2025 Tucson Transit On-Board Survey

Final Report

June 12, 2025

Prepared For: CITY OF TUCSON

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1. Introduction

In 2025, The City of Tucson with consultant support from ETC Institute, conducted a regional On-to-Off (O2O) and On-Board Origin Destination (OD) survey of all fixed routes operated by the city of Tucson. This included Sun Tran, Sun Link, and Sun On Demand. The study was conducted in the Sun Tran service area which includes the City of Tucson, the City of South Tucson, Unincorporated Pima County, the Town of Marana, the Town of Oro Valley, the Tohono O'odham Nation, and the Pasqua Yaqui Tribe.

The goal for the OD survey was to obtain at least 9,860 surveys from weekday and weekend riders. To enhance OD trip expansion on heavy demand routes, O2O counts were conducted to capture riders boarding and alighting location pairs on all routes with a minimum average weekday ridership (AWR) threshold of at least 2,000. Based on the established criterion, eleven Sun Tran routes and the Sun Link were selected for the O2O count survey. The goal was to gather a minimum of 8,631 O2O pairs, representing 20% of the total ridership on these routes.

The full data collection was performed from January 22, 2025, through March 30, 2025. The survey yielded a comprehensive dataset, comprising 10,424 OD surveys and 19,600 O2O pairs. This collection surpassed the initial target, indicating a robust sample size that would contribute to the reliability of the subsequent data analysis. Table 1 shows the overall survey goals and the number of surveys collected.

Table 1: Overall Survey Goals and Completions

Survey Type	Goal	Completed
OD Weekday Surveys	8,430	8,980
OD Weekend Surveys	1,141	1,444
Total Surveys	**9,860**	**10,424**
O2O Pairs	8,631	19,600

The 2025 survey collected comprehensive data regarding transit ridership, travel behavior and demographics of riders within the Tucson region to support transit planning. In addition, the data collected will be used to:

- Compile statistically accurate information about the use of transit in the region by Sun Tran, Sun Link, and Sun On Demand passengers for future planning.
- Collect and provide valid and current transit rider travel patterns, demographic information for Title VI reporting, and transit service characteristics.
- Provide data for updating the Pima Association of Governments' (PAG) Regional Travel Model

This report summarizes the survey methods and findings. Chapter 2 provides detailed information on the variables collected during the OD survey and summarizes the data. Chapter 3 provides a description of the sampling approach, survey instrument and procedures, and survey administration. Chapter 4 provides survey weighting and expansion procedures and decomposition analysis.

Included in the appendices are the survey sample goals and collected surveys for the OD survey and the O2O sample goals and O2O pairs collected (**Appendix A**) and the paper survey questionnaire which was used for tablet programming (**Appendix B**).

2. Survey Findings

The fully weighted and expanded data were used to create the following analyses which include trip analyses and demographic analysis. The results are based off the survey instrument which is provided in **Appendix B**. All tables were created using linked expansion factors other than system transfers which used unlinked expansion factors. Only fixed routes are included in the analysis.

2.1 Trip Level Analysis

Almost half (48%) of Tucson (Sun Link and Sun Tran) riders begin their transit trip from home. The second most common origin place type for riders is shopping (11%) followed by riders typical workplace (8%). Sun Link has more trips beginning at college and dining out in comparison to Sun Tran while Sun Tran has more trips beginning at home.

Table 2: Trip Origin

Origin Place Type	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Your HOME	32.7%	46.2%	44.6%	47.0%	53.4%	51.9%	**48.4%**
Shopping	7.2%	11.0%	10.6%	5.4%	12.1%	10.6%	**10.6%**
Social visit (e.g. friends, relatives)	3.1%	6.2%	5.8%	5.5%	11.6%	10.2%	**8.1%**
Your usual Workplace	8.9%	10.7%	10.5%	2.7%	6.5%	5.6%	**8.0%**
Personal Business (e.g. bank, post office)	4.0%	9.3%	8.6%	6.3%	6.1%	6.2%	**7.4%**
Dining out	15.8%	3.0%	4.5%	14.6%	4.4%	6.8%	**5.7%**
Recreation / Sightseeing	2.1%	2.8%	2.7%	11.7%	2.8%	4.9%	**3.8%**
College / University (students only)	21.6%	1.9%	4.3%	5.1%	0.2%	1.4%	**2.8%**
Medical appointment / doctor visit (non-work)	1.3%	4.3%	3.9%	0.0%	2.0%	1.5%	**2.7%**
School K-12 (students only)	1.7%	2.5%	2.4%	0.0%	0.1%	0.1%	**1.2%**
Other business related (e.g. meeting, delivery)	0.3%	0.8%	0.7%	0.9%	0.3%	0.5%	**0.6%**
Pick up / drop off someone (e.g. school, daycare)	0.2%	0.8%	0.7%	0.0%	0.2%	0.2%	**0.4%**
Your Hotel / motel / lodging	0.9%	0.2%	0.3%	0.3%	0.1%	0.1%	**0.2%**
Major sporting event	0.1%	0.0%	0.0%	0.6%	0.0%	0.1%	**0.1%**
Escorting / accompanying someone	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	**0.1%**
Airport (passengers only)	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	**0.0%**

Thirty-five percent of riders end their transit trip at home. The second most common destination place type for riders is shopping (13%) followed by riders typical workplace (11%). Sun Link has more trips ending at college and dining out in comparison to Sun Tran while Sun Tran has more trips ending at work.

Table 3: Trip Destination

Destination Place Type	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Your HOME	36.0%	39.4%	39.0%	28.5%	32.5%	31.6%	**35.2%**
Shopping	6.7%	11.9%	11.3%	10.7%	15.9%	14.7%	**13.1%**
Your usual Workplace	5.2%	12.7%	11.8%	2.8%	13.0%	10.7%	**11.2%**
Social visit (e.g. friends, relatives)	5.1%	7.9%	7.5%	7.3%	15.2%	13.4%	**10.5%**
Personal Business (e.g. bank, post office)	5.4%	9.5%	9.0%	5.7%	8.2%	7.6%	**8.3%**
Recreation / Sightseeing	3.0%	2.7%	2.8%	18.2%	5.9%	8.7%	**5.8%**
Dining out	13.7%	2.8%	4.1%	13.3%	3.7%	5.9%	**5.0%**
College / University (students only)	21.8%	3.2%	5.4%	9.1%	1.7%	3.4%	**4.4%**
Medical appointment / doctor visit (non-work)	1.3%	4.0%	3.7%	0.0%	2.2%	1.7%	**2.6%**
School K-12 (students only)	0.7%	3.1%	2.8%	0.0%	0.0%	0.0%	**1.4%**
Other business related (e.g. meeting, delivery)	0.3%	1.5%	1.4%	3.1%	0.6%	1.2%	**1.3%**
Pick up / drop off someone (e.g. school, daycare)	0.4%	0.7%	0.6%	0.0%	0.2%	0.2%	**0.4%**
No particular destination	0.0%	0.3%	0.3%	0.0%	0.4%	0.3%	**0.3%**
Airport (passengers only)	0.0%	0.2%	0.2%	0.1%	0.2%	0.2%	**0.2%**
Major sporting event	0.1%	0.0%	0.0%	1.2%	0.0%	0.3%	**0.1%**
Escorting / accompanying someone	0.2%	0.2%	0.2%	0.0%	0.1%	0.1%	**0.1%**
Your Hotel / motel / lodging	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	**0.0%**

Trips that begin or end at home and/or shopping (Home-based shopping trips) make up 17% of all riders trips. Home-based work trips also make up 17% of all rider trips. Non-home-based other trips make up 14% of all rider trips. These trips include instances such as dining to shopping or college to dining out. Sun Link has a higher percentage of Home-based college trips in comparison to Sun Tran.

Table 4: Trip Purpose

Trip Purpose	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Home-Based Shopping	7.1%	16.6%	15.4%	9.5%	21.6%	18.8%	**17.2%**
Home-Based Work	9.2%	21.0%	19.6%	2.7%	17.9%	14.4%	**16.9%**
Non-Home-Based Other	26.6%	12.1%	13.8%	21.8%	12.3%	14.5%	**14.2%**
Home-Based Social visit (e.g. friends, relatives)	3.0%	8.5%	7.8%	5.9%	17.4%	14.7%	**11.4%**
Home-Based Personal Business (e.g. bank, post office)	2.8%	12.5%	11.3%	6.8%	9.9%	9.2%	**10.2%**
Home-Based Recreation / Sightseeing	2.8%	3.9%	3.8%	19.9%	6.5%	9.6%	**6.8%**
Home-Based Dining out	10.8%	4.2%	5.0%	15.5%	5.8%	8.1%	**6.6%**
Home-Based College / University	29.8%	4.6%	7.6%	10.9%	1.9%	4.0%	**5.8%**
Home-Based Medical appointment / doctor visit (non-work)	1.0%	6.3%	5.7%	0.0%	3.4%	2.6%	**4.1%**
Home-Based School K-12	1.3%	5.0%	4.6%	0.0%	0.1%	0.1%	**2.3%**
Non-Home-Based Work	4.7%	2.3%	2.6%	2.8%	1.7%	1.9%	**2.2%**
Home-Based Other business related (e.g. meeting, delivery)	0.1%	1.6%	1.4%	3.1%	0.8%	1.3%	**1.4%**
Home-Based Pick up / drop off someone (e.g. school, daycare)	0.6%	1.0%	1.0%	0.0%	0.4%	0.3%	**0.7%**
Home-Based Major sporting event	0.2%	0.0%	0.0%	1.2%	0.0%	0.3%	**0.2%**
Home-Based Escorting / accompanying someone	0.1%	0.2%	0.2%	0.0%	0.1%	0.1%	**0.1%**
Home-Based Airport	0.0%	0.2%	0.1%	0.0%	0.1%	0.1%	**0.1%**

The majority (94%) of riders walk to access transit. Two percent of riders bike to access transit, and one percent get dropped off at their very first transit stop. More Sun Link riders drive alone and park in comparison to Sun Tran.

Table 5: Access Mode

Access Mode	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Walk	93.6%	94.2%	94.2%	87.7%	95.3%	93.5%	**93.8%**
Bike	0.6%	2.1%	1.9%	2.8%	1.6%	1.9%	**1.9%**
Was dropped off by someone	0.8%	1.5%	1.4%	1.0%	1.0%	1.0%	**1.2%**
Wheelchair	1.3%	1.0%	1.1%	0.3%	1.4%	1.1%	**1.1%**
Drove or rode with others and parked	0.4%	0.3%	0.3%	6.4%	0.2%	1.7%	**1.0%**
Drove alone and parked	3.0%	0.4%	0.7%	1.8%	0.1%	0.5%	**0.6%**
Other	0.1%	0.2%	0.1%	0.0%	0.2%	0.1%	**0.1%**
E-scooter (e.g. Spin, Razor)	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	**0.1%**
Uber, Lyft, etc.	0.1%	0.2%	0.2%	0.0%	0.0%	0.0%	**0.1%**
Cat Tran Shuttle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Taxi	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

The majority (95%) of riders walk to egress transit. Two percent of riders bike to access transit, one percent wheelchair, and one percent get picked up by someone at their very last transit stop. More Sun Link riders get in a vehicle and drive alone in comparison to Sun Tran.

Table 6: Egress Mode

Egress Mode	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Walk	92.6%	95.0%	94.7%	90.9%	95.3%	94.3%	**94.5%**
Bike	0.6%	2.0%	1.8%	2.8%	1.7%	1.9%	**1.9%**
Wheelchair	1.3%	1.0%	1.1%	0.3%	1.2%	1.0%	**1.0%**
Be picked up by someone	0.8%	1.2%	1.2%	0.3%	1.0%	0.9%	**1.0%**
Get in a parked vehicle & drive/ride w/others	1.9%	0.2%	0.4%	4.5%	0.0%	1.1%	**0.7%**
Get in a parked vehicle & drive alone	2.7%	0.1%	0.4%	1.2%	0.0%	0.3%	**0.4%**
Uber, Lyft, etc.	0.0%	0.2%	0.1%	0.0%	0.3%	0.3%	**0.2%**
Other	0.1%	0.2%	0.1%	0.0%	0.2%	0.1%	**0.1%**
E-scooter (e.g. Spin, Razor)	0.0%	0.1%	0.1%	0.0%	0.2%	0.1%	**0.1%**
Cat Tran Shuttle	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

Over half (55%) of weekday trips are made using one route. Thirty-seven percent of transit trips are made using a total of two routes and 8% of trips are made using three or more routes. Riders who use Sun Link make less transfers than Sun Tran riders and typically just use the Sun Link to make their transit trip.

Table 7: Total Routes Used

Total Routes Used	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
1 (One Route)	89.5%	49.5%	53.3%	91.2%	48.9%	56.8%	**55.1%**
2 (Two Routes)	9.6%	41.9%	38.8%	7.6%	42.1%	35.6%	**37.2%**
3 (Three Routes)	0.9%	8.0%	7.3%	0.9%	8.4%	7.0%	**7.2%**
4 (Four Routes)	0.0%	0.6%	0.6%	0.3%	0.6%	0.5%	**0.5%**

Nearly three quarters (72%) of riders use transit at least five days per week (51% every day and 21% five days per week). More Sun Tran riders use transit every day in comparison to Sun Link.

Table 8: Transit Use Frequency

Transit Use Frequency	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Everyday (7 days a week)	40.3%	52.3%	50.8%	33.4%	57.0%	51.5%	**51.2%**
5 days/week	25.0%	24.5%	24.5%	14.0%	18.7%	17.6%	**21.0%**
2-4 days/week	21.4%	17.6%	18.1%	19.9%	16.8%	17.5%	**17.8%**
Once/week	3.2%	2.0%	2.1%	6.8%	3.7%	4.4%	**3.3%**
2-3 times/month	4.7%	1.8%	2.2%	4.1%	1.4%	2.0%	**2.1%**
Once per month	1.6%	0.7%	0.8%	3.1%	1.1%	1.6%	**1.2%**
Less than once per month	3.8%	1.1%	1.4%	18.7%	1.3%	5.4%	**3.5%**

Thirty-one percent of riders have been using transit for ten or more years. Fifteen percent of riders have been using transit for less than one year. Sun Tran has more long-term transit customers in comparison to Sun Link.

Table 9: Transit Use Length

Transit Use Length	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
More than 10 years	10.8%	33.0%	30.3%	15.9%	37.5%	32.4%	**31.4%**
5-10 years	7.2%	14.8%	13.9%	10.7%	14.7%	13.8%	**13.8%**
2-5 years	28.6%	21.6%	22.4%	27.8%	23.2%	24.2%	**23.4%**
1-2 years	27.9%	15.0%	16.6%	16.1%	10.8%	12.0%	**14.2%**
Less than 1 year	23.6%	14.7%	15.8%	21.3%	13.0%	14.9%	**15.3%**
First time riding	2.0%	1.0%	1.1%	8.2%	0.9%	2.6%	**1.9%**

If transit services were not available, one quarter (28%) of riders would walk to make their trip, 22% would take a Taxi or Uber, and 18% would not be able to make their trip. More Sun Link riders would drive their own vehicle if transit were not available in comparison to Sun Tran.

