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Transportation  
Administration**

UMTA-MA-06-0049-83-7  
DOT-TSC-UMTA-83-34

# **Phoenix Transit Sunday Dial-A-Ride**

**Final Report  
August 1983**

Transit Research Information Center

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**UMTA Technical Assistance Program  
Office of Service and Management Demonstration  
UMTA/TSC Project Evaluation Series**

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16. Abstract The Phoenix Public Transit Administration began a Sunday Dial-A-Ride (DAR) taxi service to provide Sunday daytime public transportation as an alternative to initiating more costly fixed-route bus service. It was believed that the taxi DAR would require much less subsidy than a fixed-route bus system with even a minimum level of service. The use of a taxi DAR service as an alternative to regular fixed-route buses represents one approach to providing Sunday transit service. This report covers the Phoenix Sunday DAR system during 26 months of operation, from September 1980 through October 1982.					
The City contracts with a local cab operator to provide the DAR service. Twelve or thirteen taxicabs, including one lift-equipped van, are usually needed to meet demand. To obtain service, customers call the DAR office, a local taxi operator, between 8 AM and 5 PM, and are picked up as soon as possible or at an appointed time. A one-zone fare is \$1.50 and additional zones cost \$.50. Seniors, handicapped persons, and children ride for half fare. The DAR system operates with a productivity rate of 2.1 passenger trips per hour. The total cost per passenger trip is \$7.67 and subsidy cost per passenger trip is \$6.64. Average ridership for the 26-month period of operation was 233 per Sunday.					
The report concludes that provision of Sunday public transportation service using DAR taxi service may be more practical in Phoenix than in other areas because: 1) the taxi operator has other DAR service in areas adjacent to Phoenix from which to draw his Sunday drivers; 2) a trusting relationship exists between the City of Phoenix and the taxi operator; and 3) 13(c) labor provisions were not an issue as there was no prior Sunday bus service.					
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## PREFACE

The use of a taxi dial-a-ride service as an alternative to regular fixed-route buses represents one approach to providing Sunday transit service. Phoenix Public Transit Administration began such a service because it was believed the taxi DAR would require much less subsidy than a fixed route bus system. This report covers the Phoenix Sunday Dial-a-Ride system during 26 months of operation, September 1980 through October 1982.

The work was performed by Crain & Associates, Inc., of Los Altos, California, under contract to the Transportation Systems Center in its role as evaluator in the Urban Mass Transportation Administration's Service and Management Demonstration Program. Sydwell Flynn and John Crain conducted the fieldwork, performed data analysis and wrote the report. David Koffman provided technical assistance and supervision during the preparation of the report. MaryJeanne McAteer did the typing and acted as report coordinator. Carla Heaton was the technical monitor at TSC.

The authors wish to thank Chester E. Colby, Public Transit Administrator, Marilyn King and Judy Gaudet of Phoenix Transit for their contributions to this evaluation effort.

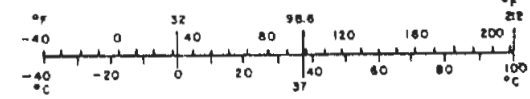
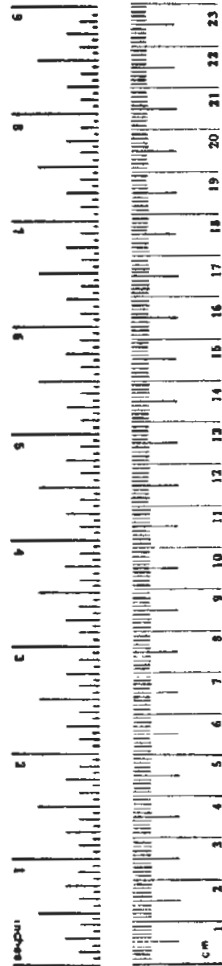
## METRIC CONVERSION FACTORS

### Approximate Conversions to Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
in	inches	2.5	centimeters	cm
ft	feet	30	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
<b>AREA</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.09	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	ha
<b>MASS (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb)	0.9	tonnes	t
<b>VOLUME</b>				
teaspoon	teaspoons	5	milliliters	ml
tablespoon	tablespoons	15	milliliters	ml
fluid ounce	fluid ounces	30	milliliters	ml
cup	cups	0.24	liters	l
pint	pints	0.47	liters	l
quart	quarts	0.95	liters	l
gallon	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C

### Approximate Conversions from Metric Measures

Symbol	When You Know	Multiply by	To Find	Symbol
<b>LENGTH</b>				
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.6	miles	mi
<b>AREA</b>				
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 m <sup>2</sup> )	2.5	acres	
<b>MASS (weight)</b>				
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	tonnes (1000 kg)	1.1	short tons	
<b>VOLUME</b>				
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	35	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
<b>TEMPERATURE (exact)</b>				
°C	Celsius temperature	9/5 (then add 32)	Fahrenheit temperature	°F



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## CONTENTS

<u>Section</u>		<u>Page</u>
1	INTRODUCTION . . . . .	1
	1.1 Overview. . . . .	1
	1.2 Geographic Setting. . . . .	1
	1.3 Transportation Characteristics. . . . .	2
2	DESCRIPTION OF SERVICE . . . . .	5
	2.1 Background. . . . .	5
	2.2 System Features . . . . .	5
	2.3 System Players and Roles. . . . .	10
	2.4 Marketing . . . . .	11
	2.5 Audit Procedures. . . . .	12
	2.6 Operating Problems. . . . .	13
3	SYSTEM PERFORMANCE . . . . .	15
	3.1 Volume. . . . .	15
	3.2 User Characteristics. . . . .	15
	3.3 Trip Characteristics. . . . .	19
	3.4 Impact of Service on Those Served . . . . .	20
	3.5 Level of Service. . . . .	21
4	COSTS AND OPERATING PERFORMANCE. . . . .	23
	4.1 Sunday DAR Costs. . . . .	23
	4.2 The Economic Comparison . . . . .	24
	4.3 Incentives and Roles. . . . .	25
5	CONCLUSIONS. . . . .	27
	5.1 Overall Economic Savings. . . . .	27
	5.2 Comparable Level of Service . . . . .	27
	5.3 Rider Characteristics . . . . .	27
	5.4 Special Phoenix Factors and Transferability . . . . .	28
<u>Appendix</u>		
A	AGREEMENT BETWEEN CITY OF PHOENIX AND TAXI OPERATOR. . .	A-1
B	SUMMARY OF SUNDAY DIAL-A-RIDE MARKETING CAMPAIGN . . . .	B-1
C	PHOENIX SUNDAY DIAL-A-RIDE RIDERSHIP SURVEY. . . . .	C-1
D	REPORT OF NEW TECHNOLOGY . . . . .	D-1

LIST OF ILLUSTRATIONS

<u>Figure</u>		<u>Page</u>
1	PHOENIX SUNDAY DIAL-A-RIDE BROCHURE . . . . .	6
2	DRIVERS' LOG. . . . .	9
3	SUNDAY DAR RIDERSHIP BY MONTH . . . . .	16

LIST OF TABLES

<u>Table</u>		<u>Page</u>
1	SYSTEM FEATURES . . . . .	7
2	DEMOGRAPHIC DATA. . . . .	17
3	TRIP PURPOSE. . . . .	19
4	FREQUENCY OF DAR USE. . . . .	19
5	USE OF OTHER PUBLIC TRANSPORTATION MODES. . . . .	20
6	IMPORTANCE OF DAR SERVICE . . . . .	20
7	RIDER ASSESSMENT OF SERVICE . . . . .	21
8	RIDER COMMENTS. . . . .	22
9	COST AND OPERATING DATA . . . . .	24
10	COMPARISON OF FIXED ROUTE AND DAR SERVICE . . . . .	25

## EXECUTIVE SUMMARY

The City of Phoenix began a Sunday dial-a-ride (DAR) taxi service on August 31, 1980 to provide Sunday daytime public transportation as an alternative to initiating more costly fixed-route bus service. To obtain service, customers call the DAR office, a local taxi operator, between 8 AM and 5 PM. A one-zone fare is \$1.50; additional zones cost \$.50. Seniors, handicapped persons and children ride for half fare. Service is provided by up to 17 vehicles and one wheelchair van.

The City of Phoenix contracts with Arnett Cab Service, Inc. to provide the DAR service. Arnett bills the City of Phoenix based on the number of vehicle hours in service--\$16.69/hr. for regular taxi and \$17.69/hr. for wheelchair van--minus collected fares.

DAR ridership rose rapidly the first three months hitting a high of 1,425 riders in January, then began a general decline in February which leveled off in September. Ridership again began an upward climb in March 1982, coinciding with an extensive marketing campaign, hitting a new high of 1,441 riders in August. Average ridership over the entire 26-month period (through October 1982) was 233 per Sunday.

Survey data indicate the DAR service is meeting the needs of a truly needy segment of the population. Ninety-five percent of the riders indicate the service is very important or important to their transportation needs. Eight out of ten DAR riders do not have a car and 77% have no driver's license. The typical Sunday DAR rider is a woman age 65 or older with a limited income.

Most riders use the Sunday service to make a round trip--an average of 125 separate persons are served each Sunday--and over half say they use the service each Sunday during the month. The most common trip purpose is church attendance followed by shopping and visiting. Riders appear to be uniformly pleased

with the service: 68% rate it excellent; another 24% rate it good.

The DAR system operates with a productivity rate of 2.1 passenger trips per hour, a subsidy level of about \$6,400 per month, and a farebox recovery rate of 13.4%. Total cost per passenger trip is \$7.67; subsidy cost per passenger trip is \$6.64. The City of Phoenix and the taxi operator together monitor productivity factors to determine the number of vehicles placed in service. Although the economic incentive for the operator is to increase fleet size and thereby increase billings to the City, his attitude has been one of cooperation with the City in order to provide service at a reasonable cost.

Annual subsidy cost for DAR taxi at current demand levels is considerably less expensive than the estimated cost of providing minimum level fixed-route Sunday service. Cost per passenger is higher on the DAR service and total costs would increase as more passenger trips are provided. Thus lower total cost on the DAR system is primarily a result of lighter ridership than would be expected on the fixed-route service. Although it is unreasonable to expect ridership on the two systems would be comparable as they serve different markets, have different service characteristics, and charge different fares, conclusions regarding the cost savings to be derived through substitution of DAR taxi must consider this difference in the number of persons served.

Provision of Sunday public transportation service using DAR taxi may be more practical in Phoenix than in other areas because 1) the taxi operator has other DAR service in areas adjacent to Phoenix from which to draw his Sunday drivers, 2) a trusting relationship exists between the City of Phoenix and the taxi operator, and 3) 13(c) labor provisions were not an issue as there was no prior Sunday bus service.

# 1. INTRODUCTION

## 1.1 OVERVIEW

The City of Phoenix began a Sunday Dial-a-Ride (DAR) taxi service on August 31, 1980 to provide Sunday daytime public transportation. The subsidized service is operated under contract by a major taxi company. It has a one-zone fare of \$1.50, or \$.75 for seniors, handicapped and children. Additional zones cost \$.50, or \$.20 for seniors, handicapped and children. Customers call the DAR office (taxi company) for service and are picked up as soon as possible or at an appointed time. The service was initiated in response to public pressure for Sunday transit service. It was believed that the taxi DAR would require much less subsidy than a fixed-route bus system with even a minimum level of service.

With the forthcoming cutbacks in Federal operating subsidies and financial crises presently facing other transit subsidizers, most operators are searching for ways to cut costs. For this reason UMTA/TSC requested that Crain & Associates review the Phoenix Sunday DAR and report on the relevance of the Phoenix experience to other transit operators.

## 1.2 GEOGRAPHIC SETTING\*

The Phoenix urbanized area is situated in a large valley in the desert of central Arizona. The physical features of the region range from desert wilderness to urban development; correspondingly, land uses range from agriculture to industry, to residential and commercial development.

