

APPENDIX C

Survey Database Documentation

APPENDIX C SURVEY DATABASE DOCUMENTATION

This section provides details about the coding of survey questionnaire responses. In addition to survey questionnaire responses, a number of additional fields were added for quality control measures and addition of information such as expansion factors and coordinates/Transportation Analysis Zone (TAZ)/districts for origin and destination addresses. Additional fields were used for segmenting records by route, direction, time-of-day, or other means.

Using the WSF Travel Survey Databases

There are two principal tables for the Washington State Ferries (WSF) Travel Survey. The first represents the original survey dataset for traditional expansion, while the second database represents the special trip table survey expansion as discussed in Section 2.3.2 in Chapter 2. These tables are stored in a single Microsoft Access 2007 database file along with other tables containing supporting information such as matched TAZ records from GIS. The database also contains a large number of stored queries to document the queries performed during data analysis. Queries were subsequently exported to excel for production of graphs and figures, and some data was also exported to ArcGIS for geographical analysis. The database is available as an Access database, but the two principal tables of expanded results have also been exported to Microsoft Excel.

The survey data table contains records for all 17,527 processed survey responses, including those received by mail or from the web version of the survey. The USABLE field, as described below, can be used to select the usable 16,027 records. The trip-table expanded data table is constructed from the survey data table as described in the methodology, and only contains usable records. It also contains a couple additional fields due to the different method used to expand the data.

Both databases contain created data fields used to aggregate data responses into category format, or otherwise make the raw survey data more useful for analysis purposes. Key variables for use in filtering the database to obtain the desired respondent information include: PERIOD, USABLE, ROUTE, DIRECTION, and USERCLASS. The XF field represents the expansion factor for each record – when performing queries in the database or tabulations in excel, the sum of the XF column for matched records shall be used. A full list of database variables and their defined values follows.

- The PERIOD variable is used to sort respondents into “weekday PM peak,” “weekday PM non-peak,” and “Saturday” survey time periods. This variable is computed from a joined table of count data performed for each surveyed ferry sailing.
- The USABLE variable corresponds to the general usable definition as described in Section 2.2.1 in Chapter 2, and is used to identify those individual survey records that meet certain completeness criteria and are suitable for most analysis and tabulation purposes. To meet the general usable criteria “usable” record, the survey record must have complete responses to four critical parts: trip purpose, boarding method, and have provided geocodable address information for their trip origin and destination. Walk-on passengers were additionally required to report the mode of access and egress to and from the ferry terminals.

Other more generalized variables used to filter the database include: ROUTE, DIRECTION, and USERCLASS.

- The ROUTE variable is used to sort responses by specific ferry routes by direction, while the CODE variable sorted by ferry route regardless of sailing direction.
- The DIRECTION variable is used to filter responses based on the vessel direction of travel.
- The USERCLASS variable is used to filter responses based on respondent boarding method, which is vehicle driver, vehicle passenger, or walk-on (which includes bicyclists).

Variable Names and Definitions

A list of all variables included in the database is presented below. All variables are in both the survey data table and the trip-table expanded data table unless otherwise indicated.

TTID = Trip Table Record Identifier (*trip-table expanded data table only*)

Parsons Brinckerhoff-assigned unique record identifier, since the trip-table expansion process includes multiple copies of some survey data records, resulting in the PBID no longer being a unique identifier.

PBID = PB Record Identifier

Parsons Brinckerhoff-assigned unique record identifier. Matches ETC_ID except for web surveys, where ETC used a text ID.

ETC_ID = ETC Record Identifier

ETC Institute-assigned unique record identifier

METHOD = Survey response method

Method of survey response. Options are:

- Paper: paper response submitted to an ETC staff member
- Mail: a paper survey returned via US mail
- Web: an online survey response

ID_GIS_OLD = Old GIS Record Identifier

A record identifier used by ETC Institute during first round of geocoding of results.

ID_GIS = GIS Record Identifier

A record identifier used by ETC Institute during second round of geocoding of results.

ID = Record Identifier

A record identifier used by ETC during processing of surveys. Replaced by ETC_ID.

COMPLETED = Survey Completed Flag

A variable indicating if the survey was complete. Valid options are YES or NO.

DATE = Survey Date

The date the survey was taken.

ROUTE_ID = Route Identifier

The two-letter code used by ETC Institute to identify the ferry route.

SAILING_ID = Sailing Identifier

The ID of the ferry sailing corresponding to the survey response.

