

# 2024 FRESNO COG TRANSIT ONBOARD SURVEY – FRESNO COUNTY RURAL TRANSIT AGENCY REPORT

October 2024



#### PREPARED FOR:

FRESNO COUNCIL OF GOVERNMENTS (FCOG)

#### SUBMITTED BY:

RSG

#### IN COOPERATION WITH:

www.rsginc.com ETC INSTITUTE

180 Battery Street, Suite 350 Burlington, VT 05401 802.383.0118



# CONTENTS

1.0 EXECUTIVE SUMMARY	1
2.0 INTRODUCTION	4
3.0 SAMPLING PLAN	4
4.0 QUESTIONNAIRE DEVELOPMENT	7
5.0 SURVEY ADMINISTRATION	8
5.1 STAFFING AND SURVEYOR TRAINING	
5.2 SURVEY ADMINISTRATION	
6.0 DATA PROCESSING	11
6.1 DATA CLEANING	11
6.2 DATA WEIGHTING/EXPANSION	12
LINKED TRIP WEIGHT	15
6.3 GEOGRAPHY	15
7.0 RIDER PROFILE – FCRTA RIDERS	18
7.1 DEMOGRAPHICS	18
7.2 CHOICE RIDERSHIP	20
7.3 TRIP PURPOSE	22
7.4 FARE PAYMENT	22
7.5 TRANSFERS	23
7.6 ACCESS AND EGRESS MODE	24
8.0 ORIGIN-DESTINATION ANALYSIS (FCRTA ONLY)	25
9.0 CONCLUSION	29



10.0 APPENDIX A: QUESTIONNAIRE	30
11.0 APPENDIX B: FCRTA TABULATIONS	32
TI.U AFFENDIX B. FORTA TABULATIONS	<b>3</b>
List of Figures	
FIGURE 1: VEHICLE OWNERSHIP BY SERVICE PROVIDER	2
FIGURE 2: TRIP PURPOSE BY LOCATION	
FIGURE 3: FARE PAYMENT AND PASS USE	
FIGURE 4: TRANSFERS	
FIGURE 5: TAZ COMMUNITIES	16
FIGURE 6: AGE (FCRTA ONLY)	18
FIGURE 7: ANNUAL HOUSEHOLD INCOME (FCRTA ONLY)	19
FIGURE 8: RACE (SELECT ALL THAT APPLY) (FCRTA ONLY)	19
FIGURE 9: EMPLOYMENT STATUS (FCRTA ONLY)	20
FIGURE 10: CHOICE RIDERSHIP BY TIME PERIOD OF BOARDING (FCRTA	
ONLY) FIGURE 11: NUMBER OF VEHICLES IN HOUSEHOLD (FCRTA ONLY)	21
FIGURE 11: NUMBER OF VEHICLES IN HOUSEHOLD (FCRTA ONLY)	21
FIGURE 12: TRIP PURPOSE (FCRTA ONLY)	22
FIGURE 13: ORIGIN AND DESTINATION TYPE (FCRTA ONLY)	23
FIGURE 14: TRANSFERS (FCRTA ONLY)	23
FIGURE 15: CHOICE RIDERSHIP BY TOTAL NUMBER OF TRANSFERS	
(FCRTA ONLY)	
FIGURE 16: ACCESS AND EGRESS MODE (FCRTA ONLY)	24
FIGURE 17: TRIP PRODUCTION MAP BY COMMUNITY (FCRTA ONLY)	25
FIGURE 18: TRIP ATTRACTION MAP BY COMMUNITY (FCRTA ONLY)	26
FIGURE 19: TRIP PRODUCTION AND TRIP ATTRACTION BY COMMUNITY	
TAZ DISTRICT (FCRTA ONLY)	27
LIST OF TABLES	
TABLE 1: TRANSIT RIDERSHIP AND SURVEY STATISTICS	
TABLE 2: 2023 RIDERSHIP AND SURVEY SAMPLING GOALS	. 6
TABLE 3: SURVEY WEIGHTING RESULTS	
TABLE 4: TAZ COMMUNITY DESCRIPTIONS	17
TABLE 5: LARGEST FRESNO PRODUCTION-ATTRACTION ZONE PAIRS	
(FCRTA ONLY)	28

# 1.0 EXECUTIVE SUMMARY

A comprehensive transit on-board survey was conducted in Fresno County, California, in the spring of 2024 on behalf of the Fresno Council of Governments (FCOG) and its partner transit agencies. The survey provided a detailed overview of rider travel patterns and collected important information regarding transit customers, including (a) socio-demographics, (b) fare payment, (c) travel purpose, (d) means of access and egress to/from the system, (e) time of travel, and (f) ultimate origins and destinations. The on-board survey was conducted across all three of the region's service providers, this document's focus are the results of the Fresno County Rural Transit Agency (FCRTA) survey effort.

The survey was conducted on-site by trained interviewers in March and April of 2024, primarily using tablet computers. The origin-destination (O-D) survey targeted 10% of average weekday boardings for Fresno County Rural Transit Agency (FCRTA). The sample target was proportional to actual ridership by route/line, time, and direction.

In total, 3,013 completed and valid survey records were collected across all service providers, exceeding the targeted sample plan by 10%. For FCRTA specifically, 25 valid surveys were obtained, exceeding the sample target by 67%. The collected data for FCRTA were weighted and expanded based on counts by route only. After completing data processing and weighting, the total number of records closely approximated actual weekday ridership. **TABLE 1** shows information describing ridership statistics, sample targets and completed surveys. The table also shows the total number of weighted and expanded unlinked and linked trips in the final data set.

**TABLE 1: TRANSIT RIDERSHIP AND SURVEY STATISTICS** 

SERVICE	AVERAGE WEEKDAY RIDERSHIP*	SAMPLING GOAL	UNWEIGHTED SURVEYS	% OF TARGET	VALID SURVEYS	WEIGHTED/ UNLINKED TRIPS	WEIGHTED/ LINKED TRIPS
FCRTA	154	15	26	167%	25	198	160

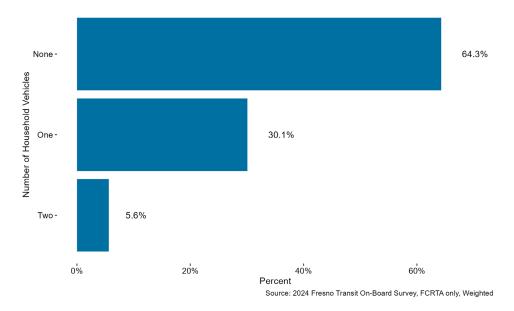
October 2023 to February 2024

Survey analysis was conducted using linked trip weights, representing the total number of trips within the system on an average weekday. These weights account for transfers made during a single trip.

The survey revealed that the largest age group using FCRTA services is 35-44 years old, comprising 28.5% of all riders. Additionally, 61% of riders identified as Hispanic or Latino, and 13.5% reported earning less than \$15,000 per year. The majority of FCRTA riders reported being employed, only 4% reported being unemployed.

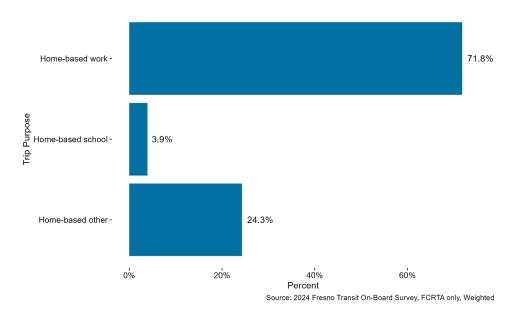
The survey results indicated that system users are highly dependent on transit for their trips, with 80% of FCRTA respondents identifying as non-choice riders (those without other transportation options). As shown in **FIGURE 1**, only 36% of FCRTA rider households owned at least one vehicle, while 64% did not own any vehicles.

FIGURE 1: VEHICLE OWNERSHIP BY SERVICE PROVIDER



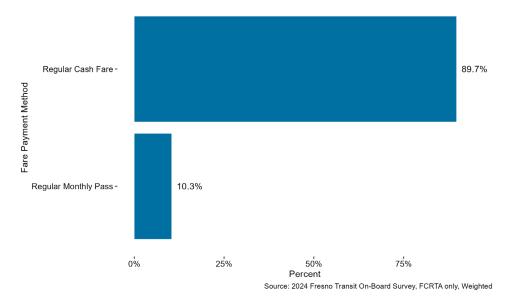
One hundred percent of intercepted FCRTA riders made home-based trips, with most being for work purposes (72%). The remaining trips were home-based trips that were neither work or school related (24%) and home-based school trips (4%). **FIGURE 2** shows primary trip purpose by location.

FIGURE 2: TRIP PURPOSE BY LOCATION



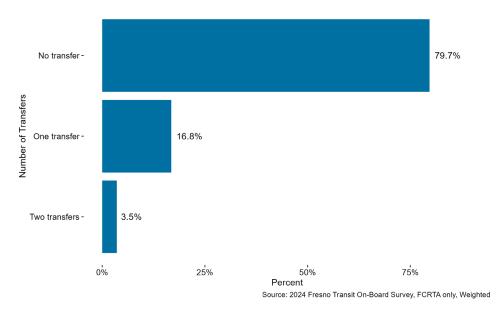
FCRTA riders overwhelmingly paid the regular fare in cash for their trip (90%), while the remaining 10% used a monthly pass. **FIGURE 3** details which payment or pass options respondents used to board busses for their trip.

FIGURE 3: FARE PAYMENT AND PASS USE



Most riders did not make transfers to another FCRTA route or any other service (80%). **FIGURE** 4 shows transfers FCRTA respondents only.

**FIGURE 4: TRANSFERS** 



The FCRTA on-board survey successfully interviewed 26 riders in early 2024. The full report contains additional information about the survey methodology, administration steps and data analysis.

