

# 2024 FCOG Regional Transit On-Board Survey

October 2024



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# FCOG Regional Transit On-Board Survey Overview

October 2024



# Overview

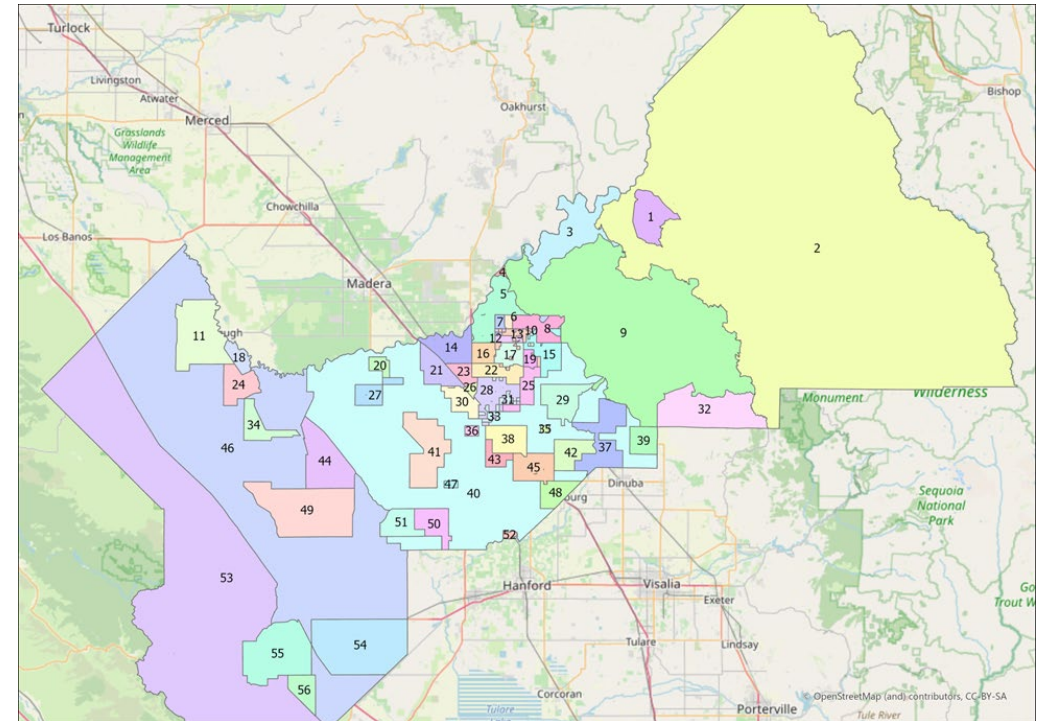
## FCOG Regional Transit On-Board Survey

RSG with support from ETC Institute designed and administered a transit on-board survey to collect detailed travel data from riders on Fresno County's three transit services:

- **FAX:** Fresno Area Express
- **Clovis:** Clovis Transit
- **FCRTA:** Fresno County Rural Transit Agency

The on-board survey provides FCOG and its agencies with this comprehensive overview of rider travel patterns, in addition to collecting important information regarding transit riders.

## Fresno COG Region





# Transit On-Board Surveys

## What are they?

A transit on-board survey collects detailed travel data from transit riders to understand their travel patterns, preferences, and demographics. These surveys are typically administered to rider ‘on-board’ transit vehicles and according to a comprehensive sample plan to collect statistically valid data.



## Why do one?

Accurate and reliable transit usage data are required as inputs to develop, calibrate, and validate the regional activity-based travel demand model. These data are also used in federal grant applications and decision-making processes, and to help transit agencies make decisions on transit operations and improvements

# Methodology

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# Sampling

The survey effort was designed to capture a representative sample of all weekday transit travel.

To accomplish this, a sampling plan identified the number of surveys to be completed on each route by direction and time of day. Specifically, the sampling plan and all survey efforts were constructed around the following periods:

- AM Peak: 5:00 am - 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.

The sampling plan ensured the survey collected data from approximately 3,000 passengers across all bus routes with a route level goal of 2,744 surveys split across the three agencies.



# Data Retrieval & Questionnaire

1. Tablet computers were the primary method used for data retrieval. Respondents had the choice of taking the survey in English or Spanish. Paper versions were available in Hindi, Russian, Karen, Hmong, Vietnamese, and Chinese.
2. 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.
3. The questions were designed to collect detailed information about Origin-destination (OD) travel patterns and usage details. The survey also asked basic sociodemographic details to ensure the sample contained a diverse cross section travelers.

## Example Tablet Survey Screenshots

1. FRESNO CA 2024 OB SURVEY (TABLET)

Q. What type of place are you GOING TO NOW? (the ending place for your one-way trip)

Work, work-related, volunteer-related	Appointment, shopping, or errands
Hotel	Social, leisure, religious, entertainment activity
College / University (students only)	Exercise / Recreation / Sightseeing
School K-12 (students only)	Social Visit / Church
Dined out, got coffee or take-out	Airport (passengers only)
Medical Service / Hospital (non-work)	Other:

THIS ROUTE (PAX) 010 BRT, SOUTHBOUND

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1. FRESNO CA 2024 OB SURVEY (TABLET)

Q. What is the EXACT STREET ADDRESS of this place? [ Work, work-related, volunteer-related ] (or nearest intersection or landmark)

**Kocky's Bar and Grill @ 1231 Van Ness Ave, Fresno, California, 93721**

Map Satellite

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1. FRESNO CA 2024 OB SURVEY (TABLET)

Q. Which of the following BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2023?

Less than \$15,000	\$50,000 - \$54,999
\$15,000 - \$19,999	\$55,000 - \$59,999
\$20,000 - \$24,999	\$60,000 - \$79,999
\$25,000 - \$29,999	\$80,000 - \$99,999
\$30,000 - \$34,999	\$100,000 - \$149,999
\$35,000 - \$39,999	\$150,000 - \$199,999
\$40,000 - \$44,999	\$200,000 or above
\$45,000 - \$49,999	.....

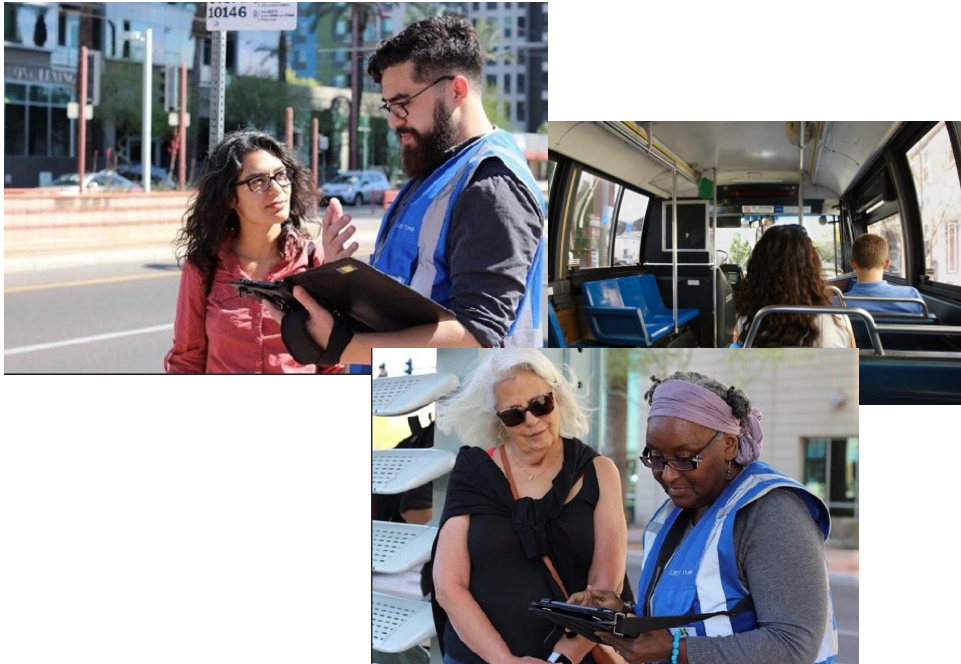
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# Administration

In March and April of 2024, trained interviewers recruited riders who were on-board FAX, Clovis or FCRTA vehicles. Data were collected on Monday through Thursday from 5AM to 11PM.

