

**SHASTA COUNTY REGIONAL TRANSPORTATION
PLANNING AGENCY**

TRANSIT STUDY



MAY 2002

Purpose of Study

The purpose of this review is to observe and describe the operations of the RABA provided Demand Response Service and the transportation services provided by Shasta Senior Nutrition Program (SSNP) serving in their capacity as the Consolidated Transportation Services Agency (CTSA). This review is conducted in response to several questions that have been recently raised concerning these two services. This review is intended to provide an objective perspective and to clearly describe similarities and differences in the two services. It is a goal of this report to provide decision makers and the general public with a tool to be used to evaluate future decisions regarding these services.

Method

The Shasta County Regional Transportation Planning Agency (SCRTPA) collected data for the study between May 6, 2002 and May 10, 2002. Riding both RABA and SSNP transit services for two days, and observing dispatch procedures for three hours at each service obtained data.

Transit drivers were observed while loading and unloading passengers from their origin through their destination. Data for each passenger was logged for their starting location and time, drop off location and time, and if the passenger needed driver assistance and/or was in a wheelchair. Passengers were surveyed for the reason for their trip, how often the passenger uses the service, and how far in advance the passenger schedules service. See Table 1-Description of Services-Page 2. Not all passengers were able to communicate or respond. In these cases, drivers provided information on the passenger. Data from observations was compiled into a table for side-by-side presentation. Charts were prepared from the data for presentation.

SCRTPA randomly selected the routes to be observed, and at which time to observe another route.

Photos were taken of passengers at loading and unloading locations, documenting the amount of assistance needed for riders.

Financial data was obtained from the State Controller's Report prepared annually by RABA. Similar data for SSNP was gleaned from certified audit reports.

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Table 1		
Description of Services		
Shasta Senior Nutrition and RABA Demand Response		
	Shasta Senior Nutrition Program (SSNP)	RABA Demand Response
Reasons for trip		
School	0	4
Shopping	0	2
Stylist	0	2
Foster Grandparent	1	2
Developmental Program	3	15
Other/unknown	3	2
Doctor Appointments	5	6
Senior Program (includes meals)	25	0
Rider Data		
Wheelchairs	1	11
Driver assist	28	21
Average Ride time	: 35	: 21
Riders Per Hour	3.22	2.87
Total riders observed	37	33
Dispatch operations		
How are rides booked?	1. Call in for scheduling	1. Call in for scheduling
	2. Subscriber- set pickup	2. Fax in requests
Pre-scheduled (%)	100%	100%
Reservations made in advance (%)	1-2 days=8 22% frequent riders=21 56% unknown=8 22%	100%
Programs schedule services using fax machines. (%)		2-5%
Cancellations		
	1. Rider calls in	1. Rider Calls in
		2. At pickup logged if no show

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General Characteristics

Redding Area Bus Authority

Rider Eligibility

The Redding Area Bus Authority (RABA) offers a Demand Response system that is complementary to the fixed route system, and serves those residents with transportation disabilities. The United States Department of Transportation (USDOT) American Disabilities Act (ADA) regulates that each public entity that operates a fixed route transit system shall provide complementary service to eligible individuals with disabilities. To use the Demand Response service a passenger must be certified as eligible for the service. Eligibility requirements are defined as anyone who is permanently or temporarily mobility impaired, and who is unable to use the regularly scheduled fixed route system for one or more of the following reasons:

- any individual who is unable, as a result of physical or mental impairment and without the assistance of another individual, to use an accessible fixed route system.
- any individual who requires a boarding device to use a fixed route vehicle, but who uses a route not served by accessible fixed route transportation
- any individual who has a specific impairment-related condition that prevents them from traveling to a boarding location.

Rides can be scheduled in two ways. Riders can call in a reserve a ride for a specific time period. Additionally, regular riders can create a “standing reservation” for everyday through a “subscription service”. The Americans with Disabilities Act (ADA) requires that “subscription services” (regularly scheduled repeat trips) can not require so high a level of resources on a paratransit service that individual ride requests are denied. Subscription trips should have a rate of equal to or no greater than fifty percent of overall trips. This provision is designed to prevent Demand Response to be overloaded with service requests to specific programs and keeps Demand Response accessible to the eligible riders in the general public.

Geographic Area

RABA provides fixed route and Demand Response transit service in the “urbanized area” of Shasta County including the cities of Redding, Anderson and Shasta Lake, as well as a portion of unincorporated Shasta County. The area of service is exhibited in the RABA System Map and Route Guide. The Demand Response service system is complementary to the fixed route system and the service area is within three-quarter miles of the fixed routes. The RABA routes selected for study purposes provided service to and from locations within the cities of Redding, Anderson, and Shasta Lake, as well as service to Shasta College.

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Fare Required

Passengers' farebox fees are \$1.50 per ride plus a \$0.75 zone charge.