# 2.0 INTRODUCTION

In the spring of 2024, RSG, in collaboration with the ETC Institute (ETC), conducted a comprehensive transit on-board survey of transit riders in Fresno County, California, on behalf of Fresno Council of Governments (FCOG) whose membership includes 16 member local governments, and three transit agencies with fixed routes that serve a combined 32,000 average weekday trips. The survey was designed to provide FCOG and its partner transit agencies with a detailed overview of rider travel patterns, along with essential information about transit customers, including (a) socio-demographics, (b) fare payment, (c) travel purpose, (d) means of access and egress to/from the system, (e) time of travel, and (f) ultimate origins and destinations. Although the on-board survey included all three service providers—Fresno Area Express (FAX), Clovis Transit, and Fresno County Rural Transit Agency (FCRTA)—this document specifically focuses on the FCRTA survey. Separate reports were created for the regional effort and the other service providers.

Accurate and reliable transit usage data are required as inputs to develop, calibrate, and validate the regional activity-based travel demand model. To support this, the Fresno on-board survey was designed and conducted in accordance with Federal Transit Administration (FTA) guidelines, ensuring the data can be used in federal grant applications and decision-making processes, and to ensure the overall accuracy and usefulness in the regional model. The on-board surveys also offer detailed insights into hard-to-measure transit markets, such as students, eventgoers, and downtown business circulation.

This report documents the methodology, administration, and results of the on-board survey effort and an analysis section for FCRTA. FCRTA operates 7 inter-city fixed routes and intra-city demand response service in the 13 rural incorporated cities.

The 2024 Fresno on-board survey was conducted as a tablet-based intercept study in March and April of 2024. The origin-destination (O-D) survey targeted 10% of average weekday boardings for Fresno County Rural Transit Agency (FCRTA). The sample target was proportionate to actual ridership by route/line, time period, and direction. In total the survey collected 25 valid responses from seven FCRTA routes.

This report documents the methodology, administration, and results of the on-board survey effort. It includes a general analysis chapter as well as specific analysis sections for each of the three service providers.

Additionally, the report includes appendices with the full survey questionnaire in English and a complete set of tabulations for all survey questions.

# 3.0 SAMPLING PLAN

The study team developed an origin-destination (OD) survey sampling plan for all weekday fixed routes, including FAX, Clovis Transit, and FCRTA. The sampling plan specified the number of surveys to be completed on each route, categorized by direction and time of day. While rural

transit services such as FCRTA may experience different demand patterns compared to traditional agencies serving urban markets—due to possibly lacking peak period demands—the sample plan that segments administration into time periods remains valid. This approach is designed to capture any variations in demand that occur at different times of the day. The plan and all survey efforts were organized around the following periods:

AM Peak: 5:00 a.m.-8:59 a.m.
Midday: 9:00 a.m.-2:59 p.m.
PM Peak: 3:00 p.m.-6:59 p.m.

• **Evening**: After 7:00 p.m. to 4:59 a.m.

The sampling plan aimed to collect approximately 3,000 completed OD surveys across all bus routes, with a route-level goal of 2,744 surveys. Additional surveys were collected to meet the overall system-wide weekday goal of 3,000 and an average sample rate of 9% of all boardings at the route level. In total, 3,013 completed bus records were collected, including 2,918 from FAX routes, 69 from Clovis Transit routes, and 26 from FCRTA routes. These sample targets are in line with FTA recommendations, which range from 5-15%. The nine percent figure will both limit the impact of high expansion factors while providing route level volumes significant enough for most route level analysis. For low volume routes, there may be a need to cluster survey results across routes for analysis purposes. Table 2 shows ridership statistics alongside the survey sampling targets that were set for intercept fielding. Note that there is no sample goal for the Firebaugh-Mendota route due to its low ridership.

TABLE 2: 2023 RIDERSHIP AND SURVEY SAMPLING GOALS

Part				Ridership Data Sampling Goals												
Fax	System		Route Name	Direction	AM Peak	Midday		ri –			AM Peak			Ĭ	Total	Total Surveys
Face	FAX	1	Q - BRT							7,387						628
Face   Pace										-						
Face	FAX	3	Herndon		_					619						53
Face   Pack															_	
Facility   Facility	FAX	9	Shaw		1					3,352						285
Figure   F	FAV	42	Burnelou (In animatica Bank							470						40
FAX   22	FAX	12	Brawley/Inspiration Park	SB	46	108	80	35	269	4/2	3	6	5	2	16	40
FAX   22	FΔX	20	Hughes/Mckinley	NB	76	187	153	35	451	907	5	11	9	2	27	77
FAX   22   West Ave/Tulare	1AA		riugites/ wiekiniey				_			00.						
Fax   26	FAX	22	West Ave/Tulare		+					1,558			t			132
Fax   28										<u> </u>			_			
Part	FAX	26	Palm/Butler		+					1,605						136
Fax   28													<del>                                     </del>			
Facility	FAX	28	Dss/Manchester/West Fresno		_					1,966						167
France   F					<del> </del>					<del>                                     </del>						
FAX   33   Belmont   EB	FAX	32	Fresno St							1,526			<del>                                     </del>			130
Fax   33   Belmont   M8					_											
First Street   Sile	FAX	33	Belmont			115				516	3	7		0	14	44
FAX 35	FAV	24	First Street	NB	333	599	248	62	1242	2 560	20	36	15	4	75	240
Fax   Sign   Fresho   Fresho	FAX	34	First Street	SB	246	643	363	75	1326	2,566	15	39	22	4	80	210
FAX 38	FΔX	35	Olive	EB	127	263	150		584	1.310						111
Fact   Section   Section	.,		<b>5c</b>	WB	+	309	205		726	.,			t			
FAX 39 FYI/Clinton	FAX	38	Cedar							4,018						342
Fact					+											
Fax   A1	FAX	39	FYI/Clinton					_		1,023			<del>                                     </del>			87
Fax   41																
FAX         45         Ashlan         EB         94         169         112         24         399 120         752         6         10         7         1         24         64         64         64         64         64         64         64         64         10         12         18         10         12         18         40         9         6         1         21         64         1         21         1         21         64         1         1         1         1         21         21         2         3         8         4         1         1         1         1         0         0         0         1         0         0         1         0         0         1         3         3         8         4         1         6         1         1         0         0         0         0         1         3         3         8         4         1         1         1         0         0         1         3         3         8         4         1         1         2         4         2         0         0         0         0         0         0         0         0	FAX	41	Malaga/Shields/Chestnut		<del> </del>			_		1,764	_					150
FAX   45								_								
FAX   S8	FAX	45	Ashlan		_		_			752						64
FAX S8E					1											-
Fact   Firehold   Fi	FAX	58	Ne Fresno	WB	4		7		23	63	0	1	0	0	1	5
CLOVIS   10   Fresno State University/Northwest Clovis   SB   35   68   33   2   138   281   2   4   2   0   0   8   28   2   2   4   2   0   0   9   28   28   28   2   2   4   2   0   0   9   28   28   28   2   2   4   2   0   0   9   28   28   28   2   2   3   2   0   0   7   28   28   2   2   3   2   0   0   7   28   28   2   3   2   0   0   7   28   28   2   3   2   0   0   7   28   28   2   3   2   0   0   7   28   28   2   3   2   0   0   0   0   0   0   0   0   0	EAV	EOE	Childrens Hospital	NB	4	10	4		18	22	0	1	0	0	1	2
CLOVIS   10   Fresno State University/Northwest Clovis   SB   29   71   40   3   143   281   2   4   2   0   9   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   7   28   280   2   3   3   2   0   0   0   0   0   0   0   0   0	FAA	JOE	Cililatens Hospital	SB	3	8	4		16	33	0	0	0	0	1	,
CLOVIS   SO   Northeast Clovis/Southwest Clovis   So   So   So   So   So   So   So   S	CLOVIS	10	Fresno State University/Northwest Clovis		+		-			281						28
CLOVIS   SO	5250.5		State Chire. Sity Hortimest Clovis							ļ_ <u>-</u>						
FCRTA   Coalinga   SB   31   64   64   1   160   2   4   4   0   10   0   0   0   0   0   1    FCRTA   Coalinga   NB   0   0   0   0   0   0   0   0   0	CLOVIS	50	Northeast Clovis/Southwest Clovis		+					280						28
FCRTA   Coalinga   NB					31	64	64	1		-						
FCRTA   Firebaugh-Mendota   NB	FCRTA		Coalinga				-			10						1
FCRTA   Firebaugh-Mendota   SB									-	-	_				-	
FCRTA   Huron	FCRTA		Firebaugh-Mendota							4						0
FCRTA   Huron   WB   0   13   0   0   0   0   0   0   1										40						
FCRTA         Kingsburg - Reedley         EB         0         18         0 <td>FCRTA</td> <td></td> <td>Huron</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>13</td> <td>_</td> <td></td> <td></td> <td></td> <td></td> <td>1</td>	FCRTA		Huron							13	_					1
FCRTA Orange Cove	ECPTA		Kingshurg Boodlov	WB					0	19	0	0	0	0	0	,
FCRTA   Sanger Express   WB   0   34   0   0   0   0   0   0   0   0   0	FCKIA		Killgsbulg - Reedley	EB					0	10		0			·	
FCRTA Sanger Express	FCRTA		Orange Cove				1			34						3
FCRTA         Sanger Express         SB         0         11         0			<b>2</b>													-
FCRTA Southeast SB 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FCRTA		Sanger Express							11	_					1
FCRTA         Southeast         NB         0         30         0										-						
FCRTA         WB         0         38         0         0         0         0         0         4	FCRTA		Southeast							30						3
FCRTA Westside EB 0 38 0 0 0 0 0 4										<u> </u>				_		
	FCRTA		Westside							38						4
1 Otais   1,125   14,41   0,314   2,000   32,002   32,100   421   003   499   125   1,920   2,144			Totals	·	7,123	14,477	8,314	2,088		32,160	427	869	499	125	1,920	2,744

# 4.0 QUESTIONNAIRE DEVELOPMENT

The survey was designed to collect information in three key areas: origin-destination (OD) travel patterns, usage details, and rider demographics. After finalizing the questionnaire, ETC developed a tablet-based intercept survey as the primary method of data collection. The survey captured detailed information about passengers' one-way trips, along with personal and household demographics. It was structured following FTA best practices to ensure the data could support federal grant applications and decision-making processes and be compared directly to other on-board surrey efforts. Additionally, the survey gathered data on fare payment methods, including electronic fare media, smartphone ownership, and access to credit or debit cards. Appendix A contains the complete survey, and Appendix B provides tabulations for each question.