\*Information for this section taken primarily from Crain & Associates publication Transit Fare Prepayment Demonstrations in Austin and Phoenix for UMTA/TSC, June 1979 and an article written by Richard E. Meyer of the Los Angeles Times, "Phoenix-- Too much of a Good Thing?" appearing in the San Francisco Chronicle January 31, 1982.

Phoenix is characterized by an extraordinarily rapid rate of growth. Between 1950 and 1980 the population of Phoenix and surrounding Maricopa County quadrupled to 1.5 million. Population within the city limits is 800,000. In recent years, the number of persons age 65 or over has increased at a higher rate than the population as a whole, a reflection of the area's popular image as an attractive retirement and rehabilitation location. This image is changing, however. Once known as a Mecca for those with respiratory diseases, Phoenix now suffers through smog alerts.

The abundant supply of undeveloped land in Phoenix has resulted in outward, rather than upward, expansion. The City annexed large parcels of land during the 1960s; currently, however the population is increasing most rapidly in the neighboring cities. This growth pattern has resulted in low population densities throughout the urbanized area, as well as extreme dispersion of employment sites: 40% of the 300 square miles of land within the city limits is undeveloped; and only 10% of the city's workers are employed in the central business district. The empty land represents lost tax revenues and forces the city to stretch costly distances to serve its people.

### 1.3 TRANSPORTATION CHARACTERISTICS

Within the Phoenix urbanized area, transit service is provided by Phoenix Transit System. The service area\* covers approximately 166 square miles or 55% of the area within the city limits. Transit service is furnished between 5:30 A.M. and 9 P.M. Monday through Friday, and 5:30 A.M. and 6:15 P.M. on Saturday; late night and Sunday service is not available. Most routes originate at the downtown bus terminal and extend to outlying areas.

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\*Defined as that area in which people live within one fourth mile of a bus route.

The City of Phoenix contracts for the operation of three general purpose DARs in less densely populated areas of Phoenix. A general purpose DAR is defined as a demand-responsive transportation service that is open to the general public and has no restrictions on trip purpose. The Paradise Valley and Moon Valley DARs provide weekday service in two areas of the City where low densities make fixed-route scheduled bus service less cost effective. Sunday DAR provides city-wide door-to-door transportation on Sundays when the fixed-route system does not operate. This system is the subject of this report.





## 2. DESCRIPTION OF SERVICE

### 2.1 BACKGROUND

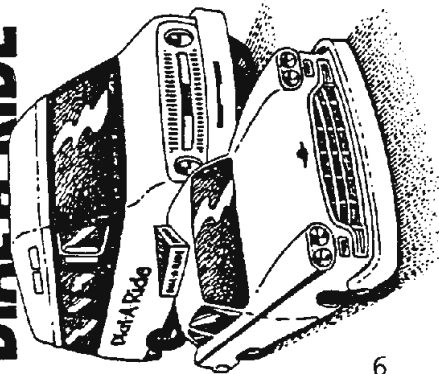
There is no regular Sunday bus service in Phoenix. The City Council's policy has been to provide service where the dollars spent will serve the greatest number of people; consequently, their emphasis was on providing weekday service. Over the years, constant comments and complaints had been directed to the Citizen Assistance Office and the Public Transit Administration regarding the lack of Sunday service. In 1980, the Council decided it was time to add Sunday service as the weekday bus service had been incrementally improving for many years. The DAR taxi service was chosen as a less expensive alternative than fixed route bus service. The City had already negotiated a contract with a local taxi operator to provide weekday general public DAR service in less densely populated areas of Phoenix. This contract was amended in 1980 to include provision of the Sunday DAR service.

Before contracting with the taxi company the City Council considered the alternative of a user-side subsidy approach whereby funds are given to the user or rider rather than the provider. The Council rejected this alternative because it wished the service to be a general public DAR operating as a business and believed a user-side subsidy approach tends to be viewed as a social service.

### 2.2 SYSTEM FEATURES

The basic features of the Sunday Dial-a-Ride are presented in Table 1. Figure 1 is a copy of the brochure describing the system and explaining how to use it.

# PHOENIX SUNDAY DIAL-A-RIDE



**Going your way  
CALL 271-4545**

### Hours of operation

Every Sunday — 8 a.m. to 5 p.m.  
It's simple to use. You make a phone call to request a ride. Then a vehicle comes to your door.

### Where can you go?

Anywhere in Phoenix. The city is divided into 10 zones, as indicated by the map. If your trip is within one zone, you pay the base fare. If you cross from one zone to another, you pay a zone fee.

### How to use Dial-A-Ride

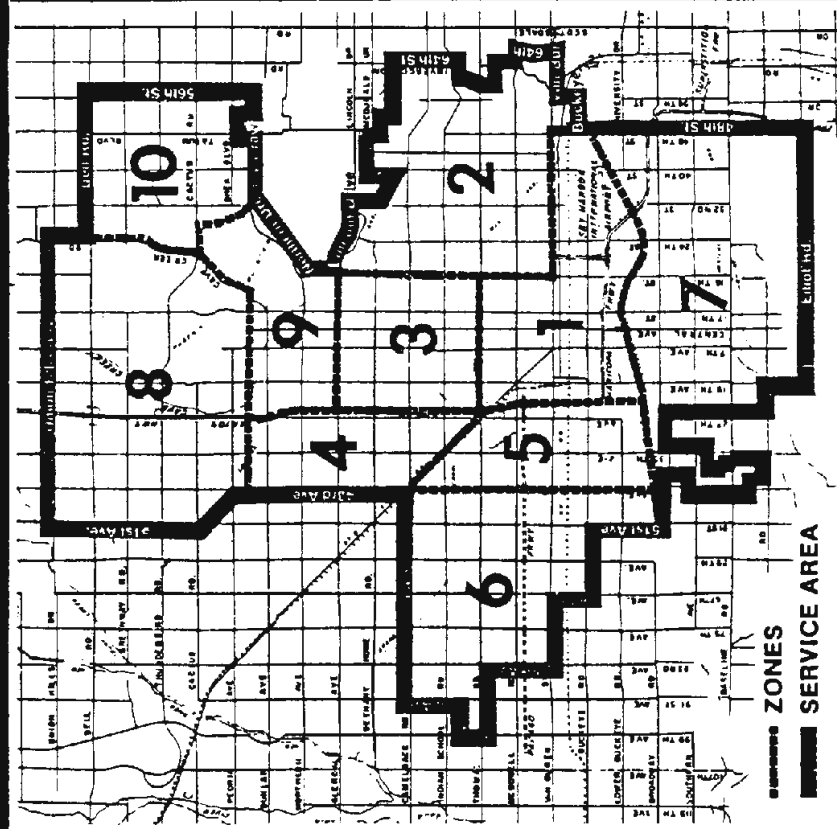
Telephone 271-4545 each time you want to use the Phoenix Sunday Dial-A-Ride. Tell the operator, your pick-up address.

Your destination.  
The telephone number at your pick-up point.

The number of people in your party.  
Any special information. For example, indicate if a wheelchair lift-equipped van is needed.

### How much does it cost?

Adults (12 to 65) base fare... \$1.50  
Senior (65 and over), Handicapped and Children (11 and Younger) base fare... \$ .75  
Adult zone fare... \$ .50 per zone  
Senior, Handicapped and Children zone fare... \$ .20 per zone



**How to qualify for fare discount**  
Senior citizens must show proof of age. The driver will accept the Gold Senior Card with the star, the Red Senior Card or the Phoenix Transit System, or other proof of age.

Handicapped individuals must show the driver the Blue Handicapped Certification Card used on the Phoenix Transit System. Phoenix Transit "Blind Cards" can also be used as identification to qualify for the half-fare rate of 75 cents and 20 cents for zone transfers.

Children under 12 must show proof of age if requested by the driver.

### Tips for Dial-A-Ride users

- Call at least 30 minutes before being picked up. If you live in the Ahwatukee area of Phoenix, call 45 to 60 minutes before you wish to be picked up.
- Find out if you will have to cross zones.
- Ask what your trip will cost, so you will have the correct fare.
- Be ready when the vehicle arrives. It will wait one minute, then leave, so as not to delay other passengers.

TABLE 1. SYSTEM FEATURES

- SERVICE HOURS--8 AM to 5 PM every Sunday. (Before February 1982, service hours were 8 AM to 3 PM.)
- CALL IN--Customer calls the Dial-A-Ride for service and is picked up as soon as possible or at an appointed time.
- ZONES--The 270 square miles of the City of Phoenix included in the Sunday Dial-A-Ride service area are subdivided into 10 zones for purpose of fare charges.
- FARE STRUCTURE--Base fare \$1.50 for adults (12-65); \$.75 for seniors (65 and over), handicapped and children (11 and younger). Incremental fare for every zone boundary crossing: \$.50 for adults, \$.20 for seniors, handicapped and children.
- ACCESSIBILITY--Provided by lift-equipped van.
- TAXI FLEET--Varies in size with need. Up to 20 dedicated vehicles are used including one wheelchair van.
- DISPATCH--DAVE Systems-type dispatch operation.
- TAXI OPERATOR REIMBURSEMENT--\$16.69 per vehicle hour for regular service and \$17.69 for the wheelchair van.
- TRIP LENGTH--Average is unknown but probably about five miles as the average rider pays for about .7 zone boundary crossings.
- CALL PATTERN--About 65% of all trips originate in zones 1, 2, and 3 (Central Phoenix). Fifty-five percent of calls are made between 8 and 9 AM; the remainder come in at a steady pace until system close.
- RESPONSE TIME--The contract states the response time must be less than 30 minutes. In practice about 94% of calls are served in 30 minutes, and this is accepted.
- TIPPING--The custom in Phoenix is to tip 10-15%; but on the Sunday service, which is seen as a City operation, tipping is almost non-existent.

The customer calls the DAR telephone number, gives origin and destination addresses, and is promised a pickup any time within 30 or 45 minutes, according to demand conditions. Or the customer can ask to be picked up at a later time (called delayed service). In this case, he/she is promised a pickup within 30 minutes of the requested time. This request is entered into the system 30 minutes prior to the requested pickup time.

The dispatching system is a fairly standard DAVE Systems type manual dispatch operation. There are three players: a telephone answerer, a router and a dispatcher. The first takes the call, promises a pickup within 30-45 minutes, records the origin and destination addresses on a two-part ticket, tears the ticket into its two parts, time stamps the origin ticket, hooks them onto two magnets, and passes them to the router. The router works on a huge metal wall board with a city map overlaid. On this are color-coded arrow-shaped magnets, one color for each cab in service. These magnets note the pickups and dropoffs already committed for each cab--a string of red arrows points the route of a specific taxi. The new origin and destination are "inserted" into the most appropriate route by placing an arrow-shaped magnet at the pickup point and a V-shaped magnet at the dropoff point.

The router then removes the tickets and passes them to the dispatcher who radios the selected cab and tells the driver the origin and destination and where these stops are to be inserted into the ongoing tour. The driver records the addresses on the log (see Figure 2). As the driver completes each pickup and dropoff he/she announces this to the dispatcher who relays this to the router who removes the appropriate arrow-shaped magnet from the board. The dispatcher time stamps the original ticket when the pickup is made. Thus, both the call-in time and the actual pickup time are recorded on the ticket to document the response time.