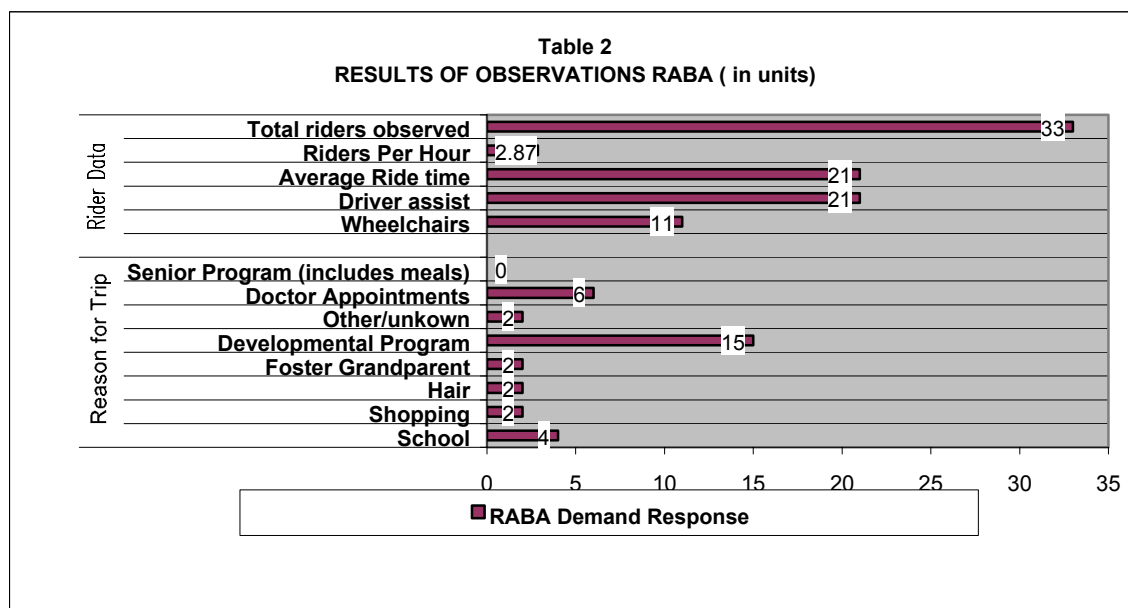
Type of Service

RABA's Demand Response service is operated Monday through Friday from 6:30 a.m. to 7:30 p.m., and Saturday from 9:30 a.m. to 7:30 p.m. RABA defines the service as curb-to-curb, which means the vehicle will stop at the curb of the pickup point at a prearranged time. The rider does not have to be standing at the curb, but should be in a location that allows him/her to see the vehicle when it arrives. The rider should be able to travel to the vehicle under his/her own power. At that point, the driver will assist the rider into the vehicle.

Results of Observations - Data

During the study period, the SCRTPA observed thirty-three passengers on the RABA Demand Response service. Purposes for the passengers trips included; four passengers used service to school, fifteen passengers to development programs/centers, two shopping, six for medical appointments, two to schools for foster grandparent program, two for hair appointments, and two for other reasons. See Table 2 for further detail.

Of the thirty-three passengers observed, twenty-one passengers required assistance from the transit driver in loading/unloading from the vehicle. These twenty-one passengers included eleven passengers in wheelchairs. Twelve passengers required no assistance from the driver. See Tables 2 and 3.

