



Washington State Ferries

Washington State Department of Transportation  
Ferries Division

# 2013 Origin-Destination Travel Survey Report

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## Appendices

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Appendix A Survey Questionnaire

Appendix B WSF TAZ/District Systems

Appendix C Survey Database Documentation

Appendix D Characteristics of Non-Vehicle Mode Users—Corridor Level Findings

## ACRONYMS AND ABBREVIATIONS

AVO	average vehicle occupancy
CBD	Central Business District
CTR	Commute Trip Reduction
GIS	geographic information system
PSRC	Puget Sound Regional Council
TAC	Technical Advisory Committee
TAZ	Transportation Analysis Zone
WSF	Washington State Ferries

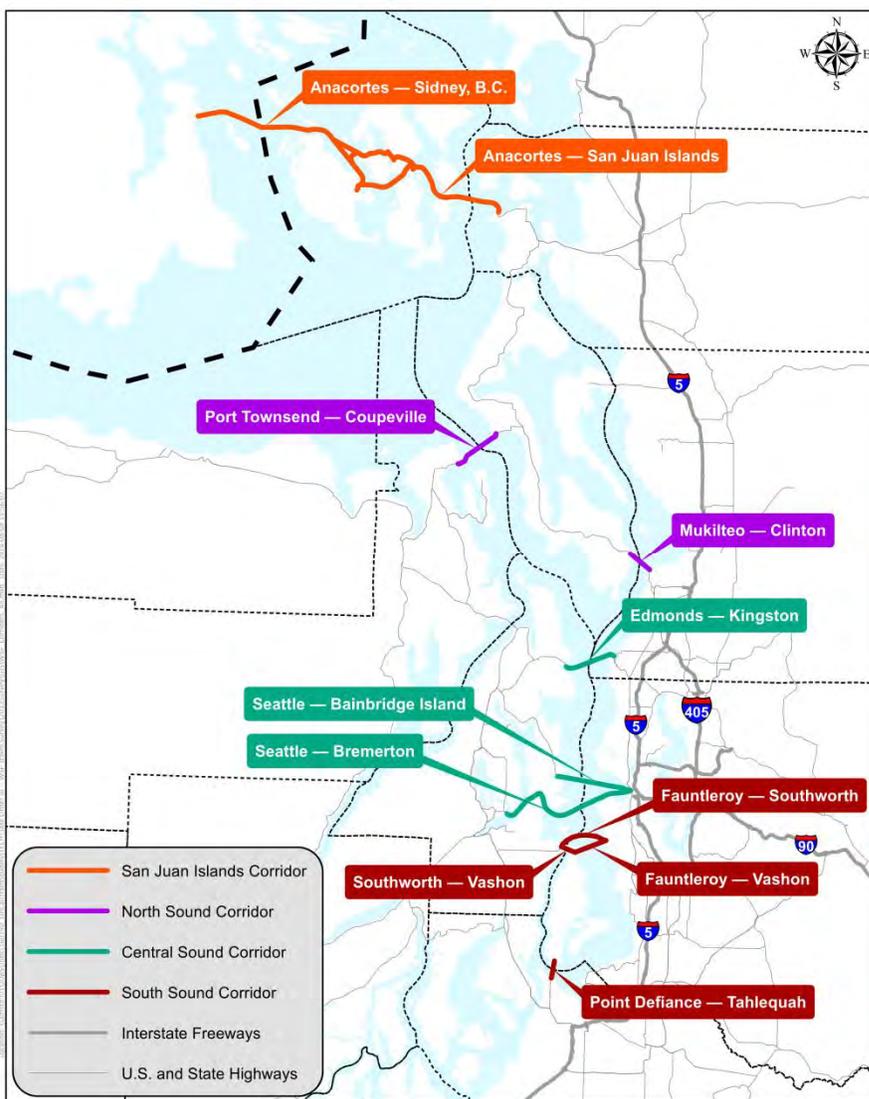
# 1 EXECUTIVE SUMMARY

## 1.1 Overview

The Washington State Ferries (WSF) operates the largest ferry system in the United States. Twenty-two ferries cross the inland waterways of Puget Sound, carrying nearly 23 million passengers and 10 million vehicles system-wide to 20 different ports in 2013. The 10-route system serves 12 counties within the state of Washington and the province of British Columbia (See Figure 1-1).

Whether managing existing demand, programming service to meet future travel patterns, securing new capital funds, reducing operating costs, or maintaining its aging fleet and terminal facilities, WSF must understand the needs and travel patterns of its customers to achieve its vision of providing unparalleled ferry transportation performance, exceptional customer service, and a rewarding working environment.

Figure 1-1. Corridor travel markets for the Washington State Ferries system



To this end, WSF embarked on a comprehensive, system-wide travel survey in the fall of 2013. The survey represents an update and expansion of the 2006 Origin-Destination Survey along with previous survey efforts in 1993 and 1999, and was executed with a methodology and questions similar to those of the previous surveys to allow for tracking of trends over time. The 2013 survey is of critical interest to WSF, as other data sources have begun to indicate some significant shifts in the demographics and travel characteristics of WSF riders. Understanding these significant shifts in their customer base will help WSF to better match services with customer needs, run an efficient ferry operation, and update data inputs to the ferry travel model for use in the upcoming update of the WSF Long-Range Plan.

The travel survey was administered to a sample of ferry users during weekdays and Saturdays during the month of October. Average daily ridership levels in the months of May and October are close approximations of annual average daily ridership. In contrast, ridership during the summer months is higher due to additional tourist traffic, while mid-winter ridership is the lowest of the year. A specific sampling plan was developed for conducting a census of all weekday PM peak-period riders on each route for a selected survey day, as well as a sample of vessel sailings to capture the representative travel patterns of weekday non-PM peak period and Saturday users.

Approximately 17,500 survey questionnaires were collected system-wide from weekday and Saturday passengers on the sampled vessel sailings. The questionnaires were screened for completeness and accuracy, and used to develop a comprehensive database of ferry user characteristics, including geographically coding the locations for each respondent's trip origin and destination to facilitate the mapping of travel patterns. Of the questionnaires collected, 16,027 records (92 percent) were sufficiently complete for tabulation and analysis. The product of the travel survey is a complete and organized survey dataset available to the public and WSDOT staff for operational and planning purposes. This report presents the results and major findings from this survey research effort, including trend comparisons with previous surveys.

## 1.2 Previous Survey Efforts

The 2013 travel survey represents an update to previous surveys, including the 2006, 1999, and 1993 onboard surveys conducted by WSF. The percentage of usable survey responses collected as a percentage of survey-month ridership is compared by time period in Table 1-1. As seen in the table, total survey month ridership peaked around 2000 and has declined somewhat in most of the period since then due to a combination of factors discussed in the report. Recently the trend has flattened, with slight ridership increases in 2010, 2012 and 2013.

There also was a previous onboard survey in 1984. In addition, WSF conducted a small sample survey in 2003 for the South Sound routes. These surveys are described below.

**Table 1-1. Comparison of survey response and usable surveys to previous years by survey month ridership**

Category	May 1993	May 1999	Oct 2006	Oct 2013
Total Ridership during Survey Month	1,983,746	2,268,643	1,925,352	1,754,257
Surveys Returned	15,750	18,000	13,801	17,527
Usable Surveys	13,832	15,082	11,844	16,027
Usable Surveys as % of Survey Month Ridership	0.7%	0.7%	0.6%	0.9%

*Each route was surveyed on one weekday and one weekend day per route.*

In May and August of 1984, an onboard origin-destination survey of ferry users was conducted on all WSF routes. Both weekday and weekend users were surveyed. The tabulations of origins and destinations from this survey were not coded to a fine level of geographic detail and are not comparable to current 2013 survey results.

In 1993, an onboard origin-destination survey of ferry users was conducted on WSF routes during May and August. In May, ferry riders were surveyed during the PM peak period on a Tuesday and Sunday on all ferry routes to capture both weekday and weekend travel patterns. A follow-up survey was then administered to PM peak-period riders in August on the five most tourism/recreation-oriented northern routes. A total of 15,750 questionnaires was completed and returned in this survey and, of these, 13,832 surveys (88 percent) were usable for analysis.

In May 1999, an onboard origin-destination survey of ferry users was conducted on all WSF routes. Surveys were collected on one midweek day (Tuesday, Wednesday, or Thursday) and a Sunday. Travel information was collected for the weekday PM peak period, the remaining weekday non-PM peak period hours of the day, and Sunday. A total of 18,000 questionnaires were completed and returned for this survey and of these, 15,092 (84 percent) were usable for analysis.

The WSF 2003 South Sound Survey was undertaken to collect travel information during the weekday PM peak period and focused on five South Puget Sound routes. Two main objectives of the 2003 PM half-day survey included examining whether ferry-user travel patterns have changed since 1999 and providing data to help understand how ferry travelers align themselves on the mainland with respect to the ferry terminals in West Seattle and Downtown Seattle. The data from the 2003 survey are not comparable to the 2006 survey because it was not a system-wide, comprehensive survey and inconsistencies in survey methodology make direct comparisons problematic.

In October 2006, an onboard origin-destination survey of ferry users was conducted on all WSF routes. The survey was conducted during the weekday PM peak period for weekday travel, and during the AM peak period on Saturdays for weekend travel to capture behavior for the highest ridership periods. A total of 13,801 questionnaires were completed and returned for this survey and, of these, 11,844 (86 percent) were usable for analysis.

### 1.3 2013 Key Findings

As a precursor to reading and reviewing the extensive analysis results and findings presented in the following chapters, this section highlights some of the key findings identified in analyzing the 2013 survey, including noteworthy differences between the 2013 survey results and those of the 2006 survey. In addition, most of the following key findings relate to system-wide trends or broad-reaching results, although some corridor-level and route-specific results are also presented.

### 1.3.1 System-wide Findings

Despite a steady increase in overall population in the 12-county WSF service area (3.9 million in 1999, 4.3 million in 2006, and 4.6 million in 2013), system-wide ridership has decreased over much of the past 15 years (72,200 per day in 1999, 65,300 per day in 2006, and 61,700 in 2013), and has only shown signs of flattening in the most recent three years. Multiple factors likely contribute to this:

- Significant fare increases well in excess of general inflation (the base cross-sound fare for a vehicle and driver increased from \$6.50 in 1999 to \$11.25 in 2006, to \$12.90 in 2013).
- Service reductions resulting in fewer sailings compared with 1999 and 2006.
- An aging population of riders (average age in 1993 was 42, 48 in 2006, 49 in 2013). Approximately 18 percent of riders are retired and another 14 percent are planning on retiring in the next five years. Furthermore, the percentage of survey respondents age 65 or older grew from 13 percent in 2006 to 18 percent in 2013.
- Increases in people telecommuting (25 percent of weekday travelers reported that they telecommute at least one day per week compared to 20 percent in 2006).
- A shift in trip purposes away from frequent commuter ridership as a result of the above trends (weekday: 58 percent work/school in 2006, 54 percent in 2013; Saturday: 59 percent recreation/shopping in 2006, 67 percent in 2013).
- The recession toward the end of the last decade is also credited with having negatively impacted ridership.
- Of respondents with a valid home location provided, 92 percent live within the 12-county WSF service area. Thus, regional economic and demographic trends would have much more influence on ridership than national tourism trends.

These factors vary by corridor and individual route, and are discussed in more detail in the following sections.

### 1.3.2 Corridor-level Findings

The corridor analysis focuses on ridership travel-sheds and the geographic characteristics that segment the WSF market based upon the patterns of trip origins and destinations exhibited on groups of one or more similar routes. The corridor groupings align with the same four corridors used in the 2006 survey. Below are a few of the key corridor-level findings for the four multi-route corridors; additional analysis results and details are provided in Chapters 4 through 8.

#### San Juan Islands Corridor

The San Juan Islands Corridor is comprised of the Anacortes–San Juan Islands route (including inter-island routes) and the Anacortes–Sidney, British Columbia international ferry route. Due to limited other options, the majority of visitors and residents to and from the islands travel via WSF.

- Weekday trip frequency is much lower for the San Juan Islands Corridor than the other corridors (two trips per week vs. three to five for the other corridors), as is the percentage of work/school trips.
- The largest trip purpose share of total trips has shifted since 2006 from work/school trips (40 percent in 2006) to recreational/shopping trips (40 percent in 2013).

- The average age of survey respondents increased from 50 in 2006 to 53 in 2013, with a greater percentage of survey respondents over the age of 64, and almost a quarter of the respondents indicating that they are retired.
- The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew from 48 percent in 2006 to 56 percent in 2013 for the corridor; this parallels an increase by 6 percent in non-motorized boardings in which a vehicle was parked at the terminal on weekdays.
- Same day round-trips for weekend trips decreased from 61 percent in 2006 to 48 percent in 2013.
- Of respondents riding on routes serving the San Juan Islands, 53 percent who provided a valid home location live on the San Juan Islands. Only riders riding from Anacortes–San Juan Islands or Inter-Island routes were considered, not those riding from Anacortes–Sidney, B.C. If including Anacortes–Sidney, B.C. riders, the statistic becomes 51 percent of riders live on the San Juan Islands.

### **North Sound Corridor**

The North Sound Corridor is comprised of the Port Townsend–Coupeville and Mukilteo–Clinton ferry routes. While Whidbey Island does have a bridge at the north end that provides non-ferry access, the length of the island (36 miles) and the limited capacity of the bridge mean that WSF provides the main access route via the Mukilteo–Clinton and Port Townsend–Coupeville routes.

- The trip purpose share of weekday work/school trips has decreased from 52 percent in 2006 to 43 percent in 2013, while the share of recreation/shopping trips has increased from 26 percent to 32 percent.
- Recreational/shopping Saturday trips increased from 57 percent in 2006 to 71 percent in 2013, which corresponds with the number of round-trip patterns doubling from 2006 Saturday trips in the North Sound Corridor.
- More than half of walk-on boardings during the PM peak period access or egress the ferry by transit, while the vast majority of walk-on boardings during non-PM peak period and Saturdays access or egress by vehicle.
- Saturday North Sound Corridor routes exhibited an almost 20-point increase in the percentage share of responses that indicated they parked a vehicle prior to walking aboard the ferry, which was specifically attributed to the changes on the Mukilteo–Clinton route.

### **Central Sound Corridor**

The Central Sound Corridor is comprised of the three central cross-sound routes: the Seattle–Bainbridge Island, Seattle–Bremerton, and Edmonds–Kingston ferry routes. The corridor serves Kitsap County, Bainbridge Island, and the Olympic Peninsula via the Hood Canal Bridge.

- Central Sound continues to be the highest-traveled corridor in the WSF system, with 12.4 million riders per year, down from 13.2 million passengers in 2006 and a peak was in 1999 with 14.4 million passengers.
- More than 60 percent of trips are associated with a work/school purpose, with a frequency of five trips per week on weekdays as compared to three trips per week for the North Sound.

- Since 2006 the Seattle–Bainbridge Island route has exhibited a more rapidly aging rider profile than any route in the corridor, with the number of passengers over age 64 increasing from about 8 percent to 17 percent between the 2006 and 2013 surveys.
- The Seattle–Bremerton route remains stable as the route with the youngest rider population, with an average age of 39 years old.
- The Central Sound Corridor has exhibited a shift in trip frequency from high frequency use patterns in 2006 toward a more moderate trip frequency in 2013.
- The decrease in vehicle boardings from 2006 to 2013 ranged from 9 percentage points on the Seattle–Bremerton route, to 7 points on the Seattle–Bainbridge Island route, to 3 points on the Edmonds–Kingston route. This is consistent with annual ticket sales statistics, which show a similar yet less substantial trend in decreased vehicle boardings.
- There is some increase in the number of trips with origins and destinations nearer to the terminals on all of the routes in this corridor, and a corresponding decrease in trips to/from points farther away from the terminals on each side of the crossing.

### South Sound Corridor

The South Sound Corridor is comprised of the Fauntleroy–Vashon, Fauntleroy–Southworth, Southworth–Vashon, and Point Defiance–Tahlequah ferry routes. The corridor provides connectivity between Downtown Seattle via Fauntleroy in West Seattle, the north end of Vashon Island, and Southworth in Kitsap County. This corridor also connects the south end of Vashon Island with Tacoma. Historically, WSF operated a passenger-only ferry service between Downtown Seattle and Vashon Island, facilitating transfers to Southworth at Vashon. King County officially took over operation of this service in 2008.

- The South Sound Corridor, like others in the system, is experiencing an aging population, a corresponding reduction in the frequency of commuter trips, and a slow shift toward recreational and shopping trips.
- Although driving is still the predominant method of use on South Sound routes (more than 80 percent of weekday trips), the percentage of non-motorized trips in which a vehicle was parked at the terminal increased significantly between 2006 (26 percent) and 2013 (40 percent).
- The number of trips to areas around the terminals on all of the routes in this corridor increased, and trips farther away from the terminals on each side decreased.

## 1.4 Report Organization

The report is organized around four main sections following this introduction:

- Chapter 2—Survey Methods and Results
- Chapter 3—System-wide Market Trends
- Chapter 4—Corridor Travel Markets
- Chapters 5 through 8—Individual Corridor and Route Analyses and Survey Results

Chapter 2 covers WSF system-wide trends through the presentation of overall survey results segmented by weekday versus Saturday travel, peak versus non-PM peak times, user trip purposes, travel modes, frequency of use, and other relevant characteristics. Where possible, comparisons to 2006 survey results are included in the 2013 system-wide analysis. The focus in this chapter is on the different system-wide WSF market segments rather than on the geographic and route differences within market segments, which are covered in subsequent chapters.

Chapter 3 discusses survey results and market trends for the four travel corridor markers: the San Juan Islands Corridor, the North Sound Corridor, the Central Sound Corridor, and the South Sound Corridor. Identified corridors consist of two or more routes grouped by common characteristics. The emphasis is placed upon geographic and modal factors that segment WSF markets, and also considers the ferry and non-ferry travel alternatives of the corridors. However, information on travel characteristics and demographics is presented in this analysis as well.

Chapters 4-7 present key survey tabulations and analyses presented for each corridor and at the individual route level. Routes are generally defined as ferry service between any two departure and arrival terminals, except in the San Juan Islands, where service has been aggregated across multiple domestic and international island destinations to simplify the presentation of results. A range of tabulated results from general ferry rider characteristics to detailed travel patterns regarding access, boarding, and egress modes by direction are provided for both the corridor and route level.

Chapter 8 summarizes the survey approach, methodology, and results applications to familiarize the interested reader about the survey process, including questionnaire development, sample design, survey periods, question coding, and data analysis. Various survey precision levels based upon question type and data subset are presented. Additional information about the survey databases, including the data contained and the available formats, are also provided, along with general guidelines regarding the application of the survey data and results. Finally, Chapter 8 also touches on the geographic information system elements of this survey, including the geocoding of key addresses to latitude–longitude (x–y) coordinates and the revisions made to the existing WSF Transportation Analysis Zone system.

For key survey tabulations and analyses presented in Chapters 2-7, survey period responses have been expanded to survey period ridership (unless otherwise noted). More information regarding expansion methods can be found in Chapter 8.

Survey forms used in the data collection effort are provided in Appendix A. District and traffic analyses zone maps are provided in Appendix B. Detailed survey database documentation is provided in Appendix C.

## 2 SYSTEM-WIDE MARKET TRENDS

This chapter examines characteristics and trends of ferry travel system-wide. Using the 2013 WSF Travel Survey data, various market segments are analyzed by trip purpose, boarding method, frequency of use, and others which characterize or subdivide system-wide ferry use. Differences between weekday travel and Saturday travel are highlighted. The 2013 survey was executed with a similar methodology and questions of previous surveys in order to allow for a cross section comparison over time when possible.

Survey period responses have been expanded to survey period ridership. More information regarding expansion methods can be found in Chapter 8.

### 2.1 Washington State Ferries Market Summary

General characteristics of the Washington State Ferries (WSF) system between 2006 and 2013 are provided in Table 2-1.

**Table 2-1. General comparisons between 2006 and 2013**

Characteristic	2006 Survey	2013 Survey
Ridership	65,300 / day	61,700 / day (22.5 million / yr)
Average revenue per rider (one-way)	\$10.40 vehicles/drivers \$ 2.52 passengers	\$12.31 vehicles/drivers \$ 3.04 passengers
Perceived Wait Time	24 minutes overall	15 minutes weekday 20 minutes Saturday
Percent weekday work trips	58%	54%
Average age	48	49
Percent weekday telecommuters	20%	25%
Weekday trip frequency	66% took more than 2 trips	61% took more than 2 trips
Saturday trip frequency	45% only 1 trip	52% only 1 trip
Percentage of ferry round trips spanning more than one day	25%	20%
Boarding Method - Weekday	72% drive, 27% walk, 1% bike	69% drive, 29% walk, 2% bike
Boarding Method - Saturday	82% drive, 17% walk, 1% bike	79% drive, 20% walk, 1% bike

The WSF system carries 22.5 million riders per year, or an average of about 61,700 riders per day. This is down 6 percent from the ridership in 2006 (65,300 riders per day). The average one-way revenue per rider collected in 2013 system-wide was \$12.31 for vehicles/drivers and \$3.04 for passengers. Fares have increased since 2006 from an average revenue per rider of \$10.40 for vehicle/drivers and \$2.52 for passengers. These fares are calculated by dividing the total fares collected by the number of one-way trips, and reflect not only changes in fares, but also shifts in the distribution of riders between different fare categories and routes. The average system-wide

perceived wait time for ferry riders is 15 minutes for weekday trips and 20 minutes for Saturday trips, a decrease from an overall 24 minutes in perceived wait time in 2006.

Weekday travel is dominated by work trips (more than 54 percent). Even though work trips are the most common trip purpose, they have been declining as a percentage of total trips since 1999 (from 60 percent in 1999 and 58 percent in 2006). This is likely due to a combination of factors, including an aging rider population base (the average age was 49 years old in 2013 compared with 48 in 2006); more people telecommuting (25 percent of weekday travelers reported that they telecommute at least one day per week compared to 20 percent in 2006); more job opportunities on the west side of Puget Sound; higher fares may discourage more frequent travel; and more people can work at home full-time. Weekday travelers are most likely to travel four days per week (more than 61 percent use ferries four days per week), but Saturday travelers are most likely to travel only one day per week (52 percent), indicating that the Saturday market is made up of different people traveling for different purposes than the weekday market.

*“Even though work trips are the most dominant trip purpose, they have been declining as a percentage of total trips since 1993.”*

The vast majority of travelers complete a round-trip on the same day and use the same ferry route, as expected (see Section 2.3.3), but the number of round-trips spanning more than one has decreased in recent years (from 25 percent in 2006 to 20 percent in 2013) for weekdays. In 2013, a larger percentage of Saturday riders return on the same day than in 2006.

There is a decreasing trend in ferry riders boarding in a vehicle (72 percent in 2006 to 69 percent in 2013) and a slight increase in ferry riders who walk on-board (27 percent in 2006 to 28 percent in 2013) for weekday trips. Similarly, there is a decrease in vehicle boardings for Saturday trips (82 percent in 2006 to 79 percent in 2013). The percentage of riders boarding by bike has increased for weekday trips since 2006, though the percentage of total boardings remains small (1 percent in 2006 to over 2 percent in 2013). Even with increased parking costs, a significant number of people park a vehicle before boarding the ferry.

In addition to the summary above, there were many other questions asked on the survey that describe ferry rider characteristics. These are summarized in Table 2-2.

**Table 2-2. General findings summary**

Characteristic	Summary	New Item
Sailing Preference: Time/Route	8.2% want a different time 0.2% want a different route	
Median Wait Time (Perceived)	15 minutes weekday 20 minutes Saturday	
Wait Location	In passenger terminal 22% In vehicle holding area 70% On street 3%, Other 4%	
One-Way Trips per Week Statistics	Weekday median: 4 trips per week Saturday median: 1 trip per week	
When will you return? Or When did you travel on the first half of your trip?	20% weekday riders some other day 30% Saturday riders some other day	

**Table 2-2. General findings summary (continued)**

Characteristic	Summary	New Item
How will you return? Or how did you travel on the first half of your trip?	4 percent drive around 5 percent take a different ferry route	
Mode of Access	8% walked, 1.3% biked, 4.5% transit, 0.4% taxi, 50.2% car driver, 32.2% car passenger, 0.1% other ferry, 0.1% carshare, 3.1% dropped off, 0.2% vanpool	
Trip Purpose - Weekday	54% work/school, 21% personal business/other, 25% shopping/recreation	
Trip Purpose - Saturday	10% work/school, 23% personal business/other, 67% shopping/recreation	
Boarding Method - Weekday	69% drive, 29% walk, 2% bike	
Boarding Method - Saturday	79% drive, 20% walk, 1% bike	
Vehicle Type	Auto/SUV/Van/Pickup 94.4% Vanpool program vehicle 1.3% Oversize commercial vehicle 0.7% Motorcycle 1.8% School bus 0.6% Public transit bus 0.1% Camper/RV 0.3% Other 0.6%	
Reasons for Vehicle Boarding	Need vehicle at destination 69% Vehicle is necessary for business 8% Too far to walk 34% No safe nearby parking 1% Carrying baggage or load 11% Traveling with children or seniors 7% Transit is not convenient 13% Transit does not go to destination 9% Mobility impaired 4% Other answer 3%	
Parked a Vehicle	42% weekday, 54% Saturday	
Parking Location	On street 14% Nearby parking lot/garage 75% Other 11%	
Subsidized Parking	7% of weekday parking is subsidized 3% of Saturday parking is subsidized	
Mode of Egress	7.6% walked, 1.2% biked, 5.6% transit, 0.6% taxi, 48.5% car driver, 32.5% car passenger, 0% other ferry, 0% carshare, 3.8% dropped off, 0.1% vanpool	
Travel Party Size	Average: 1.8 weekday, 2.4 Saturday	

**Table 2-2. General findings summary (continued)**

Characteristic	Summary	New Item
Fare Type	Free (no fare collected or fare collected in other direction) 18.6% Passenger full fare 18.7% Passenger with bicycle 0.7% Passenger discounted multi-ride 3.7% Passenger with monthly pass 5.3% Passenger youth fare 1% Passenger senior/disabled 8.1% Vehicle 14-22 ft full fare 20.5% Vehicle 14-22 ft discounted multi-ride 9.2% Vehicle under 14 ft full fare 7.5% Vehicle under 14 ft discounted multi-ride 2.9% Motorcycle/rider 1.2% Recreation vehicle longer than 22 ft 0.2% Truck longer than 22 ft 0.4% Other ticket type 2.1%	
Household Size	Average 2.6 persons per household (median: 2)	
Workers in Household	Average 1.4 workers per household (median: 1)	
Vehicles in Household	Average 2.3 vehicles per household (median: 2)	
Average Age (Year born)	49 years old (1964)	
Occupation Status	68% workers, 6% students, 1% military, 18% retired, 5% unemployed, 4% other	
Planning to Retire in the Next 5 Years	14% of survey respondents	✓
Telecommute	25% weekday, 24% Saturday	
Days per Week Telecommute	Average: 2.8 days per week among telecommuters	
Median Household Income (Self-reported)	\$75,000 - \$100,000 per year	
Race/Ethnicity	African American/Black 0.9% Asian/Pacific Islander 3.5% Native American/Alaskan Native 1% Hispanic 2.1% White 80.9% Other/Multiple Response 3.5% Not Indicated 8%	✓
Primary Language	English 90%, Spanish 3%, Other 7%	✓

## 2.2 Washington State Ferries Market Area

WSF serves a geographic market that includes 12 counties in Washington State plus British Columbia. The WSF geographic market is defined by the home location of each ferry rider. WSF also serves visitors from out-of-state, but these locations are not included in the evaluation of the geographic market since they may come from all over the United States or from around the world.

Table 2-3 provides a comparison of ferry ridership by county as a percentage of county population. The table shows that, for San Juan County in particular, as well as Island, Kitsap, and Jefferson Counties, residents are more dependent on the ferry system than in other counties (e.g., 27 percent

of San Juan County residents rode the ferry during the survey period). Figure 2-1 shows the distribution of ferry rider home locations by county for weekday and Saturday trips. The highest percentage of weekday riders live in Kitsap County, while the highest percentage of Saturday riders live in King County.

Figure 2-2 and Figure 2-3 present the density of weekday and Saturday ferry rider home locations for all routes. As shown in the maps, the overall geographic distribution of home locations is similar between weekday and Saturday riders. However, compared with weekday trips, the percentage share of riders who reside on the east side of Puget Sound is generally higher for Saturday. Of respondents with a valid home location provided, 92 percent live within the 12-county region.

Table 2-4 provides the share of survey respondent home locations that are located outside of Washington State (excluding British Columbia), in British Columbia, and in Washington State. As shown in the table, the routes with the highest percentage of out-of-state riders include Anacortes/San Juan Islands – San Sidney, B.C., Anacortes – San Juan Islands, and Port Townsend – Coupeville. Also, the percentage of out-of-state riders is higher overall on Saturdays compared with weekdays.

**Table 2-3. System-wide survey period ferry rider home locations as a share of county population (2013)**

Clallam	Island	Jefferson	King	Kitsap	Mason	Pierce	San Juan	Skagit	Snohomish	Thurston
2.3%	9.2%	6.5%	1.0%	8.0%	0.9%	0.2%	27.4%	0.7%	0.7%	0.1%

**Figure 2-1. System-wide distribution of ferry rider home locations by county, weekday and Saturday survey periods (2013)**

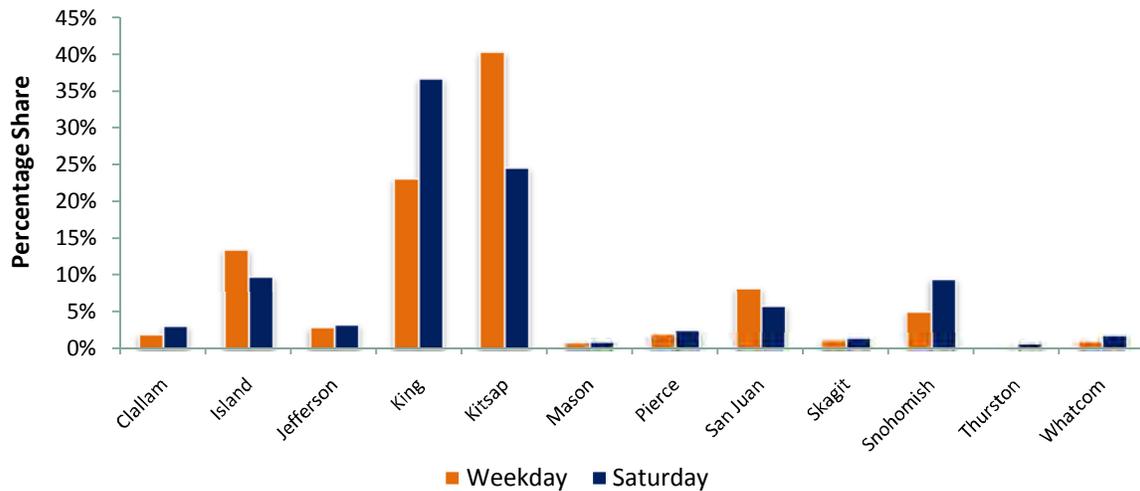


Figure 2-2. System-wide rider home locations, weekday survey period

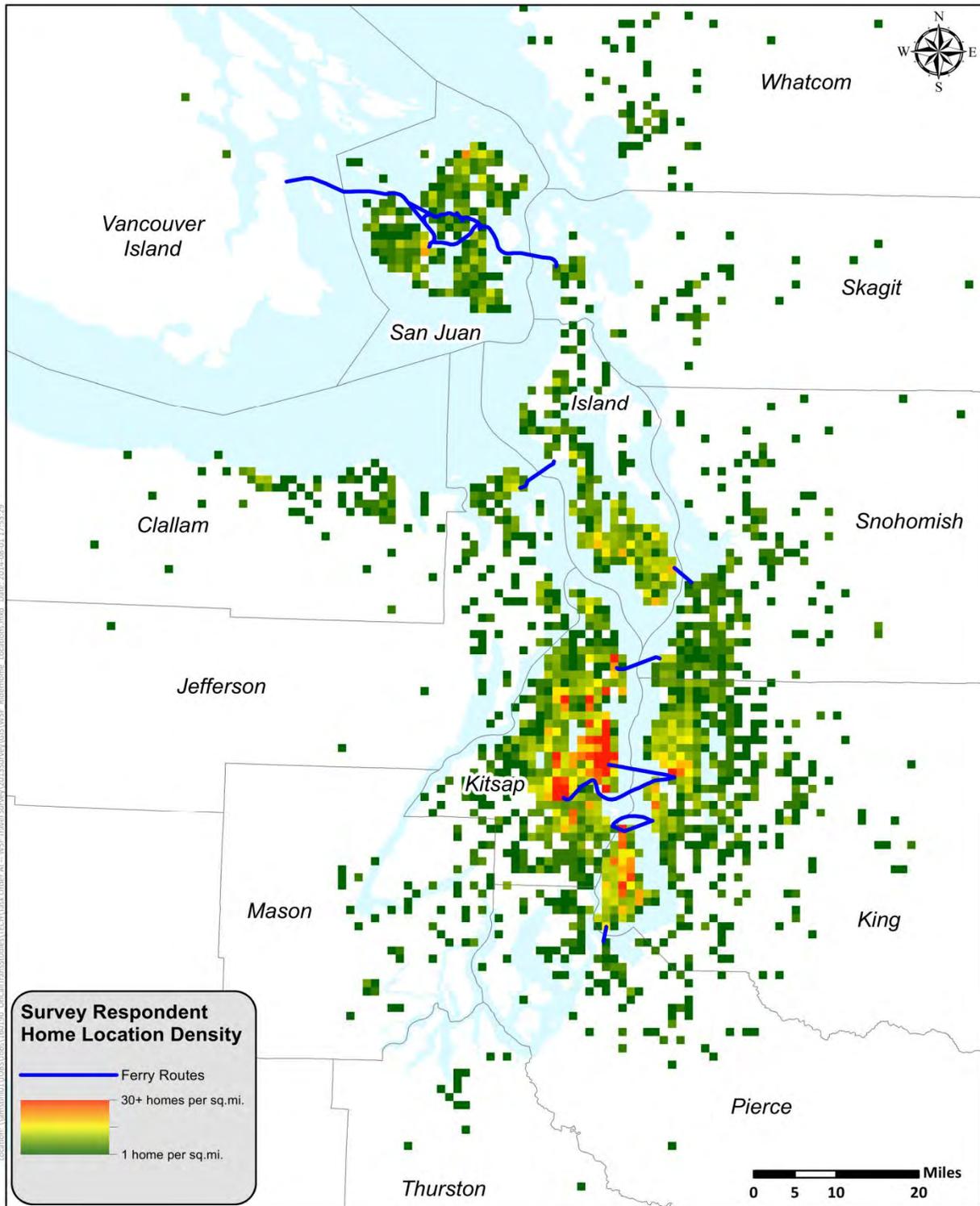
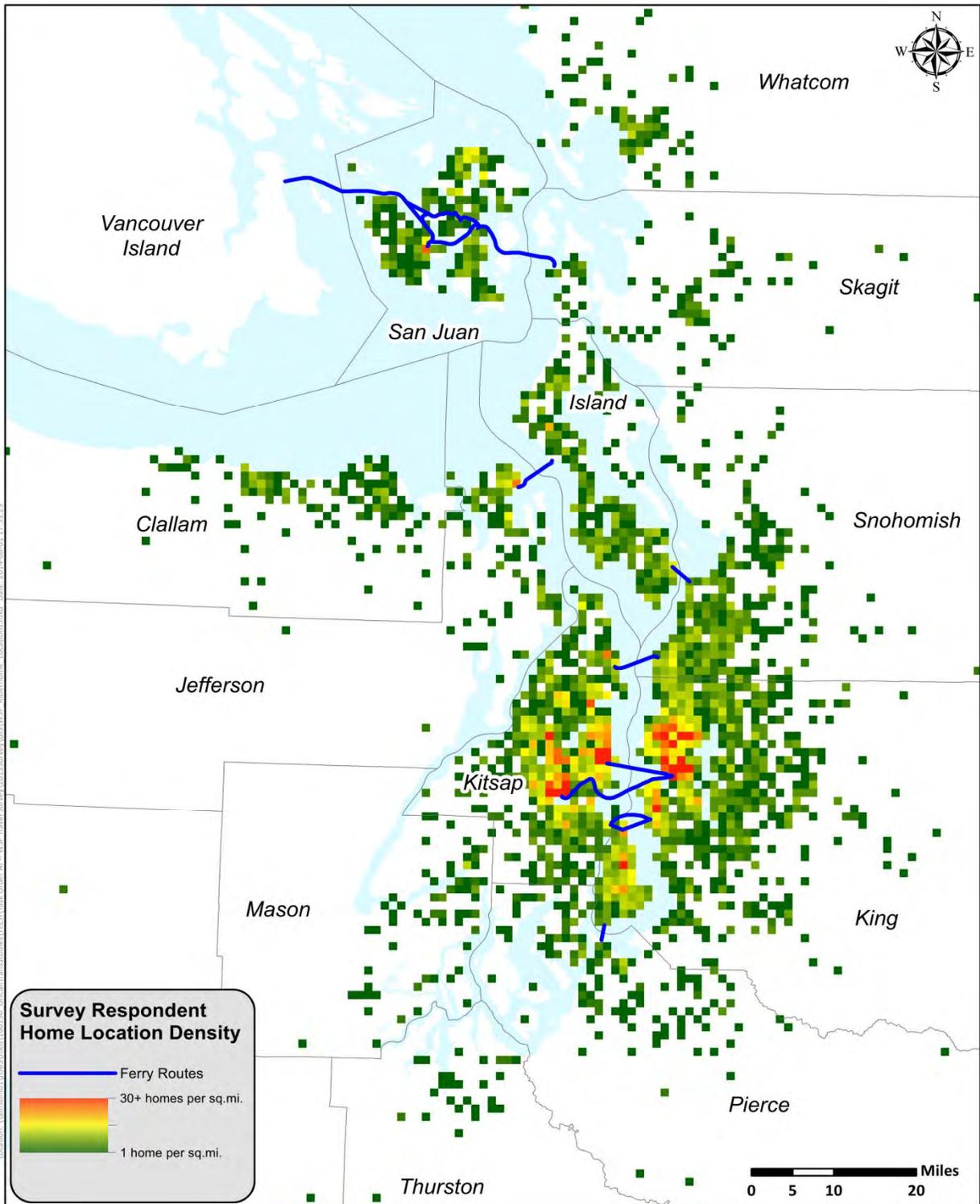


Figure 2-3. System-wide rider home locations, Saturday survey period



**Table 2-4. Share of survey respondents residing out of state, weekday and Saturday survey periods (2013)**

	Out-of-State*	British Columbia	Washington State
<b>Weekday</b>			
San Juan Islands Corridor	15.1%	1.9%	83.1%
Anacortes/San Juan Islands – Sidney, B.C.	38.3%	25.0%	36.7%
Anacortes – San Juan Islands	13.7%	0.5%	85.8%
North Sound Corridor	5.5%	1.1%	93.4%
Mukilteo – Clinton	3.8%	0.0%	96.2%
Port Townsend – Coupeville	13.2%	6.1%	80.7%
Central Sound Corridor	5.6%	0.2%	94.1%
Seattle – Bainbridge Island	6.2%	0.3%	93.5%
Seattle – Bremerton	4.6%	0.0%	95.4%
Edmonds – Kingston	5.4%	0.3%	94.3%
South Sound Corridor	1.3%	0.0%	98.7%
Fautleroy – Vashon	1.7%	0.0%	98.3%
Fautleroy – Southworth	0.7%	0.0%	99.3%
Southworth – Vashon	2.1%	0.0%	97.9%
Pt. Defiance – Tahlequah	1.0%	0.0%	99.0%
System-wide	6.2%	0.5%	93.3%
<b>Saturday</b>			
San Juan Islands Corridor	11.9%	3.9%	84.2%
Anacortes/San Juan Islands – Sidney, B.C.	7.5%	30.2%	62.3%
Anacortes – San Juan Islands	12.1%	2.6%	85.3%
North Sound Corridor	5.2%	1.5%	93.3%
Mukilteo – Clinton	4.4%	0.2%	95.4%
Port Townsend – Coupeville	6.9%	4.2%	88.9%
Central Sound Corridor	7.7%	0.3%	92.0%
Seattle – Bainbridge Island	11.3%	0.1%	88.5%
Seattle – Bremerton	6.0%	0.4%	93.6%
Edmonds – Kingston	3.9%	0.4%	95.7%
South Sound Corridor	3.2%	0.1%	96.8%
Fautleroy – Vashon	3.3%	0.2%	96.5%
Fautleroy – Southworth	2.6%	0.0%	97.4%
Southworth – Vashon	0.0%	0.0%	100.0%
Pt. Defiance – Tahlequah	4.9%	0.0%	95.1%
System-wide	7.2%	0.9%	91.8%

\* Excluding British Columbia

## 2.3 Ferry Travel Characteristics

### 2.3.1 Trip Purpose and Frequency

Work commute trips comprise a majority of ferry system use, with 54 percent of the total travel for work, school, or business purposes, as shown in Table 2-5. These trips also are the most frequent, with more than a quarter of the trips using ferries five days a week, as evidenced by nine or more one-way trips per respondent. Even though work trips are the most dominant trip purpose, they have been declining as a share of total trips since 1993 (68 percent weekday work trips in 1993, 60 percent in 1999, 58 percent in 2006, and 54 percent in 2013). This may be due to a variety of factors: an aging population of ferry users (i.e., retiring out of the work force), more telecommuting, more job opportunities on both sides of Puget Sound, and more people who can work at home full-time. Recreational and shopping trips dominate Saturday trips, comprising more than two-thirds of the total number of Saturday trips. Recreation and shopping trips increased marginally for system-wide weekday trips, and increased by over 8 percentage points for Saturday trips since 2006. There is roughly the same percentage of personal business or other trips during the week as there are on Saturday.

### 2.3.2 Direction and Time of Day

Table 2-6 presents system-wide trips by direction and time of day. Overall, nearly two-thirds of trips in the PM peak period are travelling westbound (63 percent). This compares to 76 percent traveling westbound in the PM peak period from the 2006 survey. System-wide, 31 percent of total trips surveyed occurred in the PM peak period in 2013, versus 41 percent of total trips for 2006.

**Table 2-5. System-wide one-way trips by purpose and frequency, weekday and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	1,512	1,826	3,194	6,532	24.0%	12.5%	10.2%	4.3%
2	1,088	1,435	1,612	4,135	15.2%	21.3%	7.4%	11.1%
3 to 4	1,834	1,475	1,295	4,604	16.9%	16.0%	12.4%	10.1%
5 to 6	2,279	557	369	3,205	11.8%	9.2%	15.4%	10.5%
7 to 8	2,386	248	95	2,729	10.0%	9.1%	16.2%	13.0%
9 to 10	3,835	74	121	4,031	14.8%	21.9%	26.0%	35.9%
11+	1,839	88	73	2,000	7.3%	9.9%	12.4%	15.1%
Total	14,773	5,704	6,759	27,236	100%	100%	100%	100%
2013 Distribution	54.2%	20.9%	24.8%	100%				
2006 Distribution	58.4%	18.5%	23.1%	100%				
<b>Saturday</b>								
1	900	3,628	12,622	17,150	52.4%	45.3%		
2	482	1,645	4,030	6,158	18.8%	21.5%		
3 to 4	516	1,282	3,068	4,865	14.9%	15.3%		
5 to 6	395	409	1,046	1,850	5.7%	4.2%		
7 to 8	228	151	434	813	2.5%	3.1%		
9 to 10	290	136	321	747	2.3%	3.7%		
11+	406	228	497	1,132	3.5%	7.0%		
Total	3,217	7,479	22,018	32,714	100%	100%		
2013 Distribution	9.8%	22.9%	67.3%	100%				
2006 Distribution	15.0%	26.0%	59.0%	100%				

**Table 2-6. System-wide trips by direction and time of day, weekday and Saturday survey periods (2013)**

	Weekday PM Peak	Weekday PM Off-peak	Weekday Total	Saturday	Total	Percent of Total	Percent of PM Peak
<b>Weekday</b>							
Eastbound	8,200	3,490	11,690	20,649	32,339	46%	37%
Westbound	13,962	5,574	19,536	19,065	38,601	54%	63%
Total	22,162	9,064	31,226	39,714	70,940	100%	100%
	31.2%	12.8%	44.0%	56.0%	100.0%		

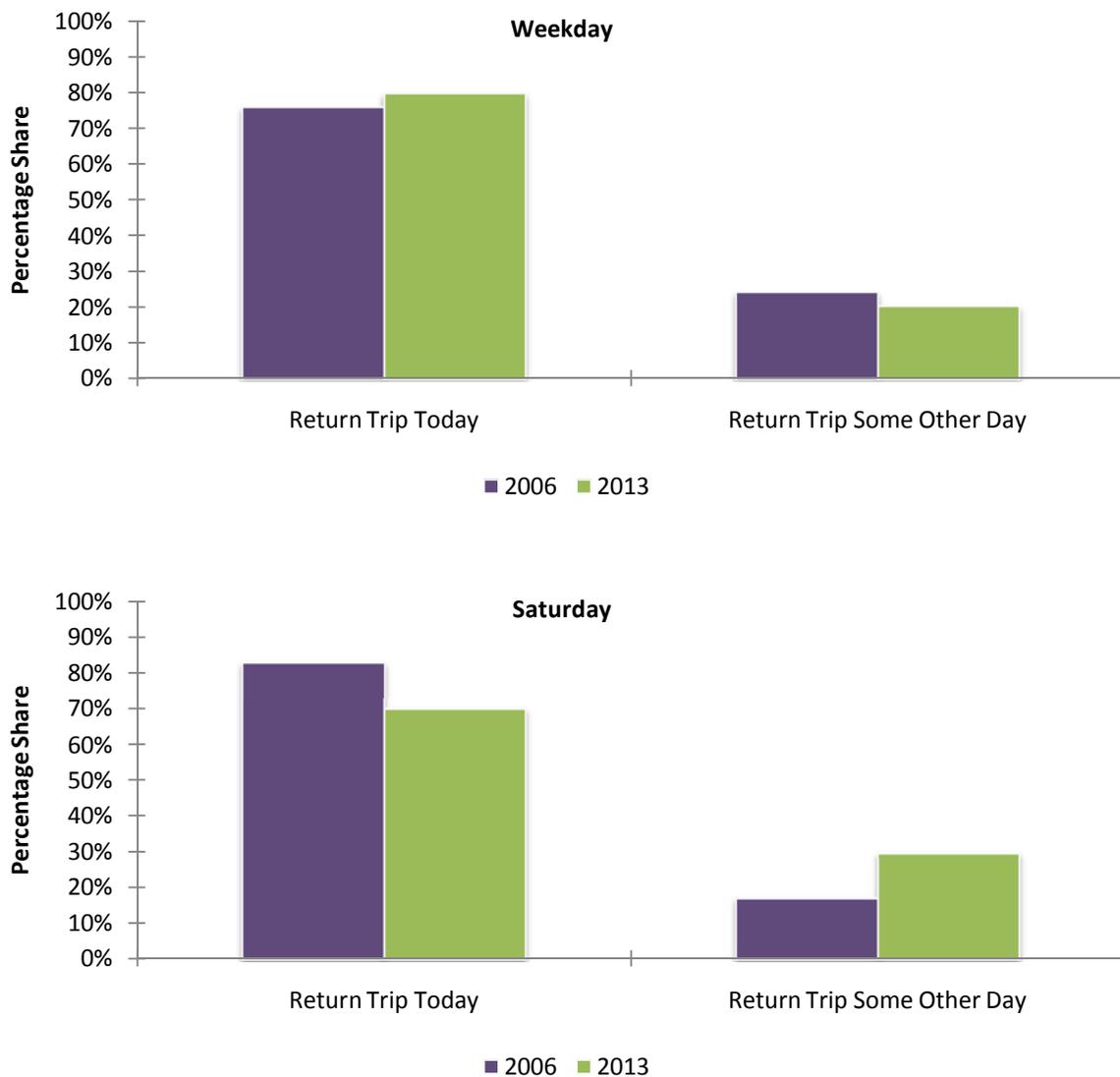
*Note: Saturday trip expansion factors were based only on midday surveys, so no nighttime period survey was available for expansion. In addition, for many routes there were limited surveys for the morning and evening time periods. As a result, Saturday trips by time period are not reported, as the expansion results are unreliable.*

### 2.3.3 Round-Trip Patterns

The vast majority of ferry travelers surveyed in 2013 made a round-trip on the same day, as shown in Figure 2-4. This was also true in 1999 and 2006. The percentage of travelers making round-trips on the same day has increased since 2006 for weekday travelers (76 percent in 2006, 80 percent in 2013). Conversely, rounds trips on the same day have decreased for Saturday travelers (24 percent in 2006 compared to 20 percent in 2013).

The percentage of people taking the same ferry route on the return trip was essentially unchanged in 2013 compared with 2006 for weekday travelers. There was a slight decrease in the percentage of trips returning on the same route for Saturday travelers from 2006. Riders taking a different route may be more likely to be travelling for recreational purposes who are visiting more than one location across the Puget Sound. These round-trip patterns are presented in Figure 2-5.

Figure 2-4. System-wide round-trip patterns by day, weekday and Saturday survey periods (2006 and 2013)



**Figure 2-5. System-wide round-trip patterns by route, weekday and Saturday survey periods (2006 and 2013)**

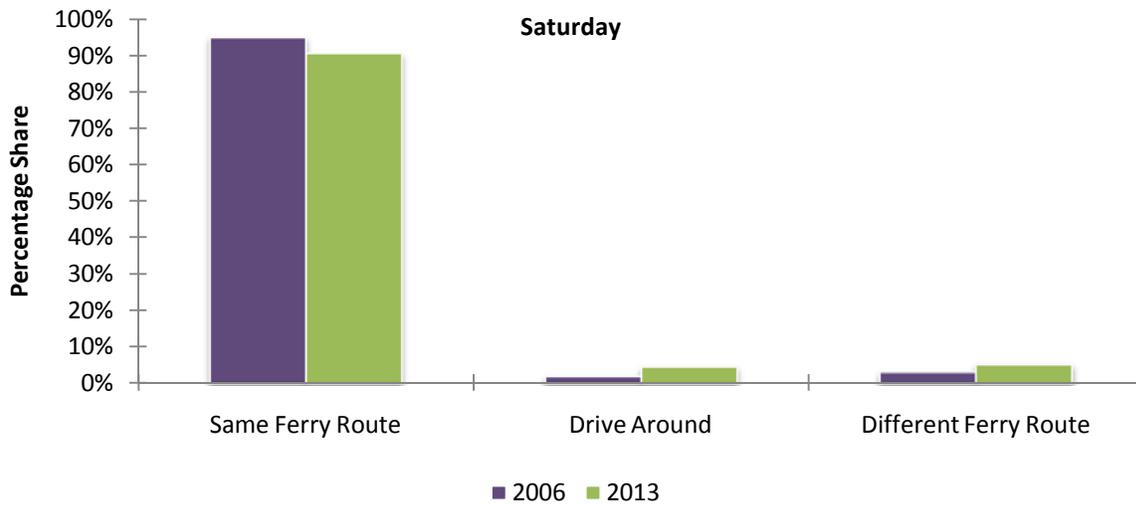
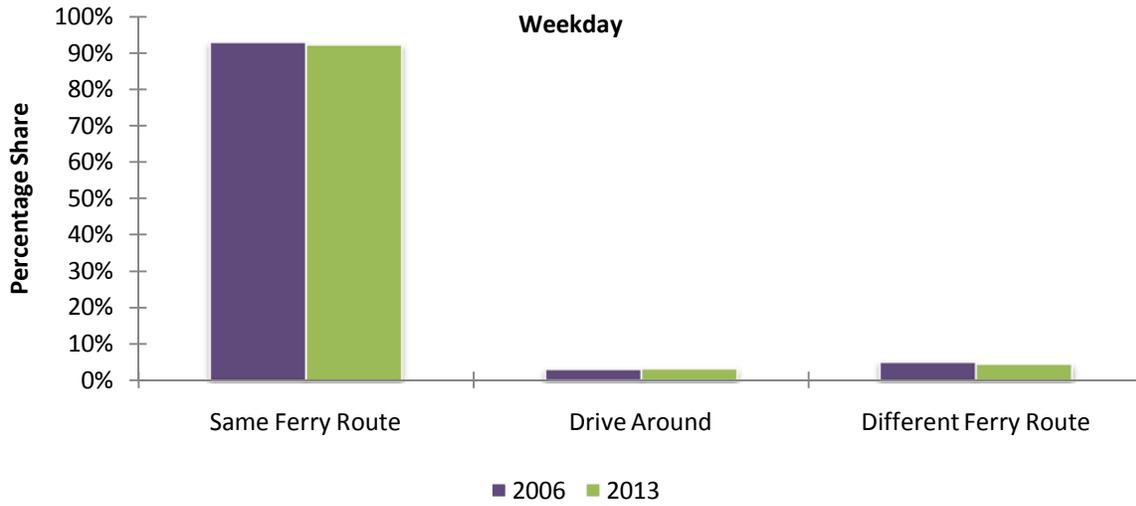
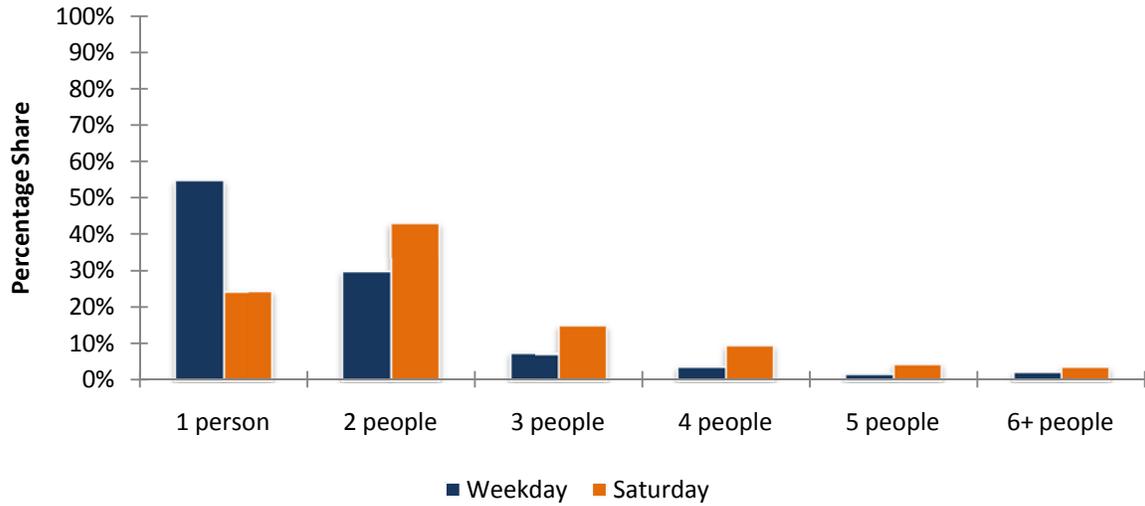


Figure 2-6 presents the size of the travel party for weekday and Saturday travelers. As expected, the majority of people traveling on Saturdays were traveling with one or more other persons (76 percent, two or more people), while the majority of people traveling on weekdays were traveling alone (55 percent). This is consistent with the trip purpose for work and non-work trips.

**Figure 2-6. System-wide travel party size, weekday and Saturday survey periods (2013)**

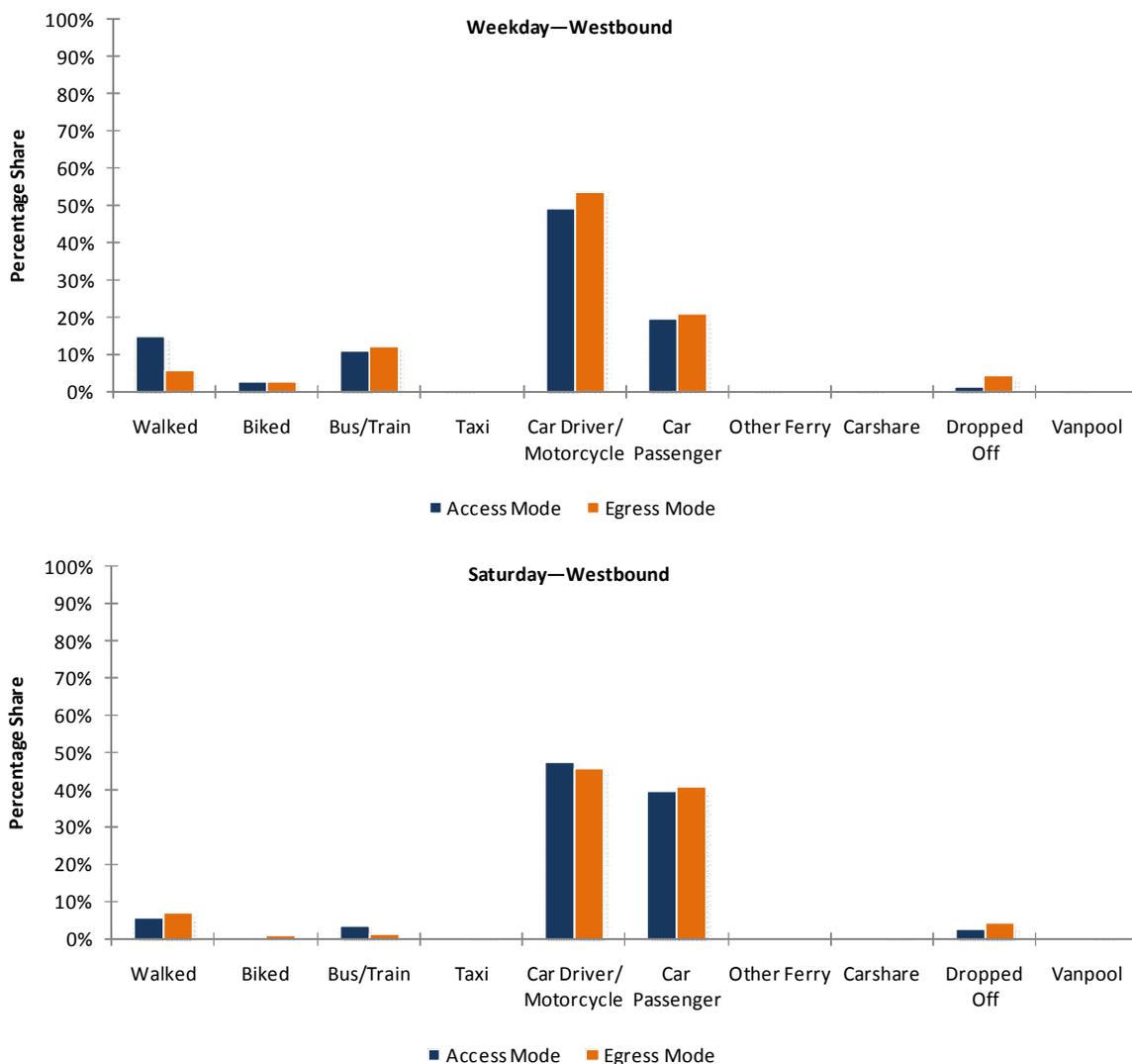


## 2.4 Access and Egress Travel Characteristics

### 2.4.1 Access, Egress, and Boarding Modes

Figure 2-7 and Figure 2-8 present system-wide access and egress modes for weekday and Saturday survey days by direction. As shown in the figures, there is generally a higher percentage of walk and transit access and egress trips on weekdays than on Saturday. This is possibly due to daily ferry riders being more likely to learn and use transit connections rather than day-trippers, who may not be comfortable using transit or find it convenient for their Saturday trip. It may also be that weekday trips are more likely to occur in a transit-friendly area than weekend trips, among other reasons.

**Figure 2-7. System-wide westbound trips by access and egress modes, weekday and Saturday survey periods (2013)**



**Figure 2-8. System-wide eastbound trips by access and egress modes, weekday and Saturday survey periods (2013)**

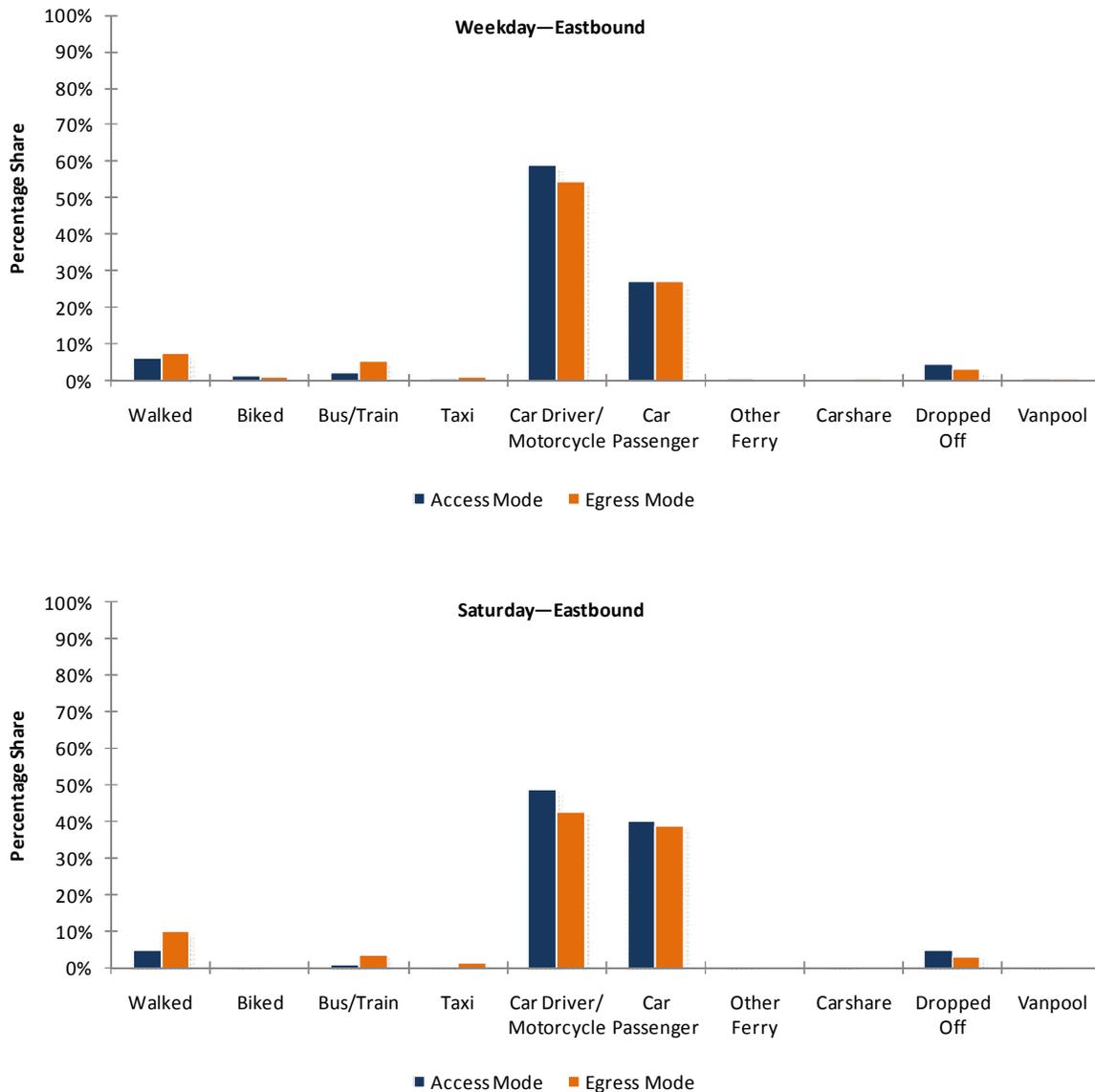


Table 2-7 and Table 2-8, provide a more detailed view of access and egress trips by boarding mode. Table 2-9, Table 2-10, and Table 2-11 present the access mode to the ferry, boarding mode, and egress mode from the ferry for weekday PM peak-period trips, weekday non-PM peak-period trips, and Saturday trips.

The majority of ferry riders board the ferry system in a car, although this number has decreased from 2006, even with the modified survey expansion techniques

introduced for 2013 to do a better job of capturing vehicle passenger patterns. There has been a 4 percent decrease in weekday car drivers for 2013 access and egress trips compared with 2006, with

*“The majority of ferry riders board the ferry system in a car, although this number has decreased from 2006.”*

an even greater reduction in car drivers on Saturdays. Likewise, there has been an increase in car passengers, suggesting more riders are choosing to carpool. There has been more than a 2 percent increase in weekday transit trips for both access and egress trips in 2013 compared with 2006. Bicycle trips doubled for weekday boardings but account for less than 1 percent of boarding mode share on Saturday. Conversely, there are 60 percent more car passengers on Saturday than on the weekday because these trips are more likely to be for shopping or recreation purposes, leading to a higher likelihood of traveling with others for these purposes.

Based on the survey respondents, there has been a slight decrease in vehicle boardings on both weekdays (72 percent in 2006, 69 percent in 2013) and Saturdays (82 percent in 2006, 79 percent in 2013). Compared to system-wide annual ridership trends, in 2006, 45 percent of annual boardings were by vehicle (10,850,232 of 23,937,546 total boardings), which was similar to 45 percent of annual boardings in 2013 (10,082,448 of 22,537,029 total boardings).

**Table 2-7. System-wide access and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	21	3,596	7	3,624	11.6%	13.6%
Biked	4	57	620	681	2.2%	1.4%
Bus/Train	55	2,282	50	2,387	7.6%	5.4%
Taxi	0	139	2	141	0.5%	0.7%
Car Driver/Motorcycle	15,014	1,482	7	16,503	52.9%	56.9%
Car Passenger	6,435	558	0	6,993	22.4%	22.0%
Other Ferry	0	11	0	11	0.0%	
Carshare	0	40	4	43	0.1%	
Dropped Off	5	745	4	753	2.4%	
Vanpool	0	83	7	90	0.3%	
<b>Total</b>	<b>21,534</b>	<b>8,992</b>	<b>700</b>	<b>31,226</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	69.0%	28.8%	2.2%	100%		
2006 Distribution	72.0%	26.9%	1.1%	100%		
<b>Saturday</b>						
Walked	18	2,030	12	2,060	5.2%	4.9%
Biked	0	22	185	206	0.5%	1.9%
Bus/Train	7	778	6	791	2.0%	2.1%
Taxi	0	164	1	165	0.4%	0.2%
Car Driver/Motorcycle	16,788	2,295	44	19,127	48.2%	56.6%
Car Passenger	14,517	1,293	17	15,827	39.9%	34.4%
Other Ferry	0	31	0	31	0.1%	
Carshare	9	18	0	27	0.1%	
Dropped Off	7	1,423	3	1,433	3.6%	
Vanpool	0	46	0	46	0.1%	
<b>Total</b>	<b>31,346</b>	<b>8,100</b>	<b>268</b>	<b>39,714</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	78.9%	20.4%	0.7%	100%		
2006 Distribution	82.2%	17.2%	0.6%	100%		

**Table 2-8. System-wide egress and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	31	1,962	6	1,999	6.4%	11.0%
Biked	14	107	513	634	2.0%	1.4%
Bus/Train	39	2,870	102	3,011	9.6%	7.2%
Taxi	0	170	0	170	0.5%	0.8%
Car Driver/Motorcycle	14,817	1,971	59	16,847	54.0%	58.3%
Car Passenger	6,601	630	10	7,241	23.2%	21.3%
Other Ferry	0	2	0	2	0.0%	
Carshare	3	9	0	12	0.0%	
Dropped Off	16	1,216	9	1,241	4.0%	
Vanpool	13	56	0	69	0.2%	
<b>Total</b>	<b>21,534</b>	<b>8,992</b>	<b>700</b>	<b>31,226</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	69.0%	28.8%	2.2%	100%		
2006 Distribution	71.9%	27.0%	1.1%	100%		
<b>Saturday</b>						
Walked	16	3,383	3	3,402	8.6%	7.7%
Biked	6	12	221	239	0.6%	0.7%
Bus/Train	8	924	13	945	2.4%	1.5%
Taxi	0	268	4	271	0.7%	0.4%
Car Driver/Motorcycle	16,468	1,059	13	17,541	44.2%	56.1%
Car Passenger	14,819	967	9	15,796	39.8%	33.5%
Other Ferry	0	0	0	0	0.0%	
Carshare	14	7	0	20	0.1%	
Dropped Off	14	1,445	6	1,464	3.7%	
Vanpool	0	36	0	36	0.1%	
<b>Total</b>	<b>31,346</b>	<b>8,100</b>	<b>268</b>	<b>39,714</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	78.9%	20.4%	0.7%	100%		
2006 Distribution	81.9%	17.4%	0.7%	100%		

**Table 2-9. System-wide access mode to ferry-boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode to Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (33.1% of total boardings)</b>					
Pedestrian	37.4%	Pedestrian	92.0%	Pedestrian	18.1%
Bicycle	7.8%	Pedestrian w/ Bicycle	8.0%	Bicycle	7.0%
By Bus/Transit	24.5%			By Bus/Transit	34.1%
By Vehicle	28.7%			By Vehicle	40.3%
Vanpool	1.1%			Vanpool	0.5%
Carshare	0.4%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (66.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	70.0%	In-Vehicle	100.0%
		Vehicle Passengers	30.0%		

Note: Average vehicle occupancy (AVO) was 1.43 for the weekday PM peak period.

**Table 2-10. System-wide access mode to ferry-boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode to Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (33.1% of total boardings)</b>					
Pedestrian	36.5%	Pedestrian	95.3%	Pedestrian	27.1%
Bicycle	4.5%	Pedestrian w/ Bicycle	4.7%	Bicycle	4.7%
By Bus/Transit	22.6%			By Bus/Transit	20.0%
By Vehicle	35.2%			By Vehicle	47.1%
Vanpool	0.3%			Vanpool	0.7%
Carshare	0.6%			Carshare	0.3%
Other Ferry	0.3%			Other Ferry	0.1%
<b>In-Vehicle Boardings (66.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	69.7%	In-Vehicle	100.0%
		Vehicle Passengers	30.3%		

Note: Average vehicle occupancy (AVO) was 1.43 for the weekday non-PM peak period.

**Table 2-11. System-wide access mode to ferry-boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode to Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (33.1% of total boardings)</b>					
Pedestrian	24.4%	Pedestrian	96.8%	Pedestrian	40.5%
Bicycle	2.5%	Pedestrian w/ Bicycle	3.2%	Bicycle	2.8%
By Bus/Transit	9.4%			By Bus/Transit	11.2%
By Vehicle	62.6%			By Vehicle	45.1%
Vanpool	0.6%			Vanpool	0.4%
Carshare	0.2%			Carshare	0.1%
Other Ferry	0.4%			Other Ferry	0.0%
<b>In-Vehicle Boardings (66.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	53.7%	In-Vehicle	100.0%
		Vehicle Passengers	46.3%		

Note: Average vehicle occupancy (AVO) was 1.86 for the Saturday survey period.

Figure 2-9 presents the results of the travelers’ reasons for taking a vehicle on-board the ferry. The biggest reason for taking a vehicle on the ferry was that the vehicle was needed at the destination (about 63 percent of weekday travelers taking their vehicle on-board the ferry gave this reason, as did 73 percent of Saturday travelers). The second-most prominent reason for both weekday and Saturday travelers taking a vehicle on the ferry was that it is too far to walk to the destination. Other common reasons were that transit is not convenient, transit does not go to the destination, or that travelers were carrying baggage.

**Figure 2-9. System-wide reasons for taking a vehicle on-board the ferry, weekday and Saturday survey periods (2013)**

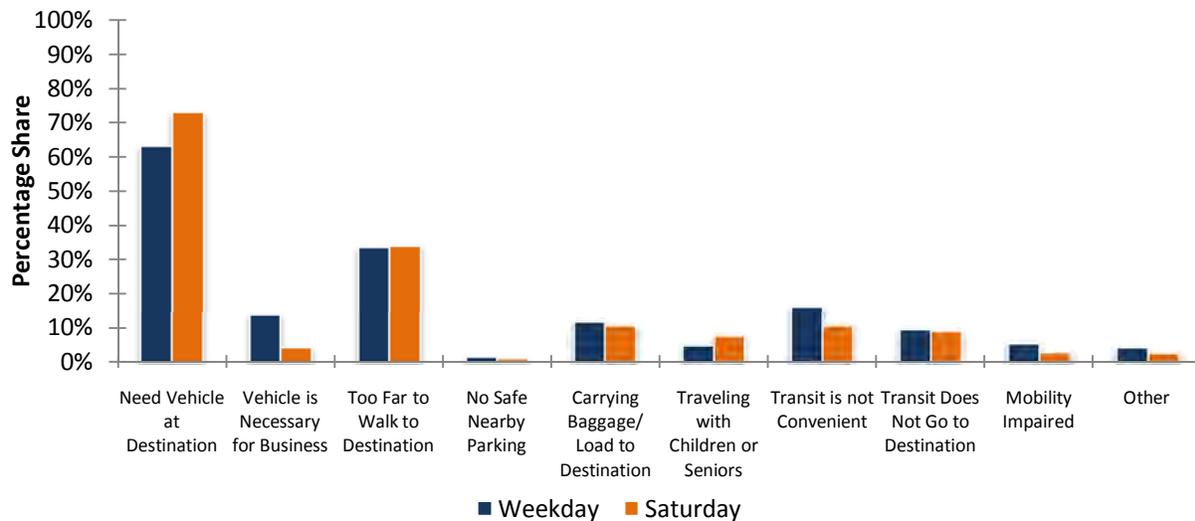
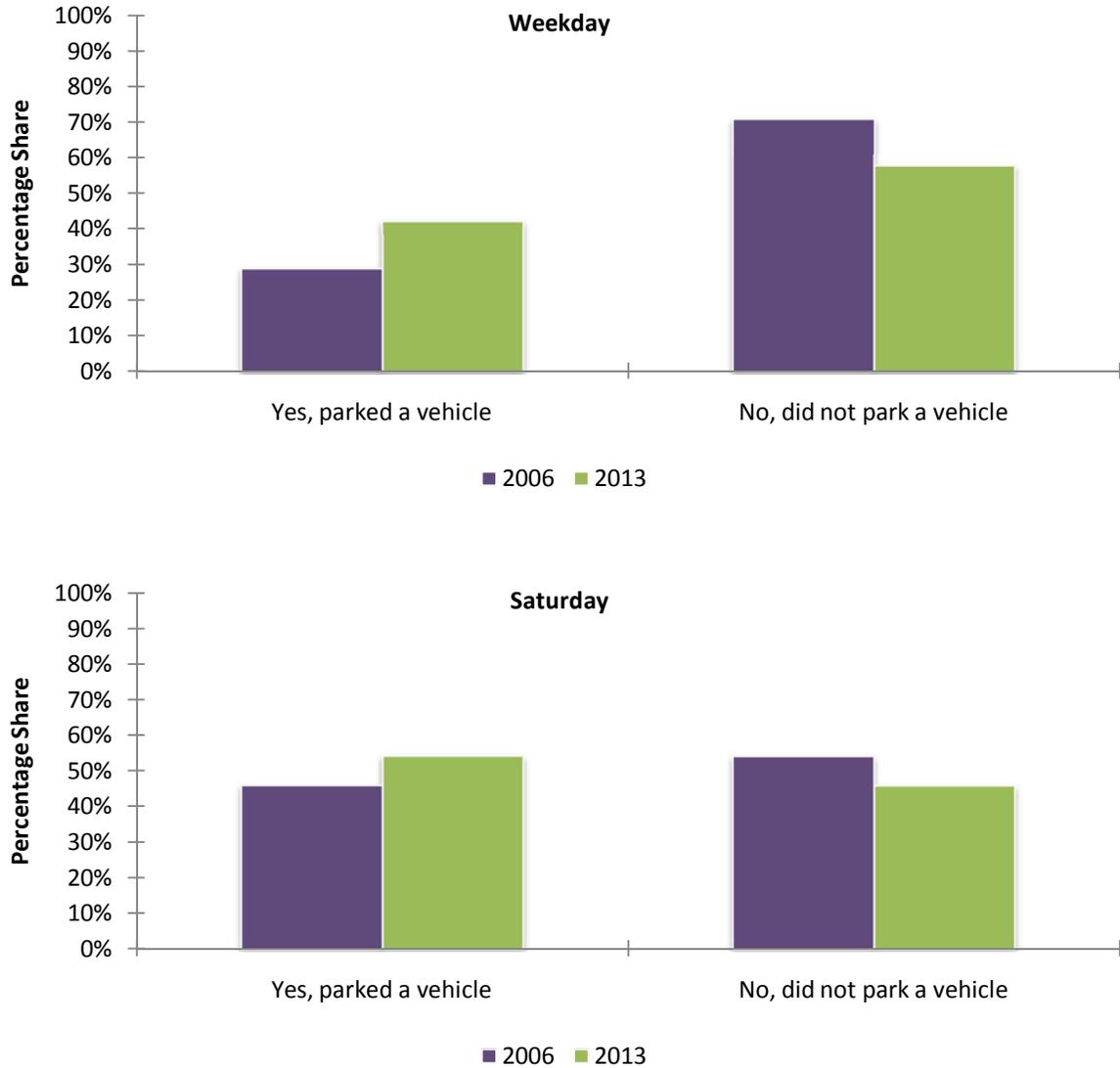


Figure 2-10 shows whether riders parked a vehicle at one end of their ferry trip. For travelers who travel to the ferry terminal and do not take a car on the ferry (non-motorized boardings), a majority of them do not park their car at or near the terminal (58 percent). Conversely, the majority of Saturday riders park their car at the terminal, possibly due to more parking availability and in some cases reduced Saturday pricing. A comparison with 2006 shows an overall increase in the number of riders parking a vehicle before boarding the ferry for both weekday and Saturday boardings.

**Figure 2-10. System-wide non-motorized boardings that parked a vehicle at terminal, weekday and Saturday survey periods (2006 and 2013)**



## 2.4.2 Opportunities for Increasing Non-Vehicle Board Access and Egress

This section presents characteristics of current users of non-vehicle modes for accessing and/or egressing the ferry, and discusses potential opportunities to shift the mode of access and egress from vehicles to transit, walking, and bicycling.

### Characteristics of Non-Vehicle Mode Users

This section discusses non-vehicle mode users of the ferry system and compares them with users of all modes. Understanding the needs of these users can help to shift more ferry riders to non-vehicle modes, where there is more available capacity. This section includes system-wide results; refer to Appendix D for corridor-level results for transit and walk access.

Weekday and Saturday ferry riders who used transit to access or egress the ferry terminal system-wide account for 13 percent and 4 percent of survey period ridership, respectively. Weekday and Saturday ferry riders who walked to access or egress the ferry terminal system-wide account for 15 percent and 11 percent of survey period ridership, respectively. Weekday and Saturday ferry riders who biked to access or egress the ferry terminal system-wide account for 3 percent and 1 percent of survey period ridership, respectively.

Figure 2-11 shows the distribution of transit riders by age compared to all modes. Transit, walk, and bike access ferry riders tend to be younger than the overall ferry rider population. Weekday rider age distributions are somewhat similar across modes, except that transit ridership is more pronounced among younger riders, while bike riders are most likely to be working age (25-64 years of age). Saturday rider age distributions show a disproportionately large share of transit riders in the 15-24-year age group.

**Figure 2-11. System-wide distribution of transit, walk, and bike access by age compared to all survey period respondents, weekday and Saturday survey periods (2013)**

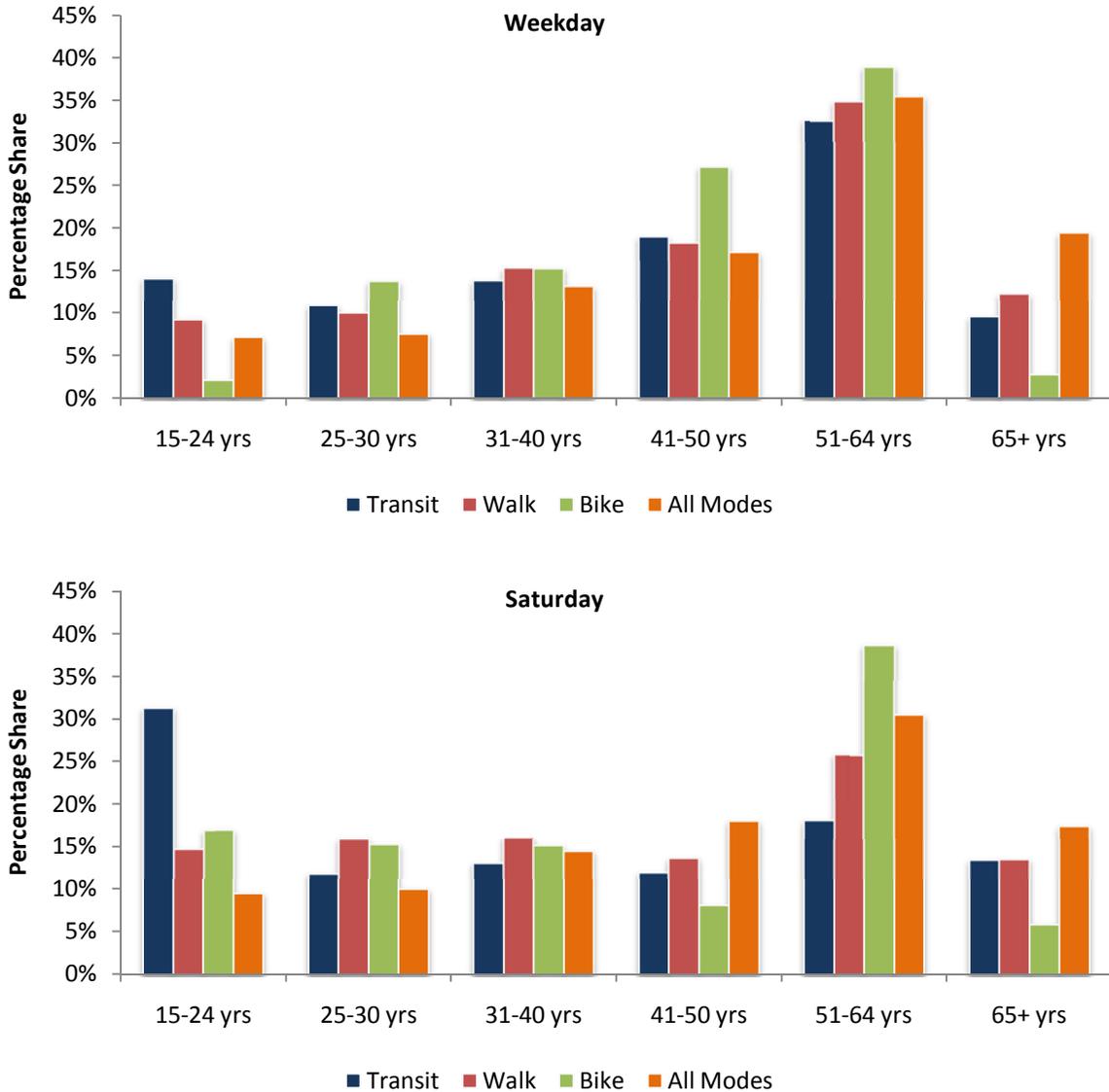


Figure 2-12 presents income distributions for transit, walk, and bike access ferry riders by survey day. The general trend for weekday riders is relatively similar across modes, though there are slight differences. Walk and bike access riders tend to be wealthier than the average rider (larger shares in the higher income ranges). Transit riders have a slightly lower average income for weekday riders, but this difference comes mostly from a greater percentage of users in the lowest income range, and a smaller percentage of users in the highest income ranges, while all other income ranges show only slight difference comparing transit to all modes. Saturday trends show a larger share of transit and bike access in the lowest two income ranges, while walk access more closely follows the overall trend of all ferry riders. The high number of Saturday lower income transit users may be expected given that many of those riders are likely also in the 15-24-year age group from the previous figure.