The contract between the City of Phoenix and the cab company allows a maximum of 17 vehicles to be used in the DAR service. On any given Sunday, the size of the fleet will vary according to

FIGURE 2. DRIVERS' LOG

PHOENIX SUNDAY DIAL-A-RIDE

DATE \_\_\_\_\_  
 DAILY CHECK \_\_\_\_\_  
 Water \_\_\_\_\_ Mileage In \_\_\_\_\_ Time \_\_\_\_\_ to \_\_\_\_\_ Hrs. \_\_\_\_\_  
 Oil \_\_\_\_\_ Mileage out \_\_\_\_\_  
 Tires \_\_\_\_\_ Total miles \_\_\_\_\_ Total passengers .75 \_\_\_\_\_ 1.50 \_\_\_\_\_ N/P \_\_\_\_\_  
 Trans. \_\_\_\_\_ DAR miles \_\_\_\_\_ No. paying pass. \_\_\_\_\_  
 P/S \_\_\_\_\_ Total cash \_\_\_\_\_ Zones \_\_\_\_\_  
 Batt. \_\_\_\_\_ Total trips \_\_\_\_\_ Transfers out \_\_\_\_\_

CALL # _____		CAR # _____	DRIVER _____		P/R# _____	GAS _____	OIL _____		
#	TIME		ZONE	FROM	TO	TRANS. OUT	NO. PASS.	FARE	
	+	-						.75	1.50

need. During peak demand times the taxi operator will move a cab and driver from his regular taxi operation to the DAR system; when the cab or cabs are no longer needed to provide for DAR customers, they are pulled back. Usually 12 or 13 taxicabs including one lift-equipped van were needed during FY 1980-81 to meet ridership demand and maintain a response time of 45 minutes. When a vehicle is assigned to DAR service, it does not handle any other taxi business.

To qualify for the fare discount, seniors must show proof of age (Red Card used on Phoenix Transit System, drivers license, etc.) and handicapped individuals must show the driver the Blue Handicapped Certification Card used on the Phoenix Transit System. Riders are encouraged to find out if they will have to cross zones and to ask what their trip will cost when they call in to reserve their ride so they will have the correct fare.

## 2.3 SYSTEM PLAYERS AND ROLES

In Phoenix transit service is planned and administered by the Phoenix Public Transit Administration, a function of the City government. The day-to-day bus operations are carried out by a contract operator. Service outside the city to other jurisdictions within the urbanized area is provided by contract agreement.

Arnett Cab Service, Inc. provides the Sunday DAR service under contract and continuing policy direction of the Mayor and City Council, as it does for the suburban Paradise Valley and Moon Valley DAR services. Arnett collects all fares and invoices Public Transit for vehicle revenue hours provided (\$16.69 for regular service and \$17.69 for the wheelchair van) less revenue collected. Arnett provides all capital equipment and operating elements to provide the service. Appendix A is a copy of the agreement between the City of Phoenix and Arnett Cab Service.

The contract agreement between the City and the taxi operator allowed for payment of up to \$20,600 for start-up costs--for equipping cabs with a special radio frequency, installing a six-line

2/28/82 /b1

## **Winters Franceschi Callahan**

100 West Clarendon, Suite 2206, Phoenix, Arizona 85013, (602) 274-8775

PUBLIC TRANSIT ADMINISTRATION  
:10 Radio/Live Annc't  
Dial-A-Ride  
Job #PTA-019  
Spot #PTA-R1461-1082

LIVE ANNCR: Need a lift this Sunday? Call Dial-A-Ride--the great way for seniors, handicapped, or anyone to get around town. Call 271-4545 and catch a ride with a real Sunday driver.

### EXHIBIT 3

PUBLIC TRANSIT ADMINISTRATION  
:30 Radio/Live Annc't  
Job #PTA-019  
Spot #PTA-R1460-3082

LIVE ANNCR: The next time you need a lift on a Sunday--call Dial-A-Ride--the great way for seniors, the handicapped or anyone who needs a lift, to get where they're going. Dial-A-Ride drives within the Phoenix city limits, every Sunday from 8 a.m. to 5 p.m., with fares that are more than fair. So the next time you've got places to go on a Sunday, call Dial-A-Ride at 271-4545. That's Dial-A-Ride--271-4545. And catch a ride with a real Sunday driver. This message sponsored by the City of Phoenix and this radio station.

# Winters Franceschi Callahan

100 West Clarendon, Suite 2206, Phoenix, Arizona 85013 (602) 274-8775

PUBLIC TRANSIT ADMINISTRATION  
Newspaper/Dial-A-Ride  
Job #PTA-016

(HEAD:) CATCH A RIDE WITH A SUNDAY DRIVER

(BODY:) Dial-A-Ride is the Sunday-only service for people who don't drive themselves--but still have places to go on Sundays. Dial-A-Ride has become so popular that we've increased the time our cars and handicapped-equipped vans are on the road.

(SUB:) Now we're driving a full shift--from 8 to 5.

(BODY:) If you need a ride, just call 271-4545 on Sunday. Tell us where you are, your phone number, where you want to go, and the number of people in your party. We'll have a Sunday driver at your door within 30 to 45 minutes. (However, it's always helpful if you call an hour in advance.) Dial-A-Ride will take you anywhere you want to go within the Phoenix city limits--church, shopping, you name it.

(SUB:) We're ready if you are.

(BODY:) Chances are you won't be the only one going for a Sunday drive. We'll be picking up other folks going your way, too. So please be ready when your Dial-A-Ride car or van arrives. If you have a set appointment, be sure to allow plenty of time.

(SUB:) Our fares are more than fair.

The cost of your trip depends on where you're going. As you can see, we've cut Phoenix into 10 zones. If your trip is inside one zone, you pay a base fare of \$1.50. If you cross zones, you pay an extra 50¢ per zone.

Senior citizens, children under 12, and handicapped persons pay 75¢ base fare, and 20¢ per zone. (Proof of age may be required.)

So the next time you need a lift on Sunday, call Dial-A-Ride. We're the best Sunday drivers in town.

Dial-A-Ride 271-4545  
Sundays 8 a.m. to 5 p.m.  
A service of the City of Phoenix

(TAGLINE:) Ad #PTA-018  
PUBLIC TRANSIT ADMINISTRATION  
Newspapers-Feb./March 1982  
Winters Franceschi Callahan



XSP hours effective  
ed 7, 1982.

# DIAL-A-RIDE 271-4545.

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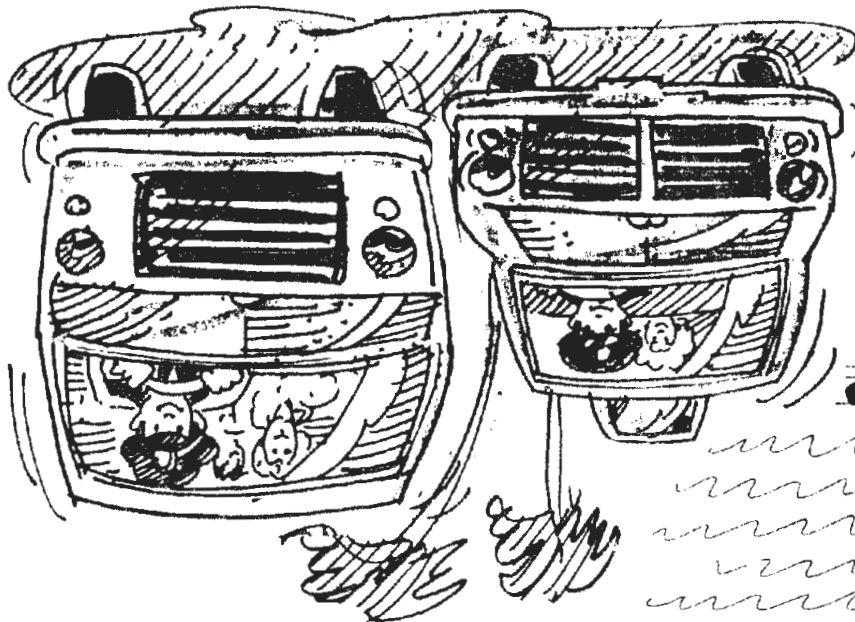
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# CATCH A RIDE WITH A SUNDAY DRIVER.

SUMMARY  
OF  
SUNDAY DIAL-A-RIDE MARKETING CAMPAIGN  
MARCH 1982

A marketing campaign for the City of Phoenix Sunday Dial-A-Ride was conducted in March 1982. The purpose of this many-faceted effort was to encourage increased ridership on Sunday Dial-A-Ride.

Newspaper advertisements comprised one aspect of the campaign. A full-page black and white advertisement (Exhibit 1) was placed in the Arizona Republic (Central Zone) and in the Phoenix Gazette (City Life) on Wednesday, March 10 and 24. These two zone editions have a circulation of 55,355 households. The same advertisement was placed in the monthly publication, Senior World (Phoenix Zone - 15,000 circulation) in March and April. In addition, the advertisement was placed in the Phoenix Jewish News (circulation 5,000) on March 19 and in The Chabad Times (circulation 10,000) in April. These particular print publications were selected as it was felt they would reach audiences more likely to use Sunday Dial-A-Ride.

Radio was also used to convey the Sunday Dial-A-Ride message. The radio station for blind persons, KMCR, broadcasted 10-second and 30-second public service announcements (Exhibits 2 and 3) on its "Sun Sounds" program. Other Valley radio stations played 10-second public service announcements.

Collateral advertising activities included bus cards, lobby cards, and announcements in church bulletins. The 600 bus cards (Exhibit 4)\* placed in the transit buses reminded bus riders of the Sunday Dial-A-Ride service. Two hundred lobby cards with holders for Sunday Dial-A-Ride brochures (Exhibit 5)\* were placed in highly-trafficked establishments such as government offices and banks. Announcements were also printed in church bulletins, and augmented by lobby cards placed in various church buildings.

A copy of the estimated advertising expenditures for Sunday Dial-A-Ride is attached (Exhibit 6). This serves also as a summary of the marketing activities.

Sunday Dial-A-Ride drivers distributed survey questionnaires to patrons on March 21 and 28, 1982. Copies of the survey instrument and the tabulated results are attached (Exhibits 7 and 8). A list of the comments written by patrons on the survey forms is also provided (Exhibit 9). The survey results showed that approximately 20% of the 120 respondents (24 persons) had not used Sunday Dial-A-Ride before the advertising campaign. More than 70% of the respondents (84 persons) were aware of the increased service hours.

\*Exhibits 4 and 5 are not included in this report.

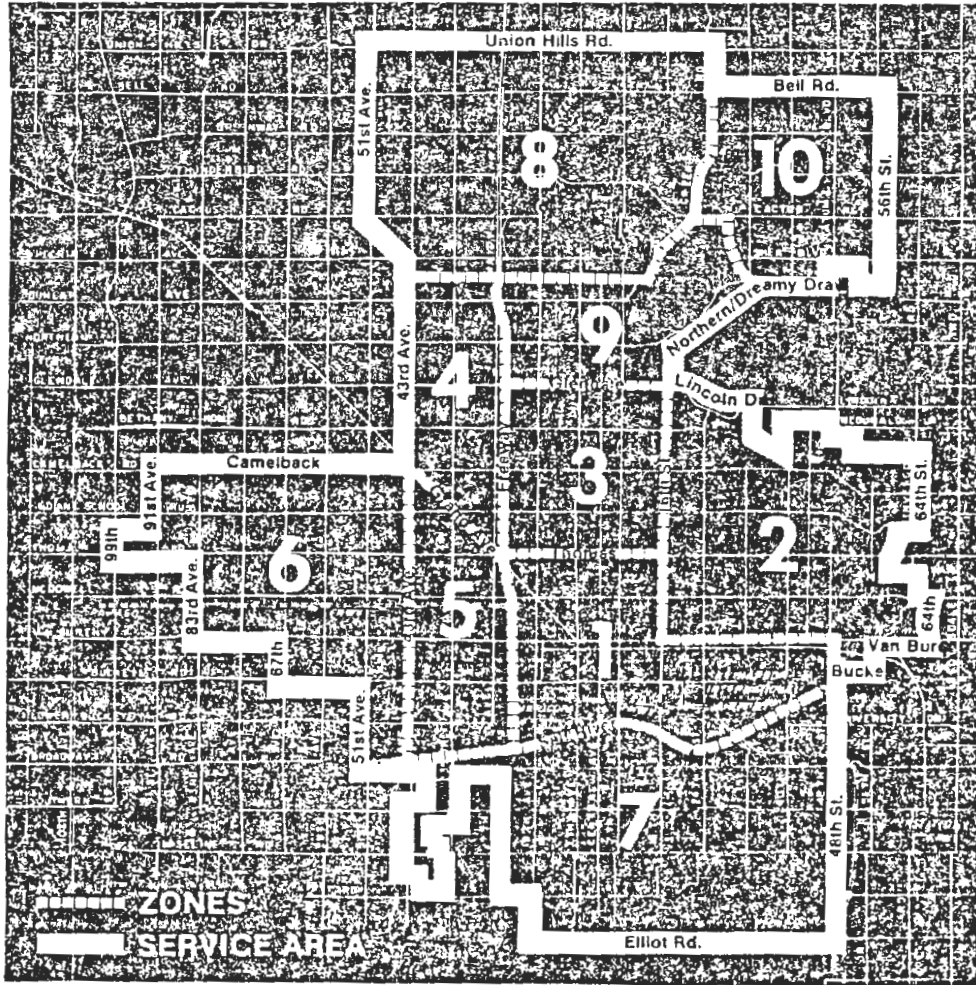


APPENDIX B  
SUMMARY OF SUNDAY DIAL-A-RIDE MARKETING CAMPAIGN



Sunday

Service area to be served is described below.