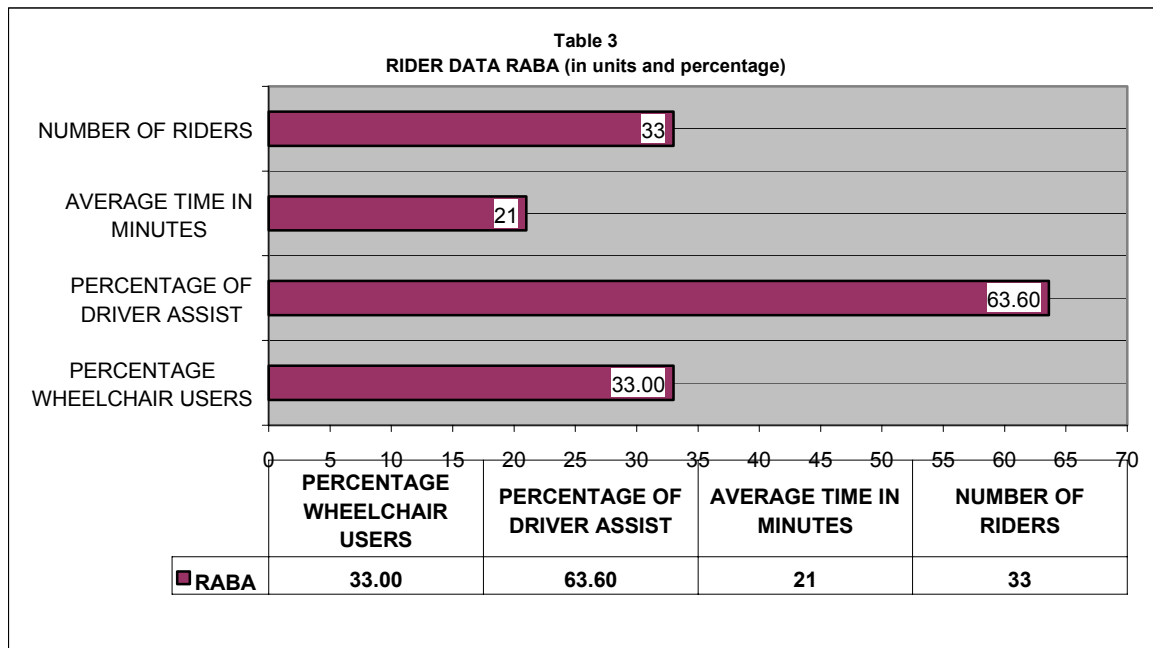


The average ride time per passenger was twenty-one minutes. This service transported 2.87 riders per hour. For the whole year RABA transported 2.71 rides per hour. See

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Table 10-Page 14. This is one indication that the sample observed was representative of the operation.



Results of Observations- Visual

RABA describes their service as a curb-to-curb service where the rider must be able to travel to the vehicle under his/her own power. If the passenger is not visible, the driver must wait for five minutes for the passenger. If the passenger does not appear, dispatch is contacted and dispatch contacts the passenger to verify that they need a ride or if they are canceling their ride. The driver is then radioed with the passengers' response. Drivers generally checked at the entrance to the home/building for the passenger prior to contacting dispatch.

The drivers observed assisted twenty-one of the thirty-three passengers observed. The drivers offered door-to-door assistance to these passengers. Fifteen of the passengers observed had developmental disabilities. These riders required additional assistance from the drivers. No caregivers were observed riding with these individuals. Drivers stated that they are transporting an increased amount of the severely developmentally disabled from group homes and care centers.

RABA is mandated by ADA Para transit rules that ride time must be limited to one-half of the fixed route service, or 30-45 minutes per rider. Therefore, riders are grouped by their destinations to stay within the ADA mandates. Due to ADA mandates, RABA must not have their passengers wait any longer than the ADA requirement of one-half of the fixed route service. Several RABA vehicles may be at the same location at near times, but they may be transporting passengers to different locations or to the same location but at a later time.

The Demand Response drivers were very attentive to their passengers. The drivers do not transport the same passengers on a daily basis, but it was observed that many of the drivers knew the passengers they were transporting from prior rides. Each driver responded that they enjoy their work and the opportunity to aid persons with disabilities.

Dispatch Operations

RABA Demand Response uses automated dispatching to match incoming ride requests with available vehicle capacity to most efficiently assign vehicles to serve passenger requests. Since the demand is constantly changing with new ride requests and rides being completed, the system must re-adjust the optimum utilization of the fleet of vehicles continually.

100% of the RABA Demand Response services are pre-scheduled. Same day scheduling requests can be accommodated if there is available seating. Riders call in to schedule their rides no earlier than two weeks prior to their required ride time. Dispatch inputs the riders requested time and the software provides the available vehicles and ride times available during the riders' request. The dispatcher may select from the ride times, or override the system for better placement on another vehicle. There is a fifteen-minute window between each rider to allow for impacts on travel time. Group/care homes and Adult Day Health Care also request rides via fax machine and must be scheduled into the system. These faxed requests represent approximately 2-5% of the rides scheduled for the overall Demand Response system.

Dispatch communicates with the drivers via radio communications. Drivers transmit if they need assistance with any of their stops and dispatch transmits a message to all drivers that if they are in the area, can they assist with the pickup of a passenger. Drivers must also call in codes when backing their vehicle.