The survey was conducted through on-board interviews on transit vehicles. The tablet methodology utilized on-screen mapping features, allowing for real-time geocoding of addresses and locations using exact addresses, intersections, or place names. Data were recorded on the tablets by trained interviewers. Riders confirmed the geocoded locations on the screen map via an indicator icon. Interviewers used this mapping feature to collect precise coordinates for all survey locations, including home address, origin address, destination address, boarding, and alighting locations. This approach enabled interviewers to assist with any questions and ensure the accuracy of the data collected. Respondents could also select answers to certain demographic questions directly on the tablet for increased privacy, such as household income and gender.

For respondents who were unable to complete the interview during their transit trip, an option was provided to share their phone numbers or email addresses to receive an online version of the survey via text or email. For non-English speaking riders where the interviewer did not speak their language (e.g., Spanish), the tablet provided instructions in the relevant language, prompting the rider to provide their name and phone number for further communication. Additionally, Spanish, Hindi, Russian, Karen, Hmong, Vietnamese, and Chinese-language paper surveys was available for those who preferred to complete a self-administered version on the vehicle.

# **5.0 SURVEY ADMINISTRATION**

#### 5.1 STAFFING AND SURVEYOR TRAINING

Survey data were primarily collected using tablets by trained interviewers. ETC provided an onsite project manager and a field supervisor to oversee the data collection process. A local staffing firm, ANIK, was contracted to supply staff for conducting the interviews. A total of 10 contracted staff members worked in two daily shifts, morning and afternoon, to ensure data was collected throughout all operating hours.

All staff underwent comprehensive field training. The training covered the study's purpose and objectives, use of the survey instruments, scripts for responding to passenger questions, proper use of data collection tools, public interaction guidelines, and safety protocols. Staff were also instructed to understand that, while they were not employees of Clovis Transit, FAX, or FCRTA, they represented these agencies while on transit vehicles or property and were expected to conduct themselves professionally to maintain a positive image.

Maximizing participation and legitimizing the survey among passengers depended on the public response to the survey staff. To support a good public image, ETC imposed dress code standards that required survey staff to wear clean appropriate clothing to present a casual, yet neat, appearance that ensured professionalism and comfort. Survey staff were provided with survey badges and vests, identifying interviewers to transit operators and passengers to further legitimize their appearance. The badge and dress code standards promoted a professional appearance and reinforced survey legitimacy, which increased passengers' trust in the interviewers and the process.

The ETC field manager created the necessary training materials for conducting the OD training. The classroom training session included a PowerPoint presentation to explain the purpose and objectives of the survey, procedures and requirements, survey logistics, how to maximize response rates (including difficult-to-survey passengers), and the data collection process in a step-by-step format. Other goals of the training included building interview staff confidence, helping interview staff feel that they are an important part of the survey's success and helping them understand the importance of the survey and the long-term benefits to their community.

For the OD training, ETC ensured that the training addressed the following details:

- How to intercept/interact with non-English speakers and passengers with limited English proficiency.
- Cultural sensitivity.
- Importance of understanding the intent of the questions.
- Instructions on conveying the purpose of the survey to passengers.
- Importance of adhering to our random sampling protocol at the outset of every survey.
- Procedure for properly recording all refusals and completing a short observational assessment of the refusing passenger for internal purposes.

- Importance of data confidentiality and instruction on how to address passenger concerns regarding the same.
- Overview of the transit systems covering all topics covered in the tablet questionnaire with route-specific instruction as needed.
- How to manage passenger comments and complaints.
- Expectations of conduct.
- Safety training.

The following day after OD training, interviewers went out for live surveying at transit stops to apply and refine the survey outreach training. This in-the-field experience allowed ETC staff to gauge each interviewer's comprehension of the survey and instrument and provide feedback as needed.

#### 5.2 SURVEY ADMINISTRATION

The survey was administered from March 19<sup>th</sup> through April 18<sup>th</sup>. Surveys were collected Monday through Thursday from the hours of 5:00 a.m. to 11:00 p.m. with no blackout dates/Holidays.

#### ADMINISTRATION PROCEDURE

Tablet computers were the primary method used for data retrieval. This allowed the data to be accurately captured in real time and to permit geocoding.

To ensure random participant selection, the tablet generated a number to determine which passenger would be asked to participate after boarding the vehicle. For example, if four passengers boarded, the tablet randomly selected a number from one to four. If the number was two, the second person to board was asked to participate; if it was one, the first person was selected, and so on. Selection was limited to the first six passengers boarding at any stop, allowing the interviewer to manage the process effectively.

If no new boardings occurred or were expected, the interviewer would attempt to survey riders already on the vehicle. In this case, the random number generator segmented the vehicle into six sections, with the interviewer then using the generator again to randomly select a rider from the chosen section.

Respondents who did not have time to complete the survey during their bus trip, or who spoke a language different from the interviewer, were given the option of providing their phone numbers to conduct the survey at another time. Those who provided their phone numbers for callbacks were then contacted by ETC to complete the survey. Interviewers that spoke the foreign language of the passenger translated the English tablet version during the interview and recorded language the interview was conducted in. Additionally, interviewers carried paper surveys in Spanish, Hindi, Russian, Karen, Hmong, Vietnamese, and Chinese that could be distributed for self-administration.

Interviewers selected passengers in accordance with the sampling procedures previously described. The interviewer then:

- Approached the passenger identified and asked him/her/them to participate in the survey.
- If the passenger refused, the interviewers ended the survey, excused themselves and completed three observational questions (age, race, and gender).
- If the passenger agreed to participate, the interviewer asked the passenger if he/she/they had at least 5 minutes to complete the survey.
- If the person did not have at least 5 minutes on the bus, the interviewer asked the person to provide his/her name and mobile phone number or e-mail in order to send a link to a self-administered on-line version. This methodology ensured that people who completed short trips on public transit were well represented. The vast majority of records were able to be completed onboard with the interviewer using the tablet computer, with only three surveys completed over the phone, and 18 completed via paper copy.
- If the person had at least 5 minutes on the bus, the interviewer completed the survey on the vehicle.

#### PERFORMANCE MONITORING

To ensure that quality data were collected, and interviewers were conducting the OD survey in accordance with the study team's standards, real-time monitoring and in-person monitoring were conducted, as described below.

- Real-Time Monitoring of Surveyor Performance: The tablet-based survey instrument allowed ETC's field supervisors to monitor the performance of individual interviewers in real time. This included interviewer completion statistics and the characteristics of the passengers who were interviewed, including their age, gender, race, and the average length of each interview. These reviews were conducted daily and allowed the research team to provide immediate feedback to interviewers. Separately, spot checks were conducted on the location and transfer information to verify the trips being captured were logical.
- *In-Person Monitoring:* As part of ongoing quality control checks interviewers were periodically monitored during the data collection. These checks were primarily conducted with interviewers who were struggling in some capacity.

# **6.0 DATA PROCESSING**

#### 6.1 DATA CLEANING

The following subsections describe the quality assurance and quality control (QA/QC) processes that were implemented after the data were collected.

#### **Process For Identifying Complete Records**

To classify a survey as being completed, the record must contain all elements of the one-way trip. ETC Institute has classified required trip data as containing complete answers to the following:

- Route/Direction
- Origin place type
- Time of trip
- Destination place type
- Transfers made
- Access mode
- Home address
- Egress mode
- Origin address
- Boarding location
- Destination address
- Alighting location

In addition to the required trip-data questions, an interview must be considered complete by the online survey program. This occurs if the interviewer navigates through all questions from the survey, including demographics.

#### Online Visual Review Tool

ETC Institute online visual review tool allowed for the review of all completed records. The tool displayed all elements of the one-way trip, as well as a series of distance ratio checks. After directions were finalized, each record went through speed/distance/time checks

#### Post Processing Reviews

ETC conducted processing data checks after data collection occurred. The first step in this process involved the application of a series of QA/QC tests. Some of the specific checks that were conducted during the preprocessing phase are listed below and included:

- Distance from the origin to the destination
- Distance from the boarding to the alighting location

- Distance from the origin to the boarding location relative to the mode of access and number of transfers
- Distance from alighting location to the destination relative to the mode of egress and number of transfers
- Ratio of the access distance to the boarding location relative to distance from the origin to the destination given the mode of access and number of transfers
- Ratio of the egress distance from the alighting location relative to distance from the origin to the destination given the mode of access and number of transfers
- Purpose of Trip relative to the person's employment and student status
- Ensuring that transfers used prior to and subsequent to the route surveyed the bus route was possible
- Ensuring that transfers from a bus route was possible
- Ensuring the time-of-day the survey was completed was reasonable given the published operating schedule for the route surveyed

The final step of the QA/QC data review process involved a visual inspection of the trip records. The key tasks that were conducted as part of this visual inspection included the sensibility of results for the following areas:

- Trips with very short distances (less than 1 mile for local bus trips and less than 4 miles for express trips)
- Trips with zero transfers given location of boarding and alighting locations relative to the origin and destination
- Trips that reported three or more transfers
- Drive-access/egress trips given the distance traveled by car relative to the distance traveled by bus
- Drive-access/egress trips with more than one transfer
- Looking at the origin-to-destination to ensure that it was appropriate for the survey route that was used for the trip

If a record passed all the visual checks listed above, the record was classified as *useable* and tagged for inclusion in the final survey database. In total the database of complete surveys had 3,058 records; 45 were flagged for quality errors and removed yielding a final dataset of 3,013 completed and validated records.

