



TRI DELTA TRANSIT

Eastern Contra Costa Transit Authority
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Addendum No. 2

Response to Question and Requests for Clarification, Interpretation, and Additional Information

For:

Request for Proposals #2023-04 Comprehensive Operational Analysis

Eastern Contra Costa Transit Authority

Notice to Prospective Proposers

Eastern Contra Costa Transit Authority's (ECCTA) response to questions and requests for clarification, interpretation, and additional information, as set forth in the Information to Proposers section of the RFP, page 8, "Interpretation of Contract Documents," is attached and hereby incorporated into, and made part of, the RFP solicitation for a comprehensive operational analysis of ECCTA's mobility services and redesign of its system.

Office of the CEO

December 19, 2023

Encl: Revised Price Proposal Cover form

Questions and Answers

Q: If proposals are being sent electronically, must proposers use 12-point font?

A: Yes. Proposers are also advised that Bid Express has a maximum file size of 10 MB.

Q: Can ECCTA remove the requirement to be licensed by the California Contractor's State License Board (CSLB), as planning services are not subject to the CSLB.

A: There is no current requirement for proposers to be licensed by the CSLB. The language in Section 9, Sample Contract, is a sample contract only and will not, after negotiations, necessarily reflect the final version of the contract.

The proposer, however, must still be licensed to do business within the State of California.

Q: Can ECCTA remove the requirement for bonding?

A: There is no current requirement for proposers to be bonded. The language in Section 9, Sample Contract, is a sample contract only and will not, after negotiations, necessarily reflect the final version of the contract.

Q: Many of the provisions of the RFP are tailored to a general contractor instead of a professional services provider (e.g., hazardous materials, hours of work, materials provisions). Would ECCTA consider releasing an alternate set of terms and conditions related to professional services?

A: No. Some may be required by federal procurement regulations, while others allow for cost control (e.g. hours of work). ECCTA will consider adjusting items piecemeal, as necessary, but developing an alternate set of terms and conditions would require this current solicitation to be cancelled. ECCTA is not willing to do that at this time.

Q: Items 7 and 8 of the proposal cover form requires that the entire project team to be registered with the California Department of Industrial Relations (DIR). These requirements are not applicable to this project; can ECCTA remove these requirements from the proposal cover form?

A: Yes. The revised proposal cover form is attached to this addendum. The Bid Express form has also been updated.

Q: When was the last time ECCTA conducted a passenger survey and did that survey include origin/destination information? Will the selected consultant be given this information?

A: The last passenger survey was completed by the Metropolitan Transportation Committee. The final report was provided to ECCTA in 2019, and is submitted as part of this addendum.

Q: Will ECCTA allow for proposers to submit a different price proposal form to the Bid Express portal other than the information required by the current price proposal module?

A: No. The price proposal module was designed to mirror the price proposal form contained within the hard copy versions of the RFP. In order to ensure a fair evaluation of the price proposal, different versions of the form are not allowed and may result in the proposal being determined non-responsive.

Q: If the proposer is submitting electronically, is a price proposal pdf required to be submitted as a separate attachment containing the information as described on Page 12? If so, there is not currently a means to upload an attachment via the Bid Express portal.

A: No. The Bid Express portal has a converted price proposal module that proposers will need to complete.

Q: If the proposer is submitting electronically via Bid Express, does the technical proposal still need to contain the “Properly Executed Certifications” section referred to on page 11 of the RFP?

A: No. The certifications should have appropriate electronic versions to be completed by the proposer on the Bid Express platform.

Q: Item 9 in the Proposal Form module on the Bid Express portal states that “The undersigned will place the proposal package in one or more sealed envelopes marked and deliver them to ECCTA in the manner, and by the times, provided in RFP.” If proposers submit electronically through the Bid Express portal, does the proposer also have to submit a hard copy by the proposal due date?

A: No, proposers do not have to submit a hard copy in addition to an electronic submission through Bid Express.

Q: Can ECCTA please clarify which forms and certifications need to be submitted by subconsultants?

A: Nothing needs to be submitted by the subcontractors. However, prime contractors are responsible for ensuring all applicable flow-down clauses and certifications, as outlined in the RFP, are contained in their records for their subcontractors. These records must also be provided to ECCTA upon request.

Q: Can ECCTA confirm that DBEs can prime for this project? If so, how should the DBE prime contractor fill out the Designation of Subcontractors and DBEs Form?

A: Yes, DBEs can prime for this project and are encouraged to do so. If a DBE prime submits a proposal, they do not need to complete the Designation form and can use the answer “N/A.”

Q: The Contractor’s Experience and Qualifications form requests a contractor’s license number and expiration date. However, as a planning consultant firm, we do not have a contractor’s license number. What should be submitted here instead?

A: The contractor’s number can be left blank. The Bid Express version has been updated respectively.

Q: What tools of software (e.g. Remix, Swiftly, etc.) does ECCTA have that will be available to the consultant?

A: The contractor will have access to Remix planning and scheduling software, Via micro-transit software, UTA APC data, and TransTrack reporting.

Q: When was the last on-board survey conducted? What was the response rate and will the result be available?

A: The last on-board survey was completed by the Metropolitan Transportation Committee. The final report was provided to ECCTA in 2019, and is submitted as part of this addendum.

Q: Does ECCTA expect the consultant to make recommendations for a new fare structure or simply do an equity analysis for a new fare structure developed outside this project?

A: The contractor is expected to review current pricing structure for Local, Express, and micro-transit services and make recommendations to maximize revenue and ridership while eliminating self-competition.

Q: For the market assessment, does ECCTA have a preferred origin/destination dataset for the consultant to use?

A: Please refer to the 2019 on-board survey provided as part of this addendum.

PROPOSAL COVER FORM
For
RFP #2023-04

Eastern Contra Costa Transit Authority (ECCTA)
Antioch, CA

DATE SUBMITTED: _____

NAME OF INDIVIDUAL SUBMITTING PROPOSAL: _____

CONTACT PERSON: _____

NAME UNDER WHICH BUSINESS IS CONDUCTED: _____

STREET ADDRESS: _____

MAILING ADDRESS, IF DIFFERENT: _____

TELEPHONE: _____

FAX: _____

PLEASE COMPLETE THE FOLLOWING TWO BOXES.

The names of all persons interested in the foregoing proposal as principals are as follows:	
1.	2.
3.	4.

Proposer holds California Business License No.:
<i>Proposer declares under penalty of perjury that the foregoing is true and correct.</i>

CONDITIONS:

1. The undersigned understands that they will be bound by the proposal as expressed by these forms if an award is made by ECCTA. The contract will be in accordance with this proposal.
2. The Request for Proposals, Information for Proposers, General Conditions, Scope of Work, Special Conditions, Proposal Forms, Required Certifications, and Addenda, if any, are made a part of this proposal.
3. The undersigned understands that any clarification made to the proposal form or any new and different conditions or information submitted in or with the proposal form, other than that requested, may render the proposer unresponsive.

- 4. The undersigned acknowledges the receipt of the following addenda:

- 5. The undersigned understands that ECCTA reserves the right to reject any or all proposals or to waive any informality or technicality in any proposal in the interest of ECCTA.
- 6. The undersigned understands that all proposals shall remain in effect for sixty calendar days from the day of the proposal due date.
- 7. The undersigned has carefully examined the location of the proposed work, the annexed proposed form of contract, and the contract documents therein referred to.
- 8. The undersigned certifies that the proposal includes all costs for labor, materials, taxes, insurance, overhead, profits, storage, delivery, and all other costs necessary to perform the work in accordance with the contract documents.
- 9. The undersigned will place the proposal package in one or more sealed envelopes marked and deliver them to ECCTA in manner, and by the times, provided in the RFP.

2019 Tri Delta Transit On-Board Survey

FINAL REPORT
APRIL 2019



Prepared for The Tri Delta
Transit and Metropolitan
Transportation Commission
(MTC)

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EXECUTIVE SUMMARY

Tri Delta Transit conducted the 2019 Transit On-Board Origin-Destination (OD) Survey in partnership with the Metropolitan Transportation Commission (MTC). MTC contracted with ETC Institute to conduct the Tri Delta On-Board OD Survey. The data collection began in February of 2019 and ended in March of 2019. This summary will provide an overview and detailed description of the 2019 On-Board OD Survey process. The summary covers the purpose/background, design, sampling, administration methodology, quality control process, and survey findings.

OBJECTIVES

The primary objectives for the Survey were as follows:

- ▲ Compile statistically accurate information about the use of transit in the region by Tri Delta passengers.
- ▲ Generate reliable linked OD data to support computerized travel demand modeling and transportation network simulation activities for purposes of regional long-range transportation planning.
- ▲ Assess changes in trip characteristics and ridership profiles of Tri Delta passengers by comparing the Survey results with data from previous Tri Delta surveys.
- ▲ Acquire demographic data to meet requirements for compliance under Title VI of the Civil Rights Act of 1964.

SURVEY METHODOLOGY SUMMARY

ETC Institute Interviewers conducted the On-Board Survey upon a representative sample of Tri Delta routes on weekdays and weekends. The passenger-intercept interviews were completed using hand-held tablet personal computers (PCs) upon which the online Survey, created and developed by ETC Institute in cooperation with Tri Delta, was administered. Passengers were selected for participation using a random sampling function built into the Survey programming and passenger responses were captured in real time. ETC Institute Interviewers were required to adhere strictly to the random sampling protocol and were at no time permitted to exercise personal discretion with regard to the selection of Survey subjects.

For those passengers who elected to participate, the Survey was administered in two uninterrupted sections: The first was designed to create a detailed record of the passenger's current one-way trip and the second to gather required demographic data. In the initial section, the survey application's mapping features allowed for geocoding of addresses using information provided by the passenger. Passengers were able to see each on-screen map and confirm the accuracy of the trip data collected. At the end of the Survey's first section, passengers were asked to confirm a comprehensive summary of their complete origin-to-destination trip. In the demographics section of the Survey, passengers were offered the choice of physically selecting the answers themselves (pressing the buttons on the tablet PC screen) to ensure their privacy. Upon completion of the Survey, minimal passenger contact information was collected and passengers were thanked for their time and willingness to participate.

ETC Institute Interviewers were available to answer passenger questions, the most common of which involved the need to ask for personal information and how the information gathered would ultimately

be used. Passengers were assured all information collected would be kept strictly confidential, that Tri Delta intended to use the information for research purposes designed to improve their system, and that the information would never be used for any commercial purpose.

The summary information below is based on the linked weight factors. A linked passenger trip is a trip from origin to destination on the transit system. Even if a passenger must make several transfers during a one-way journey the trip is counted as one linked trip on the system. Unlinked passenger trips count each boarding as a separate trip regardless of transfers.

TRANSIT TRIP CHARACTERISTICS

The following bullets describe Tri Delta Passengers' transit trips:

Weekday

- ▲ Thirty-five (35.0 percent) of all Tri Delta Weekday Passengers' trips surveyed were home-to-work or work-to-home trips. Half of all transit passenger trips (55.3 percent) surveyed were either home-to-other (non-work) or other-to-home (non-work). Ten percent of all transit passengers' trips were non-home-based type trips (9.7 percent).
- ▲ Ninety-one percent of transit passengers responding to the survey reported walking to access transit (91.1 percent). About two percent reported personal bike to transit (1.9 percent). Six-percent reported driving alone or being dropped off by someone – not a service (6.1 percent).
- ▲ More than eighty-percent of all Tri Delta Weekday Passengers had trips that did not require any transfers on any system routes to complete their one-way trip (84.4 percent). About sixteen-percent of passengers required one or two system transfer (15.6 percent). ***Transfer percentages above were based on the unlinked expansion.***
- ▲ Majority of Tri Delta Weekday Passengers (84.5 percent) paid the Adult fare for their one-way trip. About eight-percent of Tri Delta Weekday Passengers (7.6 percent) paid for the Senior fare.

Weekend

- ▲ Thirty-nine (38.9 percent) of all Tri Delta Weekend Passengers' trips surveyed on the weekend routes were home-to-work or work-to-home trips. Half of all transit passenger trips (56.8percent) surveyed were either home-to-other (non-work) or other-to-home (non-work). Less than 5 percent of all transit passengers' trips were non-home-based type trips (4.2 percent).
- ▲ Most Tri Delta Weekend Passengers reported walking to access transit (96.1 percent). About two percent reported personal bike to transit (1.9 percent).
- ▲ Most Tri Delta Weekend Passengers had trips that did not require any transfers on any system routes to complete their one-way trip (95.8 percent). ***Transfer percentages above were based on the unlinked expansion.***
- ▲ Most Tri Delta Weekend Passengers (92.8 percent) paid the Adult fare for their one-way trip. About five-percent of Tri Delta Weekend Passengers (4.8 percent) paid for the Senior fare.

TRANSIT PASSENGER PROFILE

The following bullets describe Tri Delta Passengers' demographics:

Weekday

- ▲ Nearly sixty-percent of Tri Delta Weekday Passengers (59.3 percent) are employed.
- ▲ Seventy-percent of Tri Delta Weekday Passengers (70.3 Percent) are currently not a student. About one-fifth of Tri Delta Passengers (18.2 percent) are either full- or part-time college/university students.
- ▲ Nearly two-thirds of Tri Delta Weekday Passengers (65.7 percent) are between 18 and 50 years of age, with forty-three percent being between 18 and 34 years of age (43.4 percent).
- ▲ The race/ethnicity of Tri Delta Weekday Passengers in the region are: 39.3 percent Black/African American, 27.9 percent Latino/Hispanic, 27.8 percent White, 5.9 percent Asian, 2.8 percent American Indian/Alaska Native, 2.0 percent Native Hawaiian/Pacific Islander and 1.4 percent "Other".
- ▲ More than one-third of Tri Delta Weekday Passengers report an annual household income below \$25,000 (37.8 percent) and nearly half of Tri Delta Passengers (48.5 percent) reported an annual household income of between \$25,000 and \$75,000.

Weekend

- ▲ Nearly two-thirds of Tri Delta Weekend Passengers (65.2 percent) are employed.
- ▲ Most Tri Delta Weekend Passengers are currently not a student (84.7 percent).
- ▲ Over half of Tri Delta Weekend Passengers (55.5 percent) indicated their age is between 18-34. Forty-three percent of Tri Delta Weekend Passengers are 35 or over (42.6 percent).
- ▲ The race/ethnicity of Tri Delta Passengers in the region are: 38.2 percent Latino/Hispanic, 32.1 percent Black/African American, 25.1 percent White, 4.9 percent Asian, 1.2 percent Native Hawaiian/Pacific Islander, 1.0 percent American Indian/Alaska Native and 0.7 percent "Other".
- ▲ More than one-third of Tri Delta Weekend Passengers report an annual household income below \$25,000 (39.3 percent) and half of Tri Delta Passengers (52.1 percent) reported an annual household income of between \$25,000 and \$75,000.

Chapter 1. OD SURVEY SYSTEM RESULTS (WEEKDAY)

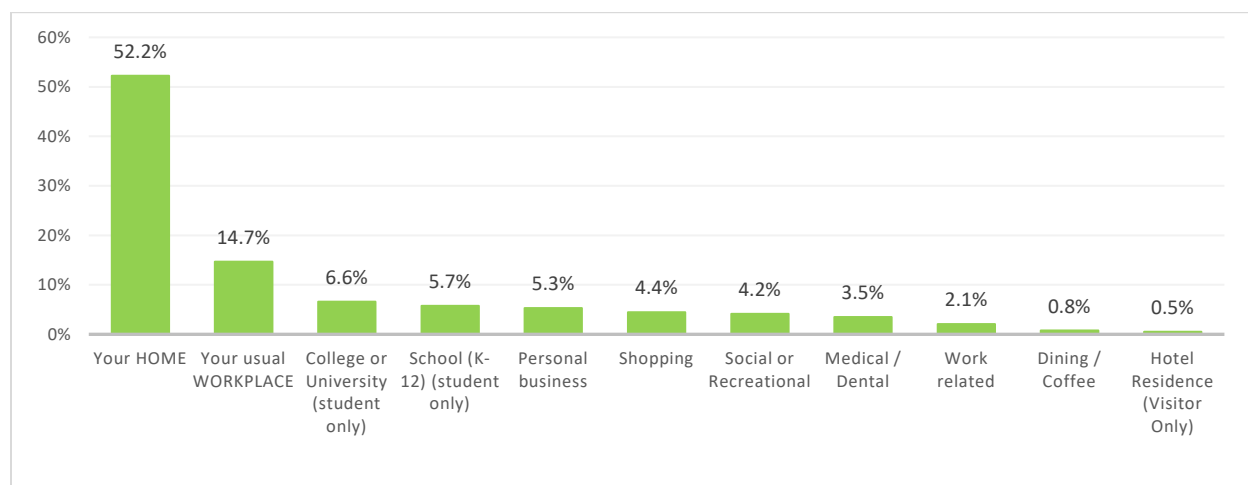
Chapter 1 highlights selected demographic and trip-related findings from weekday Tri Delta OD Survey. Four major categories are presented regarding the Survey findings: (1) Travel characteristics, (2) Pass/Payment characteristics, (3) Household and (4) Rider demographics. Regarding results, the database used for the charts/tables below were expanded based on the linked weight factors unless noted.

TRAVEL CHARACTERISTICS

TYPES OF PLACES TRI DELTA PASSENGERS ARE COMING FROM

Table 1-1 below shows the top types of places Tri Delta Passengers are coming from. Based on the Survey results, more than half of Tri Delta Passengers (52.2 percent) selected “Your HOME” for where their trip originated from. Another top choice was “Your usual WORKPLACE” with 14.7 percent of Tri Delta Passengers. An additional 6.6 percent of Tri Delta Passengers reported they were coming from “College or University (student only)”.

Table 1-1: Types of Places Tri Delta Passengers are COMING FROM

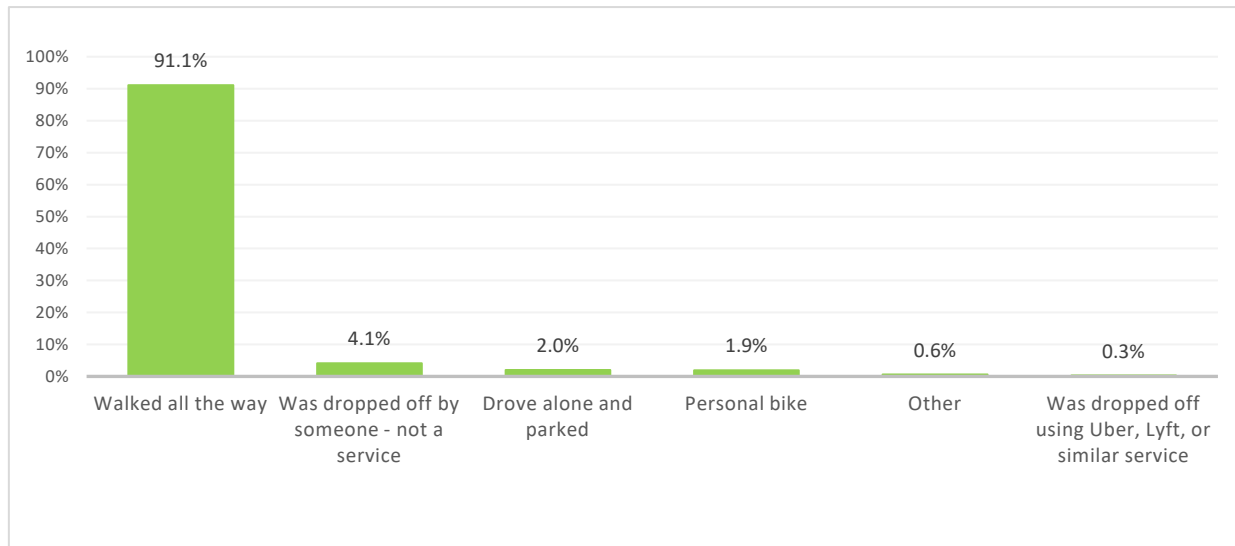


Origin Type	Percent
Your HOME	52.2%
Your usual WORKPLACE	14.7%
College or University (student only)	6.6%
School (K-12) (student only)	5.7%
Personal business	5.3%
Shopping	4.4%
Social or Recreational	4.2%
Medical / Dental	3.5%
Work related	2.1%
Dining / Coffee	0.8%
Hotel Residence (Visitor Only)	0.5%
Total	100.0%

HOW PASSENGERS ACCESS PUBLIC TRANSIT

How Passengers first access public transit for their one-way trip by service type is shown in Table 1-2. A large majority of all Tri Delta Passengers (91.1 percent) selected that they accessed public transit by “Walked all the way”, compared to next highest (4.1 percent) of Tri Delta Passengers who reported “Was dropped off by someone – not a service”. An additional 1.9 percent of Passengers reported they accessed public transit by “Personal bike”.