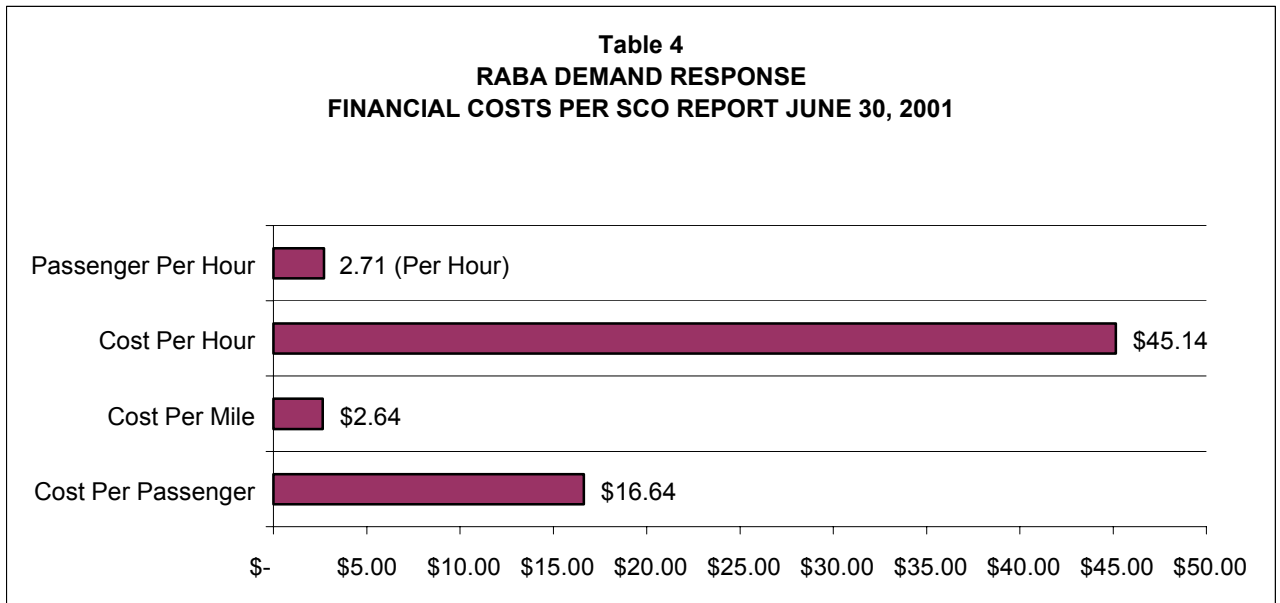
Cancellations

Cancellations are handled either by dispatch or the transit driver. If the cancellation is called in prior to the drivers' departure from the terminal, the rider is removed from the driver log schedule. Cancellations after departure are communicated via radio. Drivers call in a "no-show" if their scheduled passenger does not appear at the pre-determined pickup point.

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Financial Data

The costs for operation of the Demand Response system were obtained from the Redding Area Bus Authority's June 30, 2001 State Controllers *Report*. According to this report RABA transported 2.71 passengers per hour, cost \$45.14 per hour, cost \$2.64 per mile, and cost \$16.64 per passenger. See Table 4 below.



General Characteristics
Shasta Senior Nutrition Program, Inc

Rider Eligibility

The Shasta Senior Nutrition Program, Inc. (SSNP) is a non-profit agency formed to provide services to individuals age 60 and over. SSNP provides nutrition, educational, recreational and transportation programs. SSNP pools funding from various sources to provide these programs to the senior population. The programs are coordinated with each other for optimal utilization. For example, a vehicle may be used to transport seniors in the morning and then used in the Home Delivered Meals program. This review is limited to the transportation programs funded by a combination of resources such as the Transportation Development Act (TDA), and discretionary funding from Shasta County.

The Shasta Senior Nutrition Program, Inc. (SSNP) offers services to individuals age 60 or over on a donation basis. SSNP has provided services to seniors through transportation, senior centers, meals on wheels, and volunteer programs as well as food banks and food programs.

The Older Americans Act and the TDA funded services are targeted at seniors throughout Shasta County. Most major population centers throughout the County are served. Passengers are transported from rural areas of Shasta County to the more densely populated areas where medical and social needs can be met as well as within the Redding urbanized area.

SSNP also operates the County Lifeline Services. This service is intended to provide disabled transportation service into Redding from remote, hard to service areas including Bella Vista, Palo Cedro, Happy Valley and Cottonwood for necessary services such as medical appointments.

Geographic Area

SSNP provides service to the outlying areas of Shasta County. These areas include Bella Vista, Palo Cedro, Cottonwood, Anderson, Olinda, Happy Valley, Burney/Johnson Park, Fall River Mills, Shasta Lake, Mountain Gate, and areas within Redding. Service area maps are provided for areas of service.

SSNP routes selected for study purposes provided service to and from the outlying areas of Happy Valley, Cottonwood, Anderson, and Redding (Enterprise) area, and Redding (College View) area.

Fare Required

Passengers' fare is a suggested \$1.00 per ride.

