%). When the fare for Instant Paratransit was high (\$5), all subgroups preferred regular paratransit except the subjects who were non-drivers and did not have mobility impairments, who liked Instant Paratransit (47%).

The majority of the general subjects were drivers and did not need mobility aids. When the fare for Instant Paratransit was low, they preferred Instant Paratransit (49%). When the fare for Instant Paratransit was high, they preferred neither of the services (46%).

From these results, it is evident that when the fare for Instant Paratransit was low, all the disabled subjects, and the majority of the elderly and general groups, (who were drivers and did not need mobility aids), preferred Instant Paratransit. When the fare for Instant Paratransit was high, disabled drivers (43%) and elderly non-drivers who did not need mobility aids (47%) still preferred Instant Paratransit. The table also shows that in the elderly group, higher percentages of non-drivers than drivers liked either regular paratransit or Instant Paratransit. That is, higher percentages of drivers than non-drivers selected neither of the services.

Table **42** shows income levels classified by group type. The disabled subjects had a lower income level than the elderly and general subjects did. However, disabled drivers still preferred Instant Paratransit when its fare (\$5) was 2.5 times higher than regular paratransit (\$2). It is evident that same-day service was especially preferred by disabled drivers.

 Table 41. Percentages of Expected Numbers for Mode Choice

Group	Fare	Car	Mobility	Sample	Selection		
Туре		Access	Aid	Size	Paratransit	Instant	Neither
						Paratransit	
Dis	Low	Driver	Yes	68.6	26%	58%	16%
	(\$3)		No	(0.0)	-	ı	-
		No	Yes	41.3	33%	54%	13%
			No	(0.0)	-	-	-
	High	Driver	Yes	67.4	41%	43%	17%
	(\$5)		No	(0.0)	-	1	-
		No	Yes	42.7	<i>50%</i>	37%	13%
			No	(0.0)		-	-
Eld	Low	Driver	Yes	18.4	35%	17%	48%
	(\$3)	[No	176.7	27%	43%	31%
		No	Yes	18.7	41%	33%	26%
			No	18.3	25%	62%	13%
	High	Driver	Yes	21.4	47%	11%	43%
	(\$5)		No	183.5	40%	30%	31%
		No	Yes	21.4	56%	21%	24%
			No	17.6	39%	47%	14%
Gen	Low	Driver	Yes	(4.4)	_	_	_
	(\$3)		No	180.0	10%	49%	41%
		No	Yes	(1.8)	-	-	_
			No	(3.7)	-	_	_
[High	Driver	Yes	(3.7)			-
	(\$5)		No	167.8	16%	38%	46%
		No	Yes	2.1	_	-	_
			No	4.4	-	_	-

Note: (): number of samples ≤ 10

Table 42. Subjects' Income Level by Group Type

Income Level	Group Type				
	Disabled	Elderly	General		
≤ \$19,999	25 (36%)	28 (19%)	12 (8%)		
\$20,000 - \$39,999	20 (29%)	52 (35%)	34 (23%)		
\$40,000 - \$59,999	6 (9%)	27 (18%)	32 (21%)		
\$60,000 - \$79,999	4 (6%)	3 (2%)	19 (13%)		
≥ \$80,000	3 (4%)	5 (3%)	35 (23%)		
refused	12 (17%)	35 (23%)	18 (12%)		

7.2 Comparison Between Paratransit and Real-Time Ridesharing

Six paratransit service attributes were considered in the comparison of regular paratransit and real-time ridesharing (referred to as Catch-A-Ride) as shown in Table 43. Again, a variable pre-selection procedure was used prior to applying log-linear models to find the relationships between the influential factors. Based on the variable selection procedure, it was found that the selection between regular paratransit and Catch-A-Ride (denoted by $\bf S$) was affected by pick-up/drop-off location (denoted by $\bf P$), group type (denoted by $\bf G$) and car availability (denoted by $\bf C$).

Table 43. Variables of Service Attributes for Real-Time Ride-sharing in Stated Preference Questionnaire

Notation	Variable Description	Category or Range
1. fare	Fare for Catch-A-Ride	1:\$1.50
		0: \$2.00
2. ttime	Travel time for Catch-A-	1: 30 - 45 min
	Ride	0: 45 - 60 min.
3. wtime	Waiting time for Catch-A-	1: within 10 min.
	Ride	0: within 20 min.
4. pickdrop	Pick-up/Drop-off location	1: home
r · ·		0: nearest intersectiodlandmark
5. provider	Service provider	1: Social service agency
1	1	0: Private agency
6. compfare	Cost for companion for	1: \$1.00
	Catch-A-Ride	0: \$0.50

Both forward and backward procedures were used to find the best model for each procedure, and both models (i.e., Model C and Model D) fit the data well at a 0.05 significant level based on Pearson chi-square statistics. According to the adjusted R^2 values, Akaike information criterion, and ΔG^2 shown in Table 44, Model D was selected as the best model. That is, the choice among regular paratransit, real-time ridesharing, or neither was affected by pick-up location and the interaction between group type and car availability. Based on the best model, the expected values were calculated and are shown in Table 45. The standardized residuals for the best model (i.e., Model D) were less than 1.0, indicating that the model fit the data well (Appendix E).

Table 44. Model Selection for Choice between Paratransit and Real-Time Ridesharing

Approach	Best Model	Adjusted R ²	Akaike	G^2	d.f.	Pearson χ^2 (P-value)
Forward Selection	Model D: [SGC][SU]	0.94	-21.37	6.63		(0.93)
Backward Selection	Model E: [SU][CG][SG]	0.80	-9.89	32.11	_	31.19 (0.07)

Table 45. Expected Numbers for Paratransit Selection Based On Model D

Pick-up/	Group	Car		Selection		
Drop-off	Туре	Availability	Paratransit	Catch-A-Ride	Neither	
Location						
Home	Disabled	Driver	23.3	23.2	20.2	66.6
		No	16.1	13.1	11.5	40.7
	Elderly	Driver	53.3	70.6	74.5	198.5
		No	14.8	14.8	7.7	37.4
	General	Driver	27.9	80.7	74.0	182.7
		No	2.5	3.6	0.0	6.1
Intersection/	Disabled	Driver	31.7	15.8	21.8	69.4
Landmark		No	21.9	8.9	12.5	43.3
	Elderly	Driver	72.7	48.4	80.5	201.5
		No	20.2	10.2	8.3	38.6
	General	Driver	38.1	55.3	80.0	173.3
		No	3.5	2.4	0.0	5.9
Total			326	347	391	1064

Table 46 shows the effect of pick-up/drop-off location on the selection between regular paratransit and Catch-A-Ride. Paratransit always provides door-to-door service. If Catch-A-Ride also provided door-to-door service, subjects preferred Catch-A-Ride (39%) to regular paratransit (26%); however, 35 percent of the subjects preferred neither of the services. On the other hand, if Catch-A-Ride did not provide door-to-door service, then the majority (38 percent) chose "neither" service. Those who selected a service, more subjects preferred regular paratransit (35%) than Catch-A-Ride (27%). Thus, it is evident that subjects preferred door-to-door service. It was also noticed that Table 1 showed that all groups thought that pick-up/drop-off location was very important in the selection of a transportation service.

Table 46. Paratransit/Real-Time Ridesharing Selection by Pick-up/Drop-off Location

Pick-up/	Numb	er of Subje	cts	Percentage			
Drop-off	Paratransit	Catch-A-	Neither	Paratransit	Catch-A-	Neither	
Location		Ride			Ride		
Home	138	206	188	26%	39%	35%	
Interaction/ Landmark	1 400	141	203	35%	27%	38%	

Table 47 shows that the disabled and elderly subjects preferred regular paratransit to Catch-A-Ride. However, the majority of the elderly drivers selected 'neither' of the services (39%). The majority of general drivers (43%) would not choose either service. Those that did choose a service, however, tended to choose Catch-A-Ride (38%) over regular paratransit (19%). From these results, it appears that compared with regular paratransit and current transportation modes, Catch-A-Ride is not a particularly attractive service option for the disabled and elderly subjects.

Table 47. Paratransit/Real-Time Ridesharing Selection by Car Availability and Group Type

Group	Car	Car Number of Subj		ects Percentage			
Type	Availability	Paratransit	Catch-A-	Neither	Paratransit	Catch-A-	Neither
			Ride			Ride	
Dis	Driver	55	39	42	40%	29%	31%
	No	38	22	24	45%	26%	29%
Eld	Driver	126	119	155	32%	30%	39%
	No	35	25	16	46%	33%	21%
Gen	Driver	66	136	154	19%	38%	43%
	No	6	6	0	50%	50%	0%

Table 48 shows the percentages for the expected values greater than 10 (as shown in Table 45). The table demonstrates that the disabled subjects liked regular paratransit more than Catch-A-Ride. Only the disabled drivers liked Catch-A-Ride (35%) equally well, if it provided home pick-up. For the elderly subjects, drivers did not like either of the services. The non-drivers equally (40%) liked the two services if Catch-A-Ride provided home pick-up, and they liked regular paratransit if Catch-A-Ride did not provide home pick-up. As for the general group, drivers (44%) liked Catch-A-Ride if Catch-A-Ride provided home pick-up.

These findings demonstrate that only disabled drivers and elderly non-drivers liked Catch-A-Ride if it provided door-to-door service. The disabled non-drivers preferred regular paratransit, and elderly drivers did not like either of the services. The results also reveal that Catch-A-Ride is not as attractive as Instant Paratransit to disabled and elderly subjects.

Table 48. Percentages of Expected Numbers for Paratransit Selection

Group	Pick-up/	Cur	Sample		Selection	
Type	Drop-off	Availability	Size	Purutransit	Cutch-A-Ride	Neither
	Location	,				
Disabled	Home	Driver	66.6	35%	35%	30%
		No	40.7	40%	32%	28%
	Intersection/	Driver	69.4	46%	23%	31%
	Landmark	No	43.3	51%	21%	29%
Elderly	Home	Driver	198.5	27%	36%	38%
		No	37.4	40%	40%	21%
	Intersection/	Driver	201.5	36%	24%	40%
	Landmark	No	38.6	52%	26%	22%
General	Home	Driver	182.7	15%	44%	41%
		No	(6.1)	-	•	
	Intersection/	Driver	173.3	22%	32%	46%
	Landmark	No	(5.9)	-	-	-

Note: number of samples ≤ 10

8. CONCLUSIONS AND RECOMMENDATIONS

From the results of the year-two survey, several conclusions can be drawn about the elderly and disabled preferences for transportation information systems and alternative transportation services as options for increasing mobility.

Trip-Making Characteristics

- 1. The results showed that of the three subject groups (i.e. disabled, elderly, and general) that the disabled, especially women, are the most constrained in their travel options due to their lower car availability (55% of the disabled females did not drive, and 27% of the disabled men did not drive). Most of the elderly men drove (91%), while elderly women are somewhat reliant on others for making trips (78% of the elderly females drove).
- 2. From the results of the types of trips made, the general group make the most work/school trips (5.1 trips per week) and recreational trips (5.8 trips per week), while the disabled make the most medical trips (0.9 trips per week). More importantly, however, the disabled group make far fewer recreational trips (2.7 trips per week) than the other groups (4.4 trips per week for the elderly subjects). This could be evidence that the disabled subjects' lack of mobility is affecting their quality of life.
- 3. Although most trips are made as a driver for all groups, the disabled reported higher percentages of riding as a passenger in a car and use of transit or paratransit, especially for recreational (42%) and medical (45%) trips. This finding again shows their reliance on other people and/or alternative forms of transportation to maintain their mobility.