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.



Services	Goal	Collected	% of Goal
FAX	2,672 Completed Surveys	2,918 Completed Surveys	109%
Clovis	56 Completed Surveys	69 Completed Surveys	123%
FCRTA	15 Completed Surveys	26 Completed Surveys	173%
Total	2,743 Completed Surveys	3,013 Completed Surveys	110%

# Data Cleaning/Weighting

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, while data for FCRTA and Clovis 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.



SERVICE	AVERAGE WEEKDAY RIDERSHIP*	SURVEYS COUNT (BEFORE WEIGHTING)	VALID SURVEYS (AFTER WEIGHTING)	WEIGHTED UNLINKED TRIPS	WEIGHTED LINKED TRIPS
FAX	31,439	2,918	2,904	31,474	24,368
Clovis	561	69	69	561	470
FCRTA	154	26	25	198	160
<b>Total</b>	<b>32,154</b>	<b>3,013</b>	<b>2,998</b>	<b>32,233</b>	<b>24,998</b>

*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.*

# Key Results

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*Note: Unless otherwise noted, the remainder of this section is based on the final weighted and expanded dataset of linked trips.*

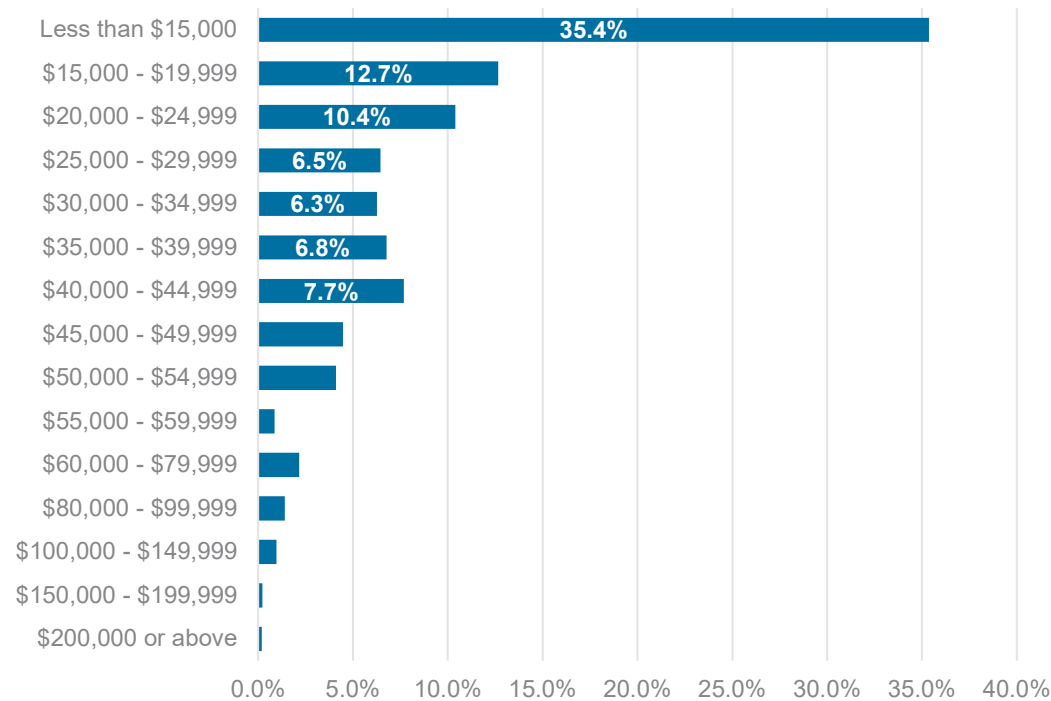
# Rider Profile

Of the 57.5% of respondents who provided their income, about 35.4% of respondents reported annual household incomes of under \$15,000.

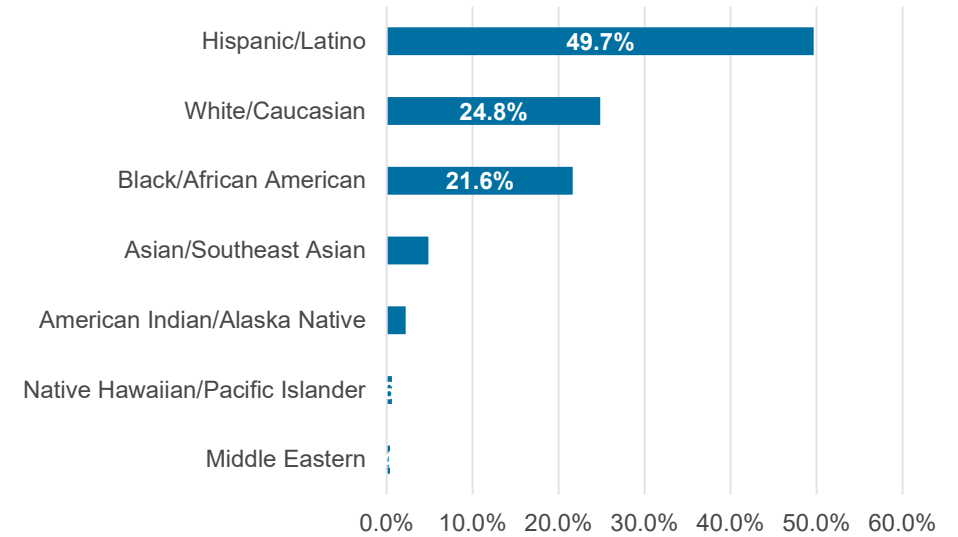
Approximately half of Fresno riders (49.7%) identify as Hispanic/Latino

Most riders, 65.2%, were younger than 44 years old .

