City of Dinuba 2019 Transit Development Plan

Prepared for the City of Dinuba

City of Dinuba

2019 Transit Development Plan

Prepared for

City of Dinuba
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EXECUTIVE SUMMARY

City of Dinuba
Transit Development Plan

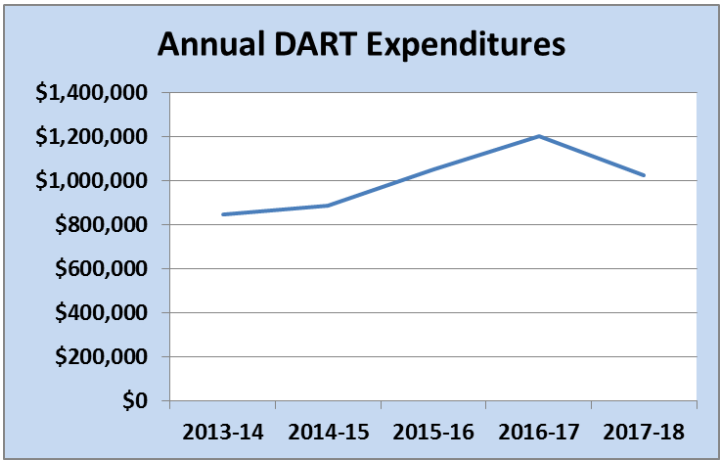
Plan Purpose

- Required for funding
- Opportunity to improve transit

Major Findings

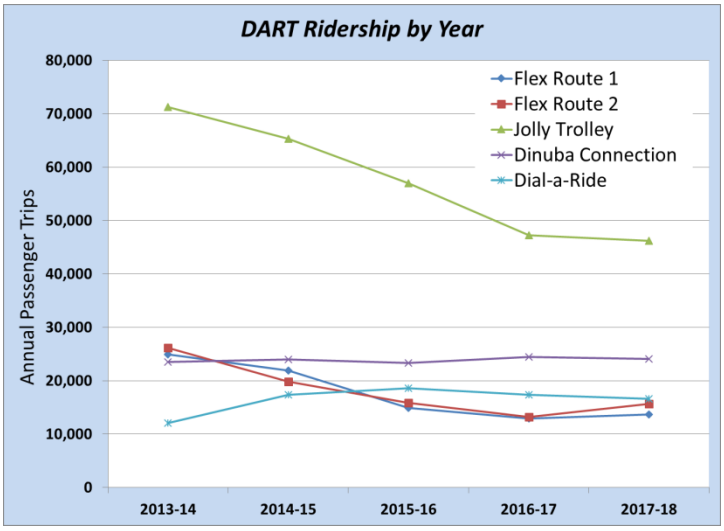
- Ridership has decreased by 26% in five years
- Trolley has lost much of its ridership
- Costs have increased 8% in 5 years—and are forecast to increase another 25% if no changes are made

BACKGROUND: DART services have been successfully operated since 1981. Over the last five years, however, ridership has dropped significantly, while operating costs continue to rise. While service coverage is good and frequency is exceptional, some areas of the city have better service relative to the populations in need. This Transit Development Plan (TDP) looks at how to reduce costs, while ensuring equitable and reasonable mobility for Dinuba residents.



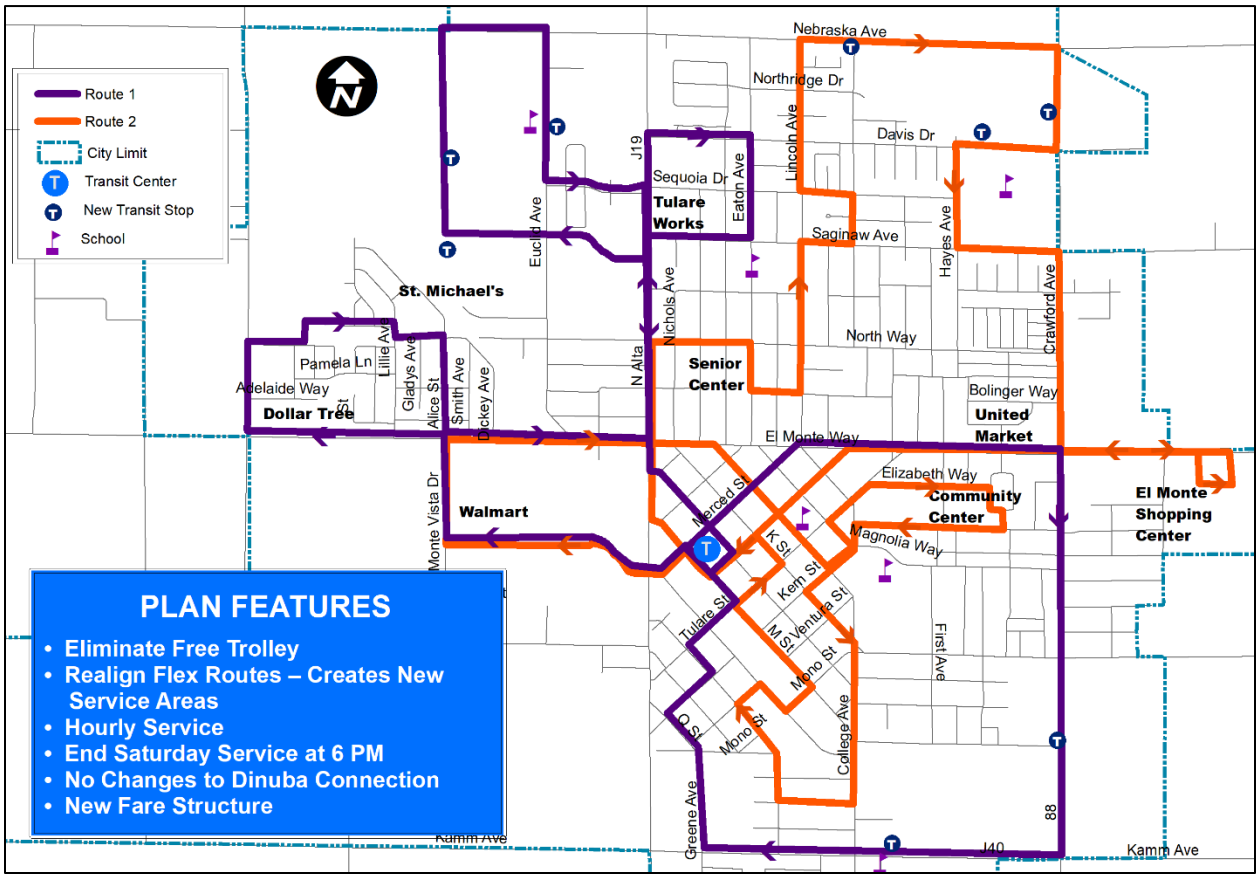
EXISTING SERVICE: DART operates several services:

- ✓ *The Jolly Trolley*, a commercial circulator on half-hour headway. Free to ride.
- ✓ The *Dinuba Connection*, hourly inter-city service between the City of Dinuba and the City of Reedley—primarily serving students at Reedley College. Weekdays only.
- ✓ *DART FlexRoutes* operate as fixed routes, but occasionally make on-demand stops for dial-a-ride requests. Route 1 generally serves the northwest area of Dinuba, and Route 2 serves the east area. Half hour service weekdays and hourly weekends.
- ✓ *Dial-a-Ride* open to the general public, with most of the ridership made up of students and youth.



RECOMMENDED PLAN ELEMENTS:

SERVICE PLAN: The plan recommends merging the Trolley Route into two hourly flex routes. These will operate the same hours as current services, except with reduced hours on Saturday evening when ridership is low. There will be new areas served on Viscaya Blvd, E. Kamm Lane and Nebraska Avenue. The plan offers more coverage, but less frequency. The level of service is more appropriate to demand. No changes are recommended to the Dinuba Connection, which has had steady increases in ridership.



The plan will reduce vehicle hours by 2,678 and ridership by 30,600 annually with significant savings over the status quo (although the contractor rate increases result in higher costs).

FARE CHANGES: The plan recommends increasing dial-a-ride fares to $2.50 for the general public, $2.00 for students, and $1.00 for ADA eligible passengers. This encourages ridership by seniors and people with disabilities, and better matches other fares in Tulare County while still remaining lower than peer systems' fares. The new fare structure encourages able passengers to use fixed route over dial-a-ride.

CAPITAL PLAN: The plan recommends replacing vehicles as they reach the end of their "useful life". One Flexroute vehicle and five DAR vehicles will need replacing over the plan period. CNG

vehicles are recommended through 2025/26, and then battery electric buses thereafter, giving Dinuba time to plan for the transition and for technology to continue to advance. The City will need to undertake a study within the next year or two to strategize the transition. The cost of vehicles in the plan period is projected to be $1.132 million.

MARKETING AND INSTITUTIONAL PLAN: Marketing strategies are presented to expand DART ridership. Goals and objectives are identified to help DART monitor and track performance to best achieve success. Coordination with other transit providers is recommended.

FINANCIAL PLAN: The operating cost will increase to $1.136 million in FY 2019/20, and by two percent inflation thereafter. Without cuts to service, the plan would increase to $1.281 million. The financial strategy is to continue using revenue sources that have been successfully obtained in the past.

- ✓ The financial plan is balanced every year.
- ✓ LTF will cover approximately 40% of operating costs.
- ✓ LTF will provide local match for capital projects funded through FTA 5339
- ✓ Between 41 to 48 percent of the expected LTF allocation will be used for the transit program, with the remainder potentially available for streets and roads.
- ✓ Increased fares will improve the overall farebox revenue ratio.
- ✓ Continue to pursue lease revenue and bus advertising.

Plan Highlights

- ✓ Provides better coverage (new service areas, equitable levels of service)
- ✓ Level of service more appropriate to demand
- ✓ Fare structure better aligned with goals of transit in Dinuba and in Tulare County
- ✓ Service cuts help keep costs under control
- ✓ Vehicles to be replaced as they expire
- ✓ Marketing strategies and goals/objectives outlined
- ✓ Financial plan is realistic and balanced

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Chapter 1

Study Setting

INTRODUCTION

Public transportation is an important service in Dinuba. Transit services provide mobility to residents, including access to important educational, medical, recreational, social and economic services and opportunities. In addition to being important to the quality of life of residents in the city and beyond, public transit services assist in the functioning of educational programs, public and private employers, and social service programs throughout the region.

A Transit Development Plan (TDP) study was conducted to assess transit and related transportation issues in the City of Dinuba and provide a "road map" for improvements to the public transit program over the upcoming five years. The intent of this study was to evaluate the specific needs for transit services, as well as to develop plans for improvements and service revisions. This was accomplished through the review of existing transit conditions and evaluation of operations, as well as through public outreach via onboard surveys, online community surveys, decision-maker surveys and stakeholder focus group meetings.

A wide range of service alternatives were evaluated and vetted by the public and stakeholders. The best service options were developed into a five year plan, supported by marketing strategies, capital improvements, and a balanced financial plan.

STUDY AREA

This TDP is being developed for the City of Dinuba, which is an incorporated city located just west of the foothills of the southern Sierra in Tulare County in the Central Valley. The study area is shown in Figure 1.

POPULATION

General Population Trends: Historic and Projected Population

The most recent estimate of Dinuba's population is provided by the California Department of Finance Demographic Unit, which regularly updates population numbers for cities and counties. In January 2018, the City of Dinuba population was 24,873. Table 1 presents the historic population in Dinuba, as well as the projected population derived from the Department of Finance. For growth comparison, data is shown for Tulare County and the State of California as well. As shown, the city's population increased from 7,917 in 1970, to 21,453 in 2010, surpassing both the County and State's rate of increase. Growth is projected to be slow to roughly 1.5 percent annually for the period of this Transportation Development Plan, though 2020 population is still forecast to be 23 percent above the 2010 population.

Figure 1
Site and Location Map

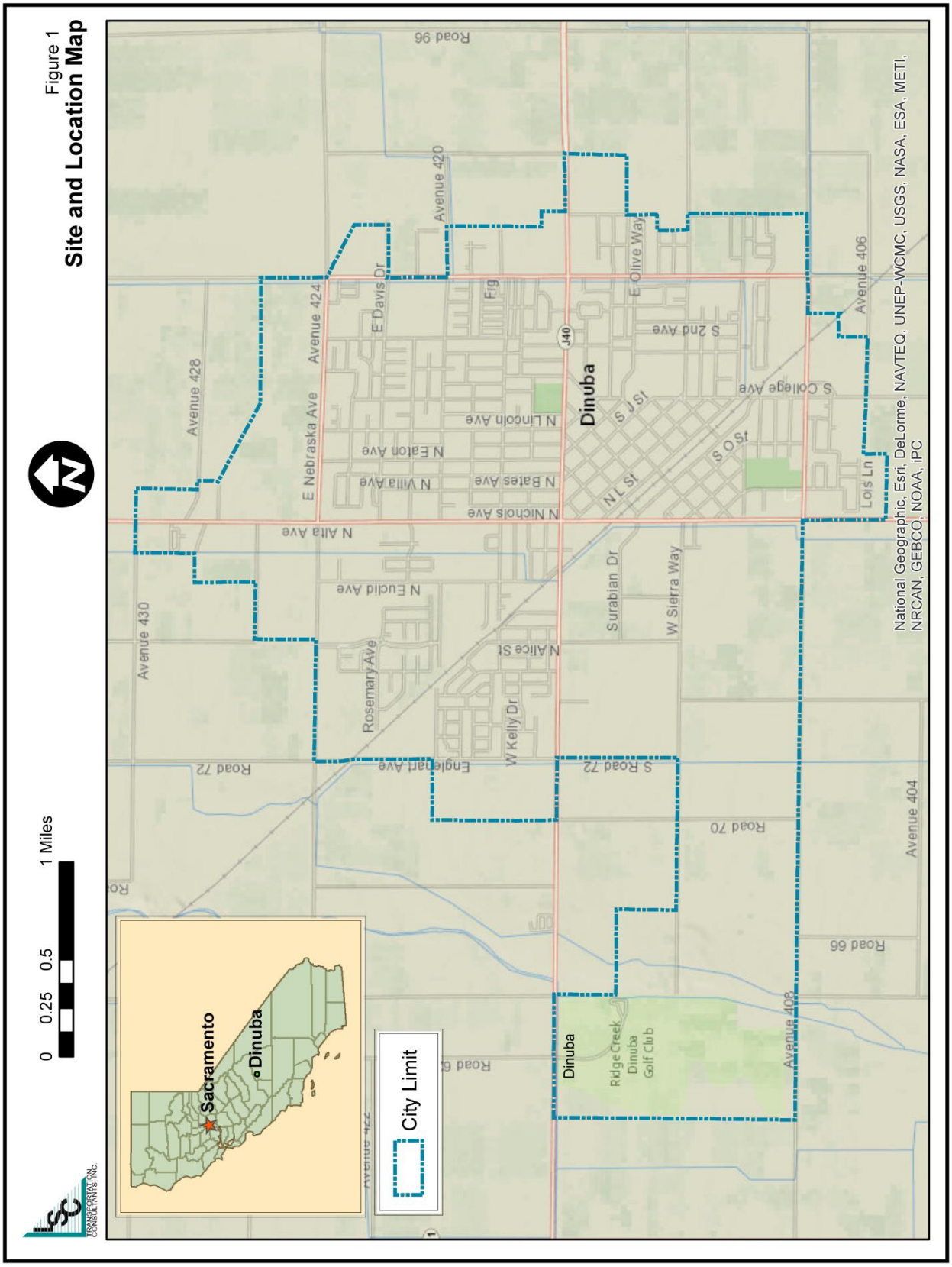


Table 1: Historical and Projected Population

City of Dinuba

	Historic						Projected		
	1970	1980	1990	2000	2010	2018	2020	2030	2040
City of Dinuba	7,917	9,907	12,743	16,844	21,453	24,873	26,493	30,470	34,684
Annual Percent Growth	--	2.3%	2.5%	2.8%	2.4%	2.5%	1.6%	1.4%	1.3%
Growth Over Previous Period	--	25%	29%	32%	27%	16%	7%	15%	14%
Tulare County	188,322	245,738	311,921	368,021	442,179	475,834	487,733	540,580	593,788
Annual Percent Growth	--	2.7%	2.4%	1.7%	1.9%	1.5%	0.5%	1.0%	0.9%
Growth Over Previous Period	--	30%	27%	18%	20%	8%	3%	11%	10%
California Population	20.0 M	23.8 M	29.8 M	33.9 M	37.3 M	39.8 M	40.7 M	44.0 M	46.9 M
Annual Percent Growth	--	1.7%	2.3%	1.3%	1.0%	1.1%	0.6%	0.8%	0.6%
Growth Over Previous Period	--	19%	25%	14%	10%	7%	2%	8%	7%

Source: California Department of Finance Demographic Research Unit

Note 1: Population forecasts for 2020, 2030 and 2040 were calculated by applying the 2018 ratio of Dinuba to Tulare County population to future year population forecasts for Tulare County.

Transit Dependent Population

Table 2 presents key demographic data for Dinuba at the US Census block group level. This data was derived from the US Census Bureau's American Community Survey (ACS) data, which provides interim census updates between decennial census efforts. It provides a greater level of detail than that provided by the Department of Finance, but it is slightly older data (from 2017). A review of this data indicates the following:

- **Total population** of the city was 23,712, per the ACS 2017 estimate. The most populous Census Tract Block Group is the Tract 402, block group 2 south of Nebraska, between Alta Avenue and Crawford Avenue, with 4,340 people. Tract 502, block group 1 also has a high population, but much of the area is outside of the Dinuba City limits. Total population is depicted in Table 2 and Figure 2.

- **Youth** (persons aged 10 to 17) total 3,730, or 15 percent of total population. This is slightly higher than the proportion of youth in Tulare County, and 3 percent higher than the statewide average. The highest numbers of youth in the city are in Tract 402, block group 2 and 401 block group 3. Percentage wise, Tract 401 block group 3 (the neighborhood north of Dollar Tree) and 501 block group 4 (near the transit center) both have 17 percent youth. This is depicted in Table 2 and Figure 3.

- **Elderly** persons age over 64 total 2,140, or 8 percent. This is lower than proportion for the county and state as a whole. Within the city limits, this is particularly high in Tract 402, block group 2 (427 seniors) or percentage-wise in Tract 501, block group 4, where 13 percent of the population is elderly. The elderly population by Census Tract is depicted in Table 2, and density per Census Tract is depicted in Figure 4.

- There are 1,410 households below the federal **poverty** level (21 percent of total households), compared to 14 percent in California. The highest concentration of poverty is in Tract 501, block groups 2 and 3, where 37 to 41 percent of households are below the poverty level. These areas are generally north of E. Kamm and south of Sierra Way, between Alta and Crawford. This is depicted in Table 2 and Figure 5.

- It is difficult to equate the types of **disabilities** identified by the US Census with people's ability to use transit. Nonetheless, persons aged 20 to 64 (typical work force age) who identified as having a disability totaled 659, or 3 percent of the population. The population with disabilities is depicted in Table 2 and Figure 6.

- One of the stronger indicators of transit dependence is the **households without vehicles available**. In Dinuba, there are 365 such households (lower rates than in Tulare County or statewide. This is depicted in Table 2 and Figure 7. Tract 501, block groups 2 and 4 have a high concentration of households without vehicles (22 and 26 percent, respectively). These block groups are south of El Monte, north of E. Kamm, east of Alta and (mostly) west of College Avenue.

Table 2: Dinuba Transit Dependent Population

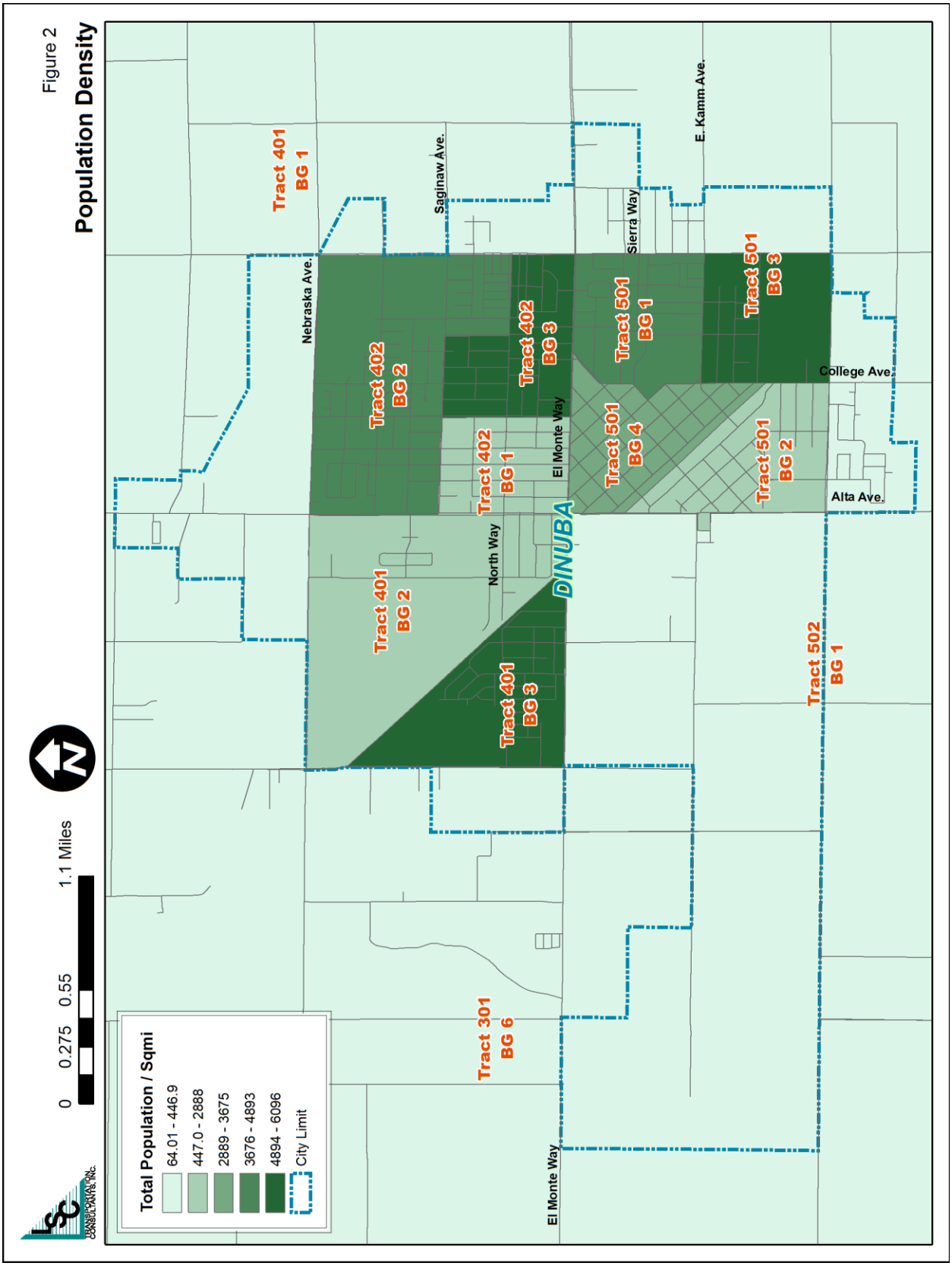
Census Tract	Block Group	Description	Total Population	Total Households	Youth (10-17 years) #	Youth (10-17 years) %	Senior (65+ years) #	Senior (65+ years) %	Low-Income Households #	Low-Income Households %	Special Needs #	Special Needs %	Zero-Vehicle Households #	Zero-Vehicle Households %
301	6	Ridge Creek	768	300	138	18%	178	23%	31	10%	0	0%	17	6%
401	1	N of Ave 424 plus E of Crawford	965	305	159	16%	88	9%	90	30%	16	2%	32	11%
	2	N of SJ Valley Rail Line, W of Alta Ave.	2,300	620	217	9%	186	8%	80	13%	12	1%	7	1%
	3	N of El Monte, S of SJ Valley Rail Line	2,923	714	498	17%	153	5%	148	21%	60	2%	32	5%
402	1	Downtown, N of El Monte, S of Ave 424, E of Alta	798	284	120	15%	83	10%	33	12%	0	0%	0	0%
	2		4,340	1,207	540	12%	427	10%	222	18%	243	6%	34	3%
	3		2,230	619	329	15%	115	5%	129	21%	0	0%	0	0%
501	1	Downtown, S of El Monte, N of E. Kamm, W of Crawford, E of Alta	1,896	607	179	9%	155	8%	165	27%	65	3%	29	5%
	2		1,180	314	193	16%	83	7%	128	41%	20	2%	70	22%
	3		2,236	416	284	13%	116	5%	155	37%	89	4%	16	4%
	4		1,418	397	244	17%	185	13%	95	24%	78	6%	104	26%
502	1	S of E Kamm	4,339	934	829	19%	371	9%	134	14%	78	2%	23	2%
Total Area			***25,393***	***6,717***	***3,730***	***15%***	***2,140***	***8%***	***1,410***	***21%***	***659***	***3%***	***365***	***5%***
City of Dinuba			23,712	6,147	3,443	15%	1,818	8%	1,309	21%	1,228	5%	356	6%
Tulare County			455,769	134,153	63,010	14%	47,492	10%	32,311	24%	23,472	5%	8,627	6%
California			38.4 M	12.7 M	4.1 M	11%	4.8 M	13%	1.8 M	14%	1.9 M	5%	1.0 M	8%

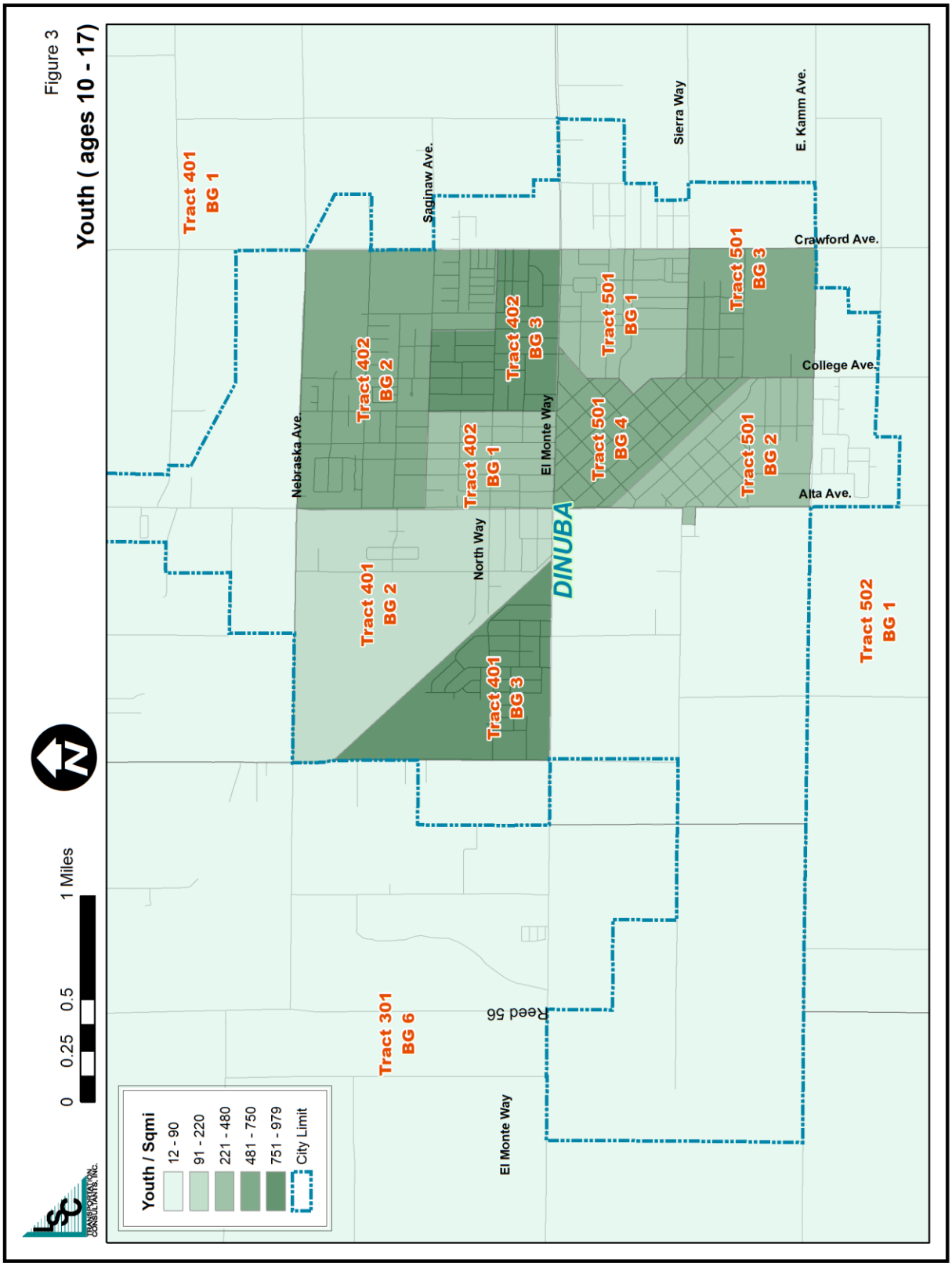
Source: 2017 American Community Survey , 5-Year Estimates, Table B01003 (Population); Table B25044 (Zero-Vehicle Households); Table B01001 (Age); Table B17017 (Poverty, Universe: Households); Table B23024 (Disability for People Ages 20-64, for whom poverty status is determined).

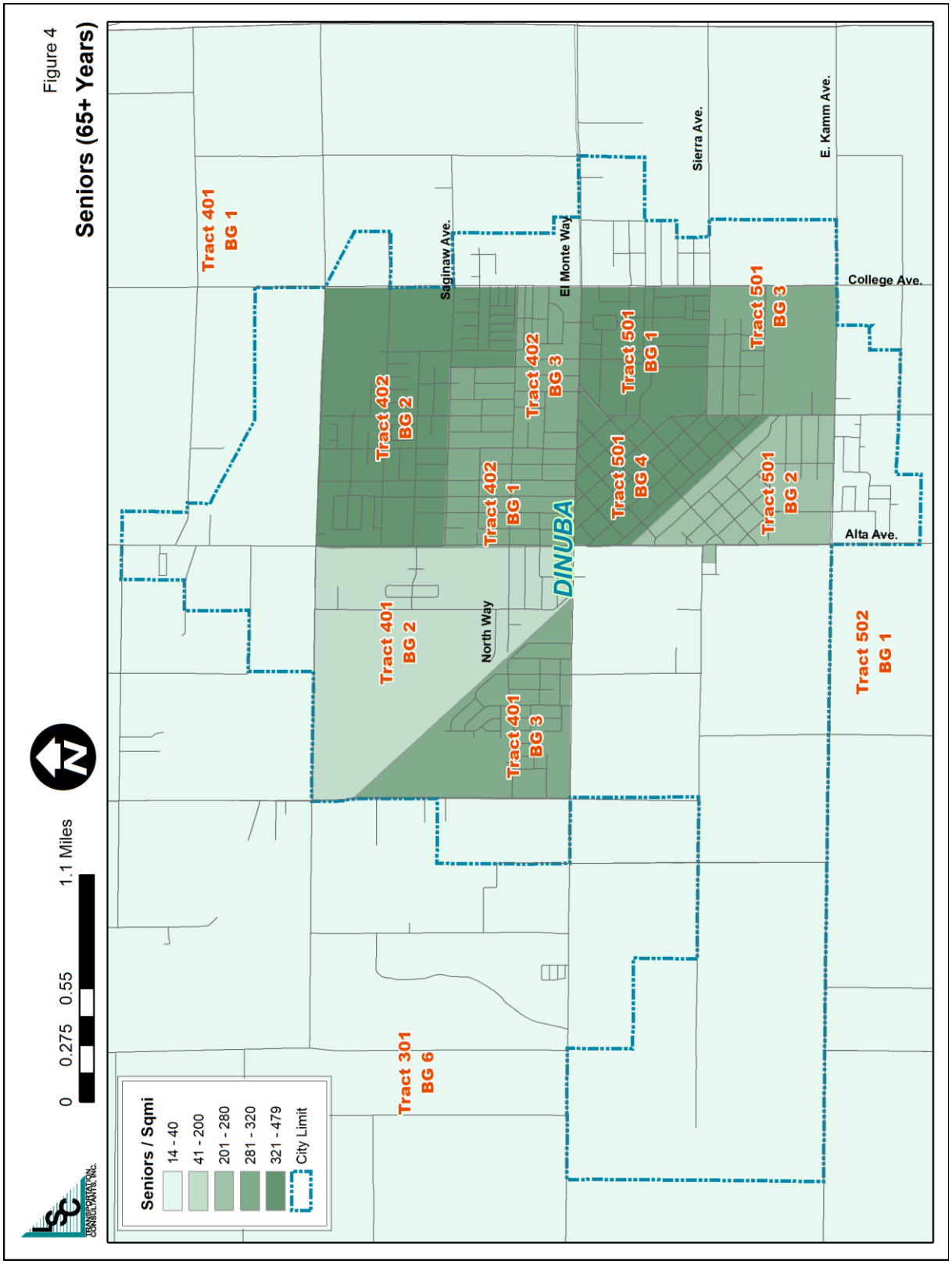
Census Block Groups do not align exactly with City boundaries, thus there are small descrepancies between Census Block Group totals and the City of Dinuba total.