Transportation Information Systems

- 1. Results of the transit information attribute ratings showed that overall, disabled subjects rated the information attributes higher than the other two groups (while the general subjects rated the information attributes higher than did the elderly subjects). Not only did the disabled subjects tend to rate each information attribute higher than the other groups, they also rated more of the attributes as important.
- 2. In order to determine how likely the information considered important would be to affect the subjects' transit use, the subjects were asked: How many, out of 10 doctor appointments, they would make by transit if the important information were available. Twenty-three (23) percent of the disabled, 17 percent of the elderly and 15 percent of the general subjects reported that they would make all of the 10 trips by transit. These percentages for the disabled and elderly subjects are higher than the frequency with which they currently use transit. Only 13 percent of the disabled, 9 percent of the elderly and 15 percent of the general subjects had taken transit in the previous month. Thus, there is a strong possibility that the provision of needed transit information could increase the mobility of the disabled and elderly subjects in their use of transit.
- 3. It is evident that the disabled subjects especially would consider the use of transit if information they considered important were provided. The disabled subjects considered

- the following information types to be very important: bus schedule table, transfer information, nearest stop location, and seat availability. Transfer information should take into account whether the connecting routes are equipped with a wheelchair lift. That is, the transfer information should consider not only the buses with the shortest connecting time but also wheelchair accessibility for wheelchair users.
- 4. Regarding the importance of transit and paratransit information, interestingly, the disabled subjects rated the information on paratransit and other alternative transportation systems higher than they did information on traditional transit (e.g. bus and rail), while general and elderly subjects rated information on traditional transit higher than that of paratransit. Apparently, the information about paratransit and other alternative transportation systems could enhance the mobility of the disabled travelers.
- 5. When asked to rank five information systems: operator-assisted telephone, automated telephone, television, computer, and personal device, all groups preferred the operator-assisted telephone and the automated telephone systems. The elderly groups particularly preferred the operator-assisted telephone system. It may be because of its ease of use and ubiquitous presence. The fact that it is free and they do not have to learn to use it probably also has something to do with this preference.
- 6. Log-linear models were employed to determine the factors affecting subjects' first preferred system for obtaining transportation information. The modeling results showed that the choice is affected by whether the subject was a computer user and had used the Internet, and whether the subject had a computer at home. All subjects preferred an operator-assisted telephone system over the other systems, except for the subjects who were computer users, had used the Internet, and also had a computer at home. Not surprisingly, they preferred a computer system.
- 7. The majority of the disabled subjects (54%) did not have a computer at home, and did not use a computer/the Internet. Consequently, this subgroup of disabled subjects preferred the operator-assisted telephone system. However, the second highest percentage of these subjects (19%) had a computer at home, were computer users, and had used the Internet. This subgroup of disabled subjects preferred the computer system. The majority of the elderly subjects (63%) did not have a computer at home, were not computer users, and had not used the Internet, and they preferred the operator-assisted telephone system. The majority of the general subjects (46%) had a computer at home, were computer users, and had used the Internet, and they preferred the computer system.

Advanced Paratransit Services

• Real-Time Paratransit (Instant Paratransit)

1. The overall selection results illustrate that, in general, in comparison with current transportation modes, more subjects in the disabled and elderly groups selected either regular paratransit or Instant Paratransit than subjects in the general group did. Out of 10 discretionary trips, the subjects in the disabled groups stated that they would make more trips by regular paratransit or Instant Paratransit than the subjects in the elderly and general groups.

- 2. Log-linear model results showed that the choice among regular paratransit, real-time paratransit, or neither was affected by fare, the interaction between group type and car availability, and the interaction between mobility aid type and group type.
- 3. The fare for Instant Paratransit was \$3 or \$5, and the fare for regular paratransit was \$2. When the fare for Instant Paratransit was low, more subjects (48%) selected Instant Paratransit than when the fare was high (34%). In addition, when the fare for Instant Paratransit was high (\$5), the percentages for the two services were equal. It is evident that the same-day service provided by Instant Paratransit is desired, although the fare for the service is higher (\$3 or \$5) than that for regular paratransit service (\$2).
- 4. Disabled drivers (51%) and non-drivers (45%) preferred Instant Paratransit most. In the elderly group, non-drivers have a more positive attitude toward regular paratransit and Instant Paratransit than drivers. Both Instant Paratransit and regular paratransit were almost equally preferred by elderly non-drivers (about 40%) and drivers (34%). It also shows that 32 percent of elderly drivers preferred neither of the services. Most of general subjects were drivers and they preferred Instant Paratransit (45%). However, 42 percent of the general drivers selected neither of the services, and only 13 percent of the general drivers preferred regular paratransit.
- 5. The disabled subjects preferred Instant Paratransit (49%), while those who needed mobility aids in the elderly group preferred regular paratransit (45%). The majority of the elderly subjects did not need mobility aids, and preferred Instant Paratransit (38%). Most of the general subjects did not have mobility impairments, and they preferred Instant Paratransit (44%) to general paratransit (14%); however, 42 percent of the general subjects preferred 'neither' of the services.
- 6. The following finding can be drawn when all influential factors are considered together. In the disabled group, if the fare for Instant Paratransit was low (\$3), both drivers (58%) and non-drivers (54%) preferred Instant Paratransit. On the other hand, when the fare for Instant Paratransit was high (\$5), drivers still preferred Instant Paratransit (43%), while non-drivers preferred regular paratransit (50%). In the elderly group, when the fare for Instant Paratransit was low, the subjects with no mobility impairment liked Instant Paratransit (43 percent for drivers and 62 percent for non-drivers), while the subjects with mobility impairments liked regular paratransit (35 percent for drivers and 41 percent for non-drivers). When the fare for Instant Paratransit was high (\$5), all subgroups preferred regular paratransit except the subjects who were non-drivers and did not have mobility impairments, who preferred Instant Paratransit (47%).
- 7. In summary, either regular paratransit or Instant Paratransit was preferred by all disabled subjects and the elderly non-drivers. Instant Paratransit was particularly preferred by the disabled subjects and the elderly who were non-drivers and did not need mobility aids. In the disabled group, the percentage selecting 'neither' service was low (between 13 and 17 percent). In the elderly group, higher percentages of drivers than non-drivers selected neither of the services.

• Real-Time Ridesharing (Catch-A-Ride)

- 1. Log-linear model results showed that the choice between regular paratransit, real-time ridesharing, or neither was affected by pick-up location and the interaction between group type and car availability.
- 2. Paratransit always provides door-to-door service. If Catch-A-Ride also provided door-to-door service, subjects preferred Catch-A-Ride (39%) to regular paratransit (26%); however, 35 percent of the subjects preferred neither of the services. On the other hand, if Catch-A-Ride did not provide door-to-door service, then the majority (38 percent) chose "neither" service. Of those who selected a service, more subjects preferred regular paratransit (35%) than Catch-A-Ride (27%). Thus, it is evident that subjects preferred door-to-door service.
- 3. In general, the disabled and elderly subjects preferred regular paratransit to Catch-A-Ride. However, the majority of the elderly drivers selected 'neither' of the services (38% for home pick-up service, 40% for non-home service). The majority of general drivers (43%) would not choose either service.
- 4. From these results, for the disabled and elderly subjects it appears that, compared with regular paratransit and their current transportation mode, Catch-A-Ride is not a particularly attractive service option. Only drivers in the disabled group (35%) and non-drivers (40%) in the elderly group equally preferred the two services when Catch-A-Ride provided doorto-door service. The results also reveal that Catch-A-Ride is not as attractive as Instant Paratransit to disabled and elderly subjects.

Recommendations

- 1. It is recommended that public transit and alternative transportation information be provided to elderly and disabled travelers. The survey results demonstrate that this type of information should be provided first through operator assisted and automated telephone systems.
- 2. The provision of paratransit and real-time paratransit services such as Instant Paratransit should be pursued. Instant Paratransit, which provided same-day and door-to-door service, appears to be very attractive to disabled and elderly travelers, especially the disabled. Real-Time ridesharing services such as Catch-A-Ride show promise; however, the use of this type of service is highly dependent on various factors such as security, insurance and liability. Thus, the design and implementation of such a system should be carefully considered.

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Appendix A: Questionnaires for Part-One Survey

Methodology Institute of Transportation Studies University of California at Davis

Strategic Consulting & Research (SCR) conducted a follow-up study for the Institute of Transportation Studies (ITS) at the University of California, Davis to analyze the special needs population's travel behavior and requirements.

The target population was comprised of the elderly, persons who are physically or communicationally challenged, and persons between the ages of 18-64 who are not physically handicapped in the Sacramento area. The elderly are defined **as** persons age 65 or older. Challenged persons encompass those with mobility, tactile, and/or communication impairment. The general population are comprised of persons who are between the ages of 18-64 who have no physical disabilities.

The survey instrument for the first phase of the study consisted of 74 questions. Persons with visual impairments were screened out in the beginning of the survey for all three groups. The survey was 14 minutes and 47 seconds in length for the elderly, 14 minutes and 47 seconds in length for the general population, and 15 minutes and 24 seconds in length for the disabled.

Survey data for all three groups for the first phase of the study was collected using SCR's in-house calling center. A listed sample of phone numbers in the Sacrament area was used that prescreened persons over the age of 65 for the elderly, that prescreened persons between the ages of 18-64 for the general population, and that prescreened persons with disabilities for the physically challenged. SCR also complied a list of respondents from the previous 1996 study to call for the physically challenged group.

Ten pretest surveys were conducted to ensure that the questionnaire design produced appropriate data. The results of the pretest were reported to ITS Davis.

SCR conducted the first phase of the study between April 28,1997 - May 19,1997. If a respondent was unable to respond to the survey when initially contacted, SCR offered the respondent the option of a callback at the respondent's convenience. SCR also gave respondents the opportunity to call **SCR** on a toll-free number to complete the survey at their convenience.

SCR completed the desired sample of 150 completed surveys for the elderly, 150 completed surveys for the general population, and 69 completed surveys for persons with physical disabilities.

SCR mailed surveys comprised of 17 questions to all respondents who completed the first phase of the study. A total of 369 mail surveys were sent to respondents on June 11,

1997. An incentive of \$3 was mailed along with the surveys as a way of thanking respondents for their time. The following surveys were mailed to each group

Elderly-R&L 1 surveys	75
Elderly-R & L 2 surveys	75
Total:	150
General Population-R & L 1 surveys	75
General Population-R & L 2 surveys	75
Total:	150
Physically Challenged-R&L 1 surveys	34
Physically Challenged-R & L 2 surveys	35
Total:	69

SCR programmed the mail survey into our computer system on June 12, 1997. Respondents were contacted from June 16, 1997 - June 30, 1997 to obtain their responses for the second part of the study. Similar to the first phase of the study, if a respondent was unable to respond to the survey when initially contacted, SCR offered the respondent the option of a callback at the respondent's convenience. SCR also gave respondents the opportunity to call SCR on a toll-free number to complete the survey at their convenience.

A minimum of five call attempts was made to each respondent for all three groups. Of the 369 surveys sent to the elderly, the general population, and persons with disabilities, SCR was able to contact the following:

Elderly (R &L 1)	60
Elderly (R & L 2)	59
Total:	119
General Population (R & L 1)	4 8
General Population (R & L 2)	44
Total:	92
Physically Challenged (R & L 1)	29
Physically Challenged (R & L 2)	29
Total:	58

QUESTIONNAIRE = ELDERLY1 VERSION : FINAL ************************* CODE BOX : * LT = LESS THAN(> GT = GREATER THANEQ = EQUALSNE = NOT EQUAL TO*********** GOOD MORNING/AFTERNOON/EVENING, THIS IS _____ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY THAT WE SENT TO YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES. **************************** 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ? 1. R01 2. LO1 (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *************************** 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q2 IF Q<2> EQ "3" THEN GO 4 **************************** 3. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 1 ? 1. **1** 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10

11. NONE

12. DON'T KNOW

4.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT INSTANT PARATRANSIT NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q4 IF Q<4> EQ "3" THEN GO 6
	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW
:	12. DON 1 KNOW **********************************
6.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT INSTANT PARATRANSIT NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q6 IF Q<6> EQ "3" THEN GO 8

	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW

a. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 08 IF 0<8> EO "3" THEN GO 10 ***************************** 9. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 8 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6.6 8. **8** 9. 9 10. 10 11. NONE 12. DON'T KNOW ************************** 10. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q10 IF Q<10> EO "3" THEN GO 12 ******************************* 11. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 10 ? 1. 1 2. 2 *3*. *3* 4. 4 5. 5 6.6 7. 7 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW

12. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
SKIP AFTER Q12 IF Q<12> EQ "3" THEN GO 14

1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE
12. DON'T KNOW ************************************
14. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
SKIP AFTER Q14 IF Q<14> EQ "3" THEN GO 16

1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE
12. DON'T KNOW ************************************

- 16. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?

 1. PARATRANSIT
 - 2. CATCH-A-RIDE
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 16 ?

- 1. 1
- 2. **2**
- 3. 3
- 4. 4
- 5. **5**
- 6. 6
- 7. 7
- 8.8
- 9. 9
- 10. 10
- 11. NONE
- 18. DO YOU HAVE ANY SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?
 - 1. YES
 - 2. **NO**

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

19. WHAT ARE YOUR SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

THANK YOU FOR YOUR TIME.

QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS (10:15:13 02 Jul 1997)

QUESTIONNAIRE = ELDERLY2 VERSION : FINAL

GOOD MORNING/AFTERNOON/EVENING, THIS IS _____ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE \overline{ARE} CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY THAT \overline{WE} SENT TO YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES.

- 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ?
 - 1. R02
 - 2. L02

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 - 1. PARATRANSIT
 - 2. INSTANT PARATRANSIT
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

3. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 1 ?