SAILING_OD = Sailing Origin and Destination

The origin and destination terminals for the ferry sailing. These codes are assigned by ETC Institute based on the ferry sailing and may not match user responses for sailings with multiple destinations (the San Juan Islands and Fauntleroy-Vashon-Southworth sailings). The terminals use four-letter codes as follows:

- ANAC: Anacortes
- BAIN: Bainbridge Island
- BREM: Bremerton
- CLIN: Clinton
- COUP: Coupeville
- EDMO: Edmonds
- FAUN: Fauntleroy
- FRID: Friday Harbor
- KING: Kingston
- LOPE: Lopez
- MUKI: Mukilteo
- ORCA: Orcas
- PTDE: Pt. Defiance
- PTTO: Port Townsend
- SEAT: Seattle
- SHAW: Shaw
- SIDN: Sidney, B.C.
- SOUT: Southworth
- TAHL: Tahlequah
- VASH: Vashon

WEEKDAY_WEEKEND = Weekday or Weekend Identifier

A code representing the day of week. Coded responses are:

1. Weekday
2. Saturday

PERIOD = Analysis Time Period

The analysis time period for the survey response. PM Peak Period sailings are generally those occurring between 3 and 7 PM on weekdays. Coded responses are:

- SAT: Saturday
- WEEK_OP: Weekday Off-Peak Period
- WEEK_PM: Weekday PM Peak Period

TIME = Ferry Departure Time

The scheduled departure time of the ferry, as noted by ETC Institute.

AM_PM = Ferry Departure Time AM or PM

Indicator whether the ferry departure time is AM or PM. Coded responses are:

- A: AM
- P: PM

HOME_ADDRESS = Home Address

The home address of the survey respondent

HOME_CITY = Home City

The home city of the survey respondent

HOME_STATE = Home State

The home state of the survey respondent

HOME_ZIP = Home ZIP Code

The home ZIP Code of the survey respondent

HOME_LON = Home Longitude Coordinate

The longitude coordinate of the home address, if geocodable.

HOME_LAT = Home Latitude Coordinate

The latitude coordinate of the home address, if geocodable.

HOME_GEOCODE_LEVEL = Home Geocoding Level

The geographic level (e.g., address, city, zip) to which the home address was geocoded.

Q1_ORIGIN_TYPEOFPLACE = Origin Type of Place

The type of place respondent is coming from now. Coded options are:

1. Workplace
2. School
3. Home
4. Shopping
5. Someplace Else
9. None Chosen

Q2_ORIGIN_NAME = Origin Name

The name of place where the trip began.

Q3_ORIGIN_ADDRESS = Origin Address

The street address where the trip began.

Q3_ORIGIN_CITY = Origin City

The city where the trip began.

Q3_ORIGIN_STATE = Origin State

The state where the trip began.

Q3_ORIG_ZIP = Origin ZIP Code

The ZIP Code where the trip began.

Q3_ORIG_LON = Origin Longitude Coordinate

The longitude coordinate of the origin address, if geocodable.

Q3_ORIG_LAT = Origin Latitude Coordinate

The latitude coordinate of the origin address, if geocodable.

ORIGIN_GEOCODE_LEVEL = Origin Geocoding Level

The geographic level (e.g., address, city, zip) to which the origin address was geocoded.

Q4_ACCESSMODE_1ST = Mode of Access (First)

The first indicated mode of access to the origin ferry terminal (multiple responses allowed). Coded options are:

1. Walked two or more blocks to the ferry terminal
2. Bike
3. Train
4. Driver of vehicle/motorcycle
5. Passenger of vehicle/motorcycle
6. Zipcar/car2go
7. Bus
8. Taxi
9. Dropped off
10. Vanpool parked at terminal
11. Other Ferry
12. Other

Q4_ACCESSMODE_2ND = Mode of Access (Second)

The second indicated mode of access to the origin ferry terminal (multiple responses allowed). Coded options match those from Q4_ACCESSMODE_1ST.

Q4_ACCESSMODE_3RD = Mode of Access (Third)

The third indicated mode of access to the origin ferry terminal (multiple responses allowed). Coded options match those from Q4_ACCESSMODE_1ST.

Q4_ACCESSMODE_OTHER = Mode of Access (Other)

The survey respondent-indicated other mode of access to the origin ferry terminal.

Q4_AccessMode = Access Mode

The principal mode of access to the origin ferry terminal as determined through data cleaning and hierarchical selection. Coded options match those from Q4_ACCESSMODE_1ST.

Q5_DESTIN_TYPEOFPLACE = Destination Type of Place

The type of place respondent is coming from now. Coded options are:

1. Workplace
2. School
3. Home
4. Shopping
5. Someplace Else
9. None Chosen

Q6_DESTIN_NAME = Destination Name

The name of place where the trip ended.

Q7_DESTIN_ADDRESS = Destination Address

The street address where the trip ended.

Q7_DESTIN_CITY = Destination City

The city where the trip ended.

Q7_DESTIN_STATE = Destination State

The state where the trip ended.