Table 10: Mode for Trip if Transit Was not Available

Mode for Trip if Transit Was not Available	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Walk	51.8%	23.0%	26.5%	41.4%	26.6%	30.1%	**28.3%**
Taxi/Uber	10.2%	25.0%	23.2%	13.1%	23.4%	21.0%	**22.1%**
Would not make trip	9.9%	19.2%	18.1%	9.4%	21.3%	18.6%	**18.3%**
Friend/family member	3.7%	15.6%	14.2%	0.0%	13.2%	10.1%	**12.1%**
Ride bicycle	7.4%	10.4%	10.1%	12.0%	10.5%	10.8%	**10.5%**
Drive own vehicle	16.2%	5.1%	6.4%	23.8%	3.7%	8.4%	**7.4%**
Other	0.6%	1.3%	1.2%	0.3%	1.3%	1.0%	**1.1%**
Sun Shuttle	0.3%	0.4%	0.4%	0.0%	0.0%	0.0%	**0.2%**

Forty-eight percent of riders do not do any planning to make their trip, 40% plan their trip using a transit App, and 8% plan with the ride guide schedule booklet. More Sun Link riders do not do any trip planning in comparison to Sun Tran riders.

Table 11: How the Trip Was Planned

Planning of Trip	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Did not do any trip planning	59.2%	43.2%	45.2%	63.9%	46.1%	50.2%	**47.8%**
Transit App	35.5%	41.7%	41.0%	33.7%	41.7%	39.8%	**40.4%**
Ride Guide (Schedule booklet)	1.8%	10.1%	9.1%	1.1%	7.5%	6.0%	**7.5%**
Online trip planner (suntran.com)	3.0%	3.7%	3.6%	1.4%	3.6%	3.1%	**3.3%**
Called customer service	0.1%	0.9%	0.8%	0.0%	0.5%	0.4%	**0.6%**
Other	0.3%	0.4%	0.4%	0.0%	0.6%	0.4%	**0.4%**

Out of those riders that plan their transit trip using a transit App, 54% plan with Google maps, 34% plan with the Sun Tran App, and 6% plan with Apple maps. More Sun Link riders that plan their trip with a transit App use Apple maps for trip planning in comparison to Sun Tran.

Table 12: App Used Most Often

App Used Most Often	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Google maps	50.6%	52.0%	51.9%	58.8%	56.4%	56.9%	**54.4%**
Sun Tran	29.0%	36.5%	35.7%	20.9%	35.0%	32.3%	**34.0%**
Apple maps	18.7%	5.6%	6.9%	13.7%	3.7%	5.7%	**6.3%**
Transit (Royale)	0.8%	3.0%	2.8%	0.9%	2.7%	2.4%	**2.6%**
Moovit	0.4%	2.6%	2.3%	0.0%	2.1%	1.7%	**2.0%**
Other	0.0%	0.0%	0.0%	5.7%	0.0%	1.1%	**0.6%**
Waze	0.6%	0.1%	0.2%	0.0%	0.0%	0.0%	**0.1%**
City Mapper	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	**0.1%**

The top three service enhancements suggested by riders are more weekend service (53%), more frequent service (43%) and later operating hours (34%). More Sun Tran riders top service enhancement is for more weekend service in comparison to Sun Link riders.

Table 13: Service Enhancements

Service Enhancements	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
More weekend service	41.2%	54.0%	52.4%	35.4%	61.1%	55.1%	**53.8%**
More frequent service	50.6%	43.2%	44.1%	37.7%	43.9%	42.4%	**43.2%**
Later operating hours	27.4%	34.9%	34.0%	19.8%	37.3%	33.2%	**33.6%**
Earlier operating hours	11.3%	19.6%	18.6%	6.2%	16.9%	14.4%	**16.4%**
Different destinations	22.0%	9.2%	10.7%	21.7%	9.6%	12.4%	**11.6%**
Shorter travel time	10.0%	9.8%	9.8%	10.3%	9.5%	9.7%	**9.7%**

Thirty-one percent of riders receive news information form announcements on board the transit vehicles or at transit stops. Twenty-three percent of riders receive news information by word of mouth.

Table 14: Receive News Information

Receive News Information	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Announcements onboard transit vehicle (bus posters, flyers)	27.4%	30.2%	29.9%	18.6%	35.5%	31.6%	**30.8%**
Word of mouth (Friends, family, colleagues)	26.0%	22.8%	23.2%	24.0%	23.1%	23.3%	**23.2%**
Online news websites (e.g., New York Times, BBC, etc.)	22.3%	15.3%	16.1%	19.5%	17.6%	18.0%	**17.1%**
Social media platforms (e.g., Facebook, Twitter/X, Instagram, etc.)	29.0%	16.8%	18.3%	13.0%	14.7%	14.3%	**16.2%**
News apps (e.g., Google News, Apple News, etc.)	15.1%	11.5%	11.9%	9.6%	13.6%	12.7%	**12.3%**
Television (News channels like CNN, BBC, etc.)	14.6%	12.9%	13.1%	11.7%	11.2%	11.3%	**12.2%**
Newsletters (Sun Tran Emails)	1.5%	3.4%	3.2%	0.9%	4.6%	3.7%	**3.5%**
Newspapers (Printed or digital editions)	2.7%	3.0%	2.9%	2.5%	3.4%	3.2%	**3.1%**
Radio (Local or national news stations)	2.7%	1.8%	1.9%	0.0%	1.8%	1.4%	**1.6%**

2.2 Rider Analysis

Eighty-seven percent of riders have a working portable device with internet or data access. More Sun Link riders have portable devices with data plans in comparison to Sun Tran riders.

Table 15: Working Portable Device

Working Portable Device	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	94.1%	85.0%	86.1%	97.6%	85.8%	88.5%	**87.3%**
No	5.9%	15.0%	13.9%	2.4%	14.2%	11.5%	**12.7%**

Fifty-four percent of riders are employed either full time (33%) or part time (21%). Eighteen percent of riders are unemployed and not seeking work and 15% are unemployed but seeking work. Eleven percent of riders are retired. Sun Tran has more riders employed full-time in comparison to Sun Link.

Table 16: Employment Status

Employment Status	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Employed full-time (at least 35 hrs/week)	25.2%	34.2%	33.1%	40.1%	31.9%	33.8%	**33.4%**
Employed part-time (less than 35 hrs/week)	36.4%	18.1%	20.3%	20.4%	22.1%	21.7%	**21.0%**
Not currently employed, but seeking work	11.7%	17.1%	16.5%	7.7%	14.0%	12.6%	**14.5%**
Not currently employed, and not seeking work	20.4%	17.6%	18.0%	20.9%	18.0%	18.7%	**18.3%**
Homemaker	0.2%	1.4%	1.2%	0.8%	1.1%	1.0%	**1.1%**
Retired	6.1%	11.6%	11.0%	10.2%	13.0%	12.3%	**11.7%**

Out of those riders that are employed, 90% work at their actual work site / work location. Sun Link riders have a higher percentage of riders that work hybrid (both at home and work site) in comparison to Sun Tran riders.

Table 17: Work Location (Work Site, Home, or Hybrid)

Work Location (Work Site, Home, or Hybrid)	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Work Site	90.5%	92.9%	92.6%	77.3%	92.1%	88.3%	**90.4%**
Hybrid	7.0%	3.4%	3.9%	14.4%	4.5%	7.0%	**5.5%**
Home	2.5%	3.6%	3.5%	8.3%	3.5%	4.7%	**4.1%**

Over three-quarters (77%) of riders are not students. Thirteen percent of riders are full time college students, 5% are part time college students, and 4% are K-12 students. Sun Link has a much higher percentage of full-time college students in comparison to Sun Tran.

Table 18: Student Status

Student Status	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Not a student	30.3%	81.7%	75.5%	52.8%	87.1%	79.1%	**77.4%**
Yes - Full-time college / university	59.0%	6.6%	12.9%	40.7%	5.3%	13.5%	**13.2%**
Yes - Part-time college / university	7.8%	4.4%	4.8%	5.3%	4.0%	4.3%	**4.6%**
Yes - K-12th grade	2.3%	6.9%	6.3%	0.0%	2.6%	2.0%	**4.1%**
Yes - Vocational / technical / trade school	0.6%	0.5%	0.5%	0.9%	0.9%	0.9%	**0.7%**
Other	0.0%	0.0%	0.0%	0.3%	0.0%	0.1%	**0.0%**

Over half (55%) of riders have a valid driver's license. A much greater percentage of Sun Link riders have a valid driver's license in comparison to Sun Tran riders.

Table 19: Driver's License Status

Driver's License Status	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	82.0%	48.7%	52.7%	82.8%	49.0%	56.9%	**54.8%**
No	18.0%	51.3%	47.3%	17.2%	51.0%	43.1%	**45.2%**

Twelve percent of riders have a disability. Sun Tran has a higher percentage of riders that have disabilities.

Table 20: Disability Status

Disability Status	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	5.3%	12.2%	11.4%	2.7%	15.2%	12.3%	**11.8%**
No	94.7%	87.8%	88.6%	97.3%	84.8%	87.7%	**88.2%**

Thirty-nine percent of riders are between the ages of 18 – 34 with 18% of riders being in the age group of 18 – 24 and 21% of riders being in the 25 – 34 age group. A much higher percentage of Sun Link riders are between the ages of 18 – 24 in comparison to Sun Tran.

Table 21: Age

Age	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
15 & under	0.6%	1.7%	1.5%	0.0%	0.2%	0.1%	**0.8%**
16-17	1.7%	4.7%	4.3%	0.0%	2.0%	1.5%	**2.9%**
18-24	56.3%	13.3%	18.5%	38.3%	12.5%	18.5%	**18.5%**
25-34	19.4%	21.2%	21.0%	16.4%	22.0%	20.7%	**20.8%**
35-44	7.7%	21.9%	20.2%	15.6%	21.8%	20.3%	**20.3%**
45-54	4.6%	15.3%	14.0%	10.9%	15.8%	14.7%	**14.4%**
55-64	4.2%	13.0%	11.9%	4.9%	14.4%	12.2%	**12.1%**
65 & older	5.6%	8.9%	8.5%	13.9%	11.4%	12.0%	**10.3%**

Sixty-three percent of riders are Male while Females make up 36% of transit riders. Sun Link has a much higher percentage of Female riders in comparison to Sun Tran.

Table 22: Gender

Gender	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Male	46.8%	64.7%	62.6%	54.1%	66.5%	63.6%	**63.1%**
Female	52.4%	34.5%	36.7%	44.8%	32.7%	35.5%	**36.1%**
Non-binary/third gender	0.8%	0.7%	0.7%	1.2%	0.8%	0.9%	**0.8%**
Other	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

Thirty-four percent of riders are of Hispanic or Latino origin. Sun Tran has a much higher percentage of riders of Hispanic or Latino origin.

Table 23: Hispanic or Latino Origin

Hispanic or Latino Origin	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	28.6%	37.9%	36.8%	16.3%	34.8%	30.5%	**33.6%**
No	71.4%	62.1%	63.2%	83.7%	65.2%	69.5%	**66.4%**

Sixty-five percent of riders are White / Caucasian. The second most common rider ethnicity is Hispanic / Latino (33%). The third most common rider ethnicity is Black / African American (12%). Sun Tran has more riders that are Hispanic / Latino in comparison to Sun Link. Hispanic / Latino percentages differ from Table 23 due to respondents identifying as multi racial / two or more categories.

Table 24: Race / Ethnicity

Race / Ethnicity	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
White / Caucasian	70.9%	63.3%	64.2%	73.0%	64.5%	66.5%	**65.4%**
Hispanic / Latino	28.5%	37.6%	36.5%	16.2%	34.7%	30.4%	**33.4%**
Black / African American	9.0%	13.6%	13.0%	6.3%	12.2%	10.9%	**11.9%**
American Indian / Alaska Native	3.1%	9.3%	8.6%	1.4%	11.0%	8.7%	**8.7%**
Asian	14.1%	2.9%	4.2%	13.6%	4.0%	6.2%	**5.2%**
Other	2.2%	0.9%	1.1%	1.2%	0.9%	1.0%	**1.0%**
Native Hawaiian / Pacific Islander	0.9%	0.9%	0.9%	0.3%	0.2%	0.2%	**0.5%**

Twenty-nine percent of riders speak another language at home other than English. The top three other languages spoke at home other than English include 22% Spanish, 1% Vietnamese, and 1% French.

Table 25: Speak Another Language at Home

Speak Another Language at Home	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	29.4%	28.6%	28.7%	20.2%	31.4%	28.8%	**28.7%**
No	70.6%	71.4%	71.3%	79.8%	68.6%	71.2%	**71.3%**

Out of all riders who speak a language other than English at home, one percent speak English less than well while 96% of riders speak English very well.

Table 26: English Proficiency

English Proficiency	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Very well	97.6%	96.3%	96.5%	99.7%	94.8%	95.9%	**96.2%**
Well	2.2%	2.7%	2.6%	0.3%	3.9%	3.1%	**2.8%**
Less than well	0.2%	1.0%	0.9%	0.0%	1.3%	1.0%	**0.9%**
Not at all	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**

2.3 Household Analysis

Sixty percent of riders do not have a vehicle available to their household. One quarter (25%) of riders have one household vehicle, 12% have two household vehicles, and 4% of riders have three or more household vehicles. Sun Tran has a higher percentage of riders that live in households that do not have vehicle availability.

Table 27: Total Household Vehicles

Household Vehicles	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
None (0)	42.3%	61.6%	59.3%	47.6%	63.4%	59.7%	**59.5%**
One (1)	37.8%	23.7%	25.4%	24.1%	24.9%	24.7%	**25.0%**
Two (2)	13.7%	10.9%	11.2%	24.1%	8.3%	11.9%	**11.6%**
Three (3)	3.1%	2.7%	2.7%	3.1%	2.3%	2.4%	**2.6%**
Four (4)	2.0%	0.6%	0.8%	0.3%	0.7%	0.6%	**0.7%**
Five (5)	0.8%	0.3%	0.4%	1.0%	0.1%	0.3%	**0.3%**
Six (6)	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	**0.1%**
Seven (7)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Eight (8)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Nine (9)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	**0.0%**
Ten or more (10+)	0.2%	0.1%	0.1%	0.0%	0.2%	0.1%	**0.1%**

Out of all riders, 15% could have used a household vehicle to make their transit trip. Sun Tran has a much higher percentage of transit necessity riders in comparison to Sun Link.

Table 28: Use Household Vehicle for Current Trip

Use Household Vehicle for Trip	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Yes	38.7%	10.7%	14.1%	43.3%	8.8%	16.8%	**15.5%**
No	61.3%	89.3%	85.9%	56.7%	91.2%	83.2%	**84.5%**

Thirty-three percent of riders live in single person households. Ten percent of riders live in households with five or more household members.