Table 1-2: How Passengers Access Public Transit

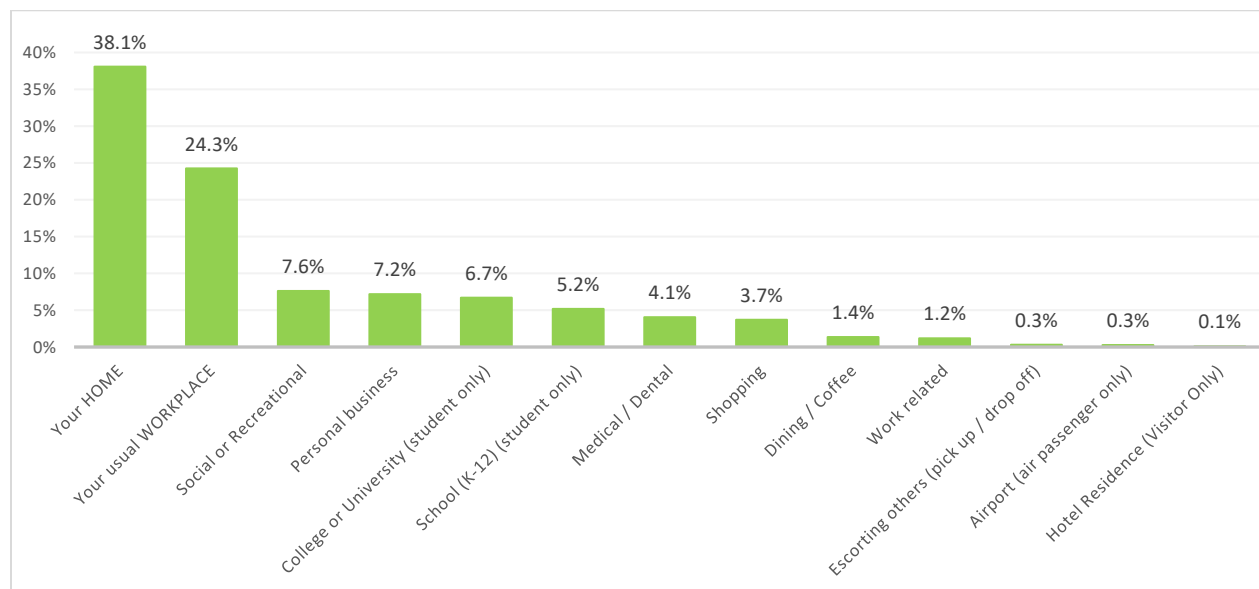


Access Mode	Column N %
Walked all the way	91.1%
Was dropped off by someone - not a service	4.1%
Drove alone and parked	2.0%
Personal bike	1.9%
Other	0.6%
Was dropped off using Uber, Lyft, or similar service	0.3%
Total	100.0%

TYPES OF PLACES TRI DELTA PASSENGERS ARE GOING TO

Table 1-3 below shows the top types of places Tri Delta Passengers are going to. Based on the Survey results, 38.1 percent of Tri Delta Passengers selected “Your HOME” for where they were headed on this trip. Another top choice was “Your usual WORKPLACE” with 24.3 percent of Tri Delta Passengers. The third top choice was “Social or Recreational” with 7.6 percent of Tri Delta Passengers.

Table 1-3: Types of Places Passengers are GOING TO

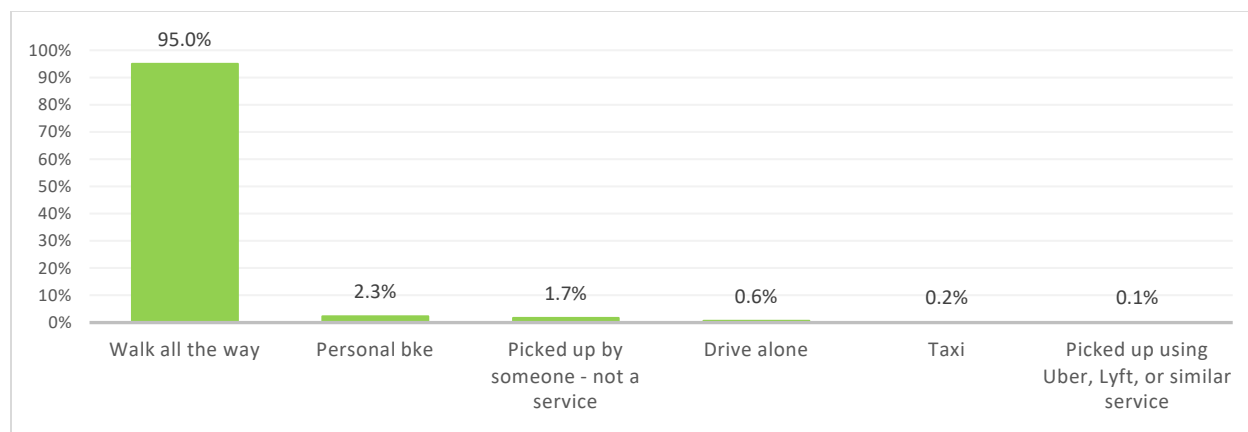


Destin Place Type	Column N %
Your HOME	38.1%
Your usual WORKPLACE	24.3%
Social or Recreational	7.6%
Personal business	7.2%
College or University (student only)	6.7%
School (K-12) (student only)	5.2%
Medical / Dental	4.1%
Shopping	3.7%
Dining / Coffee	1.4%
Work related	1.2%
Escorting others (pick up / drop off)	0.3%
Airport (air passenger only)	0.3%
Hotel Residence (Visitor Only)	0.1%
Total	100.0%

HOW PASSENGERS TRAVELED FROM TRANSIT TO THEIR FINAL DESTINATION

Table 1-4 shows how Passengers traveled from transit to their destination. Most of all transit Passengers (95.0 percent) selected “Walk all the way” for their egress mode type to their final destination after using public transit, compared to the next highest (2.3 percent) of Tri Delta Passengers that selected “Personal bike”. An additional 1.7 percent of Tri Delta Passengers reported they traveled from transit to their destination by “Picked up by someone - not a service”.

Table 1-4: How Passengers Traveled from Transit to Their Final Destination

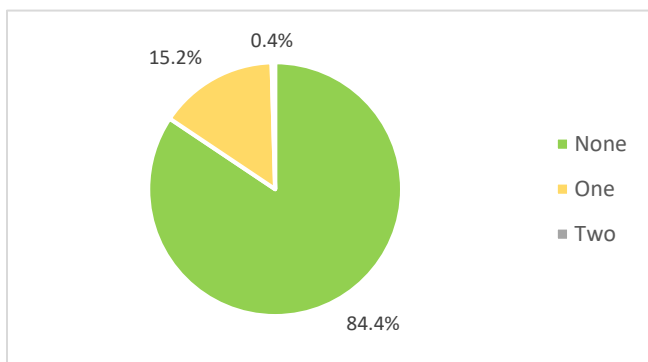


Egress Mode	Column N %
Walk all the way	95.0%
Personal bike	2.3%
Picked up by someone - not a service	1.7%
Drive alone	0.6%
Taxi	0.2%
Picked up using Uber, Lyft, or similar service	0.1%
Total	100.0%

NUMBER OF SYSTEM TRANSFERS USED

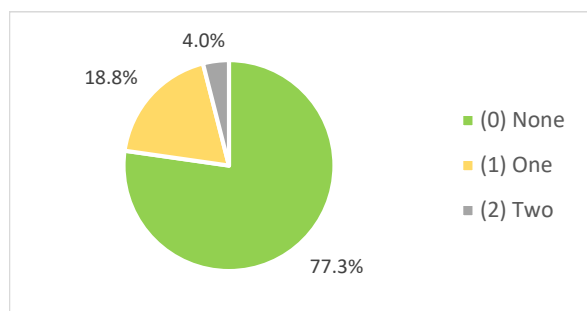
Table 1-5 Series shows the total number of system transfers used in the one-way trip by Tri Delta Passengers. Most Tri Delta Passengers (84.4 percent) used zero Tri Delta System transfers to make their current trip, compared to, 15.2 percent of Tri Delta Passengers that used one Tri Delta System transfer during their trip. **Transfer percentages were based on the unlinked secondary expansion.**

Table 1-5a: Number of Total Transfers Used in The One-Way Trip



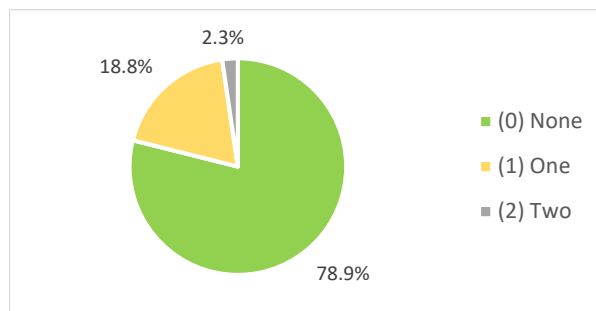
Total number of system transfers	Column N %
None	84.4%
One	15.2%
Two	0.4%
Total	100.0%

Table 1-5b: Number of Total Transfers Before Surveyed Route



Number of Total Transfers Before Surveyed Route	Column N %
(0) None	77.3%
(1) One	18.8%
(2) Two	4.0%
Total	100.0%

Table 1-5c: Number of Total Transfers After Surveyed Route



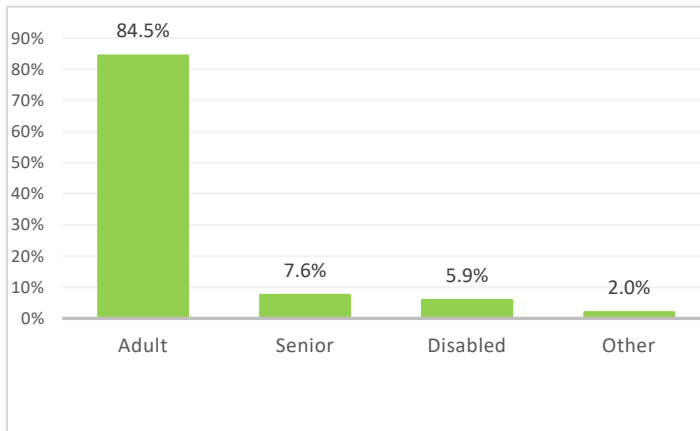
Number of Total Transfers After Surveyed Route	Column N %
(0) None	78.9%
(1) One	18.8%
(2) Two	2.3%
Total	100.0%

PASS/PAYMENT CHARACTERISTICS

HOW DID YOU PAY FOR THIS ONE-WAY TRIP

Table 1-6 shows the fare payment used by Tri Delta Weekday Passengers. As shown in these visuals, “Adult fare” was the most used fare payment type as indicated by Weekday Passengers for Tri Delta (84.5 percent), compared to the next highest, “Senior fare” (7.6 percent).

Table 1-6: Fare Payment Type

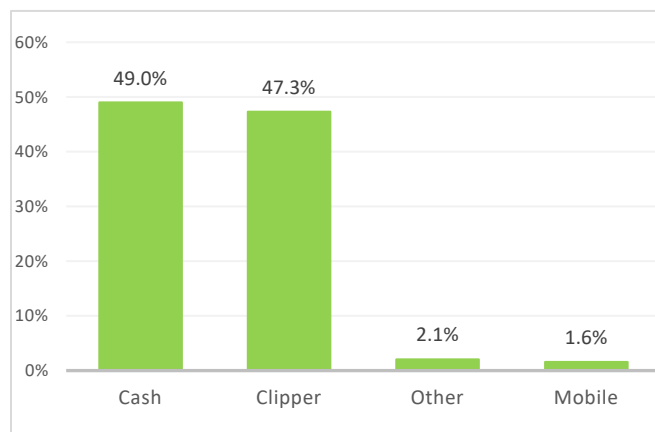


Fare Payment Type	Column N %
Adult	84.5%
Senior	7.6%
Disabled	5.9%
Other	2.0%
Total	100.0%

METHOD OF FARE PAYMENT

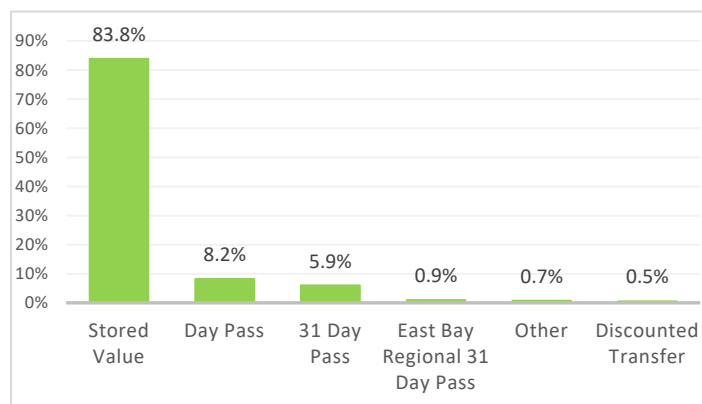
Table 1-7 Series illustrates the method of fare payment used by Tri Delta Weekday Passengers. Nearly half of Tri Delta Passengers use the “cash” to pay for a ride (49.0 percent), compared to the next highest, “Clipper” (47.3 percent). An additional 1.6 percent of Tri Delta Weekday Passengers reported they paid fare using “Mobile”.

Table 1-7a: Method of Payment



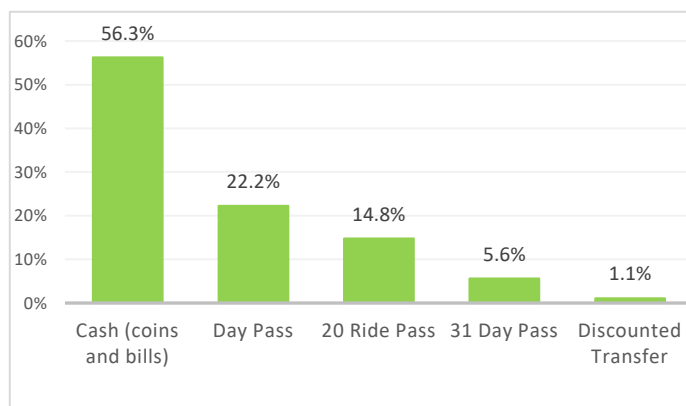
Method of Payment	Column N %
Cash	49.0%
Clipper	47.3%
Mobile	1.6%
Other	2.1%
Total	100.0%

Table 1-7b: Type of Clipper



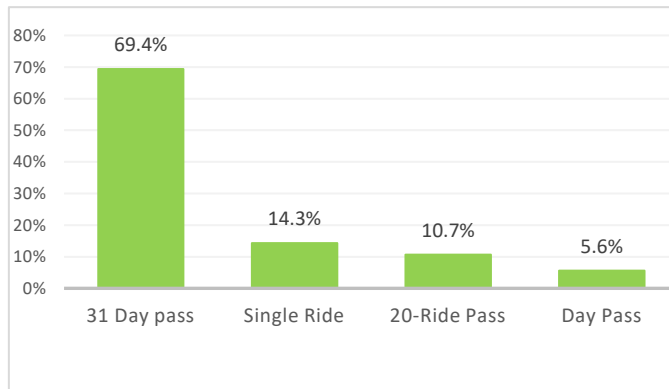
Type of Clipper	Column N %
Stored Value	83.8%
Day Pass	8.2%
31 Day Pass	5.9%
East Bay Regional 31 Day Pass	0.9%
Other	0.7%
Discounted Transfer	0.5%
Total	100.0%

Table 1-7c: Cash or Paper Type of Fare Payment



Cash or Paper Type of Fare Payment	Column N %
Cash (coins and bills)	56.3%
Day Pass	22.2%
20 Ride Pass	14.8%
31 Day Pass	5.6%
Discounted Transfer	1.1%
Total	100.0%

Table 1-7d: Mobile App Type of Fare Payment

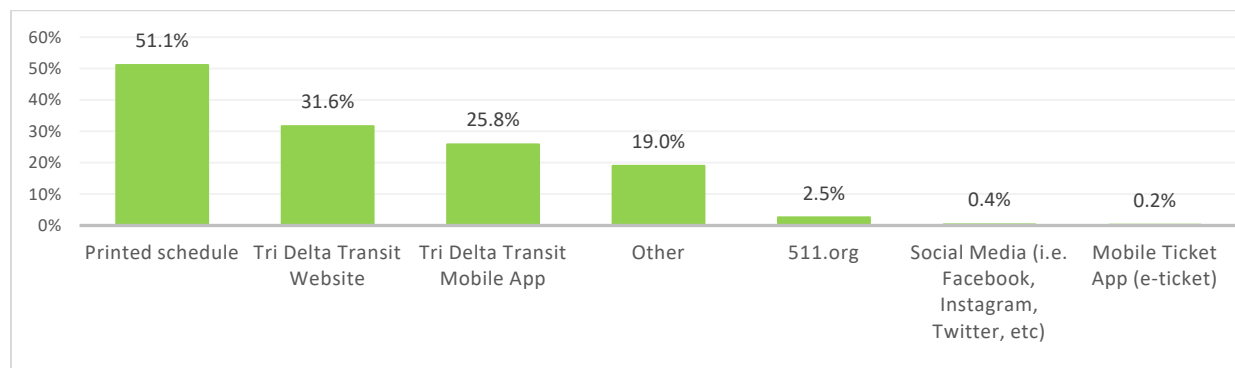


Mobile App Type of Fare Payment	Column N %
31 Day Pass	69.4%
Single Ride	14.3%
20-Ride Pass	10.7%
Day Pass	5.6%
Total	100.0%

SOURCES OF INFORMATION ABOUT THE BUS

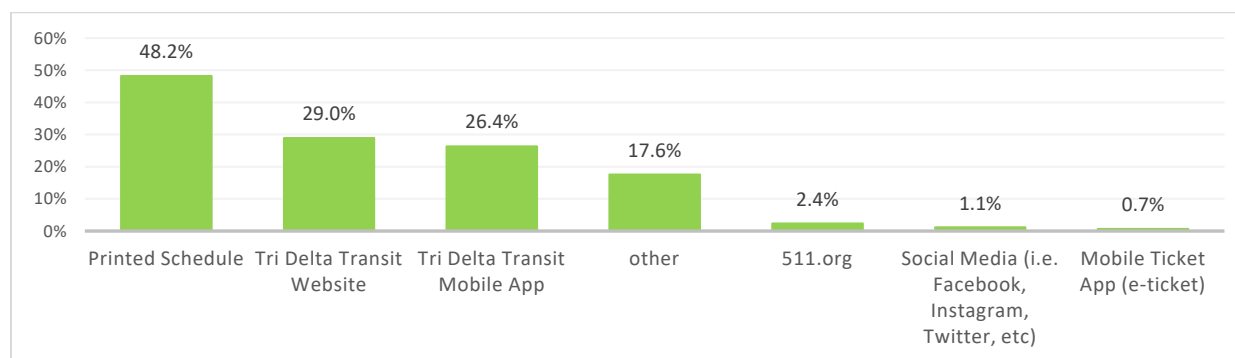
Table 1-8 Series shows how Tri Delta Passengers get information and updates about the bus (schedules, arrival times, etc.). Half of the Passengers reported they used “Printed schedule” (51.1 percent). Nearly one-third of the Passengers are using “Tri Delta Transit Website” (31.6 percent). Nearly half of the Passengers prefer “Printed schedule” (48.2 percent) for the information source about the bus.

