



Sound Transit
Express Bus Origin & Destination Study
Draft Report
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Prepared by:



CONTENTS

| | |
|---|----|
| Contents | 2 |
| List of Tables | 6 |
| List of Figures | 9 |
| Project Overview | 11 |
| Methodology | 12 |
| Questionnaire Design | 12 |
| Questions Included (in the following order) | 12 |
| Available languages | 13 |
| Sampling | 14 |
| Data Collection | 15 |
| Training | 15 |
| Execution Plan | 16 |
| Intercepting Respondents | 16 |
| Collecting and Tracking Questionnaires | 17 |
| Interviewing Outcomes | 18 |
| Data Cleaning..... | 19 |
| Geocoding..... | 19 |

| | |
|--|----|
| Transit Path Cleaning..... | 20 |
| Definition of Valid Surveys | 21 |
| Weighting | 22 |
| Segmentation | 22 |
| Express Bus Single Direction Routes | 24 |
| Final Weights And Expansion | 24 |
| Linked Trip Weight..... | 26 |
| Demographic Findings – All Day Routes Only | 27 |
| Fare Payment – All Day Routes | 30 |
| Location Origin And Destinations – All Day Routes..... | 32 |
| Origin – All Day Routes | 33 |
| Destination – All Day Routes | 34 |
| Combined Origins and Destinations – All Day Routes..... | 35 |
| Combined Origins and Destinations – All Day AM Peak..... | 36 |
| Combined Origins and Destinations – All Day PM Peak..... | 37 |
| Combined Origins and Destinations – All Day Off Peak | 38 |
| Combined Origins and Destinations – All Day Inbound | 39 |
| Combined Origins and Destinations – All Day Outbound | 40 |

| | |
|---|----|
| Access and Egress Modes – All Day Routes Only | 41 |
| Transferring – All Day Routes Only..... | 42 |
| Demographic Findings – Peak Period Sampled Routes..... | 43 |
| Fare Payment – Peak Period Sampled..... | 46 |
| Location Origin And Destinations – Peak Period Sampled | 48 |
| Origin - Peak Period Sampled | 49 |
| Destination - Peak Period Sampled | 50 |
| Combined Origins and Destinations - Peak Period Sampled..... | 51 |
| Access and Egress Modes – Peak Period Sampled | 52 |
| Transferring – Peak Period Sampled | 53 |
| Origin And Destination Survey Analysis Zone Pairs..... | 54 |
| Overview | 54 |
| All Day Express Bus Origin and Destination Zone Pairs..... | 55 |
| Origin And Destination Zone Pairs - Total All Day Express Bus Trips | 55 |
| Origin And Destination Zone Pairs – All Day PM Peak | 59 |
| Origin And Destination Zone Pairs – All Day Off Peak..... | 61 |
| Origin And Destination Zone Pairs – All Day Inbound | 63 |
| Origin And Destination Zone Pairs – All Day Outbound | 65 |

Peak Period Sampled Origin and Destination Pairs..... 67

Origin And Destination Zone Pairs - All Peak Period Sampled Trips 67

Appendix..... 69

Questionnaire Example 69

Crosstabs Appendix 72

LIST OF TABLES

| | |
|--|----|
| Table 1: Routes Surveyed | 11 |
| Table 2: Interviewing Outcomes | 18 |
| Table 3: Final Sample Sizes – Weighted and Unweighted..... | 21 |
| Table 4: Express Bus All Day Routes Average Weights | 24 |
| Table 5: Express Bus Peak Routes Average Weights | 25 |
| Table 6: All Day Rider Demographics by Trip Purpose and Line | 27 |
| Table 7: All Day Fare Category..... | 29 |
| Table 8: All Day Fare Payment by Time Period | 30 |
| Table 9: All Day Fare Payment by Trip Purpose | 30 |
| Table 10: All Day Fare Payment by Household Income | 30 |
| Table 11: All Day ORCA Pass Provided by Employer | 31 |
| Table 12: All Day Trip Purpose by Period | 32 |
| Table 13: All Day Direction by Period | 32 |
| Table 14: All Day Origin by Time Period | 33 |
| Table 15: All Day Origin by Direction..... | 33 |
| Table 16: All Day Destination by Time Period | 34 |
| Table 17: All Day Destination by Direction | 34 |

| | |
|--|----|
| Table 18: All Day Combined Origins and Destinations | 35 |
| Table 19: All Day Combined Origins and Destinations – AM Peak..... | 36 |
| Table 20: All Day Combined Origins and Destinations – PM Peak | 37 |
| Table 21: All Day Combined Origins and Destinations – Off Peak | 38 |
| Table 22: All Day Combined Origins and Destinations – Inbound | 39 |
| Table 23: All Day Combined Origins and Destinations – Outbound | 40 |
| Table 24: All Day Access Mode | 41 |
| Table 25: All Day Egress Mode | 41 |
| Table 26: All Day Transfers by Trip Purpose | 42 |
| Table 27: All Day Transfers by Trip Purpose | 42 |
| Table 28: Peak Period Sampled Rider Demographics by Trip Purpose | 43 |
| Table 29: Peak Period Sampled Fare Category..... | 45 |
| Table 30: Peak Period Sampled Fare Payment by Trip Purpose | 46 |
| Table 31: Peak Period Sampled Fare Payment by Household Income | 46 |
| Table 32: Peak Period Sampled ORCA Pass Provided by Employer | 47 |
| Table 33: Peak Period Sampled by Purpose Table 34: Peak Period Sampled by Direction | 48 |
| Table 35: Peak Period Sampled Origin by Direction..... | 49 |
| Table 36: Peak Period Sampled Destination by Direction..... | 50 |

Table 37: Peak Period Sampled Combined Origins and Destinations 51

Table 38: Peak Period Sampled Access Mode 52

Table 39: Peak Period Sampled Egress Mode 52

Table 40: Peak Period Sampled Transfers by Trip Purpose 53

Table 41: Origin – Destination Survey Analysis Zone Pairs – All All Day Trips 56

Table 42: Origin – Destination Survey Analysis Zone Pairs – All Day AM Peak 58

Table 43: Origin – Destination Survey Analysis Zone Pairs – All Day PM Peak 60

Table 44: Origin – Destination Survey Analysis Zone Pairs – All Day Off-Peak 62

Table 45: Origin – Destination Survey Analysis Zone Pairs – All Day Inbound 64

Table 46: Origin – Destination Survey Analysis Zone Pairs – All Day Outbound 66

Table 47: Origin – Destination Survey Analysis Zone Pairs – All Peak Period Sampled Trips 68

LIST OF FIGURES

| | |
|---|----|
| Figure 1: All Day Choice Rider Status by Trip Purpose and Time Period | 28 |
| Figure 2: Fare Category | 29 |
| Figure 3: All Day ORCA Pass Provided by Employer | 31 |
| Figure 4: Percentage of Transferring All Day Express Bus Riders..... | 42 |
| Figure 5: Peak Period Sampled - Choice Rider Status by Trip Purpose | 44 |
| Figure 6: Peak Period Sampled Fare Category | 45 |
| Figure 7: Peak Period Sampled ORCA Pass Provider | 47 |
| Figure 8: Transferring Peak Period Sampled Express Bus Riders | 53 |
| Figure 9: Survey Analysis Zones..... | 54 |
| Figure 10: % of All Trips Starting in SAZ..... | 55 |
| Figure 11: % of All Trips Ending in SAZ | 55 |
| Figure 12: % of AM Peak Trips Starting in SAZ | 57 |
| Figure 13: % of AM Peak Trips Ending in SAZ | 57 |
| Figure 14: % of PM Peak Trips Starting in SAZ..... | 59 |
| Figure 15: % of PM Peak Trips Ending in SAZ | 59 |
| Figure 16: % of Off-Peak Trips Starting in SAZ..... | 61 |
| Figure 17: % of Off-Peak Trips Ending in SAZ | 61 |

Figure 18: % of Inbound Trips Starting in SAZ 63

Figure 19: % of Inbound Trips Ending in SAZ..... 63

Figure 20: % of Outbound Trips Starting in SAZ 65

Figure 21: % of Outbound Trips Ending in SAZ..... 65

Figure 22: % of All Peak Period Sampled Trips Starting in SAZ 67

Figure 23: % of All Peak Period Sampled Trips Ending in SAZ 67

PROJECT OVERVIEW

The purpose of this study is to help Sound Transit in understanding current travel patterns on the existing transit system serving the Central Puget Sound region. In 2018, Sound Transit began conducting a survey of transit riders, the purpose of which was twofold: to provide data in support of the “Before and After” study, which will investigate the impacts of University Link, a major light rail transit extension that opened for service in early 2016, and to collect information about rider characteristics for use in ridership modeling, equity analyses, and other research and reporting purposed. Rider surveys were conducted on all South Transit services: Central Link light rail, ST Express bus, Tacoma Link, Sounder commuter rail, and select King County Metro bus routes.

This report describes the results of the Express Bus surveys conducted February 12th through May 2nd, 2019. Riders on the route listed below were intercepted by interviewers on board the buses and were given the opportunity to respond to our questions with a paper survey.

Table 1: Routes Surveyed

- RT 510
- RT 511
- RT 512
- RT 513
- RT 522
- RT 532
- RT 535
- RT 540
- RT 541
- RT 542
- RT 545
- RT 550
- RT 554
- RT 555
- RT 556
- RT 560
- RT 566
- RT 567
- RT 574
- RT 577
- RT 578
- RT 580
- RT 586
- RT 590
- RT 592
- RT 594
- RT 595
- RT 596

METHODOLOGY

QUESTIONNAIRE DESIGN

Respondents were instructed to record information regarding their current one-way trip. Examples of potential one-way trips were shown on the questionnaire. The questionnaire was printed on one double-sided legal-size paper using heavy paper stock to enable respondents to complete the survey on board the services without a clipboard.

Respondents had two options to complete the survey:

1. Fill out and return the survey onboard (this option was encouraged as the most preferable by interviewers)
2. Fill out and return the survey via postage paid business reply mail

QUESTIONS INCLUDED (IN THE FOLLOWING ORDER)

- Trip origin, including the type of location where the one-way trip started (work, home, airport, school, or other)
- The address, or cross streets, or city, or zip code, or landmark/business name of the trip origin
- Access mode from the trip origin
- Parking information and amount paid at the origin, if applicable
- Trip destination, including the type of location where the one-way trip ended (work, home, airport, school, other)
- The address, or cross streets, or city, or zip code, or landmark/business name of the trip destination
- Parking information and amount paid at the destination, if applicable
- The stops where the respondent got on and off the sampled trip
- All transit vehicles used for the trip in the order they were/would be used
- How the fare was paid for the current trip

- Demographics, including
 - How many children under 14 are traveling in the group
 - Fare category
 - Number of trips made on the route and in the region in the past 30 days
 - If the respondent has a driver's license
 - How many working motorized vehicles are in the household
 - Ethnicity
 - Language spoken at home
 - English proficiency
 - If the respondent has a disability
 - How many people are in their household
 - Annual household income

AVAILABLE LANGUAGES

The survey was translated and offered in a printed format in six languages: English, Traditional Chinese, Spanish, Tagalog, Korean and Vietnamese. When interviewers encountered passengers with a language barrier, they were shown a “Language Handout”; a letter size piece of paper with the survey introduction translated into the five non-English languages listed above. The handout noted that the interviewer could provide a paper copy of the survey in one of those additional languages. The translated survey also included instructions for returning it by mail.

An example of the English-language questionnaire is found at the end of this report, in the Appendix.

SAMPLING

The study team developed a sampling plan for weekday travel between 6am and 9pm. Most surveying was conducted on Mondays through Thursdays, with select Friday periods being surveyed when necessary due to schedule constraints. Approximately 10 percent of daily boardings were targeted, which resulted in just over 10 percent of trips being targeted. Runs or partial runs, which include multiple trips per day, were sampled to increase the efficiency of the sampling approach.

The sampling approach ensured that the full range of origin and destination (OD) pairs were collected and because sampling was done in proportion to ridership by route/line, time of day, and direction; it also ensured that the top OD pairs were well-represented in the resulting data. One exception to this approach was made for Express bus routes that serve primarily commuter markets and only or primarily operate during the peak periods going in one direction. These routes were oversampled one-way in only one peak direction, the PM Peak period. Thus, this study makes the explicit assumption that, on average, those riding one direction in the evening on these routes are the same people riding in the opposite direction in the morning. This enabled us to collect 10 percent of all trips exclusively in the PM Peak period.

This approach was taken to maximize the number of unique interviews for these routes and decrease the logistical difficulties of surveying. For example, if we were to interview riders heading inbound in the AM Peak period and then outbound in the PM Peak period on the same commuter route, we would have been very likely to get multiple survey responses from the same riders. Our approach greatly reduced that likelihood without reducing representativeness, because the clear majority of riders were surveyed on these routes reported that they ride the same route in the opposite direction in the AM Peak period (86 percent of riders responded on the survey that they do). Routes serving more local trips were surveyed in both directions across the day.

Trips sampled in only one direction are referred to as “Peak Period Sampled” throughout the report, while routes servicing local trips in both directions during all time periods are referred to as “All Day” Express Bus routes. Data and responses from Peak Period Sampled routes are presented separately from All Day Express Bus routes.

See Table 2 in the “Interviewing Outcomes” for more details on sampling targets and performance.

DATA COLLECTION

TRAINING

Interviewers and supervisors were extensively trained on the survey process for collecting interviews on board Express Buses. Training included the most effective strategies and best-practice language for approaching passengers, dealing with refusals, dealing with non-English respondents, counting, tallying, and responding to passengers with questions or other issues. Every interviewer and supervisor was provided with a complete training manual for reference during training and while on their shift.

Interviewers also received interview packets that were assembled prior to the start of interviewing for all survey shifts. Each interviewer received one packet per shift. The packets consisted of:

- **Shift Cover Sheet:** On shifts where there is more than one trip, interviewers were provided a cover sheet to tell them where to check in. On single trips, the trip cover sheet provided interviewers the same information.
- **Trip Cover Sheet:** This tells interviewers what trip the survey materials in the packet are for, as well as the beginning and ending locations, and what bus they rode.
- **Trip Sheets:** Interviewers had a trip sheet for every stop they counted, distributed, and recorded refusals.
- **Surveys:** Surveys were assigned by trip. Interviewers were instructed to not hand out surveys on any trips other than the trip indicated on the envelope from which the survey came. If interviewers ran out of surveys for a specific trip, they could borrow from fellow interviewers during the same trip, from the envelope for that trip. Interviewers were not permitted to use surveys from a previous trip on a following or future trip.
 - Surveys in English were given to use only on the current trip surveyed. We used a passcode system to track survey collection (see “Collecting and Tracking Questionnaires” section below). Any English surveys that came out of a particular survey packet were placed back into the same packet when done so they were not handed out on another Express Bus trip.
- **Language Handout and Language Surveys:** Interviewers were also given surveys in alternate languages, and a sheet that allowed someone to pick which one they want. If someone didn’t speak English, interviewers were instructed to give them this sheet so they could tell the interviewer which of the language surveys they preferred.

EXECUTION PLAN

Using Winter 2018 ridership data and Winter 2019 route information provided by Sound Transit, the study team developed a plan to execute surveys on selected trips on Express Bus during the study (see the above section on sampling for more information on the selection of trips and the below section on interviewing outcomes for ridership information and distribution targets). Each trip consisted of a grouping of stops along the selected routes. Based on the approved execution plan, a master fielding schedule was created. The master schedule contained detailed information for each interviewing team including starting location, ending location, duration of shift, number of trips per shift, route number and any additional special instructions for interviewers or field supervisors.

INTERCEPTING RESPONDENTS

One or two surveyors were assigned to each bus depending on the number of doors on the bus and the average ridership on a given run. Generally, if average ridership was expected to be greater than 1.6 riders per minute and there were two points of access or egress on the bus, two interviewers were usually assigned to the bus for that run. Thus, two interviewers were often found on runs that occurred during peak periods and went to/from downtown. Express Buses with only one door and a lower per minute rider count only had one surveyor onboard.

On single interviewer shifts, the interviewer was responsible for counting every rider that entered the bus during a trip and recording that number on her trip sheet, then the interviewer was instructed to distribute to all adults on a bus. The interviewer was told to work from the back of the bus and work her way toward the front.

On trips with two interviewers, one interviewer was responsible for counting passengers at the front door and for distributing surveys on the front half of the bus. On these trips, passengers may have entered from both doors, in which case the second interviewer was responsible for counting any passengers that did enter (a rare occurrence) and distribute surveys for the back half of the bus. On crowded bus trips, the interviewer responsible for the front door located themselves towards the center of the bus, as to not block any seats, with a clear line of sight to the front door to count “Ons” for each stop. The second interviewer was then located in the back of the bus. If the interviewer could not move about the bus to distribute surveys, they were instructed to ask passengers to pass surveys and pencils down the aisle.

As the interviewers distributed surveys they kept a tally of:

- Adults who refused to take a survey for any reason;
- Children – passengers under age 14 (also tallied as refusals do to the small number of child riders on Express Busses)

Every rider over the age of 14 years old boarding a sampled vehicle was tallied and given the paper-based, self-completion survey with an option to mail it in or complete the survey online if it could not be finished before the rider's trip ended. In the case of a soft initial refusal, interviewers were trained to encourage passengers to take the survey with them and take it online or mail it back using the Business Reply Mail stamp printed on each survey. All other completed surveys were collected by the interviewer after each passenger was counted and approached.

COLLECTING AND TRACKING QUESTIONNAIRES

Unique passcodes were printed on all questionnaires. The first letter of the passcode corresponds to the service and where appropriate, language. Thus, a passcode beginning with 'EXE' is an Express Bus questionnaire in English. A passcode range was assigned to each service and each language within a service. An example of passcodes is shown below:

Express Bus English EXE 10000 to 29999

Every trip surveyed was assigned a specific range of English-language questionnaire passcodes. Interviewers received individual envelopes with the assigned questionnaires for every trip. They received a count of English questionnaires between 120% and 130% of expected boardings for the trip to account for trips that may exceed the typical passenger count.

At the end of the trip, interviewers were instructed to place all materials, including completed and uncompleted questionnaires in the envelope corresponding to that trip. Thus, questionnaires with passcodes designated for one trip were not used on any other trip. When an interviewer ran out of questionnaires, they were provided with an emergency supply of materials, each containing 25 questionnaires and a corresponding passcode range. The interviewer then tied these questionnaires to the trip they used them on by manually recording the KeyTrip number on the emergency envelope.

Non-English questionnaire passcodes were handled using a unique process. Language surveys were printed with a perforated receipt which interviewers teared off from the larger survey when distributing and kept it for records. Just like all the other materials, this receipt was returned in the Trip Envelope at the end of each trip thus allowing us to tie each Language survey to the appropriate trip.

INTERVIEWING OUTCOMES

In total, EMC interviewers approached 22,043 passengers aged 14 or older on the sampled trips. A total of 9,466 surveys were returned for an overall response rate of 43 percent. We exceeded our goal of surveying 10 percent of estimated daily ridership on all of the Express Bus routes.

Table 2: Interviewing Outcomes

| Route Sampling Type | Route | Estimated Average Daily Boardings | Distribution Target | # Approached (over 14) | # of Surveys Distributed | # Refused | Total Completed Surveys | Percentage of Ridership Surveyed | Response Rate |
|---------------------|------------|-----------------------------------|---------------------|------------------------|--------------------------|--------------|-------------------------|----------------------------------|---------------|
| All Day | RT 512 | 3,346 | 1,179 | 1,247 | 797 | 450 | 513 | 15% | 41% |
| All Day | RT 522 | 4,879 | 1,565 | 2,086 | 1,758 | 328 | 843 | 17% | 40% |
| All Day | RT 535 | 1,808 | 638 | 881 | 652 | 229 | 293 | 16% | 33% |
| All Day | RT 540 | 409 | 195 | 287 | 203 | 84 | 164 | 40% | 57% |
| All Day | RT 541 | 892 | 276 | 330 | 211 | 119 | 210 | 24% | 64% |
| All Day | RT 542 | 2,448 | 747 | 1,049 | 844 | 205 | 354 | 14% | 34% |
| All Day | RT 545 | 8,500 | 2,840 | 3,427 | 2,456 | 971 | 1285 | 15% | 37% |
| All Day | RT 550 | 6,969 | 3,172 | 3,479 | 2,530 | 949 | 1406 | 20% | 40% |
| All Day | RT 554 | 3,325 | 1,284 | 1,551 | 1,169 | 382 | 747 | 22% | 48% |
| All Day | RT 560 | 1,763 | 514 | 625 | 492 | 133 | 300 | 17% | 48% |
| All Day | RT 566 | 1,274 | 412 | 423 | 310 | 113 | 190 | 15% | 45% |
| All Day | RT 574 | 1,888 | 579 | 712 | 514 | 198 | 374 | 20% | 53% |
| All Day | RT 578 | 1,924 | 601 | 689 | 429 | 260 | 297 | 15% | 43% |
| All Day | RT 590 | 2,247 | 720 | 735 | 538 | 197 | 420 | 19% | 57% |
| All Day | RT 594 | 1,994 | 633 | 821 | 574 | 247 | 441 | 22% | 54% |
| Peak | RT 510 | 686 | 456 | 556 | 387 | 169 | 247 | 36% | 44% |
| Peak | RT 511 | 829 | 470 | 475 | 339 | 136 | 145 | 17% | 31% |
| Peak | RT 513 | 264 | 191 | 234 | 173 | 61 | 158 | 60% | 68% |
| Peak | RT 532 | 773 | 506 | 477 | 362 | 115 | 131 | 17% | 27% |
| Peak | RT 555 | 163 | 184 | 185 | 179 | 6 | 123 | 75% | 66% |
| Peak | RT 556 | 385 | 199 | 176 | 167 | 9 | 116 | 30% | 66% |
| Peak | RT 567 | 246 | 166 | 149 | 112 | 37 | 77 | 31% | 52% |
| Peak | RT 577 | 722 | 492 | 647 | 410 | 237 | 256 | 35% | 40% |
| Peak | RT 580 | 338 | 168 | 310 | 238 | 72 | 55 | 16% | 18% |
| Peak | RT 586 | 194 | 131 | 143 | 131 | 12 | 105 | 54% | 73% |
| Peak | RT 592 | 305 | 174 | 141 | 113 | 28 | 90 | 30% | 64% |
| Peak | RT 595 | 112 | 54 | 56 | 50 | 6 | 40 | 36% | 71% |
| Peak | RT 596 | 282 | 164 | 152 | 130 | 22 | 86 | 30% | 57% |
| Total | All | 48,965 | 18,710 | 22,043 | 16,268 | 5,775 | 9,466 | 19% | 43% |

DATA CLEANING

Data cleaning was performed for three major categories: geocoding, path cleaning and other data cleaning required for paper data, including recoding and data-entry correction, and open-ended questions.

GEOCODING

The geocoding process aimed to obtain the latitude and longitude for each location provided in the survey data. The geocoding process was conducted as follows:

- Initial address clean up
 - Checked for misspelled city names that can be easily corrected
 - Filled in state where not provided
- Ran the addresses through batch geocoder for initial latitude/longitude assignment
 - The batch geocoded addresses was assigned a “match status” to determine the level of accuracy
- Inspected unmatched records, grouping and sorting of data to find consistent issues with the data that could be easily corrected and rerun through the batch geocoder
- Inspected matched records provided by the geocoder, with particular attention to records returning centroid matches or uncertain matches
 - Records with uncertain matches were reviewed to determine whether the match was accurate (based on other survey data, such as route used, business name provided, etc.)
 - Centroid matches at the city or ZIP level were also reviewed to determine if further cleaning of the address would result in a more accurate match
- Iterated on the process above until the majority of records were geocoded
- Once the batch geocoding was exhausted, time was devoted to cleaning and geocoding survey records manually to obtain more geocoded records
- If an origin location was not provided, but a boarding location was and the access mode was “walk,” it was assumed that the origin location is the same as the boarding location for the purposes of analysis
 - The reverse will also be true; if a boarding location was not provided but an origin location was and the access mode was “walk,” then it was assumed that the boarding location was the same as the origin
 - A similar logic was taken using the destination location and alighting locations

- If an origin or destination location was not provided and the location type was indicated as the airport, the location was coded to the Seattle/Tacoma International Airport.

Following this process, surveys with four geocoded locations were moved to the transit path cleaning phase.

TRANSIT PATH CLEANING

Next, the records were reviewed to determine if the routes/lines reported were feasible given the origin and destination provided. This was done using a web-based cleaning tool that RSG built specifically for this purpose. This tool maps the origin, destination, boarding, and alighting locations along with the path for the reported routes/lines used for the trip and additional pertinent data including surveyed route, direction and access and egress modes.

All records were visually inspected by an analyst and particular attention was paid to records where:

- The origin and destination or the boarding and alighting stop were in the same location
- The origin and boarding stop or the destination and alighting stop were in the same location
- The access and egress distance was unreasonable (more than 1 mile walking or more than 10 miles biking)
- Routes were listed that were not in the list of possible routes in the Seattle/Tacoma areas

The key tasks that were conducted as part of this visual inspection included the following:

- Visually inspected the origin, destination, boarding, and alighting locations with respect to the route used;
- Ensured the route where the survey was received was included in the trip path;
- Visually inspected the direction traveled with regards to the direction recorded by surveyors in the field;
- Visually inspected the sensibility of the origin-to-destination path with respect to the transit routes/lines that were used for the trip and the order they were used in;
- Visually inspected the routes/lines used with regard to the feasibility of transferring between the different routes/lines; and
- Visually inspecting the routes reported being used for the trip.