APPENDIX A  
TO AGREEMENT NO. 20920

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The fares to be charged by the Operator in the service area are as follows:

FARE STRUCTURE - WEEKDAY SERVICE

\$ 1.25	Adult
\$ .50	Senior (60 and over), Handicapped and Children 6-11
\$12.00	STUDENT 20-RIDE TICKET (ages 12-20)
Free	Transfers
Free	Children under 6 accompanied by adult

FARE STRUCTURE - SUNDAY DIAL-A-RIDE

\$ 1.50	Adults
\$ .75	Senior (65 and over), Handicapped and Children (12 and younger)
\$ .50 - per zone	Adult Transfers
\$ .20 - per zone	Senior, Handicapped and Children Transfer

IN WITNESS THEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

City of Phoenix, a municipal corporation

*Charles M. Allen*

By ACTING CITY MANAGER

For: Street Transportation Administrator

For: Marvin A. Andrews  
City Manager

ATTEST:

*Robert M. [unclear]*  
ACTING City Clerk

APPROVED AS TO FORM: *mt*

*[Signature]*  
ACTING City Attorney

Arnett Cab Service Inc.  
An Arizona Corporation

By *William H. Arnett*

Its *Pres*

ATTEST:

*William H. Arnett*  
Its *Secretary*



2.6 The Operator shall permit the authorized representatives of the grantee, the U. S. Department of Transportation and the Comptroller General of the United States to inspect and audit all data and records of the contractor relating to his performance under the contract.

2.7 No member of or delegate to the Congress of the United States shall be admitted to any share or part of this contract or to any benefit arising therefrom.

2.8 No member, officer, or employee of the Public Body or of a local public body during his tenure or one year thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof.

2.9 The Operator will cooperate with the project sponsor in meeting his commitments and goals with regard to the maximum utilization of minority business enterprises and will use its best efforts to insure that minority business enterprises shall have the maximum practicable opportunity to compete for subcontract work under this contract.

2.10 Monthly progress reports will be provided to the Public Transit Administration not later than the fifteenth day of the succeeding month.

2.11 Public Transit Administration will retain ownership of all plans, specifications, and related documents.

2.12 Records must be maintained by the contractor to show actual time devoted and costs incurred.

2.13 The Operator agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act of 1970. Violations shall be reported to the City and the regional office of the Environmental Protection Agency.

by registered or certified mail, return receipt requested,  
postage prepaid, and addressed as follows:

If to Operator:

Arnett Cab Service Inc.  
Dba Checker Cab Co.  
156 East Mohave  
Phoenix, Arizona 85004

and

If to City:

City of Phoenix  
Attention: Edward M. Hall  
Street Transportation Administrator  
Room 901, Municipal Building  
251 West Washington Street  
Phoenix, Arizona 85003

or to such other address as either party shall designate by  
written notice.

2.5 Any supplier in performing under this contract, shall not discriminate against any worker, employee or applicant, or any member of the public, because of race, creed, color, religion, sex, or national origin, nor otherwise commit an unfair employment practice. The supplier will take affirmative action to insure that applicants are employed, and that employees are dealt with during employment without regard to their race, creed, color, religion, sex, or national origin. Such action shall include but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The supplier further agrees that this clause will be incorporated in all contracts entered into with suppliers of materials or services, and all labor organizations furnishing skilled, unskilled, and union labor, or who may perform any such labor or services in connection with this contract.

- A. Sedan Vehicles - \$16.69 per vehicle hour
- B. Wheelchair Accessible Van - \$17.69 per vehicle hour

Operator shall provide the City with individual monthly invoices for each Dial-A-Ride service certifying the gross operating revenue and vehicle hours of service provided during the period covered. In the event the gross operating revenue is insufficient to provide Operator with a per vehicle hour income as stated above for transportation service performed at the execution of this contract, City agrees to pay Operator the amount necessary to provide Operator with the per vehicle hour income above set forth. Within ten (10) days of the receipt of the above described invoice, City shall remit amount due to Operator. In no event shall City's liability to Operator under any provisions of this Agreement exceed Two Hundred Thousand (\$200,000) for the weekday Dial-A-Ride services and One Hundred Twenty Thousand (\$120,000) for Sunday Dial-A-Ride services for a total of Three Hundred Twenty Thousand Dollars (\$320,000).

2.2 As used herein the term "gross operating revenues" shall mean and include all revenues derived from the operation of the system including but not limited to all passenger fares including transportation contracts, local charter payments, advertising fees, and proceeds from outside sales and maintenance but excluding gain from the sale and/or rental of capital assets.

2.3 All gross operating revenues derived from operation of the transit system shall be the property of the Operator and the duties and obligations of the Operator in connection therewith shall include collection of all fare revenues, advertising or other revenues, said revenues to be deposited daily, except Saturdays, Sundays, and legal holidays at a bank or banks.

2.4 All notices hereunder and communications with respect to this Agreement shall be effective upon the mailing thereof

1.12 INSURANCE: Operator agrees to maintain in full force and effect at all times during the term of this Agreement, an insurance policy or policies which will name both Operator and City as insured, against all liability resulting from injury occurring to persons or property by reason of the operations of the Operator pursuant to this Agreement. The total limit of liability under such insurance policy or policies for combined single limit, for personal injury and property damage, shall not be less than \$1,000,000.00. The original of the policy or policies shall remain in the possession of Operator; however, Operator shall obtain and file with City either a duplicate policy or policies of such insurance, or a certificate of insurance. Operator also agrees to maintain and keep in full force and effect Workman's Compensation Insurance in the amounts and form required by the Workman's Compensation Insurance Act and Insurance Laws of the State of Arizona.

1.13 CONTINUATION OF SYSTEM: If the City elects to continue the System after the term of this contract expires, Operator may continue on terms mutually agreeable to both parties or shall be given the opportunity to submit a proposal to the City.

1.14 TERMINATION OF AGREEMENT: Either party to this Agreement shall have the right to terminate this Agreement upon forty-five (45) days' written notice to the other.

1.15 ASSIGNMENT OR TRANSFER: Operator shall not assign, transfer, or encumber this Agreement or rights herein granted or any portion thereof, without the prior written consent of City, which consent shall not be unreasonably withheld.

## Section II - General Terms and Conditions

2.1 Operator shall be entitled to receive the following income for each weekday and Sunday vehicle hour while engaged in System operation:

times while on duty, be neatly and cleanly dressed. All personnel who are likely to be in contact with the public, either in person or by telephone conversation, shall be trained to give accurate information concerning DIAL-A-RIDE service by the Operator.

1.8 FARE TO BE CHARGED: City shall determine the fare to be charged for each person using the services of the System. Each point of pick up or discharge will be considered as a separate trip and the driver shall collect the fare from each passenger. If City elects to use coupon books, the cost thereof shall be borne by the City. The fare to be charged shall be the basic fare for a trip within the fare zone in which the passenger is picked up, plus an additional fare for each fare zone the passenger entered to reach the destination. The amount of the fares charged shall be in accordance with a fare schedule approved by the City.

1.9 MAINTENANCE AND OPERATING COSTS: The Operator shall maintain and operate the vehicles at its expense. The operating costs shall include vehicle depreciation, vehicle maintenance, fuel, insurance, driver's wages, taxes, fringe benefits, licensing, dispatching, radio equipment, training, supervision, and management.

1.10 PROMOTION AND PUBLICITY: Any promotion or publicity which the City desires concerning the System shall be provided by the City or other persons, with Operator being under no obligation to expend funds for such promotion or publicity. However, Operator agrees to furnish a Dial-A-Ride sign on top of each vehicle or each side of van. The sign should be visible from both sides of the vehicle.

1.11 INDEMNIFY: Operator shall save the City harmless from all claims and liability arising out of the activities of the Operator, its agents, and employees while engaged in the performance of the provisions of this Agreement.

shall be vehicles which are wheelchair accessible. The maximum number of vehicles operating on Sunday will be seventeen (17). On an as needed basis up to three (3) lift-equipped vans will be provided.

1.3 COMMUNICATIONS: Operator shall provide two-way radios in the DIAL-A-RIDE vehicles and in the dispatcher's office on a frequency used for DIAL-A-RIDE purposes.

1.4 TRIP RECORDS: Drivers shall maintain trip sheets to show number of passengers, point of origin and point of destination, and time of pick up and drop of each passenger. Operator shall retain all trip sheets for a period of two (2) years, and make them available for audit by the City. Operator shall also carry out UMTA Section XV reporting requirements.

1.5 HOURS AND DAYS OF OPERATION:

- A. Six days per week, Sunday through Friday.
- B. 7:30 a.m. to 5:30 p.m. weekdays.
- C. 8:00 a.m. to 5:00 p.m. on Sundays.
- D. Holidays mutually agreed upon by the City and Operator excepted.

The hours and days of operation may be changed by City by giving Operator a minimum of seven (7) days' written notice of the desired working schedule.

1.6 AREA OF OPERATION: The System shall be operated within the limits of the described in Appendix B. All residents of the City are eligible for service.

1.7 PERSONNEL AND QUALITY OF SERVICE: Operator shall supply a sufficient number of personnel to operate and maintain its equipment and to provide the service required hereunder. The Operator and its employees shall, in the performance of all duties pursuant to the agreement, conduct themselves with the highest degree of courtesy and service. All of Operator's employees who are in contact with the public shall, at all

L. Passengers to be picked up either as a result of telephone call for service or at certain locations, such as shopping centers, designated by the City.

M. Operator shall furnish and implement the "DAVE" type system for dispatching and routing.

N. Operator shall provide a dispatcher exclusively to handle the Paradise Valley and Moon Valley Dial-A-Ride plus adequate dispatchers and routers for Sunday Dial-A-Ride. The dispatchers and routers shall be properly trained to handle the "DAVE" type system of dispatching and routing.

O. When the response time exceeds thirty (30) minutes during periods of peak ridership demand, Operator shall furnish an additional vehicle. The additional vehicle shall be removed from Dial-A-Ride service when not required to maintain the response (waiting) time within thirty (30) minutes.

P. Paradise Valley System to operate as a feeder service to and from the Phoenix Transit System route terminus at Cave Creek Road, Cactus Road and the Paradise Valley Mall. Moon Valley System to operate as a feeder service to and from the Phoenix Transit System route termini at 7th Street and Dunlap, Cave Creek and Cactus and 19th Avenue and Thunderbird. A reasonable attempt should be made to meet Phoenix Transit buses in a timed transfer manner.

Q. Sunday System to operate as a stand alone transit service operating on a zonal concept. A reasonable attempt should be made to initiate timed transfers at zonal boundaries.

1.2 VEHICLES: Vehicles shall be Checker (taxi) sedans equipped with air conditioning, two-way radios, and shall be new or late models in good condition. The number of vehicles on duty may vary according to demand, and the actual number on duty shall be approved by the City. It is estimated that the maximum number of vehicles operating on weekdays will be five (5). On request by the City, two (2) of the five (5) vehicles

a three (3) line rotary telephone system for use by weekday System passengers and a six (6) line rotary telephone system for the Sunday Dial-A-Ride system passengers.