Table 29: Household Size

Household Size	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
One (1)	31.1%	32.3%	32.1%	26.1%	37.2%	34.6%	**33.4%**
Two (2)	30.3%	25.6%	26.1%	40.5%	28.4%	31.2%	**28.7%**
Three (3)	17.5%	18.2%	18.1%	15.0%	15.5%	15.4%	**16.7%**
Four (4)	13.3%	11.3%	11.5%	14.2%	9.5%	10.6%	**11.0%**
Five (5)	4.2%	6.1%	5.9%	2.8%	4.4%	4.1%	**4.9%**
Six (6)	2.7%	2.9%	2.9%	0.3%	1.9%	1.5%	**2.2%**
Seven (7)	0.2%	1.0%	0.9%	0.0%	0.9%	0.7%	**0.8%**
Eight (8)	0.1%	1.0%	0.9%	0.0%	0.7%	0.5%	**0.7%**
Nine (9)	0.0%	0.4%	0.3%	0.0%	0.1%	0.1%	**0.2%**
Ten or More (10+)	0.7%	1.2%	1.1%	1.2%	1.4%	1.4%	**1.2%**

Twenty-nine percent of riders live in households in which no one is employed. Thirty-seven percent of riders live in households with one employed member, 22% live in households with two employed members, and 12% live in households with three or more members employed.

Table 30: Household Employees Over the Age of 15

Household Employees	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
None (0)	23.8%	25.9%	25.6%	35.8%	29.8%	31.2%	**28.5%**
One (1)	32.5%	38.1%	37.4%	25.4%	40.5%	37.0%	**37.2%**
Two (2)	28.5%	23.2%	23.8%	26.5%	19.0%	20.7%	**22.2%**
Three (3)	10.3%	7.8%	8.1%	6.5%	5.9%	6.0%	**7.0%**
Four (4)	3.8%	2.9%	3.0%	4.9%	2.3%	2.9%	**3.0%**
Five (5)	0.5%	0.9%	0.8%	0.0%	1.3%	1.0%	**0.9%**
Six (6)	0.2%	0.3%	0.3%	0.0%	0.4%	0.3%	**0.3%**
Seven (7)	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	**0.1%**
Eight (8)	0.0%	0.1%	0.1%	0.0%	0.1%	0.1%	**0.1%**
Nine (9)	0.0%	0.2%	0.2%	0.0%	0.0%	0.0%	**0.1%**
Ten or More (10+)	0.3%	0.5%	0.5%	0.9%	0.7%	0.7%	**0.6%**

Twenty-eight percent of riders live in households that make less than $10,000 annually. Seventeen percent of riders live in households that make between$15,000 and $24,999. Seventeen percent of riders live in households that make over $50,000. Sun Link riders have higher household incomes in comparison to Sun Tran.

Table 31: Household Income

Household Income	Weekday			Weekend			Overall System Totals
	Sun Link	Sun Tran	Weekday Total	Sun Link	Sun Tran	Weekend Total	
Less than $10,000	23.9%	28.9%	28.3%	25.9%	28.9%	28.2%	**28.2%**
$10,000 - $14,999	9.5%	14.0%	13.5%	10.4%	16.2%	14.8%	**14.2%**
$15,000 - $24,999	15.3%	17.6%	17.3%	9.1%	17.7%	15.7%	**16.5%**
$25,000 - $34,999	12.3%	15.5%	15.1%	5.8%	16.0%	13.6%	**14.3%**
$35,000 - $49,999	11.2%	10.4%	10.5%	7.4%	11.0%	10.1%	**10.3%**
$50,000 - $74,999	10.7%	7.6%	8.0%	11.4%	5.9%	7.2%	**7.6%**
$75,000 - $99,999	8.4%	3.3%	3.9%	9.5%	2.3%	4.1%	**4.0%**
$100,000 or more	8.8%	2.7%	3.4%	20.5%	2.0%	6.4%	**5.0%**

3. Survey Administration

3.1 Sampling Plans

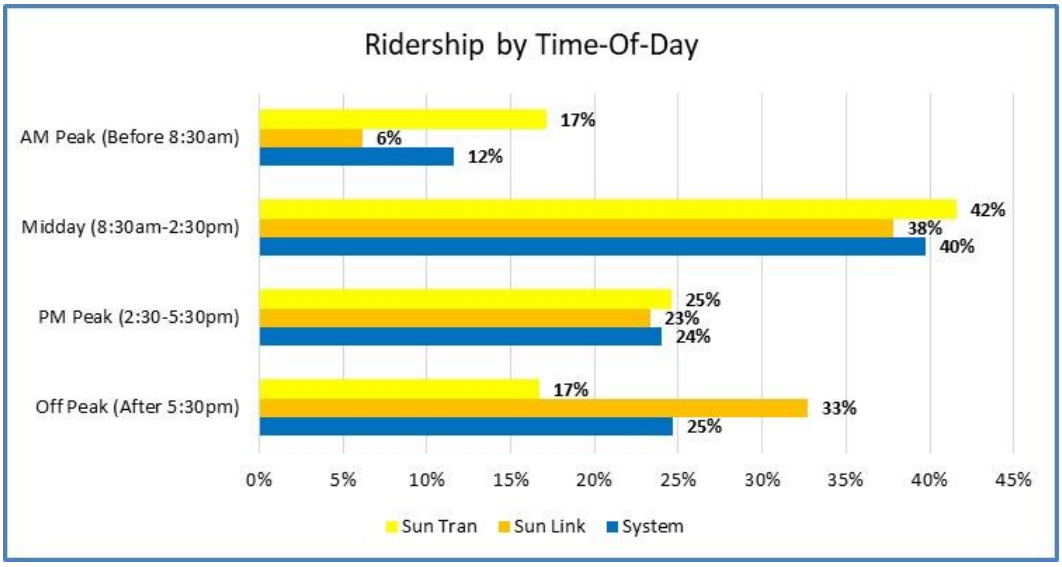
To ensure that the distribution of completed surveys mirrors the distribution of the region's passengers, ETC Institute, The City of Tucson, and Sun Tran established proportional sampling goals. ETC Institute developed a sampling plan that would ensure the completion of 9,860 total OD surveys and 8,631 O2O pairs. Overall, a total of 10,424 OD surveys and a total of 19,600 O2O pairs were collected.

Table 32 lists the four time periods for survey sampling, which are determined by ridership patterns and time-of-day parameters from Sun Tran. Figure 1 shows the total weekday ridership percentages by time-of-day based off the sample plan to create goals. These cell level sample sizes created by ETC were used to fine tune the collection and conduct the expansion. The ridership used to create the sampling plans was September 3 to October 31, 2024.

Table 32: Project Time Periods

Time Period	Time Range
AM Peak	Before 8:30 a.m.
Midday	8:30 a.m. to 2:30 p.m.
PM Peak	2:30 p.m. to 5:30 p.m.
OFF Peak	After 5:30 p.m.

Figure 1 – Total Ridership Percentages by Time-of-Day



3.2 Origin and Destination Sampling Plans

ETC Institute developed a sampling plan that would ensure the completion of the OD survey by at least 9,860 surveys. The weekday sampling plan for the OD survey was designed to obtain completed surveys from a minimum of 16% of the system level ridership with a 13% sample of ridership on each Sun Tran route and 20% for each Sun Link station and Sun Link as a whole.

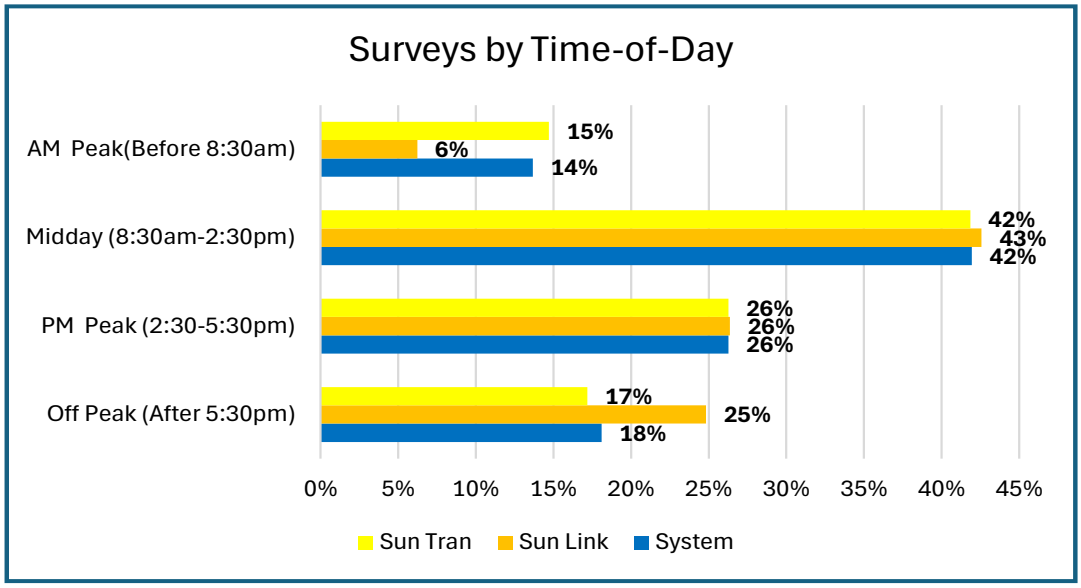
The weekend sampling plan for the OD survey was designed to obtain completed surveys from a minimum of a 2% sample of ridership on each Sun Tran route and 2.5% on the Sun Link. In total, 10,424 OD surveys were collected. The data also includes 14 Sun On Demand questionnaires. Table 33 shows the sample size and number of OD surveys collected by mode and day of week. Figure 2 shows percentages of the weekday OD surveys collected (expanded) by time-of-day and mode (Sun Tran and Sun Link) and systemwide.

Table 33: OD Surveys Collected by Service Type

Service Type	Day Type		
	Weekday	Weekend	Total
Sun Tran	7,320	1,250	8,570
Sun On Demand	14	0	14
Sun Link	1,646	194	1,840
System	8,980	1,444	10,424

Note: Total system sample size is based off total from RFP and is not calculated from adding totals.

Figure 2 – OD Surveys Collected by Time-of-Day



Sampling goals were created to guide the collection by route, time period, and direction. Appendix A contains the sample plans which show the OD survey sampling goals and number of total weekday-surveyed trips collected by time-of-day and direction.

3.3 On-to-Off Sampling Plans

All routes in the Sun Tran system were reviewed to determine if the AWR was sufficient to warrant the O2O counts. A minimum AWR threshold of at least 2,000 was required to be a part of this effort. Based on the AWR ridership used to plan for the survey, eleven Sun Tran routes and the Sun Link rail qualified the criterion and were selected for the O2O survey.

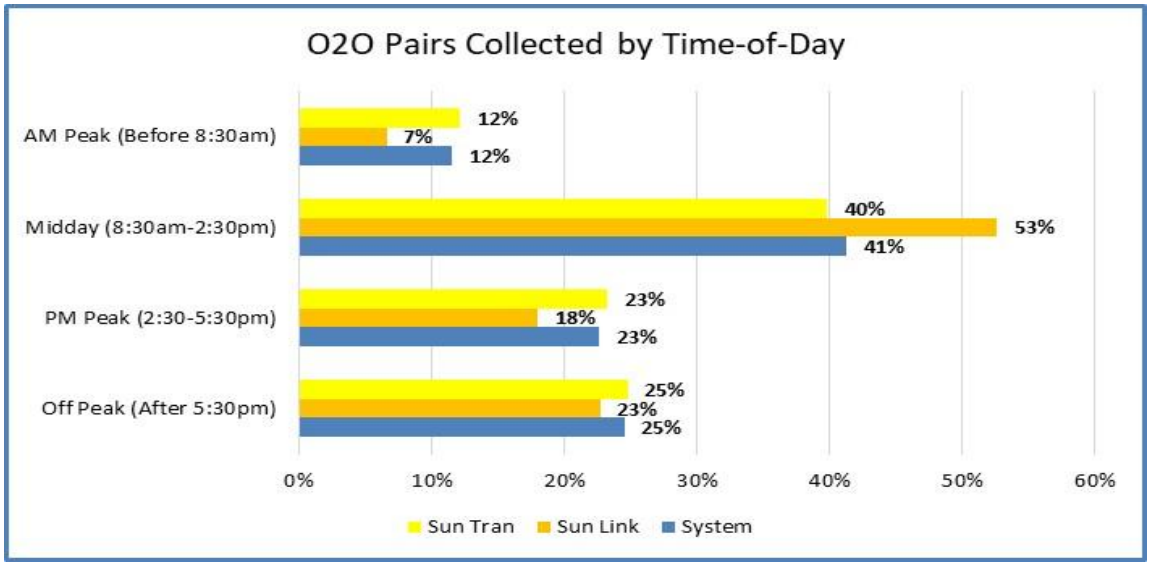
For each route surveyed, 20% of the AWR had O2O pairs collected. All O2O counts were collected on weekdays across the entire service day.

In total, 19,600 boarding and alighting pairs were collected. Appendix B contains the sample plans which show the O2O counts of total boarding and alighting pairs collected by route, time-of-day, and direction. Table 34 shows O2O pairs collected by service type. Figure 3 shows percentages of the O2O data collected by time-of-day and mode (Sun Tran and Sun Link) and systemwide.

Table 34: O2O Pairs Collected by Service Type

Service Type	Sample Size	Pairs Collected
Sun Tran	7,278	17,360
Sun Link	1,353	2,240
System	**8,631**	**19,600**

Figure 3 – O2O Pairs Collected by Time-of-Day



3.4 Survey Design

The survey was designed to obtain information in three major categories: OD travel patterns, usage information, and rider demographics. Once the survey questionnaire was finalized, ETC designed a tablet-based intercept interview survey as the primary survey medium.

The OD survey is included as Appendix B. The survey was created to ensure Title VI requirements were met and to provide additional information on riders.

The tablet survey methodology utilized the tablet's on-screen mapping features allowing for real-time geocoding of addresses and locations using exact address, intersections, and/or place names. The riders would then confirm the geocoded location on the screen map via an indicator icon.

The interviewers used the mapping feature to collect the global positioning system (GPS) coordinates of all survey locations, including home address, origin address, destination address, boarding location(s), and alighting location(s). This allowed the interviewer to answer any questions as well as ensure the accuracy of the data collected. The respondent was allowed to select the answers to some demographic questions directly on the tablet to allow for more privacy, e.g., household income, gender.

3.5 Survey Recruitment and Training

Assembling a team of high-quality survey staff was one of the most important steps in the OD administration process. ETC collaborated with the staffing firms ANIK and Stat Team to provide interviewers for the OD Survey.

ETC Institute conducted two major training sessions for the project (January 28 and February 11, 2025). Training sessions focused on the study purpose and objectives, the survey instruments, scripts on how to respond to riders' questions, how to use data collection tools, instructions on how to conduct themselves when working with the public, and safety training. The survey staff were instructed to understand that while they were not the City of Tucson or Sun Tran employees, they were representing these agencies while on transit vehicles or property and they needed to act in a manner that reflected positively.

Maximizing participation and legitimizing the survey among riders depended on the public response to the survey staff. To support a good public image, ETC Institute imposed strict dress code standards that required survey staff to wear appropriate clean 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 riders to further legitimize their appearance.

As the survey staff are the key ingredient to the success of a project, ETC provided in-depth project specific training to ensure successful data collection. The interviewer training reviewed project specifics and field procedures and provided training on how to actively engage customers (riders). Key highlights in our training focused on courtesy, professionalism, and person-to-person interactions.