# 6.2 DATA WEIGHTING/EXPANSION

The OD survey data were weighted and expanded using an iterative proportional fit (IPF) process with the unweighted OD survey counts used as the seed matrix.

 For FAX, stop-level APC data for the study period were provided, covering the period average daily weekday boardings for FY 2022-23. The survey data for FAX were

- weighted and expanded to align with boarding and alighting counts by route, direction, time period, boarding location, and alighting location.
- For FCRTA, average route-level ridership counts were obtained from March 2024 weekdays. The survey data for FCRTA were weighted and expanded to match ridership counts by route.
- For Clovis Transit, average route-level ridership counts by direction were collected from weekdays between October 2023 and February 2024. The survey data for Clovis Transit were weighted and expanded to correspond with ridership counts by route and direction.

The study team weighted stop locations at the most disaggregate level possible, but aggregation of stops into "stop segments" was necessary to ensure sample sizes were adequate in each cell for the weighting process. Segments were assigned based on a combination of geography and the surveys that were collected from each route so that there were some boardings and alightings in each segment at each time period. Higher ridership routes were divided into multiple segments and lower ridership routes (under 1,700 daily riders) were divided into two segments.

The IPF technique assigns a weight to each joint board and alight combination by route, direction and time of day so that the sum of each dimension matches the targeted marginal totals of boardings and alightings. The process starts by using the on-to-off flow data as a "seed" boarding and alighting matrix. This matrix is then adjusted so that a) the total number of boardings is equal to the corresponding number of APC boardings and then b) the total number of alightings is equal to the corresponding number of APC alightings. This adjustment is repeated, iteratively, until the matrix converges. This results in a board and alight matrix that has boarding and alighting totals that equal the APC data counts and boarding and alighting pair totals that are as close as possible to the data collected in the on-to-off survey. Since there is no on-to-off survey, the same process was used, but the unweighted OD survey counts themselves were used as the seed matrix.

The ridership targets, original sampling goals, unweighted survey counts and average weights for each service type are shown in **TABLE 3**. Overall, 2,998 usable OD surveys were collected (2,904, 69 and 25 of these were conducted in FAX, Clovis Transit and FCRTA routes, respectively). Note that 14 FAX rider surveys were excluded due to mismatched boarding and alighting stations, and one FCRTA survey was excluded for missing route information.

**TABLE 3: SURVEY WEIGHTING RESULTS** 

ROUTE	AVERAGE WEEKDAY RIDERSHIP*	SAMPLING GOAL	SURVEYS (UNWEIGHTED)	% OF TARGET	SURVEYS EXPANDED	AVERAGE WEIGHT
FAX-01-Q - BRT	7,387	628	666	106%	7,387	11.1
FAX-03-Herndon	619	53	63	120%	619	10.4
FAX-09-Shaw	3,352	285	316	111%	3,352	10.6
FAX-12-Brawley/ Inspiration Park	472	40	51	127%	472	9.3
FAX-20-Hughes/Mckinley	907	77	81	105%	906	11.2
FAX-22-West Ave/Tulare	1,558	132	152	115%	1,558	10.3
FAX-26-Palm/Butler	1,605	136	143	105%	1,605	11.2
FAX-28-Dss/Manchester/West Fresno	1,966	167	178	107%	1,966	11.1
FAX-32-Fresno St	1,526	130	151	116%	1,526	10.1
FAX-33-Belmont	516	44	53	121%	516	10.5
FAX-34-First Street	2,568	218	234	107%	2,573	11.2
FAX-35-Olive	1,310	111	130	117%	1,336	10.3
FAX-38-Cedar	4,018	342	356	104%	4,018	11.3
FAX-39-Fyi/Clinton	1,023	87	92	106%	1,023	11.1
FAX-41- Malaga/Shields/Chestnut	1,764	150	153	102%	1,764	11.6
FAX-45-Ashlan	752	64	73	114%	752	10.3
FAX-58-Ne Fresno	63	5	7	130%	63	9.3
FAX-58E- Children's Hospital	33	3	5	178%	36	8
SUBTOTAL FAX	31,439	2,672	2,904	109%	31,474	
CLOVIS TRANSIT-10- Fresno State University / Northwest Clovis Transit	281	28	35	125%	281	8
CLOVIS TRANSIT-50- Northeast Clovis Transit / Southwest Clovis Transit	280	28	34	121%	280	8.2
SUBTOTAL Clovis Transit	561	56	69	123%	561	
FCRTA- Coalinga	10	1	6	600%	10	1.7
FCRTA- Huron	13	1	1	100%	13	13
FCRTA- Kingsburg - Reedley	18	2	2	100%	28	14
FCRTA- Orange Cove	34	3	4	133%	50	12.5
FCRTA- Sanger/Sanger Express	11	1	2	200%	19	9.5
FCRTA- Southeast	30	3	4	133%	34	8.5
FCRTA- Westside	38	4	6	150%	44	7.3
SUBTOTAL FCRTA	154	15	25	167%	198	
TOTAL	32,154	2,743	2,998	110%	32,231	

\*Note: Ridership data for FAX are weekday data (excluding holidays) from May 2024 and for Clovis Transit are from the period between October 2023 and February 4 Ridership data for FCRTA are weekday data (excluding holidays) from the period February 2024.

## LINKED TRIP WEIGHT

The weights calculated in the IPF process are unlinked weights, meaning that they represent all boardings on Fresno County transit vehicles over an average weekday. A linked trip weight was calculated from the unlinked weight for all routes in the system and represents the number of overall trips within the system on an average weekday. The linked weight accounts for transfers being made on a single trip. A respondent making no transfers to another route would receive a linked trip weight of 1.0 times their unlinked weight, while a respondent who transferred to one other sampled route would have a weight of 0.5 times their unlinked weight, and so on.

Analyses conducted using the linked trip weight represent individual passengers among the sampled routes and accounts for transfer activity between the routes. This weight should be applied when analyzing markets so that riders making transfers are not counted multiple times; unlinked weights should be applied when analyzing a single route.

# 6.3 GEOGRAPHY

Origin and destination addresses were joined to Traffic Analysis Zones (TAZs) in the Fresno Region. The TAZs have been further aggregated for simplicity of analysis. In this report, results are reported by TAZ communities, as defined by FCOG. The 56 TAZ communities within the study area are shown in **FIGURE 5**. The geographic analysis included in this report are based on these aggregations. A description of each district is provided in **TABLE 4**.

**FIGURE 5: TAZ COMMUNITIES** 

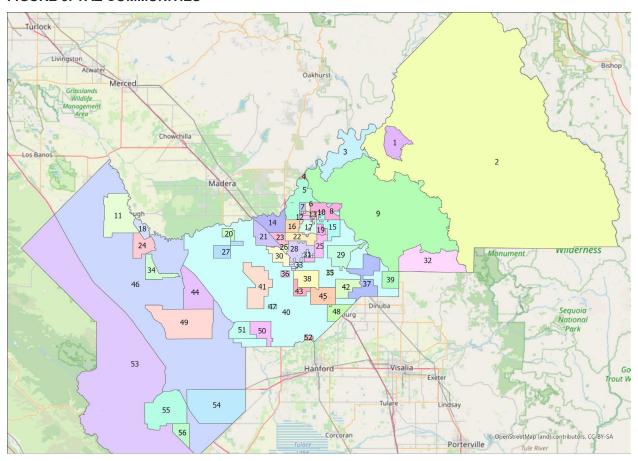


TABLE 4: TAZ COMMUNITY DESCRIPTIONS

COMMUNITY	LOCATION	COMMUNITY	LOCATION
1	Shaver Lake	29	Sanger
2	Sierra Nevada Mountain Ar	30	Edison
3	Auberry	31	Fresno
4	Friant	32	Squaw Valley
5	Woodward Park	33	Calwa
6	Northwest Urban Center	34	Tranquility
7	Northwest Urban	35	Del Rey
8	Northeast Urban Center	36	Easton
9	Sierra Foothills	37	Reedley
10	Shepherd-168	38	Fowler
11	Firebaugh	39	Orange Cove
12	Herndon-Shepherd	40	Eastside Valley
13	Clovis Transit	41	Raisin City
14	Bullard	42	Parlier
15	Fresno County	43	Bowles
16	Hoover	44	San Joaquin
17	Inner Clovis Transit	45	Selma
18	Firebaugh-Mendota	46	Westside Valley North
19	Loma Vista	47	Caruthers
20	Biola	48	Kingsburg
21	West	49	Cantua Creek
22	McLane	50	Riverdale
23	Fresno High	51	Lanare
24	Mendota	52	Laton
25	SEGA	53	Coast Range Foothills
26	Central Area	54	Huron
27	Kerman	55	Coalinga
28	Roosevelt	56	Westside Valley

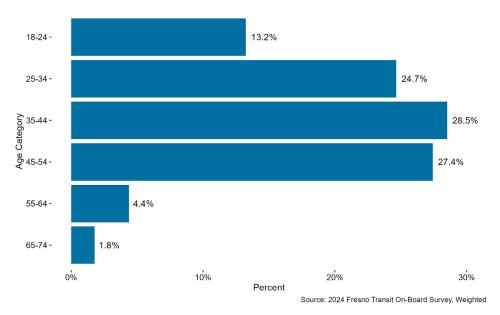
# 7.0 RIDER PROFILE - FCRTA RIDERS

## 7.1 DEMOGRAPHICS

A total of 25 surveys were completed at FCRTA, capturing data for 160 weighted and expanded linked trips. The demographics presented below are weighted with the linked trip weight, since this accurately represents the entire Fresno ridership population.