C. System passengers to designate point of origin, point of destination, and number of persons in party.

D. Passengers to be advised of approximate time of pick up.

E. System service may be on a shared basis.

F. If the Operator receives additional call(s) for pick up in the vicinity of the first call, or near route of patrons in the vehicle, vehicle to deviate from route to pick up additional passenger(s).

G. Operator to do all possible to avoid an undue delay of any patron, either at point of pick up transfer or enroute to destination.

H. The route of the vehicles shall be the most efficient possible, using major and collector streets when possible.

I. Operator to use best efforts to pick up passengers within thirty (30) minutes of time of call, including, if needed, furnishing additional vehicles.

J. Vehicle will not wait for passengers more than one (1) minute at any point.

K. Drivers to assist in loading and unloading of elderly or ambulatory handicapped passengers, and in carrying parcels or personal effects between the vehicle and the entrance to the business or home.

Drivers shall complete the standard Operator employment application, successfully complete the appropriate ICC physical exam, have a three (3) year check of driving records, successfully complete Operator's driver's test, successfully complete in service training, successfully pass monthly Operator driver's check, and complete at City's option and expense special sensitivity training.



APPENDIX A  
AGREEMENT BETWEEN CITY OF PHOENIX AND TAXI OPERATOR



1982-83

1018C

20920

AMENDMENT NO. 6 TO  
AGREEMENT BETWEEN CITY OF PHOENIX  
AND  
ARNETT CAB SERVICE  
20920

This Agreement made and entered into this 1st  
day of July, 1982 by and between ARNETT CAB SER-  
VICE, INC dba CHECKER CAR COMPANY, an Arizona Corporation,  
hereinafter referred to as "Operator," and the CITY OF PHOENIX,  
a municipal corporation, hereinafter referred to as "City."

W I T N E S S E T H:

NOW, THEREFORE, in consideration of the mutual agree-  
ments and agreement herein contained, the parties hereto agree  
as follows:

That Operator will continue to operate the City of  
Phoenix Paradise Valley Dial-A-Ride, Moon Valley Dial-A-Ride  
and Sunday Dial-A-Ride Public Transit Systems for the period of  
July 1, 1982 through June 30, 1983, as amended, and in  
connection therewith, Agreement No. 20920, by execution of this  
amendment which is hereby amended to read in its entirety as  
follows:

WHEREAS, a major portion of the population of the  
State of Arizona is located in the rapidly expanding Phoenix  
urban area; and

WHEREAS, present transit systems have been steadily  
increasing services, since 1971, and play an important role in  
transporting large numbers of people to and from work and other  
essential human activities in an energy conscious manner, and

WHEREAS, transit systems are of particular and special help, aid, assistance, and benefit to the general public, school children, disadvantaged, indigent, infirm, aged, blind and handicapped; and

WHEREAS, pursuant to the provisions of Chapter 2, Section 2, Subsections (c) and (1), Charter of the City of Phoenix, 1969, the City is authorized to establish, maintain, equip, own, and operate transportation services of any kind and to install, maintain, and operate all systems, proper or convenient, or which may be conducive to the welfare, safety, and health or convenience of the City of Phoenix and to the inhabitants thereof and by this Agreement intends to establish arrangements for such transit system; and

WHEREAS, Operator is a public service corporation with experience in the provision of door-to-door demand-response transportation services; and

WHEREAS, Operator desires to furnish certain equipment, plant, and personnel, and to manage and operate said City of Phoenix Paradise Valley, Moon Valley and Sunday Dial-A-Ride Systems under the direction, control, and supervision of the City.

NOW, THEREFORE, in consideration of the foregoing and in consideration of the mutual promises and agreements herein contained, the parties AGREE as follows:

Section I - Scope of Work

1.1 DESCRIPTION OF SYSTEM: The demand-response transportation system (DIAL-A-RIDE) hereinafter referred to as "System" shall be generally as follows:

A. System to transport individuals within the areas designated in Appendix B.

B. System passengers to call a specific telephone number, used only for this service. Operator agrees to provide

## 5.4 SPECIAL PHOENIX FACTORS AND TRANSFERABILITY

There are three conditions in Phoenix which may make the provision of Sunday public transportation service using shared-ride taxi mode more practical than in other areas.

First, there was no Sunday fixed-route bus service in Phoenix prior to the start of the DAR service. The City of Phoenix could implement the DAR service instead of a new bus service and not worry about compliance with 13(c) labor provisions of the UMTA Act of 1964. If the DAR service had been a substitution for an existing service, savings would probably have required a diminishing of the labor bargaining unit, which is normally disallowed by the 13(c) provisions. This would be the largest barrier to transferability unless 13(c) is rescinded, as is now being studied.

Second, the Phoenix taxi operator has other DAR service from which to assemble a Sunday labor force. If Sunday service were the only DAR service in a city, the operator would have a more difficult time assembling a reliable labor force. For this piecemeal type of employment, the operator might be forced to pay higher wages, and the no-show problem, the single operational problem reported by the Phoenix operator, would likely be worse.

Third, an excellent trusting relationship exists between the City of Phoenix and the taxi operator, a condition which might not exist in other cities.

Another consideration for a city deliberating whether to implement Sunday DAR service either instead of or as a substitution for regular bus service is the different markets served by the two systems. As stated earlier, the majority (about 70%) of Sunday DAR riders are retired or non-working, low income persons. If a city wishes to serve a different or broader target group, implementation of DAR service may not be the answer.

## 5. CONCLUSIONS

### 5.1 OVERALL ECONOMIC SAVINGS

Table 10 shows that the City of Phoenix realizes a large cost savings by providing Sunday service through use of the shared-ride taxi mode instead of using fixed-route bus service. As stated earlier the existing patronage is quite light and this is a major reason for the large cost savings.

### 5.2 COMPARABLE LEVEL OF SERVICE

The level of service provided by the DAR taxi is different from that provided by fixed-route bus in several ways. In the Phoenix DAR service, there are positive factors--door-to-door delivery, avoidance of waiting out of doors, comfort of automobile travel, and no need to fit trip start time to a fixed bus schedule. But there are also negative factors--the fare is higher, the wait time is uncertain, the service is less visible and is unknown to a portion of the general public.

Thus, all conclusions regarding the cost savings to be derived through use of DAR taxi service as an alternative to fixed-route bus service must consider the differences, both real and perceived, in the levels of service that would be involved.

### 5.3 RIDER CHARACTERISTICS

A comparison of demographic data for DAR and fixed route passengers shows that the two systems serve quite different markets. The DAR riders are predominantly low-income retired persons who are highly transit dependent. Riders of the fixed-route service, while largely a transit dependent group, are workers and students who span a broad age range.

This reduces direct operating cost and energy consumption per passenger carried.

In the DAR system, the City of Phoenix, the governmental subsidizing agency, can increase or decrease fleet size and control cost and response time. (The present contract states that the maximum number of vehicles operating on Sunday will be 17; usually 12-13 taxicabs are needed to meet demand.) However, the taxi operator is very instrumental in an advisory role. The economic incentive for the Arnett Company is to increase fleet size which would decrease response time making customers happy and increase billings to the City. Thus, it would seem that the operator would wish to maximize fleet size and maximize billings.

In the Phoenix case the taxi operator appears to be motivated by factors other than short-term maximization of profits, and as his company operates two other DARs supported largely by public funds, it is in his best interest to maintain a good business relationship with the City of Phoenix. During our interviews with Public Transit staff, several people commented about the integrity and public spirit of this gentleman. He and the director of Public Transit monitor the productivity factors (passengers per vehicle per day and passengers per vehicle mile), the farebox recovery (revenue divided by operator's billed costs), the fraction of response times under 30 minutes, and the level and nature of customer complaints.

It is noteworthy that Arnett claims to receive about the same profit margin from a vehicle revenue hour whether the vehicle is in DAR or regular taxi service. If this is true, he is then disinterested in any shifts between the two modes.

TABLE 10. COMPARISON OF FIXED ROUTE AND DAR SERVICE

<u>Total cost</u>	<u>Farebox Recovery</u>	<u>Subsidy Cost</u>	<u>Cost per Sunday</u>	<u>Ridership</u>	<u>Subsidy per Passenger</u>
<u>Fixed route</u> \$885,560	12%	\$779,300	\$15,000	4300 (projected)	\$3.50
<u>DAR</u> \$87,470	13.4%	\$75,750	\$1,460	219 (actual)	\$6.64

This comparison shows the total subsidy cost for the existing DAR taxi is considerably less than the cost of providing fixed route service: \$75,750 vs. \$779,300 resulting in an annual difference of \$703,550. However, the cost per passenger is higher on the DAR service. Moreover, if ridership increased on the DAR service, total cost would also increase whereas total cost for fixed route service would remain relatively constant even with a substantial increase or decrease in ridership. Lower total cost on DAR appears to be primarily a result of much lighter ridership than would be expected on fixed route service.

### 4.3 INCENTIVES AND ROLES

There is supposed to be a balance of incentives in the roles played by the public and private sector participants. The central tradeoff in provision of any form of taxi service is the number of vehicles in revenue service versus response time. With a larger number of vehicles the cost of provision of service becomes higher, i.e., more taxis are ready to respond to the next call, and the dispatcher can decrease the average customer wait time before a cab arrives.

In a shared ride system, as fleet size decreases and as response time increases, the average number of riders simultaneously riding increases and the mileage per passenger trip decreases.\*

\*Assuming a level of service is maintained that will continue to attract riders to the service.



TABLE 9 . COST AND OPERATING DATA (2/81-10/82)

Cash	\$ 20,742
Revenue hours	9,463
Revenue miles	139,818
Total one-way trips	20,186
Trips with zone charge	14,958
Trips by seniors	14,361
Wheelchair trips	533
Average trips/Sunday	219
Total cost	\$154,748
Cost/passenger trip	7.68
Passenger trips/hour	2.13
Farebox recovery	13.4%
Subsidy	\$134,007
Subsidy/passenger	\$ 6.64

## 4.2 THE ECONOMIC COMPARISON

When the City of Phoenix was deliberating how to provide Sunday public transportation service, it considered a number of options including fixed route bus. The council chose the paratransit option--DAR taxi--because it was believed that the service would require much less subsidy than even a minimum level of regular bus service. This section compares cost and ridership of the two systems to determine whether this premise is correct.

The City of Phoenix Public Transit Administration estimates that minimum level, fixed-route bus service on Sunday would cost \$885,560 per year. This estimate is based on a service level equal to two thirds of the current Saturday service level, which would provide one-hour headways. The subsidy required is \$779,300 based on Phoenix Transit's projected farebox recovery of 12%. The 12% recovery ratio implies a ridership of about 4300.\*

The DAR costs shown in Table 9 total \$154,748 for a twenty-one month period (92 weeks); computed at this rate, the annual cost would be \$87,470. Table 10 compares cost and ridership for the two systems.

\*At an annual cost of \$885,560, a 12% farebox recovery produces \$106,267 in fares or \$2044/Sunday. Using an average passenger fare of 47.4¢ implies ridership of about 4300.

## 4. COSTS AND OPERATING PERFORMANCE

Sunday DAR was initiated as a more cost efficient method of meeting public desire for Sunday transit service than providing regular fixed-route service. In order to examine the extent to which this objective has been met, this chapter reports on the costs, revenues, and other operating data of the Sunday DAR for a twenty-one month period, February 1981 through October 1982. These data are then compared to probable costs for minimum level fixed-route service.

### 4.1 SUNDAY DAR COSTS

Table 9 shows total cost and operating data from February 1981 through October 1982. During the first five months of operation, September 1980 through January 1981, the system was in a start-up phase. The data records for this period are not included here.

The figures shown as costs in Table 9 represent the City of Phoenix's payments to the provider, Arnett Cab Service, Inc. Arnett bills the City of Phoenix based on the number of vehicle hours used to provide service (\$16.69/hr. for regular taxi and \$17.69/hr. for wheelchair van) minus collected fares.