**Figure 2-12. System-wide distribution of transit, walk, and bike access by income compared to all survey period respondents, weekday and Saturday survey periods (2013)**

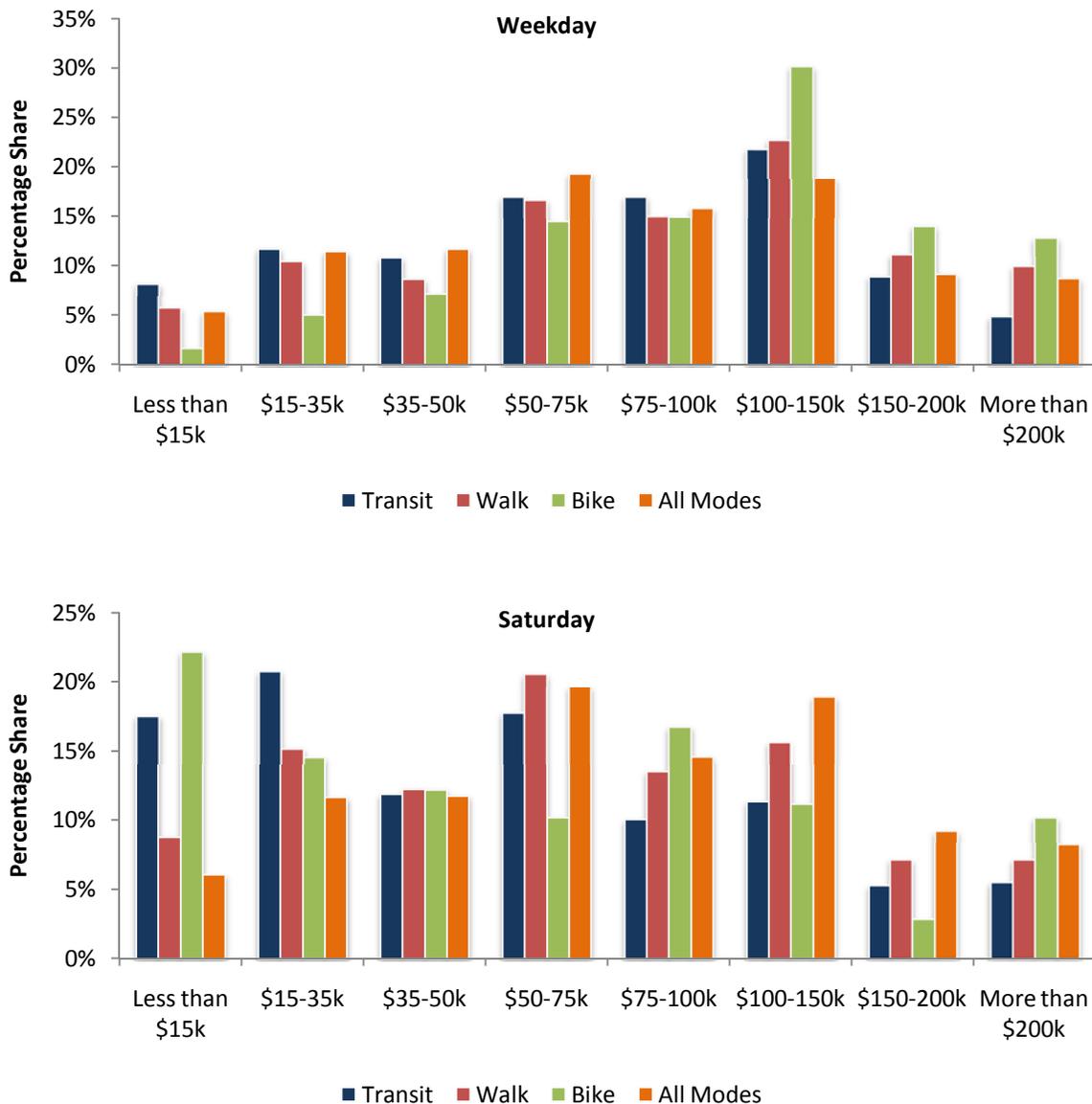
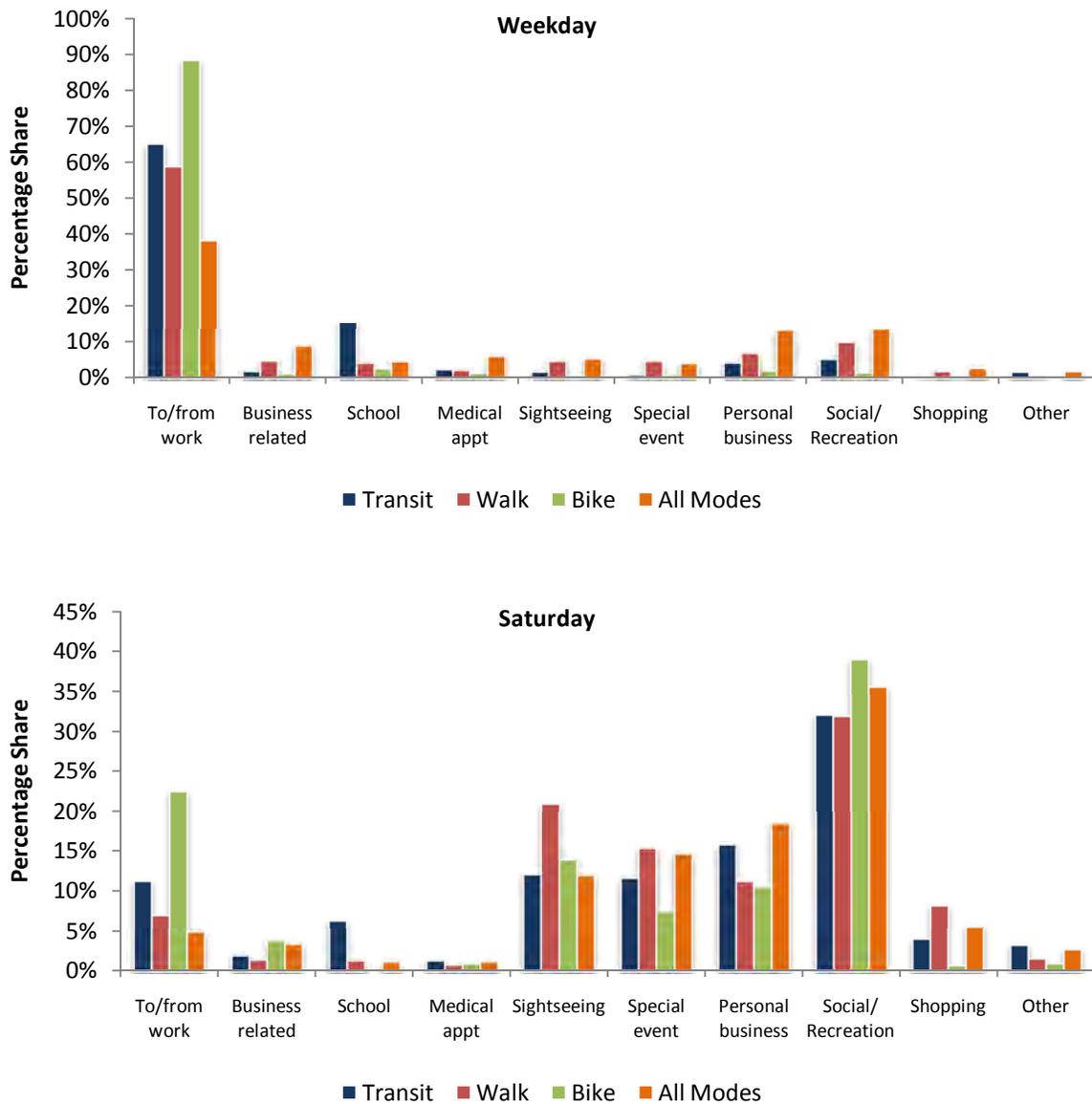


Figure 2-13 illustrates the distribution of trip purpose by access mode for weekday and Saturday riders. As expected, the weekday distribution shows the majority of trips are for a commute purpose, to or from work or school. Transit, walk, and bike access shares for work commute trips are higher than the overall ferry rider population. For workplaces, this may be a reflection of the fact that transit service is heavily focused on serving large employment centers, and it may also reflect efforts by employers to promote alternatives to driving alone. However, bike riders are less likely to commute to school, while school transit access is the second highest transit share. For Saturday trips, the highly recreational nature of trips is evident across all modes. For riders who work on Saturday, transit and bike access had higher shares than the overall population, while the transit share was also higher for those going to school on Saturday.

**Figure 2-13. System-wide distribution of transit, walk, and bike access by trip purpose compared to all survey period respondents, weekday and Saturday survey periods (2013)**



## Transit

Table 2-12 shows the number of bus routes directly serving ferry terminals. While there are a great number of transit routes within close proximity to Colman Dock in downtown Seattle, only three routes directly serve the terminal on Alaskan Way. The Edmonds and Mukilteo ferry terminals are also served by Sounder commuter rail service. The Bainbridge Island and Bremerton ferry terminals show the highest number of routes serving the terminal, which is a reflection of the priority Kitsap Transit has placed on serving these locations.

**Table 2-12. Transit routes interfaced with WSF ferry terminals**

Terminal	Transit Routes*
Anacortes	1
Bainbridge Island	12
Bremerton	15
Clinton	3
Coupeville	1
Edmonds	8**
Fauntleroy	4
Kingston	6
Mukilteo	7**
Point Defiance	2
Port Townsend	4
Sidney, B.C.	1
Seattle	3
Southworth	2
Tahlequah	1
Vashon	3

\* Routes within one block of ferry terminal

\*\* Includes ST Sounder Service

Survey respondents who boarded by vehicle were asked to indicate reasons why they chose to do so. Several of these reasons related to transit use and are presented in Table 2-13. In particular, the “transit is not convenient” and “transit does not go to destination” options imply that the respondent may have considered taking transit had it been available. All of the options below indicate an opportunity to shift vehicle boarders to transit while also attracting new ridership with improvements such as increased service, more geographic coverage, and better pedestrian and bicycle connections. This theme of improving transit service and access also agrees with feedback from public meetings hosted by WSF in June 2014.

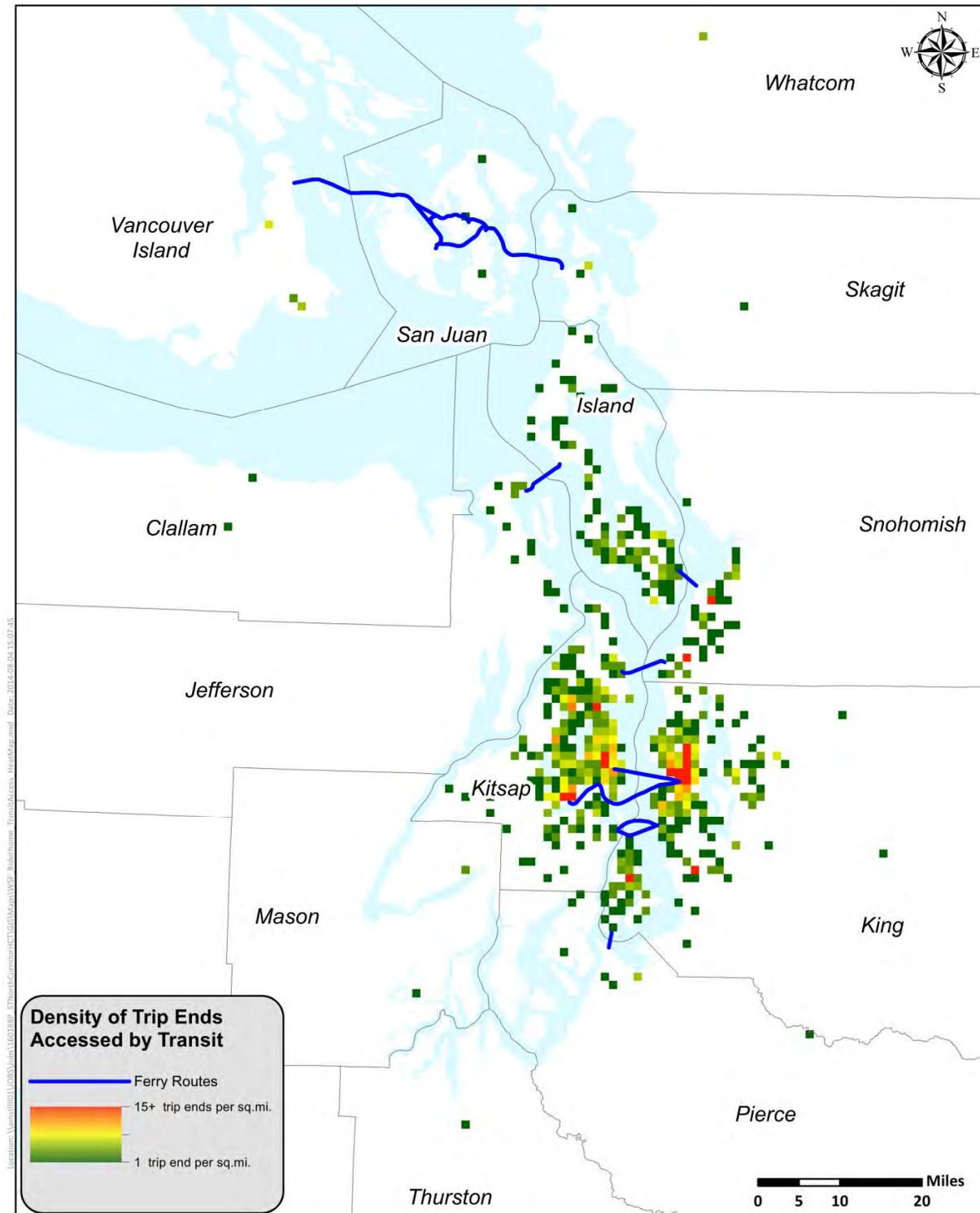
Figure 2-14 presents the origin and destination locations (trip ends) accessed by transit for weekday survey respondents. As shown in the map, transit trip ends are less geographically dispersed than the home locations shown in Figure 2-2. Locations like central Seattle, downtown Bremerton and downtown Bainbridge Island show high levels of transit access. Additional concentrated transit

access locations include the Everett Boeing plant, Lynnwood Transit Center, SeaTac Airport, and downtown Vashon.

**Table 2-13. Reasons for taking a vehicle on-board the ferry (transit-related responses) as a percentage of all responses, weekday and Saturday survey periods (2013)**

	Transit is not convenient	Transit does not go to destination	Too far to walk to destination
<b>Weekday</b>			
San Juan Islands Corridor	7%	7%	25%
Anacortes/San Juan Islands – Sidney, B.C.	2%	0%	17%
Anacortes – San Juan Islands	6%	6%	20%
North Sound Corridor	13%	9%	26%
Mukilteo – Clinton	15%	10%	27%
Port Townsend – Coupeville	3%	3%	22%
Central Sound Corridor	10%	4%	20%
Seattle – Bainbridge Island	9%	3%	18%
Seattle – Bremerton	6%	2%	15%
Edmonds – Kingston	12%	8%	27%
South Sound Corridor	19%	11%	30%
Fautleroy – Vashon	20%	9%	25%
Fautleroy – Southworth	20%	8%	31%
Southworth – Vashon	16%	9%	37%
Pt. Defiance – Tahlequah	15%	18%	36%
System-wide	11%	7%	23%
<b>Saturday</b>			
San Juan Islands Corridor	7%	7%	23%
Anacortes/San Juan Islands – Sidney, B.C.	2%	0%	16%
Anacortes – San Juan Islands	7%	8%	24%
North Sound Corridor	11%	8%	29%
Mukilteo – Clinton	11%	9%	31%
Port Townsend – Coupeville	6%	4%	24%
Central Sound Corridor	6%	6%	25%
Seattle – Bainbridge Island	6%	6%	22%
Seattle – Bremerton	4%	2%	16%
Edmonds – Kingston	7%	8%	33%
South Sound Corridor	14%	10%	31%
Fautleroy – Vashon	18%	9%	29%
Fautleroy – Southworth	11%	8%	31%
Southworth – Vashon	6%	10%	14%
Pt. Defiance – Tahlequah	13%	13%	38%
System-wide	9%	7%	27%

Figure 2-14. System-wide origin and destination locations accessed by transit, weekday survey period (2013)



## Pedestrian and Bicycle

The home locations, origins, and destinations of travelers who boarded by vehicle were examined for proximity to ferry terminals. Vehicle boardings were analyzed at a distance of 2 miles because this represents relatively short trips where there is a higher potential for a trip to shift to a non-motorized mode (walk or bike). Results are shown in Table 2-14.

Roughly 12 percent of the system-wide weekday survey respondents that boarded by vehicle live within 2 miles of the ferry terminal. Additionally, close to 15 percent of vehicle boarders have an origin or destination within 2 miles of a terminus, and 3 percent of trips have both an origin and destination located within 2 miles of a terminus. These trips present an opportunity to encourage riders to shift to non-motorized modes of transport; however, investment in infrastructure such as improved sidewalks and bicycle facilities may be needed to support these alternative modes.

At the route level, the routes serving Seattle show a significant percentage of riders who boarded by vehicle with origins and destinations within two miles of the ferry terminal because of the high density of land uses in downtown Seattle. Investment in improved pedestrian and bicycle infrastructure near terminals with these higher concentrations of home, origin, and destination locations could provide the greatest potential for a shift to non-motorized modes. In contrast, the Mukilteo–Clinton route has among the lowest percentage of riders who boarded by vehicle with origins and destinations within two miles of the ferry terminal due to the much lower density of employment and residential land uses on either end of the route.

**Table 2-14. Percentage of home locations, origins, and destinations of vehicle boarders within two miles of ferry terminals, weekday survey periods (2013)**

	Home Location	Origin	Destination	Origin and Destination
<b>Weekday</b>				
San Juan Islands Corridor	11.0%	13.3%	17.9%	1.9%
Anacortes/San Juan Islands – Sidney, B.C.	0.0%	15.0%	0.0%	0.0%
Anacortes – San Juan Islands	11.3%	13.3%	18.4%	2.0%
North Sound Corridor	8.4%	6.1%	6.6%	0.3%
Mukilteo – Clinton	8.5%	4.3%	6.6%	0.1%
Port Townsend – Coupeville	7.6%	19.2%	6.6%	1.7%
Central Sound Corridor	15.2%	22.9%	20.5%	5.4%
Seattle – Bainbridge Island	21.9%	31.7%	26.6%	8.0%
Seattle – Bremerton	19.0%	41.2%	37.7%	11.7%
Edmonds – Kingston	6.5%	6.9%	8.1%	0.3%
South Sound Corridor	12.0%	6.1%	10.0%	0.5%
Fautleroy – Vashon	15.0%	7.1%	11.0%	0.5%
Fautleroy – Southworth	8.8%	5.7%	10.7%	1.1%
Southworth – Vashon	24.2%	8.5%	18.1%	0.0%
Pt. Defiance – Tahlequah	5.2%	3.8%	4.6%	0.0%
System-wide	12.4%	14.4%	14.9%	2.7%

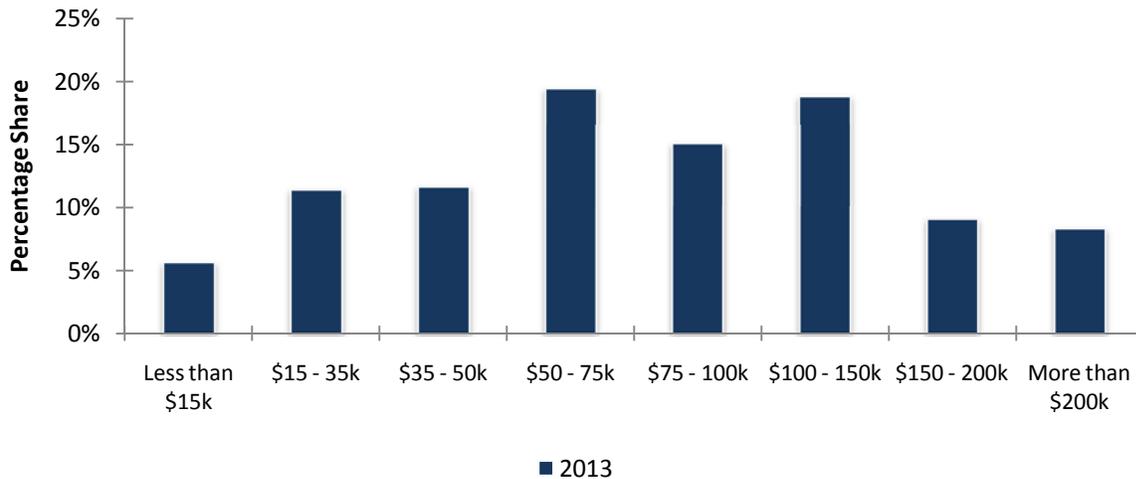
## 2.5 Demographic Characteristics

A number of household and individual demographic questions were posed to survey respondents to help assess the characteristics of ferry riders and to support other future planning and research. Results from several of these demographic market segments are tabulated and presented in this section.

### 2.5.1 Income Findings

Ferry travelers were asked to estimate their 2012 before-tax income. Roughly 17 percent did not respond to the question, but the distribution of survey respondents who did answer the question is presented in Figure 2-15. The median self-reported income for ferry travelers is about \$75,000. The distribution of ferry riders by income group demonstrates that approximately 37 percent of ferry riders make over \$100,000 annually, and less than one-third of system-wide riders make under \$50,000. A comparison of traveler income ranges by year is shown in Figure 2-16 (in nominal dollars).

**Figure 2-15. System-wide traveler income ranges, all survey periods (2013)**



**Figure 2-16. System-wide grouped income distribution, not adjusted for inflation (2006 and 2013)**

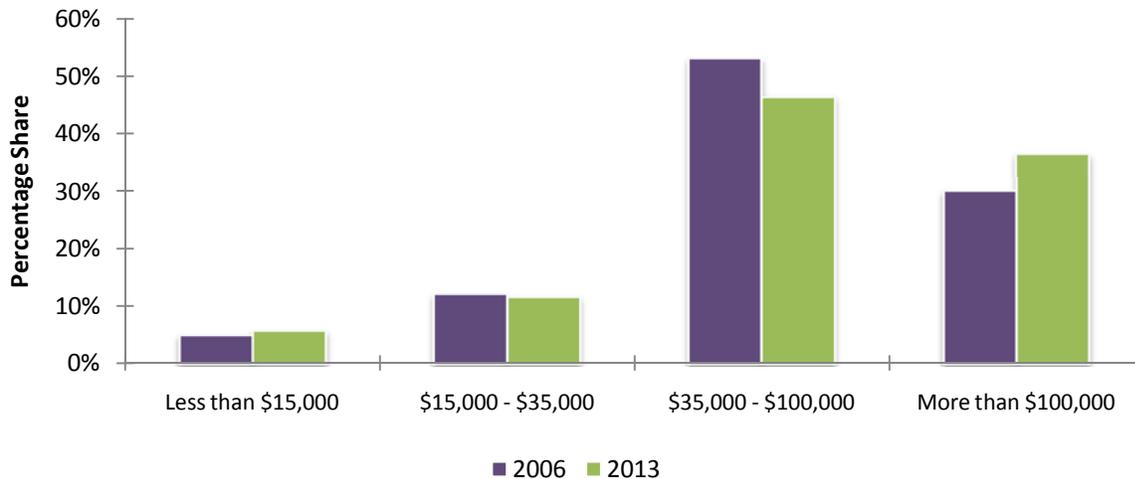
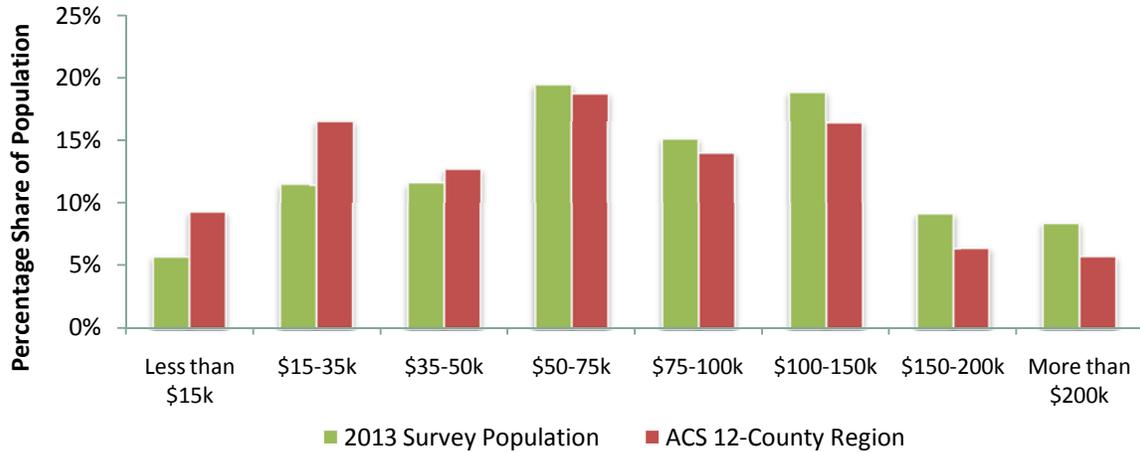


Figure 2-17 shows the household income distributions for the surveyed ferry ridership population and the 12-county region. It is evident that lower incomes are underrepresented in the ferry ridership population, while higher incomes are over-represented. This implies that ferry riders have a higher household income compared to the general population. The median income range for ferry riders is between \$75,000 and \$100,000, while the median household income for the 12-county region lies between \$60,000 and \$75,000.

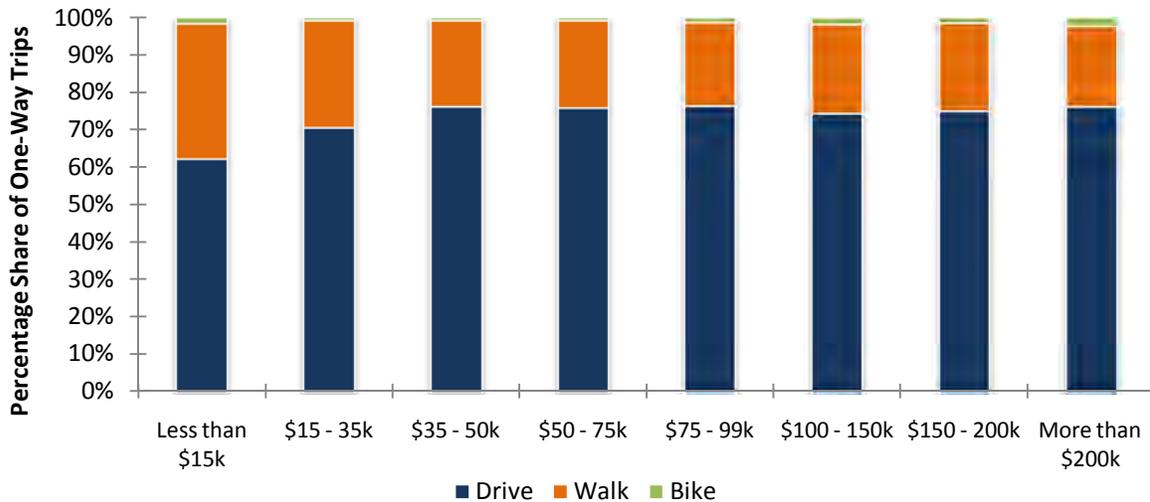
**Figure 2-17. System-wide traveler income comparison of survey respondents to 12-county region**



Data Source: American Community Survey 2008-2012 Washington State 5-Year Dataset

Average income is compared to boarding mode in Figure 2-18. This shows a trend for lower-income travelers to board as walk-ons more often than higher income travelers; however, the decrease in walk-ons and increase in drivers is not steep. No distinctive trend is observed in bicycle boardings distributed by income range. The distribution of boarding mode by income is fairly consistent across the income groups.

**Figure 2-18. System-wide traveler income distribution by boarding mode, all survey periods (2013)**



## 2.5.2 Traveler Age

Figure 2-19 shows the age distribution of system-wide travelers for 2006 and 2013. Roughly half of system-wide ferry travelers are under the age of 50. The average age is 49, which has increased from an average age of 48 in the 2006 survey. At the same time, the percentage of travelers at each end of the age spectrum has increased. Compared to 2006, there are an increasing number of younger travelers between the ages of 15 and 30 years old, as well as an increase in the number of travelers over the age of 65. This overall trend reflects the shift of members of the Baby Boom generation into retirement age, along with the emergence of the “Millennial” generation as an even larger cohort than “Generation X.”

*“18 percent of riders are retired, and another 14 percent of WSF survey respondents not already retired are planning on retiring in the next five years.”*

With the aging population of riders system-wide, 18 percent of riders are retired, and another 14 percent of WSF survey respondents not already retired indicated that they are planning on retiring in the next five years. Furthermore, among just those respondents with a “commuter” trip purpose, the share of those indicating retirement in the next five years is higher, at 16 percent.

**Figure 2-19. System-wide traveler age, all survey periods (2013)**

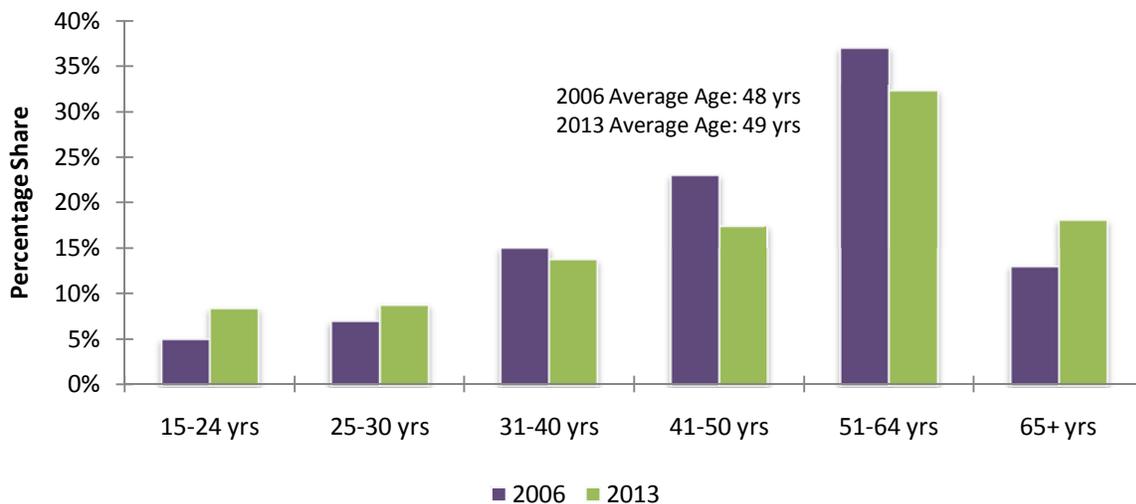


Figure 2-20 illustrates a comparison between the age distribution for 2013 ferry riders on weekday and Saturday trips. Saturday travelers are generally younger with an average age of 48 compared to an average age of 50 for weekday travelers.

**Figure 2-20. System-wide traveler age, weekday and Saturday survey periods (2013)**

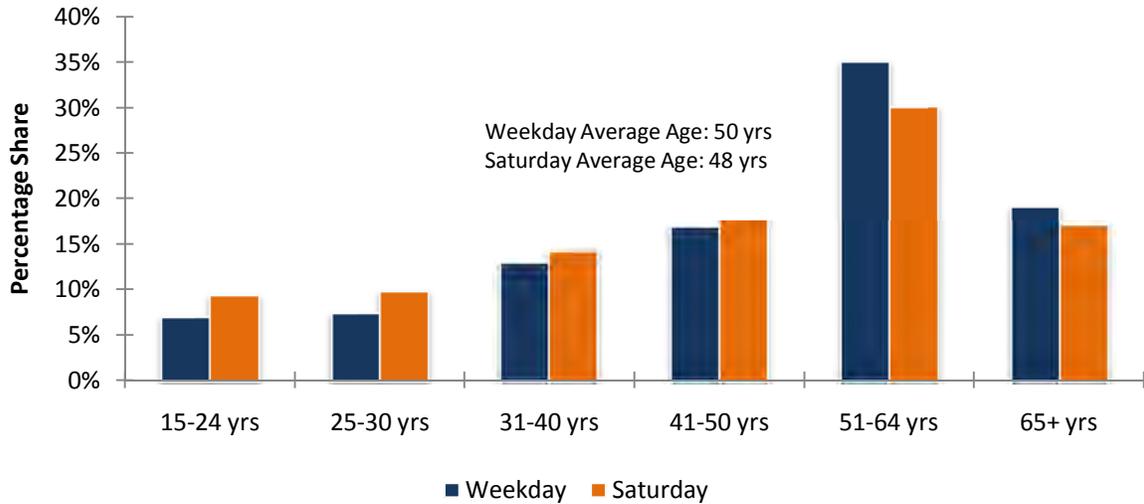
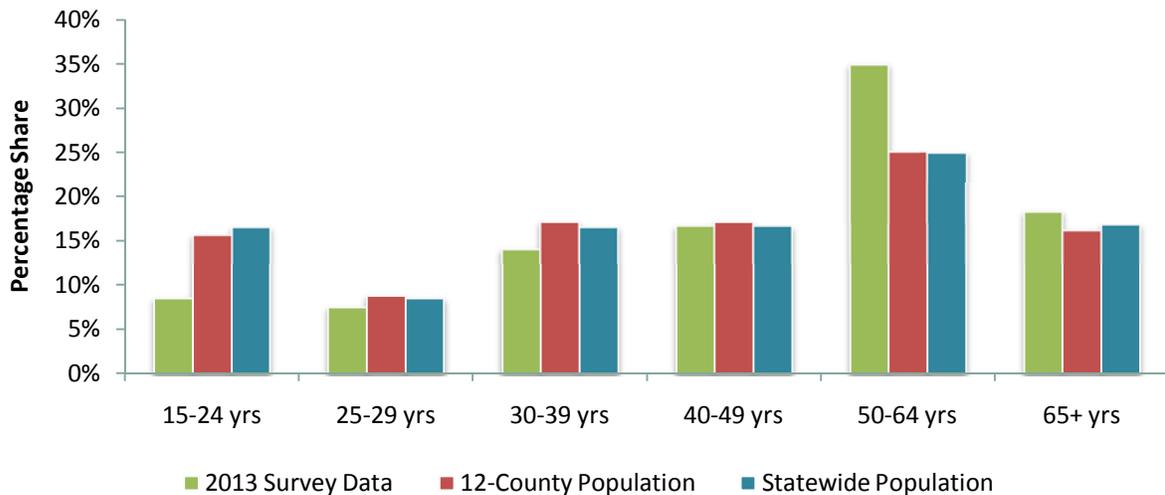


Figure 2-21 compares the distribution of the age of survey respondents to the overall 12-county and statewide population. Between the 12-county area and statewide, the age distribution is very similar, but the 12-county area has a higher representation of the working age population (25-65) than statewide. This makes sense, as the share of jobs is likely higher in the 12-county area as well. There is also an overrepresentation of survey respondents in the 50 to 64-year age range compared to the 12-county and statewide populations.

**Figure 2-21. System-wide traveler age comparison to 12-county and statewide population (2013)**



Data Source: Washington State Office of Financial Management (OFM)

### 2.5.3 Traveler Race/Ethnicity

Respondents were asked to identify their race and ethnicity based upon the following options: African American/Black; Asian/Pacific Islander; Native American/Alaskan Native; Hispanic; White; and Other. Respondents were allowed to mark all that apply, so responses indicating more than one option were included in the “other” category for purposes of summarizing these data. Figure 2-22 illustrates the race/ethnicity breakdown for system-wide travelers.

System-wide, more than four out of every five riders indicated they are white. Over 11 percent indicated minority or multiple responses, with the largest single minority group identifying as Asian or Pacific Islander. The next largest minority group was “other” or multiple responses, and the next distinct minority group was Hispanic with a 2 percent share of overall responses. A total of 8 percent of riders did not indicate a race or ethnicity.

**Figure 2-22. System-wide traveler race/ethnicity, all survey periods (2013)**

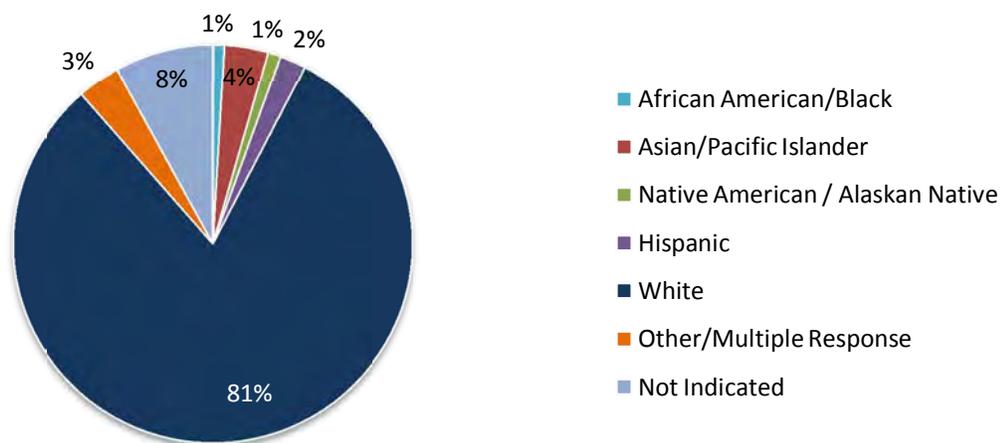


Table 2-15 and Figure 2-23 summarize and illustrate race/ethnicity share by route and system-wide. At the individual route level, a significant majority of survey respondents are white; all routes are over 80 percent white except Edmonds–Kingston and Seattle–Bremerton. The Seattle–Bremerton route exhibits the highest overall diversity with over 15 percent of respondents identifying as non-white and another 5 percent identifying as “other” or multiple response. The Seattle–Bremerton route also shows the highest share for African American/Black respondents and Asian/Pacific Islander respondents, both of which are significantly higher than the next highest route. The share of Native American/Alaskan Native respondents was highest on the Southworth–Vashon and Edmonds–Kingston routes. Hispanic respondents were highest on the Anacortes/San Juan Islands/Sidney B.C. route, although the Hispanic share for the Seattle–Bremerton route was only slightly lower. Overall, minority respondent shares were lowest for the Point Defiance–Tahlequah route. The largest share of riders not indicating race or ethnicity was on the Fautleroy–Vashon route.

**Table 2-15. System-wide race/ethnicity count and share by route, all survey periods (2013)**

Route	African American/ Black	Asian/ Pacific Islander	Native American/ Alaskan Native	Hispanic	Other / Multiple Response	White	Not Indicated	Total
Pt. Defiance–Tahlequah	1 (0.2%)	5 (1.2%)	4 (1.0%)	6 (1.5%)	15 (3.6%)	356 (86.4%)	25 (6.1%)	412
Southworth–Vashon	1 (0.9%)	0 (0.0%)	2 (1.7%)	3 (2.6%)	5 (4.3%)	99 (84.6%)	7 (6.0%)	117
Fauntleroy–Southworth	12 (1.5%)	30 (3.7%)	6 (0.7%)	18 (2.2%)	36 (4.4%)	655 (80.7%)	55 (6.8%)	812
Fauntleroy–Vashon	9 (0.7%)	29 (2.3%)	5 (0.4%)	23 (1.9%)	38 (3.1%)	1,004 (81.3%)	127 (10.3%)	1,235
Seattle–Bremerton	67 (3.0%)	171 (7.7%)	33 (1.5%)	73 (3.3%)	114 (5.1%)	1,641 (74.0%)	120 (5.4%)	2,219
Seattle–Bainbridge Island	37 (0.9%)	186 (4.4%)	40 (0.9%)	78 (1.8%)	128 (3.0%)	3,533 (82.8%)	264 (6.2%)	4,266
Edmonds–Kingston	19 (0.8%)	81 (3.5%)	38 (1.7%)	40 (1.7%)	84 (3.7%)	1,828 (79.6%)	206 (9.0%)	2,296
Mukilteo–Clinton	17 (0.9%)	46 (2.5%)	12 (0.7%)	30 (1.6%)	57 (3.1%)	1,512 (82.8%)	151 (8.3%)	1,825
Port Townsend–Coupeville	4 (0.6%)	14 (2.2%)	9 (1.4%)	12 (1.9%)	21 (3.3%)	520 (82.4%)	51 (8.1%)	631
Anacortes–San Juan Islands	10 (0.5%)	44 (2.1%)	11 (0.5%)	52 (2.5%)	55 (2.6%)	1,747 (83.2%)	182 (8.7%)	2,101
Anacortes/San Juan–Sidney, BC	2 (1.8%)	5 (4.4%)	0 (0.0%)	4 (3.5%)	1 (0.9%)	95 (83.3%)	7 (6.1%)	114
Total	179 (1.1%)	611 (3.8%)	160 (1.0%)	339 (2.1%)	554 (3.5%)	12,990 (81.0%)	1,195 (7.5%)	16,028

**Figure 2-23. System-wide race/ethnicity share by route, all survey periods (2013)**

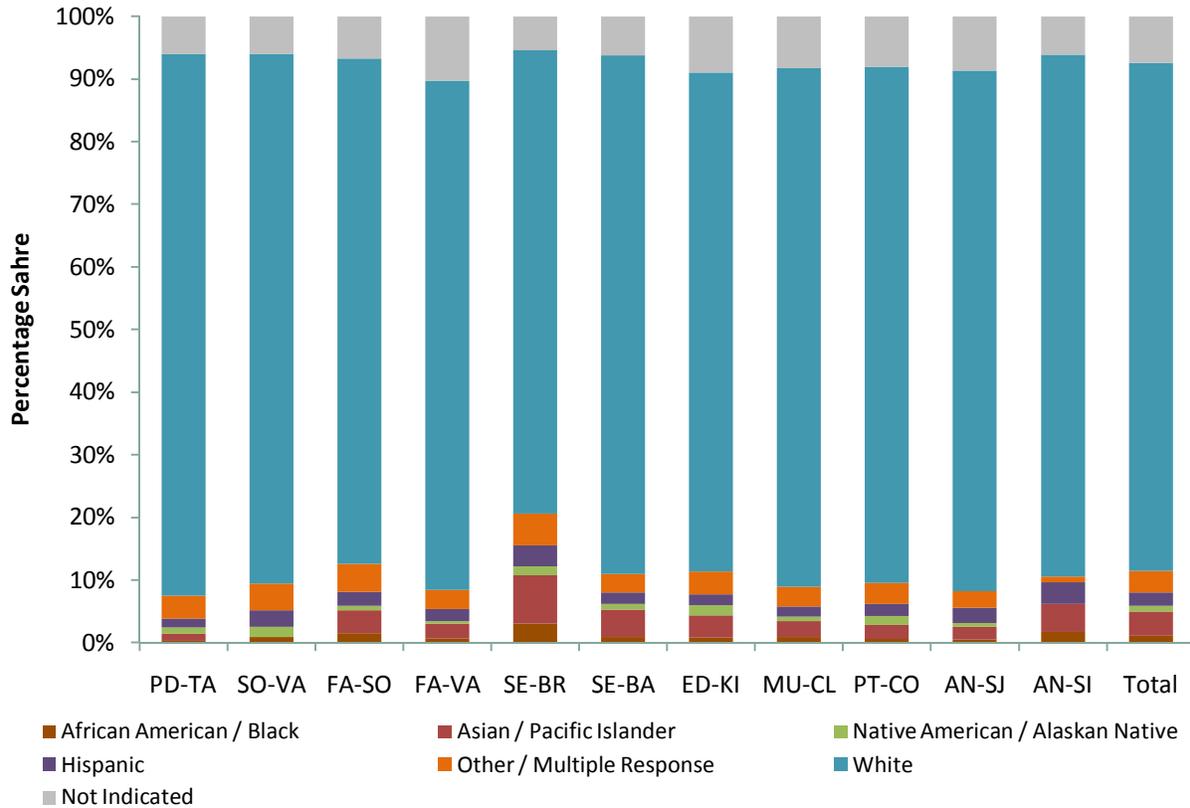
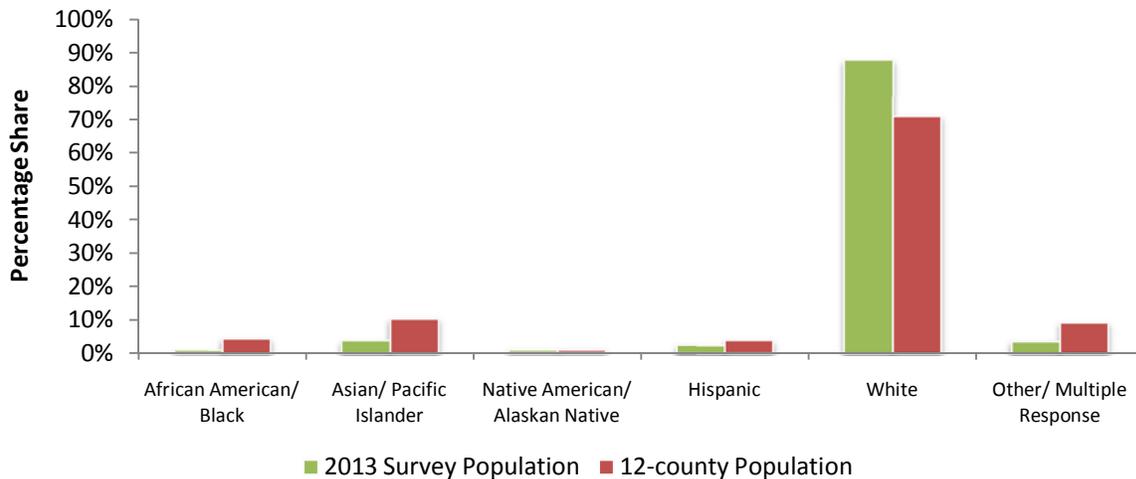


Figure 2-24 illustrates race and ethnicity for the ferry ridership population and the 12-county region. Survey respondents who did not indicate a race or ethnicity are excluded from this chart. Compared to the 12-county region, ferry riders tend to be less diverse, with all minorities except Native Americans/Alaskan Natives having a lower percent representation.

**Figure 2-24. System-wide race/ethnicity comparison to 12-county population**



Data Source: 2010 US Census

Table 2-16 presents the primary languages spoken by surveyed travelers system-wide. The majority of respondents speak English as their primary language (90 percent). Close to 3 percent of respondents speak Spanish as their primary language. Several other languages each account for 1 percent or less of riders system-wide.

**Table 2-16. System-wide traveler primary language, all survey periods (2013)**

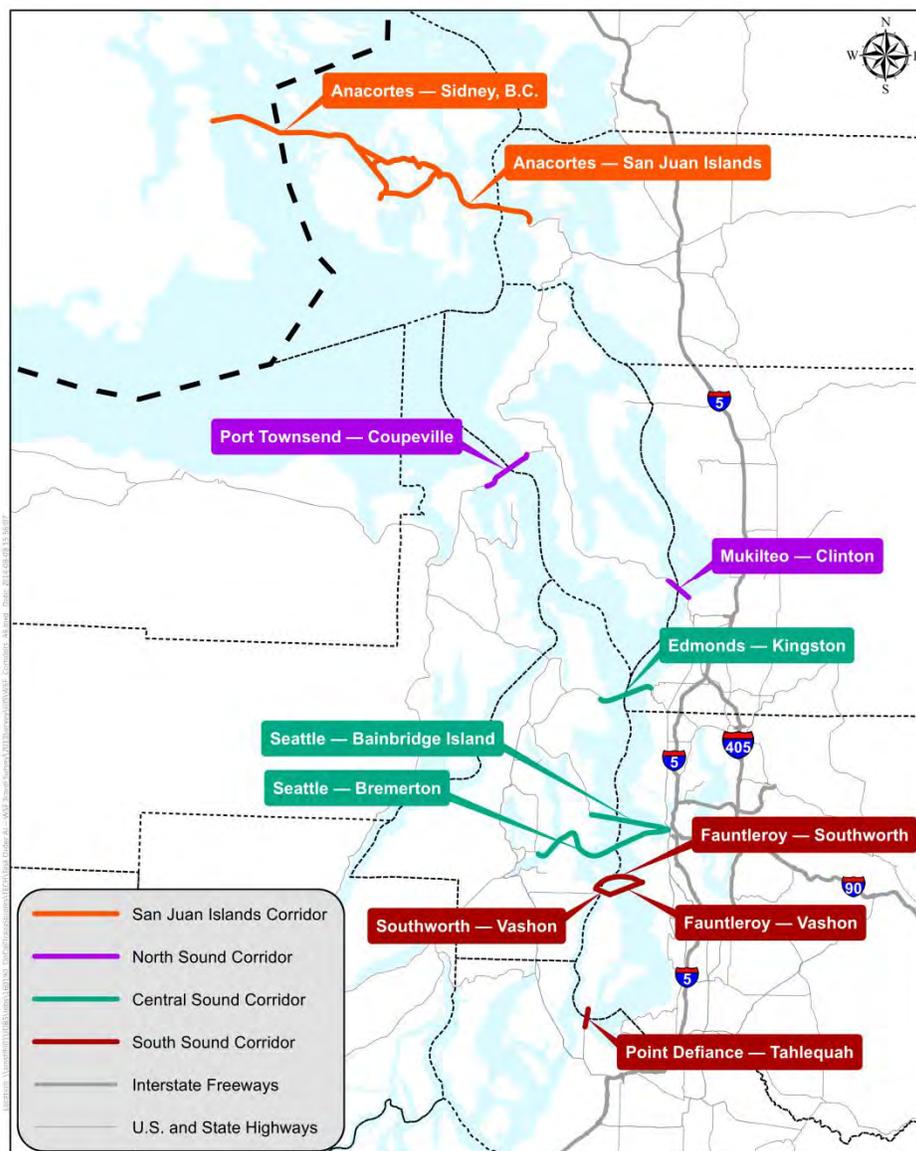
Primary Language	Percent of Total
English	90%
Spanish	3%
French	1%
German	1%
Tagalog	Less than 0.5%
Japanese	Less than 0.5%
Chinese (including Mandarin)	Less than 0.5%
American Sign Language	Less than 0.5%
Russian	Less than 0.5%
Norwegian	Less than 0.5%
Korean	Less than 0.5%
Italian	Less than 0.5%
Vietnamese	Less than 0.5%
Hindi	Less than 0.5%
Other	4%

### 3 CORRIDOR TRAVEL MARKETS

The Washington State Ferry (WSF) routes have been grouped into four travel corridor markets that are shown in Figure 3-1:

- San Juan Island corridor (Anacortes–San Juan Islands, Anacortes–Sidney, B.C. routes)
- North Sound corridor (Whidbey Island) (Mukilteo–Clinton, Port Townsend–Coupeville routes)
- Central Sound corridor (Edmonds–Kingston, Seattle–Bainbridge Island, and Seattle–Bremerton routes)
- South Sound corridor (Fautleroy–Vashon, Fautleroy–Southworth, Vashon–Southworth, and Pt. Defiance–Tahlequah routes)

Figure 3-1. Corridor travel markets for the WSF system



### 3.1 General Characteristics of the Corridor Travel Markets

This section provides key characteristics that help illustrate the attributes and trends experienced on the different travel corridors. Comparisons among corridors are provided to help illustrate relative differences in general travel behavior and rider demographics. Finally, comparisons to the 2006 survey are provided to highlight significant changes in travel behavior and key demographics.

The tabulations and percentage share distributions of results herein represent the survey responses as expanded to the survey period ridership. More information regarding expansion methods can be found in Chapter 8.

#### 3.1.1 Trip Frequency and Trip Type Differences among Corridors

One clear difference in travel behavior among the corridors is the frequency of trips. The average number of trips per week is skewed heavily toward fewer trips in the San Juans and North Sound Corridors (see Figure 3-2), which have a median number of weekday trips of two and three, respectively. By comparison, the surveyed users of the Central and South Sound Corridors travel on WSF about five times per week on the weekdays. The trip frequency distribution can at least partially be explained by the survey results related to trip purpose. As shown in Figure 3-3, the San Juans and North Sound Corridors have a higher percentage of recreational/shopping trips and a lower percentage of work trips, which tend to be more frequent. The San Juans and North Sound Corridors also have a higher percentage of retirees (about 28 percent vs. about 14 percent) for the Central and South Sound Corridors.

Figure 3-2. Average number of trips per week by corridor

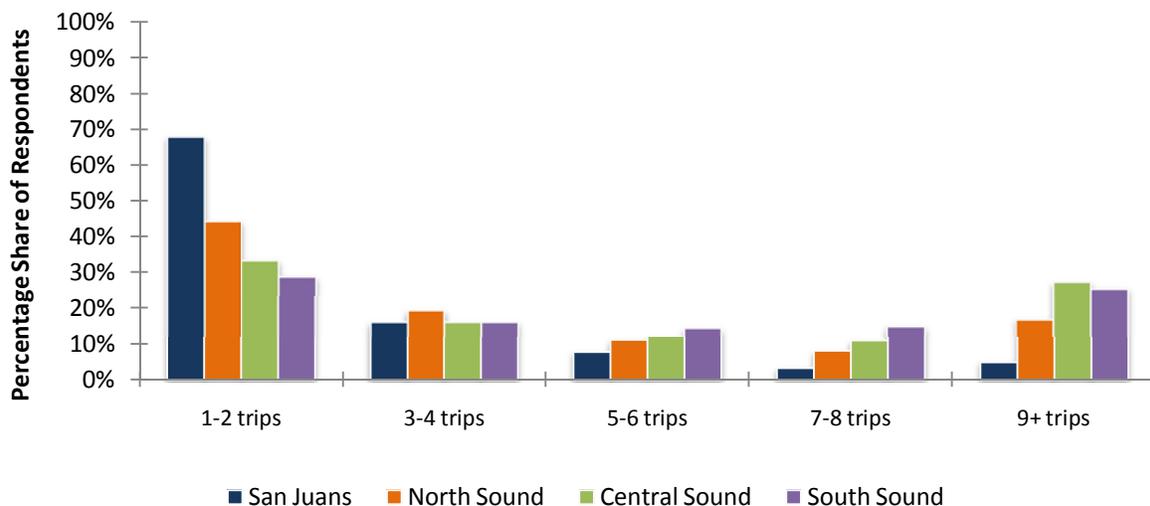
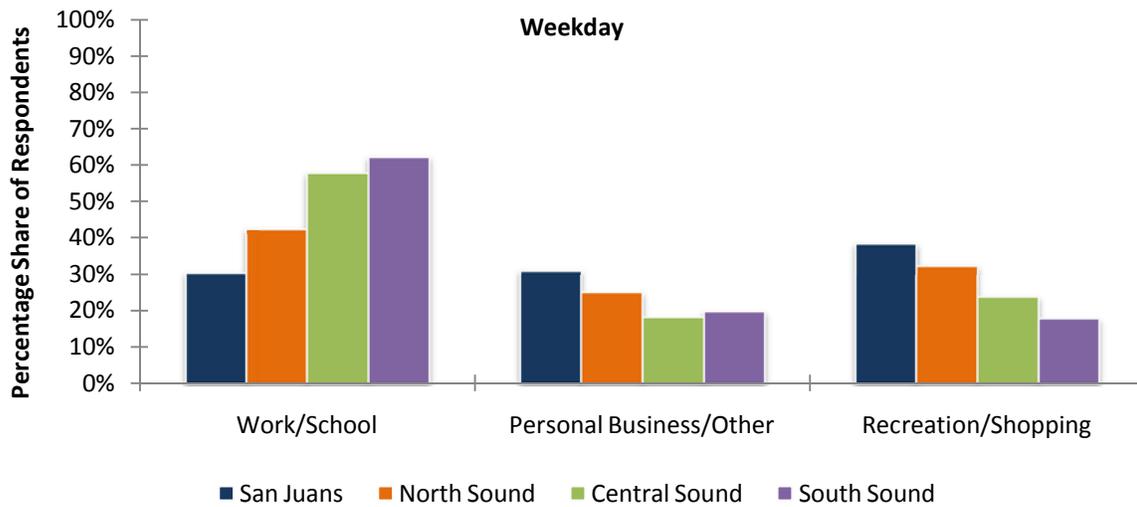


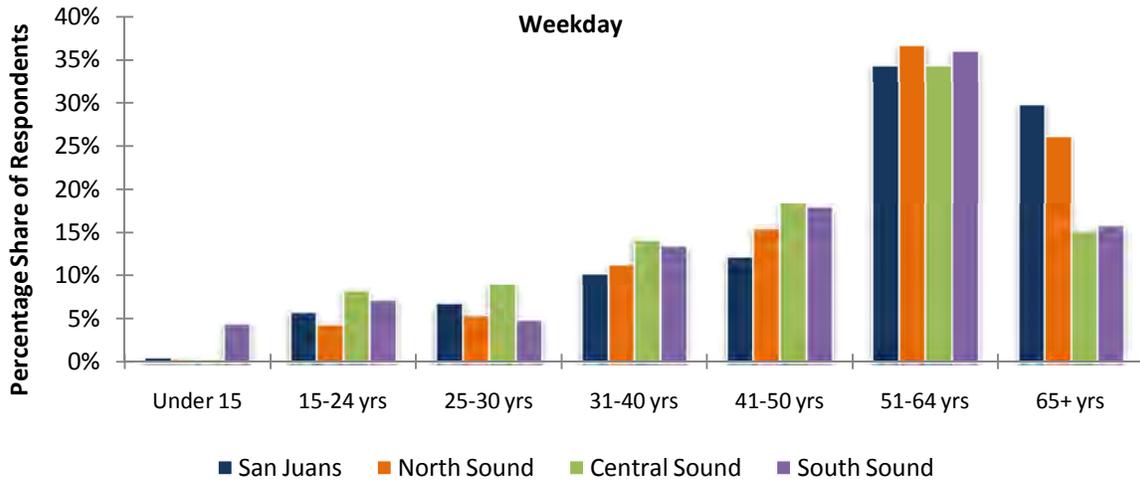
Figure 3-3. Weekday trips by purpose and corridor



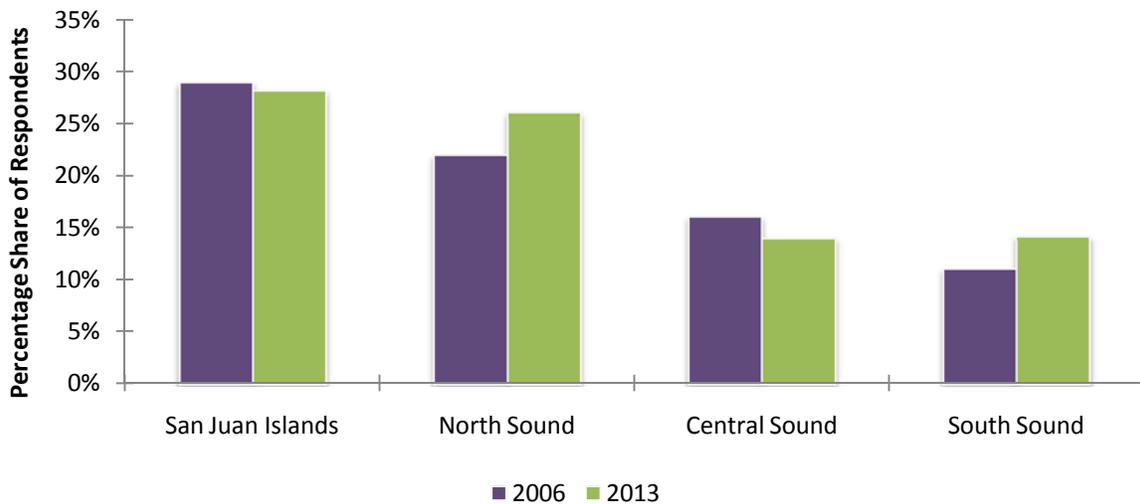
### 3.1.2 Aging Demographic, Trip Frequency and Purpose

For each of the last four WSF onboard surveys, respondents were asked a question regarding their age and the trend is clear. WSF riders as a group are getting older. In the 1993 survey, the average age was 42 years old. By 2006, the average age reported in the survey was 48. This trend is continuing, and in 2013 the average age of all survey respondents is 49. The San Juans, North Sound, and South Sound averages are 50, 52, and 49 respectively, while the Central Sound is more similar to the 2006 survey with an average age of 47. The distribution of age by corridor is shown in Figure 3-4. As might be expected, the corridors with higher average ages also reported a greater percentage of retirees, which reaches 28 percent for the San Juan Islands Corridor and 26 percent for the North Sound Corridor (Whidbey Island). There has not been a consistent trend across corridors in retirement status; the percentage of retirees has increased in the North Sound and South Sound since 2006, and slightly decreased in the San Juans and Central Sound (shown in Figure 3-5). While average age has increased in both the San Juans and Central Sound, a slight decrease in the number of retirees may be explained by individuals remaining in the workforce longer and retiring at a later age. Furthermore, the definition of retired has transformed over the years, with more retirees continuing to work part-time or as self-employed individuals who may not have self-identified as retired on the survey.

**Figure 3-4. Distribution of age by corridor, weekday**



**Figure 3-5. Share of retirees by corridor (2006 and 2013)**



Of respondents with a valid home location provided, 92 percent live within the 12-county region. General trends in trip purpose differ by corridor and exhibit interesting patterns when compared to the previous survey. When comparing trip purpose among corridors and across time (2006 vs. 2013) some general patterns emerge. The rank order between the corridors of work/school trips for 2013 is the same as in 2006, with the San Juans Corridor exhibiting the lowest share of work/school trips and the South Sound showing the highest. However, as described in the system-wide analysis section, the overall share of work/school trips for all corridors is lower in 2013 than in 2006. In general, these trips have shifted to an increase in recreational shopping trips, with the exception of the South Sound Corridor, which is slightly lower for the recreation/shopping category.

## 3.2 San Juan Islands Corridor Findings

There are relatively few alternatives to access the San Juan Islands other than WSF routes. Commercial air service is provided by Kenmore Air, which operates small float planes to San Juan, Orcas, and Lopez Islands. Summer season passenger-only service is provided by the Victoria Clipper. However, the vast number of visitors and residents travel to and from the islands via WSF.

### 3.2.1 Aging Demographic, Trip Frequency and Purpose

Key differences separating the San Juan Islands Corridor from the other three corridors include the much lower weekday trip frequency (two per week vs. three to five for the other corridors) and the percentage of work/school trips. In addition, even though the share of work/school trips is shrinking for all corridors compared to 2006, the San Juans Corridor is exhibiting an even faster decline in work/school trips; however, it should be noted that for the San Juans Corridor this is a small base to begin with. In 2006 for this corridor, work/school trips were the largest share of total trips (about 40 percent) with recreational/shopping and personal business/other making up the remaining 60 percent. By 2013, this pattern shifted with recreation/shopping trips comprising the largest share of total trips (about 40 percent) with business/personal and work/school making up the remaining 60 percent. One likely cause of this shift is an increase in the percentage of retirees in the San Juans, as evidenced by the change in average age of survey respondents from 50 in 2006 to 53 in 2013, the greater percentage of survey respondents over the age of 64, and almost a quarter of the respondents indicating that they are retired. For riders traveling between Anacortes and Sidney, B.C., 37 percent of riders are currently retired, with another 18 percent of riders planning to retire in the next five years. Anacortes–San Juans (including inter-island routes) has fewer retirees (21 percent of riders) and fewer people planning to retire in the next five years (14 percent) than travelers between Anacortes and Sidney, B.C.

### 3.2.2 Access Patterns and Parking Trends

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew from 48 percent in 2006 to 56 percent in 2013. This parallels an increase by about 6 percent in non-motorized boardings that parked a vehicle at the terminal on weekdays. Conversely, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 61 percent in 2006 to 48 percent in 2013. In this case, boardings that parked a vehicle at the terminal decreased by 10 percent. Of weekday survey respondents who boarded the ferry in a vehicle, almost 10 percent stated that they boarded by vehicle because transit was not convenient.

### 3.2.3 Travel Patterns

Based on the survey responses, a trend in travel patterns for the San Juans Corridor includes an increase in the share of trips to/from Orcas and Lopez Islands and a decrease in trips to/from San Juan Island relative to 2006; however, this trend does not correspond with 2013 ridership data, which shows an increase in the share of trips to/from San Juan Island and a decrease in the share of trips to/from Orcas Island since 2006. On the mainland side, the main changes in the share of trips were an increase to/from Skagit County and a decrease in trips to/from the city of Mt. Vernon and all locations east of Skagit, Snohomish, and King Counties.

Of respondents with a valid home location riding on routes serving the San Juan Islands, 53 percent of respondents live on the San Juan Islands. Only riders riding from Anacortes–San Juan Islands or Inter-Island routes were considered, not those riding from Anacortes–Sidney, B.C. If including Anacortes–Sidney, B.C. riders, the statistic becomes 51 percent of riders live on the San Juan Islands.

### **3.3 North Sound Corridor Findings (Whidbey Island)**

Although Whidbey Island does have a bridge at the north end of the island that provides non-ferry access (Deception Pass Bridge), the length of the island (36 miles) and the limited capacity of the bridge means that WSF provides an important access route via the Mukilteo–Clinton and Port Townsend–Coupeville routes. The North Sound Corridor routes combined account for more than 6,500 vehicles traveling to and from Whidbey Island per day, which is about 40 percent of the average daily traffic on Deception Pass Bridge (approximately 16,000 vehicles).

#### **3.3.1 Aging Demographic, Trip Frequency and Purpose**

When compared to the other corridors, the North Sound Corridor has the oldest riders (52 years old on average), and the second-highest percentage of retirees at 26 percent. On the Mukilteo–Clinton route, 22 percent of riders are currently retired, with another 15 percent planning to retire in the next five years. Port Townsend–Coupeville has a much greater percentage of retirees, with one-third of the riders currently retired (32 percent) and another 17 percent planning to retire within five years. It is not surprising then that the trip purpose share of weekday work/school trips has decreased from 52 percent in 2006 to 43 percent in 2013, while the share of recreation/shopping trips has increased from 26 percent to 32 percent. This corridor averages three trips per week on weekdays as compared to five trips per week for the Central Sound Corridor, which is more commuter-focused.

Saturday trips exhibited an even greater change in recreation/shopping trips with the share of total trips for that purpose increasing from 57 percent in 2006 to 71 percent in 2013. This corresponds with a large shift in the Saturday round-trip patterns that exhibit a shift of the share of trips “returning on another day” increasing from 15 percent in 2006 to 30 percent in 2013.

#### **3.3.2 Access Patterns and Parking Trends**

Access patterns remained relatively constant between 2006 and 2013 for the combined North Corridor routes at approximately 85 percent drive and 15 percent walk/bike for weekday trips. It is worth noting though that more than half of walk-on boardings during the PM peak-period access or egress the ferry by transit, while the vast majority of walk-on boardings during non-PM peak periods and Saturday access or egress by vehicle.

Although weekday parking patterns for non-motorized boardings remained fairly constant, Saturday North Corridor routes exhibited an almost 20-point increase in the percentage share of responses that indicated they parked a vehicle prior to walking aboard the ferry. This difference in Saturday parking behavior is primarily attributed to an increase on the Mukilteo–Clinton route.

Of weekday survey respondents who boarded the ferry in a vehicle, more than 15 percent gave transit not being convenient as one of the reasons for boarding by vehicle.

### 3.3.3 Travel Patterns

#### Port Townsend–Coupeville

During weekdays, the notable change in travel patterns between the 2006 and 2013 survey for the Port Townsend–Coupeville route are the increase in the share of trip interchange between the northern portion of Whidbey Island and Port Townsend and the decrease in the shares of trips generally in central and south Whidbey Island, Jefferson County (outside of Port Townsend), King County, and portions of Kitsap County.

#### Mukilteo–Clinton

Trip distribution for all boarding modes during weekdays did not change substantially between the 2006 and 2013 surveys. The one exception is a moderate increase in the share of trips associated with the zone representing the city of Everett. Generally, trips are concentrated on the central and south Whidbey Island zones and distributed throughout Snohomish and King Counties on the mainland side of the trips.

Refer to Chapter 5 for maps that illustrate the change in travel patterns from 2006 to 2013 for the North Sound Corridor routes.

## 3.4 Central Sound Corridor Findings

The Central Sound Corridor is the highest traveled corridor in the WSF system, with 12.4 million riders per year. This is down from 13.2 million passengers in 2006 and a peak of 14.4 million passengers in 1999. The corridor serves Kitsap County, Bainbridge Island, and the Olympic Peninsula via the Hood Canal Bridge or driving around the south end of Hood Canal. This is also a highly commuter-oriented corridor with more than 60 percent of the trips associated with work or school. This corridor averages five trips per week on weekdays as compared to three trips per week for the North Sound Corridor.

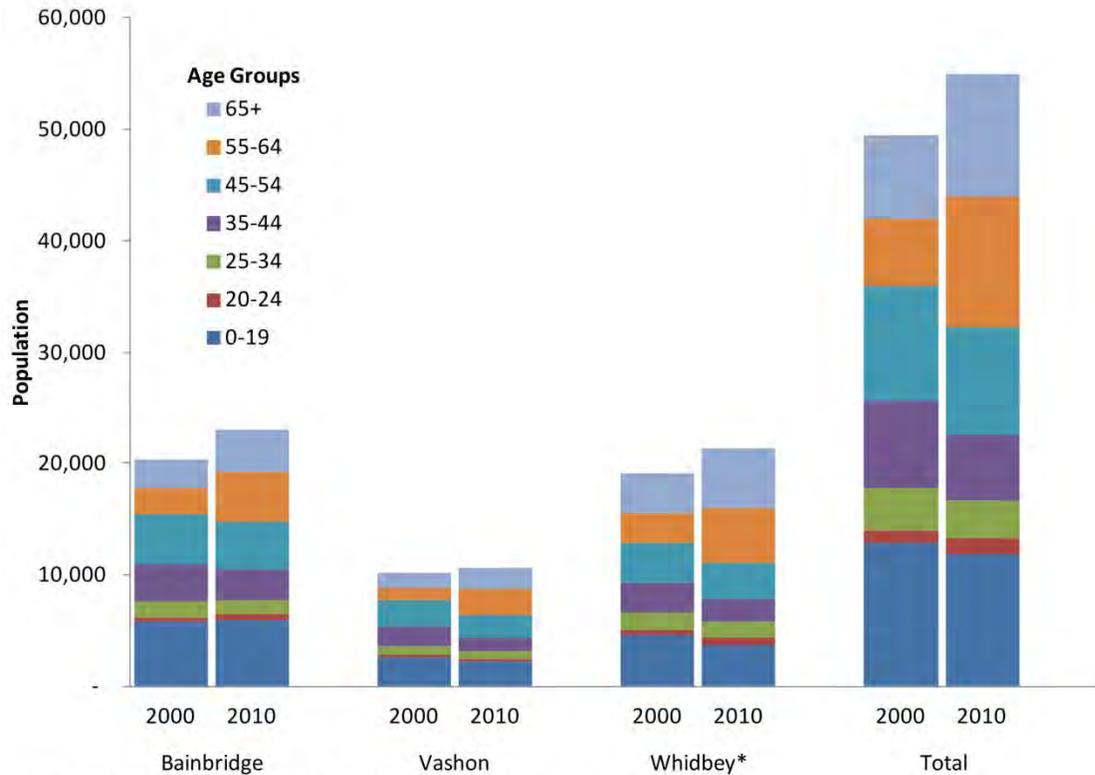
### 3.4.1 Aging Demographic, Trip Frequency and Purpose

Analysis of the survey results revealed the convergence of several trends. In general this corridor is experiencing an aging population, a reduction in the frequency of commuter trips, and a slow shift toward recreational and shopping trips. As a result, routes that were very commuter-focused in years past, such as Seattle–Bainbridge Island, are transitioning to reflect routes that have a more mixed user base such as Mukilteo–Clinton.

As with other corridors, this corridor exhibits change in the distribution of ages that continues to skew toward older riders. One indicator of the aging rider population is exhibited through a comparison of the share of survey respondents that indicated they were greater than 64 years old. As of 2013, for survey respondents from the Edmonds–Kingston and Seattle–Bainbridge Island routes, 18 percent and 17 percent were older than 64 years of age, 21 percent and 15 percent were retired, and another 14 percent and 14 percent are planning to retire, respectively. Seattle–Bremerton is the exception with only 9 percent of respondents indicating an age greater than 64 years old. Only 10 percent of respondents on the Seattle–Bremerton route are currently retired, and a little over 9 percent plan to retire in the next five years. Since 2006, the Seattle–Bainbridge Island route has exhibited a more rapidly aging rider profile than any route in the corridor, changing from

about 8 percent to 17 percent over 64 years of age between the 2006 and 2013 surveys. These survey results are confirmed by previous demographic and ridership analysis conducted in 2012 using census data for the Vashon Island, Bainbridge Island, and Whidbey Island service areas (shown in Figure 3-6). As shown in the figure, the number of individuals over the age of 64 has increased from 2000 to 2010.

**Figure 3-6. Population by age group for Vashon Island, Bainbridge Island, and South/Central Whidbey Islands, 2000 and 2010 US Census**



\*South and Central Whidbey Island, North Whidbey Island excluded

In general, this corridor has exhibited a shift in trip frequency from the high frequency use patterns (more than 8 one-way trips per week) toward more moderate trip frequency (8 one-way trips per week or less). This change in the pattern of trip frequency is strongly correlated with the work/school trip purpose and is likely related to the aging demographic as well.

### 3.4.2 Access Patterns and Parking Trends

One notable change in access patterns and parking for the Central Sound Corridor is the decrease in vehicle boardings as a share of all boardings. The decrease ranged from 9 percentage points on the Seattle–Bremerton route, to 7 points on the Seattle–Bainbridge Island route, to 3 points on Edmonds–Kingston. Vehicle boardings as a percentage of total boardings varies between the three routes from a high of 84 percent on Edmonds–Kingston to 39 percent on Seattle–Bremerton during the weekday. Survey findings closely correspond with traffic statistics for the month of October (all times and days). Monthly traffic data show a 10 percent decrease in vehicle boardings for Seattle–

Bremerton, a 10 percent decrease for Seattle–Bainbridge Island, and a 3 percent decrease on the Edmonds–Kingston route.

Along with the decrease in the percentage share of vehicle boardings is an increase in the percentage of survey respondents who indicated that they walked on and parked a car at the terminal. The increase of those who parked a vehicle at the terminal ranged from 11 percentage points for the Seattle–Bainbridge Island and Seattle–Bremerton routes to 16 points on the Edmonds–Kingston route on weekdays. Of weekday survey respondents who boarded the ferry in a vehicle, more than 15 percent gave transit not being convenient as one of the reasons for boarding by vehicle.

### 3.4.3 Travel Patterns

While there were shifts in travel patterns specific to each route, the patterns of origins and destinations have remained fairly consistent. The one common trend among the three routes when comparing the 2006 and 2013 surveys is a slight increase in the percentage of trips with origins and destinations nearer to the terminals of the route. In other words, there is a slightly greater concentration of trips originating and ending near ferry terminals and a corresponding decrease in trips further from the terminals on each end of the trip. The exceptions to this trend are the routes serving Seattle’s CBD, which may be driven by changes in employment levels. Between 2006 and 2013, there was a slight decrease in employment in the Seattle CBD. However, that was offset by an increase in employment in South Lake Union north of the CBD.

## 3.5 South Sound Corridor Findings

The routes in the South Sound Corridor include Fauntleroy–Vashon, Fauntleroy–Southworth, Southworth–Vashon, and Point Defiance–Tahlequah. The corridor provides connectivity between Downtown Seattle via Fauntleroy in West Seattle, the north end of Vashon Island, and Southworth in Kitsap County. This corridor also connects the south end of Vashon Island with Tacoma. This corridor is the third-highest traveled corridor in the WSF system, with 3.6 million riders per year. It should be noted that both the 2006 and 1999 survey included passenger-only ferry service between Downtown Seattle and Vashon Island. Historically, WSF operated this route; however, King County officially took over operation of this service in 2008. This route was not included in the 2013 survey.

### 3.5.1 Aging Demographic, Trip Frequency and Purpose

This corridor has exhibited decreasing ridership for over a decade and currently carries 9,900 riders per day. This is a decrease from 11,000 riders per day in 2006 and a high of 13,000 riders per day in 1999. This corridor, as with others in the system, is experiencing an aging population, a corresponding reduction in the frequency of commuter trips, and a gradual shift toward recreational and shopping trips.

As with other corridors, this corridor exhibits change in the distribution of ages that continues to skew toward older riders. One indicator of the aging rider population is exhibited through a comparison of the share of survey respondents that indicated they were older than 64 years of age. As of 2013, about 16 percent and 18 percent of survey respondents from the Vashon/Fauntleroy/Southworth and Pt. Defiance–Tahlequah routes were older than 64 years of age, respectively. With respect to the change since 2006, the Vashon/Fauntleroy/Southworth routes exhibited a change from about 10 percent to 16 percent over 64 years of age between the 2006 and

2013 surveys. The Point Defiance–Tahlequah route changed from about 15 percent to 18 percent over 64 years of age between the 2006 and 2013 surveys. These survey results are confirmed by previous demographic and ridership analysis conducted in 2012 using census data for the Vashon Island, Bainbridge Island, and Whidbey Island service areas (See Figure 3-6).

In general, this corridor exhibits a shift in trip frequency from the high frequency use patterns (greater than 8 one-way trips per week) toward more moderate trip frequency (8 one-way trips per week or less). This change in the pattern of trip frequency is strongly correlated with the work/school trip purpose and is likely related to the aging demographic as well.

### **3.5.2 Access Patterns and Parking Trends**

The South Sound Corridor exhibits a change in parking similar to that of the Central Sound Corridor. Although driving is still the predominant method of use on South Sound routes (more than 80 percent of weekday trips), the percentage of non-motorized trips that parked at the terminal increased significantly between 2006 and 2013. In 2006, about 26 percent of walk-on survey respondents indicated they parked a car at the terminal during the weekday trips. This response rose to 40 percent by 2013.

Of weekday survey respondents who boarded the ferry in a vehicle, more than 20 percent gave transit not being convenient as one of the reasons for boarding by vehicle.

### **3.5.3 Travel Patterns**

While there were shifts in travel patterns specific to each route, the patterns of origins and destinations have remained fairly consistent. The one common trend among the three South Sound Corridor routes when comparing the 2006 to the 2013 surveys is a slight increase in the percentage of trips with origins and destinations nearer to the terminals of the route. In other words, there is greater concentration in trips originating and ending near ferry terminals and a corresponding decrease in trips farther from the terminals on each end of the trip.

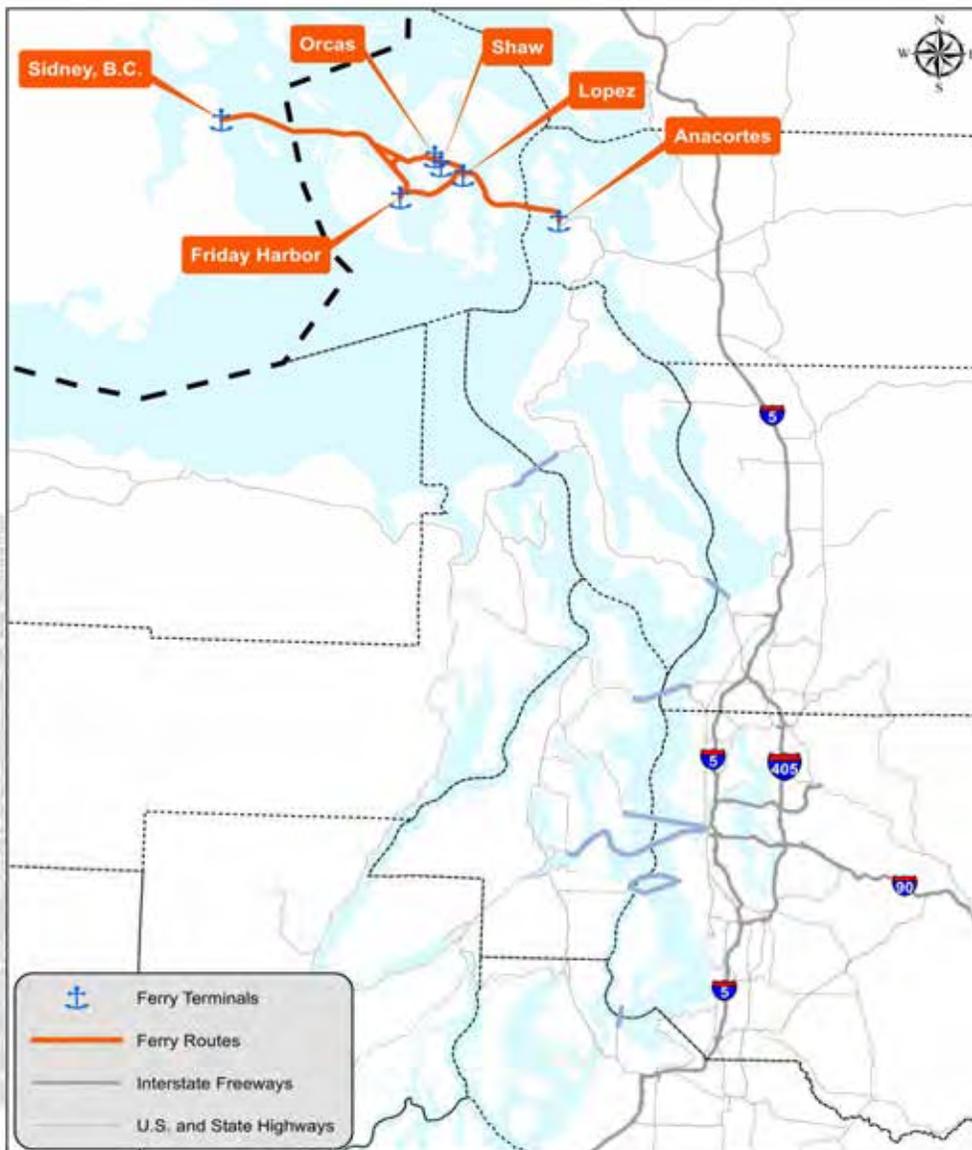
## 4 SAN JUAN ISLANDS CORRIDOR

### 4.1 Description

The routes in the San Juan Islands Corridor include Anacortes–San Juan Islands and Anacortes–Sidney, British Columbia, as shown in Figure 4-1. The corridor connects the mainland at Anacortes with the islands of Lopez, Shaw, Orcas, and San Juan. This international corridor also serves Sidney, British Columbia, Canada. This is the lowest traveled (and least populated) corridor in the WSF system with 1.94 million riders in 2013, or 5,300 riders per day. This represents an increase from 1.8 million riders in 2006, but is still lower than the peak of 1.96 million passengers in 1999.

The tabulations and percentage share distributions of results herein represent the survey responses as expanded to the survey period ridership. More information regarding expansion methods can be found in Chapter 8.