FCRTA ridership consists of more men than women (69.3% vs. 30.7%). Most riders, 80.6%, were between 25 to 54 years old (Figure 6).

#### FIGURE 6: AGE (FCRTA ONLY)



A total of 32.6% of FCRTA riders did not provide their income information. Among the 67.4% who did (n = 108 weighted), most reported incomes in the \$60,000-\$79,999 range (Figure 7). Most FCRTA riders, 61.4%, identifies as Hispanic/Latino (Figure 8).

FIGURE 7: ANNUAL HOUSEHOLD INCOME (FCRTA ONLY)

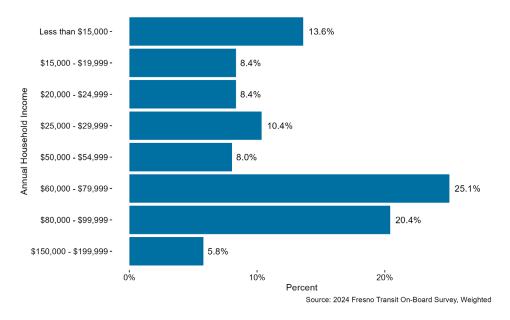
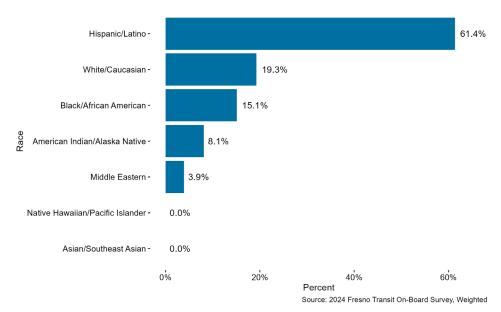
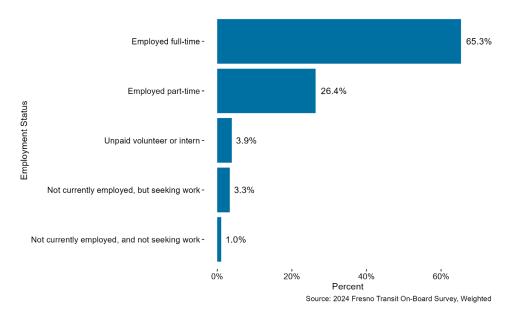


FIGURE 8: RACE (SELECT ALL THAT APPLY) (FCRTA ONLY)



The survey found that 65.3% of respondents are employed full-time, while 26.4% reported being employed part-time (Figure 9). Approximately 9.2% of all FCRTA riders identified as full-time college or university students, while the rest are not students.

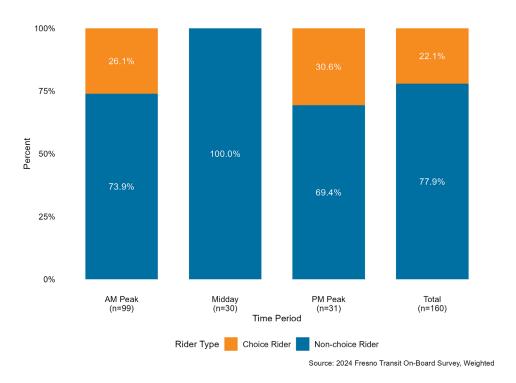
FIGURE 9: EMPLOYMENT STATUS (FCRTA ONLY)



# 7.2 CHOICE RIDERSHIP

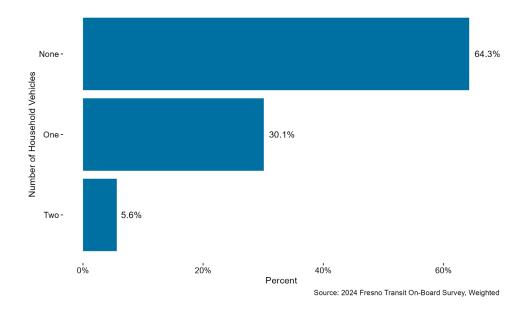
A rider who has the option to take a car for the same trip is referred to as "choice rider". Conversely, a rider without access to a vehicle is a "non-choice rider". A large majority of FCRTA riders, 77.9%, are non-choice riders, while just 22.1% are choice riders. Choice riders are more likely to travel in the PM peak (Figure 10).

FIGURE 10: CHOICE RIDERSHIP BY TIME PERIOD OF BOARDING (FCRTA ONLY)



Most of FCRTA riders currently do not live in a household with a vehicle (64.3.7%, see Figure 11). Among these riders, about half of them, 49.5%, are more likely to indicate plans to purchase a vehicle soon. Additionally, most of FCRTA riders, accounting for 65.6%, possess a driver's license.

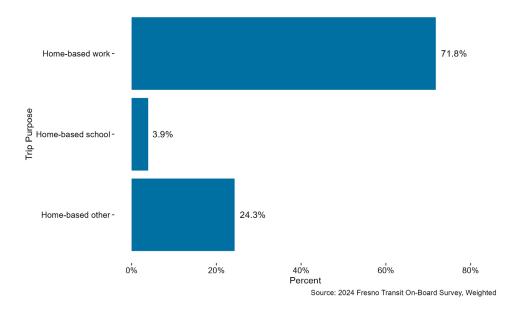
FIGURE 11: NUMBER OF VEHICLES IN HOUSEHOLD (FCRTA ONLY)



# 7.3 TRIP PURPOSE

All trips made by FCRTA riders were home-based trips. Approximately 71.8% of the trips along the corridor were home-based work trips, while an additional 24.3% were home-based non-work, non-school trips. (Figure 12).

FIGURE 12: TRIP PURPOSE (FCRTA ONLY)



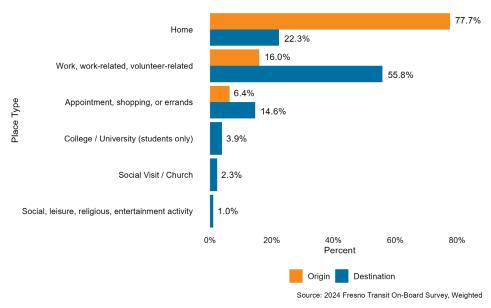
# 7.4 FARE PAYMENT

Most respondents, 89.7%, paid using regular cash fare, while the remainder opted for a regular monthly pass.

The majority of respondents (77.7%) reported traveling from their home, while 16.0% indicated they were traveling from a work-related or volunteer-related location. The most common trip

destination among respondents was also work or a work-related or volunteer-related place (55.8%), with over one in five respondents reporting home as their destination. (Figure 13).

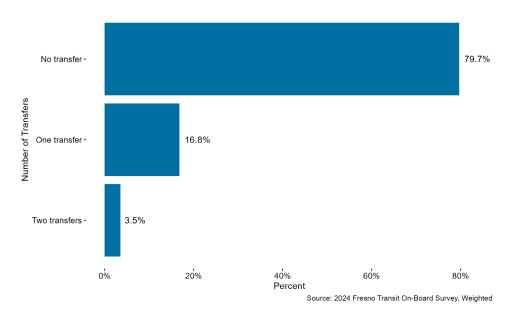
FIGURE 13: ORIGIN AND DESTINATION TYPE (FCRTA ONLY)



# 7.5 TRANSFERS

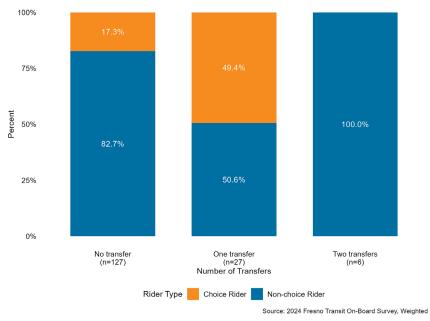
More than 79.7% of surveyed riders required no transfer and only 3.5% of riders required more than one transfer (Figure 14).

FIGURE 14: TRANSFERS (FCRTA ONLY)



Non-choice riders are more likely than choice riders to have more than one transfer on their trip (Figure 15).

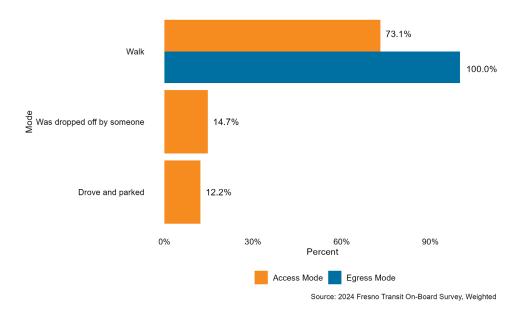
FIGURE 15: CHOICE RIDERSHIP BY TOTAL NUMBER OF TRANSFERS (FCRTA ONLY)



# 7.6 ACCESS AND EGRESS MODE

Most respondents access transit by walking to the stop or station, with 73.1% indicating this mode of access, while all the respondents walk to their destination (Figure 16)

FIGURE 16: ACCESS AND EGRESS MODE (FCRTA ONLY)



# 8.0 ORIGIN-DESTINATION ANALYSIS (FCRTA ONLY)

The two maps below illustrate trip production and attraction by TAZ community. Figure 17 reveals that trip production is relatively dispersed throughout the Fresno area, with the highest rates observed in Community 26 Central Area, Community 29 Sanger and Community 37 Reedley. Figure 18 shows that trip attractions are predominantly concentrated in Community 26 Central Area.