During this twenty-one month period, the data show the system was operating at a productivity rate of 2.1 passenger trips per hour, a subsidy level of about \$6400 per month, and a farebox recovery rate of 13.4%. The total cost per passenger trip is \$7.67; the subsidy per passenger trip is \$6.64. The average fare paid is \$1.03. Seventy-four percent (74%) of the trips require a zone charge.

complaints to the City Council and almost no complaints to the operator or to Phoenix Transit.

Over half (56%) of the respondents to the on-board survey included comments on their questionnaires (shown in Table 8).

TABLE 8. RIDER COMMENTS

	<u>n</u>	<u>% of all responses</u>
Praise	26	39.4
Extend service hours/days	20	30.3*
Continue providing service	6	9.1
Improve response time	3	6.8
Provide more lift-equipped vans	3	4.5
Other	8	12.1
	<u>66</u>	<u>100.0</u>

\*Survey conducted January 1981. Service hours extended to 8 A.M. - 5 P.M. (previously 3 P.M.) in February 1982.

Passengers most frequently praised the service or suggested providing more days or hours of service. Only three suggested response time needed to be improved.

There are complaints about response times. The statement "You will be picked up within 30 minutes" produces problems. People are irritated if the cab comes early in the 30-minute interval. They also call back insisting they have waited too long when actually the 30-minute period hasn't passed.

The response time is not reported as a part of the monthly statistics. The operator said that he periodically analyzes the time-stamped tickets for a given day and computes the fraction of responses under 30 minutes. He then reports this to City of Phoenix Public Transit Administration. He has a computer program to perform this analysis, but the program is currently not functioning.

Based on the rider input described above and the general absence of complaint, one can conclude that overall rider satisfaction with the level of service is high.

The responses given in Table 6 are corroborated by a second survey administered to 120 DAR riders March 21 and 28, 1982. At that time 79.7% of the riders stated that the service was "very important" to their transportation needs. (Complete results of this survey are included in Appendix B.)

Our conversations with DAR drivers also confirm that the ridership is essentially made up of persons who do not have access to a private automobile--older and frail seniors, handicapped persons, the poor. One man with cerebral palsy regularly uses the service (the lift-equipped van) to visit his friend in a nursing home. Many elderly women attend church services followed, perhaps, by dinner out with their friends; they tell the drivers they would be unable to do so without the DAR service. One gentleman regularly uses the service to travel to and from work on Sunday commenting that the same ride by regular cab service would cost \$20.00.

### 3.5 LEVEL OF SERVICE

As discussed above, the Sunday DAR provides an important service to its users. For many, the absence of this service would likely mean they would be unable to travel on Sunday. User satisfaction with the service is very high as indicated by responses shown in Table 7.

TABLE 7. RIDER ASSESSMENT OF SERVICE

	%
Excellent	<u>67.7</u>
Good	24.2
Average/fair	7.1
Poor	1.0
Unsatisfactory	<u>-0-</u>
	100.0

Prior to the installation of the Sunday DAR there were repeated complaints before the City Council about the lack of Sunday bus service. Since the DAR started there have been no

### 3.4 IMPACT OF SERVICE ON THOSE SERVED

The average number of rides served per Sunday throughout the almost two years of operation is 233. If the average rider makes 1.86 trips per Sunday (see previous section), this implies that approximately 125 separate persons are served on average each Sunday. Responses to several of the survey questions indicate that the service is vitally important to this small group of persons.

First, the demographic data presented in Table 2 show DAR riders to be highly transit dependent and persons with lower incomes. Second, DAR riders indicate they use a variety of public transportation services to get around and none of these, except taxi service, is available to them on Sunday. Table 5 shows responses for 96 Sunday DAR riders who said they use forms of public transportation other than the Sunday DAR.

TABLE 5. USE OF OTHER PUBLIC TRANSPORTATION MODES

	<u>n</u>	<u>% of respondents</u>	<u>% of responses</u>
Phoenix Transit	75	78.1	50.7
Social Service Agency Transportation	3	3.1	2.0
Human Resources DAR*	29	30.2	19.6
Paradise Valley DAR*	8	8.3	5.4
Taxicab	33	34.4	22.3
	<u>148</u>		<u>100.0</u>

\*Both are City-run, subsidized transportation services

Third, when asked "How important is Sunday DAR to your transportation needs?", three-fourths of the respondents indicated the service was very important. Only 3% viewed the service as not very important. Table 6 shows all responses.

TABLE 6. IMPORTANCE OF DAR SERVICE

<u>Rating of Passengers</u>	<u>%</u>
Very important	76.2
Important	18.8
Not very important	3.0
No opinion	2.0
	<u>100.0</u>

### 3.3 TRIP CHARACTERISTICS

The most common trip purpose of DAR riders is church attendance followed by shopping and visiting. Table 3 gives responses to the origin-destination question with the "home" destination removed from calculation.

TABLE 3. TRIP PURPOSE  
(n = 108)

	<u>%</u>
Church	28.7
Shopping	23.1
Visiting	17.6
Work	12.0
Entertainment/Recreation	5.6
Medical/Dental	2.8
Other*	10.2
	<u>100.0</u>

\*Library, office, dealer, airport, restaurant

Most DAR riders (64%) indicated that on a typical Sunday they use the service to make a round trip, i.e., they make two one-way trips. A fourth (26%) make fewer than two one-way trips and 10% make three or more one-way trips on a typical Sunday. Based on survey results, the average rider makes 1.86 trips per Sunday.

Over half of all respondents state they use the Sunday DAR every week as shown in Table 4.

TABLE 4. FREQUENCY OF DAR USE

<u>Sundays/Month</u>	<u>%</u>
One	12.9
Two	19.4
Three	11.8
Four	55.9
	<u>100.0</u>

fixed-schedule service. Data on the Sunday riders were obtained from an on-board survey of passengers on January 11, 1981. The service had been in operation for 20 weeks at the time of the survey. There were 190 passengers on January 11; 109 questionnaires were returned (passengers making a round trip were surveyed on only one leg of their trip) and 102 of these were considered suitable for analysis. A question-by-question summary of this survey is included in Appendix C. Data for the fixed-route passengers were obtained in an on-board survey February 13-18, 1979; 10% of the bus trips for one weekday and Saturday were sampled. The number of completed questionnaires totaled 1900.\*

The majority of Sunday DAR riders are women age 65 and older with limited incomes. As would be expected, this group is highly transit dependent: three-fourths do not have a driver's license and over 80% do not own or live in a household with a motor vehicle in operating condition. Twenty-one percent (21%) of DAR riders indicate they belong to a minority group, approximately the same percentage of minorities as is in the City's general population. Answers to the survey question asking "What type of fare did you pay for this trip?" indicate that 13 of the respondents (13%) paid the handicapped reduced fare. Further analysis shows that 8 of these 13 (62%) were under 65 years of age.

Compared to regular bus riders the Sunday DAR group is more often female, older, less likely to be employed, and have lower incomes and a higher degree of transit dependency. There is a lower percentage of minorities among DAR users (20.8% vs. 35.4% on fixed-route service).

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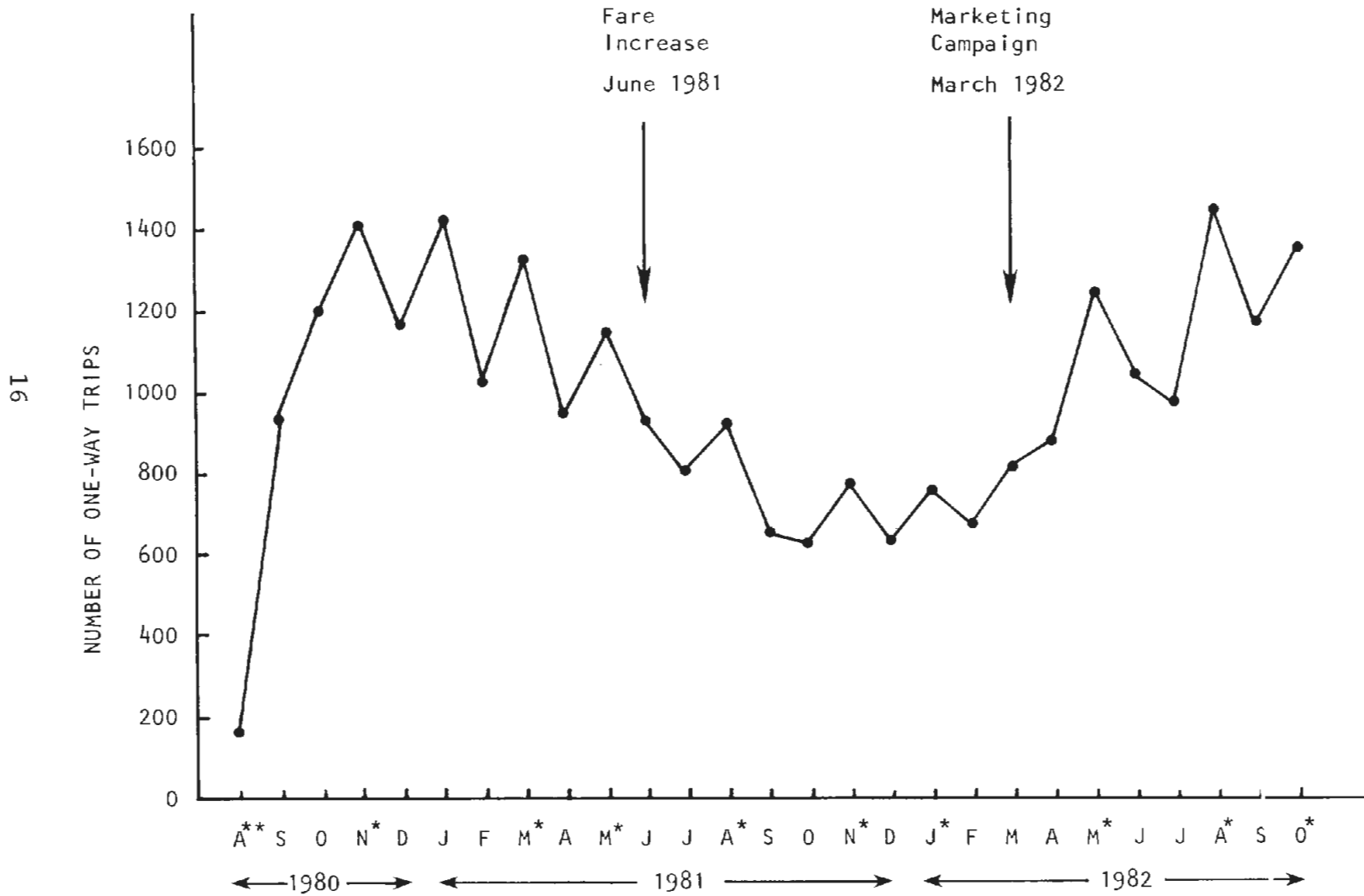
\*Information on this survey taken from Transit Fare Prepayment Demonstration in Austin and Phoenix, prepared for TSC, U.S. DOT by Crain & Associates, June 1979.

TABLE 2. DEMOGRAPHIC DATA (%)

	<u>Sunday DAR</u> (n=102)		<u>Fixed-Route</u> (n=1900)
Sex			
Male	29.7		43.5
Female	70.3		56.5
Age			
12-20 years	6.9	Under 18	13.9
21-59	36.3	18-44	59.6
60-64	2.0	45-64	16.4
65 and older	54.9	65 and older	10.1
Employment Status			
Retired	57.4		9.3
Employed	22.8		53.0
Student	9.0		24.5
Homemaker	7.9		9.0
Unemployed	3.0		4.2
Ethnicity			
White or other	79.2		64.5
Black	9.9		12.9
Mexican-American	6.9		15.2
Asian	2.0		0.8
American Indian	2.0		6.5
Income			
Under \$10,000	71.9	Under \$5,000	35.8
\$10,000-14,999	15.7	\$5,000-14,999	41.3
\$15,000-19,999	3.4		
\$20,000-29,999	9.0	\$15,000-29,999	16.0
\$30,000 and over	0	\$30,000 & over	6.9
Drivers License			
Yes	25.3		54.5
No	76.8		45.5
Motor Vehicles in Household			
None	82.2		44.6
One	11.9		32.4
Two	4.0		14.3
Three	2.0		8.7



FIGURE 3. SUNDAY DAR RIDERSHIP BY MONTH



\* Five-week months

\*\* Service began August 31.