Figure 2

Population Density




Youth (ages 10 - 17)
Figure 3
Youth / Sqmi
12 - 90
91 - 220
221 - 480
481 - 750
751 - 979
City Limit
0 0.25 0.5 1 Miles
LSC TRANSPORTATION CONSULTANTS, INC.
DINUBA
Tract 401 BG 1
Tract 401 BG 2
Tract 401 BG 3
Tract 402 BG 1
Tract 402 BG 2
Tract 402 BG 3
Tract 501 BG 1
Tract 501 BG 2
Tract 501 BG 3
Tract 501 BG 4
Tract 502 BG 1
Tract 301 BG 6
Nebraska Ave.
Saginaw Ave.
Sierra Way
E. Kamm Ave.
Crawford Ave.
College Ave.
Alta Ave.
El Monte Way
North Way
Reed 56


Seniors (65+ Years)
Figure 4
Seniors / Sqmi
14 - 40
41 - 200
201 - 280
281 - 320
321 - 479
City Limit
0 0.275 0.55 1.1 Miles
LSC TRANSPORTATION CONSULTANTS, INC.
Tract 401 BG 1
Tract 402 BG 2
Saginaw Ave.
Tract 402 BG 3
El Monte Way
Tract 501 BG 1
Sierra Ave.
E. Kamm Ave.
Tract 501 BG 3
College Ave.
Tract 402 BG 1
DINUBA
Tract 501 BG 4
Tract 501 BG 2
Alta Ave.
Tract 401 BG 2
North Way
Tract 401 BG 3
Tract 502 BG 1
Tract 301 BG 6

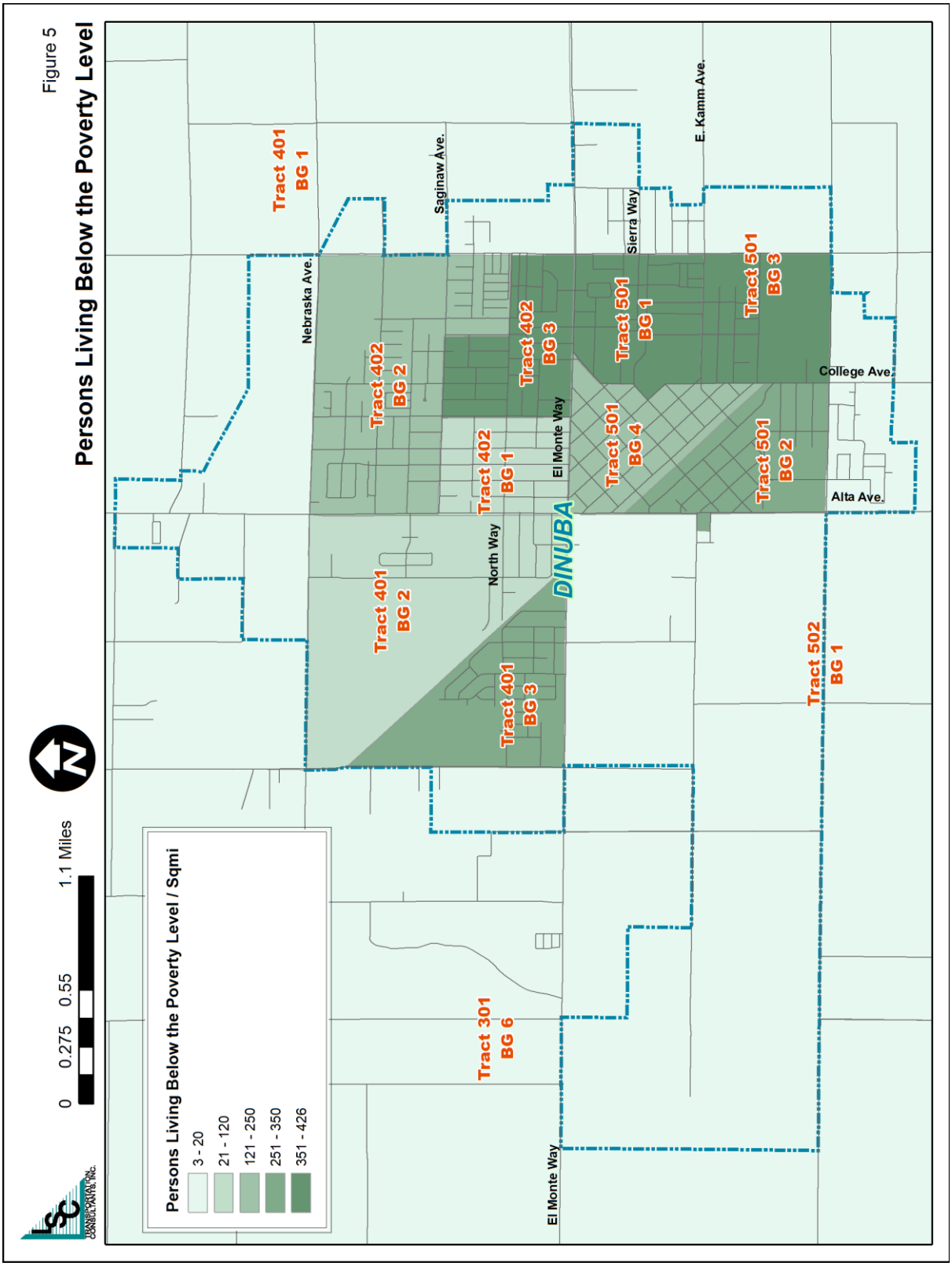


Figure 5
Persons Living Below the Poverty Level
0 0.275 0.55 1.1 Miles
Persons Living Below the Poverty Level / Sqmi
3 - 20
21 - 120
121 - 250
251 - 350
351 - 426
Tract 401 BG 1
Tract 401 BG 2
Tract 401 BG 3
Tract 402 BG 1
Tract 402 BG 2
Tract 402 BG 3
Tract 501 BG 1
Tract 501 BG 2
Tract 501 BG 3
Tract 501 BG 4
Tract 502 BG 1
Tract 301 BG 6
Nebraska Ave.
Saginaw Ave.
Sierra Way
E. Kamm Ave.
College Ave.
Alta Ave.
El Monte Way
North Way
DINUBA

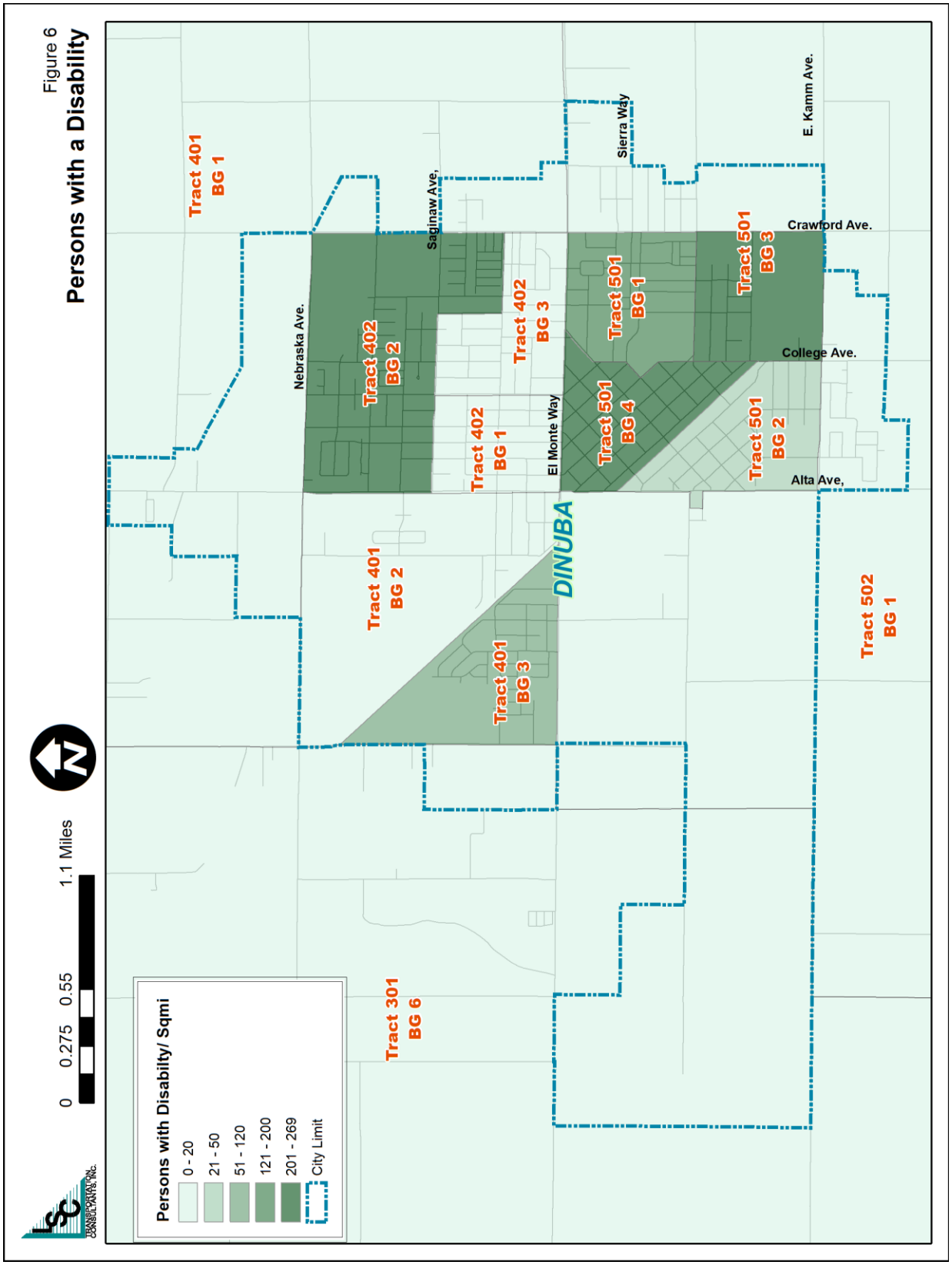


Figure 6
Persons with a Disability
0 0.275 0.55 1.1 Miles
Persons with Disabilty/ Sqmi
0 - 20
21 - 50
51 - 120
121 - 200
201 - 269
City Limit
Tract 401 BG 1
Tract 402 BG 2
Tract 402 BG 3
Tract 402 BG 1
Tract 501 BG 1
Tract 501 BG 3
Tract 501 BG 4
Tract 501 BG 2
Tract 401 BG 2
Tract 401 BG 3
Tract 301 BG 6
Tract 502 BG 1
DINUBA
Nebraska Ave.
Saginaw Ave,
Sierra Way
E. Kamm Ave.
Crawford Ave.
College Ave.
El Monte Way
Alta Ave,

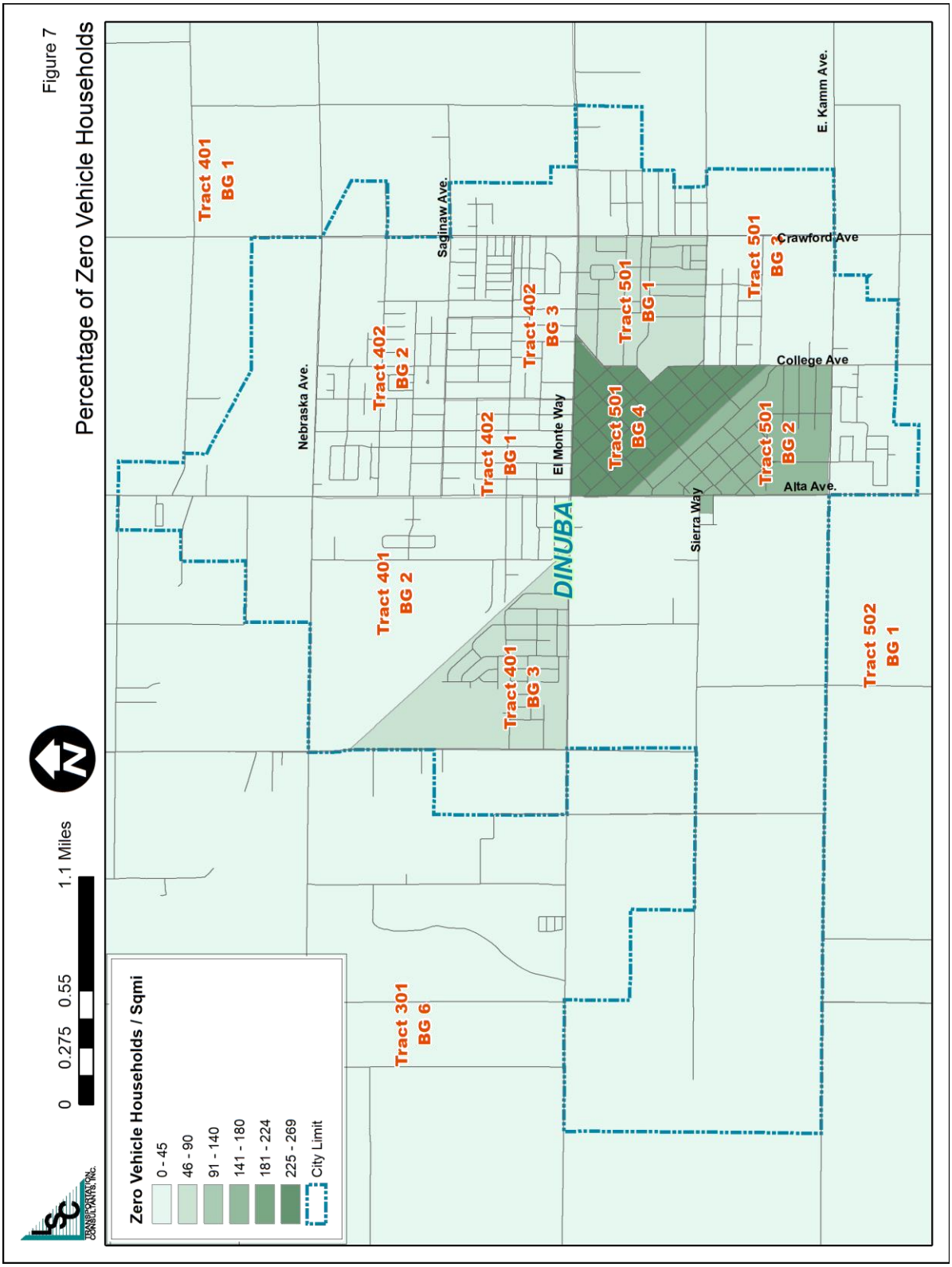


Figure 7
Percentage of Zero Vehicle Households
Zero Vehicle Households / Sqmi
0 - 45
46 - 90
91 - 140
141 - 180
181 - 224
225 - 269
City Limit
0 0.275 0.55 1.1 Miles
LSC TRANSPORTATION CONSULTANTS, INC.
Tract 401 BG 1
Tract 401 BG 2
Tract 401 BG 3
Tract 402 BG 1
Tract 402 BG 2
Tract 402 BG 3
Tract 501 BG 1
Tract 501 BG 2
Tract 501 BG 3
Tract 501 BG 4
Tract 502 BG 1
Tract 301 BG 6
DINUBA
Nebraska Ave.
Saginaw Ave.
El Monte Way
Sierra Way
Crawford Ave
College Ave
Alta Ave.
E. Kamm Ave.

ECONOMIC FACTORS

Employment by Census Block Group

The City of Dinuba has an agricultural and manufacturing based economy, and is home to Ruiz Food Products, Inc. Table 3 shows employment by Census Block Group (2015 data). As shown, Census Tract 402.02 Block Group 2 had the highest number of employed residents (2,108) and just above average unemployment for the area at 16.7 percent (again, 2015 numbers). Census Tract 402.02 Block Group 3 had a 30.5 percent unemployment rate in 2015. The California Department of Labor reported the September 2018 unemployment rate for Dinuba at 11.5 percent, down from 14.6 percent in 2015.

Table 3: Employment by Census Block Group

Census Tract	Block Group	Description	Population in Labor Force	Estimated Employed	Estimated Unemployed #	Estimated Unemployed %
301	6	Ridge Creek	364	318	46	12.6%
4.01	1	No. of Ave 24, Plus E of Crawford	496	384	112	22.6%
	2	No. of SJ Valley, W of Alta Ave	1,105	1,027	78	7.1%
	3	No. of El Monte, So of SJ Valley Rd	1,241	1,043	198	16.0%
4.02	1	Downtown, No. of El Monte, So. of Ave 24, East of Alta	408	316	92	22.5%
	2		2,108	1,757	351	16.7%
	3		947	658	289	30.5%
5.01	1	Downtown, So. of El Monte, No. of E. Kamm, W of Crawford, E of Alta	1,102	977	125	11.3%
	2		367	338	29	7.9%
	3		817	729	88	10.8%
	4		574	475	99	17.2%
5.02	1	So. of E Kamm	1,845	1,679	153	8.3%
Dinuba Total			*11,374*	*9,701*	*1,660*	*14.6%*

Source: US Census Table B23025, Employment status for Population Over Age 16 2012-2016 5 year.

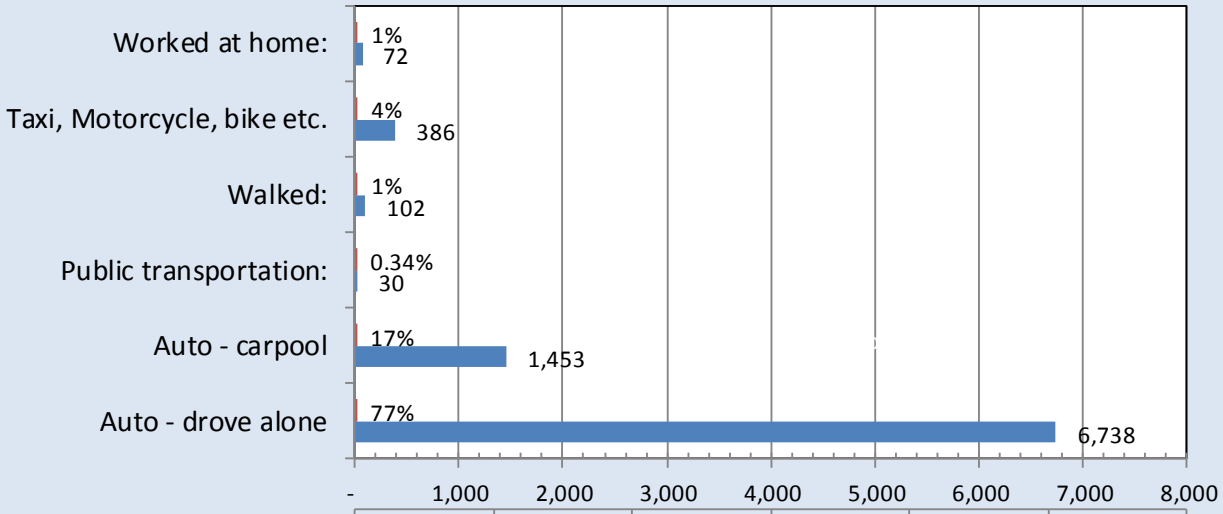
COMMUTE PATTERNS

Commute Mode and Distance

Figure 8 presents the commute mode for Dinuba, drawn from the US Census 2015 American Community Survey (ACS). As shown, the majority of employees commute to work by driving alone (77 percent in all), while 17 percent carpooled. Less than 1 percent used public transit.

Figure 9 shows the travel time Dinuba residents typically take to get to their work destinations. The majority travel between 10 and 29 minutes of driving (53 percent), but 28.4 percent drive between 30 to 59 minutes to work.

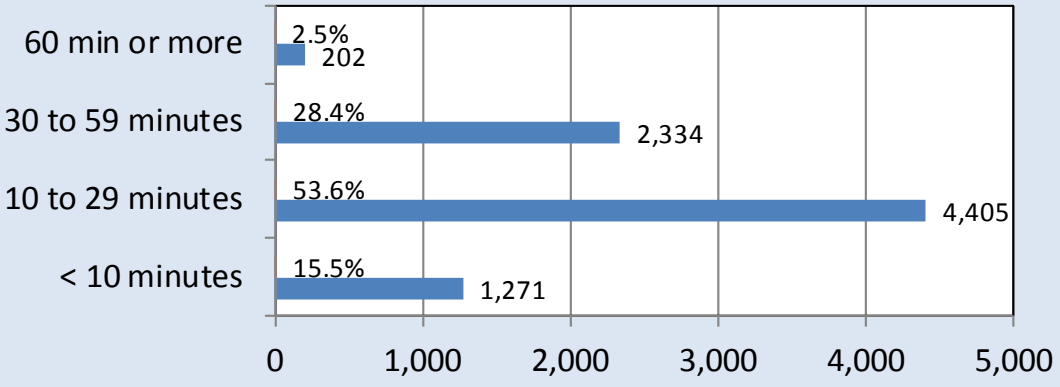
Figure 8: Means of Transportation to Work in Dinuba



Source: US Census ACS 2015, Table B08101

	Auto - drove alone	Auto - carpool	Public transportation:	Walked:	Taxi, Motorcycle, bike etc.	Worked at home:
Percent	77%	17%	0.34%	1%	4%	1%
Number of Commuters	6,738	1,453	30	102	386	72

Figure 9: Travel Time Required for Dinuba Residents To Get To Work



	< 10 minutes	10 to 29 minutes	30 to 59 minutes	60 min or more
Percent	15.5%	53.6%	28.4%	2.5%
Count	1,271	4,405	2,334	202

Commute Patterns

Table 4 illustrates the where Dinuba residents work, drawn from the US Census 2010 Longitudinal Employer Household Dynamics. In reviewing this data, it is important to consider that it includes data for employees that do not necessarily report to work on a daily or consistent basis, and can include persons who have a permanent resident in one location, but stay elsewhere during their work week. Nevertheless, it provides the best available picture of commuting patterns. As shown, 18.8 percent of Dinuba residents work in Dinuba, and 10.6 percent work in Visalia. The remaining residents work at various locations throughout the area and beyond.

Table 4: Commute Patterns for Dinuba Residents and Workers

Where Dinuba Residents Work…			**Where Dinuba Workers Live…**		
Dinuba, CA	1,640	18.8%	Dinuba, CA	1,640	25.3%
Visalia, CA	923	10.6%	Visalia, CA	619	9.6%
Fresno, CA	739	8.5%	Reedley, CA	470	7.3%
Reedley, CA	462	5.3%	Fresno, CA	320	4.9%
Kingsburg, CA	241	2.8%	Orosi, CA	239	3.7%
Cutler, CA	190	2.2%	Tulare, CA	234	3.6%
Orosi, CA	182	2.1%	Selma, CA	178	2.7%
Porterville, CA	154	1.8%	Orange Cove, CA	164	2.5%
Sanger, CA	128	1.5%	Clovis, CA	104	1.6%
Hanford, CA	112	1.3%	Parlier, CA	102	1.6%
All Other Locations	3,973	45.4%	All Other Locations	2,410	37.2%
Total Employed Residents	**8,744**	**100.0%**	**Total Dinuba Employees**	**6,480**	**74.1%**

Note 1: "All Other Locations" are not specified by the US Census, but include employees working remotely and those traveling from locations other than those listed. Only the top ten locations employees travel to and from are identified.

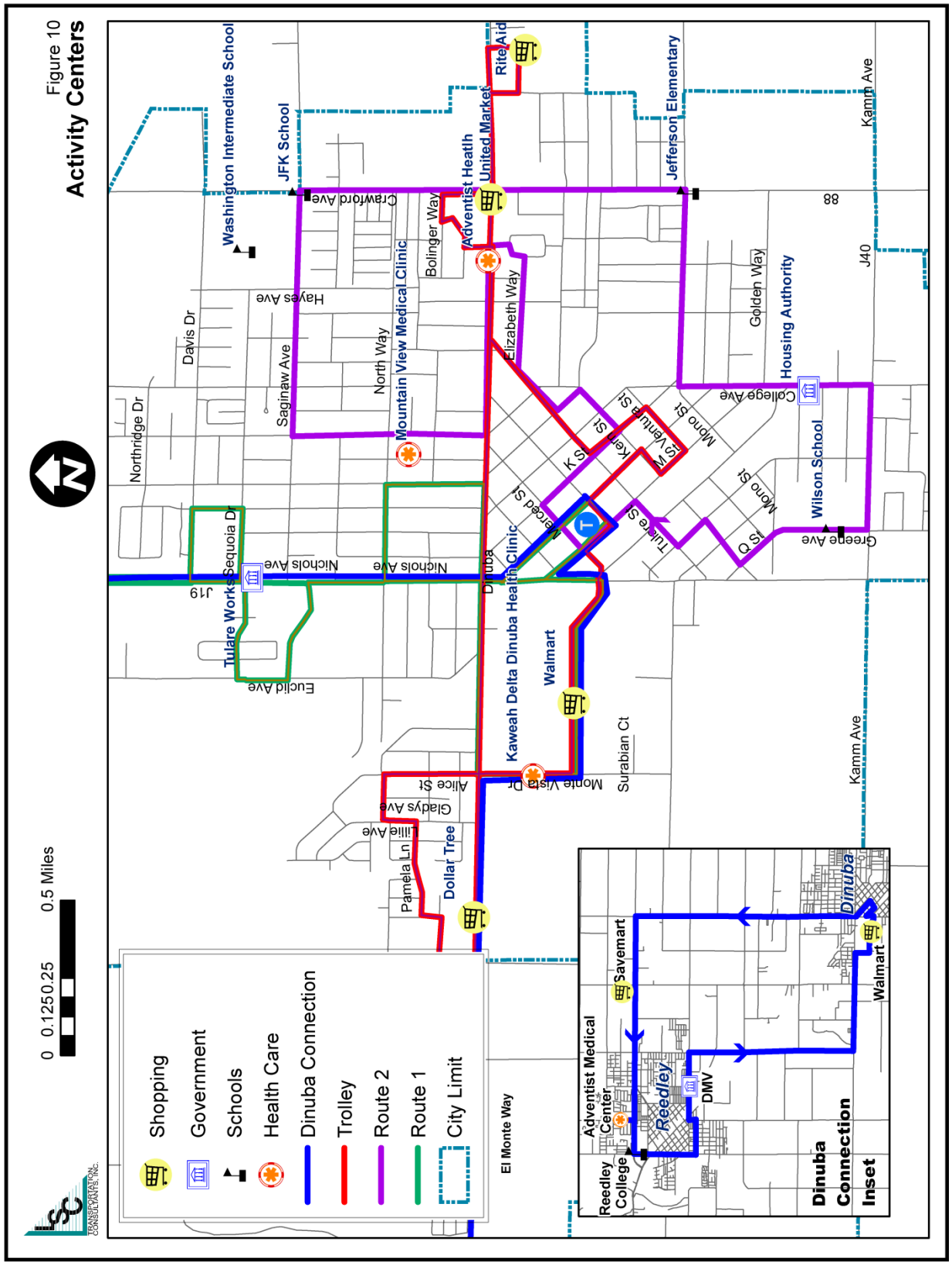
Source: US Census, Longitudinal Employer Household Dynamics Dataset, 2015

Table 4 also presents the available data about where persons working in Dinuba reside (the right side of the table). A quarter persons employed in Dinuba live in Dinuba, and just under 10 percent live in Visalia. Reedley is home for 7.3 percent of Dinuba employees. The remaining employees come from throughout the area.

ACTIVITY CENTERS

Activity centers in Dinuba which are likely to generate trips (and potentially transit ridership) are shown in Figure 10. As shown, many of the commercial activity centers are located along the major commercial avenues of El Monte Way, Alta Avenue and Tulare Street, including the Super Walmart at El Monte Way and Monte Avenue. Schools and Tulare Works are also high-transit generators, as well medical facilities and several higher density housing areas.

Figure 10
Activity Centers



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DINUBA AREA REGIONAL TRANSIT

The City of Dinuba began operating transit services in 1981. Dinuba Area Regional Transit (DART) is owned by the city and operated by a third party contractor (currently MV Transportation).

MANAGEMENT STRUCTURE

DART is governed by the Dinuba City Council as the ultimate policy and decision-making body. Operating responsibilities are split between city staff and the contractor.

Staffing

The city's Transit Division is operated with a combination of city staff and Contractor staff. The Transit Division is part of the Public Works Department. The Department is responsible for the preparation of annual budgets, service planning, vehicle maintenance, marketing, capital procurement, grants management, and contract oversight.

The city contracts with MV Transportation for the day-to-day operation of the transit services. The Contractor does the hiring, training, licensing, and certification of drivers, and drivers are employees of the Contractor. Additionally, the Contractor is responsible for scheduling DAR and Flexroute trip requests. The current contract was signed into agreement in May of 2010 for the period from June 1, 2010 to December 31, 2014, with the option for five one-year extensions. This would potentially allow the contract to be extended until December 2019. The contract effective September 1, 2019, the contract has been extended on a month-to-month basis to December 31, 2019.

DART SERVICES

DART operates two local Flexroutes (Route 1 and Route 2), a local trolley, a commuter route and paratransit dial-a-ride (DAR). Services are described below.

DART Flexroutes 1 and 2

Flexroutes 1 and 2 operate as semi-fixed routes serving fixed stops and on-demand stops (DAR requests). The routes are depicted in Figure 11. Service is provided Monday through Thursday from 7:00 AM to 6:00 PM, on Friday from 7:00 AM to 9:00 PM and on Saturday from 9:00 AM to 9:00 PM, as shown in Table 5. Hourly service is provided on Saturdays as well as Friday evenings (requiring one bus for both routes), while 30-minute service is provided in other periods (requiring two buses). Requests for deviations are made through dispatch in the same manner as DAR requests. Basic fares are $1.00, and discounted fares (for people with

Figure 11
DART System Map

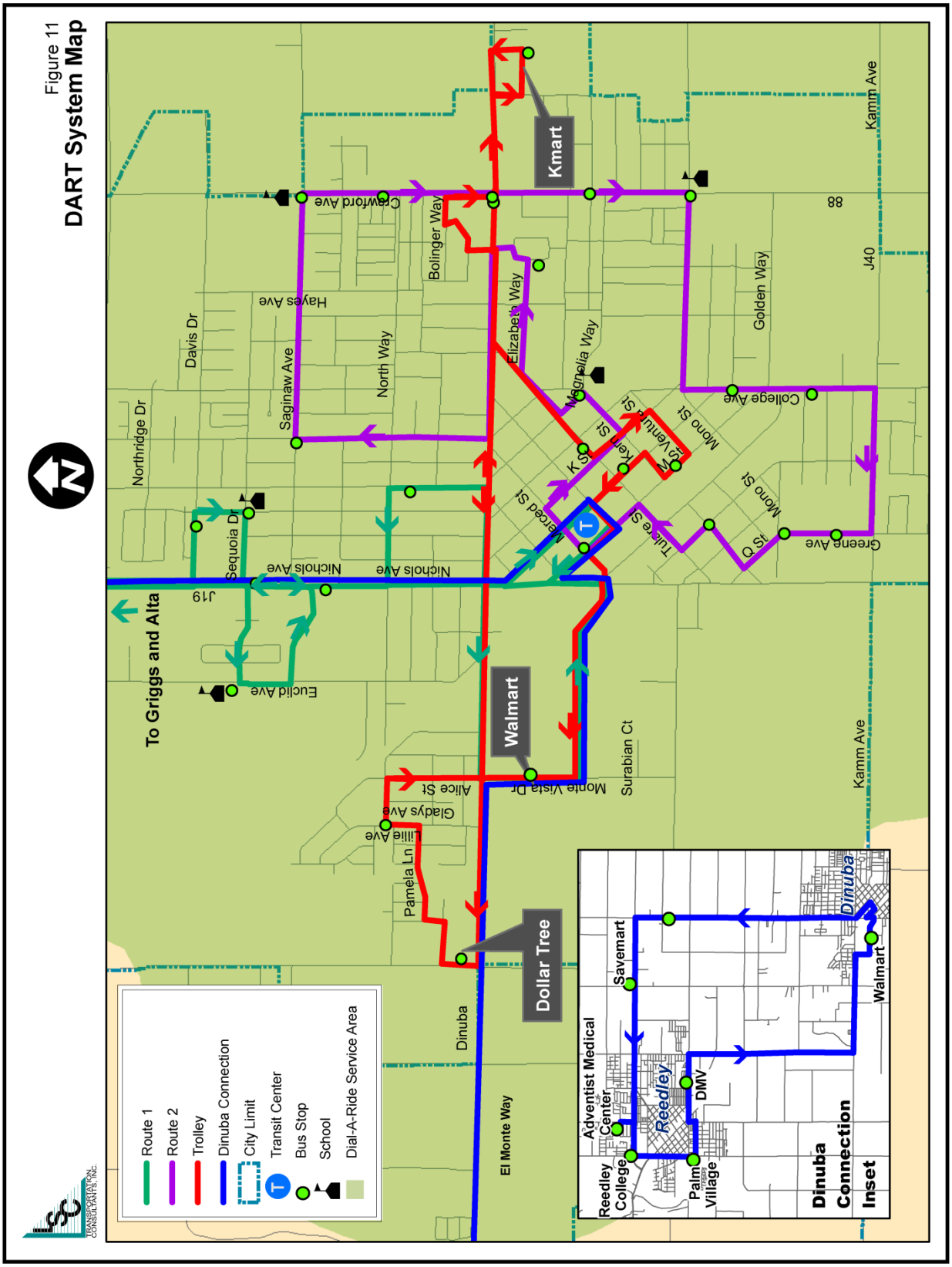


Table 5: DART Schedule of Services

DART Flex Route/Dial-a-Ride		
Monday-Thursday 7:00 AM to 6:00 PM		
Friday 7:00 AM to 9:00 PM		
Saturday 9:00 AM to 9:00 PM		
Service Not Provided on Saturday and Friday after 6:00 PM Shown in Blue		
	Departures	
	Minutes after the Hour	
Route 1		
Transit Center	0:00	0:30
Senior Center	0:03	0:33
Roosevelt School	0:06	0:36
Tulare Works	0:10	0:40
Taco Bell	0:15	0:45
WalMart	0:21	0:51
Route 2 Major Stops		
Transit Center	0:00	0:30
Community Center	0:06	0:36
Lincoln School	0:10	0:40
JFK School	0:13	0:43
Jefferson School	0:18	0:48
Housing Authority	0:21	0:51
Wilson School	0:22	0:52
South O / Kern Street	0:25	0:55

Dinuba Connection	
School Year Hours (Mid Aug-Mid June): Mon-Fri 7 AM to 9 PM	
Summer & Winter Break: Mon-Fri 7 AM to 3 PM	
	Departures
Major Stops	*Minutes after the Hour*
Transit Center	0:30
Tulare Works	0:05
SaveMart	0:08
Adventist Medical Center	0:20
Reedley College	0:23
Palm Village	0:30
DMV	0:35
WalMart	0:43

Jolly Trolley		
Monday-Thursday 9:00 AM to 6:00 PM		
Friday 9:00 AM to 9:00 PM		
Saturday 9:00 AM to 9:00 PM		
	Departures	
Major Stops	*Minutes after the Hour*	
Transit Center	0:00	0:30
WalMart	0:03	0:33
St Michael's	0:07	0:37
United Market	0:12	0:42
Platinum Theaters	0:22	0:52

Source: City of Dinuba website

disabilities and Veterans are $0.50, as shown in Table 6. Additionally, the T-PASS is valid county-wide for all fixed-route rides.

Jolly Trolley

The Jolly Trolley is a commercial circulator which was introduced in May of 2006. The Trolley operates Monday through Thursday from 9:00 AM to 6:00 PM and Friday and Saturday from 9:00 AM to 9:00 PM (as shown in Table 5). This route operates on half-hour headway and is free to ride.

Dinuba Connection

The inter-city route (Dinuba Connection) provides service between the City of Dinuba and the City of Reedley. This route primarily serves Dinuba students who attend the community college located in Reedley and the Reedley residents that shop at the Dinuba Walmart. The Dinuba Connection operates from 7:00 AM to 9:00 PM for the majority of the year, but is reduced to 7:00 AM to 3:00 PM during the summer school break (mid-June through mid-August) and the winter holiday break (mid-December through mid-January), as indicated in Table 5. It is

Table 6: DART Fare Structure	
Flex Route Fares [1]	
Fixed Route General Fare	$1.00
Fixed Route Discounted Fare [2]	$0.50
Fixed Route Pass (valid for 20 rides)	$20.00
Dial-a-Ride Fares [1]	
Dial-a-Ride General Fare	$1.50
Dial-a-Ride Discounted Fare [3]	$1.25
Students/age 6-17 with ID	$1.25
Disabled with ADA card	$0.50
General Pass (valid for 10 rides)	$15.00
Student/Senior Pass (valid for 20 rides)	$25.00
Jolly Trolley	
All	Free
Dinuba Connection [1]	
General Fare	$1.50
Discounted Fare [3]	$1.25
Students/age 6-17 with ID	$1.25
Disabled with ADA card	$0.50
Student/Senior Pass (valid for 20 rides)	$25.00
TCaT Passes [4]	
General Monthly T-PASS	$55.00
Mid-Monthly T-PASS (sold after the 16th)	$30.00
TCaT Punch Pass (10 rides)	$17.00
Note 1: Children 5 years and under ride fixed route free with a fare paying adult (limit of 2; each additional pays general fare).	
Note 2: Flex Route discounts are available to disabled, and veterans.	
Note 3: DAR and Dinuba Connection discounts are available to seniors aged 62 and older, military.	
Note 4: T-PASS are valid for County-wide unlimited fixed route rides.	
Source: Dinuba Website, Oct 2018	

operated on hourly headways using a single vehicle. Fares are $1.50 base fare and $1.25 discounted fares, as shown in Table 6. The T-PASS is also valid County-wide for all fixed-route rides, including the Dinuba Connection.

DART Dial-A-Ride

In addition to the DAR provided through flex service, there is a dedicated DAR service which operates the same hours. DAR trips are first scheduled with the dedicated vehicle, and as demand warrants, additional trips are scheduled on the flexroutes. However, from 7:00 to 8:00 AM and 1:30 to 4:00 PM the DAR picks up subscription school trips, and any other DAR requests are commonly assigned to the flexroutes.

Fares for the DAR are $1.50, or discounted to $1.25 for seniors (62 or older), and students (6 – 17) or military. Disabled passengers with an ADA card pay $0.50. Discounted day passes and punch passes are also available, as shown in Table 6.

Table 7 depicts the monthly ridership and operating characteristics on the DAR for 2017 – 18 (including DAR trips completed on the flexroutes). As indicated, ridership is highest in fall and spring, and lowest over summer and winter, reflecting the high use by students. Total annual ridership was 16,645. A total of 18 roadcalls were recorded, as well as 3 accidents (equating to an average of just 5,548 miles between accidents). A total of 10 percent of scheduled trips were no-shows. There were no trip cancellations or trip denials by the contractor.

Table 7: DART Dial-A-Ride Operating Data

Fiscal Year 2017-18

	Dial-a-Ride Statistics [1]					
Month	Passenger Trips	Accidents	Road Calls	Complaints	# of No Shows	% of No Shows
July	866	0	3	0	18	2%
Aug	1,614	2	1	1	124	8%
Sept	1,570	0	1	1	159	10%
Oct	1,691	0	0	4	182	11%
Nov	1,435	0	0	1	161	11%
Dec	1,366	0	0	2	124	9%
Jan	1,525	0	4	6	73	5%
Feb	1,362	0	0	1	180	13%
Mar	1,428	0	4	0	191	13%
April	1,455	1	3	1	147	10%
May	1,546	0	1	0	221	14%
June	787	0	1	1	24	3%
Total	16,645	3	18	18	1,604	10%

Note: No trip denials or cancellations during FY 2017-18.

Source: DART, from "DART Records.xls"

RIDERSHIP TRENDS

Annual Ridership

Table 8 and Figure 12 show ridership trends by service for the past five years. As shown, the ridership varied from a high of 157,853 in 2013 – 14 to a low of 115,238 in 2016 – 17, recovering slightly in 2017 – 18 to 116,306. Ridership on most of the services has declined during this period, though it has mostly increased or stayed relatively even on the Dinuba Connection and on the DAR services. Flexroute 1 ridership is down 45 percent and Flexroute 2 is down 40 percent compared to five years ago. The Jolly Trolley ridership is down 35 percent in the same period. Increases on the DAR (37 percent over five years ago) can mostly be attributed to the increase in student ridership. The Dinuba Connection ridership is up 2.6 percent from five years ago.

Table 8 also shows the revenue hours provided over the past five years for each of the services. While ridership has dropped, the hours of service has increased slightly. This is reflected in the ridership carried per hour of service provided (the "productivity" of the service), as also shown in Table 8 and depicted in Figure 13. Systemwide, the passengers carried per hour of service has dropped from 11.5 in 2013 – 14 to 7.8 in 2017 – 19—a drop of 32 percent. DAR productivity has increased by 4 percent over this period; Flexroute productivity has dropped by a relatively modest 8 percent, while Jolly Trolley productivity has dropped by 35 percent.