Linked Trips (Weighted) 0 - 5 6 - 10 11 - 15 16 - 20 © OpenStreetMap (and) contributors, CC-BY 

FIGURE 17: TRIP PRODUCTION MAP BY COMMUNITY (FCRTA ONLY)

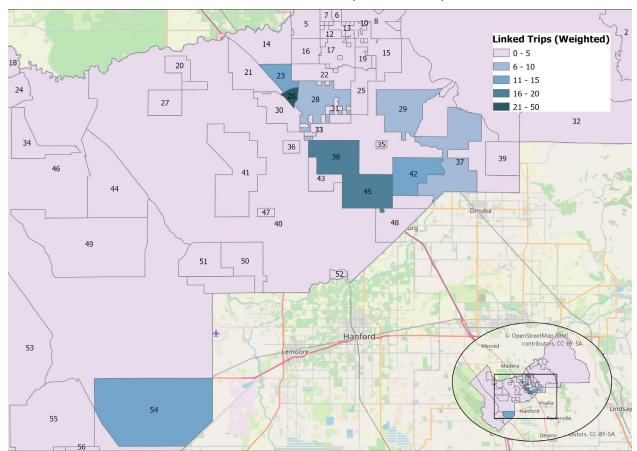


FIGURE 18: TRIP ATTRACTION MAP BY COMMUNITY (FCRTA ONLY)

The charts and table below detail trip productions and attractions by zone. The geographical unit is based on aggregated TAZ districts, which can be referenced in Figure 17 and **TABLE 4**. Figure 19 shows that Central Area is the largest production zone and Reedley is the largest attraction zone in the Fresno service area. Table 5 shows all the production-attraction zone pairs. The most common trip is from Central Area to Selma, accounting for 10.6% of all trips.

FIGURE 19: TRIP PRODUCTION AND TRIP ATTRACTION BY COMMUNITY TAZ DISTRICT (FCRTA ONLY)

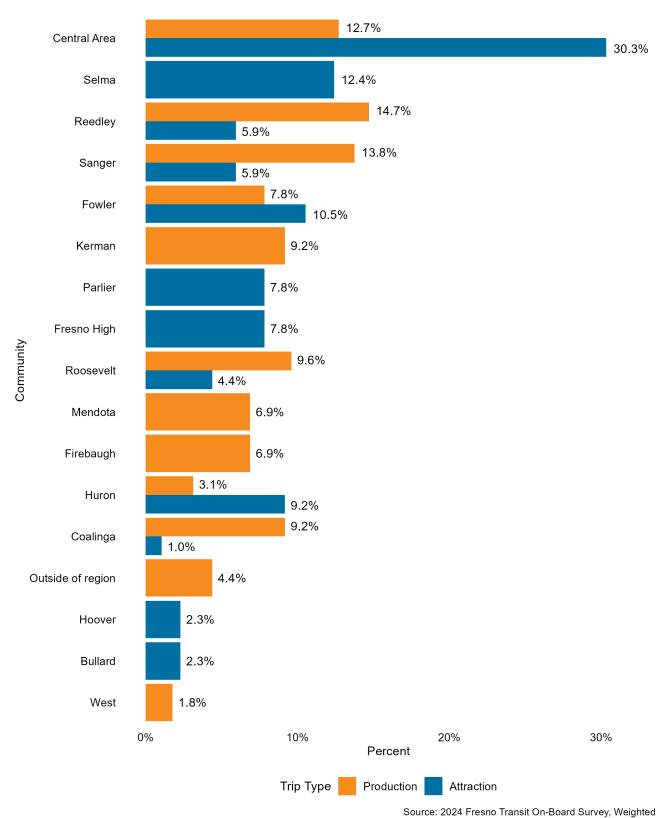


TABLE 5: LARGEST FRESNO PRODUCTION-ATTRACTION ZONE PAIRS (FCRTA ONLY)

RANK	PRODUCTION ZONE			ATTRACTION ZONE	% OF ALL TRIPS
	Number	Name	Number	Name	
1	26	Central Area	45	Selma	10.6%
2	27	Kerman	26	Central Area	9.2%
3	37	Reedley	38	Fowler	8.8%
4	55	Coalinga	54	Huron	8.1%
5	38	Fowler	26	Central Area	7.8%
6	28	Roosevelt	42	Parlier	7.8%
7	29	Sanger	23	Fresno High	7.8%
8	37	Reedley	29	Sanger	5.9%
9	29	Sanger	37	Reedley	5.9%
10	11	Firebaugh	26	Central Area	4.6%
11	24	Mendota	26	Central Area	4.6%
12		Outside of region	28	Roosevelt	4.4%
13	54	Huron	26	Central Area	3.1%
14	11	Firebaugh	16	Hoover	2.3%
15	24	Mendota	14	Bullard	2.3%
16	28	Roosevelt	45	Selma	1.8%
17	21	West	38	Fowler	1.8%
18	26	Central Area	55	Coalinga	1.0%
19	26	Central Area	54	Huron	1.0%
20	55	Coalinga	26	Central Area	1.0%
Total					100.0%

# 9.0 CONCLUSION

RSG, in collaboration with the ETC Institute (ETC), successfully conducted a comprehensive transit on-board survey of transit riders in Fresno County, California, on behalf of the Fresno Council of Governments (FCOG). While the entire collected about 2,998 valid and complete survey responses and surpassed the sample targets, 26 surveys were collected from FCRTA riders, or about 16% of average weekday ridership. The survey will allow FCOG and its partner agencies including FAX, FCRTA and Clovis Transit, to understand detailed rider travel patterns and other essential information about transit customers.

# 10.0 APPENDIX A: QUESTIONNAIRE

#### 2024 Fresno County Transit On-Board Survey

Please take a few minutes to answer a few questions to help us plan for your transit needs.

All personal information will be kept strictly confidential and WILL NOT be shared or sold. What is your HOME ADDRESS (please be specific, ex: 123 W. Main St): If you are visiting the Fresno area, please list the hotel name or address where you are staying) If you are unhoused, select bubble O Street Address Zip Code City GOING TO? COMING FROM? 1. What type of place are you 6. What type of place are you GOING TO NOW? **COMING FROM NOW?** (the starting place for your one-way trip) (the destination for your one-way trip) O Work, work-related, volunteer-related O Work work-related volunteer-related O College / University (students only) College / University (students only) O School K-12 (students only) O School K-12 (students only) O Dined out, got coffee or take-out O Dined out, got coffee or take-out O Medical Service / Hospital (non-work) O Medical Service / Hospital (non-work) O Appointment, shopping, or errands O Appointment, shopping, or errands O Social, leisure, religious, entertainment activity O Social, leisure, religious, entertainment activity O Exercise / Recreation / Sightseeing O Exercise / Recreation / Sightseeing O Social Visit / Church O Social Visit / Church O Airport (passengers only)
O Hotel → Go to Question #4 O Airport (passengers only) O Hotel → Go to Question #9 O Your HOME → Go to Question #4 O Your HOME → Go to Question #9 O Non-destination Trip → Skip Qs #6-11 O Other: 2. What is the NAME of the place you are 7. What is the NAME of the place you are coming from now? going to now? 3. What is the EXACT ADDRESS of this 8. What is the **EXACT ADDRESS** of this place? (OR Intersection:) place? (OR Intersection:) \_\_ Zip: \_ Zip: 4. How did you GET FROM your origin (the 9. How will you GET TO your destination place in Question #1) TO THE VERY (listed in Question #6) after you exit the FIRST vehicle you used for this one-way LAST vehicle you will use for this onetrip? way trip? O Walk O Mobility Device - e.g. Wheelchair O Mobility Device - e.g. Wheelchair O Bicycle or E-Bike O Taxi, Uber, Lyft, etc. O Bicycle or E-Bike O Taxi, Uber, Lyft, etc. O Scooter, Moped, Skateboard, etc. O Scooter, Moped, Skateboard, etc. O Was dropped off by someone (answer 4a) O Be picked up by someone (answer 9a) O Get in a parked vehicle and drive alone (answer 9a) O Drove alone and parked (answer 4a) O Get in a parked vehicle and drive/ride with someone O Drove or rode with others and parked (answer 4a) (answer 9a) O Other O Other 9a. Where will you get off the last vehicle 4a. Where did you board the first vehicle you are using for this one-way trip (Nearest you used for this one-way trip (Nearest intersection / Park & Ride lot / Transit Center / Station intersection / Park & Ride lot / Transit Center / Station Name) Where did you get ON this vehicle? Please 10. Where will you EXIT this vehicle? Please provide the nearest intersection / Transit Center / Station provide the nearest intersection / Transit Center / Station Name / Park & Ride lot: . Name / Park & Ride lot: 11a. Did you transfer FROM another transit route BEFORE getting on this route? O Yes O No 11b. Will you transfer TO another transit route AFTER getting off this route? 11c. Please list the SYSTEMS & ROUTES in the order you use them for this one-way trip. START > **END** 