- 1. 1
- 2. 2
- 3. 3
- 4. 4
- 5. 5
- 6. 6
- 7. 7
- /. /
- 8. 8
- 9. 9
- 10. 10
- 11. NONE 12. DON'T KNOW

	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT INSTANT PARATRANSIT NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q4 IF Q<4> EQ "3" THEN GO 6
5.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE
	12. DON'T KNOW ***********************************
6.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT INSTANT PARATRANSIT NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q6
	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 6 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW

8. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 PARATRANSIT INSTANT PARATRANSIT NEITHER
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
SKIP AFTER Q8 IF Q<8> EQ "3" THEN GO 10 ***********************************
<pre>1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW ***********************************</pre>
 PARATRANSIT CATCH-A-RIDE NEITHER
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
SKIP AFTER Q10 IF Q<10> EQ "3" THEN GO 12 ************************************
11. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 10 ?
1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW

12.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q12 IF Q<12> EQ "3" THEN GO 14 ************************************
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW ***********************************
	1. PARATRANSIT
	2. CATCH-A-RIDE 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q14 IF Q<14> EQ "3" THEN GO 16 ***********************************
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW

16.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT CATCH-A-RIDE NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q16 IF Q<16> EQ "3" THEN GO 18
17.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 16 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9
	10. 10 11. NONE
444	12. DON'T KNOW
	DO YOU HAVE ANY SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?
	1. YES 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

19. WHAT ARE YOUR SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

THANK YOU FOR YOUR TIME.

QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS (10:14:11 02 Jul 1997)

QUESTIONNAIRE = GENERAL1 VERSION : FINAL

CODE BOX:

LT = LESS THAN (<) *

GT = GREATER THAN (>) *

EQ = EQUALS (=) *

NE = NOT EQUAL TO (#)

GOOD MORNING/AFTERNOON/EVENING, THIS IS _____ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY **THAT** WE SENT TO YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES.

- 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ?
 - 1. R01
 - 2. LO1

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 - 1. PARATRANSIT
 - 2. INSTANT PARATRANSIT
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q2 IF Q<2> EQ "3" THEN GO 4

- 3. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 1?
 - 1. 1
 - 2. 2
 - 3. 3
 - 4. 4
 - 5. **5**
 - 6. 6
 - 7.7
 - 8. 8
 - 9. 9
 - 10. 10
 - 11. NONE

4. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 04 IF 0<4> EO "3" THEN GO 6 ************************* 5. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW ************ 6. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q6 IF Q<6> EO "3" THEN GO 8 ************************* 7. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 6 ? 1. 1 2. 2 **3.** 3 **4**. 4 5. **5** 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW ********************

a.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT INSTANT PARATRANSIT NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q8
9.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 8 ?
	1. 1 2. 2 3. 3 4. 4 5. 5
	6. 6 7. 7 a. a 9. 9
	10. 10 11. NONE
	12. DON'T KNOW ***********************************
	1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q10 IF Q<10> EQ "3" THEN GO 12 ***********************************
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 a. a
	9. 9 10. 10
	11. NONE 12. DON'T KNOW
**	************************

12. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2 - CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 412 IF Q<12> EQ "3" THEN GO 14 ********************************** 13. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 12 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW 14. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q14 IF Q<14> EQ "3" THEN GO 16 ************************ 15. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 14 ? 1. 1 2. **2** 3. 3 4. 4 5. 5 6. 6 7. 7 a. a 9. 9

10. 10 11. NONE

12. DON'T KNOW

16.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT CATCH-A-RIDE NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q16 IF Q<16> EQ "3" THEN GO 18
	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 16 ?
	1. 1 2. 2 3. 3 4. 4
	5. 5 6. 6 7. 7
	8. 8 9. 9
	10. 10 11. NONE
***	12. DON'T KNOW ************************************
	DO YOU HAVE ANY SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?
	1. YES 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

19. WHAT ARE YOUR SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

THANK YOU FOR YOUR TIME.

QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS

(10:14:20 02 Jul 1997)

QUESTIONNAIRE = GENERAL2

VERSION : FINAL

GOOD MORNING/AFTERNOON/EVENING, THIS IS _____ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY THAT WE SENT **TO** YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES.

- 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ?
 - 1. R02
 - 2. L02

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 - 1. PARATRANSIT
 - 2. INSTANT PARATRANSIT
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q2 IF Q<2> EQ "3" THEN GO 4

OUESTION 1 ?

- 1. 1
- 2. 2
- 3. 3
- 4. 4
- 5. **5**
- 6. 6
- 7. 7
- 8. 8
- 9. 9 10. 10
- 11. NONE
- 12. DON'T KNOW

4.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	1. PARATRANSIT
	2. INSTANT PARATRANSIT 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q4 IF Q<4> EQ "3" THEN <i>GO</i> 6
	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6
	7. 7 8. 8 9. 9 10. 10
	11. NONE 12. DON'T KNOW

	1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q6 IF Q<6> EQ "3" THEN GO 8

	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE
**	12. DON'T KNOW

8. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?	
1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER	
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)	
SKIP AFTER Q8 IF Q<8> EQ "3" THEN GO 10 ***********************************	**
<pre>1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW ***********************************</pre>	**
1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER	
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)	
SKIP AFTER Q10 IF Q<10> EQ "3" THEN GO 12 ***********************************	**
1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW	**

12. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NETTHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 012 IF Q<12> EO "3" THEN GO 14 ***************** 13. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN **QUESTION 12 ?** 1. 1 **2.** 2 3. 3 4. 4 **5.** 5 6. 6 7. 7 a. a 9. 9 10. 10 11. NONE 12. DON'T KNOW ********************************* 14. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 014 IF Q<14> EO "3" THEN GO 16 ************************************** 15. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 14 ? 1. 1 2. 2 3. 3 4. 4 **5.** 5 6. 6 7. 7 8. 8 9. 9

10. 10 11. NONE

12. DON'T KNOW

16. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 016 IF Q<16> EO "3" THEN GO 18 17. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 16 ? **1.** 1 2. 2 3. 3 4. 4 5. 5 6.6 7. 7 8.8 9. 9 **10.** 10 11. NONE 12. DON'T KNOW 18. DO YOU HAVE ANY SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

1. YES

2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q18 IF Q<18> EQ "2" THEN GO END ************************ 19. WHAT ARE YOUR SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

THANK YOU FOR YOUR TIME.

QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS ______ (10:14:31 02 Jul 1997)

QUESTIONNAIRE = DISABLED1 VERSION : FINAL

******* CODE BOX : $LT = LESS THAN \qquad (<)$ GT = GREATER THAN (>) *
EO = EQUALS (=) * * EQ = EQUALS NE = NOT EQUAL TO (#)*******

GOOD MORNING/AFTERNOON/EVENING, THIS IS CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY THAT WE SENT TO YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES.

- 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ?
 - 1. R01
 - 2. LO1

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************************

- 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 - 1. PARATRANSIT
 - 2. INSTANT PARATRANSIT
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q2 IF Q<2> EQ "3" THEN GO 4

- 3. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN **OUESTION 1 ?**
 - 1. **1**
 - **2.** 2
 - 3. 3
 - 4. 4
 - 5. 5
 - 6. 6
 - 7. 7
 - 8. 8
 - 9. 9
 - 10. 10
 - 11. NONE
- 12. DON'T KNOW **************************

4.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?			
	 PARATRANSIT INSTANT PARATRANSIT NEITHER 			
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)			
**:	SKIP AFTER Q4 IF Q<4> EQ "3" THEN GO 6			
5.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ?			
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW			

	WOULD YOU CONSIDER USING ?			
	1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER			
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)			
	SKIP AFTER Q6 IF Q<6> EQ "3" THEN GO 8 ***********************************			
**	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW			
••				

8. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NETTHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q8 IF Q<8> EQ "3" THEN GO 10 ************************ 9. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 8 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW ******************************** 10. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q10 IF Q<10> EQ "3" THEN GO 12 ********************************* 11. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 10 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW *****************************

12.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT CATCH-A-RIDE NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q12 IF Q<12> EQ "3" THEN GO 14
	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 12 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 a. a 9. 9 10. 10 11. NONE 12. DON'T KNOW

⊥4.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q14 IF Q<14> EQ "3" THEN GO 16 ***********************************
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 a. 8 9. 9 10. 10 11. NONE

12. DON'T KNOW

16.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT CATCH-A-RIDE NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q16
17.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 16 ?
	1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7
	8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW

	1. YES 2. NO
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
***	SKIP AFTER Q18 IF Q<18> EQ "2" THEN GO END ***********************************

THANK YOU FOR YOUR TIME.

QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS -----(10:14:31 02 Jul 1997)

QUESTIONNAIRE = DISABLED1 VERSION : FINAL

GOOD MORNING/AFTERNOON/EVENING, THIS IS _____ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE CALLING TO DO THE SECOND PHASE OF THE TRANSPORTATION STUDY THAT WE SENT TO YOU IN THE MAIL. IT SHOULD ONLY TAKE 1-2 MINUTES.

- 1. WHAT QUESTIONNAIRE DID YOU RECIEVE ?
 - 1. R01
 - 2. LO1

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. GIVEN THE SERVICE CHARATERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
 - 1. PARATRANSIT
 - 2. INSTANT PARATRANSIT
 - 3. NEITHER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q2 IF Q<2> EO "3" THEN GO 4

- 3. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 1 ?
 - 1. 1
 - **2.** 2
 - 3. 3
 - 4. 4
 - 5. 5
 - 6.6
 - 7. 7
 - a. a9. 9
 - 10. 10
 - 11. NONE
 - 12. DON'T KNOW

4. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q4 IF Q<4> EO "3" THEN GO 6 ******************* 5. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 4 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6.6 7. 7 a. a 9. 9 10. 10 11. NONE 12. DON'T KNOW ****************** 6. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q6 IF Q<6> EQ "3" THEN GO 8 ************************ 7. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 6 ? 1. 1 2. 2 3. 3 4. 4 5. *5* **6**. 6 7. 7 8. a 9. 9 10. 10 11. NONE 12. DON'T KNOW *********************** 8. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. INSTANT PARATRANSIT 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER 08 IF 0<8> EO "3" THEN GO 10 ************************************ 9. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN **OUESTION 8 ?** 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW ******************************** 10. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q10 IF Q<10> EQ "3" THEN GO 12 11. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 10 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. **7** 8.8 9. 9 10. 10 11. NONE 12. DON'T KNOW **************************** 12. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q12 IF Q<12> EQ "3" THEN GO 14 ************************ 13. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 12 ? 1. 1 2. 2 3. 3 4. 4 **5.** *5* 6. 6 7. 7 8. 8 9. **9** 10. 10 11. NONE 12. DON'T KNOW ***************************** 14. GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ? 1. PARATRANSIT 2. CATCH-A-RIDE 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER **014** IF Q<14> EO "3" THEN **GO 16** **************************** 15. THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN OUESTION 14 ? 1. 1 2. 2 3. 3 4. 4 5. 5 6. 6 7. 7 8. 8 9. 9 10. 10 11. NONE 12. DON'T KNOW *******************************

16.	GIVEN THE SERVICE CHARACTERISTICS, WHICH TRANSPORTATION SERVICE WOULD YOU CONSIDER USING ?
	 PARATRANSIT CATCH-A-RIDE NEITHER
	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)
	SKIP AFTER Q16 IF Q<16> EQ "3" THEN GO 18
***	******************
17.	THINKING ABOUT YOUR CURRENT MEANS OF TRANSPORTATION, HOW MANY, OUT OF 10, DISCRETIONARY TRIPS (E.G., SHOPPING, RECREATIONAL AND MEDICAL TRIPS) WOULD YOU MAKE IN REPLACE OF YOUR CURRENT MEANS OF TRANSPORTATION BY THE SERVICE YOU SELECTED IN QUESTION 16 ?
	1. 1
	2. 2
	3. 3
	4. 4
	5. 5 6. 6
	0. 0 7. 7
	8. 8
	9. 9
	10. 10
	11. NONE 12. DON'T KNOW
***	**************************************
18.	DO YOU HAVE ANY SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?
	1 200

1. YES

2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q18 IF Q<18> EQ "2" THEN GO END *******************

19. WHAT ARE YOUR SUGGESTIONS OR CONCERNS ABOUT TRANSIT AND PARATRANSIT SERVICES ?

THANK YOU FOR YOUR TIME.

Survey Part II

code: R01

Suppose you needed to make a trip similar to getting from Fair Oaks to Downtown Sacramento to make a discretionary trip (e.g., shopping, recreational or medical trip). On average it takes 30 minutes to travel by car.

Please select the service that you would consider using to make the trip from the following two transportation services. All people are eligible to use these two transportation services.