Table 8: DART Ridership and Hours of Service by Year

	2013-14	2014-15	2015-16	2016-17	2017-18
DART Ridership by Year [1]					
Flex Route 1 [2]	24,897	21,927	14,904	12,952	13,681
Flex Route 2 [3]	26,117	19,823	15,868	13,236	15,647
Subtotal Flex Routes	*51,014*	*41,750*	*30,772*	*26,188*	*29,328*
Jolly Trolley	71,238	65,332	56,986	47,243	46,218
Dinuba Connection	23,514	23,956	23,338	24,475	24,115
Dial-a-Ride	12,087	17,356	18,552	17,332	16,645
Total Ridership	157,853	148,394	129,648	115,238	116,306
DART Revenue Hours by Year					
Flex Route 1 [2, 4]	3,330	3,451	3,477	3,611	3,592
Flex Route 2 [3, 4]	2,765	2,924	2,946	2,824	2,794
Subtotal Flex Routes	*6,095*	*6,375*	*6,423*	*6,435*	*6,386*
Jolly Trolley	3,090	3,078	3,084	3,106	3,088
Dinuba Connection	2,797	2,980	3,147	3,223	3,123
Dial-a-Ride [4]	1,779	2,448	2,682	2,368	2,358
Total Hours	13,760	14,881	15,335	15,132	14,955
DART Average Passenger Trip per Hour by Year					
Flex Route 1 [2, 4]	7.5	6.4	4.3	3.6	3.8
Flex Route 2 [3, 4]	9.4	6.8	5.4	4.7	5.6
Subtotal Flex Routes	*8.4*	*6.5*	*4.8*	*4.1*	*4.6*
Jolly Trolley	23.1	21.2	18.5	15.2	15.0
Dinuba Connection	8.4	8.0	7.4	7.6	7.7
Dial-a-Ride [4]	6.8	7.1	6.9	7.3	7.1
Systemwide Average	11.5	10.0	8.5	7.6	7.8

Note 1: Fiscal year from July 1 to June 30.
Note 2: Previously called "Flex North"
Note 3: Previously called "Flex South"
Note 4: Flex Route ridership does not include DAR trips provided on the routes, which are instead included with DAR tallies.

Source: DART, from "Transit Summary FY 18-19.xls"

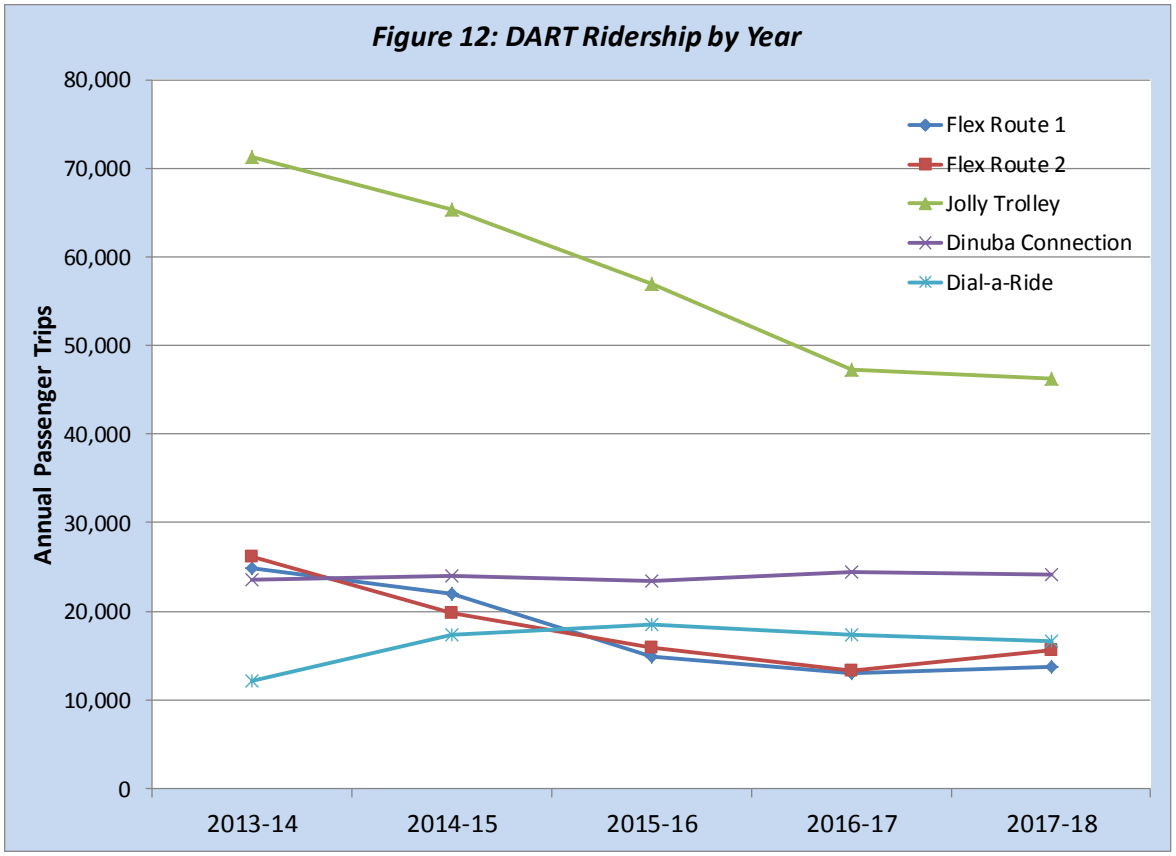


Figure 12: DART Ridership by Year
Annual Passenger Trips
80,000
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
2013-14
2014-15
2015-16
2016-17
2017-18
Flex Route 1
Flex Route 2
Jolly Trolley
Dinuba Connection
Dial-a-Ride

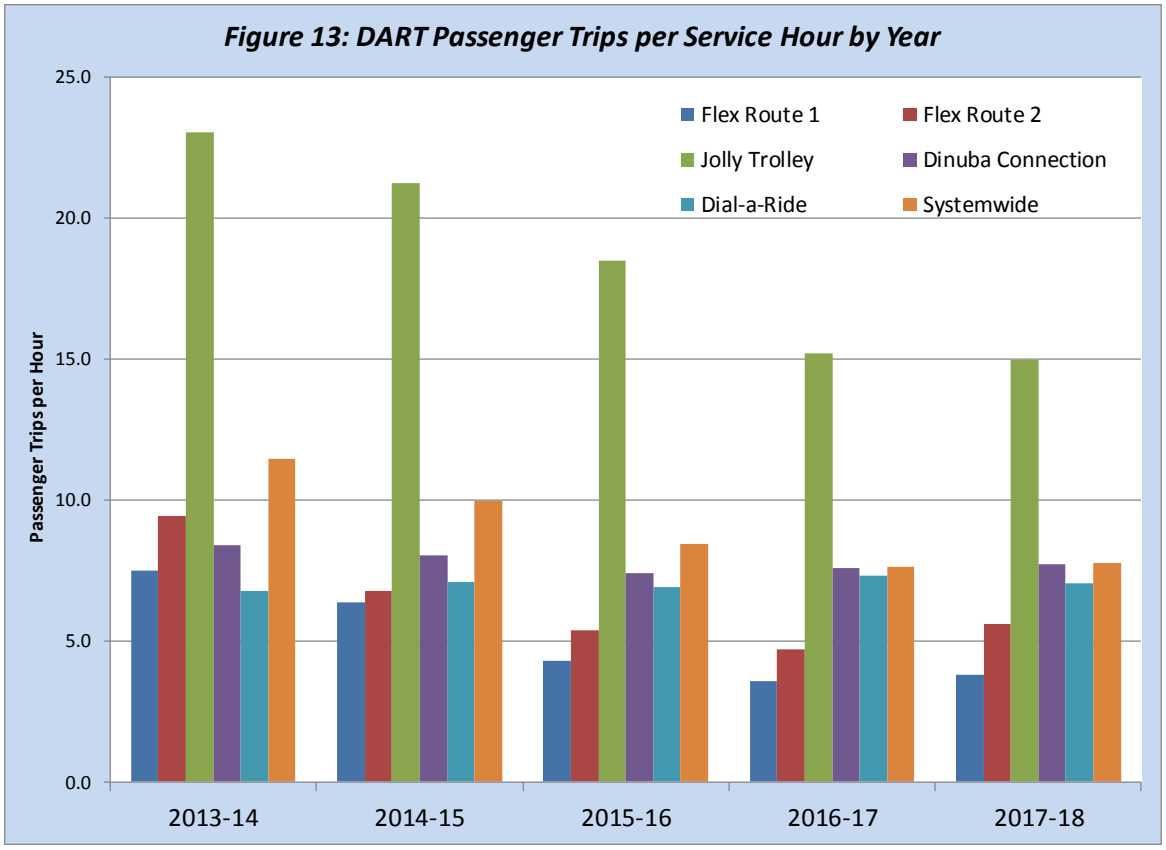


Figure 13: DART Passenger Trips per Service Hour by Year
Passenger Trips per Hour
25.0
20.0
15.0
10.0
5.0
0.0
2013-14
2014-15
2015-16
2016-17
2017-18
Flex Route 1
Flex Route 2
Jolly Trolley
Dinuba Connection
Dial-a-Ride
Systemwide

Ridership by Month

Table 9 and Figure 14 show fluctuations in ridership by month for DART services for 2017 – 18. As indicated, service is fairly steady throughout the school year, with a peak in October, and lows in June and July.

Ridership by Day of the Week

Ridership by day of the week is depicted in Table 10 and Figure 15. Tuesdays and Thursdays are the busiest days, followed by Monday and Wednesday. Saturday service varies in comparison to weekdays. On Route 2, Saturday ridership is just 25 percent of weekday ridership and 52 percent of Route 1 ridership. However on the Jolly Trolley, Saturday ridership is 110 percent of average daily weekday ridership.

Ridership by Time of Day

The ridership by time of day is shown in Table 11 and Figure 16. The ridership pattern shows strong weekday peaks for school trips in the morning and afternoon on DAR and Route 2, as well as in the afternoon on the Jolly Trolley. Ridership after 6 PM on the Dinuba Connection is very low. Overall ridership on weekdays is relatively evenly split between the various services, with about 30 percent on the Jolly Trolley, 27 percent on the Dinuba Connection, 26 percent on the two flexroutes (summed) and 18 percent on the DAR.

Table 9: DART Ridership by Month

Fiscal Year 2017-18

	Ridership					
Month	Flex Route 1	Flex Route 2	Jolly Trolley	Dinuba Connection	Dial-a-Ride	Total
July	855	771	3,468	807	866	6,767
Aug	1,191	1,310	3,885	2,189	1,614	10,189
Sept	1,139	1,414	3,588	2,588	1,570	10,299
Oct	1,268	1,544	3,962	2,830	1,691	11,295
Nov	1,143	1,296	4,072	2,420	1,435	10,366
Dec	1,139	1,259	4,351	1,446	1,366	9,561
Jan	935	1,309	3,977	2,480	1,525	10,226
Feb	1,143	1,343	3,716	2,531	1,362	10,095
Mar	1,088	1,264	3,886	2,182	1,428	9,848
April	1,198	1,530	3,656	2,320	1,455	10,159
May	1,462	1,699	3,817	1,564	1,546	10,088
June	1,120	908	3,840	758	787	7,413
Total	13,681	15,647	46,218	24,115	16,645	116,306

Source: DART, from "Transit Summary FY 18-19.xls"

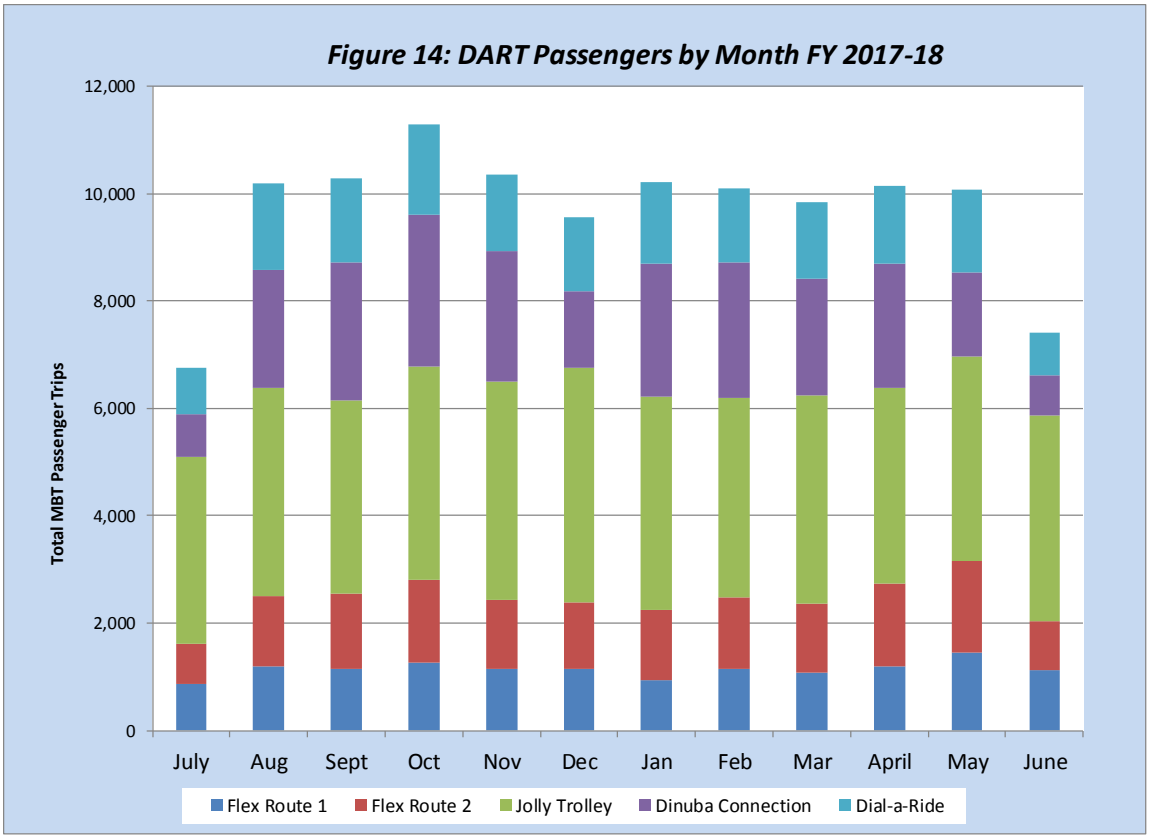


Table 10: DART Ridership by Day of the Week

	Average Daily Ridership by Route				
Day	Dinuba Connection [1]	Route 1 [2]	Route 2	Jolly Trolley	Total
Monday	122	62	64	116	364
Tuesday	124	39	88	153	404
Wednesday	126	46	88	111	371
Thursday	120	44	101	141	406
Friday	96	30	77	179	382
Saturday	--	23	22	154	199
Total	588	244	440	854	2,125
Percent of Average Weekday					
Monday	104%	139%	77%	83%	94%
Tuesday	105%	88%	105%	109%	105%
Wednesday	107%	104%	105%	79%	96%
Thursday	102%	100%	121%	101%	105%
Friday	81%	68%	92%	128%	99%
Saturday	--	52%	26%	110%	52%
Total					

Note 1: Based on Sept 2018 ridership counts.
Note 2: Based on counts April 23-30, 2018.
Source: DART "Dinuba Connection SEPTEMBER Ridership.xls"

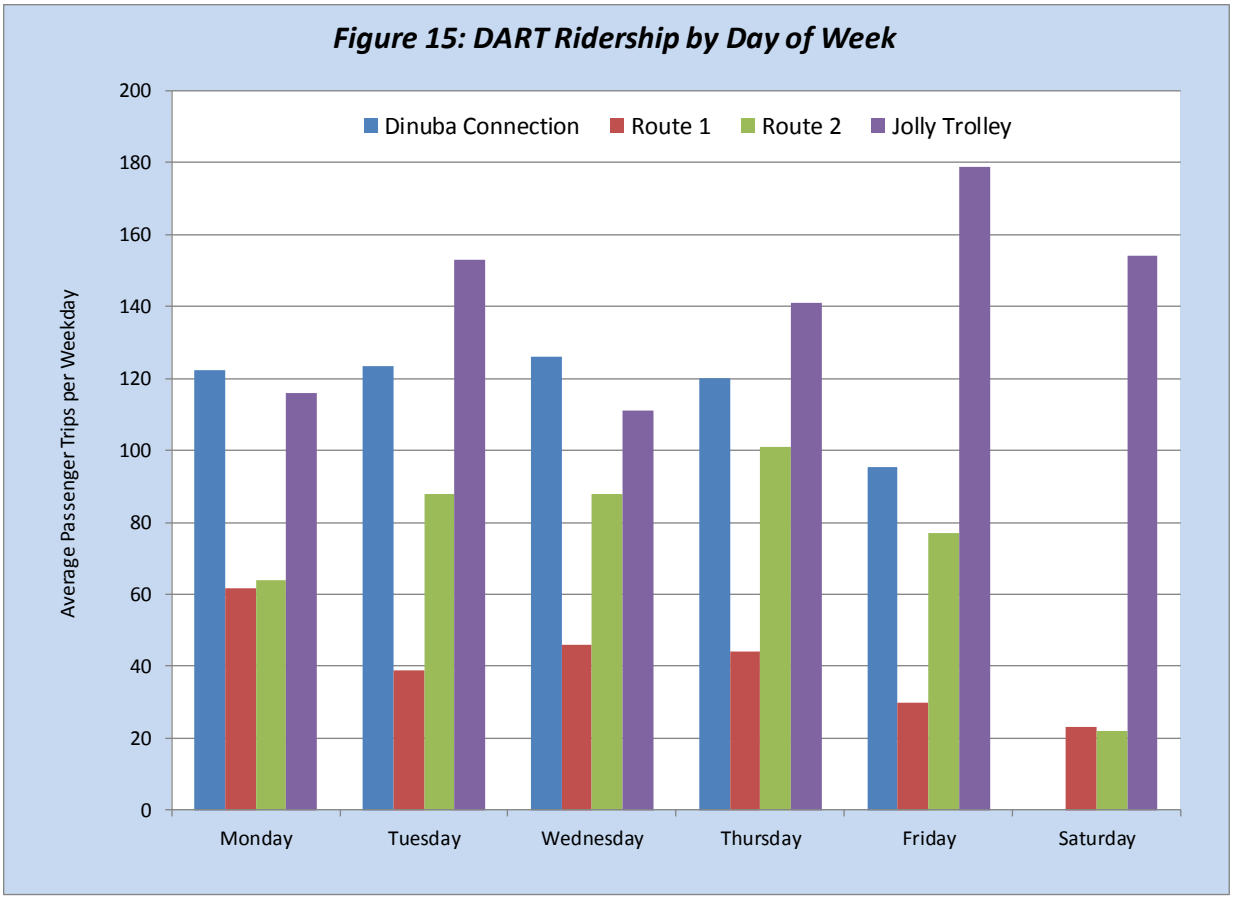
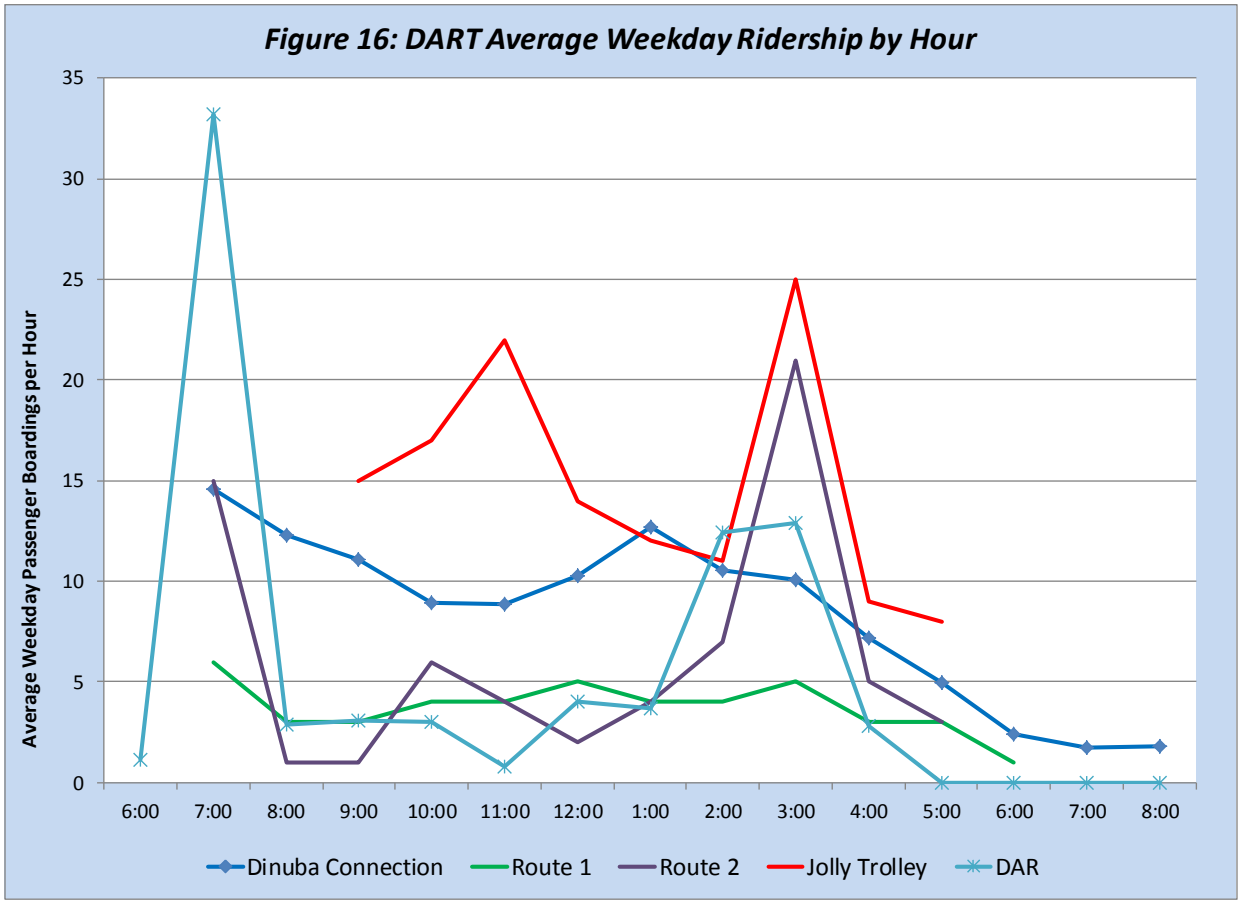


Table 11: DART Ridership by Hour by Route

Hour of Starting Time	Weekday Ridership by Hour: Dinuba Connection [1]	Flex Route 1 [2]	Flex Route 2 [2]	Jolly Trolley [2]	Dial-a-Ride [3]	Total	Saturday Ridership by Hour: Dial-a-Ride [3]	Trolley [4]	Flex Route 1 [4]	Flex Route 2 [4]	Total
					Friday Only						
6:00	--	--	--	--	1	1	--	--	--	--	--
7:00	15	6	15	--	33	69	--	--	--	--	--
8:00	12	3	1	--	3	19	--	--	--	--	--
9:00	11	3	1	15	3	33	3	10	2	1	15
10:00	9	4	6	17	3	39	2	18	1	1	22
11:00	9	4	4	22	1	40	2	23	2	2	29
12:00	10	5	2	14	4	35	1	25	2	2	29
1:00	13	4	4	12	4	36	1	14	3	1	19
2:00	11	4	7	11	12	45	2	12	1	1	16
3:00	10	5	21	25	13	74	1	11	1	1	13
4:00	7	3	5	9	3	27	1	11	3	2	17
5:00	5	3	3	8	--	19	1	10	7	5	22
6:00	2	1	1	13	--	17	1	7	0	1	8
7:00	2	0	0	13	--	15	1	2	0	0	2
8:00	2	0	0	2	--	4	0	2	1	0	3
Total	117	45	70	161	79	472	12	144	23	16	194

Note 1: Based on Sept, 2018 ridership counts
Note 2: Based on weekday ridership counts April 23-30, 2018.
Note 3: Based on ridership counts September 3-14, 2018.
Note 4: Based on Saturday counts in October, 2018.
Source: DART



Saturday ridership is relatively strong between 10:00 AM and 8:00 PM. The bulk of the ridership (about three-quarters) is carried by the Jolly Trolley.

Ridership by Fare Type

The ridership by fare type is listed in Table 12. Free fares account for 42.8 percent of all fares (40% of passengers are counted as free fare on the Jolly Trolley and another 3 percent are free fares on other services). After free fares, the main fare types are regular General Public (14.5 percent) and youth fares (12.1 percent) as well as student (8.0). Only 11 percent of fares are passes of all types.

The various services have differing proportions of ridership by youth or child fare type. DAR has the highest proportion at 58 percent, followed closely by 56 percent on the Dinuba Connector. Flexroute 2 has a higher proportion of youth/child fare boardings (33 percent) compared with Flexroute 1 (13 percent).

The DAR "flex fares" indicate DAR trips which were accommodated on Routes 1 and 2. These account for 16 percent of the DAR ridership.

Table 12: DART Passengers by Fare Type

Fiscal Year 2017-18

Fare Type	Flex Route 1	Flex Route 2	Dinuba Connection	Jolly Trolley	Dial-a-Ride	Total #	Total %
Transfers	1,934	1,324	--	--	--	3,258	2.8%
Free	1,188	1,215	500	46,218	682	49,803	42.8%
Regular-Gen	6,000	5,192	4,362	--	1,321	16,875	14.5%
Child-Youth	1,688	4,841	0	--	7,501	14,030	12.1%
Student	0	0	9,337	--	0	9,337	8.0%
Student Pass	78	352	4,121	--	2,109	6,660	5.7%
Senior	1,610	1,081	1,409	--	1,027	5,127	4.4%
Senior Pass	16	36	85	--	78	215	0.2%
General Pass	52	549	--	--	--	601	0.5%
Dial-A-Ride Gen Pass	--	--	--	--	142	142	0.1%
T-Pass	607	536	3,486	--	--	4,629	4.0%
COS Pass	98	101	224	--	--	423	0.4%
ADA	398	374	543	--	1,058	2,373	2.0%
Military Discount	9	3	48	--	1	61	0.1%
DMC General	1	1	0	--	0	2	0.0%
DMC Senior	0	0	0	--	3	3	0.0%
Summer Night Lights	2	0	--	--	--	2	0.0%
Big Brothers	--	42	--	--	--	42	0.0%
Flex General	--	--	--	--	1,110	1,110	1.0%
Flex Youth	--	--	--	--	165	165	0.1%
Flex Senior	--	--	--	--	687	687	0.6%
Flex ADA	--	--	--	--	761	761	0.7%
Total	13,681	15,647	24,115	46,218	16,645	116,306	
Percent Student/Child	*13%*	*33%*	*56%*	*--*	*58%*	*26%*	

Source: DART, from "Transit Summary FY 18-19.xls"

Fares Collected by Route

Fares collected by route are shown in Table 13. As indicated, the Dinuba Connection generates the highest total fares, followed by the DAR, and then the flexroutes. This is in line also with the base fares. On average, $0.71 is collected per passenger trip on the flexroutes, $1.27 on the DAR, and $1.71 on the Dinuba Connection.

Table 13: DART Fare Revenue By Service

Fiscal Year 2017-18

	Total Fares Collected				Average Fare Per Trip			
	Flex Routes	Dinuba Connection	Dial-a-Ride	Total	Flex Routes	Dinuba Connection	Dial-a-Ride	Total
Total	$20,805	$26,830	$21,076	$68,711	$0.71	$1.71	$1.27	$1.12

Source: DART, from "Transit Summary FY 18-19.xls"

Passenger Activity by Stop—Boardings and Alightings

Over the past six months, the DART contractor has been collecting boarding and alighting data for each stop. While the data has been collected daily, it is compiled monthly. An analysis of the boarding and alighting data is presented below.

Dinuba Connection Boardings and Alightings

Boarding and alighting data for the Dinuba Connection was provided for the month of September, 2018. This data was used to estimate average weekday ridership by stop, as shown in Table 14. As indicated, 90 percent of all passenger activity occurs at just four stops: the Dinuba Transit Center, Reedley College, Tulare Works and Walmart, with the majority of activity at Reedley College and the Dinuba Transit Center. Typically, no one boards at Palms Village and only one or two board or alight at Adventist Hospital.

Table 14: DART Dinuba Connection Boardings and Alightings by Stop

	Average Weekday [1]		
Stops	On	Off	% by Stop
Dinuba Transit Center	39	37	32%
Tulare Works	15	8	9%
Savemart	2	6	5%
Adventist Hospital	1	2	1%
Reedley College	50	49	39%
Palm Village	0.0	0.0	1%
DMV	4	2	4%
Walmart	5	13	9%
	116	117	100%

Note 1: Based on counts September 1 to 30, 2018.

Source: DART "Dinuba Connection SEPTEMBER Ridership.xls"

Boardings and Alightings on DART Flexroutes

Boarding and alighting data for Flexroutes 1 and 2 were available for April 23 to 30, 2018. Average daily weekday boarding and alighting activity is shown for Route 1 in Table 15 and Route 2 in Table 16. As shown in Table 15, after the Dinuba Transit Center, Walmart and Tulare Works are the busiest stops. The Taco Bell stop only receives an average of one boarding per day.

Route 2 passenger activity is spread more among stops than on other routes, with the Dinuba Transit Center generating 22 percent of activity, and Kennedy Elementary School generating 20

Table 15: DART Flex Route 1 Boarding and Alighting by Stop

Stops	Average Daily [1] On	Off	% by Stop
Dinuba Transit Center	15	21	37%
Senior Center	2	4	6%
Roosevelt School	5	4	9%
Tulare Works	5	8	14%
Alta / Griggs	2	1	2%
Parkside Village	4	2	6%
Grace & Laughter	3	2	6%
Taco Bell	1	1	2%
Walmart	10	7	18%
	47	50	100%

Note 1: Based on weekdays April 23-30, 2018.

Source: DART "Route 1 April Monthly Ridership.xls"

Table 16: DART Flex Route 2 Boarding and Alighting by Stop

Stops	Average Daily [1] On	Off	% by Stop
Dinuba Transit Center	23	12	22%
Dinuba Library	5	5	6%
Community Center	3	2	3%
Lincoln School	1	2	2%
JFK School	20	11	20%
Dinuba Downs	2	1	2%
United Market	5	2	4%
Crawford / Olive Way	1	2	2%
Jefferson School	4	8	8%
Gregory Park	5	8	9%
Housing Authority	2	9	7%
Wilson School	5	8	8%
Delgado Park	5	4	6%
South O / Kern St	3	2	3%
	83	75	100%

Note 1: Based on weekdays April 23-30, 2018.

Source: DART "Route 2 April Monthly Ridership.xls"

percent of activity. The Lincoln School and Crawford/Olive Way stops have only an average of one boarding per day.

Route 2 passenger activity is spread more among stops than on other routes, with the Dinuba Transit Center generating 22 percent of activity, and Kennedy Elementary School generating 20 percent of activity. The Lincoln School and Crawford/Olive Way stops have only an average of one boarding per day.

Jolly Trolley Boardings and Alightings

Boarding and alighting data for the Jolly Trolley also was derived from April 23 to 30, 2018 data. Average daily weekday boarding and alighting activity is shown for the Trolley in Table 17. Walmart generates the most passenger activity, followed by the Dinuba Transit Center. St Michaels, the Platinum Theaters, and United Market also generate a steady amount of ridership.

Table 17: DART Jolly Trolley Boarding and Alighting by Stop

	Average Daily [1]		
Stops	On	Off	% by Stop
Dinuba Transit Center	32	12	16%
WalMart	27	37	23%
Dollar Tree	6	14	7%
St. Michaels	11	22	12%
United Market	15	17	11%
Rite Aid	9	12	7%
C & S Laundry & Cleaners	7	7	5%
Platinum Theaters	21	17	13%
McQueen Accounting	9	5	5%
	136	141	100%

Note 1: Based on weekdays April 23-30, 2018.

Source: DART "Jolly Trolley April Monthly Ridership.xls"

Boardings and Alightings on All Routes

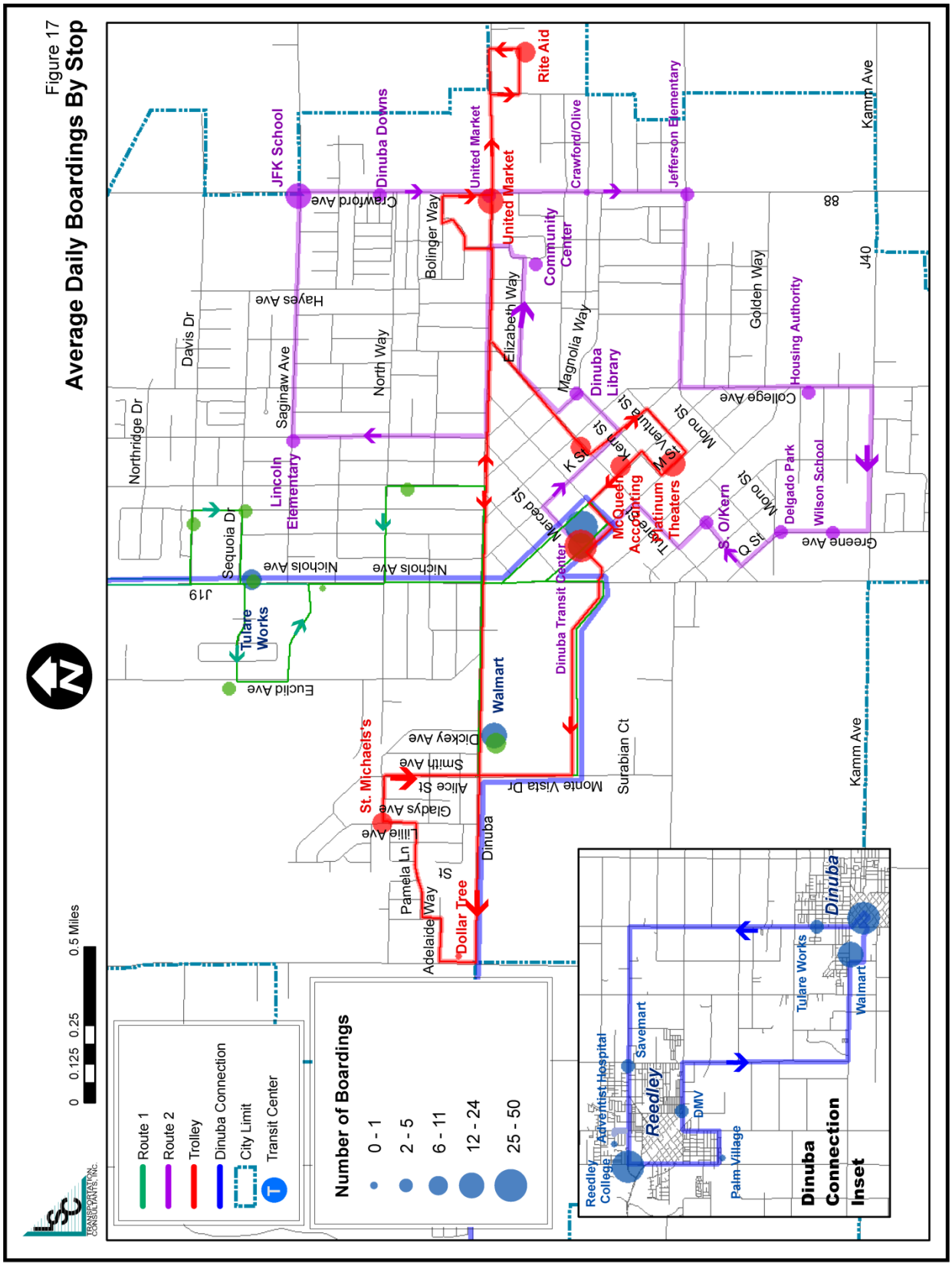
Weekday boarding and alighting data for all fixed and flexroutes is depicted in Table 18, and weekday boardings are shown in Figure 17. Not surprisingly, a quarter of all trips are generated at the Dinuba Transit Center. The Walmart and Reedley College stops each generate 13 percent of passenger activity.