Q7_DESTIN_ZIP = Destination ZIP Code

The ZIP Code where the trip ended.

Q7_DESTIN_LON = Destination Longitude Coordinate

The longitude coordinate of the destination address, if geocodable.

Q7_DESTIN_LAT = Destination Latitude Coordinate

The latitude coordinate of the destination address, if geocodable.

DESTIN_GEOCODE_LEVEL = Destination Geocoding Level

The geographic level (e.g., address, city, zip) to which the destination address was geocoded.

Q8_EGRESSMODE_1ST = Mode of Egress (First)

The first indicated mode of egress from the destination ferry terminal (multiple responses allowed).

Coded options are:

1. Walked two or more blocks from the ferry terminal
2. Bike
3. Train
4. Driver of vehicle/motorcycle
5. Passenger of vehicle/motorcycle
6. Zipcar/car2go
7. Bus
8. Taxi
9. Picked Up
10. Vanpool parked at terminal
11. Other Ferry
12. Other

Q8_EGRESSMODE_2ND = Mode of Egress (Second)

The second indicated mode of egress from the destination ferry terminal (multiple responses allowed). Coded options match those from Q8_EGRESSMODE_1ST.

Q8_EGRESSMODE_3RD = Mode of Egress (Third)

The third indicated mode of egress from the destination ferry terminal (multiple responses allowed). Coded options match those from Q8_EGRESSMODE_1ST.

Q8_EGRESSMODE_OTHER = Mode of Egress (Other)

The survey respondent-indicated other mode of egress from the destination ferry terminal.

Q8_EgressMode = Egress Mode

The principal mode of egress from the destination ferry terminal as determined through data cleaning and hierarchical selection. Coded options match those from Q8_EGRESSMODE_1ST.

Q9_TRAVELINGALONE = Indicator for Traveling Alone

An indicator whether the respondent is traveling with other people. Coded responses are:

1. None
2. One or more
9. None chosen/No response

Q9_Under_age_6 = Travelers Under Age 6

The number of people in the travel party under age 6.

Q9_Age_6-17 = Travelers Age 6 to 17

The number of people in the travel party between age 6 and 17.

Q9_Age_18-64 = Travelers Age 18 to 64

The number of people in the travel party between age 18 and 64.

Q9_Age_Over_65 = Travelers Age 65 or Older

The number of people in the travel party age 65 or older.

TOTALINTRAVELPARTY = Total Travelers in Party

The total number of people in the party traveling together, including the survey respondent.

Q10_Scheduled_depart_time_of_ferry = Scheduled Ferry Departure Time

The scheduled departure time of the ferry in hours and minutes

Q10_AM_PM = Scheduled Ferry Departure Time AM or PM

Indicator whether the scheduled ferry departure time is AM or PM. Coded responses are:

- A: AM
- P: PM

Q11_Is_this_the_sailing_you_wanted = Desired Sailing

Whether or not this sailing was the sailing the respondent wanted to take. Coded responses are:

1. Yes
2. Yes; had reservation
3. No; different ferry sailing time desired
4. No; different ferry route desired
9. None chosen/no response

Q11a_Different_time_preferred = Different Sailing Time Preferred

The preferred ferry sailing time, if indicated in desired sailing question.

Q11a_AM_PM = Different Sailing Time AM or PM

Indicator whether the different sailing departure time is AM or PM. Coded responses are:

- A: AM
- P: PM

Q11b_Different_route_preferred = Different Ferry Route Preferred

The preferred ferry route, if indicated in the desired sailing question.

Q12_How_many_minutes_wait_to_board = Boarding Wait Time

The stated amount of time in minutes the survey respondent waited to board the ferry.

Q13_Where_did_you_board_this_ferry = Boarding Wait Location

The location where the survey respondent waited prior to boarding the ferry. Coded responses are:

1. Passenger terminal
2. Vehicle holding area
3. On street
4. Other
9. None chosen/no response

Q13_Other = Boarding Wait Location (Other)

The other location the survey respondent waited if other was indicated in the previous question.

Q14_What_type_of_fare_was_collected = Fare Type

The fare type paid by the survey respondent. Coded responses are:

0. None chosen/no response
1. Free or collected in other direction
2. Passenger Full Fare
3. Passenger with Bicycle
4. Passenger Discounted Multi-Ride Card
5. Passenger with Monthly Pass
6. Passenger Youth Fare
7. Passenger Senior/Disabled Fare
8. Vehicle 14-22 ft / Driver Full Fare
9. Vehicle 14-22 / Driver Discounted Multi-Ride Card
10. Vehicle under 14 ft / Driver Full Fare
11. Vehicle under 14 ft / Driver Discounted Multi-Ride Card
12. Motorcycle/rider
13. Recreational Vehicle longer than 22 ft
14. Truck longer than 22 ft
15. Other
99. None chosen/no response

Q14_Other = Fare Type (Other)

The other fare type if other was selected for the fare type.