Figure 4-1. San Juan Islands Corridor routes





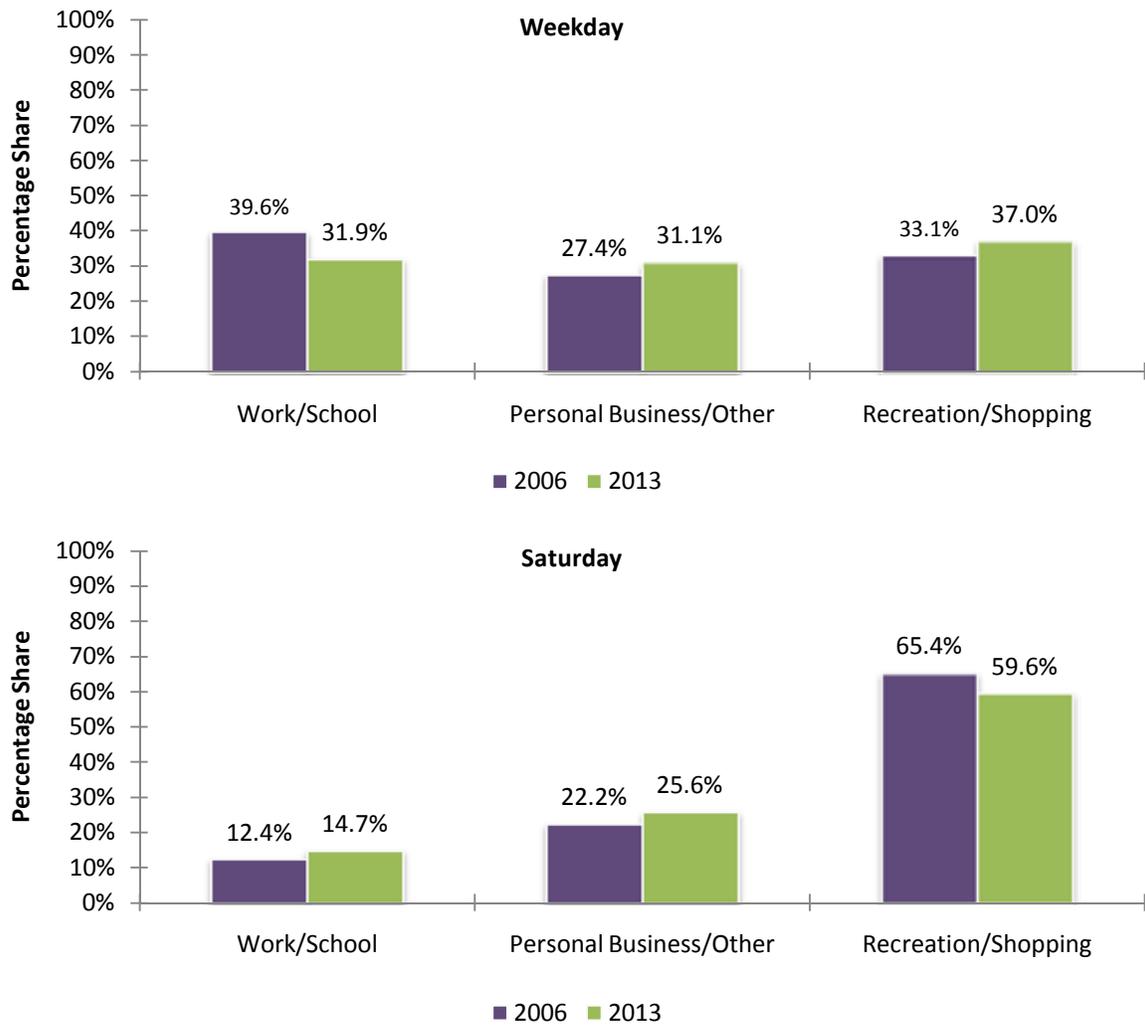
### 4.1.1 Frequency of Travel

Table 4-1 and Figure 4-2 show the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. On weekdays in 2013, the most frequent trip purpose was recreation/shopping (37 percent), which is a change from 2006 when work/school was the predominant weekday purpose. However, the percentage of Saturday trips for recreation/shopping has dropped slightly from 65 percent in 2006 to 60 percent in 2013. Trips for medical, personal business, and other purposes comprise 31 percent and 26 percent of trips on weekdays and Saturdays, respectively. The majority (roughly 70 percent) of travelers used ferries one or two times per week, which is unchanged from 2006.

**Table 4-1. San Juan Islands Corridor one-way trips by purpose and frequency, weekday and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	264	457	743	1,465	42.8%	22.0%	24.2%	12.0%
2	177	324	356	857	25.1%	46.8%	16.2%	40.5%
3 to 4	267	182	108	557	16.3%	16.6%	24.5%	15.9%
5 to 6	163	60	39	263	7.7%	2.9%	14.9%	3.9%
7 to 8	79	23	9	111	3.2%	2.7%	7.3%	5.4%
9 to 10	104	9	2	115	3.4%	7.1%	9.5%	17.6%
11+	37	6	10	53	1.6%	1.9%	3.4%	4.7%
Total	1,092	1,062	1,267	3,422	100%	100%	100%	100%
2013 Distribution	31.9%	31.1%	37.0%	100%				
2006 Distribution	39.6%	27.4%	33.1%	100%				
<b>Saturday</b>								
1	231	427	1,100	1,758	48.3%	54.0%		
2	115	277	518	910	25.0%	29.9%		
3 to 4	86	198	399	684	18.8%	11.6%		
5 to 6	58	29	108	195	5.4%	1.1%		
7 to 8	26	0	27	53	1.5%	1.4%		
9 to 10	10	0	3	14	0.4%	0.3%		
11+	9	3	15	27	0.7%	1.7%		
Total	536	934	2,171	3,641	100%	100%		
2013 Distribution	14.7%	25.6%	59.6%	100%				
2006 Distribution	12.4%	22.2%	65.4%	100%				

Figure 4-2. San Juan Islands Corridor trips by purpose, weekday and Saturday survey periods (2006 and 2013)

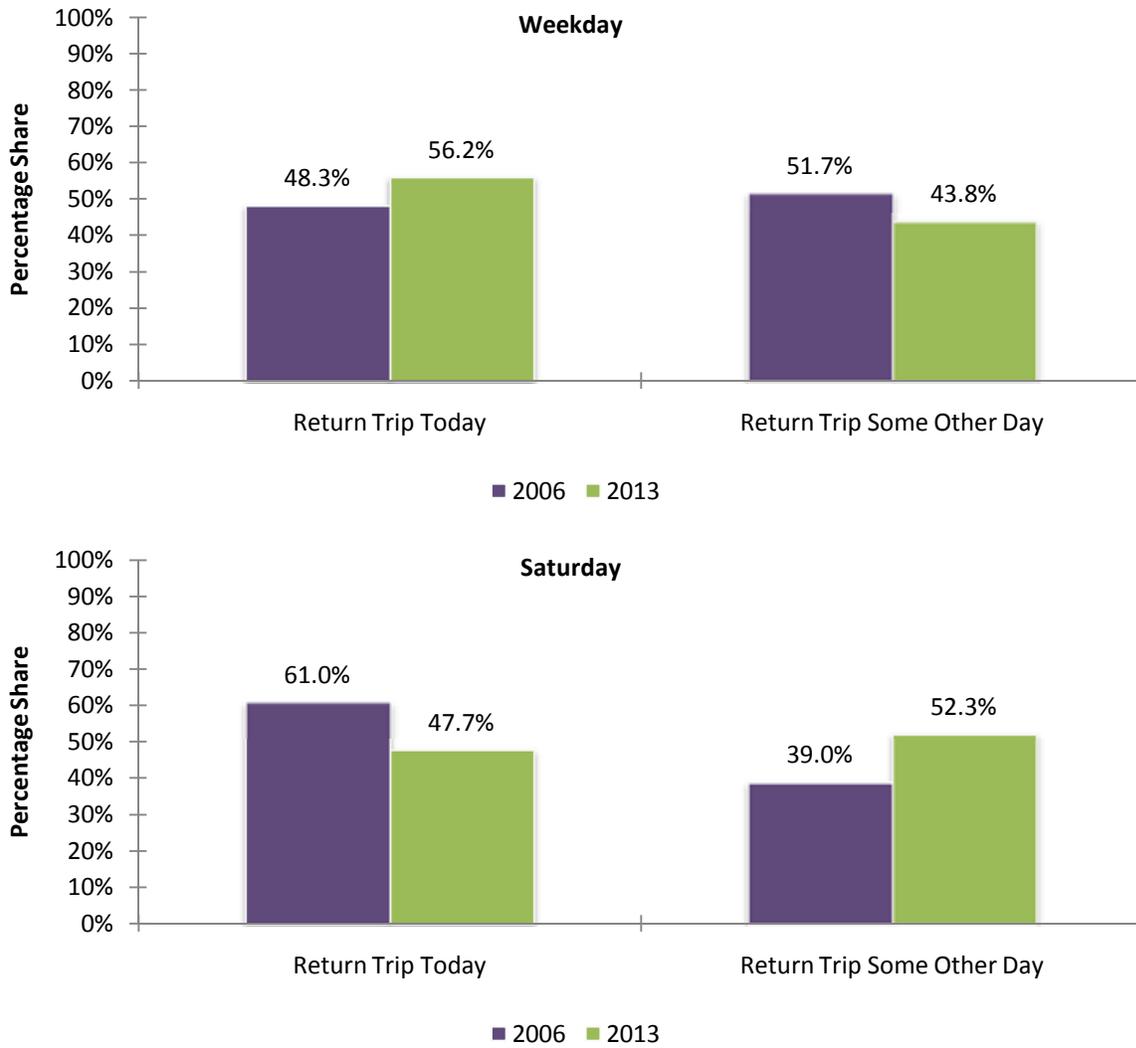




### 4.1.2 Round-Trip Patterns

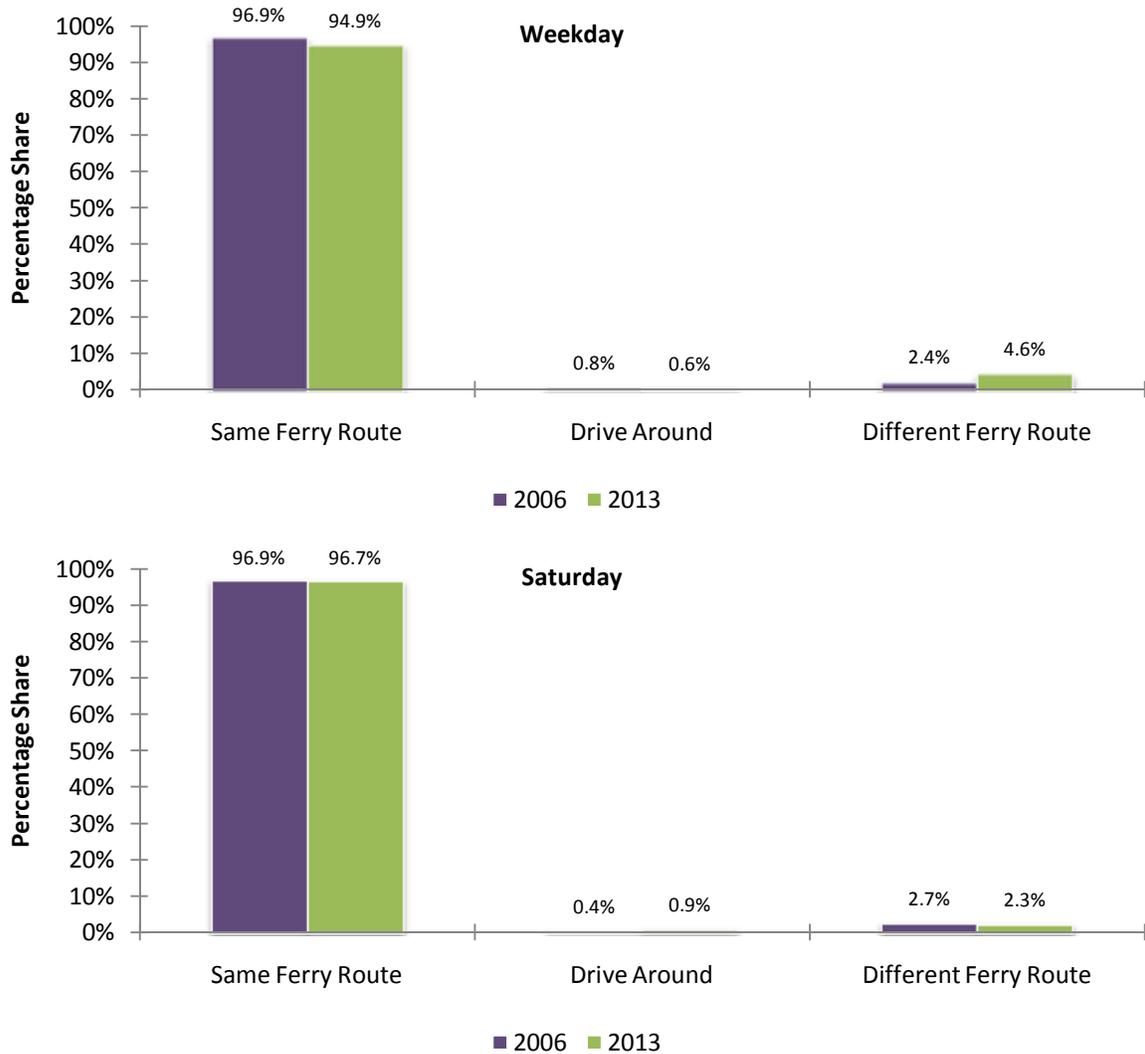
The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew from 48 percent in 2006 to 56 percent in 2013, as shown in Figure 4-3. Conversely, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 61 percent in 2006 to 48 percent in 2013.

**Figure 4-3. San Juan Islands Corridor round-trip patterns by day, weekday and Saturday survey periods (2006 and 2013)**



As shown in Figure 4-4, the vast majority (over 90 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers, and the results are relatively unchanged from 2006.

**Figure 4-4. San Juan Islands Corridor round-trip patterns by route, weekday and Saturday survey periods (2006 and 2013)**

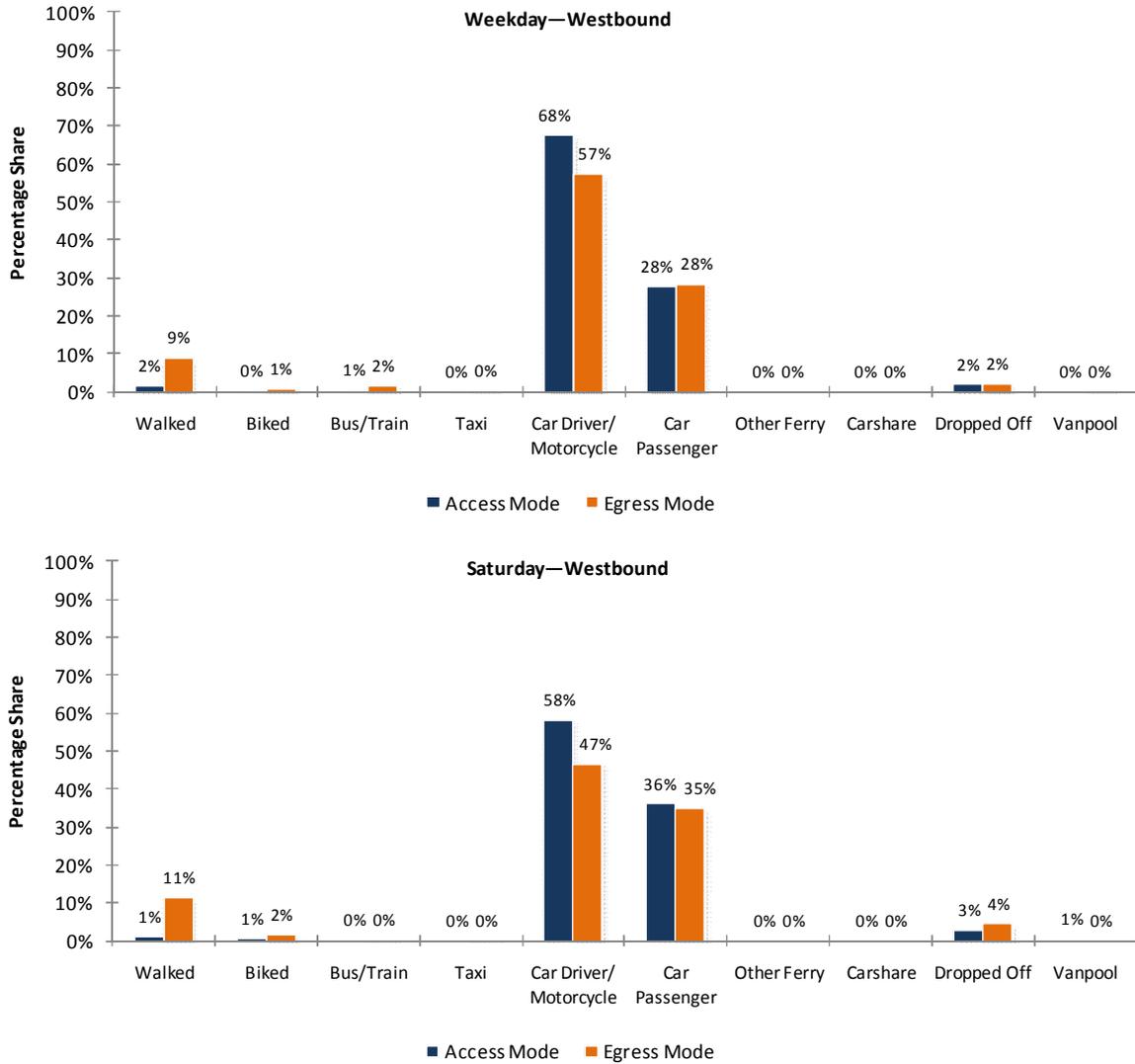


### 4.1.3 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant mode of access and egress in 2013, as shown in Figure 4-5 and Figure 4-6. On weekdays (westbound), 68 percent of ferry travelers drove to the ferry, and an additional 28 percent were passengers in a private vehicle. Leaving the ferry, 57 percent were drivers while 28 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.



Figure 4-5. San Juan Islands Corridor westbound trips by access and egress modes, weekday and Saturday survey periods (2013)



**Figure 4-6. San Juan Islands Corridor eastbound trips by access and egress modes, weekday and Saturday survey periods (2013)**

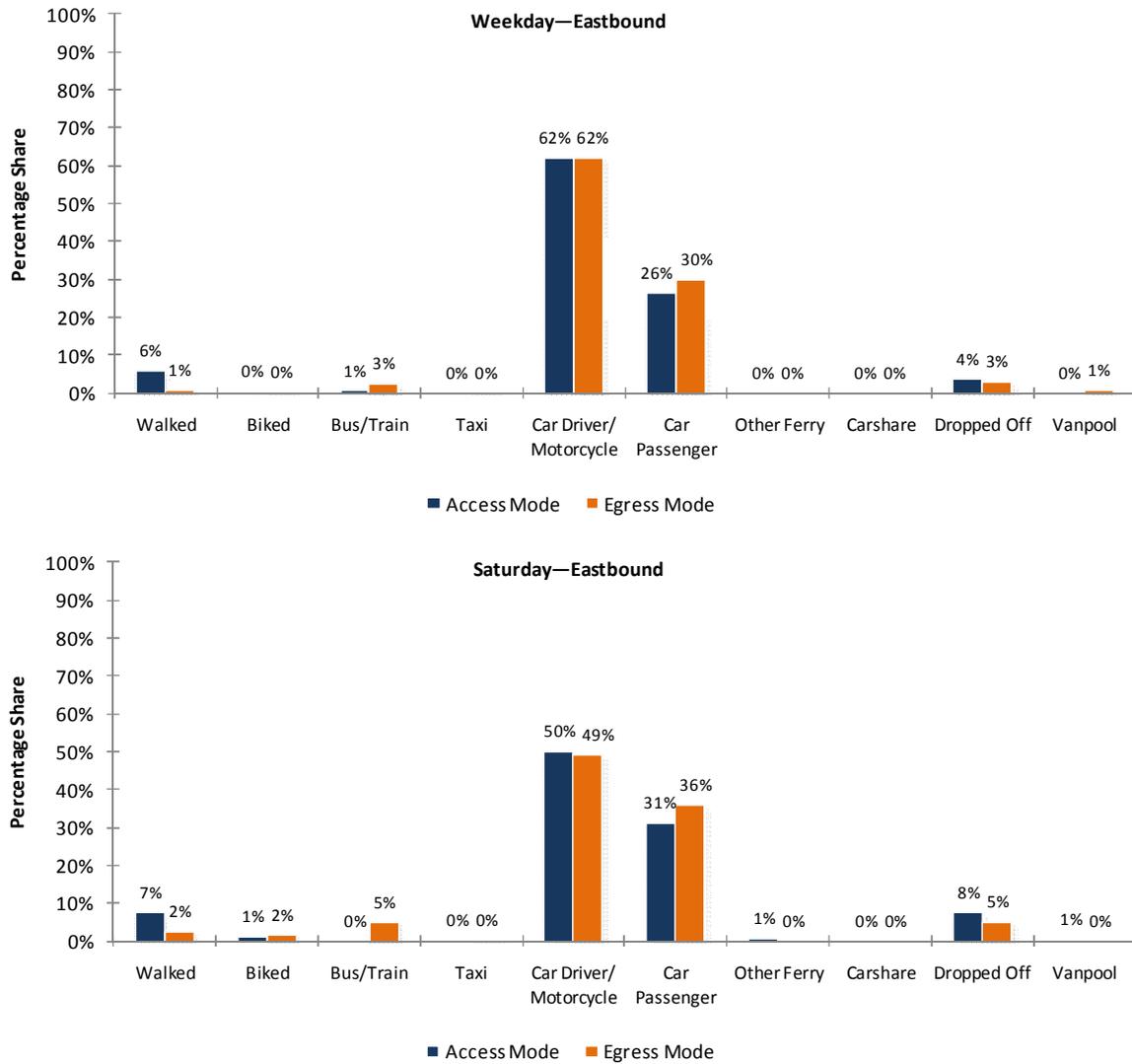




Table 4-2 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 83 percent and 75 percent of boardings on weekdays and Saturdays, respectively. On weekdays and Saturdays, the walk-on share of boardings increased between 2006 and 2013.

**Table 4-2. San Juan Islands Corridor access mode and boarding method, weekday and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	155	0	155	3.8%	5.0%
Biked	0	0	16	16	0.4%	0.1%
Bus/Train	5	20	0	25	0.6%	2.3%
Taxi	0	6	0	6	0.1%	0.0%
Car Driver/Motorcycle	2,345	273	0	2,619	64.9%	62.7%
Car Passenger	1,014	82	0	1,096	27.2%	29.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	117	0	117	2.9%	
Vanpool	0	3	0	3	0.1%	
<b>Total</b>	<b>3,364</b>	<b>657</b>	<b>16</b>	<b>4,037</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.3%	16.3%	0.4%	100%		
2006 Distribution	85.3%	14.3%	0.4%	100%		
<b>Saturday</b>						
Walked	0	208	0	208	4.3%	2.3%
Biked	0	3	43	46	0.9%	0.1%
Bus/Train	4	1	0	5	0.1%	0.7%
Taxi	0	11	1	12	0.3%	0.0%
Car Driver/Motorcycle	2,207	407	27	2,641	54.4%	54.6%
Car Passenger	1,416	215	14	1,645	33.9%	42.2%
Other Ferry	0	22	0	22	0.4%	
Carshare	0	0	0	0	0.0%	
Dropped Off	3	250	0	254	5.2%	
Vanpool	0	26	0	26	0.5%	
<b>Total</b>	<b>3,630</b>	<b>1,143</b>	<b>85</b>	<b>4,858</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	74.7%	23.5%	1.8%	100%		
2006 Distribution	81.2%	17.4%	1.4%	100%		

Table 4-3 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. On both weekdays and Saturdays, the walk-off share of boardings increased between 2006 and 2013.

**Table 4-3. San Juan Islands Corridor egress mode and boarding method, weekday and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	203	0	203	5.0%	4.3%
Biked	0	11	11	22	0.6%	0.5%
Bus/Train	4	82	0	86	2.1%	0.9%
Taxi	0	12	0	12	0.3%	0.3%
Car Driver/Motorcycle	2,269	136	5	2,409	59.7%	62.1%
Car Passenger	1,089	92	0	1,181	29.3%	31.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	106	0	106	2.6%	
Vanpool	2	15	0	17	0.4%	
<b>Total</b>	<b>3,364</b>	<b>657</b>	<b>16</b>	<b>4,037</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.3%	16.3%	0.4%	100%		
2006 Distribution	85.0%	14.6%	0.4%	100%		
<b>Saturday</b>						
Walked	0	344	0	344	7.1%	6.4%
Biked	0	2	84	86	1.8%	1.4%
Bus/Train	8	118	0	127	2.6%	0.6%
Taxi	0	11	1	13	0.3%	0.3%
Car Driver/Motorcycle	2,134	197	0	2,331	48.0%	50.4%
Car Passenger	1,488	236	0	1,724	35.5%	40.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	233	0	233	4.8%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>3,630</b>	<b>1,143</b>	<b>85</b>	<b>4,858</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	74.7%	23.5%	1.8%	100%		
2006 Distribution	80.6%	18.0%	1.4%	100%		



Table 4-4 and Table 4-5 show access and egress modes used across the entire ferry trip for weekdays and Saturdays, respectively. For walk-on boardings (on weekdays and Saturdays), the percentage of travelers leaving the destination terminal on foot was higher than the percentage arriving at the origin terminal on foot. This was also true for travelers using bus or other transit modes to/from the terminal.

**Table 4-4. San Juan Islands Corridor access mode to ferry—boarding method —egress mode from ferry, weekday all-day survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (16.7% of total boardings)					
Pedestrian	23.1%	Pedestrian	97.6%	Pedestrian	30.2%
Bicycle	2.4%	Pedestrian w/ Bicycle	2.4%	Bicycle	3.3%
By Bus/Transit	3.0%			By Bus/Transit	12.2%
By Vehicle	71.0%			By Vehicle	52.0%
Vanpool	0.5%			Vanpool	2.3%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (83.3% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	69.9%	In-Vehicle	100.0%
		Vehicle Passengers	30.1%		

Note: Average vehicle occupancy (AVO) was 1.43 for the Saturday survey period.

**Table 4-5. San Juan Islands Corridor trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (25.3% of total boardings)					
Pedestrian	16.9%	Pedestrian	93.0%	Pedestrian	28.0%
Bicycle	3.7%	Pedestrian w/ Bicycle	7.0%	Bicycle	7.0%
By Bus/Transit	0.1%			By Bus/Transit	9.6%
By Vehicle	75.3%			By Vehicle	55.3%
Vanpool	2.1%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	1.8%			Other Ferry	0.0%
In-Vehicle Boardings (74.7% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	60.9%	In-Vehicle	100.0%
		Vehicle Passengers	39.1%		

Note: Average vehicle occupancy (AVO) was 1.64 for the Saturday survey period.

As shown in Figure 4-7, the vast majority of drive-on travelers indicated that the reason they took a vehicle was because they needed it at their destination (79 percent on weekdays, 80 percent on Saturdays). The second-most prevalent response was that their final destination was too far from the ferry terminal to allow for walking (30 percent on weekdays, 31 percent on Saturdays). Carrying baggage or heavy loads or the need for a vehicle for businesses purposes were other common responses.

**Figure 4-7. San Juan Islands Corridor reasons for taking a vehicle, weekday and Saturday survey periods (2013)**

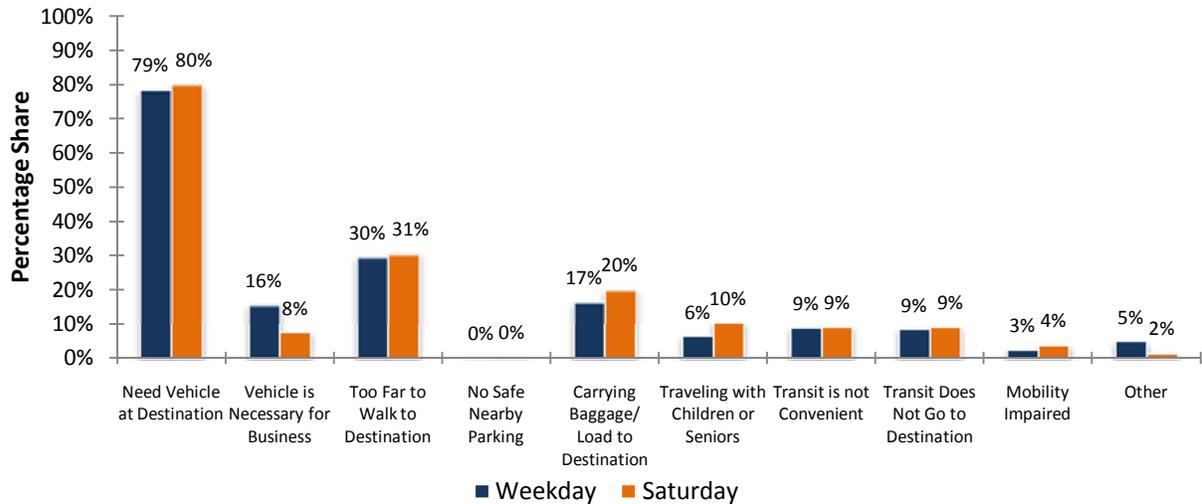
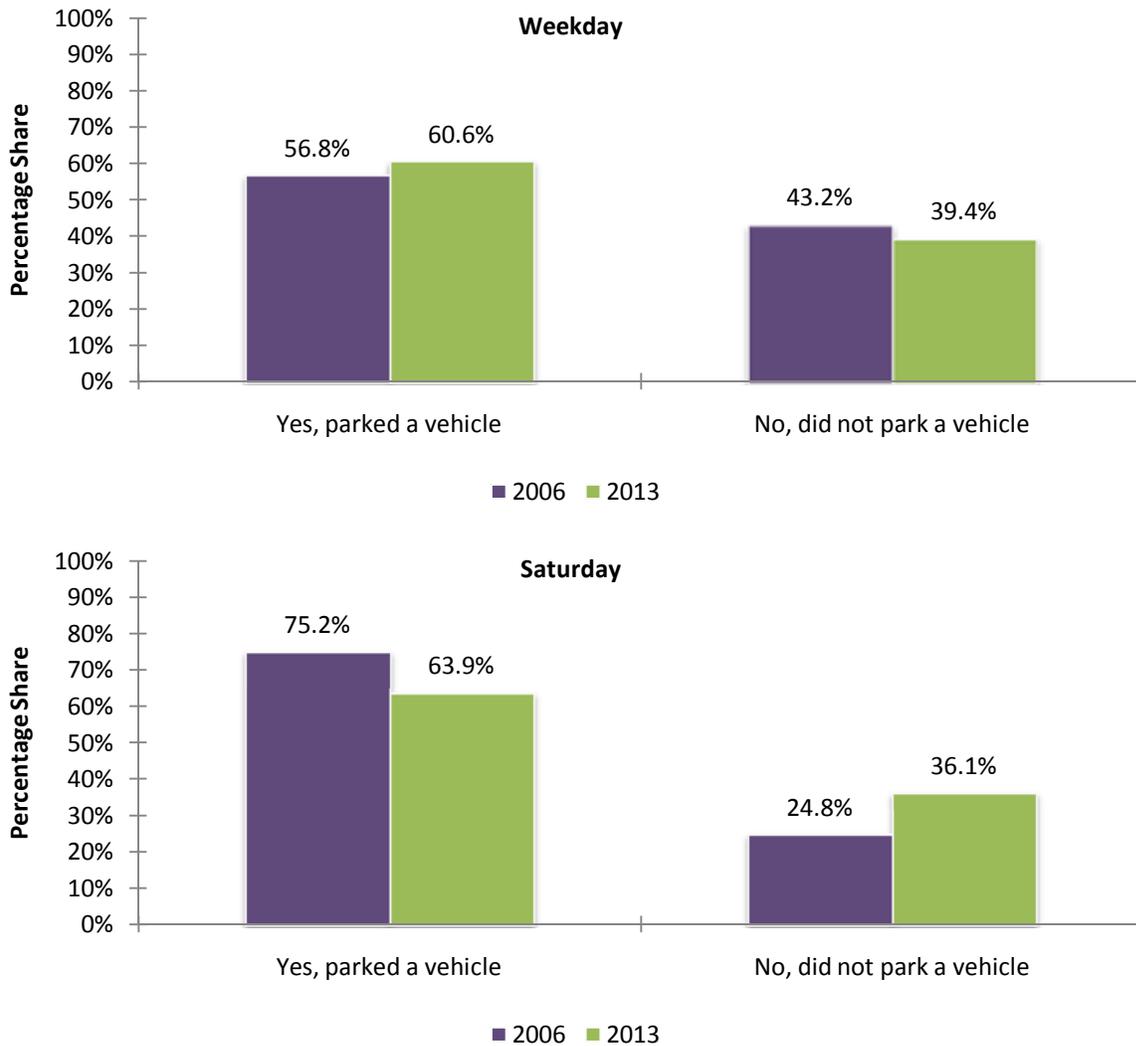




Figure 4-8 shows that, of those travelers who walked or rode bicycles onto the ferry, the percentage of them who parked a vehicle at the terminal increased between 2006 and 2013 for weekday travelers. The opposite, however, was true for Saturday travelers.

**Figure 4-8. San Juan Islands Corridor non-motorized boardings that parked a vehicle at terminal, weekday and Saturday survey periods (2006 and 2013)**



**4.1.4 Other Travel Characteristics**

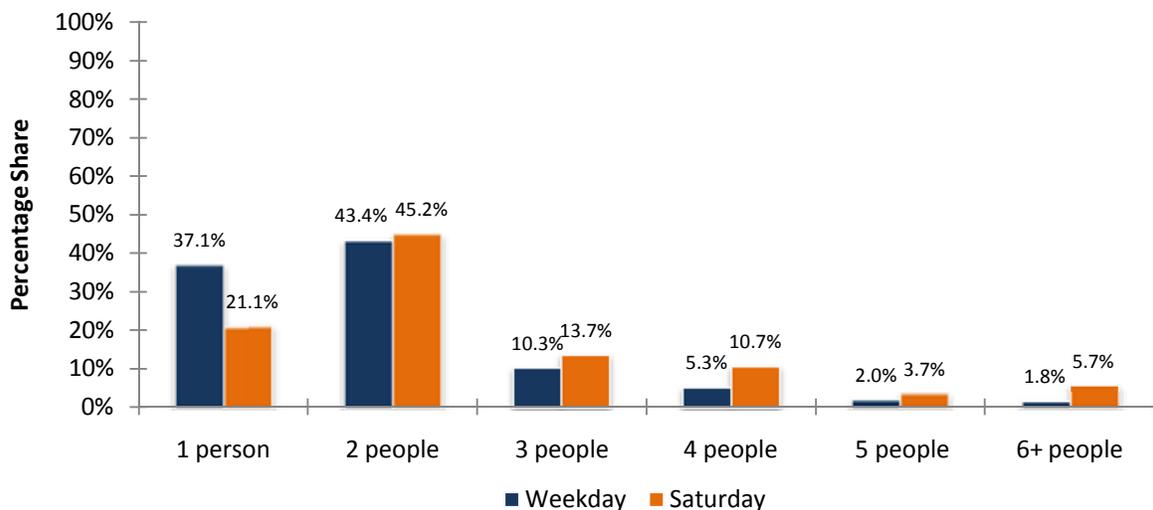
As shown on Table 4-6, the percentage of travelers who were on their preferred sailing increased between 2006 and 2013. On weekdays, the percentage increased from 80 percent to 83 percent, while on Saturdays the change was even greater, growing from 78 percent to 94 percent.

**Table 4-6. San Juan Islands Corridor trips preferred sailing, weekday and Saturday survey periods (2006 and 2013)**

Preferred Sailing	Drive	Walk/Bike	Total	All Boardings	
				2013	2006
<b>Weekday</b>					
Yes	2,764	568	3,332	82.7%	79.7%
No, different departure time	588	103	691	17.2%	19.0%
No, different route	4	0	4	0.1%	1.4%
Total	3,356	671	4,027	100%	100%
2013 Distribution	83.3%	16.7%	100%		
2006 Distribution	85.3%	14.7%	100%		
<b>Saturday</b>					
Yes	3,413	1,114	4,526	93.7%	77.6%
No, different departure time	200	100	300	6.2%	21.5%
No, different route	0	3	3	0.1%	0.9%
Total	3,613	1,217	4,830	100%	100%
2013 Distribution	74.8%	25.2%	100%		
2006 Distribution	81.4%	18.6%	100%		

As described in Figure 4-9, most travelers were either alone or with one other person. On weekdays, likely for work or school purposes, more people traveled alone than on Saturdays. Larger parties were more common on Saturdays, when recreation travel was higher.

**Figure 4-9. San Juan Islands Corridor party size, weekday and Saturday survey periods (2013)**

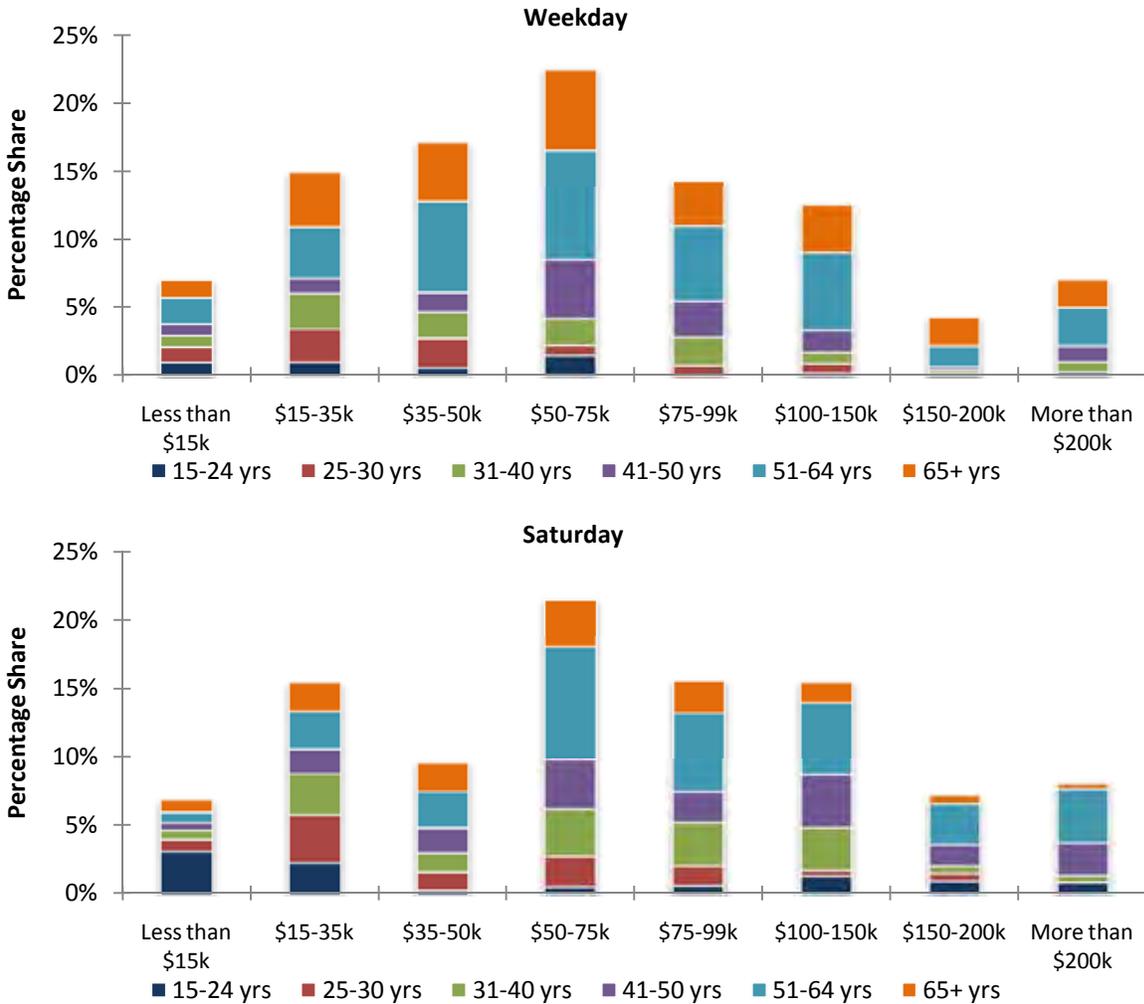




### 4.1.5 Demographic Characteristics

As shown in Figure 4-10, In general, travelers 51 to 64 years old are the major group using ferry both on weekdays and Saturday. Older travelers tended to belong in higher income categories on weekdays versus Saturdays. In particular, the highest proportion of travelers 65 years and older was in the second-highest annual income category (\$150,000 to \$200,000) on weekdays. Conversely, the youngest travelers (between 15 and 24 years of age) were proportionately represented in the lowest annual income category (less than \$15,000).

Figure 4-10. San Juan Islands Corridor traveler age and income, weekday and Saturday survey periods (2013)



## 4.2 Anacortes–San Juan Islands

### 4.2.1 Route Description

The Anacortes–San Juan Islands route connects Anacortes on the mainland with the San Juan Islands (Lopez, Shaw, Orcas, and San Juan). The ferry route takes 50 to 125 minutes one way and is between 11 and 17 nautical miles in length, depending on which terminals are served by the sailing. For 2013, the annual total ridership was 930,000 passengers plus 870,000 vehicle drivers for a total of 1,800,000 people, or about 4,900 riders per day. This compares to 4,500 riders day in 2006 and 5,000 riders per day in 1999.

The route is served by 18 sailings per day each direction. The fare in October 2013 for a vehicle 14 to 22 feet including driver was between \$20.75 and \$43.85, depending on which island. The full fare for passengers was \$12.70.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 4.2.2 Trips by Purpose

As shown in Table 4-7, the most frequent weekday trip purpose was recreation/shopping (37 percent) which is a change from 2006 when work/school was the predominant weekday purpose. Recreation/shopping remains the predominant trip purpose for Saturday trips.

**Table 4-7. Anacortes–San Juan Islands trips by purpose and direction, weekday and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	652	648	646	1,946	50.0%	50.0%
Westbound	575	594	780	1,949	50.0%	50.0%
Total	1,227	1,242	1,426	3,895	100%	100%
2013 Distribution	31.5%	31.9%	36.6%	100%		
2006 Distribution	37.6%	30.1%	32.3%	100%		
<b>Saturday</b>						
Eastbound	295	556	1,394	2,244	48.7%	49.5%
Westbound	331	515	1,514	2,360	51.3%	50.0%
Total	625	1,071	2,908	4,604	100%	100%
2013 Distribution	13.6%	23.3%	63.2%	100%		
2006 Distribution	12.8%	21.7%	65.6%	100%		



### 4.2.3 Frequency of Travel

Table 4-8 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The majority (67 percent) of travelers used ferries one or two times per week on weekdays in 2013, a slight decrease from 68 percent in 2006. The percentage of travelers using ferries one or two times per week on Saturdays dropped by over 11 percent, from 83 percent in 2006 to 72 percent in 2013.

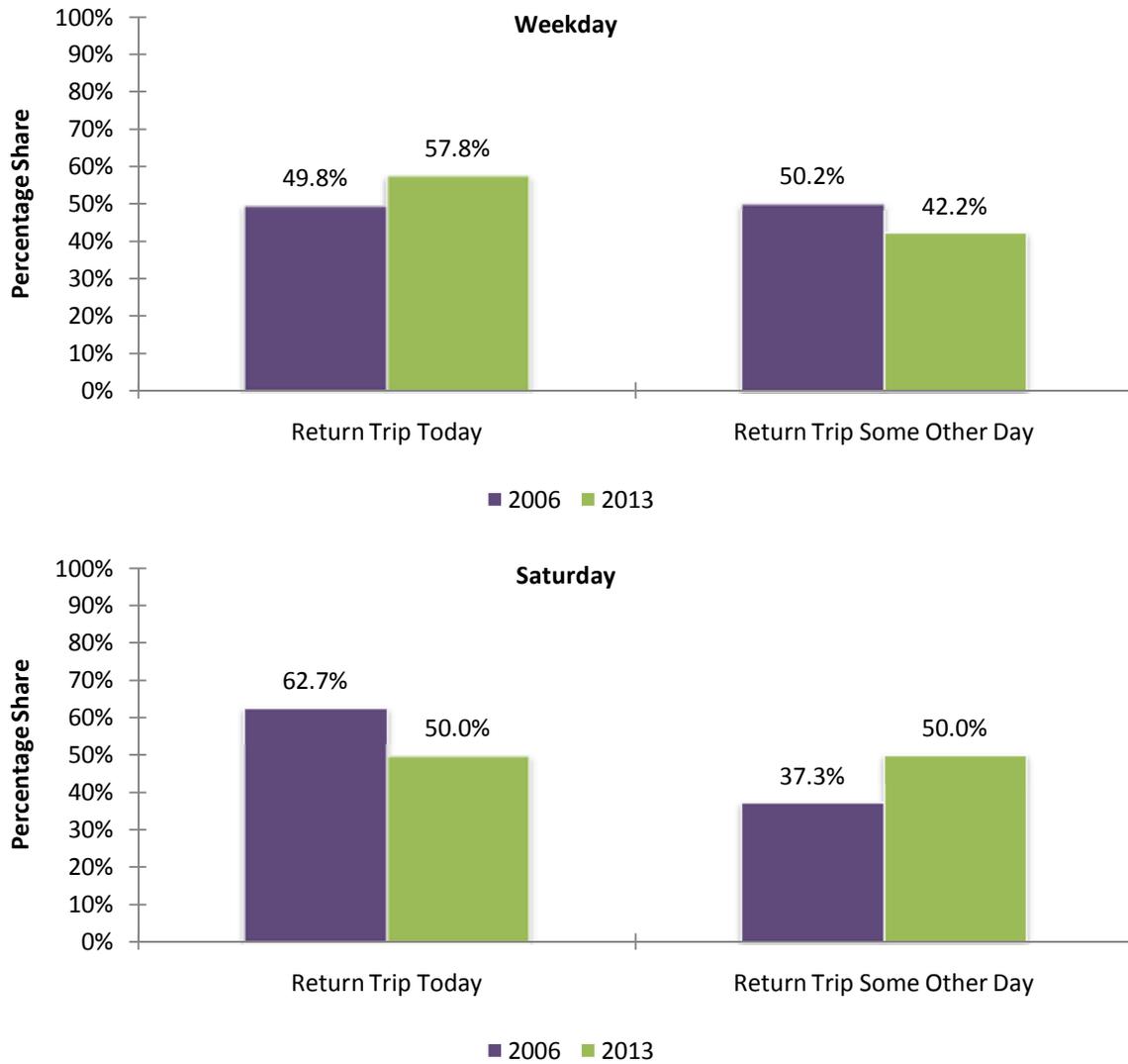
**Table 4-8. Anacortes–San Juan Islands one-way trips by purpose and frequency, weekday and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	264	454	645	1,364	41.5%	20.6%	24.2%	10.4%
2	177	312	335	824	25.1%	47.6%	16.2%	41.4%
3 to 4	266	182	108	555	16.9%	16.6%	24.3%	15.5%
5 to 6	163	60	36	260	7.9%	2.9%	15.0%	3.7%
7 to 8	79	23	9	111	3.4%	2.8%	7.3%	5.6%
9 to 10	104	9	2	115	3.5%	7.5%	9.5%	18.4%
11+	37	6	10	53	1.6%	2.0%	3.4%	5.0%
Total	1,091	1,048	1,145	3,283	100%	100%	100%	100%
2013 Distribution	33.2%	31.9%	34.9%	100%				
2006 Distribution	40.1%	28.5%	31.4%	100%				
<b>Saturday</b>								
1	227	410	1,012	1,649	47.2%	53.9%		
2	115	261	499	875	25.0%	29.6%		
3 to 4	86	198	399	684	19.6%	12.0%		
5 to 6	58	29	108	195	5.6%	1.1%		
7 to 8	26	0	27	53	1.5%	1.4%		
9 to 10	10	0	3	14	0.4%	0.3%		
11+	9	3	12	24	0.7%	1.8%		
Total	532	901	2,061	3,494	100%	100%		
2013 Distribution	15.2%	25.8%	59.0%	100%				
2006 Distribution	12.6%	22.6%	64.8%	100%				

### 4.2.4 Round-Trip Patterns

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew from 50 percent in 2006 to 58 percent in 2013, as shown in Figure 4-11. Conversely, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 63 percent in 2006 to 50 percent in 2013.

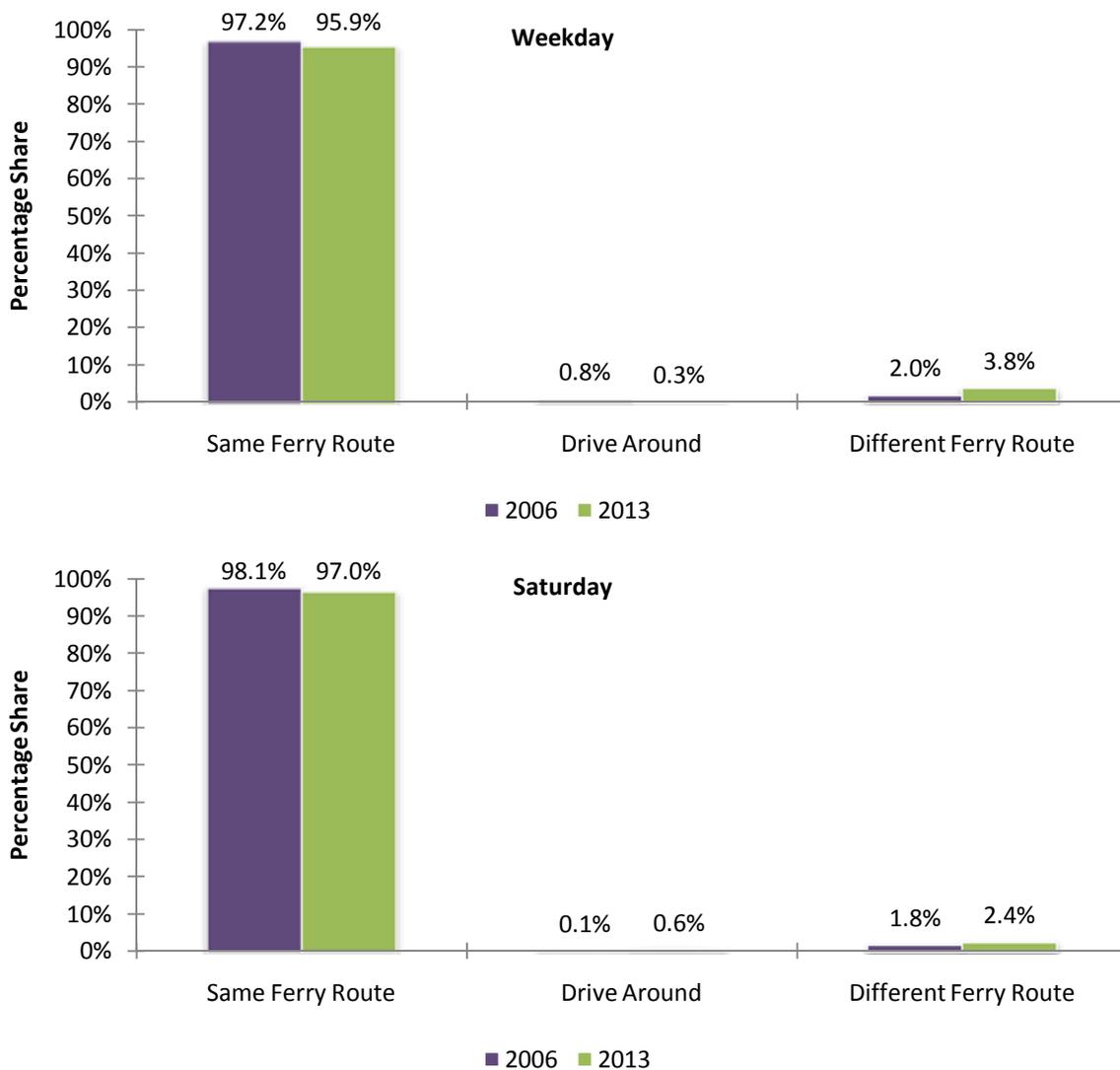
**Figure 4-11. Anacortes–San Juan Islands round-trip patterns by day, weekday and Saturday survey periods (2006 and 2013)**





As shown in Figure 4-12, the vast majority (96 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers, and the results are relatively unchanged from 2006.

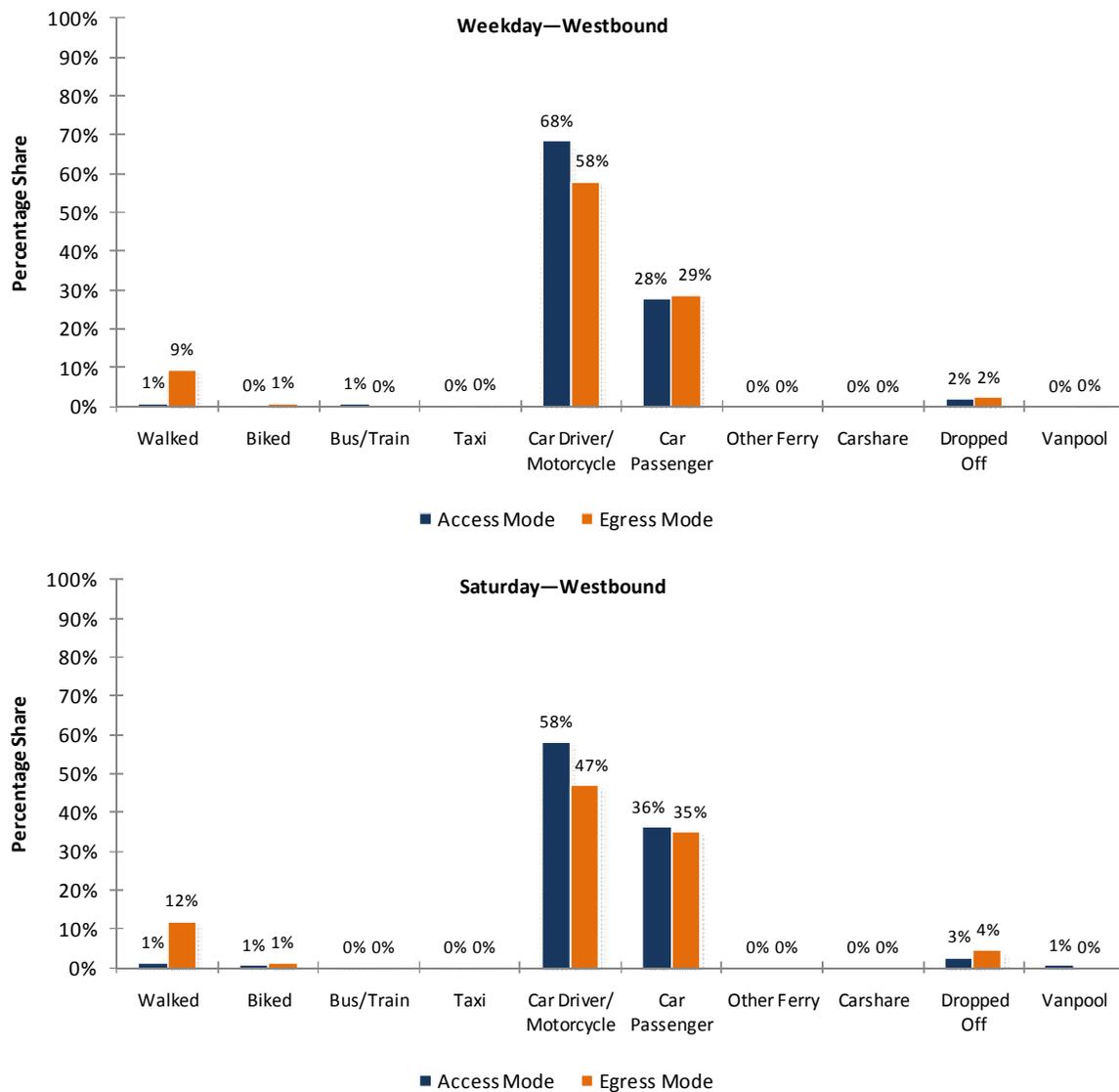
**Figure 4-12. Anacortes–San Juan Islands round-trip patterns by route, weekday and Saturday survey periods (2006 and 2013)**



### 4.2.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant westbound mode of access and egress in 2013, as shown in Figure 4-13. On weekdays, 68 percent of ferry travelers drove to the ferry, and an additional 28 percent were passengers in a private vehicle. Leaving the ferry, 58 percent were drivers while 29 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays. Walk egress was higher than walk access in the westbound direction.

**Figure 4-13. Anacortes–San Juan Islands westbound trips by access and egress modes, weekday and Saturday survey periods (2013)**





Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 4-14. On weekdays, 63 percent of ferry travelers drove to the ferry, and an additional 26 percent were passengers in a private vehicle. Leaving the ferry, 63 percent were drivers while 30 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays. Walk access was higher than walk egress in the eastbound direction.

**Figure 4-14. Anacortes–San Juan Islands eastbound trips by access and egress modes, weekday and Saturday survey periods (2013)**

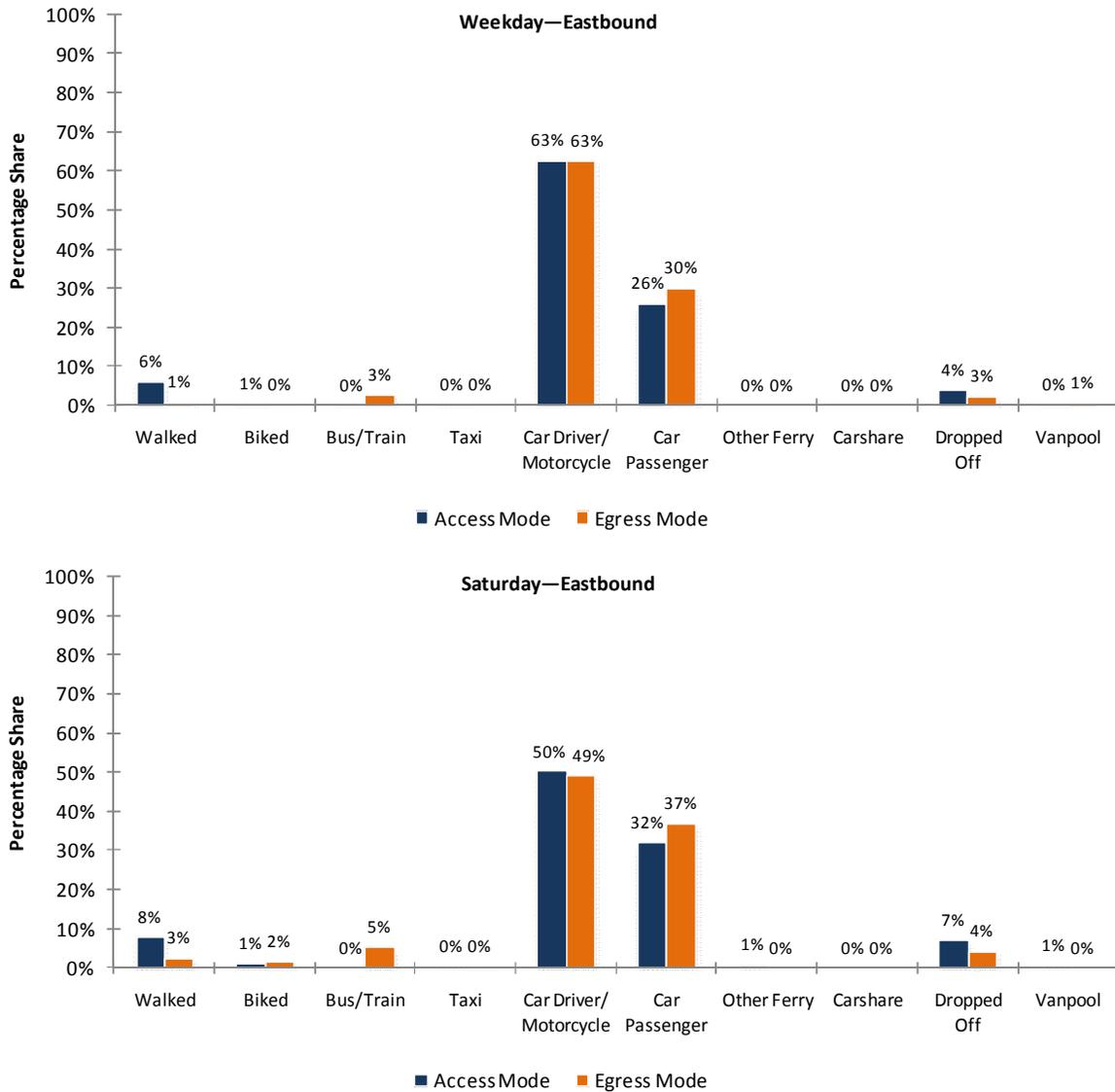


Table 4-9 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 84 percent and 75 percent of boardings on weekdays and Saturdays, respectively. On weekdays and Saturdays, the walk-on share of boardings increased between 2006 and 2013.

**Table 4-9. Anacortes–San Juan Islands access mode and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	137	0	137	3.5%	5.1%
Biked	0	0	16	16	0.4%	0.0%
Bus/Train	5	8	0	13	0.3%	2.4%
Taxi	0	6	0	6	0.1%	0.0%
Car Driver/Motorcycle	2,283	267	0	2,551	65.5%	62.6%
Car Passenger	979	73	0	1,052	27.0%	29.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	117	0	117	3.0%	.
Vanpool	0	3	0	3	0.1%	
<b>Total</b>	<b>3,267</b>	<b>612</b>	<b>16</b>	<b>3,895</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.9%	15.7%	0.4%	100%		
2006 Distribution	85.1%	14.6%	0.3%	100%		
<b>Saturday</b>						
Walked	0	208	0	208	4.5%	2.1%
Biked	0	3	36	39	0.8%	0.1%
Bus/Train	4	1	0	5	0.1%	0.7%
Taxi	0	11	1	12	0.3%	0.0%
Car Driver/Motorcycle	2,078	400	21	2,499	54.3%	54.7%
Car Passenger	1,353	212	7	1,572	34.2%	42.4%
Other Ferry	0	22	0	22	0.5%	
Carshare	0	0	0	0	0.0%	
Dropped Off	3	218	0	221	4.8%	
Vanpool	0	26	0	26	0.6%	
<b>Total</b>	<b>3,438</b>	<b>1,101</b>	<b>65</b>	<b>4,604</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	74.7%	23.9%	1.4%	100%		
2006 Distribution	80.7%	17.9%	1.4%	100%		



Table 4-10 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. On both weekdays and Saturdays, the walk-off share of boardings increased between 2006 and 2013.

**Table 4-10. Anacortes–San Juan Islands egress mode and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	203	0	203	5.2%	4.2%
Biked	0	11	11	22	0.6%	0.4%
Bus/Train	4	49	0	53	1.4%	0.9%
Taxi	0	12	0	12	0.3%	0.3%
Car Driver/Motorcycle	2,207	136	5	2,347	60.3%	62.4%
Car Passenger	1,054	92	0	1,146	29.4%	31.7%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	94	0	94	2.4%	
Vanpool	2	15	0	17	0.4%	
<b>Total</b>	<b>3,267</b>	<b>612</b>	<b>16</b>	<b>3,895</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.9%	15.7%	0.4%	100%		
2006 Distribution	84.8%	14.9%	0.3%	100%		
<b>Saturday</b>						
Walked	0	344	0	344	7.5%	6.6%
Biked	0	2	64	66	1.4%	1.4%
Bus/Train	8	112	0	120	2.6%	0.6%
Taxi	0	11	1	13	0.3%	0.2%
Car Driver/Motorcycle	2,009	197	0	2,207	47.9%	50.0%
Car Passenger	1,420	230	0	1,650	35.8%	41.1%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	204	0	204	4.4%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>3,438</b>	<b>1,101</b>	<b>65</b>	<b>4,604</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	74.7%	23.9%	1.4%	100%		
2006 Distribution	80.1%	18.5%	1.4%	100%		

Table 4-11 and Table 4-12 show access and egress modes used across the entire ferry trip for weekdays and Saturdays, respectively. For walk-on boardings (on weekdays and Saturdays), the percentage of travelers leaving the destination terminal on foot was higher than the percentage arriving at the origin terminal on foot. This was also true for travelers using bus or other transit modes to/from the terminal.

**Table 4-11. Anacortes–San Juan Islands trips by access mode to ferry—boarding method—egress mode from ferry, weekday all-day survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (16.1% of total boardings)</b>					
Pedestrian	21.8%	Pedestrian	97.4%	Pedestrian	32.4%
Bicycle	2.6%	Pedestrian w/ Bicycle	2.6%	Bicycle	3.6%
By Bus/Transit	1.3%			By Bus/Transit	7.8%
By Vehicle	73.7%			By Vehicle	53.8%
Vanpool	0.5%			Vanpool	2.4%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (83.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	70.0%	In-Vehicle	100.0%
		Vehicle Passengers	30.0%		

*Note: Average vehicle occupancy (AVO) was 1.43 for the weekday all-day survey period.*

**Table 4-12. Anacortes–San Juan Islands trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (25.3% of total boardings)</b>					
Pedestrian	17.8%	Pedestrian	94.4%	Pedestrian	29.5%
Bicycle	3.3%	Pedestrian w/ Bicycle	5.6%	Bicycle	5.7%
By Bus/Transit	0.1%			By Bus/Transit	9.6%
By Vehicle	74.7%			By Vehicle	55.2%
Vanpool	2.2%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	1.8%			Other Ferry	0.0%
<b>In-Vehicle Boardings (74.7% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	60.6%	In-Vehicle	100.0%
		Vehicle Passengers	39.4%		

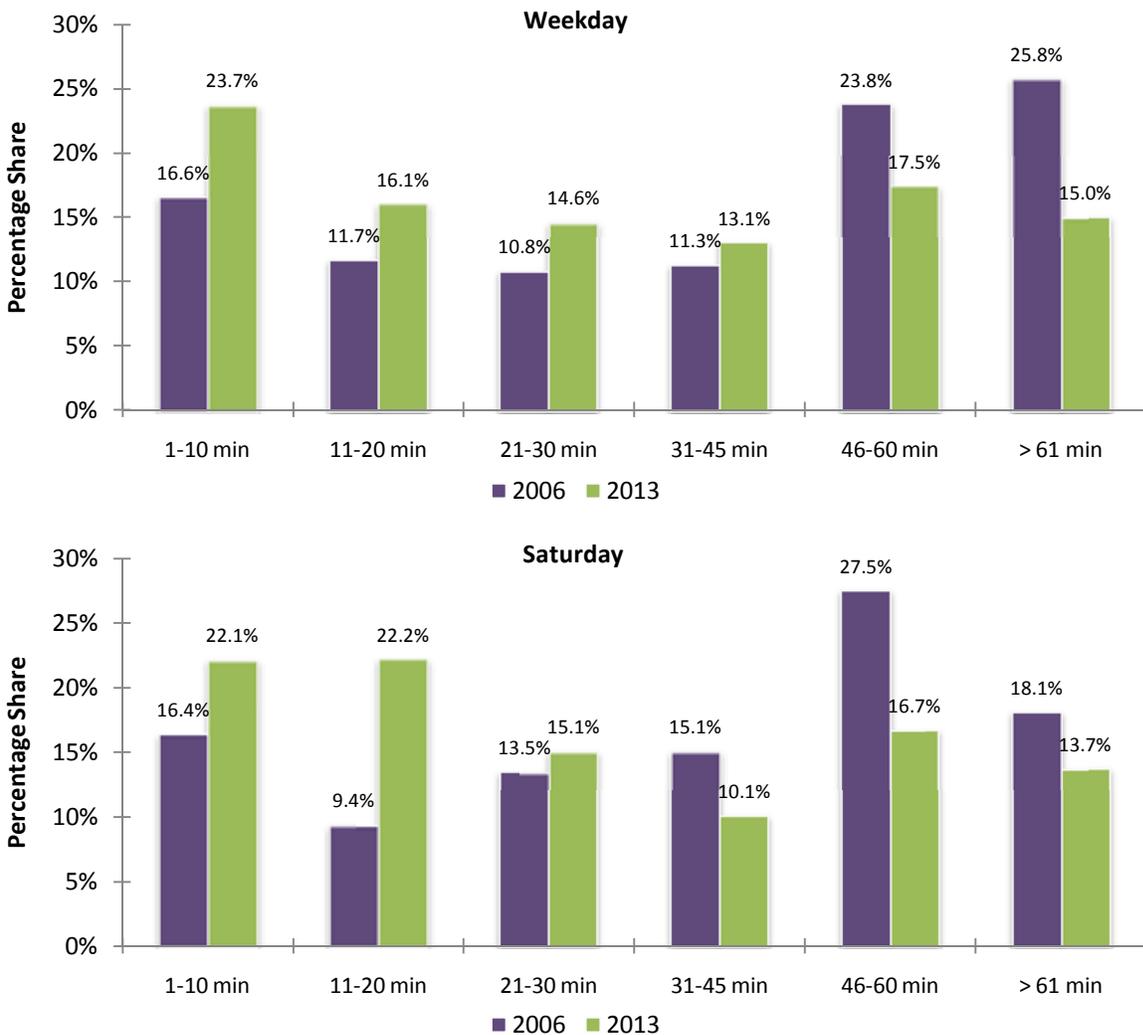
*Note: Average vehicle occupancy (AVO) was 1.65 for the Saturday survey period.*



### 4.2.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 4-15 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 32 percent of weekday ferry passengers waited for more than 45 minutes, which was a decrease from 2006, when 50 percent of weekday riders waited for more than 45 minutes. A similar trend was seen on Saturdays, with 46 and 30 percent of ferry passengers waiting for more than 45 minutes in 2006 and 2013, respectively.

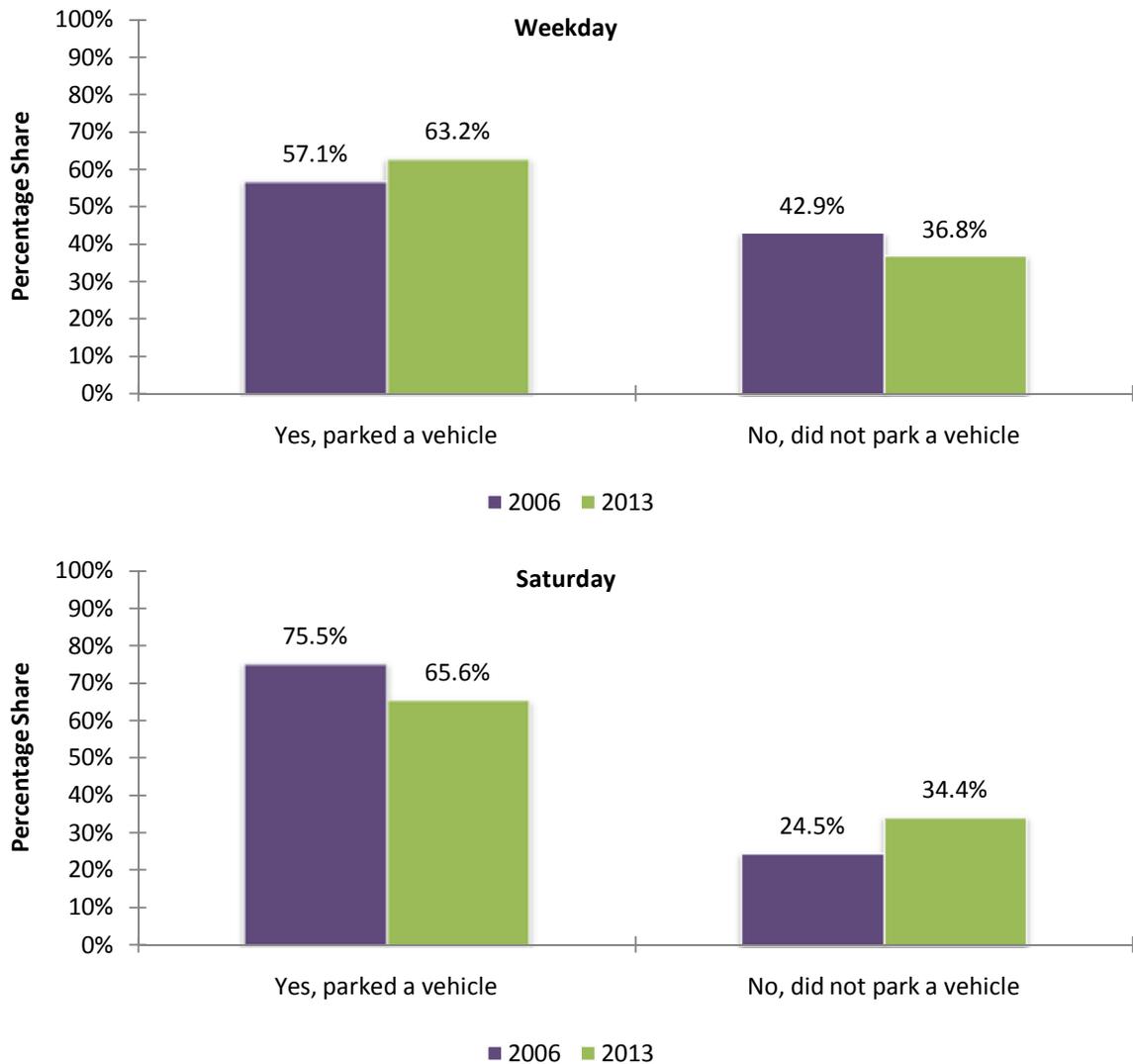
Figure 4-15. Anacortes–San Juan Islands trips by wait time, weekday and Saturday survey periods (2006 and 2013)



### 4.2.7 Parking

Figure 4-16 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 63 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 57 percent in 2006. On Saturdays, those who parked a vehicle decreased from 75 percent to 66 percent.

**Figure 4-16. Anacortes–San Juan Islands non-motorized boardings that parked a vehicle at terminal, weekday and Saturday survey periods (2006 and 2013)**

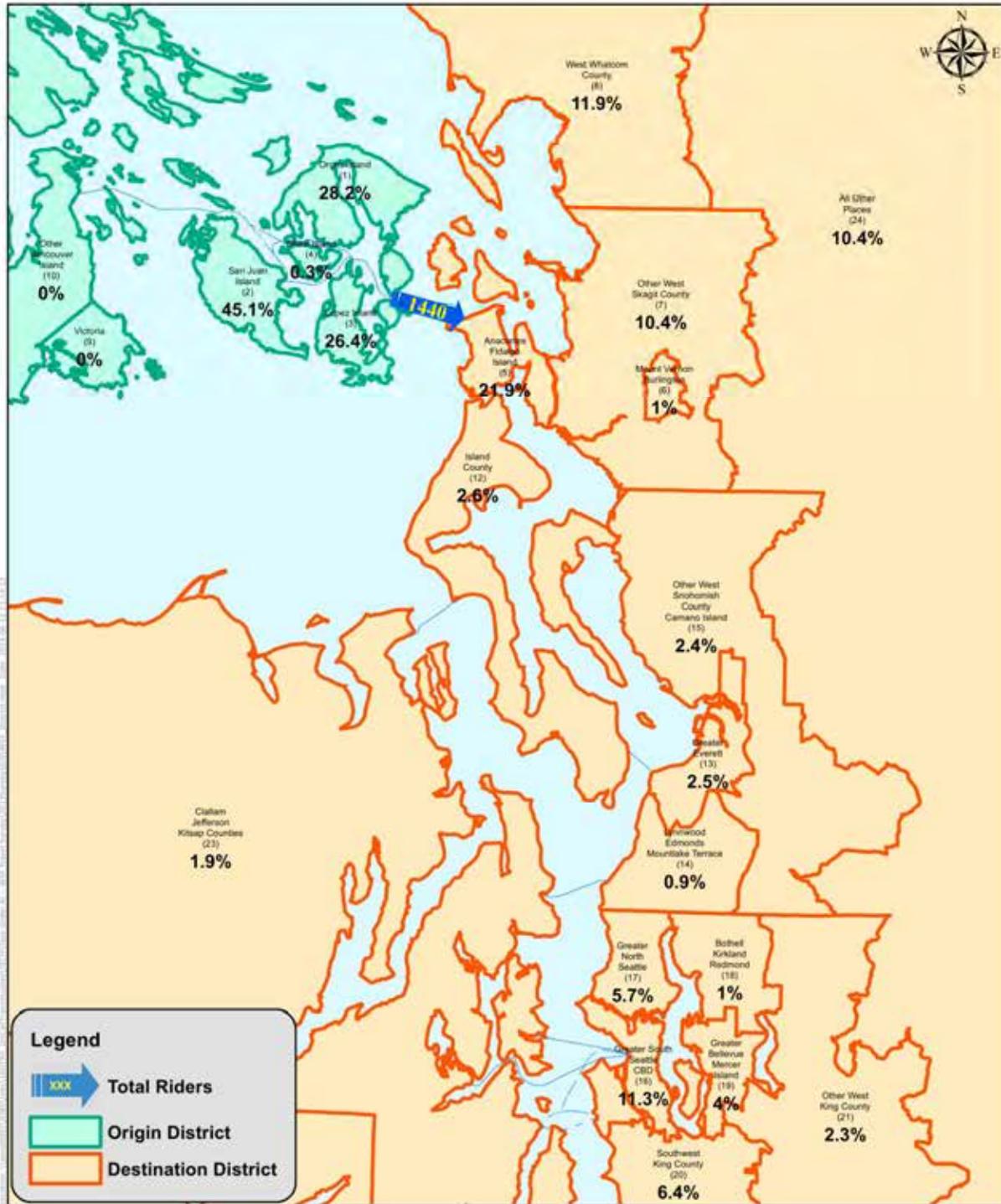


**4.2.8 Weekday Travel Patterns—Eastbound**

Figure 4-17 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 4-13. The major origins were San Juan and Orcas Islands, while the major destinations were Anacortes/Fidalgo Island, West Whatcom County, and the greater Seattle area. Origin and destination locations by boarding mode are shown in Figure 4-18. Walk boarding origins were generally concentrated near the Friday Harbor ferry terminal, while the primary walk-off destination was Anacortes.



Figure 4-17. Anacortes–San Juan Islands eastbound origin and destination districts, weekday all-day survey period



**Table 4-13. Anacortes–San Juan Islands eastbound total boardings by origin and destination district, weekday all-day survey period**

Origin District ▼		Destination District ►		Anacortes / Fidalgo Island	Mount Vernon/Burlington	Other W Skagit Co.	W Whatcom Co.	Other BC / Canada	Island Co.	Greater Everett	Lynnwood / Edmonds / Mountlake Terrace	Other W Snohomish Co. / Camano Island	Greater S Seattle / CBD	Greater N Seattle	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Island	SW King Co.	Other W King Co.	W Pierce / Thurston Co.	Clallam/Jefferson / Kitsap Co.	All Other Places	Origin Total	Origin Percent Share
				5	6	7	8	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Orcas Island	1	78	2	48	39	6	5	10	2	12	56	23	7	20	38	2	11	13	32	406	28.2%		
San Juan Island	2	119	8	42	83		32	11	7	19	61	47		33	47	32	14	10	85	650	45.1%		
Lopez Island	3	119	4	60	47			15	4	4	45	12	7	4	7		15	4	33	380	26.4%		
Shaw Island	4				2												2			4	0.3%		
Destination Total		316	14	150	171	6	38	37	13	35	162	82	15	57	92	34	42	28	149				
Destination Percent Share		21.9%	1.0%	10.4%	11.9%	0.4%	2.6%	2.5%	0.9%	2.4%	11.3%	5.7%	1.0%	4.0%	6.4%	2.3%	2.9%	1.9%	10.4%				



Figure 4-18. Anacortes–San Juan Islands eastbound origin and destination locations by boarding mode, weekday all-day survey period

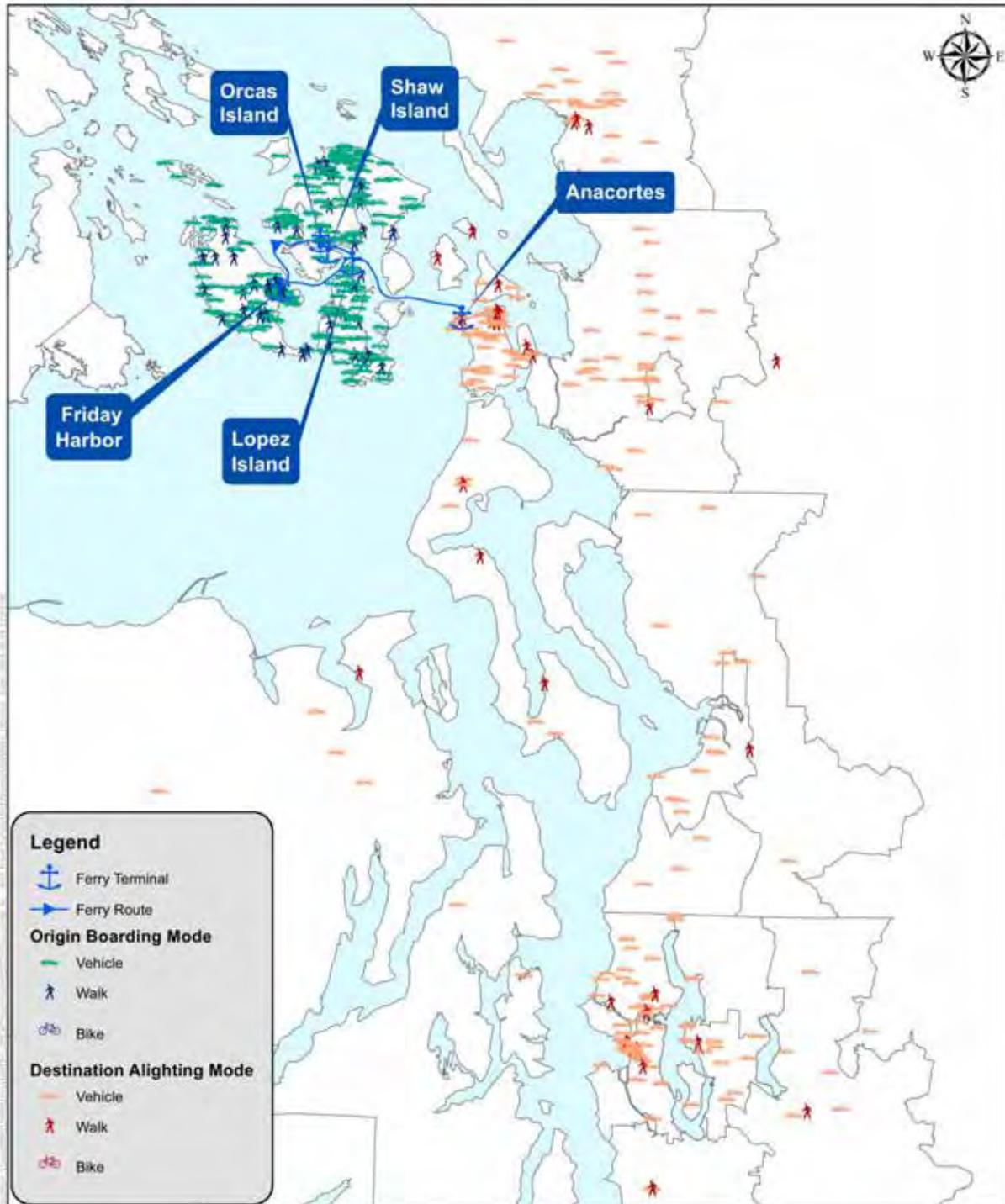


Figure 4-19 presents the origins and destinations of weekday inter-island eastbound trips by island. This information is presented in tabular format in Table 4-14. Origin and destination locations by boarding mode are shown in Figure 4-20. The major origin was San Juan Island (78 percent of trip origins), while the major destinations were Orcas and Lopez Islands.