The analyst was able to switch the boarding and alighting locations and the origin and destination locations as well as add and remove routes from the transit path so that the final transit path was a feasible representation of the survey data.

Records were marked as bad when the transit path was determined to be infeasible or, more likely, incomplete based on the survey data.

Finally, each geocoded boarding and alighting location was associated with an actual station/stop on systems. For example, if the respondent took a bus, the boarding location was matched to the closest bus stop on the route and direction used to the provided boarding location. This station/stop assignment played an important role in the weighting/expansion process.

DEFINITION OF VALID SURVEYS

A total of 9,466 surveys were completed and returned. However, all completed surveys did not contain the detailed survey data required for this study. Therefore, a definition of what would be considered a valid survey was identified as follows:

- Valid and geocoded origin, boarding location, and destination.
- Reviewer evaluated record for logic (as described in the Transit Path Cleaning section above) AND the origin, destination, and boarding location had a ZIP Code-level match or better.
- The boarding/alighting stations must be two different stations.

A total of 6,654 records were deemed to be valid for use in analysis and were weighted.

Table 3: Final Sample Sizes – Weighted and Unweighted

| | | AM Peak | PM Peak | Midday Off-Peak | Evening Off-Peak | Total |
|-----------------------|--------------------|---|---------|-----------------|------------------|--------|
| All Day Routes | Valid Unweighted n | 1,479 | 1,615 | 1,803 | 626 | 5,523 |
| | Unlinked Weight n | 9,548 | 13,772 | 16,035 | 4,311 | 43,666 |
| | Linked Weight n | 9,156 | 13,408 | 15,616 | 4,182 | 42,362 |
| Peak Routes | Valid Unweighted n | 0 | 1,131 | 0 | 0 | 1,131 |
| | Unlinked Weight n | 0 | 5,297 | 0 | 0 | 5,297 |
| | Linked Weight n | 0 | 4,908 | 0 | 0 | 4,908 |
| | | <i>*Weighted values vary up to 0.01 percent from table to table due to slightly different rounding methods.</i> | | | | |

WEIGHTING

Data were weighted and expanded to ridership data using an iterative proportional fit (IPF) process with the On-to-Off data used as the seed matrix, on routes where the On-to-Off survey was conducted. Survey data were weighted and expanded to match ridership data along the following dimensions:

- Time of day (AM peak, Midday Off-peak PM peak and Evening Off-peak)
- Route
- Direction
- Boarding segment (grouping of adjacent stops)
- Alighting segment (grouping of adjacent stops)

IPF was used to estimate boarding and alighting pair totals from the boarding counts and alighting counts in the provided automatic passenger count (APC) data. The IPF technique assigns a weight to each cell in a joint distribution so that the sum of each dimension matches the targeted marginal totals. First, the on-to-off flow data are used as a “seed” to estimate a boarding and alighting matrix in conjunction with stop-level APC data. Then this matrix is adjusted so that first the total number of boardings is equal to the corresponding number of APC boardings and then so the total number of alightings is equal to the corresponding number of APC alightings. This adjustment is repeated, iteratively, until the matrix converges. This results in a board and alight matrix that has boarding and alighting totals that equal the APC data counts and boarding and alighting pair totals that are as close as possible to the data collected in the on-to-off survey.

Data were weighted directly to ridership counts, meaning that data were weighted and expanded in the same step.

SEGMENTATION

Because there were so many potential boarding and alighting stop combinations, some aggregation of stops into “stop segments” was necessary to ensure sample sizes were adequate in each cell for the weighting process. To that end, routes were segmented by groups of stops in order to accurately reflect ridership and reduce any potential survey response biases. Segments were assigned based on a combination of geography and the surveys that were collected from each route so that there were some boardings and alightings in each segment at each time period. Therefore, higher ridership routes were divided into more segments and lower ridership routes were only able to be divided into two segments.

ROUTES WITHOUT ON-TO-OFF

An O2O survey was not conducted on single direction peak only routes (510, 511, 513, 532, 535, 555, 556, 560, 567, 577, 580, 586, 592, 595, and 596) because these routes operate in such a way where they would be expanded with only two segments. In addition, On-to-off was not

conducted on selected two-way routes (540, 541, 542, 566, 574, 578, 590, and 594) because these routes have a low enough ridership (under 3,000 average weekday riders) where only two segments were possible. With only two segments, the seed used for the IPF process is irrelevant making collecting on-to-off data redundant. In these cases, the IPF procedure described above was still used, but the OD survey itself was used as the seed matrix.

EXPRESS BUS SINGLE DIRECTION ROUTES

Several Express Bus Routes were only sampled in one direction in the PM Peak period. This was done because it was assumed that sampling in both directions would largely result in targeting the same riders on their inbound and outbound trips. Data from routes sampled in one direction (as indicated by the sample_type variable) have been weighted to the ridership totals for their period and direction (PM Peak and Outbound). Because of this the sum of the weighted totals for these routes does not equal the total ridership on that route, but rather the ridership for the period in which the route was sampled

FINAL WEIGHTS AND EXPANSION

Following the IPF procedure described above, the expanded weights were attached to each useable record in the dataset. Table 11 shows a summary of the number of useable surveys, average weekday ridership on the surveyed portion of the route and average weight for each service.

Table 4: Express Bus All Day Routes Average Weights

| Route | Number of usable surveys collected | Average Weekday Ridership | Average expanded weight |
|-----------------------------|------------------------------------|---------------------------|-------------------------|
| CT - 512 | 346 | 3,346 | 9.67 |
| KCM - 522 | 610 | 4,879 | 8 |
| CT - 535 | 198 | 1,808 | 9.13 |
| KCM - 540 | 126 | 409 | 3.25 |
| KCM - 541 | 159 | 892 | 5.61 |
| KCM - 542 | 295 | 2,448 | 8.3 |
| KCM - 545 | 1011 | 8,500 | 8.41 |
| KCM - 550 | 1036 | 6,969 | 6.73 |
| KCM - 554 | 494 | 3,325 | 6.73 |
| PT - 560 | 185 | 1,763 | 9.53 |
| PT - 566 | 117 | 1,274 | 10.9 |
| PT - 574 | 183 | 1,888 | 10.31 |
| PT - 578 | 167 | 1,924 | 11.52 |
| PT - 590 | 309 | 2,247 | 7.27 |
| PT - 594 | 287 | 1,994 | 6.95 |
| Total All Day Routes | 5523 | 43,666 | 7.91 |

Table 5: Express Bus Peak Routes Average Weights

| Route | Number of usable surveys collected | Average Weekday Ridership | Average expanded weight |
|--------------------------|------------------------------------|---------------------------|-------------------------|
| CT - 510 | 186 | 686 | 3.69 |
| CT - 511 | 111 | 829 | 7.47 |
| CT - 513 | 114 | 264 | 2.32 |
| CT - 532 | 86 | 773 | 8.99 |
| KCM - 555 | 99 | 163 | 1.64 |
| KCM - 556 | 78 | 385 | 4.93 |
| PT - 567 | 47 | 246 | 5.22 |
| PT - 577 | 163 | 722 | 4.43 |
| PT - 580 | 29 | 338 | 11.64 |
| PT - 586 | 78 | 194 | 2.49 |
| PT - 592 | 53 | 305 | 5.75 |
| PT - 595 | 30 | 112 | 3.74 |
| PT - 596 | 57 | 282 | 4.95 |
| Total Peak Routes | 1,131 | 5,297 | 4.68 |

LINKED TRIP WEIGHT

A linked trip weight was calculated for all Sound Transit routes surveyed in Spring of 2019. This includes Tacoma Link, Sounder and Express Bus routes and accounts for transfers being made among this collection of routes. This weight is based on the number of transfers made using one of the sampled Sounder routes, Express Bus routes and Tacoma Link. A respondent making no transfers to another sampled route would receive a linked trip weight of 1, while a respondent who transferred to one other sampled route would have a weight of 0.5, and so on. This weight was then multiplied by the final unlinked trip weight to obtain a final linked trip weight. When reporting and interpreting data using this weight, one is reporting linked trips among the sampled routes instead of individual boardings.

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

Data and responses from Peak Period Sampled routes are presented separately from All Day Express Bus routes. Since this report analyses the All Day and Peak Period Sampled routes separately and not a system wide analysis, all tables and figures reported in this document use data with the unlinked weight applied that represents activity on the route level, unless otherwise noted.

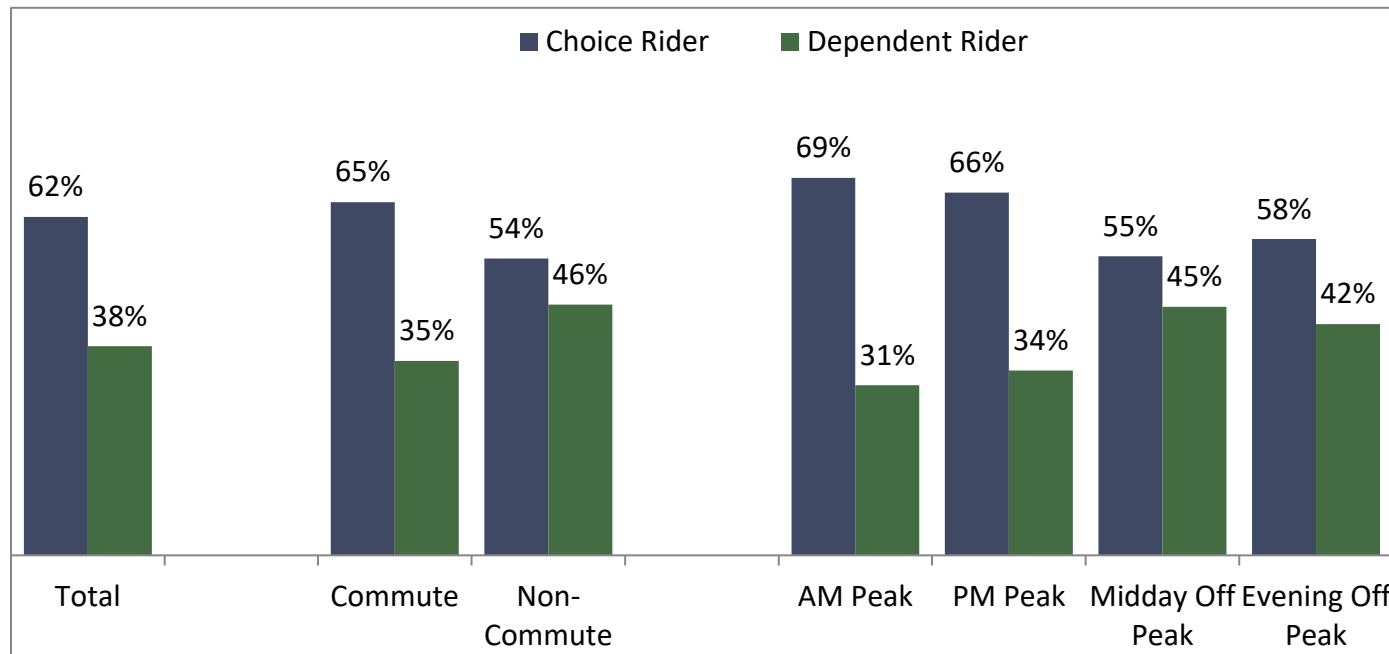
DEMOGRAPHIC FINDINGS – ALL DAY ROUTES ONLY

For analysis purposes, demographic and ridership data is presented separately for riders of All Day Express Bus routes and Peak Period Sampled routes.

Table 6: All Day Rider Demographics by Trip Purpose and Line

| | <i>Trip Purpose</i> | | | <i>Time Period</i> | | | |
|---|---------------------|---------------|--------------|--------------------|--------------|-----------------|------------------|
| | Total | Commute | Non-Commute | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
| Annual Household Income | N=23,505 | 17,346 | 6,158 | 5,255 | 7,424 | 8,530 | 2,296 |
| Less than \$50,000 | 30% | 24% | 46% | 18% | 24% | 41% | 32% |
| \$50,000 to \$74,999 | 14% | 13% | 15% | 14% | 15% | 12% | 12% |
| \$75,000 to \$99,999 | 11% | 12% | 8% | 12% | 11% | 9% | 11% |
| \$100,000 or more | 46% | 51% | 31% | 56% | 50% | 37% | 45% |
| Driver's License | N=30,044 | 22,230 | 7,814 | 6,662 | 9,695 | 10,785 | 2,901 |
| % with Current Driver's License | 82% | 84% | 76% | 86% | 85% | 77% | 80% |
| Vehicles in Household | N=29,824 | 22,152 | 7,672 | 6,653 | 9,756 | 10,480 | 2,935 |
| % with Vehicle in Household | 81% | 82% | 78% | 85% | 85% | 76% | 77% |
| Choice Riders | N=28,258 | 21,052 | 7,205 | 6,349 | 9,247 | 9,945 | 2,717 |
| Has Driver's License & Vehicle Access | 71% | 73% | 64% | 77% | 75% | 64% | 68% |
| Has Driver's License, No Vehicle Access | 12% | 11% | 13% | 10% | 10% | 14% | 13% |
| No Driver's License, Has Vehicle Access | 10% | 10% | 13% | 8% | 10% | 12% | 10% |
| No Driver's License & No Vehicle Access | 7% | 6% | 10% | 5% | 5% | 10% | 9% |

Figure 1: All Day Choice Rider Status by Trip Purpose and Time Period



As shown in the figure above, about three-fifths of All Day Express Bus riders are choice riders, that is, they have access to both a vehicle and they have a driver's license (62%). Thus, they are making the choice to commute via public transit, rather than driving to their destination using their car.

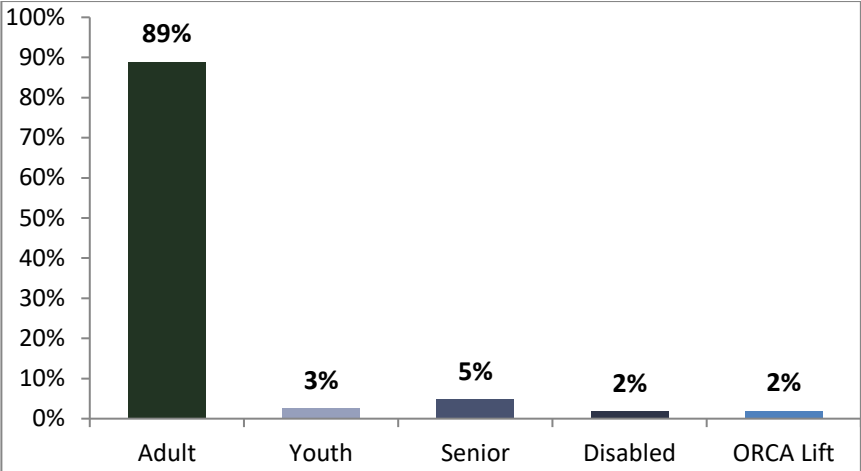
- Commuters, who make up the vast majority of Express Bus ridership, are more likely than non-commuters to be choice riders.
- Just under half of non-commuters are dependent on public transit (46%), compared to only one-third (35%) of commuters.
- The proportion of riders who are choice riders also varies by time of day, as AM peak and PM peak riders are less likely to be dependent on public transit (31% and 34% are dependent, respectively).
- Off Peak riders are the most likely to be dependent on public transit with more than four in ten Off Peak riders being dependent (45% Midday Off Peak, 42% Evening Off Peak).

Table 7: All Day Fare Category

| | <i>Trip Purpose</i> | | | <i>Choice Rider Status</i> | |
|---|---------------------|----------|-------------|----------------------------|-----------|
| | Total | Commute | Non-Commute | Choice Rider | Dependent |
| Adult (Age 19-64) | 89% | 93% | 77% | 92% | 83% |
| Youth (Age 6-18)* | 3% | 2% | 4% | 1% | 5% |
| Senior (Over 65) | 5% | 3% | 11% | 5% | 5% |
| Disabled | 2% | 1% | 4% | 1% | 4% |
| ORCA Lift | 2% | 1% | 4% | 1% | 4% |
| Total | 100% | 100% | 100% | 100% | 100% |
| | (28,739) | (21,202) | (7,537) | (18,250) | (10,489) |
| <i>*The Youth category only includes surveyed children aged 14 or older</i> | | | | | |

Table 7 shows that almost nine in ten riders are adults aged 19-64 (89%). As expected, those riders who are not commuting to or from work or school are more likely to be seniors (11%) or disabled (4%) than commuters. Figure 2 illustrates the prevalence of adults aged 19-64 in the Express Bus All Day ridership.

Figure 2: Fare Category



FARE PAYMENT – All Day Routes

Respondents were asked to indicate how they paid their fare for each segment of their one-way trip. Multiple responses per trip segment were allowed.

All Day Express Bus riders overwhelmingly use a pass (ORCA, e-purse, and/or U-PASS). A majority (71%) of riders reported using an ORCA or U-Pass on one of the transit vehicles they rode during their one-way trip. Riders during AM Peak and PM Peak use passes and tickets in very similar proportions, while Midday Off Peak riders are less likely to use a pass.

Table 8: All Day Fare Payment by Time Period

| | All Trips | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
|---------------|------------------|-----------------|-----------------|------------------|------------------|
| ORCA/U-Pass | 71% | 78% | 74% | 64% | 75% |
| ORCA Day | 17% | 15% | 17% | 19% | 14% |
| ORCA, E-Purse | 5% | 4% | 4% | 8% | 5% |
| Cash | 0% | 0% | 0% | 0% | 0% |
| Other | 6% | 3% | 5% | 8% | 6% |
| Total | 100% (30,429) | 100% (6,681) | 100% (9,995) | 100% (10,720) | 100% (3,043) |

Table 9 shows that commuters are more likely to use a pass than non-commuters. Over three-quarters (76%) of commuters use a pass compared to 59 percent of non-commuters.

Table 9: All Day Fare Payment by Trip Purpose

| | Commute | Non-Commute |
|---------------|------------------|-----------------|
| ORCA/U-Pass | 76% | 59% |
| ORCA Day Pass | 16% | 20% |
| ORCA, E-Purse | 5% | 6% |
| Cash | 0% | 1% |
| Other | 3% | 14% |
| Total | 100% (22,652) | 100% (7,787) |

Lower-income riders making less than \$50,000 annually are less likely to use a pass on at least one of their transit trip legs, compared to individuals with moderate and higher incomes. Still, a majority of riders in this lowest income group use a pass (55%).

Table 10: All Day Fare Payment by Household Income

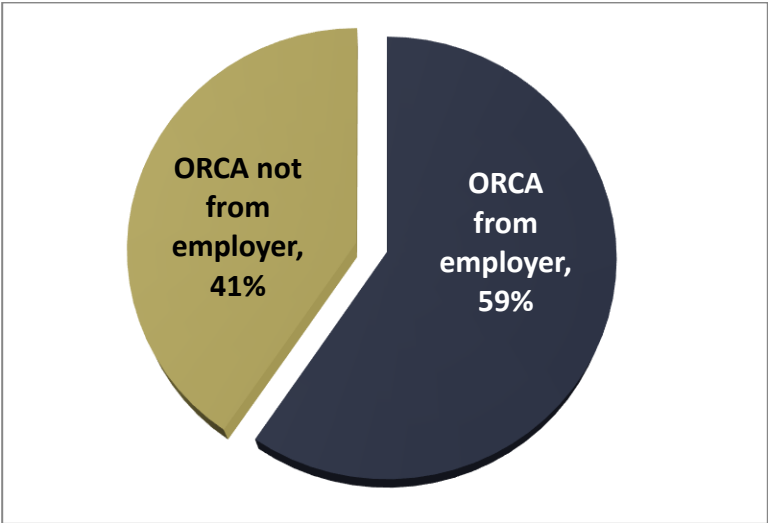
| | Less Than \$50,000 | \$50,000 To \$74,999 | \$75,000 To \$99,999 | \$100,000 Or More |
|---------------|--------------------|----------------------|----------------------|-------------------|
| ORCA/U-Pass | 55% | 75% | 74% | 79% |
| ORCA Day Pass | 24% | 17% | 19% | 15% |
| ORCA, E-Purse | 9% | 2% | 4% | 3% |
| Cash | 0% | 0% | 0% | 0% |
| Other | 12% | 5% | 4% | 2% |
| Total | 100% (6,487) | 100% (3,045) | 100% (2,307) | 100% (10,357) |

Table 11: All Day ORCA Pass Provided by Employer

| | All Trips | Commute | Non-Commute |
|-------|-----------|----------|-------------|
| Yes | 59% | 65% | 43% |
| No | 41% | 35% | 57% |
| Total | 100% | 100% | 100% |
| | (27,655) | (21,206) | (6,449) |

Respondents using passes were asked about the procurement of their ORCA pass. Table 11 shows that, among those that use an ORCA pass, over half receive the pass from their employer (59%). Commuters are more likely to receive an ORCA card from their employer than non-commuters, 65 percent and 43 percent, respectively.

Figure 3: All Day ORCA Pass Provided by Employer



LOCATION ORIGIN AND DESTINATIONS – All Day Routes

Data for the Express Bus All Day routes was collected from riders travelling in both directions during each defined time period, so we are able to analyze the data by direction and by time period. Since we are not observing system-wide patterns, the unlinked weight is used throughout this report. Table 12 below shows the trip purpose by time of day. Although commute trips make up almost three quarters of trips overall (74%), the peak period trips are even more dominated by commuters. Almost nine in ten trips in the AM Peak period (88%) and three quarters in the PM Peak period (75%) are made by commuters.

Table 12: All Day Trip Purpose by Period

| | | All Trips | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
|--------------------|---|-----------|---------|---------|-----------------|------------------|
| Commute | % | 74% | 88% | 75% | 63% | 74% |
| | N | 23,823 | 6,258 | 7,831 | 7,389 | 2,345 |
| Non-commute | % | 26% | 12% | 25% | 37% | 26% |
| | N | 8,507 | 835 | 2,584 | 4,254 | 834 |
| TOTAL | N | 32,330 | 7,093 | 10,415 | 11,643 | 3,179 |

Table 13 below reveals the difference in directional distribution by time of day. More than half of trips during the AM Peak period are headed inbound toward Seattle (62%). The opposite is true during the PM Peak period, when six out of ten trips are headed outbound from Seattle (62%). Off-peak trips are split more evenly between inbound and outbound travel.

Table 13: All Day Direction by Period

| | | All Trips | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
|-----------------|---|-----------|---------|---------|-----------------|------------------|
| Inbound | % | 50% | 62% | 38% | 54% | 45% |
| | N | 16,062 | 4,392 | 3,927 | 6,298 | 1,445 |
| Outbound | % | 50% | 38% | 62% | 46% | 55% |
| | N | 16,268 | 2,701 | 6,488 | 5,345 | 1,734 |
| TOTAL | N | 32,330 | 7,093 | 10,415 | 11,643 | 3,179 |

ORIGIN – ALL DAY ROUTES

Riders were asked about their origins and whether they fell into the categories below or whether they started from another type of location. The overwhelming majority of AM Peak trips on All Day routes begin at home (91%). By contrast, the vast majority of PM Peak trips on All Day routes begin at work (79%), with an additional eleven percent of PM Peak trips originating at home.

Table 14: All Day Origin by Time Period

| Started trip at: | | All Trips | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
|------------------|---|-----------|---------|---------|-----------------|------------------|
| Home | % | 47% | 91% | 11% | 62% | 12% |
| | N | 15,018 | 6,442 | 1,094 | 7,117 | 365 |
| Work | % | 40% | 5% | 79% | 19% | 71% |
| | N | 12,869 | 349 | 8,129 | 2,161 | 2,230 |
| Airport | % | 1% | 0% | 1% | 3% | 2% |
| | N | 456 | 16 | 97 | 289 | 54 |
| School | % | 5% | 1% | 4% | 7% | 6% |
| | N | 1,494 | 69 | 439 | 811 | 175 |
| Shopping | % | 1% | 0% | 1% | 2% | 2% |
| | N | 405 | 8 | 108 | 211 | 78 |
| Other | % | 6% | 2% | 4% | 8% | 8% |
| | N | 1,769 | 158 | 430 | 938 | 243 |
| TOTAL | % | 100% | 100% | 100% | 100% | 100% |
| | N | 32,011 | 7,042 | 10,297 | 11,527 | 3,145 |

Table 15 below shows that origin locations do not differ much based on trip direction. Close to half of both inbound and outbound trips on Express Bus All Day routes begin at a rider's home (54% and 40%, respectively). This indicates that regardless of trip direction, riders traveling in to the city and out of the city tend to follow similar travel patterns.