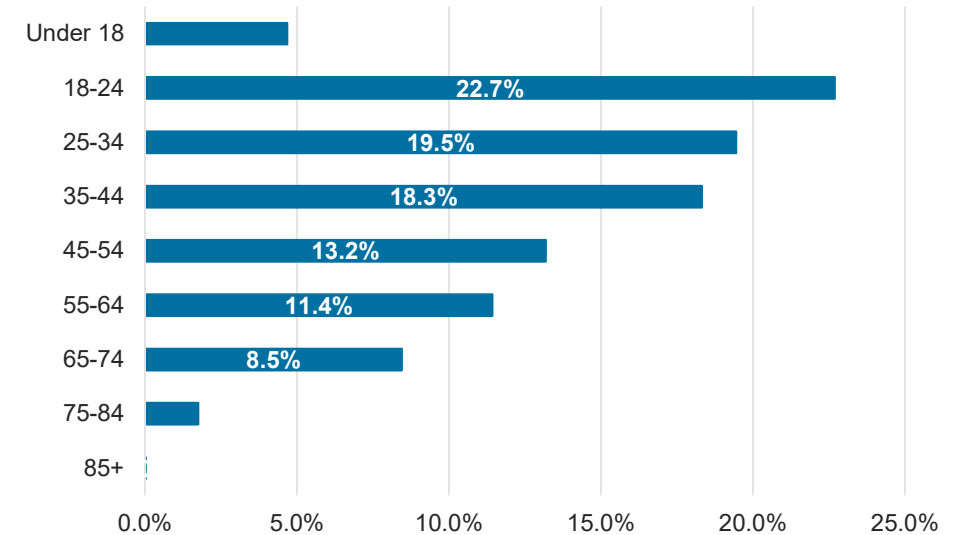
## Income



## Race



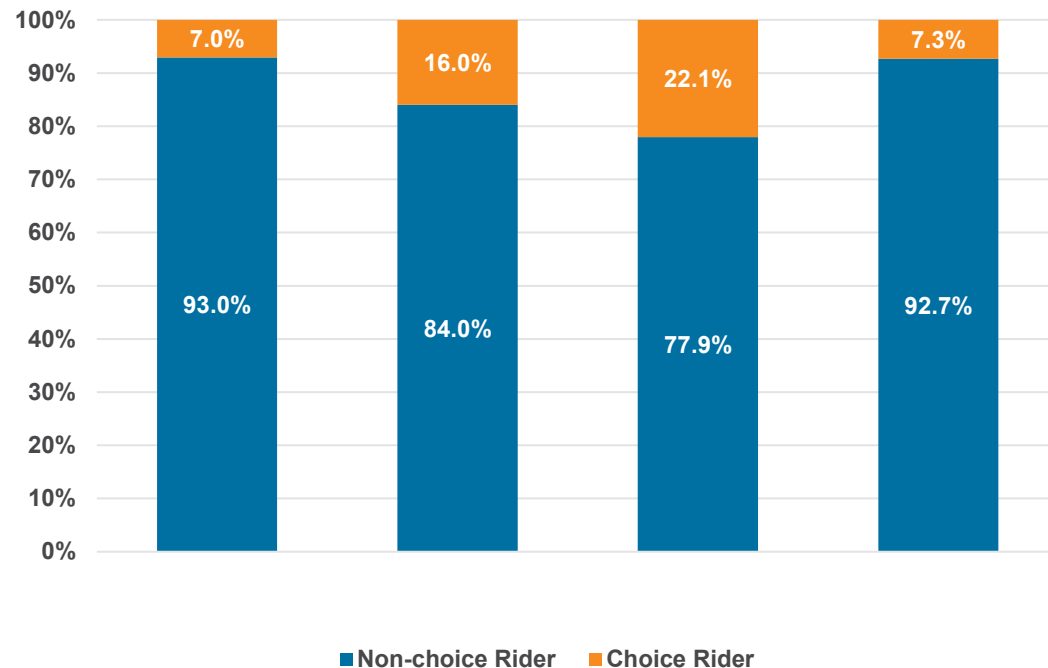
## Age



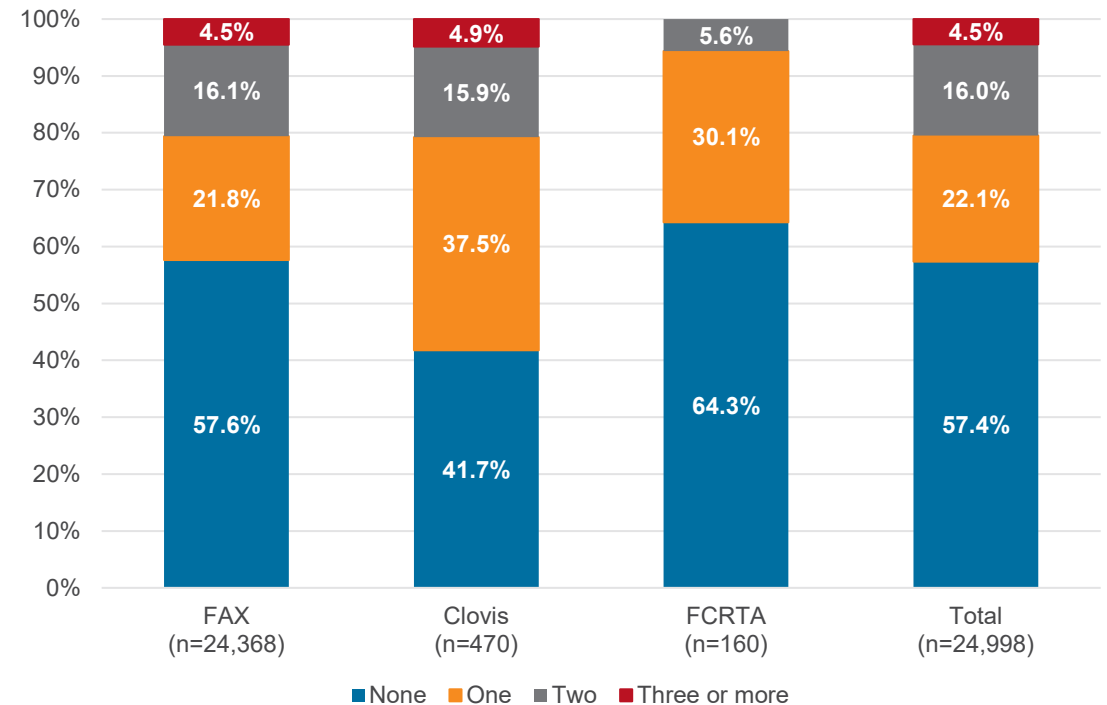
# Choice Ridership

The vast majority of Fresno transit riders are transit dependent. Except for Clovis Transit, most riders live in a household without a vehicle.