Figure 4-19. San Juan Inter-Island eastbound origin and destination districts, weekday all-day survey period

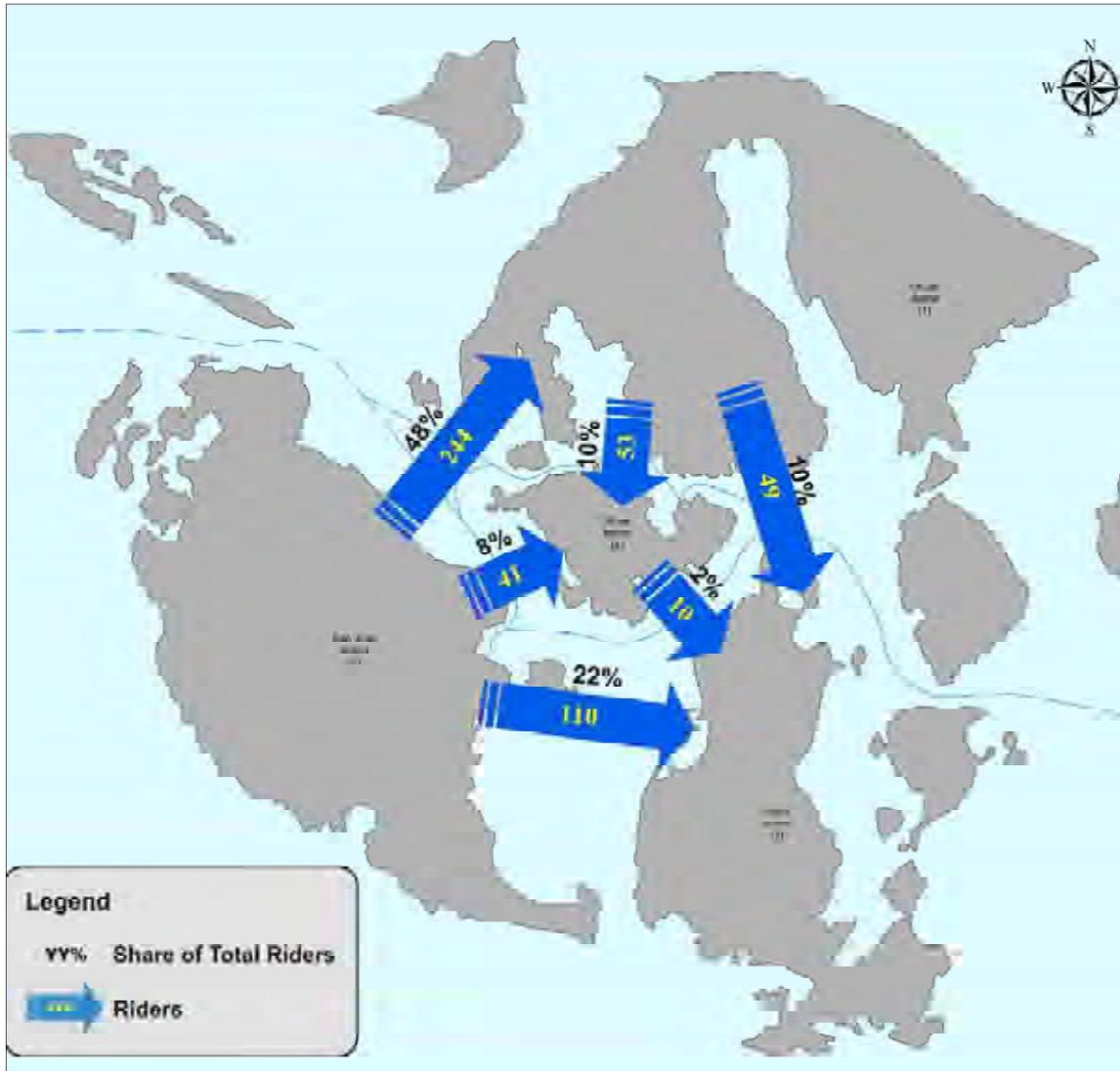
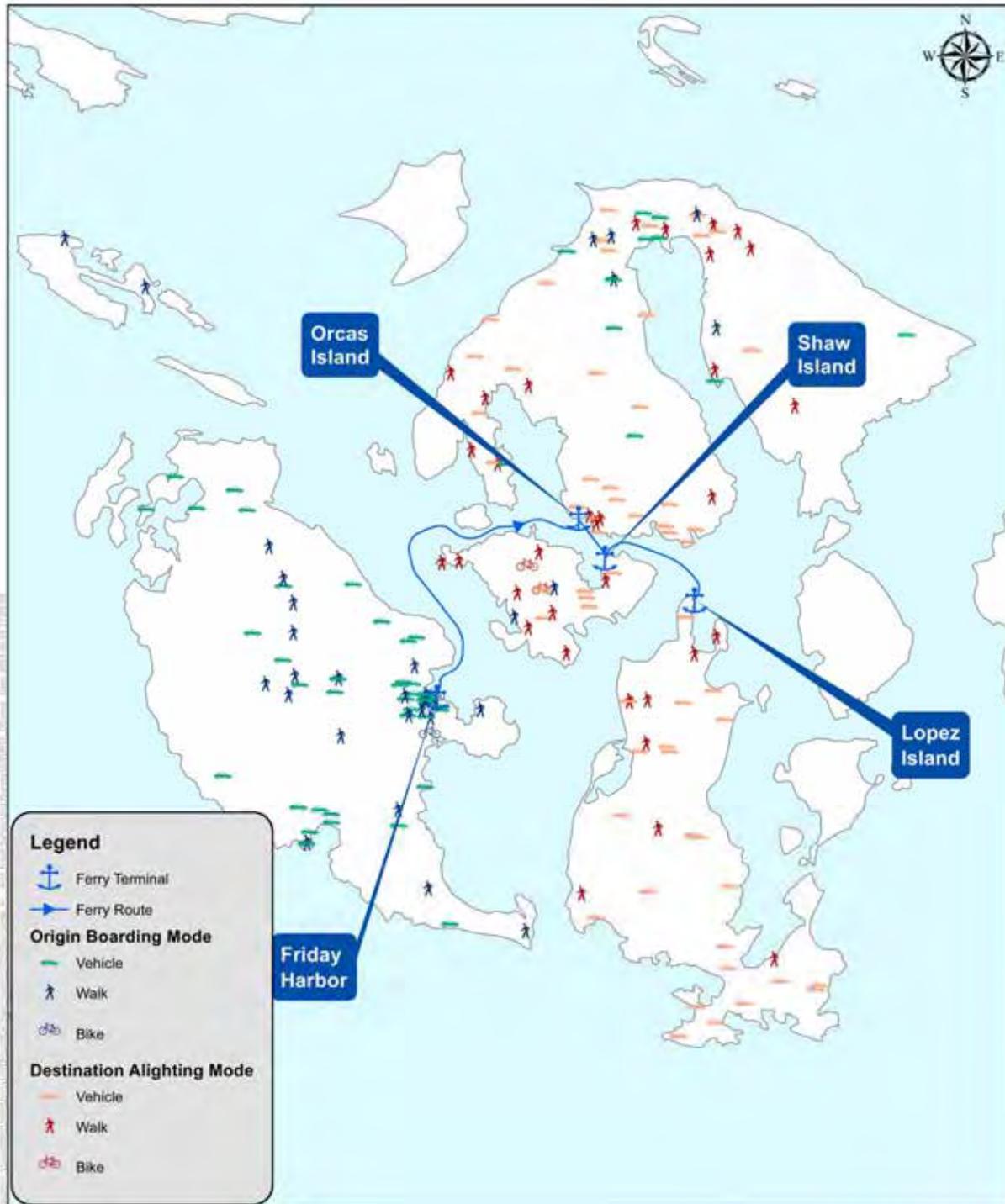


Table 4-14. San Juan Inter-Island eastbound total boardings by origin and destination district, weekday all-day survey period

Origin District ▼		Destination District ▶			Origin Total	Origin Percent Share
		Orcas Island 1	Lopez Island 3	Shaw Island 4		
Orcas Island	1		49	53	101	20.0%
San Juan Island	2	244	110	41	395	78.0%
Shaw Island	4		10		10	1.9%
Destination Total		244	169	94	506	100%
Destination Percent Share		48.2%	33.3%	18.5%	100%	



Figure 4-20. San Juan Inter-Island eastbound origin and destination locations by boarding mode, weekday all-day survey period

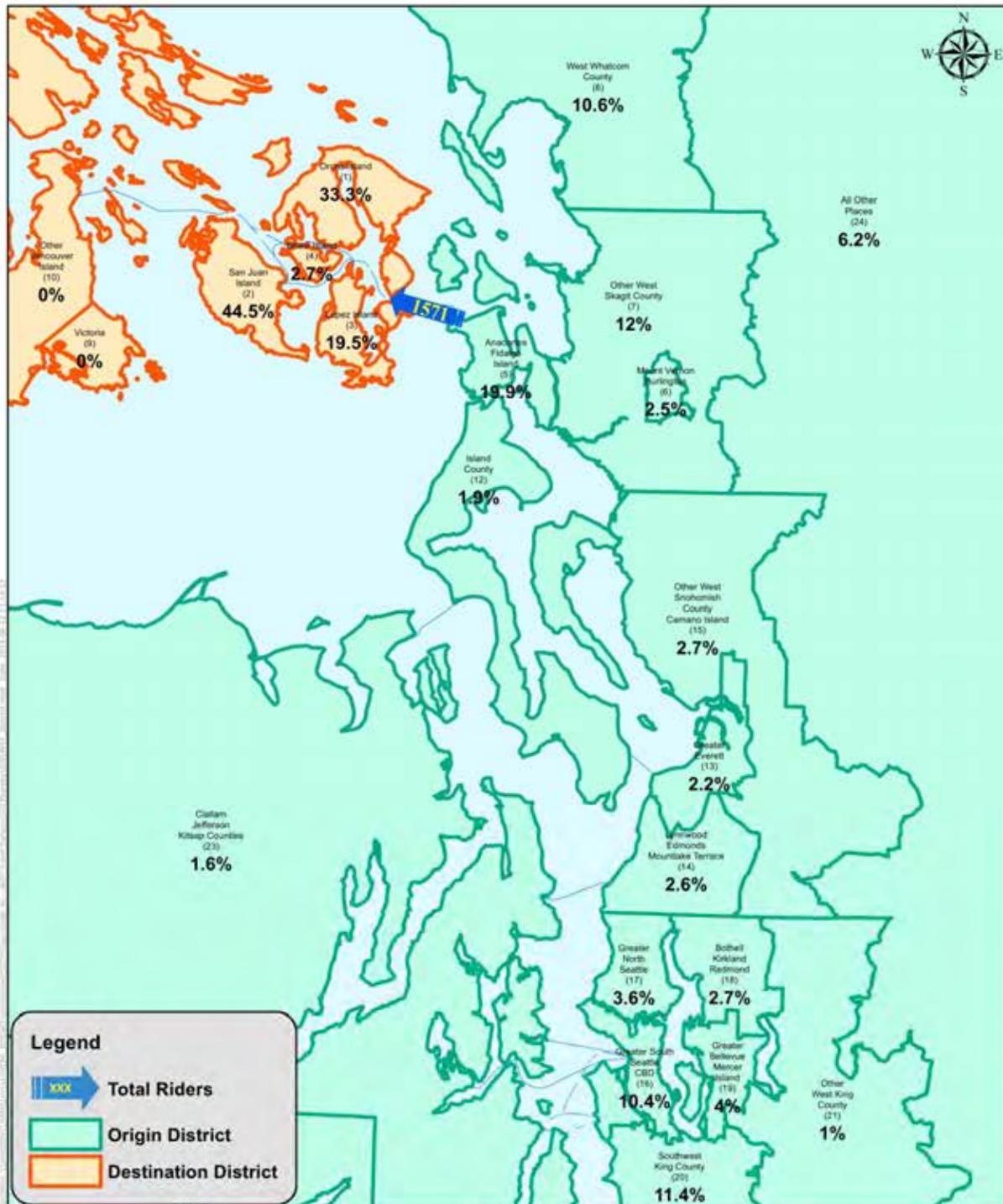


#### 4.2.9 Weekday Travel Patterns—Westbound

Figure 4-21 presents the origins and destinations of weekday westbound trips by district. This information is presented in tabular format in Table 4-15. The major origins were Anacortes/Fidalgo Island, West Skagit County, and the greater Seattle area, while primary destinations were San Juan and Orcas Islands. Origin and destination locations by boarding mode are shown in Figure 4-22. Walk boarding origins were concentrated in Anacortes, while the walk-off destinations were fairly dispersed.



Figure 4-21. Anacortes–San Juan Islands westbound origin and destination districts, weekday all-day survey period



**Table 4-15. Anacortes–San Juan Islands westbound total boardings by origin and destination district, weekday all-day survey period**

Origin District ▼	Destination District ►	Orcas Island	San Juan Island	Lopez Island	Shaw Island	Origin Total	Origin Percent Share
		1	2	3	4		
Anacortes / Fidalgo Island	5	68	137	89	20	313	19.9%
Mount Vernon/Burlington	6	5	25	9		39	2.5%
Other W Skagit County	7	66	76	46		188	12.0%
W Whatcom County	8	67	88	11		166	10.6%
Other BC / Canada	11	6	17			24	1.5%
Island County	12	13	9	9		30	1.9%
Greater Everett	13	6	20	9		35	2.2%
Lynnwood / Edmonds / Mountlake Terrace	14	10	25	6		42	2.6%
Other W Snohomish County / Camano Island	15	2	17	23		42	2.7%
Greater S Seattle / CBD	16	41	76	34	12	163	10.4%
Greater N Seattle	17	17	40			57	3.6%
Bothell-Kirkland / Redmond	18	12	20	11		43	2.7%
Greater Bellevue / Mercer Island	19		28	23	11	62	4.0%
SW King County	20	122	40	17		180	11.4%
Other W King County	21	6	9			15	1.0%
W Pierce / Thurston Counties	22	22	28			50	3.2%
Clallam/Jefferson / Kitsap Counties	23	20	6			26	1.6%
All Other Places	24	39	38	21		98	6.2%
Destination Total		522	699	306	43	1,571	100%
Destination Percent Share		33.3%	44.5%	19.5%	2.7%	100%	



Figure 4-22. Anacortes–San Juan Islands westbound origin and destination locations by boarding mode, weekday all-day survey period

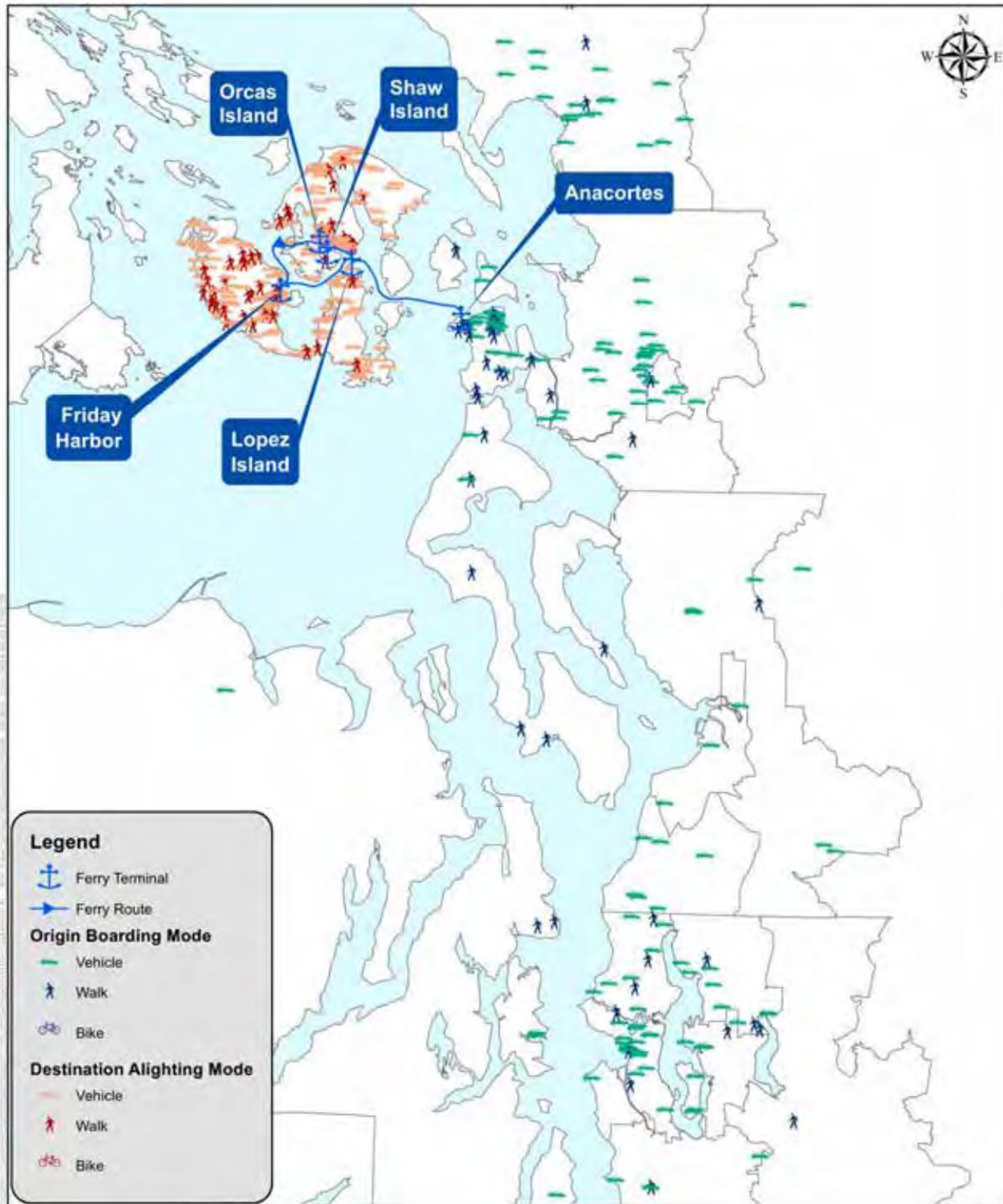


Figure 4-23 presents the origins and destinations of weekday inter-island westbound trips by island. This information is presented in tabular format in Table 4-16. Origin and destination locations by boarding mode are shown in Figure 4-24. The major origins were Orcas and Lopez Islands, while the major destination was San Juan Island (85 percent of trips).

Figure 4-23. San Juan Inter-Island westbound origin and destination districts, weekday all-day survey period

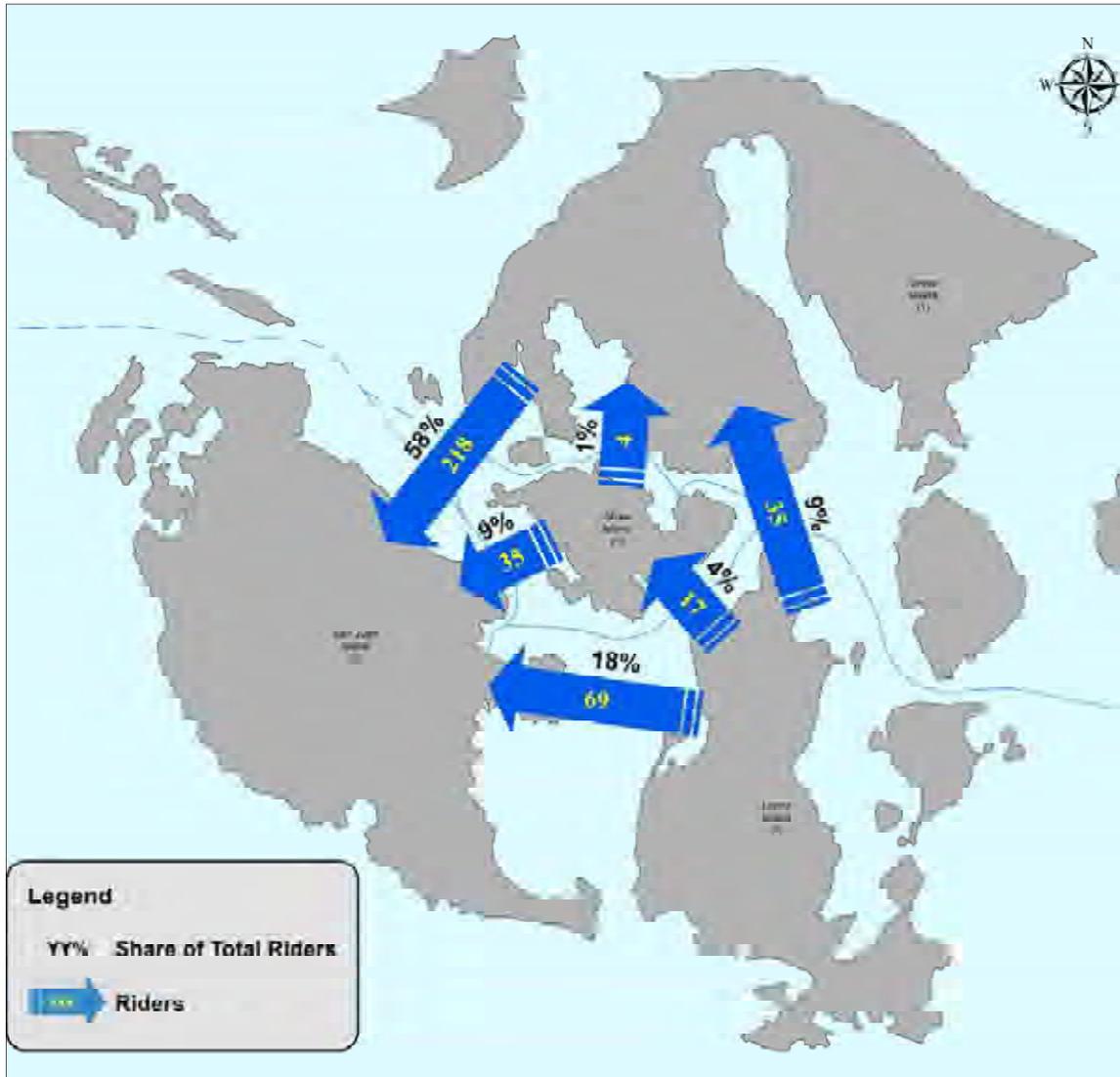
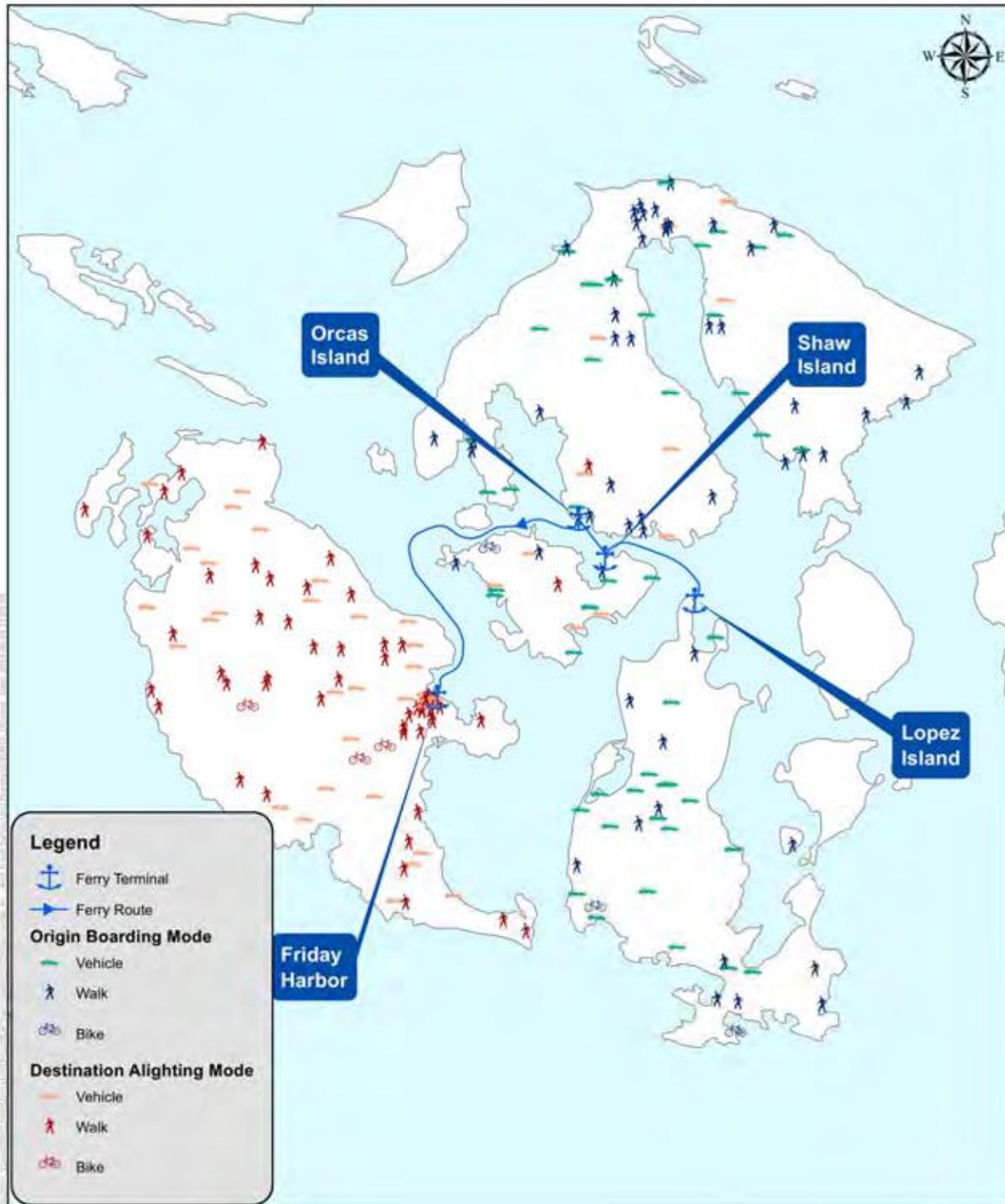


Table 4-16. San Juan Inter-Island westbound total boardings by origin and destination district, weekday all-day survey period

Origin District ▼		Destination District ▶			Origin Total	Origin Percent Share
		Orcas Island 1	San Juan Island 2	Shaw Island 4		
Orcas Island	1		218		218	57.7%
Lopez Island	3	35	69	17	121	32.0%
Shaw Island	4	4	35		39	10.3%
Destination Total		39	322	17	378	100%
Destination Percent Share		10.3%	85.1%	4.5%	100%	



Figure 4-24. San Juan Inter-Island westbound origin and destination locations by boarding mode, weekday all-day survey period

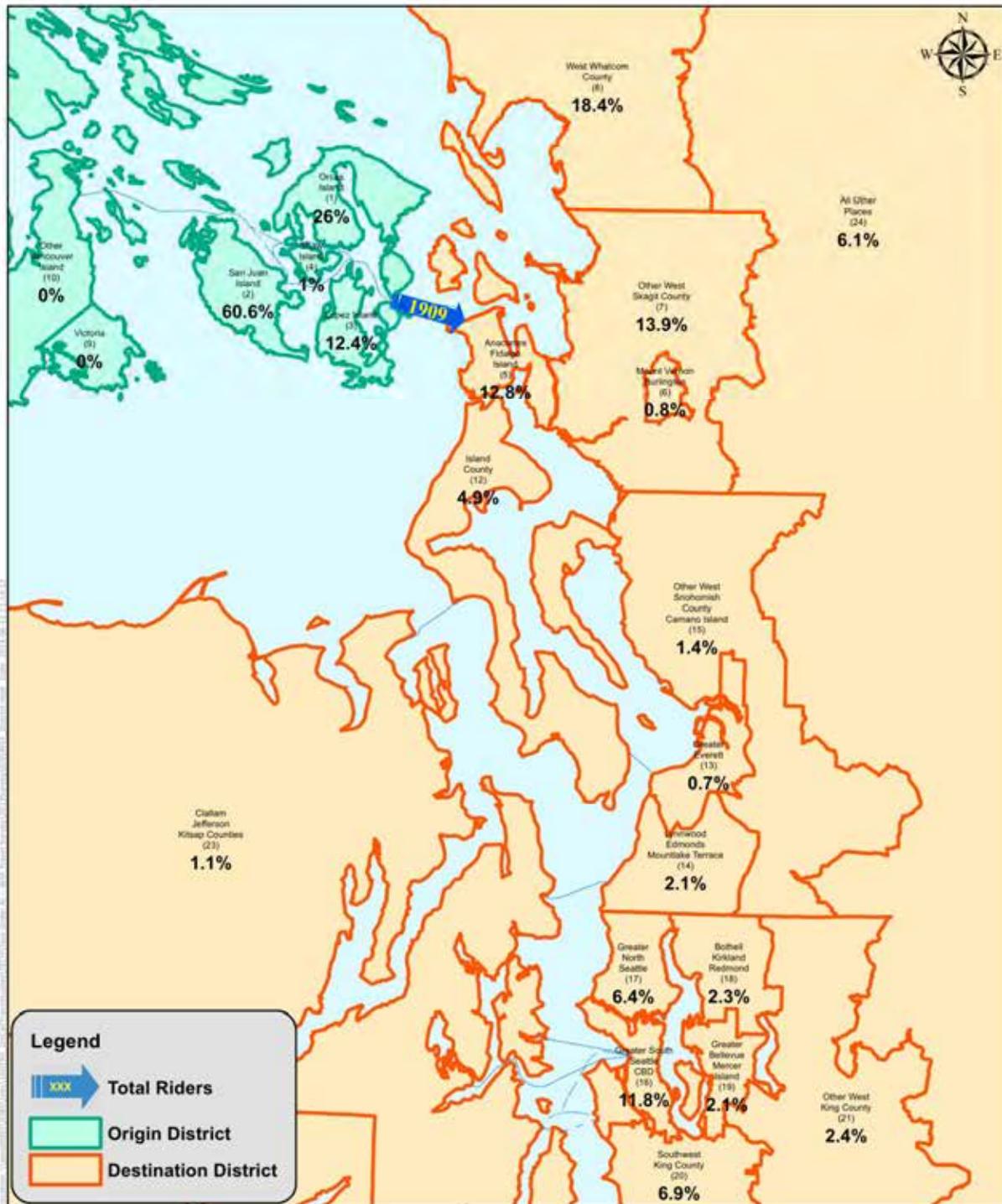


#### 4.2.10 Saturday Travel Patterns—Eastbound

Figure 4-25 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 4-17. The major origins were San Juan and Orcas Islands, while the major destinations were Anacortes/Fidalgo Island, West Skagit County, West Whatcom County, and the greater Seattle area. Origin and destination locations by boarding mode are shown in Figure 4-26. Walk boarding origins were generally concentrated near the Friday Harbor and Orcas Island ferry terminals, while the primary walk-off destination was Anacortes.



Figure 4-25. Anacortes–San Juan Islands eastbound origin and destination districts, Saturday survey period



**Table 4-17. Anacortes–San Juan Islands eastbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►																		Origin Total	Origin Percent Share
		Anacortes / Fidalgo Island	Mount Vernon/Burlington	Other W Skagit Co.	W Whatcom Co.	Other BC / Canada	Island Co.	Greater Everett	Lynnwood / Edmonds / Mountlake Terrace	Other W Snohomish Co. / Camano Island	Greater S Seattle / CBD	Greater N Seattle	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Island	SW King Co.	Other W King Co.	W Pierce / Thurston Co.	Clallam/Jefferson / Kitsap Co.	All Other Places		
		5	6	7	8	11	12	13	14	15	16	17	18	19	20	21	22	23	24		
Orcas Island	1	59	10	88	37	11	7	4	11	6	52	47	9	25	37	17	42	13	20	496	26.0%
San Juan Island	2	135	5	166	291		71		29	20	140	47	19	16	91		58	9	59	1,158	60.6%
Lopez Island	3	44		12	15		15	9			32	28	16		4	30			32	237	12.4%
Shaw Island	4	6			8														4	18	1.0%
Destination Total		244	15	266	352	11	93	13	40	26	225	123	44	41	132	47	100	22	116	1,909	100%
Destination Percent Share		12.8%	0.8%	13.9%	18.4%	0.6%	4.9%	0.7%	2.1%	1.4%	11.8%	6.4%	2.3%	2.1%	6.9%	2.4%	5.2%	1.1%	6.1%	100%	

Figure 4-26. Anacortes–San Juan Islands eastbound origin and destination locations by boarding mode, Saturday survey period

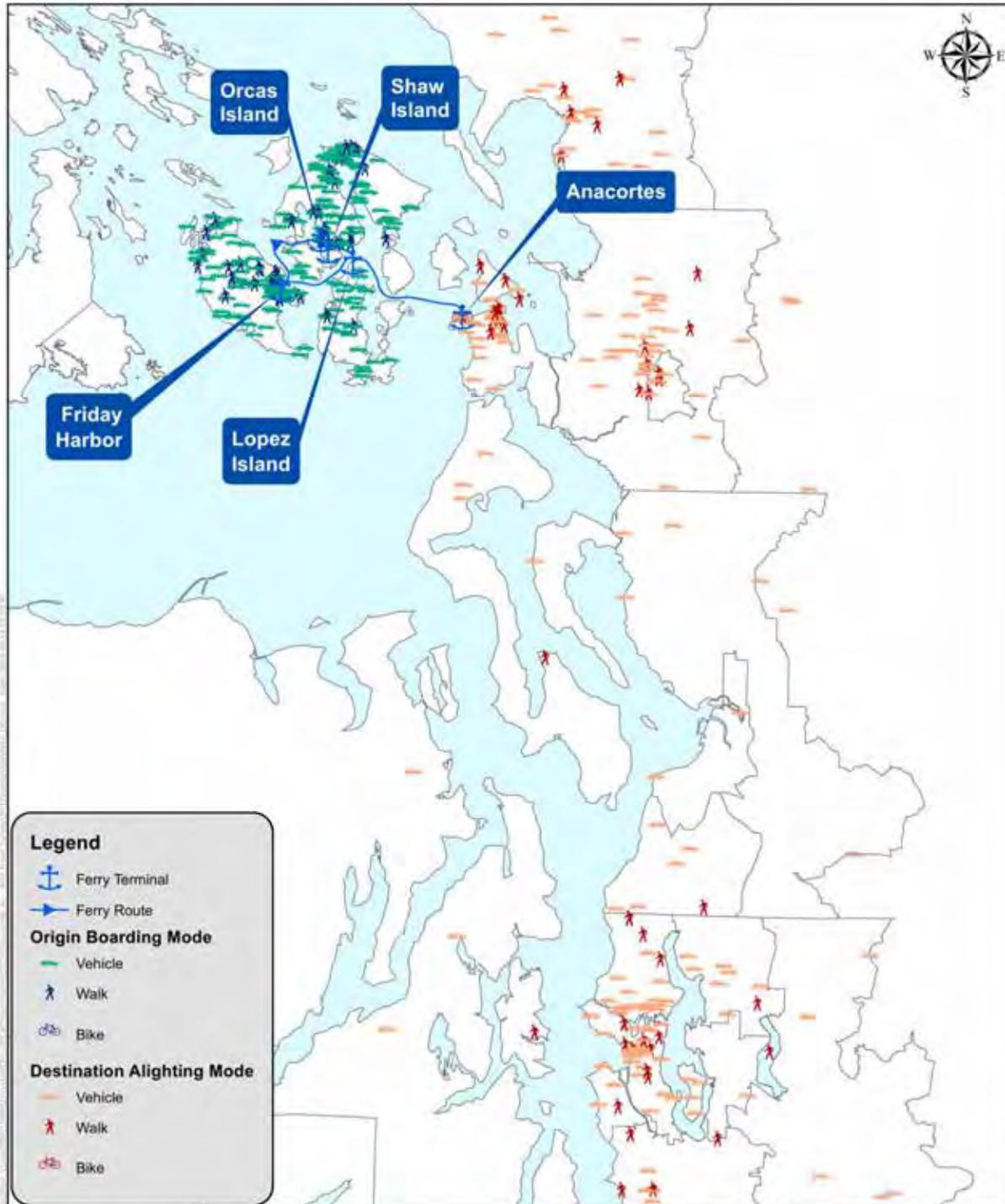


Figure 4-27 presents the origins and destinations of Saturday inter-island eastbound trips by island. This information is presented in tabular format in Table 4-18. Origin and destination locations by boarding mode are shown in Figure 4-28. The major origin was San Juan Island (74 percent of trip origins), while the major destinations were Orcas and Lopez Islands.

Figure 4-27. San Juan Inter-Island eastbound origin and destination districts, Saturday survey period

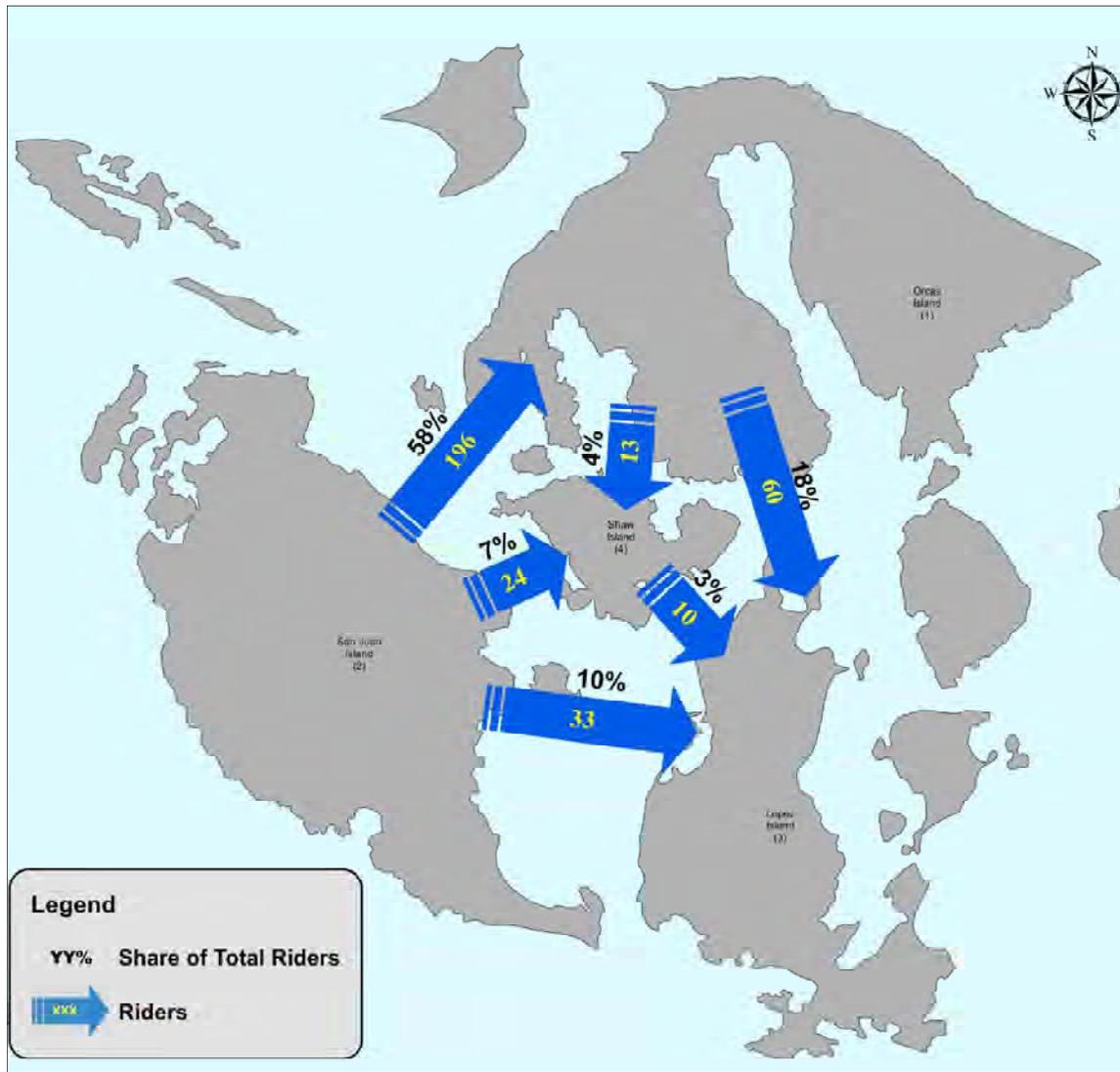
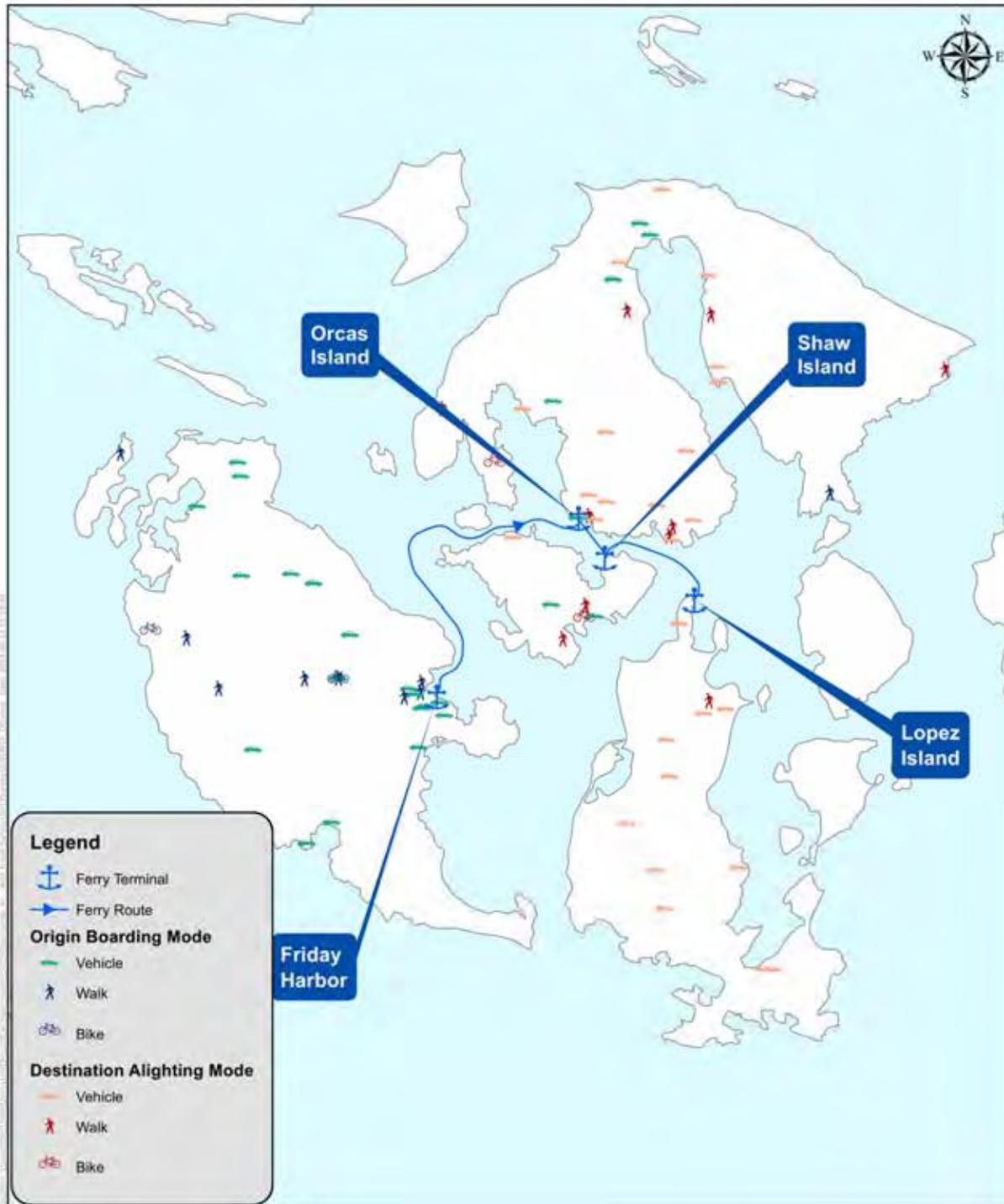


Table 4-18. San Juan Inter-Island eastbound total boardings by origin and destination district, Saturday survey period

		Destination District >			Origin Total Origin Percent Share	
		Orcas Island 1	Lopez Island 3	Shaw Island 4		
Origin District >	Orcas Island 1		60	13	73	21.7%
	San Juan Island 2	196	33	24	252	75.3%
	Shaw Island 4		10		10	3.0%
Destination Total		196	103	37	335	100%
Destination Percent Share		58.4%	30.6%	11.0%	100%	

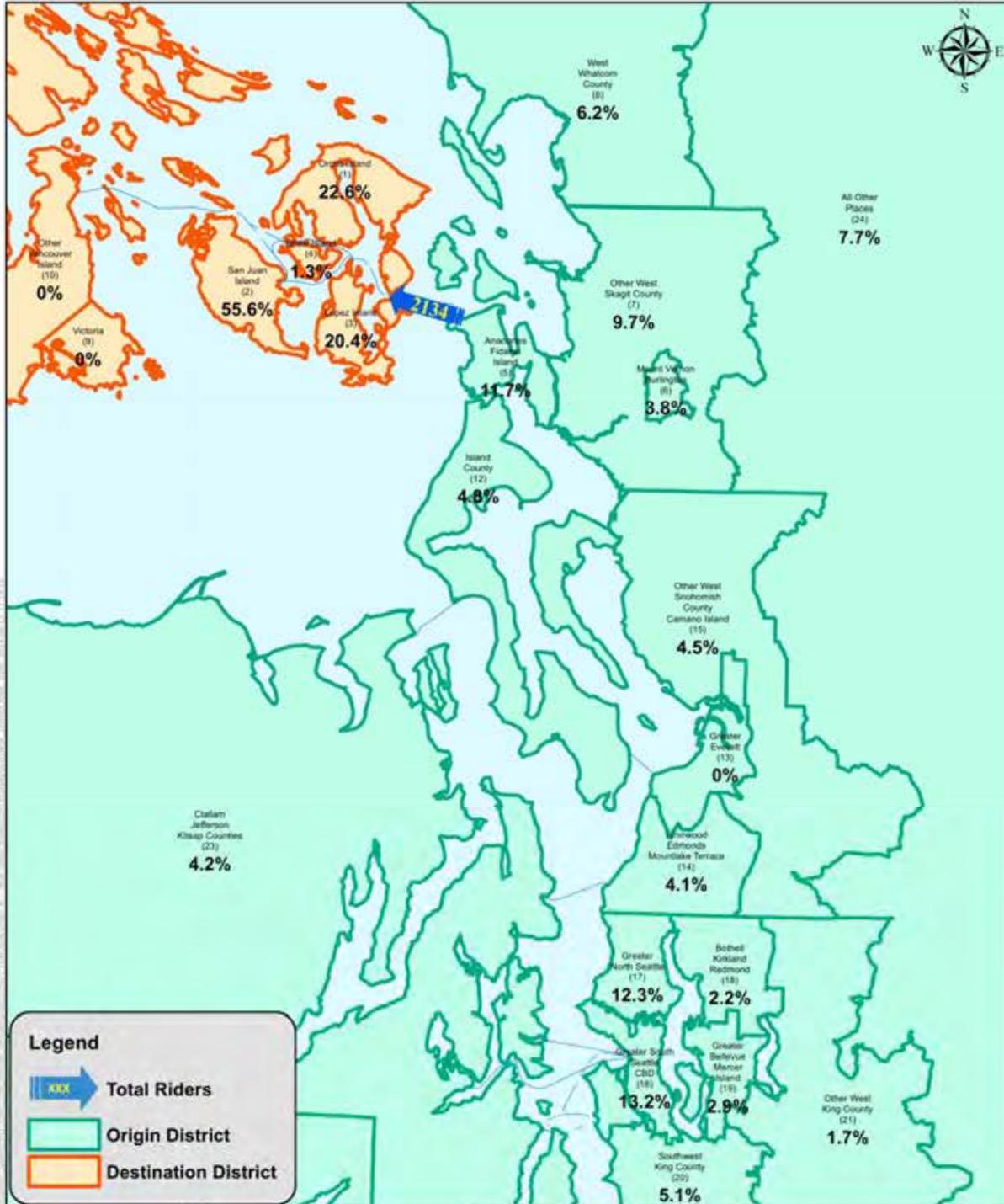
Figure 4-28. San Juan Inter-Island eastbound origin and destination locations by boarding mode, Saturday survey period



#### 4.2.11 Saturday Travel Patterns—Westbound

Figure 4-29 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 4-19. The major origins were Anacortes/Fidalgo Island, West Skagit County, and the greater Seattle area, while the primary destination was San Juan Island. A similar trend was found in 2013 annual ridership statistics. Origin and destination locations by boarding mode are shown in Figure 4-30. Walk boarding origins were concentrated in Anacortes, while the walk-off destinations were fairly dispersed.

Figure 4-29. Anacortes–San Juan Islands westbound origin and destination districts, Saturday survey period



**Table 4-19. Anacortes–San Juan Islands westbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼ \ Destination District ►		Orcas Island	San Juan Island	Lopez Island	Shaw Island	Origin Total	Origin Percent Share
		1	2	3	4		
Anacortes / Fidalgo Island	5	77	127	41	5	249	11.7%
Mount Vernon/Burlington	6	9	66	6		81	3.8%
Other W Skagit County	7	49	141	15	2	208	9.7%
W Whatcom County	8	47	58	21	5	131	6.2%
Other BC / Canada	11	3		43		46	2.2%
Island County	12	4	94	4		102	4.8%
Lynnwood / Edmonds / Mountlake Terrace	14	15	46	23	1	86	4.1%
Other W Snohomish County / Camano Island	15	3	69	24		96	4.5%
Greater S Seattle / CBD	16	91	116	74	2	283	13.2%
Greater N Seattle	17	74	103	79	6	262	12.3%
Bothell-Kirkland / Redmond	18	10	36			46	2.2%
Greater Bellevue / Mercer Island	19	8	50	5		63	2.9%
SW King County	20	30	53	26		109	5.1%
Other W King County	21	3	34			37	1.7%
W Pierce / Thurston Counties	22	26	22	24	6	78	3.7%
Clallam/Jefferson / Kitsap Counties	23	8	50	32		90	4.2%
All Other Places	24	24	120	18	2	165	7.7%
Destination Total		483	1,187	436	28	2,134	100%
Destination Percent Share		22.6%	55.6%	20.4%	1.3%	100%	

Figure 4-30. Anacortes–San Juan Islands westbound origins and destination locations by boarding mode, Saturday survey period

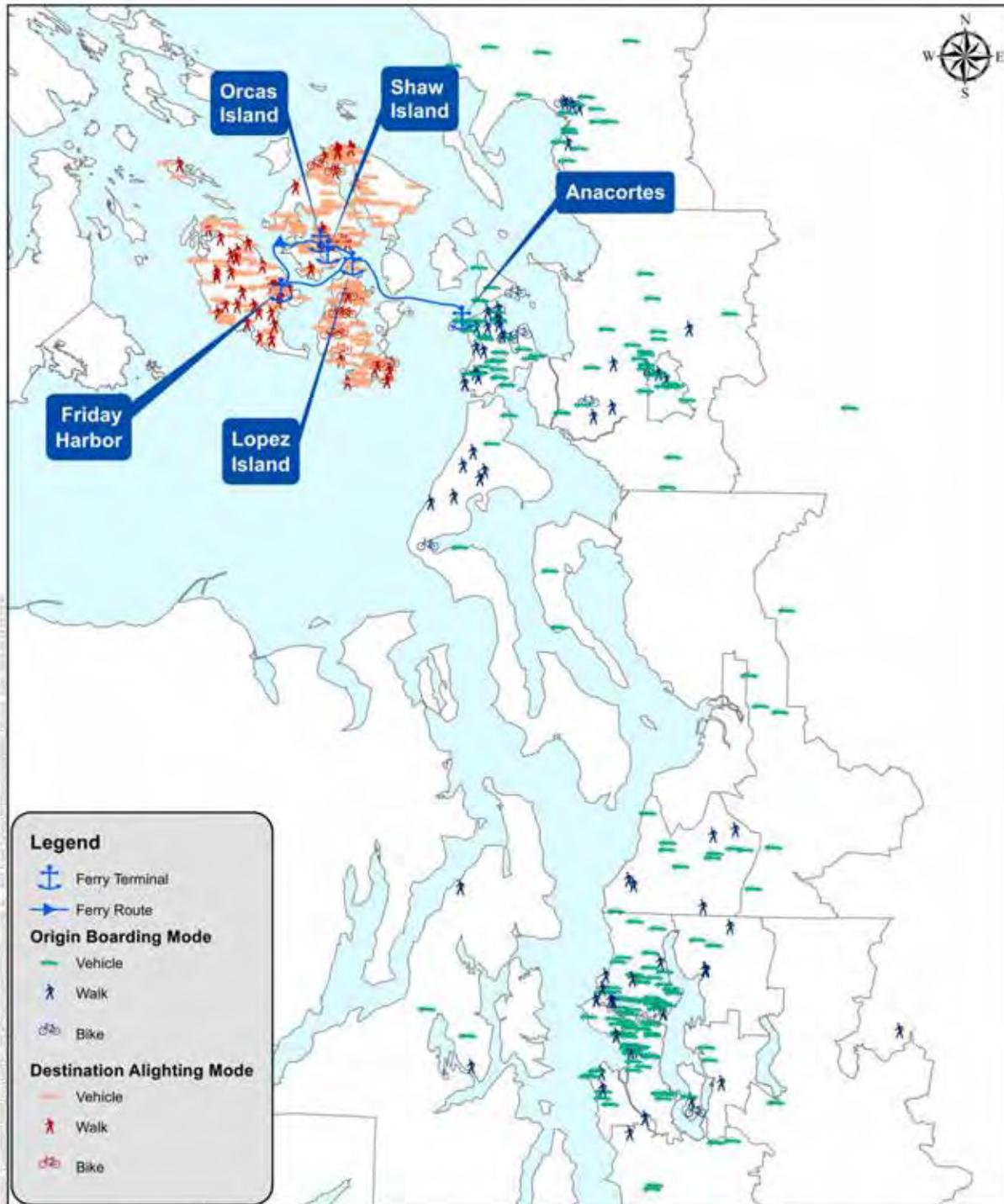


Figure 4-31 presents the origins and destinations of Saturday inter-island westbound trips by island. This information is presented in tabular format in Table 4-20. Origin and destination locations by boarding mode are shown in Figure 4-32. The major origins were Orcas and Lopez Islands, while the major destination was San Juan Island (79 percent of trips).

Figure 4-31. San Juan Inter-Island westbound origin and destination districts, Saturday survey period

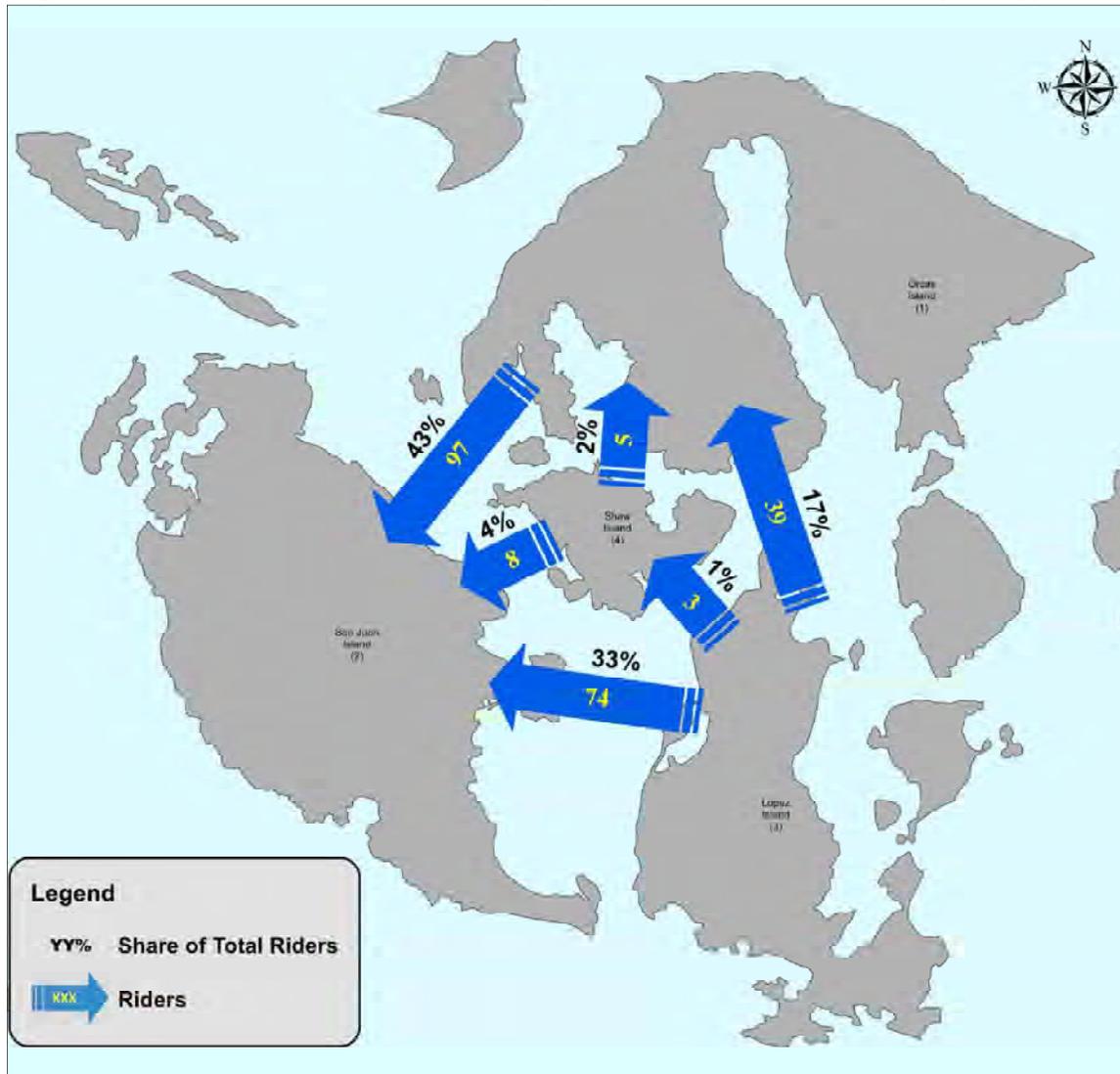
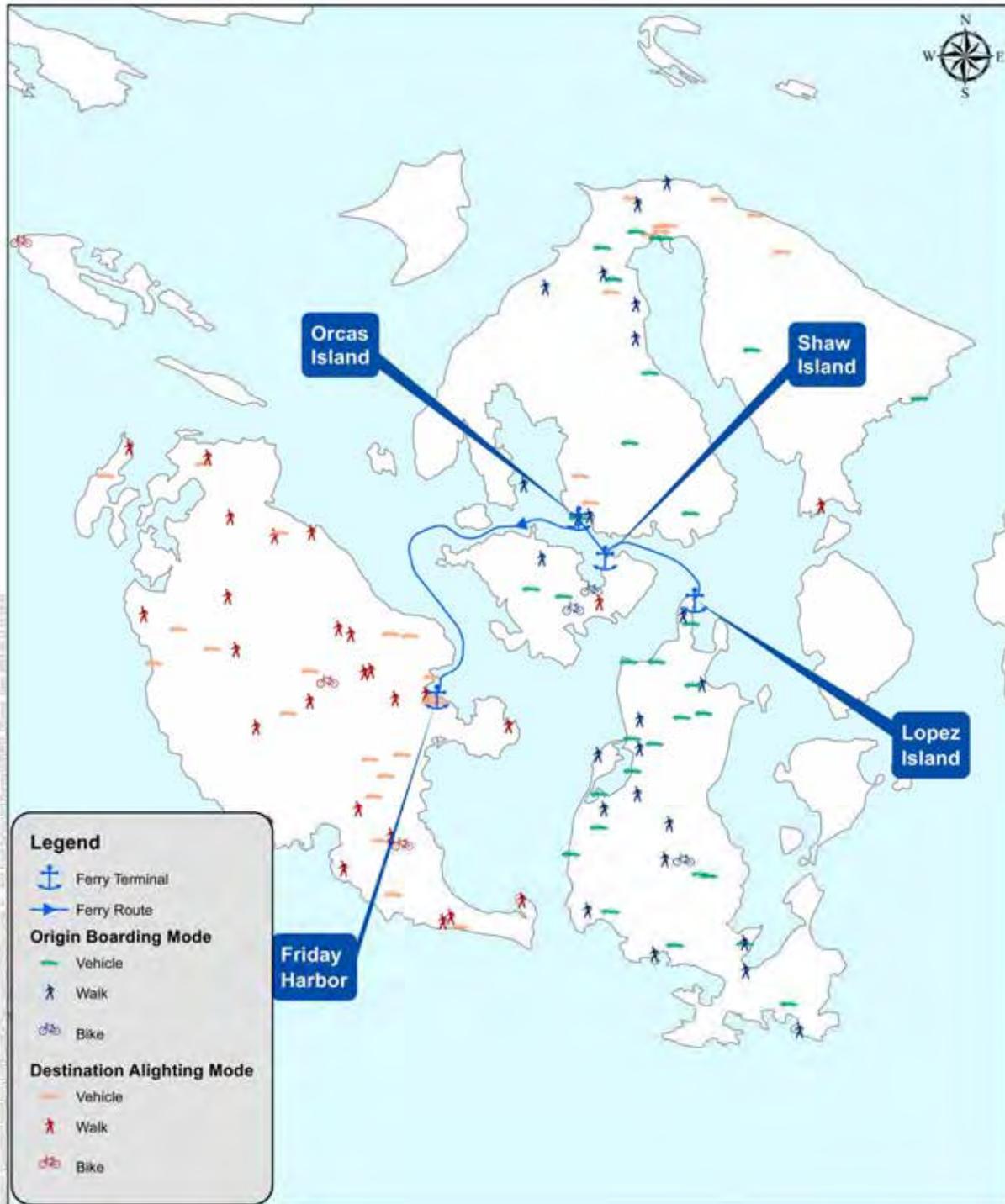


Table 4-20. San Juan Inter-Island westbound total boardings by origin and destination district, Saturday survey period

Origin District ▼		Destination District ►			Origin Total	Origin Percent Share
		Orcas Island 1	San Juan Island 2	Shaw Island 4		
Orcas Island	1		97	97	43.0%	
Lopez Island	3	39	74	116	51.2%	
Shaw Island	4	5	8	13	5.9%	
Destination Total		45	179	226	100%	
Destination Percent Share		19.7%	79.1%	100%		

Figure 4-32. San Juan Inter-Island westbound origin and destination locations by boarding mode, Saturday survey period



### 4.3 Anacortes–Sidney, British Columbia

#### 4.3.1 Route Description

The Anacortes–Sidney, British Columbia route connects Anacortes on the mainland, the San Juan Islands, and Sidney, British Columbia on Vancouver Island. The ferry crossing is 2 hours and 40 minutes one way and is approximately 40 nautical miles. For 2013, the annual total ridership was 90,000 plus 50,000 vehicle drivers for a total of 140,000 people, or about 380 riders per day. This compares to 300 riders per day in 2006 and 370 riders per day in 1999.

The route is served by one sailing per day in each direction. The fare in October 2013 for a vehicle 14 to 22 feet including driver was between \$14.50 and \$49.85, depending on the trip end points. The full fare for passengers was between \$6.90 and \$18.70.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

#### 4.3.2 Trips by Purpose

As shown in Table 4-21, the most frequent weekday trip purpose was recreation/shopping (88 percent) which was also the predominant weekday purpose in 2006. Recreation/shopping remains the predominant trip purpose for Saturday trips.

**Table 4-21. Anacortes–Sidney, British Columbia, trips by purpose and direction, weekday and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	2	15	40	57	40.1%	39.8%
Westbound	0	0	85	85	59.9%	60.2%
Total	2	15	125	142	100%	100%
2013 Distribution	1.3%	10.5%	88.1%	100%		
2006 Distribution	33.5%	9.6%	57.0%	100%		
<b>Saturday</b>						
Eastbound	0	34	81	115	45.3%	57.1%
Westbound	5	24	110	139	54.7%	42.9%
Total	5	58	191	254	100%	100%
2013 Distribution	1.8%	22.9%	75.4%	100%		
2006 Distribution	8.5%	17.4%	74.1%	100%		

### 4.3.3 Frequency of Travel

Table 4-22 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The vast majority (96 percent) of travelers used ferries one or two times per week on weekdays in 2013, an increase from 78 percent in 2006. The percentage of travelers using ferries one or two times per week on Saturdays increased from 91 percent in 2006 to 98 percent in 2013.

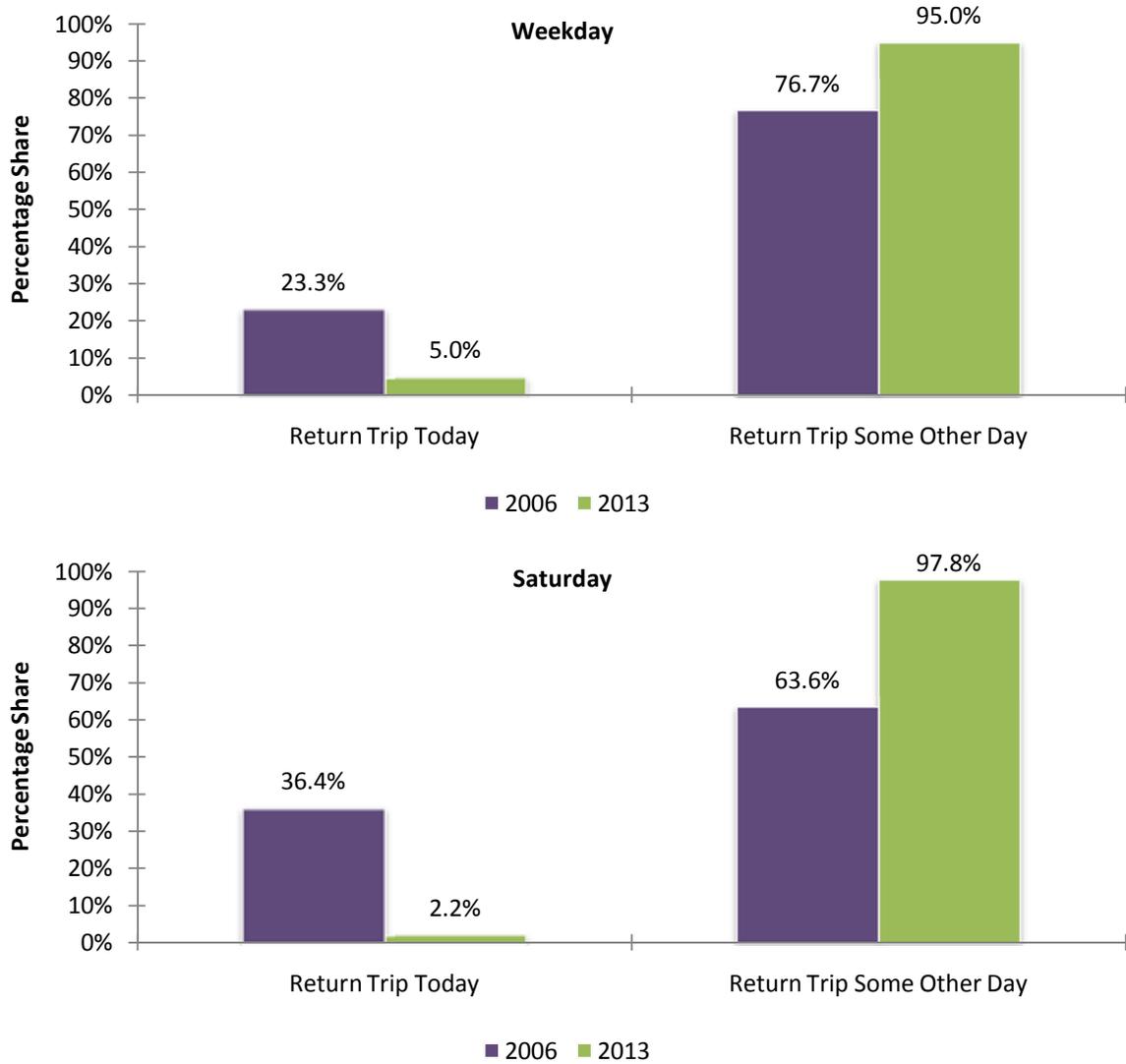
**Table 4-22. Anacortes–Sidney, British Columbia, one-way trips by purpose and frequency, weekday and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	0	3	98	101	72.7%	44.6%	0.0%	42.9%
2	0	12	21	33	23.8%	33.8%	0.0%	22.1%
3 to 4	2	0	0	2	1.3%	17.1%	100%	24.7%
5 to 6	0	0	3	3	2.2%	2.9%	0.0%	6.5%
7 to 8	0	0	0	0	0.0%	0.8%	0.0%	2.6%
9 to 10	0	0	0	0	0.0%	0.4%	0.0%	1.3%
11+	0	0	0	0	0.0%	0.4%	0.0%	0.0%
Total	2	15	122	139	100%	100%	100%	100%
2013 Distribution	1.3%	10.8%	87.9%	100%				
2006 Distribution	32.2%	9.6%	58.6%	100%				
<b>Saturday</b>								
1	5	17	88	109	74.0%	55.3%		
2	0	16	19	36	24.1%	35.3%		
3 to 4	0	0	0	0	0.0%	6.0%		
5 to 6	0	0	0	0	0.0%	1.7%		
7 to 8	0	0	0	0	0.0%	1.0%		
9 to 10	0	0	0	0	0.0%	0.3%		
11+	0	0	3	3	1.9%	0.3%		
Total	5	33	110	147	100%	100%		
2013 Distribution	3.1%	22.2%	74.7%	100%				
2006 Distribution	9.3%	16.7%	74.0%	100%				

### 4.3.4 Round-Trip Patterns

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day dropped significantly from 23 percent in 2006 to 5 percent in 2013, as shown in Figure 4-33. Similarly, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 36 percent in 2006 to 2 percent in 2013.

**Figure 4-33. Anacortes–Sidney, British Columbia, round-trip patterns by day, weekday and Saturday survey periods (2006 and 2013)**



As shown in Figure 4-34, the majority (63 percent) of weekday round-trip ferry travelers used the same route for both legs of the trip, which decreased from 91 percent in 2006. Conversely, the share of Saturday travelers using the same route for both legs of the trip grew from 80 percent in 2006 to 91 percent in 2013.

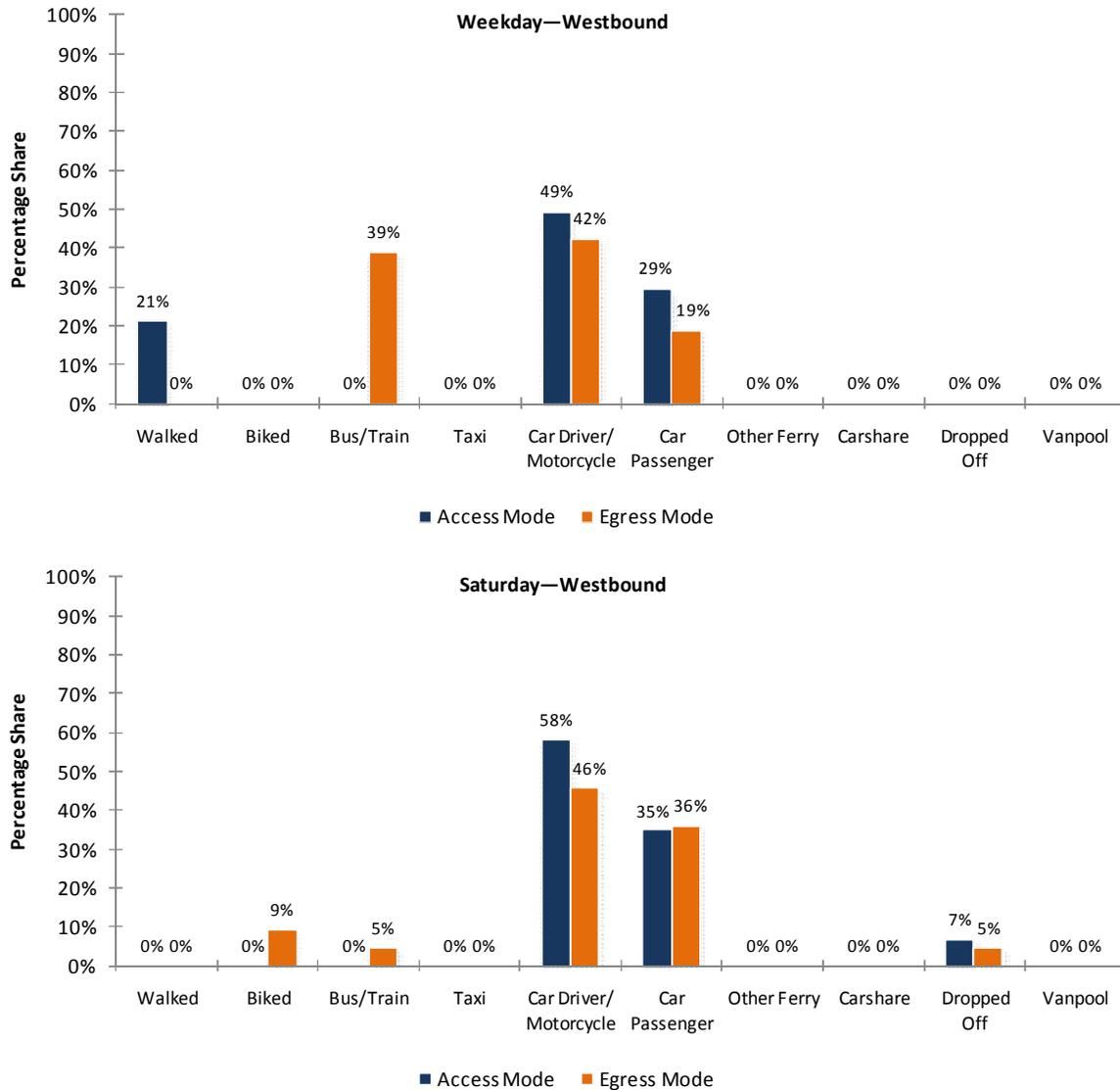
**Figure 4-34. Anacortes–Sidney, British Columbia, round-trip patterns by route, weekday and Saturday survey periods (2006 and 2013)**



#### 4.3.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant westbound mode of access and egress in 2013, as shown in Figure 4-35. On weekdays, 42 percent of ferry travelers drove to the ferry and an additional 19 percent were passengers in a private vehicle. Leaving the ferry, 49 percent were drivers while 29 percent were passengers. Likely due to the higher availability of transit on weekdays, bus/train was a more common mode of access/egress on weekdays versus Saturdays. Walk access was higher than walk egress in the westbound direction on weekdays.

**Figure 4-35. Anacortes–Sidney, British Columbia, westbound trips by access and egress modes, weekday and Saturday survey periods (2013)**



Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 4-36. On weekdays, 46 percent of ferry travelers drove to the ferry and an additional 36 percent were passengers in a private vehicle. Leaving the ferry, 58 percent were drivers while 35 percent were passengers. Likely due to the higher availability of transit on weekdays, bus/train was a more common mode of access on weekdays versus Saturdays.

**Figure 4-36. Anacortes–Sidney, British Columbia, eastbound trips by access and egress modes, weekday and Saturday survey periods (2013)**

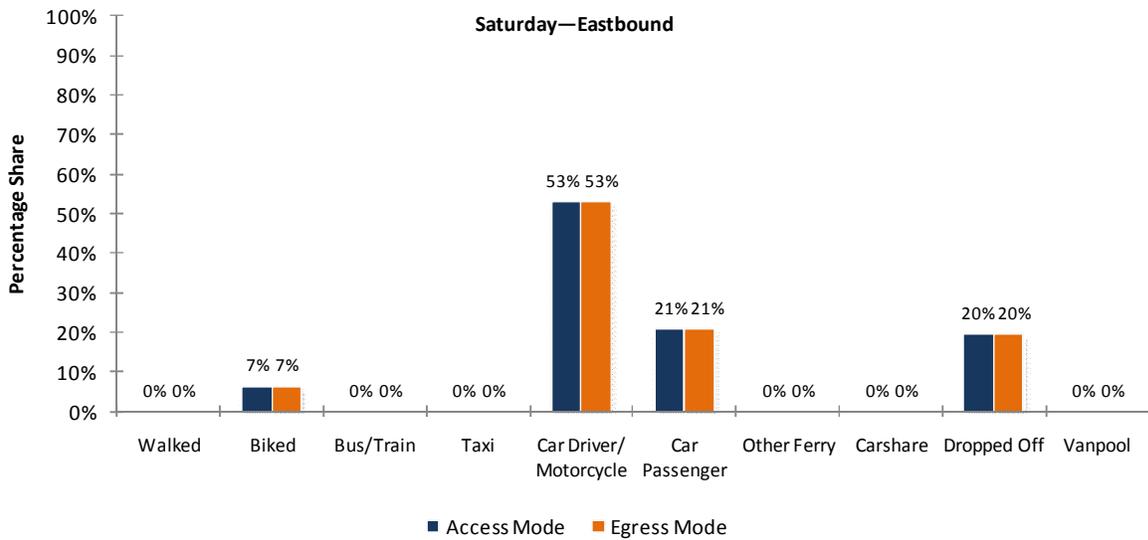
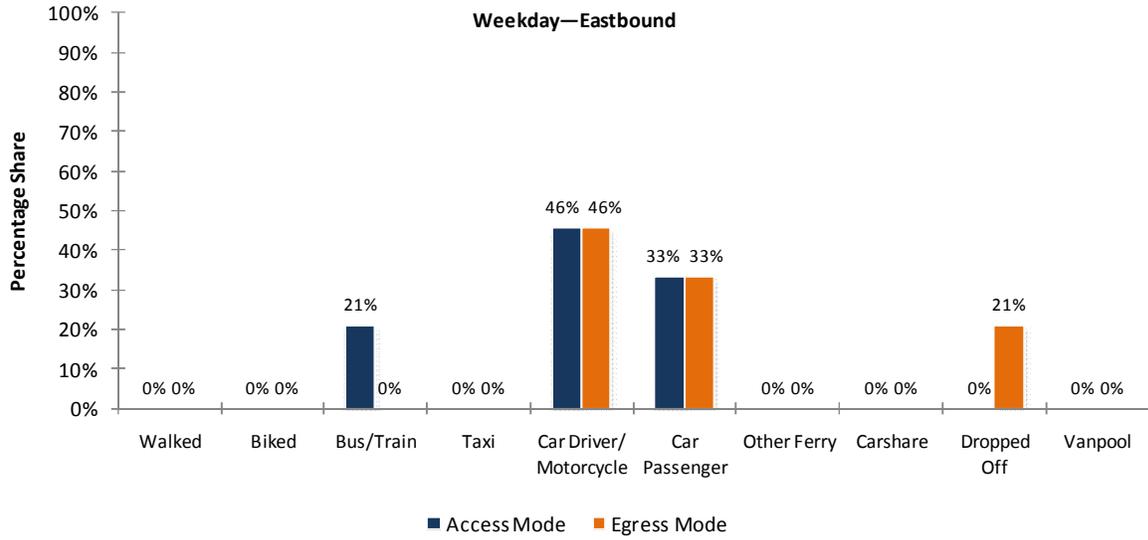


Table 4-23 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 68 percent and 76 percent of boardings on weekdays and Saturdays, respectively.

**Table 4-23. Anacortes–Sidney, British Columbia, access mode and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	18	0	18	12.7%	N/A
Biked	0	0	0	0	0.0%	N/A
Bus/Train	0	12	0	12	8.5%	N/A
Taxi	0	0	0	0	0.0%	N/A
Car Driver/Motorcycle	62	6	0	68	47.9%	N/A
Car Passenger	35	9	0	44	31.0%	N/A
Other Ferry	0	0	0	0	0.0%	N/A
Carshare	0	0	0	0	0.0%	N/A
Dropped Off	0	0	0	0	0.0%	N/A
Vanpool	0	0	0	0	0.0%	N/A
Total	97	45	0	142	100%	N/A
2013 Distribution	68.3%	31.7%	0.0%	100%		
2006 Distribution	N/A	N/A	N/A			
<b>Saturday</b>						
Walked	0	0	0	0	0.0%	N/A
Biked	0	0	8	8	3.0%	N/A
Bus/Train	0	0	0	0	0.0%	N/A
Taxi	0	0	0	0	0.0%	N/A
Car Driver/Motorcycle	129	6	6	142	55.8%	N/A
Car Passenger	63	3	6	73	28.6%	N/A
Other Ferry	0	0	0	0	0.0%	N/A
Carshare	0	0	0	0	0.0%	N/A
Dropped Off	0	32	0	32	12.6%	N/A
Vanpool	0	0	0	0	0.0%	N/A
Total	192	42	20	254	100%	N/A
2013 Distribution	75.6%	16.4%	8.0%	100%		
2006 Distribution	N/A	N/A	N/A			

Table 4-24 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. In 2013, walk-on method accounted for 32 percent and 16 percent of boardings on weekdays and Saturdays, respectively.

**Table 4-24. Anacortes–Sidney, British Columbia, egress mode and boarding methods, weekday and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	0	0	0	0.0%	N/A
Biked	0	0	0	0	0.0%	N/A
Bus/Train	0	33	0	33	23.2%	N/A
Taxi	0	0	0	0	0.0%	N/A
Car Driver/Motorcycle	62	0	0	62	43.7%	N/A
Car Passenger	35	0	0	35	24.6%	N/A
Other Ferry	0	0	0	0	0.0%	N/A
Carshare	0	0	0	0	0.0%	N/A
Dropped Off	0	12	0	12	8.5%	N/A
Vanpool	0	0	0	0	0.0%	N/A
<b>Total</b>	<b>97</b>	<b>45</b>	<b>0</b>	<b>142</b>	<b>100%</b>	<b>N/A</b>
2013 Distribution	68.3%	31.7%	0.0%	100%		
2006 Distribution	N/A	N/A	N/A			
<b>Saturday</b>						
Walked	0	0	0	0	0.0%	N/A
Biked	0	0	20	20	8.0%	N/A
Bus/Train	0	6	0	6	2.5%	N/A
Taxi	0	0	0	0	0.0%	N/A
Car Driver/Motorcycle	124	0	0	124	49.0%	N/A
Car Passenger	68	6	0	74	29.1%	N/A
Other Ferry	0	0	0	0	0.0%	N/A
Carshare	0	0	0	0	0.0%	N/A
Dropped Off	0	29	0	29	11.4%	N/A
Vanpool	0	0	0	0	0.0%	N/A
<b>Total</b>	<b>192</b>	<b>42</b>	<b>20</b>	<b>254</b>	<b>100%</b>	<b>N/A</b>
2013 Distribution	75.6%	16.4%	8.0%	100%		
2006 Distribution	N/A	N/A	N/A			

Table 4-25 and Table 4-26 show access and egress modes used across the entire ferry trip for weekdays and Saturdays, respectively. For weekday walk-on boardings, the percentage of travelers arriving at the origin terminal on foot was higher than the percentage leaving the destination terminal on foot. The opposite was true for travelers using bus or other transit modes to/from the terminal. For Saturday walk-on boardings, the percentage of travelers leaving the destination terminal by bicycle was higher than that arriving at the origin terminal.

**Table 4-25. Anacortes–Sidney, British Columbia, trips by access mode to ferry—boarding method—egress mode from ferry, weekday all-day survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (31.7% of total boardings)					
Pedestrian	40.0%	Pedestrian	100.0%	Pedestrian	0.0%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	26.7%			By Bus/Transit	73.3%
By Vehicle	33.3%			By Vehicle	26.7%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (68.3% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	63.9%	In-Vehicle	100.0%
		Vehicle Passengers	36.1%		

Note: Average vehicle occupancy (AVO) was 1.56 for the weekday all-day survey period.