Table 1-8a: Information Source about the Bus (Mark All That Applies)



Current Information Sources	Column N %
Printed schedule	51.1%
Tri Delta Transit Website	31.6%
Tri Delta Transit Mobile App	25.8%
Other	19.0%
511.org	2.5%
Social Media (i.e. Facebook, Instagram, Twitter, etc.)	0.4%
Mobile Ticket App (e-ticket)	0.2%

Table 1-8b: Preference to Information Sources about the Bus (Mark All That Applies)



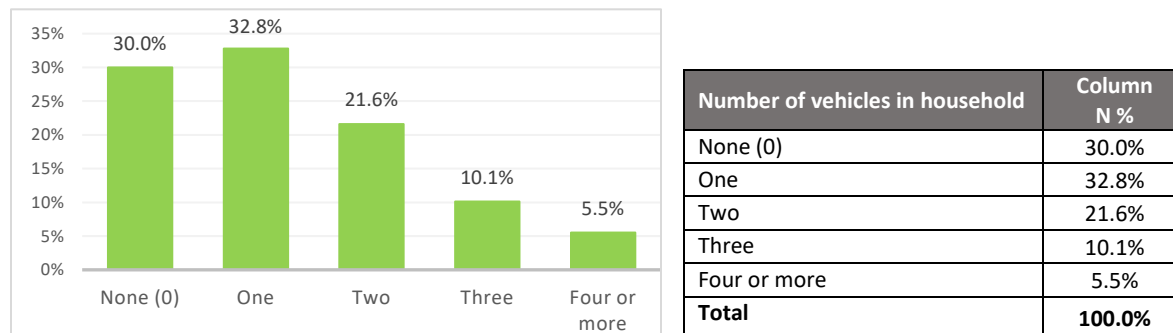
Current Information Sources	Column N %
Printed Schedule	48.2%
Tri Delta Transit Website	29.0%
Tri Delta Transit Mobile App	26.4%
other	17.6%
511.org	2.4%
Social Media (i.e. Facebook, Instagram, Twitter, etc.)	1.1%
Mobile Ticket App (e-ticket)	0.7%

HOUSEHOLD DEMOGRAPHICS

HOW MANY WORKING VEHICLES (AUTO OR MOTORCYCLES) ARE AVAILABLE TO YOUR HOUSEHOLD

Table 1-9 shows the number of household vehicles for Tri Delta Passengers' household. Thirty percent of Tri Delta Passengers (30.0 percent) indicated they are without a working vehicle in their household, compared to 32.8 percent of Passengers with one working vehicle in their household, and 37.2 percent of Passengers with two or more working vehicles in their household.

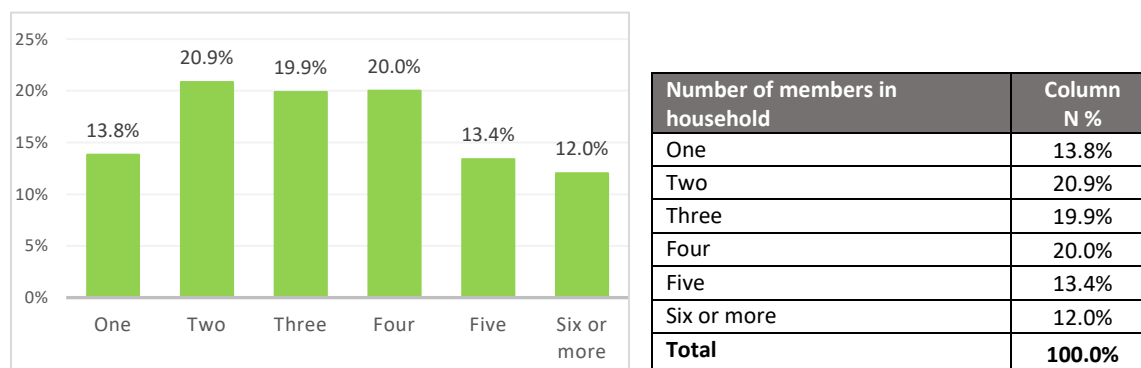
Table 1-9: Number of Available Household Vehicles (Includes Residents Only)



INCLUDING YOU, HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD

The total number of household members for Tri Delta Passengers' household is shown in Table 1-10. Slightly more than one-third of Tri Delta Passengers (34.7 percent) are in a one or two-member household, compared to 39.9 percent of Tri Delta Passengers with three or four members in the household, and 25.4 percent of Tri Delta Passengers with five or more members in the household.

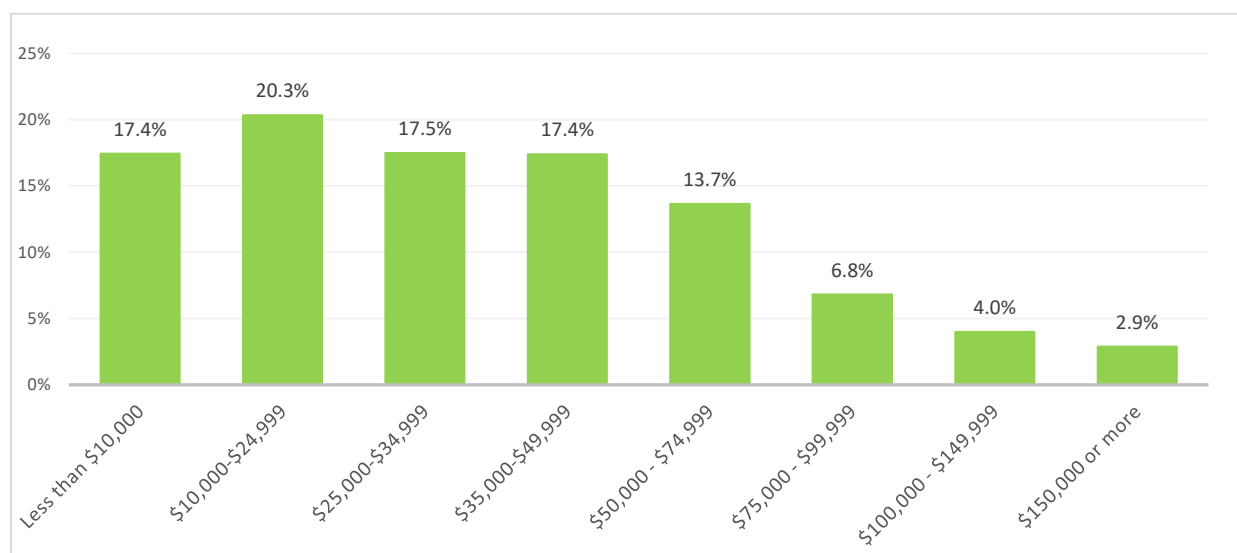
Table 1-10: Total Number of Household Members (Includes Residents Only)



WHICH OF THE FOLLOWING BEST DESCRIBES YOUR TOTAL ANNUAL HOUSEHOLD INCOME IN 2018 BEFORE TAXES

Table 1-11 shows the Total Annual Household Income for Tri Delta Passengers' household. More than one-third (37.7 percent) of Tri Delta Passengers indicated their household income is below "\$25,000", compared to 48.6 percent of Tri Delta Passengers with household income between "\$25,000 - \$75,000", and 13.7 percent of Tri Delta Passengers with household income of "\$75,000 or more".

Table 1-11: Total Household Income (excluded don't know/no response)



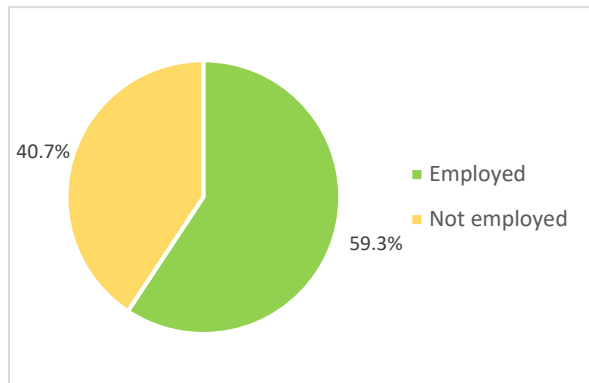
Total annual household income	Column N %
Less than \$10,000	17.4%
\$10,000-\$24,999	20.3%
\$25,000-\$34,999	17.5%
\$35,000-\$49,999	17.4%
\$50,000 - \$74,999	13.7%
\$75,000 - \$99,999	6.8%
\$100,000 - \$149,999	4.0%
\$150,000 or more	2.9%
Total	100.0%

PASSENGER DEMOGRAPHICS

EMPLOYMENT STATUS

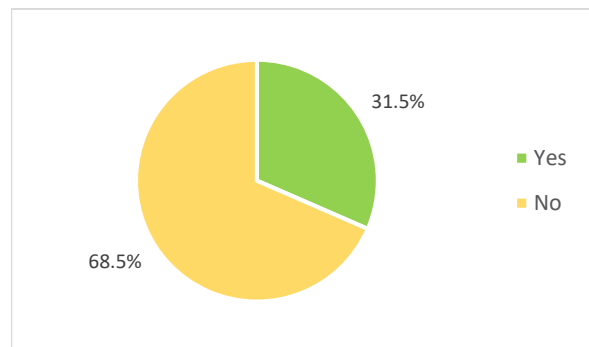
Table 1-12 Series shows the employment status of Tri Delta Weekday Passengers. Nearly sixty percent of Tri Delta Passengers (59.3 percent) reported “Employed” for employment status. Of those employed, about one-third of Passengers (31.5 percent) said they went to work before taking the surveyed bus, and nearly half of Passengers (47.0 percent) reported they were going to work after taking the surveyed bus.

Table 1-12a: Employment Status



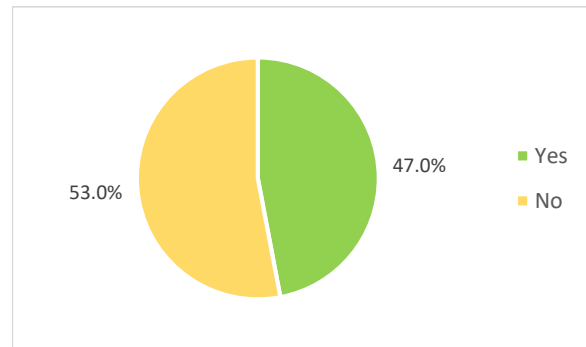
Employment Status	Column N %
Employed	59.3%
Not employed	40.7%
Total	100.0%

Table 1-12b: Went to Work Before Surveyed Route



Went to work before taking this bus/rail	Column N %
Yes	31.5%
No	68.5%
Total	100.0%

Table 1-12c: Going to Work After Surveyed Route

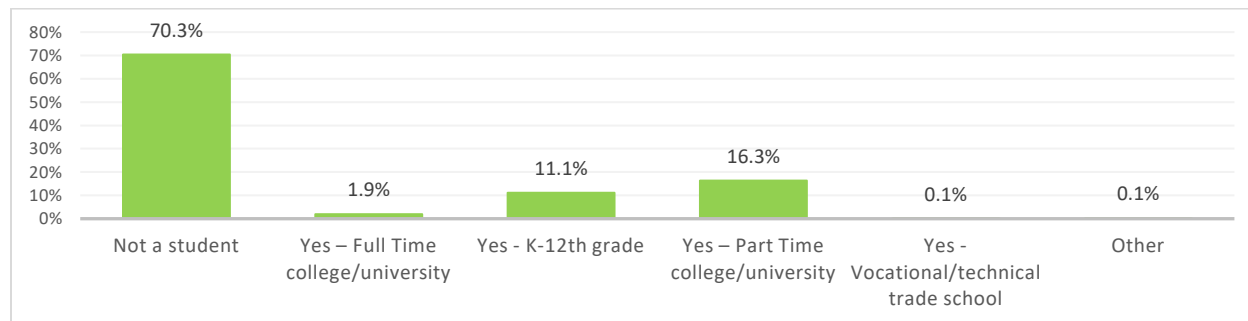


Going to work after taking this bus/rail	Column N %
Yes	47.0%
No	53.0%
Total	100.0%

STUDENT STATUS

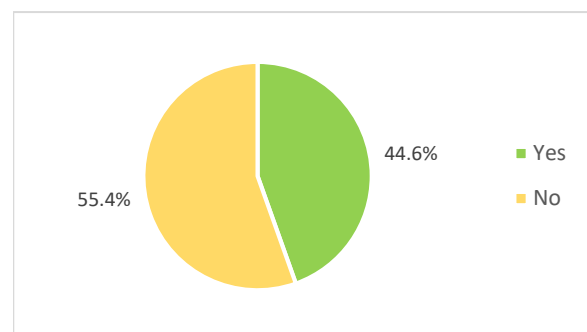
Table 1-13 Series shows the student status of Tri Delta Passengers. More than two-thirds of Tri Delta Passengers (70.3 percent) reported that they were not a student. Eighteen percent of Tri Delta Passengers (18.2 percent) are full-time or part-time college/university students. Forty-five percent of student Passengers who study at the campus location went to school before the surveyed route while forty-three percent of student Passengers who study at the campus location reported to go to school after taking the surveyed route.

Table 1-13a: Student Status



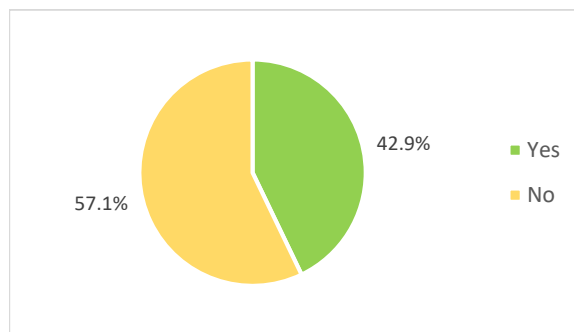
Student status	Column N %
Not a student	70.3%
Yes - Full Time college/university	1.9%
Yes - K-12th grade	11.1%
Yes - Part Time college/university	16.3%
Yes - Vocational/technical trade school	0.1%
Other	0.1%
Total	100.0%

Table 1-13b: Went to School Before Surveyed Route



Went to school before taking this bus/rail	Column N %
Yes	44.6%
No	55.4%
Total	100.0%

Table 1-13c: Going to School After Surveyed Route

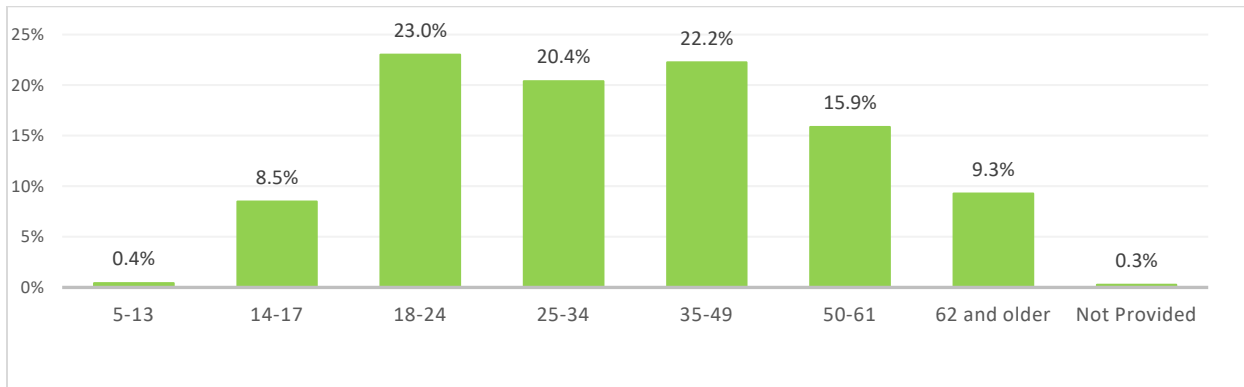


Going to school following taking this bus/rail	Column N %
Yes	42.9%
No	57.1%
Total	100.0%

AGE OF TRANSIT PASSENGER

Table 1-14 shows the age of Tri Delta Passengers. Forty-three percent of Tri Delta Passengers (43.4 percent) indicated their age is between 18-34, compared to 8.9 percent of Tri Delta Passengers indicated their age is below 18, 47.4 percent of Tri Delta Passengers are 35 or over, and 0.3 percent marked “Not Provided”.

Table 1-14: Age of Transit Passenger (excluded non-provided results)

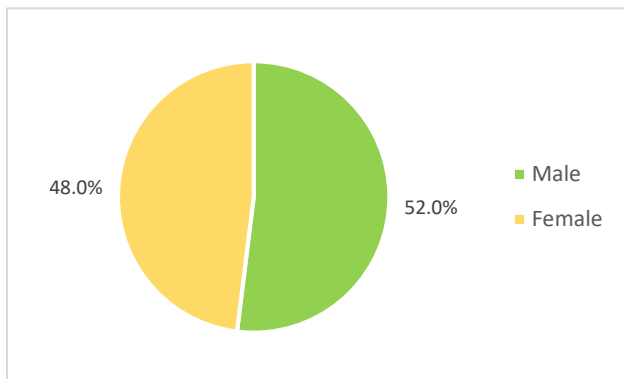


Age	Column N %
5-13	0.4%
14-17	8.5%
18-24	23.0%
25-34	20.4%
35-49	22.2%
50-61	15.9%
62 and older	9.3%
Not Provided	0.3%
Total	100.0%

WHAT IS YOUR GENDER

The gender of Tri Delta Passengers is presented in Table 1-15. Over half of Tri Delta Passengers (52.0 percent) indicated they were male, compared to (48.0 percent) who indicated they were female.

Table 1-15: Gender of Transit Passenger



Gender	Column N %
Male	52.0%
Female	48.0%
Total	100.0%

DO YOU SPEAK A LANGUAGE OTHER THAN ENGLISH AT HOME

The language spoken at the home of Tri Delta Weekday Passengers is displayed in the Table 1-16 Series. About one-third (30.9 percent) of Tri Delta Passengers indicated they spoke a language other than English at home. Of those Tri Delta Passengers, more than two-thirds (69.9 percent) indicated they spoke English “Very well” as shown the second set of charts in the Table 1-16 Series.