### 3. SYSTEM PERFORMANCE

This chapter analyzes trends in ridership during the first year of DAR service, presents demographic data on users and their trip behavior and attempts to assess the impact of DAR service on those users.

#### 3.1 VOLUME

Figure 3 shows ridership figures from the start of service on August 31, 1980 through October 1982. A different method of computation was used to determine number of trips during the start-up phase of the system, August 1980 through January 1981, so that these figures may not be completely comparable with those shown for the following two years of service (February 1981-January 1982).

The data show that ridership rose rapidly the first three months of service hitting a high of 1425 riders in January 1981, then zigzagged up and down for four months. A general decline in ridership began in February which leveled off in September 1981. A fare increase at the end of June (the base fare rose from \$1.00 to \$1.50, the zone change fare rose from \$.25 to \$.50) may account for some of the decrease; however, neither Public Transit personnel nor the drivers received complaints regarding the cost of service.

Beginning in April 1982, a month after the marketing campaign described before, ridership began another climb. It appears that ridership is again at levels similar to those at the start of the project, about 1200 one-way trips per month. Average ridership per Sunday over the entire 26 months was 233.

#### 3.2 USER CHARACTERISTICS

Table 2 gives a comparison of demographic data on Sunday DAR riders and similar data on riders of the Phoenix Transit fixed-route,



could if asked. This would allow them to check the percentage of calls responded to within 30 minutes, merely by looking at a sample of the time-stamped tickets that are made out for each passenger trip.

## 2.6 OPERATING PROBLEMS

The single problem reported by the operator was reliability of the drivers showing up on Sunday. This is a continuing problem caused by people having activities other than work they would rather do on Sundays. As stated earlier the operator can draw on his other DAR operations to provide his Sunday service. If the Sunday service were the only DAR service in town it is uncertain from where the labor force would be drawn and the driver no-show problem might be even worse.

persons visiting the dispatch center, interviewing riders)

- Some early newspaper advertising
- A brochure (see Figure 1), given to riders to pass on information to friends and placed at human service agencies and other locations
- A water-bill mailing describing the service.

An extensive marketing campaign was conducted in March 1982. The purpose of this campaign was to encourage increased ridership and included the following:

- Newspaper advertisements--A full page advertisement in the two major dailies which have a combined circulation of 55,355 and in three other publications believed to reach audiences more likely to use the Sunday DAR
- Radio--10-second and 30-second public service announcements
- Bus cards placed in transit buses
- Lobby cards with holders for Sunday DAR brochures placed in highly-trafficked establishments such as government offices and banks
- Announcements in church bulletins.

Samples of copy and other items used in the marketing campaign are contained in Appendix B along with a more detailed account of the marketing activities.

## 2.5 AUDIT PROCEDURES

The City of Phoenix auditor regularly audits all DAR services provided by Arnett Cab. These are financial audits based on UMTA auditing guidelines, and verify that the billings are accurate, i.e., consistent with drivers' logs as to vehicle hours of service and revenue collected. They do not do an operational audit, but

telephone system, setting up dispatching and telephone rooms, and purchasing and installing the dispatch system from DAVE Systems. Only \$16,100 of the allocated funds were used.

Arnett, like many taxi operators, uses independent contractors for drivers on regular taxi service. Each driver is furnished a radio-equipped vehicle, fed pickups from the dispatcher, and charged a fee. The driver collects and keeps all fares and tips which are, it is hoped, more than the fee.

For the DAR service, Arnett elected to use employees for drivers rather than contractors. The DAR system, serving many elderly and handicapped, requires a less aggressive approach to driving than the contractor approach offers. The drivers are paid \$5.04 per hour plus 40 hours paid time off after one year. As noted in Table 1, the riders view the DAR as a City-provided service like bus service and tip little or not at all. According to Public Transit, the hourly salary was set taking all this into account, and there is no financial incentive for a driver to work the DAR as an employee over driving the regular cab as an independent contractor.

The Sunday DAR drivers work the other DAR systems throughout the week.\* Thus, there is a ready labor base to draw from for this once-a-week operation. These drivers tend to be a different personality type, somewhat more service oriented and more inclined to offer special help for the frail elderly or handicapped person than the regular contractor cab drivers.

## 2.4 MARKETING

Early marketing efforts, before the service began in August 1980 and shortly thereafter, included the following:

- Some initial TV coverage of the new service on the 6 o'clock local news (TV reporters, camera

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\*The Paradise Valley and Moon Valley DARs operate Monday through Friday, 7:30 AM to 5:00 PM. Both systems are open to the general public.

**Winters Franceschi Callahan**

Rev. 2/26/82

100 West Clarendon, Suite 2206, Phoenix, Arizona 85013 (602) 274-8775

## PUBLIC TRANSIT ADMINISTRATION

Sunday Dial-A-Ride  
Estimated Advertising ExpendituresPRINTRepublic & Gazette

Central Zone/City Life (circ. 55,355)

Full-page B/W

Wed., March 10 and 24

\$ 1,900

Production\*

666

Senior World

Phoenix Zone (circ. 15,000)

5 col x 14½" B/W

March 1982, April 1982

834

(\* same ad)

The Chabad Times

Arizona (circ. 10,000)

Full-page B/W

April 1982

470

Phoenix Jewish News

Phoenix (circ. 5,000)

5 col x 14½" B/W

March 19, 1982

530

RADIO

KMCR "Sun Sounds"

Grant

500

Other Stations

10-second PSAs

N/C

COLLATERAL

Bus Cards

Production (600)

2,000

Space (600)

1,200

Lobby Cards

With flaps for brochures

1,600

Production (200)

Sales Contacts

Church Bulletins, Lobby Cards

300

\$10,000AGENCY FEE2,000\$12,000PUBLIC RELATIONS3,000

TOTAL:

\$15,000





## QUESTIONNAIRES

3-21-82	72
3-28-82	<u>48</u>
TOTAL	120

<u>QUESTION #1</u>	<u>3-21-82</u>	<u>3-28-82</u>	<u>TOTAL</u>	<u>PERCENT</u>
A	0	1	1	.8
B	4	1	5	4.3
C	24	15	39	33.6
D	10	6	16	13.8
E	32	23	55	47.4
TOTAL	70	46	116	
QUESTION #2				
A	58	37	95	80.5
B	13	10	23	19.5
TOTAL	71	47	118	
QUESTION #3				
A	37	17	54	47.0
B	17	14	31	27.0
C	2	8	10	8.7
D	13	7	20	17.4
TOTAL	69	46	115	
QUESTION #4				
A	48	33	81	72.3
B	22	9	31	27.7
TOTAL	70	42	112	
QUESTION #5				
A	61	37	98	82.4
B	3	1	4	3.4
C	8	9	17	14.2
TOTAL	72	47	119	
QUESTION #6				
Very Important	59	35	94	79.7
Important	8	11	19	16.1
Not Very Important	1	0	1	.8
No Opinion	2	2	4	3.4
TOTAL	70	48	118	

PHOENIX SUNDAY DIAL-A-RIDE SURVEY COMMENTS

1st TIME USERS

Would prefer making arrangements to be picked up after church as well as before Church time.

I think it should have been started long time ago. It is a blessing that there is a Sunday Dial-a-ride. Hope it continues.

We need it.

Good service for emergency transportation.

I believe it is very essential. I pray it continues.

I think they should keep Dial-a-ride & run it longer than until 5:00 PM. It is very important.

I think it should run longer than five o'clock. It should also be on weekdays.

Good to have around.

I have heard a lot about it, but have never been able to get contact. I spend \$8.00 a day to get to work.

Wish it could be extended into later hours & on weekdays.

You people have a good thing going, keep it up, cause a lot of people like me without a car need rides on Sunday.

This is my first time. I love it. Thank you.

Glad you have this service!

This was the first I have heard of it. I think longer hours would be ideal. Week-nights and Sundays.

First day.

Good for old people.

I ride taxi to get to Church. Now I'll use Dial-a-ride.

APPENDIX C  
PHOENIX SUNDAY DIAL-A-RIDE RIDERSHIP SURVEY



PHOENIX SUNDAY DIAL-A-RIDE  
RIDERSHIP SURVEY  
JANUARY, 1981

INTRODUCTION

In order to make a valid evaluation and decisions concerning the Phoenix Sunday Dial-A-Ride Service, it is felt that knowledge pertaining to rider usage, frequency of use, age of the passengers, transportation dependency, and the socioeconomic background of the passengers is needed.

To provide this information to the City of Phoenix Transit Department, Arnett Cab Service, Inc. undertook a survey of the Phoenix Sunday Dial-A-Ride passenger. The survey was conducted on January 11th, 1981.

METHODOLOGY

The method used for obtaining the information was a short questionnaire. The questionnaire is very similar to the one used by Phoenix Transit for the bus system. Each passenger received a questionnaire as they entered the Dial-A-Ride vehicle and was asked by the driver to please complete it while they were being taken to their destination. At the end of their trip they were to return the questionnaire to the driver.

RESPONSE

Responses were received from 109 passengers. There were 14 passengers who chose not to take the survey. Only one questionnaire was accepted from each passenger regardless of the number of trips the person may have taken for the day.

The statistics for January 11, 1981 are; 190 passengers for the day, 276 trips, 286 telephone calls and 109 surveys received.

COMMENTS FROM PASSENGERS:

Good drivers, good service, friendly atmosphere. Must bring this to Chamber of Commerce meeting in Billingham, Wa. Great.

You should make the service for 7 days a week instead of just Sunday.

- You should improve the hrs. a little longer like until 5 or 6 and on some holidays.
- The hours of operation of dial a ride are too short. We are fortunate to have this economical and prompt service available.

Plan to use more often.

Good service if need way to ever again call Dial A Ride.

Please keep up.

If was not for the Dial A Ride we would not be able to get to Church, thanks to Dial-A-Ride.

Praise the Lord!

I feel the Sunday Dial A Ride is very important to we families who do not have automobiles in case of emergencies.

- I'd like it to be longer and on holidays.
- Service is just satisfactory, driver particularly Mr. Hayes Leever is very accomodating and could be trusted.

- Consider extending time and weekday evenings.

It is very good way to get around.

- Not enough time. Doesn't run late enough.

I feel you should keep Sunday Dial A Ride as I can go so many places I couldn't go before.

OK

Waiting time could be improved. Service on holidays also could be improved.

- Do hope the service continues. Would like it better if it was available earlier and later in the day. Thank you.

Drivers very courteous.

- Need extended service later in evening. Would ride transit if available.

I use this and transit as often as possible. I would not be able to drive myself as cheaply.

Plan to use more often.

Excellent program would use Dial A Ride services week evenings to attend events in Phoenix, Tempe and Scottsdale such as theatre, arts and sports events.

I like the prices on transportation.

COMMENTS FROM PASSENGERS:

Very pleased, only problem more service hours plus more drivers.  
See Dial-A-Ride Sat. and Sun.

I wish it would continue, that the only way I have of going to Church.

- Need later day service.

Drivers courteous and helpful.

I think that the residents of the valley who are handicapped like me really need transportation on Sunday and Holidays.

- Extended hours, more WC vans.

Need more WC vans, extend time to 5:00 PM, improve phone service.

More WC vans.

- Hours extended.

Am very pleased with the service.

- Would like Sunday Dial A Ride extended longer hours on Sunday.

Nice drivers, comfortable cabs both women have back trouble.

Make it come sooner than a half hour.

- Should last till 5 P.M., I like the service.

Very good.

All good.

Nice to have when I need it.

- More hours, extended service.

Would have trouble getting to church.

It is a beautiful new service. Drivers are all very nice.

I like the dial a ride hope it will continue to operate. I use it every Sunday and find it very satisfactory. Thanks.