Paratransit would provide you with dial-a-ride, door-to-door service in a van. You would need to make a reservation with the service provider from 2 days before up to 5:00 pm the day before your ride. Drivers usually arrive to pick you up at your home within 30 minutes of your scheduled pick-up time.

<u>Instant Paratransit</u> would provide you a similar service to Paratransit, but would allow you to make a reservation 2 hours before your ride.

1. Given the service characteristics below, which transportation service would you consider using?

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	 \$ 5
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 20 min.
Same Day Service	No	Yes

_a. Paratransit
 _b. Instant Paratransit
 _c. Neither

If your answer is "c", go to Question 3.

2.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 1?

____ trips out of 10

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$5
Travel Time	45 min. - 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 10 min.
Same Day Service	No	Yes

a.	Paratransit
b.	Instant Paratransit
с.	Neither

If your answer is "c", go to Question 5.

4.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 3?

 trips	out	of	10
 uips	Out	OI	10

5. Given the service characteristics below, which transportation service would you using?

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$3
Travel Time	45 min 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 20 min.
Same Day Service	No	Yes

a.	Paratransit
b.	Instant Paratransi
c.	Neither

If your answer is "c", go to Question 7.

6.	Thinking about your current means of transportation, how many, out of 10, discretion	ıary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of you	our
	current means of transportation by the service you selected in question 5?	

trips out of 10		trips	out of	10
-----------------	--	-------	--------	----

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$3
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 10 min.
Same Day Service	No	Yes

a.	Paratransit
b.	Instant Paratransi
C	Neither

If your answer is "c", go to Question 9.

8.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 7?

____ trips out of 10

Another transportation service, called **Catch-A-Ride**, which also allows you to make a reservation 2 hours before your ride. However, you would be **sharing** your ride with another individual in his/her personal vehicle. To make a reservation, you would need to contact an agency responsible for generating ride matches. The agency, such **as** a social service, would then "match" you with a registered individual who regularly makes your trip.

9. Given the service characteristics below, which transportation service would **you** consider using?

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$2.00
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 20 min.
Pick-up/Drop-off point	Your home/destination	Your home/destination
Service Provider	Social Service Agency	Social Service Agency .
Fare for Companion	\$2.00	\$0.50
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, **you would** share your ride with another registered individual in his/her personal vehicle.

a.	Paratransit
b.	Catch-A-Ride
c.	Neither

If your answer is "c", go to Question 11.

10. Thinking about your current means of transportation, how many, out of 10, discretionary trips (e.g., shopping, recreational and medical trips) would you make in replace of your current means of transportation by the service you selected in question 9?

____ **trips** out of 10

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$2.00
Travel Time	45 min. • 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 10 min.
Pick-up/Drop-off point	Your home/destination	Nearest intersectiodlandmark to your home/destination
Service Provider	Social Service Agency	Private Agency
Fare for Companion	\$2.00	\$0.50
Same Day Service	No	Yes

±		
ame Day Service	No	Yes
Note: With the Catch-	-A-Ride service, you would share your ride with another	
registered indiv	idual in his/her personal vel	hicle.
_a. Paratransit _b. Catch-A-Ride		
c. Neither answer is "c", go to Question 13.		

If your

12.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 11?
	trips out of 10

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$1.50
Travel Time	45 min. - 1 hr. 15 min.	45 - <i>60</i> min.
Wait Period	within 30 min.	within 10 min.
Pick-up/Drop-off point	Your home/destination	Nearest intersectiodlandmark to your home/destination
Service Provider	Social Service Agency	Social Service Agency
Fare for Companion	\$2.00	\$1.00
Same Day Service	No	Yes

Note:	With the Catch-A-Ride service, you would share your ride with another
	registered individual in his/her personal vehicle.
	·
_a. Pa	aratransit
_ b. C	atch-A-Ride
_c. N	either

If your answer is "c", go to Question 15.

14. Thinking about your current means of transportation, how many, out of 10, discretionary
trips (e.g., shopping, recreational and medical trips) would you make in replace of your
current means of transportation by the service you selected in question 13?
trips out of 10

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$1.50
Travel Time	45 min 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 20 min.
Pick-up/Drop-off point	Your home/destination	Your home/destination
Service Provider	Social Service Agency	Private Agency
Fare for Companion	\$2.00	\$1.00
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, you would share your ride with another registered individual in his/her personal vehicle. ___a. Paratransit ___b. Catch-A-Ride ___c. Neither If your answer is "c", go to Question 17. 16. Thinking about your current means of transportation, how many, out of 10, discretionary trips (e.g., shopping, recreational and medical trips) would you make in replace of your current means of transportation by **the** service you selected in question 15? ____ trips out of IO 17. **Do** you have any suggestions or concerns about transit and paratransit services? a. Yes (Please write down your suggestions or concerns to tell the interviewer when he/she calls.)

b. No

Thankyou very much for your participation in this survey!

Survey Part II

code: R02

Suppose you needed to make a trip similar to getting from Fair Oaks to Downtown Sacramento to make a discretionary trip (e.g., shopping, recreational or medical trip). On average it takes 30 minutes to travel by car.

Please select the service that you would consider using to make the trip from the following two transportation services. All people are eligible to use these two transportation services.

Paratransit would provide you with dial-a-ride, door-to-door service in a van. You would need to make a reservation with the service provider from 2 days before up to 5:00 pm the day before your ride. Drivers usually arrive to pick you up at your home within 30 minutes of your scheduled pick-up time.

Instant Paratransit would provide you a similar service to Paratransit, but would allow you to make a reservation 2 hours before your ride.

1. Given the service characteristics below, which transportation service would you consider using?

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$5
Travel Time	45 min 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 20 min.
Same Day Service	No	Yes

a. Paratransit
b. Instant Paratransi
c. Neither

If your answer is "c", go to Question 3.

2.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 1?

trips out of 10

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$5
Travel Time	45 min. - 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 10 min.
Same Day Service	No	Yes

a.	Paratransit
b.	Instant Paratransit
c.	Neither

If your answer is "c", go to Question 5.

4. Thinking about your current means of transportation, how many, out of 10, discretionary trips (e.g., shopping, recreational and medical trips) would you make in replace of your current means of transportation by the service you selected in question 3?

 trins	Out	of	10
 uips	Out	OI	10

5. Given the service characteristics below, which transportation service would you using?

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$3
Travel Time	45 min. - 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 20 min.
Same Dav Service	No	Yes

a.	Paratransit
 b.	Instant Paratransit
c.	Neither

If your answer is "c", go to Question 7.

6. Thinking about your current means of transportation, how many, out of 10, discretionary trips (e.g., shopping, recreational and medical trips) would you make in replace of your current means of transportation by the service you selected in question 5?

trips o	out of 10
---------	-----------

consider

Characteristic	Paratransit	Instant Paratransit
Fare	\$2	\$3
Travel Time	45 min. - 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 10 min.
Same Day Service	No	Yes

a. Paratransit	
b. Instant Par	atransit
c. Neither	

If your answer is "c", go to Question 9.

8.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 7?

____ trips out of 10

Another transportation service, called **Catch-A-Ride**, which also allows you to make a reservation 2 hours before your ride. However, you would be sharing your ride with another individual in his/her personal vehicle. To make a reservation, you would need to contact an agency responsible for generating ride matches. The agency, such as a social service, would then "match" you with a registered individual who regularly makes your trip.

9. Given the service characteristics below, which transportation service would you consider using?

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$2.00
Travel Time	45 min. - 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 10 min.
Pick-up/Drop-off point	Your home/destination	Your home/destination
Service Provider	Social Service Agency	Private Agency
Fare for Companion	\$2.00	\$1.00
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, you would share your ride with another registered individual in his/her personal vehicle.

a. Paratransit
b. Catch-A-Ride
c. Neither

If your answer is "c", go to Question 11.

10.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 9?
	trips out of 10
	trips out or to

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$2.00
Travel Time	45 min. - 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 20 min.
Pick-up/Drop-off point	Your home/destination	Nearest intersection/landmark to your home/destination
Service Provider	Social Service Agency	Social Service Agency
Fare for Companion	\$2.00	\$1.00
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, you would share your ride with another registered individual in his/her personal vehicle.

a,	Paratransit
b.	Catch-A-Ride
c.	Neither

If your answer is "c", go to Question 13.

12. Thinking about your current means of transportation, how many, out of 10, discretionary trips (e.g., shopping, recreational and medical trips) would you make in replace of your current means of transportation by the service you selected in question 11?

trips out of 10

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$1.50
Travel Time	45 min. - 1 hr. 15 min.	30 - 45 min.
Wait Period	within 30 min.	within 10 min.
Pick-up/Drop-off point	Your home/destination	Your home/destination
Service Provider	Social Service Agency	Social Service Agency
Fare for Companion	\$2.00	\$0.50
Same Day Service	No	Yes

Note: With the Catch-A-Ride service, you would share your ride with another registered individual in his/her personal vehicle.

a.]	Paratransit
b.	Catch-A-Ride
c. l	Neither

If your answer is "c", go to Question 15.

14.	Thinking about your current means of transportation, how many, out of 10, discretionary
	trips (e.g., shopping, recreational and medical trips) would you make in replace of your
	current means of transportation by the service you selected in question 13?

____ trips out of 10

Characteristic	Paratransit	Catch-A-Ride
Fare	\$2.00	\$1.SO
Travel Time	45 min 1 hr. 15 min.	45 - 60 min.
Wait Period	within 30 min.	within 20 min.
Pick-up/Drop-off point	Your home/destination	Nearest intersectiodlandmark to your home/destination
Service Provider	Social Service Agency	Private Agency
Fare for Companion	\$2.00	\$0.50
Same Day Service	No	Yes

	Fare for Companion	\$2.00	\$0.50				
	Same Day Service	No	Yes				
Note: With the Catch-A-Ride service, you would share your ride with and							
	registered individual in his/her personal vehicle.						
	a. Paratransit						
	b. Catch-A-Ride						
	c. Neither						
T ()	• // •						
li you	ır answer is "c", go to (Juestion 17.					
tr	ips (e.g., shopping, recre	*	, how many, out of 10, discretionary would you make in replace of your lected in question 15?				
	trips out of 10						
17. D	o vou have any suggestic	ons or concerns about transi	it and paratransit services?				
			cerns to tell the interviewer				
	when he/she calls.)	,					
	1 N						
	b. No						

Thankyou very much for your participation in this survey!

Appendix B: Questionnaires for Part-Two Survey

University of California, Davis ITS

Physically Disabled Travelers Research Study



QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS (17:04:36 28 May 1997)

QUESTIONNAIRE = UCDH2 VERSION : FINAL

GOOD AFTERNOON/EVENING. THIS IS ______ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE DOING A TWO PART SURVEY TO HELP IMPROVE TRANSPORTATION SERVICES FOR PERSONS IN THE SACRAMENTO AREA. YOUR OPINIONS ARE VERY IMPORTANT TO IMPLEMENT PROGRAMS THAT WILL MEET YOUR NEEDS AND THE NEEDS OF PERSONS IN THE SACRAMENTO AREA. CAN YOU HELP ME ANSWER SOME OUESTIONS NOW AND PARTICIPATE IN A BRIEF MAIL SURVEY ?

- 1. DO YOU HAVE ANY TROUBLE SEEING FACES FROM MORE THAN 10 FEET (WITH GLASSES OR CONTACT LENSES, IF YOU NORMALLY WEAR THEM) ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. ARE YOU 18 YEARS OF AGE OR OLDER ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 3. DO YOU USE A MANUAL WHEELCHAIR, ELECTRIC WHEELCHAIR, OR SCOOTER?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 4. WHICH DO YOU USE ?
 - 1. MANUAL WHEELCHAIR
 - 2. ELECTRIC WHEELCHAIR
 - 3. SCOOTER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************** 5. DO YOU USE ANY OF THE FOLLOWING MECHANICAL AIDS FOR WALKING ? 1. CRUTCHES WALKER 3. WALKING CANE 4. BRACES 5. ARTIFICIAL LIMB 6. OTHER 7. NONE (OTHER LINE = 120) (Multiple Response) (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) **************************** 6. DO YOU REQUIRE ASSISTANCE FROM ANOTHER PERSON TO GET IN AND/OR OUT OF A STANDARD CAR, TRUCK, OR VAN ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************************* 7. DO YOU REQUIRE ASSISTANCE FROM ANOTHER PERSON WHILE TRAVELING BY TRANSIT ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************** 8. IS A CAR USUALLY AVAILABLE FOR YOU TO USE AS A . . . ? 1. DRIVER PASSENGER 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 9. WHEN WAS THE **LAST** TIME YOU TOOK **A** PUBLIC TRANSIT BUS OR LIGHT RAIL ? 1. THIS MONTH 2. 1 TO 6 MONTHS 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER 10. WHEN WAS THE LAST TIME YOU TOOK A TAXI ? 1. THIS MONTH 2. 1 TO 6 MONTHS AGO 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

PARATRANSIT PROVIDES "DOOR TO DOOR" SERVICE IN A VAN. YOU NEED TO MAKE A RESERVATION WITH THE PARATRANSIT SERVICE PROVIDER A FEW DAYS IN ADVANCE.