Table 1-16a: Transit Passengers That Speak Another Language Besides English At Home

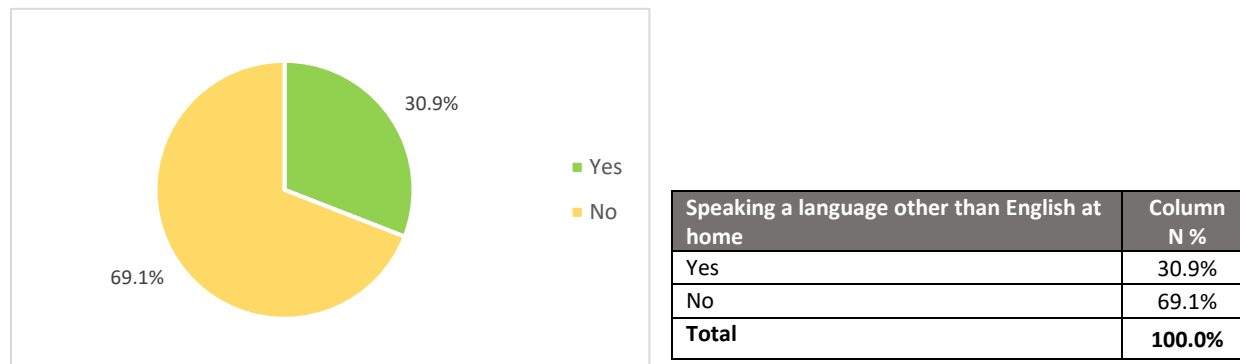


Table 1-16b: IF YES: How well do you speak English?

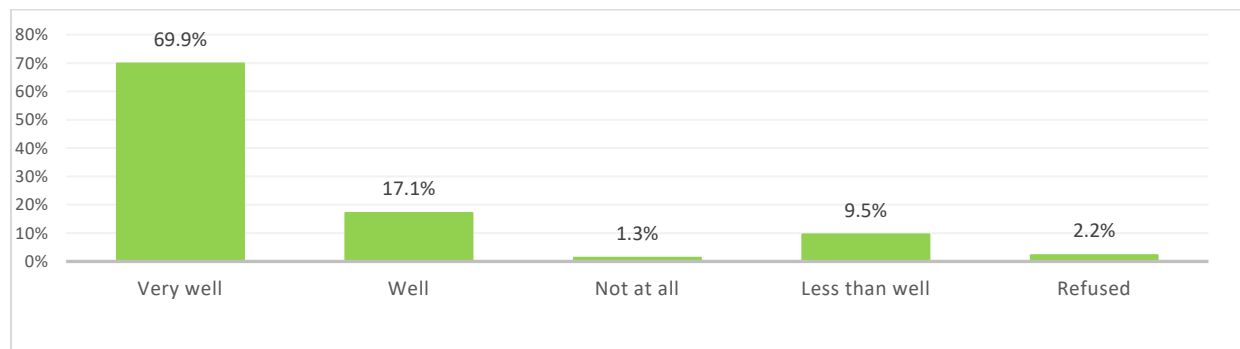
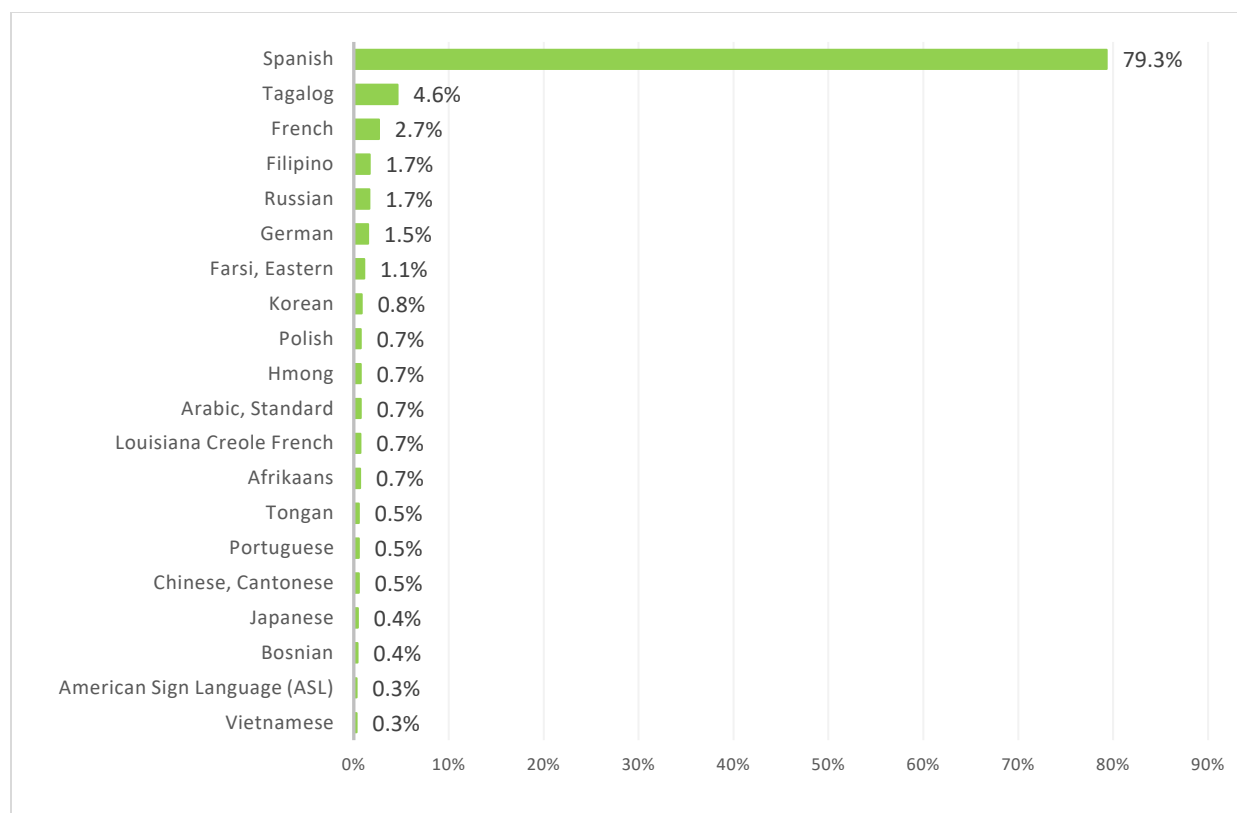


Table 1-16c: IF YES: Languages Spoken At Home



Languages Spoken at Home	Column N %
Spanish	79.3%
Tagalog	4.6%
French	2.7%
Filipino	1.7%
Russian	1.7%
German	1.5%
Farsi, Eastern	1.1%
Korean	0.8%
Arabic, Standard	0.7%
Hmong	0.7%
Polish	0.7%
Louisiana Creole French	0.7%
Afrikaans	0.7%
Portuguese	0.5%
Tongan	0.5%
Chinese, Cantonese	0.5%
Japanese	0.4%
Bosnian	0.4%
American Sign Language (ASL)	0.3%
Vietnamese	0.3%
Total	100.0%

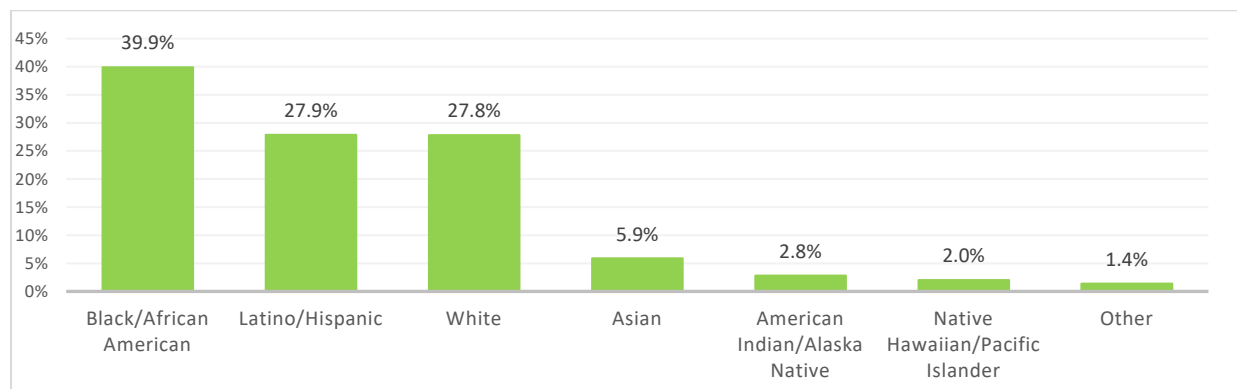
Table 1-16d: IF YES: English Speaking Ability by Language Spoken at Home

Language Spoken at Home	English Speaking Ability				
	Very well	Well	Less than well	Not at all	Total
Afrikaans	26.4%	73.6%	0.0%	0.0%	100.0%
American Sign Language (ASL)	100.0%	0.0%	0.0%	0.0%	100.0%
Arabic, Standard	100.0%	0.0%	0.0%	0.0%	100.0%
Bosnian	100.0%	0.0%	0.0%	0.0%	100.0%
Chinese, Cantonese	0.0%	100.0%	0.0%	0.0%	100.0%
Farsi, Eastern	100.0%	0.0%	0.0%	0.0%	100.0%
Filipino	100.0%	0.0%	0.0%	0.0%	100.0%
French	84.7%	15.3%	0.0%	0.0%	100.0%
German	100.0%	0.0%	0.0%	0.0%	100.0%
Hmong	100.0%	0.0%	0.0%	0.0%	100.0%
Japanese	0.0%	100.0%	0.0%	0.0%	100.0%
Korean	0.0%	0.0%	100.0%	0.0%	100.0%
Louisiana Creole French	100.0%	0.0%	0.0%	0.0%	100.0%
Polish	100.0%	0.0%	0.0%	0.0%	100.0%
Portuguese	100.0%	0.0%	0.0%	0.0%	100.0%
Russian	0.0%	0.0%	100.0%	0.0%	100.0%
Spanish	70.9%	18.3%	9.1%	1.7%	100.0%
Tagalog	76.1%	23.9%	0.0%	0.0%	100.0%
Tongan	100.0%	0.0%	0.0%	0.0%	100.0%
Vietnamese	100.0%	0.0%	0.0%	0.0%	100.0%
Total	71.5%	17.5%	9.7%	1.4%	100.0%

RACE/ETHNICITY OF TRANSIT PASSENGER

Table 1-17 shows the race/ethnicity of Tri Delta Passengers. Totals add up to more than 100% because respondents were encouraged to check all answers that applied. Over one-third of Tri Delta Passengers (39.9 percent) indicated they were “Black/African American”, compared to the next highest (27.9 percent) of Tri Delta Passengers who reported “Latino/Hispanic”.

Table 1-17: Race/Ethnicity of Tri Delta Passengers (Mark All That Applies)



Race/Ethnicity	Column N %
Black/African American	39.9%
Latino/Hispanic	27.9%
White	27.8%
Asian	5.9%
American Indian/Alaska Native	2.8%

Chapter 2. OD SURVEY SYSTEM RESULTS (WEEKEND)

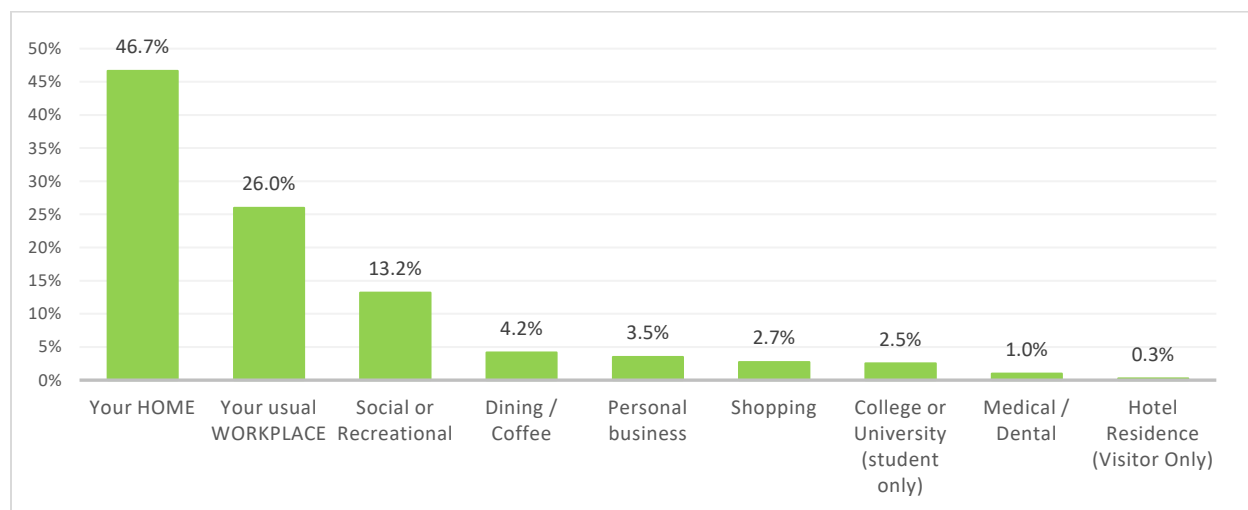
Chapter 2 highlights selected demographic and trip-related findings from weekend Tri Delta OD Survey. Four major categories are presented including: (1) Travel characteristics, (2) Pass/Payment characteristics, (3) Household and (4) Rider demographics. Regarding results, the database used for the charts/tables below were expanded based on the linked weight factors unless noted.

TRAVEL CHARACTERISTICS

TYPES OF PLACES TRI DELTA PASSENGERS ARE COMING FROM

Table 2-1 below shows the top types of places Tri Delta Weekend Passengers are coming from. Based on the Survey results, Close to half of Tri Delta Weekend Passengers (46.7 percent) selected “Your HOME” for where their trip originated from. Another top choice was “Your usual WORKPLACE” with about one-fourth of Tri Delta Weekend Passengers (26.0 percent). An additional 13.2 percent of Tri Delta Weekend Passengers reported they were coming from “Social or Recreational” place.

Table 2-1: Types of Places Tri Delta Passengers are COMING FROM

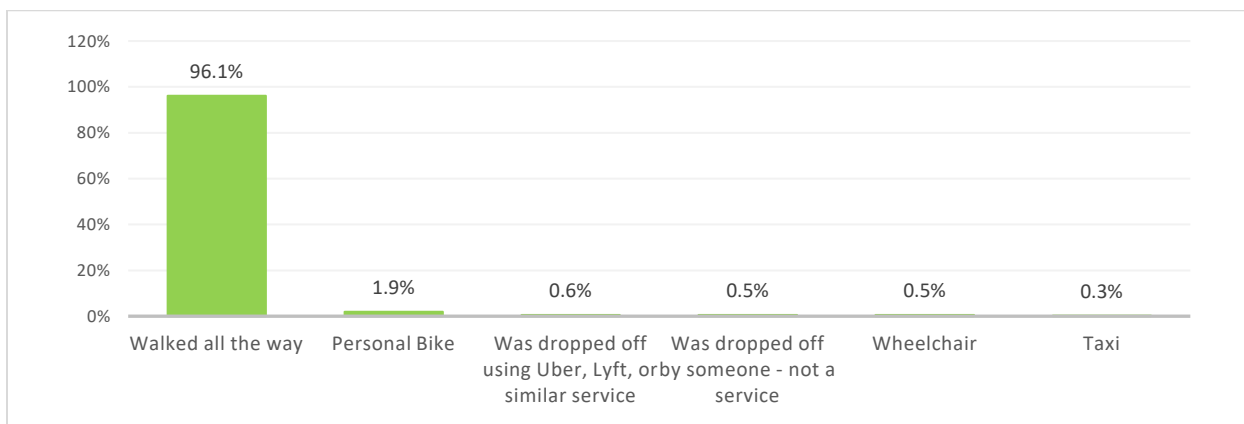


Origin Type	Percent
Your HOME	46.7%
Your usual WORKPLACE	26.0%
Social or Recreational	13.2%
Dining / Coffee	4.2%
Personal business	3.5%
Shopping	2.7%
College or University (student only)	2.5%
Medical / Dental	1.0%
Hotel Residence (Visitor Only)	0.3%
Total	100.0%

HOW PASSENGERS ACCESS PUBLIC TRANSIT

How Passengers first access public transit for their one-way trip by service type is shown in Table 2-2. A large majority of all Tri Delta Weekend Passengers (96.1 percent) selected that they accessed public transit by “Walked all the way”. An additional 1.9 percent of Passengers reported they accessed public transit by “Personal bike”.

Table 2-2: How Passengers Access Public Transit

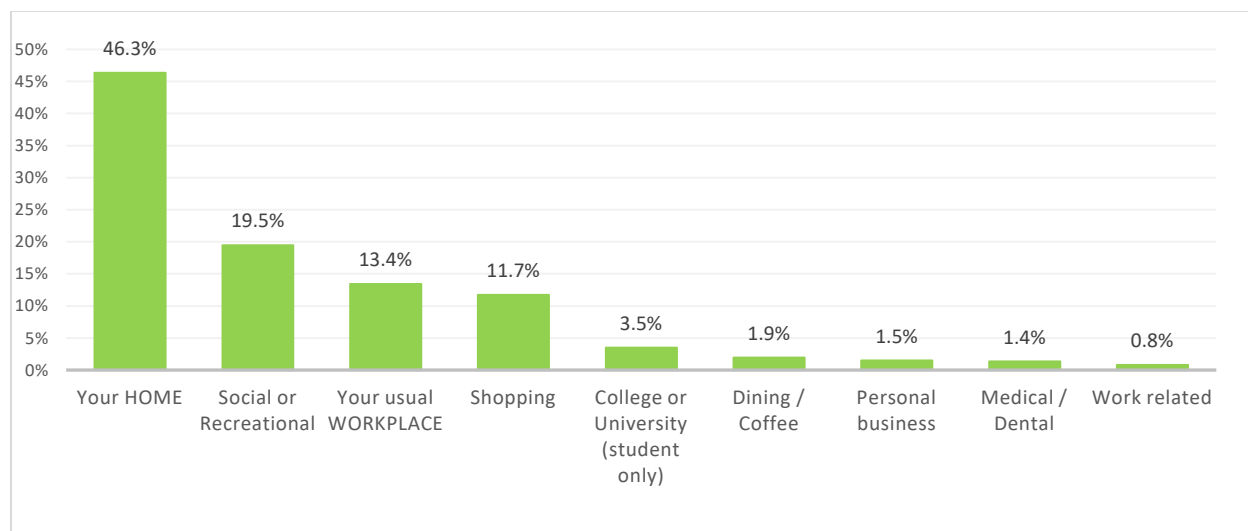


Access Mode	Column N %
Walked all the way	96.1%
Personal Bike	1.9%
Was dropped off using Uber, Lyft, or similar service	0.6%
Was dropped off by someone - not a service	0.5%
Wheelchair	0.5%
Taxi	0.3%
Total	100.0%

TYPES OF PLACES TRI DELTA PASSENGERS ARE GOING TO

Table 2-3 shows the top types of places Tri Delta Weekend Passengers are going to. Based on the Survey results, nearly half of Tri Delta Weekend Passengers (46.3 percent) reported “Your HOME” for their destination on this trip. One-fifth chose “Social or Recreational” place (19.5 percent) for where they were headed to. The third top choice was “Your usual WORKPLACE” with 13.4 percent of Tri Delta Weekend Passengers.