Table 15: All Day Origin by Direction

| Started trip at: | | All Trips | Inbound | Outbound |
|------------------|---|-----------|---------|----------|
| Home | % | 47% | 54% | 40% |
| | N | 15,018 | 8,538 | 6,480 |
| Work | % | 40% | 34% | 47% |
| | N | 12,869 | 5,338 | 7,531 |
| Airport | % | 1% | 2% | 1% |
| | N | 457 | 310 | 147 |
| School | % | 5% | 5% | 4% |
| | N | 1,494 | 811 | 683 |
| Shopping | % | 1% | 1% | 2% |
| | N | 406 | 144 | 262 |
| Other | % | 6% | 5% | 6% |
| | N | 1,769 | 784 | 985 |
| TOTAL | % | 100% | 100% | 100% |
| | N | 32,013 | 15,925 | 16,088 |

DESTINATION – All Day Routes

Riders were asked about their destinations and whether they fell into the same location categories reported for their origins. Reflecting the commuting pattern noted above, we found that over eight in ten trips in the AM Peak period terminate at work (85%). By contrast, more than three-quarters of riders during the PM Peak are headed home (77%).

Table 16: All Day Destination by Time Period

| Started trip at: | | All Trips | AM Peak | PM Peak | Midday Off Peak | Evening Off Peak |
|------------------|---|-----------|---------|---------|-----------------|------------------|
| Home | % | 43% | 5% | 77% | 25% | 81% |
| | N | 13,645 | 321 | 7,981 | 2,804 | 2,539 |
| Work | % | 38% | 85% | 6% | 47% | 6% |
| | N | 12,157 | 5,986 | 592 | 5,397 | 182 |
| Airport | % | 1% | 1% | 1% | 2% | 2% |
| | N | 426 | 69 | 68 | 227 | 62 |
| School | % | 4% | 4% | 2% | 9% | 0% |
| | N | 1,433 | 273 | 179 | 975 | 6 |
| Shopping | % | 2% | 0% | 3% | 3% | 2% |
| | N | 710 | 14 | 263 | 369 | 64 |
| Other | % | 11% | 5% | 13% | 14% | 10% |
| | N | 3,599 | 356 | 1,312 | 1,631 | 300 |
| TOTAL | % | 100% | 100% | 100% | 100% | 100% |
| | N | 31,970 | 7,019 | 10,395 | 11,403 | 3,153 |

Travel patterns for inbound and outbound trips are less varied. A third (34%) of outbound riders are headed to work compared to 42 percent of inbound riders. Almost half (49%) of outbound riders are traveling home while 36 percent of inbound riders are doing the same. Other locations are the next most popular for both inbound and outbound riders (14% and 9%, respectively).

Table 17: All Day Destination by Direction

| Ended trip at: | | All Trips | Inbound | Outbound |
|-----------------|---|-----------|---------|----------|
| Home | % | 43% | 36% | 49% |
| | N | 13,645 | 5,694 | 7,951 |
| Work | % | 38% | 42% | 34% |
| | N | 12,157 | 6,693 | 5,464 |
| Airport | % | 1% | 1% | 1% |
| | N | 426 | 199 | 227 |
| School | % | 4% | 5% | 4% |
| | N | 1,433 | 716 | 717 |
| Shopping | % | 2% | 2% | 2% |
| | N | 711 | 396 | 315 |
| Other | % | 11% | 14% | 9% |
| | N | 3,600 | 2,193 | 1,407 |
| TOTAL | % | 100% | 100% | 100% |
| | N | 31,972 | 15,891 | 16,081 |

COMBINED ORIGINS AND DESTINATIONS – All Day Routes

The tables below show both origin and destination in one table, so that each cell represents the proportion of trips in a given origin type that end at a given destination type. These origin-destination pairs demonstrate that passengers are predominantly using Express Bus All Day routes to commute to and from work and school. A large majority of trips that originate at a passenger's home end at work (75%) or school (7%). Conversely, over eight in ten trips that begin at work end at home (83%). Significant minorities of passengers that start at school are not headed directly home, but instead travel on Express Bus to either to work (10%), another school location (12%), or some other location altogether (9%).

Table 18: All Day Combined Origins and Destinations

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|--------|--------|---------|--------|----------|-------|-----------------|
| | | Home | Work | Airport | School | Shopping | Other | |
| Home | % | 2% | 75% | 2% | 7% | 3% | 11% | 47% |
| | # | 339 | 11,067 | 312 | 1,056 | 407 | 1,659 | 14,840 |
| Work | % | 83% | 3% | 0% | 1% | 2% | 10% | 40% |
| | # | 10,684 | 424 | 48 | 127 | 203 | 1,311 | 12,797 |
| Airport | % | 64% | 5% | 8% | 0% | 0% | 23% | 1% |
| | # | 281 | 22 | 36 | 0 | 0 | 103 | 442 |
| School | % | 69% | 10% | 0% | 12% | 1% | 9% | 5% |
| | # | 1,016 | 148 | 0 | 173 | 14 | 127 | 1,478 |
| Shopping | % | 73% | 7% | 0% | 4% | 10% | 6% | 1% |
| | # | 296 | 27 | 0 | 17 | 41 | 24 | 405 |
| Other | % | 51% | 24% | 1% | 2% | 3% | 20% | 5% |
| | # | 874 | 411 | 24 | 29 | 46 | 342 | 1,726 |
| Total | % | 43% | 38% | 1% | 4% | 2% | 11% | 100% |
| | # | 13,490 | 12,099 | 420 | 1402 | 711 | 3,566 | 31,688 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

COMBINED ORIGINS AND DESTINATIONS – All Day AM Peak

The table below includes origin-destination data for trips on All Day routes occurring only in the morning peak period. Most people riding Express Bus in the morning are not travelling home. Instead, almost everyone riding Express Bus in the morning is headed to their workplace (85%). Although the typical morning rider travels from home to work or school, small minorities start at a workplace and head to another work-related destination or home. Virtually no one is using Express Bus to go shopping in the morning.

Table 19: All Day Combined Origins and Destinations – AM Peak

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|------|-------|---------|--------|----------|-------|-----------------|
| | | Home | Work | Airport | School | Shopping | Other | |
| Home | % | 0% | 90% | 1% | 3% | 0% | 5% | 92% |
| | # | 28 | 5,776 | 54 | 217 | 14 | 305 | 6,394 |
| Work | % | 71% | 18% | 0% | 5% | 0% | 6% | 5% |
| | # | 241 | 60 | 0 | 17 | 0 | 21 | 339 |
| Airport | % | 50% | 0% | 50% | 0% | 0% | 0% | 0% |
| | # | 8 | 0 | 8 | 0 | 0 | 0 | 16 |
| School | % | 36% | 4% | 0% | 30% | 0% | 29% | 1% |
| | # | 25 | 3 | 0 | 21 | 0 | 20 | 69 |
| Shopping | % | 0% | 100% | 0% | 0% | 0% | 0% | 0% |
| | # | 0 | 8 | 0 | 0 | 0 | 0 | 8 |
| Other | % | 6% | 75% | 4% | 8% | 0% | 7% | 2% |
| | # | 9 | 118 | 6 | 13 | 0 | 11 | 157 |
| Total | % | 4% | 85% | 1% | 4% | 0% | 5% | 100% |
| | # | 311 | 5,965 | 68 | 268 | 14 | 357 | 6,983 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

COMBINED ORIGINS AND DESTINATIONS – All Day PM Peak

Just as AM Peak riders on Express Bus are typically commuting to work, it is evident that the average PM Peak rider is commuting home. The vast majority of riders that depart from work and school are headed home, 86 percent and 81 percent, respectively. Very few people use Express Bus to go to the airport, go to school, or shop in the PM Peak period. Those that depart from home in the evening period are still more likely to be heading to a work location than anywhere else, since 37 percent of these trips end at work.

Table 20: All Day Combined Origins and Destinations – PM Peak

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|-------|------|---------|--------|----------|-------|-----------------|
| | | Home | Work | Airport | School | Shopping | Other | |
| Home | % | 9% | 37% | 4% | 7% | 11% | 32% | 11% |
| | # | 94 | 399 | 46 | 80 | 115 | 353 | 1,087 |
| Work | % | 86% | 1% | 0% | 1% | 2% | 10% | 79% |
| | # | 6,995 | 102 | 0 | 71 | 137 | 816 | 8,121 |
| Airport | % | 68% | 0% | 15% | 0% | 0% | 16% | 1% |
| | # | 67 | 0 | 15 | 0 | 0 | 16 | 98 |
| School | % | 81% | 9% | 0% | 1% | 2% | 8% | 4% |
| | # | 357 | 38 | 0 | 3 | 7 | 35 | 440 |
| Shopping | % | 75% | 8% | 0% | 6% | 4% | 6% | 1% |
| | # | 81 | 9 | 0 | 7 | 4 | 7 | 108 |
| Other | % | 71% | 8% | 0% | 2% | 0% | 19% | 4% |
| | # | 306 | 33 | 0 | 10 | 0 | 81 | 430 |
| Total | % | 77% | 6% | 1% | 2% | 3% | 13% | 100% |
| | # | 7,900 | 581 | 61 | 171 | 263 | 1,308 | 10,284 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

COMBINED ORIGINS AND DESTINATIONS – All Day Off Peak

Ridership during the Off-Peak period is distributed more diffusely across origin and destination types than ridership during peak periods, though ridership is still dominated by commuters headed to and from work, home, and school. About two thirds of Off-Peak riders departing from home are headed to work (66%) and another 10 percent are headed to school. Eight in ten riders who depart from the workplace are headed home (80%) compared to 65 percent of riders that head home when they originate at a school location.

Table 21: All Day Combined Origins and Destinations – Off Peak

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|-------|--------|---------|--------|----------|-------|-----------------|
| | | Home | Work | Airport | School | Shopping | Other | |
| Home | % | 3% | 66% | 3% | 10% | 4% | 14% | 51% |
| | # | 216 | 4,,893 | 212 | 760 | 279 | 1,001 | 7,361 |
| Work | % | 80% | 6% | 1% | 1% | 2% | 11% | 30% |
| | # | 3,448 | 262 | 48 | 38 | 66 | 474 | 4,336 |
| Airport | % | 63% | 7% | 4% | 0% | 0% | 27% | 2% |
| | # | 206 | 22 | 12 | 0 | 0 | 87 | 327 |
| School | % | 65% | 11% | 0% | 15% | 1% | 7% | 7% |
| | # | 633 | 108 | 0 | 150 | 7 | 72 | 970 |
| Shopping | % | 75% | 3% | 0% | 3% | 13% | 6% | 2% |
| | # | 215 | 9 | 0 | 10 | 37 | 17 | 288 |
| Other | % | 49% | 23% | 1% | 1% | 4% | 22% | 8% |
| | # | 559 | 260 | 17 | 6 | 46 | 249 | 1,137 |
| Total | % | 37% | 39% | 2% | 7% | 3% | 13% | 100% |
| | # | 5,277 | 5,554 | 289 | 964 | 435 | 1,900 | 14,419 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

COMBINED ORIGINS AND DESTINATIONS – All Day Inbound

A majority (54%) of inbound traffic is riders commuting from home. Of these commuters, almost three in four are headed to work (73%) and another six percent are headed to school. Another significant portion of inbound traffic starts at work; most of these commuters are headed home (82%).

Table 22: All Day Combined Origins and Destinations – Inbound

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|-------|-------|---------|--------|----------|-------|--------------|
| | | Home | Work | Airport | School | Shopping | Other | |
| Home | % | 2% | 73% | 1% | 6% | 3% | 14% | 54% |
| | # | 164 | 6,198 | 125 | 538 | 228 | 1,230 | 8,483 |
| Work | % | 82% | 3% | 1% | 1% | 2% | 11% | 34% |
| | # | 4,316 | 178 | 41 | 73 | 102 | 579 | 5,289 |
| Airport | % | 72% | 0% | 10% | 0% | 0% | 19% | 2% |
| | # | 211 | 0 | 29 | 0 | 0 | 55 | 295 |
| School | % | 68% | 13% | 0% | 10% | 0% | 9% | 5% |
| | # | 548 | 104 | 0 | 78 | 3 | 69 | 802 |
| Shopping | % | 46% | 17% | 0% | 0% | 20% | 17% | 1% |
| | # | 66 | 25 | 0 | 0 | 28 | 24 | 143 |
| Other | % | 43% | 23% | 0% | 3% | 5% | 27% | 5% |
| | # | 324 | 172 | 3 | 19 | 35 | 202 | 755 |
| Total | % | 36% | 42% | 1% | 4% | 3% | 14% | 100% |
| | # | 5,629 | 6,677 | 198 | 708 | 396 | 2,159 | 15,767 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

COMBINED ORIGINS AND DESTINATIONS – All Day Outbound

The largest portion of riders heading in the outbound direction begin their trip at work (47%). Among these commuters coming from work, over eight in ten travel home (85%). The second largest group of outbound riders by origin includes riders who begin at home. Nearly eight in ten outbound riders who start at home are headed to work (77%).

Table 23: All Day Combined Origins and Destinations – Outbound

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|-------|---------|--------|----------|-------|-------|--------------|
| | Home | Work | Airport | School | Shopping | Other | | |
| Home | % | 3% | 77% | 3% | 8% | 3% | 7% | 40% |
| | # | 175 | 4,870 | 186 | 518 | 179 | 428 | 6,356 |
| Work | % | 85% | 3% | 0% | 1% | 1% | 10% | 47% |
| | # | 6,367 | 246 | 6 | 54 | 101 | 732 | 7,506 |
| Airport | % | 48% | 15% | 5% | 0% | 0% | 33% | 1% |
| | # | 70 | 22 | 7 | 0 | 0 | 48 | 147 |
| School | % | 69% | 7% | 0% | 14% | 2% | 9% | 4% |
| | # | 468 | 45 | 0 | 96 | 11 | 58 | 678 |
| Shopping | % | 88% | 1% | 0% | 6% | 5% | 0% | 2% |
| | # | 230 | 2 | 0 | 17 | 13 | 0 | 262 |
| Other | % | 57% | 25% | 2% | 1% | 1% | 14% | 6% |
| | # | 551 | 239 | 21 | 10 | 11 | 140 | 972 |
| Total | % | 49% | 34% | 1% | 4% | 2% | 9% | 100% |
| | # | 7,861 | 5,424 | 220 | 695 | 315 | 1,406 | 15,921 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

ACCESS AND EGRESS MODES – All Day Routes Only

Table 24: All Day Access Mode

| Access Mode | Started Trip at: | | | | | | |
|-----------------------------|------------------|----------|----------|---------|---------|-------|---------|
| | Total | Home | Work | Airport | School | Shop | Other |
| Walked | 77% | 65% | 91% | 77% | 80% | 85% | 74% |
| Drove alone | 11% | 20% | 3% | 4% | 3% | 0% | 9% |
| Dropped off (friend/family) | 6% | 9% | 2% | 9% | 7% | 8% | 8% |
| Dropped off (Uber/Taxi) | 1% | 1% | 1% | 4% | 2% | 2% | 1% |
| Carpool | 1% | 1% | 1% | 0% | 0% | 0% | 0% |
| Bicycle | 1% | 1% | 1% | 0% | 1% | 0% | 1% |
| Other | 2% | 1% | 2% | 7% | 6% | 6% | 6% |
| | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Total | (31,740) | (14,907) | (12,749) | (457) | (1,494) | (407) | (1,726) |

A three-quarters majority of Express Bus riders walk from their point of origin to their first transit vehicle (77%). Those who start their trip at home are less likely than those departing from other origin types to walk to their point of origin. Only about two-thirds (65%) walk from home to their first transit vehicle, compared to just over nine in ten riders that start their journey from work (91%) and eight in ten riders that start at school (80%). Riders coming from home are by far the most likely to drive alone to their first transit vehicle (20%).

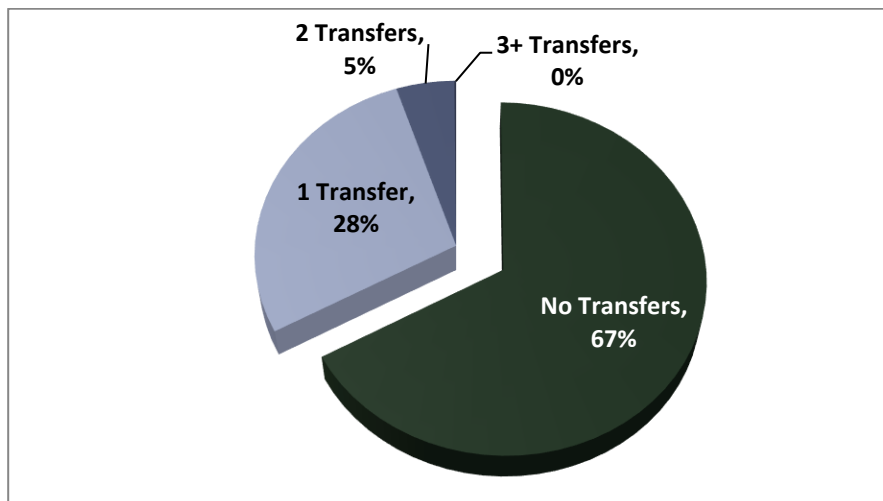
Table 25: All Day Egress Mode

| Egress Mode | Ended Trip at: | | | | | | |
|---------------------------|----------------|----------|----------|---------|---------|-------|---------|
| | Total | Home | Work | Airport | School | Shop | Other |
| Walked | 79% | 66% | 95% | 65% | 86% | 87% | 71% |
| Drove alone | 12% | 22% | 1% | 15% | 8% | 1% | 15% |
| Picked up (friend/family) | 4% | 7% | 0% | 5% | 1% | 6% | 4% |
| Picked up (Uber/Taxi) | 0% | 1% | 0% | 1% | 0% | 1% | 1% |
| Carpool | 1% | 1% | 1% | 2% | 2% | 5% | 3% |
| Bicycle | 1% | 1% | 1% | 0% | 1% | 0% | 1% |
| Other | 2% | 2% | 1% | 11% | 3% | 0% | 5% |
| | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Total | (31,558) | (13,490) | (12,035) | (404) | (1,400) | (698) | (3,531) |

About eight in ten Express Bus riders walk from their final transit vehicle to their destination (79%). A much higher proportion of home-bound riders drive alone (22%) compared to those headed to other destinations. Riders that are traveling to work are most likely to walk to their workplace from their final transit vehicle. Over nine in ten work-bound riders walk from their egress point to work (95%).

TRANSFERRING – All Day Routes Only

Figure 4: Percentage of Transferring All Day Express Bus Riders



Respondents were asked to list the number of all buses and trains taken on their sampled one-way trip. Data from these questions was used to determine the number of transfers riders traveling on buses currently make to complete their trip. As shown in the table below, just over one quarter of Express Bus riders transfer once (28%). Only about 5 percent of Express Bus riders transfer more than once.

Table 27: All Day Transfers by Trip Purpose

| | | Time Period/Direction | | | | | |
|---------------------|-------------------------|-----------------------|------------------|-----------------|------------------|------------------|-------------------|
| | | AM Peak Inbound | AM Peak Outbound | PM Peak Inbound | PM Peak Outbound | Off Peak Inbound | Off Peak Outbound |
| 0 Transfers | 67% | 77% | 54% | 61% | 78% | 64% | 63% |
| 1 Transfer | 28% | 19% | 39% | 32% | 20% | 30% | 31% |
| 2 Transfers | 5% | 4% | 7% | 6% | 2% | 6% | 5% |
| 3+ Transfers | 0% | 0% | 0% | 1% | 0% | 0% | 0% |
| Total | 100% (32,330) | 100% (4,392) | 100% (2,701) | 100% (3,927) | 100% (6,488) | 100% (7,743) | 100% (7,079) |

Table 26: All Day Transfers by Trip Purpose

| | Total | Trip Purpose | |
|---------------------|------------------|------------------|-----------------|
| | | Commute | Non-commute |
| No Transfers | 67% | 67% | 68% |
| 1 Transfer | 28% | 28% | 27% |
| 2 Transfers | 5% | 5% | 4% |
| 3+ Transfers | 0% | 0% | 0% |
| Total | 100% (32,331) | 100% (23,824) | 100% (8,507) |

On average, two in three (67%) riders only ride one transit vehicle to get from their origin point to their destination. There is minimal variation between commuters and non-commuters.

Table 27 below shows the distribution of transfers across each time period and direction. Inbound AM Peak riders and outbound PM Peak riders are the least likely to transfer. Riders traveling in the outbound direction during the AM Peak period are the most likely to make at least one transfer (46%), followed by PM Peak riders traveling in the inbound direction (39%).

DEMOGRAPHIC FINDINGS – Peak Period Sampled Routes

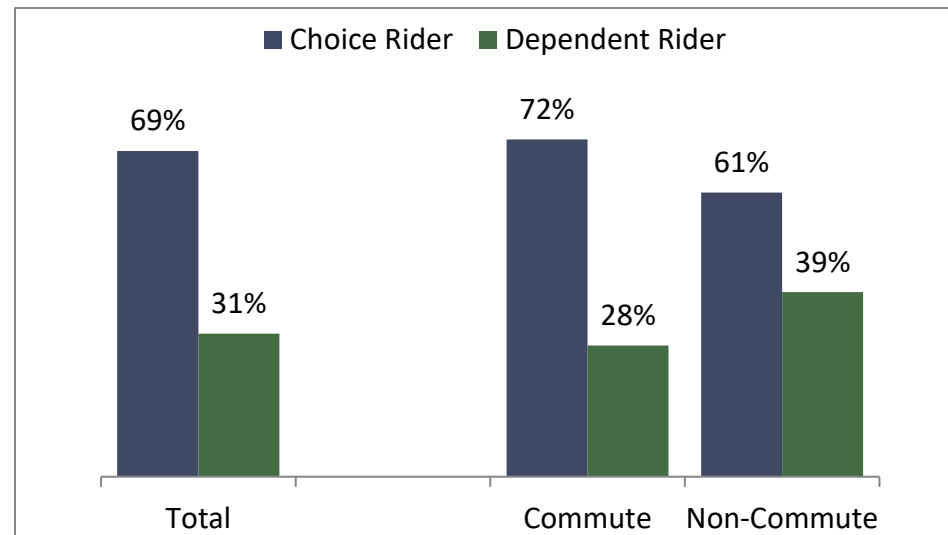
Note that Peak Period Sampled Express Bus Riders who were sampled strictly in the PM Peak time period were surveyed for one-way trips only. We assumed that AM Peak trips would mirror the results of the shown PM Peak trips.

Table 28: Peak Period Sampled Rider Demographics by Trip Purpose

| | <i>Trip Purpose</i> | | |
|---|---------------------|---------------|--------------|
| | Total | Commute | Non-Commute |
| Annual Household Income | N= 12,256 | 9,696 | 2,560 |
| Less than \$50,000 | 28% | 24% | 42% |
| \$50,000 to \$74,999 | 16% | 18% | 12% |
| \$75,000 to \$99,999 | 14% | 15% | 11% |
| \$100,000 or more | 42% | 44% | 35% |
| Driver's License | N=15,168 | 11,974 | 3,194 |
| % with Current Driver's License | 87% | 88% | 83% |
| Vehicles in Household | N=15,297 | 11,937 | 3,360 |
| % with Vehicle in Household | 87% | 90% | 79% |
| Choice Riders | N=14,424 | 11,353 | 3,071 |
| Has Driver's License & Vehicle Access | 80% | 82% | 72% |
| Has Driver's License, No Vehicle Access | 8% | 7% | 11% |
| No Driver's License, Has Vehicle Access | 7% | 7% | 7% |
| No Driver's License & No Vehicle Access | 5% | 3% | 11% |

Non-commuters are slightly less likely to have a valid driver's license, only 83 percent compared to 88 percent of peak period commuters, and less likely to have at least one vehicle in the household (79% compared to 90% of commuters).

Figure 5: Peak Period Sampled - Choice Rider Status by Trip Purpose



As shown in the figure above, about seven in ten Peak Period Express Bus riders are choice riders; that is, they have access to both a vehicle and they have a driver's license (69%). Thus, they are making the choice to commute via public transit, rather than driving to their destination using their car. Commuters, who make up the vast majority of Express Bus peak period ridership, are more likely than non-commuters to be choice riders. Nearly four-in-ten non-commuters are dependent on public transit (39%), compared to only 28% of commuters.