## Choice and Non-Choice Riders



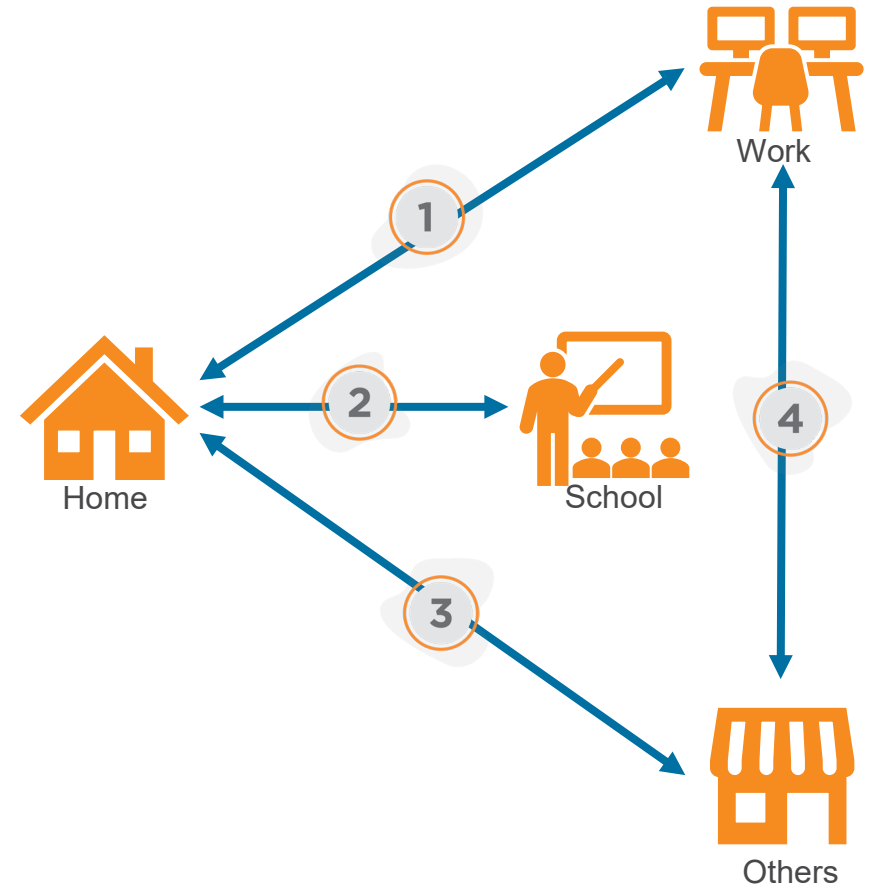
## Number of Vehicles in Household



# Trip Purpose

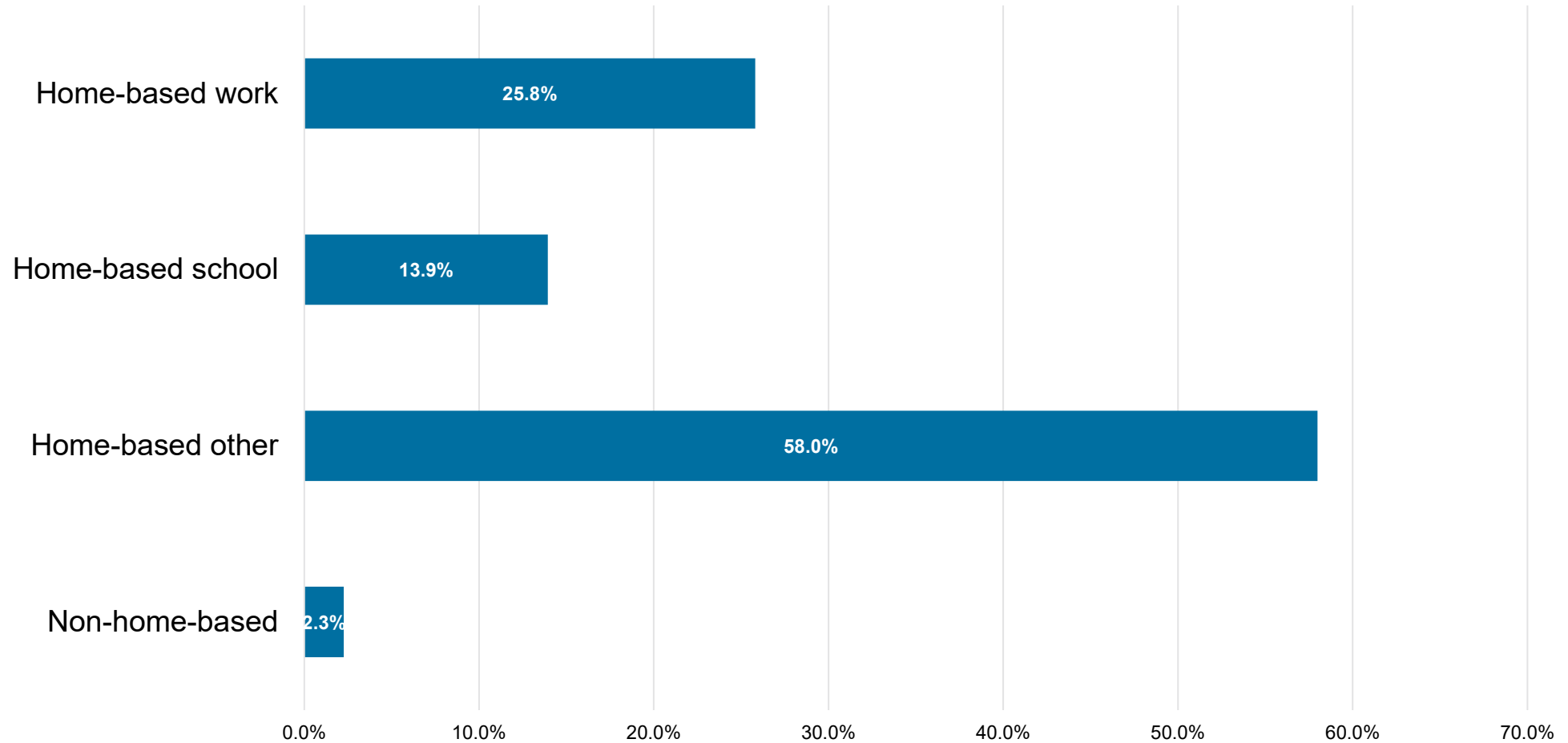
Trip purpose was inferred by origin and destination type. In other words, in addition to the origin and destination addresses, riders were also asked about the type of the origin and destination, such as whether it was home, work, school, etc. From these answers, the trip purpose was inferred. Trip purpose was divided into four categories for the purposes.

- 1 Home-based work trips:** Trips between home and work
- 2 Home-based school trips:** Trips between home and a college or K-12 school
- 3 Home-based non-work trips:** Trips between home and a place other than work or school
- 4 Non-home-based trips:** Trips neither the origin nor destination is the respondent's home