Table 2-3: Types of Places Passengers are GOING TO

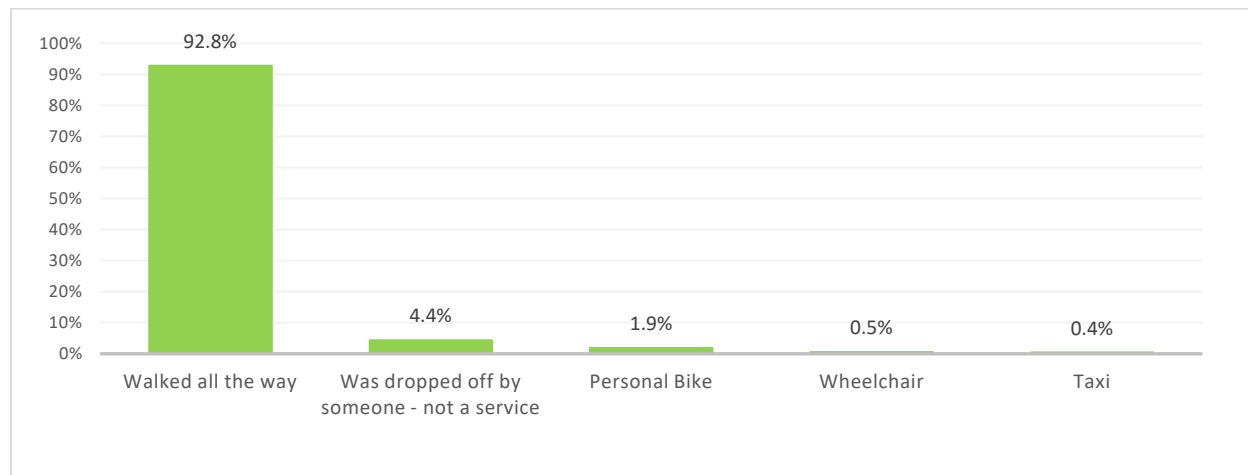


Destin Place Type	Column N %
Your HOME	46.3%
Social or Recreational	19.5%
Your usual WORKPLACE	13.4%
Shopping	11.7%
College or University (student only)	3.5%
Dining / Coffee	1.9%
Personal business	1.5%
Medical / Dental	1.4%
Work related	0.8%
Total	100.0%

HOW PASSENGERS TRAVELED FROM TRANSIT TO THEIR FINAL DESTINATION

Table 2-4 shows how Weekend Passengers traveled from transit to their destination. Most of all Tri Delta Weekend Passengers (92.8 percent) selected “Walk all the way” for their egress mode type to their final destination after using public transit, compared to the next highest (24.4 percent) of Tri Delta Weekend Passengers that selected “Was dropped off by someone - not a service”. An additional 1.9 percent of Tri Delta Weekend Passengers reported they traveled from transit to their destination by “Personal Bike”.

Table 2-4: How Passengers Traveled from Transit to Their Final Destination

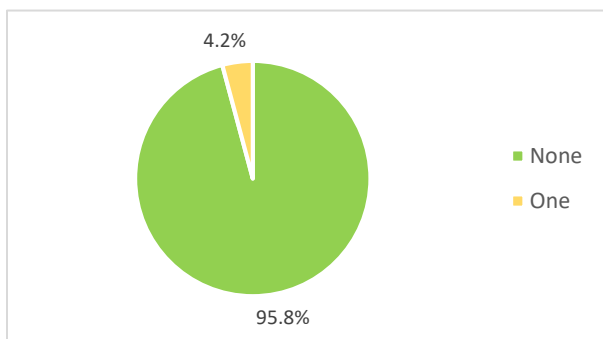


Egress Mode	Column N %
Walked all the way	92.8%
Was dropped off by someone - not a service	4.4%
Personal Bike	1.9%
Wheelchair	0.5%
Taxi	0.4%
Total	100.0%

NUMBER OF SYSTEM TRANSFERS USED

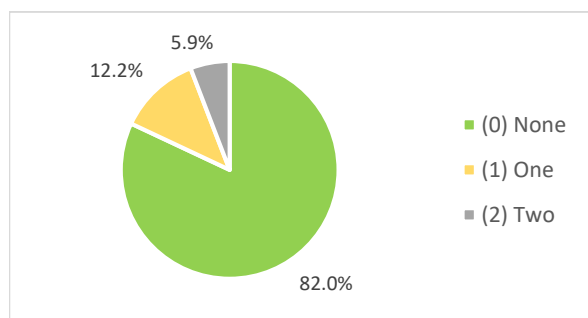
Table 2-5 Series shows the total number of system transfers used in the one-way trip by Tri Delta Passengers. Most Tri Delta Weekend Passengers (95.8 percent) used zero Tri Delta System transfers to make their current trip, compared to, 4.2 percent of Tri Delta Weekend Passengers that used one Tri Delta System transfer during their trip. **Transfer percentages were based on the unlinked secondary expansion.**

Table 2-5a: Number of Total Transfers Used in The One-Way Trip



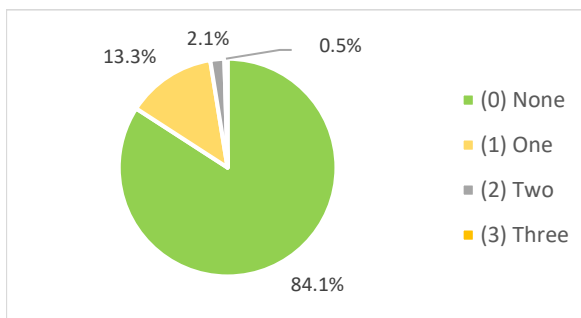
Total number of system transfers	Column N %
None	95.8%
One	4.2%
Total	100.0%

Table 2-5b: Number of Total Transfers Before Surveyed Route



Number of Total Transfers Before Surveyed Route	Column N %
(0) None	82.0%
(1) One	12.2%
(2) Two	5.9%
Total	100.0%

Table 2-5c: Number of Total Transfers After Surveyed Route



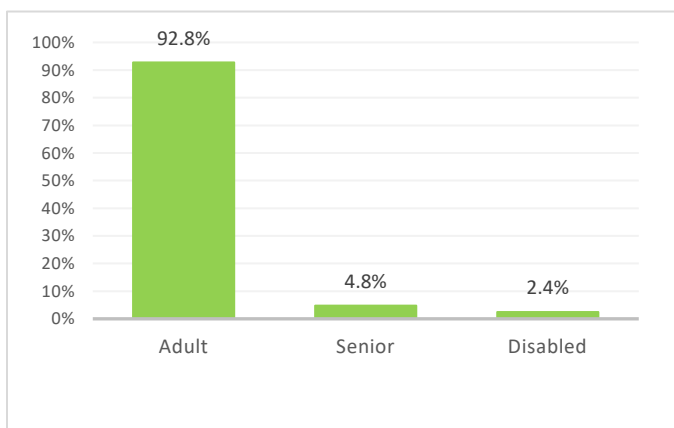
Number of Total Transfers After Surveyed Route	Column N %
(0) None	84.1%
(1) One	13.3%
(2) Two	2.1%
(3) Three	0.5%
Total	100.0%

PASS/PAYMENT CHARACTERISTICS

HOW DID YOU PAY FOR THIS ONE-WAY TRIP

Table 2-6 shows the fare payment used by Tri Delta Weekend Passengers. As shown in these visuals, Most Weekend Tri Delta Passengers reported that they paid with “Adult fare” (92.8 percent), compared to the next highest, “Senior fare” (4.8 percent).

Table 2-6: Fare Payment Type

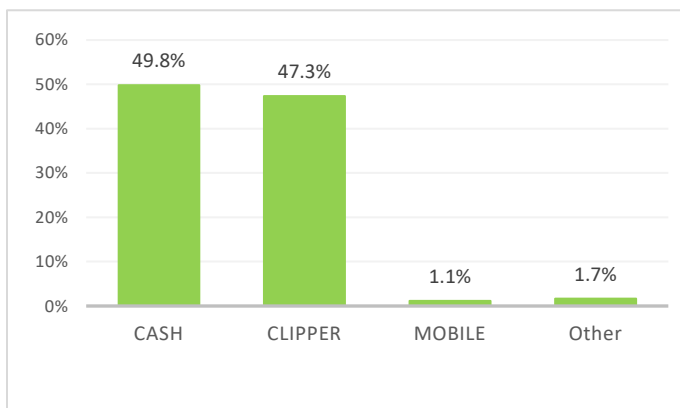


Fare Payment Type	Column N %
Adult	92.8%
Senior	4.8%
Disabled	2.4%
Total	100.0%

METHOD OF FARE PAYMENT

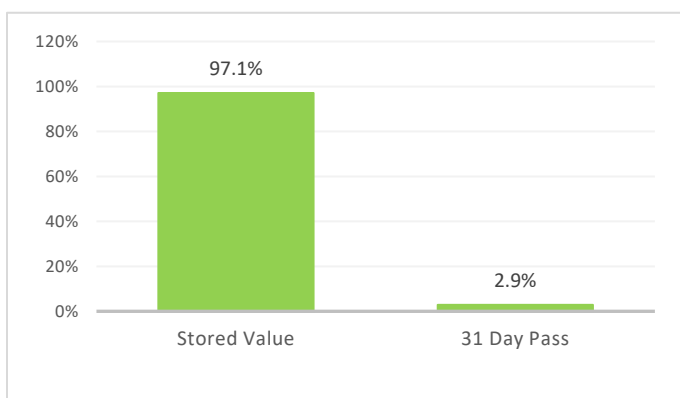
Table 2-7 Series illustrates the method of fare payment used by Tri Delta Passengers. Nearly half of Tri Delta Passengers use the “cash” to pay for a ride (49.8 percent), compared to the next highest, “Clipper” (47.3 percent). An additional 1.1 percent of Tri Delta Passengers reported they paid fare using “Mobile”.

Table 2-7a: Method of Payment



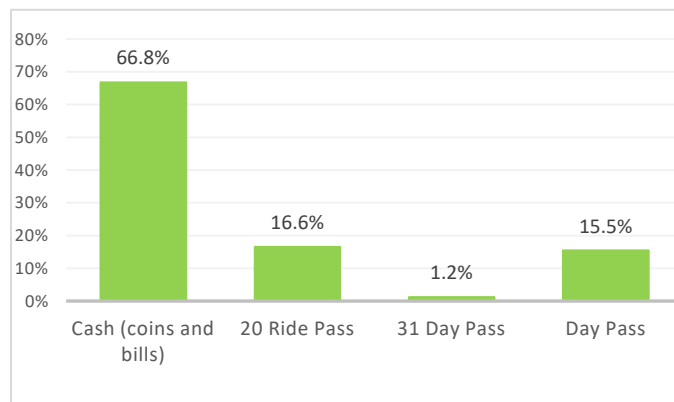
Method of Payment	Column N %
Cash	49.8%
Clipper	47.3%
Mobile	1.1%
Other	1.7%
Total	100.0%

Table 2-7b: Type of Clipper



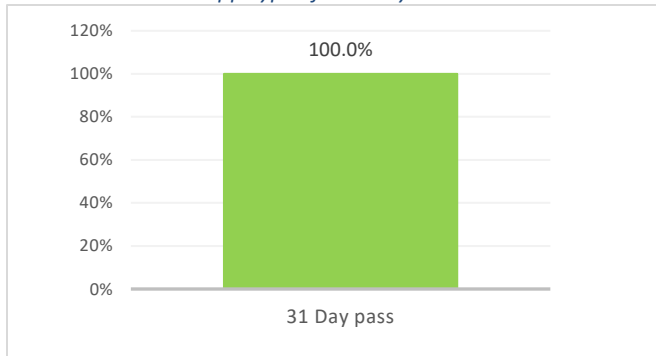
Type of Clipper	Column N %
Stored Value	97.1%
31 Day Pass	2.9%
Total	100.0%

Table 2-7c: Cash or Paper Type of Fare Payment



Cash or Paper Type of Fare Payment	Column N %
Cash (coins and bills)	66.8%
20 Ride Pass	16.6%
31 Day Pass	1.2%
Day Pass	15.5%
Total	100.0%

Table 2-7d: Mobile App Type of Fare Payment

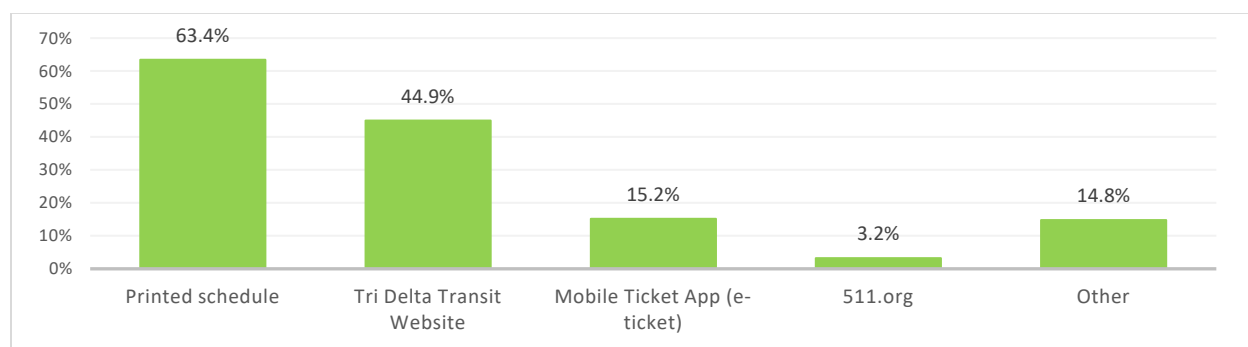


Mobile App Type of Fare Payment	Column N %
31 Day Pass	100.0%
Total	100.0%

SOURCES OF INFORMATION ABOUT THE BUS

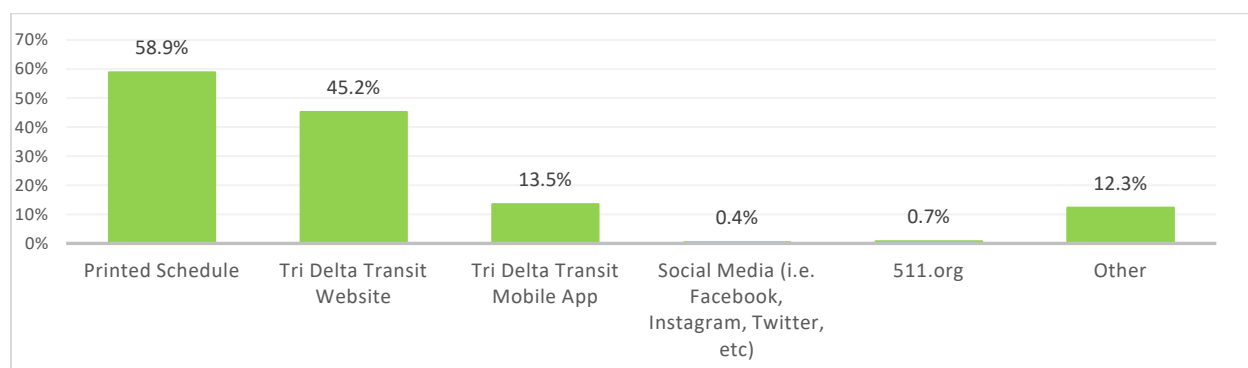
Table 2-8 Series shows how Tri Delta Weekend Passengers get information and updates about the bus (schedules, arrival times, etc.). About two-thirds of the Weekend Passengers (63.4 percent) reported they used “Printed schedule”. An additional forty-five percent of the Weekend Passengers are using “Tri Delta Transit Website” (44.9 percent). Likewise, ‘Printed schedule’ was the top preference to information sources about the bus (58.9 percent) followed by Tri Delta Transit Website” (45.2 percent).

Table 2-8a: Information Source about the Bus (Mark All That Applies)



Current Information Sources	Column N %
Printed schedule	63.4%
Tri Delta Transit Website	44.9%
Mobile Ticket App (e-ticket)	15.2%
511.org	3.2%
Other	14.8%

Table 2-8b: Preference to Information Sources about the Bus (Mark All That Applies)



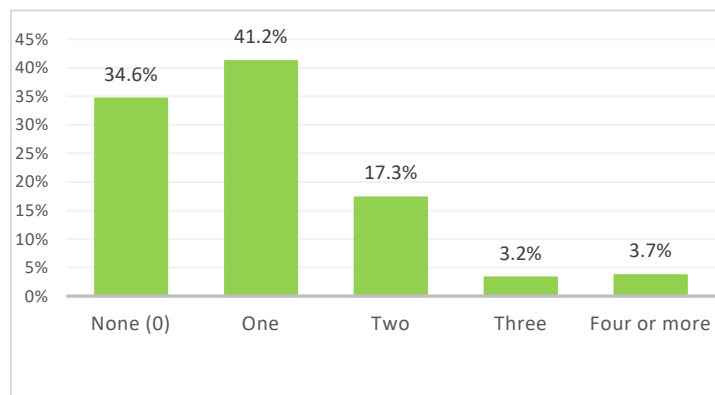
Current Information Sources	Column N %
Printed Schedule	58.9%
Tri Delta Transit Website	45.2%
Tri Delta Transit Mobile App	13.5%
Social Media (i.e. Facebook, Instagram, Twitter, etc)	0.4%
511.org	0.7%
Other	12.3%

HOUSEHOLD DEMOGRAPHICS

HOW MANY WORKING VEHICLES (AUTO OR MOTORCYCLES) ARE AVAILABLE TO YOUR HOUSEHOLD

Table 2-9 shows the number of household vehicles for Tri Delta Weekend Passengers' household. One-third of Tri Delta Weekend Passengers (34.6 percent) indicated they do not own a working vehicle in their household, compared to 41.2 percent of Weekend Passengers with one working vehicle in their household, and 24.2 percent of Passengers with two or more working vehicles in their household.

Table 2-9: Number of Available Household Vehicles (Includes Residents Only)

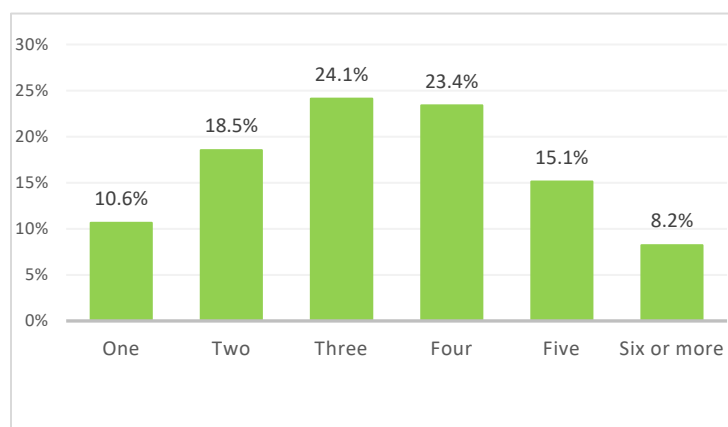


Number of vehicles in household	Column N %
None	34.6%
One	41.2%
Two	17.3%
Three	3.2%
Four or more	3.7%
Total	100.0%

INCLUDING YOU, HOW MANY PEOPLE LIVE IN YOUR HOUSEHOLD

The total number of household members for Tri Delta Weekend Passengers' household is shown in Table 2-10. Slightly less than one-third of Tri Delta Weekend Passengers (29.2 percent) are in a one or two-member household, compared to 47.5 percent of Tri Delta Weekend Passengers with three or four members in the household, and 23.3 percent of Tri Delta Passengers with five or more members in the household.