Table 29: Peak Period Sampled Fare Category

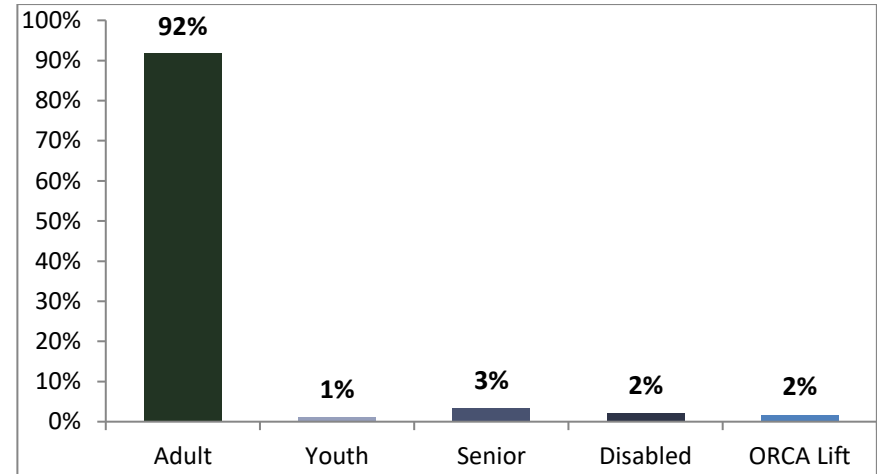
| | <i>Trip Purpose</i> | | | <i>Choice Rider Status</i> | |
|--------------------------|---------------------|------------------|-----------------|----------------------------|-----------------|
| | Total | Commute | Non-Commute | Choice Rider | Dependent |
| Adult (Age 19-64) | 92% | 94% | 82% | 94% | 85% |
| Youth (Age 6-18)* | 1% | 1% | 1% | 1% | 2% |
| Senior (Over 65) | 3% | 2% | 7% | 4% | 3% |
| Disabled | 2% | 1% | 7% | 0% | 6% |
| ORCA Lift | 2% | 2% | 2% | 1% | 3% |
| Total | 100% (14,865) | 100% (11,659) | 100% (3,204) | 100% (10,826) | 100% (4,039) |

**The Youth category only includes surveyed children aged 14 or older*

Table 29 above shows that over nine in ten peak period sampled riders are adults aged 19-64 (92%). As expected, those riders who are not commuting to or from work or school are more likely to be seniors (7%) or disabled (7%) than commuters. Public transit

dependent riders are also much more likely to be disabled (6%) than choice riders. The figure below illustrates the prevalence of adults aged 19-64 on the Peak Period Express Bus routes.

Figure 6: Peak Period Sampled Fare Category



FARE PAYMENT – Peak Period Sampled

Respondents were asked to indicate how they paid their fare for each segment of their one-way trip. Multiple responses per trip segment were allowed.

Express Bus riders who were sampled during the peak period overwhelmingly use a pass (ORCA, e-purse, and/or U-PASS). About two thirds (64%) of riders reported using an ORCA or U-Pass on one of the transit vehicles they rode during their one-way trip.

Table 30 shows that commuters are slightly more likely to use a pass than non-commuters. More non-commuting Express Bus peak period riders used cash to pay for at least one of their rides on public transit than commuters (1%). This is expected since these riders are less regular users of public transit. Nevertheless, nearly all non-commuting Peak Period Express Bus riders use passes.

Table 30: Peak Period Sampled Fare Payment by Trip Purpose

| | All Trips | Commute | Non-Commute |
|---------------|-----------|----------|-------------|
| ORCA/U-Pass | 64% | 65% | 60% |
| ORCA Day Pass | 15% | 14% | 17% |
| ORCA, E-Purse | 17% | 18% | 13% |
| Cash | 0% | 0% | 1% |
| Other | 4% | 2% | 9% |
| Total | 100% | 100% | 100% |
| | (15,813) | (12,383) | (3,430) |

Lower-income riders making less than \$50,000 annually are less likely to use a pass on at least one of their transit trip legs, compared to individuals with moderate and higher incomes. Still, over half (52%) of riders in this lowest income group use an ORCA or U-Pass.

Table 31: Peak Period Sampled Fare Payment by Household Income

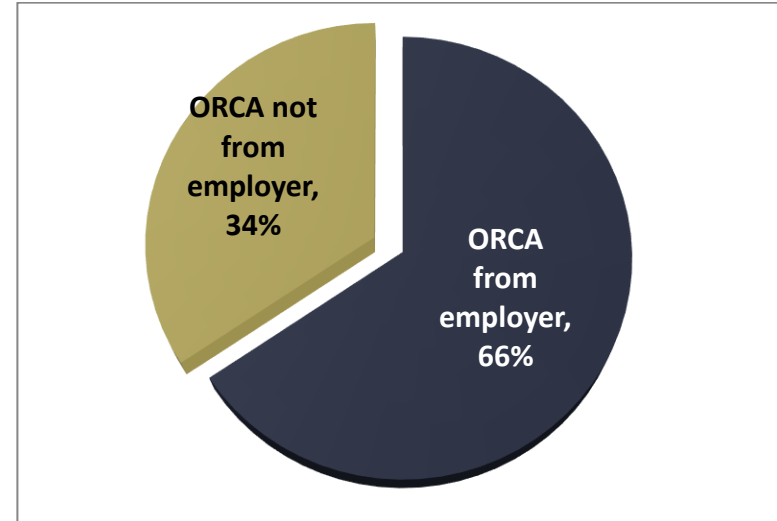
| | Less Than \$50,000 | \$50,000 To \$74,999 | \$75,000 To \$99,999 | \$100,000 Or More |
|---------------|-----------------------|-------------------------|-------------------------|----------------------|
| ORCA/U-Pass | 52% | 63% | 62% | 72% |
| ORCA Day Pass | 21% | 16% | 16% | 12% |
| ORCA, E-Purse | 17% | 18% | 19% | 15% |
| Cash | 1% | 0% | 0% | 0% |
| Other | 9% | 3% | 2% | 1% |
| Total | 100% | 100% | 100% | 100% |
| | (3,126) | (1,920) | (1,620) | (5,048) |

Table 32: Peak Period Sampled ORCA Pass Provided by Employer

| | All Trips | Commute | Non-Commute |
|-------|-----------|----------|-------------|
| Yes | 66% | 68% | 57% |
| No | 34% | 32% | 43% |
| Total | 100% | 100% | 100% |
| | (13,932) | (11,109) | (2,823) |

Respondents using passes were asked about their procurement of that pass. Table 32 shows that, among those that use an ORCA pass, about two thirds receive the pass from their employer (66%). Commuters are much more likely to receive an ORCA card from their employer than a non-commuter, 68 percent and 57 percent, respectively.

Figure 7: Peak Period Sampled ORCA Pass Provider



LOCATION ORIGIN AND DESTINATIONS – PEAK PERIOD SAMPLED

Data for the Express Bus system was only collected from riders travelling in one direction during the PM Peak time period, so we are only able to analyze the data in this time period. The unlinked weight is used throughout this section since this section only looks at a small portion of the overall system. Table 33 shows that nearly all riders on the Express peak period sampled routes are commuters.

Table 33: Peak Period Sampled by Purpose

| All Trips | | |
|--------------------|---|--------|
| Commute | % | 78% |
| | N | 12,981 |
| Non-commute | % | 22% |
| | N | 3,651 |
| TOTAL | N | 16,633 |

Table 34: Peak Period Sampled by Direction

| All Trips | | |
|-----------------|---|--------|
| Inbound | % | 48% |
| | N | 7,906 |
| Outbound | % | 52% |
| | N | 8,727 |
| TOTAL | N | 16,633 |

ORIGIN - PEAK PERIOD SAMPLED

Riders were asked about their origins and whether they fell into the categories below or whether they started from another type of location. We found that the majority of PM Peak trips on Express Bus peak period routes surveyed begin at work (54%). Riders on inbound trips and outbound trips follow similar travel patterns, with 64 percent of inbound trips and 45 percent of outbound trips beginning at work.

Table 35: Peak Period Sampled Origin by Direction

| Started trip at: | | All Trips | Inbound | Outbound |
|------------------|---|-----------|---------|----------|
| Home | % | 34% | 24% | 44% |
| | N | 5,630 | 1,868 | 3,762 |
| Work | % | 54% | 64% | 45% |
| | N | 8,853 | 5,028 | 3,825 |
| Airport | % | 0% | 1% | 0% |
| | N | 76 | 72 | 4 |
| School | % | 6% | 5% | 6% |
| | N | 933 | 382 | 551 |
| Shopping | % | 1% | 2% | 1% |
| | N | 207 | 123 | 84 |
| Other | % | 4% | 5% | 4% |
| | N | 730 | 390 | 340 |
| TOTAL | % | 100% | 100% | 100% |
| | N | 16,429 | 7,863 | 8,566 |

DESTINATION - PEAK PERIOD SAMPLED

Riders were asked about their destinations and whether they fell into the same location categories reported for their origins. Reflecting the commuting pattern noted above, we found that a majority of trips in the PM Peak period terminate at home (55%). The distribution for destination types is similar for inbound and outbound trips. It can be assumed that AM Peak period trips would mirror PM Peak, and that work would be the most popular destination location.

Table 36: Peak Period Sampled Destination by Direction

| Ended trip at: | | All Trips | Inbound | Outbound |
|-----------------|---|-----------|---------|----------|
| Home | % | 55% | 63% | 48% |
| | N | 9,114 | 4,967 | 4,147 |
| Work | % | 27% | 16% | 36% |
| | N | 4,398 | 1,282 | 3,116 |
| Airport | % | 0% | 0% | 0% |
| | N | 29 | 6 | 23 |
| School | % | 5% | 6% | 4% |
| | N | 802 | 500 | 302 |
| Shopping | % | 1% | 1% | 1% |
| | N | 171 | 60 | 111 |
| Other | % | 12% | 13% | 11% |
| | N | 1,947 | 1,028 | 919 |
| TOTAL | % | 100% | 100% | 100% |
| | N | 16,461 | 7,843 | 8,618 |

COMBINED ORIGINS AND DESTINATIONS - PEAK PERIOD SAMPLED

The tables below show both origin and destination in one table, so that each cell represents the proportion of trips in a given origin type that end at a given destination type. These origin-destination pairs demonstrate that passengers in the PM Peak period are predominantly using Express Bus to commute home from work or school. A majority of trips originate at work (54%). Of the trips that originate at work, 85 percent of them end at a rider's home.

Table 37: Peak Period Sampled Combined Origins and Destinations

| Started Trip at: | Ended Trip at: | | | | | | | Total Known* |
|---|----------------|-------|---------|--------|----------|-------|-------|-----------------|
| | Home | Work | Airport | School | Shopping | Other | | |
| Home | % | 3% | 72% | 1% | 12% | 2% | 10% | 34% |
| | # | 144 | 4,022 | 29 | 656 | 119 | 582 | 5,552 |
| Work | % | 85% | 3% | 0% | 1% | 0% | 11% | 54% |
| | # | 7,526 | 229 | 0 | 46 | 18 | 989 | 8,808 |
| Airport | % | 37% | 0% | 0% | 0% | 0% | 63% | 0% |
| | # | 28 | 0 | 0 | 0 | 0 | 48 | 76 |
| School | % | 86% | 1% | 0% | 4% | 1% | 8% | 6% |
| | # | 778 | 6 | 0 | 40 | 7 | 77 | 908 |
| Shopping | % | 61% | 0% | 0% | 4% | 11% | 24% | 1% |
| | # | 122 | 0 | 0 | 7 | 22 | 48 | 199 |
| Other | % | 59% | 15% | 0% | 6% | 0% | 20% | 4% |
| | # | 434 | 106 | 0 | 46 | 0 | 144 | 730 |
| Total | % | 56% | 27% | 0% | 5% | 1% | 12% | 100% |
| | # | 9,032 | 4,363 | 29 | 795 | 166 | 1,888 | 16,273 |
| * Excluded unknown trip origins or destinations where respondent gave no answer or an address location rather than a type of origination point. | | | | | | | | |

ACCESS AND EGRESS MODES – PEAK PERIOD SAMPLED

Table 38: Peak Period Sampled Access Mode

| Access Mode | Started Trip at: | | | | | | |
|-----------------------------|------------------|---------|---------|---------|--------|-------|-------|
| | Total | Home | Work | Airport | School | Shop | Other |
| Walked | 75% | 50% | 90% | 85% | 90% | 55% | 64% |
| Drove alone | 14% | 33% | 4% | 15% | 1% | 5% | 9% |
| Dropped off (friend/family) | 5% | 10% | 1% | 0% | 2% | 16% | 13% |
| Dropped off (Uber/Taxi) | 1% | 1% | 0% | 0% | 0% | 0% | 2% |
| Carpool | 1% | 2% | 1% | 0% | 1% | 0% | 1% |
| Bicycle | 2% | 2% | 2% | 0% | 1% | 6% | 0% |
| Other | 3% | 2% | 3% | 0% | 4% | 18% | 11% |
| | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Total | (16,361) | (5,607) | (8,824) | (75) | (932) | (207) | (716) |

Three quarters of Peak Period Sampled Express Bus riders walk from their point of origin to their first transit vehicle (75%). Those who start their trip at home are less likely than those departing from other origin types to walk to their point of origin. Half of Express riders in the PM Peak Period (50%) walk from home to the first transit vehicle, compared to nine in ten riders that start their journey from work or school (90%). Riders coming from home are by far the most likely to drive alone to their first transit vehicle, with 33 percent driving alone as compared to only 14 percent overall.

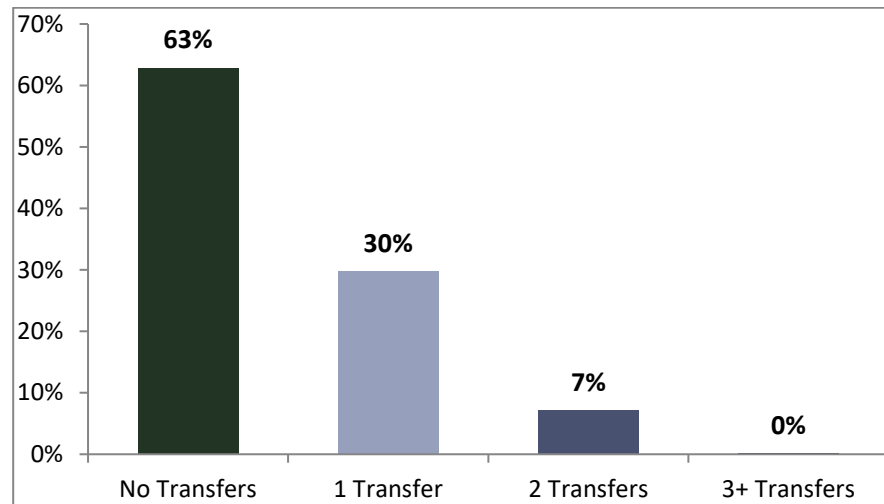
Table 39: Peak Period Sampled Egress Mode

| Egress Mode | Ended Trip at: | | | | | | |
|---------------------------|----------------|---------|---------|---------|--------|-------|---------|
| | Total | Home | Work | Airport | School | Shop | Other |
| Walked | 56% | 38% | 87% | 72% | 91% | 68% | 52% |
| Drove alone | 31% | 47% | 5% | 0% | 3% | 13% | 28% |
| Picked up (friend/family) | 6% | 8% | 1% | 0% | 2% | 12% | 9% |
| Picked up (Uber/Taxi) | 1% | 0% | 2% | 0% | 0% | 0% | 2% |
| Carpool | 2% | 4% | 1% | 0% | 1% | 4% | 2% |
| Bicycle | 2% | 2% | 2% | 0% | 0% | 3% | 0% |
| Other | 3% | 2% | 3% | 28% | 4% | 0% | 7% |
| | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| Total | (16,286) | (9,033) | (4,344) | (29) | (796) | (162) | (1,922) |

Just over half of peak period sampled Express Bus riders walk from their transit mode to their final destination. A much higher proportion of home-bound riders drive alone compared to those headed to other destinations. About half (47%) of home-bound riders drive alone. Riders that are traveling to work are most likely to walk to their workplace from their final transit vehicle. A large majority of work-bound riders walk from their egress point to work (87%).

TRANSFERRING – PEAK PERIOD SAMPLED

Figure 8: Transferring Peak Period Sampled Express Bus Riders



Respondents were asked to list the numbers of all buses and trains taken on their sampled one-way trip. Data from these questions were used to determine the number of transfers riders traveling on busses currently make to complete their trip. As shown in the table below, about three in ten peak period sampled Express Bus riders transfer at least once (30%). Only about 7 percent of riders transfer more than once.

Table 40: Peak Period Sampled Transfers by Trip Purpose

| | Total | Trip Purpose | |
|---------------------|------------------|------------------|-----------------|
| | | Commute | Non-commute |
| No Transfers | 63% | 63% | 63% |
| 1 Transfer | 30% | 30% | 28% |
| 2 Transfers | 7% | 7% | 9% |
| 3+ Transfers | 0% | 0% | 1% |
| Total | 100% (16,632) | 100% (12,981) | 100% (3,651) |

On average, two in three (63%) peak period sampled riders only ride one transit vehicle to get from their origin point to their destination.

ORIGIN AND DESTINATION SURVEY ANALYSIS ZONE PAIRS

OVERVIEW

A key objective of this study is to provide a reliable measure of the percentage of transit riders traveling to major origin and destination zones.

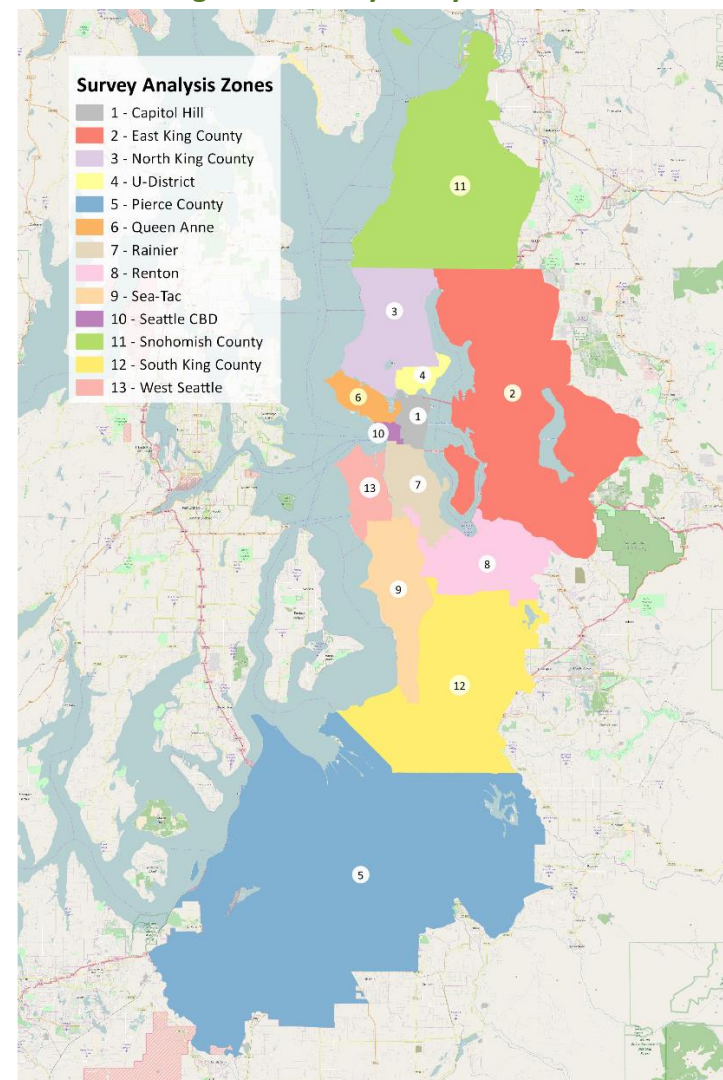
For the purposes of this research, the Central Puget Sound region was divided into 13 zones, and those outside of the 13 zones classified as External. To differentiate these zones from other transportation terminology, these zones are called Survey Analysis Zones (SAZ).

The origins and destinations of riders' trips were assigned to these zones. A new zone was subdivided from the North King County SAZ, named "U-District". This area contains the University District light rail station and the University of Washington and is in the University Link Extension corridor (U-Link). The remaining area is named "North King County".

In addition to the 13 primary zones, an external zone is included that captures all trips starting or ending in a location outside of these 13 primary zones. These zones are comparable to those used in the 2008 and 2011 origin and destination reports.

This report includes a variety of origin and destination pairs tables, using these survey analysis zones. These tables show the percentage of trips out of all trips that each origin and destination pair account for. Additional tables are included to show the percentage of trips that each pair accounts for when only PM Peak Trips, Commute Trips, or other types of trips are selected in the data. The primary pairs of interest, as well as the totals of interest, are highlighted in each of these tables.

Figure 9: Survey Analysis Zones



ALL DAY EXPRESS BUS ORIGIN AND DESTINATION ZONE PAIRS

ORIGIN AND DESTINATION ZONE PAIRS - Total All Day Express Bus Trips

An estimated 32,330 trips occur daily on All Day routes on the Express Bus system. About six in ten trips originate (61%) and terminate (63%) in either the East King County or Seattle CBD Survey Analysis Zones.

- East King County is the most frequent point of origin (38%) and destination (40%).
- Seattle CBD is the second most frequent point of origin (23%) as well as the second most frequent destination (23%).

Not surprisingly, the most frequent origin and destination pairs involve these two zones.

- About one in ten trips go from East King County to Seattle CBD (15%), and another 16 percent of trips go in the other direction, from Seattle to East King County.
- About four percent of trips go from Capitol Hill to East King County, and another four percent go in the opposite direction from East King County to Capitol Hill.
- A significant minority of trips occur within East King County (8%).

The proportion of trips originating within each Survey Analysis Zone is similar to the proportion of trips ending within the same Survey Analysis Zone.