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 riders), 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:

- Tips on intercepting/interacting with non-English speakers and riders with limited English proficiency.
- Importance of understanding the intent of the questions.
- Instructions on conveying the purpose of the survey to riders.
- 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 rider for internal purposes.
- Importance of data confidentiality and instruction on how to address rider 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 rider comments and complaints.
- Expectations of Conduct.
- Safety training.

The following day after OD training, interviewers went out for live surveying from the downtown Ronstadt Transit Center. This allowed ETC staff to gauge each interviewer's comprehension of the survey and instrument and provide feedback as needed.

3.6 Survey Field Administration

Survey staff would report to their assigned locations, which included Sun Link and Sun Tran stations for their shifts. ETC ran two survey shifts that captured surveys between 6am and 10pm. Surveys were conducted every day of the week with the exception of Friday.

OD Survey Procedures

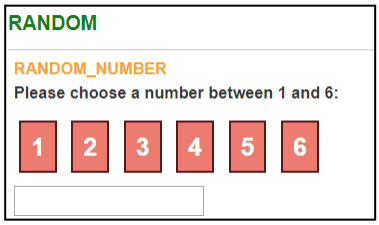
For the OD survey, interviewers boarded their assigned bus and selected riders at random to participate in the survey. While conducting the interview, interviewers asked the respondent each question from the survey tablet and recorded each response provided to them by the rider.

Selection of OD Participants

For the OD interview the tablet generated a random number (shown in Figure 4) to determine which riders were asked to participate in the survey after boarding the vehicle.

If four people boarded a bus, the tablet randomly generated a number from 1 to 4. If the tablet responded "2," the second rider who boarded the bus was asked to participate in the survey. If the tablet responded "1," the first rider was asked to participate in the survey, and so forth. The selection was limited to the first six people who boarded at any given stop to ensure the interviewer could keep track of the riders as they boarded.

Figure 4 – OD Survey Random Generator



For example, if 20 people boarded a vehicle, the tablet program would randomly pick one of the first six people for the survey. If the interview was refused by the randomly selected rider, then the rider who boarded before the rider selected would be attempted.

Respondents who did not have time to complete the survey during their trip, or who spoke a different language than the interviewer, were given the option of providing their contact information to conduct the survey at another time. Less than one percent of interviews were conducted by completing the online self-administered survey or by callback. Interviewers who spoke the foreign language of the rider translated the English tablet version during the interview and indicated in which language the interview was conducted.

Tablet interviews were conducted in both English and Spanish. Interviewers carried paper surveys in Spanish that could be distributed for self-administration. The tablets also had the program translated in Spanish allowing the interview to be completed. A total of 81 interviews were collected in Spanish.

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

- Approached the rider identified and asked the rider to participate in the survey.
- If the rider refused, the interviewer ended the survey, excused themselves, and completed three observational questions (age, race, and gender).
- If the rider agreed to participate, the interviewer asked the rider if they had at least 5 minutes to complete the survey.
- If the rider did not have at least 5 minutes on the bus, the interviewer asked the rider to provide their name and contact information 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.
- If the rider had at least 5 minutes on the bus, the interviewer completed the survey on the vehicle.

OD In-Field Quality Assurance/Quality Control

ETC Institute field supervisors reviewed each interviewer's data reviewing the following elements to ensure they were administering the interview properly. To accomplish this the field supervisors continually monitored various elements of the data collection on a daily basis. Some of the areas where this monitoring occurred were:

- Distribution of surveys by demographics - There were several demographics monitored including race, gender, and age to ensure that riders were randomly selected. If the percentages of an individual interviewer greatly differed from other interviewers, especially on the same route, this was used to provide feedback to staff.
- Distribution of surveys by trip characteristics - Transfer rates were monitored to ensure data quality. If interviewers showed fewer transfers than average, their trip path was more heavily scrutinized to ensure transfers were being captured accurately. The linked trip decomposition, described later in the report, shows that the transfer rates captured were in line with what was expected.
- Length of each survey in minutes - If the average staff survey time was much longer than others, feedback was provided to staff to help them improve their efficiency. If average times were much shorter data was reviewed to ensure the trip paths and transfers were accurately captured.
- Percentage of refusals - For staff who had received significantly more refusals, additional time was spent training the staff on the survey introduction. If staff showed very few refusals feedback was provided to ensure that they are capturing refusals properly. As mentioned previously, refusals based on gender and race were similar.
- Percentage of short trips – There were two options in the survey when riders indicated they were willing to participate and whether they had at least 5 minutes or not. If a rider did not have at least five minutes, they were able to provide a phone number or email for a self-administered version. In cases where these distributions were slightly off due to riders not

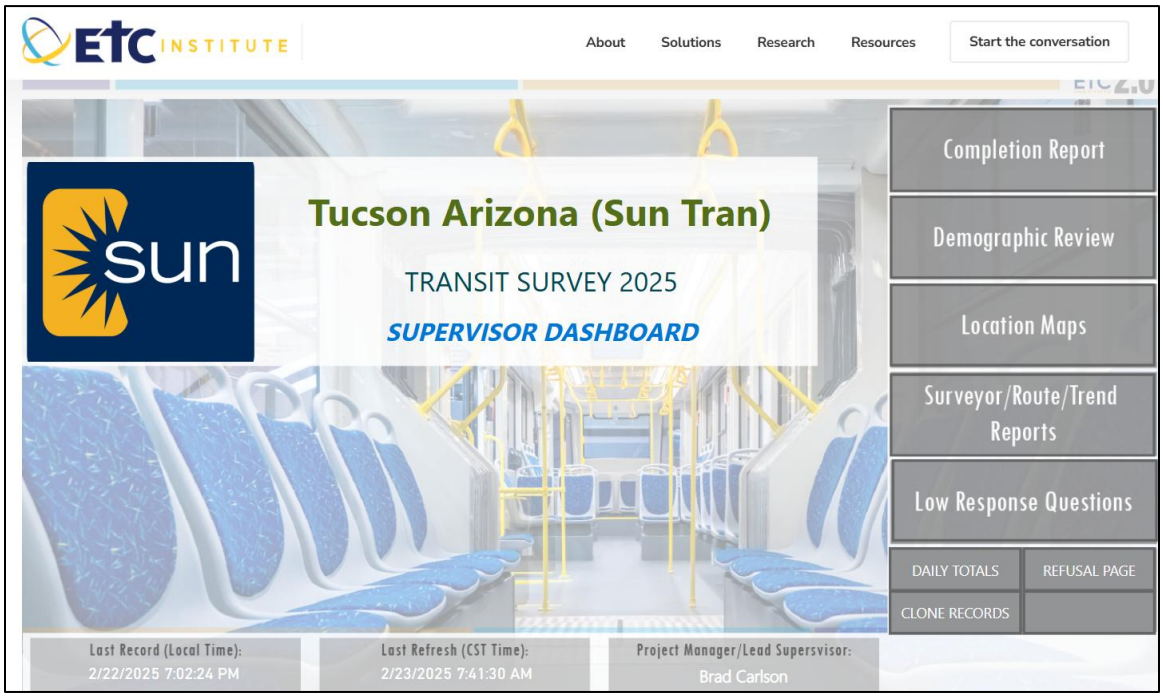
completing a survey due to short trips, the expansion process accounted for any differences.

- Percentage of capturing non-English speakers. Staff responses were reviewed to ensure the attempt to capture non-English speakers occurred.

Data Collection Dashboard

ETC created a data collection dashboard for the team to view the collection productivity, demographics collected, and to visually show locational data on a plot map. The dashboard gave the ability to review the data collected in an interactive fashion rather than relying on traditional static reports. ETC Supervisors monitored data collection with a similar dashboard designed for supervisors to monitor collection goals and quality check interviewer's demographics and other items. The dashboard home screen is shown in Figure 5.

Figure 5 – Data Collection Dashboard



Status Reporting

The whole team was able to view from access to the Data Collection Dashboard which allowed for real time status reporting. The sample collected for each day type was monitored at both the overall route level as well as direction and time of day levels.

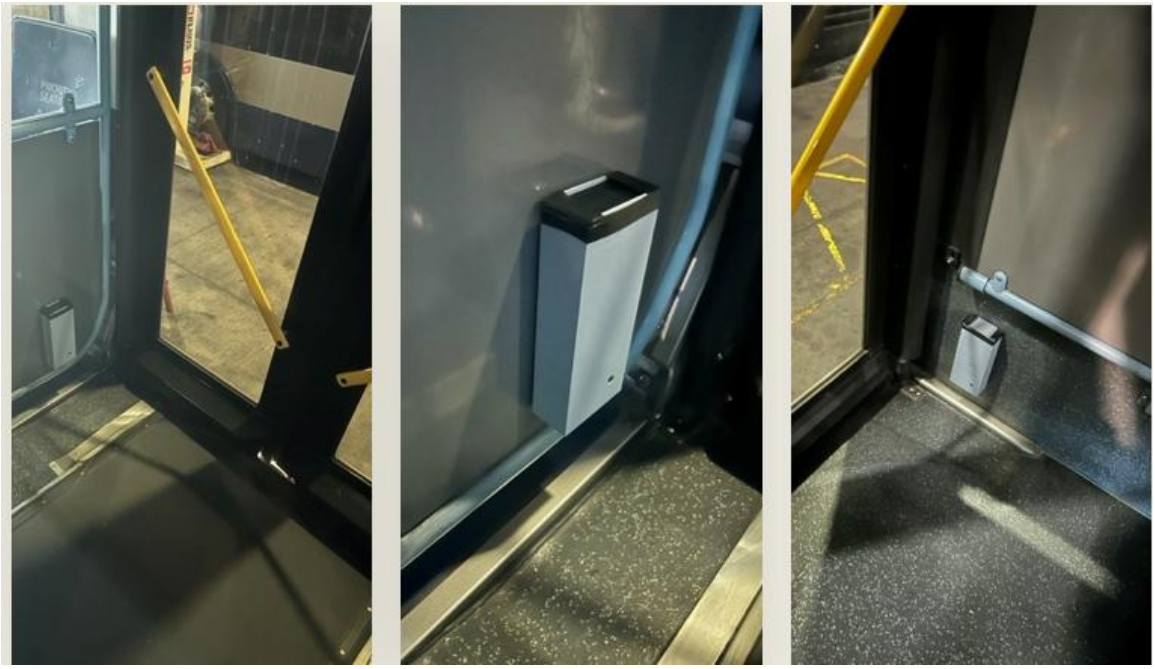
3.7 On-to-Off Count Administration

On-to-Off Collection Method

ETC Institute implemented a new method of capturing rider boarding and alighting pairs (O2O pairs) using video recording devices that capture pictures of riders from their knees down. By capturing from the knee down the rider's identity remained unknown. Utilizing the devices eliminated using survey staff on board vehicles thus lowering labor costs and human error and allowed for nearly a 100 percent pair count.

The devices provided a stable and accurate GPS record with a refresh rate of 1 second with a recording time up to 16 hours. The recording devices were placed in 3D printed shells and placed at each bus door positioned to capture riders' images when they boarded and alighted. Figure 6 below shows the device used and the positioning of the device on-board of vehicles in different locations (doors).

Figure 6 – On-to-Off Recording Device and Positioning



On-to-Off Collection Administration

Blocks were pre-selected by ETC for all chosen routes for the O2O counts. O2O collection staff reported to the Sun Tran bus garages the hours of 12am to 4am. The collection staff would then:

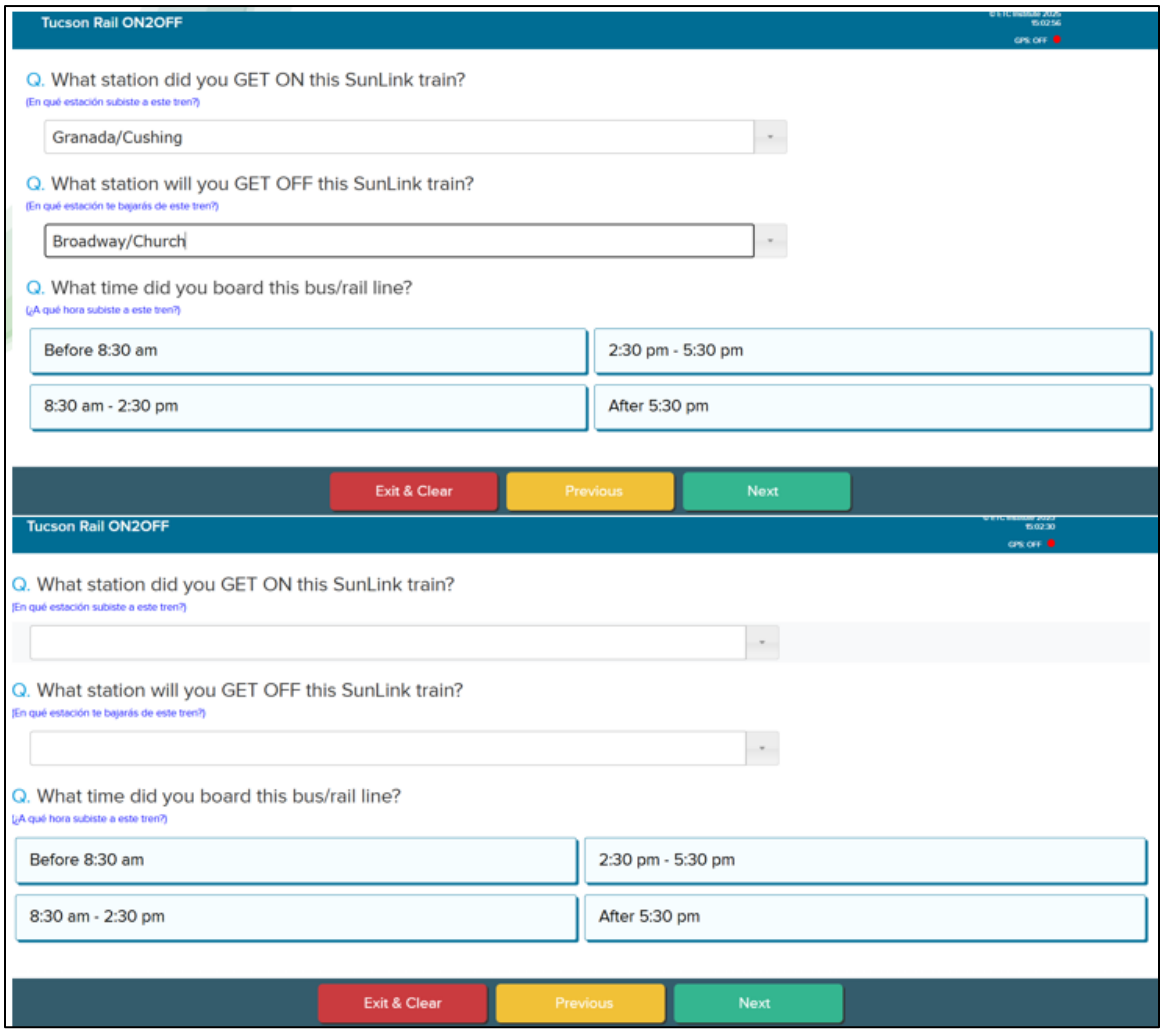
- Check in with dispatch and provide block numbers.
- Receive individual bus numbers for each block by dispatch.
- In order of bus pull-out time (earliest to latest), install the devices onboard the vehicles
- Devices were installed for each door on the bus.
- Leave a letter in the operator's seat in order to notify them that their vehicle was selected for the study and has devices installed at each door.
- Monitor video capture throughout the day to ensure no devices have turned off or have been removed.
- Return to the depot when buses return to uninstall the devices.
- Upload the device data to ETC's secure system.
- Delete data from the devices and charge for the following day.