Q15_How_did_you_pay_your_fare = Fare Payment Type

The method in which the fare was paid. Coded responses are:

1. Cash
2. Credit/Debit
3. ORCA Card
9. Not provided

Q16_Reason_riding_ferry_today = Trip Purpose (First)

The survey respondent's first stated purpose for riding the ferry (multiple responses allowed). Coded responses are:

0. None chosen/no response
1. To/from workplace
2. Business-related activity
3. School
4. Medical Appointment
5. Sightseeing
6. Special Event
7. Personal business / errands
8. Social or Recreational activity
9. Shopping
10. Other

Q16_2nd_choice = Trip Purpose (Second)

The survey respondent's second stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_3rd_choice = Trip Purpose (Third)

The survey respondent's third stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_4th_choice = Trip Purpose (Fourth)

The survey respondent's fourth stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_5th_choice = Trip Purpose (Fifth)

The survey respondent's fifth stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_6th_choice = Trip Purpose (Sixth)

The survey respondent's sixth stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_7th_choice = Trip Purpose (Seventh)

The survey respondent's seventh stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_8th_choice = Trip Purpose (Eighth)

The survey respondent's eighth stated purpose for riding the ferry (multiple responses allowed). Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q16_Other = Trip Purpose (Other)

The survey respondent's other stated purpose for riding the ferry, if other was marked in any of the previous trip purpose responses.

Q16_TripPurpose = Trip Purpose (Principal)

The survey respondent's principal purpose for riding the ferry as determined via data-cleaning and hierarchical rules regarding purpose precedence. Coded responses are the same as those for Q16_Reason_riding_ferry_today.

Q17_Is_this_1st_or_2nd_half_of_trip = First or Second Half of Trip

Indicator whether this trip is the first or second half of the survey respondent's round trip. Coded responses are:

1. First half only
2. Second half only
3. No (not part of a round trip)
9. None chosen/no response

Q18a_When_will_you_return = Return Trip Day

The day the return trip is planned to occur, if the surveyed trip is the first half of a round trip. Coded responses are:

1. Today
2. Some other day
9. None chosen/no response

Q18b_How_will_you_return = Return Trip Travel Method

The travel method of the return trip, if the surveyed trip is the first half of a round trip. Coded responses are:

1. Same ferry route
2. Drive around
3. Different Ferry route
4. Other
9. None chosen/no response

Q18b_1_Different_route = Return Trip Travel Method (Other Route)

The other ferry route to be used for the return trip, if the survey respondent indicated a different ferry route in the previous question.

Q18b_2_Other = Return Trip Travel Method (Other)

The other method for the return trip, if the survey respondent indicated other in the previous question.

Q18c_When_was_first_half_of_trip = Initial Trip

The day the initial trip occurred, if the surveyed trip is the second half of a round trip. Coded responses are:

1. Today
2. Some other day
9. None chosen/no response

Q18d_How_did_you_travel_on_first_half = Initial Trip Travel Method

The travel method of the initial trip, if the surveyed trip is the second half of a round trip. Coded responses are:

1. Same ferry route
2. Drive around
3. Different Ferry route
4. Other
9. None chosen/no response

Q18d_1_Different_route = Initial Trip Travel Method (Other Route)

The other ferry route used for the initial trip, if the survey respondent indicated a different ferry route in the previous question.

Q18d_2_Other = Initial Trip Travel Method (Other)

The other method for the initial trip, if the survey respondent indicated other in the previous question.

Q19a_At_which_terminal_did_you_board_ = Boarding Ferry Terminal

The ferry terminal where the survey respondent boarded the ferry. Coded responses are:

- ANAC: Anacortes
- BAIN: Bainbridge Island
- BREM: Bremerton
- CLIN: Clinton
- COUP: Coupeville
- EDMO: Edmonds
- FAUN: Fauntleroy
- FRID: Friday Harbor
- KING: Kingston
- LOPE: Lopez
- MUKI: Mukilteo
- ORCA: Orcas
- PTDE: Pt. Defiance
- PTTO: Port Townsend
- SEAT: Seattle
- SHAW: Shaw
- SIDN: Sidney, B.C.
- SOUT: Southworth
- TAHL: Tahlequah
- VASH: Vashon

Q19b_Which_terminal_will_you_get_off_ = Alighting Ferry Terminal

The ferry terminal where the survey respondent alighted from the ferry. Coded responses are the same as the previous question.