- 11. ARE YOU AWARE OF SUCH A SERVICE IN YOUR AREA ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 12. WHEN WAS THE LAST TIME YOU USED A PARATRANSIT SERVICE ?
 - 1. THIS MONTH
 - 2. 1 TO 6 MONTHS AGO
 - 3. 7 MONTHS TO ONE YEAR AGO
 - 4. MORE THAN ONE YEAR AGO
 - 5. NEVER

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 13. ARE YOU CURRENTLY ATTENDING SCHOOL OR WORKING OUTSIDE YOUR HOME ?
 - 1. WORKING
 - 2. ATTENDING SCHOOL
 - 3. NEITHER
 - 4. BOTH

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

SKIP AFTER Q13 IF Q<13> EQ "3" THEN GO 16

- 15. HOW DO YOU USUALLY TRAVEL TO WORK OR SCHOOL ?
 - 1. DRIVE YOUR OWN CAR/TRUCK/VAN
 - 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
 - 3. TAXI
 - 4. BUS
 - 5. TRANSIT TRAIN OR TROLLEY CAR
 - 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
 - 7. WALKING OR USING A WHEELCHAIR
 - 8. OTHER (OTHER LINE = 121)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

17. HOW DO YOU USUALLY TRAVEL TO RUN ERRANDS OR GO TO A RECREATION ACTIVITY ?

- 1. DRIVE YOUR OWN CAR/TRUCK/VAN
- 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER (OTHER LINE = 122)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

18. HOW MANY TIMES DID YOU GO TO A CLINIC/HOSPITAL/MEDICAL OFFICE LAST WEEK ?

- 19. HOW DO YOU USUALLY TRAVEL TO GO TO A CLINIC/HOSPITAL/MEDICAL OFFICE ?
 - 1. DRIVE YOUR OWN CAR/TRUCK/VAN
 - 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
 - 3. TAXI
 - 4. BUS
 - 5. TRANSIT TRAIN OR TROLLEY CAR
 - 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
 - 7. WALKING OR USING A WHEELCHAIR
 - 8. OTHER LINE = 123)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

FOR THE FOLLOWING QUESTIONS, CAN YOU PLEASE TELL ME HOW IMPORTANT THESE FACTORS WILL BE IN YOUR DECISION TO USE PARATRANSIT, INSTANT PARATRANSIT, AND CATCH-A-RIDE.

20. ENTER XX TO CONTINUE

QUESTIONS 21-29 ARE RANDOMLY ROTATED

- 21. COST OF THE RIDE. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

22. TRAVEL TIME. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 23. WAITING TIME FOR SERVICE TO ARRIVE. IS THAT . . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ********************* 24. HOW LONG IN ADVANCE YOU NEED TO MAKE A RESERVATION FOR YOUR TRIP (I.E., 2 DAYS VS. 2 HOURS IN ADVANCE). IS THAT . . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) 25. PICK UP/DROP OFF LOCATION (I.E. YOUR HOME OR NEAREST INTERSECTION/ LANDMARK TO YOUR HOME). IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 26. NUMBER OF ADDITONAL PASSENGERS. IS THAT . . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************************** 27. COST FOR YOUR COMPANION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 29. COVERAGE AREA OF SERVICE PROVIDER (SUCH AS WITHIN YOUR COUNTY OR BETWEEN COUNTIES). IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

30. ENTER XX TO CONTINUE

QUESTIONS 31-39 ARE RANDOMLY ROTATED

- 31. BUS ROUTE MAP. IS THAT . . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 33. TRANSFER INFORMATION. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT

- 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 34. FARE INFORMATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 35. STOPS NEAREST YOUR LOCATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 36. WHEELCHAIR LIFT. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 37. SEAT AVAILABILITY. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************************** 38. ACTUAL ARRIVAL TIME OF NEXT BUS. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ********************** 39. SHELTER CONDITION. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT

3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT

- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T **KNOW', 'REFUSED', ETC)**

40. HOW MANY, OUT OF **10** DOCTOR APPOINTMENTS, WOULD YOU **MAKE** BY TRANSIT IF THE ITEMS YOU RATED ABOVE AS EXTREMELY IMPORTANT **OR** VERY IMPORTANT WERE AVAILABLE TO YOU ?

NOW **I AM** GOING TO READ YOU **A** LIST OF FACTORS. PLEASE TELL ME HOW IMPORTANT YOU FIND THESE FACTORS FOR PLANNING A TRIP BY TRANSIT 'OR PARATRANSIT.

41. ENTER XX TO CONTINUE

OUESTIONS 42-49 ARE RANDOMLY ROTATED

42. COST OF USING THE INFORMATION SYSTEM. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 45. OTHER PARATRANSIT/RIDESHARING INFORMATION SUCH AS INSTANT PARATRANSIT AND CATCH-A-RIDE SERVICES I JUST DESCRIBED TO YOU. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT

- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 50. WHICH OF THE FOLLOWING SYSTEM WOULD YOU MOST LIKELY USE FOR OBTAINING TRANSPORTATION INFORMATION?
 - 1. COMPUTER
 - 2. TELEVISION (I.E. INTERACTIVE TV)
 - 3. OPERATOR ASSISTED TELEPHONE
 - 4. AUTOMATED TELEPHONE
 - 5. PERSONAL INFORMATION DEVICE

- 1. COMPUTER
- 2. TELEVISION (I.E. INTERACTIVE TV)
- 3. OPERATOR ASSISTED TELEPHONE
- 4. AUTOMATED TELEPHONE
- 5. PERSONAL INFORMATION DEVICE

- 1. COMPUTER
- 2. TELEVISION (I, E, INTERACTIVE TV)
- 3. OPERATOR ASSISTED TELEPHONE
- 4. AUTOMATED TELEPHONE
- 5. PERSONAL INFORMATION DEVICE

- 53. HOW USEFUL WOULD YOU FIND SUCH A SYSTEM ?
 - 1. NOT AT ALL USEFUL
 - 2. NOT VERY USEFUL
 - 3. SOMEWHAT USEFUL
 - 4. VERY USEFUL
 - 5. EXTREMELY USEFUL

- 1. NOT AT ALL LIKELY
- 2. NOT VERY LIKELY
- 3. SOMEWHAT LIKELY
- 4. VERY LIKELY
- 5. EXTREMELY LIKELY

- 55. WHAT IS YOUR CURRENT JOB OR SCHOOL STATUS ?
 - 1. RETIRED
 - 2. NOT EMPLOYED
 - 3. NOT IN SCHOOL
 - 4. EMPLOYED PART TIME
 - 5. EMPLOYED FULL TIME
 - 6. PART TIME STUDENT
 - 7. FULL TIME STUDENT

8. BOTH WORK & GO TO SCHOOL

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 1. YES
- 2. NO

- 1. YES
- 2. NO

- 1. YES
- 2. NO

- 1. 8TH GRADE OR LESS
 - 2. SOME HIGH SCHOOL
- 3. HIGH SCHOOL GRADUATE OR GED
- 4. SOME COLLEGE, INCLUDING TWO YEAR (AA) DEGREE
- 5. FOUR YEAR COLLEGE DEGREE
- 6. SOME GRADUATE WORK OR GRADUATE DEGREE
- 7. NO SCHOOLING
- 8. REFUSED

- 1. UNDER 20
- 2. 20-29
- 3. 30-39
- 4. 40-49
- 5. 50-59
- 6. 60-69
- 7.70 79

10. REFUSED (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 66. GENDER ****SURVEYOR NOTE: DO NOT ASK BUT MAKE A NOTE **** 1. MALE 2. FEMALE (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************** 67. PLEASE STOP ME WHEN I READ YOUR HOUSEHOLD'S ANNUAL INCOME: 1. LESS THAN \$9,999 2. \$10,000-\$19,999 3. \$20,000-\$29,999 4. \$30,000-\$39,999 5. \$40,000-\$49,999 6. \$50,000-\$59,999 7. \$60,000-\$69,999 8. \$70,000-\$79,999 9. \$80,000-\$89,999 10. \$90,000-\$99,999 11. MORE THAN \$100,000 12. REFUSED (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ***************************** PLEASE GIVE ME THE FOLLOWING INFORMATION SO I CAN SEND YOU THE SECOND PART OF THE SURVEY. 68. FIRST NAME: ******************************* 69. LAST NAME: ************************************ 70. STREET ADDRESS: ************************************* 71. CTTY: ************************************* 72. ZIP CODE: *********************************** 73. WOULD YOU LIKE A OUESTIONNAIRE WITH LARGE PRINT ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** WE WILL BE MAILING YOU THE SECOND PART OF THE SURVEY IN A COUPLE OF WEEKS. 74. WHEN WILL BE THE BEST TIME TO CALL YOU BACK TO COMPLETE THE SECOND PART OF THE SURVEY ? (SURVEYOR NOTE: CAPTURE DAY AND TIME) ************************** 75. FOR RESEARH PURPOSES ONLY, MAY I ASK YOU WHAT FOR PHYSICAL DISABILITY IS

8. 80-89

9. 90 OR ABOVE

University of California, Davis ITS

Elderly Travelers Research Study



QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS ------(16:04:42 23 May 1997)

QUESTIONNAIRE = UCDE2 VERSION : FINAL

GOOD AFTERNOON/EVENING. THIS IS ______ CALLING ON BEHALF OF THE UNIVERSITY OF CALIFORNIA, DAVIS. WE ARE DOING A TWO PART SURVEY TO HELP IMPROVE TRANSPORTATION SERVICES FOR SENIORS. YOUR OPINIONS ARE VERY IMPORTANT TO IMPLEMENT PROGRAMS THAT WILL MEET YOUR NEEDS AND THE NEEDS OF SENIORS IN SACRAMENTO. CAN YOU HELP ME ANSWER SOME QUESTIONS NOW AND PARTICIPATE IN A BRIEF MAIL SURVEY?

- 1. DO YOU HAVE ANY TROUBLE SEEING FACES FROM MORE **THAN 10** FEET (WITH **GLASSES** OR CONTACT LENSES, IF YOU NORMALLY WEAR THEM) ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 2. ARE YOU 65 YEARS OF AGE OR OLDER ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 3. DO YOU USE A MANUAL WHEELCHAIR, ELECTRIC WHEELCHAIR, OR SCOOTER ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 4. WHICH DO YOU USE ?
 - 1. MANUAL WHEELCHAIR
 - 2. ELECTRIC WHEELCHAIR
 - 3. SCOOTER

***************************** 5. DO YOU USE ANY OF THE FOLLOWING MECHANICAL AIDS FOR WALKING ? 1. CRUTCHES 2. WALKER 3. WALKING CANE 4. BRACES 5. ARTIFICIAL LIMB 6. OTHER 7. NONE (OTHER LINE = 120) (Multiple Response) (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************** 6. DO YOU REQUIRE ASSISTANCE FROM ANOTHER PERSON TO GET IN AND/OR OUT OF A STANDARD CAR, TRUCK, OR VAN ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) *********************************** 7. DO YOU REOUIRE ASSISTANCE FROM ANOTHER PERSON WHILE TRAVELING BY TRANSIT ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) 8. IS A CAR USUALLY AVAILABLE FOR YOU TO USE AS A . . . ? 1. DRIVER 2. PASSENGER 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) 9. WHEN WAS THE LAST TIME YOU TOOK A PUBLIC TRANSIT BUS OR LIGHT RAIL ? 1. THIS MONTH 2. 1 TO 6 MONTHS 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ********************************* 10. WHEN WAS THE LAST TIME YOU TOOK A TAXI ? 1. THIS MONTH 2. 1 TO 6 MONTHS AGO 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ***********************************

PARATRANSIT PROVIDES "DOOR TO DOOR" SERVICE IN A VAN. YOU NEED ${f TO}$ MAKE ${f A}$ RESERVATION WITH THE PARATRANSIT SERVICE PROVIDER A FEW DAYS IN ADVANCE.

- 11. ARE YOU AWARE OF SUCH A SERVICE IN YOUR AREA ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 1. THIS MONTH
- 2. 1 TO 6 MONTHS AGO
- 3. 7 MONTHS TO ONE YEAR AGO
- 4. MORE THAN ONE YEAR AGO
- 5. NEVER

- 1. WORKING
- 2. ATTENDING SCHOOL
- 3. NEITHER
- 4. BOTH

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 1. DRIVE YOUR OWN CAR/TRUCK/VAN
- 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER LINE = 121)

(Multiple Response)

16. HOW MANY TIMES DID YOU RUN ERRANDS OR GO TO A RECREATIONAL ACTIVITY (I.E. SHOPPING, MOVIES, OUT FOR A MEAL, ACTIVITY CENTER) LAST WEEK ?