Sun Link O2O

The Sun Link O2O was collected using a two-question interview asking the rider at which station they boarded and would alight. The Sun Link O2O program included all stops for the Sun Link.

Figure 7 shows the program used for Sun Link collection O2O.

Figure 7 – Sun Link On-to-Off Collection Program



On-to-Off Processing

Video recordings were uploaded by field staff which went into ETC's secure filing system. The videos were reviewed for completeness and then sent to ETC's O2O video review team (VRT).

The VRT would screenshot each boarding and alighting (bottom half of rider) that included the tagged GPS location and GPS time. These screenshots were then paired by the VRT for individual riders boarding and alighting locations, times, route, and direction. Once paired, a secondary review was conducted to ensure accuracy.

3.8 OD Data Review Process

Many of the monitoring processes described previously in the report are essential elements of the overall quality assurance/quality control (QA/QC) process that was implemented throughout the survey. The establishment of specific sampling goals and procedures for managing the goals ensured that a representative sample was obtained.

The geocoding tools embedded in Google map searches, ETC Institute Visual Review program, and Caliper® Maptitude geographic information system (GIS) software, allowed for the geocoding accuracy that was achieved.

The following subsections describe the 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:

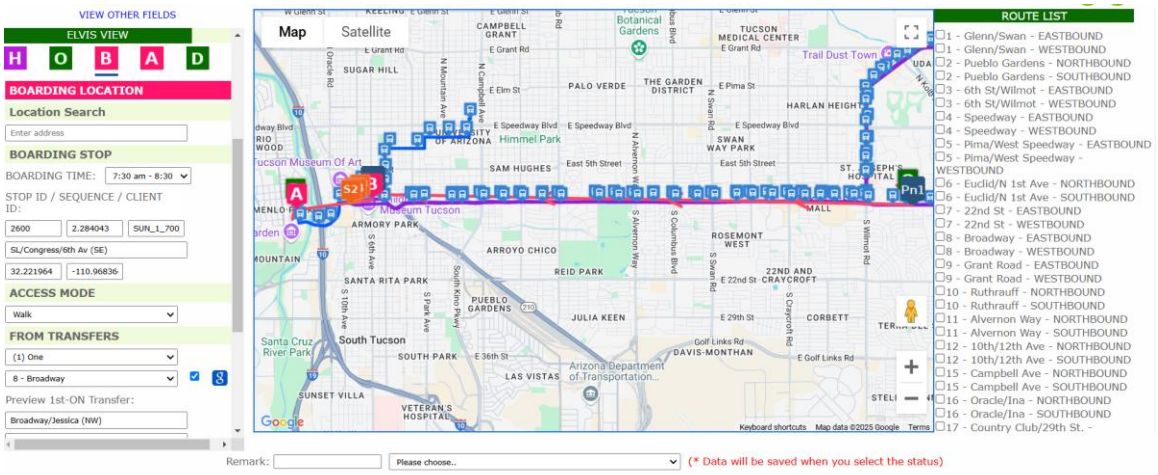
- Route/Direction
- Time of trip
- Transfers made
- Home address
- Origin address
- Destination address
- Origin place type
- Destination place type
- Access mode
- Egress mode
- Boarding location
- Alighting location

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. Figure 8 shows an example of the online visual review tool.

Figure 8 - Online Visual Review Tool (Editable Version)



Pre-Distance Checks

The series of distance and ratio checks were contained in the online visual review tool for ETC Institute's Transit Review Team (TRT) to systematically approach the reviewing of completed records. The TRT process for editing surveys is described later in this section. Note: The distance and ratio checks described are meant to alert the reviewer that closer evaluation may be needed. However, this does not indicate the record was inaccurate or unusable.

The distances for the checks are created using the great-circle distance formula that is based on a straight line from point A to point B that considers the curvature of the earth. After all transfer reviews were conducted, three QA/QC ratio checks were conducted. First, the distance between the boarding and alighting location was divided by the distance between origin and destination. Second, the distance between origin and boarding location was divided by the distance between origin and destination. Third, the distance between the alighting location and destination was divided by the distance between origin and destination.

Transit Review Team

The TRT reviewed all completed records, paying special attention to records that were flagged by the previously described checks. Typically, around 10 percent of all records receive an automatic flag. The issues listed in Table 35 result in actions that allow about 50 percent of those records that are flagged to be retained.

Table 35 - General Issues

Issue	Description of Issue	Action
Origin/Destination Condition 1	Origin/Destination appears incorrect because the wrong location of a multiple-location organization was selected	If, for example, an Origin/Destination appears illogical based on the college campus that was selected, but an appropriate campus of the same college does appear logical given the other points and answer choices of the trip, then the appropriate campus will be selected.
Origin/Destination Condition 2	Origin/Destination appears to have been geocoded to the incorrect city/state	If for example, an Origin/Destination appears illogical based on the city/state that was geocoded, but the address/intersection is logical within the trip if the city/state are changed. This occurs occasionally because the interviewer selects the wrong choice from the list of address choices that appear in the online survey instrument, then the appropriate address information will be inserted.
Access/Egress Mode	Access/Egress Mode seems illogical based on trip	If the access/egress mode involves the use of a vehicle and the distance from either origin to boarding or alighting to destination is less than 0.2 miles, then the access/egress mode is recoded to walk/walked and that change will be reflected in the database.
Directionality of Record	Boarding and alighting locations indicate that the trip is going in the opposite direction of what was selected by the interviewer	Change direction of route selected and, if necessary, update boarding and alighting locations based on appropriate direction.

Post-Processing Additional Checks

After records were reviewed by the TRT, the next step involves the application of QA/QC non-trip checks. Non-trip related checks included:

- Ensuring the respondents who indicated they were employed reported that at least one member of the household was employed.
- Ensuring the survey completion time was reasonable given the published operating schedule for the route.
- Ensuring that the appropriate fare type was used given the age of respondent.
- Removing personal information to protect the anonymity of the respondents.

Once all records complete the processing and QA/QC checks, those deemed complete and usable are appended to the completion report to ensure that goals are met. After the final review is completed, a data dictionary was created to describe the data in the database.

4. Survey Weighting and Expansion

When survey goals are created, they are typically based off a percentage of the AWR for the routes in the system. That is further broken down by time periods and directions. Once a sample percentage is agreed upon, the goals for the survey collection are based off the ridership for each route by time period and direction and then multiplied by the sampling percentage. For “Circular” or “Loop” routes, such as route 24, the ridership is typically only broken down into time period as there are many riders that will board going in one direction but alight going the other direction due to the functionality of the route. This typically is also the case if there are directional routes where many riders travel through the terminus and alight going the opposite direction of initial boarding.

The purpose of developing survey goals is to collect an appropriate number of survey records that will be “expanded” to represent the total of each route by time period and direction. To further increase the specificity of the expansion process, segments were created for each route. Stops were grouped into segments along that route so that boarding segments could be paired with alighting segments when creating the expansion factor. Segmentation occurs on bus routes because it is unrealistic to expand bus survey data at the stop level. Stop, or station, level expansion is generally reserved for rail lines.

Sources of Ridership Data for Expansion

The ridership data used to fine-tune the collection and conduct the expansion was the route level average daily ridership from February through March 2025.

4.1 Route Segmentation with APC Data

ETC Institute primarily creates segments for bus/rail routes based on "boarding/alighting (total ridership)" percentages along the route. The preferred method is to segment routes using Stop-Level Ridership data. Routes with Stop-Level Ridership data are divided into segments based on the "boarding/alighting (total ridership)" patterns. A new segment begins after approximately a specific percentage of the route’s "boarding/alighting (total ridership)" has occurred, and another segment initiates after reaching a similar threshold. The final segment is established after a designated portion of the "boarding/alighting (total ridership)" has taken place. Figure 9 illustrates this segmentation process using stop-level ridership data.

Figure 9 – Segmentation with Stop Level Ridership Example

Segmentation with Stop Ridership Example						
Direction: Eastbound Route: 1	APC DATA		Segmentation			
Stops	Boardings	Alightings	Running Total Ridership [Board+Alight]	Running Percentage of Total Ridership [Board+Alight]	Default Segment	Agency Segments
STOP-1	35	0	35	11.51%	1	1
STOP-2	20	10	65	21.38%	1	1
STOP-3	20	5	90	29.61%	1	1
STOP-4	15	10	115	37.83%	2	1
STOP-5	5	12	132	43.42%	2	2
STOP-6	4	4	140	46.05%	2	2
STOP-7	19	4	163	53.62%	2	2
STOP-8	12	3	178	58.55%	2	2
STOP-9	15	5	198	65.13%	2	2
STOP-10	3	10	211	69.41%	3	2
STOP-11	2	15	228	75.00%	3	2
STOP-12	2	11	241	79.28%	3	3
STOP-13	0	10	251	82.57%	3	3
STOP-14	0	15	266	87.50%	3	3
STOP-15	0	38	304	100.00%	3	3
	152	152				

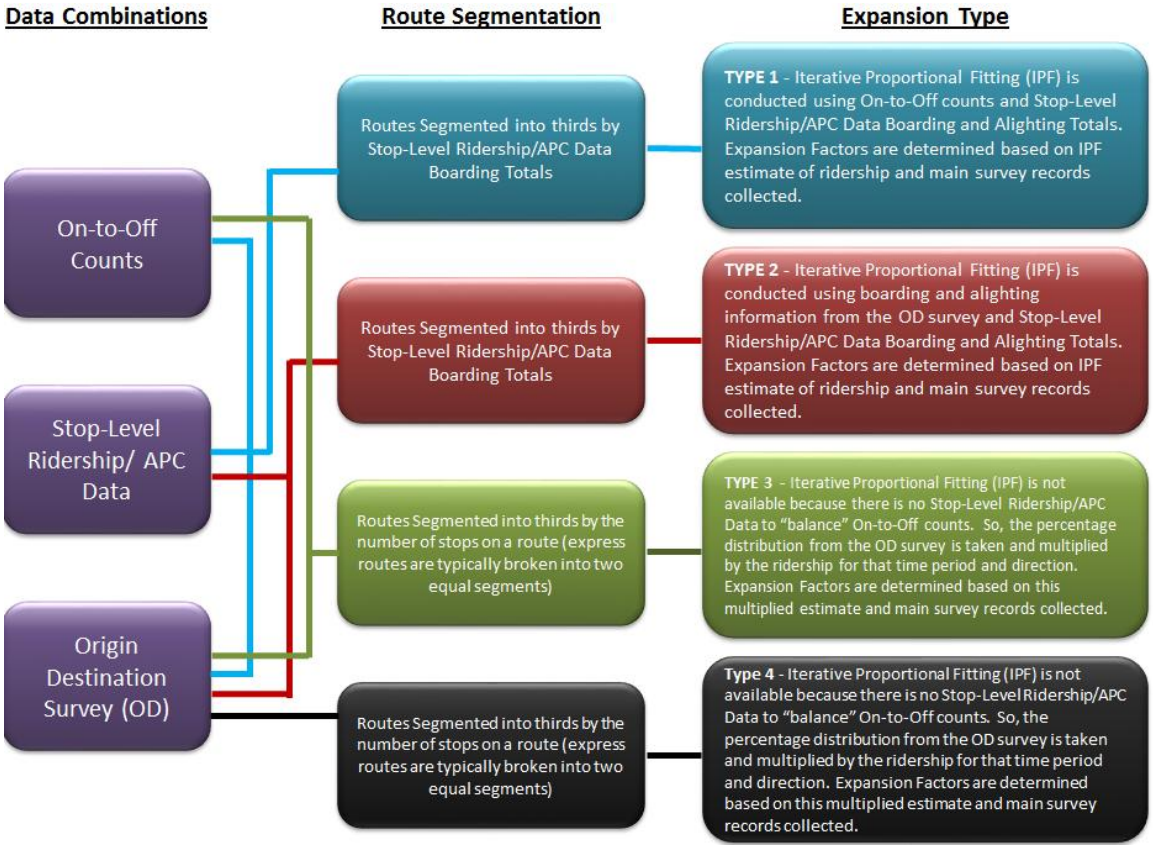
After the default segmentation process is completed, the default segments are forwarded to the respective route agencies for their review and adjustments. These adjustments are made based on specific characteristics of various sections of the route. These new agency segments will be used for the expansion.

(Note: Iterative Proportional Fitting (IPF) is employed in various expansion methods discussed later in this report. To ensure IPF accuracy, "boarding/alighting (total ridership)" figures must match alighting totals. Therefore, adjustments are made to ridership alighting data using a multiplying factor to align it with "boarding/alighting (total ridership)" figures. Typically, these adjustments are nominal. However, if significant disparities exist between "boarding/alighting (total ridership)" figures in different directions of a route, additional review of the route's functionality may be required to ensure that surveys are both collected and expanded appropriately.)

4.2 Types of Data Expansion

The type of bus data expansion conducted depended on the data available for the specific route. The three types of data that created the combinations that guided the type of expansion used were: Automatic Passenger Count (APC) data (from transit providers), O2O counts (collected by ETC Institute), and OD survey data (collected by ETC Institute). Figure 10 shows the data combinations, the corresponding route segmentation, and type of expansion used.

Figure 10 – Segmentation Process with Stop Level Ridership

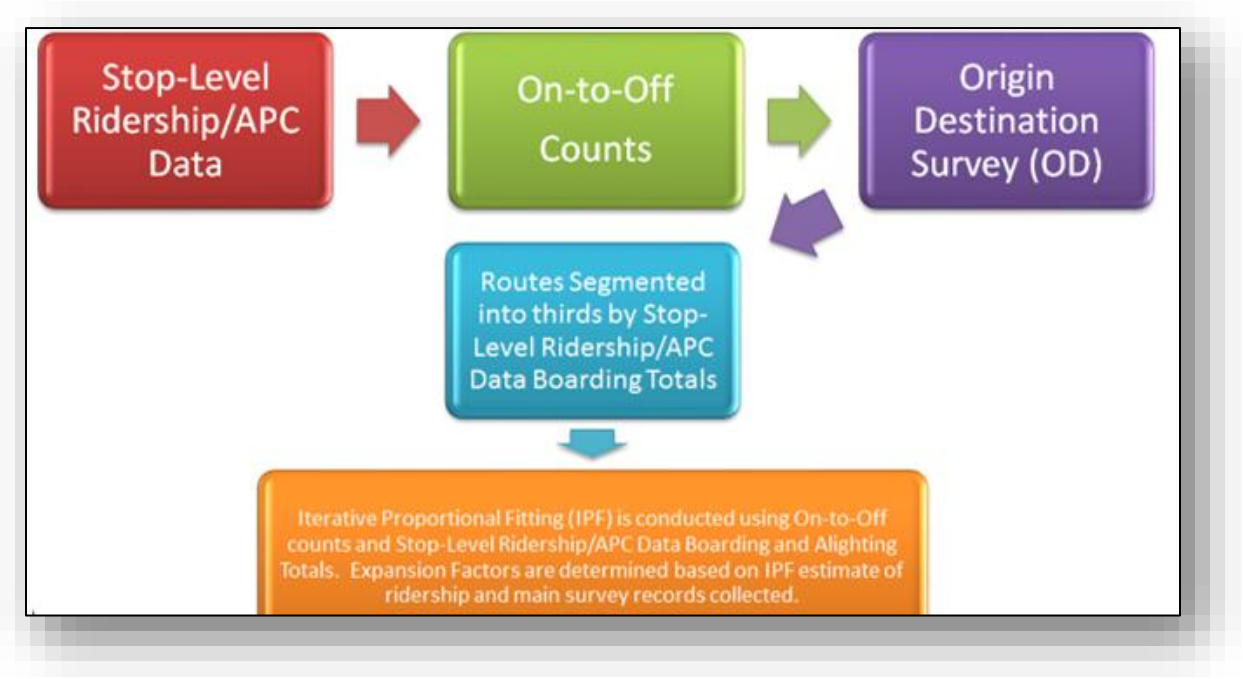


Four data expansion methods have been formulated based on available data. The specifics of each method are outlined below.