1st Route

2<sup>nd</sup> Route

3rd Route

4th Route

## OTHER INFORMATION ABOUT THIS TRIP

12. What time did you BOARD	) this vehicle?	: am / pm (circ	le one)
13. Will vou (or did vou) make	e this same trip in exactly the own what time did / will you leave for this	opposite direction today?	?
14. How did you pay your far FAX Options O Regu O Stude O One O 10 R O 31-D	· ·		
		O Reduced Cash Fare (F O Reduced Monthly Pas	Elderly (60+), Disabled, Child) ss (Elderly (60+), Disabled, Child)
Clovis Transit	O Free Ride		
18. Do you have a working sm	nartphone? O Yes – with a	a data plan O Yes –	- limited or no data O No
19. Do you have a credit or de	bit card? O Yes	O No	
ABO	OUT YOU AND YO	UR HOUSEHOL	.D
20. Are you a visitor to the Fre	esno area? O No O Yes		
21. How many working vehicle 21a. [If Q21 is more than	es (cars, trucks, or motorcycle NONE] Could you have used	,	
• '	e you planning to buy a car as		
22. Including YOU, how many	y people <u>live</u> in your househol	ld? people	
23. Including YOU, how many	y people (over age 15) in your	household are employed	d full or part-time?# people
O Employed full-time O Employed part-time 24a. Did you make a tr 24b. Will you make a t	t status? (check the one respon O Not currently employed, but O Not currently employed, and rip to work since you left hom trip to work before you will arr s YES] Provide work name /ac	seeking work d not seeking work ne? rive home?	ou) O Unpaid volunteer or Intern O Self-employed O Yes O No O Yes O No
O Yes – Part Time college / 25a. Did you make a trip 25b. Will you make a trip	O Yes – 9 - 12th grade O Ye	es – Full Time college / univ es – Vocational/technical/tra ne? rive home?	versity O Yes, other rade school O Yes O No O Yes O No
26. Do you have a disability?			1
27. Do you have a valid drive			1
28. What is your age?	O 18-24 O 35-44	O 45-54 O 65-74 O 55-64 O 75-84	
30. What is your race / ethnic O American Indian / Al O Native Hawaiian / Pa O Asian / Southeast A	city? (check all that apply) laska Native O Black/Afric acific Islander O White / Cal sian, specify national origin or Asian el	an American O Hispa ucasian O Middl	anic/Latino le Eastern O Other:
	(check all that apply) O Male hird gender O Othe	le O Female oner/Prefer to self-describe	
	other than English at home? well do you speak English? O		
33. Which of the following BE O Less than \$15,000 O \$15,000 - \$19,999 O \$20,000 - \$24,999 O \$25,000 - \$29,999 O \$30,000 - \$34,999	EST describes your GROSS AI  O \$35,000 - \$39,999  O \$40,000 - \$44,999  O \$45,000 - \$49,999  O \$50,000 - \$54,999  O \$55,000 - \$59,999	NNUAL HOUSEHOLD INC O \$60,000 - \$79 O \$80,000 - \$99 O \$100,000 - \$1- O \$150,000 - \$1- O \$200,000 or al	9,999 9,999 49,000 99,999
		·	
People who submit an accura	•	N A \$100 GIFT CARD e entered in a random drav	wing for a \$100 gift card. You mus
provide your home address a	t the beginning of the survey	and answer all questions	to be eligible.
	Your Name:		
	Phone Number: ()		_
Thank you for you	r help		

# 11.0 APPENDIX B: FCRTA TABULATIONS

The tables presented below are weighted with the linked trip weight. The weighted and expanded total can vary by a small amount due to rounding.

# Service: Route survey was conducted on which service

service	Count	Percent	Weighted Count	Weighted Percent
FCRTA	25	100.0%	160	100.0%
Total	25	100.0%	160	100.0%

# ORIGIN\_PLACE\_TYPE: What type of place are you COMING FROM NOW? (the starting place for your one-way trip)

ORIGIN_PLACE_TYPE	Count	Percent	Weighted Count	Weighted Percent
Your HOME	19	76.0%	124	77.5%
Work, work-related, volunteer-related	4	16.0%	26	16.2%
Appointment, shopping, or errands	2	8.0%	10	6.2%
Total	25	100.0%	160	99.9%

# PREV\_TRANSFERS : How many buses/trains did you travel on BEFORE you boarded

PREV_TRANSFERS	Count	Percent	Weighted Count	Weighted Percent
(0) None	23	92.0%	154	96.2%
(2) Two	2	8.0%	6	3.8%
Total	25	100.0%	160	100.0%

#### TRIP FIRST ROUTE: First transfer respondent took from origin

TRIP_FIRST_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 33 BELMONT	1	50.0%	3	50.0%
(FAX) 39 FYI/CLINTON	1	50.0%	3	50.0%
Total	2	100.0%	6	100.0%

## TRIP SECOND ROUTE: Second transfer respondent took from origin

TRIP_SECOND_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 22 WEST AVE/TULARE	2	100.0%	6	100.0%
Total	2	100.0%	6	100.0%

# TRIP\_THIRD\_ROUTE: Third transfer respondent took from origin

TRIP_THIRD_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

# ORIGIN TRANSPORT: How did you GET FROM your origin

ORIGIN_TRANSPORT	Count	Percent	Weighted Count	Weighted Percent
Walk	21	84.0%	117	73.1%
Was dropped off by someone	2	8.0%	24	15.0%
Drove alone and parked	1	4.0%	12	7.5%
Drove or rode with others and parked	1	4.0%	7	4.4%
Total	25	100.0%	160	100.0%

# DESTIN\_PLACE\_TYPE: What type of place are you GOING TO NOW? (the ending place for your one-way trip)

DESTIN_PLACE_TYPE	Count	Percent	Weighted Count	Weighted Percent
Work, work-related, volunteer-related	10	40.0%	89	55.6%
Appointment, shopping, or errands	6	24.0%	23	14.4%
Your HOME	6	24.0%	36	22.5%
College / University (students only)	1	4.0%	6	3.8%
Social Visit / Church	1	4.0%	4	2.5%
Social, leisure, religious, entertainment activity	1	4.0%	2	1.2%
Total	25	100.0%	160	100.0%

#### DESTIN\_ADDRESS [CITY] : Respondent's destination city

DESTIN_ADDRESS.[CITY]	Count	Percent	Weighted Count	Weighted Percent
Fresno	14	56.0%	75	46.6%
Selma	3	12.0%	20	12.4%
Fowler	2	8.0%	17	10.6%
Huron	2	8.0%	15	9.3%
Coalinga	1	4.0%	2	1.2%
Parlier	1	4.0%	12	7.5%
Reedley	1	4.0%	10	6.2%
Sanger	1	4.0%	10	6.2%
Total	25	100.0%	161	100.0%

#### NEXT\_TRANSFERS: How many buses/trains will you ride AFTER you get off

NEXT_TRANSFERS	Count	Percent	Weighted Count	Weighted Percent
(0) None	20	80.0%	133	83.1%
(1) One	5	20.0%	27	16.9%
Total	25	100.0%	160	100.0%

#### TRIP\_NEXT\_ROUTE : First transfer respondent took to destination

TRIP_NEXT_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 01 Q-BRT	2	40.0%	10	37.0%
(FAX) 32 FRESNO ST	2	40.0%	10	37.0%
(FCRTA) Orange Cove	1	20.0%	7	25.9%
Total	5	100.0%	27	99.9%

#### TRIP\_AFTER\_ROUTE: Second transfer respondent took to destination

TRIP_AFTER_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### TRIP 3RD ROUTE: Third transfer respondent took to destination

TRIP_3RD_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### DESTIN TRANSPORT: How will you GET TO your destination

DESTIN_TRANSPORT	Count	Percent	Weighted Count	Weighted Percent
Walk	25	100.0%	160	100.0%
Total	25	100.0%	160	100.0%

#### PREV TRAN 1 BUS ROUTE: Route for their first transfer from origin

PREV_TRAN_1_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 33 BELMONT - EASTBOUND	1	50.0%	3	50.0%
(FAX) 39 FYI/CLINTON - EASTBOUND	1	50.0%	3	50.0%
Total	2	100.0%	6	100.0%

#### PREV TRAN 2 BUS ROUTE: Route for their second transfer from origin

PREV_TRAN_2_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 22 WEST AVE/TULARE - NORTHBOUND	1	50.0%	3	50.0%
(FAX) 22 WEST AVE/TULARE - SOUTHBOUND	1	50.0%	3	50.0%
Total	2	100.0%	6	100.0%

#### PREV\_TRAN\_3\_BUS\_ROUTE: Route for their third transfer from origin

PREV_TRAN_3_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### PREV\_TRAN\_4\_BUS\_ROUTE: Route for their fourth transfer from origin

PREV_TRAN_4_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### NEXT TRAN 1 BUS ROUTE: Route for their first transfer to destination

NEXT_TRAN_1_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
(FAX) 01 Q-BRT - NORTHBOUND	2	40.0%	10	37.0%
(FAX) 32 FRESNO ST - NORTHBOUND	2	40.0%	10	37.0%
(FCRTA) Orange Cove - TO FRESNO	1	20.0%	7	25.9%
Total	5	100.0%	27	99.9%

#### NEXT\_TRAN\_2\_BUS\_ROUTE : Route for their second transfer to destination

NEXT_TRAN_2_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### NEXT\_TRAN\_3\_BUS\_ROUTE : Route for their third transfer to destination

NEXT_TRAN_3_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### NEXT\_TRAN\_4\_BUS\_ROUTE: Route for their fourth transfer to destination

NEXT_TRAN_4_BUS_ROUTE	Count	Percent	Weighted Count	Weighted Percent
Total	0	0.0%	0	0.0%

#### TIME\_PERIOD : Time period respondent boarded this bus/rail

TIME_PERIOD	Count	Percent	Weighted Count	Weighted Percent
AM	13	52.0%	99	61.9%
MID	7	28.0%	30	18.8%
PM	5	20.0%	31	19.4%
Total	25	100.0%	160	100.1%

TRIP\_IN\_OPPO\_DIR: Will you (or did you) make this same trip in exactly the opposite direction today?