- 17. HOW DO YOU USUALLY TRAVEL TO RUN ERRANDS OR GO TO A RECREATION ACTIVITY ?
 - 1. DRIVE YOUR OWN CAR/TRUCK/VAN

- 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER LINE = 122)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

18. HOW MANY TIMES DID YOU GO TO A CLINIC/HOSPITAL/MEDICAL OFFICE LAST WEEK ?

- 19. HOW DO YOU USUALLY TRAVEL TO GO TO A CLINIC/HOSPITAL/MEDICAL OFFICE ?
 - 1. DRIVE YOUR OWN CAR/TRUCK/VAN
 - 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
 - 3. TAXI
 - 4. BUS
 - 5. TRANSIT TRAIN OR TROLLEY CAR
 - 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
 - 7. WALKING OR USING A WHEELCHAIR
 - 8. OTHER (OTHER LINE = 123)

(Multiple Response)

FOR THE FOLLOWING QUESTIONS, CAN YOU PLEASE TELL ME HOW IMPORTANT THESE FACTORS WILL BE IN YOUR DECISION TO USE PARATRANSIT, INSTANT PARATRANSIT, AND CATCH-A-RIDE.

20. ENTER XX TO CONTINUE

QUESTIONS 21-29 ARE RANDOMLY ROTATED

21. COST OF THE RIDE. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

22. TRAVEL TIME. IS THAT . . ?

NOT AT ALL IMPORTANT
 NOT VERY IMPORTANT
 SOMEWHAT IMPORTANT
 VERY IMPORTANT
 EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 23. WAITING TIME FOR SERVICE TO ARRIVE. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 24. HOW LONG IN ADVANCE YOU NEED TO MAKE A RESERVATION FOR YOUR TRIP (I.E., 2 DAYS VS. 2 HOURS IN ADVANCE). IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 25. PICK UP/DROP OFF LOCATION (I.E. YOUR HOME OR NEAREST INTERSECTION/LANDMARK TO YOUR HOME). IS THAT . . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

28. WHO THE SERVICE PROVIDER IS (SUCH AS WITHIN YOUR COUNTY OR BETWEEN COUNTIES). IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

29. COVERAGE AREA OF SERVICE PROVIDER (SUCH AS WITHIN YOUR COUNTY OR BETWEEN COUNTIES). IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

NOW I AM GOING TO ASK YOU YOUR OPINION ABOUT WHAT TYPES OF INFORMATION ARE IMPORTANT TO YOU WHEN YOU CONSIDER THE USE OF MASS TRANSIT. SUPPOSE THE ONLY MEANS OF TRANSPORTATION AVAILABLE TO YOU ARE BUS OR LIGHT RAIL. PLEASE TELL ME WHETHER YOU FIND THE FOLLOWING FACTORS IMPORTANT, USING A FIVE POINT SCALE WHERE "1" IS NOT AT ALL IMPORTANT AND "5" IS EXTREMELY IMPORTANT.

30. ENTER XX TO CONTINUE

QUESTIONS **31-39** ARE RANDOMLY ROTATED

31. BUS ROUTE MAP. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

32. BUS SCHEDULE TABLE. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

33. TRANSFER INFORMATION. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT

- 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************** 34. FARE INFORMATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************************** 35. STOPS NEAREST YOUR LOCATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************** **36.** WHEELCHAIR LIFT. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************************** 37. SEAT AVAILABILITY. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 3%. ACTUAL ARRIVAL TIME OF NEXT BUS. IS THAT . . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT
- 39. SHELIER CONDITION. IS THAT • ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT

- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

40. HOW MANY, OUT **OF 10** DOCTOR APPOINTMENTS, WOULD YOU **MAKE** BY TRANSIT **IF** THE ITEMS YOU RATED ABOVE AS EXTREMELY IMPORTANT OR VERY IMPORTANT WERE AVAILABLE TO YOU ?

NOW I AM GOING TO READ YOU A LIST OF FACTORS. PLEASE TELL ME HOW IMPORTANT YOU FIND THESE FACTORS FOR PLANNING A TRIP BY TRANSIT OR PARATRANSIT.

41. ENTER XX TO CONTINUE

QUESTIONS 42-49 ARE RANDOMLY ROTATED

- 42. COST OF USING THE INFORMATION SYSTEM. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 43. BUS/RAIL INFORMATION. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 44. PARATRANSIT INFORMATION. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

45. OTHER PARATRANSIT/RIDESHARING INFORMATION SUCH AS INSTANT PARATRANSIT AND CATCH-A-RIDE SERVICES I JUST DESCRIBED TO YOU. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT

- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 50. WHICH OF THE FOLLOWING SYSTEM WOULD YOU MOST LIKELY USE FOR OBTAINING TRANSPORTATION INFORMATION?
 - 1. COMPUTER
 - 2. TELEVISION (I.E. INTERACTIVE TV)
 - 3. OPERATOR ASSISTED TELEPHONE
 - 4. AUTOMATED TELEPHONE
 - 5. PERSONAL INFO DEVICE

51. WHICH SYSTEM WOULD YOU PREFER SECOND ?

- 1. COMPUTER
- 2. TELEVISION (I.E. INTERACTIVE TV)
- 3. OPERATOR ASSISTED TELEPHONE
- 4. AUTOMATED TELEPHONE
- 5. PERSONAL INFO DEVICE

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 52. WHICH SYSTEM WOULD YOU PREFER THIRD ?
 - 1. COMPUTER
 - 2. TELEVISION (I.E. INTERACTIVE TV)
 - 3. OPERATOR ASSISTED TELEPHONE
 - 4. AUTOMATED TELEPHONE
 - 5. PERSONAL INFO DEVICE

- 53. HOW USEFUL WOULD YOU FIND SUCH A SYSTEM ?
 - 1. NOT AT ALL USEFUL
 - 2. NOT VERY USEFUL
 - 3. SOMEWHAT USEFUL
 - 4. VERY USEFUL
 - 5. EXTREMELY USEFUL

- 54. IF THIS FARE COLLECTION SYSTEM WERE AVAILBLE, HOW MUCH MORE LIKELY WOULD YOU BE TO MAKE MORE TRIPS BY TRANSIT?
 - 1. NOT AT ALL LIKELY
 - 2. NOT VERY LIKELY
 - 3. SOMEWHAT LIKELY
 - 4. VERY LIKELY
 - 5. EXTREMELY LIKELY

- 55. WHAT IS YOUR CURRENT JOB OR SCHOOL STATUS ?
 - 1. RETIRED
 - 2. NOT EMPLOYED
 - 3. NOT IN SCHOOL
 - 4. EMPLOYED PART TIME
 - 5. EMPLOYED FULL TIME
 - 6. PART TIME STUDENT
 - 7. FULL TIME STUDENT
 - O. BOTH WORK & GO TO SCHOOL

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 1. YES
- **2.** NO

- 1. YES
- **2.** NO

- 1. YES
- 2. NO

- 1. 8TH GRADE OR LESS
- 2. SOME HIGH SCHOOL
- 3. HIGH SCHOOL GRADUATE OR GED
- 4. SOME COLLEGE, INCLUDING TWO YEAR (AA) DEGREE
- 5. FOUR YEAR COLLEGE DEGREE
- 6. SOME GRADUATE WORK OR GRADUATE DEGREE
- 7. NO SCHOOLING
- 8. REFUSED

- 1. 65-69
- 2. 70-79
- 3. 80-89
- 4. 90 OR ABOVE
- 5. REFUSED

66. G	ENDER ****SURVEYOR NOTE: DO NOT ASK BUT MAKE A NOTE ****
	. MALE . Female
****	READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************************
1 2 3 4 5 6 7 8 9 1	LESS THAN \$9,999 \$10,000-\$19,999 \$20,000-\$29,999 \$30,000-\$39,999 \$40,000-\$49,999 \$50,000-\$59,999 \$60,000-\$69,999 \$70,000-\$79,999 \$80,000-\$89,999 MORE THAN \$100,000 REFUSED
***** PLEAS	READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ***********************************
	'IRST NAME: ************************************
	AST NAME:
	TREET ADDRESS: ***********************************
71. C	TTY:
72. Z	IP CODE:
	OULD YOU LIKE A QUESTIONNAIRE WITH LARGE PRINT ?
1 2	YES NO
****	(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************************
	THEN WILL BE THE BEST TIME TO CALL YOU BACK TO COMPLETE THE SECOND PART OF THE SURVEY ?
	(SURVEYOR NOTE: CAPTURE DAY AND TIME)
THANK	YOU VERY MUCH FOR YOUR TIME. HAVE A GOOD DAY/EVENING.

University of California, Davis ITS

General Population Travelers Research Study



QUESTIONNAIRE WITH LOGIC & SKIP PATTERNS (16:05:18 23 May 1997)

QUESTIONNAIRE = UCDG VERSION : FINAL ******* CODE BOX : LT = LESS THAN(<)GT = GREATER THAN> EQ = EQUALS* NE = NOT EQUAL TO ******** GOOD AFTERNOON/EVENING. THIS IS _____ CALLING ON BEHALF OF TUNIVERSITY OF CALIFORNIA, DAVIS. WE ARE DOING A TWO PART SURVEY _____ CALLING ON BEHALF OF THE TO HELP IMPROVE TRANSPORTATION SERVICES IN THE SACRAMENTO AREA. YOUR OPINIONS ARE VERY IMPORTANT TO US. CAN YOU HELP ME ANSWER SOME QUESTIONS NOW AND PARTICIPATE IN A BRIEF MAIL SURVEY ? *************************** 1. DO YOU HAVE ANY TROUBLE SEEING FACES FROM MORE THAN 10 FEET (WITH GLASSES OR CONTACT LENSES, IF YOU NORMALLY WEAR THEM) ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q1 IF Q<1> EQ "1" THEN GO END **************************** 2. ARE YOU BETWEEN THE AGES OF 18-64 ? 1. YES 2. **NO** (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) IF Q<2> EO "2" THEN GO END SKIP AFTER Q2 ************** 3. DO YOU USE A MANUAL WHEELCHAIR, ELECTRIC WHEELCHAIR, OR SCOOTER ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q3 IF Q<3> EO "2" THEN GO 5 ************************ 4. WHICH DO YOU USE ? 1. MANUAL WHEELCHAIR

- 2. ELECTRIC WHEELCHAIR
- 3. SCOOTER

5. DO YOU USE ANY OF THE FOLLOWING MECHANICAL AIDS FOR WALKING ? 1. CRUTCHES 2. WALKER 3. WALKING CANE 4. BRACES 5. ARTIFICIAL LIMB 6. OTHER 7. NONE (OTHER LINE = 120)(Multiple Response) (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) 6. DO YOU REQUIRE ASSISTANCE FROM ANOTHER PERSON TO GET IN AND/OR OUT OF A STANDARD CAR, TRUCK, OR VAN ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************************* 7. DO YOU REQUIRE ASSISTANCE FROM ANOTHER PERSON WHILE TRAVELING BY TRANSIT ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) 8. IS A CAR USUALLY AVAILABLE FOR YOU TO USE AS A . . ? 1. DRIVER 2. PASSENGER 3. NEITHER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************ 9. WHEN WAS THE LAST TIME YOU TOOK A PUBLIC TRANSIT BUS OR LIGHT RAIL ? 1. THIS MONTH 2. **1** TO **6** MONTHS 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************ 10. WHEN WAS THE LAST TIME YOU TOOK A TAXI ? 1. THIS MONTH 2. 1 TO 6 MONTHS AGO 3. 7 MONTHS TO ONE YEAR AGO 4. MORE THAN ONE YEAR AGO 5. NEVER (READ €'RE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) **************************** PARATRANSIT PROVIDES "DOOR TO DOOR'' SERVICE IN A VAN. YOU NEED TO

MAKE A RESERVATION WITH THE PARATRANSIT SERVICE PROVIDER A FEW DAYS IN ADVANCE.