Type 1 Expansion: Bus Routes with Stop-Level Ridership / APC Data, O2O Counts, and OD Survey Data

Of the four types of sample expansion discussed, Type 1 expansion was the preferred method as it incorporated all three types of data that were available. This type of expansion was conducted on the more heavily traveled routes in the system and occurred after route stops were divided into three segments based on total boarding distribution by direction, as previously described. The segments were then appended to both the O2O counts and OD data based on the boarding and alighting locations. The process for Type 1 expansion is illustrated in Figure 11.

Figure 11 – Type 1 Expansion



Once the segments were appended to the O2O counts and OD survey databases, the records were ready for expansion. The process for how the data was expanded in Type 1 expansion is explained below. Figure 12 shows the segmented results for the O2O counts that were administered for a certain route, direction, and time period. Each row in the table identifies the segment where riders boarded the bus. The columns in the table identify the segments where people alighted the bus. For example, 20 riders boarded in segment 2 and alighted in segment 3.

Figure 12 – Example of Data Expansion Results of O2O Counts

Route: Example Eastbound (6am-9am)		ACTUAL RIDERSHIP COUNTS FROM THE ON/OFF SURVEY		
Segment	Total	1	2	3
1	60	5	15	40
2	45		25	20
3	10			10
Total	115	5	40	70

Figure 13 shows the distribution of the data in Figure 12 expressed as a percentage of all boardings for the specific time period and direction. Figure 13 was created by dividing each O2O cell in Figure 12 by the sum of all O2O counts Figure 12, which is 115. For example, 20/115 (17.4%) of all trips boarded in segment 2 and alighted in segment 3, as shown in Figure 13.

Figure 13 – Example of Data Expansion Segment Results of O2O Counts

Segment	Total	1	2	3
1	52.2%	4.3%	13.0%	34.8%
2	39.1%	0.0%	21.7%	17.4%
3	8.7%	0.0%	0.0%	8.7%
Total	100.0%	4.3%	34.8%	60.9%

The total APC ridership for the route, time period, and direction was then applied to the O2O distribution percentages in Figure 13. This produced estimated ridership flow between each boarding to alighting segment pair as shown in Figure 14. For instance, applying the actual ridership of 320 created an initial estimate of 56 trips (17.4% x 320) from segment 2 to segment 3.

Figure 14 – Example of Initial Projected Ridership Flows based on O2O Counts

Route: Example Eastbound (6am-9am)		PROJECTED RIDERSHIP BASED ON THE ON-TO-OFF SURVEY		
Segment	Total	1	2	3
1	167	14	42	111
2	125	0	70	56
3	28	0	0	28
Total	320	14	111	195

In order to develop a more accurate estimate of the ridership flows between segments on each route, ETC Institute developed an IPF algorithm to balance the differences between the ridership projected from the O2O counts (shown in Figure 14) and the APC ridership for each segment (shown in Figure 15). The IPF process is described below:

Figure 15 – Example of Stop-Level Ridership / APC Data

Route: Example Eastbound (6am-9am)				
Average Weekday Ridership	Total	1	2	3
BOARDINGS	320	100	100	120
ALIGHTINGS	320	20	100	200
DIFFERENCE FROM PROJECTED				
BOARDINGS	0	-67	-25	92
ALIGHTINGS	0	6	-11	5

Step 1: Correction for the Boardings. The estimated ridership from the O2O counts for each route (as shown in Figure 15) was multiplied by the ratio of the actual boardings from stop-level ridership / APC data for each segment by the estimated boardings for each segment. For example, if the actual boardings for Segment 1 were 120 and the estimated boardings were 100, each cell associated with Segment 1 would have been multiplied by 1.2 (120 / 100) to adjust the estimated boardings to match actual boardings.

Step 2: Correction for the Alightings. Once the correction in Step 1 was applied, the estimated boardings would be equal to the actual boardings.

However, the adjustment to the boardings total may have changed the alighting estimates. To correct the alighting estimates, the new values calculated in Step 1 were adjusted by multiplying the ratio of the actual alightings from the stop-level ridership / APC data for each stop by the estimated alightings for each segment from Step 1. For example, if the actual alightings for segment 2 were 220 and the estimated alightings from Step 1 were 200, each cell associated with alighting segment 2 would have been multiplied by 1.1 (220 / 200) to adjust the estimated alightings from Step 1 to actual alightings.

The processes described in Step 1 and Step 2 were repeated sequentially until the difference between the actual and estimated boardings and alightings converged to zero. Figure 16 shows that after seven balancing iterations in this algorithm, there were no differences between the projected distribution and the actual boardings and alightings.

Figure 16 – Iterative Balance Process

7th STEP of ITERATIVE BALANCING TO CORRECT DISTRIBUTION OF RIDERSHIP BY ALIGHTING Location

Segment	Total	DIFFERENCE FROM ACTUAL BOARDINGS	1	2	3
1	100	0	20	32	49
2	100	0	0	68	32
3	120	0	0	0	120
Total	320	0	20	100	200
DIFFERENCE FROM ACTUAL ALIGHTINGS	0		0	0	0

7th STEP of ITERATIVE BALANCING TO CORRECT DISTRIBUTION OF RIDERSHIP BY BOARDING Location

Segment	Total	DIFFERENCE FROM ACTUAL BOARDINGS	1	2	3
1	100	0	20	32	48
2	100	0	0	68	32
3	120	0	0	0	120
Total	320	0	20	100	200
DIFFERENCE FROM ACTUAL ALIGHTINGS	0		0	0	0

The final estimate for ridership flows is shown in Figure 17.

Figure 17 – Example of Final Estimate of Ridership Flows between Segments

Route: Example Eastbound (6am-9am)				
Segment	Total	1	2	3
1	100	20	32	48
2	100	0	68	32
3	120	0	0	120
Total	320	20	100	200
DIFFERENCE FROM ACTUAL ALIGHTINGS	0	0	0	0

The actual number of OD records completed for each boarding to alighting segment pair is shown in Figure 18. To calculate the expansion factors, the final estimate of ridership between segments shown in Figure 17 was divided by the actual number of OD records collected listed in Figure 18. This calculation produced the expansion factors shown in Figure 19. For example, the 32 estimated riders projected to board in segment 2 and alight in segment 3 were divided by the 10 OD records to produce an expansion factor of 3.15 to be applied to records that boarded in segment 2 and alighted in segment 3, as shown in Figure 19.

Figure 18 – Number of Completed Onboard OD Interview Surveys (Bus)

Route: Example Eastbound (6am-9am)				
Segment	Total	1	2	3
1	32	3	9	20
2	17		7	10
3	8			8
Total	57	3	16	38

Figure 19 – Weighting Factors (Bus)

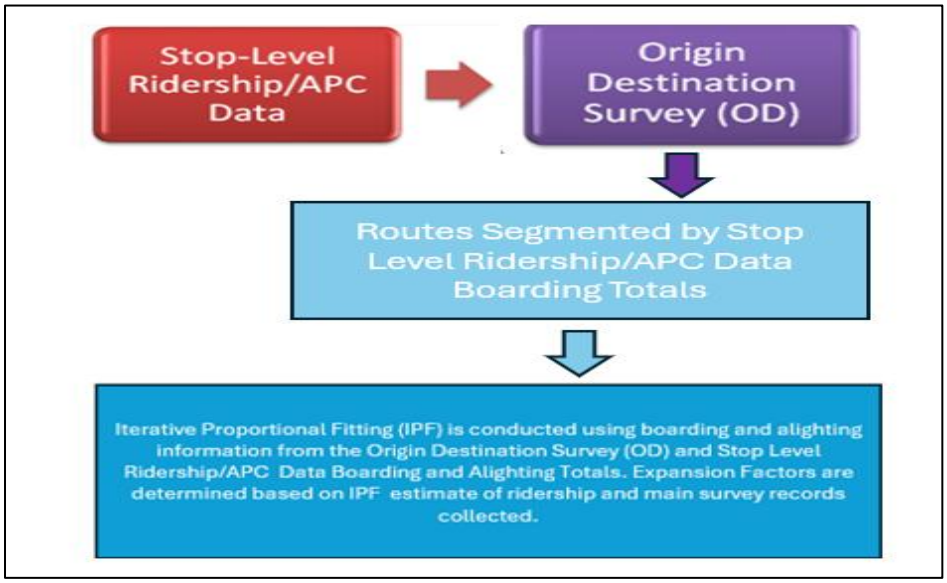
Route: Example Eastbound (6am-9am)				
Segment	Total	1	2	3
1	3.13	6.67	3.50	2.42
2	5.88	0.00	9.78	3.15
3	15.00	0.00	0.00	15.00
Total	5.61	6.67	6.25	5.26

Type 2 Expansion: Bus Routes with Stop-Level Ridership / APC Data, OD Survey Data, but no O2O Counts

O2O counts are not collected for lower ridership routes. However, sometimes these routes will have stop-level ridership / APC data available. In this case, Type 2 expansion is appropriate.

This type of expansion also divided stops into two segments based on total boarding distribution by direction. These segments were then appended to the OD records based on the boarding and alighting locations. The methodology for Type 2 expansion is explained in Figure 20.

Figure 20 – Type 2 Expansion



4.3 Decomposition Analysis

Decomposition analysis measures the overall representativeness of the survey records relative to linked and unlinked trips on an individual route basis.

In transit OD surveys, an unlinked-trip weight is typically derived from the AWR for the route on which the respondent was surveyed. This weight does not account for transfers to or from other routes. Conversely, a linked-trip weight is calculated considering the number of transfers as 1 / (1 + the number of transfers). For example, if a rider made one transfer, the linked-trip weight would be 1/2; if the rider made two transfers, then the linked-trip weight would be 1/3.

Self-enumeration surveys have historically suffered from substantial errors in route level boarding levels. The advent of personal interviews, coupled with tablet technology, and more effective management of interviewers has reduced this issue. The decomposition analysis examines each record and the recorded sequence of routes and tabulates boardings for each route using this information. After all records have been examined, total boardings by route are summarized and compared with the observed level of boardings. The result of this analysis will help to determine the relationship between observed and estimated boardings by route.

As detailed in Table 36, The decomposition analysis aggregated link factors for surveyed routes. In the table, the “Route Survey” columns sums all linked on route trips, while the “Transfer Route” column includes the total number of linked transfer trips from and to each route. “Total Summed Linked” is the summation of the values under “Route Survey” and “Transfer Route.” “Observed Boarding” is the AWR calculated from APC. The analysis indicates the on-board survey closely mirrors actual system usage, with a negligible 0.4% discrepancy between the total boardings from summed linked weight factors and observed ridership.

While there is not a firm rule when assessing the decomposition, it is expected that the percentage difference would be lower for higher volume routes.

Table 36: Decomposition Analysis by Route

Route	Route Surveyed	Transfer Route	Total Summed Linked	Observed Boardings	Total Difference	% Difference
1 - Glenn/Swan	2268.407	809.431	3077.839	2722.000	-355.839	-13.1%
10 - Ruthrauff	1525.397	740.802	2266.199	2090.000	-176.199	-8.4%
101X - Golf Links-Downtown Express	31.875	0.000	31.875	45.000	13.125	29.2%
102X - Northwest-UA Express	20.000	11.222	31.222	20.000	-11.222	-56.1%
103X - Northwest-Downtown Express	19.000	0.000	19.000	19.000	0.000	0.0%
104X - Marana-Downtown Express	9.000	3.885	12.885	9.000	-3.885	-43.2%
105X - Foothills-Downtown Express	16.026	14.913	30.939	21.000	-9.939	-47.3%
107X - Oro Valley-Downtown Express	17.417	1.146	18.563	22.000	3.437	15.6%
108X - Broadway-Downtown Express	24.000	0.000	24.000	24.000	0.000	0.0%
109X - Catalina Hwy-Downtown Express	10.292	14.625	24.917	13.000	-11.917	-91.7%
11 - Alvernon Way	6366.088	2122.222	8488.310	8536.000	47.690	0.6%
110X - Rita Ranch-Downtown Express	23.000	0.000	23.000	23.000	0.000	0.0%
12 - 10th/12th Ave	1618.979	791.017	2409.996	2819.000	409.004	14.5%
15 - Campbell Ave	1566.325	493.648	2059.973	2057.000	-2.973	-0.1%
16 - Oracle/Ina	6151.288	2359.453	8510.741	8200.000	-310.741	-3.8%
17 - Country Club/29th St.	4746.295	1392.394	6138.689	5909.000	-229.689	-3.9%
18 - S 6th Ave	5242.061	2781.748	8023.809	8232.000	208.191	2.5%
19 - Stone Ave	1566.883	740.340	2307.223	2305.000	-2.223	-0.1%
2 - Pueblo Gardens	1437.048	621.784	2058.832	2161.000	102.168	4.7%
201X - Eastside-Aero Park Express	43.000	0.000	43.000	43.000	0.000	0.0%
203X - Oro Valley-Aero Park Express	27.000	5.359	32.359	27.000	-5.359	-19.8%
204X - Northwest- Aero Park Express	31.000	2.800	33.800	31.000	-2.800	-9.0%
21 - Congress/Silverbell	892.514	377.832	1270.346	1201.000	-69.346	-5.8%
22 - El Rio/W. Speedway	218.021	106.329	324.350	405.000	80.650	19.9%
23 - Mission Road	1879.511	737.540	2617.051	2822.000	204.949	7.3%
24 - S 12th Ave	822.569	708.319	1530.888	1542.000	11.112	0.7%
25 - S Park Ave	2555.710	1258.533	3814.243	3715.000	-99.243	-2.7%
26 - Benson Highway	1008.660	555.380	1564.040	1774.000	209.960	11.8%
27 - Midvale Park	975.410	526.388	1501.798	1582.000	80.202	5.1%
29 - Valencia	1567.027	941.256	2508.283	2553.000	44.717	1.8%
3 - 6th St/Wilmot	3227.053	1136.838	4363.891	4101.000	-262.891	-6.4%
34 - Craycroft/Ft Lowell	3509.503	669.833	4179.336	4449.000	269.664	6.1%
37 - Pantano	839.970	342.558	1182.528	1221.000	38.472	3.2%
4 - Speedway	7028.104	1717.737	8745.841	8870.000	124.159	1.4%
5 - Pima/West Speedway	1504.027	357.986	1862.013	1872.000	9.987	0.5%
6 - Euclid/N 1st Ave	3557.847	1041.081	4598.928	4517.000	-81.928	-1.8%
61 - La Cholla	627.097	268.813	895.911	877.000	-18.911	-2.2%
7 - 22nd St	3406.289	1533.940	4940.229	4577.000	-363.229	-7.9%
8 - Broadway	7445.095	2533.220	9978.314	9880.000	-98.314	-1.0%
9 - Grant Road	3156.168	780.106	3936.274	4054.000	117.726	2.9%
Sun Link	16643.837	225.246	16869.083	17495.000	625.917	3.6%
Totals	**93624.79**	**28725.72**	**122350.52**	**122835.00**	**484.48**	**0.4%**