TRIP_IN_OPPO_DIR	Count	Percent	Weighted Count	Weighted Percent
Yes	14	56.0%	75	46.9%
No	11	44.0%	85	53.1%
Total	25	100.0%	160	100.0%

## OPPO\_DIR\_TRIP\_TIME : At what time did/will you leave for this trip in the opposite direction?

OPPO_DIR_TRIP_TIME	Count	Percent	Weighted Count	Weighted Percent
4:00 pm - 5:00 pm	6	42.9%	39	52.0%
3:00 pm - 4:00 pm	4	28.6%	28	37.3%
5:00 pm - 6:00 pm	2	14.3%	3	4.0%
2:00 pm - 3:00 pm	1	7.1%	3	4.0%
8:00 am - 9:00 am	1	7.1%	2	2.7%
Total	14	100.0%	75	100.0%

#### PAYMENT\_METHOD: How did you pay your fare today?

PAYMENT_METHOD	Count	Percent	Weighted Count	Weighted Percent
Regular Cash Fare	23	92.0%	143	89.9%
Regular Monthly Pass	2	8.0%	16	10.1%
Total	25	100.0%	159	100.0%

#### **SMARTPHONE**: Do you have a working smartphone?

SMARTPHONE	Count	Percent	Weighted Count	Weighted Percent
Yes - with a data plan	23	92.0%	146	91.2%
No	2	8.0%	14	8.8%
Total	25	100.0%	160	100.0%

#### CREDIT DEBIT: Do you have a credit or debit card?

CREDIT_DEBIT	Count	Percent	Weighted Count	Weighted Percent
Yes	21	84.0%	138	86.2%
No	4	16.0%	22	13.8%
Total	25	100.0%	160	100.0%

#### VISITOR: Are you a visitor to the Fresno area?

VISITOR	Count	Percent	Weighted Count	Weighted Percent
Yes	18	72.0%	118	73.8%
No	7	28.0%	42	26.2%
Total	25	100.0%	160	100.0%

# COUNT\_VH\_HH: How many vehicles (cars, trucks, or motorcycles) are available to your household?

COUNT_VH_HH	Count	Percent	Weighted Count	Weighted Percent
None (0)	16	64.0%	103	64.4%
One (1)	7	28.0%	48	30.0%
Two (2)	2	8.0%	9	5.6%
Total	25	100.0%	160	100.0%

#### USED VEH TRIP: Could you have used one of these vehicles for this trip?

USED_VEH_TRIP	Count	Percent	Weighted Count	Weighted Percent
No	5	55.6%	22	38.6%
Yes	4	44.4%	35	61.4%
Total	9	100.0%	57	100.0%

#### PLAN\_TO\_BUY: Are you planning to buy a car as soon as you are able?

PLAN_TO_BUY	Count	Percent	Weighted Count	Weighted Percent
No	8	50.0%	52	50.5%
Yes	8	50.0%	51	49.5%

PLAN_TO_BUY	Count	Percent		Weighted Percent
Total	16	100.0%	103	100.0%

#### HH\_SIZE: Including YOU, how many people live in your household?

HH_SIZE	Count	Percent	Weighted Count	Weighted Percent
Two (2)	9	36.0%	55	34.4%
Three (3)	7	28.0%	43	26.9%
One (1)	5	20.0%	37	23.1%
Four (4)	3	12.0%	23	14.4%
Five (5)	1	4.0%	2	1.2%
Total	25	100.0%	160	100.0%

## EMPLOYED\_IN\_HH: Including YOU, how many people (over age 15) in your household are employed full or part-time?

EMPLOYED_IN_HH	Count	Percent	Weighted Count	Weighted Percent
One (1)	13	52.0%	84	52.5%
Two (2)	9	36.0%	64	40.0%
None (0)	2	8.0%	10	6.2%
Three (3)	1	4.0%	2	1.2%
Total	25	100.0%	160	99.9%

# EMPLOYMENT\_STATUS: What is your employment status? (Check the one response that BEST describes you)

EMPLOYMENT_STATUS	Count	Percent	Weighted Count	Weighted Percent
Employed full-time	12	48.0%	104	65.4%
Employed part-time	9	36.0%	42	26.4%
Not currently employed, but seeking work	2	8.0%	5	3.1%
Not currently employed, and not seeking work	1	4.0%	2	1.3%
Unpaid volunteer or intern	1	4.0%	6	3.8%

EMPLOYMENT_STATUS	Count	Percent	Weighted Count	Weighted Percent
Total	25	100.0%	159	100.0%

#### DID\_MAKE\_TRIP\_WORK : Did you make a trip to work since you left home?

DID_MAKE_TRIP_WORK	Count	Percent	Weighted Count	Weighted Percent
No	7	100.0%	32	100.0%
Total	7	100.0%	32	100.0%

### WILL\_MAKE\_TRIP\_WORK: Will you make a trip to work before you will arrive home?

WILL_MAKE_TRIP_WORK	Count	Percent	Weighted Count	Weighted Percent
No	7	100.0%	32	100.0%
Total	7	100.0%	32	100.0%

# STUDENT\_STATUS: What is your student status? (check the one response that BEST describes you)

STUDENT_STATUS	Count	Percent	Weighted Count	Weighted Percent
Not a student	23	92.0%	145	90.6%
Yes - Full-time College / University	2	8.0%	15	9.4%
Total	25	100.0%	160	100.0%

#### DID\_GO\_TO\_SCHOOL: Did you make a trip to school since you left home?

DID_GO_TO_SCHOOL	Count	Percent	Weighted Count	Weighted Percent
No	1	100.0%	8	100.0%
Total	1	100.0%	8	100.0%

## WILL\_GO\_TO\_SCHOOL: Will you make a trip to school before you will arrive at home?

WILL_GO_TO_SCHOOL	Count	Percent		Weighted Percent
No	1	100.0%	8	100.0%

WILL_GO_TO_SCHOOL	Count	Percent		Weighted Percent
Total	1	100.0%	8	100.0%

#### DISABILITY: Do you have a disability?

DISABILITY	Count	Percent	Weighted Count	Weighted Percent
No	23	92.0%	140	87.5%
Yes	2	8.0%	20	12.5%
Total	25	100.0%	160	100.0%

### HAVE\_DL : Do you have a valid driver's license?

HAVE_DL	Count	Percent	Weighted Count	Weighted Percent
Yes	17	68.0%	105	65.6%
No	8	32.0%	55	34.4%
Total	25	100.0%	160	100.0%

#### YOUR\_AGE: What is your age?

YOUR_AGE	Count	Percent	Weighted Count	Weighted Percent
45-54	7	28.0%	44	27.5%
25-34	6	24.0%	39	24.4%
35-44	6	24.0%	46	28.7%
18-24	4	16.0%	21	13.1%
55-64	1	4.0%	7	4.4%
65-74	1	4.0%	3	1.9%
Total	25	100.0%	160	100.0%

### RACE: What is your race / ethnic origin? (check all that apply)

Race	Count	Percent	Weighted Count	Weighted Percent
American Indian/Alaska Native	1	4.0%	13	8.1%
Black/African American	3	12.0%	24	15.1%

Race	Count	Percent	Weighted Count	Weighted Percent
Asian/Southeast Asian	0	0.0%	0	0.0%
White/Caucasian	4	16.0%	31	19.3%
Native Hawaiian/Pacific Islander	0	0.0%	0	0.0%
Hispanic/Latino	17	68.0%	98	61.4%
Middle Eastern	1	4.0%	6	3.9%
Prefer not to answer	0	0.0%	0	0.0%
Total	26	104.0%	172	107.8%

### YOUR\_GENDER: What is your gender? (check all that apply)

Gender	Count	Percent	Weighted Count	Weighted Percent
male	16	64.0%	111	69.3%
female	9	36.0%	49	30.7%
Transgender	0	0.0%	0	0.0%
Non-binary/third gender	0	0.0%	0	0.0%
Other/Prefer to self-describe	0	0.0%	0	0.0%
Total	25	100.0%	160	100.0%

#### HOME\_LANG\_OTHER: Do you speak a language other than English at home?

HOME_LANG_OTHER	Count	Percent	Weighted Count	Weighted Percent
Yes	13	52.0%	72	45.0%
No	12	48.0%	88	55.0%
Total	25	100.0%	160	100.0%

### HOME\_OTHER\_LANG : Language respondent speaks at home other than English

HOME_OTHER_LANG	Count	Percent	Weighted Count	Weighted Percent
Spanish	12	92.3%	66	91.7%
Arabic, Standard	1	7.7%	6	8.3%
Total	13	100.0%	72	100.0%

#### ENGLISH\_ABILITY: How well do you speak English?

ENGLISH_ABILITY	Count	Percent	Weighted Count	Weighted Percent
Very well	12	92.3%	70	97.2%
Not at all	1	7.7%	2	2.8%
Total	13	100.0%	72	100.0%

## INCOME: Which of the following BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2023?

INCOME	Count	Percent	Weighted Count	Weighted Percent
Refused/No Answer	9	36.0%	52	32.5%
Less than \$15,000	3	12.0%	15	9.4%
\$15,000 - \$19,999	2	8.0%	9	5.6%
\$20,000 - \$24,999	2	8.0%	9	5.6%
\$25,000 - \$29,999	2	8.0%	11	6.9%
\$50,000 - \$54,999	2	8.0%	9	5.6%
\$60,000 - \$79,999	2	8.0%	27	16.9%
\$80,000 - \$99,999	2	8.0%	22	13.8%
\$150,000 - \$199,999	1	4.0%	6	3.8%
Total	25	100.0%	160	100.1%

## SURVEY\_LANGUAGE: INTERVIEWER: In which language was this survey conducted?

SURVEY_LANGUAGE	Count	Percent	Weighted Count	Weighted Percent
ENGLISH	24	96.0%	158	98.8%
SPANISH	1	4.0%	2	1.2%
Total	25	100.0%	160	100.0%

#### SYSTEM\_TRANSFERS: Total number of in-system transfers

SYSTEM_TRANSFERS	Count	Percent	Weighted Count	Weighted Percent
0	18	72.0%	127	79.4%

SYSTEM_TRANSFERS	Count	Percent	Weighted Count	Weighted Percent
1	5	20.0%	27	16.9%
2	2	8.0%	6	3.8%
Total	25	100.0%	160	100.1%



180 Battery Street, Suite 350 Burlington, VT 05401 802.383.0118

www.rsginc.com









Chicago, IL



Evansville, IN



Portland, OR



Salt Lake City, UT



San Diego, CA

RSG promotes sustainable business practices that minimize negative impacts on the environment. We print all proposals and reports on recycled paper that utilizes a minimum of 30% post-consumer waste. RSG also encourages recycling of printed materials (including this document) whenever practicable.

For more information on RSG's sustainability practices, please visit www.rsginc.com.