- 11. ARE YOU AWARE OF SUCH A SERVICE IN YOUR AREA ?
 - 1. YES
 - 2. NO

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 12. WHEN WAS THE LAST TIME YOU USED A PARATRANSIT SERVICE ?
 - 1. THIS MONTH
 - 2. 1 TO 6 MONTHS AGO
 - 3. 7 MONTHS TO ONE YEAR AGO
 - 4. MORE THAN ONE YEAR AGO
 - 5. NEVER

- 13. ARE YOU CURRENTLY ATTENDING SCHOOL OR WORKING OUTSIDE YOUR HOME ?
 - 1. WORKING
 - 2. ATTENDING SCHOOL
 - 3. NEITHER
 - 4. BOTH

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 1. DRIVE YOUR OWN CAR/TRUCK/VAN
- 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER (OTHER LINE = 121)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

16. HOW MANY TIMES DID YOU RUN ERRANDS OR GO TO A RECREATIONAL ACTIVITY (I.E. SHOPPING, MOVIES, OUT FOR A MEAL, ACTIVITY CENTER) LAST WEEK?

- 17. HOW DO YOU USUALLY TRAVEL TO RUN ERRANDS OR GO TO A RECREATION ACTIVITY ?
 - 1. DRIVE YOUR OWN CAR/TRUCK/VAN
 - RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN

- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER LINE = 122)

(Multiple Response)

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

LAST WEEK ?

19. HOW DO YOU USUALLY TRAVEL TO GO TO A CLINIC/HOSPITAL/MEDICAL OFFICE ?

- 1. DRIVE YOUR OWN CAR/TRUCK/VAN
- 2. RIDE AS A PASSENGER IN A PRIVATE CAR/TRUCK/VAN
- 3. TAXI
- 4. BUS
- 5. TRANSIT TRAIN OR TROLLEY CAR
- 6. SPECIAL TRANSPORTATION SERVICE LIKE PARATRANSIT
- 7. WALKING OR USING A WHEELCHAIR
- 8. OTHER LINE = 123)

(Multiple Response)

FOR THE FOLLOWING QUESTIONS, CAN YOU PLEASE TELL **ME** HOW IMPORTANT THESE FACTORS WILL BE IN YOUR DECISION TO USE PARATRANSIT, INSTANT PARATRANSIT, AND CATCH-A-RIDE.

20. ENTER XX TO CONTINUE

QUESTIONS 21-29 ARE RANDOMLY ROTATED

- 21. COST OF THE RIDE. IS THAT . . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

NOT AT ALL IMPORTANT
 NOT VERY IMPORTANT
 SOMEWHAT IMPORTANT
 VERY IMPORTANT
 EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 28. WHO THE SERVICE PROVIDER IS (SUCH AS WITHIN YOUR COUNTY OR BETWEEN COUNTIES), IS THAT. . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

29. COVERAGE AREA OF SERVICE PROVIDER (SUCH AS WITHIN YOUR COUNTY OR BETWEEN COUNTIES). IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

30. ENTER XX TO CONTINUE

IMPORTANT AND "5" IS EXTREMELY IMPORTANT.

QUESTIONS 31-39 ARE RANDOMLY ROTATED

- 31. BUS ROUTE MAP. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

32. BUS SCHEDULE TABLE. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

33. TRANSFER INFORMATION. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- **3.** SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************ 34. FARE INFORMATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 35. STOPS NEAREST YOUR LOCATION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************* 36. WHEELCHAIR LIFT. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************* 37. SEAT AVAILABILITY. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************** 38. ACTUAL ARRIVAL TIME OF NEXT BUS. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT 4. VERY IMPORTANT 5. EXTREMELY IMPORTANT (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ********************* **39.** SHELTER CONDITION. IS THAT . . ? 1. NOT AT ALL IMPORTANT 2. NOT VERY IMPORTANT 3. SOMEWHAT IMPORTANT

5. EXTREMELY IMPORTANT

4. VERY IMPORTANT

5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

40. HOW MANY, OUT OF **10** DOCTOR APPOINTMENTS, WOULD YOU **MAKE** BY TRANSIT IF THE ITEMS YOU RATED ABOVE AS EXTREMELY IMPORTANT OR VERY IMPORTANT WERE AVAILABLE TO YOU ?

NOW I AM GOING TO ASK YOU YOUR OPINION ABOUT INFORMATION SYSTEMS WHICH PROVIDE INFORMATION ACCORDING TO YOUR REQUEST. AN INTERACTIVE COMPUTER SYSTEM IS SIMILAR TO AN AUTOMATIC TELLER MACHINE THAT ALLOWS YOU TO GET INFORMATION THROUGH A TELEVISION OR COMPUTER AT HOME, WORK, SCHOOL, AND LIBRARY.

NOW I ${\it AM}$ GOING TO READ YOU A LIST OF FACTORS. PLEASE TELL ME HOW IMPORTANT YOU FIND THESE FACTORS FOR PLANNING ${\it A}$ TRIP BY TRANSIT OR PARATRANSIT.

41. ENTER XX TO CONTINUE

QUESTIONS 42-49 ARE RANDOMLY ROTATED

- 42. COST OF USING THE INFORMATION SYSTEM. IS THAT . . ?
 - 1. NOT AT ALL IMPORTANT
 - 2. NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

43. BUS/RAIL INFORMATION. IS THAT . . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

44. PARATRANSIT INFORMATION. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

45. OTHER PARATRANSIT/RIDESHARING INFORMATION SUCH AS INSTANT PARATRANSIT AND CATCH-A-RIDE SERVICES I JUST DESCRIBED TO YOU. IS THAT . . ?

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT

- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- - NOT AT ALL IMPORTANT
 NOT VERY IMPORTANT
 - 3. SOMEWHAT IMPORTANT
 - 4. VERY IMPORTANT
 - 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 1. NOT AT ALL IMPORTANT
- 2. NOT VERY IMPORTANT
- 3. SOMEWHAT IMPORTANT
- 4. VERY IMPORTANT
- 5. EXTREMELY IMPORTANT

- 50. WHICH OF THE FOLLOWING SYSTEM WOULD YOU MOST LIKELY USE FOR OBTAINING TRANSPORTATION INFORMATION?
 - 1. COMPUTER
 - 2. TELEVISION (I.E. INTERACTIVE TV)
 - 3. OPERATOR ASSISTED TELEPHONE
 - 4. AUTOMATED TELEPHONE
 - 5. PERSONAL INFO DEVICE

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

51. WHICH SYSTEM WOULD YOU PREFER SECOND ?

- 1. COMPUTER
- 2. TELEVISION (I.E. INTERACTIVE TV)
- 3. OPERATOR ASSISTED TELEPHONE
- 4. AUTOMATED TELEPHONE
- 5. PERSONAL INFO DEVICE

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 52, WHICH SYSTEM WOULD YOU PREFER THIRD?
 - 1. COMPUTER
 - 2. TELEVISION (I.E. INTERACTIVE TV)
 - 3. OPERATOR ASSISTED TELEPHONE
 - 4. AUTOMATED TELEPHONE
 - 5. PERSONAL INFO DEVICE

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

CONSIDER AN AUTOMATIC FARE COLLECTION SYSTEM. THIS SYSTEM IS A PERSONAL CARD SIMILAR TO A CREDIT CARD WHICH YOU JUST PASS THROUGH A MACHINE AT YOUR STOP OR ON BOARD THE TRANSIT VEHICLE. THE BILL WILL BE SENT TO YOU AT HOME EVERY MONTH, INSTEAD OF YOU HAVING TO DEAL WITH CHANGE EVERY TIME YOU TRAVEL.

- 53. HOW USEFUL WOULD YOU FIND SUCH A SYSTEM ?
 - 1. NOT AT ALL USEFUL
 - 2. NOT VERY USEFUL
 - 3. SOMEWHAT USEFUL
 - 4. VERY USEFUL
 - 5. EXTREMELY USEFUL

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC)

- 54. IF THIS FARE COLLECTION SYSTEM WERE AVAILBLE, HOW MUCH MORE LIKELY WOULD YOU BE TO MAKE MORE TRIPS BY TRANSIT?
 - 1. NOT AT ALL LIKELY
 - 2. NOT VERY LIKELY
 - 3. SOMEWHAT LIKELY
 - 4. VERY LIKELY
 - 5. EXTREMELY LIKELY

- 55. WHAT IS YOUR CURRENT JOB OR SCHOOL STATUS ?
 - 1. RETIRED
 - 2. NOT EMPLOYED
 - 3. NOT IN SCHOOL
 - 4. EMPLOYED PART TIME
 - 5. EMPLOYED FULL TIME
 - 6. PART TIME STUDENT
 - 7. FULL TIME STUDENT
 - 8. BOTH WORK & GO TO SCHOOL

(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) SKIP AFTER Q55 IF Q<55> LE "3" THEN GO 58 ******************* 56. WHAT IS THE ZIP CODE AT YOUR WORKPLACE/SCHOOL ? ************************** 57. WHAT IS THE NEAREST INTERSECTION TO YOUR WORKPLACE/SCHOOL ? ************************* 58. DO YOU HAVE A COMPUTER IN YOUR HOME ? 1. YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************ 59. ARE YOU A COMPUTER USER ? 1. YES 2. **NO** (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************** 60. HAVE YOU USED THE INTERNET BEFORE (I.E. THE WORLD WIDE WEB) ? **1.** YES 2. NO (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ******************** 61. INCLUDING YOURSELF, HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD ? ************** 62. HOW MANY CARS, TRUCKS, AND VANS ARE OWNED BY YOUR HOUSEHOLD ? ************************* 63. INCLUDING YOURSELF, HOW MANY PEOPLE IN YOUR HOUSEHOLD ARE LICENSED DRIVERS ? ************************ 64. WHAT WAS THE HIGHEST LEVEL IN SCHOOL THAT YOU COMPLETED ? 1. 8TH GRADE OR LESS 2. **SOME** HIGH SCHOOL 3. HIGH SCHOOL GRADUATE OR GED 4. SOME COLLEGE, INCLUDING TWO YEAR (AA) DEGREE 5. FOUR YEAR COLLEGE DEGREE 6. SOME GRADUATE WORK OR GRADUATE DEGREE 7. NO SCHOOLING 8. REFUSED (READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ****************** 65. PLEASE STOP ME WHEN I READ THE CATEGORY WHICH CONTAINS YOUR AGE: 1. UNDER 20 2. **20-29** 3. 30-39 4.40 - 495. 50-59 6.60-647. REFUSED

1. MALE 2. FEMALE
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************************
1. LESS THAN \$9,999 2. \$10,000-\$19,999 3. \$20,000-\$29,999 4. \$30,000-\$39,999 5. \$40,000-\$49,999 6. \$50,000-\$59,999 7. \$60,000-\$69,999 8. \$70,000-\$79,999 9. \$80,000-\$89,999 10. \$90,000-\$99,999 11. MORE THAN \$100,000 12. REFUSED
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************************
68. FIRST NAME: ***********************************
71. CITY: ************************************
72. ZIP CODE: ************************************
1. YES 2. NO
(READ PRE-CODED RESPONSES-EXCEPT FOR 'DON'T KNOW', 'REFUSED', ETC) ************************************
74. WHEN WILL BE THE BEST TIME TO CALL YOU BACK TO COMPLETE THE SECOND PART OF THE SURVEY ?
(SURVEYOR NOTE: CAPTURE DAY AND TIME) ************************************
THANK YOU VERY MUCH FOR YOUR TIME. HAVE A GOOD DAY/EVENING.

HOW SHOULD TRANSPORTATION SERVICES BE DESIGNED TO MEET YOUR NEEDS?

The Institute of Transportation Studies at the University of California at Davis is working to understand Your Needs.

WENEED YOUR HELP!

Dear Potential Respondent,

The Institute of Transportation Studies at the University of California at Davis is doing a survey to improve transportation services for disabled people. Your opinions are very important in helping us design programs that will meet your needs and the needs of disabled people in Sacramento. **All information from the survey will be kept strictly confidential and will only be used for research purposes.** If you are willing to participate in this survey, please call this toll free number: 1-800-333-0830 by June 6. An interviewer will call you to ask you some questions. We will mail you 3 dollars in appreciation for your participation in this survey. If you have any questions or concerns, please feel free to call Rosanne Serrao at (916) 752-0247 or Iris Chen at (916) 752-2029.