Table 18: DART Boarding and Alighting by Stop - All Routes

Stops	Average Daily [1] On	Off	Total	% by Stop
Adventist Hospital	1	2	3	0%
Alta / Griggs	2	1	2	0%
C & S Laundry & Cleaners	7	7	13	2%
Community Center	3	2	5	1%
Crawford / Olive Way	1	2	3	0%
Delgado Park	5	4	9	1%
Dinuba Downs	2	1	3	0%
Dinuba Library	5	5	9	1%
Dinuba Transit Center [2]	109	82	191	25%
DMV	4	2	6	1%
Dollar Tree	6	14	20	3%
Grace & Laughter	3	2	5	1%
Gregory Park	5	8	14	2%
Housing Authority	2	9	11	1%
Jefferson School	4	8	13	2%
JFK School	20	11	31	4%
Lincoln School	1	2	3	0%
McQueen Accounting	9	5	14	2%
Palm Village	0	0	0	0%
Parkside Village	4	2	6	1%
Platinum Theaters	21	17	37	5%
Reedley College	50	49	99	13%
Rite Aid	9	12	20	3%
Roosevelt School	5	4	9	1%
Savemart	2	6	8	1%
Senior Center	2	4	6	1%
South O / Kern St	3	2	5	1%
St. Michaels	11	22	33	4%
Taco Bell	1	1	2	0%
Tulare Works [2]	20	16	36	5%
United Market [2]	19	18	38	5%
Walmart [2]	42	58	100	13%
Wilson School	5	8	13	2%
Total	382	383	765	100%

Note 1: Based on April and Sept 2018 sample counts.
Note 2: Stop serves multiple routes.
Source: DART

Figure 17
Average Daily Boardings By Stop



Dial-A-Ride Boarding and Alighting by Stop

Weekday DAR activity by boarding/alighting location was evaluated for the first two weeks of September 2018, as summarized in Table 19. Fully 86 percent of the passenger-trips (69 per day) were to or from a school. Of these, the busiest DAR activity was Washington Intermediate School (30.2 passenger-trips per day, on average), followed by Wilson Intermediate school (14.8) and Dinuba High School (13.4). The elementary schools generated less DAR trips, though both Kennedy Elementary and Roosevelt Elementary generated between 5 and 6 per day.

Table 19: DART DAR Boarding and Alighting by Stop

	Average Weekday Daily [1]			
Stop	On	Off	Total	% by Stop
Schools				
Washington Intermediate	14.4	15.8	30.2	18.8%
Wilson Intermediate	6.9	7.9	14.8	9.2%
Dinuba High	6.4	7.0	13.4	8.4%
Kennedy Elementary	2.7	3.0	5.7	3.5%
Roosevelt Elementary	2.0	3.0	5.0	3.1%
Lincoln Elementary	0.1	0.0	0.1	0.1%
Other Stops				
355 S K	9.0	8.2	17.2	10.7%
1000 Rosemary	7.0	5.9	12.9	8.0%
Walmart	2.3	2.0	4.3	2.7%
1001 Poppy Avenue	2.0	0.0	2.0	1.2%
1048 Jasmine	1.0	0.9	1.9	1.2%
1256 Magnolia	1.0	0.9	1.9	1.2%
1537 Fort Worth	1.0	0.9	1.9	1.2%
1943 Payan	1.0	0.9	1.9	1.2%
1990 Kimberly	1.0	0.9	1.9	1.2%
609 Princeton	1.0	0.9	1.9	1.2%
1040 2nd	1.0	0.8	1.8	1.1%
1066 Jasmine	1.0	0.8	1.8	1.1%
1571 Magnolia	0.8	0.9	1.7	1.0%
1477 Fort Worth	0.9	0.8	1.7	1.0%
643 2nd	0.9	0.6	1.4	0.9%
245 North Way	0.7	0.6	1.2	0.8%
2063 Golden Way	0.2	0.9	1.1	0.7%
322 S K	0.3	0.8	1.1	0.7%
361 N L	0.7	0.4	1.1	0.7%
599 La Vista	0.1	0.9	1.0	0.6%
1988 Violet Lane	1.0	0.0	1.0	0.6%
844 Bellis Avenue	1.0	0.0	1.0	0.6%
Other Locations [2]	*21.8*	*6.2*	*28.0*	*17.4%*
Total	24	7	161	100.0%

Note 1: Based on weekday ridership counts September 3-14, 2018.
Note 2: Other locations total 103 stops with less than 1.0 boardings/alightings per day.
Source: DART

Beyond the schools, the two busiest stops are residences at 355 South K Street (17.2) and 1000 Rosemary Avenue (12.9), followed by Walmart (4.3). No other location generates more than 2 boardings or alightings per day, on average. Over the two-week period, the DAR served trips at a total of 131 individual locations.

ON TIME PERFORMANCE

On-time performance is tracked through periodic time check surveys on both DAR and fixed-route services. Data reported for DAR from 2016 – 17 to 2017 – 18 show that 100 percent of the trips were served within a half-hour window, and were therefore on time. In 2015 – 16, three percent of the trips operated between 30 minutes to one hour and were considered late, but this still equates to a 97 percent on-time performance.

Fixed-route time checks conducted occasionally between July and October, 2018, are summarized in Table 20. A total of 154 time checks were reported, which is less than one percent of all time points during this period[1]. From this very small sampling, the buses ran on time 87 percent of the time. Route 1 was on time 100 percent of the time and the Trolley was on time just 50 percent of the time. For better accuracy, time checks should be conducted more often. However, this limited data indicates that the Trolley route is too long to operate dependably in the half-hour schedule.

Table 20: DART On-Time Performance

	Route				
	Route 1	Route 2	Dinuba Connection	Trolley	Total
Total Time Checks [1]	38	57	37	22	154
Early Departures [2]	0	1	3	0	4
On-Time [3]	38	52	33	11	134
Late [4]	0	4	2	10	16
Very Late [5]	0	0	0	2	2
Percent On-Time	100%	91%	89%	50%	87%

Note 1: Number of times departure from bus stop was recorded.
Note 2: Departed stop before time published in schedule.
Note 3: Departed 0 to 5 minutes within time published in schedule.
Note 4: Departed more than 5 minutes after time published in schedule
Note 5: Departed more than 10 minutes after time published in schedule.
Source: DART reported time checks from July to October, 2018.

DART FINANCES

DART is included under the Public Works Department in the City of Dinuba's budget. Transit expenses and revenues are discussed below.

[1] Each route has between 8 to 14 scheduled stops, and operates between 13 to 15 hours most weekdays, which equates to roughly 500 time checks daily, and more than 44,000 during the four month period.

DART Operating Expenses

The DART expense budgets for 2015 – 16 to 2018 – 19 are shown in Table 21. Note that the figures for the first three years are actual costs, while the 2018 – 19 is the adopted budget. For the 2017 – 18 fiscal year, operating costs totaled $917,174. The cost for the Dinuba Connection (which equates to 18 percent of the FY 2017 – 18 operating cost) is shown separately because the cost is shared with Fresno County Rural Transit Agency (FCRTA) Tulare County. The largest expenses are the annual operating contract (currently with MV Transportation), which accounts for approximately 58 percent of the transit operating budget. Vehicle maintenance is 10 percent of the operating budget, and fuels and lubricants are also 10 percent.

The contract with MV Transportation is based on a fixed management fee of $18,642 per month, plus a rate of $20.48 per hour of service for calendar year 2018. Based on cost trends, it is estimated MV has indicated they plan to increase the fixed cost to $25,457 monthly and $23.45 per revenue hour beginning 2019, which leaves the City of Dinuba in a position wherein they must quickly decide how to address the cost increase.

DART Revenues

Transit revenues for DART are shown in Table 22. The largest single source of revenue is Transit Development Act (TDA) funds, which accounts for 40 percent of revenues in 2017 – 18. Fare revenues (including advertising revenues) total 8 percent of total operated and capital revenues. Under TDA rules, DART must meet a minimum 10 percent “fare box return ratio”, which is the total revenue collected by fares or revenues qualifying as fare revenue, divided by the operating cost. Dividing the total fare revenues by the annual operating costs (from Table 21), the fare box return ratio for FY 2017 – 18 was 9.7 percent. In years where Dinuba has not met the minimum 10 percent farebox ratio requirement, they have contributed monies from the city’s general fund.

DART TRANSIT EVALUATION

Vehicle Hours and Miles

As indicated above in Table 8, DART has operated between 13,760 vehicle revenue hours in 2013 – 14, to 15,355 in 2015 – 16, to 14,955 hours in 2017 – 18. As shown in Table 23, in 2017 – 18, approximately 42 percent of the hours were provided on Routes 1 and 2, 21 percent each on the Dinuba Connection and the Jolly Trolley, and 16 percent on the DAR.

DART Performance Indicators

Based on the most recent annual service quantities and the expenses reported in Table 21, a number of performance indicators were evaluated for DART services, as shown in Table 23 and presented below.

Table 21: DART Transit Expenses

	Actual 2015-16	Actual 2016-17	Actual 2017-18	Budget 2018/19
Operating Expenses				
Employee Services	$73,850	$75,561	$35,755	$9,704
Maintenance and Operations				
Supplies - Lubricants, fuel	$64,529	$52,577	$64,476	$58,109
Supplies - office, repairs, ops	$4,403	$6,163	$878	$6,120
Utilities	$3,852	$4,096	$3,620	$4,080
Communications	$2,831	$1,741	$2,070	$2,550
Professional and Technical	$6,355	$7,110	$6,118	$225,300
Contractual	$395,357	$417,351	$419,266	$469,352
Other Services	$396	$2,027	$434	$3,611
Training and Special Dept.	$73,253	$21,258	$9,283	$15,586
Vehicle Maintenance	$67,309	$61,454	$54,893	$61,746
Subtotal	*$618,285*	*$573,777*	*$561,038*	*$846,454*
Allocated Costs				
Liability Insurance	$6,259	$1,213	$4,396	
Fire Property	$2,253	$559	$2,135	
Auto Insurance	$612	$612	$624	
Risk Management	$8,498	$1,570	$3,517	
Vehicle Maintenance [1]	$68,902	$72,454	$80,454	
Custodian	$49,996	$49,809	$42,132	
Interdepartment Overhead	$20,085	$20,085	$21,089	
Subtotal	$156,605	$155,235	$154,347	$144,523
Subtotal Operating Expenses	***$848,740***	***$804,573***	***$751,140***	***$1,000,681***
Dinuba Connection				
Allocated Vehicle Maintenance [1]			$20,114	
Lubricants and fuels	$24,115	$20,692	$23,348	$21,528
Contractual Services	$101,151	$110,786	$108,539	$116,331
Vehicle Maintenance [2]	$27,129	$39,579	$14,032	$19,765
Advertising	$0	$890	$1	$926
Subtotal Dinuba Connection	***$152,395***	***$171,947***	***$145,920***	***$158,550***
Total Operating Expenses	**$1,001,135**	**$976,520**	**$897,060**	**$1,159,231**
Capital Expenses				
Vehicles	$0	$116,610	$119,707	$148,000
Building	$0	$0	$9,164	$0
Machinery and Equipment	$17,819	$1,512	$412	$19,457
Improvements	$535	$108,842	$0	$48,002
Signage	$13,591	$0	$0	$0
Subtotal Capital Expenses	**$31,945**	**$226,964**	**$129,283**	**$215,459**
Transfers Out	$17,619	$3,563	$3,563	$3,563
TOTAL TRANSIT EXPENSES	**$1,050,699**	**$1,203,484**	**$1,026,343**	**$1,374,690**

Note 1: Mechanics Note 2: Parts for 2017-18 only.

Source: City of Dinuba Transit Fund budget dated 11/20/18.

Table 22: DART Transit Revenues

Revenue Sources	Actual 2015-16	Actual 2016-17	Actual 2017-18	Budget 2018-19
Sales Tax (Measure R)	$52,500	$52,500	$52,500	$262,500
Investment Earnings	-$438	-$1,152	-$5,452	-$1,000
Transit Center Lease	$0	$10,595	$11,689	$12,043
Intergovernmental				
TDA	$92,136	$378,905	$427,507	$435,972
Tulare County (TCAT)	$0	$18,311	$0	$20,300
CMAQ Grant	$0	$0	$0	$131,024
Section 5339 Grant	$0	$0	$101,751	$0
Prop 1B	$17,361	$33,539	$14,257	$0
STAF Grants	$144,052	$165,251	$127,128	$150,000
Section 5311 Grant	$450,652	$268,000	$195,178	$199,499
PTMISEA Grant	$247,486	$0	$0	$0
Fresno Co. Rural Transit	$62,831	$66,678	$53,670	$58,000
Subtotal	*$1,014,518*	*$930,684*	*$919,491*	*$994,795*
Fare Revenue				
Dial-a-Ride Fares	$28,783	$30,976	$31,908	$31,599
Fixed Route Fares	$41,815	$40,240	$43,546	$41,049
Bus Advertising	$12,695	$33,873	$11,170	$10,000
T-Pass	$0	$0	$0	$0
Ticket Sales	$2,041	$3,381	$2,856	$3,449
Subtotal	*$85,334*	*$108,470*	*$89,480*	*$86,097*
Miscellaneous	$48,531	$1,501	$2,454	$6,530
General Fund (Transfers In)	$33,959	$0	$3,354	$11,421
Total Revenues	**$1,234,404**	**$1,102,598**	**$1,073,516**	**$1,372,386**

Source: City of Dinuba Transit Fund budget dated 11/20/18.

- *Passenger-Trips per Day of Service* – Over the course of the year, DART Services averaged 406 passenger boardings per day.

- *Passenger-Trips per Revenue Vehicle-Hour of Service* – This is a key measure of the effectiveness of a transit service, and is often referred to as the "productivity" of a route. This measure ranges from a low of 3.8 on Route 1 (evening service is included with Route 1) to a high of 15.0 on the Trolley. The DAR averaged 7.1 passengers per hour, which reflects the concentrated use by students and is atypical for most DAR services. This is depicted in Figure 18.

- *Passenger-Trips per Vehicle-Mile* – DART services carried between 0.3 to 1.2 passengers per mile of service, with an overall average of 0.6.

- *Operating Cost per Passenger-Trip* – The operating cost per passenger carried varied from a low of $4.29 on the Trolley to a high of $13.90 on the flexroutes. The Dinuba

Connection, though it is the longest distance route, had a cost of $6.69 per passenger trip.

- *Subsidy per Passenger-Trip* – This is a key performance measure for a transit service, as it relates the most important public "input" (operating subsidy funding) to the fundamental desired "output" (passenger-trips). Subtracting the fares collected from the operating cost, and dividing this number by the trips carried, the Jolly Trolley performed best at $3.42 per passenger trip (due to the high ridership), even though no fares were collected. The next best performer was the Dinuba Connection, which required a subsidy of $4.94 per passenger trip. The flexroutes required an average of $10.35 in subsidy for each passenger carried. This is depicted in Figure 19.

Table 23: DART Performance Analysis

Fiscal Year 2017-18

	Annual Operating Statistics						
Route	Days	Revenue Veh-Hrs	Vehicle Miles	Allocated Costs [1]	Rides	Fares	Subsidy
Flex Route 1	307	3,592	39,860	$178,848	13,681	--	--
Flex Route 2	307	2,794	38,541	$145,526	15,647	--	--
Subtotal	*307*	*6,386*	*78,401*	*$324,374*	*29,328*	*$20,805*	*$303,569*
Jolly Trolley	307	3,088	39,480	$158,188	46,218	$0	$158,188
Dinuba Connection	255	3,123	59,189	$145,920	24,115	$26,830	$119,090
Dial-a-Ride	255	2,358	22,434	$114,231	16,645	$21,076	$93,155
Total		**14,955**	**199,504**	**$742,713**	**116,306**	**$68,711**	**$ 674,002**

	Performance Analysis				
	Passengers per			Cost per	Subsidy per
	Day	Vehicle-Hour	Vehicle-Mile	Passenger Trip	Passenger Trip
Flex Route 1	44.6	3.8	0.3	--	--
Flex Route 2	51.0	5.6	0.4	--	--
Subtotal	*95.5*	*4.6*	0.4	*$11.06*	*$10.35*
Jolly Trolley	150.5	15.0	1.2	$3.42	$3.42
Dinuba Connection	94.6	7.7	0.4	$6.05	$4.94
Dial-a-Ride	65.3	7.1	0.7	$6.86	$5.60
Total	**405.9**	**7.8**	**0.6**	**$6.39**	**$5.80**

Note 1: Dinuba Connection cost as reported. Allocated costs for other services estimated based on following cost formula:

$53.40 X Revenue Vehicle-Hours +$0.85 X Vehicle-Miles

Source: DART, from "Transit Summary FY 18-19.xls"

To understand perspective of performance measures, a discussion of peer performance and suggested targets for this and other measures are discussed in Chapter 3: Transit Goals and Objectives.

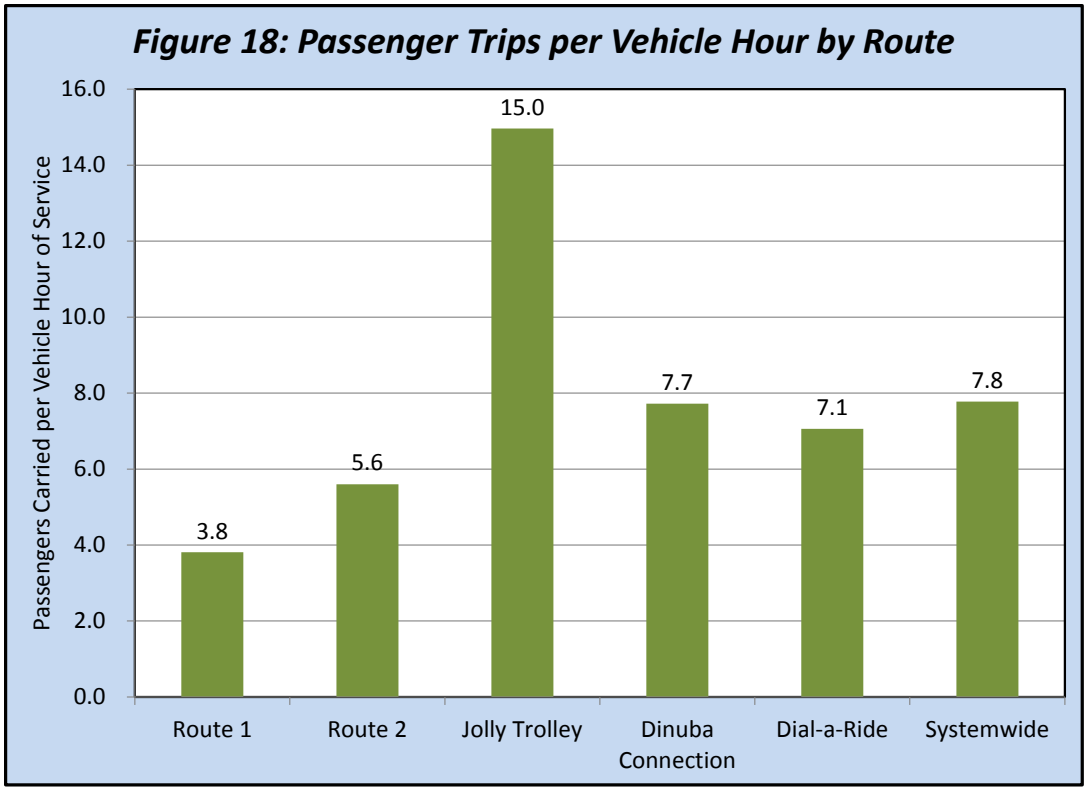


Figure 18: Passenger Trips per Vehicle Hour by Route
Passengers Carried per Vehicle Hour of Service
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
3.8
5.6
15.0
7.7
7.1
7.8
Route 1
Route 2
Jolly Trolley
Dinuba Connection
Dial-a-Ride
Systemwide

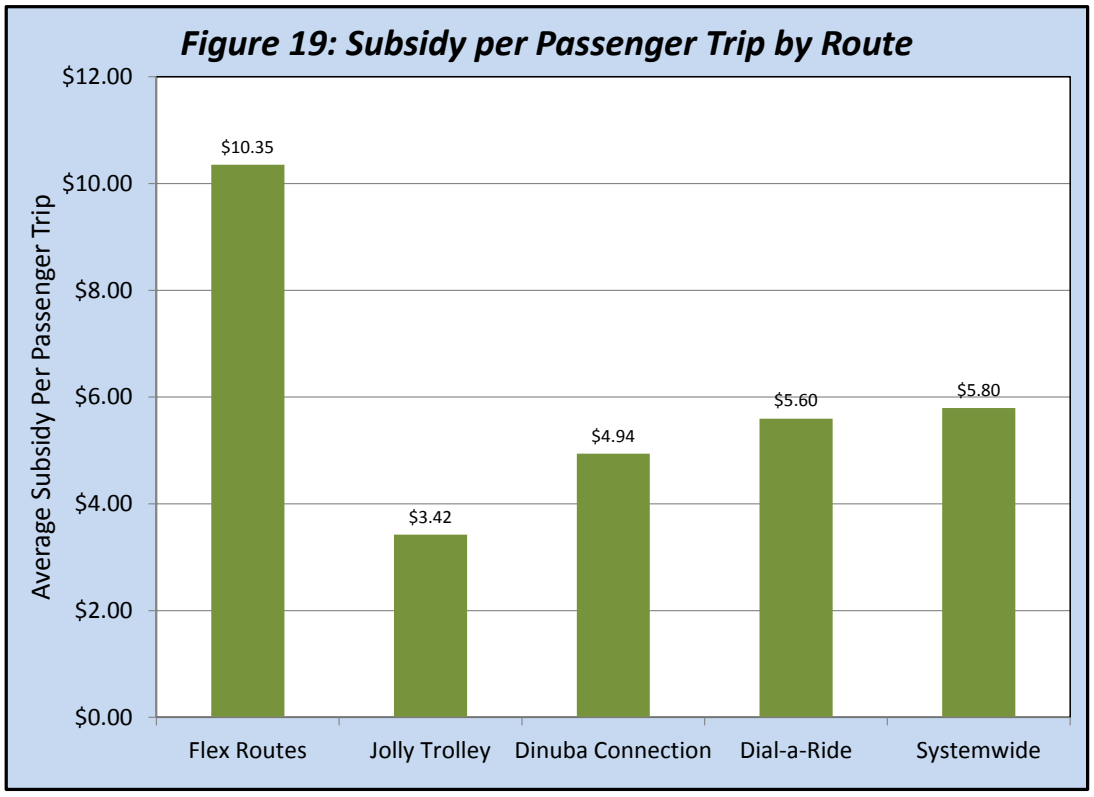


Figure 19: Subsidy per Passenger Trip by Route
Average Subsidy Per Passenger Trip
$12.00
$10.00
$8.00
$6.00
$4.00
$2.00
$0.00
$10.35
$3.42
$4.94
$5.60
$5.80
Flex Routes
Jolly Trolley
Dinuba Connection
Dial-a-Ride
Systemwide

DINUBA TRANSIT FACILITIES AND CAPITAL EQUIPMENT

Operations Facilities

Vehicles are housed at the city's Maintenance Yard, where they are maintained by a city mechanic. Transit vehicles are fueled at the CNG station at this facility as well. MV Administrative staff are housed at the transit center at 180 W. Merced Street. Until recently, a city employee with part-time transit duties was also housed there.

Fleet Inventory

There are ten vehicles in the DART fleet, as shown in Table 24. All vehicles are equipped with wheelchair lifts and two tie-down positions, which conform to the requirements of the Americans with Disabilities Act (ADA) of 1990 requirements in regards to accessibility. They all are equipped with bicycle racks. There is one trolley dedicated to the Jolly Trolley route, and non-trolley vehicles are used for back up as needed. The vehicles vary in age, with six of them reaching their recommended replacement year during the timeframe of this TDP.

Passenger Amenities

All of the designated bus stops have signs, and 19 stops have shelters with solar lighting. The passenger amenities are listed in Table 25. The city has additional shelters in storage which are ready to be installed once locations are prioritized.

Table 24: Dinuba Transit Vehicle Fleet

Current as of October 2018

Bus #	Make	Model	Fuel Type	Length	Year	Seating Capacity [1, 2]	Mileage	Expiration based on Age
3	Ford/ Glaval Universal	F550	CNG	25'	2017	18	3,451	2027
4	Freightline/ Cummins	Trolley	CNG	31'	2008	27	179,608	2018
5	Chev/El Dorado AeroElite	C5500	CNG	32' 2"	2008	31	277,198	2018
6	Chev/El Dorado AeroElite	C5500	CNG	29' 6"	2009	27	232,694	2019
7	Ford/El Dorado AeroTech	E450	CNG	24'	2011	19	204,746	2021
8	Ford/El Dorado AeroTech	E450	CNG	24'	2011	19	226,309	2021
9	Ford/El Dorado AeroElite	F550	CNG	33'	2012	31	207,974	2022
10	Ford/Glaval	E450	CNG	28'	2014	19	77,870	2024
11	Ford/Startrans	Goshen	CNG	30'	2013	29	105,941	2023
12	Ford/El Dorado AeroElite	E450	CNG	28'	2016	19	79,863	2026

Note 1: Ambulatory seating capacity is increased by 2 if there are no wheelchair passengers, and includes driver. Wheelchair positions are at the rear of the bus except for Bus 11, which is at the front.
Note 2: All buses have a bike rack in front except trolleys.

Source: City of Dinuba Public Works Department

Table 25: Bus Route Stops & Locations

ID	Route	Bus Shelter	Solar Lights	Need Easement
	Route 1			
1	Transit Center (N. M Street)	X	X	
2	Senior Center (Eaton Ave / North Way) [1]	OS	X	X
3	Roosevelt School (Euclid Ave / Lindara Ave)			X
4	Tulare Works (Alta Ave / Saginaw Ave) Super Stop [2]	X	X	
5	Parkside Village (Davis Ave & Villa Ave)	X	X	
6	Grace & Laughter (Eaton Ave & Saginaw Ave)			X
7	Taco Bell (Alta Ave & W Saginaw Ave)			X
8	Wal-Mart (Monte Vista) Super Stop [2]	X	X	
	Route 2			
9	Transit Center (N. M Street)	X	X	
10	Dinuba Library (I St & College Ave)	X	X	
11	Community Center (Elizabeth Way & Palm Ave)	X	X	
12	Lincoln School (Saginaw Ave & Lincoln Ave)	X	X	
13	JFK School (Hayes & Saginaw Ave)	X	X	
14	Dinuba Downs (North Way & Crawford Ave)	X	X	
15	United Market (El Monte Way) Super Stop [2]	X	X	
16	Crawford Ave / Olive Way			X
17	Jefferson School (Crawford Ave & Sierra Ave)	X	X	
18	Gregory Park (College Ave & Academy Way)	X	X	
19	Housing Authority (College Ave & Yale Ave) [3]			Approved
20	Wilson School (Kamm Ave)	X	X	
21	Delgado Park (Greene St) (City Property) [4]	OS	X	
22	South O / Kern Street (Near Proteus)			X
	Jolly Trolley			
23	Transit Center (N. M Street)	X	X	
S	Wal-Mart (Monte Vista) Super Stop [2]	X	X	
24	Dollar Tree (Englehart Ave & El Monte Way)	X	X	
25	St. Michael's (Lillie Ave & North Way) [5]	Alice Park	X	
S	United Market (El Monte Way) Super Stop [2]		X	
26	K-Mart	No need		
27	C & S Laundry (Tulare St & J St)			X
28	Platinum Theaters (S M St & W Ventura St)	X	X	
29	McQueen Accounting near Rabobank	No need		
	Dinuba Reedley Connection			
30	Transit Center (N M Street)	X	X	
S	Tulare Works (Alta Ave / Saginaw Ave) Super Stop [2]	X	X	
S	Wal-Mart (Monte Vista) Super Stop [2]	X	X	
	Special Additions			
31	Emperor Estates (W. Merced St.)	No Easement	Needed	
32	Ridge Creek Golf Course (Ridge Creek Dr.)	No Easement	Needed	

Note 1: Senior Center: "OS = Opposite Side" Awaiting property owner approval to relocate shelter to correct side.
Note 2: Super Stop = One bus shelter is used for various route stops.
Note 3: Housing Authority - Awaiting public notary acknowledgement of grant easement.
Note 4: Delgado Park - Shelter located across the street (wrong side). City-owned, no need for grant easement.
Note 5: St. Michael's - Alice Park bus shelter to be moved to this location. Need grant easement.
Source: City of Dinuba

OTHER AREA TRANSPORTATION PROVIDERS

The City of Dinuba is also served by a number of other transportation providers as described below.

TULARE COUNTY AREA TRANSIT

Tulare County Area Transit (TCaT) operates regional transportation throughout the county, enabling residents and visitors to make connections in nearby communities to travel locally, regionally, or even nationally (via Amtrak connections). Additionally, the City of Dinuba and TCaT have a cost-sharing agreement for the inter-county transit service between the City of Dinuba and Reedley (known as the Dinuba Connection). In addition to the Dinuba Connection, Tulare County specific routes which serve the City of Dinuba include the following:

- TCaT Route 10: This route operates between Visalia and Dinuba with southbound and northbound routes on hourly headways on weekdays from 6:15 AM to 6:15 PM. On weekends, four runs are operated. The route serves the communities of Visalia, Cutler, Orosi, Sultana and Dinuba on all runs, and deviates to serve Yettem and Seville three times on weekdays and once on weekends. On two additional runs on weekdays, the route deviates to serve East Orosi.

- TCaT Route 50: This route operates between Dinuba and Traver, serving the communities of London and Traver southbound, and Delft Colony northbound. Four trips are operated weekdays and weekends, with fewer stops in Dinuba on weekends.

TCaT fares are $2.00 for the general public, and $1.00 discounted for seniors, disabled, Medicaid card holders and military. TCaT also provides DAR to rural areas in Tulare County, including rural Dinuba and Sultana.

TCAT Route 10 and Route 50 Ridership

TCaT Route 10 and Route 50 ridership is depicted in Table 26. As indicated, Route 10 ridership has declined 13.8 percent over the past five years from 100,220 passenger trips in 2013 – 14 to 86,422 in 2017 – 18. At the same time, Route 50 ridership declined by 39.7 percent, from 9,208 to 5,556 in the same five years. As shown in Table 27, monthly ridership for both services peaks in August, but is fairly steady throughout the year on Route 50, and reflects more of a school pattern on Route 10.

Table 26: TCAT Route 10 and Route 50 Ridership by Year

Routes	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	*% Change FY 13-14 to 17-18*
Route 10	100,220	101,581	95,317	85,819	86,422	-13.8%
Route 50	9,208	8,529	7,477	5,813	5,556	-39.7%
Combined	*109,428*	*110,110*	*102,794*	*91,632*	*91,978*	-15.9%

Source: Tulare County, Fall 2018

Table 27: TCAT Route 10 and Route 50 Ridership by Month

	Route 10	Route 50	*Total*
July	5,559	461	6,020
August	8,148	588	8,736
September	7,300	521	7,821
October	7,887	467	8,354
November	7,265	446	7,711
December	6,530	446	6,976
January	7,020	420	7,440
February	7,430	439	7,869
March	7,793	434	8,227
April	8,013	442	8,455
May	7,827	386	8,213
June	5,650	506	6,156
Total	*86,422*	*5,556*	91,978

Source: Tulare County, Fall 2018

VISALIA TRANSIT

Visalia Transit offers regularly scheduled fixed-route service in Visalia, which can be used by passengers arriving from Dinuba on TCaT. DAR services are also available in Visalia, Goshen, Farmersville and Exeter for qualifying ADA passengers.

FRESNO COUNTY RURAL TRANSIT AGENCY

The City of Dinuba and the Fresno County Rural Transit Agency (FCRTA) have a cost-sharing agreement for the inter-county transit service between the City of Dinuba in Tulare County and the City of Reedley in Fresno County (known at the Dinuba Connection, as discussed above). In addition to this service, several routes are operated to Reedley College which DART passengers can transfer to in order to extend their trips into Fresno County if they choose. The routes are focused on student populations and include the following:

- Orange Cove Intercity Transit Route: This route operates between the City of Fresno and the City of Orange Cove, stopping at Reedley College mid-route. Service is limited, with only one morning and one afternoon round trip.

- Sanger Express: This route has three morning and three afternoon round trips with direct service between the Sanger Community Center and Reedley College.

- Kingsburg-Reedley College Route: This route operates between the City of Kingsburg and Reedley College. Service is limited to two morning and one afternoon round trips.

GOALS, OBJECTIVES AND POLICY STATEMENT

An important element in the success of any organization is a clear and concise set of goals and objectives, as well as the performance measures and standards needed to attain them. This can be particularly important for a public transit agency, for several reasons:

- Transit goals can be inherently contradictory. For instance, the goal of maximizing cost effectiveness can tend to focus services on the largest population centers, while the goal of maximizing the availability of public transit services can tend to disperse services to outlying areas. To best meet its overall mission, a public transit agency must therefore be continually balancing the trade-offs between goals. Adopting policy statements also allows a discussion of community values regarding transit issues that is at a higher level of discussion than is possible when considering case-by-case individual issues.

- As a public entity, a public transit organization is expending public funds, and therefore has a responsibility to provide the public with transparent information on how funds are being spent and how well it is doing in meeting its goals. Funding partners also have a responsibility to ensure that funds provided to the transit program are being used appropriately. The transit organization therefore has a responsibility to provide information regarding the effectiveness and efficiency by which public funds are being spent.

- An adopted set of goals and performance standards helps to communicate the values of the transit program to other organizations, to the public, and to the organization staff.

GOAL STATEMENT

The following was listed as the system goals for Dinuba in the 2014 TDP:

> *"Provide affordable, reliable and efficient transit service that effectively meets the needs of Dinuba residents who have limited mobility options. Where practical, also serve the needs of Dinuba residents who choose transit for some or all of their local travel needs to improve air quality".*
>
> *"In support of Dinuba downtown revitalization, provide equitable access to the downtown from all residential neighborhoods in Dinuba."*

These goals reflect the desire of the community to provide efficient transportation for those with limited options, both as an economic benefit and an air quality benefit. These are broad ideals, but through the TDP process, it has become clear that economic revitalization is less important than the desire to ensure transit dependent populations have access to service, and the second half of this goal should be dropped.

As with all California public transit agencies, DART adheres to the minimum performance standards set forth by the Transportation Development Act.

OBJECTIVES AND POLICY STATEMENTS

In addition to the stated goals, a list of objectives and the policies to attain them were listed in the 2014 TDP. These are listed below, with recommendations for maintaining or revising the objectives and policies.

Objective A: Maximize service reliability and convenience.

Policies:

1. Ensure sufficient service capacity to maximize service availability to all priority transit markets throughout the service day. Although service capacity is ultimately determined by funding, ensure that a reasonable level of service is available to all transit markets throughout the service day. Full ADA compliance is required on the flex-route service.
   Recommendation: Continue Policy.

2. Ensure availability of sufficient safe and reliable in-service vehicles to meet the daily pullout requirements of DART service. Adhere to a zero tolerance standard for the cancellation of scheduled service due to the lack of service vehicles.
   Recommendation: Continue Policy.

3. Ensure availability of wheelchair accessible buses that meet the maximum daily busload requirements. Buses must have sufficient capacity to avoid passenger pass-ups on scheduled trips.
   Recommendation: Continue Policy.

4. Ensure adequate bus capacity to maintain passenger loads within the adopted maximum load standards established for DART service. Adhere to 1.25 maximum load standard for flex-route or fixed-route service. (Under this standard, DART buses can carry one standee for every four seated passengers)
   Recommendation: This standard does not reflect the current and acceptable practice of having standees for short school trips, and should be discontinued.

5. Ensure sufficient round trip travel times for all flex-route or fixed-route service to facilitate on-time performance within an adopted on-time performance standard.
   Recommendation: Redundant—Policy 6 adequately addresses this issue. Eliminate this policy.

6. Adhere to a 90% on-time performance standard for all scheduled flex-route or fixed-route service. Ensure that no scheduled flex-route or fixed-route buses depart (or pass by) a time point before the published departure time.

Recommendation: Continue Policy. Additionally, request Contractor provide summary data of on-time performance adherence (currently, only raw data is provided and only for a small sample size). Note that the Jolly Trolley currently does not meet this standard, by a significant measure.

7. Ensure dial-a-ride service will operate on schedule within an adopted on-time performance standard. Adhere to a 90% on-time performance standard for all scheduled dial-a-ride service.
   Recommendation: Continue Policy, but delete first sentence (redundant).

8. Ensure adequate dial-a-ride wheelchair and ambulatory capacity to meet all confirmed ADA eligible trips within the adopted dial-a-ride wait time, maximum travel time and on time performance standards. Maintain full ADA compliance, full interior height and transit door van or small bus specifications for dial-a-ride service vehicles.
   Recommendation: Continue Policy.

9. Provide subscription, advance booking and same day service on dial-a-ride services.
   Recommendation: unnecessary as a policy statement.

Objective B: Maximize operating efficiency without negatively impacting service quality.

Policies:

1. Seek competitive bids for DART services every five years. Contracts should be for a set term with optional single year add-ons. Contract terms should be timed to end within one, or one and one half years after the scheduled completion of Dinuba TDPs.
   Recommendation: Continue Policy.

2. Establish a medium-duty bus specification to increase the effective life span of DART buses for all fixed-route only services. Medium-duty buses tend to be built for regular stop and go fixed-route operations, and offer greater reliability over the effective life span of the vehicle than a light duty bus. Lighter duty cut-a-ways will be required for flex-route or dial-a-ride services to facilitate operation in residential neighborhoods.
   Recommendation: To address ever-changing technology, a more appropriate policy would be: "Review and purchase vehicles of a size and fueling capacity to maximize service efficiency, compatible with the areas served."