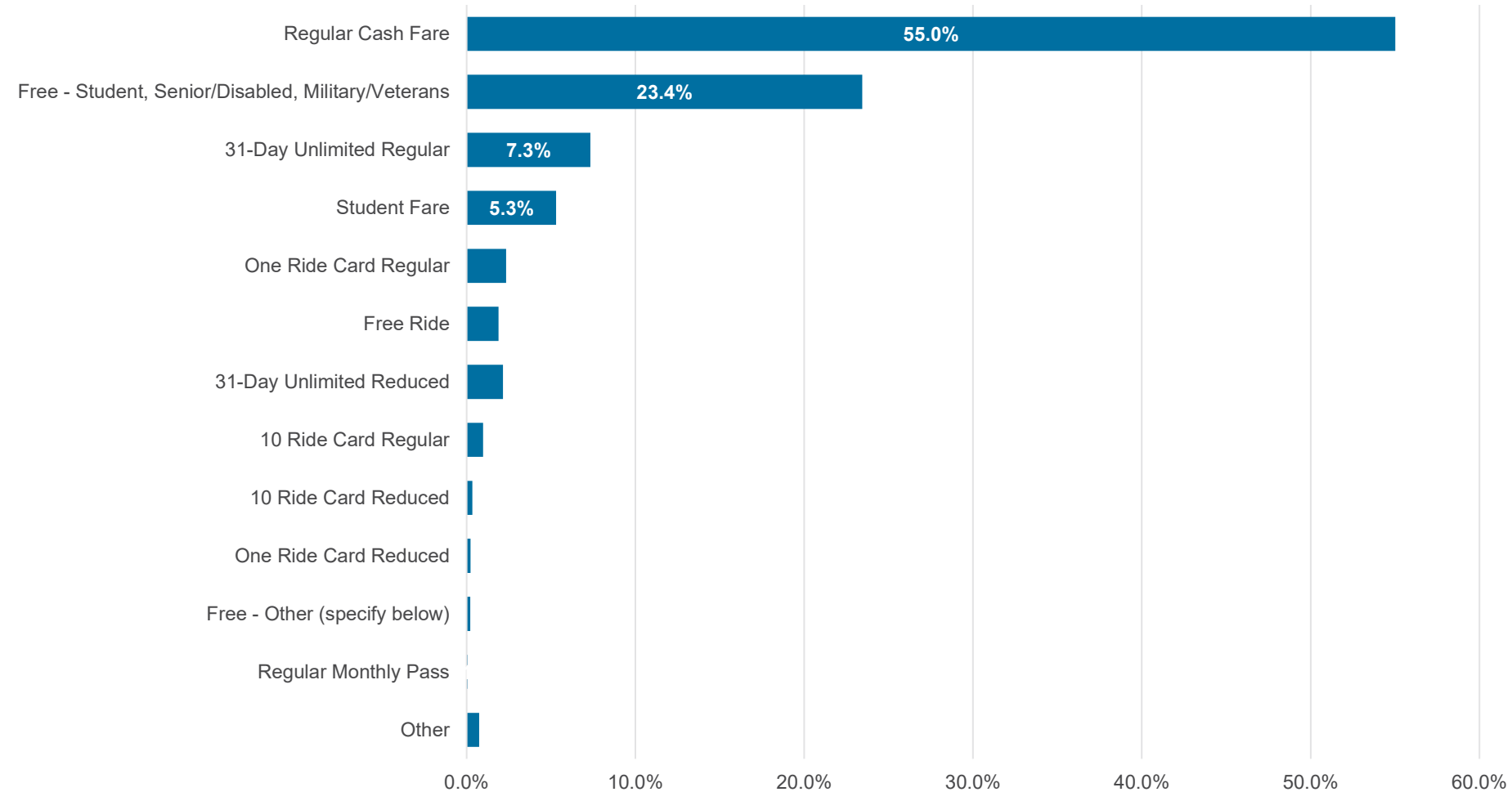
# Trip Purpose

Most respondents were making trips that either started or ended at home for non-work purposes. Only about 25% of trips were conducted for work purposes. A small fraction of trips were non-home-based, meaning the trip started and ended at a location other than home.



# Fare Payment and Pass Use

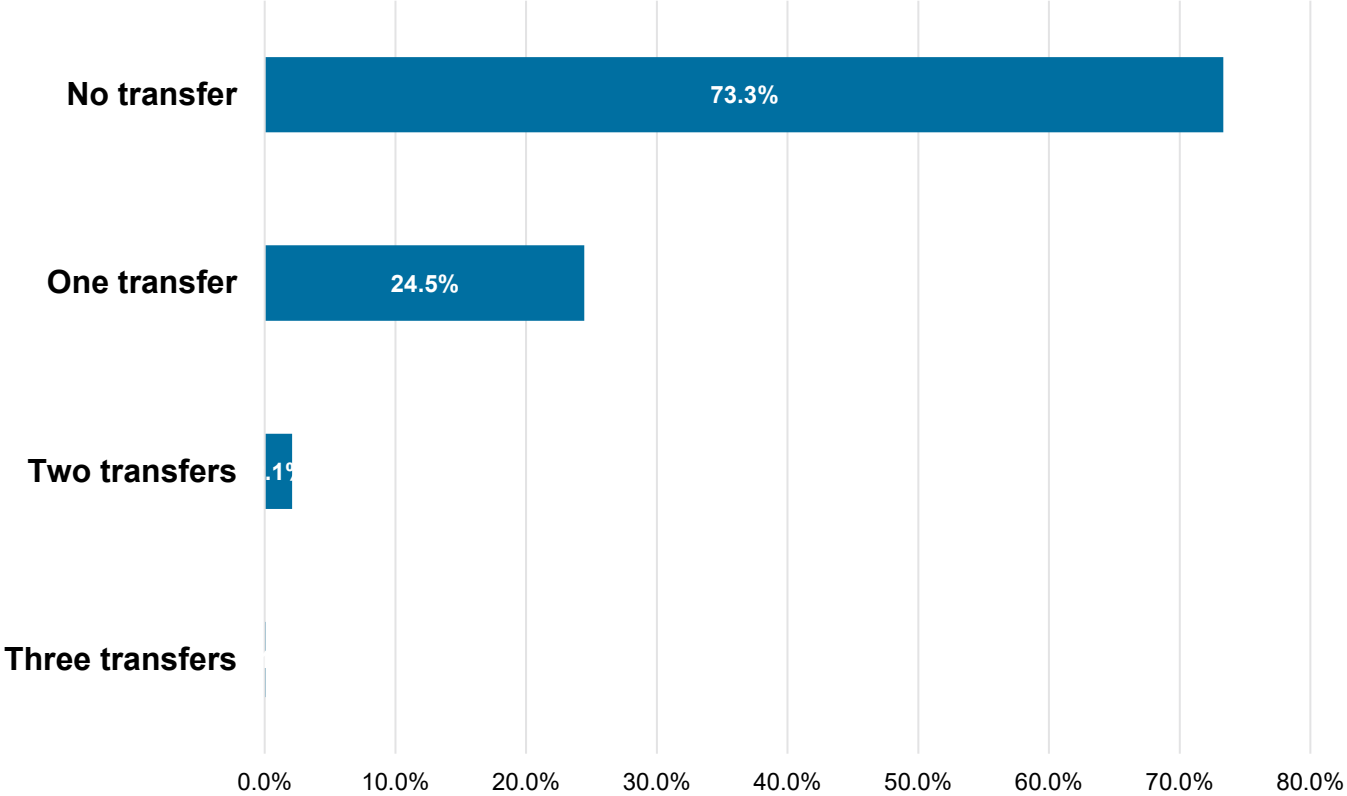
Most system users paid the regular fare in cash for their trip, while 23% received free boarding through a special group status. Only 7% of riders used a 30-day pass.