**Table 4-26. Anacortes–Sidney, British Columbia, trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

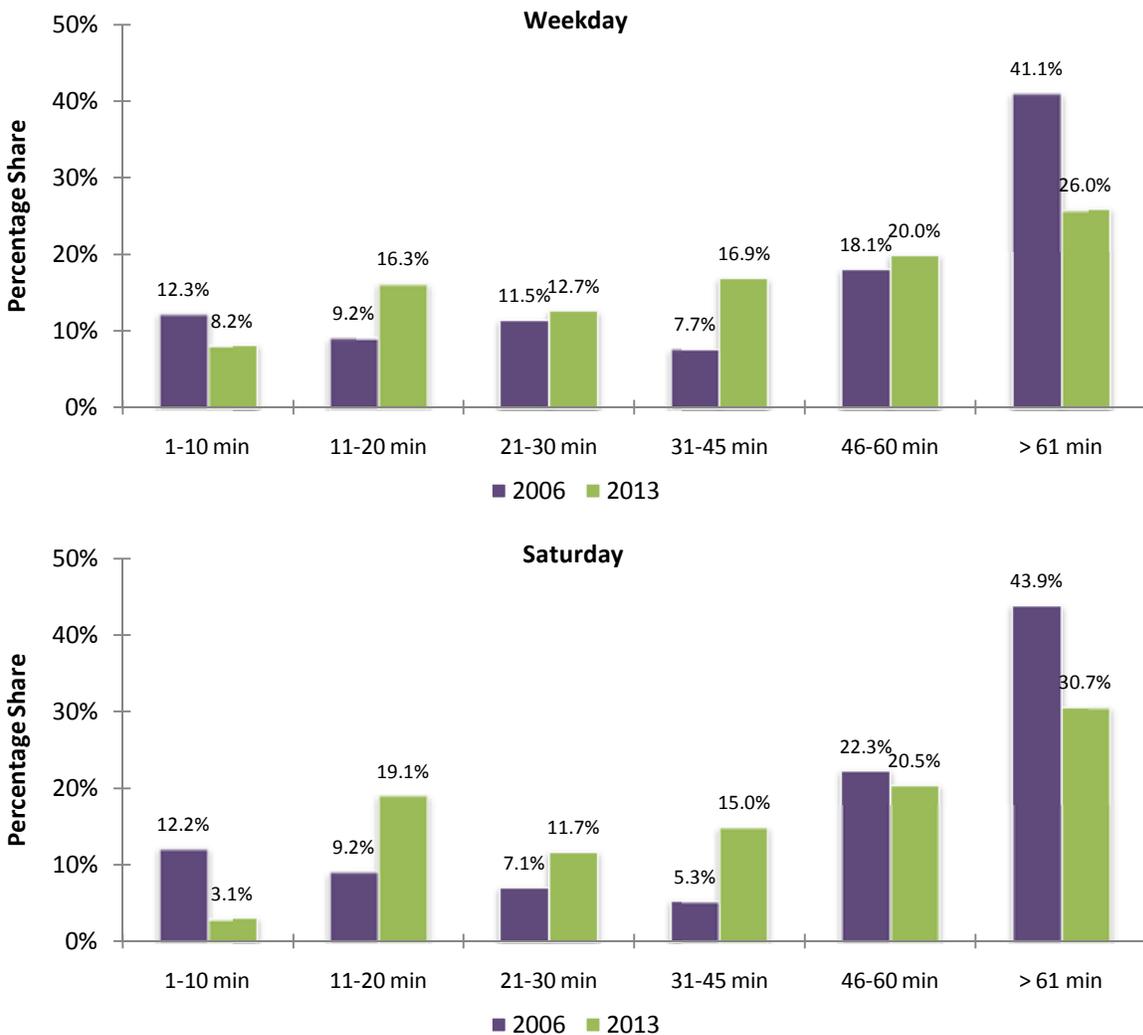
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (24.4% of total boardings)					
Pedestrian	0.0%	Pedestrian	67.3%	Pedestrian	0.0%
Bicycle	12.1%	Pedestrian w/ Bicycle	32.7%	Bicycle	32.7%
By Bus/Transit	0.0%			By Bus/Transit	10.3%
By Vehicle	87.9%			By Vehicle	56.9%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (75.6% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	67.2%	In-Vehicle	100.0%
		Vehicle Passengers	32.8%		

Note: Average vehicle occupancy (AVO) was 1.49 for the weekday all-day survey period.

### 4.3.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 4-37 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 26 percent of weekday ferry passengers waited for more than 60 minutes, which was a decrease from 2006 when 41 percent of weekday riders waited for more than 60 minutes. A similar trend was seen on Saturdays, with 44 and 31 percent of ferry passengers waiting for more than 60 minutes in 2006 and 2013, respectively.

**Figure 4-37. Anacortes–Sidney, British Columbia, trips by wait time, weekday and Saturday survey periods (2006 and 2013)**



### 4.3.7 Parking

Figure 4-38 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 27 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 46 percent in 2006. On Saturdays, those who parked a vehicle decreased significantly from 70 percent to 31 percent.

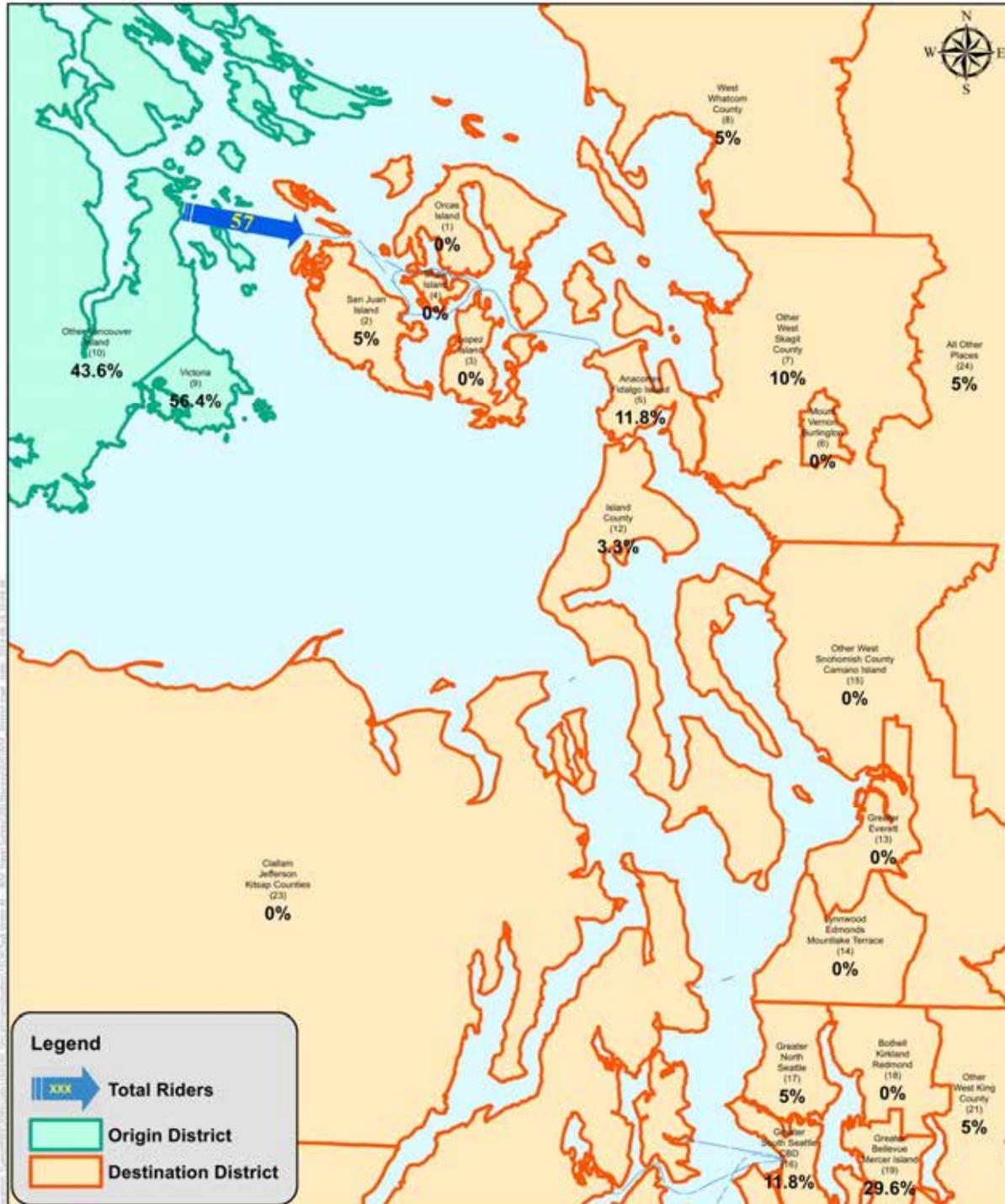
**Figure 4-38. Anacortes–Sidney, British Columbia, non-motorized boardings that parked a vehicle at terminal, weekday and Saturday survey periods (2006 and 2013)**



**4.3.8 Weekday Travel Patterns—Eastbound**

Figure 4-39 presents the origins and destinations of weekday eastbound trips by district. This information is presented in tabular format in Table 4-27. The major destinations were Anacortes/Fidalgo Island, West Skagit County, and the greater Bellevue/Mercer Island area. Origin and destination locations by boarding mode are shown in Figure 4-40. Boarding origins and modes were dispersed.

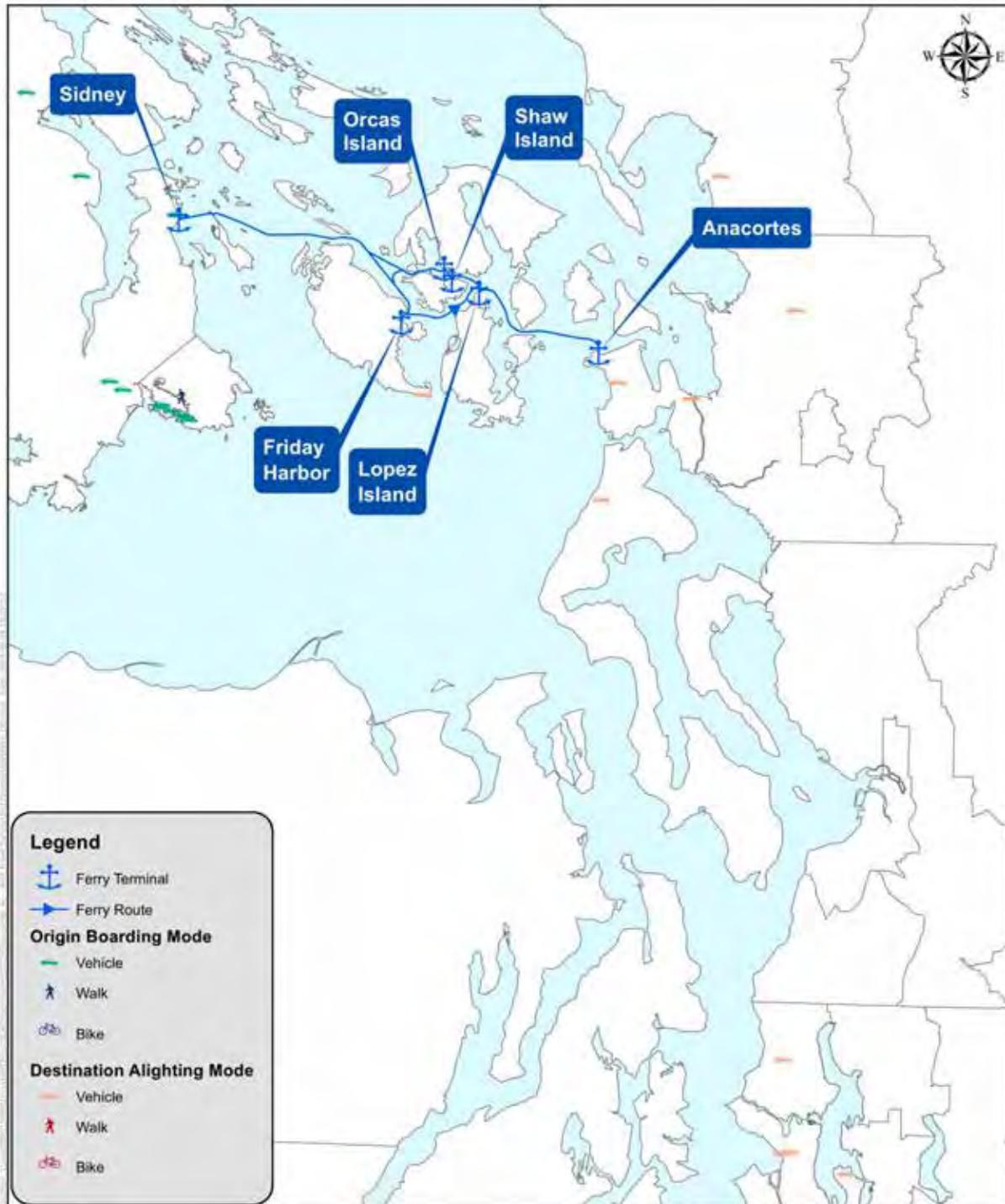
Figure 4-39. Anacortes–Sidney, British Columbia, eastbound origin and destination districts, weekday all-day survey period



**Table 4-27. Anacortes–Sidney, British Columbia, eastbound total boardings by origin and destination district, weekday all-day survey period**

Origin District ▼		Destination District ►														
				San Juan Island	Anacortes / Fidalgo Island	Other W Skagit Co.	W Whatcom Co.	Island Co.	Greater S Seattle / CBD	Greater N Seattle	Greater Bellevue / Mercer Island	Other W King Co.	W Pierce / Thurston Co.	All Other Places	Origin Total	Origin Percent Share
Victoria	9		4			2	7	3	12			5		32	56.4%	
Other BC/Canada	10	3	3	6	3				5	3			3	25	43.6%	
Destination Total		3	7	6	3	2	7	3	17	3	5	3	57	100%		
Destination Percent Share		5.0%	11.8%	10.0%	5.0%	3.3%	11.8%	5.0%	29.6%	5.0%	8.5%	5.0%	100%			

Figure 4-40. Anacortes–Sidney, British Columbia, eastbound origin and destination locations by boarding mode, weekday all-day survey period



### 4.3.9 Weekday Travel Patterns—Westbound

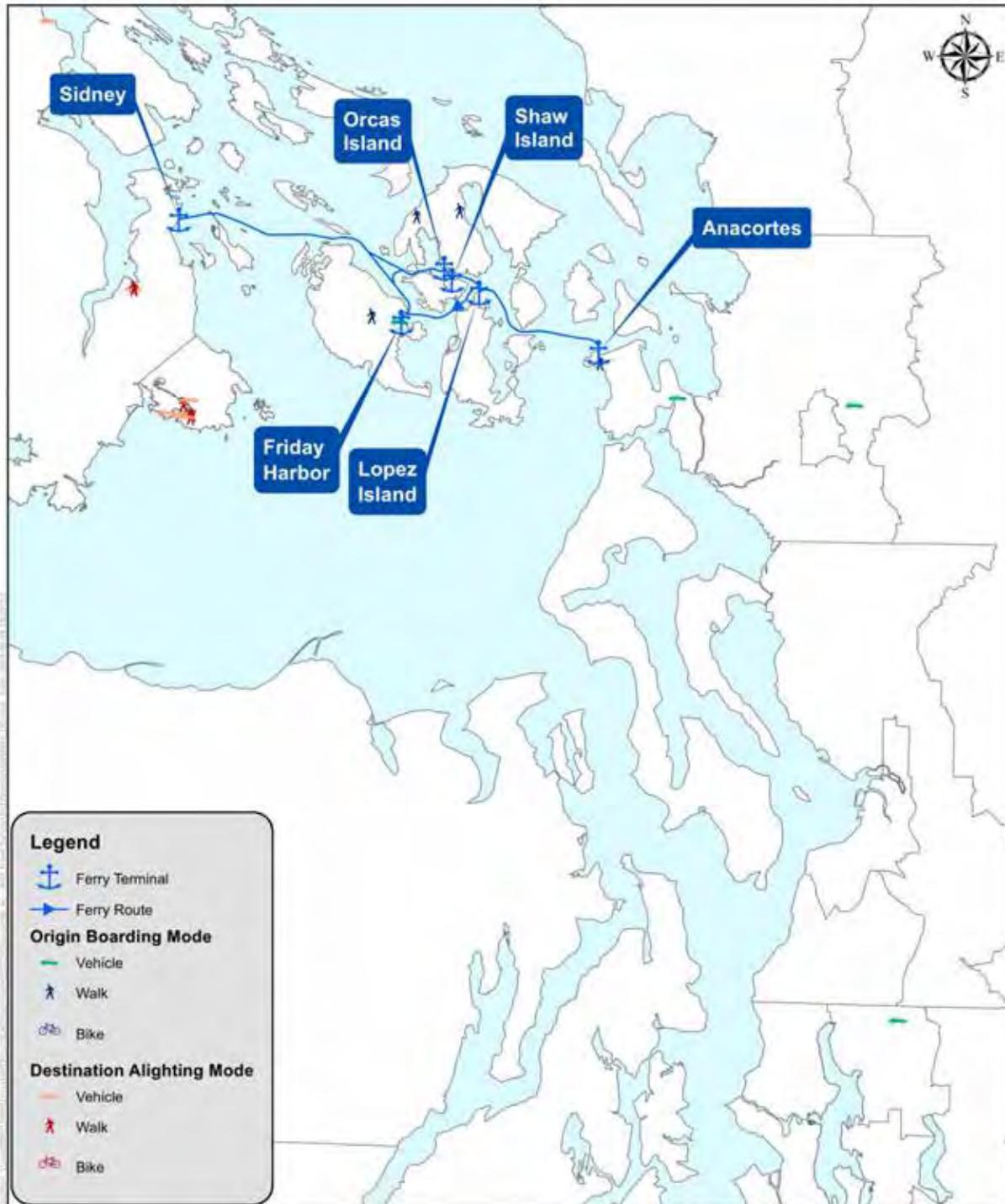
Figure 4-41 presents the origins and destinations of weekday westbound trips by district. This information is presented in tabular format in Table 4-28. The major origins were San Juan Island and Anacortes/Fidalgo Island. Origin and destination locations by boarding mode are shown in Figure 4-42. Destinations were concentrated in the Victoria, British Columbia area.



**Table 4-28. Anacortes–Sidney, British Columbia, westbound total boardings by origin and destination district, weekday all-day survey period**

Origin District ▼ \ Destination District ►		Victoria	Other BC / Canada	Origin Total	Origin Percent Share
		9	10		
Orcas Island	1	6		6	7.1%
San Juan Island	2	9	18	27	31.5%
Anacortes / Fidalgo Island	5	3	6	9	10.1%
Other W Skagit County	7	6		6	6.6%
W Whatcom County	8	6		6	6.6%
Bothell-Kirkland / Redmond	18		6	6	6.6%
Other W King County	21		4	4	4.7%
All Other Places	24	17	6	23	26.8%
Destination Total		46	39	85	100%
Destination Percent Share		54.4%	45.6%	100%	

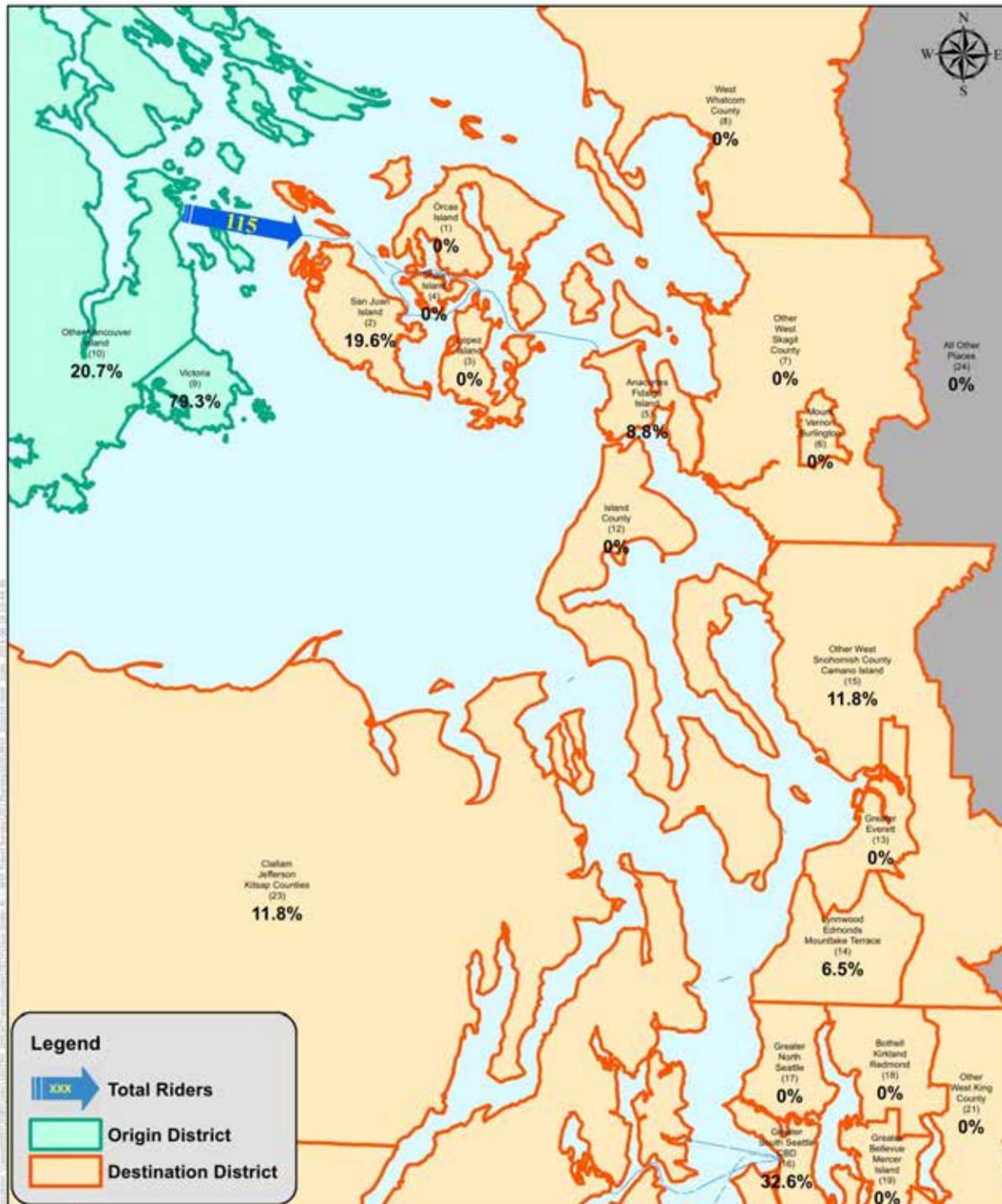
Figure 4-42. Anacortes–Sidney, British Columbia, westbound origin and destination locations by boarding mode, weekday all-day survey period



#### 4.3.10 Saturday Travel Patterns—Eastbound

Figure 4-43 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 4-29. The major destinations were San Juan Island, West Snohomish County/Island County, and the greater Seattle area. Origin and destination locations by boarding mode are shown in Figure 4-44. Boarding origins and modes were dispersed.

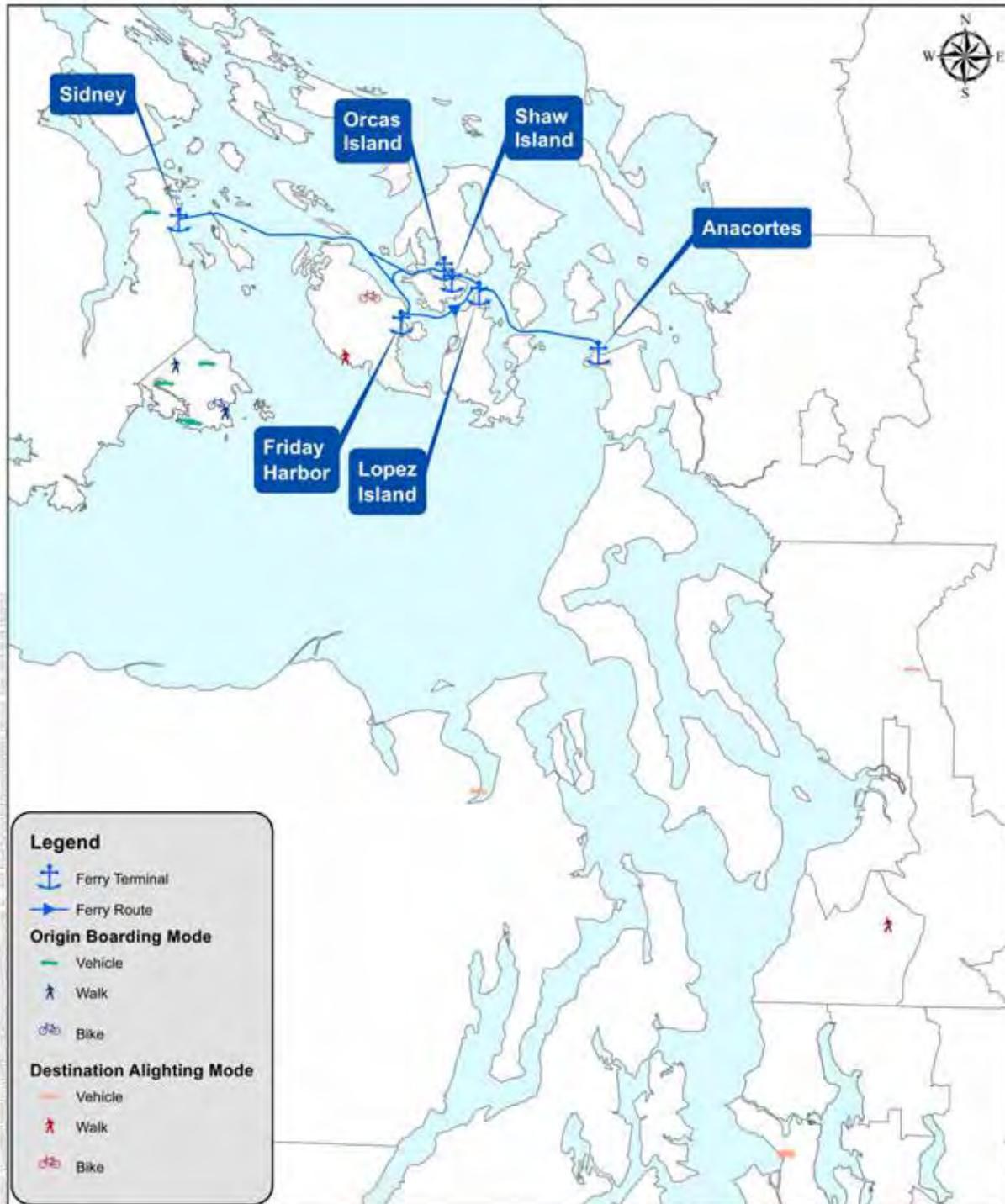
Figure 4-43. Anacortes–Sidney, British Columbia, eastbound origin and destination districts, Saturday survey period



**Table 4-29. Anacortes–Sidney, British Columbia, eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ▶							Origin Total	Origin Percent Share
		San Juan Island	Anacortes / Fidalgo Island	Lynnwood / Edmonds / Mountlake Terrace	Other W Snohomish Co. / Camano Island	Greater South Seattle / CBD	SW King Co.	Clallam/Jefferson / Kitsap Co.		
Victoria	9	23	10	8		37		14	91	79.3%
Other BC/Canada	10				14			10	24	20.7%
Destination Total		23	10	8	14	37		14	115	100%
Destination Percent Share		19.6%	8.8%	6.5%	11.8%	32.6%		11.8%	100%	

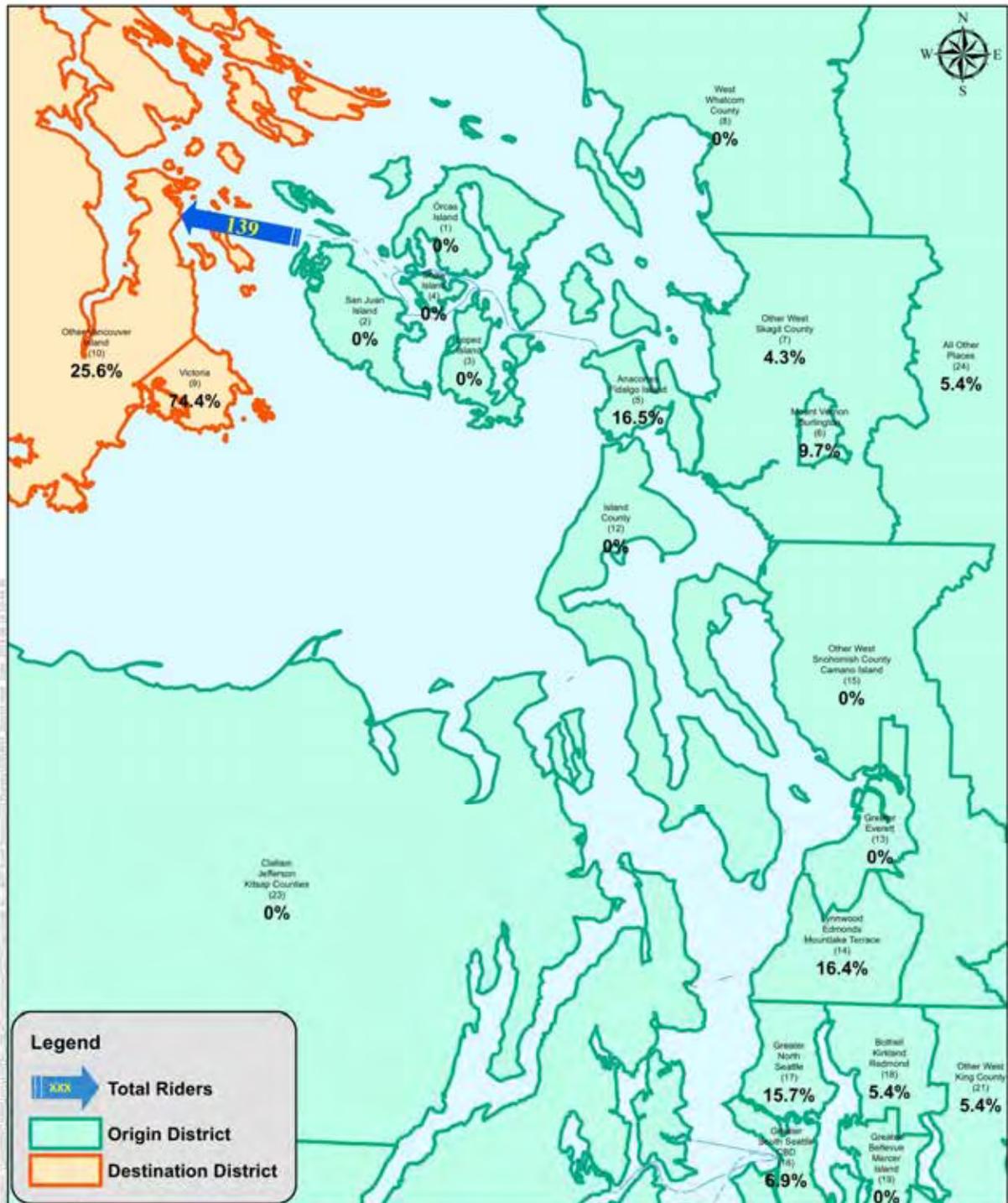
Figure 4-44. Anacortes–Sidney, British Columbia, eastbound origin and destination locations by boarding mode, Saturday survey period



#### 4.3.11 Saturday Travel Patterns—Westbound

Figure 4-45 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 4-30. The major origins were Anacortes/Fidalgo Island, Lynnwood/Edmonds/Mountlake Terrace, and the greater Seattle area. The primary destination was Victoria, British Columbia. Origin and destination locations by boarding mode are shown in Figure 4-46. Boarding origins and modes were dispersed.

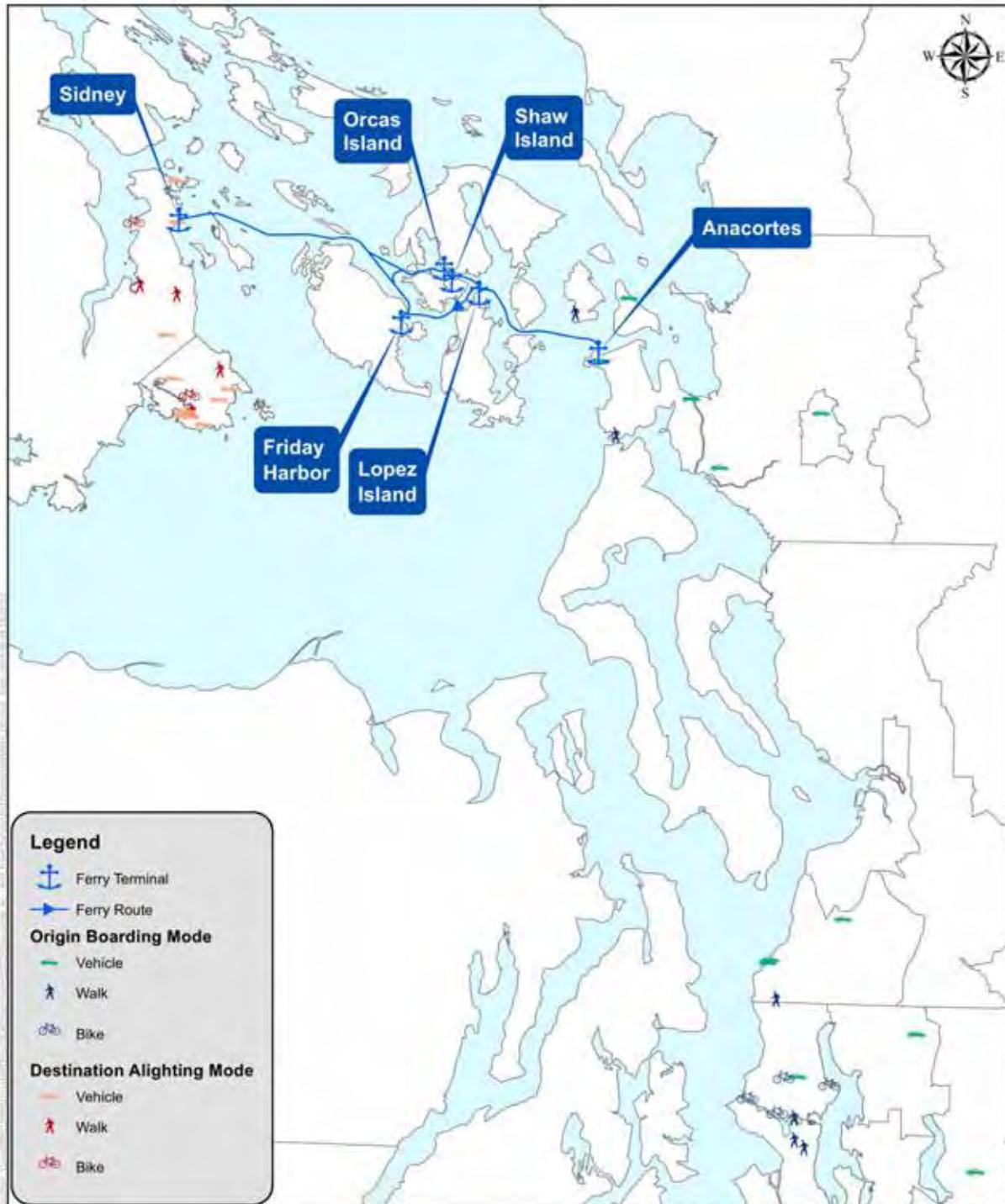
Figure 4-45. Anacortes–Sidney, British Columbia, westbound origin and destination districts, Saturday survey period



**Table 4-30. Anacortes–Sidney, British Columbia, westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►		Origin Total	Origin Percent Share
		Victoria 9	Other BC / Canada 10		
Anacortes / Fidalgo Island	5	11	12	23	16.5%
Mount Vernon/Burlington	6	14		14	9.7%
Other W Skagit County	7	6		6	4.3%
Lynnwood / Edmonds / Mountlake Terrace	14	17	6	23	16.4%
Greater S Seattle / CBD	16	3	6	10	6.9%
Greater N Seattle	17	19	3	22	15.7%
Bothell-Kirkland / Redmond	18	8		8	5.4%
SW King County	20	12		12	8.7%
Other W King County	21	8		8	5.4%
W Pierce / Thurston Counties	22		8	8	5.4%
All Other Places	24	8		8	5.4%
Destination Total		103	36	139	100%
Destination Percent Share		74.4%	25.6%	100%	

Figure 4-46. Anacortes–Sidney, British Columbia, westbound origins and destination locations by boarding mode, Saturday survey period



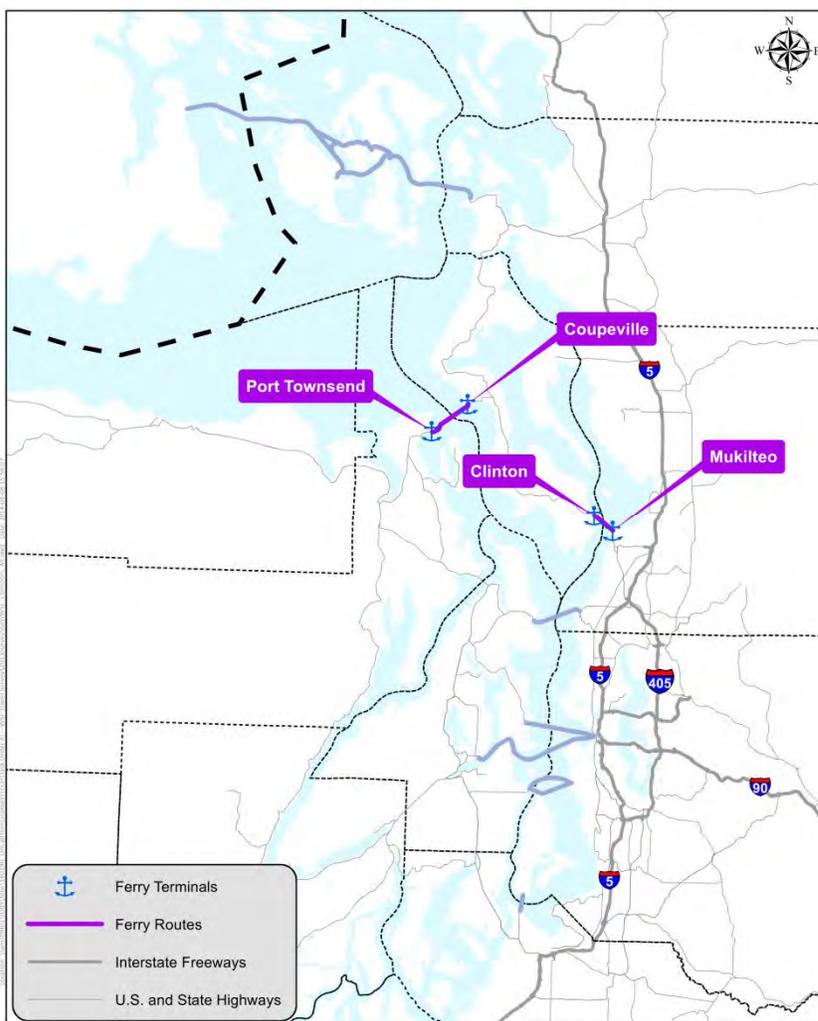
## 5 NORTH SOUND (WHIDBEY ISLAND) CORRIDOR

### 5.1 Description

The routes in the North Sound Corridor include: Port Townsend–Coupeville and Mukilteo–Clinton, as shown in Figure 5-1. This is the second-highest traveled corridor in the Washington State Ferries (WSF) system, accounting for more than 20 percent of the system-wide ridership total in 2013. The Mukilteo–Clinton route carried the most vehicles in the entire ferry system in 2013 and the second most total riders, with more than 3.9 million passengers. Total ridership in the corridor decreased from approximately 4.8 million passengers in 2006 to 4.6 million passengers in 2013. The corridor connects the mainland at Mukilteo with Whidbey Island at Clinton, and also the Olympic Peninsula at Port Townsend with Whidbey Island at Coupeville.

The tabulations and percentage share distributions of results herein represent the survey responses as expanded to the survey period ridership. More information regarding expansion methods can be found in Chapter 8.

Figure 5-1. North Sound Corridor routes



### 5.1.1 Frequency of Travel

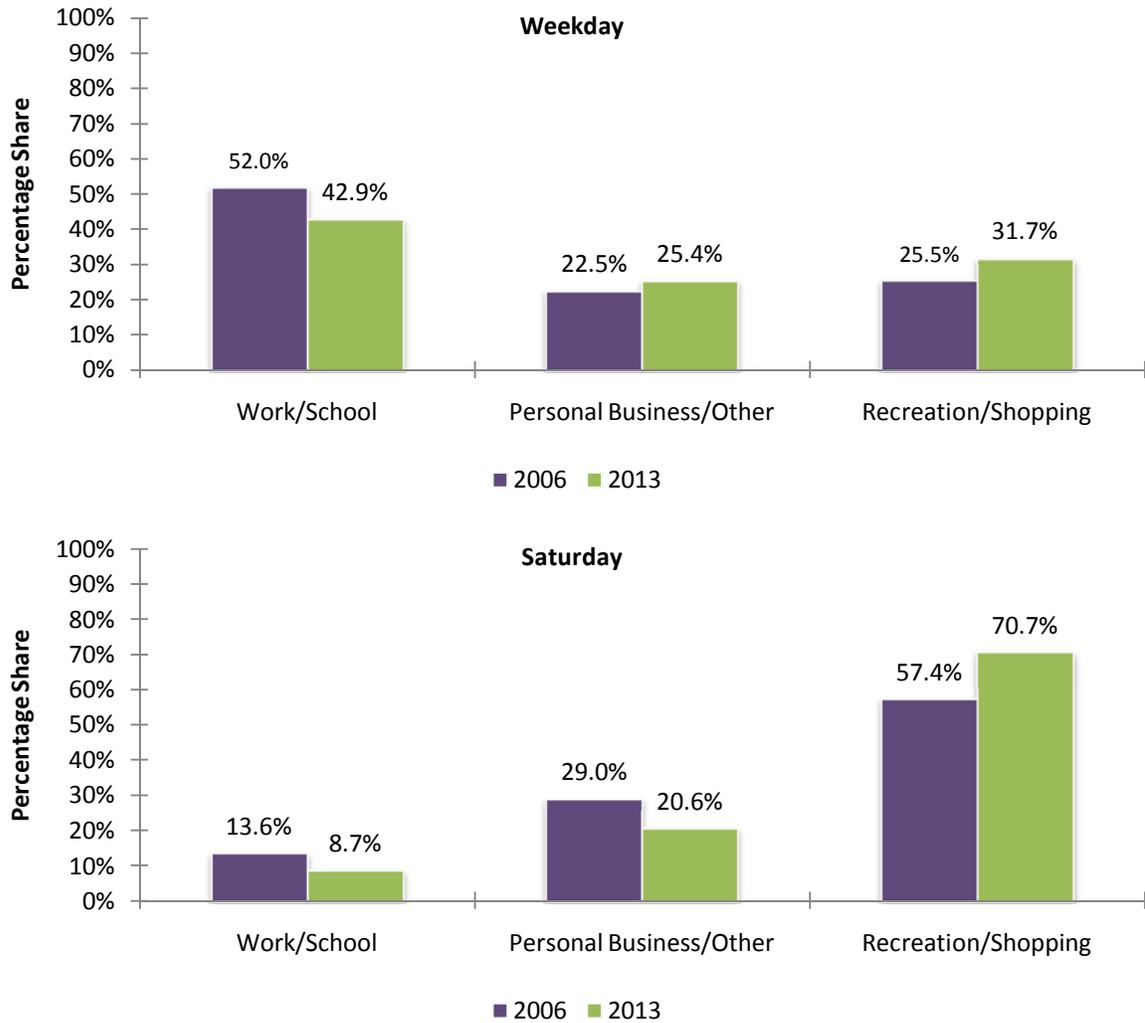
The frequency of travel for weekday and Saturday by trip purpose for both 2013 and 2006 is shown in Table 5-1. As in 2006, the majority of weekday trips in this corridor are work/school trips, although the share has decreased, with 43 percent in 2013 compared with 52 percent in 2006. Meanwhile, the share of both personal business and recreation/shopping trips has increased since 2006. More than half of respondents used the ferry at least three times during the week of the survey.

In contrast with weekday travelers, the majority of Saturday survey respondents (71 percent) indicated a trip purpose of recreation/shopping, a significant increase from 2006 (57 percent). In addition, on Saturdays, more than half of travelers (57 percent) were taking their only ferry trip of the week.

**Table 5-1. North Sound Corridor one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	246	367	858	1,471	27.3%	13.5%	10.6%	5.0%
2	229	329	361	919	17.1%	23.5%	9.9%	14.3%
3 to 4	287	431	330	1,048	19.5%	19.1%	12.4%	13.4%
5 to 6	343	152	103	598	11.1%	8.4%	14.8%	7.8%
7 to 8	368	49	15	431	8.0%	11.4%	15.9%	17.1%
9 to 10	463	9	16	488	9.1%	13.6%	20.0%	24.5%
11+	376	30	23	429	8.0%	10.5%	16.3%	17.9%
Total	2,311	1,368	1,706	5,385	100%	100%	100%	100%
2013 Distribution	42.9%	25.4%	31.7%	100%				
2006 Distribution	52.0%	22.5%	25.5%	100%				
<b>Saturday</b>								
1	216	913	3,549	4,678	56.5%	37.3%		
2	89	346	1,053	1,488	18.0%	25.5%		
3 to 4	85	245	722	1,052	12.7%	20.3%		
5 to 6	71	80	287	438	5.3%	4.3%		
7 to 8	50	46	63	160	1.9%	2.2%		
9 to 10	74	26	73	173	2.1%	5.3%		
11+	135	48	102	285	3.4%	4.9%		
Total	719	1,705	5,849	8,273	100%	100%		
2013 Distribution	8.7%	20.6%	70.7%	100%				
2006 Distribution	13.6%	29.0%	57.4%	100%				

**Figure 5-2. North Sound Corridor trips by purpose, weekday 8-hour and Saturday survey periods (2006 and 2013)**

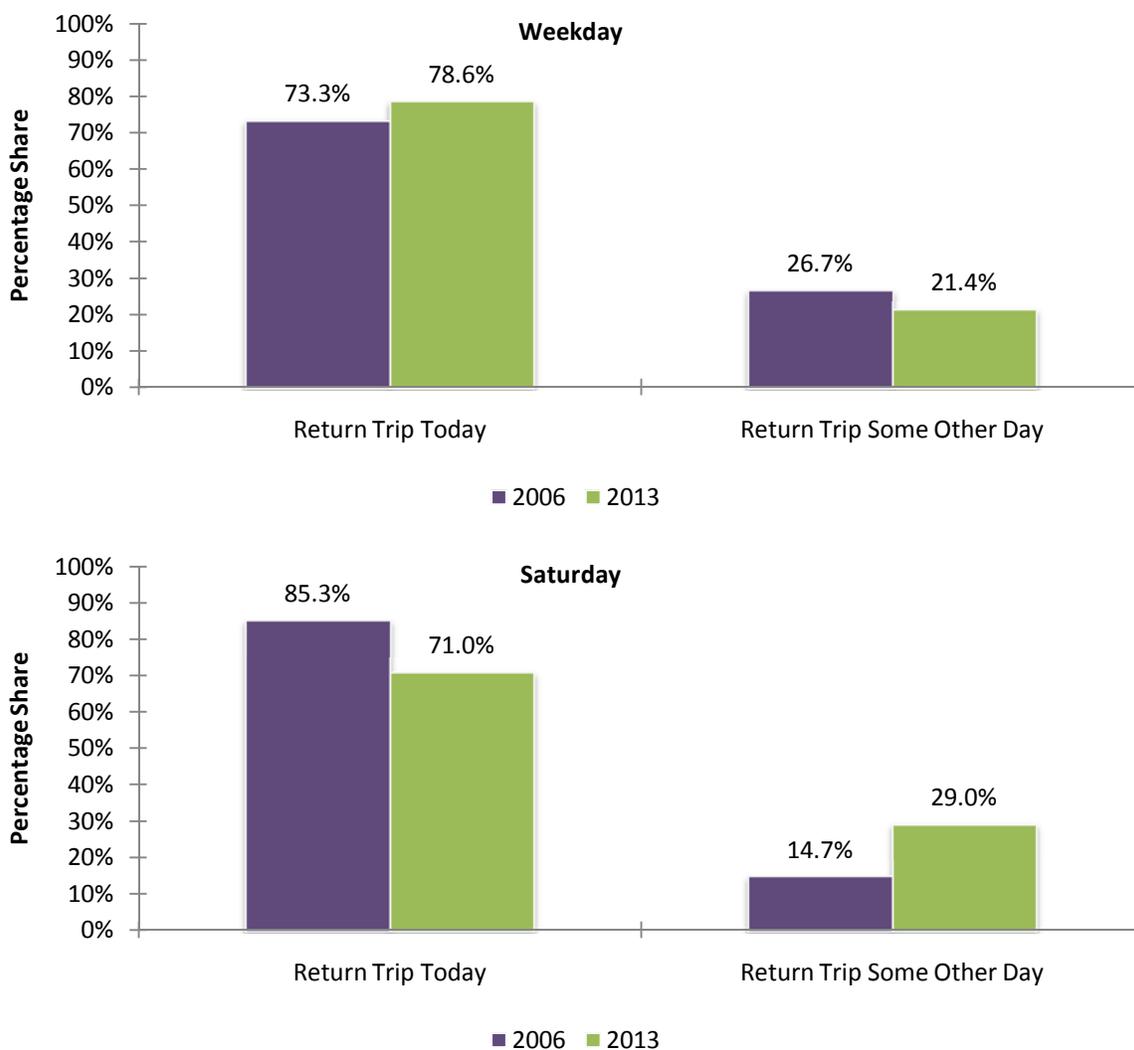


### 5.1.2 Round-Trip Patterns

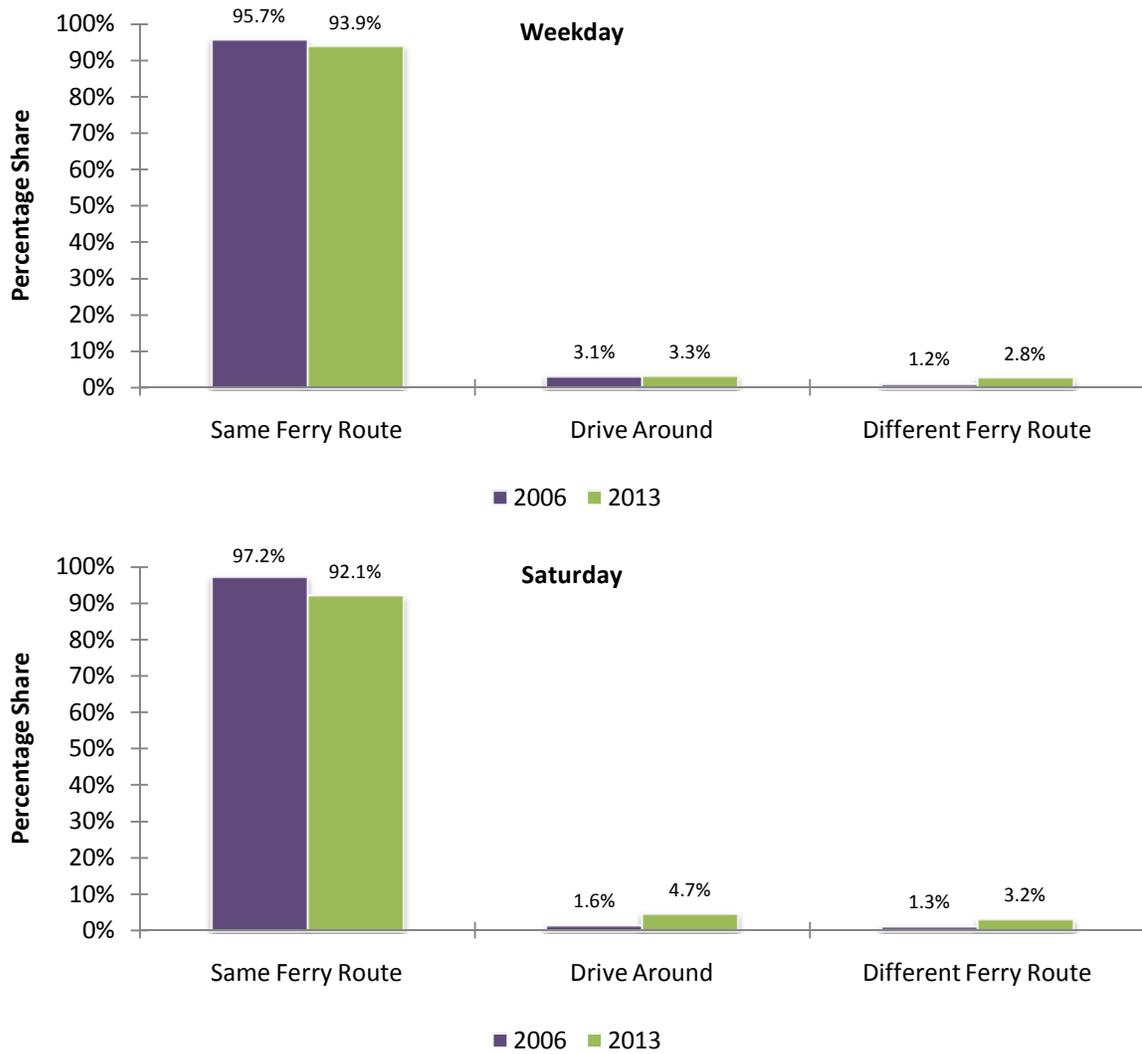
Figure 5-3 shows the weekday and Saturday round-trip patterns by day for both 2013 and 2006. A slightly higher percentage of weekday survey respondents indicated that they were taking a return trip or would be returning on the same day in 2013 (79 percent) compared with 2006 (73 percent). The reverse trend was indicated for Saturdays, with a decrease from 85 percent in 2006 to 71 percent in 2013.

Round-trip patterns by route are shown in Figure 5-4. Nearly all respondents indicated a return trip on the same ferry route as the one on which they were traveling during the survey, similar to 2006. A small percentage of respondents either drive around or use a different ferry route.

**Figure 5-3. North Sound Corridor round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**



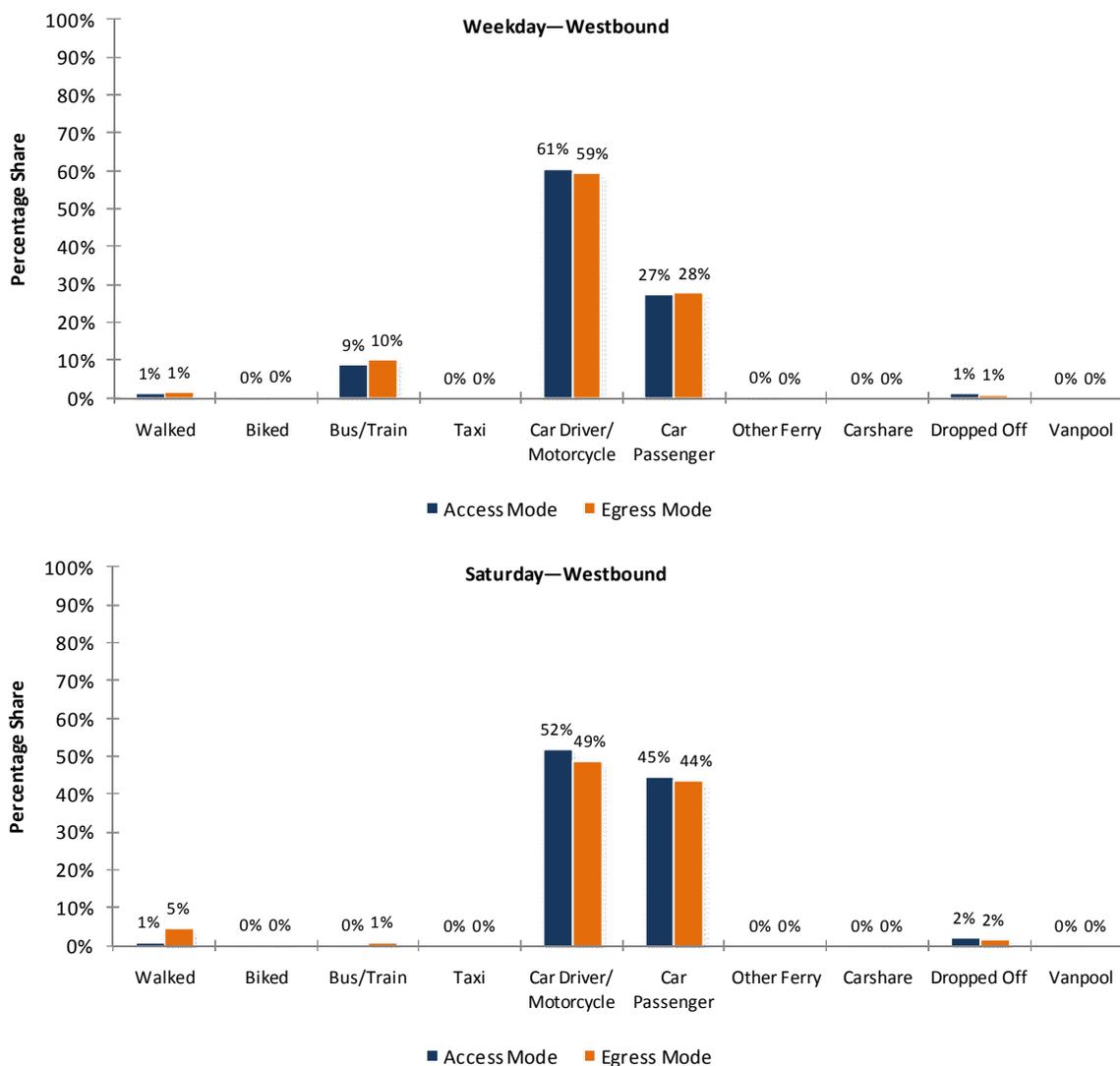
**Figure 5-4. North Sound Corridor round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.1.3 Access, Egress, and Boarding Modes

Figure 5-5 and Figure 5-6 show the access and egress modes for westbound and eastbound travel, respectively. As expected, a higher percentage of travelers access and egress the terminal by transit on the weekday compared with Saturdays. In contrast, a higher percentage of travelers access and egress the terminal as a car passenger on Saturdays (about 45 percent for both westbound and eastbound trips) compared with the weekday (28 percent westbound; about 32 percent eastbound).

**Figure 5-5. North Sound Corridor westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



**Figure 5-6. North Sound Corridor eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

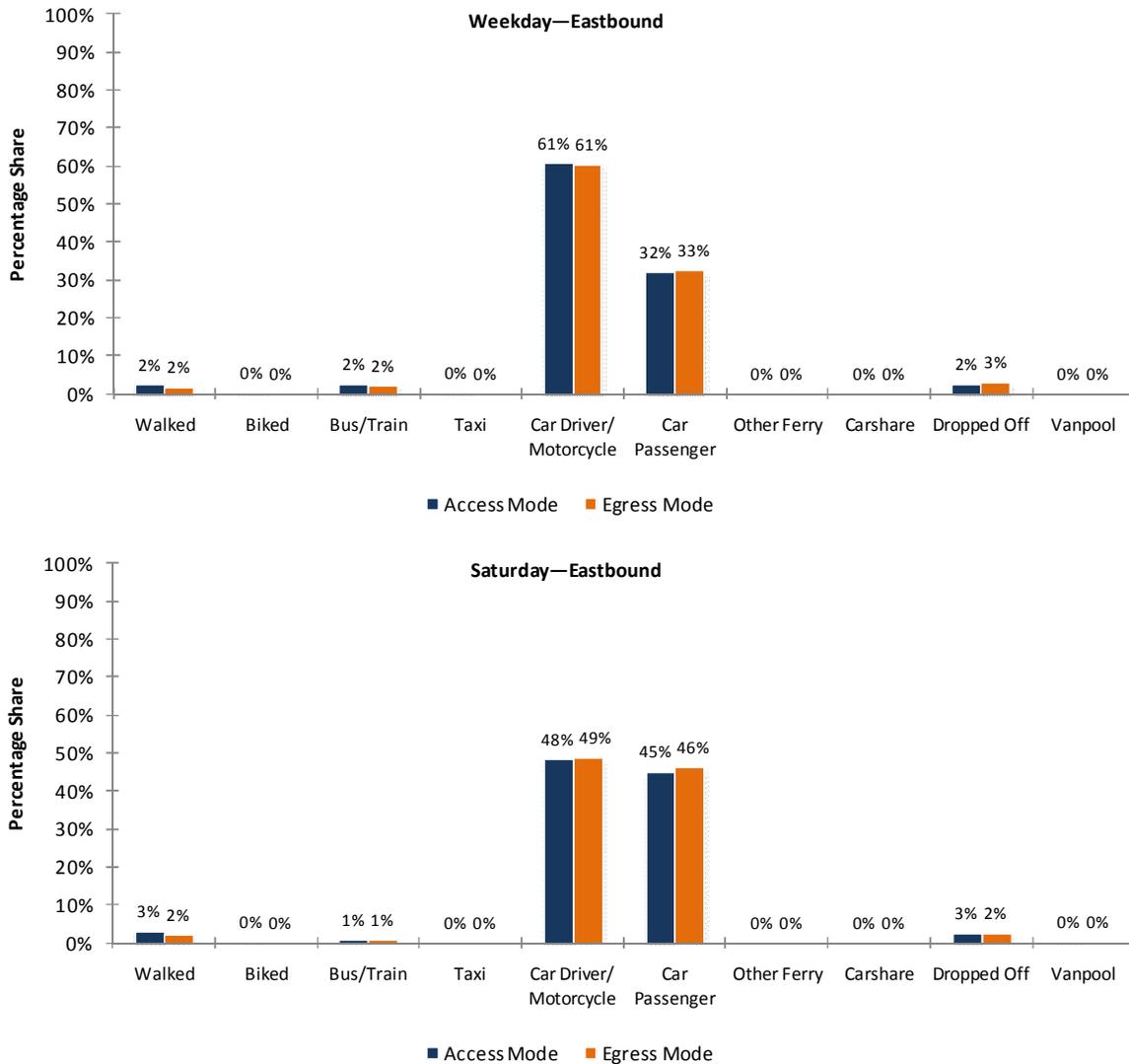


Table 5-2 and Table 5-3 show access and egress mode, respectively, by boarding method for weekday and Saturday, for both 2013 and 2006. There was a decrease in the percentage of survey respondents boarding in a vehicle in 2013 compared with 2006, with a corresponding increase in walk boardings. This trend was seen in both weekday and Saturday surveys.

Information on access mode to ferry, boarding method, and egress method from ferry for the weekday PM peak period, the weekday non-PM peak period, and Saturday are shown in Table 5-4, Table 5-5, and Table 5-6, respectively. More than half of those who walk on the ferry during the weekday PM peak period access and egress the ferry by transit, while the vast majority of walk-on boardings during the weekday non-PM peak period and Saturdays access and egress by vehicle.

**Table 5-2. North Sound Corridor access mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	100	0	100	1.7%	3.7%
Biked	0	0	16	16	0.3%	0.6%
Bus/Train	9	360	13	382	6.5%	4.0%
Taxi	0	2	0	2	0.0%	0.0%
Car Driver/Motorcycle	3,301	279	0	3,580	60.5%	64.4%
Car Passenger	1,656	69	0	1,725	29.2%	27.3%
Other Ferry	0	8	0	8	0.1%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	96	4	100	1.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>4,966</b>	<b>915</b>	<b>32</b>	<b>5,913</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	84.0%	15.5%	0.5%	100%		
2006 Distribution	86.2%	13.1%	0.7%	100%		
<b>Saturday</b>						
Walked	13	174	0	187	2.0%	1.0%
Biked	0	0	16	16	0.2%	0.2%
Bus/Train	0	46	0	46	0.5%	1.7%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	4,326	348	3	4,677	50.1%	63.9%
Car Passenger	4,014	169	3	4,186	44.8%	33.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	0	0	4	0.0%	
Dropped Off	0	218	0	218	2.3%	
Vanpool	0	10	0	10	0.1%	
<b>Total</b>	<b>8,357</b>	<b>965</b>	<b>23</b>	<b>9,345</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.4%	10.3%	0.2%	100%		
2006 Distribution	80.6%	18.0%	1.4%	100%		

**Table 5-3. North Sound Corridor egress mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	7	89	0	96	1.6%	3.1%
Biked	0	2	15	17	0.3%	0.4%
Bus/Train	9	391	11	411	6.9%	4.0%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	3,271	262	3	3,536	59.8%	65.3%
Car Passenger	1,680	63	4	1,747	29.5%	27.2%
Other Ferry	0	2	0	2	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	104	0	104	1.8%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>4,966</b>	<b>915</b>	<b>32</b>	<b>5,913</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	84.0%	15.5%	0.5%	100%		
2006 Distribution	86.3%	13.1%	0.7%	100%		
<b>Saturday</b>						
Walked	4	301	0	306	3.3%	3.0%
Biked	0	0	13	13	0.1%	0.4%
Bus/Train	0	75	0	75	0.8%	2.1%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	4,300	250	7	4,557	48.8%	55.0%
Car Passenger	4,049	138	3	4,191	44.8%	39.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	0	0	4	0.0%	
Dropped Off	0	193	0	193	2.1%	
Vanpool	0	7	0	7	0.1%	
<b>Total</b>	<b>8,357</b>	<b>965</b>	<b>23</b>	<b>9,345</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.4%	10.3%	0.2%	100%		
2006 Distribution	91.3%	8.4%	0.3%	100%		

**Table 5-4. North Sound Corridor access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (17.9% of total boardings)					
Pedestrian	6.3%	Pedestrian	96.9%	Pedestrian	8.8%
Bicycle	2.1%	Pedestrian w/ Bicycle	3.1%	Bicycle	1.1%
By Bus/Transit	51.4%			By Bus/Transit	51.4%
By Vehicle	40.1%			By Vehicle	38.7%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (82.1% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	65.3%	In-Vehicle	100.0%
		Vehicle Passengers	34.7%		

Note: Average vehicle occupancy (AVO) was 1.53 for the weekday PM peak period.

**Table 5-5. North Sound Corridor access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (13.1% of total boardings)					
Pedestrian	19.7%	Pedestrian	96.0%	Pedestrian	10.7%
Bicycle	0.7%	Pedestrian w/ Bicycle	4.0%	Bicycle	3.3%
By Bus/Transit	13.7%			By Bus/Transit	23.5%
By Vehicle	63.2%			By Vehicle	61.8%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	2.7%			Other Ferry	0.7%
In-Vehicle Boardings (86.9% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	68.6%	In-Vehicle	100.0%
		Vehicle Passengers	31.4%		

Note: Average vehicle occupancy (AVO) was 1.46 for the weekday non-PM peak period.

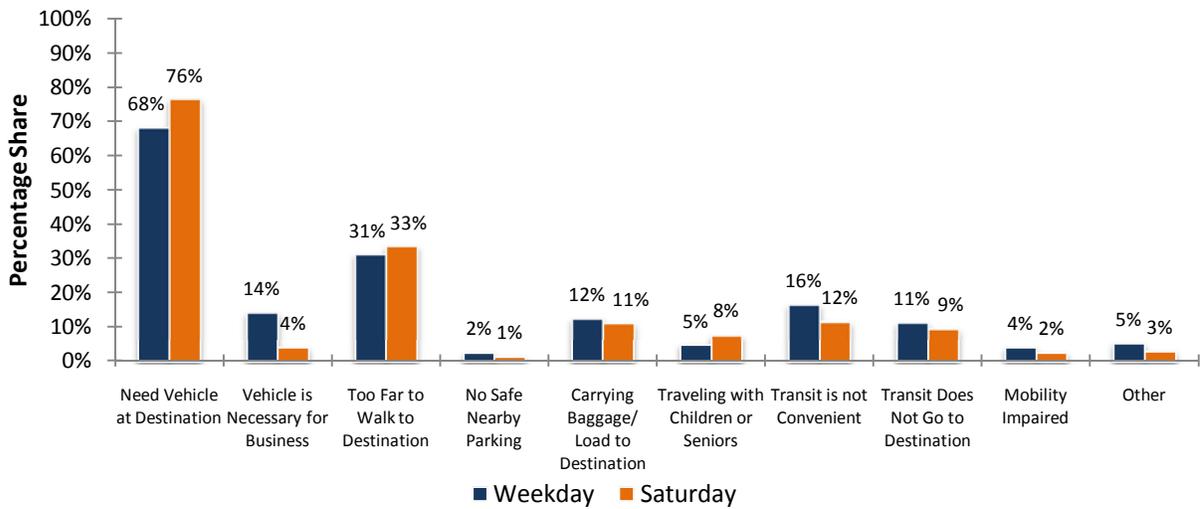
**Table 5-6. North Sound Corridor access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (10.6% of total boardings)</b>					
Pedestrian	17.6%	Pedestrian	97.7%	Pedestrian	30.5%
Bicycle	1.7%	Pedestrian w/ Bicycle	2.3%	Bicycle	1.3%
By Bus/Transit	4.6%			By Bus/Transit	7.6%
By Vehicle	75.0%			By Vehicle	59.9%
Vanpool	1.0%			Vanpool	0.7%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (89.4% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	51.9%	In-Vehicle	100.0%
		Vehicle Passengers	48.1%		

Note: Average vehicle occupancy (AVO) was 1.93 for the Saturday survey period.

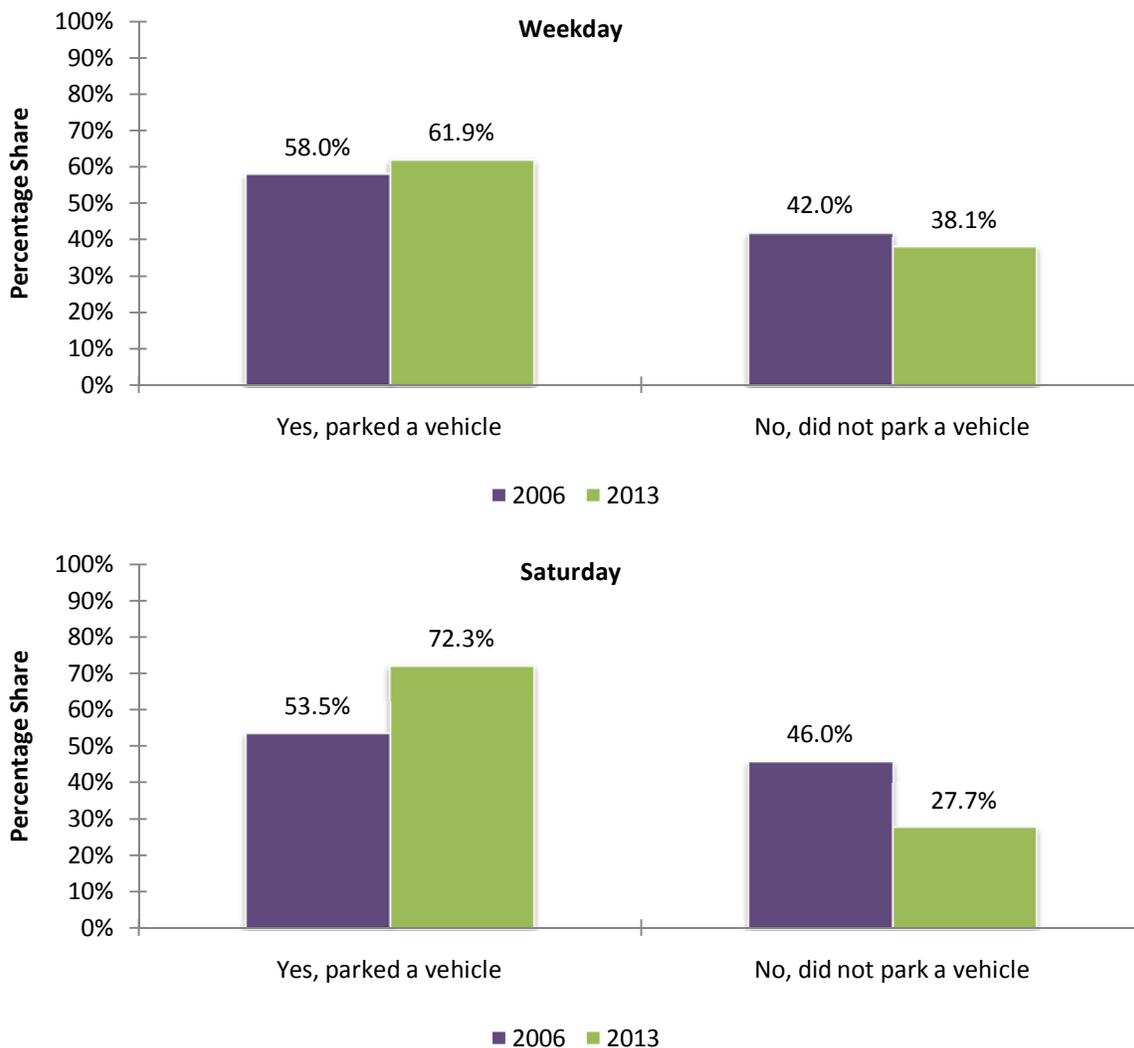
Figure 5-7 shows the distribution of reasons given for taking a vehicle onto the ferry. The majority of respondents indicated that they need the vehicle to reach their final destination. The next most common answer was that their final destination was too far to walk.

**Figure 5-7. North Sound Corridor reasons for taking a vehicle, weekday 8-hour and Saturday survey periods (2013)**



As shown in Figure 5-8, of weekday travelers who did not take a car on the ferry, 62 percent indicated that they had parked a vehicle at the terminal, an increase from 58 percent in 2006. A more dramatic increase was seen on Saturdays, with an increase from 54 percent to 73 percent for those who boarded without a car and parked at the terminal.

**Figure 5-8. North Sound Corridor non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.1.4 Other Travel Characteristics

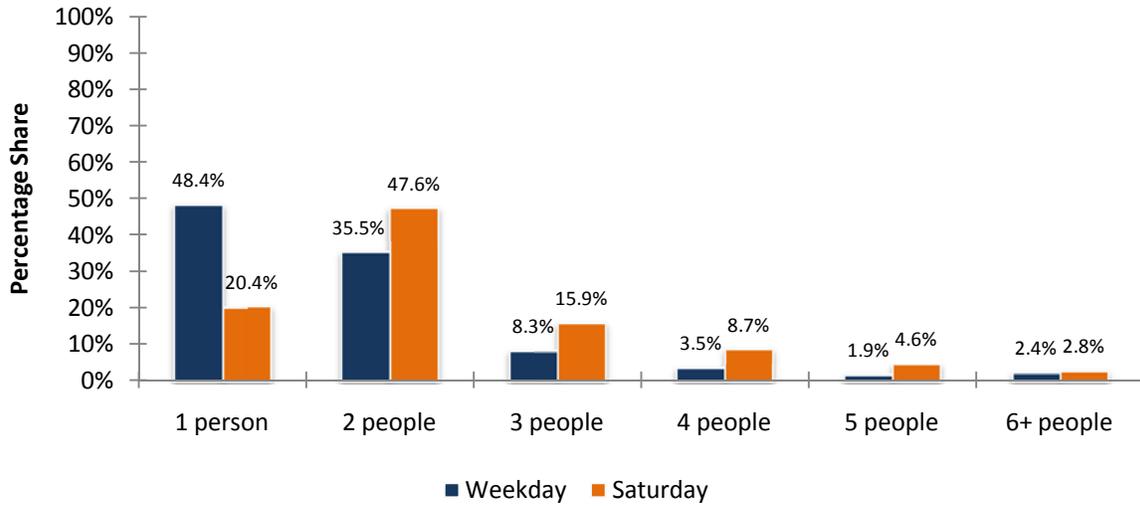
Table 5-7 shows the percentage of respondents who indicated that the sailing was their preferred option. Almost 90 percent of weekday travelers responded “yes,” compared with only 72 percent in 2006. Saturday respondents had similar responses in 2006 and 2013 (85 percent and 87 percent, respectively).

**Table 5-7. North Sound Corridor trips preferred sailing, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Preferred Sailing	Drive	Walk/Bike	Total	All Boardings	
				2013	2006
<b>Weekday</b>					
Yes	4,387	864	5,251	89.1%	71.6%
No, different departure time	526	83	609	10.3%	27.3%
No, different route	33	0	33	0.6%	1.1%
Total	4,946	947	5,893	100%	100%
2013 Distribution	83.9%	16.1%	100%		
2006 Distribution	85.9%	14.1%	100%		
<b>Saturday</b>					
Yes	7,139	966	8,105	87.0%	85.2%
No, different departure time	1,188	19	1,207	13.0%	13.7%
No, different route	0	0	0	0.0%	1.1%
Total	8,327	985	9,311	100%	100%
2013 Distribution	89.4%	10.6%	100%		
2006 Distribution	91.1%	8.9%	100%		

Figure 5-9 shows the distribution of party size for the weekday and Saturday. As expected, a much higher percentage of respondents traveled alone on the weekday (48 percent) compared with Saturdays (20 percent).

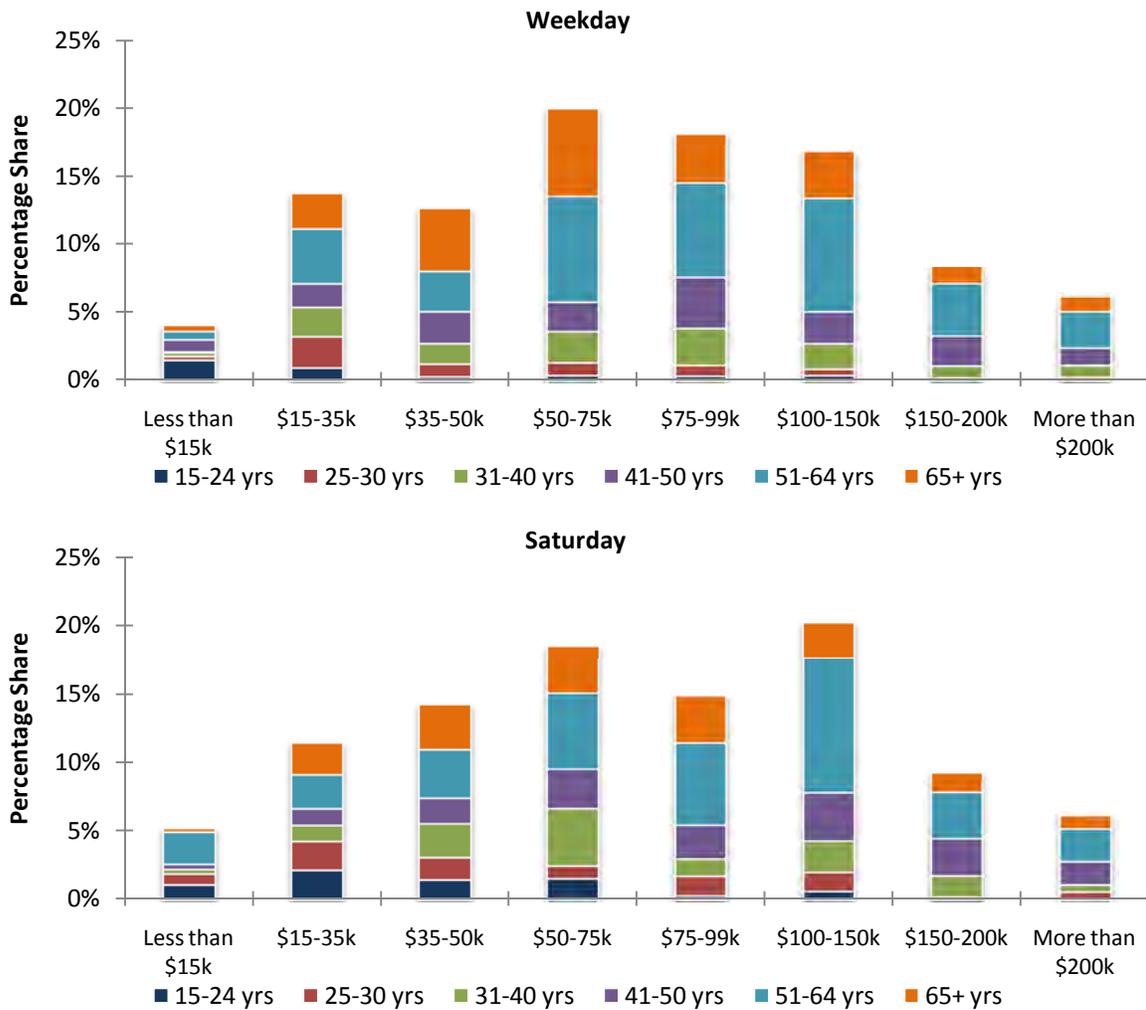
**Figure 5-9. North Sound Corridor party size, weekday 8-hour and Saturday survey periods (2013)**



### 5.1.5 Demographic Characteristics

Figure 5-10 presents the age and income of survey respondents for weekday and Saturday. For weekday survey responses, the age range for those earning less than \$15,000 is quite young, more than half of respondents 40 years or younger. Traveler age decreases as income increases up to about \$75,000, after which age ranges remain more stable. This trend is also seen for Saturdays, but less dramatic. Overall, the average age of travelers in the North Sound Corridor is 54 years old, and the average self-reported household income range is \$75,000 to \$100,000 per year.

**Figure 5-10. North Sound Corridor traveler age and income, weekday 8-hour and Saturday survey periods (2013)**



## 5.2 Mukilteo–Clinton

### 5.2.1 Route Description

The Mukilteo–Clinton route connects Mukilteo in Snohomish County to Clinton on the south end of Whidbey Island. The ferry crossing is 20 minutes one way and is approximately 2.3 nautical miles. For 2013, the annual total ridership was 1.8 million passengers plus 2.1 million vehicle drivers for a total of 3.9 million people, or about 10,700 riders per day. This compares to 11,200 riders day in 2006 and 12,100 riders per day in 1999.

The route is served by 37 sailings per day in each direction, the same number of sailings as in 2006. The fare in October 2013 for a vehicle 14 to 22 feet including driver was \$8.10. The full fare for passengers was \$4.75.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the 2006 survey data to identify trends in trip-making on this route.

### 5.2.2 Trips by Purpose

The trip purposes of ferry riders on the Mukilteo–Clinton route were cross-tabulated against the direction of the trip for weekday and Saturday. Table 5-8 shows three trip purposes (work/school, personal business/other, and recreation/shopping) for weekdays and Saturday, and includes a comparison with 2006 for all trip purposes. The highest percentage of weekday trips are work/school trips (45 percent), which is a decrease from 2006 when 54 percent of weekday trips were for work/school. On Saturdays, 69 percent of trips are for recreation/shopping, an increase from 56 percent in 2006.

**Table 5-8. Mukilteo–Clinton trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	657	488	735	1,880	36.0%	51.2%
Westbound	1,677	840	820	3,337	64.0%	48.8%
Total	2,334	1,328	1,555	5,217	100%	100%
2013 Distribution	44.7%	25.5%	29.8%	100%		
2006 Distribution	54.2%	23.1%	22.7%	100%		
<b>Saturday</b>						
Eastbound	332	910	2,421	3,662	48.9%	50.9%
Westbound	388	695	2,746	3,829	51.1%	40.1%
Total	720	1,604	5,167	7,491	100%	91%
2013 Distribution	9.6%	21.4%	69.0%	100%		
2006 Distribution	16.7%	27.4%	55.9%	100%		

### 5.2.3 Frequency of Travel

The total number of ferry trips and purpose in 2013 are shown in Table 5-9. For comparison, trip purposes are aggregated into three groups: work/school, personal business/other, and recreation/shopping. The trip frequency or number of one-way trips in a typical week also is aggregated into seven groups and cross-tabulated against the trip purpose for 2013. Compared with the Port Townsend–Coupeville route, this route has a higher frequency of use, with 38 percent of users making five or more trips in the past week. This is a decrease in frequency of use compared with 2006. Saturday riders are less frequent users compared with weekday, with 75 percent of users making only one or two trips in the past week.