3. Maintain a small-bus fleet with a maximum spare bus to in-service bus ratio of one spare to every three or fewer in-service buses, by vehicle type.
   Recommendation: Continue Policy.

4. Establish and adhere to a vehicle retirement program that recognizes the effective life cycle of the various DART vehicle types. Maintain a five-year (or 150,000 miles) life cycle for light duty buses and a seven-year (or 200,000 miles) life cycle for medium duty buses.

Recommendation: This is a state requirement and could be eliminated as a policy.

5. If stand-alone dial-a-ride service is provided, minimize service overlap between the Dial-A-Ride and fixed-route services.
   Recommendation: The current service plan of serving deviation requests in low-demand periods with flex-route service and augmenting the service in busy times with Dial-A-Ride service is overall serving Dinuba well, but is not in keeping with this policy. This policy should be eliminated.

6. If stand-alone dial-a-ride service is provided, utilize scheduling and trip assignment parameters and procedures that maximize ride sharing, linked trips and productive single passenger trip vehicle utilization.
   Recommendation: This language is confusing and should be modified as follows: "If stand-alone dial-a-ride service is provided, utilize scheduling and trip assignment parameters and procedures that maximize ride sharing and link trips to result in productive vehicle utilization."

Objective C: Operate a productive service that remains affordable to priority transit markets.

Policies:

1. Priority should be given to serving the general mobility needs of seniors, persons with disabilities, and low-income households.
   Recommendation: Continue Policy. Note: This was listed under "Objective A" but is more appropriate to "Objective C" which mentions priority transit markets.

2. Maintain affordable fares for low-income persons, seniors, and persons with disabilities while adhering to required fare box recovery ratio standards.
   Recommendation: Continue Policy.

3. Maintain lower fixed-route fares than dial-a-ride fares to encourage a continual ridership shift from dial-a-ride to fixed-route service.
   Recommendation: continue, but restate as "Maintain fares on fixed-route services which encourage riders to choose this mode over Dial-A-Ride services."

4. Continue free transfers between DART intracity fixed routes.
   Recommendation: Continue policy.

Objective D: Promote the coordination of services with other regional transit operators.

Policies:

1. Maintain and encourage DART connections with Tulare County Area Transit (TCaT) and Fresno County Transit Agency (FCRTA) services. Coordinate schedules to minimize wait times between the systems.

   Recommendation: continue, but restate as "Coordinate schedules to the extent possible to minimize wait times between the systems." Note: Priority for scheduling should be within DART services first to best accommodate local ridership, and secondly to accommodate transfers to regional services.

2. When electronic fare boxes are implemented, ensure card-reader/equipment compatibility with other Tulare County service providers.

   Recommendation: While it is unclear when electronic fare boxes may be implemented, continue policy.

Objective E: Promote public/private partnerships to market or operate transit services in support of City of Dinuba economic and land use development goals.

Policies:

1. Actively participate in the City of Dinuba's development review process to ensure that transit operations and passenger facilities are considered as part of new developments in the initial planning stages.

   Recommendation: Continue Policy.

2. Promote commuter service to and from major employment and service centers, and encourage employers to offer incentives for employees who use transit for their work commute.

   Recommendation: Continue Policy.

3. Establish transit stops to encourage the interface between commercial centers, high density residential uses and the transit system.

   Recommendation: Continue Policy.

4. Explore joint promotions with retailers and service organizations for transit service sponsorship, and exterior/interior bus advertising.

   Recommendation: Continue Policy.

5. Work with local organizations to provide transit support to major public events.

   Recommendation: Continue Policy.

SERVICE STANDARDS AND BENCHMARKS

In order for DART to realize objectives and enact policies, it is important to develop performance standards and benchmarks. Standards should be set low enough that they are not impossible to meet, but high enough to encourage improvement. Additionally, they should be evaluated against peer systems to determine if they are within industry standards. Finally, they should regularly be reviewed and adjusted to meet the reality of existing transit conditions.

Peer Review

Planners in the transit industry sometimes refer to "industry standards" as a means of determining services or practices which are within the "norm." However, this can be misleading as no two transit systems are alike, and there are subtle factors which can affect performance. Nonetheless, it can be a useful exercise to view the performance achieved by what can loosely be referred to as "peers" of a transit system. A peer review was developed to compare Dinuba Transit's performance with that of other transit systems or services as a precursor to reviewing and recommending performance standards. The peers were chosen for fixed-route or DAR services for the following reason (with caveats explained):

Fixed-route Peers

Arvin Transit in Kern County. The City of Arvin is a little smaller than Dinuba, but is also an agriculturally based community not far from Highway 99. There is just one local route operating on half-hourly headways.

Delano Area Rapid Transit (City of Delano) offers four local fixed routes on half-hourly headways in Delano in Kern County. The population is higher and the city is on a major highway (Highway 99), but a similar number of trips are provided.

Fresno County Rural Transit Agency which operates in the same area as Dinuba and carries a similar number of passengers.

Lompoc is a similar size to Dinuba, with four local routes, including one route which goes to a community college.

Lemoore, Kings Area Regional Transit (KART). Just the Lemoore Route of the KART service was used for comparison. The city is a similar size, but the route operates between two cities, much like the Dinuba Connection.

Dial-A-Ride Peers

Arvin Transit also offers a complementary DAR service.

Delano Area Rapid Transit (City of Delano) offers a DAR for elderly and disabled persons.

Lompoc. The DAR is complementary to the fixed-route service.

Lemoore, Kings Area Regional Transit (KART). The Lemoore fixed route offers a complementary DAR which operates throughout the City of Lemoore.

Shafter Transit Kern County provides some fixed-route service within Shafter, but locally, most of the service is provided by the Shafter DAR, which is open to the general public. Shafter is approximately two-thirds the size of Dinuba.

The above selections illustrate the challenges of finding an equivalent peer. The peer data is presented in Table 28. This table also includes performance standards for DART which were identified in the 2014 Dinuba TDP (adjusted for inflation as recommended in the TDP). Data was obtained from the most recent transit planning document, or the National Transit Database, as noted. For DART, the operating data is from FY 2017 – 18. The following conclusions can be surmised through the peer comparison:

- **Fares:** Dinuba fares (excluding the free fares on the Trolley) are higher than average on the fixed-route service and lower than average on the DAR.

- **Cost per Passenger Trip:** Dinuba does not meet the identified standard of $5.14 per passenger trip. However, the $7.75 per passenger trip (2017 – 18 data) is 17 percent lower than the system average for fixed routes, and a full 63 percent lower than the system average for DAR services of $23.39 (Dinuba's average DAR cost per passenger is $8.71). This indicates that the DART system is making relatively good use of available operating funding.

- **Operating Cost per Vehicle Hour:** Again, Dinuba does not meet the identified standard of $54.64 per vehicle hour, averaging $61.30 on fixed routes and $61.49 on DAR. However, the cost is 15 percent lower than the peer averages of $72.01 for fixed routes and 17 percent lower than the peer average of $74.51 for DAR.

- **Passenger Trips per Vehicle Hour:** The 2014 standard was established at 10.8 per vehicle hour (which is the current peer average for fixed routes) but DART only carries 7.9 on the fixed routes and 7.1 on the DAR. This reflects the steady decline in ridership although service levels have not been reduced. However, on DAR, Dinuba exceeds the average of 5.3 passengers per hour. This relatively high productivity of the Dinuba DAR program reflects effective scheduling, as well as the proportion of school and other activity center trips.

- **Fare Box Ratio:** Dinuba is required to meet a minimum 10 percent fare box return ratio. Including only fares and not ancillary fare revenue, Dinuba only has a 6.2 percent fare box return on fixed routes, but has a 14.5 percent recovery on the DAR. The comparison with peers is complicated by the fact that the Trolley is free to ride, and DAR is open to the general public and heavily used by students concentrated during school hours. Nonetheless, the fare box return ratio is lower than average by half on the fixed routes, and higher than average by nearly double on the DAR.

Table 28: Peer Transit Performance

Peer Information			Base Single Cash Fare	Annual Passenger Trips	Operating Cost per Psgr Trip	Operating Cost per Revenue Hour	Psgr-Trips per Vehicle Service Hour	Farebox Return Ratio	Subsidy per Psgr Trip	Psgr Trips per Capita
					DART Performance Standards [1]					
					$5.14	$54.05	10.8	10.0%	None	None
					Performance Measures					
Community	Population	Transit Program								
Fixed Route										
Dinuba	24,900	DART Fixed/Flex Routes[1]	$1.25 [5]	99,660	$7.75	$61.30	7.9	6.2%	$7.27	4.0
Arvin	21,300	Transit	$1.00	70,300	$9.37	$87.97	9.4	8.0%	$8.63	3.3
Delano	53,100	Delano Area Rapid Transit [2]	$1.50	106,800	$8.21	$83.54	10.2	9.5%	$7.42	2.0
Fresno County	--	Fresno Co. Rural Transit Agency [2]	$0.75	91,600	$14.53	$66.98	4.6	11.9%	$12.79	--
Lemoore	54,500 [5]	Kings Area Rural Transit [3]	$1.25	149,800	$5.66	$70.07	12.4	25.0%	$4.24	2.7
Lompoc	43,500	Colt (Fixed Route) [2]	$1.25	126,400	$10.82	$62.18	20.3	12.0%	NA	2.9
Fixed Route Averages	***35,700***		***$1.17***	***107,427***	***$9.39***	***$72.01***	***10.8***	***12.1%***	***$8.27***	3.0
Dial-a-Ride										
Dinuba	24,900	DART Dial-a-Ride [4]	$1.50	16,650	$8.71	$61.49	7.1	14.5%	$7.44	0.7
Arvin	21,300	Transit	$1.00	8,900	$6.40	$28.89	4.5	9.0%	$5.85	0.4
Delano	53,100	Delano Area Dial-a-Ride [2]	$3.00	4,200	$63.28	$129.67	2.0	3.0%	$61.16	0.1
Lemoore	26,300	Kings Area Rural Transit (DAR) [3, 6]	$2.50	5,300	$32.51	$69.57	2.1	4.4%	$31.09	0.2
Lompoc	43,500	Colt (DAR) [2]	$2.00	14,300	$20.98	$65.42	5.7	5.0%	$9.50	0.3
Shafter	19,600	DAR [2, 4]	$1.25	29,600	$8.48	$92.00	10.3	11.0%	$7.97	1.5
Dial-a-Ride Averages	***31,450***		***$1.88***	***13,158***	***$23.39***	***$74.51***	***5.3***	***7.8%***	***$20.50***	0.5

Note 1: Dinuba standards identified in 2014 TDP; operating cost per passenger trip ($4.75) and per hour was ($50.00) were adjusted based on US Bureau of Labor Statistics inflation data. DART operating data is from 2017-2018, rounded.
Note 2: Data per National Transit Data Base, 2016
Note 3: Kings County 2014 TDP.
Note 4: Dial-a-Ride available to the general public.
Note 5: No fare charged on Jolly Trolley.
Note 6: Lemoore route serves Lemoore and portions of Hanford.

Meets standard =
Does not meet standard =

- **Subsidy per Passenger Trip:** Dinuba does not have a standard for subsidy per passenger trip, but this measure most accurately identifies the public expenditure per passenger trip. As with cost per passenger trip, the subsidy required is lower than the system average for fixed routes[2], and much lower than the system average for DAR services—indicating DART performs well by this measure.

- **Passenger per Capita:** Another measure which reflects how well a community is served by transit overall is the number of annual trips carried per capita. By this measure, DART is serving its community relatively well. The fixed-route/flexroute service carries 4.0 passengers per capita compared with the peer average of 3.0, while the DAR carries 0.7 per capita compared with 0.5 carried per capita on the peer systems. Only Shafter carries more per capita on the DAR, and Shafter does not have a local fixed route, but does carry the general public on the DAR.

In sum, Dinuba does not meet most of the standards identified in the 2014 TDP, but generally excels in performance in relation to peers. This indicates the performance standards are likely too ambitious for DART. Again, peers can provide a "ball park" comparison, but such comparison should be made in light of other service measures performed with more detailed data points for Dinuba. Standards should be set with both peers in mind, and detailed DART performance data.

DART PERFORMANCE STANDARDS

Below is a review of current DART standards per the 2014 TDP, with recommendations for updating the standards. New performance measures are suggested as well. The new standards take into consideration the fact that transit costs are expected to increase significantly, and are believed to be increasing among peers as well. Additionally, separate service standards are recommended for the fixed-route service versus the DAR services.

Existing Efficiency and Effectiveness Standards

Existing DART efficiency and effectiveness standards, and recommendations for updated standards, include the following:

1. ***Operating Cost/Operating Subsidy per Passenger:*** Operating cost is calculated by dividing all operating and administrative costs by total passengers (with passengers defined as unlinked trips). The subsidy cost per passenger is a further refinement of this measure and is calculated by subtracting fare box revenue from gross operating and administrative costs and dividing by total passengers. It is recommended that operating subsidy per passenger trip be the measured standard, rather than operating cost.
   Current Standard: None
   Current Fixed-route Subsidy per Passenger Trip: $7.27/trip
   Current DAR Subsidy per Passenger Trip: $7.44/trip

[2] Accurate data for this figure for the Lompoc system was not available.

Recommendation: Maintain at current level for fixed-route service (and work towards making service more efficient), but recognize that DAR is by nature less efficient.

Fixed-route Subsidy per Passenger Trip: $7.25
DAR Fare box Subsidy per Passenger Trip: $8.00

2. ***Operating Cost per Revenue Hour:*** Calculated by dividing all operating and administrative costs by the total number of vehicle revenue hours (with revenue hours defined as time when the vehicle is actually in passenger service). Operating cost per revenue hour measures system efficiency.

   Current Standard: $54.05 (including inflation)
   Current Fixed-route Performance: $61.30
   Current DAR Performance: $61.49

   Recommendation: This is a measure which is largely out of control of the transit agency, though the city should strive to negotiate the best deal possible. While it is useful to track cost in order to evaluate changes in services, a performance standard is not recommended.

3. ***Passengers per Revenue Hour:*** Calculated by dividing the total number of passengers (unlinked trips) by the total number of vehicle revenue hours. The number of passengers per hour is a good measure of service productivity and is critical to the establishment of design standards and benchmarks for the expansion of transit service. Passengers per revenue hour should be calculated for each service type and for different time periods such as peak, midday, and Saturday.

   Current Standard: 10.8
   Current Fixed-route Performance: 7.9
   Current DAR Performance: 7.1

   Recommendation: Lower the standard to reflect downward trends in ridership, but encourage higher effectiveness on the fixed-route service in relation to DAR.

   Fixed-route Passengers per Revenue Hour: 8.0
   DAR Passengers per Revenue Hour: 7.0

4. ***Fare Box Recovery Ratio:*** Calculated by dividing all fare box revenue by total operating and administrative costs. The California Transportation Development Act (TDA) mandates a fare box recovery of 10% for transit services operating in non-urbanized areas, or communities with an urbanized population of less than 50,000. Fare box recovery evaluates both system efficiency (through operating cost) and productivity (through boardings). Fare box recovery ratio benchmarks are critical to the establishment of passengers per revenue hour benchmarks and benchmarks for design standards.

   Current Standard: 10 percent
   Current Fixed-route Performance: 6.3 percent
   Current DAR Performance: 14.5 percent

   Recommendation: As a requirement, the systemwide fare box ratio should be maintained at 10 percent. DART should strive to increase the fixed-route ratio, while maintaining the higher DAR ratio.

Fixed-route Fare box Return Ratio: 8.0 percent
DAR Fare box Return Ratio: 14.5 percent
Systemwide Fare box Return Ratio: 10 percent

Existing Service Quality/Reliability Standards

The 2014 TDP included service quality and reliability standards, which are reviewed below.

1. ***On-time Performance***

   Current Standard: 90% of all revenue bus trips must depart the route start point and arrive at the route end point within 5 minutes of the time published in the schedule.[3]

   *Recommendation: On-time performance should apply to all time stops listed in the schedule, not just start and end points. Revise as… "*90% of all scheduled bus stops must depart the stop within 5 minutes of the time published in the schedule."

   Current: No bus shall depart a formal time point before the time published in the schedule.

   Recommendation: Continue standard.

   Current: 90% of all demand-response same-day service will occur within 60 minutes of call time (call time to drop off).

   Recommendation: Continue standard.

2. ***Passenger Complaints***

   Current: The number of complaints shall not exceed 0.10% of the total boardings, equivalent to 1 complaint per 1,000 boardings.

   Recommendation: Continue standard

3. ***Safety Standard: Preventable Accidents per Revenue Miles Operated***

   Current: While there should be no preventable accidents, a benchmark has been established to permit some flexibility in the evaluation of training efforts. The number of preventable accidents shall not exceed 0.0005% of total revenue miles operated, equivalent to 1 preventable accident per 200,000 revenue miles.

   Recommendation: Industry standard is typically 100,000 miles between preventable accidents.

[3] On-time performance is sporadically tracked on the fixed routes, and more time points should be recorded to determine performance.

4. ***Service Quality***
   a) ***Roadcalls per Revenue Miles Operated***
   Current: The number of roadcalls should not exceed 0.001% of total revenue miles operated, equivalent to 1 roadcall per 10,000 revenue miles
   Recommendation: Continue standard.

   b) ***Bus Trips Cancelled***
   Current: No Scheduled bus trips shall be cancelled because of equipment or manpower shortages, or on-time performance. Standard = zero tolerance
   Recommendation: Continue standard.

   c) ***ADA Trip Denials***
   Current: No demand-response booking by ADA eligible passengers shall be denied. Standard = zero tolerance
   Recommendation: Continue standard.

Existing Service Design Standards

The 2014 TDP included service design standards, reviewed below.

1. ***Service Coverage***
   a) ***Service Area***
   Current: 75% of all activity centers in Dinuba will be within ¼ mile walking distance of a bus stop or served by Dial-A-Ride.
   Recommendation: Based on a review of activity centers, 90 percent are within ¼ mile of transit and 100 percent are served by Dial-A-Ride. However, given that cuts have been a factor, this standard remains appropriate.

   b) ***Bus Stop Location***
   Current: Bus stops will be spaced at a minimum of 1,325 feet (¼ mile) along each route.
   *Recommendation: This standard is generally followed, although the closest stops are spaced at 960 feet in the downtown area on the Jolly Trolley and 1,050 feet on Routes 2. However, it is appropriate to have stops closer together in the denser areas of Dinuba. Revise as … "*Bus stops within Dinuba shall be spaced at a minimum of 800 feet in the downtown area and areas with higher density of population and housing, and 1,325 feet in the remainder of the city. "

2. ***Bus Stop Design***
   a) ***Signage***
   Current: All bus stops should be clearly marked with proper signage.
   Recommendation: Continue standard.

b) ***Passenger Amenities***

Current: Benches and/or shelters should be considered for individual passengers. Priority should be given to bus stops serving senior residences or activity centers, or facilities which serve clients with mobility impairments.

> *Recommendation: Dinuba Transit has shelters at approximately 60% of stops, which is a relatively good figure compared with other similar systems. Additionally, approximately 16 more shelters are awaiting placement. Given the hot summer conditions in Dinuba and cold, foggy winters, shelters are a benefit to passengers. The standard is appropriate, but could include a level of service measure to make it more effective. Revise as… "*Shelters should be placed at stops with greater than 10 average daily boardings, and benches should be placed at stops with greater than 5 average daily boardings. Additionally, shelters should be placed at stops serving senior residences or activity centers, or facilities which serve clients with mobility impairments, depending on acquiring right of way and addressing physical restrictions." *By this measure, two stops warrant shelters (St. Michael's and C & S Laundry), however, both locations require easements.*

3. ***Customer Convenience***

a) ***Passenger Loads***

Current: Maximum passenger loads should not exceed 1.25 passengers per seat (one standee for every four occupied bus seats).

> *Recommendation: This standard is not currently attained during school bus runs, which routinely carry up to 25 – 30 passengers, often on 16-passenger vehicles. Nonetheless, it is an appropriate standard and should be maintained.*

b) ***Service Headways***

Current: Service headways should be such that passenger load standards are not exceeded on a continual basis.

> *Recommendation: This standard should focus on the convenience of passengers rather than the passenger load, which is addressed in the previous standard. As half hourly service is significantly more convenient than hourly, DART should provide hourly service at a minimum but should strive to provide half-hourly service where it is cost efficient.*

c) ***Timed Transfers***

Current: DART schedules should be designed to ensure timed transfers between routes at the transit center or at bus stops with planned connections.

> *Recommendation: This is a desirable objective, but as a standard should offer some flexibility so that route design can have flexibility. Revise as…"*DART schedules should be designed to offer timed transfers routes at the transit center or other transfer locations to the greatest extent possible."

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ONBOARD PASSENGER SURVEYS

Onboard surveys were conducted on all DART services in early November, 2018 to gain a better understanding of passenger demographics and trip patterns. The survey instruments consisted of a one-page questionnaire in English on one side and Spanish on the reverse side. A total of 205 survey responses were received on the fixed routes and 17 on the DAR. The results of the survey effort are provided in detail in Appendix A. Highlights of the surveys are provided below.

DINUBA FIXED-ROUTE SURVEYS

Dinuba fixed-route surveys were conducted November 5th to 8th, 2018. Trained surveyors handed out and collected surveys on the equivalent of each run of the day of each route. A total of 202 surveys were collected, with 41 completed in Spanish and 164 in English. Results are highlighted below.

Passenger Profile

- Passengers are largely "transit dependent." Most (82%) do not have a car available and 83% do not have a driver's license. Additionally, 42 percent said they would walk if DART were not available and 29 percent said they would get a ride, while 20 percent said they would not make the trip.

- Passengers use DART for all types of trips, but most commonly for school or college (55 percent of responses) and shopping (17 responses).

- Passengers who use the DART ride daily (53%) or 2 – 4 times per week (34%). Only 13% of riders use the service less often.

- There is a mix of new passengers (27% have used it under 6 months) and long-term (37% have used it for 3 years or longer). To develop and maintain ridership, it is essential to have a mix of new and loyal riders.

- 5% of survey respondents used the wheelchair lift to board or exit the bus.

- 16.5% of passengers were seniors over age 61 (including just 2% over the age of 74); 29% were youths, and 54.5% were adults ages 25 to 61.

Trip Patterns

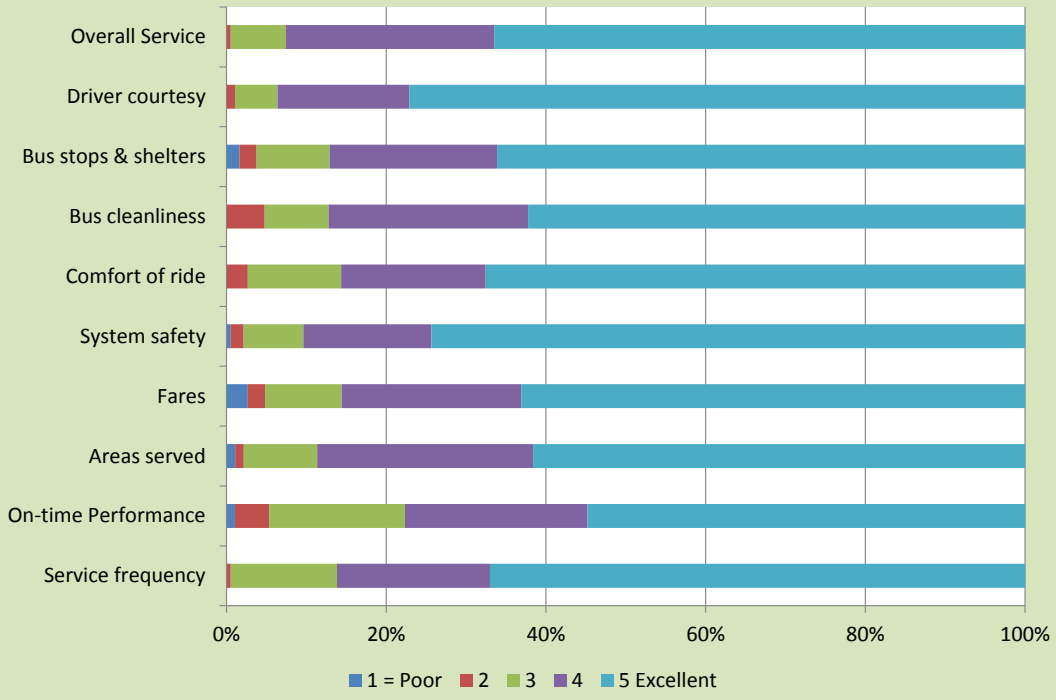
- Passengers travel to and from many origins and destinations, but activity is strongest at the following activity centers:
    - Dinuba Transit Center (33% of boardings and 39% of alightings)
    - Reedley College (13% of boardings and 15% of alightings)
    - Tulare Works (6% of boardings and 7% of alightings)
    - Walmart (6% of boardings and 7% of alightings)

- The majority of passengers walks to get to and from stops (58%) or transferred from another route (35%).

Passenger Opinions

Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. Responses are depicted in Figure 20. Overall, passengers are happy with the transit services, with 87 percent of responses were ranked as 4 (good) or 5 (excellent), and the overall service ranked an average of 4.6. A total of 92 percent of respondents indicated they considered overall DART service to be "excellent" or "good". The highest ranked factors included driver courtesy (4.7) and system safety (4.6). Lowest ranking were on-time performance (4.3), fares (4.4) and bus cleanliness (4.4), but these were all still "good".

Figure 20. Survey Rankings of Dinuba Service Factors



Desired Improvements

Passengers were told there may be a need to cut services and were asked to rank possible cuts as "most acceptable" or "least acceptable". The heat table (Table 29 below) indicates the service options which passengers find least acceptable (in red) to most acceptable (in green). As indicated, passengers are opposed ending service earlier on weekdays and starting later on weekdays. The most acceptable change would be to operate the Trolley hourly on both Saturdays and weekdays.

Table 29: Most and Least Acceptable Changes to Service

	Acceptability	
	Most	Least
Stop service earlier on weekdays	31.3%	68.7%
Start service later on weekdays	29.7%	70.3%
Stop service earlier on Saturday	51.8%	48.2%
Start service later on Saturday	50.7%	49.3%
Operate Routes 1 and 2 hourly on weekdays	56.7%	43.3%
Operate Jolly Trolley hourly on weekdays	59.0%	41.0%
Operate Jolly Trolley hourly on Saturdays	58.7%	41.4%

Passengers were also asked to list specific improvements they would like to see in an open-ended format. The request most repeated was for larger buses (8 passengers) followed by better on-time performance (6 passengers) and lower fares and Sunday service (5 responses each).

DINUBA DIAL-A-RIDE SURVEYS

Concurrent with the fixed-route surveys, the driver provided self-administered surveys on DAR service for five weekdays. A total of 17 surveys were collected (all in English). Results are highlighted below, with details provided in Appendix A.

Passenger Profile

- Passengers are largely "transit dependent." Most (11 of 15 who answered) do not have a car available. However, DAR is not their only option: 4 said they would take the fixed-route service if DAR were not available, and 4 said they would get a ride. However, 4 others said they would walk, and 3 said they would not be able to make the trip.

- Passengers use DART DAR for all types of trips, but most commonly for school or college (10 of 17 responses) and shopping (5 responses).

- Passengers who use the DART DAR ride daily (9 passengers) or 2 – 4 times per week (7 passengers). Only one respondent uses the service less often.

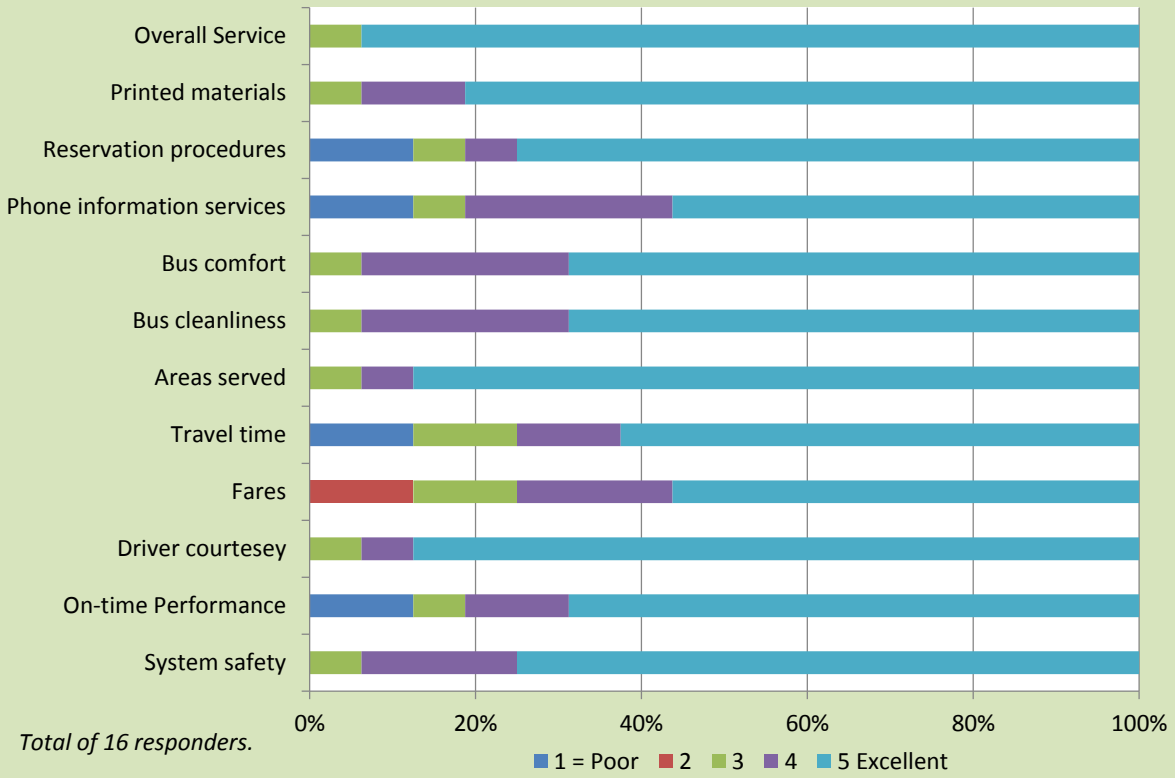
- 2 of 17 passengers used the wheelchair lift to board or exit the bus.

- 10 of the 17 passengers were youths, 4 were adults ages 25 – 61, and 3 were seniors.

Passenger Opinions

Passengers were asked to rate the DAR Service on a scale of 1 (poor) to 5 (excellent) on various service characteristics, as shown in Figure 21. Sixteen passengers responded to the question. In all, 87 percent responses were ranked as 4 (good) or 5 (excellent), and the overall service ranked an average of 4.9. The highest ranked factors included driver courtesy, areas served and printed materials (all three averaged 4.8) and lowest was phone information and travel time (both averaged 4.1). Overall, rankings were very positive.

Figure 21: Dinuba Dial-a-Ride Survey Rankings of Service Factors



Total of 16 responders.

Desired Improvements

Passengers were asked to list specific improvements they would like to see, in an open-ended format. Only 7 responded, and 5 suggested fares should be lower. One respondent specifically

stated fares should be $0.25 less per ride, and another stated passengers of a certain age should pay less (this person was over the age of 75). Other comments included more DAR service for disabled; a route near Crawford and Nebraska, and clean windows (also suggested in fixed-route responses).

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INTRODUCTION

This chapter examines the potential transit needs in Dinuba by reviewing public comments on unmet needs, examining the existing level of service, and reviewing survey responses.

Unmet Transit Needs Findings

Each year, Tulare County Association of Governments (TCAG) conducts unmet needs hearings. Dinuba is one of the areas included in these hearings. The process is intended to encourage Tulare County residents to inform TCAG of any public transportation needs they have which they feel are not being met. A review of the findings from the past year reveals potential areas for improvement, but in general, the needs were found to be unreasonable to meet.

<u>2017 – 18 Unmet Needs Report (Dinuba Comments)</u>

- Later hours on all routes (TCAT and Visalia Transit and Dinuba Transit) and Dinuba Trolley on Sundays.
  Response: Unreasonable to meet at this time. Operating on Sundays would compound the city's difficulty in meeting 10% fare box recovery. Increasing operating hours will make it very difficult for the city to meet STA efficiency standards.

- Want a discount T-pass.
  Response: Along with all Tulare County Transit providers, the City of Dinuba strives to make transit ridership as fiscally attainable as possible. However, this must be balanced with fare box recovery requirements and efficiency standards. At this point, there appears to be no capacity to reduce fares. Contract rates are scheduled to increase considerably and operating costs overall continue to rise while ridership continues to drop.

- Bring back printed schedules.
  Response: The City of Dinuba continues to provide printed schedules.

- Fare collection system should be the same on all transit systems in Tulare County, more modern like in Porterville Transit.
  Response: Unfortunately, this request is not reasonable at this time. Electronic fare boxes are currently not feasible for the City of Dinuba. The city will continue to explore possibilities for grant funding that could make this capital investment possible.

- Need larger font size for legally impaired people on transit guides.
  Response: DART would be supportive of this request but discussion will have to take place on how to increase font sizes on limited printing space while still including all necessary system information.

Level of Existing Service

Coverage

The DART DAR service is open to the general public, which means the existing transit coverage includes all flexroutes, plus all areas within ¾ mile of the route. The combined flexroutes and DAR therefore cover an estimated 90 percent of the entire city (all except areas south of Kamm Avenue, which is a growing area). Furthermore, a new stop was added on Alta Avenue at Griggs Avenue north of town, extending the service northward—though the low use of this stop may indicate such service is not warranted.

Span of Service

Local DART services are available generally from 7:00 AM to 6:00 PM, and later on Friday and Saturday evenings, and a later start on Saturday mornings. The Dinuba Connection is offered only on weekdays but goes until 9:00 PM. There is no Sunday service. This is a reasonable span of service for a small city, and also is designed to meet the needs of Reedley College students. However, it may not meet the needs of individuals who work beyond these hours, or for people who wish to attend evening activities. Additionally, a lack of Sunday transit service likely prohibits some individuals from relying on transit if they work on Sundays. However, given the industry standard of low productivity of transit services on Sundays, there is not likely to be sufficient demand for any increased span of service.

Coordination

The level of coordination among transit providers affects the level of transit access for riders. The City of Dinuba, TCAG and FCRTA all coordinate with one another to ensure scheduled transfers at Reedley College and/or the Dinuba Transit Center. Additionally, DART is responsive to the scheduling needs of Reedley College students.

Unmet "Needs" Identified Through Survey Responses

The onboard surveys included questions regarding what transit improvements passengers would like to see, and also included a question regarding which potential cuts would be most acceptable to them. While the requests identify interest, they do not represent actual demand but should potentially be explored in the next phase of this TDP (alternatives analysis). The findings from surveys are reiterated below.

- The most acceptable cuts to service would be to reduce the Jolly Trolley to hourly service, both weekends and weekdays.

- The least acceptable cuts would be to start flexroute service earlier or later on weekdays.

- The improvements most often requested in the surveys included:

- Bigger buses to reduce the need to stand.
- Improved on-time performance
- Lower fares
- Sunday service

While passengers expressed a desire for improvements, the level of service (particularly the frequency and low fares) provide better access to public transit than elsewhere in the County. Nonetheless, there are a few underserved areas (such as the neighborhood off of Viscaya Parkway in the northwest area of Dinuba) which do not receive transit but have transit dependent populations and schools which generate activity. The transit needs will be considered and discussed as part of the service alternatives evaluation.

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INTRODUCTION

This chapter presents an evaluation of service alternatives for the DART service provided by the City of Dinuba. The alternatives build on the review of existing conditions presented in earlier chapters of this report. Based on review, the alternatives which perform best and best meet the goals and objectives of the transit system are developed into a service plan in Chapter 10.

EVALUATION OF SERVICE ALTERNATIVES

These alternatives have been developed to consider options that might improve the quality and/or effectiveness of the transit program over the next five to seven years. In particular, these alternatives should be reviewed in light of the increases in transit service costs per unit of service. As is very common in the transit industry at present, DART's cost per mile and per hour of service are increasing due to factors such as increases in wages and fuel costs.

Given the recent increase in service contractor costs and the limits on available operating funding, the focus of these alternatives is on reducing operating funding requirements. These alternatives have also been developed based on public input. In particular, the comments received through the onboard surveys indicated that the majority of riders would rather see a reduction in service frequency than a reduction in the hours or days of service.

The discussion presented below focuses on the marginal impacts of the individual alternatives – the changes that would result from the alternative compared with the "no-change" 2019 condition. The marginal cost impacts of the alternatives were estimated by calculating the change in vehicle-hours and vehicle-miles of service, and applying the following marginal cost equation:

Change in Operating Costs = $27.61 X Change in Vehicle-Hours +
$1.72 X Change in Vehicle-Miles

The vehicle-hour factor is based on the contractor's proposal for 2019 costs and an expected additional increase of 15 percent, while the vehicle-mile factor is based upon the city's 2017/18 actual costs for DART vehicle fuel and maintenance increased by 2 percent to reflect inflation. These costs are used to estimate the impacts of service options and compare those impacts, as described below.