Table 2-10: Total Number of Household Members (Includes Residents Only)

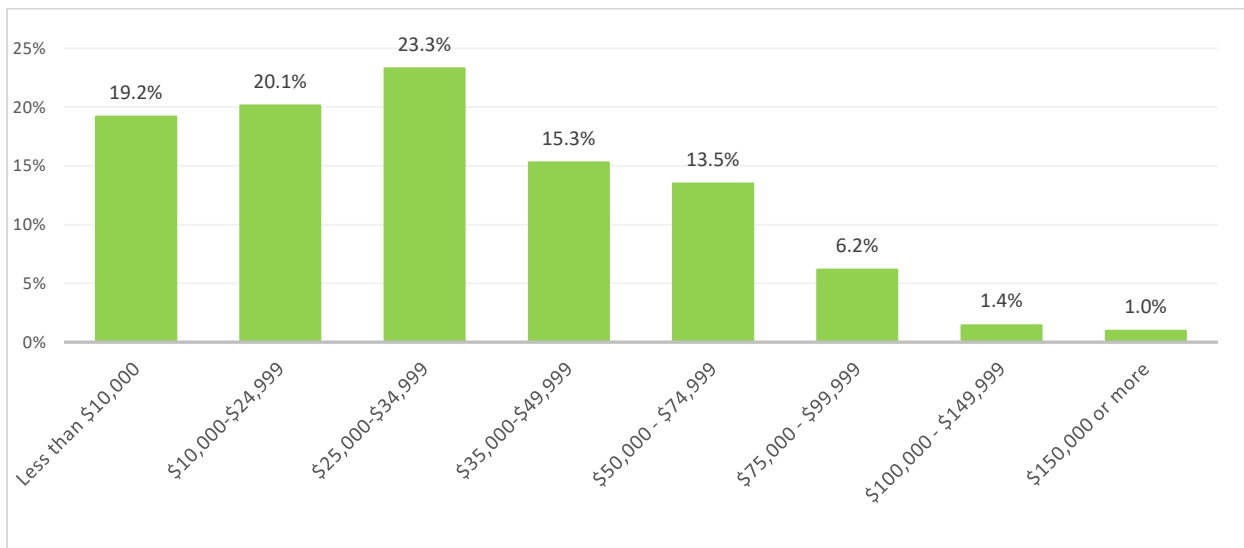


Number of members in household	Column N %
One	10.6%
Two	18.5%
Three	24.1%
Four	23.4%
Five	15.1%
Six or more	8.2%
Total	100.0%

WHICH OF THE FOLLOWING BEST DESCRIBES YOUR TOTAL ANNUAL HOUSEHOLD INCOME IN 2018 BEFORE TAXES

Table 2-11 shows the Total Annual Household Income for Tri Delta Weekend household. More than one-third (39.3 percent) of Tri Delta Weekend Passengers indicated their household income is below “\$25,000”, compared to 52.1 percent of Tri Delta Passengers with household income between “\$25,000 - \$75,000”, and 8.6 percent of Tri Delta Passengers with household income of “\$75,000 or more”.

Table 2-11: Total Household Income (excluded don't know/no response)



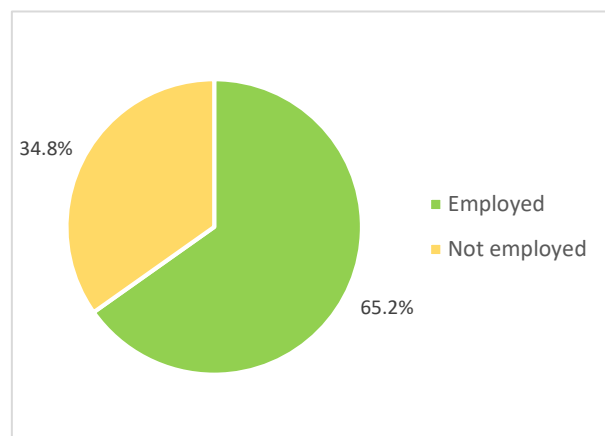
Total annual household income	Column N %
Less than \$10,000	19.2%
\$10,000-\$24,999	20.1%
\$25,000-\$34,999	23.3%
\$35,000-\$49,999	15.3%
\$50,000 - \$74,999	13.5%
\$75,000 - \$99,999	6.2%
\$100,000 - \$149,999	1.4%
\$150,000 or more	1.0%
Total	100.0%

PASSENGER DEMOGRAPHICS

EMPLOYMENT STATUS

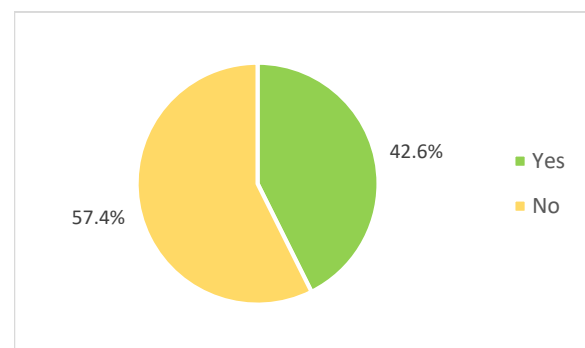
Table 2-12 Series shows the employment status of Tri Delta Weekend Passengers. Over two-thirds of Tri Delta Weekend Passengers (65.2 percent) reported “Employed” for employment status. Of those employed, forty-three percent said they went to work before taking the surveyed bus (42.6 percent), and nearly one-fourth of Weekend Passengers (23.9 percent) reported they were going to work after taking the surveyed bus.

Table 2-12a: Employment Status



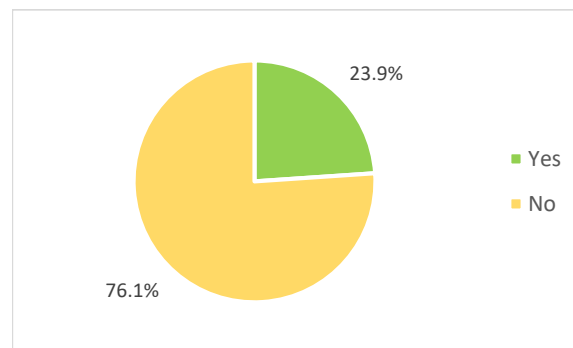
Employment Status	Column N %
Employed	65.2%
Not employed	34.8%
Total	100.0%

Table 2-12b: Went to Work Before Surveyed Route



Went to work before taking this bus/rail	Column N %
Yes	42.6%
No	57.4%
Total	100.0%

Table 2-12c: Going to Work After Surveyed Route

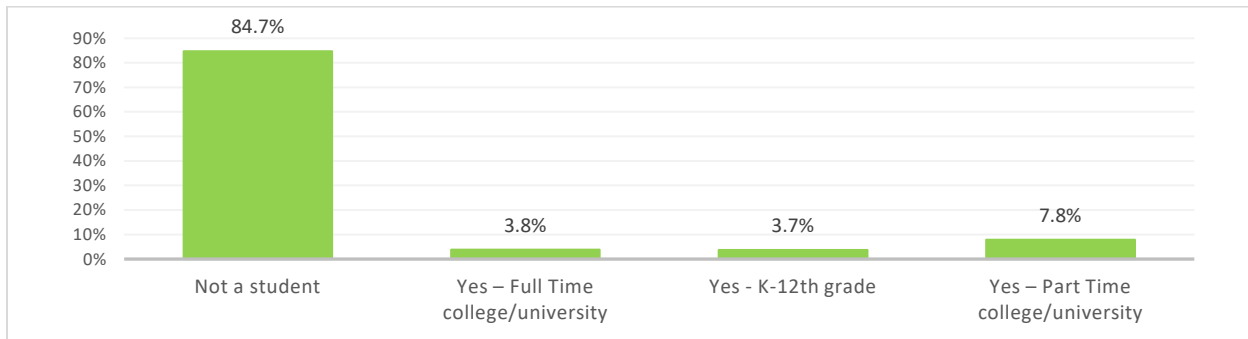


Going to work after taking this bus/rail	Column N %
Yes	23.9%
No	76.1%
Total	100.0%

STUDENT STATUS

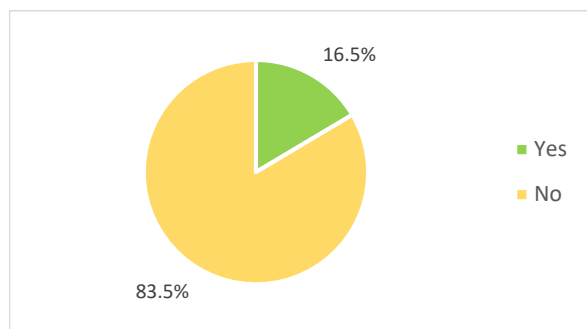
Table 2-13 Series shows the student status of Tri Delta Weekend Passengers. Most Tri Delta Weekend Passengers (84.7 percent) reported that they were not a student. Twelve percent of Tri Delta Weekend Passengers (11.6 percent) are full-time or part-time college/university students. Seventeen percent of student Passengers who study at the campus location (16.5 percent) went to school before the surveyed route while twenty-three percent of student Passengers who study at the campus location (22.6 percent) reported to go to school after taking the surveyed route.

Table 2-13a: Student Status



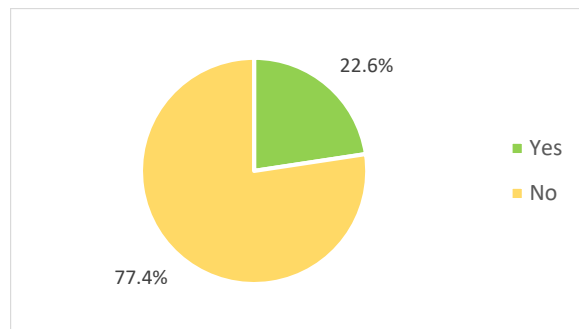
Student status	Column N %
Not a student	84.7%
Yes - Full Time college/university	3.8%
Yes - K-12th grade	3.7%
Yes - Part Time college/university	7.8%
Total	100.0%

Table 2-13b: Went to School Before Surveyed Route



Went to school before taking this bus/rail	Column N %
Yes	16.5%
No	83.5%
Total	100.0%

Table 2-13c: Going to School After Surveyed Route

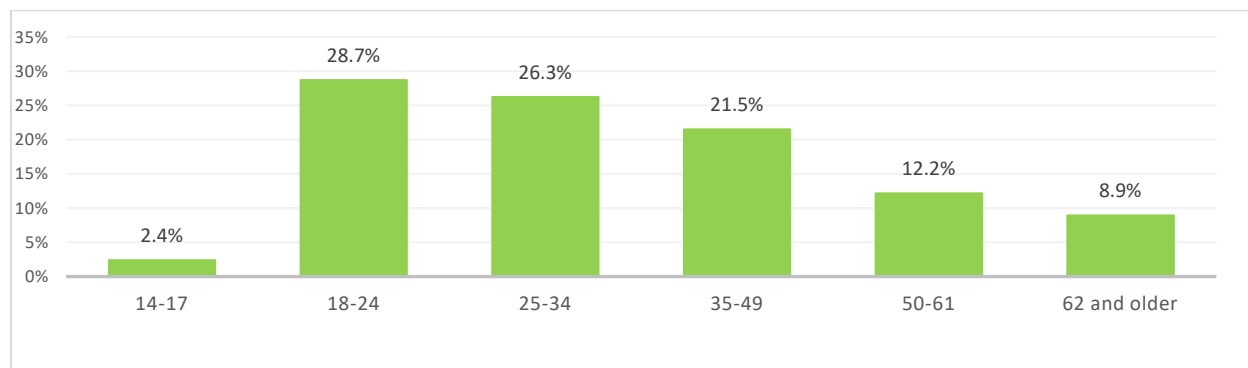


Going to school following taking this bus/rail	Column N %
Yes	22.6%
No	77.4%
Total	100.0%

AGE OF TRANSIT PASSENGER

Table 2-14 shows the age distribution of Tri Delta Weekend Passengers. Over half of Tri Delta Weekend Passengers (55.5 percent) indicated their age is between 18-34, compared to 2.4 percent of Tri Delta Weekend Passengers indicated their age is below 18, 42.6 percent of Tri Delta Weekend Passengers are 35 or over.

Table 2-14: Age of Transit Passenger (excluded non-provided results)

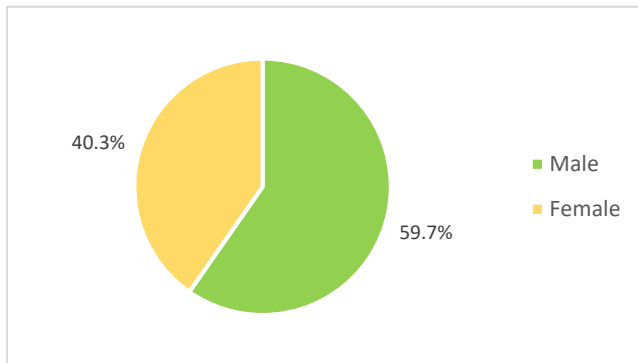


Age	Column N %
14-17	2.4%
18-24	28.7%
25-34	26.3%
35-49	21.5%
50-61	12.2%
62 and older	8.9%
Total	100.0%

WHAT IS YOUR GENDER

The gender of Tri Delta Passengers is presented in Table 2-15. Over half of Tri Delta Passengers (59.7 percent) indicated they were male, compared to (40.3 percent) who indicated they were female.

Table 2-15: Gender of Transit Passenger



Gender	Column N %
Male	59.7%
Female	40.3%
Total	100.0%

DO YOU SPEAK A LANGUAGE OTHER THAN ENGLISH AT HOME

The language spoken at the home of Tri Delta Passengers is displayed in the Table 2-16 Series. Forty-four percent of Tri Delta Weekend Passengers indicated they spoke a language other than English at home. Of those Tri Delta Weekend Passengers speaking a language other than English at home, majority (81.4 percent) indicated they spoke English “Very well” as shown the second set of charts in the Table 2-16 Series. The top language spoken at home other than English was Spanish with 91.2 percent.

Table 2-16a: Transit Passengers That Speak Another Language Besides English At Home

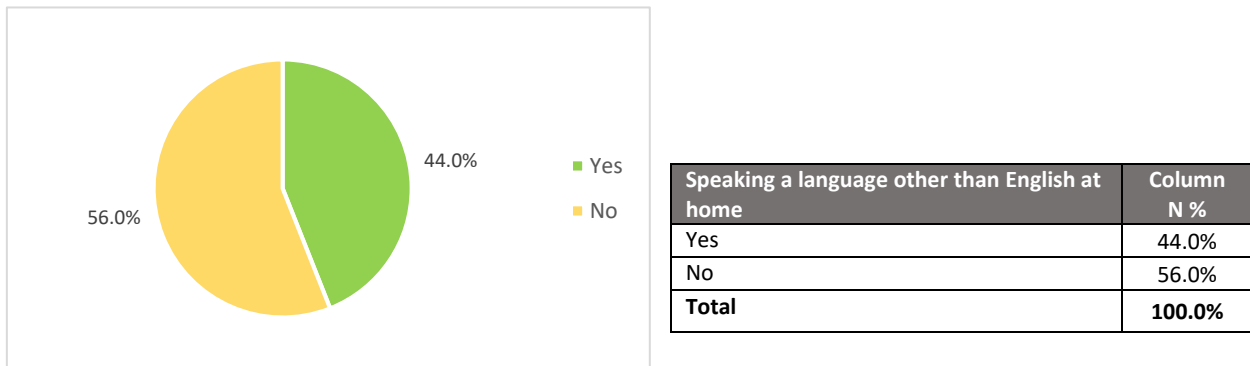


Table 2-16b: IF YES: How well do you speak English?

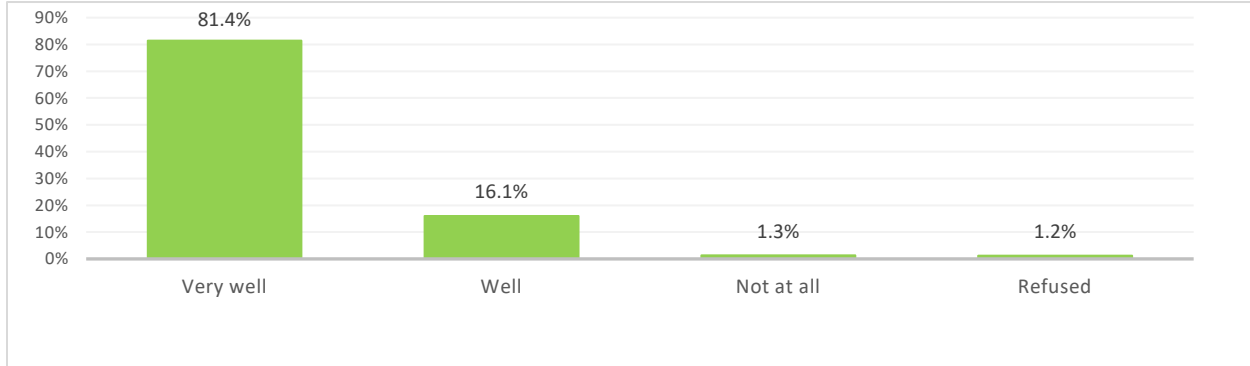
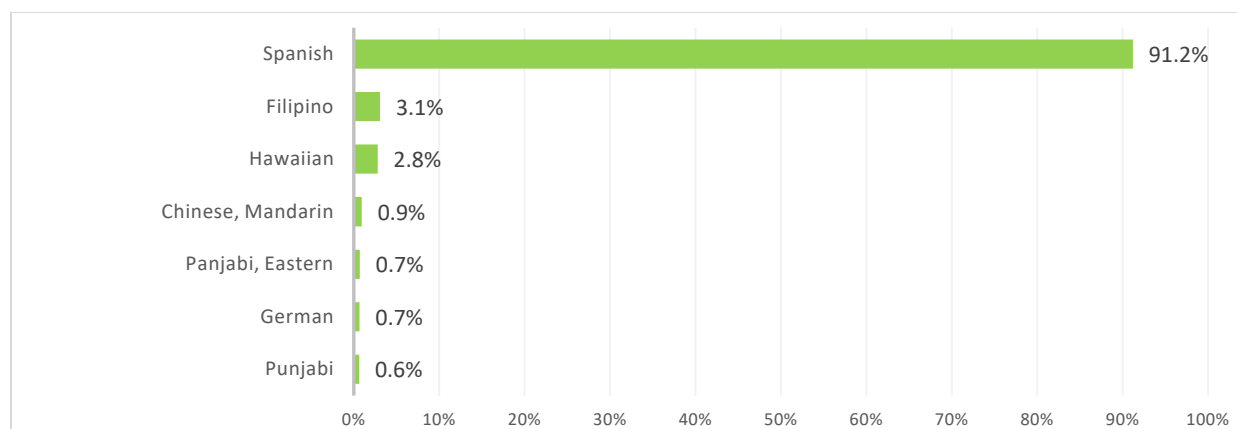


Table 2-16c: IF YES: Languages Spoken At Home



Languages Spoken at Home	Column N %
Spanish	91.2%
Filipino	3.1%
Hawaiian	2.8%
Chinese, Mandarin	0.9%
Panjabi, Eastern	0.7%
German	0.7%
Punjabi	0.6%
Total	100.0%

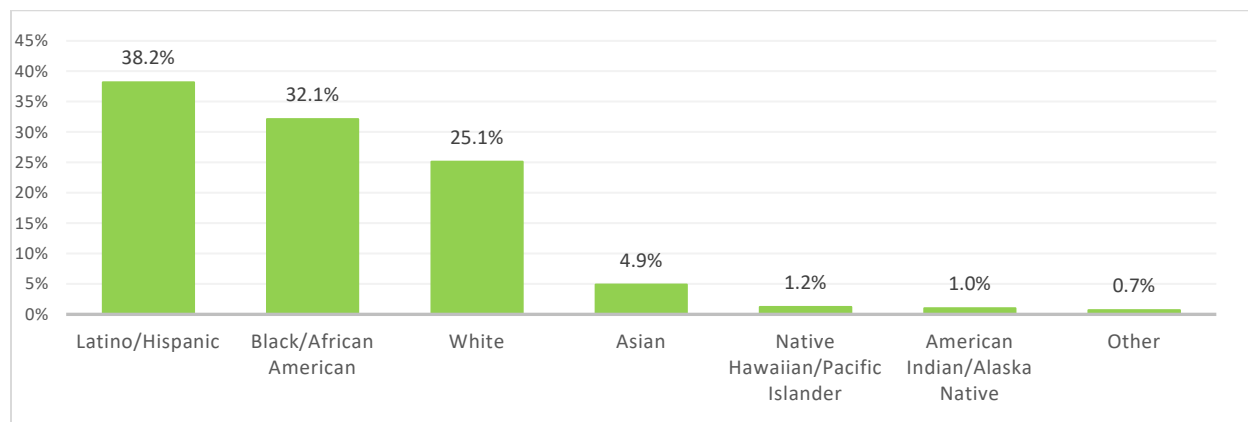
Table 2-16d: IF YES: English Speaking Ability by Language Spoken at Home

Language Spoken at Home	English Speaking Ability				
	Very well	Well	Not at all	Refused	Total
Chinese, Mandarin	100.0%	0.0%	0.0%	0.0%	100.0%
Filipino	76.6%	23.4%	0.0%	0.0%	100.0%
German	100.0%	0.0%	0.0%	0.0%	100.0%
Hawaiian	100.0%	0.0%	0.0%	0.0%	100.0%
Panjabi, Eastern	0.0%	100.0%	0.0%	0.0%	100.0%
Punjabi	100.0%	0.0%	0.0%	0.0%	100.0%
Spanish	81.7%	16.1%	1.4%	0.7%	100.0%
Total	81.9%	16.2%	1.3%	0.6%	100.0%

RACE/ETHNICITY OF TRANSIT PASSENGER

Table 2-17 shows the race/ethnicity of Tri Delta Weekend Passengers. Totals add up to more than 100% because respondents were encouraged to check all answers that applied. Over one-third of Tri Delta Weekend Passengers (38.2 percent) indicated they were “Latino/Hispanic”, compared to the next highest (32.1 percent) of Tri Delta Weekend Passengers who reported “Black/African American”.