**Table 5-9. Mukilteo–Clinton one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	233	339	773	1,345	27.2%	10.3%	10.7%	3.2%
2	205	291	280	776	15.7%	21.1%	9.4%	12.3%
3 to 4	249	405	300	954	19.3%	19.9%	11.4%	13.3%
5 to 6	314	146	96	556	11.2%	8.7%	14.4%	7.3%
7 to 8	360	43	15	418	8.5%	12.8%	16.5%	18.6%
9 to 10	444	9	16	470	9.5%	15.2%	20.4%	25.8%
11+	376	30	19	425	8.6%	12.0%	17.2%	19.4%
Total	2,181	1,263	1,499	4,943	100%	100%	100%	100%
2013 Distribution	44.1%	25.6%	30.3%	100%				
2006 Distribution	54.6%	23.4%	22.0%	100%				
<b>Saturday</b>								
1	197	829	3,170	4,196	59.4%	31.8%		
2	61	303	728	1,092	15.5%	26.2%		
3 to 4	67	192	565	825	11.7%	22.2%		
5 to 6	71	74	260	405	5.7%	4.9%		
7 to 8	43	44	60	146	2.1%	2.7%		
9 to 10	74	26	56	156	2.2%	6.5%		
11+	125	41	84	250	3.5%	5.7%		
Total	638	1,508	4,922	7,069	100%	100%		
2013 Distribution	9.0%	21.3%	69.6%	100%				
2006 Distribution	14.7%	31.0%	54.4%	100%				

### 5.2.4 Round-Trip Patterns

Figure 5-11 shows the percentage of survey respondents who indicated that they returned on the same day or some other day. The vast majority of riders on this route (81 percent) made the outbound and inbound legs of their journey on the same day, a slight increase from 78 percent in 2006. On Saturdays, more than 72 percent used this route on the same day for their round-trip, a decrease from 88 percent in 2006.

**Figure 5-11. Mukilteo–Clinton round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**

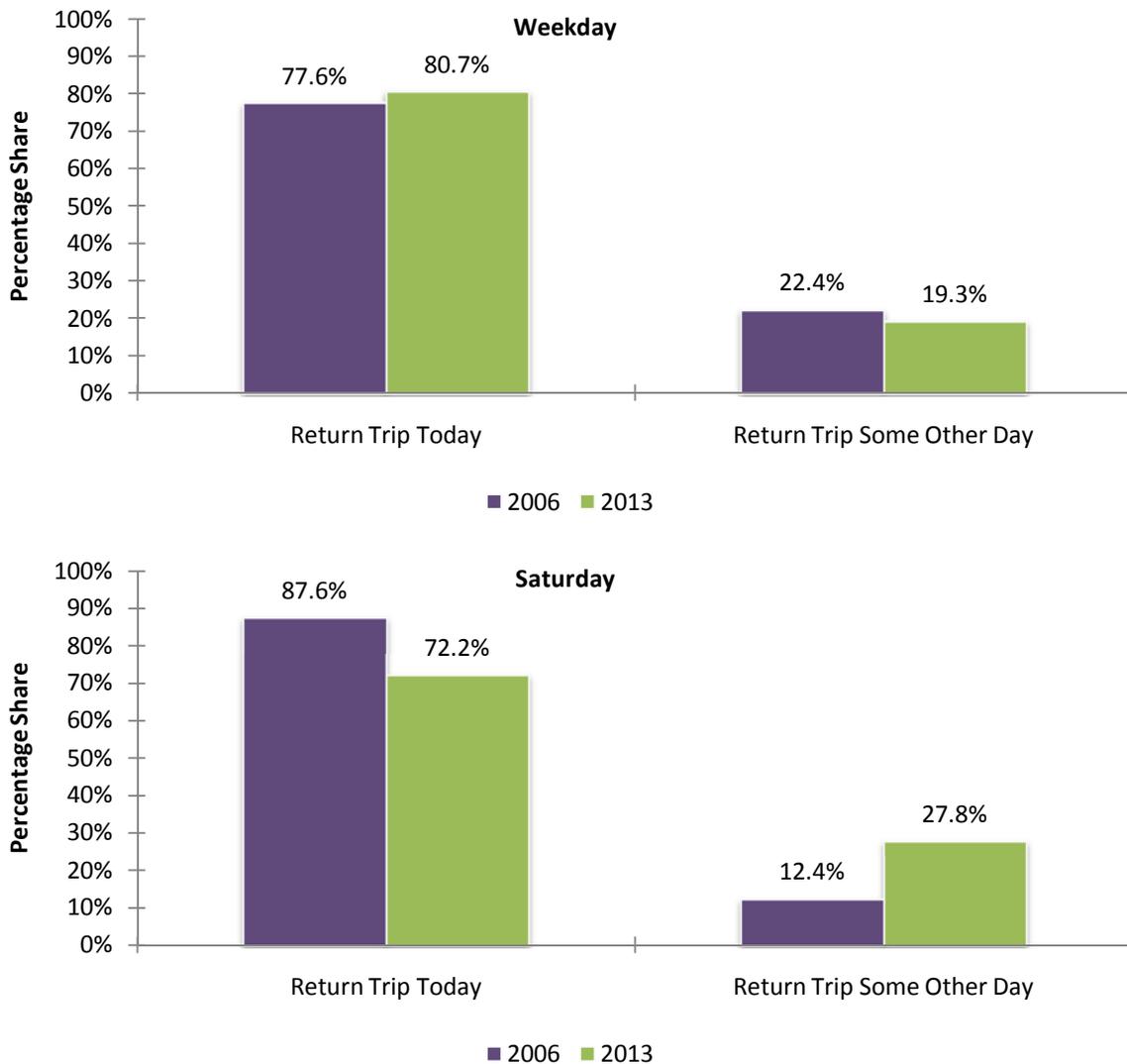
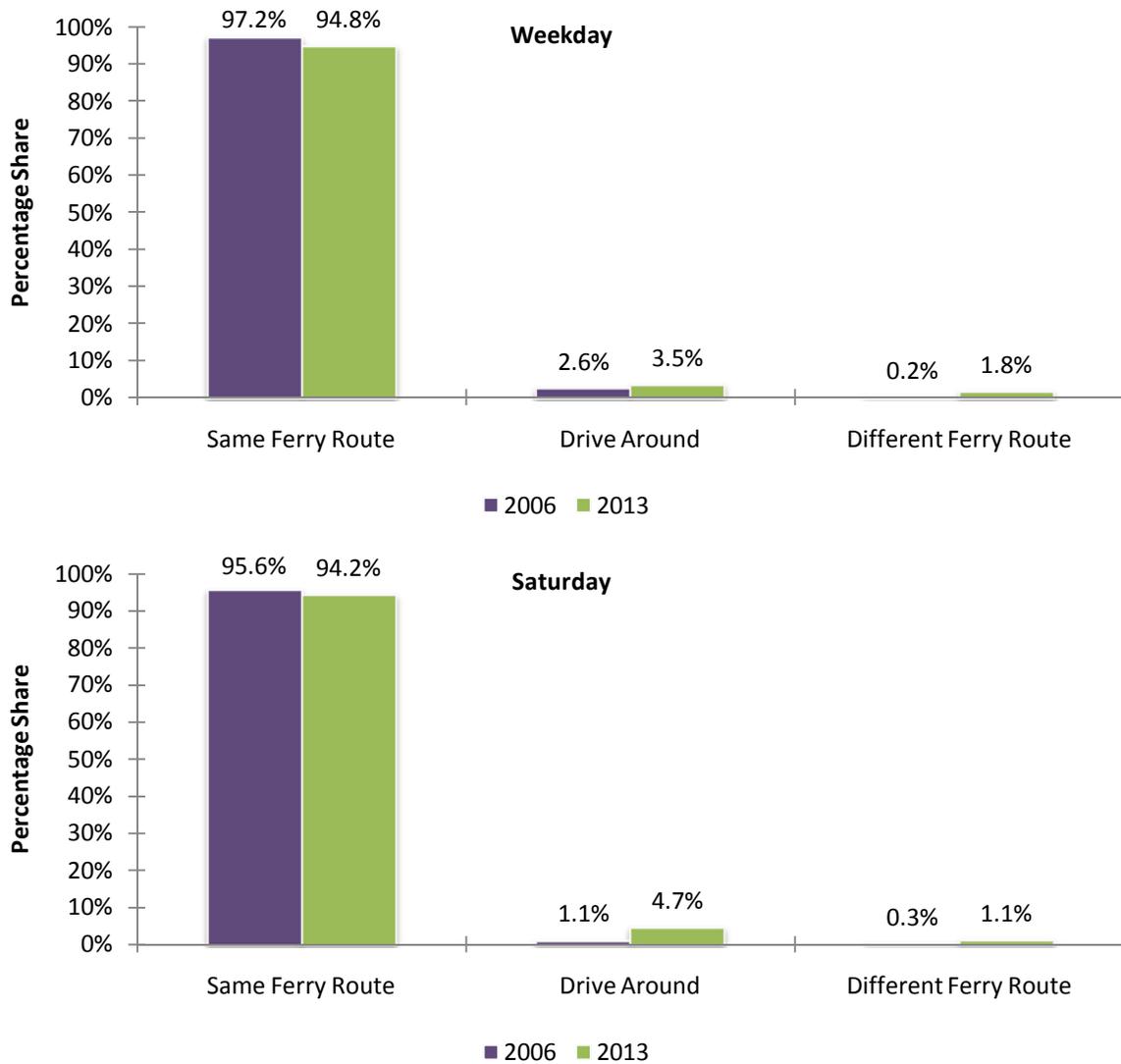


Figure 5-12 shows the mode of travel chosen by riders for the other half of their trip. The three modes were the same ferry route, drive around, and different ferry route. In 2013, 95 percent of weekday travelers said they would return on the same ferry route, a slight decrease from 97 percent in 2006. On Saturdays, the percentage of travelers returning on the same ferry route remained similar between 2006 and 2013 (96 percent versus 94 percent).

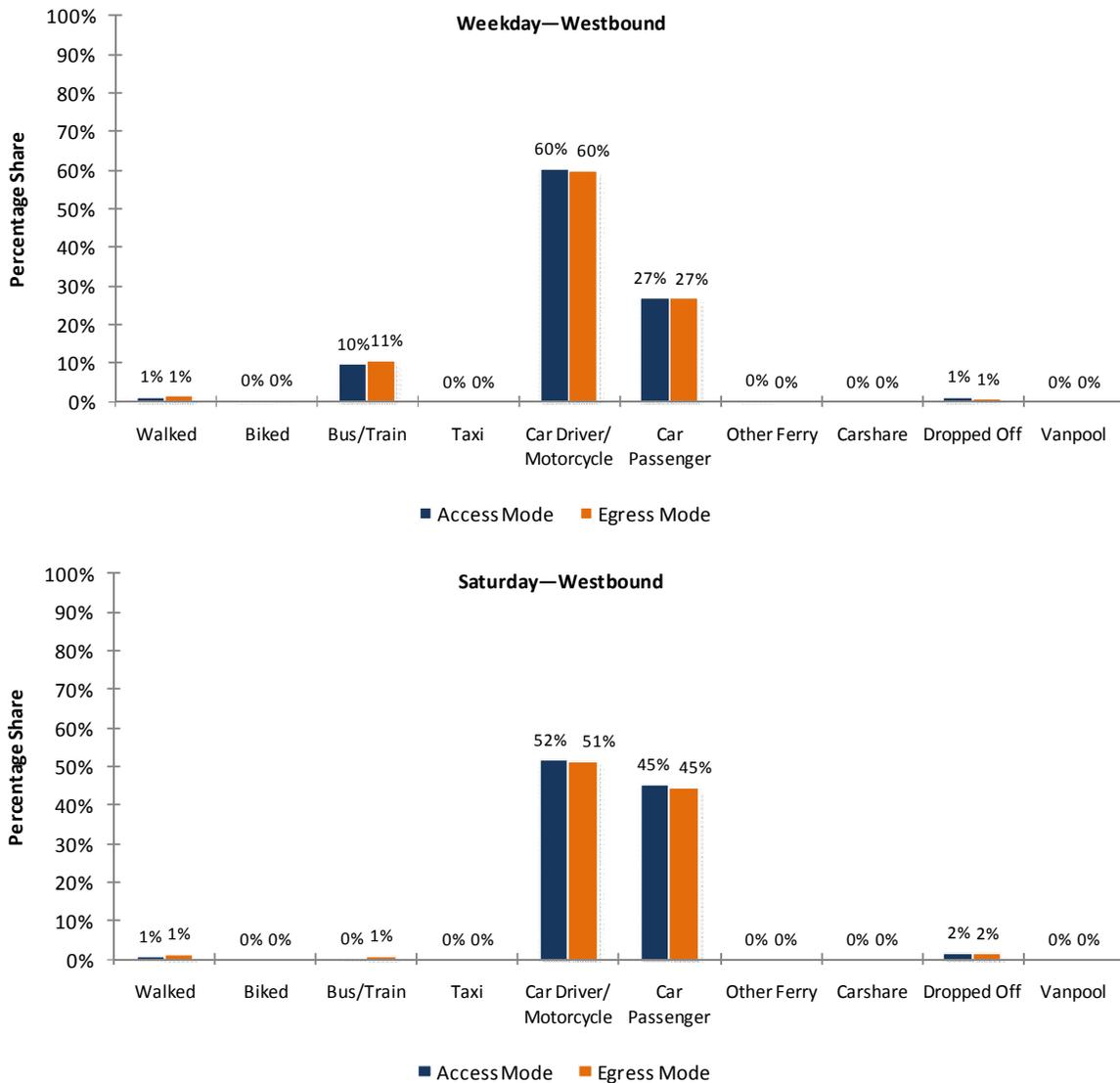
**Figure 5-12. Mukilteo–Clinton round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.2.5 Access, Egress, and Boarding Modes

The mode of travel to, from, and on this route was cross-tabulated to analyze the current mode choice behavior of ferry riders and to evaluate the change from 2006. Figure 5-13 and Figure 5-14 show the access and egress modes for westbound and eastbound travel, respectively. Car driver and passenger are the dominant access and egress modes, although for weekday westbound access and egress, about 10 percent of riders use transit to access/egress the terminal.

**Figure 5-13. Mukilteo–Clinton westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



**Figure 5-14. Mukilteo—Clinton eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

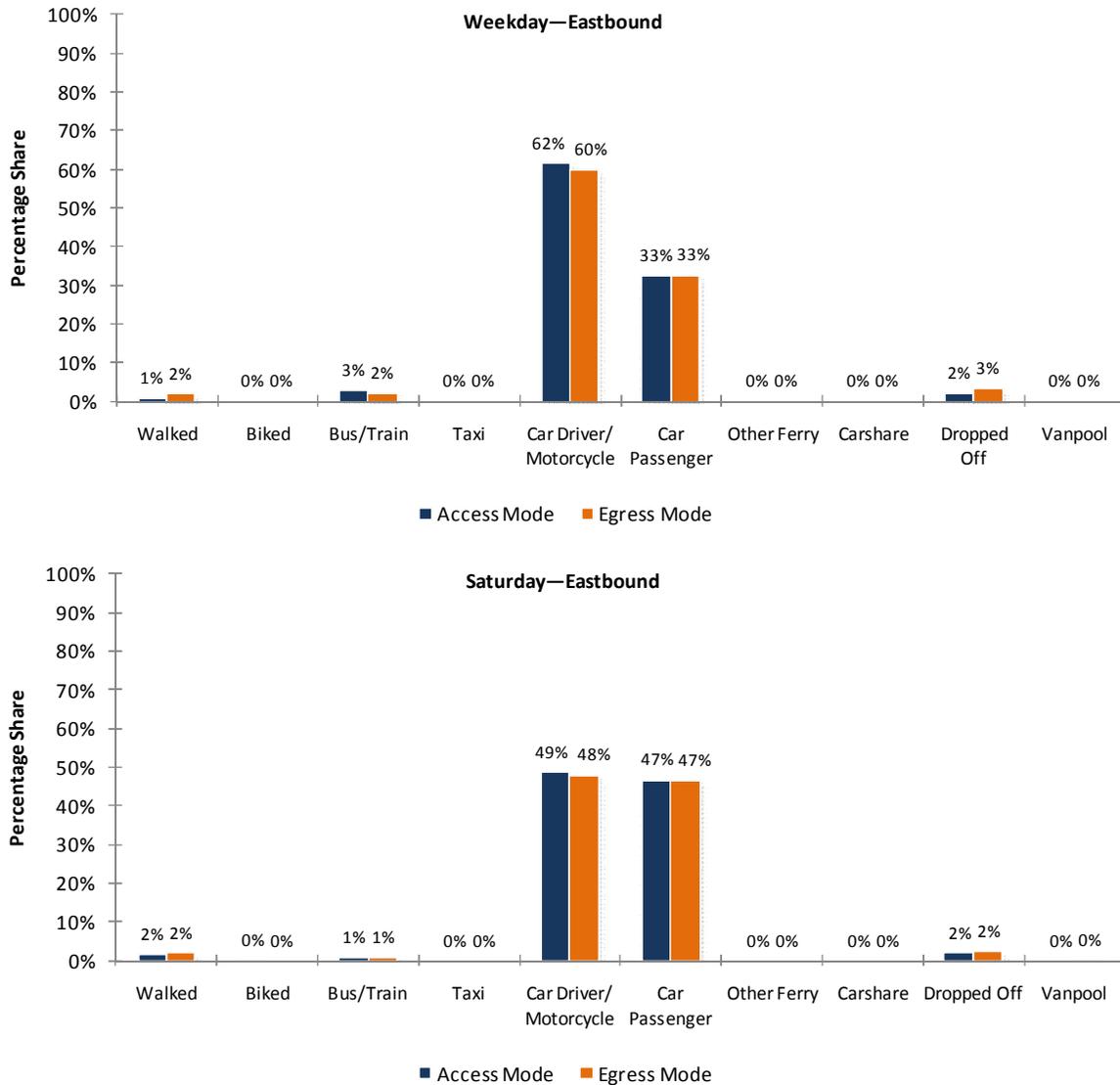


Table 5-10 shows the boarding mode and the corresponding access modes to the ferry terminal for weekday and Saturday, while Table 5-11 shows boarding and egress modes. Similar to 2006, about 84 percent of weekday boardings in 2013 were made in a vehicle, either as a driver or passenger. On Saturdays, vehicle boardings remained the dominant boarding with 92 percent, similar to 2006.

Information on access mode to ferry, boarding method, and egress method from ferry for the weekday PM peak period, the weekday non-PM peak period, and Saturday are shown in Table 5-12, Table 5-13, and Table 5-14, respectively. The majority of those who walk on the ferry during the weekday PM peak period access and egress the ferry by transit, while the majority of walk-on boardings during weekday non-PM peak periods and Saturdays access and egress the terminal by vehicle.

**Table 5-10. Mukilteo–Clinton access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	63	0	63	1.2%	4.1%
Biked	0	0	9	9	0.2%	0.5%
Bus/Train	9	353	11	373	7.2%	4.5%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	2,910	260	0	3,170	60.8%	64.3%
Car Passenger	1,451	60	0	1,510	29.0%	26.5%
Other Ferry	0	8	0	8	0.2%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	79	4	83	1.6%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>4,370</b>	<b>823</b>	<b>24</b>	<b>5,217</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.8%	15.8%	0.5%	100%		
2006 Distribution	85.5%	14.0%	0.5%	100%		
<b>Saturday</b>						
Walked	7	81	0	88	1.2%	1.0%
Biked	0	0	7	7	0.1%	0.2%
Bus/Train	0	43	0	43	0.6%	2.0%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	3,556	205	0	3,761	50.2%	64.7%
Car Passenger	3,328	127	0	3,455	46.1%	32.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	138	0	138	1.8%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>6,891</b>	<b>593</b>	<b>7</b>	<b>7,491</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	92.0%	7.9%	0.1%	100%		
2006 Distribution	91.8%	8.2%	0.0%	100%		

**Table 5-11. Mukilteo–Clinton egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	7	79	0	85	1.6%	3.4%
Biked	0	0	11	11	0.2%	0.3%
Bus/Train	5	389	9	403	7.7%	4.7%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	2,900	221	0	3,121	59.8%	65.5%
Car Passenger	1,458	46	4	1,508	28.9%	26.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	89	0	89	1.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>4,370</b>	<b>823</b>	<b>24</b>	<b>5,217</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	83.8%	15.8%	0.5%	100%		
2006 Distribution	85.5%	14.0%	0.5%	100%		
<b>Saturday</b>						
Walked	0	121	0	121	1.6%	1.8%
Biked	0	0	0	0	0.0%	0.0%
Bus/Train	0	69	0	69	0.9%	2.5%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	3,555	169	7	3,731	49.8%	55.6%
Car Passenger	3,336	78	0	3,414	45.6%	40.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	150	0	150	2.0%	
Vanpool	0	7	0	7	0.1%	
<b>Total</b>	<b>6,891</b>	<b>593</b>	<b>7</b>	<b>7,491</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	92.0%	7.9%	0.1%	100%		
2006 Distribution	92.1%	7.9%	0.0%	100%		

**Table 5-12. Mukilteo–Clinton trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (18.3% of total boardings)					
Pedestrian	5.6%	Pedestrian	97.4%	Pedestrian	9.1%
Bicycle	1.5%	Pedestrian w/ Bicycle	2.6%	Bicycle	0.5%
By Bus/Transit	54.5%			By Bus/Transit	55.2%
By Vehicle	38.4%			By Vehicle	35.2%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (81.7% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	65.5%	In-Vehicle	100.0%
		Vehicle Passengers	34.5%		

Note: Average vehicle occupancy (AVO) was 1.54 for the weekday PM peak period.

**Table 5-13. Mukilteo–Clinton trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (12.8% of total boardings)					
Pedestrian	11.8%	Pedestrian	96.7%	Pedestrian	9.8%
Bicycle	0.0%	Pedestrian w/ Bicycle	3.3%	Bicycle	3.3%
By Bus/Transit	15.1%			By Bus/Transit	26.9%
By Vehicle	69.8%			By Vehicle	60.1%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	3.3%			Other Ferry	0.0%
In-Vehicle Boardings (87.2% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	68.9%	In-Vehicle	100.0%
		Vehicle Passengers	31.1%		

Note: Average vehicle occupancy (AVO) was 1.44 for the weekday non-PM peak period.

**Table 5-14. Mukilteo–Clinton trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

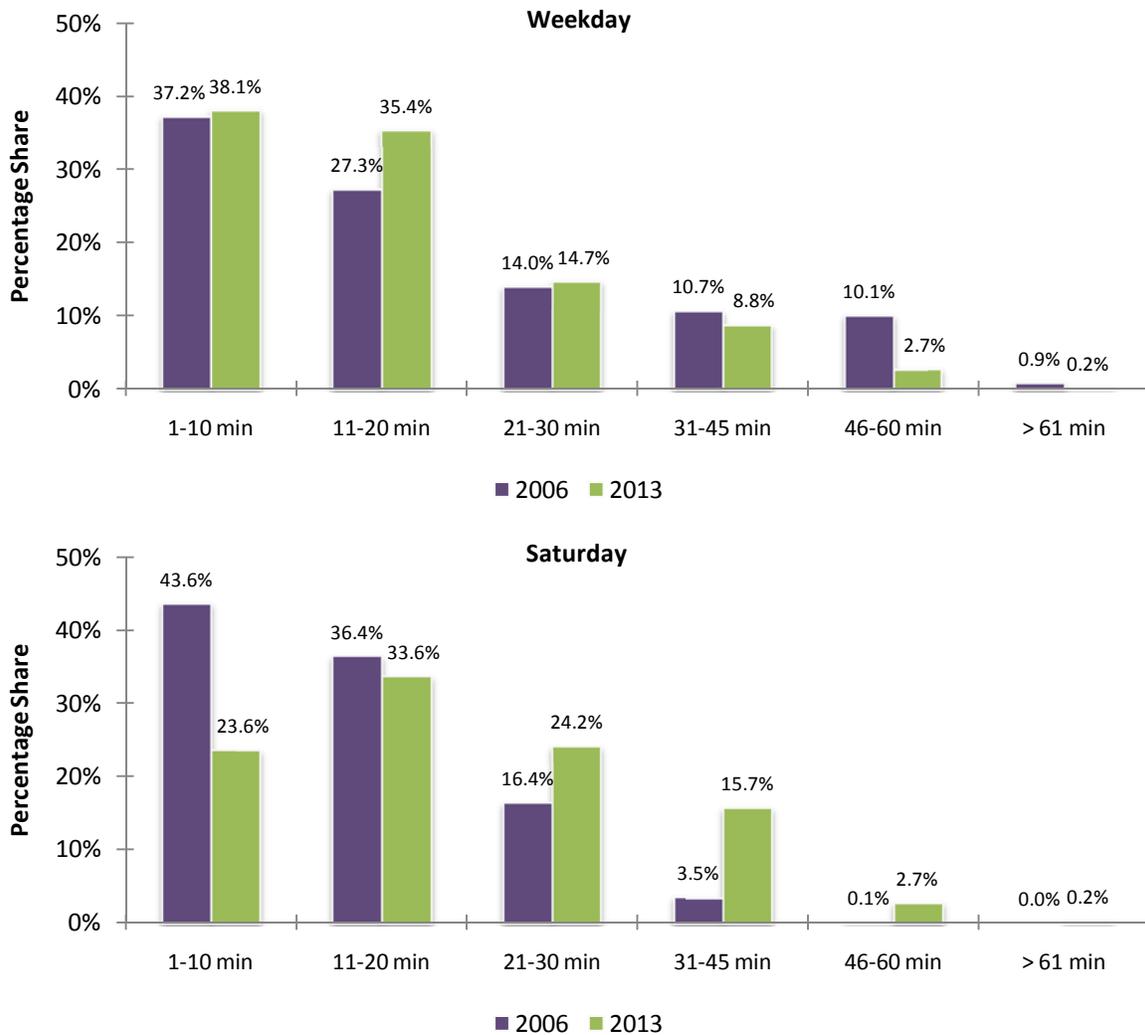
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (8.0% of total boardings)					
Pedestrian	13.4%	Pedestrian	98.9%	Pedestrian	20.1%
Bicycle	1.1%	Pedestrian w/ Bicycle	1.1%	Bicycle	0.0%
By Bus/Transit	7.1%			By Bus/Transit	11.5%
By Vehicle	78.3%			By Vehicle	67.3%
Vanpool	0.0%			Vanpool	1.1%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (92.0% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	51.6%	In-Vehicle	100.0%
		Vehicle Passengers	48.4%		

Note: Average vehicle occupancy (AVO) 1.93 for the Saturday survey period.

## 5.2.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 5-15 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 38 percent of weekday ferry passengers waited for 10 minutes or less, similar to 2006. Meanwhile, the percentage of passengers who waited more than 45 minutes dropped from 11 percent to 3 percent.

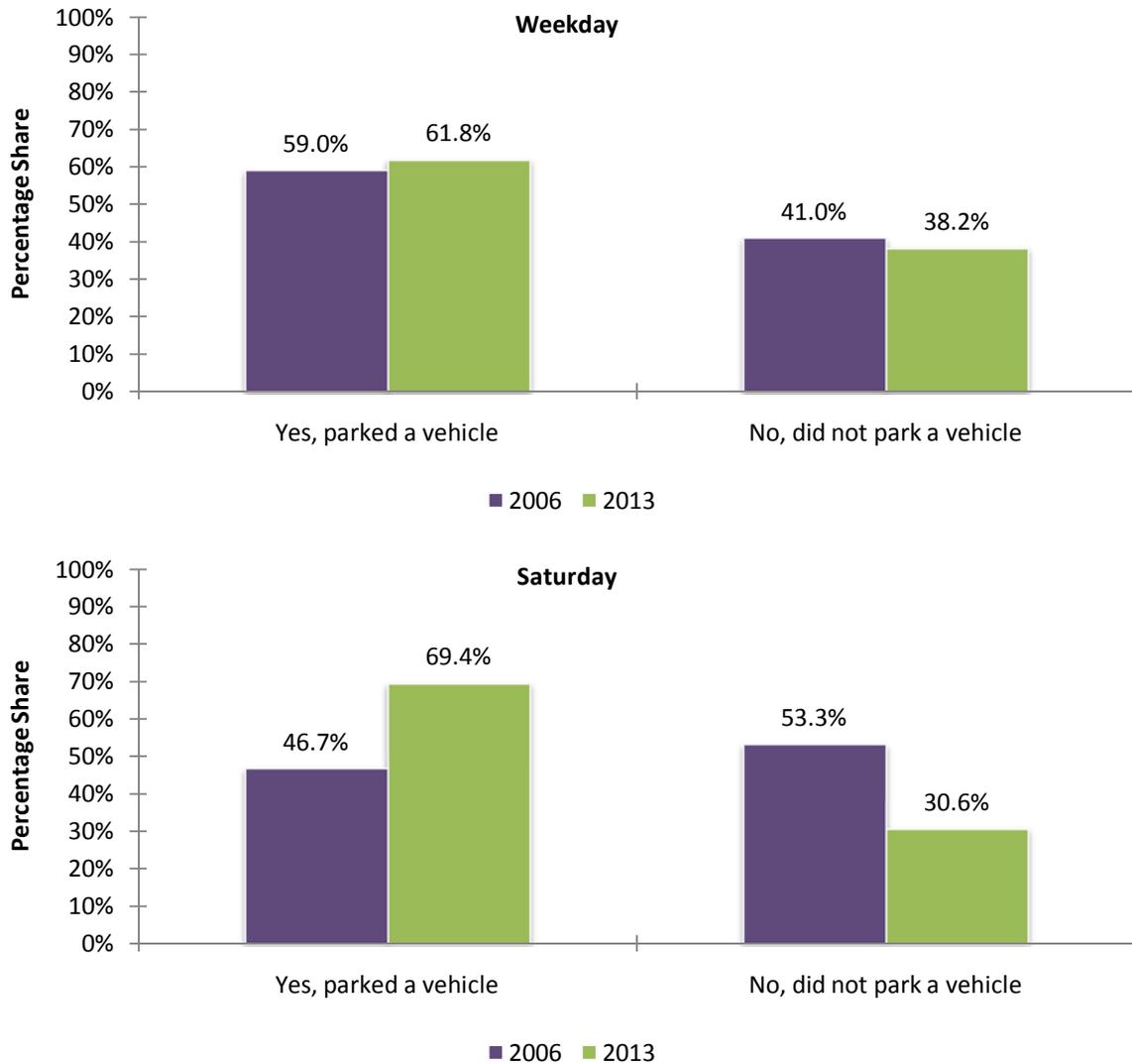
**Figure 5-15. Mukilteo–Clinton trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.2.7 Parking

Figure 5-16 presents the percentage of pedestrian/bicycle-boarding riders who parked or did not park a vehicle at the terminal. About 62 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, a slight increase from 59 percent in 2006. On Saturdays, those who parked a vehicle increased from 47 percent to 69 percent.

**Figure 5-16. Mukilteo–Clinton non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**

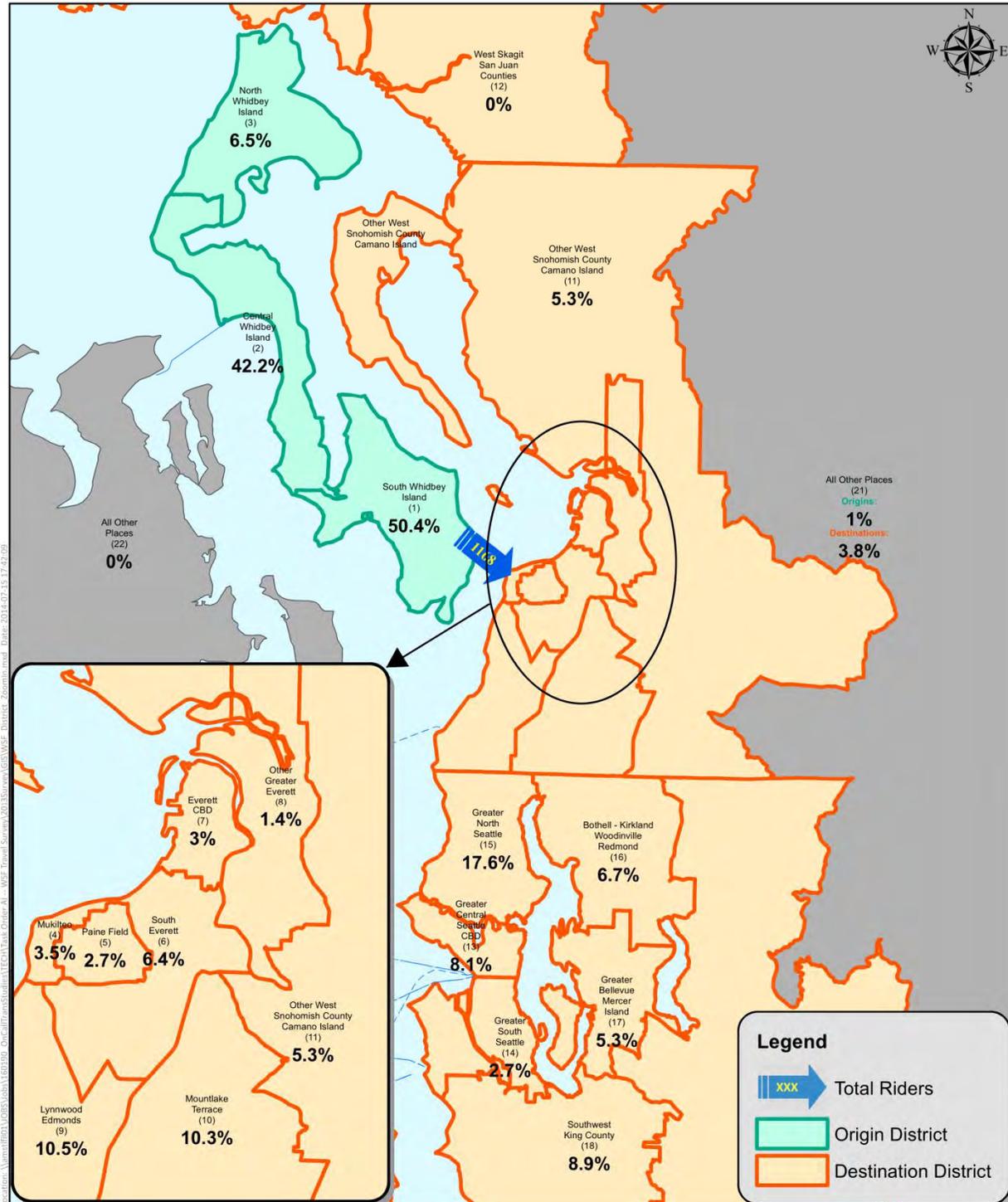


### 5.2.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 5-17 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 5-15. The major origins are South and Central Whidbey Island, while the major destinations are Greater North Seattle,

Lynnwood/Edmonds, and Mountlake Terrace. Origin and destination locations by boarding mode are shown in Figure 5-18. Origin and destination locations are dispersed.

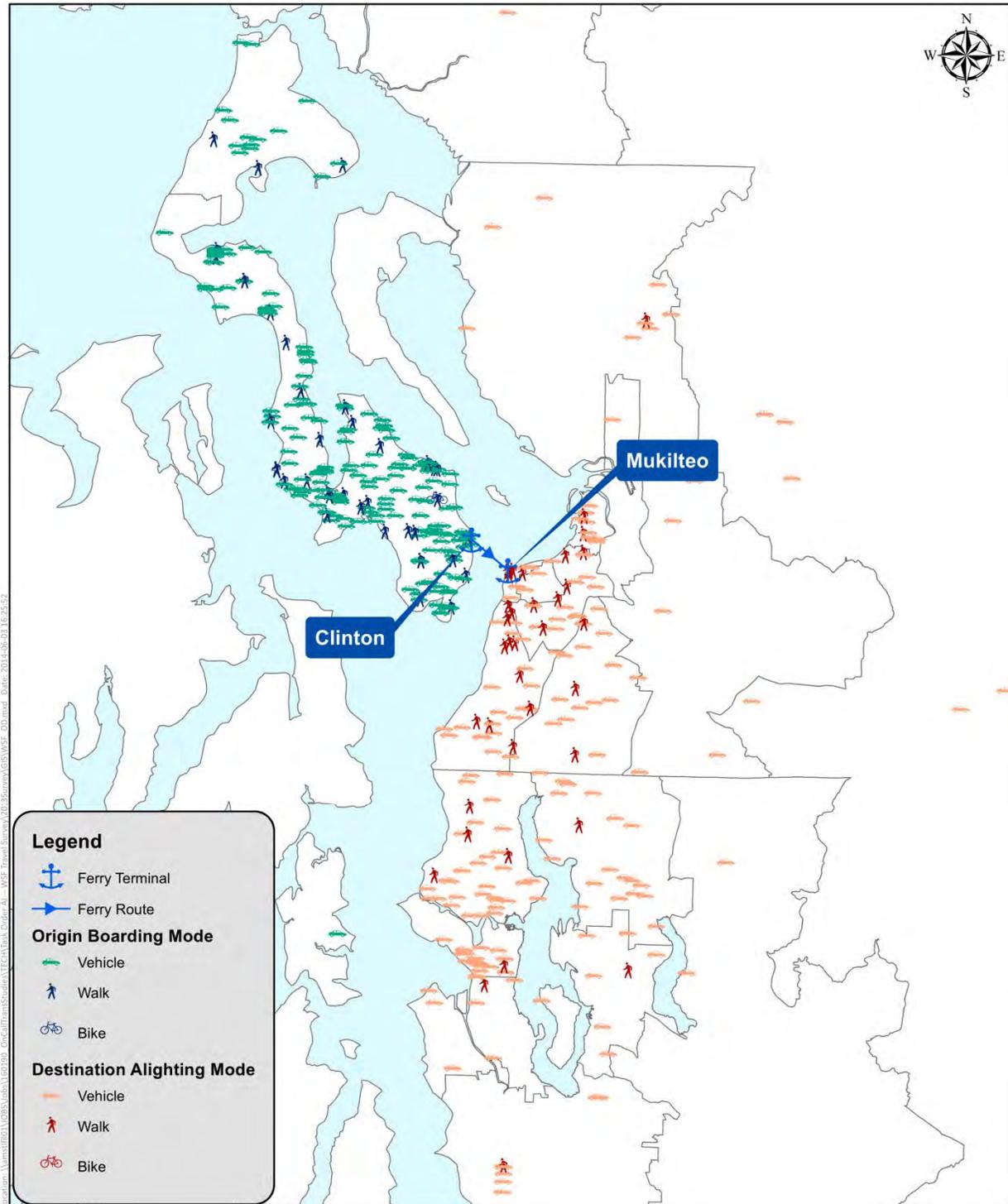
**Figure 5-17. Mukilteo–Clinton eastbound origin and destination districts, weekday PM peak period**



**Table 5-15. Mukilteo–Clinton eastbound boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►		Mukilteo	Paine Field	S Everett	Everett CBD	Other Greater Everett	Lynnwood / Edmonds	Mountlake Terrace	Other W Snohomish Co. / Camano Island	Greater Central Seattle / CBD	Greater S Seattle	Greater N Seattle	Bothell - Kirkland / Woodinville / Redmond	Greater Bellevue / Mercer Island	SW King County	Other W King County	Pierce / Thurston Counties	All Other Places	Origin Total	Origin Percent Share
				4	5	6	7	8	9	10	11	13	14	15	16	17	18	19	20	21		
S Whidbey Is	1	20	28	22	26	16	70	61	29	64	22	61	52	25	36			24	33		589	50.4%
Central Whidbey Is	2	16	4	48	9		29	54	32	26	10	129	10	37	57	11	10	11			493	42.2%
N Whidbey Is	3	5		5			24	5		5		16	16								76	6.5%
All Other Places	21														11						11	1.0%
Destination Total		40	31	74	35	16	122	120	62	95	31	206	78	62	104	11	34	45			1,168	100%
Destination Percent Share		3.5%	2.7%	6.4%	3.0%	1.4%	10.5%	10.3%	5.3%	8.1%	2.7%	17.6%	6.7%	5.3%	8.9%	1.0%	2.9%	3.8%			100.0%	

Figure 5-18. Mukilteo–Clinton eastbound origin and destination locations by boarding mode, weekday 8-hour survey period

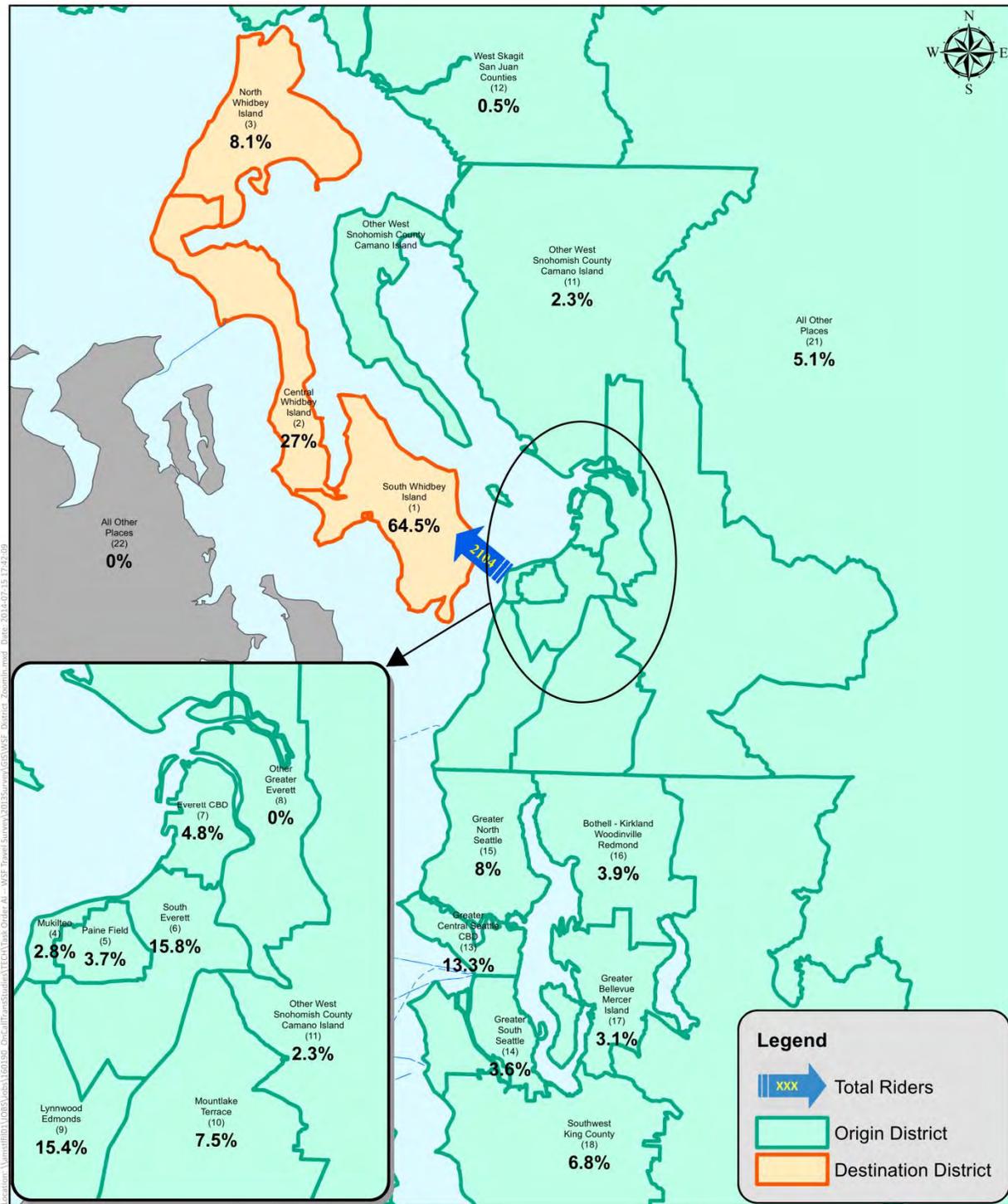


### 5.2.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 5-19 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 5-16. The major origins are South Everett, Lynnwood/Edmonds, and Greater Central Seattle/CBD, while the major destinations are South and Central Whidbey Island. Figure 5-20 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, a smaller percentage of trips originate in the Everett Central Business District (CBD) compared with 2006, while a larger percentage of trips end in North Whidbey Island.

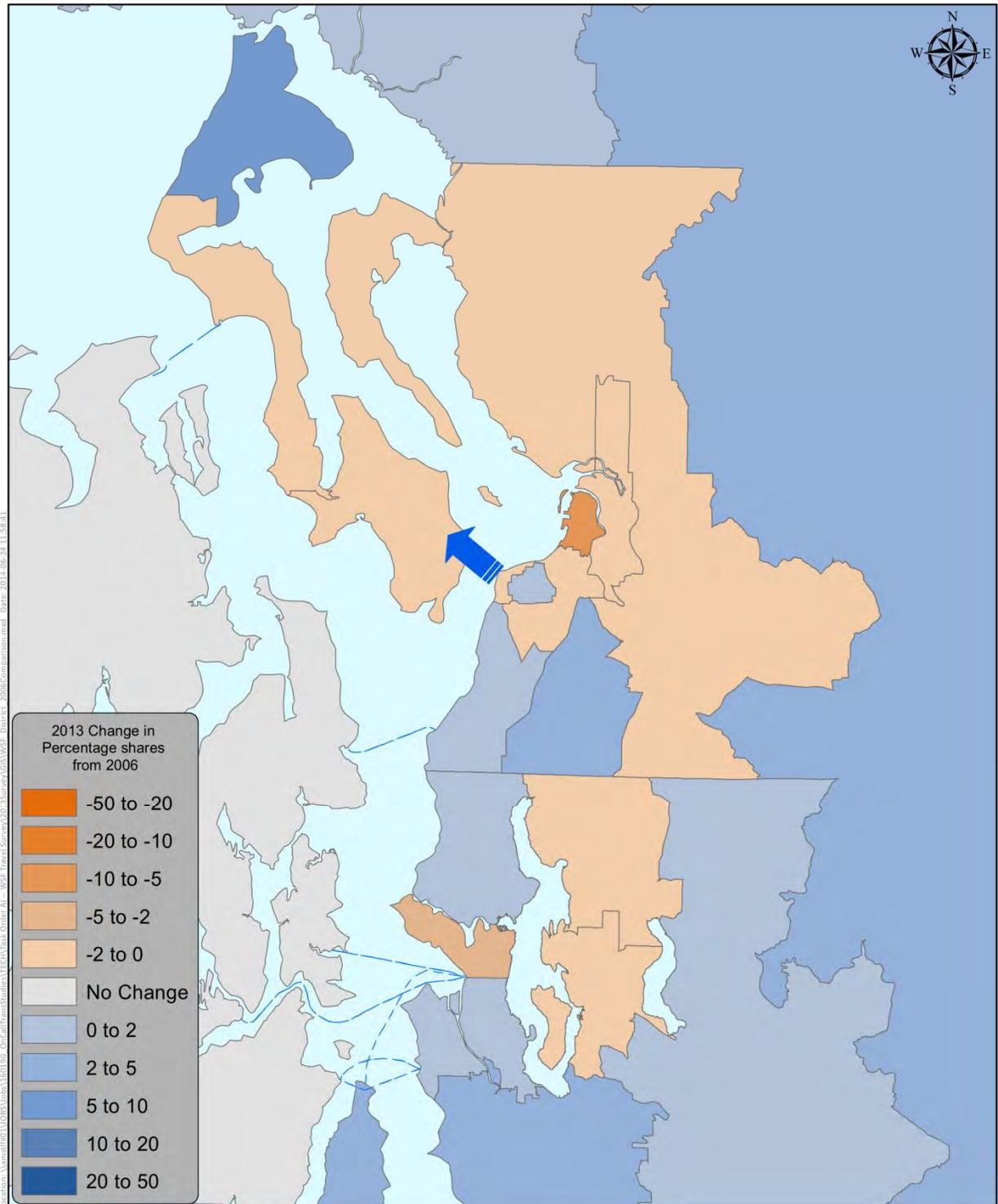
Origin and destination locations by boarding mode are shown in Figure 5-21. Walk-on boarding origins are concentrated in the Seattle CBD and in South Everett, while destinations are concentrated near the Clinton ferry terminal.

Figure 5-19. Mukilteo–Clinton westbound origin and destination districts, weekday PM peak period



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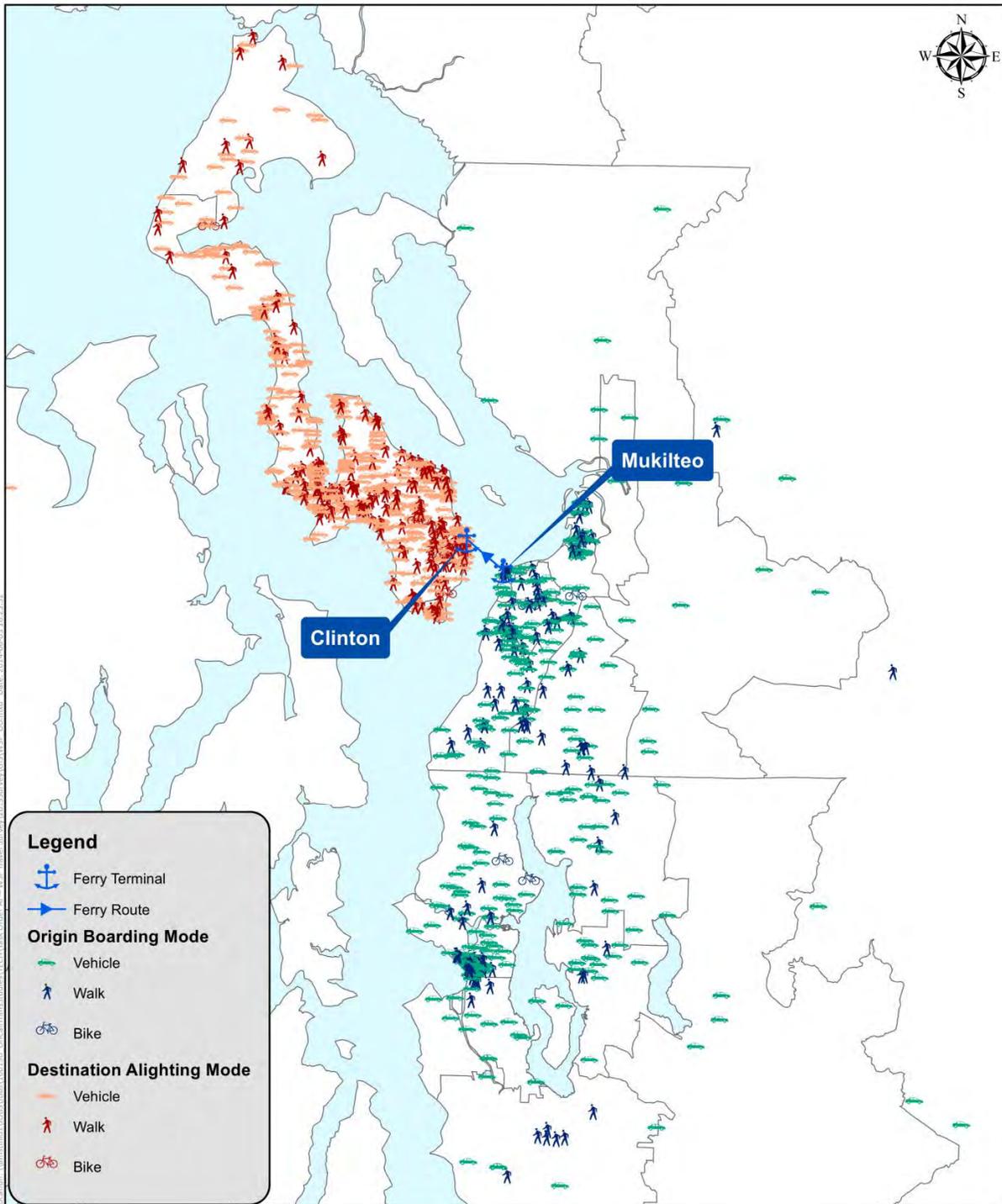
Figure 5-20. Mukilteo–Clinton change in westbound travel patterns from 2006, weekday PM peak period



**Table 5-16. Mukilteo–Clinton westbound boardings by origin and destination district, weekday PM peak period**

Origin District ▼ \ Destination District ▶		South Whidbey Island	Central Whidbey Island	North Whidbey Island	Pierce/Thurston County	Origin Total	Origin Percent Share		
		1	2	3	20				
Origin District	Mukilteo	4	43	3	3	10	59	2.8%	
	Paine Field	5	52	25			77	3.7%	
	S Everett	6	267	63	3		332	15.8%	
	Everett CBD	7	58	43			102	4.8%	
	Lynnwood / Edmonds	9	222	66	37		324	15.4%	
	Mountlake Terrace	10	82	56	19		158	7.5%	
	Other W Snohomish Co. / Camano Is.	11	25	9	15		49	2.3%	
	W Skagit / San Juan Counties	12		10			10	0.5%	
	Greater Central Seattle / CBD	13	190	81	9		280	13.3%	
	Greater S Seattle	14	62	13			75	3.6%	
	Greater N Seattle	15	115	41	13		169	8.0%	
	Bothell - Kirkland / Woodinville / Redmond	16	46	32	4		82	3.9%	
	Greater Bellevue / Mercer Island	17	52	9	3		64	3.1%	
	SW King County	18	52	32	59		144	6.8%	
	Other W King County	19	4	30			34	1.6%	
	Pierce / Thurston Counties	20	9	28			37	1.8%	
	All Other Places	21	76	27	4		108	5.1%	
	Destination Total			1,357	567	170	10	2,104	100%
	Destination Percent Share			64.5%	27.0%	8.1%	0.5%	100.0%	

**Figure 5-21. Mukilteo–Clinton westbound origin and destination locations by boarding mode, weekday 8-hour survey period**

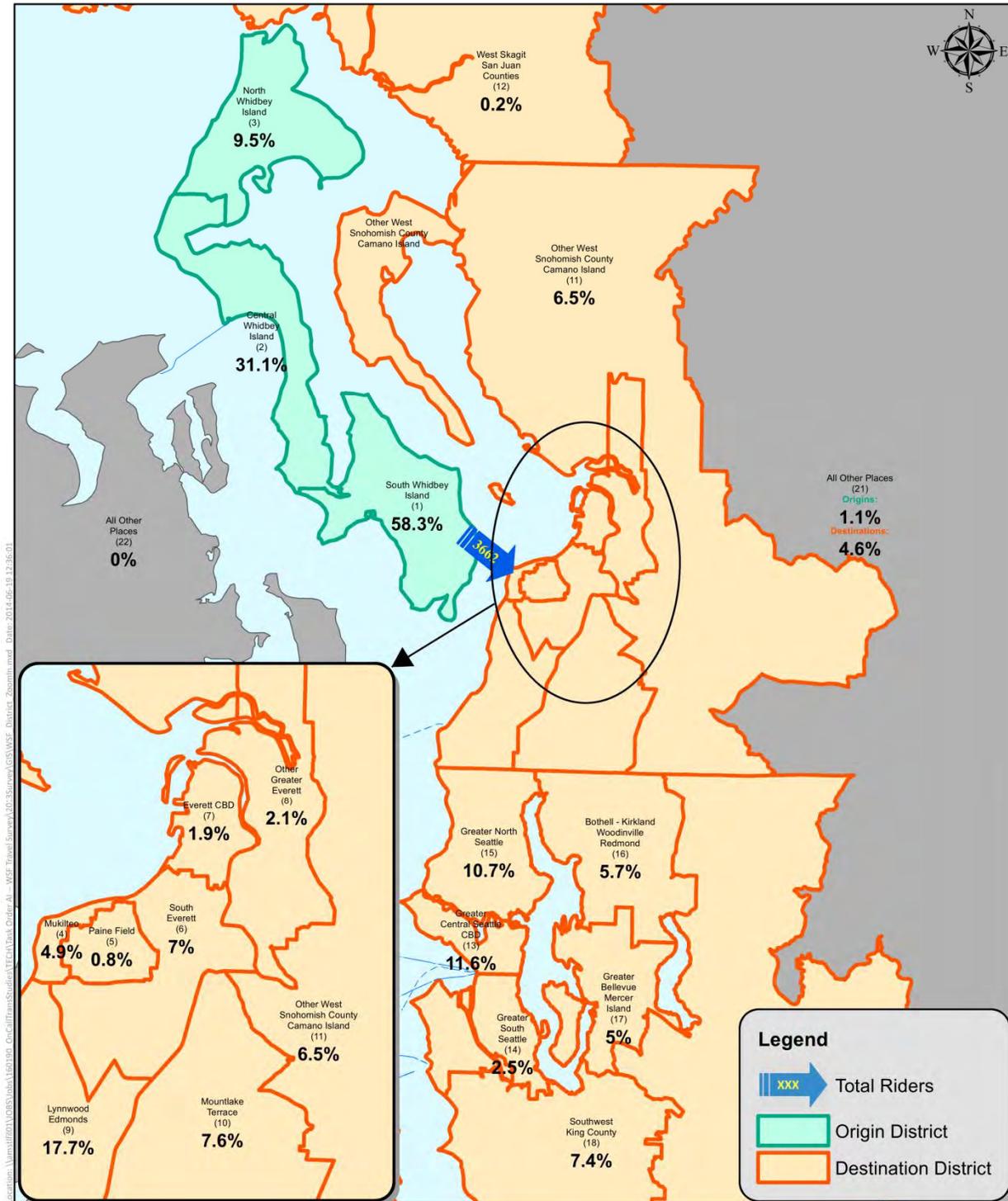


**5.2.10 Saturday Travel Patterns—Eastbound**

Figure 5-22 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 5-17. The major origins are South and Central

Whidbey Island, while the major destinations are Lynnwood/Edmonds, Greater Central Seattle/CBD, and Greater North Seattle. Origin and destination locations by boarding mode are shown in Figure 5-23. Both origin and destination locations are generally less concentrated compared with weekday trips.

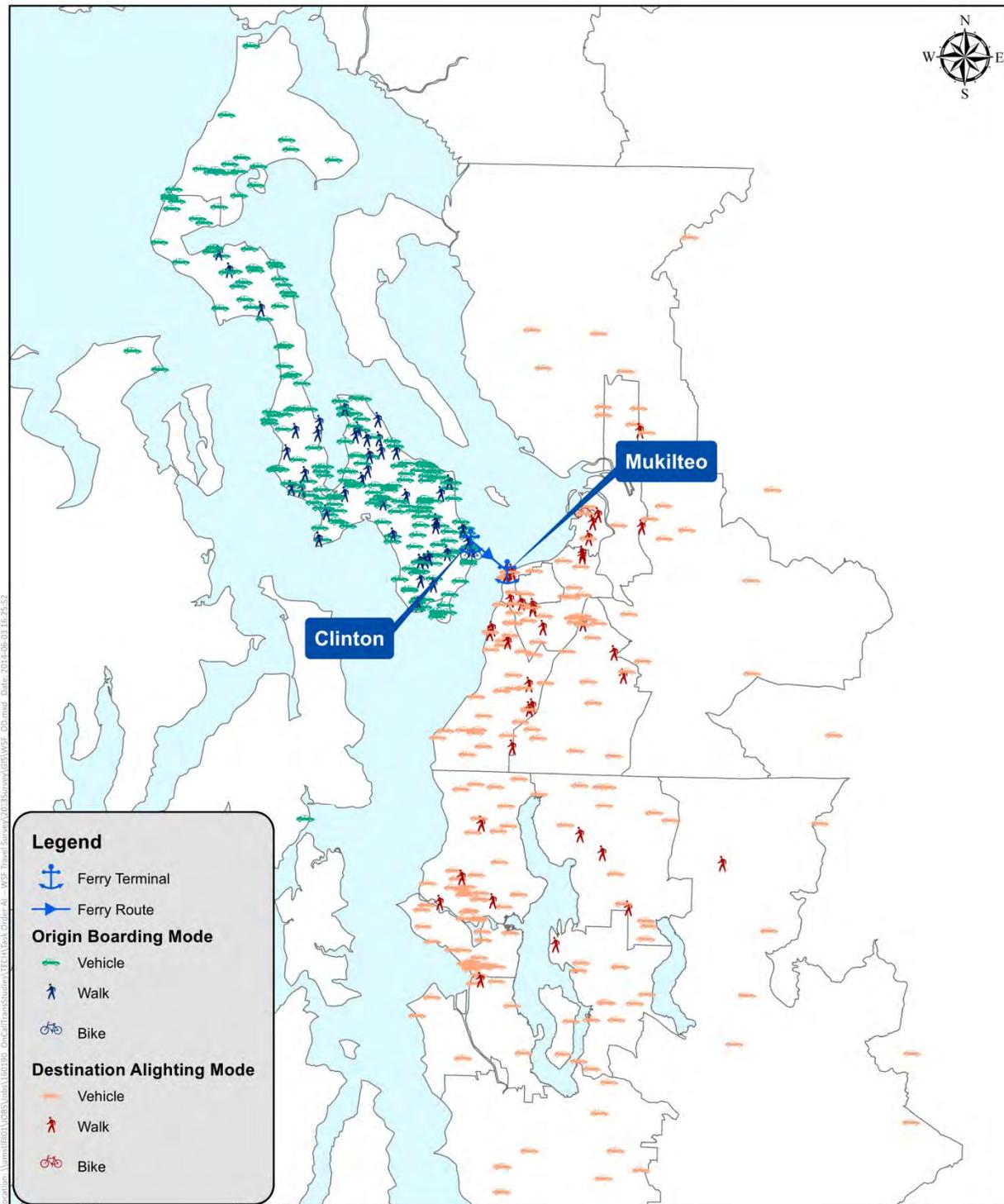
**Figure 5-22. Mukilteo–Clinton eastbound origin and destination districts, Saturday survey period**



**Table 5-17. Mukilteo–Clinton eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼ \ Destination District ►		Mukilteo	Paine Field	S Everett	Everett CBD	Other Greater Everett	Lynnwood / Edmonds	Mountlake Terrace	Other W Snohomish Co. / Camano Island	W Skagit / San Juan Counties	Greater Central Seattle / CBD	Greater S Seattle	Greater N Seattle	Bothell - Kirkland / Woodinville / Redmond	Greater Bellevue / Mercer Island	SW King County	Other W King County	Pierce / Thurston Counties	All Other Places	Origin Total	Origin Percent Share
		4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21		
S Whidbey Island	1	82	14	202	42	77	397	181	154	7	217	35	252	91	98	105	28	42	112	2134	58.3%
Central Whidbey Is	2	76		56	28		195	77	56		161	56	105	56	35	126	42	28	42	1138	31.1%
N Whidbey Island	3	21	14				56	21	14		49		35	49	49	42				349	9.5%
All Other Places	21								14					14					14	42	1.1%
Destination Total		179	28	258	69	77	648	279	238	7	426	91	391	209	182	273	70	70	168	3662	100%
Destination Percent Share		4.9%	0.8%	7.0%	1.9%	2.1%	17.7%	7.6%	6.5%	0.2%	11.6%	2.5%	10.7%	5.7%	5.0%	7.4%	1.9%	1.9%	4.6%	100.0%	

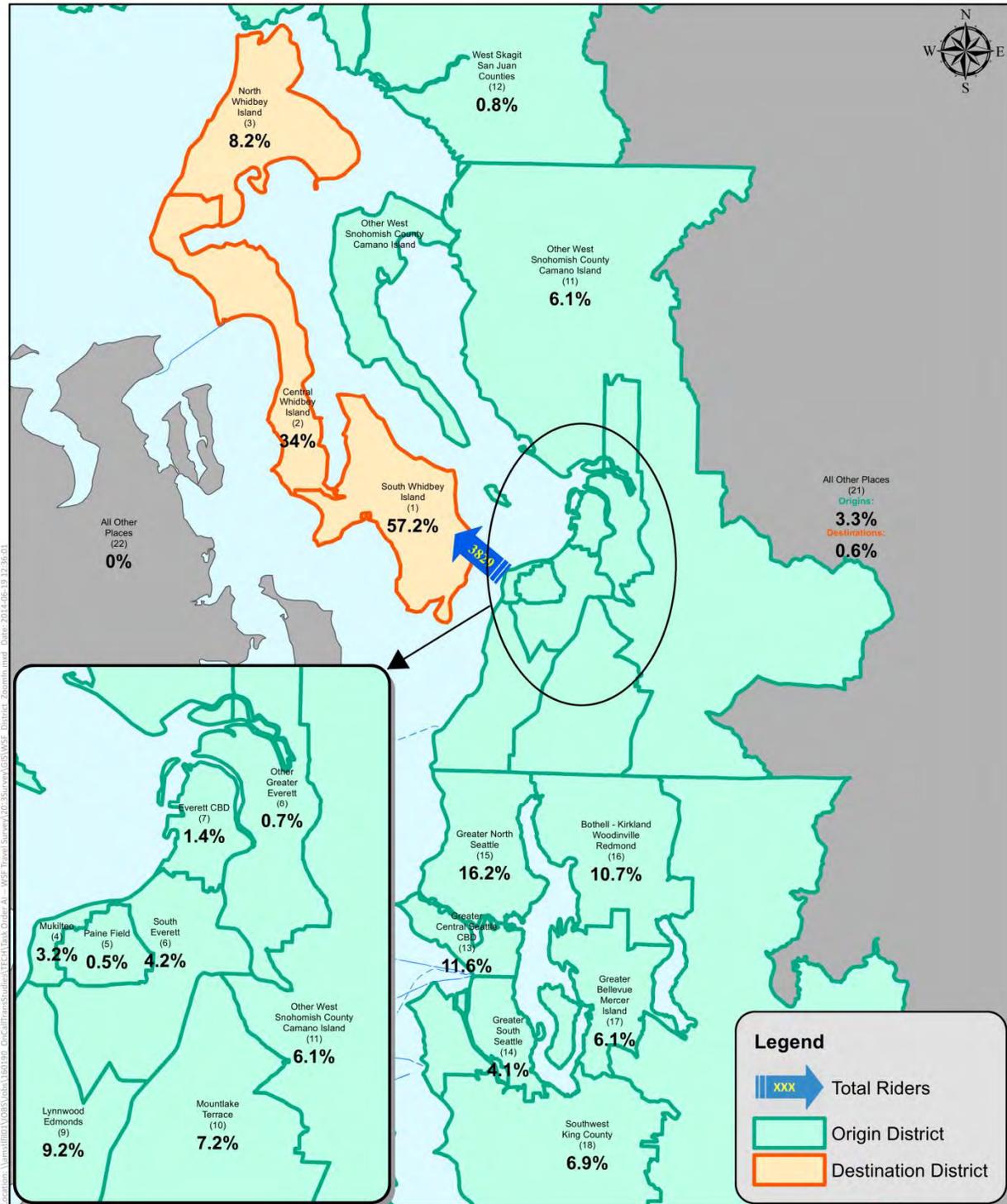
Figure 5-23. Mukilteo–Clinton eastbound origin and destination locations by boarding mode, Saturday survey period



### 5.2.11 Saturday Travel Patterns—Westbound

Figure 5-24 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 5-18. The major origins are Greater North Seattle, Greater Central Seattle/CBD, and Bothell-Kirkland/Woodinville/Redmond, while the major destinations are South and Central Whidbey Island. Origin and destination locations by boarding mode are shown in Figure 5-25. Origin and destination locations are dispersed.

Figure 5-24. Mukilteo–Clinton westbound origin and destination districts, Saturday survey period

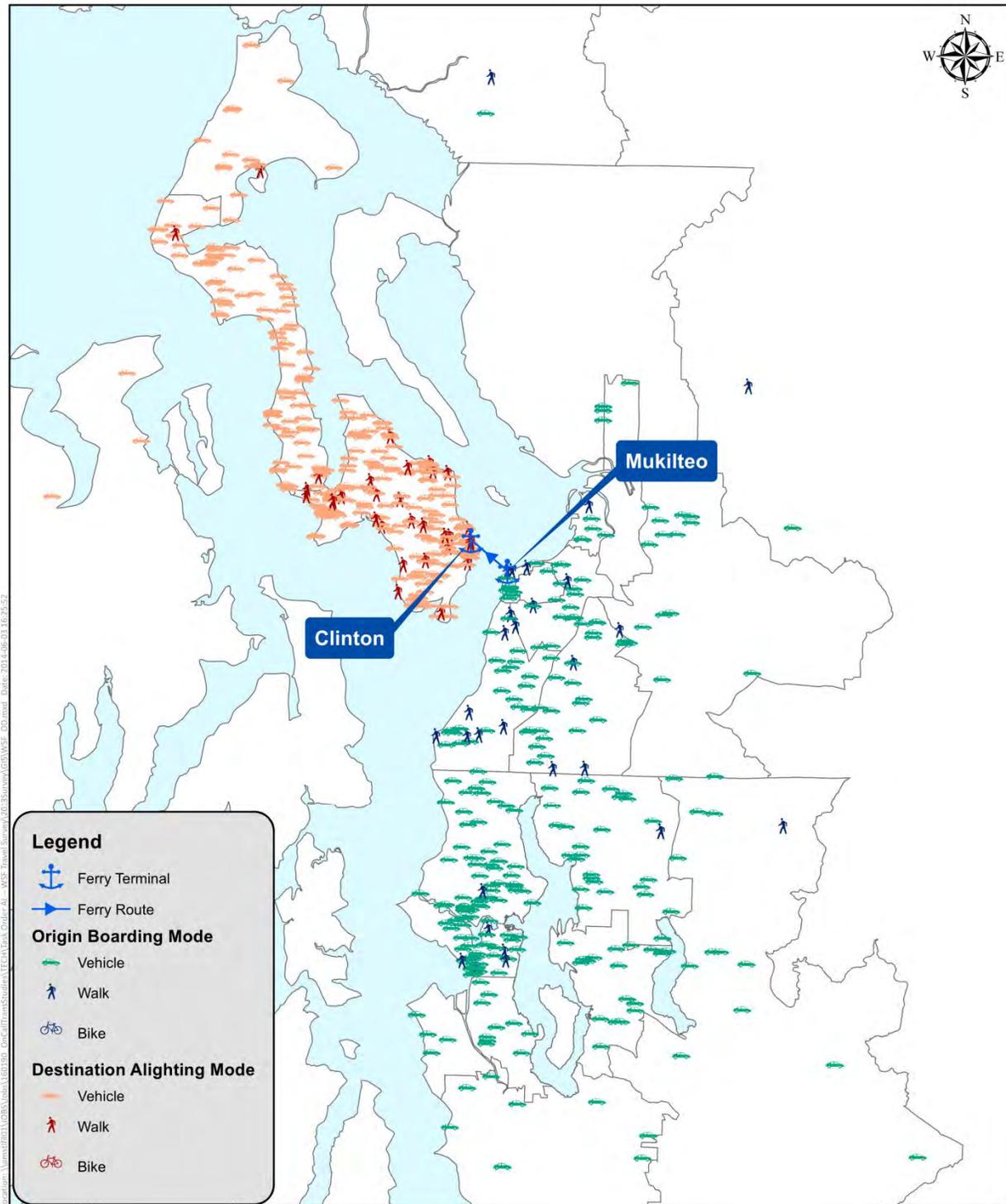


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**Table 5-18. Mukilteo–Clinton westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►	South Whidbey Island	Central Whidbey Island	North Whidbey Island	All Other Places	Origin Total	Origin Percent Share
			1	2	3	21		
	Mukilteo	4	72	49			121	3.2%
	Paine Field	5	17				17	0.5%
	S Everett	6	103	57			160	4.2%
	Everett CBD	7	32	6	16		55	1.4%
	Other Greater Everett	8	26				26	0.7%
	Lynnwood / Edmonds	9	200	133	17		351	9.2%
	Mountlake Terrace	10	180	72	11	12	275	7.2%
	Other W Snohomish Co. / Camano Island	11	145	39	40	11	235	6.1%
	W Skagit / San Juan Counties	12	15		16		31	0.8%
	Greater Central Seattle / CBD	13	248	137	60		445	11.6%
	Greater S Seattle	14	96	61			156	4.1%
	Greater N Seattle	15	324	291	6		621	16.2%
	Bothell - Kirkland / Woodinville / Redmond	16	289	73	49		411	10.7%
	Greater Bellevue / Mercer Island	17	117	62	54		233	6.1%
	SW King County	18	127	133	6		266	6.9%
	Other W King County	19	83	40	21		144	3.8%
	Pierce / Thurston Counties	20	49	101	6		156	4.1%
	All Other Places	21	67	47	11		125	3.3%
Destination Total			2,191	1,301	314	23	3,829	100%
Destination Percent Share			57.2%	34.0%	8.2%	0.6%	100.0%	

Figure 5-25. Mukilteo–Clinton westbound origin and destination locations by boarding mode, Saturday survey period



## 5.3 Port Townsend–Coupeville

### 5.3.1 Route Description

The Port Townsend–Coupeville route connects Port Townsend on the Olympic Peninsula to Coupeville on the west side of Whidbey Island. The ferry crossing is 30 minutes one way and is approximately 4.5 nautical miles. For 2013, the annual total ridership was 360,000 passengers plus 320,000 vehicle drivers for a total of 680,000 people, or about 1,900 riders per day. This compares to 2,100 riders day in 2006 and 2,400 riders per day in 1999.

The route is served by 15 sailings per day each direction in the early fall, which is reduced to 10 sailings per day each direction after October 14. The number of sailings remains unchanged since 2006. The fare in October 2013 for a vehicle 14 to 22 feet in length including driver was \$10.50. The full fare for passengers was \$3.15.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 5.3.2 Trips by Purpose

The trip purposes of ferry riders on the Port Townsend–Coupeville route were cross-tabulated against the direction of the trip for weekday and Saturday. Table 5-19 shows three trip purposes (work/school, personal business/other, and recreation/shopping) for weekday and Saturday, and includes a comparison with 2006 for all trip purposes. The majority of the trips on this route are recreation/shopping trips, with only a quarter of trips on the weekday made for work/school purposes. This is a decrease from 2006, when 35 percent of weekday trips were for work/school. On Saturdays, almost 75 percent of the trips are for recreation/shopping.

**Table 5-19. Port Townsend–Coupeville trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	94	87	198	380	54.6%	49.5%
Westbound	83	66	167	316	45.4%	50.5%
Total	178	153	365	696	100%	100%
2013 Distribution	25.5%	22.0%	52.5%	100%		
2006 Distribution	35.4%	19.4%	45.3%	100%		
<b>Saturday</b>						
Eastbound	46	156	751	953	51.4%	50.9%
Westbound	75	187	639	901	48.6%	49.1%
Total	121	343	1,390	1,854	100%	100%
2013 Distribution	6.5%	18.5%	75.0%	100%		
2006 Distribution	9.0%	20.4%	70.6%	100%		

### 5.3.3 Frequency of Travel

The total number of ferry trips and purpose in 2013 are shown in Table 5-20. For comparison, trip purposes are aggregated into three groups: work/school, personal business/other, and recreation/shopping. The trip frequency or number of one-way trips in a typical week also is aggregated into seven groups and cross-tabulated against the trip purpose for 2013. The majority of riders on this route are infrequent users; more than 60 percent of weekday riders reported making only one or two trips in the past week. This is consistent with the relatively low percentage of commuters on this route compared with other routes in the WSF system. It is also generally similar to 2006, although a modest increase in frequency in trip-making is seen in 2013. As expected, Saturday riders are also infrequent users. Similar to weekday, there has been an increase in frequency compared with 2006.

**Table 5-20. Port Townsend–Coupeville one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	13	29	85	127	28.7%	32.2%	10.0%	20.5%
2	24	38	81	143	32.4%	37.8%	18.4%	31.8%
3 to 4	37	26	31	94	21.2%	14.4%	28.8%	14.5%
5 to 6	29	6	7	42	9.6%	6.2%	22.3%	12.0%
7 to 8	8	5	0	13	3.0%	3.0%	6.2%	3.8%
9 to 10	18	0	0	18	4.2%	4.7%	14.2%	12.8%
11+	0	0	4	4	0.8%	1.7%	0.0%	4.7%
Total	130	104	207	442	100%	100%	100%	100%
2013 Distribution	29.4%	23.6%	47.0%	100%				
2006 Distribution	36.5%	17.7%	45.8%	100%				
<b>Saturday</b>								
1	18	85	379	482	40.0%	59.1%		
2	27	43	325	395	32.8%	22.9%		
3 to 4	18	52	157	227	18.9%	13.0%		
5 to 6	0	6	27	33	2.7%	2.2%		
7 to 8	7	3	3	14	1.1%	0.4%		
9 to 10	0	0	17	17	1.4%	0.6%		
11+	10	7	19	35	2.9%	1.8%		
Total	81	196	927	1,204	100%	100%		
2013 Distribution	6.7%	16.3%	77.0%	100%				
2006 Distribution	9.2%	21.1%	69.7%	100%				

### 5.3.4 Round-Trip Patterns

Figure 5-26 shows the percentage of survey respondents who indicated that they returned on the same day or some other day. A majority of riders on this route (almost 60 percent) made the outbound and inbound legs of their journey on the same day. This represented a reversal from 2006, when the majority of travelers returned on a different day. On Saturdays, more than 66 percent used this route on the same day for their round-trip, a decrease from 75 percent in 2006.

**Figure 5-26. Port Townsend–Coupeville round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**

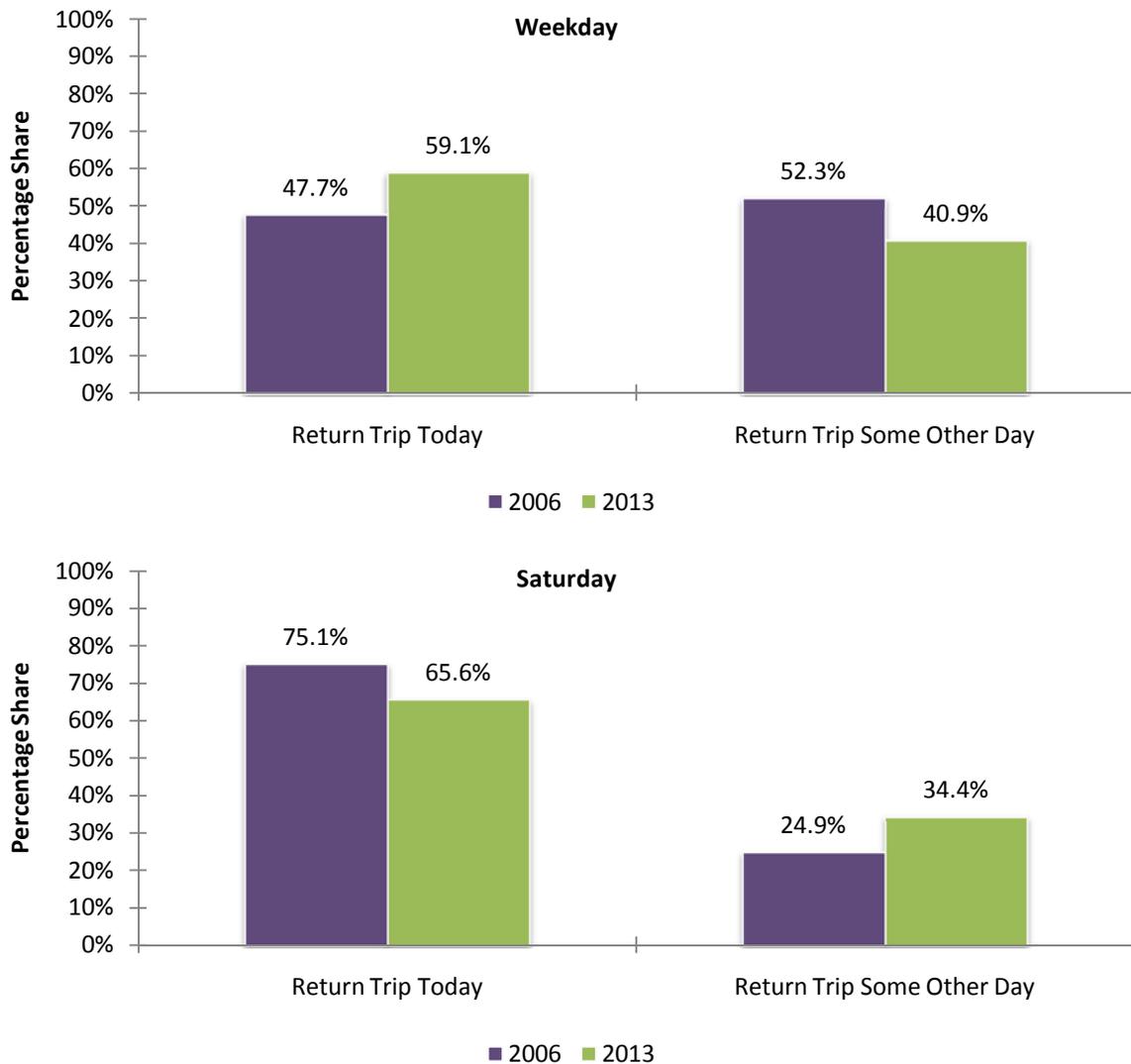


Figure 5-27 shows the mode of travel chosen by riders for the other half of their trip. The three modes were the same ferry route, drive around, and different ferry route. In 2013, 85 percent of weekday travelers said they would return on the same ferry route, a slight decrease from 88 percent in 2006. On Saturdays, the percentage of travelers returning on the same ferry route decreased from 91 percent in 2006 to 83 percent in 2013.

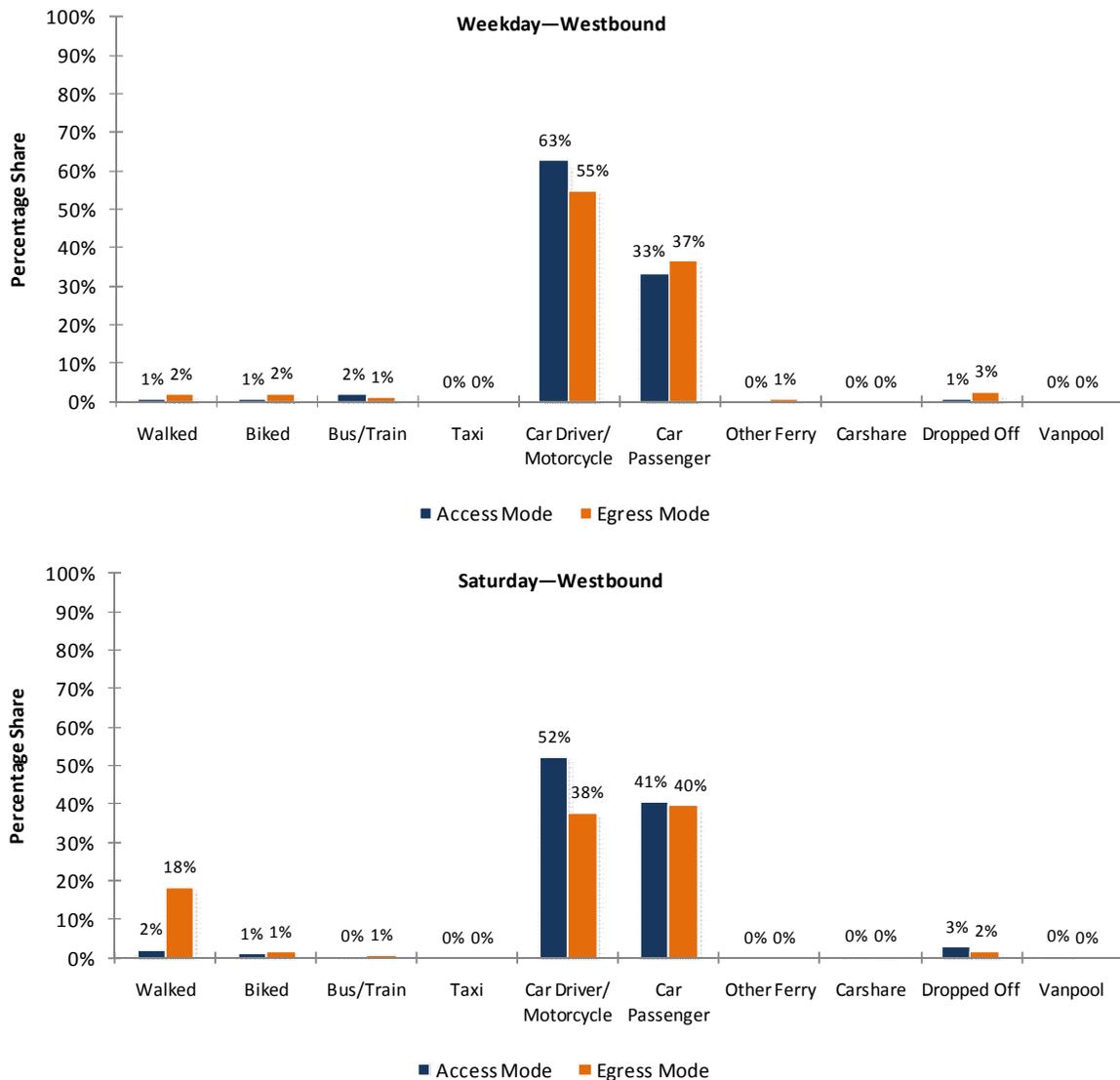
**Figure 5-27. Port Townsend–Coupeville round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.3.5 Access, Egress, and Boarding Modes

The mode of travel to, from, and on this route was cross-tabulated to analyze the current mode choice behavior of ferry riders and to evaluate the change from 2006. Figure 5-28 and Figure 5-29 show the access and egress modes for westbound and eastbound travel, respectively. Car driver and passenger are the dominant access and egress modes, although for westbound egress on Saturdays, almost 20 percent of riders walked to their final destination from the Port Townsend terminal. This is likely due to the tourism-related nature of the Port Townsend area, particularly on Saturdays.