To whom it may concern. It has meant more to me than I can say in words. Thanks very much for the service.

- Would like to see service extended to run later in day and on holidays when bus service is unavailable.

We are new here and think this service is great.

Keep it up.

Good for us.

Would use service regularly now. Husband in hospital will not be able to drive anymore.

Use only when I cannot get a ride with friends.

- Would like it to be longer than 2:30. (?)

I walked before Dial A Ride.

Excellent service especially since it is available on Sundays.

QUESTION 1: TYPE OF FARE?

	RESPONSES	PERCENT
REGULAR	44	40.4%
SENIOR CITIZEN	49	45.0%
HANDICAPPED	14	12.8%
NO RESPONSE	2	1.8%
TOTALS	109	100%

QUESTION 2: ARE YOU?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
MALE	20/18.3%	9/ 8.3%	3/ 2.8%	0/0	32/29.4%
FEMALE	23/21.1%	40/36.8%	11/10.0%	0/0	74/67.9%
NO RESPONSE	1/ .9%	0/ 0%	0/ 0%	2/1.8%	3/ 2.7%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 3: AGE?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
11-UNDER	0	0	0	0	0
12 - 20	5/ 4.6%	0	1/ .9%	0	6/ 5.5%
21 - 59	32/29.5%	0	7/ 6.4%	0	39/35.9%
60 - 64	3/ 2.7%	0	0	0	3/ 2.7%
65-OVER	3/ 2.7%	49/45.0%	5/ 4.6%	0	57/52.3%
NO RESPONSE	1/ .9%	0	1/ .9%	2/1.8%	4/ 3.6%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 4: HOW MANY CHILDREN OF THE FOLLOWING AGES ARE ACCOMPANYING YOU ON THIS TRIP?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
UNDER 6	4/ 3.6%	0	1/ .9%	0	5/ 4.5%
6 - 11	3/ 2.7%	0	2/ 1.8%	0	5/ 4.5%
NO RESPONSE	38/34.2%	49/44.2%	12/10.8%	2/1.8%	101/91.0%
TOTALS	45/40.5%	49/44.2%	15/13.5%	2/1.8%	111/ 100%



QUESTION 5: WHICH ONE CATEGORY BEST APPLIES TO YOU?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
CATEGORIES					
RETIRED	4/ 3.7%	0	6/ 5.6%	0	10/ 9.3%
STUDENT ONLY	2/ 1.8%	20/18.4%	2/ 1.8%	0	24/22.0%
STUDENT/EMP.	5/ 4.6%	28/25.7%	1/ .9%	0	34/31.2%
HOMEMAKER	6/ 5.6%	0	1/ .9%	0	7/ 6.5%
EMPLOYED(WHITE COLLAR JOB)	11/10.1%	0	2/ 1.8%	0	13/11.9%
EMPLOYED(BLUE COLLAR JOB)	13/11.9%	0	1/ .9%	0	14/12.8%
UNEMPLOYED OR SEEKING WORK	2/ 1.8%	0	1/ .9%	0	3/ 2.7%
NO RESPONSE	1/ .9%	1/ .9%	0	2/1.8%	4/ 3.6%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 6: WHERE DID YOU COME FROM?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
PLACES					
HOME	33/30.3%	40/36.7%	11/10.1%	0	84/77.1%
WORK	4/ 3.7%	0	0	0	4/ 3.7%
SCHOOL	0	0	0	0	0
SHOPPING CENTER OR STORE	3/ 2.8%	3/ 2.8%	0	0	6/ 5.6%
DOCTOR'S OR DENTIST OFFICE	0	1/ .9%	0	0	1/ .9%
PLACE OF ENTERTAINMENT OR REC.	0	0	0	0	0
CHURCH	0	3/ 2.8%	1/ .9%	0	4/ 3.7%
VISITING	2/ 1.8%	1/ .9%	2/1.8%	0	5/ 4.5%
OTHER(SPECIFY)*	2/ 1.8%	0	0	0	2/ 1.8%
NO RESPONSE	0	1/ .9%	0	2/1.8%	3/ 2.7%
TOTAL	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

\*Others

Restaurant  
Nursing Home

QUESTION 7: WHERE ARE YOU GOING?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
PLACES					
HOME	6/ 5.5%	8/ 7.3%	2/ 1.8%	0	16/14.6%
WORK	10/ 9.2%	0	0	0	10/ 9.2%
SCHOOL	0	0	0	0	0
SHOPPING CENTER OR STORE	7/ 6.4%	12/11.1%	2/ 1.8%	0	21/19.3%
DOCTOR'S OR DENTIST OFFICE	1/ .9%	1/ .9%	0	0	2/ 1.8%
PLACE OF ENTERTAINMENT OR REC.	3/ 2.8%	2/ 1.8%	1/ .9%	0	6/ 5.5%
CHURCH	7/ 6.4%	16/14.8%	4/ 3.7%	0	27/24.9%
VISITING	4/ 3.7%	2/ 1.8%	4/ 3.7%	0	10/ 9.2%
OTHER(SPECIFY)*	5/ 4.6%	8/ 7.3%	1/ .9%	0	14/12.8%
NO RESPONSE	1/ .9%	0	0	2/1.8%	3/ 2.7%
TOTAL	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

\*Others            Dealer            Synogogue            Airport  
                          Office            Restaurant-3  
                          Nursing-        Hospitals- 3  
                          Home            No Answer 1  
                          Library  
                          Library

QUESTION 8: HOW MANY MOTOR VEHICLES IN OPERATING CONDITION DO YOU HAVE IN YOUR HOUSEHOLD?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
NUMBER					
NONE	29/26.7%	46/42.3%	11/10.1%	0	86/79.1%
ONE	10/ 9.2%	2/ 1.8%	1/ .9%	0	13/11.9%
TWO	2/ 1.8%	0	0	0	2/ 1.8%
THREE OR MORE	2/ 1.8%	0	2/ 1.8%	0	4/ 3.6%
NO RESPONSE	1/ .9%	1/ .9%	0	2/1.8%	4/ 3.6%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 9: DO YOU HAVE A VALID DRIVER'S LICENSE?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
YES	18/16.5%	4/ 3.7%	2/ 1.8%	0	24/22.0%
NO	24/22.1%	43/39.5%	10/ 9.2%	0	77/70.8%
NO RESPONSE	2/ 1.8%	2/ 1.8%	2/ 1.8%	2/1.8%	8/ 7.2%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 10: ON A TYPICAL SUNDAY, HOW MANY ONE-WAY DIAL-A-RIDE TRIPS DO YOU USUALLY MAKE? FOR EXAMPLE, IF YOU TAKE THE DIAL-A-RIDE TO CHURCH AND HOME AGAIN THAT COUNTS AS TWO ONE-WAY TRIPS

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
NUMBER					
ONE	16/14.7%	10/ 9.2%	1/ .9%	0	27/24.8%
TWO	24/22.1%	24/22.1%	12/11.0%	0	60/55.2%
THREE	1/ .9%	2/ 1.8%	1/ .9%	0	4/ 3.6%
FOUR	2/ 1.8%	2/ 1.8%	0	0	4/ 3.6%
NO RESPONSE	1/ .9%	11/10.1%	0	2/1.8%	14/12.8%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 11: WHAT IS YOUR TOTAL HOUSEHOLD INCOME PER YEAR?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
INCOME					
UNDER \$10,000	20/18.4%	37/34.0%	13/11.9%	0	70/64.3%
\$10,000-14,999	11/10.1%	2/ 1.8%	1/ .9%	0	14/12.8%
\$15,000-19,999	2/ 1.8%	1/ .9%	0	0	3/ 2.7%
\$20,000-29,999	7/ 6.4%	1/ .9%	0	0	8/ 7.3%
\$30,000 or OVER	0	0	0	0	0
NO RESPONSE	4/ 3.7%	8/ 7.4%	0	2/1.8%	14/12.9%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 12: DO YOU USE ANY OF THESE OTHER FORMS OF PUBLIC TRANSPORTATION?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
FORMS					
PHOENIX TRANSIT	38/23.1%	34/20.6%	9/ 5.5%	0	81/49.2%
SOCIAL SERVICE AGENCIES	2/ 1.2%	1/ .6%	1/ .6%	0	4/ 2.4%
HUMAN RESOURCES DIAL-A-RIDE	11/ 6.7%	11/ 6.7%	7/ 4.2%	0	29/17.6%
PARADISE VALLEY DIAL-A-RIDE	4/ 2.4%	3/ 1.8%	2/ 1.2%	0	9/ 5.4%
TAXICABS	23/13.9%	9/ 5.5%	3/ 1.8%	0	35/21.2%
NO RESPONSE	0	5/ 3.0%	0	2/1.2%	7/ 4.2%
TOTALS	78/47.3%	63/38.2%	22/13.3%	2/1.2%	165/ 100%

QUESTION 13: HOW MANY SUNDAYS PER MONTH DO YOU USE PHOENIX SUNDAY DIAL-A-RIDE?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
TIMES					
ONE	7/ 6.4%	7/ 6.4%	1/ .9%	0	15/13.7%
TWO	10/ 9.2%	6/ 5.5%	3/ 2.8%	0	19/17.5%
THREE	2/ 1.8%	6/ 5.5%	2/ 1.8%	0	10/ 9.1%
FOUR	23/21.2%	24/22.1%	8/ 7.3%	0	55/50.6%
NO RESPONSE	2/ 1.8%	6 5.5%	0	2/1.8%	10/ 9.1%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 14: ARE YOU?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
RACE					
MEXICAN/AMERICAN	2/ 1.8%	3/ 2.8%	1/ .9%	0	6/ 5.5%
BLACK	7/ 6.4%	4/ 3.7%	1/ .9%	0	12/11.0%
ORIENTAL	2/ 1.8%	0	0	0	2/ 1.8%
AMERICAN/IND.	3/ 2.8%	1/ .9%	0	0	4/ 3.7%
WHITE OR OTHER	30/27.6%	40/36.7%	12/11.0%	0	82/75.3%
NO RESPONSE	0	1/ .9%	0	2/1.8%	3/ 2.7%
TOTALS	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 15: HOW IMPORTANT IS PHOENIX SUNDAY DIAL-A-RIDE TO YOUR TRANSPORTATION?

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
IMPORTANCE					
VERY IMPORTANT	29/26.6%	39/35.9%	11/10.1%	0	79/72.6%
IMPORTANT	12/11.1%	7/ 6.4%	3/ 2.7%	0	22/20.2%
NOT VERY IMP.	1/ .9%	2/ 1.8%	0	0	3/ 2.7%
NO OPINION	1/ .9%	1/ .9%	0	0	2/ 1.8%
NO RESPONSE	1/ .9%	0	0	2/1.8%	3/ 2.7%
TOTAL	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%

QUESTION 16: ON A SCALE OF 1 TO 5 PLEASE INDICATE HOW SATISFACTORY THE PHOENIX SUNDAY DIAL-A-RIDE SERVICE IS (5 being the most satisfactory).

FARES	REGULAR	SENIOR CITIZEN	HANDICAPPED	NO RESPONSE	TOTALS
UNSATISFACTORY	0	0	0	0	0
POOR	1/ .9%	0	0	0	1/ .9%
AVERAGE/FAIR	1/ .9%	3/ 2.7%	3/ 2.7%	0	7/ 6.3%
GOOD	10/ 9.2%	11/10.2%	5/ 4.6%	0	26/24.0%
EXCELLENT	32/29.4%	32/29.4%	6/ 5.5%	0	70/64.3%
NO RESPONSE	0	3/ 2.7%	0	2/1.8%	5/ 4.5%
TOTAL	44/40.4%	49/45.0%	14/12.8%	2/1.8%	109/ 100%



## APPENDIX D

### REPORT OF NEW TECHNOLOGY

A thorough review of the work performed under this contract has revealed no significant innovations, discoveries, or inventions at this time. In addition, all methodologies employed are available in the open literature. However, the findings in this document do represent new information and should prove useful throughout the United States in designing and evaluating future transportation demonstrations.