Table 2-17: Race/Ethnicity of Tri Delta Passengers (Mark All That Applies)



Race/Ethnicity	Column N %
Latino/Hispanic	38.2%
Black/African American	32.1%
White	25.1%
Asian	4.9%
Native Hawaiian/Pacific Islander	1.2%
American Indian/Alaska Native	1.0%
Other	0.7%

Chapter 3. SURVEY METHODOLOGY

SAMPLING PLAN

To ensure that the distribution of completed surveys mirrored the actual distribution of Tri Delta Passengers who use the system, ETC Institute, Tri Delta, and MTC developed sampling goals for each Tri Delta route. The amount of the survey sample was based on a sampling rate of 7.5% for the weekday Tri Delta system and 3.5% for the weekend. The time periods for the weekday collection of this survey were as follows:

Figure 3-1: Project Time Periods

TIME PERIOD	TIME RANGE
VERY EARLY	3:01 am-5:00 am
EARLY AM	5:01-6:00 am
AM PEAK	6:01 am-10:00 am
MIDDAY	10:01 am-3:00 pm
PM PEAK	3:01 pm-7:00 pm
EVENING	7:01 pm-10:00 pm
LATE NIGHT	10:01 pm-3:00 am

SAMPLING GOALS FOR OD SURVEY

ETC Institute developed a weekday sampling plan that would ensure the completion of the OD Survey by approximately 422 riders utilizing a 7.5% sampling rate for overall weekday Tri Delta system, and 130 riders for weekend Tri Delta system with overall 3.5% sampling rate. The original ridership average was provided by Tri Delta.

Weekday

Table 3-1 shows the original goals by route, time period, and direction for overall weekday system. The sampling plan for the OD survey was designed to obtain completed surveys utilizing various sampling rates for each route operated by Tri Delta.

Table 3-1: Weekday OD Sampling Goals

Route #	Direction	EOL/DESTINATION	Very Early 300A- 500A	Early AM 500A- 600A	AM Peak 601A- 1000A	Midday 1001A- 300P	PM Peak 301P- 700P	Evening 701P- 1000P	Late Night 1001P- 300A	Direction Total	Route Totals
200	EB	Pittsburg-Bay Point BART	0	0	2	2	1	0	0	5	10
200	WB	Martinez AMTRAK	0	0	2	3	1	0	0	5	
201	EB	Pittsburg-Bay Point BART	0	0	3	2	4	2	0	11	24
201	WB	Concord BART	0	0	5	3	3	0	0	13	
300	EB	Brentwood Park n Ride	0	0	1	0	4	2	0	7	18
300	WB	Antioch BART	2	2	5	1	1	0	0	11	
379	EB	Deer Valley Kaiser	0	0	0	0	0	0	0	0	1
379	WB	Antioch BART	0	0	0	0	0	0	0	0	
380	EB	Antioch BART	0	5	19	23	13	4	0	63	133
380	WB	Pittsburg-Bay Point BART	2	4	18	24	18	4	0	70	
381	EB	Los Medanos College	0	0	1	4	4	0	0	10	22
381	WB	Pittsburg Marina	0	0	2	5	6	0	0	12	
383	EB	Blue Goose Park	0	0	1	2	1	0	0	5	10
383	WB	Tri Delta Transit	0	0	1	2	1	0	0	5	
384	EB	Brentwood Park n Ride	0	0	1	2	2	0	0	5	11
384	WB	Antioch BART	0	0	1	3	2	0	0	6	
385	EB	Brentwood Park n Ride	0	0	1	4	2	0	0	7	11
385	WB	Antioch BART	0	0	2	1	0	0	0	3	
387	EB	Antioch BART	0	0	7	8	3	2	0	19	41
387	WB	Pittsburg-Bay Point BART	0	1	9	7	4	1	0	22	
388	EB	Deer Valley Kaiser	0	2	10	12	8	1	1	34	70
388	WB	Pittsburg-Bay Point BART	0	3	15	12	6	1	0	36	
389	Loop	Pittsburg-Bay Point BART	0	1	3	3	3	1	0	11	11
390	EB	Antioch BART	0	0	0	0	3	0	0	3	8
390	WB	Pittsburg-Bay Point BART	2	2	2	0	0	0	0	5	
391	EB	Brentwood Park n Ride	0	0	7	7	8	2	1	25	52
391	WB	Pittsburg Center BART	2	2	9	7	4	3	0	27	
Total			8	22	126	139	102	23	2	422	422

Weekend

Table 3-2 shows the original goals by route, time period, and direction for overall weekend system.

Table 3-2: Weekend OD Sampling Goals

Route #	Direction	EOL/DESTINATION	Very Early 300A- 500A	Early AM 500A- 600A	AM Peak 601A- 1000A	Midday 1001A- 300P	PM Peak 301P- 700P	Evening 701P- 1000P	Late Night 1001P- 300A	Direction Total	Route Totals
392	EB	Antioch BART	0	0	3	5	4	3	0	15	30
392	WB	Pittsburg-Bay Point BART	0	0	3	5	4	3	0	15	
393	EB	Brentwood Park n Ride	0	0	3	5	4	3	0	15	30
393	WB	Antioch BART	0	0	3	5	4	3	0	15	
394	EB	Antioch BART	0	0	3	5	4	3	0	15	30
394	WB	Pittsburg-Bay Point BART	0	0	3	5	4	3	0	15	
395	Loop	Antioch BART	0	0	0	4	4	2	0	10	10
396	EB	Delta Fair Kaiser	0	0	3	5	4	3	0	15	30
396	WB	Bay Point	0	0	3	5	4	3	0	15	
Total			0	0	24	44	36	26	0	130	130

SURVEY INSTRUMENT

The tablet PCs were the preferred survey method due in large part to their on-screen mapping features which allowed for real-time geo-coding of addresses, intersections, or landmarks provided by respondents. The respondents were able to confirm a geo-coded search location based on the position of the Google Maps indicator icon on the on-screen map. In addition to using the mapping feature to collect the global positioning system coordinates of important Survey locations (home address, origin address, destination address, boarding location and alighting location) the tablet PC also allowed the interviewer to walk through each question with the respondent. This allowed the interviewer to answer any respondents' questions while ensuring the quality of the data collected. An additional benefit of using the tablet PC was that it enabled surveyors to offer respondents the option of selecting answers to demographic questions by touching the tablet PC screen themselves, thereby protecting their privacy.

Respondents who did not have time to complete the Survey during their bus trip were also given the option of providing their phone numbers to be called back. Those who provided their phone numbers

were then contacted by ETC Institute’s call center to complete the Survey. Figure 3-2 through Figure 3-6 show examples from the tablet PC Survey.

Figure 3-2: Tablet PC Screenshot for Question: “What Type of Place Are You Coming from Now?”

2019 TRI DELTA TRANSIT SURVEY

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

Your usual WORKPLACE	College or University (student only)
Work related	Airport (airline passenger only)
Your HOME	Medical / Dental
Social or Recreational	Dining / Coffee
Shopping	Escorting others (pick up / drop off)
School (K-12) (student only)	Personal business
Other: <input style="width: 100%;" type="text"/>	

THIS ROUTE: 200 - Martinez / Pittsburg EB to Pittsburg-Bay Point BART

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Exit and clear survey
Previous
Callback
Next

Figure 3-3: Tablet PC Screenshot for Question: “How Did You Get from Your Origin to Your Very First Bus on This One-Way Trip?”

2019 TRI DELTA TRANSIT SURVEY

How did you GET FROM your origin [**Your HOME**] TO [200 - Martinez / Pittsburg EB to Pittsburg-Bay Point BART] on this one- way trip?

Walked all the way	Was dropped off by someone - not a service
Personal Bike	Drove alone and parked
Bike Share	Drove or rode with others and parked
Was dropped off using Uber, Lyft, or similar service	Other, please specify: <input style="width: 100%;" type="text"/>
Taxi	

THIS ROUTE: 200 - Martinez / Pittsburg EB to Pittsburg-Bay Point BART

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Exit and clear survey
Previous
Callback
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Figure 3-4: Tablet PC Screenshot for Question: “Where Will You Get off This Bus?”

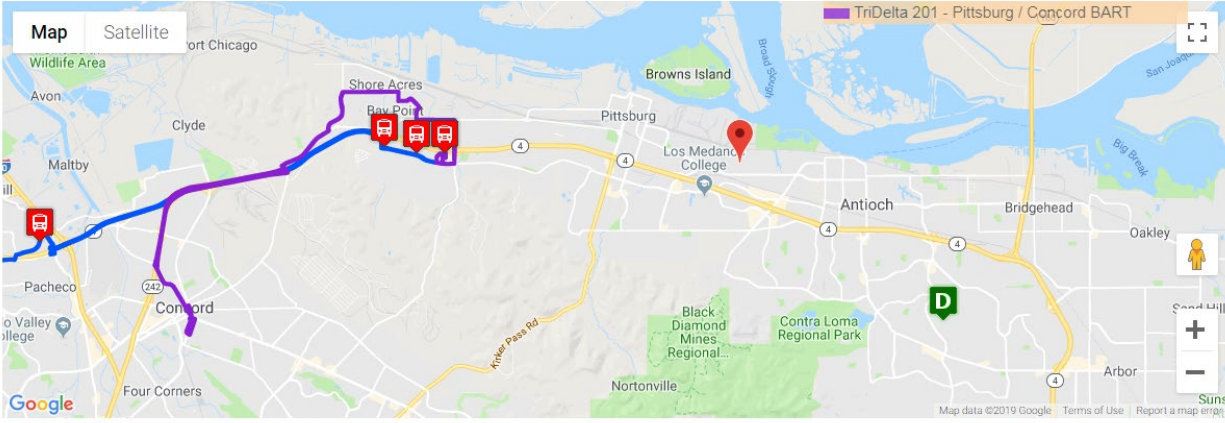
2019 TRI DELTA TRANSIT SURVEY

Where will you GET OFF [200 - Martinez / Pittsburg EB to Pittsburg-Bay Point BART] on this one-way trip?

Street Address Latitude Longitude User Stop

Enter a location here Distance: _____ mi

Map Satellite



Map data ©2019 Google Terms of Use Report a map error

>>>>>> 200 - Martinez / Pittsburg EB to Pittsburg-Bay Point BART

Exit and clear survey
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Figure 3-5: Tablet PC Screenshot of a set Demographic Questions

2019 TRI DELTA TRANSIT SURVEY

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

None (0)	Three (3)	Six (6)	Nine (9)
One (1)	Four (4)	Seven (7)	Ten or more (10+)
Two (2)	Five (5)	Eight (8)	

Including YOU, how many people live in your household?

One (1)	Four (4)	Seven (7)	Ten or More (10+)
Two (2)	Five (5)	Eight (8)	
Three (3)	Six (6)	Nine (9)	

Including YOU, how many adults (age 16 or older) that are employed full or part-time live in your household?

None (0)	Three (3)	Six (6)	Nine (9)
One (1)	Four (4)	Seven (7)	Ten or More (10+)
Two (2)	Five (5)	Eight (8)	

Exit and clear survey
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Figure 3-6: Tablet PC Screenshot of a set Demographic Questions

2019 TRI DELTA TRANSIT SURVEY

What year were you born?
Each answer must be between 1900 and 2018

Are you?
Check any that apply

Latino / Hispanic	Native Hawaiian / Pacific Islander
Black / African American	White
Asian	Other
American Indian / Alaska Native	<input style="width: 100%;" type="text"/>

check all that apply)

What is your gender?
Choose one of the following answers

Male	Female	Another Gender

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Exit and clear survey
Previous
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Callback
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Chapter 4. SURVEY ADMINISTRATION

LABOR RECRUITMENT AND TRAINING

Assembling a team of high-quality surveying staff was one of the most important steps in the OD administration process. ETC Institute collaborated with a staffing firm to provide interviewers for the OD survey.

The training session focused on the survey purpose and objectives, the survey instrument, scripts on how to respond to passengers' questions, how to use data collection tools correctly, the random sampling protocol, instructions on how to conduct themselves when working with the public, and safety training. Survey staff were instructed to understand that while they were not Tri Delta employees, they were representing the agency while on transit vehicles or property, and that they needed to act in a manner that reflected positively on Tri Delta at all times. There were additional training sessions conducted throughout the data collection process on an as-needed basis but with smaller groups.

Maximizing participation and legitimizing the survey among passengers 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 clean, appropriate clothing to present a casual yet neat appearance that ensured professionalism and comfort. Survey staff were provided with interviewer badges and vests to identify interviewers to Tri Delta staff and passengers to further legitimize their appearance. The badge and dress code standards promoted a professional appearance and reinforced survey legitimacy, which increased passengers' trust in the interviewers and the process.

TRAINING OD INTERVIEWERS

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

ETC Institute ensured that the training addressed the following details:

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

- ▲ Importance of data confidentiality and instruction on how to address passenger concerns regarding same.
- ▲ Overview of the Tri Delta system covering all topics covered in the tablet questionnaire with route-specific instruction as needed.
- ▲ How to handle passenger comments and complaints.
- ▲ Safety training.

Toward the end of training, interviewers conducted mock interviews using the survey tablets. This allowed ETC Institute staff to gauge each interviewer's comprehension of the survey and instrument and provide feedback as needed. After the training, interviewers were tested on items discussed in training.

Following classroom training, applicants got a chance to conduct interviews under the supervision of an experienced ETC Institute supervisor. Supervisors oversaw interviewers and provided feedback on performance throughout the day.

Interviewers who were conducting the survey properly could go to the next phase of field training. Interviewers who needed more help but showed promise were asked to spend a second day in the field under direct supervision. Once an interviewer had demonstrated proficiency under direct supervision, he/she was given a field test during which the prospective interviewer conducted surveys on his/her own. During this period the interviewer's productivity and data quality were remotely assessed by ETC Institute's staff.

OD PASSENGER SURVEY INTERVIEWERS ROLES

Each day OD Survey interviewers boarded an assigned bus route and conducted interviews with passengers selected to participate by means of the random sampling protocol. Interviewers asked the respondent each question from the survey tablet and recorded each response provided them by the passenger. At the conclusion of each completed Survey the interviewer thanked the respondent then moved on to the next potential interview subject as identified by the tablet PC's random sampling process. Under no circumstances was an interviewer permitted to select an interview subject, not was any passenger permitted to "volunteer" to be interviewed.

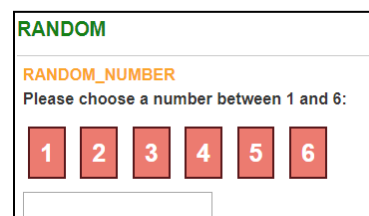
SURVEY ADMINISTRATION

SELECTION OF PARTICIPANTS

For the OD surveys conducted by tablets, a random number generator (shown in Figure 4-1) was used to determine which passengers were asked to participate in the survey after boarding the surveying bus.

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

Figure 4-1: OD Survey Random Number Generator



For example, if 20 people boarded a bus or train, the tablet PC program would randomly pick one of the first six people for the survey. If the interview was refused by the randomly selected passenger, then the passenger who boarded before the passenger selected would be attempted (**after**, if 1 was selected).

Respondents who did not have time to complete the survey during their bus trip or who spoke a language different from the interviewers were given the option of providing their phone numbers to conduct the survey at another time. Those who provided their phone numbers for call back were then contacted by ETC Institute's call center to complete the survey. Those interviewers that did speak the foreign language of the passenger translated the English tablet PC version and indicated which language the interview was conducted in.

ETC Institute maintained adequate bilingual (English/Spanish) interviewer staff throughout the entire project. At any given time, at least 15.0 percent of the interview staff were bilingual.

OD SURVEY PROCEDURE

Interviewers selected people for the survey in accordance with the random sampling procedures described earlier in this subsection. Once an interviewer had employed random sampling protocol to identify the passenger to be surveyed, the interviewer:

- Approached the passenger who was identified and asked him or her to participate in the survey.
- If the person refused, the interviewer ended the survey, excused themselves and completed three observational questions.
- If the person agreed to participate, the interviewer asked the respondent if he/she had at least 5 minutes to complete the survey.
- If the person did not have at least 5 minutes on the bus, the interviewer asked the person to provide his/her name, and phone number for a later call back in the likely event that they alighted prior to completing the survey. A phone interviewer from ETC Institute's call center contacted the respondent and asked him/her to provide the information by phone. 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 on-board with only a nominal amount of records completed by phone.

- ▲ If the person had at least 5 minutes on the bus, the interviewer began administering the survey to the respondent as a face-to-face interview using a tablet PC.

IN-FIELD QUALITY ASSURANCE/QUALITY CONTROL

Each day, ETC Institute's Field Supervisor reviewed each employee's data regarding the following issues to assess whether the employee was conducting the survey properly:

- ▲ Distribution of surveys by demographics.
- ▲ Distribution of surveys by trip characteristics.
- ▲ Length of each survey in minutes.
- ▲ Percentage of refusals.
- ▲ Percentage of short trips.