Figure 10: % of All Trips Starting in SAZ

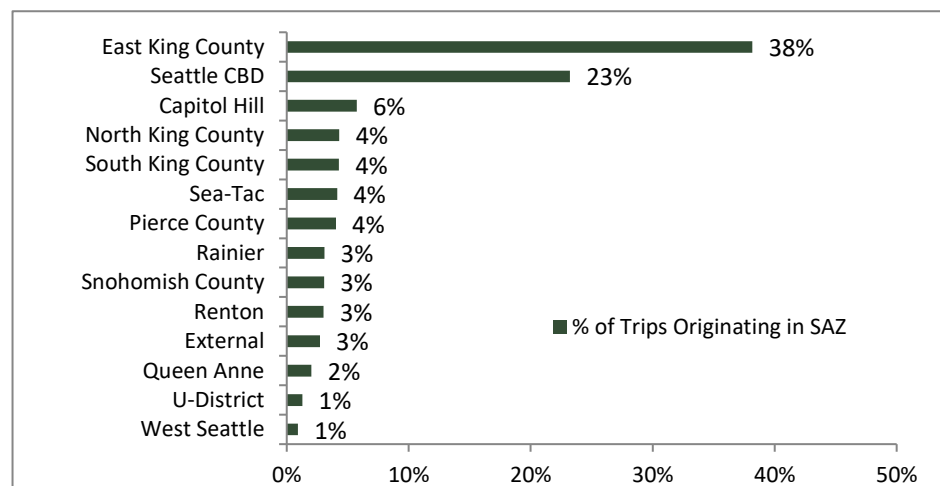


Figure 11: % of All Trips Ending in SAZ

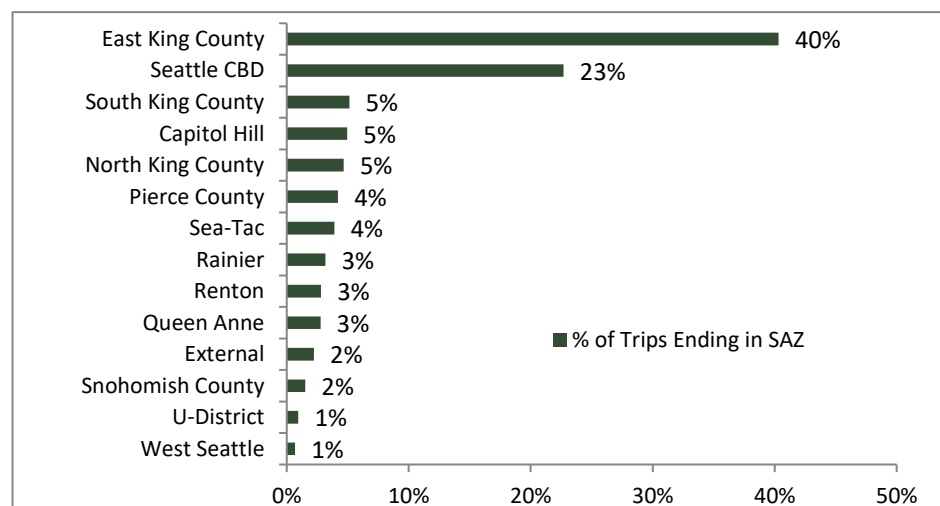


Table 41: Origin – Destination Survey Analysis Zone Pairs – All All Day Trips

| Trip Origin | Trips | Trip Destination | | | | | | | | | | | | | | Total |
|-------------------|-------|------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 1,402 | 65 | 0 | 108 | 0 | 0 | 0 | 32 | 93 | 7 | 119 | 0 | 26 | 1,852 |
| | % | 0.0% | 4.3% | 0.2% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 0.0% | 0.4% | 0.0% | 0.1% | 5.7% |
| East King County | # | 1,240 | 2,440 | 336 | 195 | 128 | 766 | 686 | 553 | 293 | 4,866 | 354 | 231 | 133 | 117 | 12,338 |
| | % | 3.8% | 7.5% | 1.0% | 0.6% | 0.4% | 2.4% | 2.1% | 1.7% | 0.9% | 15.1% | 1.1% | 0.7% | 0.4% | 0.4% | 38.2% |
| North King County | # | 73 | 488 | 93 | 0 | 11 | 59 | 108 | 5 | 18 | 484 | 11 | 7 | 0 | 37 | 1,394 |
| | % | 0.2% | 1.5% | 0.3% | 0.0% | 0.0% | 0.2% | 0.3% | 0.0% | 0.1% | 1.5% | 0.0% | 0.0% | 0.0% | 0.1% | 4.3% |
| U-District | # | 0 | 242 | 0 | 0 | 11 | 0 | 18 | 18 | 0 | 81 | 17 | 21 | 0 | 9 | 417 |
| | % | 0.0% | 0.7% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.0% | 0.3% | 0.1% | 0.1% | 0.0% | 0.0% | 1.3% |
| Pierce County | # | 15 | 108 | 16 | 43 | 102 | 23 | 7 | 42 | 389 | 197 | 8 | 327 | 0 | 24 | 1,301 |
| | % | 0.0% | 0.3% | 0.0% | 0.1% | 0.3% | 0.1% | 0.0% | 0.1% | 1.2% | 0.6% | 0.0% | 1.0% | 0.0% | 0.1% | 4.0% |
| Queen Anne | # | 0 | 471 | 28 | 0 | 40 | 0 | 6 | 6 | 0 | 37 | 0 | 55 | 0 | 14 | 657 |
| | % | 0.0% | 1.5% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.2% | 0.0% | 0.0% | 2.0% |
| Rainier | # | 0 | 641 | 125 | 0 | 24 | 0 | 0 | 5 | 0 | 157 | 0 | 17 | 0 | 34 | 1,003 |
| | % | 0.0% | 2.0% | 0.4% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% | 0.0% | 0.1% | 0.0% | 0.1% | 3.1% |
| Renton | # | 0 | 577 | 7 | 19 | 54 | 9 | 0 | 0 | 100 | 73 | 7 | 112 | 8 | 14 | 980 |
| | % | 0.0% | 1.8% | 0.0% | 0.1% | 0.2% | 0.0% | 0.0% | 0.0% | 0.3% | 0.2% | 0.0% | 0.3% | 0.0% | 0.0% | 3.0% |
| Sea-Tac | # | 0 | 258 | 13 | 0 | 576 | 0 | 10 | 60 | 173 | 0 | 0 | 137 | 56 | 52 | 1,335 |
| | % | 0.0% | 0.8% | 0.0% | 0.0% | 1.8% | 0.0% | 0.0% | 0.2% | 0.5% | 0.0% | 0.0% | 0.4% | 0.2% | 0.2% | 4.1% |
| Seattle CBD | # | 104 | 5,314 | 789 | 0 | 89 | 0 | 101 | 28 | 0 | 239 | 47 | 433 | 2 | 359 | 7,505 |
| | % | 0.3% | 16.4% | 2.4% | 0.0% | 0.3% | 0.0% | 0.3% | 0.1% | 0.0% | 0.7% | 0.1% | 1.3% | 0.0% | 1.1% | 23.2% |
| Snohomish County | # | 26 | 482 | 6 | 11 | 32 | 8 | 27 | 44 | 14 | 278 | 20 | 39 | 0 | 0 | 987 |
| | % | 0.1% | 1.5% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.9% | 0.1% | 0.1% | 0.0% | 0.0% | 3.1% |
| South King County | # | 134 | 226 | 8 | 16 | 184 | 0 | 24 | 138 | 56 | 439 | 18 | 110 | 18 | 12 | 1,383 |
| | % | 0.4% | 0.7% | 0.0% | 0.0% | 0.6% | 0.0% | 0.1% | 0.4% | 0.2% | 1.4% | 0.1% | 0.3% | 0.1% | 0.0% | 4.3% |
| West Seattle | # | 0 | 161 | 0 | 3 | 0 | 0 | 0 | 13 | 87 | 0 | 0 | 28 | 0 | 6 | 298 |
| | % | 0.0% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.9% |
| External | # | 12 | 223 | 25 | 21 | 0 | 28 | 42 | 0 | 101 | 388 | 0 | 23 | 2 | 15 | 880 |
| | % | 0.0% | 0.7% | 0.1% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.3% | 1.2% | 0.0% | 0.1% | 0.0% | 0.0% | 2.7% |
| Total | # | 1,604 | 13,033 | 1,511 | 308 | 1,359 | 893 | 1,029 | 912 | 1,263 | 7,332 | 489 | 1,659 | 219 | 719 | 32,330 |
| | % | 5.0% | 40.3% | 4.7% | 1.0% | 4.2% | 2.8% | 3.2% | 2.8% | 3.9% | 22.7% | 1.5% | 5.1% | 0.7% | 2.2% | 100% |

ORIGIN AND DESTINATION ZONE PAIRS – ALL DAY AM PEAK

An estimated 7,087 morning trips occur daily on the Express Bus system. Nearly half of all morning trips originate in the East King County zone.

- The East King County zone is the most frequent zone of origin in the morning, representing almost half of all morning trips (47%).
- Seattle CBD is the second most frequent zone of origin in the morning, though it represents only about 8 percent of all morning trips.

Morning trip destinations are concentrated in two major Survey Analysis zones, reflecting a pattern of commuting into the center of the metropolitan area.

- Over three in four trips end in either the Seattle CBD zone (41%) or the East King County zone (35%).
- The third most popular morning destination zone is Queen Anne, where an additional four percent of morning trips conclude.

The most frequent trip pairs in the morning involve trips to the major destinations of Seattle CBD and East King county.

- Just over one quarter (28%) of all trips originate from East King County and travel to Seattle CBD.
- The second most frequented trip pair is from Seattle CBD to East King County (6%).

Figure 12: % of AM Peak Trips Starting in SAZ

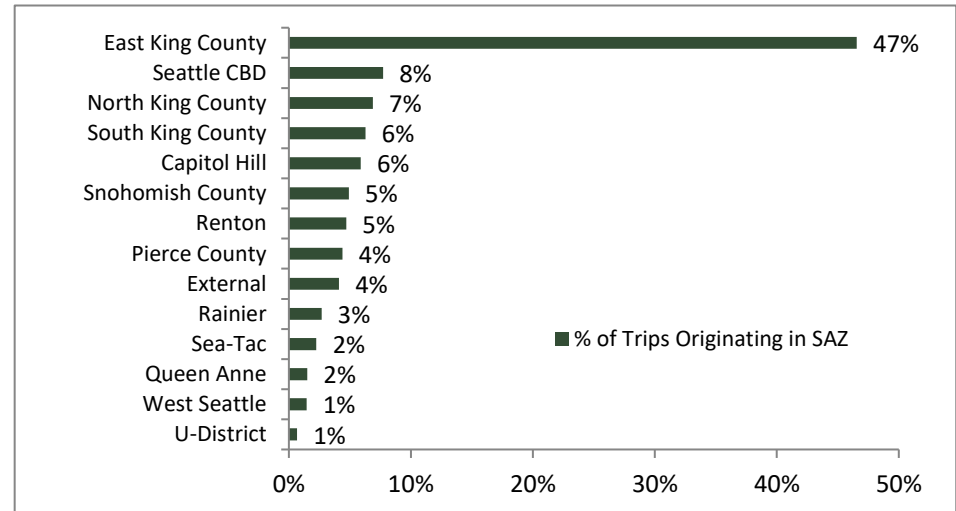


Figure 13: % of AM Peak Trips Ending in SAZ

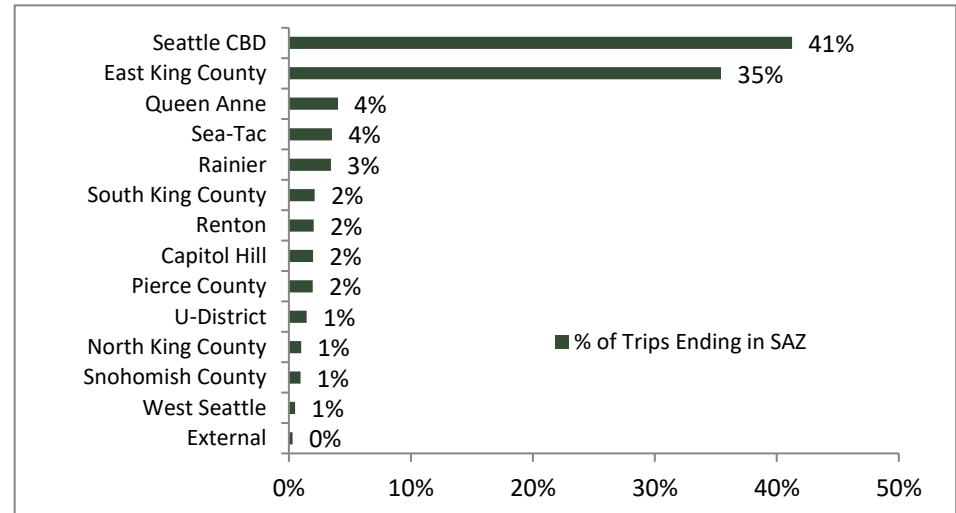


Table 42: Origin – Destination Survey Analysis Zone Pairs – All Day AM Peak

| Trip Origin | Trips | Trip Destination | | | | | | | | | | | | | | Total |
|-------------------|-------|------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|-------|
| | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 358 | 3 | 0 | 6 | 0 | 0 | 0 | 32 | 13 | 0 | 6 | 0 | 0 | 418 |
| | % | 0.0% | 5.1% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.5% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 5.9% |
| East King County | # | 132 | 483 | 38 | 77 | 0 | 248 | 154 | 55 | 46 | 2,004 | 36 | 17 | 11 | 0 | 3,301 |
| | % | 1.9% | 6.8% | 0.5% | 1.1% | 0.0% | 3.5% | 2.2% | 0.8% | 0.6% | 28.3% | 0.5% | 0.2% | 0.2% | 0.0% | 46.6% |
| North King County | # | 9 | 154 | 0 | 0 | 6 | 17 | 60 | 0 | 0 | 232 | 5 | 0 | 0 | 4 | 487 |
| | % | 0.1% | 2.2% | 0.0% | 0.0% | 0.1% | 0.2% | 0.8% | 0.0% | 0.0% | 3.3% | 0.1% | 0.0% | 0.0% | 0.1% | 6.9% |
| U-District | # | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 4 | 0 | 0 | 0 | 47 |
| | % | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% | 0.1% | 0.0% | 0.0% | 0.0% | 0.7% |
| Pierce County | # | 0 | 90 | 0 | 15 | 13 | 7 | 0 | 18 | 64 | 80 | 0 | 20 | 0 | 4 | 311 |
| | % | 0.0% | 1.3% | 0.0% | 0.2% | 0.2% | 0.1% | 0.0% | 0.3% | 0.9% | 1.1% | 0.0% | 0.3% | 0.0% | 0.1% | 4.4% |
| Queen Anne | # | 0 | 79 | 3 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 106 |
| | % | 0.0% | 1.1% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 1.5% |
| Rainier | # | 0 | 168 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 16 | 0 | 0 | 0 | 0 | 190 |
| | % | 0.0% | 2.4% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 2.7% |
| Renton | # | 0 | 260 | 0 | 9 | 8 | 0 | 0 | 0 | 0 | 22 | 0 | 26 | 8 | 0 | 333 |
| | % | 0.0% | 3.7% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.4% | 0.1% | 0.0% | 4.7% |
| Sea-Tac | # | 0 | 68 | 0 | 0 | 62 | 0 | 0 | 16 | 12 | 0 | 0 | 0 | 0 | 0 | 158 |
| | % | 0.0% | 1.0% | 0.0% | 0.0% | 0.9% | 0.0% | 0.0% | 0.2% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.2% |
| Seattle CBD | # | 0 | 410 | 15 | 0 | 6 | 0 | 0 | 15 | 0 | 54 | 3 | 36 | 0 | 8 | 547 |
| | % | 0.0% | 5.8% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 0.2% | 0.0% | 0.8% | 0.0% | 0.5% | 0.0% | 0.1% | 7.7% |
| Snohomish County | # | 0 | 175 | 0 | 0 | 0 | 3 | 9 | 6 | 0 | 147 | 9 | 0 | 0 | 0 | 349 |
| | % | 0.0% | 2.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.0% | 2.1% | 0.1% | 0.0% | 0.0% | 0.0% | 4.9% |
| South King County | # | 0 | 117 | 0 | 0 | 31 | 0 | 0 | 25 | 32 | 203 | 10 | 5 | 18 | 4 | 445 |
| | % | 0.0% | 1.7% | 0.0% | 0.0% | 0.4% | 0.0% | 0.0% | 0.4% | 0.5% | 2.9% | 0.1% | 0.1% | 0.3% | 0.1% | 6.3% |
| West Seattle | # | 0 | 62 | 0 | 3 | 0 | 0 | 0 | 8 | 25 | 0 | 0 | 6 | 0 | 0 | 104 |
| | % | 0.0% | 0.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.4% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 1.5% |
| External | # | 0 | 77 | 7 | 0 | 0 | 9 | 21 | 0 | 40 | 122 | 0 | 15 | 0 | 0 | 291 |
| | % | 0.0% | 1.1% | 0.1% | 0.0% | 0.0% | 0.1% | 0.3% | 0.0% | 0.6% | 1.7% | 0.0% | 0.2% | 0.0% | 0.0% | 4.1% |
| Total | # | 141 | 2,512 | 72 | 104 | 138 | 284 | 244 | 143 | 251 | 2,925 | 67 | 149 | 37 | 20 | 7,087 |
| | % | 2.0% | 35.4% | 1.0% | 1.5% | 1.9% | 4.0% | 3.4% | 2.0% | 3.5% | 41.3% | 0.9% | 2.1% | 0.5% | 0.3% | 100% |

ORIGIN AND DESTINATION ZONE PAIRS – ALL DAY PM PEAK

About 10,421 trips occur daily during the PM Peak period. We see that PM origin-destination patterns largely mirror the morning patterns. PM peak trips are fairly concentrated in two major zones, East King County and Seattle CBD.

- The most frequent point of origin during evening peak hours is Seattle CBD, where almost four in ten trips originate (38%).
- Another third of PM Peak trips originate in the second most frequent point of origin, East King County (36%).

Trip destinations in the PM Peak period are also concentrated in East King County and Seattle CBD. After East King County and Seattle CBD, no other trip accounts for more than seven percent of PM peak destinations.

- East King County is by far the most frequent destination during PM peak hours, with over half of trips ending there (51%).
- Seattle CBD is the destination for the second highest portion of trips (10%), followed by North King County and Capitol Hill (7%).

Also mirroring morning trip patterns, the two most frequently travelled routes emanate from the Seattle CBD zones.

- The most frequent trip pair is from Seattle CBD to East King County, accounting for 30 percent of all trips.

Figure 14: % of PM Peak Trips Starting in SAZ

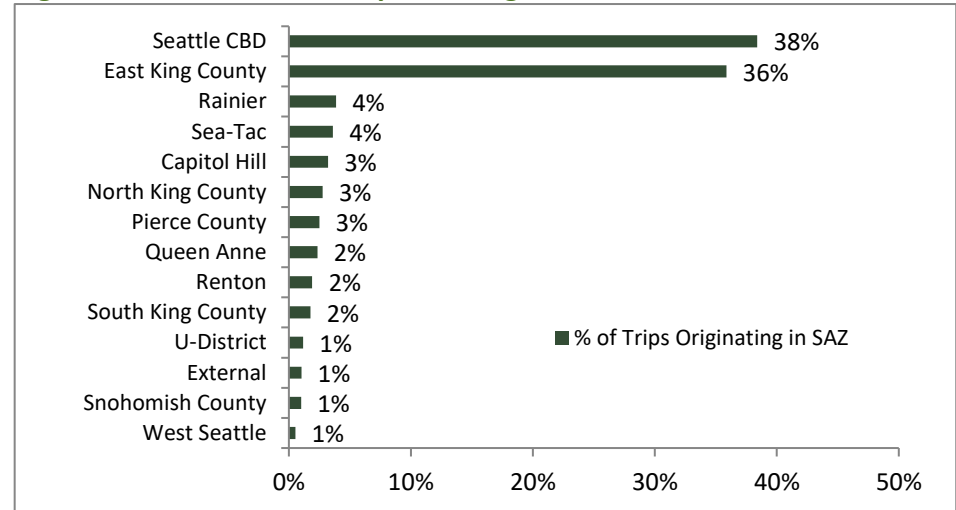


Figure 15: % of PM Peak Trips Ending in SAZ

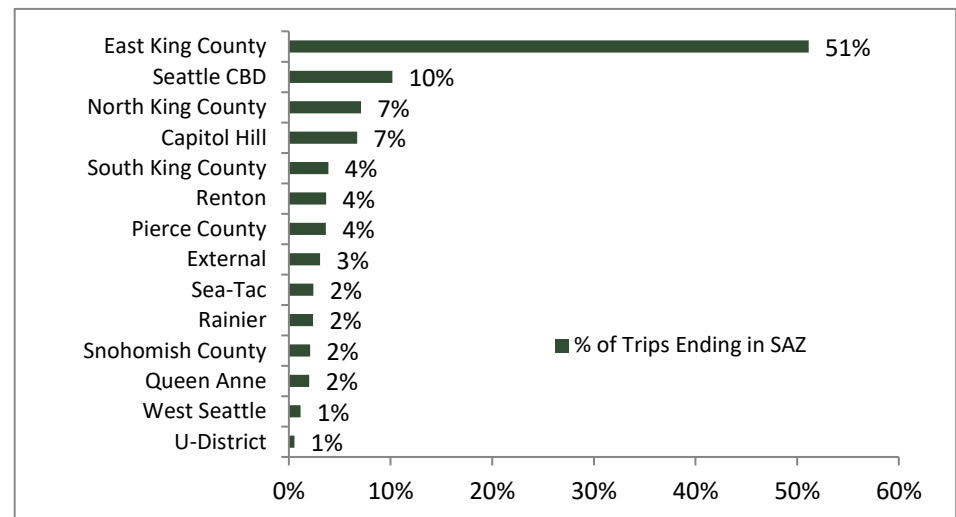


Table 43: Origin – Destination Survey Analysis Zone Pairs – All Day PM Peak

| Trip Origin | Trips | Trip Destination | | | | | | | | | | | | | | Total |
|-------------------|-------|------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 208 | 32 | 0 | 47 | 0 | 0 | 0 | 0 | 19 | 7 | 7 | 0 | 14 | 334 |
| | % | 0.0% | 2.0% | 0.3% | 0.0% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.1% | 0.1% | 0.0% | 0.1% | 3.2% |
| East King County | # | 546 | 975 | 143 | 57 | 44 | 194 | 170 | 291 | 83 | 782 | 167 | 123 | 94 | 69 | 3,738 |
| | % | 5.2% | 9.4% | 1.4% | 0.5% | 0.4% | 1.9% | 1.6% | 2.8% | 0.8% | 7.5% | 1.6% | 1.2% | 0.9% | 0.7% | 35.9% |
| North King County | # | 11 | 162 | 33 | 0 | 5 | 5 | 11 | 5 | 0 | 32 | 0 | 7 | 0 | 19 | 290 |
| | % | 0.1% | 1.6% | 0.3% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.3% | 0.0% | 0.1% | 0.0% | 0.2% | 2.8% |
| U-District | # | 0 | 117 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 122 |
| | % | 0.0% | 1.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.2% |
| Pierce County | # | 0 | 0 | 0 | 0 | 42 | 0 | 7 | 24 | 68 | 25 | 8 | 80 | 0 | 7 | 261 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.4% | 0.0% | 0.1% | 0.2% | 0.7% | 0.2% | 0.1% | 0.8% | 0.0% | 0.1% | 2.5% |
| Queen Anne | # | 0 | 168 | 13 | 0 | 2 | 0 | 0 | 0 | 0 | 35 | 0 | 13 | 0 | 14 | 245 |
| | % | 0.0% | 1.6% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.1% | 0.0% | 0.1% | 2.4% |
| Rainier | # | 0 | 268 | 38 | 0 | 8 | 0 | 0 | 5 | 0 | 58 | 0 | 7 | 0 | 20 | 404 |
| | % | 0.0% | 2.6% | 0.4% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.6% | 0.0% | 0.1% | 0.0% | 0.2% | 3.9% |
| Renton | # | 0 | 107 | 0 | 0 | 30 | 0 | 0 | 0 | 27 | 0 | 7 | 14 | 0 | 14 | 199 |
| | % | 0.0% | 1.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 1.9% |
| Sea-Tac | # | 0 | 51 | 13 | 0 | 200 | 0 | 0 | 5 | 31 | 0 | 0 | 55 | 23 | 0 | 378 |
| | % | 0.0% | 0.5% | 0.1% | 0.0% | 1.9% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 0.5% | 0.2% | 0.0% | 3.6% |
| Seattle CBD | # | 98 | 3,107 | 451 | 0 | 2 | 0 | 52 | 7 | 0 | 39 | 21 | 62 | 2 | 158 | 3,999 |
| | % | 0.9% | 29.8% | 4.3% | 0.0% | 0.0% | 0.0% | 0.5% | 0.1% | 0.0% | 0.4% | 0.2% | 0.6% | 0.0% | 1.5% | 38.4% |
| Snohomish County | # | 0 | 78 | 0 | 0 | 0 | 5 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 104 |
| | % | 0.0% | 0.7% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% |
| South King County | # | 40 | 24 | 8 | 0 | 0 | 0 | 8 | 20 | 10 | 48 | 8 | 10 | 0 | 7 | 183 |
| | % | 0.4% | 0.2% | 0.1% | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.1% | 0.5% | 0.1% | 0.1% | 0.0% | 0.1% | 1.8% |
| West Seattle | # | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 5 | 22 | 0 | 0 | 22 | 0 | 0 | 56 |
| | % | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.5% |
| External | # | 4 | 53 | 11 | 0 | 0 | 5 | 0 | 0 | 9 | 16 | 0 | 8 | 2 | 0 | 108 |
| | % | 0.0% | 0.5% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.2% | 0.0% | 0.1% | 0.0% | 0.0% | 1.0% |
| Total | # | 699 | 5,325 | 742 | 57 | 380 | 209 | 248 | 383 | 250 | 1,059 | 218 | 408 | 121 | 322 | 10,421 |
| | % | 6.7% | 51.1% | 7.1% | 0.5% | 3.6% | 2.0% | 2.4% | 3.7% | 2.4% | 10.2% | 2.1% | 3.9% | 1.2% | 3.1% | 100% |

ORIGIN AND DESTINATION ZONE PAIRS – ALL DAY OFF PEAK

About 14,820 trips occur daily during Off Peak hours. About half of all trip origins are concentrated in the East King County and Seattle CBD zones, with an additional one in ten trips originating in Capitol Hill.

- The most frequent zone of origin is the East King County zone. Over one third of Off-Peak trips originate in East King County (36%).
- The second most frequent zone of origin is the Seattle CBD zone. One fifth (20%) of Off-Peak trips originate in the Seattle CBD zone.

Off Peak trip destinations are distributed similarly to Off Peak origins. The East King County and Seattle CBD zones account for just over half of all destinations, and no other zone accounts for more than seven percent of destinations.

- East King County is the most common Off-Peak destination, accounting for just over one-third of destinations (35%).
- The second most frequent zone of destination is the Seattle CBD zone. About 23 percent of PM peak trips terminate in the Seattle CBD zone.

The most frequent trip pairs in the Off-Peak hours also involve East King County and Seattle CBD.

- The most frequent trip pair is from East King County to Seattle CBD, accounting for 14 percent of all trips.