**Figure 5-28. Port Townsend–Coupeville westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



**Figure 5-29. Port Townsend–Coupeville eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

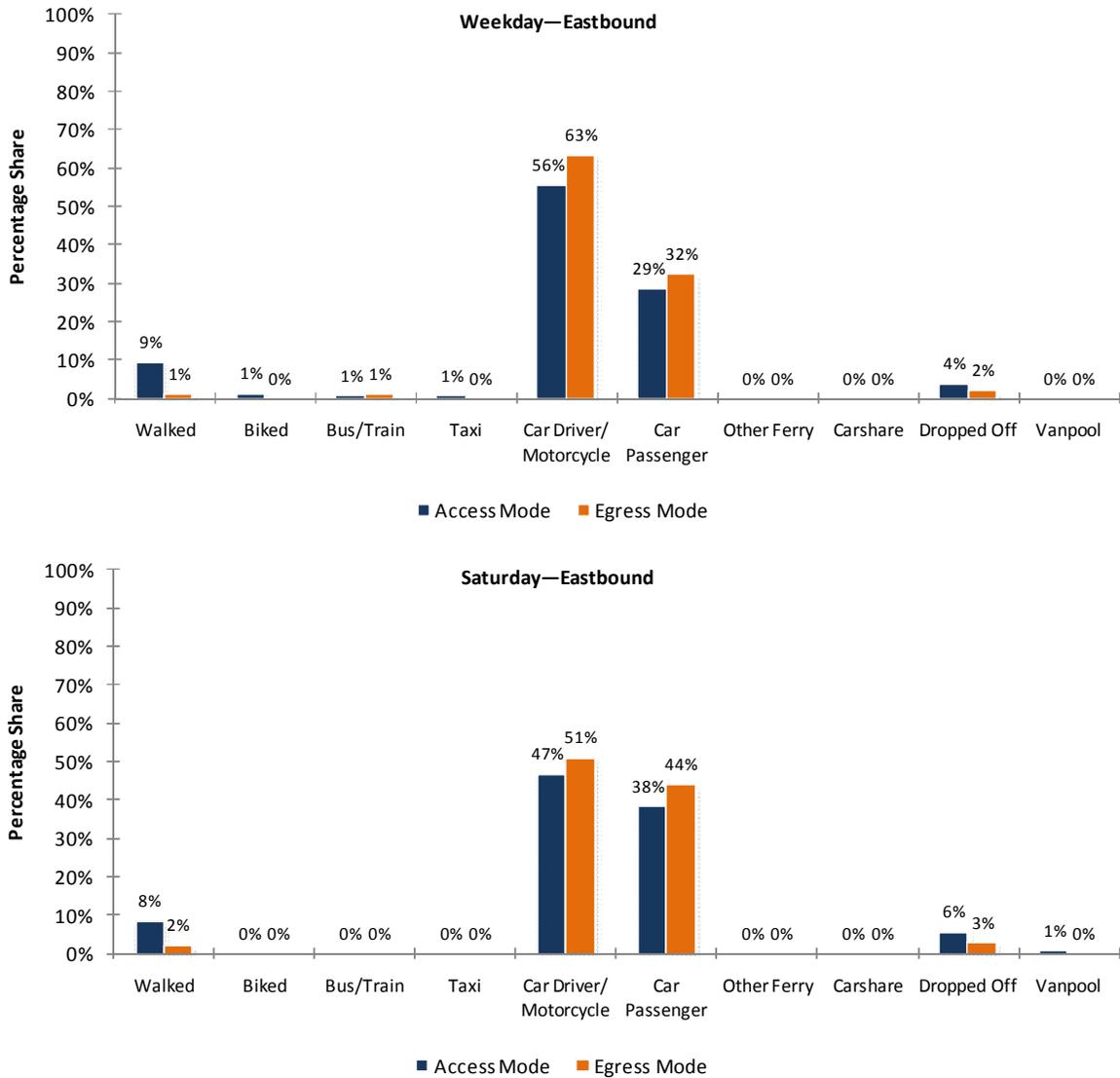


Table 5-21 shows the boarding mode and the corresponding access modes to the ferry terminal for weekday and Saturday, while Table 5-22 shows boarding and egress modes. Similar to 2006, about 90 percent of weekday boardings in 2013 were made in a vehicle, either as a driver or passenger. On Saturdays, vehicle boardings decreased from 88 percent to 79 percent, while walk boardings increased from 10 percent to 20 percent. This corresponds somewhat with an increase in walk access and egress on Saturdays between 2006 and 2013.

Information on access mode to ferry, boarding method, and egress method from ferry for the weekday PM peak period, the weekday non-PM peak period, and Saturday are shown in Table 5-23, Table 5-24, and Table 5-25, respectively. The majority of those who walk on the ferry during the weekday PM peak period and on Saturdays access and egress the ferry by vehicle, while a significant percentage (41 percent) of walk-on boardings during the weekday non-PM peak period access the terminal by foot.

**Table 5-21. Port Townsend–Coupeville access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	38	0	38	5.4%	1.3%
Biked	0	0	7	7	1.0%	0.8%
Bus/Train	0	7	2	9	1.2%	1.2%
Taxi	0	2	0	2	0.3%	0.0%
Car Driver/Motorcycle	391	19	0	410	58.9%	65.1%
Car Passenger	205	9	0	214	30.8%	31.6%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	17	0	17	2.4%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>596</b>	<b>91</b>	<b>9</b>	<b>696</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	85.6%	13.1%	1.3%	100%		
2006 Distribution	90.2%	7.9%	1.9%	100%		
<b>Saturday</b>						
Walked	6	94	0	100	5.4%	1.4%
Biked	0	0	10	10	0.5%	0.3%
Bus/Train	0	3	0	3	0.2%	0.3%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	770	143	3	916	49.4%	60.3%
Car Passenger	686	42	3	731	39.4%	37.8%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	0	0	4	0.2%	
Dropped Off	0	80	0	80	4.3%	
Vanpool	0	10	0	10	0.5%	
<b>Total</b>	<b>1,466</b>	<b>372</b>	<b>16</b>	<b>1,854</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	79.1%	20.1%	0.9%	100%		
2006 Distribution	88.0%	10.2%	1.7%	100%		

**Table 5-22. Port Townsend–Coupeville egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	10	0	10	1.5%	1.7%
Biked	0	2	4	6	0.9%	0.7%
Bus/Train	4	2	2	8	1.2%	0.2%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	371	41	3	415	59.6%	64.5%
Car Passenger	222	17	0	239	34.3%	32.9%
Other Ferry	0	2	0	2	0.3%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	16	0	16	2.3%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>596</b>	<b>91</b>	<b>9</b>	<b>696</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	85.6%	13.1%	1.3%	100%		
2006 Distribution	90.4%	8.0%	1.6%	100%		
<b>Saturday</b>						
Walked	4	181	0	185	10.0%	8.3%
Biked	0	0	13	13	0.7%	2.4%
Bus/Train	0	6	0	6	0.3%	0.6%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	745	81	0	826	44.5%	52.6%
Car Passenger	713	61	3	777	41.9%	36.1%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	0	0	4	0.2%	
Dropped Off	0	43	0	43	2.3%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>1,466</b>	<b>372</b>	<b>16</b>	<b>1,854</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	79.1%	20.1%	0.9%	100%		
2006 Distribution	87.8%	10.5%	1.7%	100%		

**Table 5-23. Port Townsend–Coupeville trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (13.6% of total boardings)					
Pedestrian	15.9%	Pedestrian	89.7%	Pedestrian	4.8%
Bicycle	10.3%	Pedestrian w/ Bicycle	10.3%	Bicycle	9.5%
By Bus/Transit	10.3%			By Bus/Transit	0.0%
By Vehicle	63.5%			By Vehicle	85.7%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (86.4% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	63.9%	In-Vehicle	100.0%
		Vehicle Passengers	36.1%		

Note: Average vehicle occupancy (AVO) was 1.56 for the weekday PM peak period.

**Table 5-24. Port Townsend–Coupeville trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (15.1% of total boardings)					
Pedestrian	55.4%	Pedestrian	92.4%	Pedestrian	15.2%
Bicycle	4.0%	Pedestrian w/ Bicycle	7.6%	Bicycle	3.6%
By Bus/Transit	7.3%			By Bus/Transit	7.9%
By Vehicle	33.4%			By Vehicle	69.6%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	3.6%
In-Vehicle Boardings (84.9% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	67.1%	In-Vehicle	100.0%
		Vehicle Passengers	32.9%		

Note: Average vehicle occupancy (AVO) was 1.49 for the weekday non-PM peak period.

**Table 5-25. Port Townsend–Coupeville trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

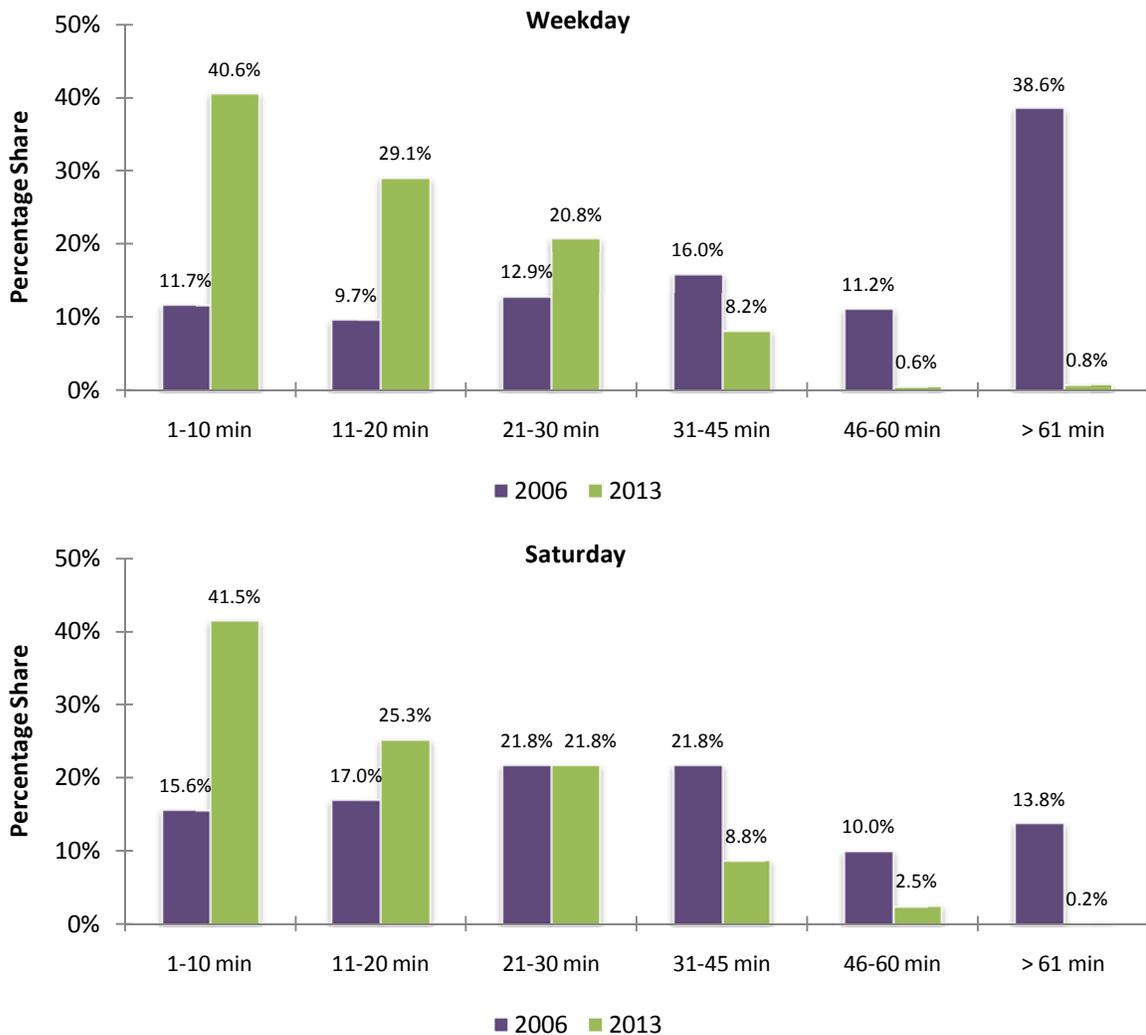
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (20.9% of total boardings)					
Pedestrian	24.2%	Pedestrian	95.9%	Pedestrian	46.6%
Bicycle	2.5%	Pedestrian w/ Bicycle	4.1%	Bicycle	3.3%
By Bus/Transit	0.8%			By Bus/Transit	1.7%
By Vehicle	70.0%			By Vehicle	48.4%
Vanpool	2.6%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (79.1% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	53.2%	In-Vehicle	100.0%
		Vehicle Passengers	46.8%		

*Note: Average vehicle occupancy (AVO) was 1.88 for the Saturday survey period.*

### 5.3.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 5-30 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 38 percent of weekday ferry passengers waited for 10 minutes or less, and less than 1 percent waited more than 60 minutes. In contrast, only 12 percent of riders waited 10 minutes or less, while more than 38 percent waited more than 60 minutes. On Saturdays, 43 percent of ferry passengers waited 10 minutes or less, compared with 16 percent in the 2006.

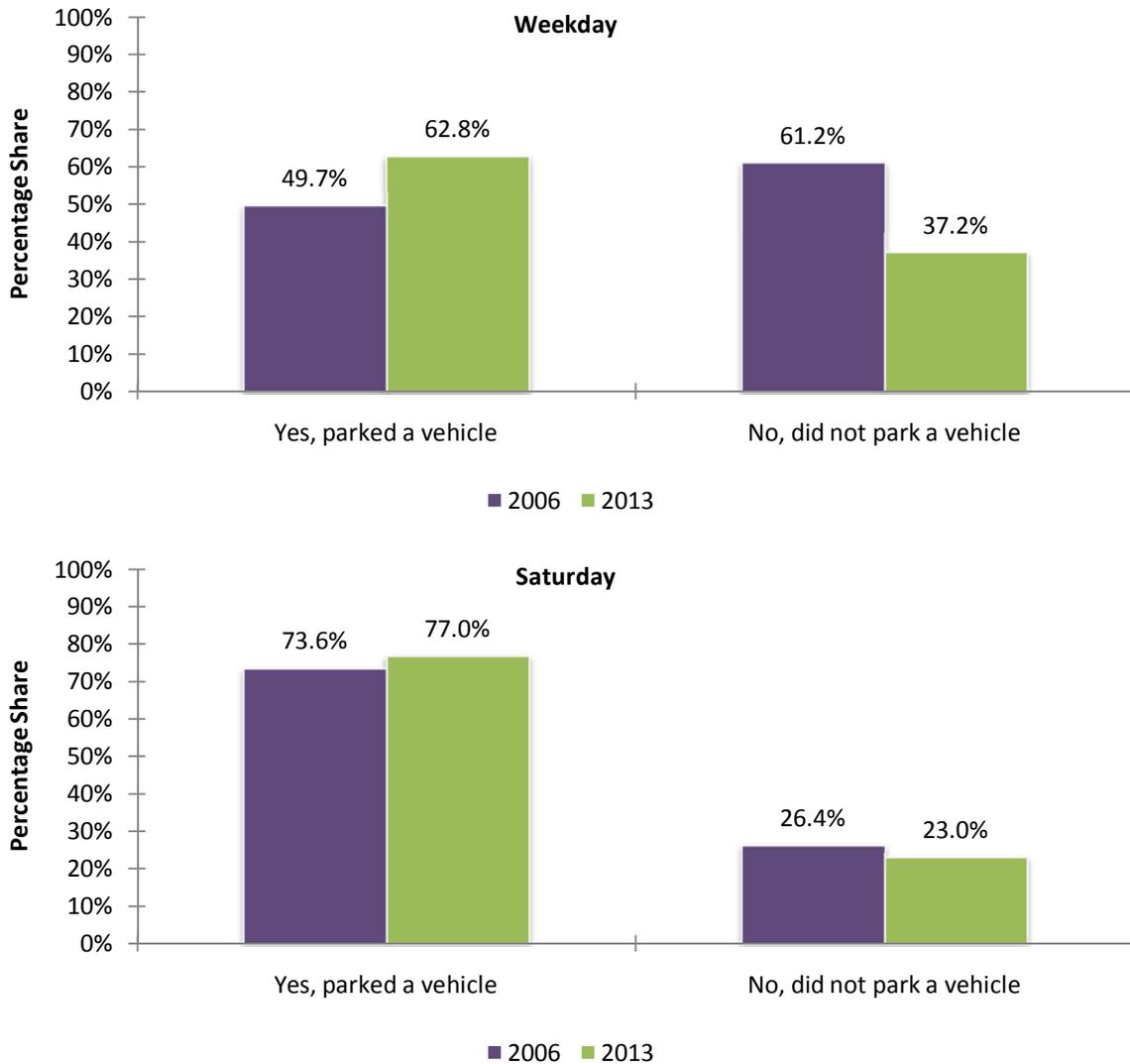
**Figure 5-30. Port Townsend–Coupeville trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 5.3.7 Parking

Figure 5-31 presents the percentage of pedestrian/bicycle-boarding riders who parked or did not park a vehicle at the terminal. About 60 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 50 percent in 2006. On Saturdays, those who parked a vehicle increased from 74 percent to 77 percent.

**Figure 5-31. Port Townsend–Coupeville non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



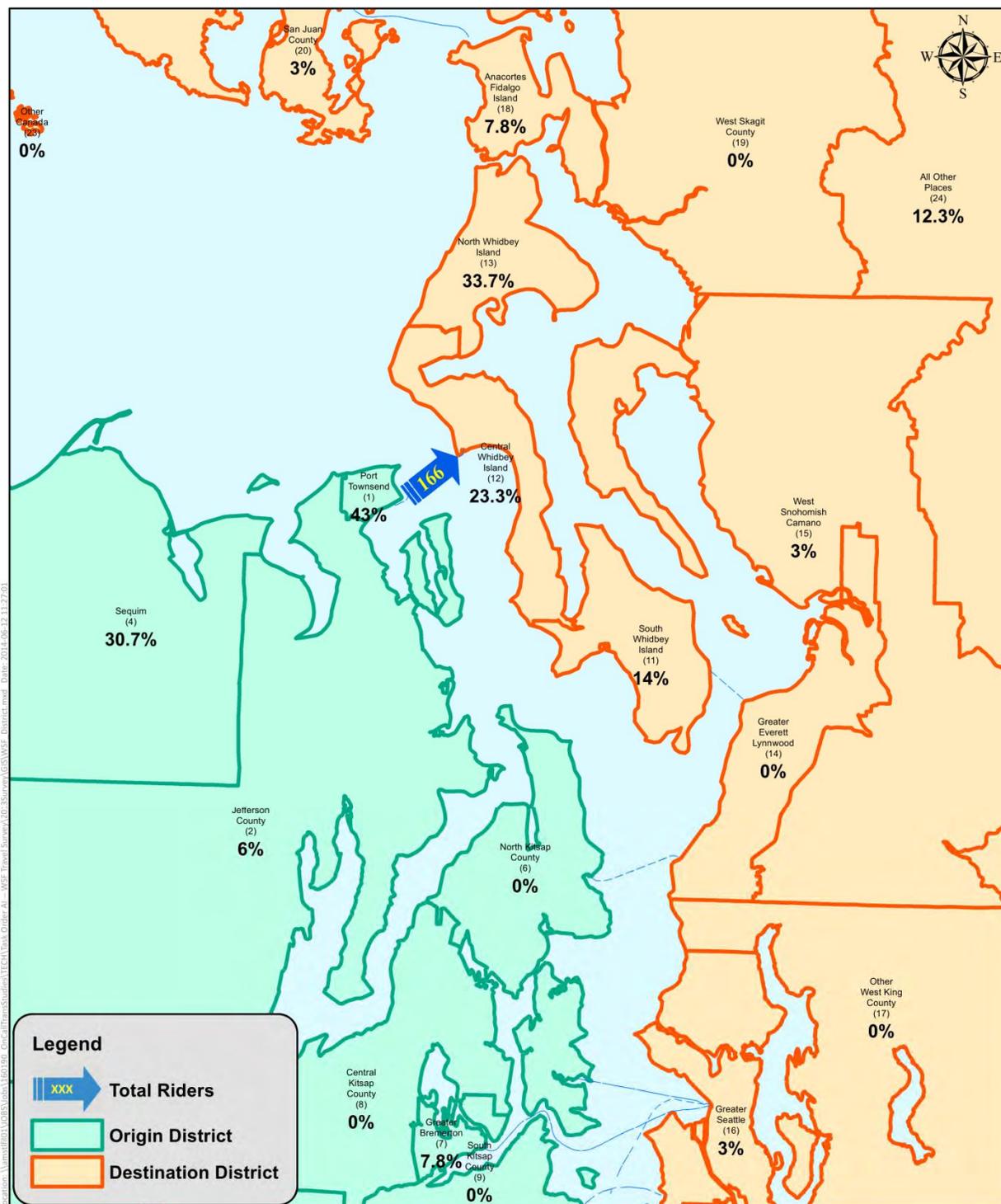
### 5.3.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 5-32 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 5-26. The major origins are Port Townsend and Sequim, while the major destinations are North, Central, and South Whidbey Island. Origin and destination locations by boarding mode are shown in

Figure 5-33. Walk boarding origins are generally located near the Port Townsend ferry terminal, while walk boarding destinations are more spread out geographically.

Trip tables for the weekday PM peak period are included to allow for comparison with previous surveys. Because the majority of riders traveling on the Port Townsend–Coupeville ferry use it for recreational purposes, this section includes trip tables for both the weekday PM peak period as well as the 8-hour survey period. Table 5-27 shows the origins and destinations for all weekday eastbound trips by district.

Figure 5-32. Port Townsend–Coupeville eastbound origin and destination districts, weekday PM peak period



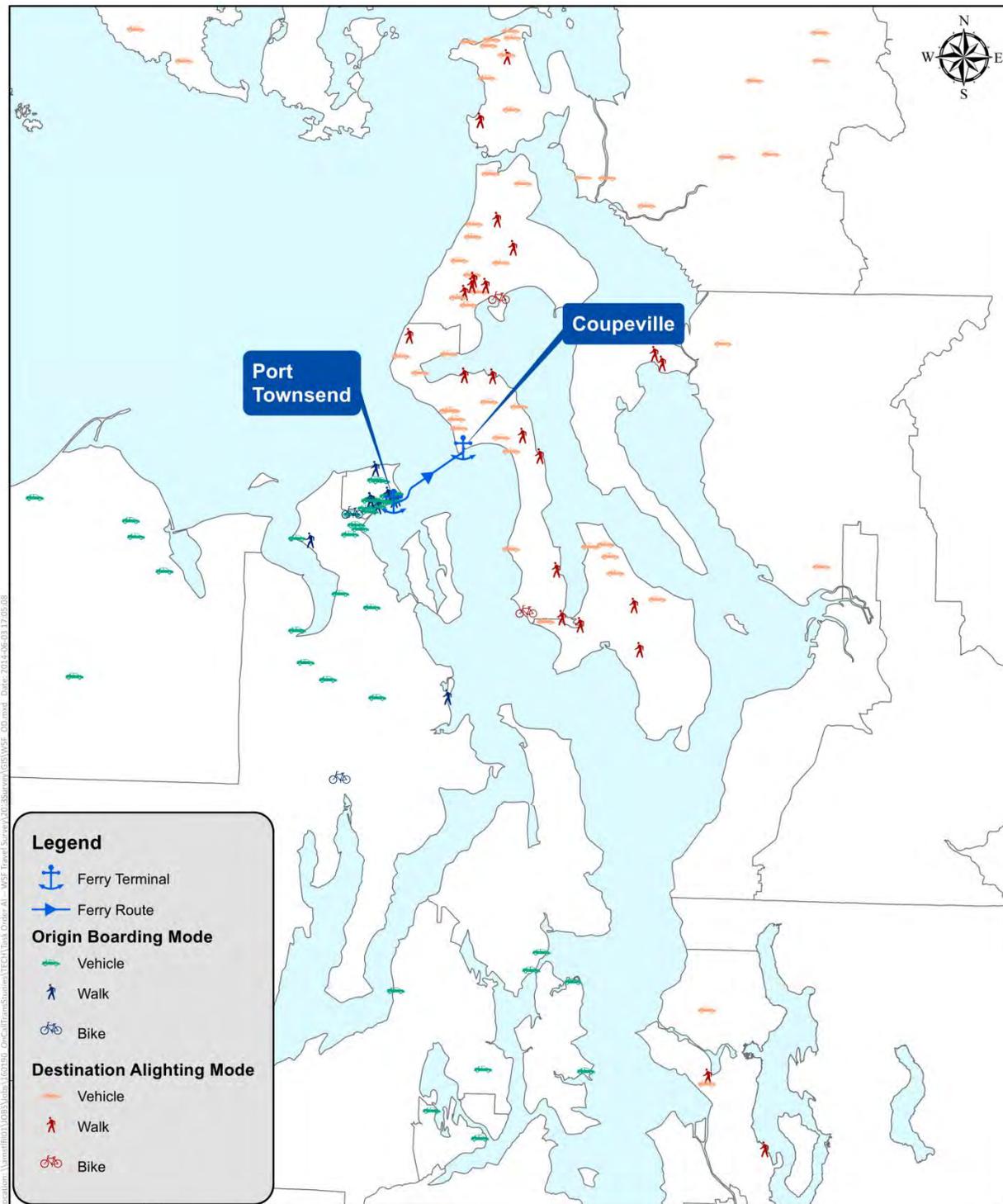
**Table 5-26. Port Townsend–Coupeville eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►								Origin Total	Origin Percent Share
		South Whidbey Island	Central Whidbey Island	North Whidbey Island	West Snohomish / Camano	Greater Seattle	Anacortes / Fidalgo Island	San Juan County	All Other Places		
		11	12	13	15	16	18	20	24		
Port Townsend	1	15	36	8		5			8	72	43.0%
Jefferson County	2		3	3					5	10	6.0%
Sequim	4	8		33	5			5		51	30.7%
W Olympic Peninsula	5						8		8	16	9.5%
Greater Bremerton	7			8			5			13	7.8%
Mason/W Pierce County	10			5						5	3.0%
Destination Total		23	39	56	5	5	13	5	20	166	100%
Destination Percent Share		14.0%	23.3%	33.7%	3.0%	3.0%	7.8%	3.0%	12.3%	100.0%	

**Table 5-27. Port Townsend–Coupeville eastbound total boardings by origin and destination district, weekday 8-hour survey period**

Origin District ▼		Destination District ►									Origin Total	Origin Percent Share
		South Whidbey Island	Central Whidbey Island	North Whidbey Island	West Snohomish / Camano	Greater Seattle	Anacortes / Fidalgo Island	West Skagit County	San Juan County	All Other Places		
		11	12	13	15	16	18	19	20	24		
Port Townsend	1	28	56	30	7	5	11	9	9	14	168	44.3%
Jefferson County	2		11	5		4	5	5	6	22	58	15.3%
Port Angeles	3					6	4	2		7	19	5.1%
Sequim	4	8		33	5				14		60	15.7%
West Olympic Peninsula	5						8			10	18	4.8%
North Kitsap County	6	4	2					2	4		13	3.5%
Greater Bremerton	7			8			5				13	3.4%
Central Kitsap County	8			2			4				7	1.7%
Mason/West Pierce County	10		4	5			4			4	18	4.7%
All Other Places_East	24		6								6	1.6%
Destination Total		40	80	83	12	15	42	18	33	58	380	100%
Destination Percent Share		10.6%	21.1%	21.7%	3.1%	4.1%	10.9%	4.8%	8.6%	15.2%	100.0%	

Figure 5-33. Port Townsend–Coupeville eastbound origin and destination locations by boarding mode, weekday 8-hour survey period



### 5.3.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 5-34 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 5-28. The major origins are Central and South Whidbey Island, while the major destinations are Jefferson County and Port Townsend. Figure 5-35 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, a larger percentage of trips originate in Central and South Whidbey Island compared with 2006, while a smaller percentage of trips end in Port Townsend.

Origin and destination locations by boarding mode are shown in Figure 5-36. In contrast with eastbound trips, walk boarding destinations are more spread out from the Port Townsend ferry terminal.

Trip tables for the weekday PM peak period are included to allow for comparison with previous surveys. Because the majority of riders traveling on the Port Townsend–Coupeville ferry use it for recreational purposes, this section includes trip tables for both the weekday PM peak period as well as the 8-hour survey period. Table 5-29 shows the origins and destinations for all weekday westbound trips by district.

Figure 5-34. Port Townsend–Coupeville westbound origin and destination districts, weekday PM peak period

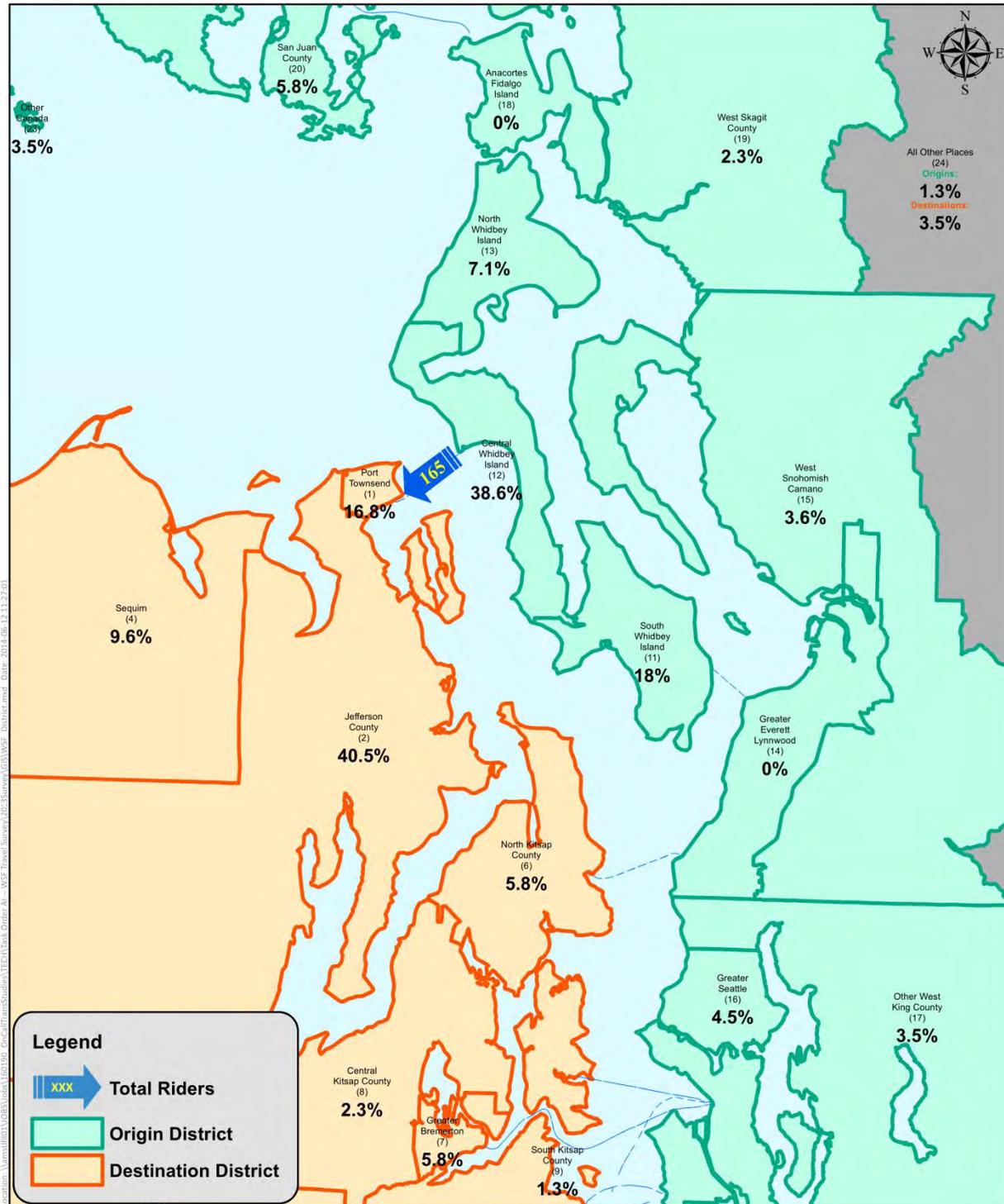
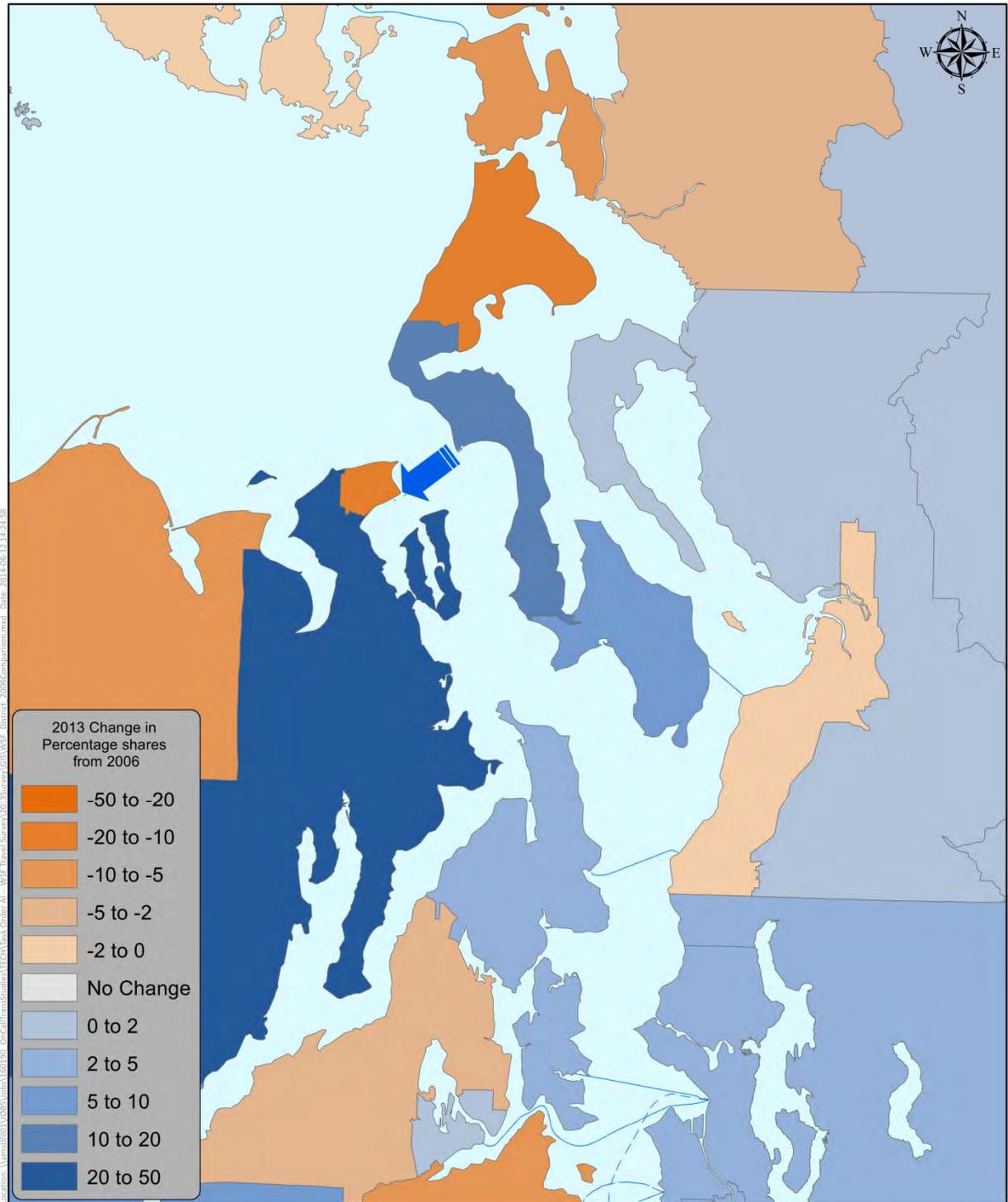


Figure 5-35. Port Townsend–Coupeville change in westbound travel patterns from 2006, weekday PM peak period



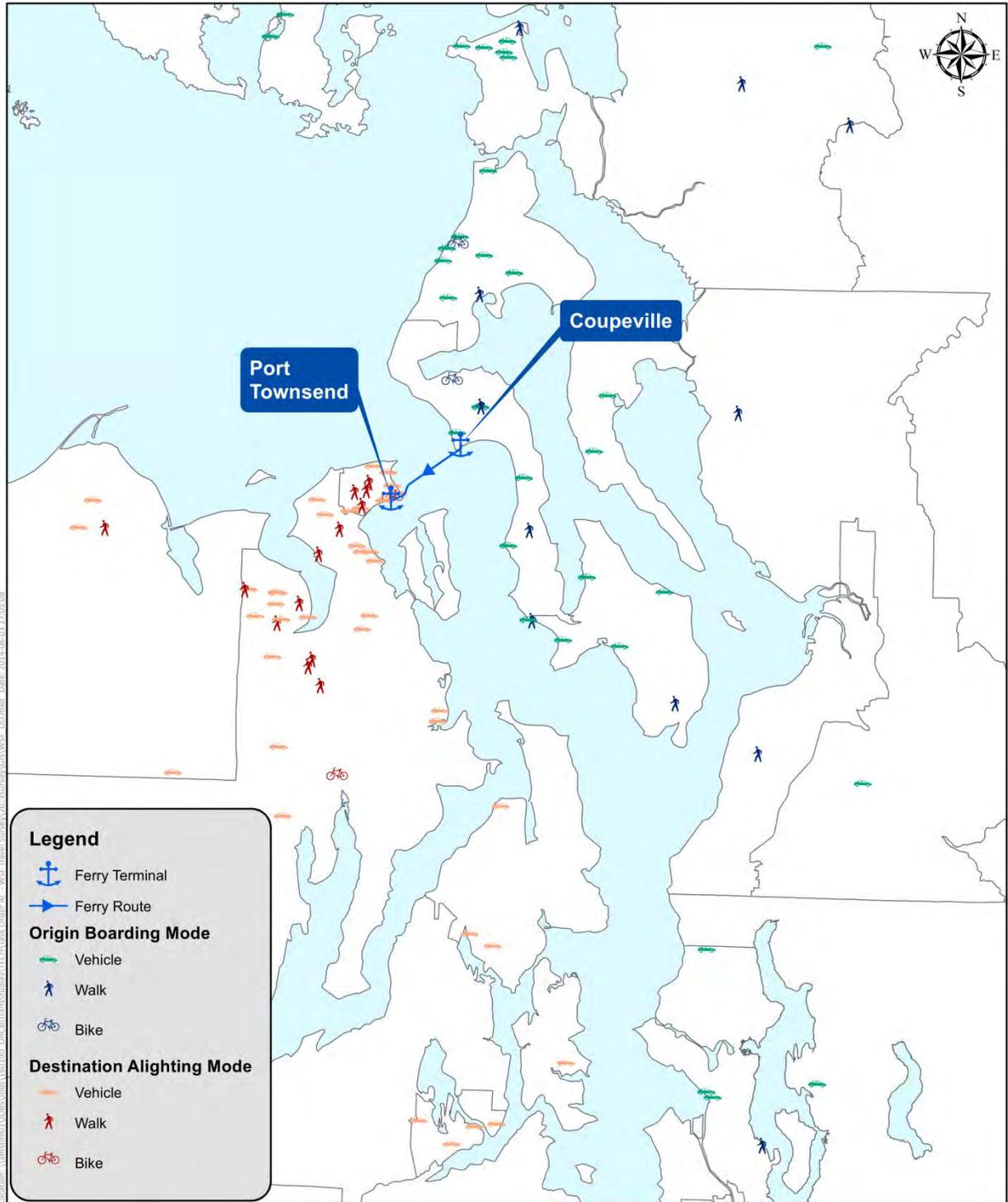
**Table 5-28. Port Townsend–Coupeville westbound boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ▶										Origin Total	Origin Percent Share
		Port Townsend	Jefferson County	Port Angeles	Sequim	North Kitsap County	Greater Bremerton	Central Kitsap County	South Kitsap County	Mason/West Pierce County	All Other Places		
		1	2	3	4	6	7	8	9	10	24		
S Whidbey Island	11	2	6			7				14		30	18.0%
Central Whidbey Is	12	6	35	6	14	2						64	38.6%
N Whidbey Island	13						10		2			12	7.1%
W Snohomish / Camano	15			4	2							6	3.6%
Greater Seattle	16	4						4				7	4.5%
Other W King County	17	6										6	3.5%
W Skagit County	19		4									4	2.3%
San Juan County	20	10										10	5.8%
Vancouver BC	22		20									20	11.9%
Other Canada	23										6	6	3.5%
All Other Places	24		2									2	1.3%
Destination Total		28	67	10	16	10	10	4	2	14	6	165	100%
Destination Percent Share		16.8%	40.5%	5.8%	9.6%	5.8%	5.8%	2.3%	1.3%	8.7%	3.5%	100.0%	

**Table 5-29. Port Townsend–Coupeville westbound boardings by origin and destination district, weekday 8-hour survey period**

Origin District ▼		Destination District ▶											Origin Total	Origin Percent Share
		Port Townsend	Jefferson County	Port Angeles	Sequim	West Olympic Peninsula	North Kitsap County	Greater Bremerton	Central Kitsap County	South Kitsap County	Mason/West Pierce County	All Other Places		
		1	2	3	4	5	6	7	8	9	10	24		
S Whidbey Island	11	2	6				7				14		30	9.4%
Central Whidbey Is	12	8	44	6	20	2	6						85	26.9%
N Whidbey Island	13		22		6			13		2			43	13.6%
W Snohomish / Camano	15	7	2	4	2								15	4.7%
Greater Seattle	16	7	2						4				13	4.1%
Other W King County	17	6	6										12	3.7%
Anacortes / Fidalgo Is	18		18		3								22	6.9%
W Skagit County	19		6										6	1.8%
San Juan County	20	10	6										16	4.9%
Vancouver BC	22		23										23	7.3%
Other Canada	23											6	6	1.8%
All Other Places	24	3	6		12	11				3	11		47	14.8%
Destination Total		43	140	10	43	13	13	13	4	2	18	17	316	100%
Destination Percent Share		13.7%	44.3%	3.0%	13.7%	4.2%	4.1%	4.1%	1.2%	0.7%	5.6%	5.4%	100.0%	

**Figure 5-36. Port Townsend–Coupeville westbound origin and destination locations by boarding mode, weekday 8-hour survey period**

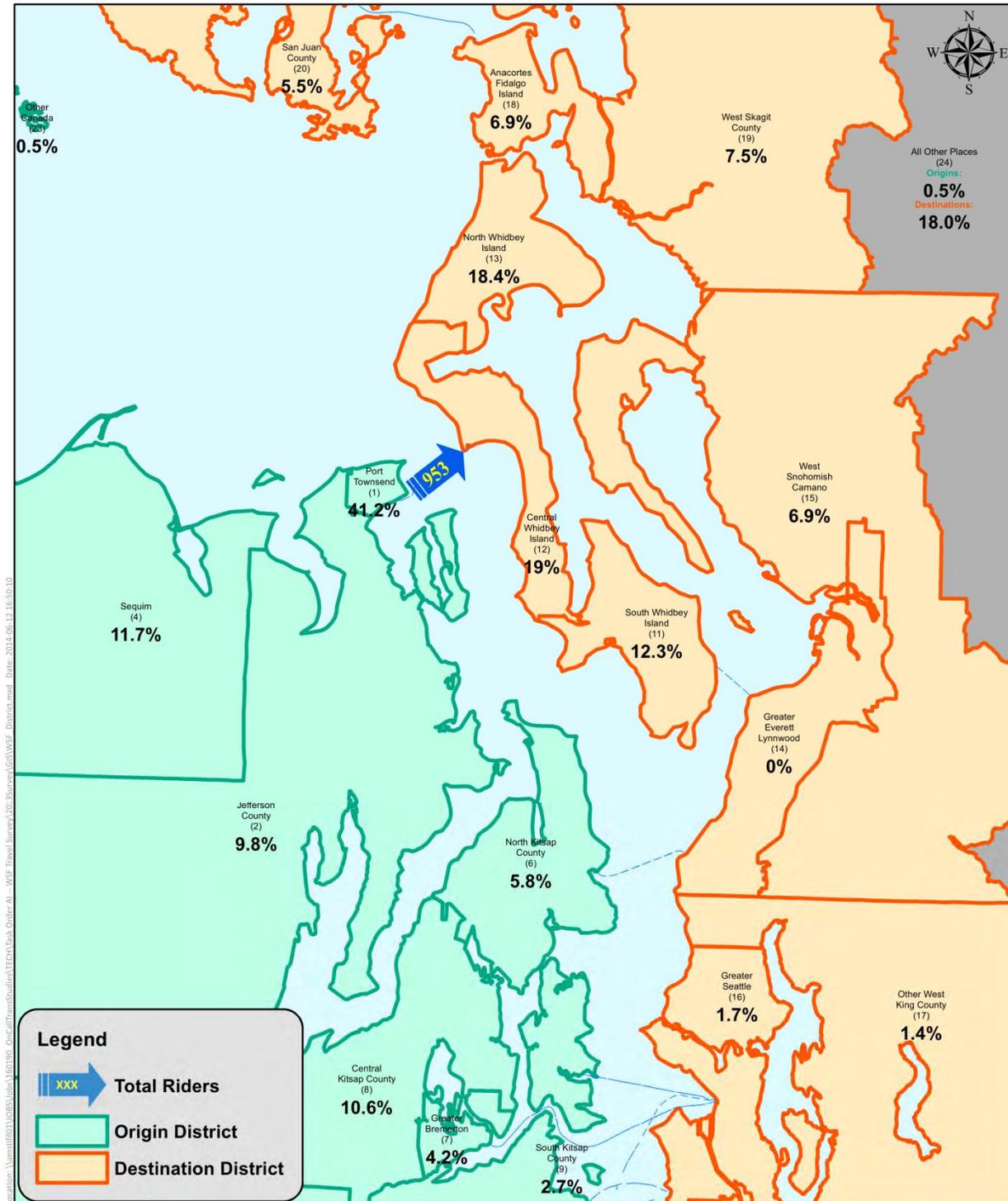


**5.3.10 Saturday Travel Patterns—Eastbound**

Figure 5-37 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 5-30. The major origin with 44 percent of trips is

Port Townsend, while the major destinations are North, Central, and South Whidbey Island. Origin and destination locations by boarding mode are shown in Figure 5-38. Both origin and destination locations are generally less concentrated compared with weekday trips.

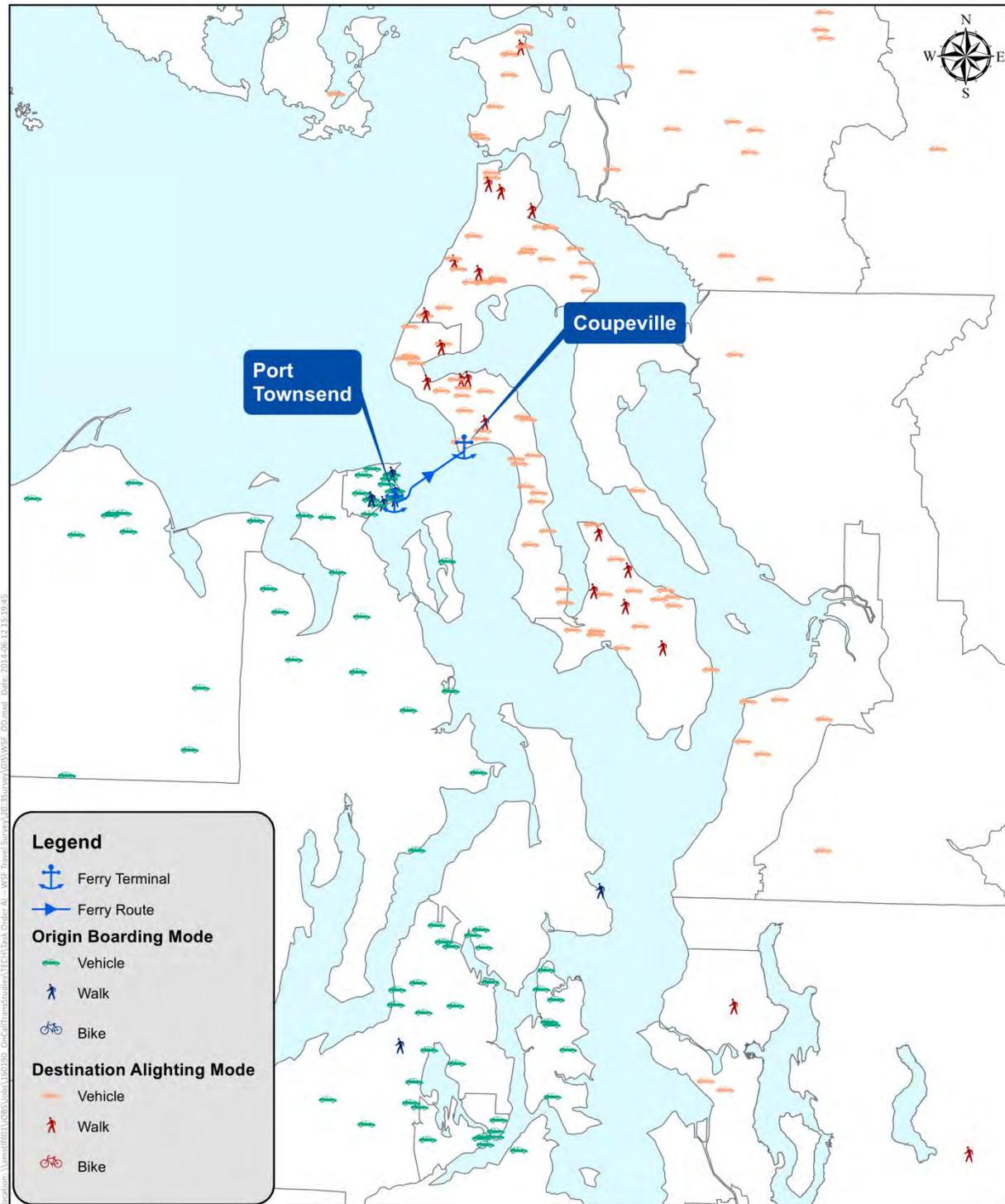
**Figure 5-37. Port Townsend–Coupeville eastbound origin and destination districts, Saturday survey period**



**Table 5-30. Port Townsend–Coupeville eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►											Origin Total	Origin Percent Share
		S Whidbey Island	Central Whidbey Island	N Whidbey Island	W Snohomish / Camano	Greater Seattle	Other W King County	Anacortes / Fidalgo Is.	W Skagit County	San Juan County	Vancouver BC	All Other Places		
		11	12	13	15	16	17	18	19	20	22	24		
Port Townsend	1	46	70	87	36	17	7		16		23	91	392	41.2%
Jefferson County	2		29	10	15		7	12				21	93	9.8%
Port Angeles	3		5	14					7	30		5	60	6.3%
Sequim	4	12	11	10	5			12	19	23		21	112	11.7%
W Olympic Peninsula	5											10	10	1.0%
N Kitsap County	6	15	14	16				6				5	55	5.8%
Greater Bremerton	7		14	6				10	10				40	4.2%
Central Kitsap County	8	15	22	18				27	20				101	10.6%
S Kitsap County	9	7	9	5	5								26	2.7%
Mason/W Pierce County	10	23	8	10	5							9	54	5.7%
Other Canada	23											5	5	0.5%
All Other Places	24											5	5	0.5%
Destination Total		117	181	175	65	17	14	66	71	53	23	171	953	100%
Destination Percent Share		12.3%	19.0%	18.4%	6.9%	1.7%	1.4%	6.9%	7.5%	5.5%	2.4%	18.0%	100.0%	

Figure 5-38. Port Townsend–Coupeville eastbound origin and destination locations by boarding mode, Saturday survey period

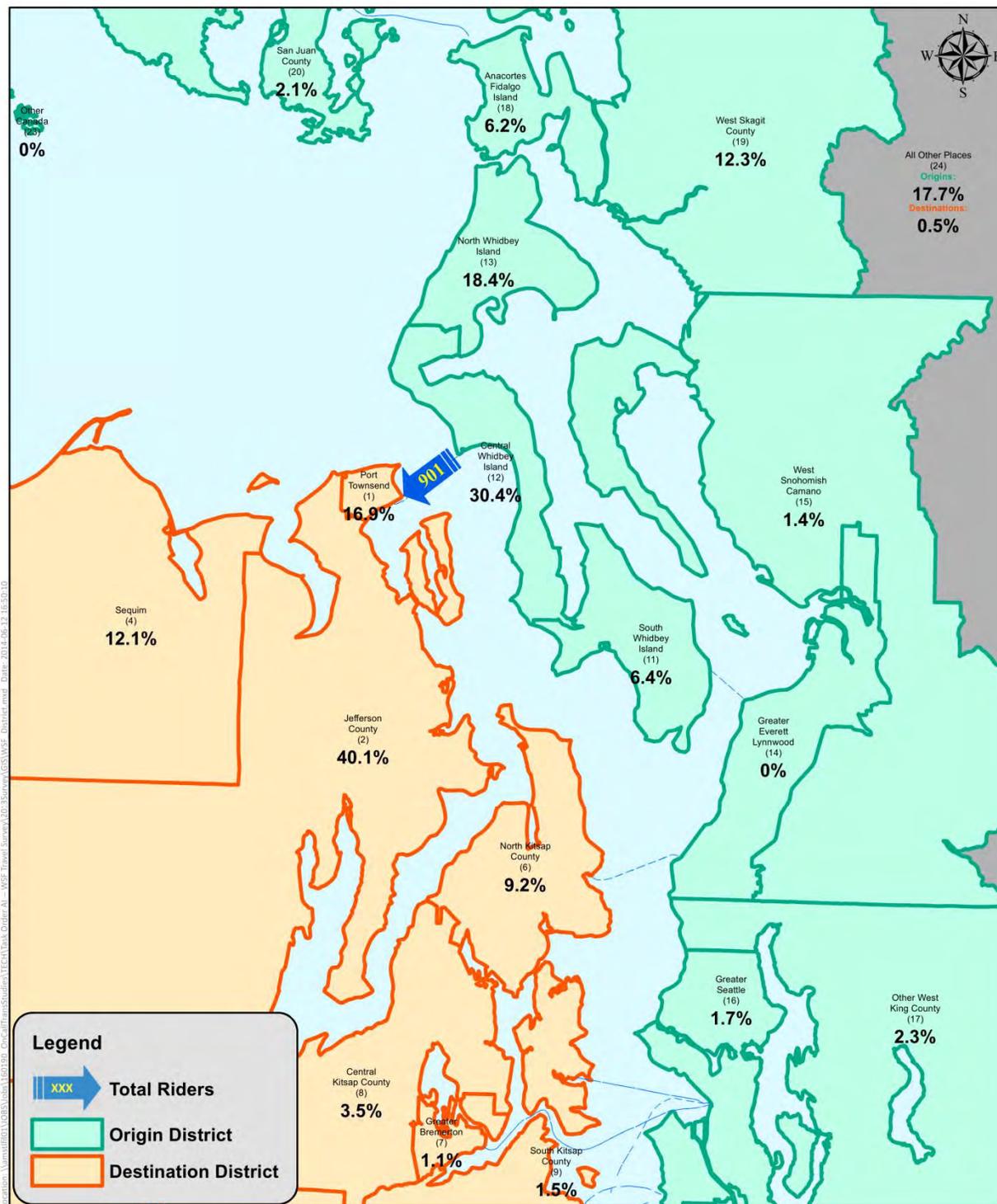


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### 5.3.11 Saturday Travel Patterns—Westbound

Figure 5-39 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 5-31. The major origins are Central Whidbey Island and West Skagit County, while the major destinations are Jefferson County, Port Townsend, and Sequim. Origin and destination locations by boarding mode are shown in Figure 5-40. Walk boarding destinations in particular are highly concentrated in the Port Townsend area.

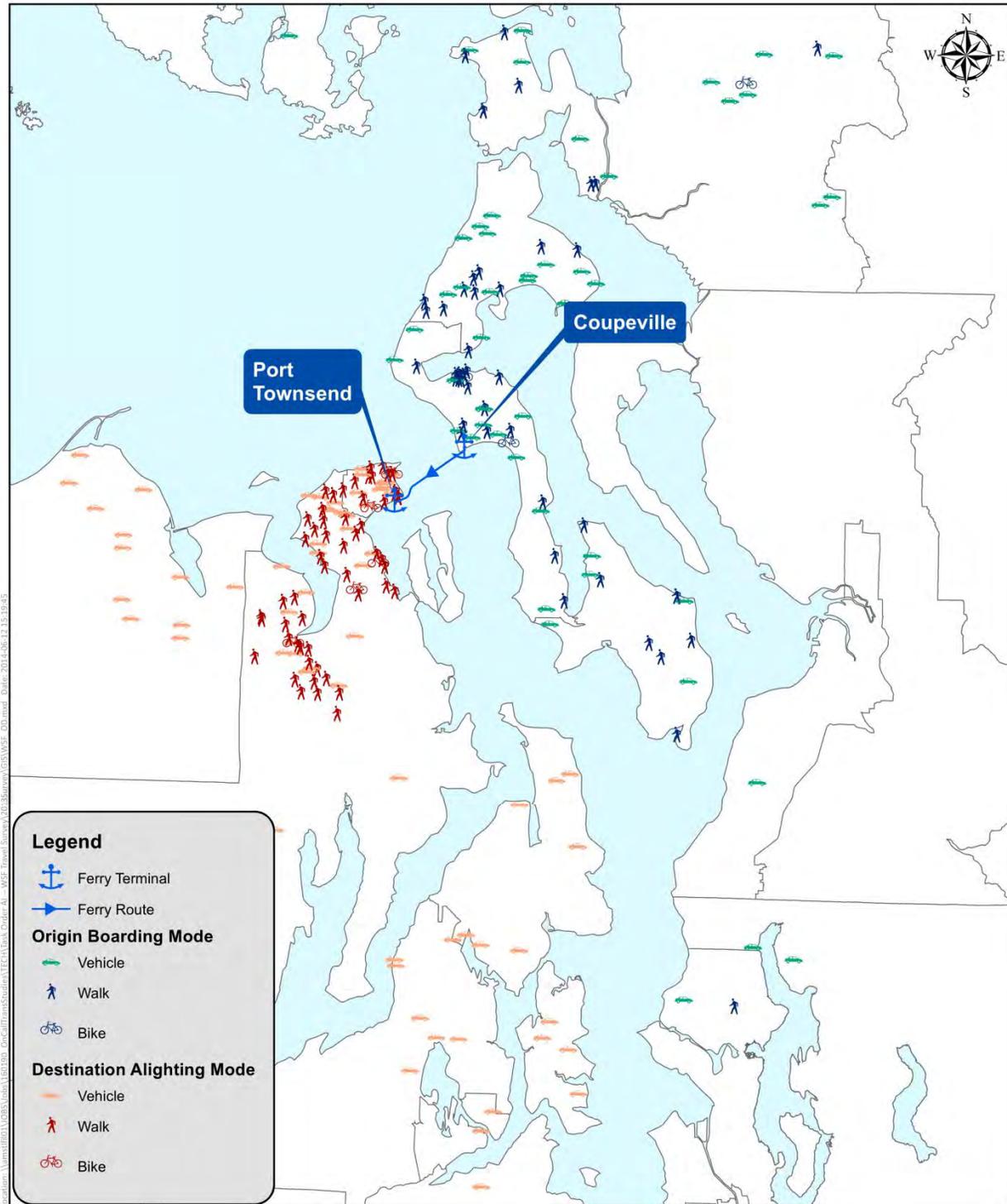
Figure 5-39. Port Townsend–Coupeville westbound origin and destination districts, Saturday survey period



**Table 5-31. Port Townsend–Coupeville westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►											Origin Total	Origin Percent Share
		Port Townsend	Jefferson County	Port Angeles	Sequim	West Olympic Peninsula	North Kitsap County	Greater Bremerton	Central Kitsap County	South Kitsap County	Mason/West Pierce County	All Other Places		
		1	2	3	4	5	6	7	8	9	10	24		
S Whidbey Island	11	14	26			18							57	6.4%
Central Whidbey Is	12	66	94	19	21	22			16	14	22		274	30.4%
N Whidbey Island	13	37	58		7	25	10	11			19		166	18.4%
W Snohomish / Camano	15		12										12	1.4%
Greater Seattle	16		16										16	1.7%
Other W King County	17		7		7	7							21	2.3%
Anacortes / Fidalgo Is	18	3	27	10		12			4				56	6.2%
W Skagit County	19	14	30	21	23	19	4						111	12.3%
San Juan County	20		12			7							19	2.1%
Vancouver BC	22		10										10	1.1%
All Other Places	24	20	71		51						14	4	159	17.7%
Destination Total		153	362	49	109	32	83	10	32	14	55	4	901	100%
Destination Percent Share		16.9%	40.1%	5.5%	12.1%	3.5%	9.2%	1.1%	3.5%	1.5%	6.1%	0.5%	100.0%	

Figure 5-40. Port Townsend–Coupeville westbound origin and destination locations by boarding mode, Saturday survey period



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## 6 CENTRAL SOUND CORRIDOR

### 6.1 Description

The routes in the Central Sound Corridor include: Seattle–Bainbridge Island, Seattle–Bremerton, and Edmonds–Kingston, as shown in Figure 6-1. This is the highest traveled corridor in the Washington State Ferries (WSF) system, with 12.4 million riders per year. This is down from 13.2 million passengers in 2006 and a peak of 14.4 million passengers in 1999. The corridor serves Kitsap County, Bainbridge Island, and the Olympic Peninsula via the Hood Canal Bridge.

The tabulations and percentage share distributions of results herein represent the survey responses as expanded to the survey period ridership. More information regarding expansion methods can be found in Chapter 8.

Figure 6-1. Central Sound Corridor routes





Fares on the three routes in this corridor are set equal, at \$7.85 for passengers and \$10.70 for vehicles. This is an increase in passenger fare from \$6.50 in 2006, but a decrease for vehicles from \$11.25 in 2006. There are 64 sailings in each direction a day for the three routes in this corridor, an increase from 62 sailings each direction a day in 2006.

### 6.1.1 Frequency of Travel

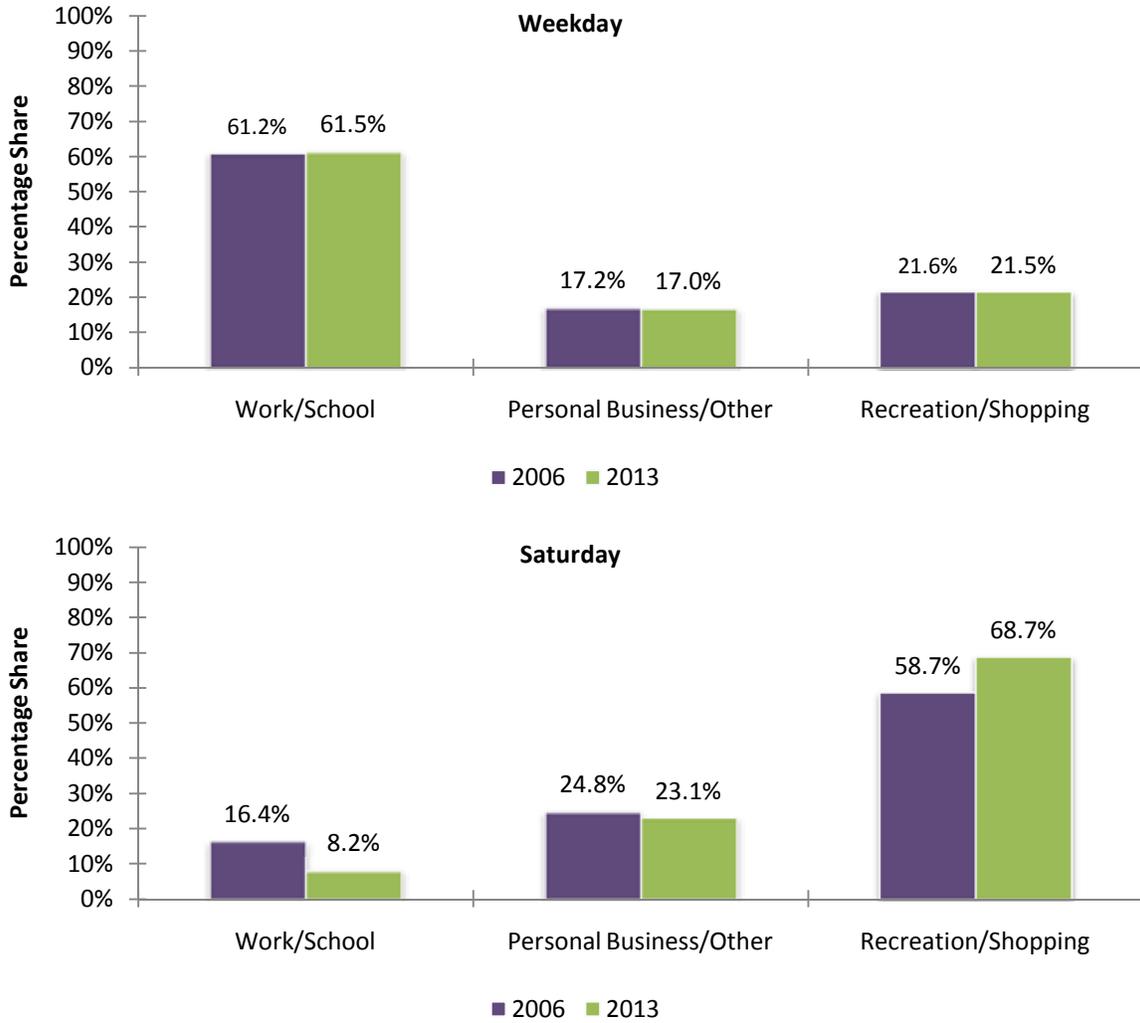
The frequency of travel for weekday and Saturday by trip purpose for both 2013 and 2006 is shown in Table 6-1. More than 61 percent of total trips in the Central Sound Corridor are for work or school, the same percentage as in the 2006 survey results. This is a larger percentage for the corridor compared to 54 percent of the total travel for work or school system-wide. Half of weekday travelers (51 percent) take at least five trips per week on the ferry in 2013, similar to weekday travelers (53 percent) taking five or more trips per week in 2006.

**Table 6-1. Central Sound Corridor one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	709	788	1,301	2,798	20.2%	12.3%	8.3%	4.1%
2	540	575	723	1,838	13.2%	19.9%	6.3%	9.2%
3 to 4	962	627	669	2,258	16.3%	14.8%	11.3%	8.1%
5 to 6	1,319	205	162	1,686	12.1%	8.7%	15.4%	10.8%
7 to 8	1,345	111	53	1,509	10.9%	8.7%	15.7%	12.7%
9 to 10	2,634	20	52	2,706	19.5%	26.1%	30.8%	41.3%
11+	1,033	30	20	1,083	7.8%	9.5%	12.1%	13.9%
Total	8,542	2,356	2,981	13,879	100%	100%	100%	100%
2013 Distribution	61.5%	17.0%	21.5%	100%				
2006 Distribution	61.2%	17.2%	21.6%	100%				
<b>Saturday</b>								
1	323	1,971	6,823	9,116	56.0%	37.3%		
2	203	812	1,959	2,974	18.3%	25.5%		
3 to 4	239	543	1,443	2,225	13.7%	20.3%		
5 to 6	150	167	363	680	4.2%	4.3%		
7 to 8	82	73	207	361	2.2%	2.2%		
9 to 10	147	66	171	384	2.4%	5.3%		
11+	192	129	217	538	3.3%	4.9%		
Total	1,335	3,760	11,183	16,279	100%	100%		
2013 Distribution	8.2%	23.1%	68.7%	100%				
2006 Distribution	16.4%	24.8%	58.7%	100%				

Unlike weekday travelers, more than two-thirds of Saturday survey respondents (69 percent) indicated a trip purpose of recreation/shopping in 2013, an increase of 10 percent from 2006 trips (59 percent). There has been a 50-percent reduction in the share of travelers riding the ferry for work or school purposes on Saturdays in the Central Sound Corridor (8 percent in 2013 compared to 16 percent in 2006). Figure 6-2 compares weekday and Saturday trips by purpose to 2006 survey data.

**Figure 6-2. Central Sound Corridor trips by purpose, weekday 8-hour and Saturday survey periods (2006 and 2013)**

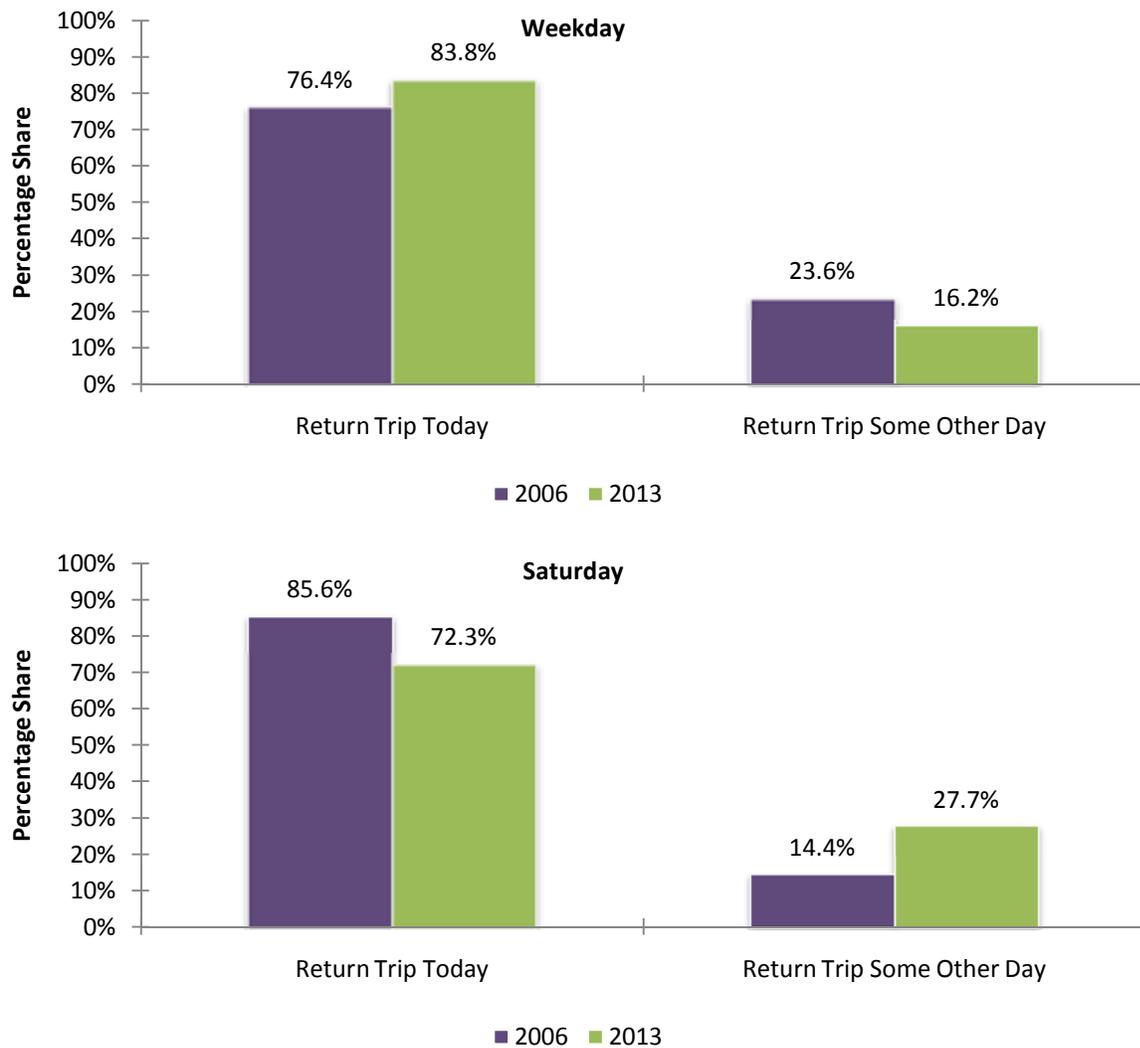




### 6.1.2 Round-Trip Patterns

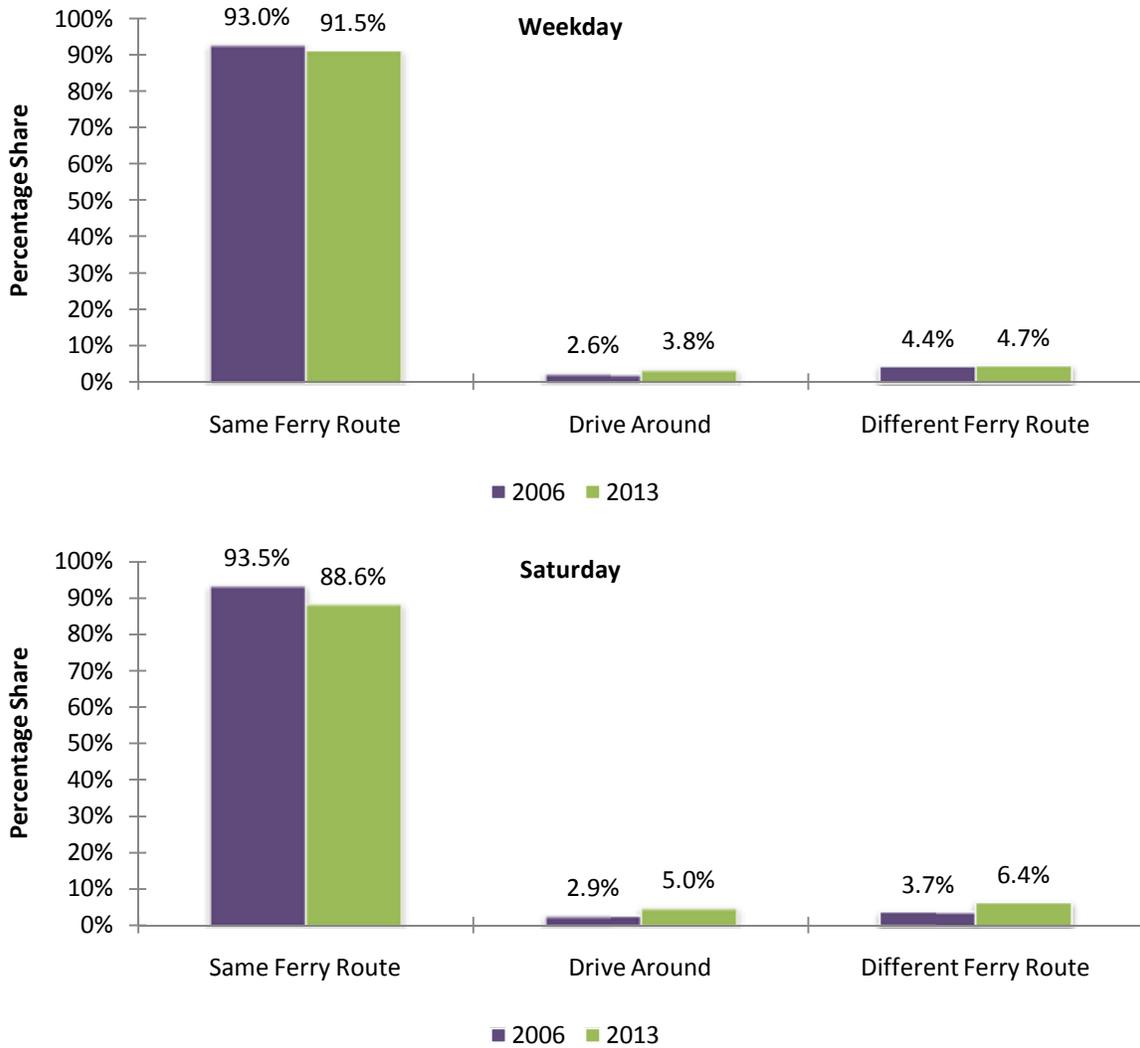
The majority of ferry riders in the Central Sound Corridor made a round-trip on the same day, as shown in Figure 6-3. This was also true in 2006 overall, although the percentage of travelers returning on the same day increased by 8 percent for weekday trips from 2006. Alternatively, the number of travelers returning the same day on Saturdays decreased by 13 percent for Saturday trips. More travelers now return on the same day for weekday trips, and fewer travelers are returning on the same day for Saturday trips.

Figure 6-3. Central Sound Corridor round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)



The vast majority of ferry travelers surveyed in 2013 made a round-trip on the same ferry route (92 percent for weekday and 88 percent for Saturday), as shown in Figure 6-4. This was also true for 2006; however, the percentage of travelers has slightly decreased from 2006 for both weekday and Saturday travelers. Compared to 2006, a greater number of travelers are driving around or returning on a different ferry route in 2013.

**Figure 6-4. Central Sound Corridor round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**

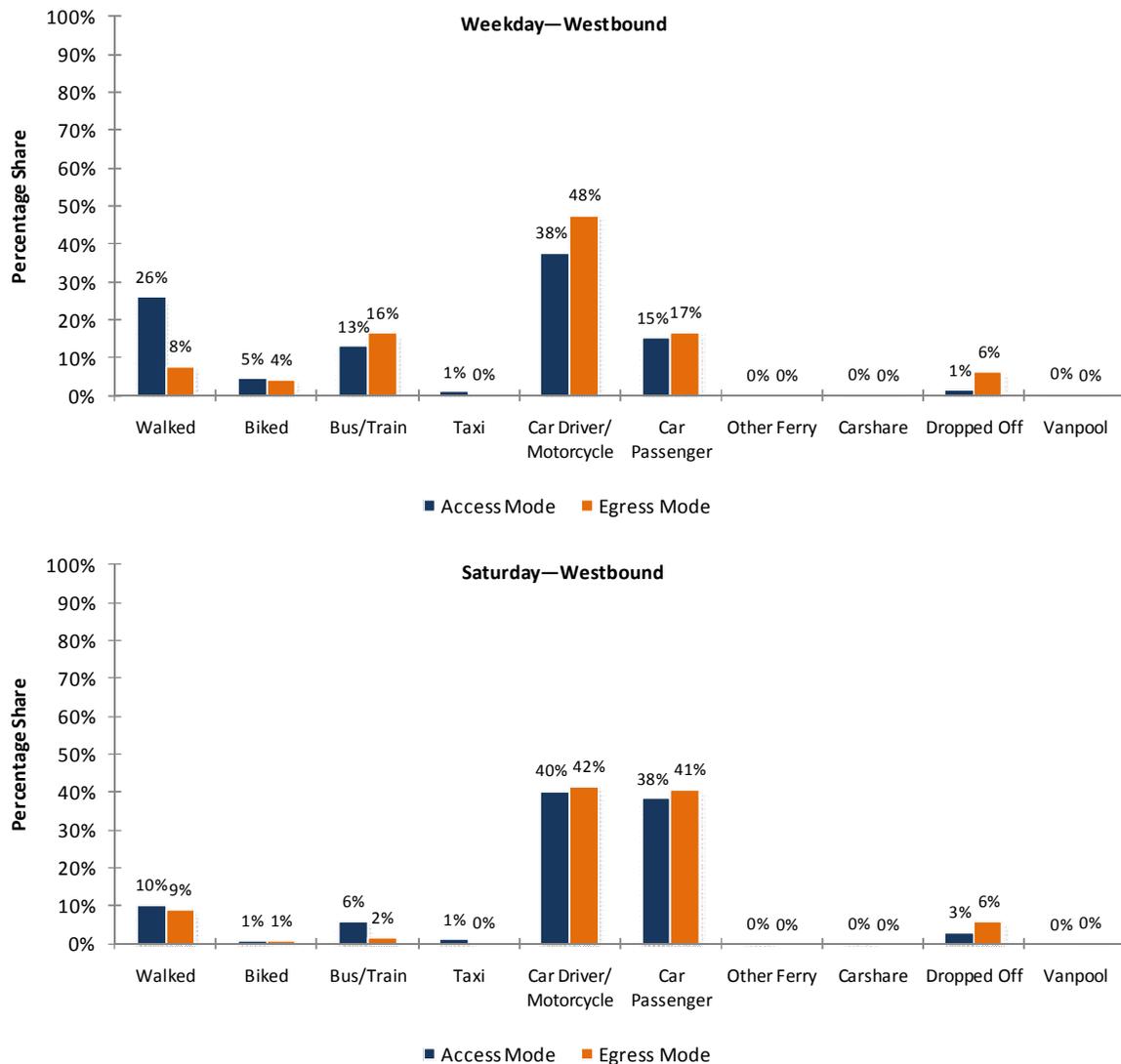




### 6.1.3 Access, Egress, and Boarding Modes

Figure 6-5 and Figure 6-6 present Central Sound Corridor access and egress modes for weekday and Saturday survey days by direction. As shown in the figures, there is generally a higher percentage of non-motorized (walk and bike) and transit access and egress trips during the week than on Saturdays in both directions. This may be due to daily ferry riders being more likely to learn and use transit connections than day-trippers, who may be traveling in larger parties. A greater percentage of westbound walk-on riders access the ferry terminal on foot or by bike than eastbound walk-on riders.