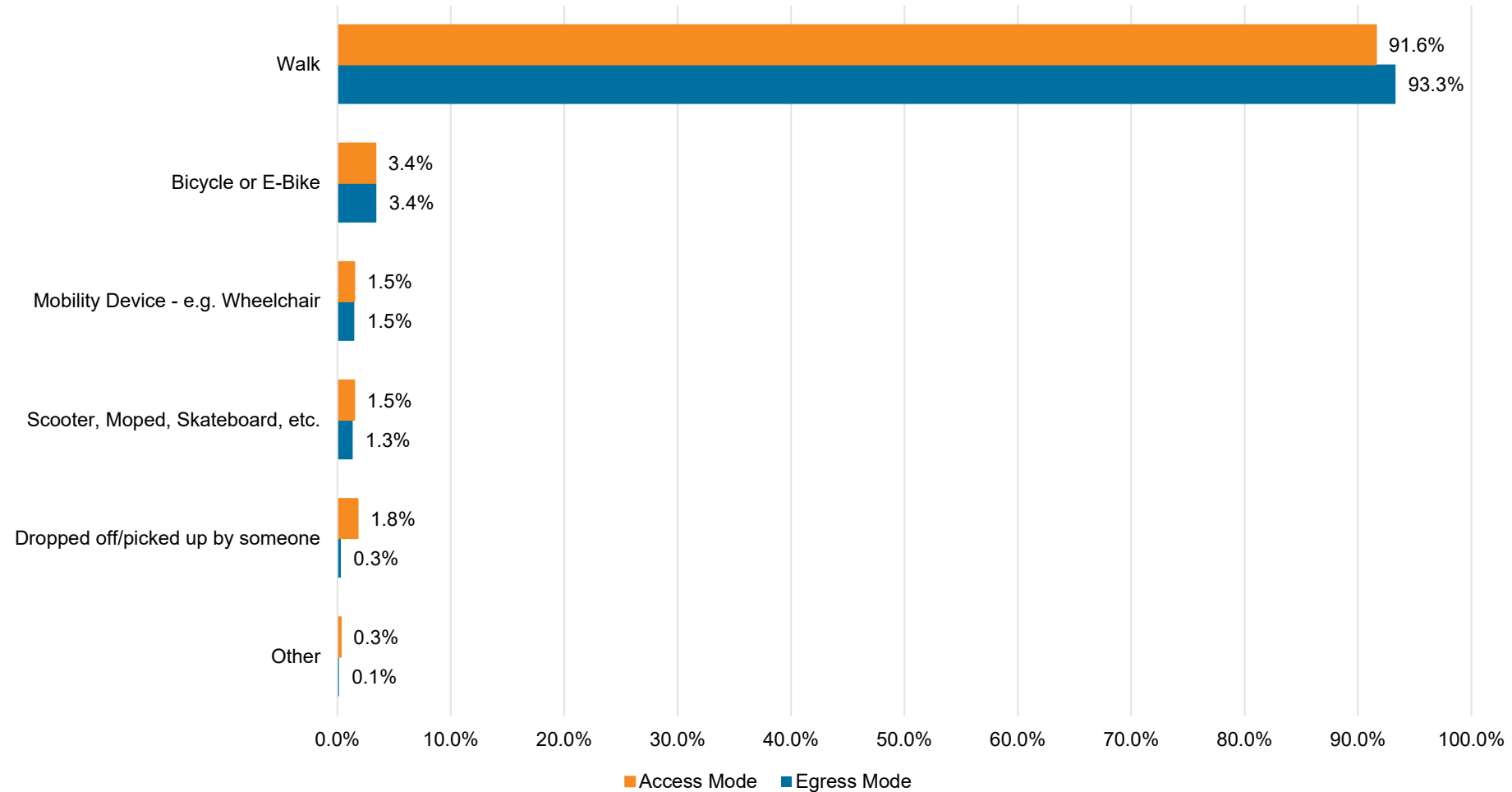
# Transfers

Approximately 27% of trips involved a transfer. This rate of transfers indicates the linked-to-unlinked trip ratio in the region is 1.27.



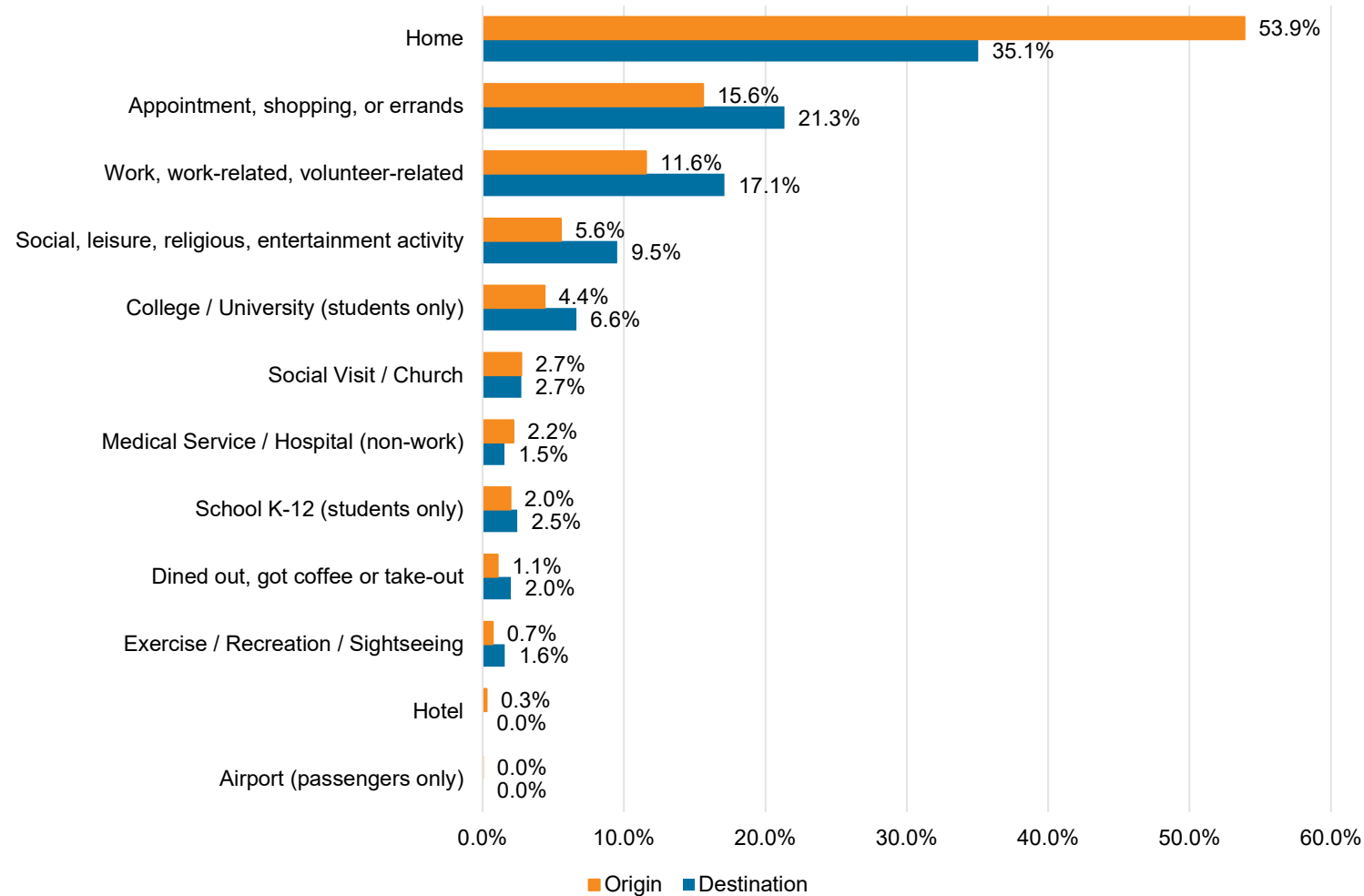
# ACCESS AND EGRESS MODE

Most respondents access transit by walking to the stop or station (91.6%). After alighting the bus, a slightly higher percentage of respondents walk to their destination (93.3%) .



# Origin-Destination Location Type

Most respondents reported a trip that started or ended at home. The second comment origin destination were for appointment, shopping or errands.