SPAN OF SERVICE ALTERNATIVES

The first series of service alternatives evaluate various changes to the span of service.

Reduce Hours of Flexroute Half-Hourly Service

DART currently operates two vehicles in flexroute service to provide half-hourly service frequency on weekdays from 7 AM to 6 PM. On Saturdays and Friday evenings, one vehicle is used to operate both routes on an hourly frequency (alternating between the two routes). Flexroute ridership on weekdays is relatively high during the morning and afternoon school "bell times", but relatively low at other times. During the mid-day the productivity of the flexroutes is 2 to 5 passengers per vehicle-hour, not achieving the performance measures. In addition, the flexroute ridership during the summer (when school is not in session) is substantially lower than during the school year. Given these factors, the following options were evaluated.

Hourly Flexroute Service on Weekdays 9 AM to 2 PM

Half-hourly service could be operated for the first two hours of the morning, with one bus operating hourly service on both routes between 9 AM and 2 PM. A review of the few sporadic DAR trips per day provided by the flexroute buses during this period indicates that they could be accommodated with a single flexroute bus.

Over the course of a year, this alternative would reduce the service vehicle-hours by 1,265 and the total vehicle-miles by 14,295, as shown in Table 30. Applying the cost equation, this alternative would reduce annual operating costs by $59,500 per year.

The ridership impact of this alternative can be evaluated using an "elasticity analysis". Based on the principles of micro-economics, elasticity analysis considers the proportionate change in ridership versus the proportionate change in a service quantity (in this case, the frequency of service). Studies of previous changes in service frequency and resulting changes in ridership conducted at transit systems across the country have yielded a good understanding of this relationship. Considering the existing ridership during the mid-day weekday ridership on the two flexroutes, the reduction in ridership would be 1,600 passenger-trips per year (5 percent of total flexroute ridership). Multiplied by the average flexroute fare per passenger, a reduction of $1,100 in fare revenue would result. Overall, operating subsidy requirements would be reduced by $58,400 per year.

Hourly Flexroute Service on Weekdays 9 AM to 11 AM

A lesser alternative would be to provide hourly service only between 9 AM and 11 AM, putting the second bus in service to provide half-hourly flexroute service between 7 AM and 9 AM and again between 11 AM and 6 PM. This option would reduce annual costs by $23,800. As this alternative would focus on the lowest existing ridership period, the loss of ridership would be a relatively low 600 passenger-trips per year (2 percent of existing ridership). Subtracting the loss of fare revenue, the overall operating subsidy would be reduced by $23,400 per year.

Table 30: DART Span of Service Alternatives Analysis

	Run Parameters		M-Th Service				Friday Service				Saturday/Holiday Service				Annual		Annual	Ridership	Fare	Operating
	Hours	Miles	Runs	Days/Yr	Hours	Miles	Runs	Days/Yr	Hours	Miles	Runs	Days/Yr	Hours	Miles	Hours	Miles	Cost		Revenues	Subsidy
Hourly Flex Route 1 and 2 Service on Weekdays 9 AM to 2 PM																				
Route 1	0.5	5.15	-5	201	-2.5	-26	-5	52	-2.5	-26	0	0	0	0	-633	-6,515	-$28,700	-1,000	-$700	-$28,000
Route 2	0.5	6.15	-5	201	-2.5	-31	-5	52	-2.5	-31	0	0	0	0	-633	-7,780	-$30,800	-600	-$400	-$30,400
Total															-1,265	-14,295	-$59,500	-1,600	-$1,100	-$58,400
Hourly Flex Route 1 and 2 Service on Weekdays 9 AM to 11 AM																				
Route 1	0.5	5.15	-2	201	-1	-10	-2	52	-1	-10	0	0	0	0	-253	-2,606	-$11,500	-300	-$200	-$11,300
Route 2	0.5	6.15	-2	201	-1	-12	-2	52	-1	-12	0	0	0	0	-253	-3,112	-$12,300	-300	-$200	-$12,100
Total															-506	-5,718	-$23,800	-600	-$400	-$23,400
Hourly Flex Route Service on Weekdays in Non-School Year																				
Route 1	0.5	5.15	-11	50	-5.5	-57	-11	13	-5.5	-57	0	0	0	0	-348	-3,583	-$15,800	-1,800	-$1,300	-$14,500
Route 2	0.5	6.15	-11	50	-5.5	-68	-11	13	-5.5	-68	0	0	0	0	-348	-4,279	-$17,000	-1,600	-$1,100	-$15,900
Total															-696	-7,862	-$32,800	-3,400	-$2,400	-$30,400
Reduce Flex Route Service to Hourly at All Times																				
Route 1	0.5	5.15	-11	201	-5.5	-57	-11	52	-5.5	-57	0	0	0	0	-1,392	-14,332	-$63,100	-2,200	-$1,600	-$61,500
Route 2	0.5	6.15	-11	201	-5.5	-68	-11	52	-5.5	-68	0	0	0	0	-1,392	-17,115	-$67,800	-2,600	-$1,800	-$66,000
Total															-2,783	-31,448	-$130,900	-4,800	-$3,400	-$127,500
Eliminate Jolly Trolley and Flex-Route Service on Saturday Evenings																				
Trolley	0.5	6.43	0	0	0	0	0	0	0	0	-6	52	-3	-39	-156	-2,006	-$7,800	-900	$0	-$7,800
Flex Route	1.0	11.3	0	0	0	0	0	0	0	0	-3	52	-3	-34	-156	-1,763	-$7,300	-100	-$100	-$7,200
Total															-312	-3,769	-$15,100	-1,000	-$100	-$15,000
Eliminate Jolly Trolley and Flex-Route Service on Friday Evenings																				
Trolley	0.5	6.43	0	0	0	0	-6	52	-3	-39	0	0	0	0	-156	-2,006	-$7,800	-1,700	$0	-$7,800
Flex Route	1.0	11.3	0	0	0	0	-3	52	-3	-34	0	0	0	0	-156	-1,763	-$7,300	-200	-$200	-$7,100
Total															-312	-3,769	-$15,100	-1,900	-$200	-$14,900
Eliminate Dinuba Connector After 6 PM																				
Dinuba Connector	1.0	17.7	-3	50	-3	-53	-3	13	-3	-53	0	0	0	0	-190	-3,359	-$11,000	-1,900	-$2,100	-$8,900
Eliminate Mon-Thur Service in the 5 PM Hour																				
Route 1	0.5	5.15	-2	201	-1	-10	0	0	0	0	0	0	0	0	-201	-2,070	-$9,100	-900	-$600	-$8,500
Route 2	0.5	6.15	-2	201	-1	-12	0	0	0	0	0	0	0	0	-201	-2,472	-$9,800	-900	-$600	-$9,200
Dinuba Connector	1.0	17.70	-1	50	-1	-18	0	0	0	0	0	0	0	0	-50	-889	-$2,900	-100	-$100	-$2,800
Trolley	0.5	6.43	-2	201	-1	-6	0	0	0	0	0	0	0	0	-201	-1,292	-$7,800	-2,400	$0	-$7,800
Total															-653	-6,724	-$29,600	-4,300	-$1,300	-$28,300

Hourly Flexroute Service on Weekdays in Summer and Winter Break

Just as the Dinuba Connector operates a limited schedule during the summer and winter break periods, hourly flexroute service could be provided throughout the weekdays when the Dinuba School District is not in session. This would result in hourly service on 63 days per year and a reduction in operating cost of $32,800 per year. Based on a review of weekday ridership during these non-school periods, ridership would be reduced by 3,400 per year. Subtracting the loss in fare revenue, subsidy requirements would be reduced by $30,400 per year. Compared to the previous alternatives, this option would be harder to communicate to the passengers and more disruptive to the overall service, as the schedule that passengers are used to would change four times per year, which might result in additional loss of ridership.

Hourly Flexroute Service at All Times

Finally, flexroute service could be limited to hourly service frequency (requiring one bus) at all times. This would need to be carefully scheduled to serve the existing student trips (largely on Route 2). It would reduce operating costs by $130,900 per year. However, 4,800 passenger-trips per year would be eliminated (16 percent). Subtracting $3,400 in lost fare revenue, operating subsidy would be reduced by $127,500 per year.

Eliminate Jolly Trolley and Flexroute Service on Saturday Evenings

A review of ridership on Saturday indicates that the Jolly Trolley carries an average of 11 passengers between 6 PM and 9 PM. (It is worth noting that Friday evening ridership is significantly higher than Saturday evening ridership.) The combined flexroute (which is required to provide ADA service for the Trolley) carries only 2 passengers per day during this period. Ending the Saturday service day at 6 PM would save $15,100 in annual operating costs. Some of the existing evening ridership would complete their round trips earlier, but others currently using the evening service to complete their trips would choose to not make their round trip. Overall, an estimate 1,000 passenger-trips would be eliminated. Subtracting the small amount of flexroute fares lost, $15,000 in subsidy requirements would be eliminated.

Eliminate Dinuba Connector Evening Service

The Dinuba Connector (during the school year) has a similar ridership pattern, with low ridership after 6 PM. In the three hours between 6 PM and 9 PM, this service carries only 6 passengers per day (5 percent of the total ridership). Stopping service at 6 PM would save $11,000 per year in operating costs. An estimated 1,900 passenger-trips would be eliminated (including passengers that stop making trips within the remaining hours of service), or 8 percent of total Dinuba Connector ridership.

Stopping service at 5:00 PM would have a bigger cost savings (a reduction of $29,600 in operating cost) but would also eliminate 4,300 passenger trips annually, eliminating $28,300 in annual subsidy.

ALTERNATIVE ROUTE ALIGNMENTS AND REDUCED FREQUENCY

DART passengers expressed a greater acceptance of reduced frequency than reduced hours of operation. The alternatives below address service frequency, which is accomplished by merging the Trolley Route with the two flexroutes. One issue which brought about this option is the inequity or perceived inequity of one route having free fares, while other routes required fares.

Revised Route Plan: Two Hourly Flexroutes

A revised route plan was developed that reduces the number of buses in operation (and associated costs) by merging the Flexroutes and Trolley route from three routes to two hour-long routes. This service plan would consist of the following:

- **Flexroute 1** – This route would serve much of the Trolley Route and also serve an area north of Monte Vista between Lincoln and Crawford which is currently served by Route 2, as well as south of Monte Vista on Crawford and Sierra Way. This route would be 12.0 miles in length (compared to the 12.9 miles the existing Trolley operates per hour).

- **Flexroute 2** – The second flexroute would serve a combination of Route 1 north of Monte Vista and Route 2 south of Monte Vista, and would be 10.4 miles.

The drivers would switch routes every other run to allow for driver breaks on the shorter Flexroute 2. This option would reduce the operating subsidy by $116,600, as shown in Table 31. Free fares would no longer be provided, so fares would increase by $11,600, reducing the annual subsidy to $128,200.

Another option for this alternative would be to also eliminate Saturday evening service after 6:00 PM, which is when ridership drops significantly. This would increase the subsidy saved to $142,000 annually.

Revised Route Plan: Two 45 Minute Flexroutes

Under this alternative, two 45 minute flexroutes were evaluated in lieu of the current services, as described below.

- **Flexroute 1** – This route would leave the transit center and serve Walmart and Dollar Tree, then serve Tulare Works, Roosevelt School and the senior Center before returning to the transit center for another loop traveling to the library, Community Center, and Wilson school. The route would be 10.0 miles in length.

- **Flexroute 2** – The second flexroute would serve Walmart, then the senior center before heading north to serve the dog park on Nebraska Avenue and Washington Intermediate School. From Crawford Avenue, the route would turn left on Monte Vista to serve the El

Table 31: Two-Bus Local DART Service Alternatives Analysis

	Run Parameters [1]		Mon - Thur Service [1]				Friday Service [1]				Saturday/Holiday Service [1]				Annual		Annual	Ridership	Fare	Operating
	Hours	Miles	Runs	Days/Yr	Hours	Miles	Runs	Days/ Yr	Hours	Miles	Runs	Days/Yr	Hours	Miles	Hours	Miles	Cost [2]		Revenues [2]	Subsidy
Existing Rt 1	*0.50*	*5.15*	*22*	*201*	*11*	*113*	*25*	*52*	*12.5*	*129*	*12*	*52*	*6*	*62*	*3,170*	*32,680*	*$143,700*	*13,700*	*$9,700*	*$134,000*
Existing Rt 2	*0.50*	*6.15*	*22*	*201*	*11*	*135*	*25*	*52*	*12.5*	*154*	*12*	*52*	*6*	*74*	*3,170*	*39,030*	*$154,600*	*15,600*	*$11,100*	*$143,500*
Existing Trolley	*0.50*	*6.43*	*18*	*201*	*9*	*116*	*24*	*52*	*12*	*154*	*24*	*52*	*12*	*154*	*3,060*	*39,310*	*$152,100*	*46,200*	*$0*	*$152,100*
Total Existing															*9,400*	*111,020*	*$450,400*	*75,500*	*$20,800*	*$429,600*
Revised Route Plan: Merge FlexRoutes and Trolley to Two Hourly Flex Routes																				
Route 1	1.00	12.0	11	201	11	132	14	52	14	168	12	52	12	144	*3,560*	42,760	$171,800			
Route 2	1.00	10.4	11	201	11	114	14	52	14	146	12	52	12	125	*3,560*	37,060	$162,000			
Total New															7,120	79,820	$333,800	45,600	$32,400	$301,400
Net Change															*-2,280*	*-31,200*	*-$116,600*	-29,900	$11,600	-$128,200
Revised Route Plan: Merge FlexRoutes and Trolley to Two Hourly Flex Routes; Eliminate Saturday Evening																				
Route 1	1.00	12.0	11	201	11	132	14	52	14	168	9	52	9	108	*3,410*	40,880	$164,400			
Route 2	1.00	10.4	11	201	11	114	14	52	14	146	9	52	9	94	*3,410*	35,430	$155,100			
Total New															6,820	76,310	$319,500	44,900	$31,900	$287,600
Net Change															*-2,580*	*-34,710*	*-$130,900*	-30,600	$11,100	-$142,000
Revised Route Plan: Eliminate Trolley; Two 45-Minute Flex Routes																				
Route 1	0.75	10.0	15	201	11.25	150	19	52	14.25	190	12	52	9	120	*3,470*	46,270	$175,400			
Route 2	0.75	8.51	15	201	11.25	128	19	52	14.25	162	12	52	9	102	*3,470*	39,380	$163,500			
Total New															6,940	85,650	$338,900	45,600	$32,400	$306,500
Net Change															*-2,460*	*-25,370*	*-$111,500*	-29,900	$11,600	-$123,100

Note 1: Assumes no changes to Dinuba Connection or DAR.
Note 2: Operating cost based on 2019/20 cost model of $27.61 per hour and $1.37 per mile.
Note 3: Assumes base flex fare at $1.00 and average collected fare of $0.71 per average received on Flex Routes 1 and 2 in 2017-18.

Monte Shopping Center, and then would return to Crawford southbound to serve Public Works before returning to the Transit Center. The route would be 8.5 miles.

The 45-minute headways are not as convenient to passengers as hourly headways, which would result in less ridership. This option would reduce the operating subsidy by $123,100, as also shown in Table 31.

Service Alternatives Performance Summary and Analysis

As summarized in Tables 30 and 31, all of the service alternatives would reduce required operating subsidy. This ranges from a low of $8,900 in subsidy savings for the elimination of Saturday evening service on the Dinuba Connection up to $142,000 in savings by operating two hourly flexroutes and ending Saturday evening service.

The impacts on annual ridership range from a loss of just 600 passenger-trips resulting from the reduction in flexroute service to hourly at peak times, to a loss of 30,600 for the revised route plan with elimination of Saturday evening service.

The results of the service alternatives analysis can be evaluated by applying the recommended performance measures to identify how well the options achieve the various standards. These performance measures are shown in Table 32. If a specific service alternative is consistent with a specific performance standard, the value is shaded (as discussed below).

Passenger-Trips per Service-Hour

The DART standard is to serve at least 8.0 passenger-trips for every vehicle-hour of revenue service. All of the evaluated alternatives reduce both ridership and service levels; therefore, a value that is less than 8.0 reflects the elimination of a service element that currently does not achieve this standard – indicating that the alternative is consistent with the standard. Of these options, the better alternatives are the reduction of flexroute service to hourly from 9 AM to 11 AM on weekday as well as the reduction of flexroute service to hourly in the non-school year, which only reduce ridership by 1.2 or 1.3 passengers for every hour of service eliminated. The worst of these alternatives is the elimination of the Trolley service and implementation of hourly flexroute, which reduces ridership by 13.1 passengers per hour of service eliminated, but also results in a large cost savings. A better option among the alternatives designed to greatly reduce operating costs is the revised flexroute with elimination of Saturday evening service, which results in a loss of 11.9 passengers per hour of service cut.

Subsidy per Passenger-Trip

The subsidy per passenger-trip is a key transit performance measure, as it relates the key public "input" (operating funding) to the key desired "output" (ridership). DART strives for fixed-route and flexroute service to require no more than $7.25 in subsidy per passenger-trip. However, because all of the alternatives are reductions in service, the better alternatives are those with the highest change in subsidy per passenger trip. Alternatives consistent with this standard are

Table 32: DART Service Alternatives Performance Analysis

	Change From Existing Service			
	Net Annual Ridership	Net Annual Operating Subsidy	Passenger-Trips Eliminated per Vehicle-Hour Eliminated	Reduction in Subsidy per Psgr-Trip Eliminated
Minimum Performance Standard [1]			*8.00*	*< $7.25*
Hourly Flex Route 1 and 2 Service on Weekdays 9 AM to 2 PM	-1,600	-$58,400	1.3	$36.50
Hourly Flex Route 1 and 2 Service on Weekdays 9 AM to 11 AM	-600	-$23,400	1.2	$39.00
Hourly Flex Route Service on Weekdays in Non-School Year	-3,400	-$30,400	4.9	$8.94
Reduce Flex Route Service to Hourly at All Times	-4,800	-$127,500	1.7	$26.56
Eliminate Jolly Trolley and Flex-Route Service on Saturday Evenings	-1,000	-$15,000	3.2	$15.00
Eliminate Jolly Trolley and Flex-Route Service on Friday Evenings	-1,900	-$14,900	6.1	$7.84
Eliminate Dinuba Connector After 6 PM	-1,900	-$8,900	10.0	$4.68
Eliminate Mon-Thur Service in the 5 PM Hour	-4,300	-$28,300	6.6	$6.58
Revised Route Plan: Merge FlexRoutes and Trolley to Two Hourly Flex Routes	-29,900	-$128,200	13.1	$4.29
Revised Route Plan: Merge FlexRoutes and Trolley to Two Hourly Flex Routes; Eliminate Saturday Evening	-30,600	-$142,000	11.9	$4.64
Revised Route Plan: Eliminate Trolley; Two 45-Minute Flex Routes	-29,900	-$123,100	12.2	$4.12

Note 1: Values achieving the recommended performance standards do so by eliminating existing services, which do not meet current standards, as shown in green.

shaded in green in Table 32, with the best performing option operating the flexroute hourly during off-peak hours (9 AM to 11 AM). The poorest performing is eliminating the Trolley service and implementing two hourly flexroutes, which reduces the subsidy by just $4.12 per passenger trip. Eliminating Saturday evening service in addition to this option reduces the subsidy by $4.64 per passenger trip, which is a better option.

CONCLUSION AND RECOMMENDATION

While the smaller changes to DART services generate better performance, they are insufficient at lowering operating costs to the extent required. Based on projected performance of

alternatives, feedback from City of Dinuba staff, and extensive public outreach, the following service changes are recommended for implementation:

- Eliminate Trolley Service
- Operate Two Hourly Flexroute Loops in Dinuba
- No changes to Dinuba Connection
- Eliminate the Last Run of Saturday Service

These recommendations are included in the Chapter 10, along with the capital plan and financial plan.

Public Outreach Summary

Throughout the project, public outreach was an important aspect of guiding the plan. The first efforts at outreach included a decision-makers survey, where participants were asked a series of questions about transit and the direction it should take. Answers were provided either in writing or verbally, and indicated support for transit, but concern for managing costs and serving those with the greatest need (seniors, low income, persons with disabilities). Another early effort involved onboard passenger surveys to determine trip patterns, as well as passengers' opinions of current services and desires for improvements. Passengers were generally pleased with the service.

The public input contrasted the desire for fiscal conservatism with the desire for expanded service, particularly to additional areas and also Sunday service. The plan includes additional service areas, but based on ridership patterns, it was determined Sunday service would not be fiscally viable, and in fact, reduced Saturday service is recommended based on a sharp decline in Saturday evening ridership.

A public workshop was held in March of 2019 to seek additional input on developed service alternatives, and individuals expressed a need for service to the neighborhood around Viscaya Parkway, so this was added to the route alternatives.

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INTRODUCTION

The provision of public transit services requires a substantial investment in vehicles, facilities and equipment. This chapter presents the ongoing needs of the transit program as well as any potential new capital needs related to the service alternatives. In particular, this chapter discusses the vehicle replacement needs, facility needs (maintenance and operations), and passenger amenities needs (transit centers and bus stop improvements), and typical costs for these capital items.

TRANSIT VEHICLES

Fleet Improvement Plan

Upgrading the transit fleet is a crucial element in sustaining transit service. Two vehicles (Bus 5 and 6 in Table 24) have replacements on order, leaving five vehicles which will reach the end of their useful life within the next five years, and three more which will expire within the next ten years. However, given that the service alternatives include discontinuation of the Jolly Trolley, Bus 4 (the trolley) and Bus 11 (the Goshen which operates as a back-up to the trolley) will not need to be replaced. Before the costs associated with these acquisitions can be defined, it is important to define a strategy to address the statewide shift to zero-emission bus technology.

Zero Emission Bus Technology

Dinuba's transit fleet is currently fueled by Compressed Natural Gas (CNG). While the transition from traditional fuels to CNG has reduced the transit system's environmental impacts, the California Air Resource Board (CARB) is in the process of developing new regulations (the "Transit Fleet Rule") that are expected to ultimately require all public transit fleets in the state to use only Zero Emission Bus (ZEB) vehicles. ZEB technologies consist of Battery Electric Buses (BEBs) and hydrogen fuel cell buses. As hydrogen fuel is not cost-effective for smaller transit systems, this effectively requires a shift to BEB transit vehicles. In December 2018, CARB published the most recent proposed revisions to the Transit Fleet Rule. As a system operating less than 65 peak vehicles, DART is considered a "small transit agency" for purposes of the Rule. Key milestones for small transit agencies are currently drafted are as follows:

- Starting January 1, 2026, 25 percent of total new bus purchases in a calendar year must be ZEBs. As the rules allow rounding to the nearest integer, purchases of at least 2 vehicles in a year require purchase of a ZEB.

- Starting January 1, 2029, all new bus purchases must be ZEBs.

Importantly for Dinuba, the draft regulations require certain findings to be met for purchase of cutaway vehicles. In the current Dinuba fleet, a number of the existing vehicles are considered

cutaways. At present, there are no vehicles in this class that have been certified by the Federal Transit Administration's testing program, located in Altoona, Pennsylvania. As only vehicles that have passed "Altoona Testing" can be purchased with federal funds, the CARB draft Fleet Rule indicates that ZEB vehicles are only required for cutaway vehicle purchases if ZEB cutaway vehicles have passed this testing.

CARB Rollout Plan

Transit agencies must submit a "Zero-Emission Bus Rollout Plan" to CARB, detailing the type and schedule of vehicles to be purchased, charging station equipment, funding sources, and other requirements. This must be submitted and approved by July 1, 2023.

Technology and experience for battery-electric transit vehicles are still fairly new. Some larger transit systems and mid-sized system have purchased battery-electric buses, with any more on order. Recharging BEB's can either occur at the fleet operations facility (generally overnight using a slow charging station), or along the route at stops where at least 10 minutes of time are available (using an overhead fast-charging technology). As an example of cost, Marin County recently purchased two battery-electric vehicles for $1.6 million. The cost includes purchase of the buses, GPS and fare collection equipment purchase and vehicle inspections.

Beyond the issue of vehicle cost, a key factor regarding battery electric buses is the potential range between charges. Buses with a range of 120 – 150 miles have been available for several years; this is consistent with a full day of service on the DART routes (except the Dinuba Connection, which exceeds this length). However, these claims do not reflect the requirements to also power onboard heating and cooling systems – an important consideration in Dinuba's hot summers. Some manufacturers have recently announced new technology that can operate up to 350 miles between charges.

A ZEB fleet will also require charging equipment. These can take the form of slow-charge stations at the vehicle storage facility (for charging overnight) or fast-charge facilities at the Transit Center, which typically require 10 minutes to provide sufficient charge for an hour's operation. Identifying the appropriate charging strategy and location requires addressing a number of issues:

- Is there adequate space for charging equipment to be installed at the Transit Center and/or the vehicle storage area?

- Would fast-charging during the operating day be possible without delaying transit routes?

- Other transit systems have found that providing adequate charging capacity requires very extensive upgrades in the electrical system both on-site as well as in nearby power substations and supply lines, such as an upgrade from a 240 volt service to a 480 volt service. What is the electrical supply available at the two locations, and what are the cost implications of any necessary system upgrades?

- For major power users (such as a transit system with full BEB fleets), electrical rates typically vary by load and by time of day. What are the long-term operating cost impacts of various charging scenarios?

Defining the best BEB strategy for the Dinuba transit program will require a detailed study, focusing on the electrical engineering and cost implications of the charging options. The overall results of this study should be a BEB implementation plan that minimizes costs to the local jurisdictions, maintains a good quality of service to the passengers and achieves the environmental benefits of BEB technology as it matures.

Recommended Transit Fuel Strategy

There are several reasons why the city of Dinuba should take a "go slow" strategy with regards to the initial implementation of BEBs for the DART system:

- At present, there are no available smaller vehicles that have met Federal testing requirements that are of an appropriate size for Dinuba's services.

- The BEB industry is changing very rapidly, both in terms of the available technology as well as the individual manufacturers.

- As a smaller system, Dinuba can less afford to expend funds on changing technologies than can larger transit systems. It is better to monitor the experience of larger transit systems with BEBs over the next few years and learn from this experience.

- Implementing the appropriate charging systems will take time for analysis and construction, as well as working with the utility company.

Total Fleet Improvement Costs

Based on the discussion above, the first ZEB purchase is planned to occur in 2027/28. After that date, all purchases are assumed to be ZEB (minimizing the period when DART is incurring the costs of providing fueling and maintenance for both electric and CNG vehicles). This assumes that by 2027/28, there are smaller vehicles of appropriate size that have passed the Federal testing program. BEB vehicles currently cost on the order of $200,000 more than the CNG vehicle price. Including an inflation factor of 2.3 percent per year, over the coming 10-year planning period the total cost of vehicle purchases is estimated to equal $1,132,000, as shown in Table 33. As most capital grants require a 20 percent match, this equates to $226,400 of local funds over the ten year period.

Table 33: Fleet Requirements												10-Year Plan Total
In Thousands	*Plan Period (by Fiscal Year)*											
Plan Element	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29	
Flex Route Vehicles												
Fuel	CNG			CNG								
Number of Buses	2	0	0	1	0	0	0	0	0	0	0	1
Total Cost [1]	*$273*	*$0*	*$0*	*$163*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	*$0*	$163
DAR Vehicles												
Fuel			CNG				CNG	CNG		ZEB		
Number of Vehicles	0	0	2	0	0	0	1	1	0	1	0	5
Total Cost [1]	*$0*	*$0*	*$258*	*$0*	*$0*	*$0*	*$178*	*$183*	*$0*	*$350*	*$0*	$969
Total Vehicle Needs	$273	$0	$258	$163	$0	$0	$178	$183	$0	$350	$0	$1,132

Note 1: All costs include 2.3 percent annual inflation, in thousands of dollars.
Source: LSC Transportation Consultants, Inc.

PASSENGER FACILITIES

Passenger facilities include all equipment and amenities that serve the passenger as they access the bus. This includes bus stop shelters, benches and signs, information kiosks, pedestrian amenities and transfer centers. The quality of passenger amenities is a very important factor in a passenger's overall perception of a transit service. Depending on the trip, a passenger can spend a substantial proportion of their total time using the transit service waiting at their boarding location. If this is an uncomfortable experience, if it is perceived to be unsafe, or if it does not provide adequate protection from winter rain or summer sun, the bus stop can be the deciding factor regarding a potential passenger's use of the transit system.

Bus Stops and Shelters

The City of Dinuba currently has 15 installed shelters, plus shelters at the Transit Center. Given the small size of the transit system, the passenger amenities are generous. Typically, a stop with five passenger boardings per day is considered to warrant a bench and a stop with 10 or more boardings per day warrants a shelter. There are exceptions for locations which have higher-than-average boardings by seniors or persons with disabilities. Currently, nearly half of the stops have a shelter, and additional shelters are in storage ready for installation.

Dinuba Transit Center

The City of Dinuba owns the Transit Center, which is the hub of transit activity. The Transit Center is used by DART and Tulare County Area Transit, and includes a park-and-ride lot with shaded parking under solar panels. The facility includes a conference room, several small office spaces, two bathrooms with multiple stalls, and an open high-ceilinged waiting area. The facility is nicely maintained and landscaped.

Until recently, the city had a staff person working out of an office at the transit center part time. However, this position has been moved to the Public Works offices on E. Kamm Avenue

and the space is now vacant. Another office space is occupied by transit contract staff. The conference space is only occasionally used. The City of Dinuba is faced with an opportunity to determine the best use of the available space which could generate additional revenue through rent. Given the primary purpose of the space as a transfer point and contractor operations, complimentary uses might include businesses or entities which reach out to the transit-riding public or those seeking information about the city. This might include social services or the Chamber of Commerce for example. For example, the City of Merced transit center includes space for the local transit system "The Bus," as well as for Greyhound and the California Welcome Center.

TECHNOLOGY

Automatic Vehicle Location

Automatic Vehicle Location (AVL) is technology which identifies and transmits the geographic location of the vehicle. Most AVL systems are satellite Global Positioning System (GPS) based. AVL allows the transit system to track schedule adherence and transit travel patterns with various mobile applications (such as DoubleMap or NextBus), as well as collect extensive data useful in planning services. Systematic updates to software and hardware for a transit system's AVL system are continuously needed. Should Dinuba wish to take advantage of this technology, the cost per vehicle for installing AVL is typically approximately $8,000. There currently is no funding available for this, though the new Measure R transit allocation may be considered in the future.

Online Fare Payment Software

In a wired society, more people are looking for online payment options, and transit fares are no exception. The ability for passengers to pay for a fare online potentially saves them time, provides a simple, secure payment method, and increases the likelihood that they will use transit. Currently, DART passengers are limited to paying for fares on the bus, at Public Works or Reedley College.

In order for Dinuba to establish online payment, DART would need to acquire software enabling payments to be made. As an example, RouteMatch provides a payment app using a third party to process credit card payments. The Transit Administrator can set up payment accounts on behalf of passengers, or passengers can set up accounts themselves and add money. Developing a program for the specific needs of a transit agency is not typically a turn-key product, and can take many months of planning and staff time. A recent proposal identified a cost for fifteen vehicles of $57,000 for the first year of operation, and $11,000 maintenance for each subsequent year, as well as a fee on processing each transaction (in the range of 3% of the transaction totals). Dinuba would likely face similar costs to implement online payments, which would ultimately be a benefit to the passengers and administrators. This also could potentially be funded through new Measure R funding.

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INTRODUCTION

Transit funding is obtained from multiple sources, with the most prominent being from Federal and state grant and other programs. Transit funding (not including passenger revenues), particularly in California, can be complicated due to the many available sources. The following is a summary of the potentially available funding sources to the City of Dinuba for transit, and an overview of the status of the funding source, where applicable.

FEDERAL FUNDING SOURCES

The Federal Transportation Administration has numerous grant programs available to transit agencies for both operating and capital assistance. Eligibility in many programs is dependent upon population, distinguishing between "urban" and "nonurbanized" areas for funding allocations. Those applicable to the City of Dinuba are FTA 5311, 5310 and 5339; each of these is discussed in detail below.

FTA Section 5311 Formula Grants for Rural Areas

The Formula Grants for Rural Areas program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000, where many residents often rely on public transit to reach their destinations. The program also provides funding for state and national training and technical assistance through the Rural Transportation Assistance Program.

FTA Section 5311(f) Formula Grants for Rural Areas – Intercity Bus Program

The 5311 program requires each state dedicate 15 percent of its apportionment for an intercity bus program. In March, 2018, Caltrans published an assessment of the Intercity Bus Program, including a revision of funding criteria for projects. The City of Dinuba does not currently receive 5311(f) grants for intercity bus service, but FCRTA receives approximately $1.5 million annually for intercity routes. The Dinuba Connection, which links the cities of Reedley and Dinuba, as well as providing access to regional transportation and to educational and medical facilities, would likely score well under 5311(f) criteria. The City of Dinuba should consider applying for 5311(f) funds for the Dinuba Connection Route, either individually or in conjunction with FCTRA.

FTA Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities

FTA funds are also potentially available through the Section 5310 Elderly and Persons with Disabilities Program (largely vehicles), which is administered by Caltrans. This program is designed to improve the mobility of seniors and disabled persons, and monies are apportioned

based on population. FTA 5310 requires a 50 percent local match for operating expenses, and a 20 percent match for capital expenses.

FTA Section 5339 Bus and Bus Facilities

The Grants for Buses and Bus Facilities is a Federal grant program for recipients to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities. Funding is provided through formula allocations and competitive grants. A sub-program provides competitive grants for bus and bus facility projects that support low and zero-emission vehicles.

There are three components to this program. The first is a continuation of the formula bus program established on under MAP-21. The remaining two components include the bus and bus facilities competitive program based on asset age and condition, and a low or no emissions bus deployment program. A pilot provision allows designated recipients in in urbanized areas between 200,000 and 999,999 in population to participate in voluntary state pools to allow transfers of formula funds between designated recipients during the period of the authorized legislation.

Congestion Mitigation and Air Quality Improvement Program

The CMAQ program provides a flexible funding source to state and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas). The City of Dinuba projected a CMAQ grant of $131,024 for 2018 – 19.

STATE FUNDING SOURCES

Local Transportation Funds

A mainstay of funding for transit programs in California is provided by the Transportation Development Act (TDA). The major portion of TDA funds are provided through the Local Transportation Fund (LTF). These funds are generated by a one-fourth cent statewide sales tax, returned to the county of origin. The returned funds must be spent for the following purposes:

- Two percent may be provided for bicycle and pedestrian facilities per TDA statues.
- The remaining funds must be spent for transit and paratransit purposes, unless a finding is made by the SJCOG that no unmet transit needs exist that can be reasonably met. (Article 4 or 8)

- If a finding of no unmet needs reasonable to meet is made, remaining funds can be spent on roadway construction and maintenance purposes. (Article 8)

The City of Dinuba used $378,905 of LTF in 2017 – 18, $319,230 (projected) in 2018 – 19 and $292,282 for 2019 – 20 for transit purposes.

State Transit Assistance (STA) Funds

In addition to LTF funding, the TDA includes a State Transit Assistance (STA) funding mechanism. The sales tax on gasoline is used to reimburse the state coffers for the impacts of the 1/4 cent sales tax used for LTF. Any remaining funds (or "spillover") are available to the counties for local transportation purposes.

Annually, TCAG apportions STA funds to eight claimants. The apportionment for Dinuba for the 2018 – 19 FY (and the five years thereafter) is $250,000.

Low Carbon Transit Operations Program

The Low Carbon Transit Operations Program (LCTOP) is an element of the Transit, Affordable Housing, and Sustainable Communities Program established under Senate Bill 862 by the California Legislature in 2014 and renewed in November 2018 via the ballot. LCTOP was created to provide operating and capital assistance for transit agencies to reduce greenhouse gas emission and improve mobility, with a priority on serving disadvantaged communities.

Approved projects in LCTOP support new or expanded bus or rail services, expand intermodal transit facilities, and may include equipment acquisition, fueling, maintenance and other costs to operate those services or facilities, with each project reducing greenhouse gas emissions. For agencies whose service area includes disadvantaged communities, at least 50 percent of the total moneys received are to be expended on projects that will benefit disadvantaged communities. Five percent of the annual auction proceeds in the Greenhouse Gas Reduction Fund (Fund) are allocated for LCTOP.

The amount available to Tulare County is less than $475,000 annually, with $49,200 available to Dinuba in 2018 – 19. Dinuba pools this money with Visalia, and in turn, TCAG grants a higher level of LTF funds to Dinuba.

SB 1 State of Good Repair

In April, 2017, Senate Bill 1, a landmark transportation funding package, was signed into law. This measure was in response to California's significant funding shortfall to maintain the state's multimodal transportation network. SB 1 increased several taxes and fees to raise over $5 billion annually in new transportation revenues. SB 1 prioritizes funding towards maintenance and rehabilitation and safety improvements on state highways, local streets and roads, and bridges and to improve the state's trade corridors, transit, and active transportation facilities. In addition, an estimated $350 million will be available in public transit funding each year. Approximately $250 million will be added to the State Transit Assistance Program, and $105

million will be available through the State of Good Repair (SGR) program annually. In 2018 – 19, Dinuba received $35,687 which the city uses to fund vehicle maintenance expenses.