Q20_How_will_you_board_this_ferry = Boarding Method

The method by which the survey respondent boarded the ferry. Coded responses are:

1. Vehicle
2. Walk
3. Bike
9. None chosen/no response

Q21a_What_type_of_vehicle = Vehicle Type

The type of vehicle, if the survey respondent boarded in a vehicle. Coded responses are:

1. Auto/SUV/Van/Pickup Truck
2. Vanpool program vehicle
3. Over-height / oversize commercial vehicle
4. Motorcycle
5. School bus
6. Public Transit bus
7. Camper/RV
8. Other
9. None chosen/no response

Q21a-Other = Vehicle Type (Other)

The other type of vehicle if the survey respondent indicated other in the previous question.

Q21b_Why_choose_to_board_in_vehicle = Vehicle Reason (First)

The first stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are:

0. None chosen/no response
1. Need vehicle at destination
2. Vehicle necessary for business
3. Too far to walk to destination
4. No safe nearby parking
5. Carrying baggage/load to destination
6. Traveling with young kids or seniors
7. Transit is not convenient
8. Transit does not go to destination
9. Mobility limitation
10. Other
99. None chosen/no response

Q21b_2nd = Vehicle Reason (Second)

The second stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_3rd = Vehicle Reason (Third)

The third stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_4th = Vehicle Reason (Fourth)

The fourth stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_5th = Vehicle Reason (Fifth)

The fifth stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_6th = Vehicle Reason (Sixth)

The sixth stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_7th = Vehicle Reason (Seventh)

The seventh stated reason the survey respondent chose to board in a vehicle instead of walking on (multiple responses allowed). Coded responses are the same as those for Q21b_Why_choose_to_board_in_vehicle.

Q21b_1_Impaired_by_steep_topography = Mobility - Impaired by Steep Topography

Whether or not the survey respondent is impaired by steep topography when walking, if the respondent indicated a mobility limitation in the vehicle reason questions. Coded responses are:

1. Yes
2. No
9. None chosen/no response

Q21b_2_Discourage_from_taking_transit = Mobility - Discouraged from Transit

Whether or not the survey respondent is discouraged from taking transit, if the respondent indicated a mobility limitation in the vehicle reason questions. Coded responses are:

1. Yes
2. No
9. None chosen/no response

Q21b_Other = Vehicle Reason (Other)

The other stated reason the survey respondent chose to board in a vehicle instead of walking on, if the survey respondent indicated other in the vehicle reason questions.

Q21c_Farthest_distance_you_will_walk = Walk Distance

The farthest distance (as number of blocks) the survey respondent is willing to walk.

Q22a_Did_you_park_before_boarding = Parked Vehicle

Indicator whether the survey respondent parked a vehicle or bike prior to boarding the ferry (respondent must have boarded the ferry in a vehicle). Coded responses are:

1. Vehicle
2. Bike
3. None
9. None chosen/no response

Q22b_Where_did_you_park = Parking Location

The location where the survey respondent parked a vehicle, if vehicle was indicated in the previous question. Coded responses are:

1. On street
2. In nearby parking lot/garage
3. Other
9. None chosen/no response

Q22b_Other = Parking Location (Other)

The other location where the survey respondent parked a vehicle, if other was indicated in the previous question.

Q22c_Amount_you_paid_to_park = Parking Cost

The amount of money paid by the survey respondent to park a vehicle (time unit provided in following question).

Q20c_Did_you_pay_by = Parking Payment Time Unit

The time unit by which the survey respondent paid to park a vehicle. Coded responses are:

1. Hour
2. Day
3. Month
9. None chosen/no response

Q22d_Was_cost_of_pk_g_subsidized-employr = Subsidized Parking

Indicator whether the cost of parking is subsidized by the survey respondent's employer. Coded responses are:

1. Yes
2. No
9. None chosen/no response

Q23_one-way_trips-past_7_days-inc_this = One-way Ferry Trips in Past Week

The number of one-way ferry trips taken by the survey respondent in the past week, including the surveyed trip.

Q23a_When_first_trip = First Ferry Trip

Indicator whether this trip is the first ferry trip in a given time frame. Coded responses are:

1. First trip in the past month
2. First trip in the past year
3. First trip ever
9. None chosen/no response

Q24_Used_any_ferr_route_past_7_days = Other Ferry Routes Used in Past Week

Indicator whether the survey respondent has used any other ferry route (other than the current route being surveyed) in the past week. Coded responses are:

1. Yes
2. No
9. None chosen/no response

Q25_What_year_were_you_born = Birth Year

The birth year of the survey respondent. No response or invalid year coded as 9999.