Figure 16: % of Off-Peak Trips Starting in SAZ

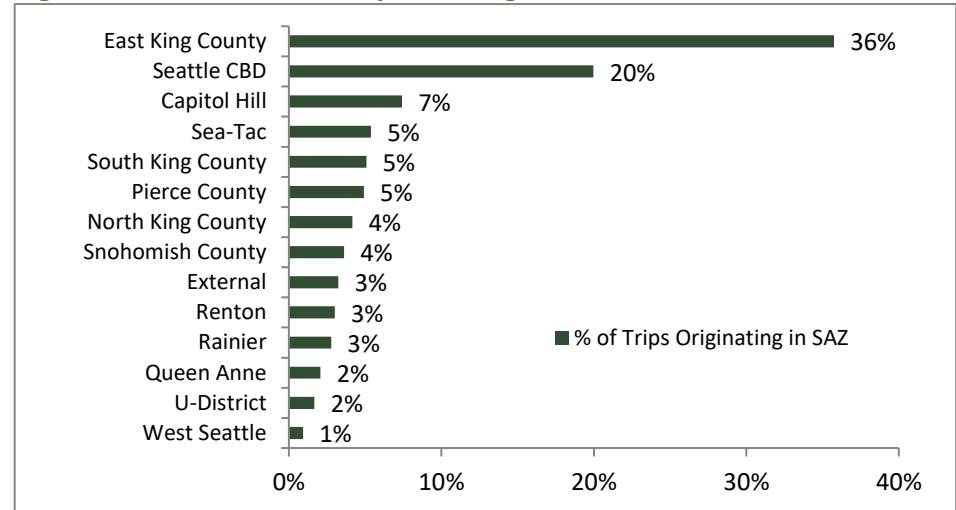


Figure 17: % of Off-Peak Trips Ending in SAZ

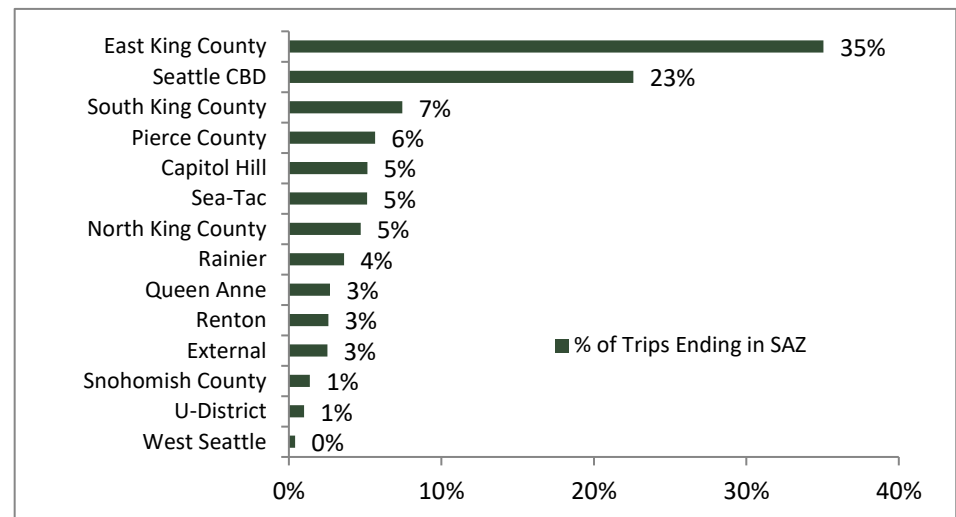


Table 44: Origin – Destination Survey Analysis Zone Pairs – All Day Off-Peak

| Trip Origin | Trip Destination | | | | | | | | | | | | | | | Total |
|-------------------|------------------|--------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | Trips | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 836 | 30 | 0 | 55 | 0 | 0 | 0 | 0 | 61 | 0 | 106 | 0 | 12 | 1,100 |
| | % | 0.0% | 5.6% | 0.2% | 0.0% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.4% | 0.0% | 0.7% | 0.0% | 0.1% | 7.4% |
| East King County | # | 561 | 982 | 155 | 61 | 84 | 324 | 361 | 206 | 164 | 2,080 | 151 | 91 | 28 | 47 | 5,295 |
| | % | 3.8% | 6.6% | 1.0% | 0.4% | 0.6% | 2.2% | 2.4% | 1.4% | 1.1% | 14.0% | 1.0% | 0.6% | 0.2% | 0.3% | 35.7% |
| North King County | # | 54 | 172 | 60 | 0 | 0 | 37 | 37 | 0 | 18 | 220 | 6 | 0 | 0 | 14 | 618 |
| | % | 0.4% | 1.2% | 0.4% | 0.0% | 0.0% | 0.2% | 0.2% | 0.0% | 0.1% | 1.5% | 0.0% | 0.0% | 0.0% | 0.1% | 4.2% |
| U-District | # | 0 | 114 | 0 | 0 | 11 | 0 | 18 | 18 | 0 | 44 | 13 | 21 | 0 | 9 | 248 |
| | % | 0.0% | 0.8% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.3% | 0.1% | 0.1% | 0.0% | 0.1% | 1.7% |
| Pierce County | # | 15 | 18 | 16 | 29 | 47 | 16 | 0 | 0 | 257 | 92 | 0 | 227 | 0 | 13 | 730 |
| | % | 0.1% | 0.1% | 0.1% | 0.2% | 0.3% | 0.1% | 0.0% | 0.0% | 1.7% | 0.6% | 0.0% | 1.5% | 0.0% | 0.1% | 4.9% |
| Queen Anne | # | 0 | 224 | 12 | 0 | 32 | 0 | 6 | 6 | 0 | 2 | 0 | 24 | 0 | 0 | 306 |
| | % | 0.0% | 1.5% | 0.1% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 2.1% |
| Rainier | # | 0 | 205 | 81 | 0 | 16 | 0 | 0 | 0 | 0 | 84 | 0 | 11 | 0 | 15 | 412 |
| | % | 0.0% | 1.4% | 0.5% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.6% | 0.0% | 0.1% | 0.0% | 0.1% | 2.8% |
| Renton | # | 0 | 209 | 7 | 10 | 16 | 9 | 0 | 0 | 72 | 51 | 0 | 72 | 0 | 0 | 446 |
| | % | 0.0% | 1.4% | 0.0% | 0.1% | 0.1% | 0.1% | 0.0% | 0.0% | 0.5% | 0.3% | 0.0% | 0.5% | 0.0% | 0.0% | 3.0% |
| Sea-Tac | # | 0 | 139 | 0 | 0 | 314 | 0 | 10 | 39 | 129 | 0 | 0 | 82 | 34 | 52 | 799 |
| | % | 0.0% | 0.9% | 0.0% | 0.0% | 2.1% | 0.0% | 0.1% | 0.3% | 0.9% | 0.0% | 0.0% | 0.6% | 0.2% | 0.4% | 5.4% |
| Seattle CBD | # | 6 | 1,798 | 324 | 0 | 81 | 0 | 48 | 5 | 0 | 145 | 23 | 334 | 0 | 193 | 2,957 |
| | % | 0.0% | 12.1% | 2.2% | 0.0% | 0.5% | 0.0% | 0.3% | 0.0% | 0.0% | 1.0% | 0.2% | 2.3% | 0.0% | 1.3% | 20.0% |
| Snohomish County | # | 26 | 229 | 6 | 11 | 32 | 0 | 18 | 18 | 14 | 131 | 11 | 39 | 0 | 0 | 535 |
| | % | 0.2% | 1.5% | 0.0% | 0.1% | 0.2% | 0.0% | 0.1% | 0.1% | 0.1% | 0.9% | 0.1% | 0.3% | 0.0% | 0.0% | 3.6% |
| South King County | # | 94 | 85 | 0 | 16 | 153 | 0 | 16 | 93 | 15 | 188 | 0 | 95 | 0 | 0 | 755 |
| | % | 0.6% | 0.6% | 0.0% | 0.1% | 1.0% | 0.0% | 0.1% | 0.6% | 0.1% | 1.3% | 0.0% | 0.6% | 0.0% | 0.0% | 5.1% |
| West Seattle | # | 0 | 92 | 0 | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 | 0 | 6 | 138 |
| | % | 0.0% | 0.6% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.9% |
| External | # | 8 | 93 | 7 | 21 | 0 | 14 | 21 | 0 | 52 | 250 | 0 | 0 | 0 | 15 | 481 |
| | % | 0.1% | 0.6% | 0.0% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.4% | 1.7% | 0.0% | 0.0% | 0.0% | 0.1% | 3.2% |
| Total | # | 764 | 5,196 | 698 | 148 | 841 | 400 | 535 | 385 | 761 | 3,348 | 204 | 1,102 | 62 | 376 | 14,820 |
| | % | 5.2% | 35.1% | 4.7% | 1.0% | 5.7% | 2.7% | 3.6% | 2.6% | 5.1% | 22.6% | 1.4% | 7.4% | 0.4% | 2.5% | 100% |

ORIGIN AND DESTINATION ZONE PAIRS – ALL DAY INBOUND

About 16,062 trips are headed inbound toward Seattle each day. Most inbound trips originate from the East King County zone. No other zone accounts for more than 6 percent of trips.

- East King County is by far the most common point of origin for inbound trips, accounting for almost two thirds of trips (66%).

Inbound trip destinations are concentrated in the Seattle CBD zone, followed by East King County and Capitol Hill.

- Four in ten inbound trips terminate in the Seattle CBD zone (40%).
- One in ten inbound trips terminate in East King County, the second most popular inbound destination zone (11%).

There are several major origin-destination pairs that dominate inbound traffic; most of these originate from East King County.

- The trip from East King County to Seattle CBD is the most common origin-destination pair for inbound trips, accounting for over one quarter of all Express Bus trips (30%).
- The second most popular inbound trip goes from the East King County to Capitol Hill zone (8%).

Figure 18: % of Inbound Trips Starting in SAZ

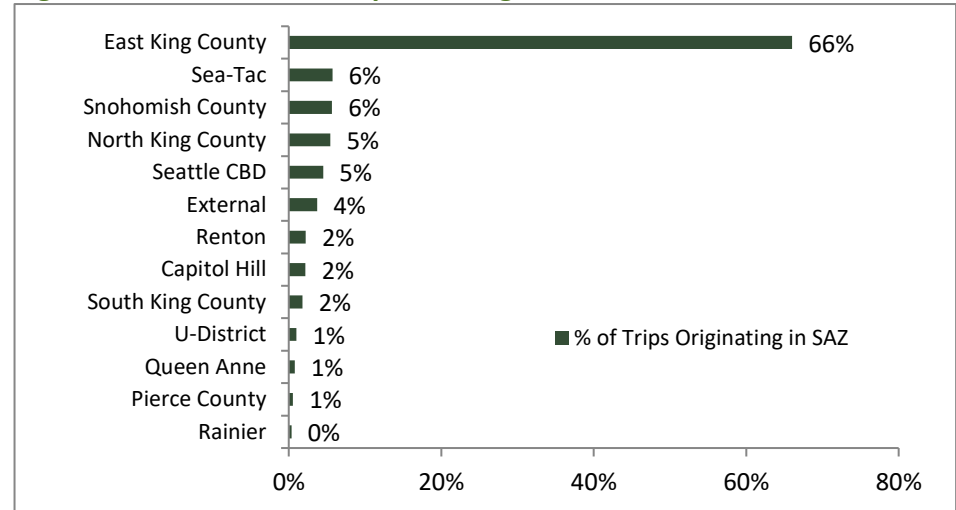


Figure 19: % of Inbound Trips Ending in SAZ

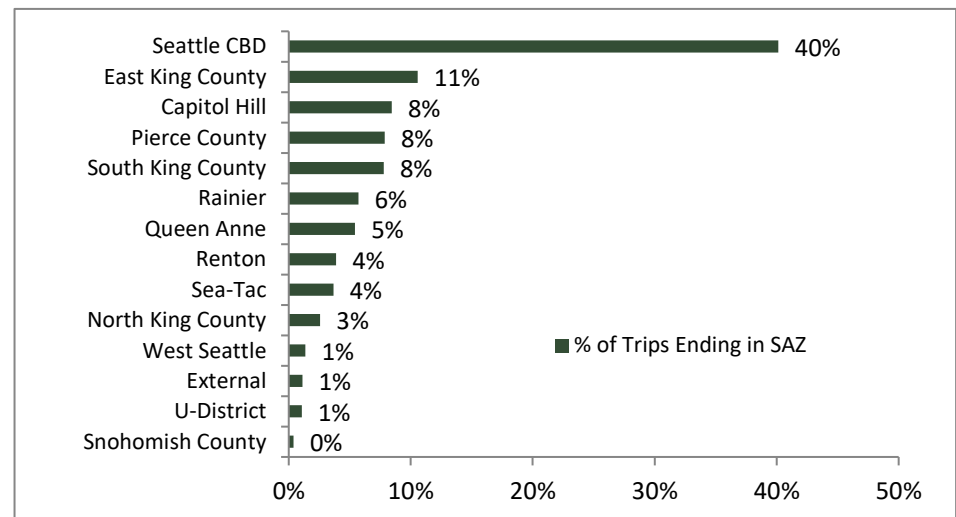


Table 45: Origin – Destination Survey Analysis Zone Pairs – All Day Inbound

| Trip Origin | Trips | Trip Destination | | | | | | | | | | | | | | Total |
|-------------------|-------|------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 0 | 0 | 0 | 108 | 0 | 0 | 0 | 32 | 90 | 0 | 119 | 0 | 0 | 349 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.7% | 0.0% | 0.0% | 0.0% | 0.2% | 0.6% | 0.0% | 0.7% | 0.0% | 0.0% | 2.2% |
| East King County | # | 1,240 | 1,121 | 336 | 166 | 128 | 766 | 686 | 541 | 293 | 4,860 | 39 | 222 | 133 | 73 | 10,604 |
| | % | 7.7% | 7.0% | 2.1% | 1.0% | 0.8% | 4.8% | 4.3% | 3.4% | 1.8% | 30.3% | 0.2% | 1.4% | 0.8% | 0.5% | 66.0% |
| North King County | # | 73 | 28 | 54 | 0 | 11 | 59 | 108 | 5 | 18 | 484 | 6 | 7 | 0 | 24 | 877 |
| | % | 0.5% | 0.2% | 0.3% | 0.0% | 0.1% | 0.4% | 0.7% | 0.0% | 0.1% | 3.0% | 0.0% | 0.0% | 0.0% | 0.1% | 5.5% |
| U-District | # | 0 | 0 | 0 | 0 | 11 | 0 | 18 | 18 | 0 | 81 | 11 | 21 | 0 | 0 | 160 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.1% | 0.0% | 0.5% | 0.1% | 0.1% | 0.0% | 0.0% | 1.0% |
| Pierce County | # | 0 | 0 | 0 | 0 | 44 | 0 | 0 | 0 | 8 | 17 | 0 | 21 | 0 | 0 | 90 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.6% |
| Queen Anne | # | 0 | 0 | 0 | 0 | 38 | 0 | 0 | 0 | 0 | 33 | 0 | 55 | 0 | 0 | 126 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.3% | 0.0% | 0.0% | 0.8% |
| Rainier | # | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 16 | 0 | 17 | 0 | 0 | 57 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 0.4% |
| Renton | # | 0 | 0 | 0 | 0 | 54 | 9 | 0 | 0 | 100 | 62 | 0 | 112 | 8 | 14 | 359 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.1% | 0.0% | 0.0% | 0.6% | 0.4% | 0.0% | 0.7% | 0.0% | 0.1% | 2.2% |
| Sea-Tac | # | 0 | 3 | 0 | 0 | 556 | 0 | 0 | 0 | 121 | 0 | 0 | 133 | 56 | 52 | 921 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 3.5% | 0.0% | 0.0% | 0.0% | 0.8% | 0.0% | 0.0% | 0.8% | 0.3% | 0.3% | 5.7% |
| Seattle CBD | # | 6 | 0 | 0 | 0 | 87 | 0 | 52 | 15 | 0 | 134 | 0 | 433 | 0 | 0 | 727 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% | 0.0% | 0.3% | 0.1% | 0.0% | 0.8% | 0.0% | 2.7% | 0.0% | 0.0% | 4.5% |
| Snohomish County | # | 26 | 426 | 6 | 0 | 32 | 8 | 27 | 44 | 14 | 278 | 9 | 39 | 0 | 0 | 909 |
| | % | 0.2% | 2.7% | 0.0% | 0.0% | 0.2% | 0.0% | 0.2% | 0.3% | 0.1% | 1.7% | 0.1% | 0.2% | 0.0% | 0.0% | 5.7% |
| South King County | # | 0 | 0 | 0 | 0 | 168 | 0 | 0 | 0 | 0 | 21 | 0 | 72 | 18 | 7 | 286 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.4% | 0.1% | 0.0% | 1.8% |
| West Seattle | # | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% |
| External | # | 12 | 122 | 18 | 5 | 0 | 28 | 26 | 0 | 2 | 372 | 0 | 0 | 2 | 10 | 597 |
| | % | 0.1% | 0.8% | 0.1% | 0.0% | 0.0% | 0.2% | 0.2% | 0.0% | 0.0% | 2.3% | 0.0% | 0.0% | 0.0% | 0.1% | 3.7% |
| Total | # | 1,357 | 1,700 | 414 | 171 | 1,261 | 870 | 917 | 623 | 588 | 6,448 | 65 | 1,251 | 217 | 180 | 16,062 |
| | % | 8.4% | 10.6% | 2.6% | 1.1% | 7.9% | 5.4% | 5.7% | 3.9% | 3.7% | 40.1% | 0.4% | 7.8% | 1.4% | 1.1% | 100% |

ORIGIN AND DESTINATION ZONE PAIRS – All Day Outbound

About 16,267 trips occur daily that are headed in the outbound direction (away from central Seattle). The outbound trip origin distribution mirrors the distribution of inbound destinations. Origin ridership is dominated by three major zones that account for more than three in five trips, including the Seattle CBD, East King County, and Capitol Hill zones.

- Seattle CBD is the most popular zone of origin for outbound trips (42%).
- East King County is the second most popular zone of origin for outbound trips (11%).
- Capitol Hill is the third major zone of origin for outbound trips (9%).

Mirroring the inbound origin patterns, the outbound destination patterns are concentrated in the East King County zone.

- Seven in ten inbound trips terminate in the East King County zone (70%).
- The second most frequent zone of destination is the North King County zone (7%), followed by Seattle CBD (5%).

Major origin-destination pairs most often involve the zones of East King County and Seattle CBD.

- The route from Seattle CBD to East King County is the most common origin-destination pair for outbound trips, accounting for almost one third of all Express Bus trips (33%).
- The second most popular outbound route goes from Capitol Hill to East King County (9%).

Figure 20: % of Outbound Trips Starting in SAZ

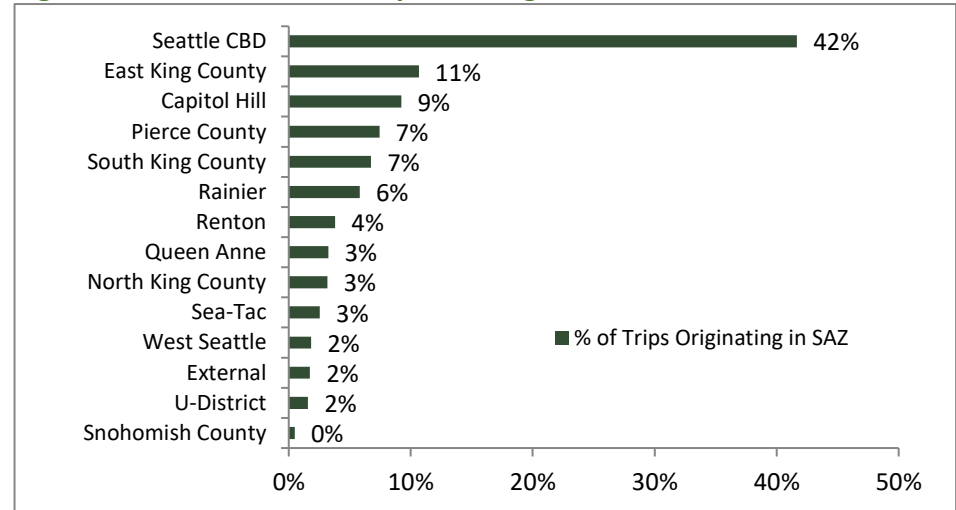


Figure 21: % of Outbound Trips Ending in SAZ

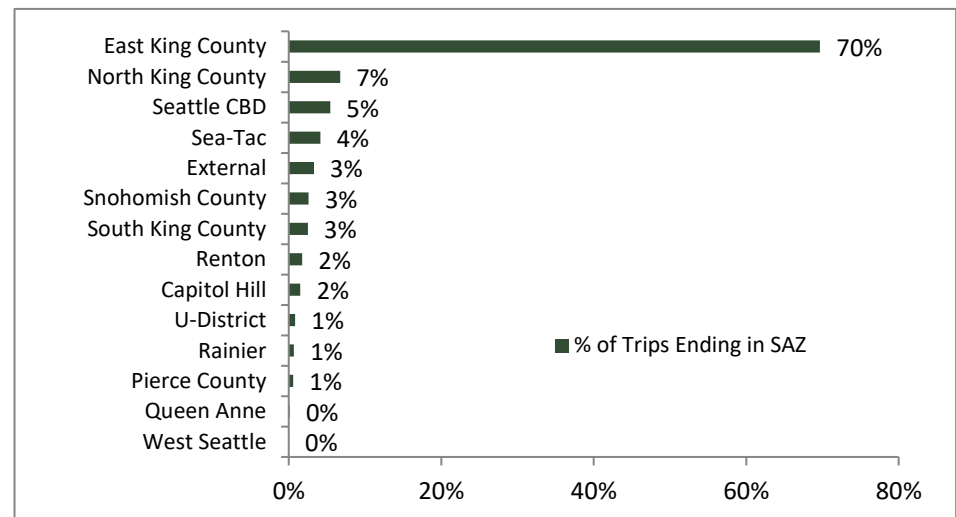


Table 46: Origin – Destination Survey Analysis Zone Pairs – All Day Outbound

| Trip Origin | Trips | Trip Destination | | | | | | | | | | | | | | Total |
|-------------------|-------|------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 1,402 | 65 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 7 | 0 | 0 | 26 | 1,503 |
| | % | 0.0% | 8.6% | 0.4% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 9.2% |
| East King County | # | 0 | 1,320 | 0 | 29 | 0 | 0 | 0 | 12 | 0 | 7 | 315 | 9 | 0 | 43 | 1,735 |
| | % | 0.0% | 8.1% | 0.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 1.9% | 0.1% | 0.0% | 0.3% | 10.7% |
| North King County | # | 0 | 460 | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 12 | 516 |
| | % | 0.0% | 2.8% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 3.2% |
| U-District | # | 0 | 242 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 9 | 258 |
| | % | 0.0% | 1.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 1.6% |
| Pierce County | # | 15 | 108 | 16 | 43 | 57 | 23 | 7 | 42 | 381 | 180 | 8 | 307 | 0 | 24 | 1,211 |
| | % | 0.1% | 0.7% | 0.1% | 0.3% | 0.4% | 0.1% | 0.0% | 0.3% | 2.3% | 1.1% | 0.0% | 1.9% | 0.0% | 0.1% | 7.4% |
| Queen Anne | # | 0 | 471 | 28 | 0 | 2 | 0 | 6 | 6 | 0 | 3 | 0 | 0 | 0 | 14 | 530 |
| | % | 0.0% | 2.9% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 3.3% |
| Rainier | # | 0 | 641 | 125 | 0 | 0 | 0 | 0 | 5 | 0 | 141 | 0 | 0 | 0 | 34 | 946 |
| | % | 0.0% | 3.9% | 0.8% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.9% | 0.0% | 0.0% | 0.0% | 0.2% | 5.8% |
| Renton | # | 0 | 577 | 7 | 19 | 0 | 0 | 0 | 0 | 0 | 10 | 7 | 0 | 0 | 0 | 620 |
| | % | 0.0% | 3.5% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 3.8% |
| Sea-Tac | # | 0 | 255 | 13 | 0 | 20 | 0 | 10 | 60 | 52 | 0 | 0 | 5 | 0 | 0 | 415 |
| | % | 0.0% | 1.6% | 0.1% | 0.0% | 0.1% | 0.0% | 0.1% | 0.4% | 0.3% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 2.6% |
| Seattle CBD | # | 98 | 5,314 | 789 | 0 | 2 | 0 | 49 | 12 | 0 | 104 | 47 | 0 | 2 | 359 | 6,776 |
| | % | 0.6% | 32.7% | 4.9% | 0.0% | 0.0% | 0.0% | 0.3% | 0.1% | 0.0% | 0.6% | 0.3% | 0.0% | 0.0% | 2.2% | 41.7% |
| Snohomish County | # | 0 | 56 | 0 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 0 | 0 | 0 | 78 |
| | % | 0.0% | 0.3% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.5% |
| South King County | # | 134 | 226 | 8 | 16 | 16 | 0 | 24 | 138 | 56 | 419 | 18 | 38 | 0 | 4 | 1,097 |
| | % | 0.8% | 1.4% | 0.0% | 0.1% | 0.1% | 0.0% | 0.1% | 0.8% | 0.3% | 2.6% | 0.1% | 0.2% | 0.0% | 0.0% | 6.7% |
| West Seattle | # | 0 | 161 | 0 | 3 | 0 | 0 | 0 | 13 | 87 | 0 | 0 | 28 | 0 | 6 | 298 |
| | % | 0.0% | 1.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.5% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 1.8% |
| External | # | 0 | 102 | 7 | 16 | 0 | 0 | 16 | 0 | 99 | 16 | 0 | 23 | 0 | 5 | 284 |
| | % | 0.0% | 0.6% | 0.0% | 0.1% | 0.0% | 0.0% | 0.1% | 0.0% | 0.6% | 0.1% | 0.0% | 0.1% | 0.0% | 0.0% | 1.7% |
| Total | # | 247 | 11,335 | 1,097 | 137 | 97 | 23 | 112 | 288 | 675 | 883 | 425 | 410 | 2 | 536 | 16,267 |
| | % | 1.5% | 69.7% | 6.7% | 0.8% | 0.6% | 0.1% | 0.7% | 1.8% | 4.1% | 5.4% | 2.6% | 2.5% | 0.0% | 3.3% | 100% |

PEAK PERIOD SAMPLED ORIGIN AND DESTINATION PAIRS

ORIGIN AND DESTINATION ZONE PAIRS - All Peak Period Sampled Trips

An estimated 16,630 trips occur daily on the Peak trips, only surveyed in one direction during the PM Peak period. About one-quarter of trips originate in Seattle CBD and one fifth end in Snohomish County. It can be assumed that trips on Peak Period Sampled routes in the AM Peak period would mirror the PM Peak travel patterns shown here.

- Seattle CBD is the most frequent point of origin (26%), but a less frequent destination (12%)
- East King County is the second most frequent point of origin (19%).
- Snohomish is the most frequent destination zone (21%), followed by Pierce County (19%) and East King County (12%).

Not surprisingly, the most frequent origin and destination pairs involve these two zones.

- Over one in ten trips go from Seattle CBD to Snohomish County (11%), and just under one in ten trips go from Seattle CBD to Pierce County (8%)
- About 12 percent of peak period sampled trips occur between East King County and U-District.