Appendix D: Results of Mode Usage for Year-One Survey

Table D-1. Mode Usage by Group Type for Work/School Trips

Group		Transportatiiom Mode						
Type	Driver	Passenger	Paratransit	Transit	Wal k	Other	Numbe r	
Disabled	11	8	34	44	3	8	108	
	(10%)	(7%)	(31%)	(41%)	(3%)	(7%)		
Elderly	14	1	0	0	0	0	15	
	(93%)	(7%)	(0%)	(0%)	(0%)	(0%)		

Table D-2. Mode Usage by Group Type for Shopping Trips

Group		Transportation Mode					
Type	Driver	ver Passenger Paratransit Otl			Other	Number	
Disabled	13	30	1			1	63
	(21%)	(48%)	(2%)			(2%)	
Elderly	185	21	0		_	1	212
	(87%)	(10%)	(0%)	(1%)	(1%)	(0%)	

Table D-3. Mode Usage by Group Type for Recreational Trips

Group		Transportation Mode					
Туре	Driver	Passenger	Paratransit	Transit	Wal k	Other	Numbe r
Disabled	14	41	10	17	2	4	88
	(16%)	(47%)	(11%)	(19%)	(2%)	(5%)	
Elderly	148	28	0	2	2	0	180
	(82%)	(16%)	(0%)	(1%)	(1%)	(0%)	

Table D-4. Mode Usage by Group Type for Medical Trips

Group		Transportation Mode						
Туре	Driver	Passenger	Paratransit	Transit	Wal k	Other	Numbe r	
Disabled	5	21	4	5	1	1	37	
	(14%)	(57%)	(11%)	(14%)	(3%)	(3%)		
Elderly	65	24	0	1	0	0	90	
	(72%)	(27%)	(0%)	(1%)	(0%)	(0%)		

Table D-5. Mode Usage by Group Type for Errand Trips

Group		Transportation Mode						
Туре	Driver	Passenger	Paratransit	Transit	Wal k	Other	Numbe r	
Disabled	13	25	1	15	2	1	57	
	(23%)	(44%)	(2%)	(26%)	(4%)	(2%)		
Elderly	178	18	1	1	2	1	201	
	(89%)	(9%)	(0%)	(0%)	(1%)	(0%)	 	

Appendix E: Standardized Residuals for Best Modes

• Model A: First Choice among Five Information Systems

Comphome	Compint		Inter	face		
		Computer	Tv	Ope	Auto	Personal
No	No	0.3	-0.1	0.2	-0.5	0.2
	Comp	0.3	-0.2	-0.2	0.2	0.1
	Both	-0.6	0.8	-0.6	0.8	-0.4
Yes	No	-0.3	0.4	-0.5	0.9	-0.4
	Comp	-0.2	0.4	0.2	-0.1	-0.1
	Both	0.1	-0.6	0.3	-0.4	0.3

STANDARDIZED RESIDUAL = (OBS - EXP)/SQRT(EXP)

• Model B: Choice between Paratransit and Real-Time Paratransit (i.e., Instant Paratransit)

Fare	Carav	Gp	Mobaid	Pchoice		
				Para	Ins	No
High	Not	Dis	Not Yes	0.0	0.0 0.3	0.0
		Eld	Not Yes	0.0 0.3	0.3 -1.1	-0.3 -0.1
		Gen	Not Yes	-0.7 0.4	0.9 -0.8	0.0
	Driver	Dis	Not Yes	0.0 0.5	0.0 -0.3	0.0
		Eld	Not Yes	-0.1 -0.6	-0.6 0.5	0.2 -0.0
		Gen	Not Yes	0.4	0.5	-0.0 0.0
Low	Not	Dis	Not Yes	0.0	0.0 -0.2	0.0
		Eld	Not Yes	-0.7 0.1	-0.1 0.8	1.0 -0.4
		Gen	Not Yes	-0.1 1.1	0.4 -0.9	0.0
	Driver	Dis	Not Yes	0.0 -0.6	0.0 0.3	0.0 0.1
		Eld	Not Yes	0.4 0.2	0.4 -0.1	$-0.4 \\ 0.4$
		Gen	Not Yes	-0.1 -0.8	-0.6 0.1	0.0

STANDARDIZED RESIDUAL = (OBS - EXP)/SQRT(EXP)

• Model D: Choice between Paratransit and Real-Time Ridesharing (i.e., Catch-A-Ride)

Pickdrop	Gp	Carav	Choice		
			Neither	Para	Catch
No	Dis	Driver No	-0.1 -0.2	-0.2 0.4	0.0 -0.7
	Eld	Driver No	-0.1 0.1	0.2 0.2	-0.4 -0.5
	Gen	Driver No	0.0 0.1	-0.8 -0.3	1.0 0.8
Yes	Dis	Driver No	0.1 0.2	0.2 -0.5	-0.0 0.6
	Eld	Driver No	0.1 -0.1	-0.2 -0.2	0.3 0.4
	Gen	Driver No	0.0 -0.1	0.9 0.4	-0.8 -0.6

STANDARDIZED RESIDUAL = (OBS - EXP)/SQRT(EXP)

Appendix F: Selection Results Between Paratransit and Real-Time Paratransit

Table F-1. Mode Selection Results for the First Question in Block One

Group Type	Selection					
	Paratransit Instant Paratransit Neither					
[Disabled	13(45%)	12(41%)	4(14%)			
Elderly	23(38%)	19(32%)	18(30%)			
General	9(19%)	17(35%)	22(46%)			

Table F-2. Mean Number of Trips for the First Question in Block One

Group Type	Mean Number of Trips				
	Paratransit	Instant Paratransit			
Disabled	5.8	5.5			
Elderly	4.6	4.9			
General	3.8	6.1			

Table F-3. Mode Selection Results for the Second Question in Block One

Group Type	Selection				
	Paratransit Instant Paratransit Neither				
Disabled	11(38%)	14(48%)	4(14%)		
Elderly	21(35%)	22(37%)	17(28%)		
General	9(19%)	21(44%)	18(38%)		

Table F-4. Mean Number of Trips for the Second Question in Block One

Group Type	Mean Number of Trips		
	Paratransit	Instant Paratransit	
Disabled	5.0	5.6	
Elderly	4.2	4.5	
General	4.8	4.6	

Table F-5. Mode Selection Results for the Third Question in Block One

Group Type	Selection			
	Paratransit Instant Paratransit Neither			
Disabled	9(31%)	16(55%)	4(14%)	
Elderly	15(25%)	29(48%)	16(27%)	
General	6(13%)	21(44%)	21(44%)	

Table F-6. Mean Number of Trips for the Third Question in Block One

Group Type	Mean Number of Trips		
	Paratransit	Instant Paratransit	
Disabled	5.1	6.3	
Elderly	4.4	4.9	
General	3.7	5.5	

Table F-7. Mode Selection Results for the Fourth Question in Block One

Group Type	Selection		
	Paratransit Instant Paratransit Neither		
Disabled	9(31%)	15(52%)	5(17%)
Elderly	15(25%)	28(47%)	17(28%)
General	6(13%)	22(46%)	20(42%)

Table F-8. Mean Number of Trips for the Fourth Question in Block One

Group Type	Mean Number of Trips		
	Paratransit	Instant Paratransit	
Disabled	5.9	6.0	
Elderly	4.5	5.4	
General	3.7	5.4	

Table F-9. Mode Selection Results for the First Question in Block Two

Group Type	Selection		
	Paratransit Instant Paratransit Neither		
Disabled	14(54%)	8(3 1%)	4(15%)
Elderly	28(47%)	11(19%)	20(34%)
General	6(14%)	19(43%)	19(43%)

Table F-10. Mean Number of Trips for the First Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit	Instant Paratransit	
Disabled	4.9	7.1	
Elderly	5.0	6.4	
General	3.3	4.9	

Table F-11. Mode Selection Results for the Second Question in Block Two

Group Type	Selection			
	Paratransit Instant Paratransit Neither			
Disabled	12(46%)	10(38%)	4(15%)	
Elderly	28(47%)	12(20%)	19(32%)	
General	9(20%)	17(39%)	18(41%)	

Table F-12. Mean Number of Trips for the Second Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit Instant Paratrans		
Disabled	5.8	7.3	
Elderly	4.8	5.8	
General	4.8	4.3	

Table F-13. Mode Selection Results for the Third Question in Block Two

Group Type	Selection		
	Paratransit Instant Paratransit Neither		
Disabled	6(23%)	16(62%)	4(15%)
Elderly	21(36%)	20(34%)	18(31%)
General	5(11%)	22(50%)	17(39%)

Table F-14. Mean Number of Trips for the Third Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit	Instant Paratransit	
Disabled	5.3	6.1	
Elderly	4.6	5.9	
General	6.2	4.5	

Table F-15. Mode Selection Results for the Fourth Question in Block Two

Group Type	Selection			
	Paratransit Instant Paratransit Neither			
Disabled	6(23%)	16(64%)	4(15%)	
Elderly	17(29%)	24(41%)	18(31%)	
General	4(9%)	24(55%)	16(36%)	

Table F-16. Mean Number of Trips for the Fourth Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit Instant Paratransi		
Disabled	5.3	6.7	
Elderly	4.4	5.0	
General	5.5	5.3	

Appendix G: Selection Results Between Paratransit and Real-Time Ridesharing

Table G-1. Mode Selection Results for the First Question in Block One

Group Type	Selection		
	Paratransit Catch-A-Ride Neither		
Disabled	10(34%)	10(34%)	9(31%)
Elderly	16(27%)	23(38%)	21(35%)
General	10(21%)	16(33%)	22(46%)

Table G-2. Mean Number of Trips for the First Question in Block One

Group Type	Mean Number of Trips		
	Paratransit Catch-A-Ride		
Disabled	5.8	6.6	
Elderly	3.9	5.3	
General	4.5	5.1	

Table G-3. Mode Selection Results for the Second Question in Block One

Group Type	Selection		
_	Paratransit Eatch-A-Ride Neither		
Disabled	15(52%)	6(21%)	8(28%)
Elderly	24(40%)	14(23%)	22(37%)
General	9(19%)	18(38%)	21(44%)

Table G-4. Mean Number of Trips for the Second Question in Block One

Group Type	Mean Number of Trips		
	Paratransit Catch-A-Ride		
Disabled	5 :7	5 :₹	
Elderly	4.0	5.1	
General	4.3	5.6	

Table G-5. Mode Selection Results for the Third Question in Block One

Group Type	Selection		
	Paratransit Catch-A-Ride Neither		
Disabled	14(48%)	7(24%)	8(28%)
Elderly	24(40%)	13(22%)	23(38%)
General	11(23%)	16(33%)	21(44%)

Table G-6. Mean Number of Trips for the Third Question in Block One

Group Type	Mean Number of Trips		
	Paratransit Catch-A-Ride		
Disabled	5.9	6.3	
Elderly	3.8	5.4	
General	4.7	5.5	

Table G-7. Mode Selection Results for the Fourth Question in Block One

Group Type	Selection		
	Paratransit Catch-A-Ride Neither		
Disabled	9(31%)	10(34%)	10(34%)
Elderly	18(30%)	20(33%)	22(37%)
General	8(17%)	21(44%)	19(40%)

Table G-8. Mean Number of Trips for the Fourth Question in Block One

Group Type	Mean Number of Trips		
	Paratransit Catch-A-Ride		
Disabled	5.2	6.4	
Elderly	4.0	5.0	
General	6.1 4.4		

Table G-9. Mode Selection Results for the First Question in Block Two

Group Type	Selection		
	Paratransit Catch-A-Ride Neither		
Disabled	10(38%)	9(35%)	7(27%)
Elderly	17(29%)	23(39%)	19(32%)
General	9(20%)	20(45%)	15(34%)

Table G-10. Mean Number of Trips for the First Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit Catch-A-Ride		
Disabled	6.2	5.3	
Elderly	5.1	5.2	
General	5.2	4.1	

Table G-11. Mode Selection Results for the Second Question in Block Two

Group Type	Selection		
	Paratransit Catch-A-Ride Neither		
Disabled	12(46%)	5(19%)	9(35%)
Elderly	23(39%)	14(24%)	22(37%)
General	9(20%)	14(32%)	21(48%)

Table G-12. Mean Number of Trips for the Second Question in Block Two

Group Type	Mean Number of Trips		
	Paratransit	Catch-A-Ride	
Disabled	6.5	5.4	
Elderly	5.6	4.6	
General	5.3	5.0	

Table G-13. Mode Selection Results for the Third Question in Block Two

Group Type	Selection		
	Paratransit	Catch-A-Ride	Neither
Disabled	9(35%)	10(38%)	7(27%)
Elderly	15(25%)	24(41%)	20(34%)
General	7(16%)	20(45%)	17(39%)

Table G-14. Mean Number of Trips for the Third Question in Block Two

Group Type	Mean Number of Trips	
[Paratransit	Catch-A-Ride
Disabled	6.2	6.2
Elderly	4.7	4.8
General	4.9	5.3

Table G-15. Mode Selection Results for the Fourth Question in Block Two

Group Type	Selection		
	Paratransit	Catch-A-Ride	Neither
Disabled	14(54%)	4(15%)	8(31%)
Elderly	24(41%)	13(22%)	22(37%)
General	9(20%)	17(39%)	18(41%)

Table G-16. Mean Number of Trips for the Fourth Question in Block Two

Group Type	Mean Number of Trips	
	Paratransit	Catch-A-Ride
Disabled	6.8	4.0
Elderly	5.3	3.8
General	5.6	4.4