Q26_How_many_people_in_your_household = Household Size

The total number of people in survey respondent's household, including the respondent. Coded responses are:

1. 1
2. 2
3. 3
4. 4
5. 5 or more
9. None chosen/no response

Q27_How_many_cars_trucks_motorcycle_have = Household Vehicles

The total number of vehicles, trucks, and motorcycles in the survey respondent's household. Coded responses are:

0. 0
1. 1
2. 2
3. 3
4. 4 or more
9. None chosen/no response

Q28_Any_HH_member_have_Good_to_Go_acct = Good to Go Account

Indicator whether or not any member of the survey respondent's household has a *Good to Go!* tolling account. Coded responses are:

1. Yes
2. No
9. None chosen/no response

Q29_How_many_have_job_outside_home = Household Jobs

The total number of household members (including the survey respondent) who have a job outside the home. Coded responses are:

0. 0
1. 1
2. 2
3. 3 or more
9. None chosen/no response

Q30_Employment = Employment Status (First)

The first employment status of the survey respondent (multiple responses allowed). Coded responses are:

1. Employed Full-Time
2. Employed Part-Time
3. Student
4. Military
5. Retired
6. Unemployed
7. Other
9. Not provided

Q30_2nd_choice = Employment Status (Second)

The second employment status of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q30_Employment.

Q30_3rd_choice = Employment Status (Third)

The third employment status of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q30_Employment.

Q30_Other = Employment Status (Other)

The other employment status of the survey respondent if the survey respondent indicated other for any of the employment questions.

Q31a_Do_you_normally_work_compressed_wk = Compressed Work Week

Indicator if the survey respondent normally works a compressed work week (e.g., four 10-hour days or a 9/80 schedule), if the survey respondent is employed. Coded responses are:

1. Yes
2. No
3. Don't Know
9. None chosen/no response

Q31b_Did_you_work_from_home_past_7_days = Telecommute

Indicator if the survey respondent worked from home in the past seven days instead of commuting to work, if the survey respondent is employed. Coded responses are:

1. No
2. Yes
9. None chosen/no response

Q31b-Yes_of_days_worked_from_home = Telecommute Days

The number of days the survey respondent worked from home in the past seven days, if the respondent indicated they do work from home. Coded responses are:

1. 1
2. 2
3. 3
4. 4
5. 5 or more
9. None chosen/no response

Q31c_Are_you_likely_to_retire_next_5_yrs = Retirement Likely

Indicator if the survey respondent is likely to retire in the next five years. Coded responses are:

1. Yes
2. No
3. Don't Know
9. None chosen/no response

Q31d_Zip_code_where_you_work = Work ZIP Code

The ZIP Code of the respondent's work location.

q31d_place_name = Employment Place Name

The name of the survey respondent's work location if the ZIP Code was unknown.

Q32_Estimated_household_income-2012 = 2012 Household Income

The stated 2012 household income of the survey respondent. Coded responses are:

1. Less than \$15,000
2. \$15,000 - \$34,999
3. \$35,000 - \$49,999
4. \$50,000 - \$74,999
5. \$75,000 - \$99,999
6. \$100,000 - \$149,999
7. \$150,000 - \$199,999
8. \$200,000 or more
9. None chosen/no response

Q33_Race_Ethnicity = Race/Ethnicity (First)

The first race or ethnicity of the survey respondent (multiple responses allowed). Coded responses are:

1. African American/Black
2. Asian/Pacific Islander
3. American Indian/Alaskan Native
4. Hispanic
5. White
6. Other
9. None chosen/no response

Q33_2nd = Race/Ethnicity (Second)

The second race or ethnicity of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q33_Race_Ethnicity.

Q33_3rd = Race/Ethnicity (Third)

The third race or ethnicity of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q33_Race_Ethnicity.

Q33_4th = Race/Ethnicity (Fourth)

The fourth race or ethnicity of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q33_Race_Ethnicity.

Q33_5th = Race/Ethnicity (Fifth)

The fifth race or ethnicity of the survey respondent (multiple responses allowed). Coded responses are the same as those for Q33_Race_Ethnicity.

Q33_Other = Race/Ethnicity (Other)

The other race or ethnicity indicated by the survey respondent, if other was selected for any of the race/ethnicity questions.

Q33_RaceEthnicity = Race/Ethnicity

The final race or ethnicity of the survey respondent after data cleaning. Coded responses are:

1. African American/Black
2. Asian/Pacific Islander
3. American Indian/Alaskan Native
4. Hispanic
5. White
6. Other or Multiple Response
9. None chosen/no response

Q34_Speak_other_than_English = Non-English Language

Indicator whether a language other than English is spoken as the primary language in the survey respondent's household. Coded responses are:

1. No
2. Yes
9. None chosen/no response

Q34_Yes-which_language = Language

The other languages spoken as the primary language in the survey respondent's household, if yes was indicated in the previous question.