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Type of Service

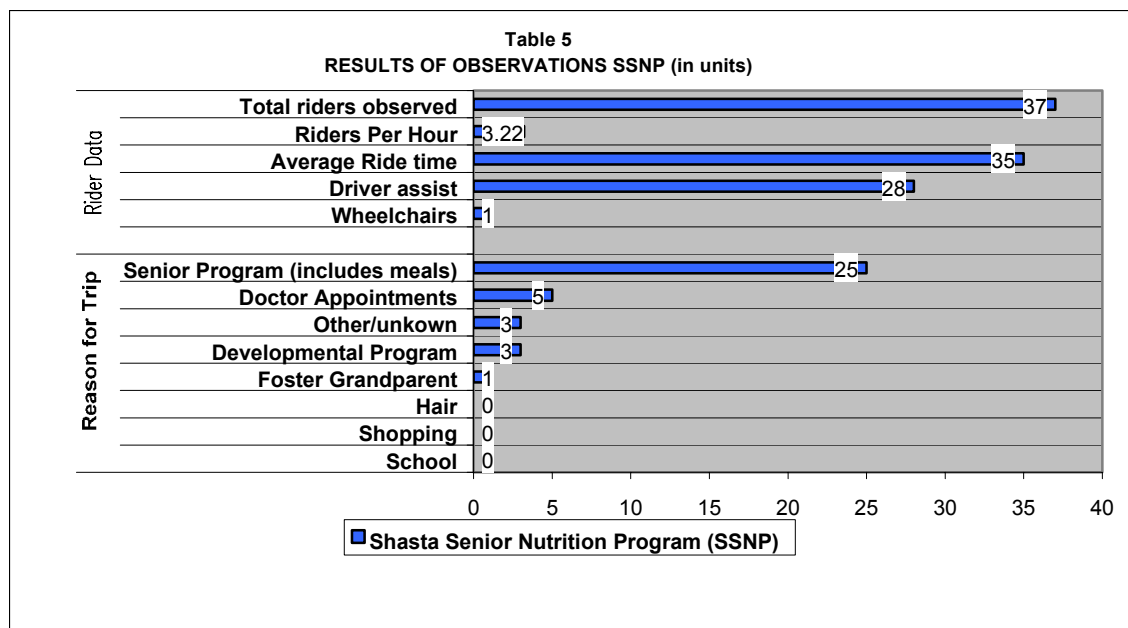
The SSNP service is operated Monday through Friday from 8:00 a.m. to 5:00 p.m. and occasionally on weekends for special events. SSNP provides door-to-door service to the passengers.

Results of Observations - Data

During the study period, the SCRTPA observed thirty-seven passengers on the SSNP service. Purposes for the passengers trips included; twenty-five passengers used service to lunch/senior centers, three passengers to developmental programs, five passengers to medical appointments, one for foster grandparent program, and three for other reasons. See Table 5.

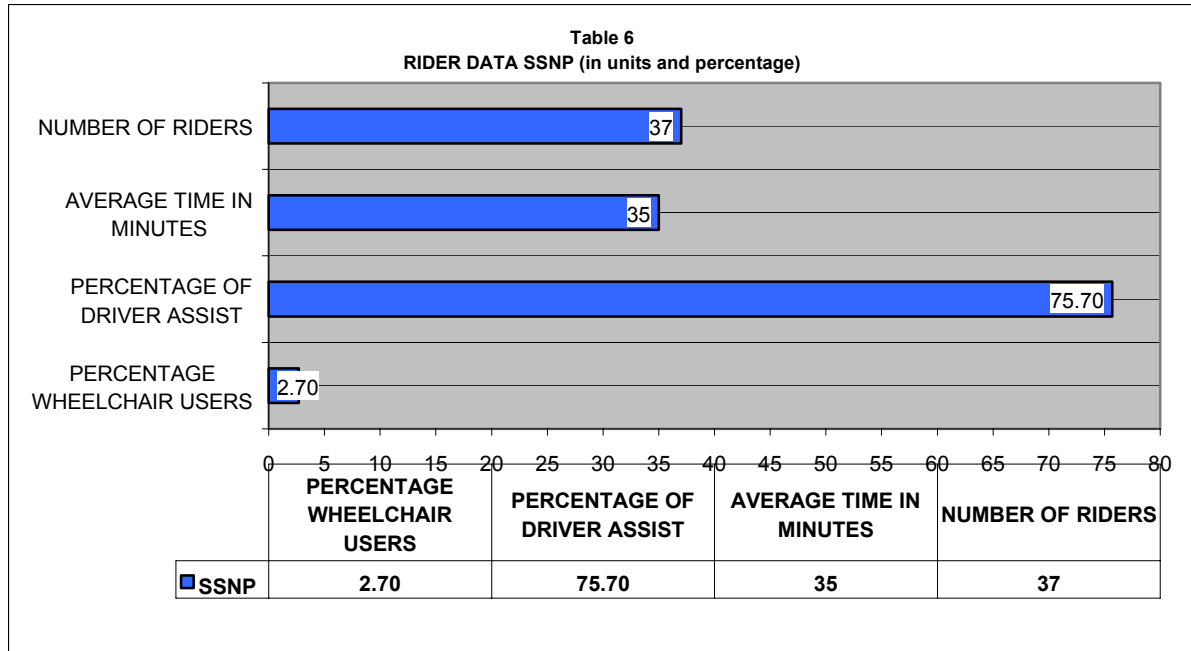
Of the thirty-seven passengers observed, twenty-eight passengers required assistance from the transit driver in loading/unloading from the vehicle. These twenty-eight passengers included one passenger in a wheelchair. Nine passengers required no assistance from the driver. See Table 5 below and Table 6-Page 10.

The data collected for the thirty-seven passengers resulted in an average ride time per passenger of thirty-five minutes. Overall, the SSNP service transported 3.22 riders per hour. See Table 5 below. This is consistent with annual riders per hour of 3.26. See Table 10-Page 14.