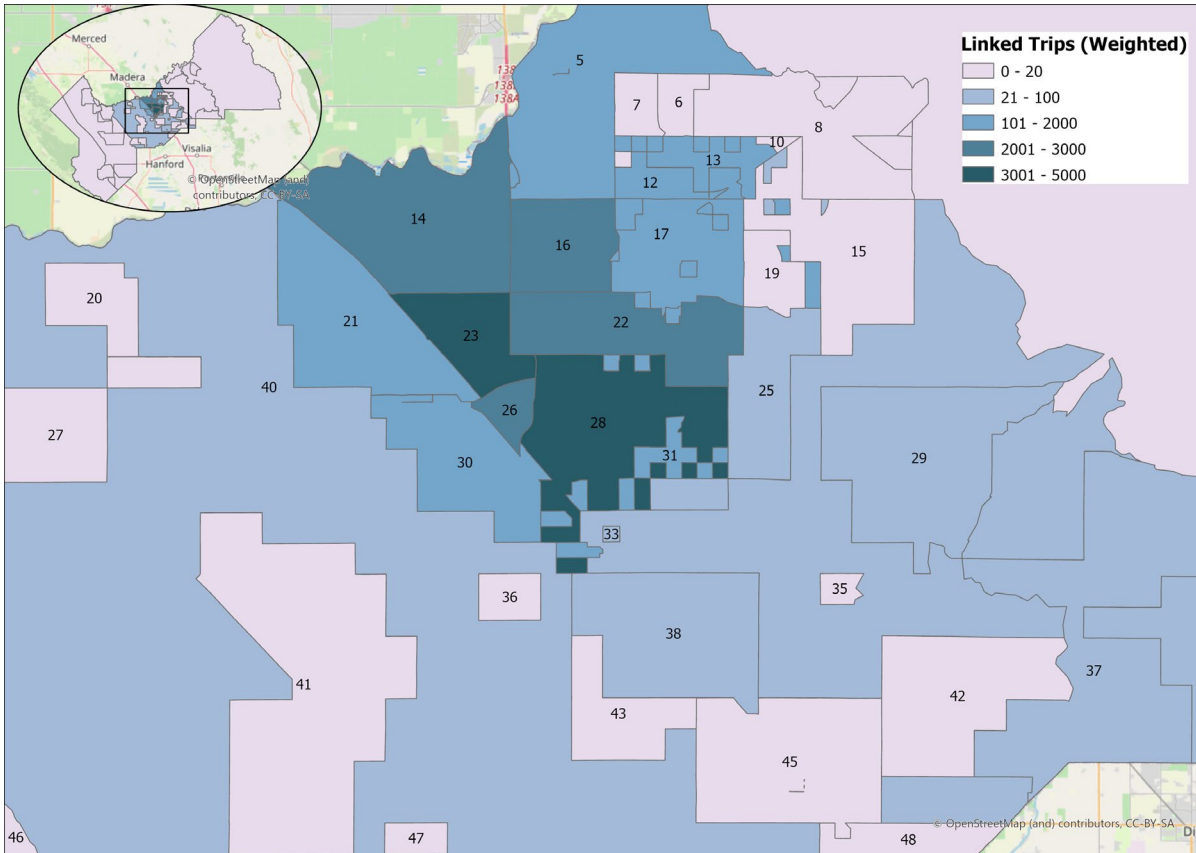


# Origin-Destination Analysis

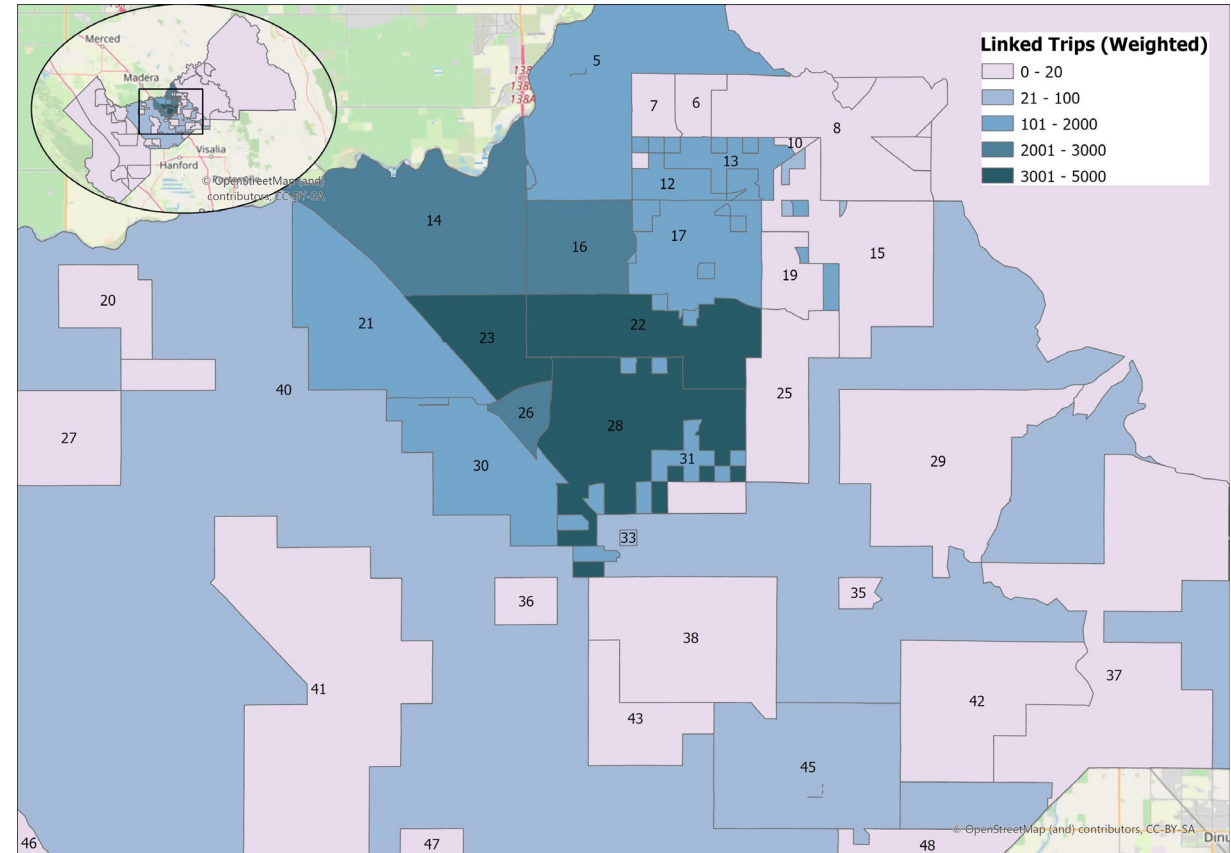
Trip productions are observed from all zones throughout the Fresno area, with the highest rates observed in the population centers of Community 23 Fresno High and Community 28 Roosevelt.

Trip attractions are more confined to these core population and job centers in the region.