Figure 22: % of All Peak Period Sampled Trips Starting in SAZ

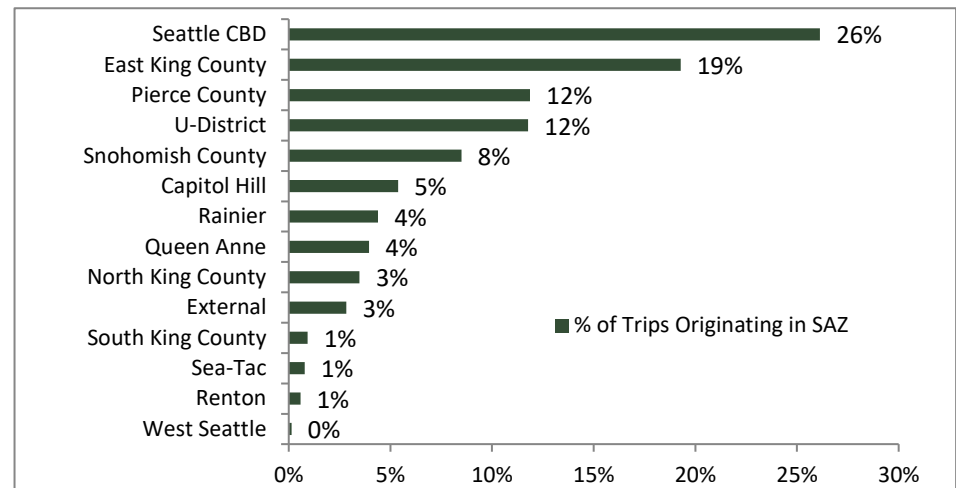


Figure 23: % of All Peak Period Sampled Trips Ending in SAZ

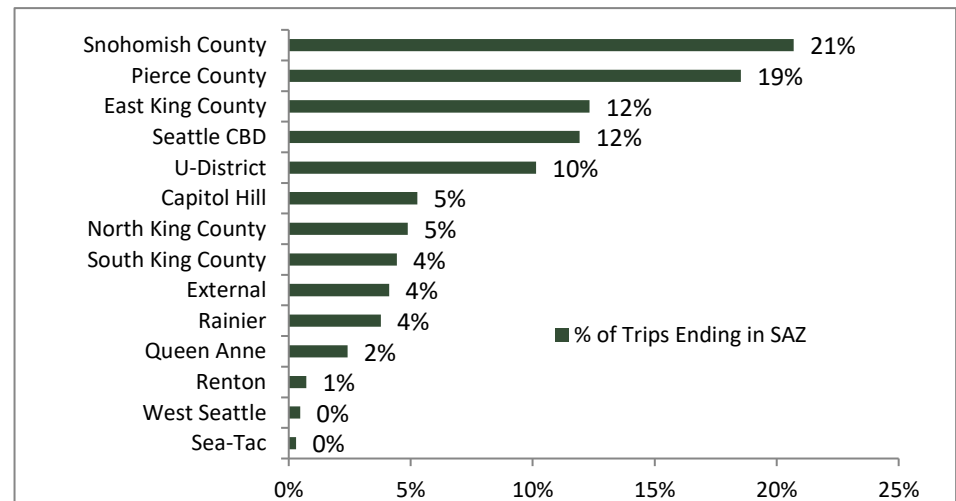


Table 47: Origin – Destination Survey Analysis Zone Pairs – All Peak Period Sampled Trips


| Trip Origin | Trip Destination | | | | | | | | | | | | | | | Total |
|-------------------|------------------|--------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|--------|
| | Trips | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Capitol Hill | # | 0 | 194 | 4 | 37 | 322 | 0 | 0 | 0 | 0 | 0 | 211 | 79 | 0 | 46 | 893 |
| | % | 0.0% | 1.2% | 0.0% | 0.2% | 1.9% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 1.3% | 0.5% | 0.0% | 0.3% | 5.4% |
| East King County | # | 289 | 334 | 336 | 944 | 151 | 62 | 63 | 32 | 16 | 84 | 615 | 109 | 10 | 161 | 3,206 |
| | % | 1.7% | 2.0% | 2.0% | 5.7% | 0.9% | 0.4% | 0.4% | 0.2% | 0.1% | 0.5% | 3.7% | 0.7% | 0.1% | 1.0% | 19.3% |
| North King County | # | 25 | 248 | 10 | 45 | 136 | 0 | 20 | 3 | 0 | 29 | 58 | 5 | 0 | 0 | 579 |
| | % | 0.2% | 1.5% | 0.1% | 0.3% | 0.8% | 0.0% | 0.1% | 0.0% | 0.0% | 0.2% | 0.3% | 0.0% | 0.0% | 0.0% | 3.5% |
| U-District | # | 27 | 1,040 | 68 | 182 | 239 | 0 | 26 | 16 | 2 | 36 | 234 | 16 | 13 | 59 | 1,958 |
| | % | 0.2% | 6.3% | 0.4% | 1.1% | 1.4% | 0.0% | 0.2% | 0.1% | 0.0% | 0.2% | 1.4% | 0.1% | 0.1% | 0.4% | 11.8% |
| Pierce County | # | 217 | 68 | 57 | 122 | 79 | 94 | 297 | 6 | 0 | 952 | 14 | 22 | 15 | 31 | 1,974 |
| | % | 1.3% | 0.4% | 0.3% | 0.7% | 0.5% | 0.6% | 1.8% | 0.0% | 0.0% | 5.7% | 0.1% | 0.1% | 0.1% | 0.2% | 11.9% |
| Queen Anne | # | 39 | 34 | 0 | 4 | 187 | 0 | 75 | 6 | 0 | 23 | 161 | 90 | 0 | 36 | 655 |
| | % | 0.2% | 0.2% | 0.0% | 0.0% | 1.1% | 0.0% | 0.5% | 0.0% | 0.0% | 0.1% | 1.0% | 0.5% | 0.0% | 0.2% | 3.9% |
| Rainier | # | 0 | 27 | 16 | 21 | 328 | 32 | 0 | 0 | 0 | 64 | 192 | 0 | 0 | 50 | 730 |
| | % | 0.0% | 0.2% | 0.1% | 0.1% | 2.0% | 0.2% | 0.0% | 0.0% | 0.0% | 0.4% | 1.2% | 0.0% | 0.0% | 0.3% | 4.4% |
| Renton | # | 0 | 0 | 0 | 2 | 53 | 32 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 96 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.3% | 0.2% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.6% |
| Sea-Tac | # | 0 | 7 | 48 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 39 | 0 | 0 | 17 | 130 |
| | % | 0.0% | 0.0% | 0.3% | 0.0% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.0% | 0.0% | 0.1% | 0.8% |
| Seattle CBD | # | 67 | 57 | 77 | 65 | 1,379 | 6 | 78 | 33 | 0 | 201 | 1,769 | 382 | 0 | 230 | 4,344 |
| | % | 0.4% | 0.3% | 0.5% | 0.4% | 8.3% | 0.0% | 0.5% | 0.2% | 0.0% | 1.2% | 10.6% | 2.3% | 0.0% | 1.4% | 26.1% |
| Snohomish County | # | 134 | 37 | 182 | 166 | 47 | 115 | 50 | 24 | 31 | 448 | 84 | 33 | 35 | 27 | 1,413 |
| | % | 0.8% | 0.2% | 1.1% | 1.0% | 0.3% | 0.7% | 0.3% | 0.1% | 0.2% | 2.7% | 0.5% | 0.2% | 0.2% | 0.2% | 8.5% |
| South King County | # | 6 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 0 | 32 | 30 | 0 | 0 | 10 | 156 |
| | % | 0.0% | 0.0% | 0.0% | 0.0% | 0.5% | 0.0% | 0.0% | 0.0% | 0.0% | 0.2% | 0.2% | 0.0% | 0.0% | 0.1% | 0.9% |
| West Seattle | # | 0 | 0 | 0 | 9 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| | % | 0.0% | 0.0% | 0.0% | 0.1% | 0.1% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.1% |
| External | # | 73 | 6 | 14 | 90 | 50 | 58 | 17 | 0 | 0 | 113 | 27 | 0 | 6 | 19 | 473 |
| | % | 0.4% | 0.0% | 0.1% | 0.5% | 0.3% | 0.3% | 0.1% | 0.0% | 0.0% | 0.7% | 0.2% | 0.0% | 0.0% | 0.1% | 2.8% |
| Total | # | 877 | 2,052 | 812 | 1,687 | 3,082 | 399 | 626 | 120 | 49 | 1,982 | 3,443 | 736 | 79 | 686 | 16,630 |
| | % | 5.3% | 12.3% | 4.9% | 10.1% | 18.5% | 2.4% | 3.8% | 0.7% | 0.3% | 11.9% | 20.7% | 4.4% | 0.5% | 4.1% | 100% |

APPENDIX

QUESTIONNAIRE EXAMPLE

-----fold here if mailing-----

Sound Transit needs your help to understand how people are using transit.
Please help by taking this survey.



If you can't take the survey now, you can return it by mail.

Passcode: EXE

INSTRUCTIONS

Please answer only about this particular **ONE-WAY TRIP**. Examples of a **ONE-WAY TRIP** are:

| <u>START (Question 1)</u> | | <u>END (Question 4)</u> |
|---------------------------|----|-------------------------|
| Example 1: Home | to | Work |
| Example 2: Shopping | to | Home |
| Example 3: Work | to | Appointment |

NOTE: your **ONE-WAY TRIP** may be different from these examples.

START of this ONE-WAY TRIP

1. Where did you first START your ONE-WAY TRIP? Are you coming from: (Check only one)

| | | |
|--|-----------------------------------|---|
| <input type="checkbox"/> Work | <input type="checkbox"/> Home | <input type="checkbox"/> Airport (for travel/passenger pick-up, not work) |
| <input type="checkbox"/> School/College (as a student) | <input type="checkbox"/> Shopping | <input type="checkbox"/> Other: _____ |

2. What is the address of your STARTING location from Question 1?
(Address OR Cross Streets, ex: 123 Main St NE OR 5th Ave & Pine St)

Street Address OR Cross Streets: _____

City: _____ ZIP Code: _____

Landmark/Business Name (if applicable): _____

3A. How did you get from your STARTING location to the very FIRST transit vehicle on this ONE-WAY TRIP?

| | |
|--|--|
| <input type="checkbox"/> Walked (# of blocks: _____) | <input type="checkbox"/> Wheelchair (# of blocks: _____) |
| <input type="checkbox"/> Dropped off by friend or family member | |
| <input type="checkbox"/> Dropped off by Uber/Lyft/Taxi | |
| <input type="checkbox"/> Drove alone (Parking location: <input type="checkbox"/> Transit parking lot/Garage <input type="checkbox"/> On Street <input type="checkbox"/> Other: _____) | |
| <input type="checkbox"/> Carpool/Vanpool and parked (Location: <input type="checkbox"/> Transit parking lot/Garage <input type="checkbox"/> On Street <input type="checkbox"/> Other: _____) | |
| <input type="checkbox"/> Bicycled (# of miles: _____) | |
| <input type="checkbox"/> Other: _____ | |

3B. If you parked a car, how much did you/will you pay for parking? \$ ____ . ____ ☐ Per day OR ☐ Per month

END of this ONE-WAY TRIP

4. Where will you finally END this ONE-WAY TRIP? This should NOT be the same place as your trip START.
Are you going to: (Check one)

| | | |
|--|-----------------------------------|---|
| <input type="checkbox"/> Work | <input type="checkbox"/> Home | <input type="checkbox"/> Airport (for travel/passenger pick-up, not work) |
| <input type="checkbox"/> School/College (as a student) | <input type="checkbox"/> Shopping | <input type="checkbox"/> Other: _____ |

CONTINUE ON BACK

5. What is the address of your ENDING location in Question 4? (Address OR Cross Streets, ex: 123 Main St NE OR 5th Ave & Pine St)

Street Address OR Cross Streets: _____

City: _____ ZIP Code: _____

Landmark/Business Name (if applicable): _____

6A. How will you get from your very LAST transit vehicle to your ENDING location for this ONE-WAY TRIP?

- ☐ Walk (# of blocks: _____) ☐ Wheelchair (# of blocks: _____)
- ☐ Get picked up by friend or family member ☐ Get picked up by Uber/Lyft/Taxi
- ☐ Drive alone (Parking location: ☐ Transit parking lot/Garage ☐ On Street ☐ Other: _____)
- ☐ Carpool/Vanpool from parked vehicle (Location: ☐ Transit parking lot/Garage ☐ On Street ☐ Other: _____)
- ☐ Bicycle (# of miles: _____) ☐ Other: _____

6B. If you parked a car, how much will you pay for parking? \$ _____. ☐ Per day OR ☐ Per month

ROUTES AND FARES

7. For this bus, what stop did you get ON? (Cross streets OR station OR landmark) _____

Please also list the CITY where this stop is located: _____

8. For this bus, what stop will you/did you get OFF? (Cross streets OR station OR landmark) _____

Please also list the CITY where this stop is located: _____

9. List all transit vehicles in the exact order that you will use (or are using them) to make this ONE-WAY TRIP, including this bus.

| First I used: | Second, (transfer) I used: | Third, (transfer) I used: |
|---|---|---|
| <input type="checkbox"/> Bus Rt # _____ | <input type="checkbox"/> Bus Rt # _____ | <input type="checkbox"/> Bus Rt# _____ |
| <input type="checkbox"/> Link light rail | <input type="checkbox"/> Link light rail | <input type="checkbox"/> Link light rail |
| <input type="checkbox"/> Sounder | <input type="checkbox"/> Sounder | <input type="checkbox"/> Sounder |
| <input type="checkbox"/> Paratransit/Access | <input type="checkbox"/> Paratransit/Access | <input type="checkbox"/> Paratransit/Access |
| <input type="checkbox"/> Ferry (WSF) | <input type="checkbox"/> Ferry (WSF) | <input type="checkbox"/> Ferry (WSF) |
| <input type="checkbox"/> First Hill Streetcar | <input type="checkbox"/> First Hill Streetcar | <input type="checkbox"/> First Hill Streetcar |
| <input type="checkbox"/> Tacoma Link | <input type="checkbox"/> Tacoma Link | <input type="checkbox"/> Tacoma Link |
| <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Other _____ |

10A. For your current bus, how did you pay your fare? (Check all that apply)

| Fare used for Current Bus: | |
|---|---|
| <input type="checkbox"/> ORCA, as pass | <input type="checkbox"/> ORCA Day Pass |
| <input type="checkbox"/> ORCA, as e-purse | <input type="checkbox"/> Police/Peace Officer |
| <input type="checkbox"/> U-PASS (ORCA) | <input type="checkbox"/> Free |
| <input type="checkbox"/> Cash | <input type="checkbox"/> Transfer Slip |
| | <input type="checkbox"/> Other _____ |

10B. If you selected ORCA, was it provided by your employer? ☐ Yes ☐ No ☐ Didn't Use ORCA

10C. If you selected ORCA Day Pass, how many trips will be/were taken using the pass? _____

10D. Will you (or did you) make a round-trip using this same route? ☐ Yes ☐ No, use another route for one trip

☐ No, carpool for one trip ☐ No, not doing round trip today ☐ Don't Know

10E. If yes, what time of day will you (or did you) make the other part of your round trip on this route?

- ☐ Early Morning (before 6AM) ☐ AM Peak (6AM to 8:30AM) ☐ Midday (8:30AM to 3PM)
- ☐ PM Peak (3PM to 6:30PM) ☐ Evening (6:30PM to 9PM) ☐ Late Night (after 9PM)

ABOUT YOU

11A. Are you traveling with any children who are not filling out the survey?

(If several people are traveling together please only one person per group answer this question.)

☐ No (Skip to Question 12)

☐ Yes, Continue → → 11B. Number of children in your group ages 0 -5: _____

→ → 11C. Number of children in your group ages 6 to 13: _____

12. What is your fare category? ☐ Adult (Age 19-64) ☐ Youth (Age 6-18) ☐ Senior (Over 65) ☐ Disabled ☐ ORCA LIFT

13. During the last 30 days, how many ONE-WAY TRIPS did you make on:

☐ This bus route: _____ ☐ Any transit route in the region: _____ ☐ First time riding transit in this region

14. Do you have a current driver's license? ☐ Yes ☐ No

15. How many working motorized vehicles are there in your household? _____

16. Do you identify yourself as a member of any of the following ethnic groups? (Check all that apply)

☐ Caucasian/White ☐ Black or African American ☐ Middle Eastern or North African ☐ Hispanic or Latino/a
☐ Asian Indian ☐ Asian/Asian American ☐ Native Hawaiian or Pacific Islander
☐ American Indian or Alaskan Native ☐ Other: _____ ☐ None

17A. What languages are regularly spoken in your home? ☐ English ☐ Spanish ☐ Vietnamese

☐ Cantonese ☐ Mandarin ☐ Russian ☐ Somali ☐ Korean ☐ Tagalog ☐ Other: _____

17B. If you speak a language other than English, how well do you speak English?

☐ Very Well ☐ Well ☐ Less than well ☐ Not at all

18. Do you consider yourself to have a disability? ☐ No, I don't consider myself to have a disability (Skip to Question 19)

☐ Yes. If yes, which accessible features of transit do you use?

☐ Lift/ramp ☐ Automated stop announcements ☐ Wheelchair securement ☐ Priority seating

☐ Assistance from the operator to board ☐ Bus lowering/kneeling feature ☐ None ☐ Other: _____

19. How many people live in your household, including yourself?

☐ One (I live alone) ☐ Two ☐ Three ☐ Four ☐ Five ☐ Six or more

20. What was your total annual household income before taxes in 2018? (Please check only one)

☐ Under \$12,000 ☐ \$12,000-15,999 ☐ \$16,000-19,999 ☐ \$20,000-23,999 ☐ \$24,000-32,999

☐ \$33,000-41,999 ☐ \$42,000-49,999 ☐ \$50,000-57,999 ☐ \$58,000-65,999 ☐ \$66,000-74,999

☐ \$75,000-99,999 ☐ \$100,000 or more ☐ I prefer not to say

CROSSTABS APPENDIX

Trip Purpose by Time Period

| | | | Time period | | | | Total |
|---------|-------------|---|-------------|--------------------|---------|---------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| Purpose | Commute | n | 8411 | 10396 | 14875 | 3124 | 36806 |
| | | % | 88% | 65% | 78% | 72% | 75% |
| | Non-Commute | n | 1138 | 5639 | 4194 | 1188 | 12159 |
| | | % | 12% | 35% | 22% | 28% | 25% |
| Total | | n | 9549 | 16035 | 19069 | 4312 | 48965 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Fare Category by Purpose

| | | | Purpose | | Total |
|-----------------------------|-------------------|---|---------|-------------|-------|
| | | | Commute | Non-Commute | |
| What is your fare category? | Adult (Age 19-64) | n | 30752 | 8439 | 39191 |
| | | % | 94% | 79% | 90% |
| | Youth (Age 6-18) | n | 551 | 364 | 915 |
| | | % | 2% | 3% | 2% |
| | Senior (Over 65) | n | 794 | 1096 | 1890 |
| | | % | 2% | 10% | 4% |
| | Disabled | n | 310 | 500 | 810 |
| | | % | 1% | 5% | 2% |
| | ORCA Lift | n | 454 | 345 | 799 |
| | | % | 1% | 3% | 2% |
| Total | | n | 32861 | 10744 | 43605 |
| | | % | 100% | 100% | 100% |

Direction by Purpose

| | | | Purpose | | Total |
|------------------------------|----------|---|---------|-------------|-------|
| | | | Commute | Non-Commute | |
| Direction surveyed (gtfs id) | Outbound | n | 19220 | 5775 | 24995 |
| | | % | 52% | 47% | 51% |
| | Inbound | n | 17585 | 6383 | 23968 |
| | | % | 48% | 53% | 49% |
| Total | | n | 36805 | 12158 | 48963 |
| | | % | 100% | 100% | 100% |

Direction by Time Period

| | | | Time period | | | | Total |
|--------------------|----------|---|-------------|-----------------|---------|------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| Direction surveyed | Outbound | n | 4119 | 7723 | 11117 | 2036 | 24995 |
| | | % | 43% | 48% | 58% | 47% | 51% |
| | Inbound | n | 5429 | 8312 | 7952 | 2275 | 23968 |
| | | % | 57% | 52% | 42% | 53% | 49% |
| Total | | n | 9548 | 16035 | 19069 | 4311 | 48963 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Origin by Time Period

| | | | Time period | | | | Total |
|----------------------|-----------|---|-------------|--------------------|---------|---------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| Origin location type | Work | n | 526 | 3153 | 15115 | 2928 | 21722 |
| | | % | 6% | 20% | 80% | 69% | 45% |
| | Home | n | 8562 | 9618 | 1910 | 558 | 20648 |
| | | % | 90% | 61% | 10% | 13% | 43% |
| | Airport | n | 16 | 300 | 101 | 115 | 532 |
| | | % | 0% | 2% | 1% | 3% | 1% |
| | School or | n | 79 | 1208 | 909 | 230 | 2426 |
| | College | % | 1% | 8% | 5% | 5% | 5% |
| | Shopping | n | 16 | 286 | 173 | 137 | 612 |
| | | % | 0% | 2% | 1% | 3% | 1% |
| | Other | n | 286 | 1277 | 633 | 303 | 2499 |
| | | % | 3% | 8% | 3% | 7% | 5% |
| | Total | n | 9485 | 15842 | 18841 | 4271 | 48439 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Origin by Direction

| | | | Direction surveyed (gtfs id) | | Total |
|----------------------|-----------|---|---------------------------------|---------|-------|
| | | | Outbound | Inbound | |
| Origin location type | Work | n | 11357 | 10366 | 21723 |
| | | % | 46% | 44% | 45% |
| | Home | n | 10242 | 10406 | 20648 |
| | | % | 42% | 44% | 43% |
| | Airport | n | 150 | 382 | 532 |
| | | % | 1% | 2% | 1% |
| | School or | n | 1234 | 1193 | 2427 |
| | College | % | 5% | 5% | 5% |
| | Shopping | n | 346 | 267 | 613 |
| | | % | 1% | 1% | 1% |
| | Other | n | 1325 | 1174 | 2499 |
| | | % | 5% | 5% | 5% |
| | Total | n | 24654 | 23788 | 48442 |
| | | % | 100% | 100% | 100% |

Destination by Time Period

| | | | Time period | | | | Total |
|---------------|-----------|---|-------------|--------------------|---------|---------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| Destination | Work | n | 7953 | 7235 | 1072 | 294 | 16554 |
| location type | | % | 84% | 46% | 6% | 7% | 34% |
| | Home | n | 476 | 4099 | 14864 | 3319 | 22758 |
| | | % | 5% | 26% | 78% | 78% | 47% |
| | Airport | n | 69 | 240 | 84 | 62 | 455 |
| | | % | 1% | 2% | 0% | 1% | 1% |
| | School or | n | 495 | 1394 | 321 | 24 | 2234 |
| | College | % | 5% | 9% | 2% | 1% | 5% |
| | Shopping | n | 23 | 492 | 287 | 80 | 882 |
| | | % | 0% | 3% | 2% | 2% | 2% |
| | Other | n | 447 | 2276 | 2330 | 493 | 5546 |
| | | % | 5% | 14% | 12% | 12% | 11% |
| Total | | n | 9463 | 15736 | 18958 | 4272 | 48429 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Destination by Direction

| | | | Direction surveyed (gtfs id) | | Total |
|---------------|-----------|---|---------------------------------|---------|-------|
| | | | Outbound | Inbound | |
| Destination | Work | n | 8579 | 7975 | 16554 |
| location type | | % | 35% | 34% | 34% |
| | Home | n | 12098 | 10661 | 22759 |
| | | % | 49% | 45% | 47% |
| | Airport | n | 250 | 205 | 455 |
| | | % | 1% | 1% | 1% |
| | School or | n | 1018 | 1216 | 2234 |
| | College | % | 4% | 5% | 5% |
| | Shopping | n | 426 | 456 | 882 |
| | | % | 2% | 2% | 2% |
| | Other | n | 2325 | 3221 | 5546 |
| | | % | 9% | 14% | 11% |
| Total | | n | 24696 | 23734 | 48430 |
| | | % | 100% | 100% | 100% |