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Results of Observations- Visual

SSNP offers a “fixed-route” type of service. This means the bus runs in the same general vicinity each day at about the same time. As a result riders generally ride the same bus if they were to ride the bus everyday as many of the riders do. These regular riders, or frequent riders, are prescheduled. This method of scheduling leads to a “social” atmosphere on the vehicles, as the riders know the driver as well as the other riders. SSNP has no limitations for the length of time on a vehicle; therefore many of these passengers ride 30-45 minutes every day with the same driver and same riders.

Although many riders seem to use the service almost daily, we did observe many riders who use the system two days or less.

Drivers provide door-to-door service and assist passengers from inside their home/and or pickup location. Ambulatory passengers were aided as they entered and exited the vehicles. Less ambulatory passengers were walked to their door, or to the door of the vehicle. If assistance was required inside the rider’s home, the drivers provided assistance. Passengers were also assisted with groceries and/or purchases onto the vehicle. It is apparent that the SSNP drivers enjoy their jobs. There appears to be a lot of interaction between the drivers and their passengers.

Dispatch Operations

The SSNP dispatch procedure is performed with a manual system. Riders’ information and frequent stops are maintained in a computer database, while the scheduling is done manually using a schedule sheet. 100% of the riders are pre-scheduled. Same day scheduling requests can be accommodated if there is available seating. Frequent riders

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are automatically scheduled on their required days, while non-frequent riders may call in by 3:00 p.m. of the day prior to their needed ride. Riders may also call in for same day service if there is an available time.

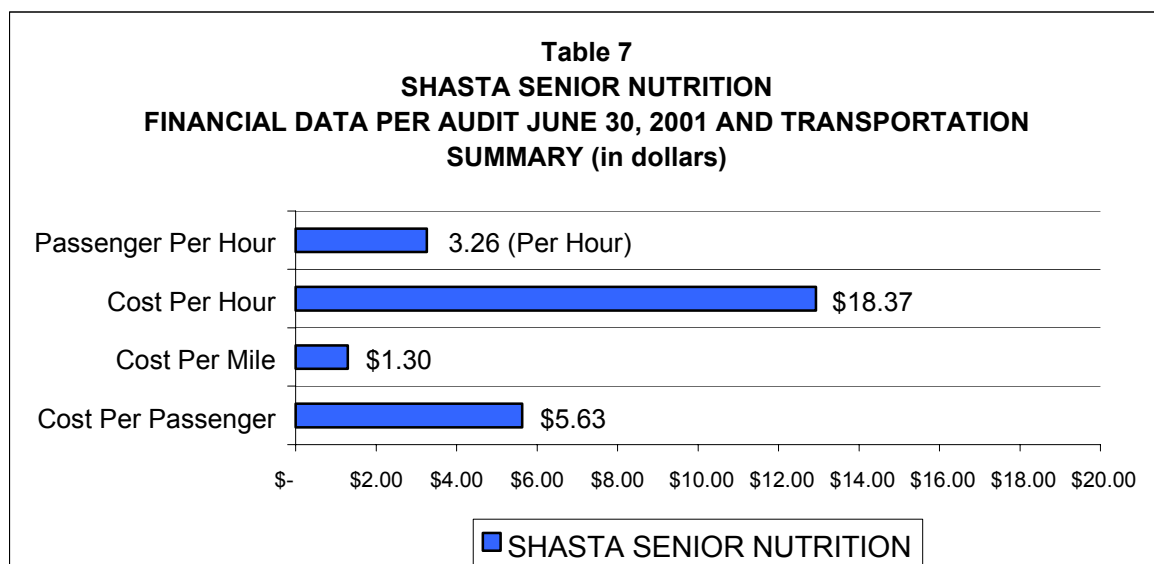
Drivers communicate with dispatch via radio communications. Drivers call to dispatch if they need assistance or are running behind schedule. Dispatch transmits a message that a driver needs assistance and can they assist with picking up passengers.

Cancellations

Cancellations are handled either by dispatch or the transit driver. If the cancellation is called in prior to the drivers' departure from the center, the rider is removed from the driver log schedule. Cancellations after departure are communicated via radio.

Financial Data

The costs for operation were obtained from the Shasta Senior Nutrition Program statement of functional revenues and expenses per their financial statements at June 30, 2001. Only revenues and expenses for CTSA Funds, CTSA Administration, and Lifeline Funds are used for this study. Total rides and mileage were collected from the SSNP transportation summary that is provided to the SCRTPA on a semi-monthly basis. From these two sources the cost analysis arrived at 3.26 passengers are transported per hour. See Table 7 below. The total cost per hour equaled \$18.37, cost per mile \$1.30, and cost per passenger \$5.63. This is consistent with the transit study observations of 3.22 passengers per hour.