## Trip Production

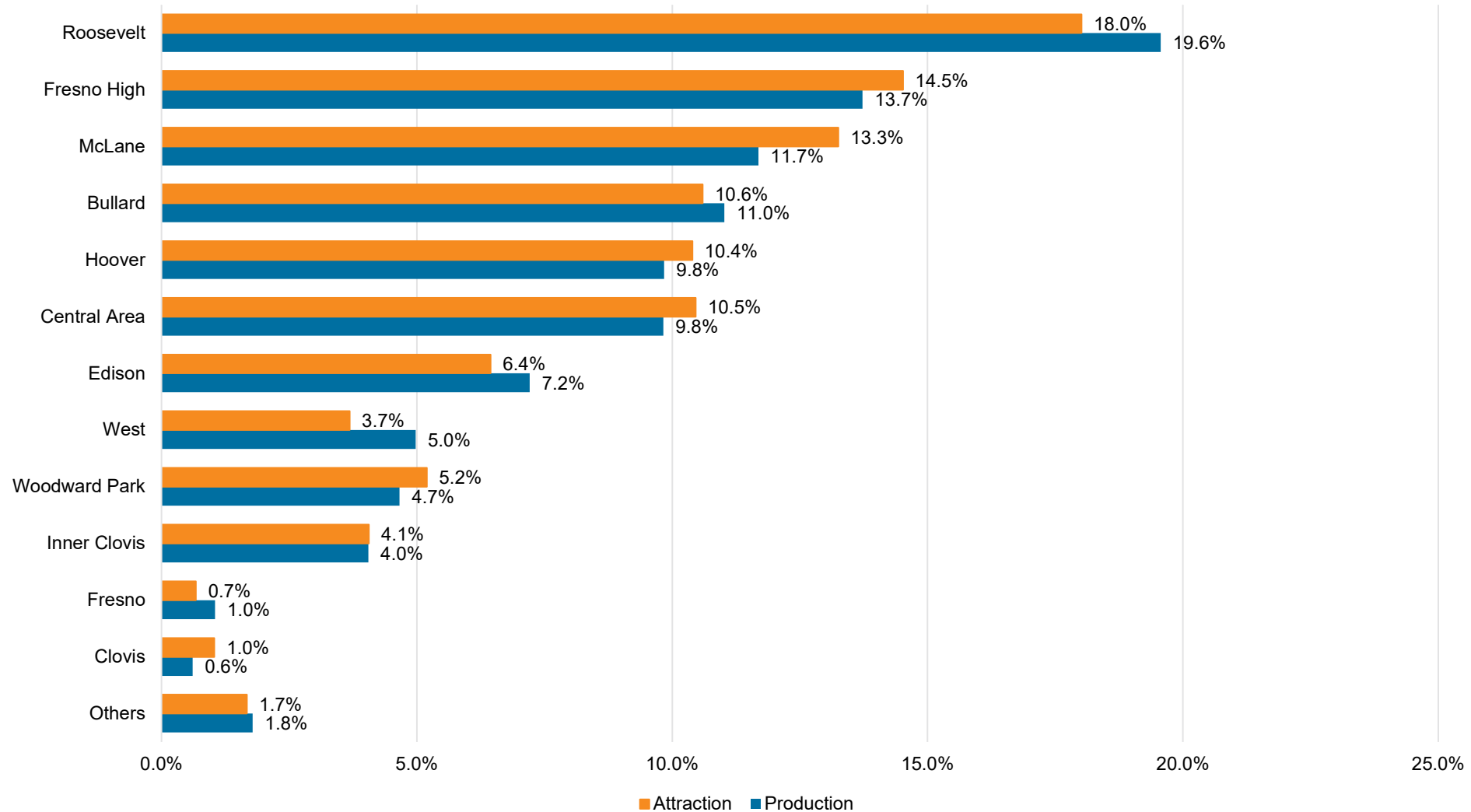


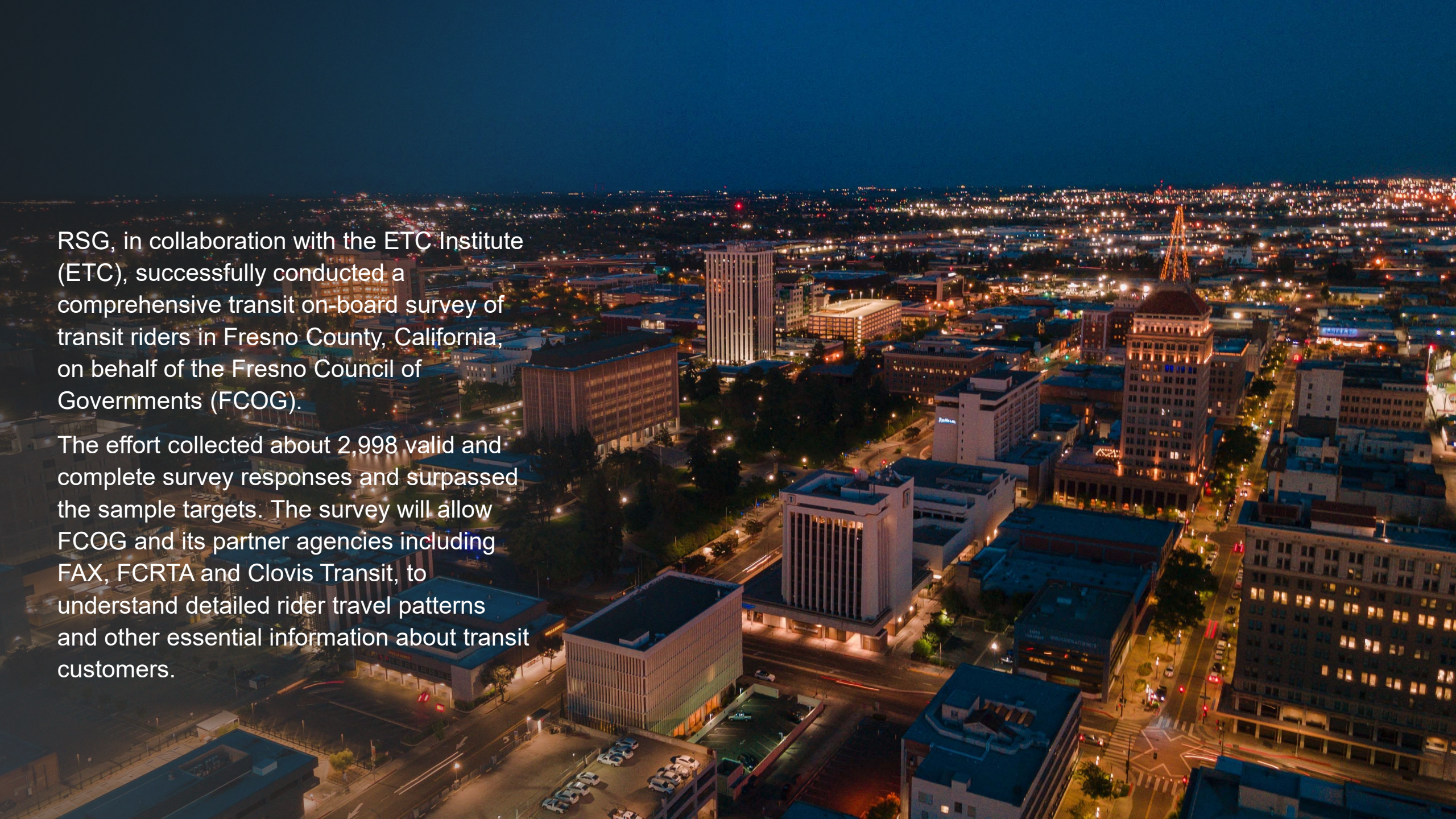
## Trip Attraction



# Origin-Destination Analysis

The chart and table below detail trip productions and attractions by zone. Roosevelt is the largest production and attraction zone in the Fresno service area.



An aerial night photograph of Fresno, California, showing a dense urban landscape with numerous illuminated buildings and streets. The city lights create a vibrant glow against the dark sky. In the foreground, several large, modern buildings are visible, including a prominent one with a grid-like facade. The background shows a vast expanse of city lights stretching towards the horizon.

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).

The effort collected about 2,998 valid and complete survey responses and surpassed the sample targets. 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.



## Contacts

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