In addition to daily reviews of demographic responses, trip speed, etc. a comprehensive weekly report was created at the direction of the Field Supervisor which included a detailed itemized breakdown of each interviewer's performance for the week, specifically analyzing distribution of survey responses in relation to the norm. The weekly report was reviewed by all supervisory staff and discussed during a weekly meeting/conference call during which a corrective action plan was formulated in each case. A member of the supervisory team would be assigned each issue. That supervisor would take the corrective action, then add a dated note to the weekly report describing in detail the remedial action taken. The same supervisor would be assigned to follow-up on the issue with the interviewer in question during the current week. If the corrective plan did not prove successful, the interviewer was removed from the schedule, either temporarily pending supplemental training or permanently, where such action was deemed appropriate by the Field Supervisor.

ETC Institute's Field Supervisors routinely conducted spot checks on assigned bus routes and made frequent unannounced visits to stops and stations. Supervisors also utilized anonymous "secret shoppers" to pose as passengers on buses to check up on staff attitude, appearance, performance, and compliance with ETC Institute rules and procedures. Also, Field Supervisors could verify if an interviewer was on their assigned route by viewing the displayed geographic locations of where the interviews were taking place as well as track productivity and data accuracy down to the second it occurred. These checks ensured data integrity and helped identify any interviewer who was falling short of our standards for field survey collection.

Chapter 5. DATA REVIEW PROCESS

Many of the processes described in previous sections of this report were essential elements of the overall quality assurance/quality control (QA/QC) process that was implemented throughout the survey administration process. The establishment of specific sampling goals and procedures for managing the goals ensured that a representative sample was obtained from each bus route. Training of interviewers and the high levels of oversight provided by the Field Manager and the Field Supervisors ensured that the survey was administered properly. Also, the use of the latest geocoding tools such as ETC Institute's tablet PC survey with an embedded Google map search, ETC Institute Elvis program, and Caliper® Maptitude geographic information system (GIS) software, all of which contributed to the high quality of geocoding accuracy that was achieved.

The following subsections describe the QA/QC processes that were implemented after the data was collected.

PROCESS FOR IDENTIFYING COMPLETE RECORDS

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

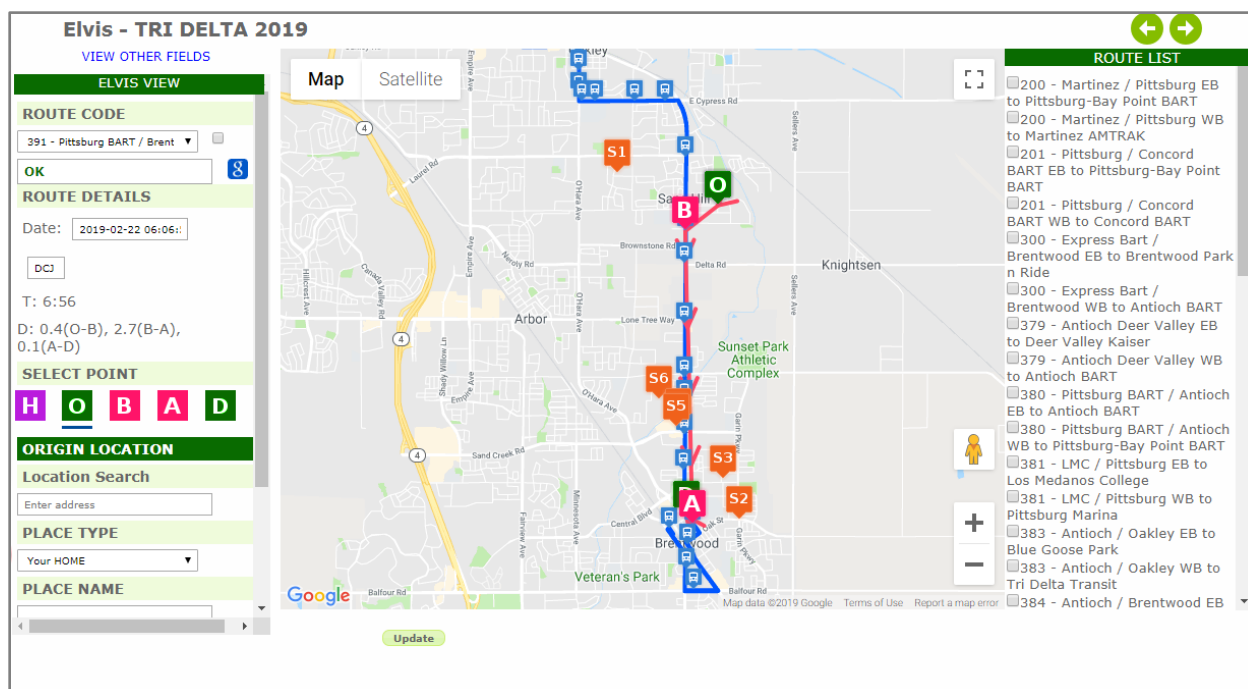
- ▲ Route/Direction
- ▲ Time of trip
- ▲ Transfers made
- ▲ Home address
- ▲ Origin address
- ▲ Destination address
- ▲ Origin place
- ▲ Destination place type
- ▲ Access mode
- ▲ Egress mode
- ▲ Boarding location
- ▲ Alighting location

In addition to the required trip-data questions, a survey must have been marked as complete by the online survey program, which occurred only if the interviewer had navigated through every required question on the online survey instrument, including demographic questions.

ONLINE VISUAL REVIEW TOOL

ETC Institute created an online visual review tool that allowed for the review of all completed records within the database. This tool displayed all components of each individual trip as well as a series of preprogrammed distance and ratio checks as described on subsequent pages. After directions were finalized, the next step was to run each record through the speed/distance/time checks. Figure 5-1 shows an example of the online visual review tool.

Figure 5-1: Online Visual Review Tool (Editable Version)



PRE-DISTANCE CHECKS

A series of distance and ratio checks are preprogrammed into the online visual review tool to allow for ETC Institute’s Transit Review Team (TRT) to take a more systematic approach in reviewing complete records. The TRT process for editing surveys is described later in this section. **Note: The distance and ratio checks described were meant to alert the reviewer that closer evaluation was needed. It did not necessarily indicate that the record was inaccurate or unusable.**

The distances used for the checks were 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. Some of the distance checks that were run are listed below:

- Access/Egress-Mode Distance Check (distances from origin to boarding and alighting to destination).
- Origin-to-Destination Check (distance from origin to destination).
- Boarding-and-Alighting Distance Check (distance checks from boarding to alighting location).

PRE-RATIO CHECKS

After all transfer checks were completed, the next step in this process involved the application of a series of QA/QC Ratio Checks.

Three ratio checks were conducted for each record. First, the distance between boarding and alighting was divided by the distance between origin and destination. If the passenger had a high ratio, then the passenger was on the bus for an extensive time compared to the origin-to-destination distance. If the check created an extremely low ratio, the use of transit seemed unnecessary.

Second, the distance between origin and boarding was divided by the distance between origin and destination. If the passenger had a high ratio, the origin to boarding distance was excessive compared to the origin to destination.

Third, the distance between alighting and destination was divided by the distance between origin and destination. If the passenger had a high ratio, the alighting to destination distance was excessive compared to the origin to destination.

TRANSIT REVIEW TEAM

ETC Institute has a dedicated team whose priority is reviewing and editing completed records using an online visual review tool. The TRT reviewed all completed records collected for the Survey, paying special attention to records that were automatically flagged by the previously-described distance checks. Typically, around 10 percent of all records receive an automatic flag. Prior to making edits to any survey, they first attempted to contact the respondent to clarify any questionable answer choices regarding the trip. If no contact was made, or if contact was not possible, which occurs for most cases, the general issues listed in Table 5-1 generally result in actions that allow about 30 percent of those records that are automatically flagged to be retained, or approximately 3 percent of all completed surveys.

Table 5-1: 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 surveyor selects the wrong choice from the list of possible 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 surveyor	Change direction of route selected and, if necessary, update boarding and alighting locations based on appropriate direction.

POST-PROCESSING ADDITIONAL CHECKS

After all records were reviewed by the TRT, the next step in this process involved the application of a series of QA/QC non-trip checks. Non-trip checks are described as anything not pertaining to the respondent's actual trip (i.e., demographic information).

Non-trip related checks included:

- ▲ Ensuring the respondents who indicated that their origin or destination place type was usual workplace were either full-time or part-time employed.
- ▲ Ensuring the time of day a survey was completed was reasonable given the published operating schedule for the route.
- ▲ Ensuring that the appropriate fare type was used given the age of respondent.
- ▲ Checking that there is a representative demographic distribution based on age, gender, and income status.
- ▲ Removing any personal contact information used for quality control purposes during the data collection portion of the project to protect the anonymity of the respondents.

Once all records had gone through the pre-processing and post-processing QA/QC checks, those that were deemed complete and usable were then used to update the completion report used by the field staff to ensure that all contractual goals had been met. After the final high-level review was completed, metadata (a codebook or data dictionary) was created to suitably explain the data in the database.

Chapter 6. SURVEY WEIGHTING AND EXPANSION

Tri Delta OD surveys were expanded by route, direction, and time-of-day. The following sections describe the methodology that was used to develop the unlinked expansion factors. Unlinked expansion factor is based on Passenger trips which counts each boarding as a separate trip regardless of transfers.

DATA EXPANSION OVERVIEW

When Survey quantity goals are created, they are typically based upon a percentage of the average weekday ridership for the routes in the system and desired confidence levels. These are further broken down by direction and time periods. The time periods that are created (e.g., 6 a.m. to 10 a.m.) are based off the specific needs of the Tri Delta System. Once a sample percentage is agreed upon, the goals for the Survey collection are based off the ridership for each route by direction and time period and then multiplied by the sampling percentage.

The purpose of developing Survey quantity goals is to collect an appropriate number of Survey records that will be expanded to represent the total average weekday ridership of each route by direction and time period. The expanding/weighting process balances any over/under representation in the survey database by any route/ time of day. The weekday survey data was expanded by route, direction, and time of day based on ridership provided by Tri Delta.

$$\text{Expansion Weight} = \text{Average Daily Ridership} / \text{Valid Surveys (By Route, Direction \& Time of Day)}$$

LINKED TRIP EXPANSION FACTORS FOR ALL RECORDS

The linked-trip expansion factor helps to account for the number of transfers that were made by each passenger, so the linked expansion factors should better represent the overall system. Linked expansion factors are generated after the unlinked expansion factors are created. The equation that is used to calculate the linked trip multiplying factor is shown below:

$$\text{Linked Trip Multiplying Factor} = [1 / (1 + \# \text{ of system transfers})]$$

If a passenger did not make a system transfer the linked trip multiplying factor would be 1.0 because the person would have only boarded one vehicle. If a person made two system transfers the linked trip expansion factor would be 0.33 because the person would have boarded three transit vehicles during his/her one-way trip. An example of how the linked trip expansion factors were calculated is provided in Figure 6-1.

Figure 6-1: Sample Calculations of Linked Trip Multiplying Factors


Number of Transfers	Calculation [1/(1+Number of Transfers)]	Linked Trip Multiplying Factor
0	[1/(1+0)]	1
1	[1/(1+1)]	0.5
2	[1/(1+2)]	0.33
3	[1/(1+3)]	0.25

Once the linked trip multiplier is created it is multiplied by the unlinked expansion factor to create the linked expansion factor.

APPENDICES

APPENDIX A: SURVEY INSTRUMENT

Figure A- 1: Paper Instrument (Front Page)



(for office use only) Route Code: Time: Interviewer: Direction:

Please take a few moments to help plan for your transit needs by filling out this survey.

All personal information will be kept strictly confidential and **WILL NOT** be shared or sold.

What is your **HOME ADDRESS**: (please be specific, ex: 123 W. Main St):
(If you are visiting the Bay area, please list the address where you are staying)

Street Address _____ City _____ State _____ Zip Code _____

COMING FROM?	GOING TO?
<p>1. What type of place are you COMING FROM NOW? (the starting place for your one-way trip)</p> <p><input type="radio"/> Your usual WORKPLACE <input type="radio"/> Work related <input type="radio"/> Your HOME → Go to Question #4 <input type="radio"/> Hotel Residence (Visitor Only) <input type="radio"/> Social or recreational <input type="radio"/> Shopping <input type="radio"/> School (K-12) (student only) <input type="radio"/> College or University (student only) <input type="radio"/> Airport (airline passenger only) <input type="radio"/> Medical / dental <input type="radio"/> Dining / coffee <input type="radio"/> Escorting others pick up/dropoff <input type="radio"/> Personal business <input type="radio"/> Other: _____</p> <p>2. What is the NAME of the place you are coming from now?</p> <p>_____</p> <p>3. What is the EXACT ADDRESS of this place? (OR Intersection if you do not know the exact address:)</p> <p>_____</p> <p>City: _____ State: _____ Zip: _____</p> <p>4. How did you GET FROM the place in Question #1 TO THE VERY FIRST bus or train you used for this one-way trip?</p> <p><input type="radio"/> Walked all the way; how far did you walk? _____ blocks <input type="radio"/> BIKE → <input type="radio"/> BIKE SHARE <input type="radio"/> Personal Bike <input type="radio"/> Was dropped off using Uber, Lyft, or similar service (answer 4a) <input type="radio"/> Taxi (answer 4a) <input type="radio"/> Was dropped off by someone – not a service (answer 4a) <input type="radio"/> Drove alone and parked (answer 4a) <input type="radio"/> Drove or rode with others and parked (answer 4a)</p> <p>4a. Where did you get ON the first bus or train you used for this one-way trip (Write the nearest intersection / park-and-ride lot / rail station below):</p> <p>_____</p> <p>5. Where did you get ON this bus? Please provide the nearest intersection / stop or station name / park-and-ride lot:</p> <p>_____</p>	<p>6. What type of place are you GOING TO NOW? (the ending place for your one-way trip)</p> <p><input type="radio"/> Your usual WORKPLACE <input type="radio"/> Work related <input type="radio"/> Your HOME → Go to Question #9 <input type="radio"/> Hotel Residence (Visitor Only) <input type="radio"/> Social or recreational <input type="radio"/> Shopping <input type="radio"/> School (K-12) (student only) <input type="radio"/> College or University (student only) <input type="radio"/> Airport (airline passenger only) <input type="radio"/> Medical / dental <input type="radio"/> Dining / coffee <input type="radio"/> Escorting others pick up/dropoff <input type="radio"/> Personal business <input type="radio"/> Other: _____</p> <p>7. What is the NAME of the place you are going to now?</p> <p>_____</p> <p>8. What is the EXACT ADDRESS of this place? (OR Intersection if you do not know the exact address:)</p> <p>_____</p> <p>City: _____ State: _____ Zip: _____</p> <p>9. How will you GET TO your destination (listed in Question #6) after you get off the LAST bus or train you will use for this one-way trip?</p> <p><input type="radio"/> Walk all the way; how far did you walk? _____ blocks <input type="radio"/> BIKE → <input type="radio"/> BIKE SHARE <input type="radio"/> Personal Bike <input type="radio"/> Dropped off using Uber, Lyft, or similar service (answer 9a) <input type="radio"/> Taxi (answer 9a) <input type="radio"/> Dropped off by someone – not a service (answer 9a) <input type="radio"/> Drive alone (answer 9a) <input type="radio"/> Drive or ride with others (answer 9a)</p> <p>9a. Where will you get off the last bus or train you are using for this one-way trip (Write the nearest intersection / park-and-ride lot / rail station below):</p> <p>_____</p> <p>10. Where will you get OFF this bus? Please provide the nearest intersection / stop or station name / park-and-ride lot:</p> <p>_____</p>
<p>11. INCLUDING THIS BUS, how many TOTAL BUSES/TRAINS will you use to make THIS ONE-WAY TRIP?</p> <p style="text-align: center;"><input type="radio"/> One, only this bus <input type="radio"/> Two <input type="radio"/> Three <input type="radio"/> Four or more</p> <p>11a. Please list the routes and/or rail stations in the exact order you use them for this one-way trip.</p> <p>START → <input type="text"/> → <input type="text"/> → <input type="text"/> → <input type="text"/> → <input type="text"/> → <input type="text"/> → END</p> <p style="font-size: small; text-align: center;">1st route #/rail station 2nd route/rail station 3rd route/rail station 4th route/rail station 5th route/rail station →</p>	

Figure A- 2: Paper Instrument (Back Page)

OTHER INFORMATION ABOUT THIS TRIP(s)

12. What time did you BOARD this bus? _____ : _____ am / pm (circle one)

13. Will you (or did you) make this same trip on exactly the same routes in the opposite direction today?
 No Yes - At what time did you leave for this trip in the opposite direction? _____ : _____ am/pm (circle one)

14. What fare category did you pay?
 Adult Senior Disabled Other: _____

15. How did you pay for this one-way trip?

BY CLIPPER	BY CASH OR PAPER	BY Mobile Ticket App
<input type="radio"/> Day Pass	<input type="radio"/> Cash (coins and bills)	<input type="radio"/> 20 Ride Pass
<input type="radio"/> Transfer from different Agency	<input type="radio"/> Transfer from different Agency	<input type="radio"/> 31 Day Pass
<input type="radio"/> Stored Value	<input type="radio"/> Other: _____	<input type="radio"/> Day Pass
<input type="radio"/> 31 Day Pass	<input type="radio"/> East Bay Regional 31 Day Pass	

16. How do you currently get information and updates about your bus (schedules, arrival times, etc)? select all that apply
 Printed schedule Mobile Ticketing app Social Media (ie Facebook, Instagram, Twitter, etc)
 Tri Delta website Tri Delta mobile app 511.org Other: _____

17. How would you prefer to get news, updates, schedule information about your bus? select top three choices
 Printed schedule Mobile Ticketing app Social Media (ie Facebook, Instagram, Twitter, etc)
 Tri Delta website Tri Delta mobile app 511.org Other: _____

18. How many working vehicles (auto or motorcycles) are available to your household? _____ vehicles

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

20. Including YOU, how many adults (age 16 and older) that are employed full or part time live in your household? _____ people

21. Are you a student? (check the one response that BEST describes you)
 Not a student Yes – Full Time college/university Yes – K - 12th grade
 Yes – Part Time college/university Yes – vocational/technical/trade school Yes – other

21a. [If #21 is Yes] Please specify your college/university/school name and address: _____

22. What year were you born? _____

23. Are you? (check all that apply)
 Latino/Hispanic Black/African American Asian
 American Indian / Alaska Native Native Hawaiian / Pacific Islander White Other: _____

24. What is your gender? Male Female Other Gender: _____

25. Which of the following BEST describes your TOTAL ANNUAL HOUSEHOLD INCOME in 2018 before taxes?
 Below \$10,000 \$50,000 - \$74,999
 \$10,000-\$24,999 \$75,000 - \$99,999
 \$25,000-\$34,999 \$100,000 - \$149,999
 \$35,000-\$49,999 \$150,000 or more Not provided

26. Do you speak a language other than English at home? No Yes - Which language?
 IF YES: How well do you speak English? Very Well Well Less than well Not at all

WIN A PRIZE!!!!

People who submit an accurately completed survey will be entered in a random drawing for a chance to win a \$395 Visa gift card.

Name: _____
 Phone Number: (____) _____
 E-mail address: _____

THANKS FOR YOUR PARTICIPATION!