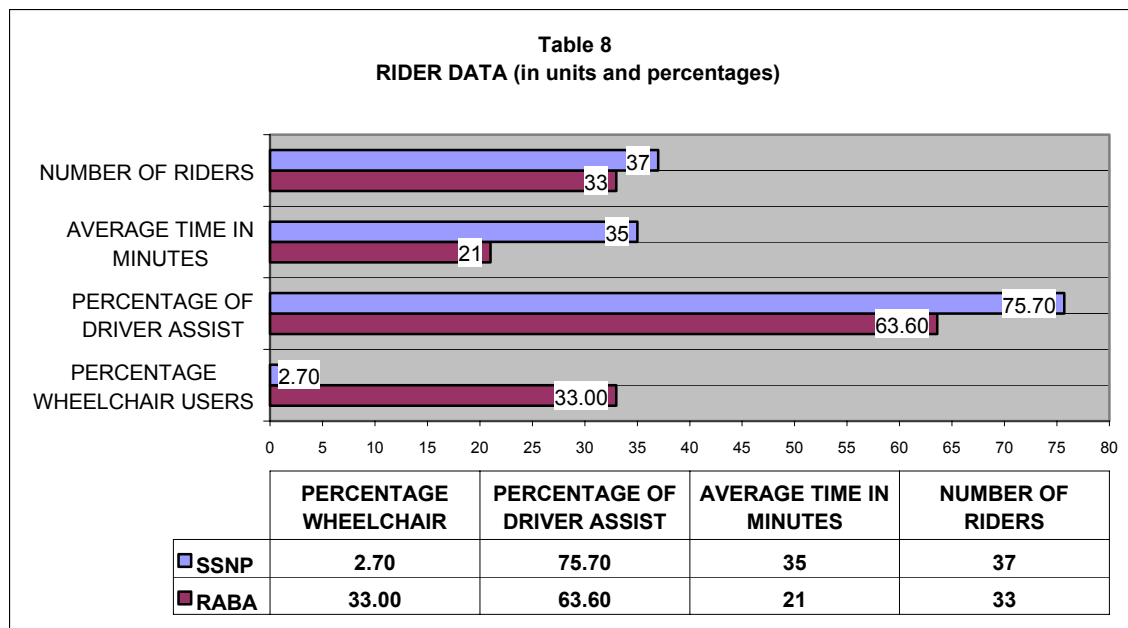
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Conclusion - Transportation

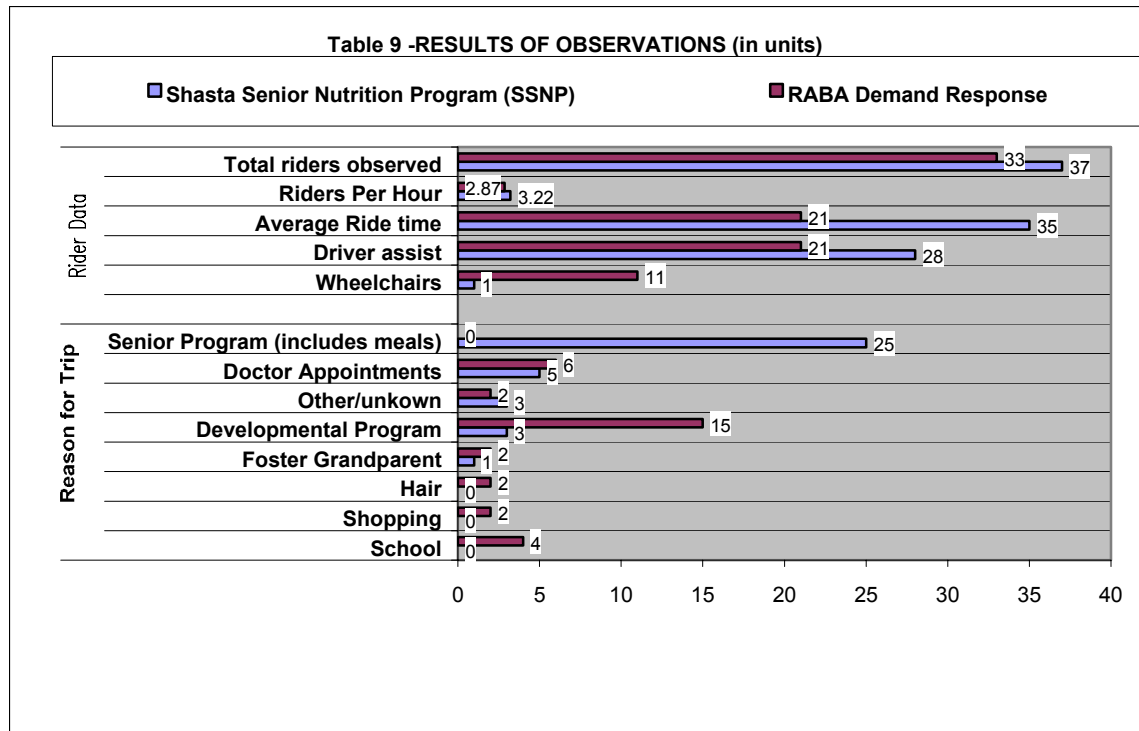
RABA Demand Response and SSNP transportation services provide services to different types of clientele.