APPENDIX A SURVEY SAMPLING PLANS

OD Survey Sample Plan Weekday

ROUTE_SURVEYED	Sample Goal						Collection Totals					
	1 = AM [Before 8:30a]	2 = MID [8:30a - 2:30p]	3 = PM [2:30p - 5:30p]	4 = EVE [After 5:030p]	Directional Total	Route Total	1 = AM [Before 8:30a]	2 = MID [8:30a - 2:30p]	3 = PM [2:30p - 5:30p]	4 = EVE [After 5:030p]	Directional Total	Route Total
1 - Glenn/Swan - EASTBOUND	10	25	23	10	68	**217**	16	41	28	29	114	**235**
1 - Glenn/Swan - WESTBOUND	16	27	16	8	66		16	36	32	37	121	
2 - Pueblo Gardens - NORTHBOUND	8	18	10	5	42	**145**	14	33	18	12	77	**152**
2 - Pueblo Gardens - SOUTHBOUND	7	22	13	6	48		9	40	20	6	75	
3 - 6th St/Wilmot - EASTBOUND	17	37	26	12	92	**295**	28	79	30	19	156	**297**
3 - 6th St/Wilmot - WESTBOUND	23	38	18	10	90		32	67	25	17	141	
4 - Speedway - EASTBOUND	24	72	44	37	176	**552**	42	130	64	48	284	**564**
4 - Speedway - WESTBOUND	31	69	33	31	164		32	113	70	65	280	
5 - Pima/West Speedway - EASTBOUND	9	17	12	3	41	**137**	15	36	16	9	76	**142**
5 - Pima/West Speedway - WESTBOUND	10	19	12	2	43		13	27	18	8	66	
6 - Euclid/N 1st Ave - NORTHBOUND	9	39	26	20	94	**317**	28	53	48	28	157	**317**
6 - Euclid/N 1st Ave - SOUTHBOUND	19	43	23	15	101		34	55	42	29	160	
7 - 22nd St - EASTBOUND	17	43	29	16	105	**332**	34	75	31	22	162	**335**
7 - 22nd St - WESTBOUND	19	40	26	14	100		28	87	29	29	173	
8 - Broadway - EASTBOUND	27	81	47	31	186	**601**	45	140	71	62	318	**601**
8 - Broadway - WESTBOUND	28	77	43	34	183		35	125	71	52	283	
9 - Grant Road - EASTBOUND	14	36	22	14	85	**287**	21	73	38	16	148	**298**
9 - Grant Road - WESTBOUND	16	35	22	19	92		19	77	33	21	150	
10 - Ruthrauff - NORTHBOUND	7	19	15	14	55	**173**	16	37	27	19	99	**179**
10 - Ruthrauff - SOUTHBOUND	10	21	12	8	52		11	31	21	17	80	
11 - Alvernon Way - NORTHBOUND	34	82	46	27	189	**641**	58	153	61	37	309	**647**
11 - Alvernon Way - SOUTHBOUND	35	85	50	36	205		50	169	66	53	338	
12 - 10th/12th Ave - NORTHBOUND	14	20	11	9	55	**180**	15	30	16	27	88	**194**
12 - 10th/12th Ave - SOUTHBOUND	6	19	18	12	56		13	42	28	23	106	
15 - Campbell Ave - NORTHBOUND	7	18	13	4	41	**141**	18	35	14	6	73	**149**
15 - Campbell Ave - SOUTHBOUND	8	20	11	6	45		19	29	19	9	76	
16 - Oracle/Ina - NORTHBOUND	22	71	38	27	157	**490**	46	115	47	39	247	**498**
16 - Oracle/Ina - SOUTHBOUND	21	62	31	30	144		28	121	46	56	251	
17 - Country Club/29th St. - NORTHWEST	26	49	25	17	117	**395**	37	101	31	22	191	**398**
17 - Country Club/29th St. - SOUTHEAST	23	50	31	22	126		43	106	35	23	207	

ROUTE_SURVEYED	1 = AM [Before 8:30a]	2 = MID [8:30a - 2:30p]	3 = PM [2:30p - 5:30p]	4 = EVE [After 5:030p]	Directional Total	Route Total	1 = AM [Before 8:30a]	2 = MID [8:30a - 2:30p]	3 = PM [2:30p - 5:30p]	4 = EVE [After 5:030p]	Directional Total	Route Total
18 - S 6th Ave - NORTHBOUND	25	74	32	28	159	**520**	60	108	58	45	271	**535**
18 - S 6th Ave - SOUTHBOUND	20	71	39	31	161		25	145	54	40	264	
19 - Stone Ave - NORTHBOUND	5	17	11	8	41	**141**	15	28	12	10	65	**143**
19 - Stone Ave - SOUTHBOUND	7	20	11	8	46		10	47	11	10	78	
21 - Congress/Silverbell - NORTHBOUND	1	9	6	3	19	**56**	4	15	14	3	36	**69**
21 - Congress/Silverbell - SOUTHBOUND	3	8	3	1	16		7	18	6	2	33	
22 - El Rio/W. Speedway - NORTHBOUND	0	3	5	2	11	**29**	3	11	10	4	28	**41**
22 - El Rio/W. Speedway - SOUTHBOUND	2	3	1	2	7		5	3	2	3	13	
23 - Mission Road - NORTHBOUND	13	22	13	8	56	**181**	16	49	17	16	98	**186**
23 - Mission Road - SOUTHBOUND	11	21	14	10	56		20	35	19	14	88	
24 - S 12th Ave - LOOP	8	28	15	12	63	**103**	17	58	16	15	106	**106**
25 - S Park Ave - NORTHBOUND	16	39	19	15	89	**275**	30	66	25	16	137	**278**
25 - S Park Ave - SOUTHBOUND	12	32	20	16	80		29	69	25	18	141	
26 - Benson Highway - EASTBOUND	5	15	10	9	39	**114**	9	28	25	9	71	**125**
26 - Benson Highway - WESTBOUND	6	14	6	5	31		11	24	14	5	54	
27 - Midvale Park - NORTHBOUND	8	15	7	5	35	**93**	10	45	9	6	70	**129**
27 - Midvale Park - SOUTHBOUND	2	8	7	5	22		8	33	7	11	59	
29 - Valencia - EASTBOUND	12	18	8	6	44	**172**	18	30	14	14	76	**178**
29 - Valencia - WESTBOUND	6	24	18	14	62		20	38	30	14	102	
34 - Craycroft/Ft Lowell - NORTHBOUND	17	36	19	13	85	**299**	18	79	24	29	150	**299**
34 - Craycroft/Ft Lowell - SOUTHBOUND	17	41	26	15	99		28	55	31	35	149	
37 - Pantano - NORTHBOUND	6	11	7	4	28	**97**	7	33	11	4	55	**102**
37 - Pantano - SOUTHBOUND	8	11	10	3	32		10	18	15	4	47	
61 - La Cholla - NORTHBOUND	4	8	4	2	17	**51**	10	13	6	2	31	**52**
61 - La Cholla - SOUTHBOUND	2	7	4	2	15		2	10	7	2	21	
101X - Golf Links-Downtown Express - EASTBOUND	0	0	1	0	1	**6**	0	0	2	0	2	**8**
101X - Golf Links-Downtown Express - WESTBOUND	2	0	0	0	2		6	0	0	0	6	
102X - Northwest-UA Express - NORTHBOUND	0	0	1	0	1	**3**	0	0	1	0	1	**4**
102X - Northwest-UA Express - SOUTHBOUND	1	0	0	0	1		3	0	0	0	3	
103X - Northwest-Downtown Express - NORTHBOUND	0	0	1	0	1	**3**	0	0	1	0	1	**6**
103X - Northwest-Downtown Express - SOUTHBOUND	1	0	0	0	1		5	0	0	0	5	
104X - Marana-Downtown Express - NORTHBOUND	0	0	0	0	0	**2**	0	0	0	0	0	**3**
104X - Marana-Downtown Express - SOUTHBOUND	0	0	0	0	0		3	0	0	0	3	
105X - Foothills-Downtown Express - NORTHBOUND	0	0	1	0	1	**4**	0	0	2	0	2	**6**
105X - Foothills-Downtown Express - SOUTHBOUND	1	0	0	0	1		4	0	0	0	4	
107X - Oro Valley-Downtown Express - NORTHBOUND	0	0	1	0	1	**2**	0	0	2	0	2	**5**
107X - Oro Valley-Downtown Express - SOUTHBOUND	0	0	0	0	1		3	0	0	0	3	
108X - Broadway-Downtown Express - EASTBOUND	0	0	1	0	1	**4**	0	0	1	0	1	**5**
108X - Broadway-Downtown Express - WESTBOUND	1	0	0	0	1		4	0	0	0	4	
109X - Catalina Hwy-Downtown Express - EASTBOUND	0	0	1	0	1	**2**	0	0	1	0	1	**3**
109X - Catalina Hwy-Downtown Express - WESTBOUND	1	0	0	0	1		2	0	0	0	2	
110X - Rita Ranch-Downtown Express - NORTHBOUND	1	0	0	0	2	**4**	6	0	0	0	6	**8**
110X - Rita Ranch-Downtown Express - SOUTHBOUND	0	0	1	0	1		0	0	2	0	2	
201X - Eastside-Aero Park Express - EASTBOUND	0	0	1	0	1	**4**	0	0	5	0	5	**9**
201X - Eastside-Aero Park Express - WESTBOUND	1	0	0	0	1		4	0	0	0	4	
203X - Oro Valley-Aero Park Express - NORTHBOUND	0	0	1	0	1	**4**	0	0	1	2	3	**8**
203X - Oro Valley-Aero Park Express - SOUTHBOUND	1	0	0	1	1		5	0	0	0	5	
204X - Northwest- Aero Park Express - NORTHBOUND	0	0	1	0	1	**4**	0	0	2	0	2	**6**
204X - Northwest- Aero Park Express - SOUTHBOUND	1	0	0	0	1		4	0	0	0	4	
Sun Link - EASTBOUND	41	197	77	118	433	**1382**	70	330	197	210	807	**1646**
Sun Link - WESTBOUND	18	146	126	153	443		40	289	231	279	839	
Sun On Demand	0	0	0	0	0	**0**	0	12	0	0	12	**12**
Totals	**805**	**2153**	**1273**	**999**	**5231**	**8459**	**1366**	**3945**	**2005**	**1662**	**8978**	**8978**

OD Survey Sample Plan Weekend

ROUTE_SURVEYED	Saturday Goal	Saturday Collection	Sunday Goal	Sunday Collection	Weekend Total Collected
1 - Glenn/Swan	15	24	12	24	**48**
2 - Pueblo Gardens	10	15	7	14	**29**
3 - 6th St/Wilmot	18	33	13	19	**52**
4 - Speedway	51	52	38	42	**94**
5 - Pima/West Speedway	8	14	6	14	**28**
6 - Euclid/N 1st Ave	29	29	17	18	**47**
7 - 22nd St	25	28	16	19	**47**
8 - Broadway	66	71	47	49	**120**
9 - Grant Road	17	18	13	15	**33**
10 - Ruthrauff	13	20	11	11	**31**
11 - Alvernon Way	49	54	35	39	**93**
12 - 10th/12th Ave	11	12	13	21	**33**
15 - Campbell Ave	10	10	8	10	**20**
16 - Oracle/Ina	54	57	40	41	**98**
17 - Country Club/29th St.	29	31	23	24	**55**
18 - S 6th Ave	48	51	37	36	**87**
19 - Stone Ave	15	17	9	12	**29**
21 - Congress/Silverbell	7	11	5	8	**19**
22 - El Rio/W. Speedway	2	2	2	3	**5**
23 - Mission Road	14	20	10	18	**38**
24 - S 12th Ave	9	9	7	7	**16**
25 - S Park Ave	24	24	15	18	**42**
26 - Benson Highway	10	13	8	12	**25**
27 - Midvale Park	10	12	6	10	**22**
29 - Valencia	16	18	11	17	**35**
34 - Craycroft/Ft Lowell	22	29	16	25	**54**
37 - Pantano	8	14	6	10	**24**
61 - La Cholla	5	15	4	11	**26**
Sun Link	66	121	49	73	**194**
Totals	**660**	**824**	**485**	**620**	**1444**

On-to-Off Sample Plan Sun Tran

Route #	Route Name	Direction	Sampling Goals					Completed O2O Pairs				
			AM Peak (Before 8:30am)	Midday (8:30am-2:30pm)	PM Peak (2:30-5:30pm)	Off Peak (After 5:30pm)	Route Total Surveys	AM Peak (Before 8:30am)	Midday (8:30am-2:30pm)	PM Peak (2:30-5:30pm)	Off Peak (After 5:30pm)	Route Total Surveys
3	6th St. / Wilmot	EASTBOUND	32	69	49	22	**454**	172	135	102	135	**1,521**
		WESTBOUND	43	72	34	19		191	444	189	153	
4	Speedway	EASTBOUND	44	135	83	69	**849**	87	263	203	282	**1,641**
		WESTBOUND	58	129	62	58		98	330	113	265	
6	Euclid / N. 1st Ave.	NORTHBOUND	18	74	48	38	**488**	39	255	174	242	**1,464**
		SOUTHBOUND	36	81	44	27		84	307	147	216	
7	22nd St.	EASTBOUND	32	81	54	29	**510**	74	223	164	84	**1,006**
		WESTBOUND	35	76	49	26		79	194	89	99	
8	Broadway	EASTBOUND	51	152	88	58	**925**	97	197	101	112	**1,073**
		WESTBOUND	53	145	81	64		54	222	175	115	
9	Grant	EASTBOUND	27	67	41	26	**442**	28	108	67	140	**808**
		WESTBOUND	29	66	41	35		55	121	112	177	
11	Alvernon	NORTHBOUND	65	154	86	51	**986**	130	544	227	330	**2,299**
		SOUTHBOUND	66	159	93	67		170	348	333	217	
16	Oracle / Ina	NORTHBOUND	42	132	71	51	**754**	119	501	279	306	**2,279**
		SOUTHBOUND	40	117	58	56		85	389	303	297	
17	Country Club / 29th St.	NORTHWEST	48	92	47	32	**608**	97	341	183	247	**1,644**
		SOUTHEAST	44	93	59	41		75	294	176	231	
18	S. 6th Ave.	NORTHBOUND	47	139	59	52	**800**	153	629	289	217	**2,463**
		SOUTHBOUND	38	133	73	59		127	545	303	200	
34	Craycroft / Ft. Lowell	NORTHBOUND	32	68	35	25	**460**	50	264	147	99	**1,162**
		SOUTHBOUND	31	77	48	29		46	255	164	137	
		TOTALS	**909**	**2,311**	**1,304**	**934**	**7,278**	**2,110**	**6,909**	**4,040**	**4,301**	**17,360**