LOCAL FUNDING SOURCES

Measure R

On November 7, 2006, the voters of Tulare County approved Measure R, imposing a 1/2 cent sales tax for transportation within the incorporated and unincorporated area of Tulare County for the following 30 years. The transportation measure will generate slightly more than $652 million over 30 years to Tulare County's transportation needs. A portion (14 percent) of Measure R funds are be used for transit, bikes, and environmental mitigation projects. The goal of the transit funding is to expand and enhance public transit programs that address the transit dependent population.

DART has used Measure R funds specifically to support the Dinuba Connection. In Fiscal Year 2018 – 19, the City of Dinuba has budgeted revenues of $182,500 from Measure R, but this included planning funds, and the annual amount is typically around $52,500.

Advertising Revenues

Many transit systems typically use advertising on their vehicles and at passenger facilities to raise additional revenue. Advertising on the outside of buses raises the most revenue, followed by advertising at shelters or on benches. Interior advertisement on buses may bring in significant revenue in urban and smaller urban areas. One reason advertising on buses is so attractive to advertisers is that buses are highly visible and provide a "traveling" advertisement, while it can also be used by the transit system to "brand" itself. Dinuba anticipates receiving advertising revenue of approximately $10,000 annually. This amount can be deducted from overall operating costs which has the impact of slightly improving the overall fare box return ratio.

Facility Lease

The City of Dinuba owns the Transit Center. In past contracts, the city has provided space at the transit center without charge to the contractor for DART services. However, leasing the space would provide much needed operating revenue, which in turn boosts the calculated farebox return ratio. Moving forward, the City of Dinuba should include the lease as part of the contract cost.

Passenger Revenues

An important (and required) source of funding for DART is passenger fares. The TDA requires that a minimum 10 percent fare box return ratio is maintained (the percentage of operating cost covered by fare revenue). If the 10 percent minimum is not maintained, other local

revenues must be used to account for the difference. The fare structure for DART services has been reviewed, as discussed below.

Fare Alternative: Eliminate Free Fares

The free fares on the Trolley service were originally intended to encourage residents to use transit to patronize businesses. However, over the years this has shifted to use for a variety of trip purposes. While 63 percent of surveyed passengers ride the Trolley for shopping[4], passengers also use the Trolley for school, work and going to the senior center. Offering free service in some areas of town and not others creates inequity in the fare structure and access to services. This is particularly true given the revised route alignments where both routes serve both residential and commercial areas. Finally, the farebox return ratio is close to the minimum required, indicating a need to increase fare revenues. For these reasons, it is recommended free fares should be eliminated.

Fare Alternative: No Change to Fares on the Dinuba Connection

Fares could potentially be increased on the Dinuba Connection service. The Dinuba Connection fares are $1.50 for the general public, $1.25 for seniors, military and students aged 6 to 17, and $0.50 for ADA eligible passengers. Additionally, seniors and Reedley College students can purchase 20-ride punch passes for $25.00 (equivalent to $1.25 per one-way trip). The Dinuba Connection is among the best performing services in terms of ridership per hour (7.7, with the Trolley performing best at 15.0) and in terms of farebox return ratio (18.4 percent, with DAR performing at 18.5 percent). Additionally, the city has an agreement with Reedley College for purchasing reduced fares. The current fare structure is appropriate, and no changes are recommended.

Fare Alternative: Increase General Public DAR Fares and Student/Youth Fares

The Dinuba DAR (DAR) fares currently are $1.50 for the general public, $1.25 for seniors, military and students aged 6 – 17, and $0.50 for ADA eligible passengers. General Public 10-ride passes are available for $15.00 and senior/student 20-ride passes are available for $25.00. The majority of fare types used on the DAR are youth fares (45 percent) and student passes (13 percent). While this results in a strong farebox return ratio at 18.5 percent, it puts a strain on the demand for DAR services, particularly during peak morning and afternoon times. The city would like to ensure services remain affordable and available to seniors and persons with disabilities. Furthermore, the DAR fares are much lower than among peers in the county, which have general public DAR fares ranging from $3.00 to $5.00 (on average, 167 percent higher than DART DAR fares), and discounted fares ranging from $2.00 to $2.50 (80 percent higher than DART DAR fares). To ensure that DAR services remain available for those who need it most, fare options were reviewed, below.

[4] Per surveys conducted in Fall 2018

Under this option, the General Public DAR fares (currently $1.50) would be increased to $2.50, which is still $0.50 lower than the next lowest peer (TIME DAR). Youth and student fares, which are not distinguished from general fares among County peers, would increase from $1.25 to $2.00. The impacts of these changes are shown in Table 34. By applying an elasticity formula to these changes, it is estimated that the increased fares would result in a reduction of 2,150 passenger trips annually. However, with higher fares, the revenue would be expected to increase by $5,360 annually.

Table 34: DART Dial-a-Ride Fare Analysis

Dial-a-Ride One-Way Base Fares [1, 2]	Fare Level		Annual Passengers			Fare Revenue			Marginal Revenue per Passenger-Trip Eliminated
	Existing	New	Existing	New	Change	Existing	New	Change	
General Public Fares	$1.50	$2.50	2,570	2,100	-470	$3,860	$5,250	$1,390	$2.96
Student Pass [3]	$25.00	$40.00	2,110	1,700	-410	$2,640	$3,400	$760	$1.85
Student Fares	$1.25	$2.00	7,670	6,400	-1,270	$9,590	$12,800	$3,210	$2.53
Senior / Military Fares	$1.25	$1.25	1,800	1,800	0	$2,250	$2,250	$0	NA
ADA Paratransit Fares	$0.50	$1.00	1,820	1,400	-420	$910	$1,400	$490	$1.17
Free [4]	$0.00	$0.00	680	680	0	$0	$0	$0	NA
Total			16,650	14,080	-2,570	$19,250	$25,100	$5,850	$2.28

Note 1: Assumes Flex Route base fares remain at $1.00 base fare; Dinuba Connection fares remain unchanged.
Note 2: Eliminates General Public 10-ride pass due to low useage.
Note 3: Student passes currently sold for $25 for 20 rides; new fares would be $40 also for 20 rides.
Note 3: Free fares = accompanyed children 5 and under on DAR.

Fare Alternative: Increase ADA Paratransit Fares

Currently, the DART DAR paratransit fare is $0.50, which is half of what is charged on TCaT, and 85 percent lower than other peers in Tulare County, and is also the same as the ADA fares on the DART flexroutes. While Dinuba wants paratransit to be affordable, DAR fares should reflect the more costly curb-to-curb service provided. As shown in Table 34, increasing the ADA fares to $1.00 per passenger (more than a 50 percent discount over full fares) would result in a reduction of 420 passenger trips annually, but an increase of $490 annually in fare revenue.

DAR Fare Impacts and Recommendation

The combined impacts of the fare options would result in a decrease in ridership of 2,570 passenger trips (a 15 percent loss). Fare revenue would increase by $5,850 (a 30 percent increase). As also shown in the table, for every passenger trip eliminated, revenue increases by $2.28 per passenger trip overall. Increasing the General Public Fare has the best net increase per passenger trip lost ($2.96). Furthermore, the increases in fares on DAR would encourage some passengers to use the flexroute services in preference to DAR, and would be in greater alignment with peer transit systems in the County.

MARKETING

Transit marketing is a challenge for most small transit systems due to the limited staff and budget available. Dinuba is no exception. Marketing tools to make the most of available resources are discussed below.

Marketing Tools

Branding: Transit vehicles and bus stops/amenities are a transit system's form of "packaging." They are the most visible and cheapest communication tool. The image they create is a reflection of how the public views the transit system.

DART uses white buses with "City of Dinuba" on the sides and overhead panel. Businesses often purchase space on the sides of buses where they apply full panel advertisements, which overwhelm the bus's identification. The identifying signs on the buses are not very distinctive, nor are they uniform. The buses include the "City of Dinuba" mountain logo in grey, blue and white, rather than the DART logo which is gold, white and two hues of blue with an arrow design and the words "DART" with "Dinuba Area Regional Transit" underneath. Furthermore, the trolley is red and green, with "City of Dinuba" in small gold letters over "Jolly Trolley" which is in large gold letters. The "DART" logo is used on brochures, but not consistently on the vehicles. This lack of consistency is a missed opportunity for emphasizing the DART name and creating a consistent representation of the system.

Passenger Information/Riders Guide: There are several printed guides for DART services, several of which are also available online in Portable Document Formats (PDFs). These include:

- *Dinuba Transit Center/Dinuba Connection Flyer:* This is a tri-fold print document (not online) with "Dinuba Transit Center" in a circle (matching the sign at the transit center), followed by the title "Dinuba Area Regional Transit" and then by "Dinuba Connection" and the statement "Get to Reedley from Dinuba!" The first panel notes where the route stops in Dinuba and in Reedley, and notes the partnership with FCRTA. The brochure includes a route map with time points and a schedule. Inside also has a DART logo and the Transit Center logo.

  The back of the brochure provides general information, hours of operation, fares, and contact information. The colors are similar to the logo colors, but with more green hues. The fonts are a completely different style than used for the logo and Rider's Guide.

  It should be noted that the Dinuba Connection provides bi-directional service. Initially implemented as a service to get students to Reedley College (in Reedley, and at a satellite campus in Dinuba), it is also used to get Reedley passengers to Walmart in

Dinuba. The line "Get to Reedley from Dinuba" should be rephrased as "Get connected between Reedley and Dinuba" or something similar.

- *DART System Map (October 2017):* A comprehensive fold-out System Map is provided on in full color. The front has the DART logo and title "System Map" with a photo of the trolley, and contact information as well as a Google map logo and a "Green Line" logo and phone number. The Green Line is a bus information help line. The system map has much the same information as the 2016 guide, but is much better organized and laid out. The colors match the logo. The map is superimposed on a street map with schools and activity centers identified. The route schedules are color-coded to match the routes on the map. The stops are numbered on the map and on the schedules. This is a very comprehensive and effective brochure. This document is not posted online.

Passenger Information/Online Information**:** The transit web page is found under a link on the City of Dinuba's home page. The transit webpage has a photo of the transit center, contact information, and links to further information, including the Dinuba Connection 2017 summer schedule, and home pages for each of the County's transit systems. Google transit links are provided for each of the routes to provide trip planning. A link also provides a notification of rights under Title VI. This web page provides sufficient information.

Testimonial Advertising: Transit systems inevitably have grateful passengers. The city should let riders tell their stories. This can be done as a newspaper story, as part of a flyer or poster, or as a radio spot. The operator should identify regular passengers on the transit system (a single mom, a student, a disabled passenger, a local leader, etc.) and ask why they ride, what they like about the service, and how transit personally helps them. Sharing this with the public can be inspirational and put the transit system in a positive light. In particular this can be helpful in showcasing the benefits to students and commuters riding transit.

Public Presentations: Public speaking is the ultimate low cost marketing tool. It shows confidence in your message and is a great image builder (if done well). It puts a face on the transit organization. It can be done interactively so that the speaker can answer questions and convey customized information. The target audience would likely be seniors, students, social service program clients, and employee groups. Presentations to schools and Reedley College, businesses, employers, social services, senior residences, senior centers, and neighborhood associations would therefore be appropriate. The presentation can be tailored for non-users as well. Speaking to members of civic and business organizations enables the transit agency to set up an identity as part of the community. It is also useful to present to decision makers and elected officials to maintain a positive image.

Bus Displays: The information on internal bulletin display boards on the buses and trolley are highly visible to passengers. It is important that the information contained within these displays is attractive, informative and quickly conveys information.

Social Media

Mirroring the rest of society, transit services are increasingly using social media as part of a comprehensive marketing strategy. Social media is found by transit agencies to be particularly useful in communicating with existing riders (keeping "brand loyalty" by distributing real-time information about services, in particular), as well as distributing general service information. It has been found to be relatively effective in reaching everyday riders (such as commuters) as well as students/young adults, and moderately effective in reaching minorities, persons with disabilities, and seniors.

One potential issue with social media is concern over loss of control of the conversation, as the public responds to social media posts in negative or inappropriate ways. This can be controlled by focusing social media efforts on "outgoing" messages (such as real-time service information bulletins), and posting a policy to only respond to comments received through more controlled channels, such as phone calls or email.

A more significant issue is the staff time needed to conduct social media marketing. Given the limited funding available to DART and the competing funding needs, it would be important that any efforts at enhancing social media be limited to no more than a few hours per week of staff time.

Summary of Marketing Strategies

Marketing of small urban transit systems is almost always underfunded due to limited funds, and Dinuba is no exception. The transit program must make the best use of funding to maximize its message at the lowest cost and with limited administrative staff available for the tasks. The most cost-effective marketing efforts discussed in this chapter include:

- Improved branding (particularly with the purchase of replacement vehicles) and upkeep of vehicles and bus stops to ensure a positive image of transit.
- Maintenance of the website to ensure information is current and easily navigable
- Continue publishing and making available print materials
- Regular messaging through social media
- Testimonial articles and/or radio spots
- Outreach to schools and senior centers

INSTITUTIONAL CONSIDERATIONS

Coordination with Regional Providers

Transit programs are enhanced when one can make successful connections to another. The City of Dinuba should continue to work in coordination with the FCRTA, TCAT and V-Line to enhance service at the local and regional levels. Coordination efforts should include facilitating transfers at the Dinuba Transit Center and sharing information about each providers' services (links to providers are included on the Dinuba web page, and brochures are available in the Transit

Center). The more information operators and staff know about each other's services, they better they are able to inform the public about regional and local connections.

Consider DART Operations through TCAG

A Coordinated Transportation Plan is currently being conducted on behalf of Tulare County and all transit operators within the county. One option being considered is consolidation of services under one entity (for example, through a joint powers agreement). The idea has some benefits and drawbacks, which are summarized below:

Benefits of Transit Operations Provided by Tulare County

- Transit services throughout the county would be better coordinated if operated by one entity.
- City of Dinuba staff would not be required to be "experts" in transit planning, transit grant applications and capital procurement.
- The county might be in a stronger bargaining position with third-party contractors given that the overall service would be larger.
- The City of Dinuba would not need to develop an RFP process and hire a third-party contractor every three to five years.

Drawbacks of Transit Operations Provided by Tulare County

- The City of Dinuba would lose direct control over the quality of service provided.
- Costs of providing transit might increase, and the availability of TDA funds for streets and roads might decrease.
- Tulare County might not be as responsive to the desires of local residents as Dinuba is likely to be.

These benefits are currently being explored, and therefore the recommendation of this TDP is to await findings from the study before determining the best direction for the City of Dinuba. Additionally, preliminary findings of the study indicate that the City of Dinuba has a higher level of service than its peers in the County. This was a finding in the TDP process as well, and has resulted in recommendations for reduced service frequency.

INTRODUCTION

The following plan presents service changes, capital improvements, management plan elements and marketing and financial strategies to address public transit services in Dinuba within the constraints of realistic funding projections. This chapter presents the individual plan elements in brief, based on the discussions presented in previous chapters; the reader is encouraged to refer to previous chapters for additional background on the plan elements. The overall plan features are presented graphically in Figure 22.

SERVICE PLAN

Faced with increased operating costs and decreasing ridership, the Dinuba Transit services are not sustainable under the current service plan given current funding outlooks. Therefore, the service plan focuses on allocating resources to continue to provide a high level of transit coverage (and even increasing service area) while reducing frequency to levels more typical in communities the size of Dinuba. This strategy is paired with changes to the fare structure to encourage passengers to use the more cost-effective fixed-route service, to provide equitable fares for residents of all areas of Dinuba and to ensure the curb-to-curb DAR services are available to those who most need it.

Changes to Route Services

Under the service plan, the Dinuba Connection (which has shown sustained ridership) will remain unchanged. The Jolly Trolley (which has shown the greatest decrease in ridership) and the current 30-minute flexroutes will be restructured into two hourly routes serving Dinuba. These routes will extend to new areas in northern and southern Dinuba, and will provide the ability to serve the new High School once it is constructed. Saturday service (both the flexroutes and complementary DAR) will be eliminated after 6:00 PM due to low ridership. These changes to the routes are estimated to result in a loss of 30,600 passenger trips annually, primarily due to the reduction in service frequency and the elimination of free fare service, though service to currently unserved areas in north and south Dinuba will generate a small increase in ridership. Service hours will be reduced by 2,580 per year, saving $130,900 annually. Increased fare revenues will result in a total reduction in operating subsidy of $142,000 annually. (Refer to Table 31 in Chapter 6 for details.)

Changes to Fare Structure

Currently, the Dinuba Trolley service is offered free of charge. While the trolley service is concentrated in the commercial core, it still provides free service to some residential areas while residents of other neighborhoods are served only by flexroutes with fares, which is inequitable. Furthermore, fares for curb-to-curb DAR service are very low relative to the

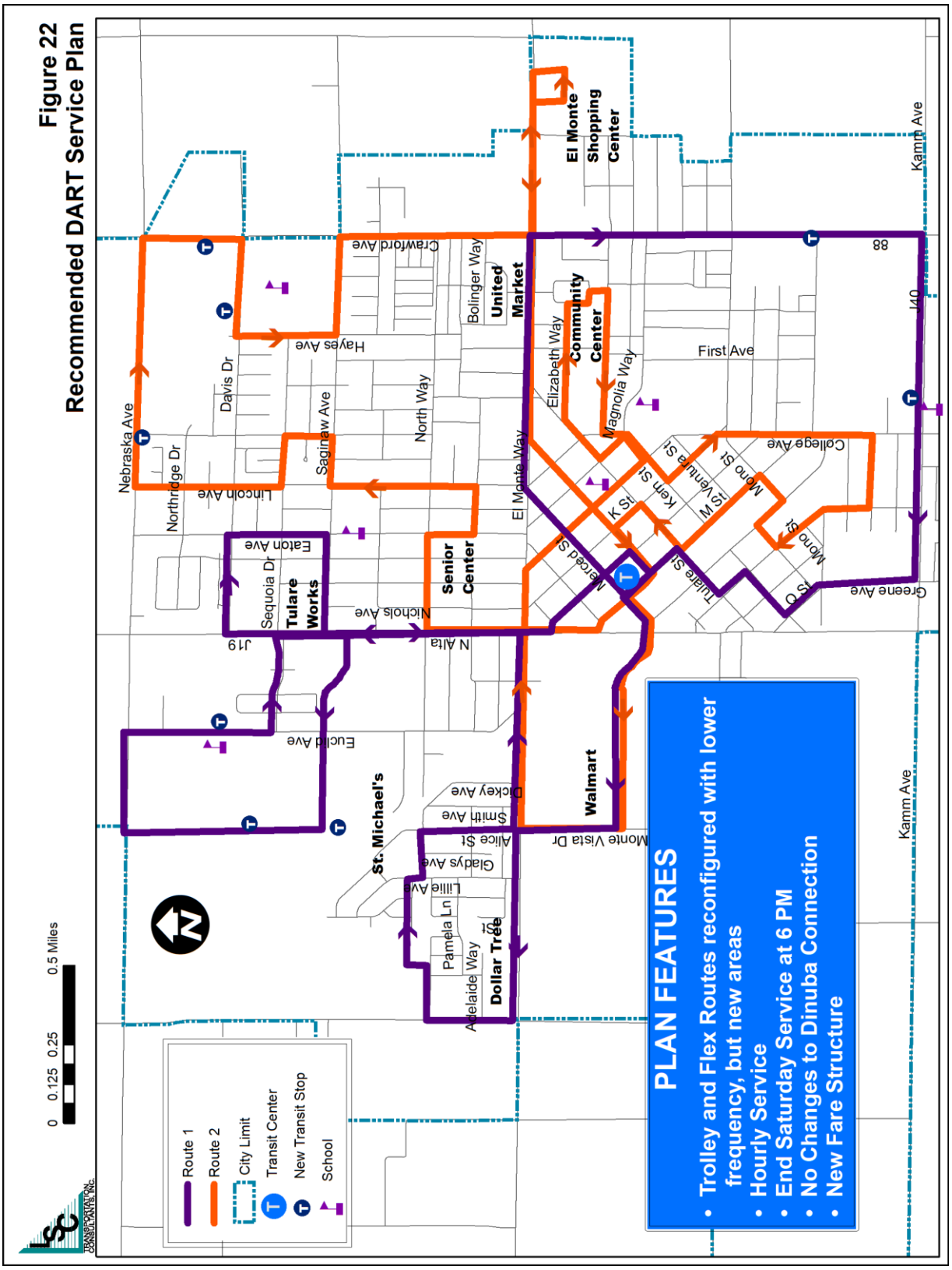

Figure 22
Recommended DART Service Plan

flexroutes and compared to other DAR services in the region[5]. In order to make the service more equitable by area and by type of service, the following fare changes will be implemented (as discussed in more detail in Chapter 8):

- Free fares will be eliminated and flexroute fares will be applied to the two new hourly routes.

- General Public fares on DAR will be increased to $2.50 per passenger trip, student fares increased to $2.00 and ADA eligible fares to $1.25.

The impacts of the fare changes will be a loss of 2,670 one-way passenger trips each year, but an increase in fare revenue of $5,850.

Overall, this service and fare plan will reduce annual ridership by an estimated 33,200 or 29 percent. Despite cuts to service, the operating cost will increase due to increased contractor costs, but the new service plan will cost approximately $145,000 less than the status quo level of service would have cost at the new rates. In addition, this plan will make service more equitable (providing a consistent service to all neighborhoods of Dinuba) and will greatly help to ensure the long-term viability of the transit program.

CAPITAL IMPROVEMENTS

Transit services require ongoing capital investment in facilities and rolling stock. Capital investments in both vehicles and passenger amenities can also attract additional riders, while improving the quality of service and safety/security of existing riders. With elimination of the Trolley service, the capital plan focuses on replacement of the Flexroute, Dinuba Connection and DAR vehicles, as was presented in Table 33 in Chapter 7, and discussed below.

- Vehicles: Dinuba will need to replace one Flexroute/Dinuba Connection vehicle and five DAR/Dinuba Connection vehicles in the next ten years, at an estimated total cost of $1.1 million. The replacement vehicles will be CNG fueled until the first Battery Electric Bus purchase in 2027 (per state requirements).

- Bus Stop Improvements: The City of Dinuba has shelters at nearly half of the current stops, with another 12 shelters in storage ready to install. The recommended route plan serves new areas; as ridership trends develop in the next several years stops, those that warrant a shelter should be identified. Typically, a stop which has 5 or more boardings daily warrants a bench and a stop with 10 or more boardings warrants a shelter. However, this varies. Stops with high boardings but short wait times may not warrant a shelter, whereas a stop with fewer passengers but which serves seniors or persons with disabilities or requires a longer wait time may warrant a shelter.

[5] Single-ride DAR fares are $2.50 on KART, $2.25 discounted or $4.00 general public on Visalia Transit, $2.50 discounted or $5.00 general public on Porterville's Dial-A-COLT

Other capital purchases which the City of Dinuba should consider which would enhance services consist of the following:

- Automatic Vehicle Location technology, which allows passengers to obtain real-time information on the location of the buses through their computer or phone. It is also useful for dispatchers to manage the system. This would cost on the order of $8,000 per vehicle.

- Online fare purchasing software, which allows passengers to purchase passes/tickets on line and avoid the existing burden of traveling to specific locations during business hours to obtain passes. This would likely cost in the range of $57,000 initially, along with ongoing transaction fees, but is a common request among the riders and would benefit the system.

These items are not included in the financial plan, but would be warranted and should be pursued if funding opportunities arise.

MARKETING PLAN

The marketing ideas outlined in Chapter 9 should be implemented, with the priority on the following:

- Improved branding and upkeep of vehicles and bus stops to ensure a positive image of transit.

- Maintenance of the website to ensure information is current and easily navigable.

- Continue publishing and making available print materials, particularly at senior housing, social service agencies, schools, and other locations which serve transit dependent populations.

- Regular messaging through social media.

- Outreach to schools and senior centers

INSTITUTIONAL PLAN

Adopt Updated Goals and Performance Measures

The City of Dinuba staff should review the goals, objectives and standards presented in Chapter 3 and adopt performance measures which are in line with current operating conditions while still providing appropriate incentives to improve services.

Monitor Coordination Opportunities

As mentioned in Chapter 9, a Coordinated Transportation Plan is currently being conducted on behalf of Tulare County and all transit operators within the County. The City of Dinuba should consider the options identified in the study, and determine if recommendations from the study meet the goals of Dinuba's transit vision.

FINANCIAL PLAN

The following methodology was utilized in developing this Financial Plan, as summarized in Table 35:

- First, forecasts of annual operating and administrative costs were developed based on the projected cost formula for variable costs ($27.61 per vehicle hour plus $1.72 per vehicle mile). These were applied to the revised route plan shown in Table 31 (the option to eliminate the trolley and replace it with two hourly flexroutes, as well as eliminating Saturday evening service). The Dinuba Connection and DAR hours and miles are not expected to change. Also included are fixed costs ($26,820 per month, including rental of the transit center) for contract costs as well as the City of Dinuba's administrative costs, and a 2 percent annual rate of inflation is assumed. The operating cost for the recommended service plan for FY 2019/20 through FY 2024/25 is shown in Table 35. Operating costs are estimated at $1,136,000 in 2019/20, increasing to $1,254,000 in 2024/25.

- Next, revenues were estimated based on historic trends of revenue use, the most recent budget projections and fare estimates based on service parameters and recommended fare increases. Rental income for contractor use of the transit center is included. LTF is adjusted to cover the cost of the transit program not covered by other revenue sources, with any remaining amount applied to either capital reserve or available for streets and roads. This provides for a balanced budget for each year of the plan, with between 39 and 40 percent of the operating cost covered by LTF, and between 41 to 48 percent of LTF available for non-transit uses.

- Table 35 also includes estimates of the capital cost for vehicles for each year of the TDP. It should be noted that an annual inflation rate of 2 percent is also reflected in these figures. The capital costs total $599,000 over the six-year period. This does not include costs for AVL or online fare purchasing, though Dinuba may decide at a later date to pursue these projects.

This Financial Plan incorporates the following funding sources:

- Fare revenues, based on the elimination of free trolley service, and increases in DAR fares.

Table 35: Dinuba TDP Financial Plan

Numbers in Thousands	*Fiscal Year*						
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	Total
OPERATING PLAN							
Operating Costs							
Dinuba Connection [1]	$188	$192	$196	$199	$203	$208	$1,186
Flex Routes [1]	$320	$326	$332	$339	$346	$353	$2,015
Dial-a-Ride [1]	$104	$106	$108	$110	$112	$114	$654
Fixed Costs - Contract [2]	$322	$328	$335	$342	$348	$355	$2,030
Fixed Costs - City of Dinuba [3]	$203	$207	$211	$215	$220	$224	$1,280
Total Operating Costs	**$1,136**	**$1,159**	**$1,182**	**$1,206**	**$1,230**	**$1,254**	**$7,166**
Operating Revenues							
Passenger Fares [4]	$82	$84	$86	$87	$89	$91	$520
LTF Transit [5]	$440	$455	$465	$476	$486	$497	$2,818
STAF Grant [5]	$250	$250	$255	$260	$265	$271	$1,551
FTA 5311 [5]	$201	$204	$208	$212	$216	$220	$1,261
Tulare Co Receipts (TCaT) [5]	$22	$22	$23	$23	$24	$24	$138
Fresno County (Dinuba Connection) [5]	$61	$64	$65	$66	$68	$69	$394
Miscellaneous [5, 6]	$17	$18	$18	$18	$19	$19	$108
Bus Advertising	$10	$10	$10	$10	$11	$11	$62
Measure R [7]	$53	$53	$53	$53	$53	$53	$315
Total Operating Revenues	**$1,136**	**$1,159**	**$1,182**	**$1,206**	**$1,230**	**$1,254**	**$5,912**
CAPITAL PLAN							
Capital Costs (From Table 33)	$0	$258	$163	$0	$0	$178	$599
Capital Revenues							
FTA 5339 - Vehicles [6]	$0	$207	$130	$0	$0	$142	$479
LTF -- For 20% Local Match	$0	$52	$33	$0	$0	$36	$120
Total Capital Revenues	$0	$258	$163	$0	$0	$178	$599
LTF SUMMARY							
Anticipated LTF Allocation [7]	$1,064	$1,075	$1,086	$1,097	$1,108	$1,119	$6,549
Total LTF Expenditures (Op & Cap)	$440	$507	$498	$476	$486	$532	$2,938
Anticipated Unallocated TDA Revenues	$625	$568	$588	$621	$622	$586	$3,611

Note 1: Using cost equation of $27.61 per revenue hour and $1.72 per revenue mile, plus annual inflation of 2.0 percent.
Note 2: Assumes fixed contract cost of $25,475 monthly and $1,345 Transit Center Lease, plus 2.0% annual inflation.
Note 3: "Dinuba Transit budget 2018-19.pdf". Includes employee services, allocated costs, non-contracted operating costs.
Note 4: Passenger Fares assuming new service (Table 31) and new fares (Table 34) implemented in September 2019.
Note 5: "Dinuba Transit budget 2018-19.pdf" projections for 2019/20 and 2020/21, with 2.0 percent inflation in years thereafter.
Note 6: Revenue from leasing Transit Center to contract operator is included in "Miscellaneous"
Note 7: Measure R is projected to remain flat (no inflation).
LTF - Local Transportation Fund *STAF - State Transit Assistance Fund* *FTA - Federal Transit Administration*
Source: LSC Transportation Consultants, Inc.

- Local Transportation Funds for ongoing operating costs.
- State Transit Assistance for ongoing operating costs.
- FTA Section 5311, Rural funds for ongoing operating costs.
- Receipts from TCaT and FCRTA ticket sales.
- Measure R for ongoing operating costs.

- New Measure R for expanded services.
- Miscellaneous revenues (advertising, rental space at the Transit Center, etc.) for ongoing operating costs.
- FTA 5339 (Formula Capital Program) funds vehicle purchases.
- Local Transportation Funds are also used for matching funds for vehicle purchases.

As shown, both the operating financial plan and the capital financial plan are balanced in each of the plan years. While the annual total LTF requirements will vary over the plan period, it will remain within the total LTF available to the City of Dinuba, with between $568,000 and $625,000 projected to be available for other purposes each year (or 41 to 48 percent of LTF funds). LTF revenues will cover approximately 39 to 40 percent of operating costs each year, while STAF will cover approximately 22 percent and FTA 5311 will cover approximately 18 percent of operating costs. Fare revenues will cover approximately 15.0 percent of revenues each year, compared to approximately 13.0 percent currently.

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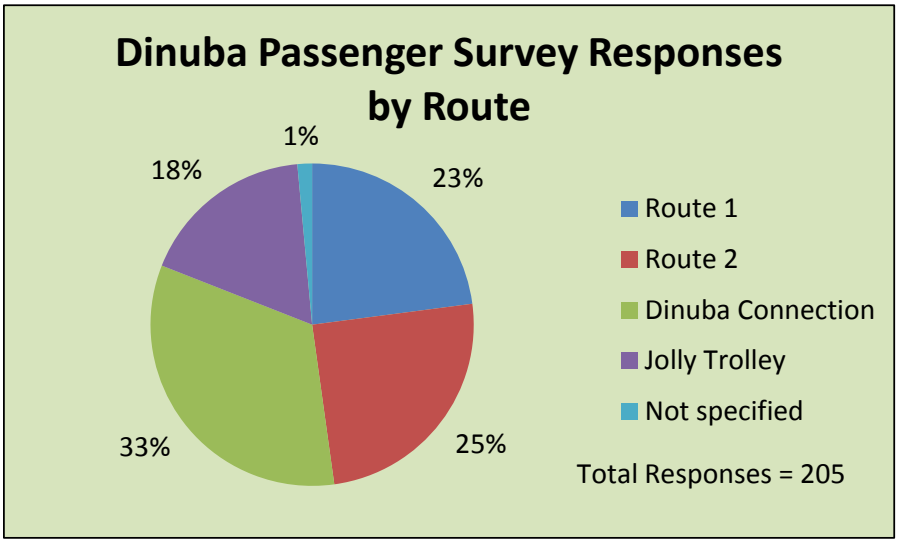
Dinuba Transit Development Plan Appendix A: Onboard Survey Results

Onboard passenger surveys were conducted in October, 2018 on the DART services. Passenger surveys were handed out and collected by trained surveyors on all routes, and by drivers on the Dial-a-Ride. The results of the survey effort are provided in this appendix, with highlights provided in the text of the SRTP.

The survey instruments consisted of a one-page questionnaire in English on one side and Spanish on the reverse side, printed on card stock. The surveys included a simple introduction, with 15 questions on the fixed/flex routes, and Trolley survey and12 questions on the Dial-a-Ride.

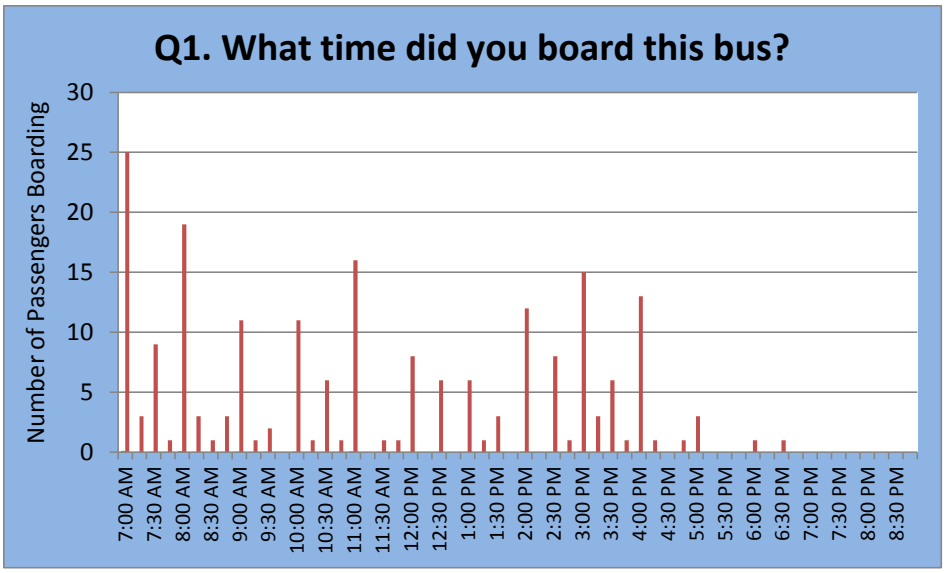
DART Fixed Route Survey Results

A total of 205 passengers participated in the survey (41 in Spanish and 164 in English). Not all respondents answered all questions, but some provided multiple answers (when the survey allowed). A third of respondents were provided on the Dinuba Connection, and approximately a quarter each on Routes 1 and 2, with 18 percent on the Jolly Trolley. Three surveys were not identified by route.



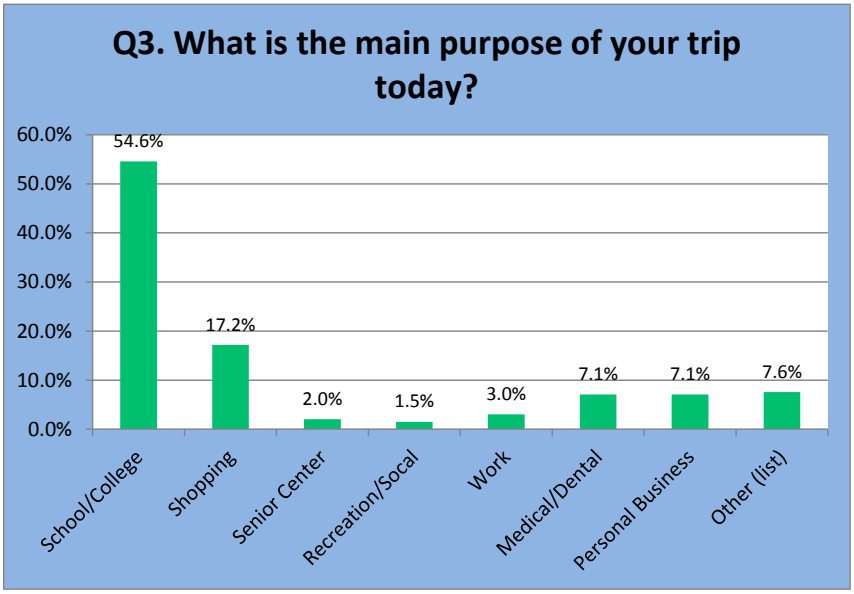
Each question notes the number of individual and multiple responses.

Q1. Time of Boarding (205 individual responses): The highest rate of response was in the morning, especially the first run of the day. Very few passengers answered in the late afternoon or evening.