Demand Response's clientele during the study included thirty-three percent of their clients who were in wheelchairs, and a large number of their riders were developmentally disabled. Passengers were generally younger in age and physically or mentally challenged to some degree. Primary usages of the RABA service for these passengers were to development programs or centers, while the second primary usage was for medical appointments. Transit drivers provided door-to-door service and assistance to sixty-three point six percent (63.6%) of their passengers. See Table 8 below and Table 9-Page13.



The SSNP clients observed were individuals age 60 or over. The majority of the SSNP clients were ambulatory or required the aid of a walker. Only one wheelchair passenger was transported during the study period. The primary usages of the SSNP transportation service were to Senior Centers and/or senior meal programs. Secondary usage was for medical appointments. Transit drivers provided door-to-door service and assistance to seventy-five point seven percent (75.7%) of their passengers. See Table 8 above and Table 9-Page 13.

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RABA is mandated by the American Disabilities Act (ADA) and must adhere to the ADA paratransit requirements. Transport time for each passenger must be at least half of the time (30-45 minutes) that the passenger would be on a fixed route service for the same destination. This accounts for multiple RABA vehicles arriving or departing from the same location. ADA mandates that these passengers must be transported within thirty minutes of their scheduled time. SSNP passengers are not restricted to ride time; therefore there is no limitation on the amount of time a passenger is on the vehicle. The average ride time for a Demand Response rider was twenty-one minutes, and a SSNP rider thirty-five minutes. The total number of riders per hour was 2.87 for RABA, and 3.22 for SSNP. See Table 9 above.

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Conclusion – Financial Summary

The financial summary data was obtained from the Redding Area Bus Authority State Controllers Report at June 30, 2001, and the Shasta Senior Nutrition Programs audited financial statements at June 30, 2001. See Table 10 below.

Table 10 FINANCIAL DATA 30-June-01						
	Demand Response 6/30/01 SCO Report	% Of Expenses	Cost Per Mile	SSNP 6/30/01 Audit and Transportation Summary	% Of Expenses	Cost Per Mile
Revenue						
1 Passenger Fares	\$ 87,171			\$ 19,737		
2 LTF Funds	881,335			220,000		
3 Other	-			3,295		
4 Total Revenue	\$ 968,506			243,032		
Operating Expenses						
5 Overhead & Personnel	\$ 117,402	12.12%	\$ 0.32	11,399	4.69%	\$ 0.06
6 Rent	-		-	2,200	0.91%	0.01
7 Fuel/Lubricants*	131,568	13.58%	0.36	25,310	10.41%	0.14
8 Vehicle Repairs	66,731	6.89%	0.18	33,508	13.79%	0.18
9 Utilities	28,872	2.98%	0.08	869	0.36%	0.01
10 Casualty/Liability Costs	10,813	1.12%	0.03	-	0.00%	-
11 Purchased Transportation/Labor	566,852	58.53%	1.54	161,451	66.43%	0.86
12 Advertising/equip rent/audits/other	46,268	4.78%	0.13	8,295	3.41%	0.04
13 Total Expenses	\$ 968,506	100.00%	\$ 2.64	\$ 243,032	100.00%	\$ 1.30
14 Total Revenue Hours	21,455			13,228		
15 Total Passengers	58,216			43,146		
16 Vehicle Miles	367,220			186,968		
	RABA			SSNP		
17 Cost Per Passenger (Line 13/15)	\$ 16.64			\$ 5.63		
18 Cost Per Mile (Line 13/16)	\$ 2.64			\$ 1.30		
19 Cost Per Hour (Line 13/14)	\$ 45.14			\$ 18.37		
20 Passenger Per Hour (Line 15/14)	2.71			3.26		

*SSNP includes fuel only. Lubricants are included in vehicle repairs.

The following financial analysis compares the operating costs of the two agencies:

The difference in costs per hour between RABA and SSNP is due to two primary factors. First, RABA is a municipal service operated under the administrative umbrella of the City of Redding. This organizational relationship results in City costs allocated to RABA as City personnel devote resources to RABA operations. These staff members provide

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day-to-day administration, planning, marketing, budgeting, contract monitoring and community liaison activities as well as acting as staff to the RABA's Board of Directors. SSNP, on the other hand, is a subsidiary of Catholic Healthcare West (CHW). We were unable to determine if the parent allocates any overhead to SSNP. Also, RABA pays liability insurance that appears to be borne by CHW.

The other significant difference is due to RABA employing a contract provider who is unionized. On a "per-mile" basis this cost is double for RABA as compared to SSNP. SSNP utilizes a non-union workforce with a relatively lower pay scale.

To conclude, it appears that each agency is serving different types of clientele with different requirements. Both services are optimizing the use of their vehicles within the guidelines required for their transit service. Both transportation providers offer independence for their passengers by offering them a source of transportation other than relying on friends and family members for transportation.