COMMENTS = Comments

Comments or feedback provided by the survey respondent

ORIGIN2DESTIN_MILES = Distance from Origin to Destination

The distance in miles from the origin to the destination location, used by ETC Institute to screen out responses with similar origins and destinations which would represent a round-trip rather than a one-way trip.

COMPLETE_85PCT = Completeness Flag

A variable indicating whether the respondent answered at least 85% of the survey questions. Coded values are:

- 0. No
- 1. Yes

HOME_GEOCODED = Home Geocoded

Flag for whether the home address was able to be geocoded. Coded values are:

- 0. No
- 1. Yes

ORIGIN_GEOCODED = Origin Geocoded

Flag for whether the origin address was able to be geocoded. Coded values are:

- 0. No
- 1. Yes

DEST_GEOCODED = Destination Geocoded

Flag for whether the destination address was able to be geocoded. Coded values are:

- 0. No
- 1. Yes

INCOME_PROVIDED = Income Provided

Flag for whether the household income was provided. Coded values are:

- 0. No
- 1. Yes

QA_QC_SCORE = QA/QC Score

The quality control score representing the sum of the previous five QA/QC check questions. Scores range from 0 to 5. Note however that responses that are 85% complete with only the origin and destination address geocoded are valid responses, so QA/QC scores as low as 3 are acceptable.

ROUTE = Ferry Route

The ferry sailing route as indicated by the user (may vary from ETC Institute SAILING_OD). This field is a concatenation of questions 19a and 19b, the Boarding and Alighting ferry terminals.

VALID_OD = Valid OD Flag

Flag variable whether both the origin and destination address are geocodable. Coded values are:

0. No
1. Yes

VALID_MODE = Valid Mode Provided

Flag variable whether a valid boarding mode was indicated by the survey respondent. Coded values are:

0. No
1. Yes

USABLE = Usable Record

Flag variable whether the survey record is usable or not. Records are usable as described in Section 2.2.1 in Chapter 2. Generally, records must have valid geocodable origin and destination locations, a valid boarding mode, and trip purpose. Walk-on survey respondents must also provide valid access and egress modes to and from the ferry terminals. Records with incoherent or contradictory information were marked unusable. Coded values are:

0. No
1. Yes

OD_DIFF = OD Difference

A flag variable marking whether the user stated ferry route was different from the ETC Institute recorded route for usable records. Differences are permitted on multi-destination routes such as those serving Vashon Island and the San Juan Islands. Coded values are:

0. No Difference; values match
1. Routes do not match

MATCH = Match

A variable used during QA/QC to identify matching records based on Microsoft Excel Match formulas.

SUSPECT_ORIG = Suspect Origin

A variable indicating whether the origin location is suspected to be incorrect or not. Incorrectness is suspected from various issues such as locations places in water, or odd or unlikely travel patterns. Coded values are indicated below. A value of -1 is unique to the San Juan Islands routes and indicates that the record was suspected but was later determined to be acceptable.

0. Not suspected
1. Suspected Incorrect Location
2. Potential Flipped Origin and Destination

SUSPECT_DEST = Suspect Destination

A variable indicating whether the destination location is suspected to be incorrect or not. Incorrectness is suspected from various issues such as locations places in water, or odd or unlikely travel patterns. Coded values are indicated below. A value of -1 is unique to the San Juan Islands routes and indicates that the record was suspected but was later determined to be acceptable.

ETC_FLIPPED = ETC Flipped

A flag indicating whether ETC Institute suspected that the origin and destination locations were flipped. Coded values are:

0. No issue
1. Suspected flipped origin and destination

PB_Edited = PB Edited Record

A flag indicating that the record was altered or adjusted by Parsons Brinckerhoff during the data cleaning process. Coded values are:

0. Not altered
1. Record altered

ETC_ERROR = ETC Error

A flag variable correcting information received from ETC Institute. Most errors arose from incorrect route identification or geocoding, and all but one was marked unusable due to origin or destination location issues. Coded values are:

0. No error
1. Suspected error

OLD_O_LNG = Old Origin Longitude Coordinate

The original ETC geocoded origin longitude coordinate prior to adjustment by Parsons Brinckerhoff.

OLD_O_LAT = Old Origin Latitude Coordinate

The original ETC geocoded origin latitude coordinate prior to adjustment by Parsons Brinckerhoff.

OLD_D_LNG = Old Destination Longitude Coordinate

The original ETC geocoded destination longitude coordinate prior to adjustment by Parsons Brinckerhoff.

OLD_D_LAT = Old Destination Latitude Coordinate

The original ETC geocoded destination latitude coordinate prior to adjustment by Parsons Brinckerhoff.

NOTE = Note

A QA/QC note during the cleaning process for instructions back to ETC Institute. No longer used; all are blank.