On-to-Off Sample Plan Sun Link

Station	Dir	Sampling Goals						Completed O2O Pairs					
		AM Peak (Before 8:30am)	Midday (8:30am-2:30pm)	PM Peak (2:30-5:30pm)	Off Peak (After 5:30pm)	Directional Total	Route Total Surveys	AM Peak (Before 8:30am)	Midday (8:30am-2:30pm)	PM Peak (2:30-5:30pm)	Off Peak (After 5:30pm)	Directional Total	Route Total Surveys
Av del Convento/Congress St	EASTBOUND	6	20	8	10	**44**	**59**	10	108	34	20	172	**172**
	WESTBOUND	0	0	0	0	**0**		0	0	0	0	0	
Cushing/Av del Convento	WESTBOUND	0	2	1	1	**4**	**5**	4	13	7	1	25	**25**
Cushing/Frontage Rd	EASTBOUND	0	0	0	1	**1**	**3**	2	3	1	2	8	**11**
	WESTBOUND	0	1	0	0	**1**		0	2	0	1	3	
Granada/Cushing	EASTBOUND	0	0	0	0	**1**	**3**	2	7	6	12	27	**31**
	WESTBOUND	0	0	0	0	**1**		0	1	3	0	4	
Broadway/Granada Av	EASTBOUND	2	5	1	1	**9**	**12**	4	6	4	3	17	**17**
Congress/Granada Av	WESTBOUND	0	1	1	1	**3**	**5**	0	4	3	1	8	**8**
Congress/Church	WESTBOUND	0	1	2	1	**5**	**6**	0	5	10	1	16	**16**
Broadway/Church	EASTBOUND	0	0	0	0	**0**	**0**	2	9	6	7	24	**24**
Broadway/Stone	EASTBOUND	1	4	3	3	**12**	**16**	1	19	6	3	29	**29**
Congress/Stone	WESTBOUND	1	2	3	2	**8**	**10**	1	6	3	3	13	**13**
Congress/6th Av	WESTBOUND	1	12	8	10	**31**	**41**	1	21	10	9	41	**41**
Broadway/6th Av	EASTBOUND	2	11	5	9	**27**	**36**	3	25	11	18	57	**57**
Plaza Centro-Congress/4th-Toole at Congress	EASTBOUND	3	9	3	5	**20**	**26**	3	14	5	4	26	**26**
4th Av/9th St	EASTBOUND	6	23	7	23	**59**	**121**	8	40	21	32	101	**153**
	WESTBOUND	1	10	9	12	**32**		1	14	22	15	52	
4th Av/6th St-7th St	EASTBOUND	5	26	10	25	**65**	**124**	5	52	11	26	94	**141**
	WESTBOUND	0	8	10	10	**28**		0	21	11	15	47	
4th Av/4th St- 5th St	EASTBOUND	6	23	5	6	**41**	**79**	16	61	7	19	103	**127**
	WESTBOUND	0	5	6	8	**18**		3	6	6	9	24	
University/3rd Av	EASTBOUND	4	19	5	5	**33**	**80**	12	51	12	8	83	**124**
	WESTBOUND	1	6	11	10	**27**		3	18	10	10	41	
University/Tyndall	EASTBOUND	6	39	20	31	**95**	**299**	8	97	19	42	166	**425**
	WESTBOUND	1	24	32	71	**129**		3	135	29	92	259	
2nd St/Olive Av	EASTBOUND	5	26	10	12	**52**	**153**	7	30	15	13	65	**169**
	WESTBOUND	1	26	19	17	**63**		2	63	16	23	104	
2nd St/Highland Av	EASTBOUND	4	32	14	11	**61**	**192**	5	39	29	12	85	**224**
	WESTBOUND	2	29	28	24	**83**		6	77	22	34	139	
2nd St/Cherry Av	EASTBOUND	2	10	5	5	**22**	**76**	3	13	8	4	28	**93**
	WESTBOUND	2	11	9	14	**35**		4	29	6	26	65	
Helen/Warren-CAMPBELL	WESTBOUND	12	46	18	9	**86**	**114**	30	190	50	43	313	**313**
TOTAL		**74**	**429**	**254**	**339**	**1,095**	**1,460**	**149**	**1,179**	**403**	**508**	**2,240**	**2,240**

APPENDIX B SURVEY QUESTIONNAIRE

Tucson 2025 On Board Transit Survey

(for office use only) Route Code: ____ Dir: N S E W Time: ____ am / pm Interviewer: ____ Serial #: ____

Complete the questionnaire and have a chance to win 1 of 5 Transit Goodie Bags!

Are you a visitor to the Tucson area? ○ Yes ○ No

What is your HOME ADDRESS?: (please be specific, ex: 123 W. Main St):

*(If you are visiting Tucson area, please list the **hotel name** or address where you are staying) If you are unhoused, check bubble* ○

Street Address ____ City ____ State ____ ZIP Code ____

COMING FROM?

1. What type of place are you COMING FROM NOW? *(the starting place for your one-way trip)*

- ○ Your usual Workplace
- ○ Other business related (e.g., meeting, delivery)
- ○ College / University (students only)
- ○ School K-12 (students only)
- ○ Medical appointment / doctor visit (non-work)
- ○ Pick up / Drop of someone (e.g. school, daycare)
- ○ Shopping
- ○ Personal business (e.g. bank, post office)
- ○ Dining out
- ○ Social visit (e.g. friends, relatives)
- ○ Recreation / Sightseeing
- ○ Major sporting event
- ○ Escorting / accompanying someone
- ○ Airport (passengers only)
- ○ Your hotel/motel/lodging → *Go to Question #4*
- ○ Your **HOME** → *Go to Question #4*
- ○ Other: _____

2. What is the NAME of the place you are coming from now?

_____

3. What is the EXACT STREET ADDRESS of this place? (OR Intersection)

_____

City: _____ State: _____ ZIP: _____

4. How did you GET FROM the place in Questions #1-3 TO THE VERY FIRST vehicle you used for this one-way trip?

- ○ Walk (go to Q5)
- ○ Bike (go to Q5)
- ○ Wheelchair (go to Q5)
- ○ Bike share (go to Q5)
- ○ Was dropped off by someone (answer 4a)
- ○ Drove alone and parked (answer 4a)
- ○ Drove or rode with others and parked (answer 4a)
- ○ Uber, Lyft, etc.
- ○ Taxi
- ○ E-scooter (e.g. Spin, Razor)
- ○ Cat Tran Shuttle
- ○ Other, specify _____

4a. Where did you park/get dropped off before the FIRST vehicle you used for this one-way trip (Nearest intersection / Park-N-Ride lot below):

_____

GOING TO?

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

- ○ Your usual Workplace
- ○ Other business related (e.g., meeting, delivery)
- ○ College / University (students only)
- ○ School K-12 (students only)
- ○ Medical appointment / doctor visit (non-work)
- ○ Pick up / Drop of someone (e.g. school, daycare)
- ○ Shopping
- ○ Personal business (e.g. bank, post office)
- ○ Dining out
- ○ Social visit (e.g. friends, relatives)
- ○ Recreation / Sightseeing
- ○ Major sporting event
- ○ Escorting / accompanying someone
- ○ Airport (passengers only)
- ○ Your hotel/motel/lodging → *Go to Question #8*
- ○ Your **HOME** → *Go to Question #8*
- ○ No particular destination → Go to Question #9
- ○ Other: _____

6. What is the NAME of the place you are going to now?

_____

7. What is the EXACT STREET ADDRESS of this place? (OR Intersection)

_____

City: _____ State: _____ ZIP: _____

8. How will you GET TO your destination (in Qs #5-7) after you get off the LAST vehicle you will use for this one-way trip?

- ○ Walk (go to Q9)
- ○ Bike (go to Q9)
- ○ Wheelchair (go to Q9)
- ○ Bike share (go to Q9)
- ○ Be picked up by someone (answer 8a)
- ○ Get in a parked vehicle & drive alone (answer 8a)
- ○ Get in a parked vehicle & drive/ride w/others (answer8a)
- ○ Uber, Lyft, etc.
- ○ Taxi
- ○ E scooter (e.g. Spin, Razor)
- ○ Cat Tran Shuttle
- ○ Other, specify _____

8a. Where will you get your car/get picked up after the LAST vehicle you are using for this one-way trip (nearest intersection / Park-N-Ride lot below):

_____

9. Did you transfer FROM another transit vehicle BEFORE getting on this transit vehicle? ○ Yes ○ No

10. Where did you GET ON THIS vehicle? *Please provide the nearest intersection / station name / Park & Ride lot:*

_____

11. Where will you GET OFF THIS vehicle? *Please provide the nearest intersection / station name / Park & Ride lot:*

_____

12. Will you transfer TO another transit vehicle AFTER getting off this transit vehicle? ○ Yes ○ No

13. Please list all TRANSIT ROUTES (Sun Tran, Sun Link, Sun Shuttle, Sun On Demand and Sun Express) in the exact order you use them for this one-way trip.

START → [ ] → [ ] → [ ] → [ ] → END

1st Route 2nd Route 3rd Route 4th Route

Continue

OTHER INFORMATION ABOUT THIS TRIP

14. What time did you GET ON this vehicle? _____ : _____ **a.m. / p.m. (circle one)**

15. Will you make a RETURN TRIP today to get you back to the place where you started this one-way trip? ○No
○ Yes, I will make a return trip in exactly the opposite direction today (or this is my return trip) at what time _____:_____ am/pm (circle one)

16. Do you have a working portable device (smartphone or tablet) with internet or data access? ○ Yes ○ No

17. How would you have made this trip if Sun Tran, Sun Link, or Sun On Demand were not available?
○ Drive own vehicle ○ Ride bicycle ○ Friend/family member ○ Walk
○ Taxi/Uber ○ Would not make trip ○ Sun Shuttle ○ Other_____

18. How often do you ride transit (*Sun Tran, Sun Link, Sun On Demand*)? ○ Everyday ○ 5 days/week
○ 2-4 days/week ○ Once/week ○ 2-3 times/month ○ Once per month ○ Less than once per month

19. How long have you been riding public transit in the Tucson area?
○ First time riding ○ Less than 1 year ○ 1-2 years ○ 2-5 years ○ 5-10 years ○ More than 10 years

20. What did you use to plan this trip? ○ Called customer service ○ Ride Guide (Schedule Booklet)
○ Online trip planner (suntran.com) ○ Did not do any trip planning ○ Transit App ○ Other_____

20a. [If #20 is "Transit App"] which transit app do you use most often? ○ Other (specify)_____
○ Sun Tran ○ Google maps ○ Transit (Royale) ○ Moovit ○ Waze ○ Apple maps ○ City Mapper

ABOUT YOU AND YOUR HOUSEHOLD

21. How many vehicles (cars, trucks, or motorcycles) are available to your household? _____ vehicles

21a. [If #21 is ONE OR MORE] Could you have used one of these vehicles to complete this trip? ○Yes ○No

22. Including YOU, how many people live in your household? _____ people

23. Including YOU, how many people (over age 15) in your household are employed full/part-time? _____ people

24. What is your employment status? ***(check the one response that BEST describes you)***
○ Employed full-time (at least 35 hrs/wk) ○ Employed part-time (less than 35 hrs/wk) ○ Retired
○ Not currently employed, but seeking work ○ Not currently employed, and not seeking work ○ Homemaker

24a. [If #24 is Employed full or part-time] Do you work only at work site, at home, or hybrid?
○ Work Site ○ Home ○ Hybrid

25. What is your student status? ***(check the one response that BEST describes you)***
○ Not a student ○ Yes – Full-time college/university ○ Yes – Part-time college/university
○ Yes – Vocational/technical/trade school ○ Yes – K-12th grade ○ Yes - Other

26. Do you have a valid driver's license? ○Yes ○No

25. Do you have a disability that limits your mobility? ○ Yes ○ No

26. What is your Age? ○ 15 & under ○ 16-17 ○ 18-24 ○ 25-34 ○ 35-44 ○ 45-54 ○ 55-64 ○ 65 & older

27. Are you Hispanic, Latino, or Spanish origin? ○ Yes ○ No ○ Choose not to answer
(includes: Mexican/Mexican American, Puerto Rican, Cuban/Cuban American, Columbian, Nicaraguan, Guatemala, etc.)

28. What is your Race? ***(check all that apply)***
○ American Indian / Alaska Native ○ Asian ○ Black/African American
○ Native Hawaiian / Pacific Islander ○ White / Caucasian ○ Other: _____

29. Do you speak a language other than English at home? ○ No ○Yes - **Which language?** _____

29a. [If #29 = Yes] How well do you speak English? ○ Very well ○ Well ○ Less than well ○ Not at all

30. What is your gender? ○ Male ○ Female ○ Non-binary/third gender ○ Prefer not to say
○ Other / Please self-describe (_____)

31. Which of the following BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2024 before taxes?
○ Less than $10,000 ○ $15,000 - $24,999 ○ $35,000 - $49,999 ○ $75,000 - $99,999
○ $10,000 - $14,999 ○ $25,000 - $34,999 ○ $50,000 - $74,999 ○ $100,000 or more

32. What is the service enhancement that is of most importance to you (*select all that apply*)?
○ More frequent service ○ Earlier operating hours ○ Later operating hours
○ More weekend service ○ Shorter travel time ○ Different destinations ○ Other

33. How do you typically get your news, about Sun Tran and in general ***(select all that apply)*****?**
○ Announcements onboard transit vehicle (bus posters, flyers) ○ Radio (Local or national news stations)
○ Television (News channels like CNN, BBC, etc.) ○ Newspapers (Printed or digital editions)
○ Online news websites (e.g., New York Times, BBC, etc.) ○ News apps (e.g., Google News, Apple News, etc.)
○ Social media platforms (e.g., Facebook, Twitter/X, Instagram, etc.) ○ Newsletters (Sun Tran Emails)
○ Word of mouth (Friends, family, colleagues) ○ Other (Please specify): _____

REGISTER TO WIN 1 of 5 Transit Goodie Bags

People who submit an accurately completed survey will have the option of being entered in a random drawing for one of five Transit Goodie Bags. You must provide your home address at the beginning of the survey to be eligible.

Name: _____

Phone Number: (_____) _____

Email: _____

Are you willing to participate in future Tucson transit research and may we email/text you? ○ Yes ○ No

Thank you for your help!