Origin by Destination

| | | | Destination location type | | | | | | Total |
|----------------------|-------------------|---|---------------------------|-------|---------|-------------------|----------|-------|-------|
| | | | Work | Home | Airport | School or College | Shopping | Other | |
| Origin location type | Work | n | 653 | 18210 | 48 | 173 | 221 | 2300 | 21605 |
| | | % | 4% | 81% | 11% | 8% | 25% | 42% | 45% |
| | Home | n | 15089 | 483 | 340 | 1712 | 526 | 2241 | 20391 |
| | | % | 92% | 2% | 76% | 78% | 60% | 41% | 43% |
| | Airport | n | 22 | 308 | 36 | 0 | 0 | 151 | 517 |
| | | % | 0% | 1% | 8% | 0% | 0% | 3% | 1% |
| | School or College | n | 155 | 1794 | 0 | 213 | 21 | 204 | 2387 |
| | | % | 1% | 8% | 0% | 10% | 2% | 4% | 5% |
| | Shopping | n | 27 | 418 | 0 | 24 | 63 | 72 | 604 |
| | | % | 0% | 2% | 0% | 1% | 7% | 1% | 1% |
| | Other | n | 517 | 1308 | 24 | 75 | 46 | 486 | 2456 |
| | | % | 3% | 6% | 5% | 3% | 5% | 9% | 5% |
| | Total | n | 16463 | 22521 | 448 | 2197 | 877 | 5454 | 47960 |
| | | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Origin by Destination (AM Peak)

| | | | Destination location type | | | | | | Total |
|----------------------|-------------------|---|---------------------------|------|---------|-------------------|----------|-------|-------|
| | | | Work | Home | Airport | School or College | Shopping | Other | |
| Origin location type | Work | n | 94 | 342 | 0 | 24 | 0 | 57 | 517 |
| | | % | 1% | 73% | 0% | 5% | 0% | 13% | 5% |
| | Home | n | 7627 | 34 | 54 | 416 | 23 | 347 | 8501 |
| | | % | 96% | 7% | 79% | 85% | 100% | 77% | 90% |
| | Airport | n | 0 | 8 | 8 | 0 | 0 | 0 | 16 |
| | | % | 0% | 2% | 12% | 0% | 0% | 0% | 0% |
| | School or College | n | 5 | 25 | 0 | 29 | 0 | 20 | 79 |
| | | % | 0% | 5% | 0% | 6% | 0% | 4% | 1% |
| | Shopping | n | 8 | 0 | 0 | 0 | 0 | 8 | 16 |
| | | % | 0% | 0% | 0% | 0% | 0% | 2% | 0% |
| | Other | n | 186 | 57 | 6 | 21 | 0 | 16 | 286 |
| | | % | 2% | 12% | 9% | 4% | 0% | 4% | 3% |
| | Total | n | 7920 | 466 | 68 | 490 | 23 | 448 | 9415 |
| | | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Origin by Destination (PM Peak)

| | | | Destination location type | | | | | | Total |
|----------------------|-------------------|---|---------------------------|-------|---------|-------------------|----------|-------|-------|
| | | | Work | Home | Airport | School or College | Shopping | Other | |
| Origin location type | Work | n | 166 | 13162 | 0 | 111 | 149 | 1496 | 15084 |
| | | % | 16% | 90% | 0% | 36% | 52% | 65% | 80% |
| | Home | n | 793 | 171 | 62 | 162 | 127 | 561 | 1876 |
| | | % | 75% | 1% | 81% | 52% | 44% | 24% | 10% |
| | Airport | n | 0 | 70 | 15 | 0 | 0 | 16 | 101 |
| | | % | 0% | 0% | 19% | 0% | 0% | 1% | 1% |
| | School or College | n | 42 | 758 | 0 | 13 | 7 | 65 | 885 |
| | | % | 4% | 5% | 0% | 4% | 2% | 3% | 5% |
| | Shopping | n | 9 | 127 | 0 | 14 | 4 | 18 | 172 |
| | | % | 1% | 1% | 0% | 4% | 1% | 1% | 1% |
| | Other | n | 41 | 418 | 0 | 12 | 0 | 162 | 633 |
| | | % | 4% | 3% | 0% | 4% | 0% | 7% | 3% |
| Total | | n | 1051 | 14706 | 77 | 312 | 287 | 2318 | 18751 |
| | | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Origin SAZ by Destination SAZ

| | | | Destination SAZ 13 Zones | | | | | | | | | | | | | | Total |
|---------------------|-------------------|---|--------------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|----------|-------|
| | | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | External | |
| Origin SAZ 13 Zones | Capitol Hill | n | 0 | 1596 | 70 | 37 | 430 | 0 | 0 | 0 | 32 | 93 | 218 | 198 | 0 | 72 | 2746 |
| | | % | 0% | 11% | 3% | 2% | 10% | 0% | 0% | 0% | 2% | 1% | 6% | 8% | 0% | 5% | 6% |
| | East King County | n | 1529 | 2774 | 672 | 1139 | 279 | 829 | 749 | 585 | 308 | 4951 | 969 | 341 | 143 | 277 | 15545 |
| | | % | 62% | 18% | 29% | 57% | 6% | 64% | 45% | 57% | 23% | 53% | 25% | 14% | 48% | 20% | 32% |
| | North King County | n | 98 | 736 | 103 | 45 | 148 | 59 | 128 | 9 | 18 | 513 | 69 | 12 | 0 | 37 | 1975 |
| | | % | 4% | 5% | 4% | 2% | 3% | 5% | 8% | 1% | 1% | 6% | 2% | 1% | 0% | 3% | 4% |
| | U-District | n | 27 | 1282 | 68 | 182 | 250 | 0 | 45 | 34 | 2 | 118 | 251 | 37 | 13 | 68 | 2377 |
| | | % | 1% | 8% | 3% | 9% | 6% | 0% | 3% | 3% | 0% | 1% | 6% | 2% | 4% | 5% | 5% |
| | Pierce County | n | 233 | 177 | 72 | 165 | 180 | 117 | 304 | 48 | 389 | 1149 | 22 | 349 | 15 | 55 | 3275 |
| | | % | 9% | 1% | 3% | 8% | 4% | 9% | 18% | 5% | 30% | 12% | 1% | 15% | 5% | 4% | 7% |
| | Queen Anne | n | 39 | 505 | 28 | 4 | 227 | 0 | 80 | 12 | 0 | 60 | 161 | 146 | 0 | 50 | 1312 |
| | | % | 2% | 3% | 1% | 0% | 5% | 0% | 5% | 1% | 0% | 1% | 4% | 6% | 0% | 4% | 3% |
| | Rainier | n | 0 | 668 | 141 | 21 | 353 | 32 | 0 | 5 | 0 | 222 | 192 | 17 | 0 | 84 | 1735 |
| | | % | 0% | 4% | 6% | 1% | 8% | 2% | 0% | 0% | 0% | 2% | 5% | 1% | 0% | 6% | 4% |
| | Renton | n | 0 | 577 | 7 | 21 | 107 | 41 | 0 | 0 | 100 | 73 | 16 | 112 | 8 | 14 | 1076 |
| | | % | 0% | 4% | 0% | 1% | 2% | 3% | 0% | 0% | 8% | 1% | 0% | 5% | 3% | 1% | 2% |
| | Sea-Tac | n | 0 | 265 | 60 | 0 | 596 | 0 | 10 | 60 | 173 | 0 | 39 | 137 | 56 | 68 | 1464 |
| | | % | 0% | 2% | 3% | 0% | 13% | 0% | 1% | 6% | 13% | 0% | 1% | 6% | 19% | 5% | 3% |
| | Seattle CBD | n | 171 | 5371 | 866 | 65 | 1468 | 6 | 179 | 61 | 0 | 440 | 1817 | 815 | 2 | 589 | 11850 |
| | | % | 7% | 36% | 37% | 3% | 33% | 0% | 11% | 6% | 0% | 5% | 46% | 34% | 1% | 42% | 24% |
| | Snohomish County | n | 160 | 519 | 188 | 178 | 79 | 124 | 78 | 68 | 45 | 726 | 104 | 72 | 35 | 27 | 2403 |
| | | % | 6% | 3% | 8% | 9% | 2% | 10% | 5% | 7% | 3% | 8% | 3% | 3% | 12% | 2% | 5% |
| | South King County | n | 140 | 226 | 8 | 16 | 261 | 0 | 24 | 138 | 56 | 471 | 47 | 110 | 18 | 22 | 1537 |
| | | % | 6% | 1% | 0% | 1% | 6% | 0% | 1% | 13% | 4% | 5% | 1% | 5% | 6% | 2% | 3% |
| | West Seattle | n | 0 | 161 | 0 | 12 | 14 | 0 | 0 | 13 | 87 | 0 | 0 | 28 | 0 | 6 | 321 |
| | | % | 0% | 1% | 0% | 1% | 0% | 0% | 0% | 1% | 7% | 0% | 0% | 1% | 0% | 0% | 1% |
| | External | n | 85 | 229 | 39 | 111 | 50 | 86 | 59 | 0 | 101 | 501 | 27 | 23 | 8 | 34 | 1353 |
| | | % | 3% | 2% | 2% | 6% | 1% | 7% | 4% | 0% | 8% | 5% | 1% | 1% | 3% | 2% | 3% |
| Total | | n | 2482 | 15086 | 2322 | 1996 | 4442 | 1294 | 1656 | 1033 | 1311 | 9317 | 3932 | 2397 | 298 | 1403 | 48969 |
| | | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |

Origin SAZ by Destination SAZ (AM Peak)

| | | | Destination SAZ 13 Zones | | | | | | | | | | | | | Total | |
|---------------------|-------------------|------|--------------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|-------|----------|
| | | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | | External |
| Origin SAZ 13 Zones | Capitol Hill | n | 0 | 441 | 7 | 2 | 50 | 0 | 0 | 0 | 32 | 13 | 13 | 6 | 0 | 0 | 564 |
| | | % | 0% | 15% | 5% | 0% | 15% | 0% | 0% | 0% | 13% | 0% | 5% | 4% | 0% | 0% | 6% |
| | East King County | n | 132 | 500 | 49 | 467 | 3 | 262 | 165 | 55 | 46 | 2029 | 36 | 17 | 11 | 8 | 3780 |
| | | % | 53% | 17% | 33% | 75% | 1% | 56% | 48% | 38% | 18% | 55% | 15% | 11% | 30% | 22% | 40% |
| | North King County | n | 9 | 295 | 10 | 0 | 33 | 17 | 60 | 0 | 0 | 252 | 33 | 0 | 0 | 4 | 713 |
| | | % | 4% | 10% | 7% | 0% | 10% | 4% | 17% | 0% | 0% | 7% | 14% | 0% | 0% | 11% | 7% |
| | U-District | n | 0 | 99 | 20 | 39 | 13 | 0 | 0 | 0 | 0 | 32 | 24 | 0 | 0 | 0 | 227 |
| | | % | 0% | 3% | 14% | 6% | 4% | 0% | 0% | 0% | 0% | 1% | 10% | 0% | 0% | 0% | 2% |
| | Pierce County | n | 96 | 102 | 18 | 33 | 13 | 79 | 90 | 18 | 64 | 629 | 4 | 20 | 0 | 4 | 1170 |
| | | % | 39% | 4% | 12% | 5% | 4% | 17% | 26% | 13% | 25% | 17% | 2% | 13% | 0% | 11% | 12% |
| | Queen Anne | n | 0 | 85 | 3 | 4 | 18 | 0 | 0 | 0 | 0 | 0 | 9 | 18 | 0 | 0 | 137 |
| | | % | 0% | 3% | 2% | 1% | 6% | 0% | 0% | 0% | 0% | 0% | 4% | 12% | 0% | 0% | 1% |
| | Rainier | n | 0 | 181 | 15 | 11 | 39 | 32 | 0 | 0 | 0 | 80 | 16 | 0 | 0 | 0 | 374 |
| | | % | 0% | 6% | 10% | 2% | 12% | 7% | 0% | 0% | 0% | 2% | 7% | 0% | 0% | 0% | 4% |
| | Renton | n | 0 | 260 | 0 | 10 | 13 | 32 | 0 | 0 | 0 | 22 | 0 | 26 | 8 | 0 | 371 |
| | | % | 0% | 9% | 0% | 2% | 4% | 7% | 0% | 0% | 0% | 1% | 0% | 17% | 22% | 0% | 4% |
| | Sea-Tac | n | 0 | 75 | 0 | 0 | 62 | 0 | 0 | 16 | 12 | 0 | 0 | 0 | 0 | 8 | 173 |
| | | % | 0% | 3% | 0% | 0% | 19% | 0% | 0% | 11% | 5% | 0% | 0% | 0% | 0% | 22% | 2% |
| | Seattle CBD | n | 0 | 410 | 19 | 9 | 42 | 0 | 0 | 15 | 0 | 84 | 71 | 36 | 0 | 8 | 694 |
| | | % | 0% | 14% | 13% | 1% | 13% | 0% | 0% | 10% | 0% | 2% | 29% | 24% | 0% | 22% | 7% |
| | Snohomish County | n | 0 | 175 | 0 | 8 | 8 | 3 | 9 | 6 | 0 | 147 | 17 | 0 | 0 | 0 | 373 |
| | | % | 0% | 6% | 0% | 1% | 2% | 1% | 3% | 4% | 0% | 4% | 7% | 0% | 0% | 0% | 4% |
| | South King County | n | 6 | 117 | 0 | 0 | 31 | 0 | 0 | 25 | 32 | 230 | 19 | 5 | 18 | 4 | 487 |
| | | % | 2% | 4% | 0% | 0% | 10% | 0% | 0% | 17% | 13% | 6% | 8% | 3% | 49% | 11% | 5% |
| | West Seattle | n | 0 | 62 | 0 | 12 | 0 | 0 | 0 | 8 | 25 | 0 | 0 | 6 | 0 | 0 | 113 |
| | | % | 0% | 2% | 0% | 2% | 0% | 0% | 0% | 6% | 10% | 0% | 0% | 4% | 0% | 0% | 1% |
| | External | n | 6 | 77 | 7 | 24 | 0 | 41 | 21 | 0 | 40 | 140 | 0 | 15 | 0 | 0 | 371 |
| | | % | 2% | 3% | 5% | 4% | 0% | 9% | 6% | 0% | 16% | 4% | 0% | 10% | 0% | 0% | 4% |
| Total | n | 249 | 2879 | 148 | 619 | 325 | 466 | 345 | 143 | 251 | 3658 | 242 | 149 | 37 | 36 | 9547 | |
| | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |

Origin SAZ by Destination SAZ (PM Peak)

| | | | Destination SAZ 13 Zones | | | | | | | | | | | | | Total | |
|---------------------|-------------------|------|--------------------------|------------------|-------------------|------------|---------------|------------|---------|--------|---------|-------------|------------------|-------------------|--------------|-------|----------|
| | | | Capitol Hill | East King County | North King County | U-District | Pierce County | Queen Anne | Rainier | Renton | Sea-Tac | Seattle CBD | Snohomish County | South King County | West Seattle | | External |
| Origin SAZ 13 Zones | Capitol Hill | n | 0 | 260 | 32 | 0 | 215 | 0 | 0 | 0 | 19 | 124 | 86 | 0 | 54 | 790 | |
| | | % | 0% | 4% | 3% | 0% | 9% | 0% | 0% | 0% | 2% | 5% | 8% | 0% | 6% | 4% | |
| | East King County | n | 818 | 1289 | 421 | 306 | 131 | 239 | 221 | 323 | 93 | 796 | 768 | 232 | 104 | 222 | 5963 |
| | | % | 70% | 20% | 35% | 68% | 6% | 84% | 43% | 68% | 33% | 63% | 30% | 21% | 61% | 26% | 31% |
| | North King County | n | 18 | 192 | 33 | 21 | 44 | 5 | 31 | 9 | 0 | 32 | 7 | 12 | 0 | 19 | 423 |
| | | % | 2% | 3% | 3% | 5% | 2% | 2% | 6% | 2% | 0% | 3% | 0% | 1% | 0% | 2% | 2% |
| | U-District | n | 27 | 779 | 48 | 54 | 182 | 0 | 16 | 16 | 2 | 21 | 24 | 16 | 13 | 49 | 1247 |
| | | % | 2% | 12% | 4% | 12% | 8% | 0% | 3% | 3% | 1% | 2% | 1% | 1% | 8% | 6% | 7% |
| | Pierce County | n | 56 | 39 | 21 | 25 | 90 | 0 | 73 | 24 | 68 | 81 | 8 | 89 | 9 | 27 | 610 |
| | | % | 5% | 1% | 2% | 6% | 4% | 0% | 14% | 5% | 24% | 6% | 0% | 8% | 5% | 3% | 3% |
| | Queen Anne | n | 39 | 196 | 13 | 0 | 138 | 0 | 64 | 6 | 0 | 47 | 109 | 103 | 0 | 50 | 765 |
| | | % | 3% | 3% | 1% | 0% | 6% | 0% | 12% | 1% | 0% | 4% | 4% | 9% | 0% | 6% | 4% |
| | Rainier | n | 0 | 268 | 38 | 0 | 211 | 0 | 0 | 5 | 0 | 58 | 145 | 7 | 0 | 51 | 783 |
| | | % | 0% | 4% | 3% | 0% | 9% | 0% | 0% | 1% | 0% | 5% | 6% | 1% | 0% | 6% | 4% |
| | Renton | n | 0 | 107 | 0 | 0 | 79 | 0 | 0 | 0 | 27 | 0 | 11 | 14 | 0 | 14 | 252 |
| | | % | 0% | 2% | 0% | 0% | 3% | 0% | 0% | 0% | 9% | 0% | 0% | 1% | 0% | 2% | 1% |
| | Sea-Tac | n | 0 | 51 | 13 | 0 | 220 | 0 | 0 | 5 | 31 | 0 | 11 | 55 | 23 | 4 | 413 |
| | | % | 0% | 1% | 1% | 0% | 10% | 0% | 0% | 1% | 11% | 0% | 0% | 5% | 13% | 0% | 2% |
| | Seattle CBD | n | 115 | 3156 | 470 | 0 | 883 | 6 | 102 | 40 | 0 | 52 | 1235 | 445 | 2 | 325 | 6831 |
| | | % | 10% | 49% | 39% | 0% | 38% | 2% | 20% | 8% | 0% | 4% | 49% | 40% | 1% | 39% | 36% |
| | Snohomish County | n | 21 | 78 | 93 | 26 | 18 | 31 | 0 | 21 | 24 | 71 | 60 | 10 | 18 | 10 | 481 |
| | | % | 2% | 1% | 8% | 6% | 1% | 11% | 0% | 4% | 8% | 6% | 2% | 1% | 11% | 1% | 3% |
| | South King County | n | 40 | 24 | 8 | 0 | 73 | 0 | 8 | 20 | 10 | 53 | 8 | 10 | 0 | 17 | 271 |
| | | % | 3% | 0% | 1% | 0% | 3% | 0% | 2% | 4% | 3% | 4% | 0% | 1% | 0% | 2% | 1% |
| | West Seattle | n | 0 | 7 | 0 | 0 | 7 | 0 | 0 | 5 | 22 | 0 | 0 | 22 | 0 | 0 | 63 |
| | | % | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 1% | 8% | 0% | 0% | 2% | 0% | 0% | 0% |
| | External | n | 32 | 53 | 11 | 18 | 5 | 5 | 0 | 0 | 9 | 25 | 13 | 8 | 2 | 0 | 181 |
| | | % | 3% | 1% | 1% | 4% | 0% | 2% | 0% | 0% | 3% | 2% | 1% | 1% | 1% | 0% | 1% |
| Total | n | 1166 | 6499 | 1201 | 450 | 2296 | 286 | 515 | 474 | 286 | 1255 | 2523 | 1109 | 171 | 842 | 19073 | |
| | % | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | |

Transfers by Time Period

| | | | Time period | | | | Total |
|-----------|---|---|-------------|--------------------|---------|---------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| Total | 0 | n | 6400 | 10191 | 12805 | 2733 | 32129 |
| number | | % | 67% | 64% | 67% | 63% | 66% |
| of | 1 | n | 2707 | 4794 | 5260 | 1212 | 13973 |
| transfers | | % | 28% | 30% | 28% | 28% | 29% |
| | 2 | n | 441 | 1024 | 976 | 340 | 2781 |
| | | % | 5% | 6% | 5% | 8% | 6% |
| | 3 | n | 0 | 27 | 27 | 26 | 80 |
| | | % | 0% | 0% | 0% | 1% | 0% |
| Total | | n | 9548 | 16036 | 19068 | 4311 | 48963 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Transfers by Purpose

| | | | Purpose | | Total |
|-----------|---|---|---------|-----------------|-------|
| | | | Commute | Non- Commute | |
| Total | 0 | n | 24037 | 8091 | 32128 |
| number | | % | 65% | 67% | 66% |
| of | 1 | n | 10637 | 3335 | 13972 |
| transfers | | % | 29% | 27% | 29% |
| | 2 | n | 2091 | 690 | 2781 |
| | | % | 6% | 6% | 6% |
| | 3 | n | 39 | 41 | 80 |
| | | % | 0% | 0% | 0% |
| Total | | n | 36804 | 12157 | 48961 |
| | | % | 100% | 100% | 100% |

Fare Payment by Time Period

| | | | Time period | | | | Total |
|----------------------------|--|---|-------------|--------------------|---------|---------------------|-------|
| | | | AM Peak | Midday Off Peak | PM Peak | Evening Off Peak | |
| How did you pay your fare? | ORCA, as pass | n | 6765 | 9093 | 12898 | 2935 | 31691 |
| | | % | 75% | 61% | 71% | 71% | 69% |
| | ORCA Day Pass | n | 1306 | 2781 | 2850 | 651 | 7588 |
| | | % | 14% | 19% | 16% | 16% | 16% |
| | ORCA, as e-purse | n | 694 | 1732 | 1639 | 220 | 4285 |
| | | % | 8% | 12% | 9% | 5% | 9% |
| | Police/Peace Officer | n | 217 | 1033 | 526 | 226 | 2002 |
| | | % | 2% | 7% | 3% | 5% | 4% |
| | U-PASS (ORCA) | n | 6 | 46 | 33 | 58 | 143 |
| | | % | 0% | 0% | 0% | 1% | 0% |
| | Free | n | 0 | 0 | 13 | 0 | 13 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Cash | n | 21 | 68 | 39 | 20 | 148 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Train Ticket-One Way (Vending Machine Ticket) | n | 0 | 23 | 11 | 0 | 34 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Other | n | 35 | 145 | 165 | 3 | 348 |
| | | % | 0% | 1% | 1% | 0% | 1% |
| Total | | n | 9044 | 14921 | 18174 | 4113 | 46252 |
| | | % | 100% | 100% | 100% | 100% | 100% |

Fare Payment by Purpose

| | | | Purpose | | Total |
|----------------------------|---|---|---------|-------------|-------|
| | | | Commute | Non-Commute | |
| How did you pay your fare? | ORCA, as pass | n | 25114 | 6576 | 31690 |
| | | % | 72% | 59% | 69% |
| | ORCA Day Pass | n | 5396 | 2192 | 7588 |
| | | % | 15% | 20% | 16% |
| | ORCA, as e-purse | n | 3367 | 918 | 4285 |
| | | % | 10% | 8% | 9% |
| | Police/Peace Officer | n | 773 | 1228 | 2001 |
| | | % | 2% | 11% | 4% |
| | U-PASS (ORCA) | n | 72 | 70 | 142 |
| | | % | 0% | 1% | 0% |
| | Free | n | 8 | 5 | 13 |
| | | % | 0% | 0% | 0% |
| | Cash | n | 71 | 77 | 148 |
| | | % | 0% | 1% | 0% |
| | Train Ticket-One Way (Vending Machine Ticket) | n | 8 | 27 | 35 |
| | | % | 0% | 0% | 0% |
| | Other | n | 225 | 123 | 348 |
| | | % | 1% | 1% | 1% |
| Total | | n | 35034 | 11216 | 46250 |
| | | % | 100% | 100% | 100% |

Fare Payment by Income

| | | | Annual Household Income | | | | Total |
|----------------------------|---|---|-------------------------|----------------------|----------------------|------------|-------|
| | | | Less than \$50,000 | \$50,000 to \$74,999 | \$75,000 to \$99,999 | \$100,000+ | |
| How did you pay your fare? | ORCA, as pass | n | 5180 | 3495 | 2705 | 11766 | 23146 |
| | | % | 54% | 70% | 69% | 76% | 68% |
| | ORCA Day Pass | n | 2196 | 828 | 697 | 2189 | 5910 |
| | | % | 23% | 17% | 18% | 14% | 17% |
| | ORCA, as e-purse | n | 1089 | 407 | 395 | 1069 | 2960 |
| | | % | 11% | 8% | 10% | 7% | 9% |
| | Police/Peace Officer | n | 904 | 186 | 91 | 222 | 1403 |
| | | % | 9% | 4% | 2% | 1% | 4% |
| | U-PASS (ORCA) | n | 31 | 0 | 6 | 62 | 99 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Free | n | 0 | 0 | 0 | 8 | 8 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Cash | n | 47 | 5 | 0 | 29 | 81 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Train Ticket-One Way (Vending Machine Ticket) | n | 12 | 0 | 0 | 0 | 12 |
| | | % | 0% | 0% | 0% | 0% | 0% |
| | Other | n | 153 | 45 | 33 | 59 | 290 |
| | | % | 2% | 1% | 1% | 0% | 1% |
| Total | | n | 9612 | 4966 | 3927 | 15404 | 33909 |
| | | % | 100% | 100% | 100% | 100% | 100% |

ORCA Pass by Purpose

| | | | Purpose | | Total |
|---|--------|---|---------|-------------|-------|
| | | | Commute | Non-Commute | |
| If you selected ORCA, was it provided by your employer? | Yes | n | 21230 | 4352 | 25582 |
| | | % | 65% | 46% | 61% |
| | No | n | 11085 | 4919 | 16004 |
| | | % | 34% | 52% | 38% |
| | Didn't | n | 375 | 141 | 516 |
| | Use | % | 1% | 1% | 1% |
| | ORCA | | | | |
| | | n | 32690 | 9412 | 42102 |
| | | % | 100% | 100% | 100% |
| | | | | | |