SURVEY_LANG = Survey Language

The language in which the survey was conducted. Coded responses are:

- E: English
- S: Spanish

UserClass = User Class

A computed field to select survey responses based on boarding class. Coded values are:

- Unusable – unusable record
- VehDriver – survey respondent boarded by vehicle and was the driver
- VehPax – survey respondent boarded by vehicle and was a passenger
- Walkon – survey respondent boarded by walk-on or bicycle.

O_TAZ = Origin TAZ

The TAZ in which the origin address is located as identified through geospatial analysis in ArcGIS software.

D_TAZ = Destination TAZ

The TAZ in which the destination address is located as identified through geospatial analysis in ArcGIS software.

O_DIST = Origin District

The district in which the origin address is located as identified through geospatial analysis in ArcGIS software. District definitions vary based on the ferry route.

D_DIST = Destination District

The district in which the destination address is located as identified through geospatial analysis in ArcGIS software. District definitions vary based on the ferry route.

TT_EXP = Trip Table Expanded (*trip-table expanded data table only*)

A flag indicating the record was expanded using the vehicle passengers according to the trip-table expansion method discussed previously. Coded values are:

0. Trip-table expanded record using stated passenger information
1. Normal record from survey data

XF_Mult = Expansion Factor Multiplier (*trip-table expanded data table only*)

The expansion factor multiplier for the trip-table expansion method. For non-commute trip purpose vehicle driver survey responses which were duplicated to serve as the stated vehicle passengers, this is the total number of people in the travel party minus one for the driver. For all others, it is equal to one.

TTXF = Trip Table Expansion Factor (*trip-table expanded data table only*)

This is the computed expansion factor to expand the trip table responses to the observed ferry ridership population. This value varies by ferry route, sailing direction, survey time period, and user class.

XF = Expansion Factor

This is the final expansion factor to weight each response such that the responses can be expanded to represent the observed ferry ridership population. This value varies by ferry route, sailing direction, survey period, and user class. For the survey data table, this value is the computed expansion factor for each combination of ferry route, sailing direction, survey time period, and user class. For the trip-table expanded data table, this is the product of the expansion factor multiplier and the trip-table expansion factor, $XF_Mult * TTXF$.

Retired = Retired Flag (*survey data table only*)

A flag variable to indicate whether the survey respondent is retired or not. Coded values are:

0. Not retired
1. Retired

Transit = Transit Flag (*survey data table only*)

A flag variable to indicate whether the survey respondent used transit for access or egress (non-vehicle board only). Coded values are:

0. Did not use transit
1. Used transit

WalkAccEgr = Walk Access/Egress Flag (*survey data table only*)

A flag variable to indicate whether the survey respondent walked for the access or egress mode (non-vehicle board only). Coded values are:

0. Did not walk
1. Walked

BikeAccEgr = Bicycle Access/Egress Flag (*survey data table only*)

A flag variable to indicate whether the survey respondent bicycled for the access or egress mode (non-vehicle board only). Coded values are:

0. Did not bicycle
1. Bicycled

DDP_Routes = Data-Driven Pages Route Name

The full name of the ferry route for use in geospatial analysis and map-making in ArcGIS.

Direction = Sailing Direction

The direction of travel for each route. The Point Defiance – Tahlequah route is truly a northbound-southbound route, but the northbound trip to Tahlequah is labeled westbound while the southbound trip is labeled eastbound to match the majority of sailings where the westbound trip is the trip where fares are collected for walk-on passengers.

CODE = Route Code

The route code using short (generally two-letter) codes for each terminal. Coded values are:

- AN-SJ: Anacortes–San Juan Islands
- AN-SI: Anacortes–Sidney, B.C.
- INTER: Inter-Island (including Friday Harbor, Lopez Island, Orcas Island, and Shaw Island)
- MU-CL: Mukilteo–Clinton
- PT-CO: Port Townsend–Coupeville
- SE-BA: Seattle–Bainbridge Island
- SE-BR: Seattle–Bremerton
- ED-KI: Edmonds–Kingston
- FA-VA: Fauntleroy–Vashon
- FA-SO: Fauntleroy–Southworth
- SO-VA: Southworth–Vashon
- PD-TA: Point Defiance–Tahlequah

OrigCounty = Origin County

The county of the origin address, if in Washington State.

DestCounty = Destination County

The county of the destination address, if in Washington State.

HomeCounty = Home County (*survey data table only*)

The county of the home address, if in Washington State.

Home_in_BC = Home in British Columbia Flag (*survey data table only*)

A flag variable to indicate whether the home address is in British Columbia, Canada. Coded values are:

0. Not in British Columbia
1. In British Columbia

InvalidHome = Invalid Home Flag (*survey data table only*)

A flag variable to indicate whether the home address is valid. Coded values are:

0. Valid home address
1. Invalid home address