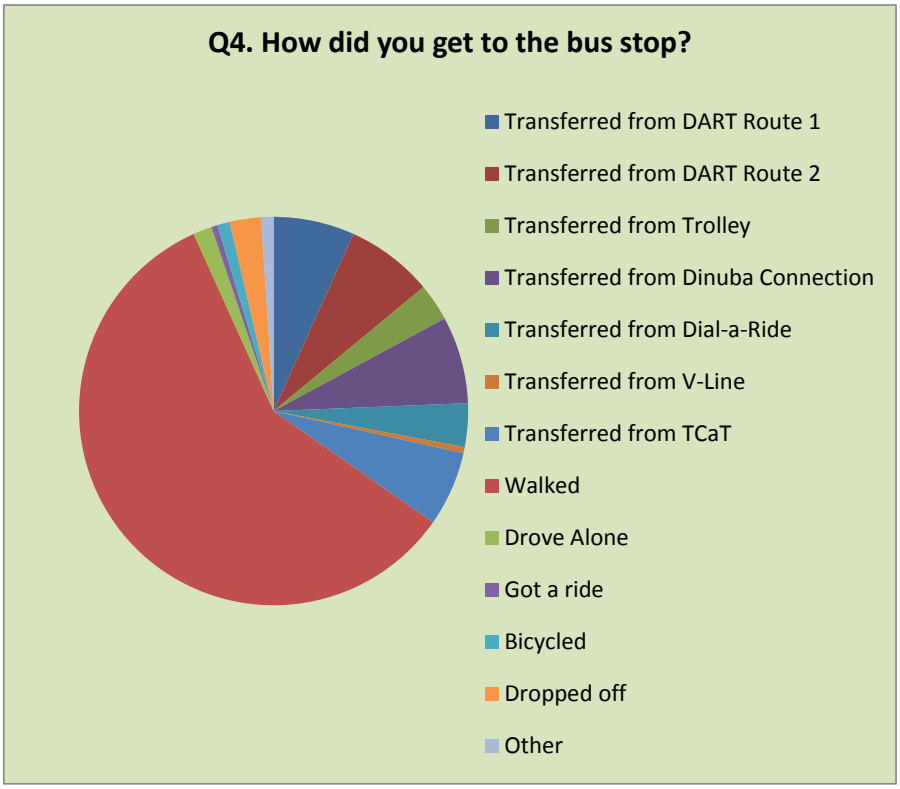
Q2. Boarding locations (169 individual responses): Boarding locations were concentrated at several key stops: the Dinuba Transit Center (a third of all boardings); Reedley College (15 percent of boardings); and 6 percent each at Tulare Works and Walmart.

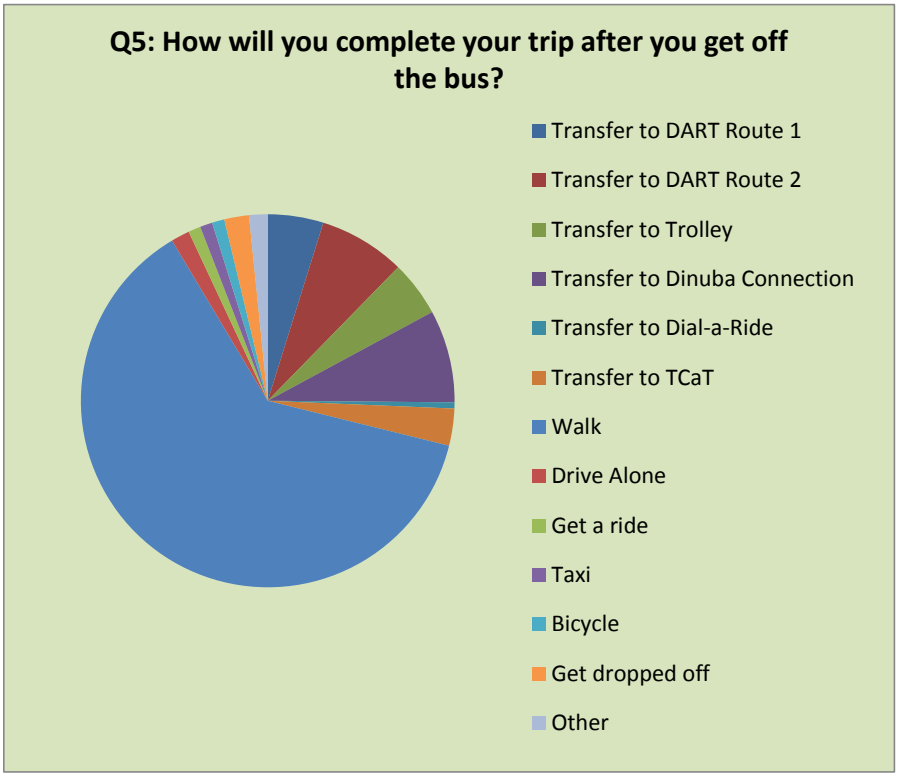
Q3: Trip Purpose (198 responses): The most common trip purpose was for school or college (54 percent of all trips, followed by shopping, and then equal numbers for medical/dental and personal business.



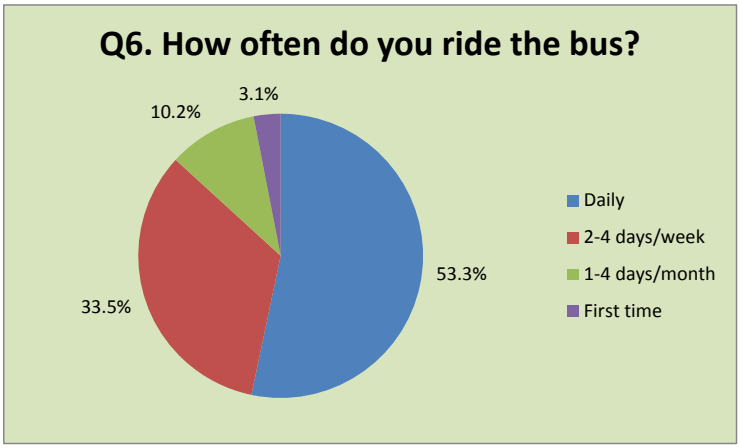
Q4 (193 responses) and Q5 (187 responses). Mode to and from stops: Passengers were asked how they arrived at their stops or how they planned to continue their trip after alighting. In both cases, the majority walked (59 percent to get to stops, 62 percent after getting off at their

stops). In addition, 34 percent said they transferred to get to the bus, and 29 percent said they planned to transfer after getting off the bus.

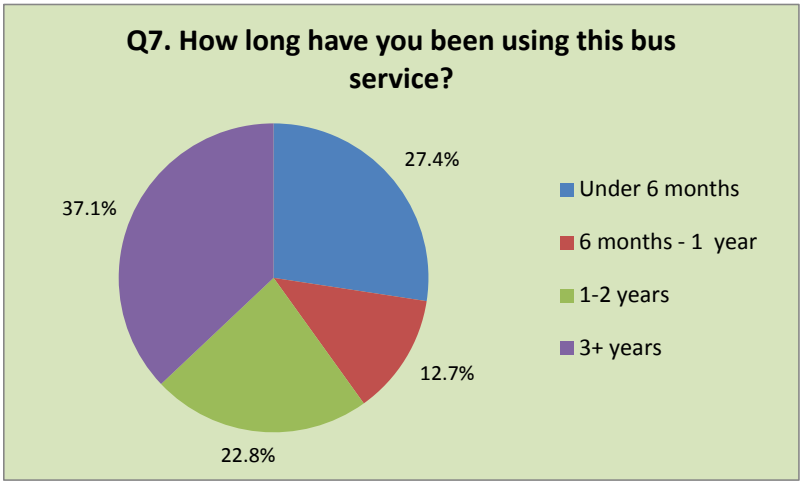




Q6. Frequency of Use (197 responses): Asked how often they ride the bus, 53 percent of respondents said they ride daily, and another 34 percent said they ride 2-4 days per week, indicating a high regular use by passengers.

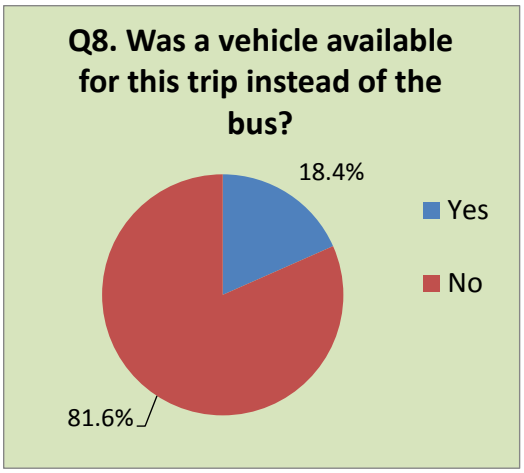


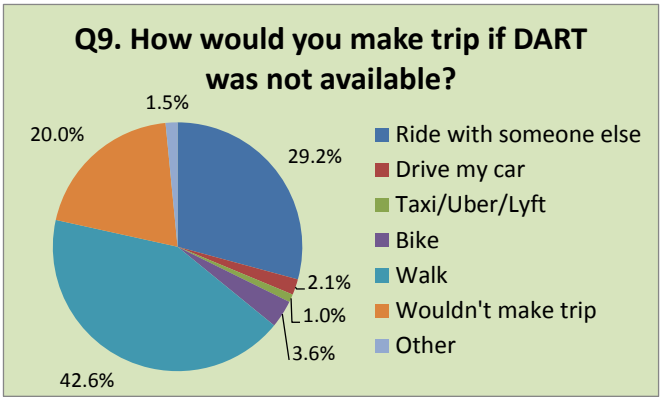
Q7: Length of Time Using Transit (197 responses): Over a third of passengers have used transit for more than three years, and another 22 percent have been using it for 1-2 years, indicating a loyal base of users. However, 27 percent have been using it for under six months and 12 percent have been using it for 6 months to a year, reflecting that new ridership is also being generated.



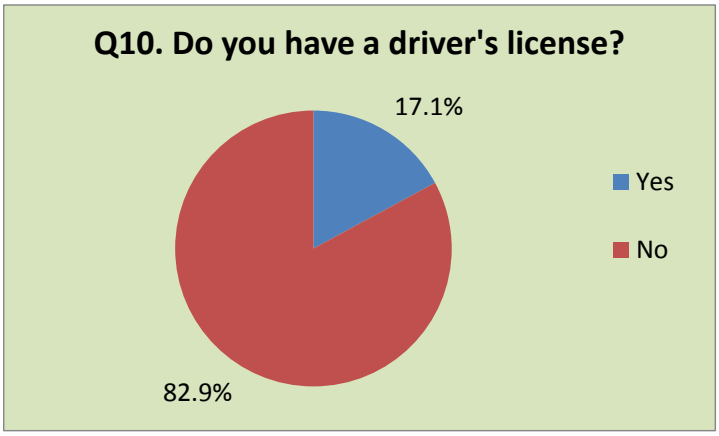
Q8. Vehicle Availability (31 responses): 82 percent of passengers said they did not have a car available for their trip, indicating a high transit dependency. Many of the survey respondents were youth under the age to drive as well.

Q9. Transportation Options (195 responses): If transit were not available, nearly a third of respondents said they would walk instead, while 20 percent said they would not have made the trip and 18 percent said they would have someone drive them.

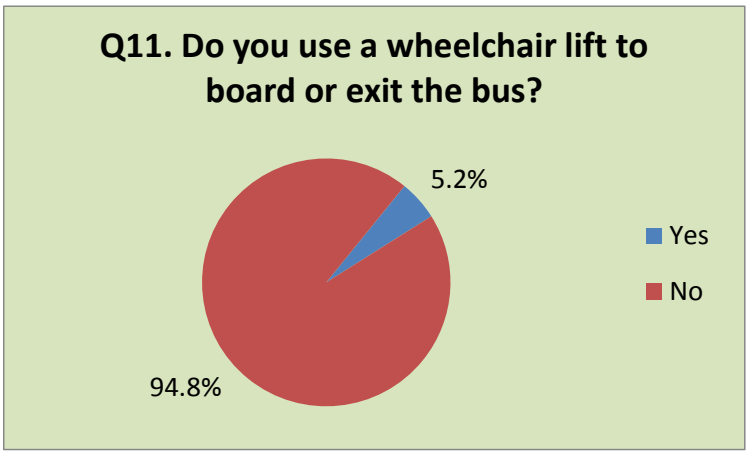




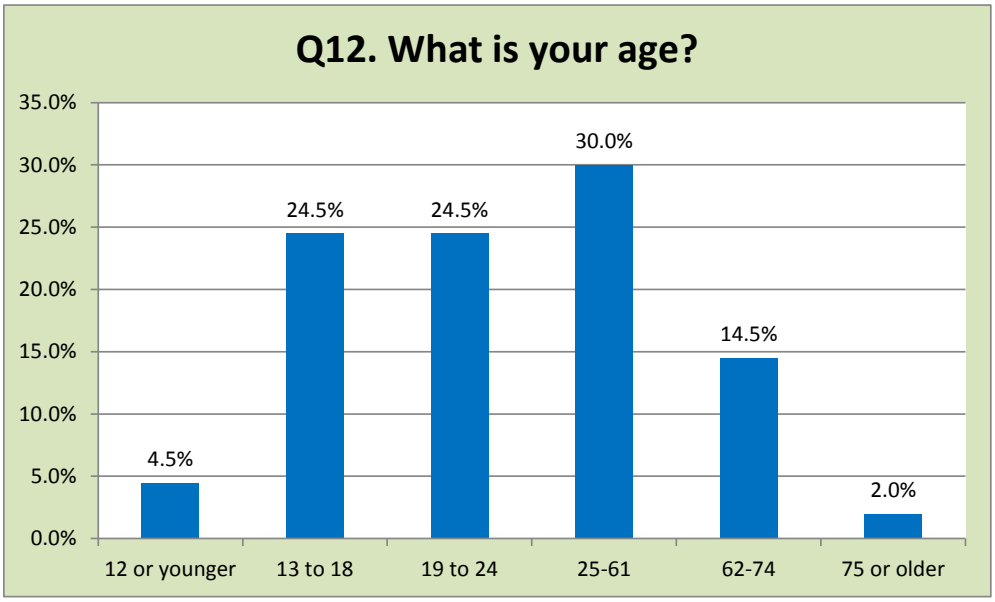
Q10. Driver's license (187 responses): 83 percent of passengers said they do not have a driver's license. This reflects a high transit dependency.



Q11: Use of mobility device (192 responses): 10 individuals (5 percent) said they use the wheelchair lift to board or exit the bus.

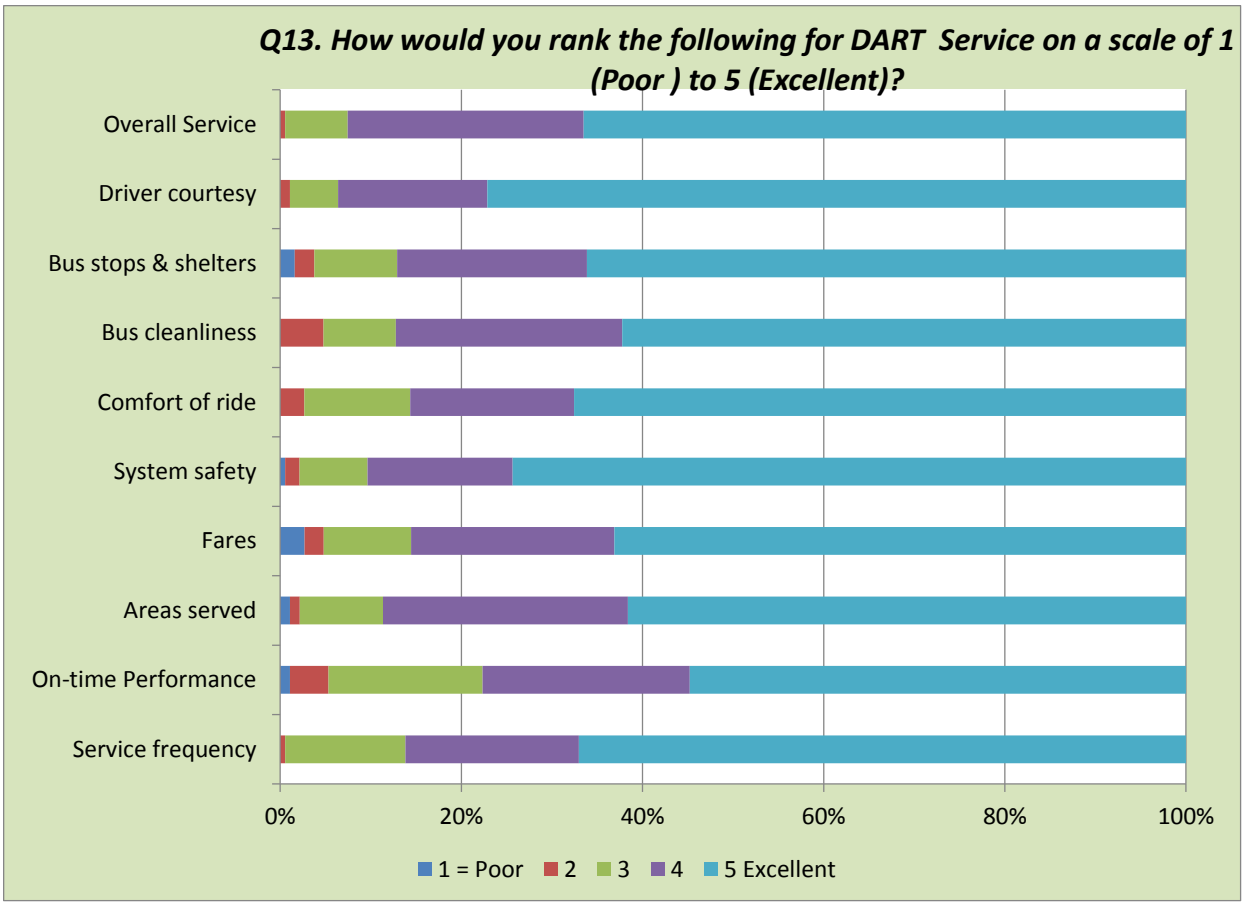


Q12: Passengers by Age Group (200 responses): More than a quarter of survey respondents were youth under 18, but 55 percent were adults age 19 to 61, and 17 percent were seniors (including 2 percent over the age of 74).



Q13. Ranking of Services (185 to 188 responses per ranking): Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. In all, 87 percent of responses were ranked as 4 (good) or 5 (excellent), and the overall service ranked an average of 4.6. A total of 92 percent of respondents indicated they considered overall DART service to be "excellent" or "good". The highest ranked factors included driver courtesy (4.7) and system safety (4.6). Lowest ranking were on-time performance (4.3), fares (4.4) and bus cleanliness (4.4), but these were all still "good."

Q14: We may need to make transit cuts due to rising costs. Please check the one option that is most acceptable to you and the one option that is least acceptable: (184 respondents/485 "most" acceptable and 530 "least" acceptable): Despite a request to select one "most acceptable" and one "least acceptable" change, most survey respondents selected multiple choices per column. The heat table below indicates the service options which passengers find least acceptable (in red) to most acceptable (in green). As indicated, passengers are opposed ending service earlier on weekdays and starting later on weekdays. The most acceptable change would be to operate the Trolley hourly on both Saturdays and weekdays.



Q14. Most and Least Acceptable Changes?

	Acceptability	
	Most	Least
Stop service earlier on weekdays	31.3%	68.7%
Start service later on weekdays	29.7%	70.3%
Stop service earlier on Saturday	51.8%	48.2%
Start service later on Saturday	50.7%	49.3%
Operate Routes 1 and 2 hourly on weekdays	56.7%	43.3%
Operate Jolly Trolley hourly on weekdays	59.0%	41.0%
Operate Jolly Trolley hourly on Saturdays	58.7%	41.4%

Q15. Desired Improvements (69 respondents): Passengers were asked to list specific improvements they would like to see in an open-ended format. The request most repeated was for larger buses (8 passengers) followed by better on-time performance (6 passengers) and lower fares and Sunday service (5 responses each).

Q15. What improvements would you like to see?

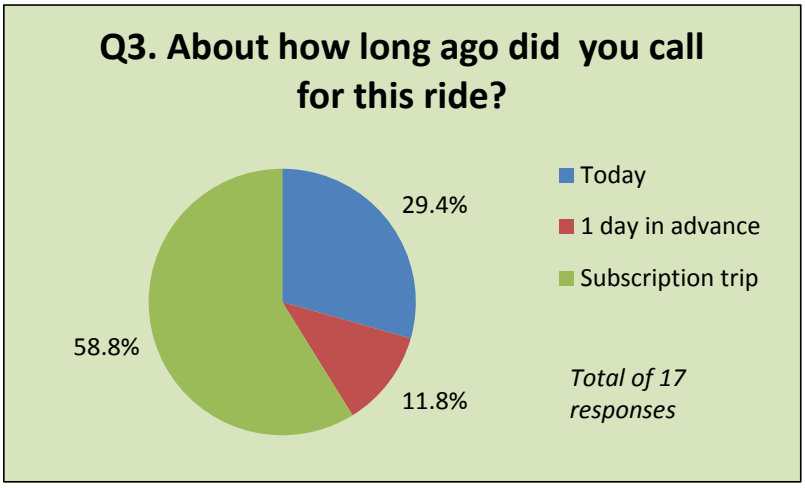
Better communication between drivers	1
better transfer DC to Route 2	1
Bigger buses	8
Cleaner	3
Closer bus stop	1
DC at Alta and Griggs	2
Driver courtesey	2
fix noisy wheelchair	1
Food on buses	2
increased area	1
Keep DC hours	1
keep frequency on Route 1 and 2	1
Later to Reedley	1
Later weekdays	1
Longer weekdays	2
Lower fares	5
Maps for people	1
More benches	1
more buses	1
More school routes	1
more seat room	2
More signage	1
more stops	3
more time	1
On-time	6
operable windows/secure emergency windows	3
passengers can't save spots	1
Pick up passengers at stops	1
Provide Trolley for those who need rides	1
Saturday service DC	1
start later	1
stop near south side of Dinuba	1
Sunday	5
Wifi	1
Other	4
Total	69

Dinuba Dial-a-Ride Survey Results

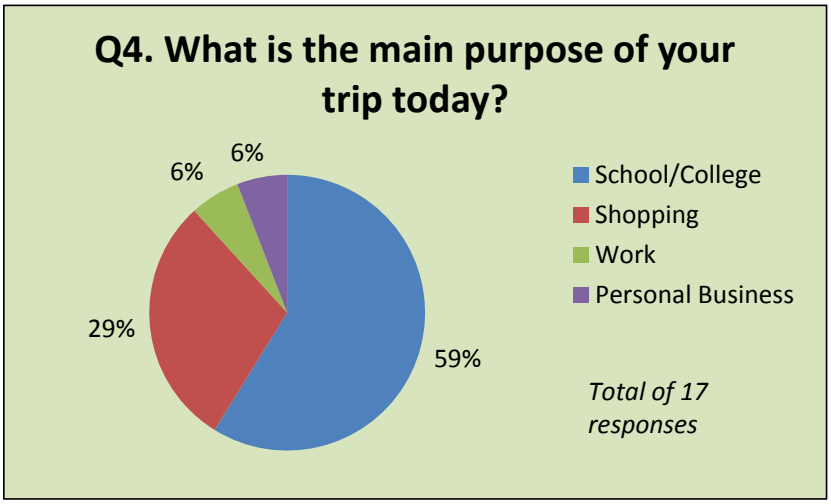
A total of 17 passengers participated in the survey (all in English). Each question summarized below notes the number of individual and multiple responses.

Q1. Time of Boarding (17 individual responses): All of the respondents answered surveys before 1:00 PM, with most responding mid-morning or around 12:30-1:00 PM.

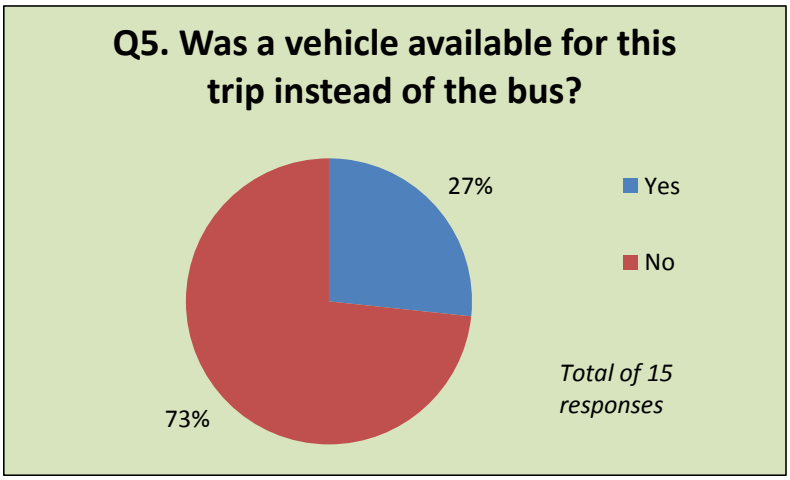
Q2&3. When was your reservation? Passengers seemed not to understand this question. **How long ago did you call for this ride?** 10 of the 17 respondents said they had a subscription reservation, and 5 said they called the same day of the ride.



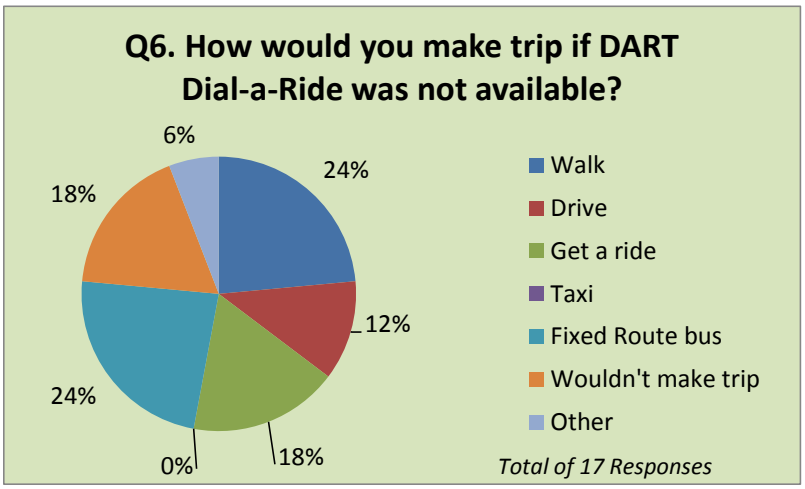
Q4: Trip Purpose (17 responses): The majority of passengers were using DAR for school trips (10 of 17) followed by shopping. None were for medical or dental, and 1 each was for work and personal business.



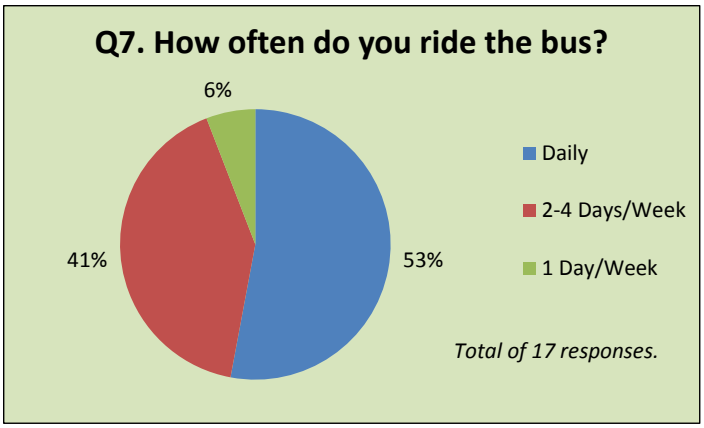
Q5: Vehicle availability (15 responses): About a quarter of respondents said a vehicle was available for their trip.



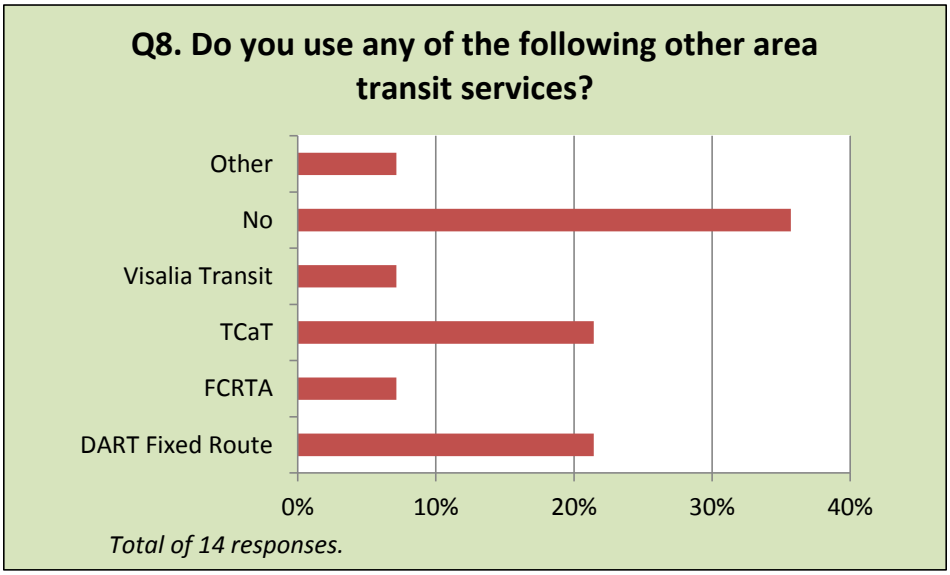
Q6. Alternative options (17 individual responses): While a quarter of respondents said they would walk, an equal number also said they would take the Fixed Route if DAR were not available.



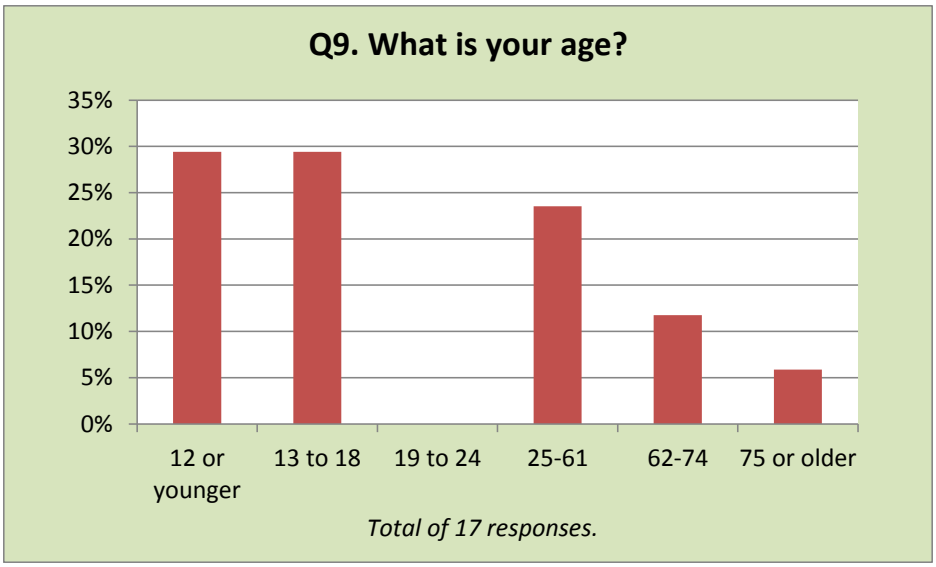
Q7 Frequency of use (17 responses). Just over half of respondents said they use the DAR daily (notably for school trips).



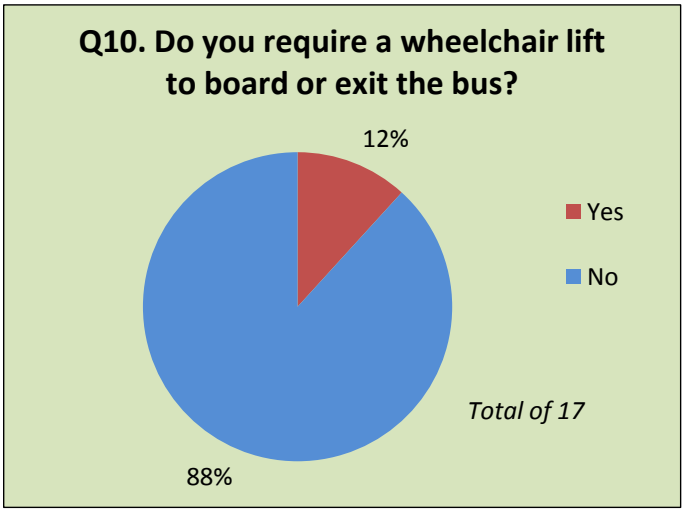
Q8: Other Transit Services Used (14 responses): While 5 passengers said they do not use other service, 3 said they use DART fixed route, and 3 use TCaT.



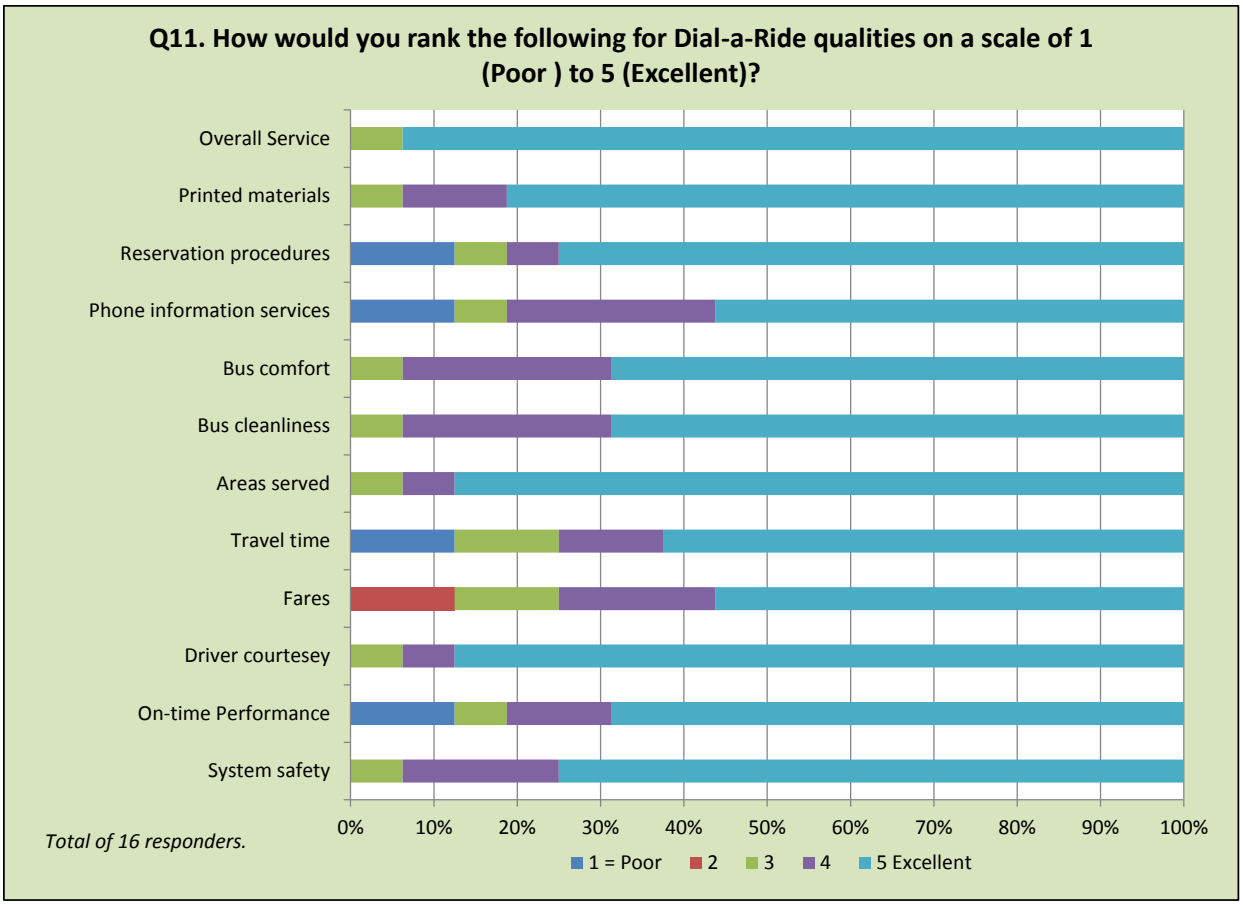
Q9: Age Group (17 responses): 10 of the 17 respondents were 18 or under, and 4 were 25 to 61 years old, and 3 were seniors over 62.



Q10: Wheelchair Use (17 responses): 2 of 17 passengers said they use a wheelchair or scooter.



Q11. Ranking of Services (16 passengers responded on rankings): Passengers were asked to rate the transit system on a scale of 1 (poor) to 5 (excellent) on various service characteristics. In all, 87 percent of responses were ranked as 4 (good) or 5 (excellent), and the overall service ranked an average of 4.9. The highest ranked factors included driver courtesy, areas served and printed materials (all three averaged 4.8) and lowest was phone information and travel time (both averaged 4.1). Overall, rankings were very positive.



Q12. Desired Improvements (7 responses): Passengers were asked to list specific improvements they would like to see, in an open-ended format. Only 7 responded, and 5 suggested fares should be lower. One respondent specifically stated fares should be $0.25 less per ride, and another stated passengers of a certain age should pay less (this person was over the age of 75). Other comments included more dial-a-ride service for disabled; a route near Crawford and Nebraska, and clean windows (also suggested in fixed route responses).