**Figure 6-5. Central Sound Corridor westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



**Figure 6-6. Central Sound Corridor eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

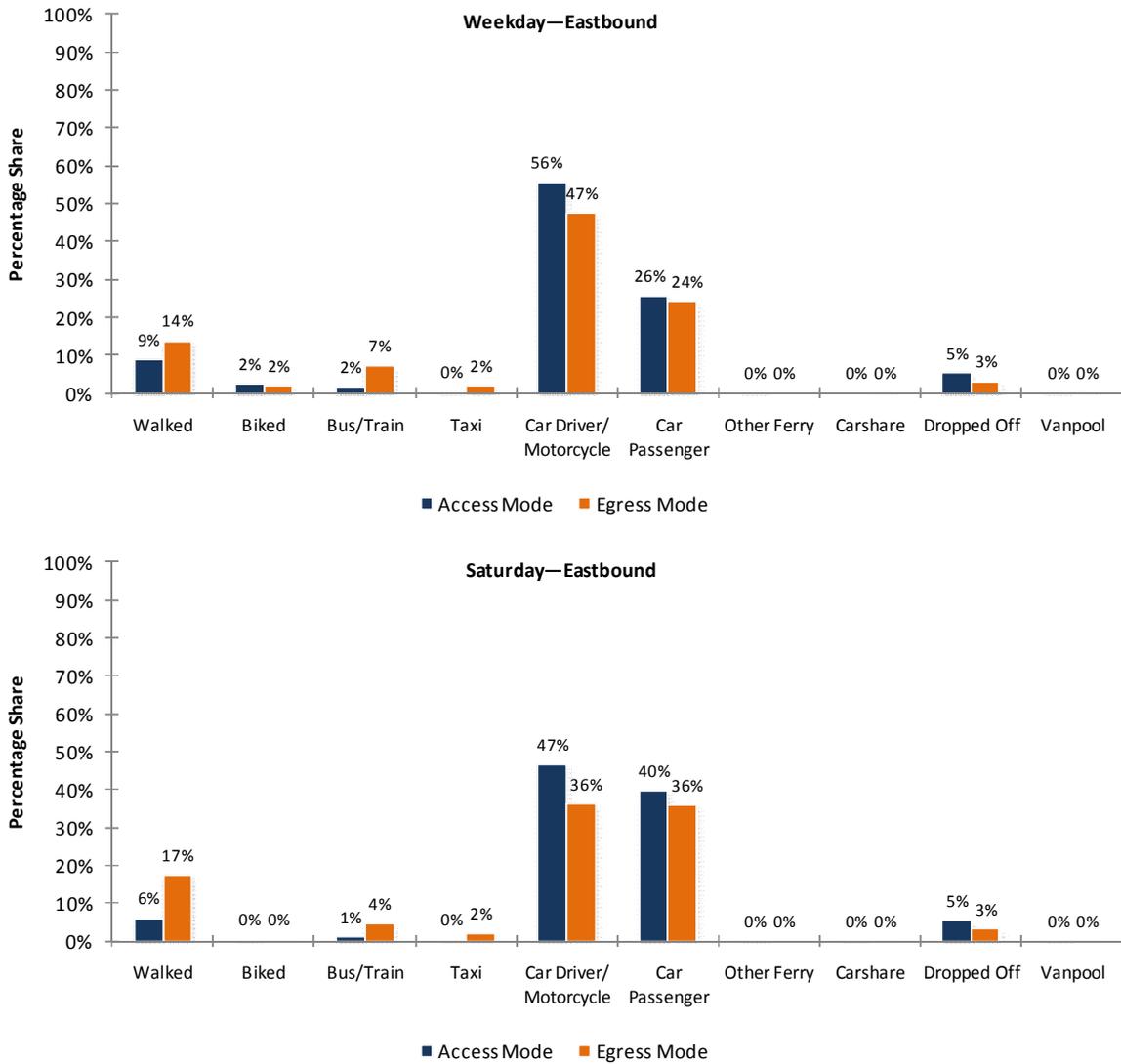




Table 6-2 and Table 6-3 provide greater detail on access and egress trips by boarding mode. Table 6-4, Table 6-5, and Table 6-6 present the access mode to the ferry, boarding method, and egress mode from the ferry for the weekday PM peak period, weekday non-PM peak period, and Saturday trips.

The majority of ferry riders surveyed in 2013 in the Central Sound Corridor board the ferry by car (56 percent weekday, 72 percent Saturday); however, this percentage has decreased for both weekday and Saturday travelers by close to 6 percent since 2006.

The percentage of passengers boarding by bicycle on weekdays nearly tripled since 2006 for the Central Sound. Similarly, the percentage of biking as an access and egress mode to and from the ferry terminal more than doubled for weekday travelers. This increase is not reflected in Saturday trips; bicycle trips account for less than 1 percent of boarding mode share on Saturdays.

Almost half of walk-on weekday travelers access the ferry terminal on foot (47 percent PM peak, 42

*“The percentage of passengers boarding by bicycle on weekdays nearly tripled since 2006 for the Central Sound. Similarly, the percentage of biking as an access and egress mode to and from the ferry terminal more than doubled for weekday travelers.”*

percent non-PM peak). A smaller percentage of passengers leave the ferry terminal by foot during the weekday PM peak period (19 percent) than the weekday non-PM peak period (30 percent). Transit accounts for about one-fifth of walk-on boardings for both weekday PM peak and non-PM peak periods. A greater number of walk-on travelers leave the ferry terminal on transit during the PM peak period (34 percent) than the non-PM peak period (19 percent). This is likely due to greater availability and accessibility of transit options during the PM peak period versus the non-PM peak period. More walk-on riders access the ferry terminal by vehicle on Saturdays than on weekdays, yet more egress from the ferry terminal as a pedestrian on Saturdays (40 percent) than weekdays.

**Table 6-2. Central Sound Corridor access mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	21	3,270	7	3,298	20.1%	20.1%
Biked	4	57	561	621	3.8%	1.7%
Bus/Train	21	1,432	36	1,488	9.1%	5.5%
Taxi	0	123	2	126	0.8%	1.2%
Car Driver/Motorcycle	6,397	793	3	7,193	43.9%	52.4%
Car Passenger	2,754	337	0	3,091	18.9%	19.1%
Other Ferry	0	3	0	3	0.0%	
Carshare	0	35	4	39	0.2%	
Dropped Off	5	456	0	461	2.8%	
Vanpool	0	49	7	55	0.3%	
<b>Total</b>	<b>9,202</b>	<b>6,554</b>	<b>619</b>	<b>16,375</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	56.2%	40.0%	3.8%	100%		
2006 Distribution	63.2%	35.5%	1.3%	100%		
<b>Saturday</b>						
Walked	5	1,579	12	1,596	8.1%	5.9%
Biked	0	15	103	118	0.6%	0.5%
Bus/Train	3	660	2	665	3.4%	5.2%
Taxi	0	135	0	135	0.7%	0.3%
Car Driver/Motorcycle	7,300	1,356	11	8,666	43.8%	54.5%
Car Passenger	6,915	816	0	7,730	39.0%	33.5%
Other Ferry	0	10	0	10	0.1%	
Carshare	5	18	0	23	0.1%	
Dropped Off	4	838	3	845	4.3%	
Vanpool	0	10	0	10	0.1%	
<b>Total</b>	<b>14,232</b>	<b>5,438</b>	<b>130</b>	<b>19,800</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	71.9%	27.5%	0.7%	100%		
2006 Distribution	77.0%	22.6%	0.4%	100%		



**Table 6-3. Central Sound Corridor egress mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	25	1,590	6	1,621	9.9%	16.5%
Biked	9	94	467	570	3.5%	1.7%
Bus/Train	24	2,057	85	2,167	13.2%	8.9%
Taxi	0	156	0	156	1.0%	1.4%
Car Driver/Motorcycle	6,361	1,386	46	7,792	47.6%	53.4%
Car Passenger	2,771	394	7	3,171	19.4%	18.1%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	7	0	7	0.0%	
Dropped Off	4	836	8	848	5.2%	
Vanpool	8	36	0	44	0.3%	
<b>Total</b>	<b>9,202</b>	<b>6,554</b>	<b>619</b>	<b>16,375</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	56.2%	40.0%	3.8%	100%		
2006 Distribution	63.1%	35.7%	1.3%	100%		
<b>Saturday</b>						
Walked	10	2,659	3	2,672	13.5%	10.7%
Biked	4	9	103	116	0.6%	0.5%
Bus/Train	0	618	8	626	3.2%	1.3%
Taxi	0	253	2	255	1.3%	0.8%
Car Driver/Motorcycle	7,141	516	3	7,659	38.7%	55.0%
Car Passenger	7,060	494	6	7,561	38.2%	31.7%
Other Ferry	0	0	0	0	0.0%	
Carshare	5	4	0	9	0.0%	
Dropped Off	11	854	6	871	4.4%	
Vanpool	0	30	0	30	0.2%	
<b>Total</b>	<b>14,232</b>	<b>5,438</b>	<b>130</b>	<b>19,800</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	71.9%	27.5%	0.7%	100%		
2006 Distribution	76.4%	23.2%	0.4%	100%		

**Table 6-4. Central Sound Corridor trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (47.7% of total boardings)</b>					
Pedestrian	47.1%	Pedestrian	90.1%	Pedestrian	19.4%
Bicycle	9.8%	Pedestrian w/ Bicycle	9.9%	Bicycle	8.8%
By Bus/Transit	19.7%			By Bus/Transit	33.9%
By Vehicle	22.0%			By Vehicle	37.5%
Vanpool	0.9%			Vanpool	0.3%
Carshare	0.5%			Carshare	0.0%
Other Ferry	0.1%			Other Ferry	0.0%
<b>In-Vehicle Boardings (52.3% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	70.6%	In-Vehicle	100.0%
		Vehicle Passengers	29.4%		

Note: Average vehicle occupancy (AVO) was 1.42 for the weekday PM peak period.

**Table 6-5. Central Sound Corridor trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (35.6% of total boardings)</b>					
Pedestrian	41.7%	Pedestrian	95.0%	Pedestrian	30.2%
Bicycle	5.3%	Pedestrian w/ Bicycle	5.0%	Bicycle	5.0%
By Bus/Transit	22.7%			By Bus/Transit	18.5%
By Vehicle	29.2%			By Vehicle	44.9%
Vanpool	0.4%			Vanpool	0.9%
Carshare	0.8%			Carshare	0.4%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (64.4% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	68.4%	In-Vehicle	100.0%
		Vehicle Passengers	31.6%		

Note: Average vehicle occupancy (AVO) 1.46 for the weekday non-PM peak period.



**Table 6-6. Central Sound Corridor trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (28.1% of total boardings)</b>					
Pedestrian	28.6%	Pedestrian	97.7%	Pedestrian	47.8%
Bicycle	2.1%	Pedestrian w/ Bicycle	2.3%	Bicycle	2.0%
By Bus/Transit	11.9%			By Bus/Transit	11.2%
By Vehicle	56.7%			By Vehicle	38.3%
Vanpool	0.2%			Vanpool	0.5%
Carshare	0.3%			Carshare	0.1%
Other Ferry	0.2%			Other Ferry	0.0%
<b>In-Vehicle Boardings (71.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	51.4%	In-Vehicle	100.0%
		Vehicle Passengers	48.6%		

Note: Average vehicle occupancy (AVO) 1.95 for the Saturday survey period.

Figure 6-7 presents the distribution of reasons for taking a vehicle on-board the ferry for the Central Sound Corridor. The biggest reason for taking a vehicle on the ferry was that the vehicle was needed at the destination (59 percent of weekday travelers taking their vehicle on-board gave this reason, as did 71 percent of Saturday travelers). The second-most prominent reason for taking a vehicle on the ferry for both weekday and Saturday travelers was that it is too far to walk to the destination. Other common reasons were that transit is not convenient, transit does not go to the destination, the vehicle is necessary for business, or that travelers were carrying baggage.

**Figure 6-7. Central Sound Corridor reasons for taking a vehicle, weekday 8-hour and Saturday survey periods (2013)**

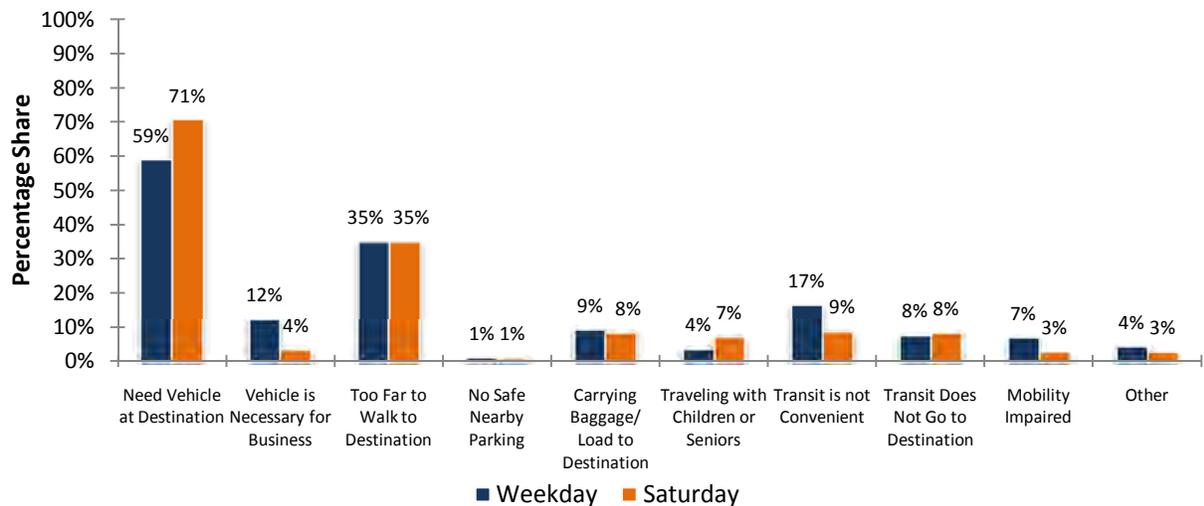
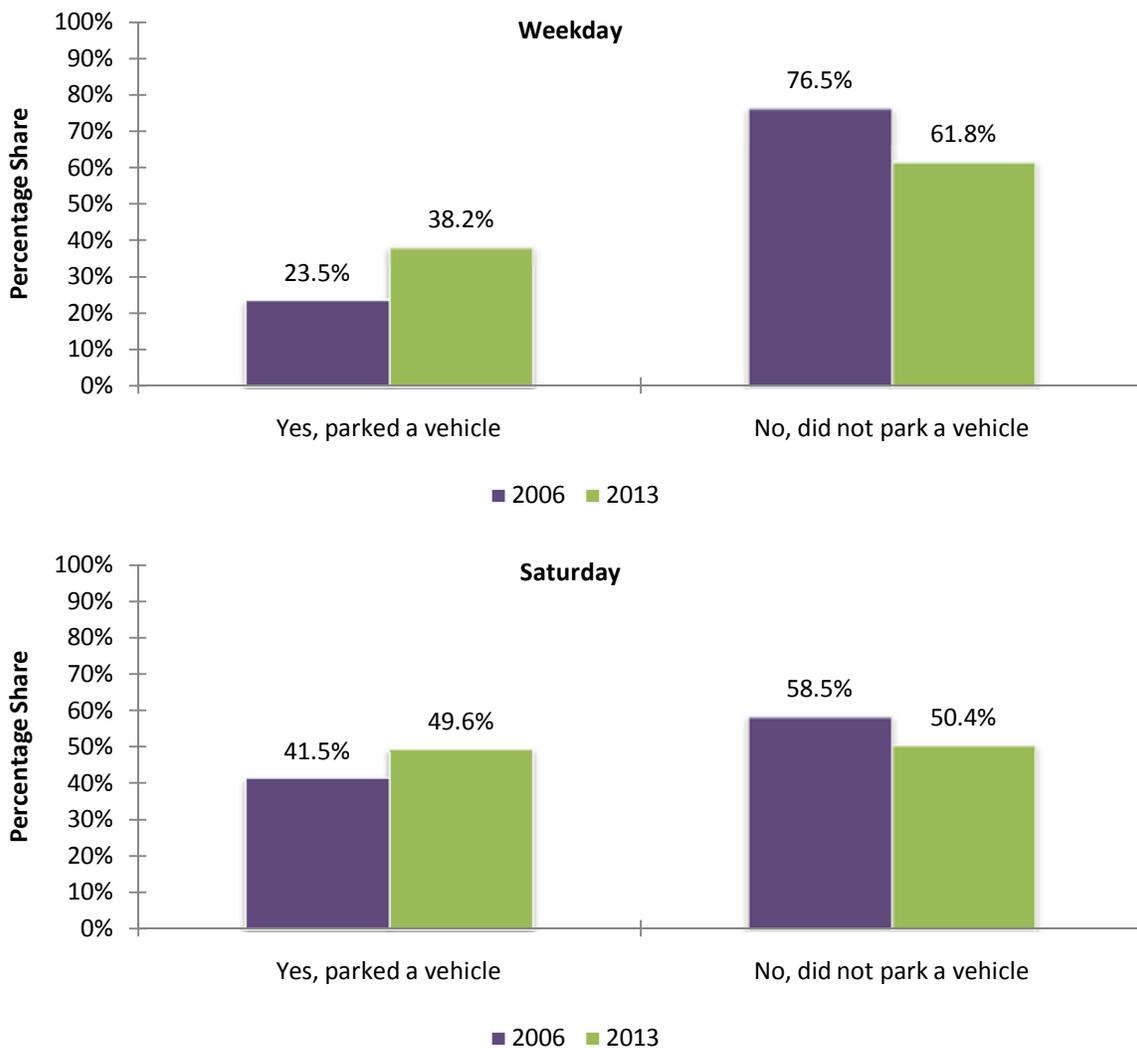


Figure 6-8 shows whether riders parked a vehicle to board the ferry in the Central Sound Corridor. For weekday travelers who travel to the ferry terminal and do not take a car on the ferry (non-motorized boardings), a majority of them do not park their car at the terminal (77 percent), which is greater than the system-wide results (58 percent). Conversely, nearly half of Saturday riders (50 percent) park their car at the terminal, possibly due to more parking availability and in some cases reduced Saturday pricing. A comparison with 2006 shows an overall increase in the number of riders parking a vehicle before boarding the ferry for both weekday and Saturday boardings.

**Figure 6-8. Central Sound Corridor non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**





### 6.1.4 Other Travel Characteristics

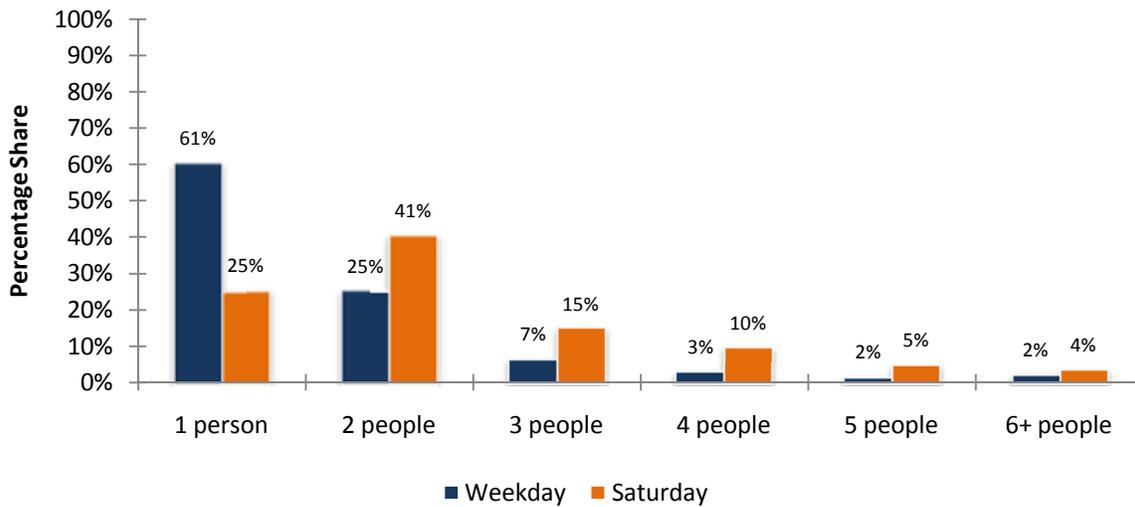
Table 6-7 shows the percentage of respondents who indicated whether their sailing was their preferred option. More than 90 percent of respondents said “yes” for both weekday and Saturday sailings, compared with only 70 percent and 86 percent, respectively, in 2006. Results show an increasing number of riders are able to take their preferred trip.

**Table 6-7. Central Sound Corridor trips preferred sailing, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Preferred Sailing	Drive	Walk/Bike	Total	All Boardings	
				2013	2006
<b>Weekday</b>					
Yes	8,407	6,556	14,963	91.9%	70.2%
No, different departure time	679	570	1,249	7.7%	25.7%
No, different route	48	14	62	0.4%	4.1%
Total	9,135	7,140	16,275	100%	100%
2013 Distribution	56.1%	43.9%	100%		
2006 Distribution	62.6%	37.4%	100%		
<b>Saturday</b>					
Yes	13,143	5,344	18,487	94.5%	85.9%
No, different departure time	881	170	1,051	5.4%	11.6%
No, different route	18	3	21	0.1%	2.6%
Total	14,042	5,518	19,559	100%	100%
2013 Distribution	71.8%	28.2%	100%		
2006 Distribution	77.0%	23.0%	100%		

The distribution of party size for weekday and Saturday travelers is illustrated in Figure 6-9. Survey responses show the majority of weekday riders travel alone (61 percent) compared with Saturday travelers (25 percent). This is likely because of more work commute trips during the week and recreational family trips taking place on Saturdays.

**Figure 6-9. Central Sound Corridor party size, weekday 8-hour and Saturday survey periods (2013)**

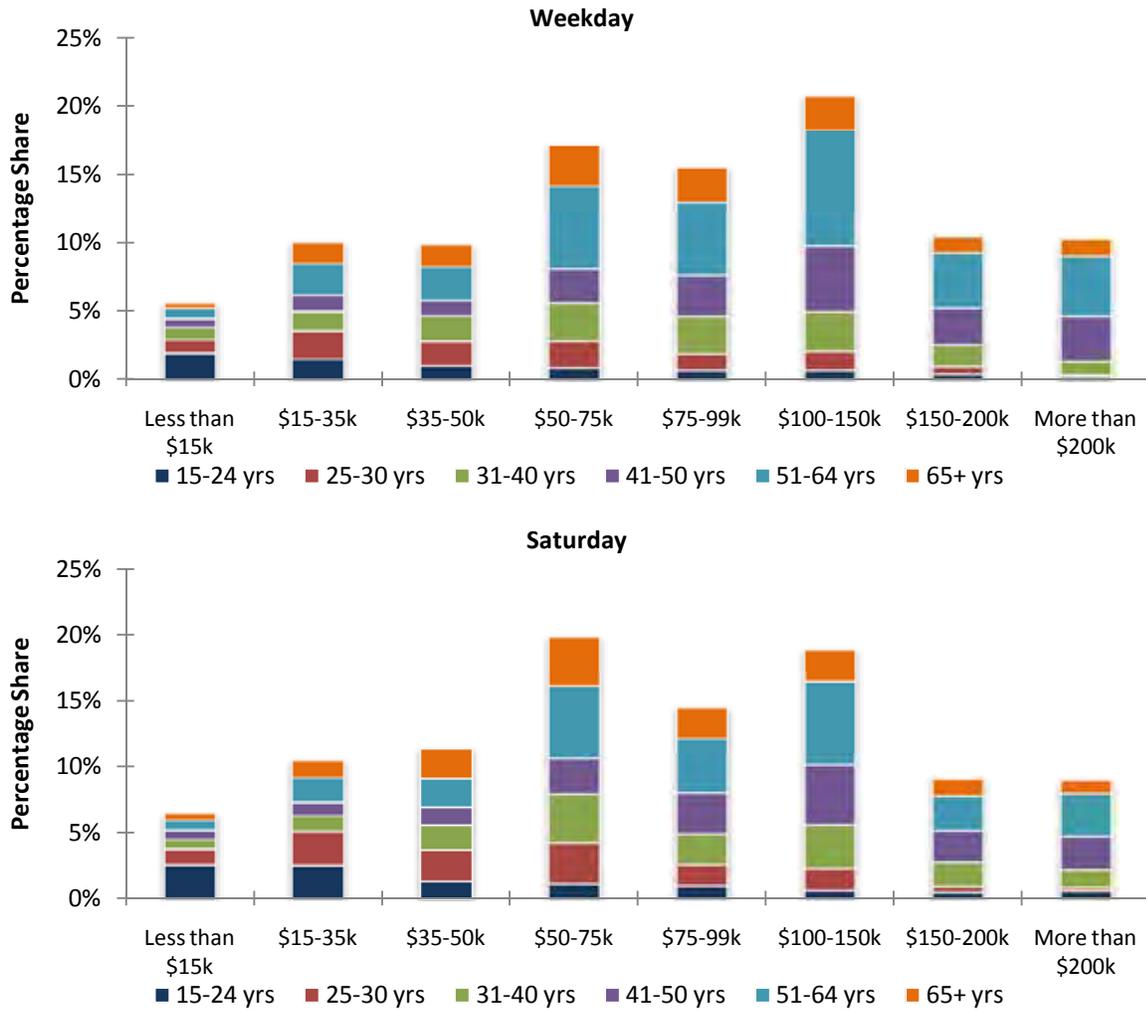


### 6.1.5 Demographic Characteristics

The average age of travelers in the Central Sound Corridor is 49 years old, and the average self-reported household income range is \$75,000 to \$100,000 annually. Figure 6-10 presents the age and self-reported income of survey respondents for weekday and Saturday trips. Traveler age increases as income increases up to \$75,000, after which age ranges remain more stable. Trends are similar for both weekday and Saturday responses.



Figure 6-10. Central Sound Corridor traveler age and income, weekday 8-hour and Saturday survey periods (2013)



## 6.2 Seattle–Bainbridge Island

### 6.2.1 Route Description

The Seattle–Bainbridge Island route is the busiest route in the WSF system and takes approximately 35 minutes to cross roughly 7.5 nautical miles. Total annual ridership for 2013 was 4.3 million passengers plus 2.0 million vehicles and drivers, for a total of 6.3 million riders, or about 17,000 riders per day. This compares to 6.4 million passengers annually, or about 18,000 riders per day, in 2006.

Seattle–Bainbridge Island currently operates 23 sailings per day in each direction, the same number of sailings as 2006. The current passenger fare is \$7.85, an increase from \$6.50 in 2006, and vehicle base fare is \$13.55 for vehicles 14 to 22 feet in length, which has increased from the \$11.25 base fare for vehicles in 2006.

The following subsections provide key trip-making characteristics for 2013 surveyed travelers on the Seattle–Bainbridge Island route and a comparison to 2006 survey data to identify trends.

### 6.2.2 Trips by Purpose

The trip purposes of ferry riders on the Seattle–Bainbridge Island route were cross-tabulated against the direction of the trip for weekday and Saturday. Table 6-8 shows three trip purposes (work/school, personal business/other, and recreation/shopping) for weekday and Saturday, and includes a comparison with 2006 for all trip purposes. The majority of weekday trips are for work and school purposes. Saturday trips have shifted from work and school to recreation or shopping trips on this route; only 8 percent of Saturday trips are for work/school compared with 24 percent in 2006, and recreation/shopping trips account for 72 percent of Saturday trips compared to 56 percent in 2006.

**Table 6-8. Seattle–Bainbridge Island trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	963	648	1,124	2,735	31.0%	50.3%
Westbound	4,255	879	951	6,085	69.0%	49.7%
Total	5,218	1,527	2,075	8,820	100%	100%
2013 Distribution	59.2%	17.3%	23.5%	100%		
2006 Distribution	61.3%	16.6%	22.1%	100%		
<b>Saturday</b>						
Eastbound	340	841	3,106	4,287	50.0%	50.7%
Westbound	346	870	3,068	4,283	50.0%	49.3%
Total	686	1,711	6,173	8,570	100%	100%
2013 Distribution	8.0%	20.0%	72.0%	100%		
2006 Distribution	24.0%	19.6%	56.4%	100%		



### 6.2.3 Frequency of Travel

The total number of trips by purpose is shown in Table 6-9 for weekday and Saturday trips. More than half of the weekday respondents on this route take five or more trips per week. (54 percent), which is a slight decrease from the 58 percent of travelers who took five or more trips per week in 2006. This is consistent with the high percentage of commuters on the Seattle–Bainbridge Island route. As expected, Saturday riders are infrequent users, with about half of the respondents taking only one trip per week.

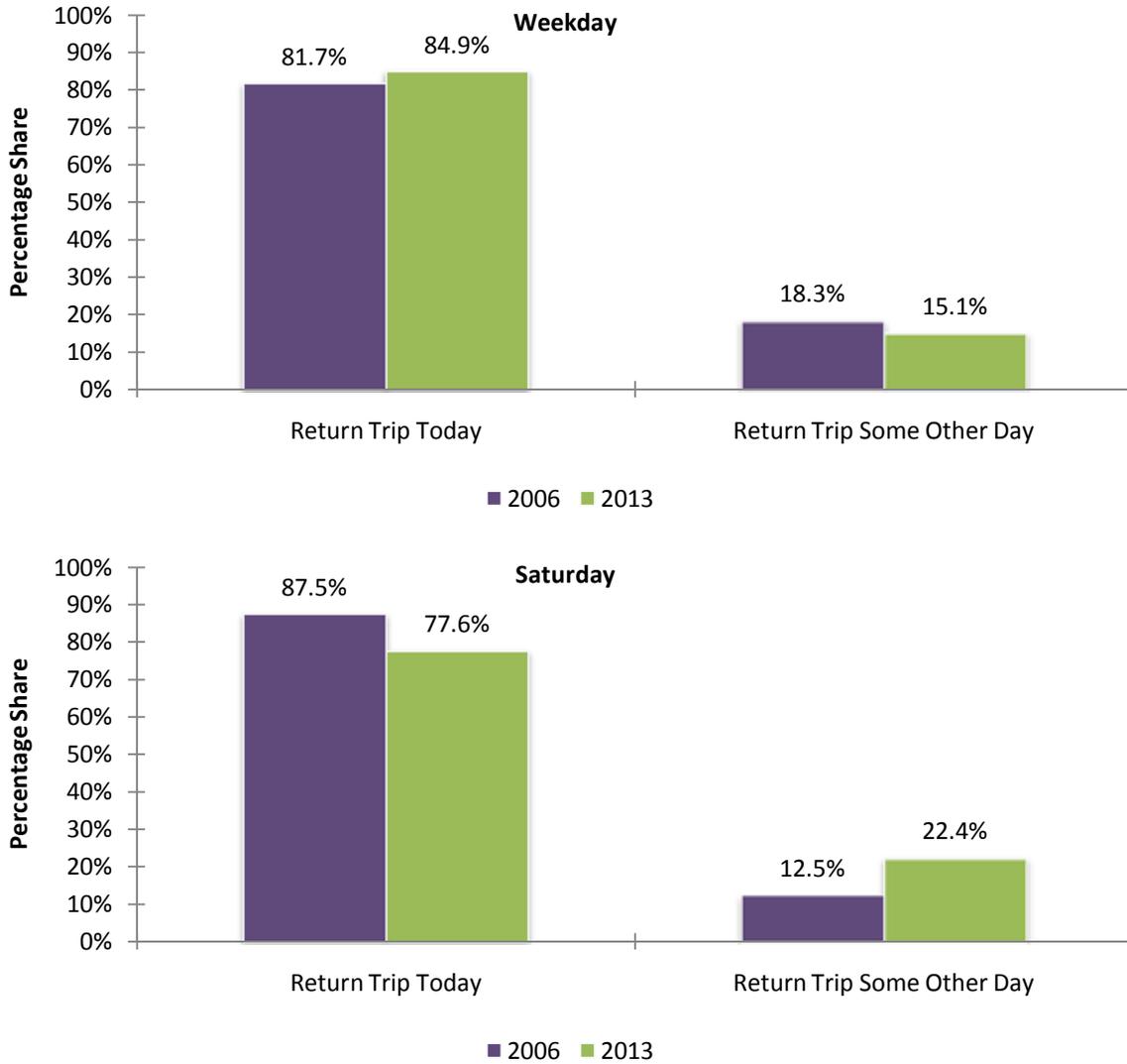
**Table 6-9. Seattle–Bainbridge Island one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	285	354	677	1,316	17.3%	9.5%	6.0%	2.0%
2	262	294	363	919	12.1%	16.1%	5.5%	6.7%
3 to 4	479	344	411	1,234	16.2%	16.2%	10.0%	7.6%
5 to 6	647	125	94	867	11.4%	9.1%	13.5%	10.6%
7 to 8	962	64	35	1,061	13.9%	8.4%	20.1%	11.9%
9 to 10	1,540	11	35	1,586	20.8%	28.8%	32.2%	44.7%
11+	610	20	7	637	8.4%	11.9%	12.8%	16.4%
Total	4,786	1,212	1,623	7,620	100%	100%	100%	100%
2013 Distribution	62.8%	15.9%	21.3%	100%				
2006 Distribution	61.7%	16.6%	21.7%	100%				
<b>Saturday</b>								
1	119	647	2,829	3,595	51.8%	43.0%		
2	67	295	802	1,164	16.8%	16.6%		
3 to 4	114	254	697	1,066	15.4%	12.9%		
5 to 6	82	71	199	352	5.1%	3.8%		
7 to 8	43	37	142	221	3.2%	3.1%		
9 to 10	77	41	74	192	2.8%	7.6%		
11+	101	94	151	346	5.0%	13.0%		
Total	604	1,438	4,894	6,937	100%	100%		
2013 Distribution	8.7%	20.7%	70.6%	100%				
2006 Distribution	23.4%	19.0%	57.6%	100%				

### 6.2.4 Round-Trip Patterns

Figure 6-11 shows the percentage of survey respondents who indicated that their return trip was on the same day or some other day. An increasing number of weekday riders are departing and returning on the same day (85 percent) compared to 2006 (81 percent). However, fewer Saturday travelers are returning on the same day (approximately 10 percent decrease from 2006).

**Figure 6-11. Seattle–Bainbridge Island round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**





The percentage of people taking the same ferry route on the return trip was essentially unchanged in 2013 compared with 2006 for weekday Seattle–Bainbridge Island travelers. There was a slight decrease in the percentage of trips returning on the same route for Saturday travelers from 2006. Riders taking a different route are more likely to be travelling for recreational purposes who are visiting more than one location across the Puget Sound. These round-trip patterns are presented in Figure 6-12.

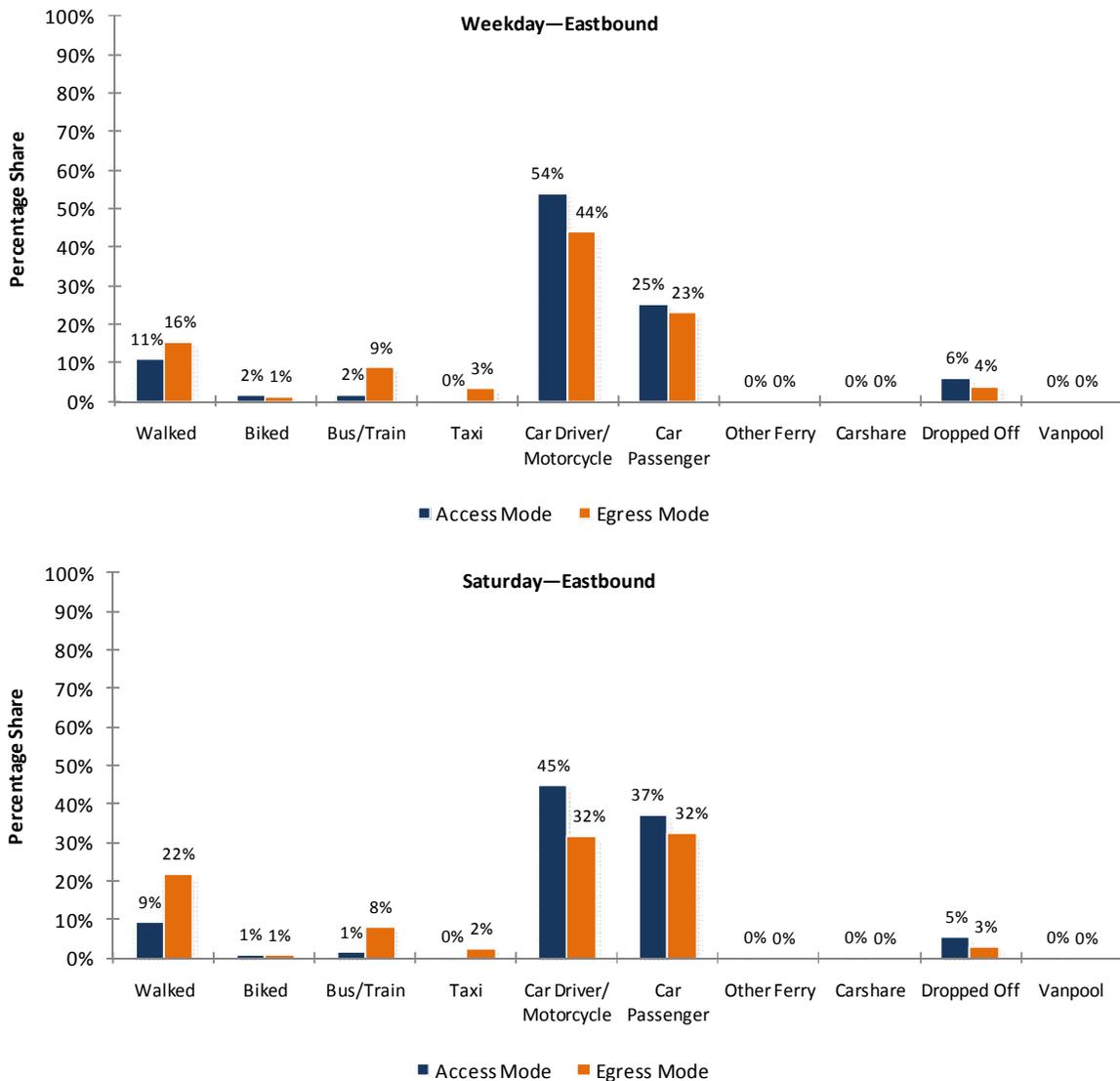
**Figure 6-12. Seattle–Bainbridge Island round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 6.2.5 Access, Egress, and Boarding Modes

Access and egress modes for weekday and Saturday riders are represented in Figure 6-13 for westbound trips and Figure 6-14 for eastbound trips. A larger percentage of weekday ferry riders are accessing the ferry terminal on foot for westbound trips, which aligns with a higher percentage of weekday ferry riders egressing from the terminal on foot after eastbound trips. Results are consistent with transit connections and pedestrian/bicycle that exist in Seattle and surrounding neighborhoods. As expected, more ferry riders access and egress from the ferry by vehicle on Saturdays compared to weekdays in both directions.

**Figure 6-13. Seattle–Bainbridge Island westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**





**Figure 6-14. Seattle–Bainbridge Island eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

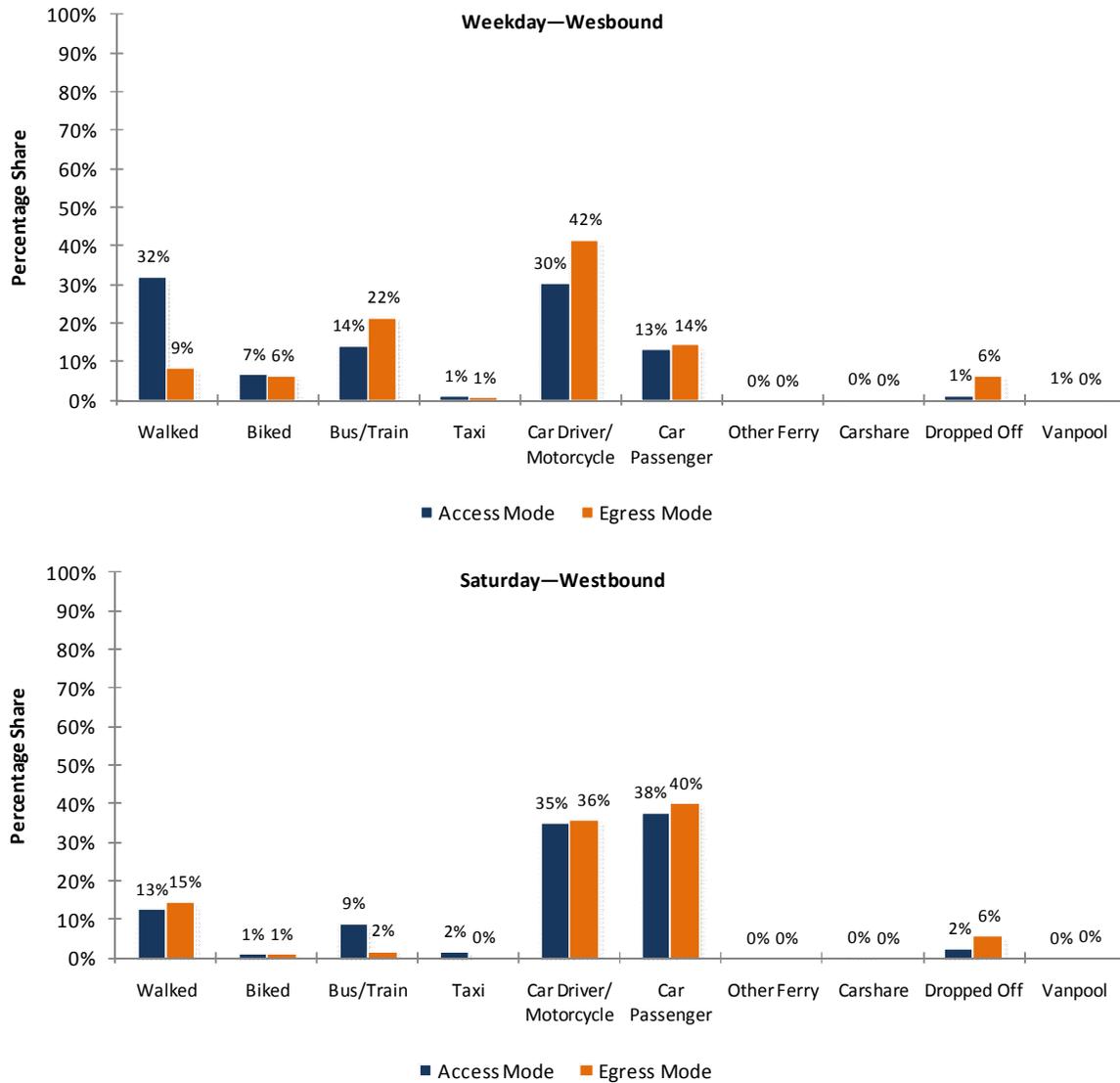


Table 6-10 shows the boarding mode and the corresponding access modes to the ferry terminal for weekday and Saturday, and Table 6-11 shows boarding and egress mode from the ferry terminal for weekday and Saturday.

Table 6-12, Table 6-13, and Table 6-14 present information on access mode to the ferry, boarding mode, and egress mode from the ferry for weekday PM peak period, weekday non-PM-peak period, and Saturday trips. For weekday trips, a greater number of walk-on boardings access the ferry on foot during the PM peak period, in contrast with a greater number of walk-on boardings egressing from the ferry terminal on foot during the non-PM peak period.

Roughly half of Saturday walk-on boardings access the ferry by vehicle (51 percent), while 31 percent access on foot; however, these numbers switch for egress mode, with 51 percent of walk-on

boardings egressing the terminal by foot versus 32 percent egressing by vehicle for Saturday trips. In addition, two-thirds of in-vehicle boardings during the week are drivers, with the remaining one-third being passengers. This compares to a fairly even split between vehicles and passengers for Saturday vehicle boardings and corresponds to larger party sizes and recreational or shopping trips taking place on Saturdays.

**Table 6-10. Seattle–Bainbridge Island access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	21	2,223	7	2,251	25.5%	24.5%
Biked	0	39	408	448	5.1%	2.6%
Bus/Train	10	871	27	908	10.3%	6.8%
Taxi	0	78	0	78	0.9%	2.1%
Car Driver/Motorcycle	2,944	382	3	3,329	37.7%	47.6%
Car Passenger	1,274	218	0	1,493	16.9%	16.5%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	24	4	27	0.3%	
Dropped Off	0	253	0	253	2.9%	
Vanpool	0	30	3	34	0.4%	
<b>Total</b>	<b>4,249</b>	<b>4,119</b>	<b>452</b>	<b>8,820</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	48.2%	46.7%	5.1%	100%		
2006 Distribution	54.6%	43.4%	1.9%	100%		
<b>Saturday</b>						
Walked	0	927	9	936	10.9%	7.4%
Biked	0	11	75	86	1.0%	0.3%
Bus/Train	0	450	0	450	5.3%	8.5%
Taxi	0	97	0	97	1.1%	0.7%
Car Driver/Motorcycle	2,746	680	0	3,426	40.0%	53.6%
Car Passenger	2,772	441	0	3,213	37.5%	29.6%
Other Ferry	0	4	0	4	0.0%	
Carshare	0	18	0	18	0.2%	
Dropped Off	0	337	0	337	3.9%	
Vanpool	0	4	0	4	0.0%	
<b>Total</b>	<b>5,518</b>	<b>2,968</b>	<b>84</b>	<b>8,570</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	64.4%	34.6%	1.0%	100%		
2006 Distribution	71.6%	28.1%	0.3%	100%		



**Table 6-11. Seattle–Bainbridge Island egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	12	927	6	944	10.7%	20.5%
Biked	5	70	352	427	4.8%	2.4%
Bus/Train	16	1,469	64	1,549	17.6%	11.0%
Taxi	0	128	0	128	1.5%	2.4%
Car Driver/Motorcycle	2,939	772	24	3,734	42.3%	47.6%
Car Passenger	1,273	223	7	1,503	17.0%	16.0%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	4	0	4	0.0%	
Dropped Off	0	503	0	503	5.7%	
Vanpool	4	24	0	28	0.3%	
<b>Total</b>	<b>4,249</b>	<b>4,119</b>	<b>452</b>	<b>8,820</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	48.2%	46.7%	5.1%	100%		
2006 Distribution	54.3%	43.7%	2.0%	100%		
<b>Saturday</b>						
Walked	3	1,562	0	1,566	18.3%	13.3%
Biked	4	7	72	84	1.0%	0.3%
Bus/Train	0	421	4	425	5.0%	1.8%
Taxi	0	114	0	114	1.3%	0.6%
Car Driver/Motorcycle	2,667	224	0	2,891	33.7%	55.8%
Car Passenger	2,843	253	6	3,102	36.2%	28.0%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	369	3	372	4.3%	
Vanpool	0	17	0	17	0.2%	
<b>Total</b>	<b>5,518</b>	<b>2,968</b>	<b>84</b>	<b>8,570</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	64.4%	34.6%	1.0%	100%		
2006 Distribution	70.9%	28.8%	0.3%	100%		

**Table 6-12. Seattle–Bainbridge Island trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (55.3% of total boardings)</b>					
Pedestrian	50.5%	Pedestrian	88.9%	Pedestrian	18.3%
Bicycle	11.0%	Pedestrian w/ Bicycle	11.1%	Bicycle	10.3%
By Bus/Transit	17.9%			By Bus/Transit	38.5%
By Vehicle	19.2%			By Vehicle	32.8%
Vanpool	0.9%			Vanpool	0.2%
Carshare	0.5%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (44.7% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	69.5%	In-Vehicle	100.0%
		Vehicle Passengers	30.5%		

Note: Average vehicle occupancy (AVO) was 1.44 for the weekday PM peak period.

**Table 6-13. Seattle–Bainbridge Island trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (44.2% of total boardings)</b>					
Pedestrian	44.1%	Pedestrian	93.4%	Pedestrian	26.3%
Bicycle	6.5%	Pedestrian w/ Bicycle	6.6%	Bicycle	6.3%
By Bus/Transit	24.5%			By Bus/Transit	20.0%
By Vehicle	23.7%			By Vehicle	45.7%
Vanpool	0.3%			Vanpool	1.4%
Carshare	0.9%			Carshare	0.3%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (55.8% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	69.7%	In-Vehicle	100.0%
		Vehicle Passengers	30.3%		

Note: Average vehicle occupancy (AVO) was 1.43 for the weekday non-PM peak period.



**Table 6-14. Seattle–Bainbridge Island trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (35.6% of total boardings)</b>					
Pedestrian	30.7%	Pedestrian	97.2%	Pedestrian	51.2%
Bicycle	2.8%	Pedestrian w/ Bicycle	2.8%	Bicycle	2.6%
By Bus/Transit	14.7%			By Bus/Transit	13.9%
By Vehicle	51.0%			By Vehicle	31.7%
Vanpool	0.1%			Vanpool	0.6%
Carshare	0.6%			Carshare	0.0%
Other Ferry	0.1%			Other Ferry	0.0%
<b>In-Vehicle Boardings (64.4% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	49.8%	In-Vehicle	100.0%
		Vehicle Passengers	50.2%		

*Note: Average vehicle occupancy (AVO) was 2.01 for the Saturday survey period.*

### Characteristics of Riders who Accessed or Egressed by Bicycle

Figure 6-15, Figure 6-16, and Figure 6-17 present comparisons of users who accessed and/or egressed the Seattle–Bainbridge Island ferry route by bicycle with users of all modes. Weekday and Saturday ferry riders who biked to access or egress the ferry terminal on the Seattle–Bainbridge route account for 6% and 1% of survey period ridership, respectively. Bicycle boardings by origin and destination district are shown for weekday westbound trips on page 6-39.

Figure 6-15 presents the distribution of bike access/egress by age compared to all modes. The majority of weekday bike users are between the ages of 41 and 64 (approximately 77 percent) with a much higher percentage of riders in the 41 to 50 years of age category than all users. There are more riders between the ages of 25 and 40 on Saturdays accessing/egressing the ferry by bike. There are few riders who access the ferry by bike over the age of 65 for both weekday and Saturday trips.

**Figure 6-15. Seattle–Bainbridge Island distribution of bike access or egress by age compared to all survey period respondents, weekday and Saturday survey periods (2013)**

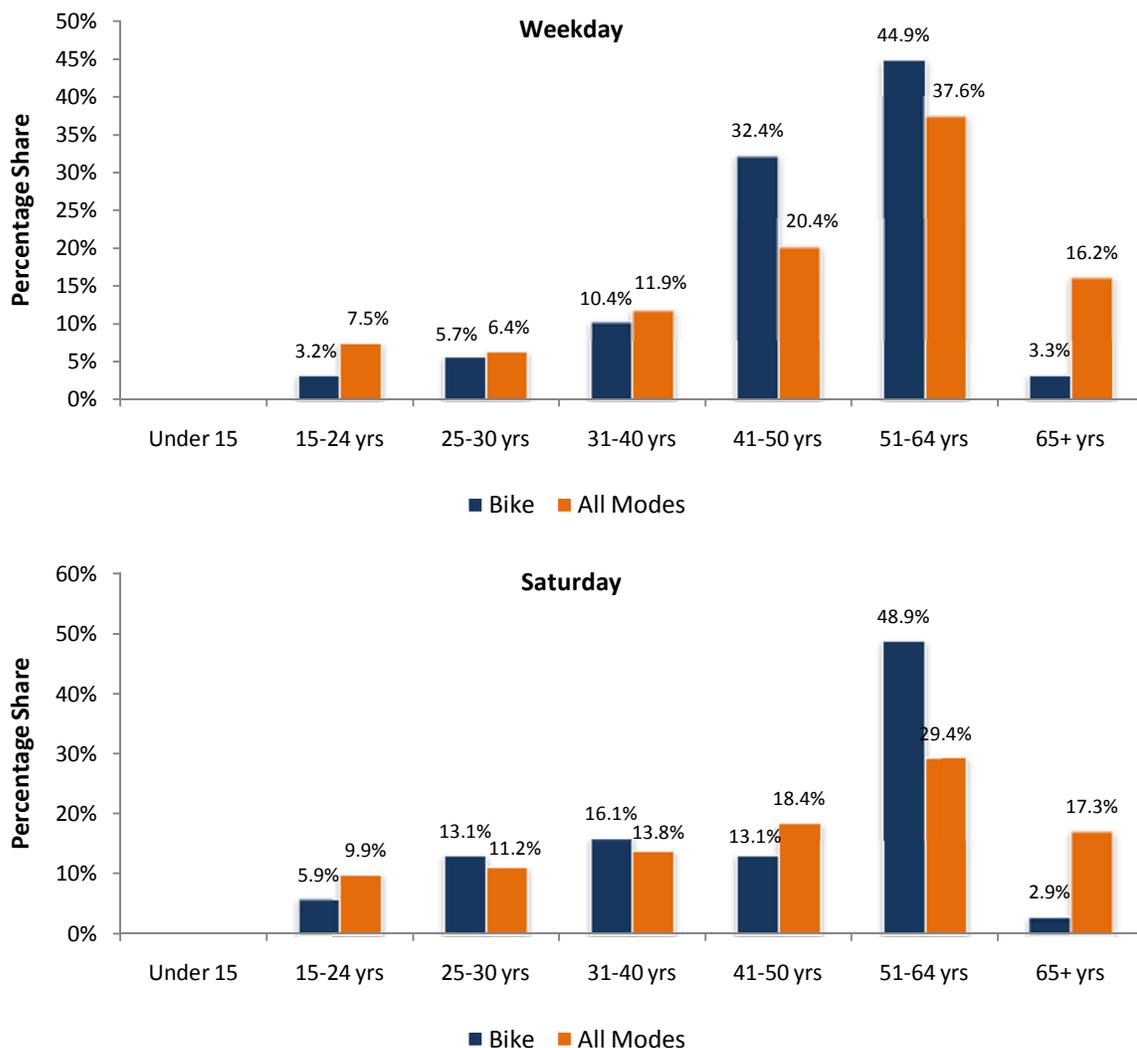




Figure 6-16 shows the distribution of bike access/egress by income compared to all modes. Weekday riders who access or egress by bike tend to be wealthier than the average rider (larger shares in the higher income ranges), while Saturday trends show a larger share of bike access/egress in the lowest two income ranges.

**Figure 6-16. Seattle–Bainbridge Island distribution of bike access or egress by income compared to all survey period respondents, weekday and Saturday survey periods (2013)**

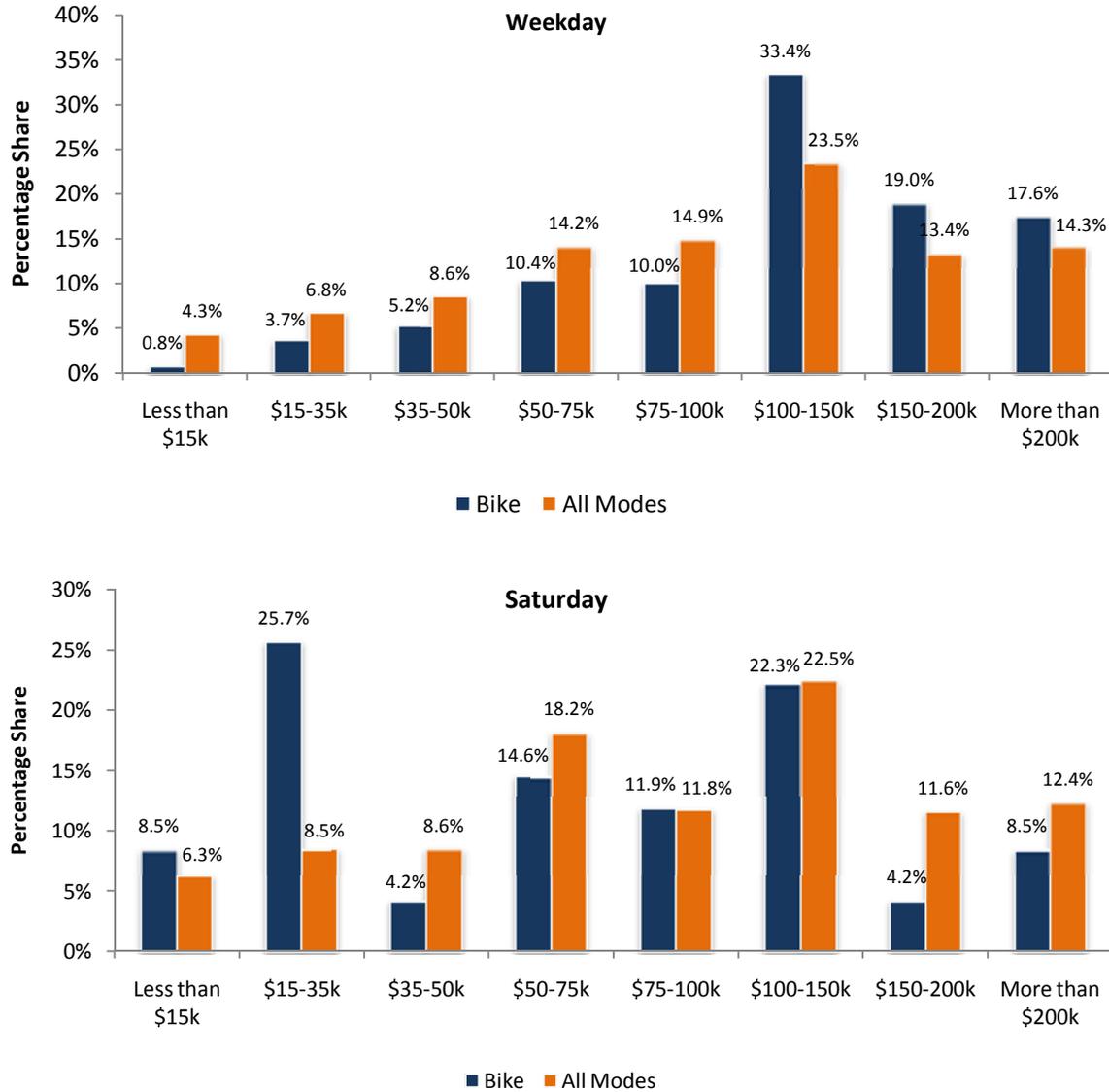
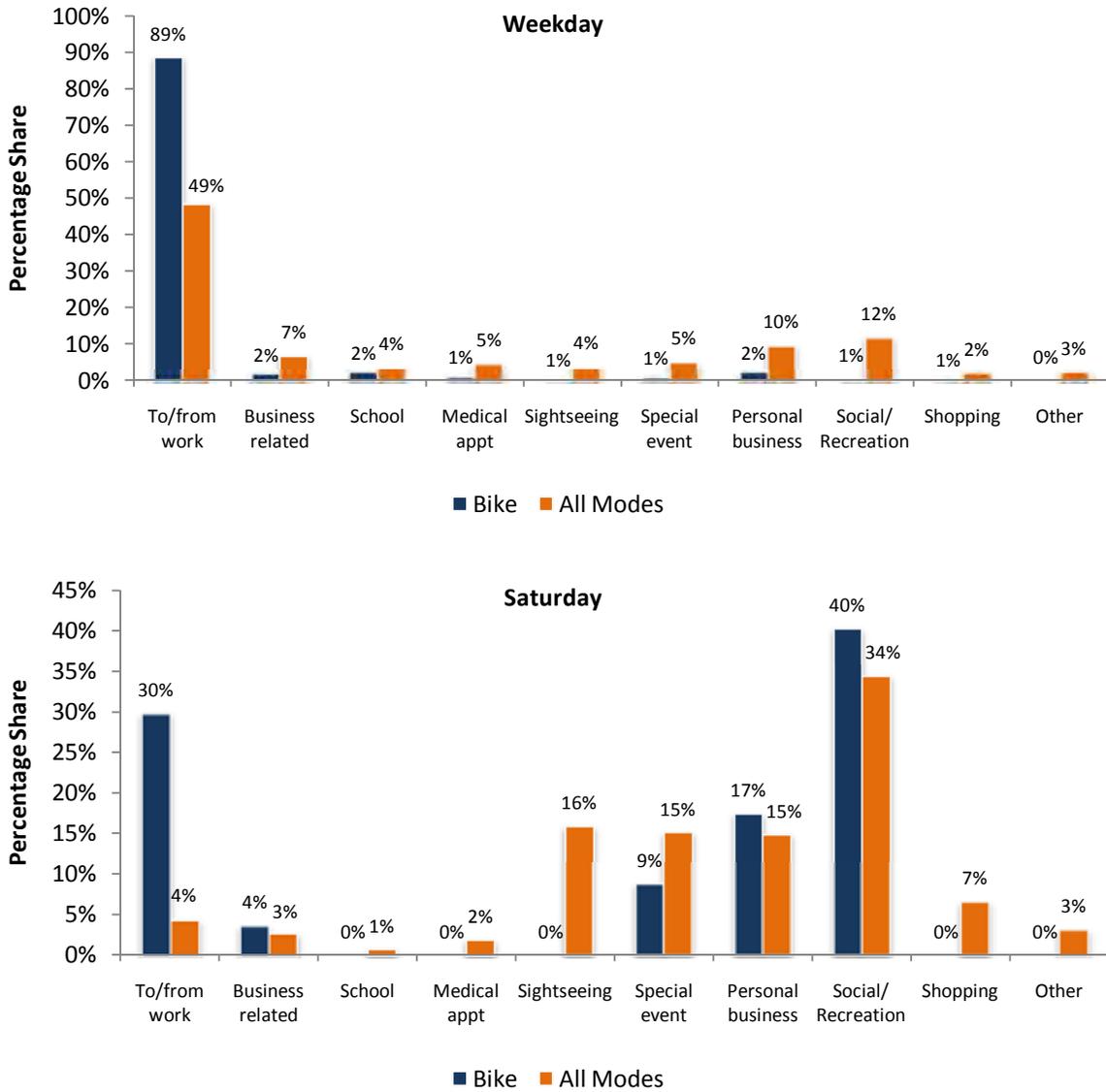


Figure 6-17 presents the distribution of bike access/egress by trip purpose compared to all modes. The vast majority of weekday ferry trips accessed or egressed by bike are for work (89 percent). Saturday trips accessed/egressed by bike are primarily for social/recreational purposes (40 percent), with a large share of trips also for work (30 percent) as well as personal business and special events (17 percent and 9 percent respectively).

**Figure 6-17. Seattle–Bainbridge Island distribution of bike access or egress by trip purpose compared to all survey period respondents, weekday and Saturday survey periods (2013)**

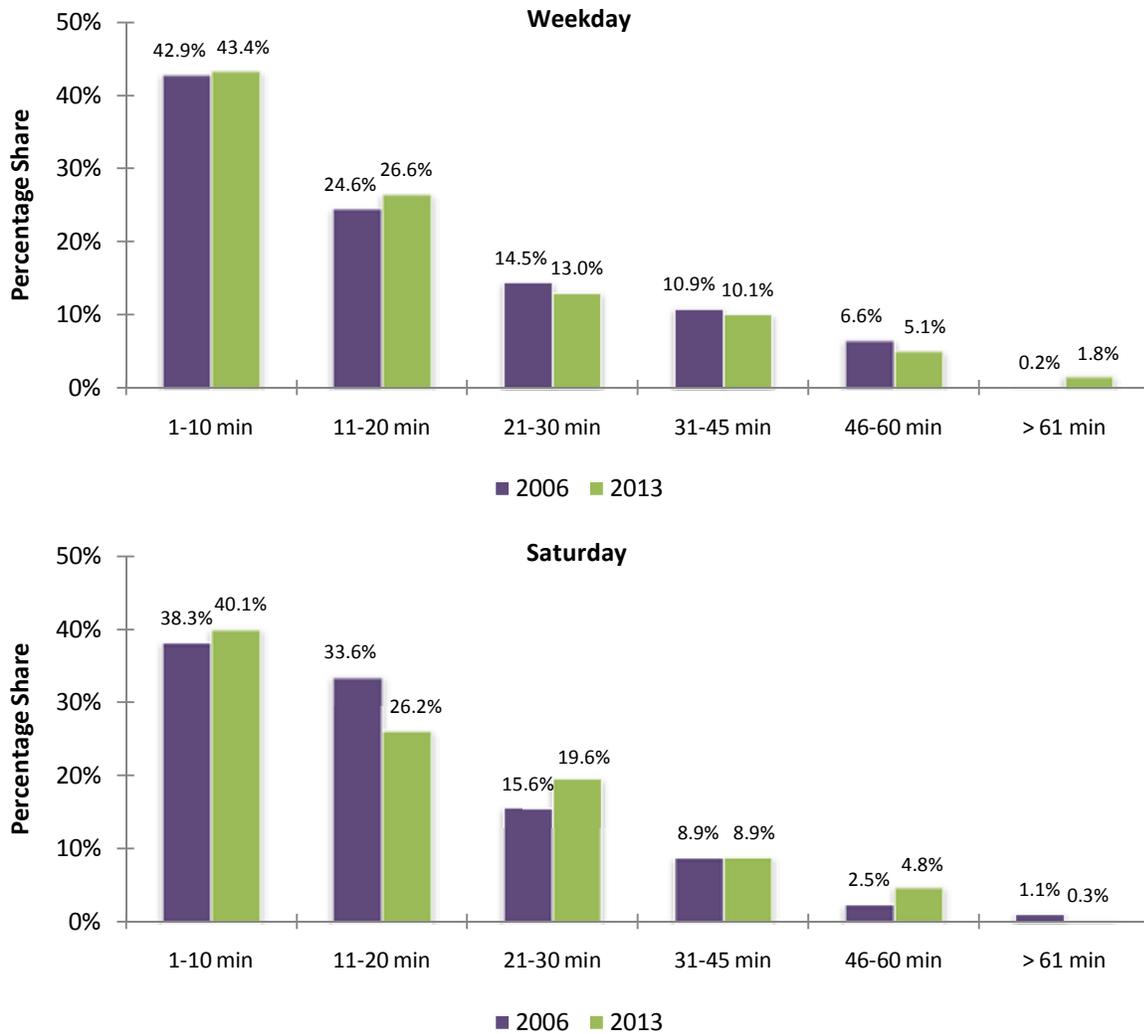




### 6.2.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 6-18 displays the frequency of distribution of perceived wait time (in minutes) for 2006 and 2013. In general, there has been very little change from 2006 in perceived passenger wait time for weekday trips, but passengers are waiting longer for Saturday trips in 2013.

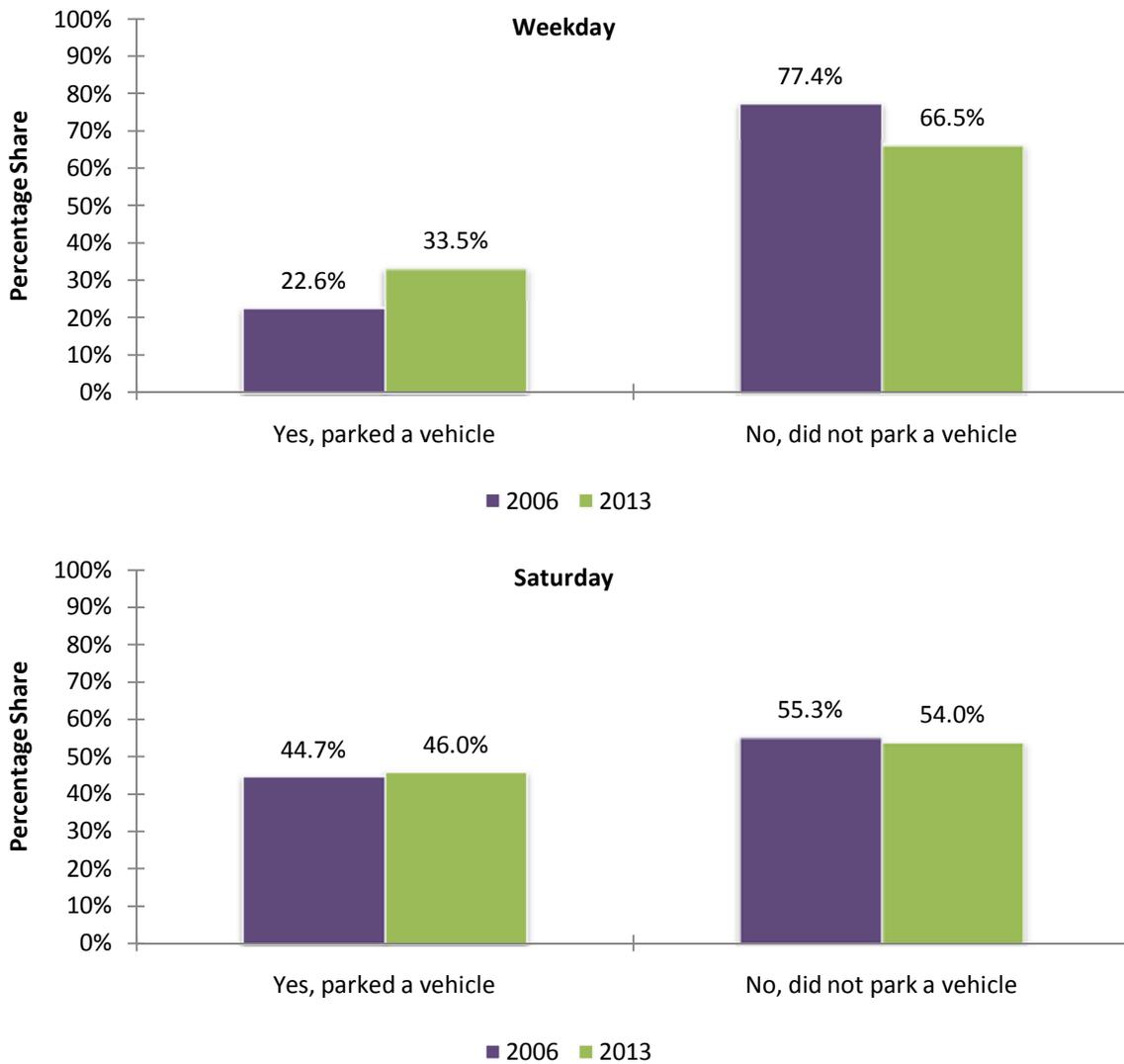
Figure 6-18. Seattle–Bainbridge Island trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)



### 6.2.7 Parking

Figure 6-19 represents the percentage of walk-on riders who parked a vehicle prior to boarding the ferry. The percentage of weekday walk-on riders who parked a vehicle rose by more than 10 percent in 2013 (34 percent) from 2006 (23 percent); however, this accounts for only one-third of walk-on riders. The majority of weekday riders continue to not park a vehicle before boarding. No change is seen for Saturday riders between 2006 and 2013.

**Figure 6-19. Seattle–Bainbridge Island non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



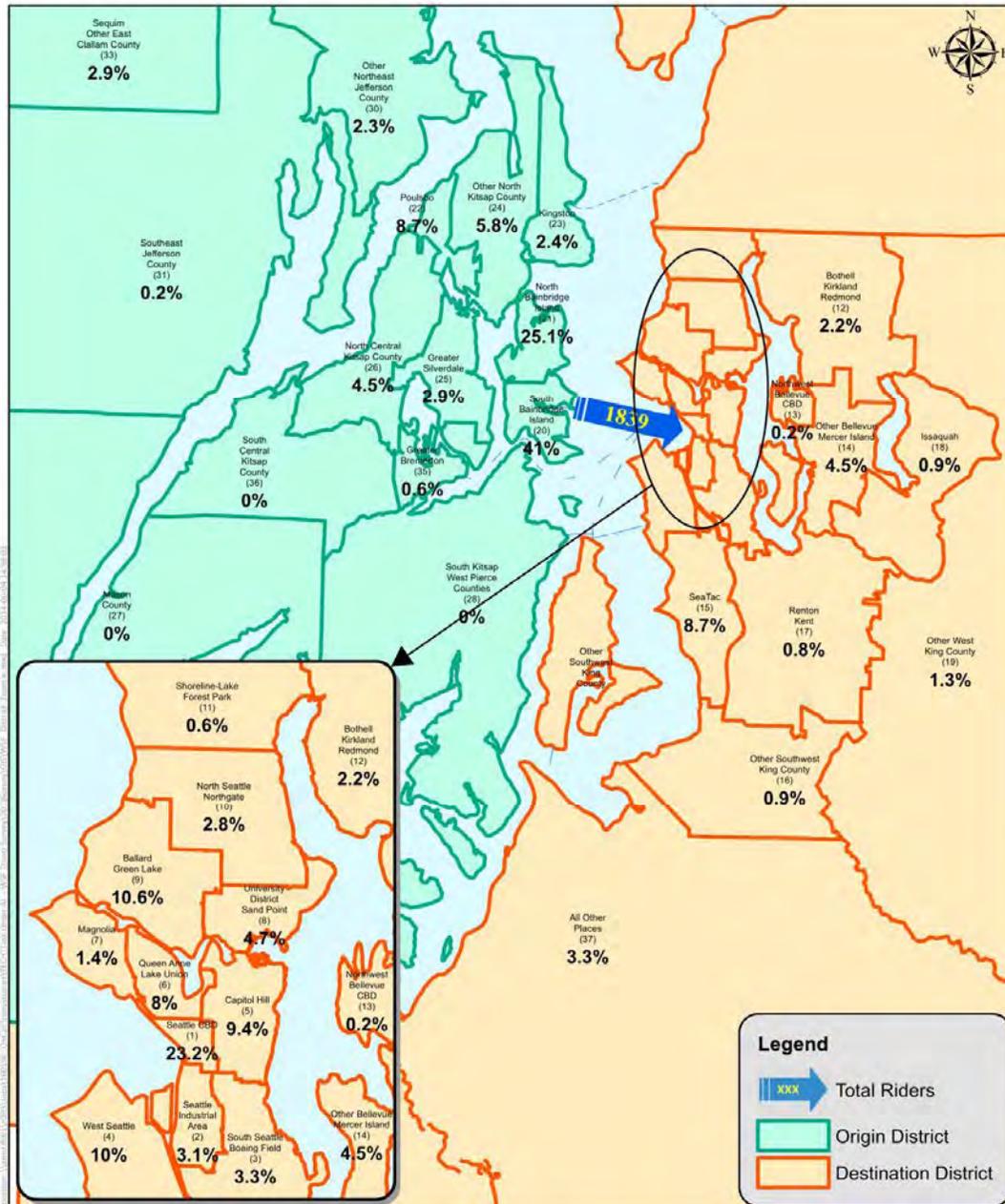


### 6.2.8 Weekday PM Peak Period Travel Patterns – Eastbound

Figure 6-20 presents the origin and destination districts for weekday PM peak-period eastbound trips. Corresponding information in tabular format is provided in Table 6-15. Two-thirds of trips originate from North and South Bainbridge Island. The major destinations are Seattle’s central business district (CBD) and surrounding neighborhoods, including West Seattle, Capitol Hill, Ballard, and Green Lake.

Origin and destination locations by boarding mode are shown in Figure 6-21. Walk-on boardings travel similar distances as vehicle boardings to and from the ferry terminal.

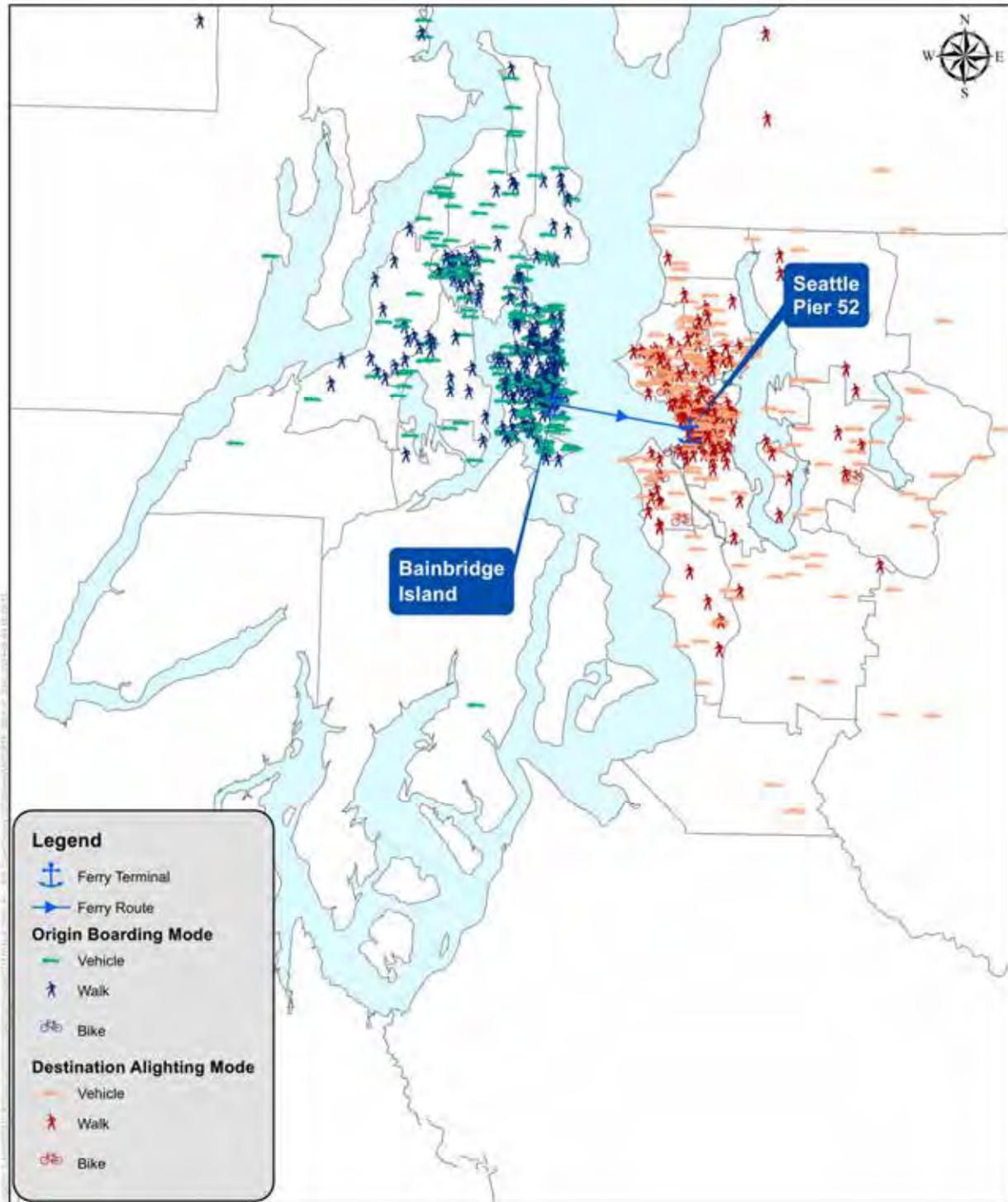
Figure 6-20. Seattle–Bainbridge Island eastbound origin and destination districts, weekday PM peak period



**Table 6-15. Seattle–Bainbridge Island eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼ / Destination District ►		Seattle CBD	Seattle Industrial Area	S Seattle/Boeing Field	W Seattle	Capitol Hill	Queen Anne-Lake Union	Magnolia	University District/Sand Point	Ballard-Green Lake	N Seattle/Ngate	Shoreline-Lake Forest Park	Bothell-Kirkland/Redmond	NW Bellevue/CBD	Other Bellevue/Mercer Island	SeaTac	Other SW King Co.	Renton/Kent	Issaquah	Other W King Co.	All Other Places	Origin Total	Origin Percent Share
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	37		
S Bainbridge Island	20	172	27	46	101	68	45	6	33	73	23	7	22		25	46	4		8	4	42	754	41.0%
N Bainbridge Island	21	86	6	6	53	34	56	3	24	70	10	4	12		14	41	12	7		4	19	462	25.1%
Poulsbo	22	31		4		7	25	4	3	30	4		7	4	4	20			8	8		160	8.7%
Kingston	23	22	3			11			3							4						43	2.4%
Other N Kitsap Co.	24	25	3	4	15		3		4	18	3				25	7						107	5.8%
Greater Silverdale	25	22			3			8		4	8					4		4				53	2.9%
N Central Kitsap Co	26	39	15			3	10		8						8							83	4.5%
Port Townsend	29	6				6					3									4		19	1.1%
Other NE Jefferson Co.	30	4				23			8							8						43	2.3%
SE Jefferson Co.	31		4																			4	0.2%
Port Angeles	32					4	4											4		4		16	0.9%
Sequim/Other E Clallam Co.	33	3			11	4	4								7	23						52	2.9%
W Olympic Peninsula	34	8				8		4	4													24	1.3%
Greater Bremerton	35	6				4																10	0.6%
All Other Places	38															8						8	0.4%
Destination Total		426	58	60	183	172	148	25	87	196	52	11	41	4	83	160	16	15	16	25	60	1,839	100%
Destination Percent Share		23.2%	3.1%	3.3%	10.0%	9.4%	8.0%	1.4%	4.7%	10.6%	2.8%	0.6%	2.2%	0.2%	4.5%	8.7%	0.9%	0.8%	0.9%	1.3%	3.3%	100%	

Figure 6-21. Seattle–Bainbridge Island eastbound origin and destination locations by boarding mode, weekday 8-hour survey period



### 6.2.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 6-22 presents the origin and destination districts for weekday PM peak-period westbound trips. Corresponding information in tabular format is provided in Table 6-16. Seattle’s CBD accounts for nearly half of westbound trip origins, while Bainbridge Island serves as the primary destination. The change in westbound travel patterns from 2006 is shown in Figure 6-23. Travel patterns in 2013 were similar to 2006, although there was a slight increase in the percentage of trips originating in the Seattle Industrial Area and ending in South Bainbridge Island.

Table 6-17 shows the weekday PM peak-period westbound bicycle boardings by origin and destination district. Major origin locations include Seattle’s CBD and Industrial Area, and both North and South Bainbridge Island serve as the primary destination.

Origin and destination locations by boarding mode are shown in Figure 6-24. Walk-on trips originate closer to the ferry terminal than vehicle boardings but travel similar distances as vehicle boardings to destinations.



Figure 6-22. Seattle–Bainbridge Island westbound origin and destination districts, weekday PM peak period

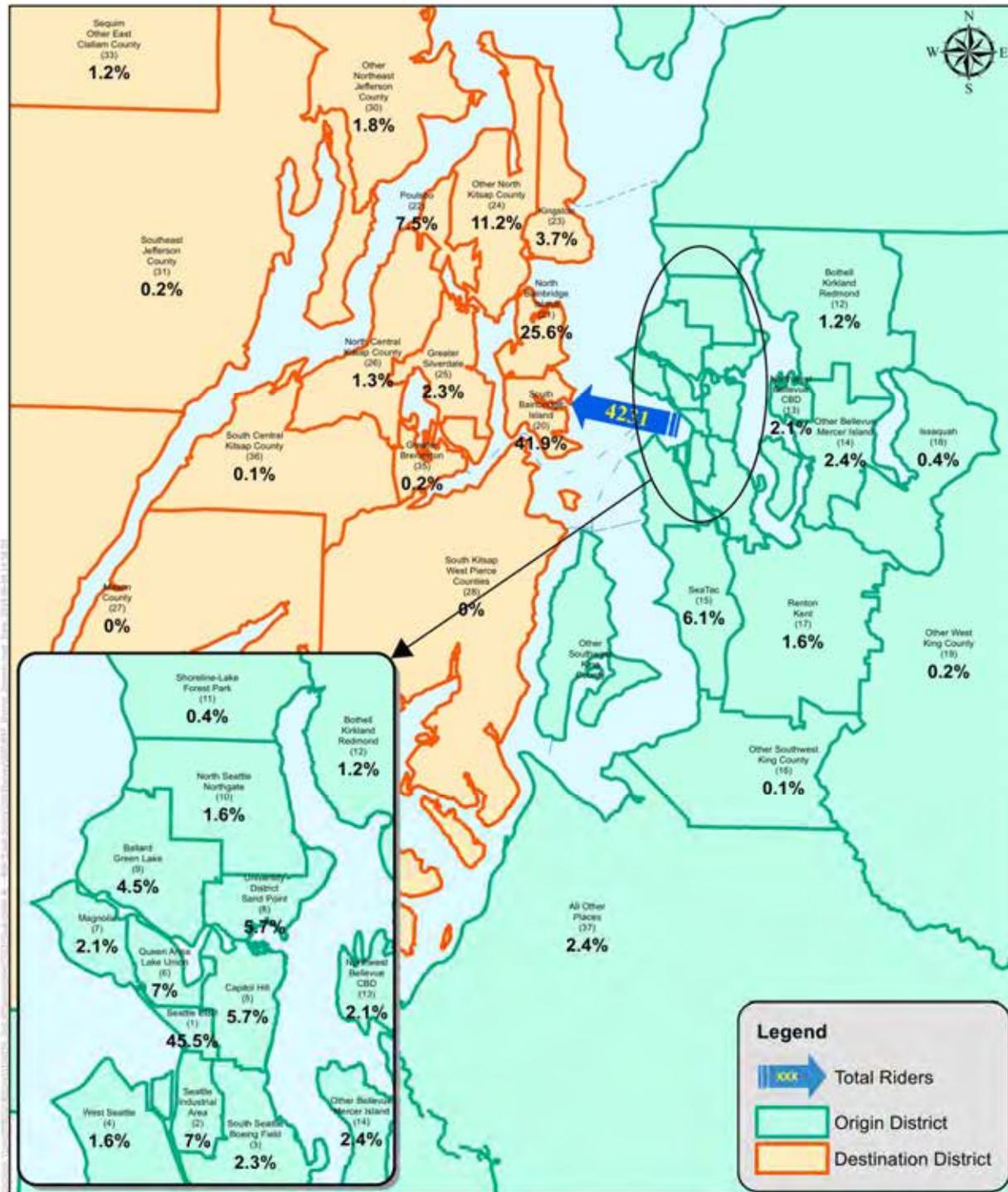
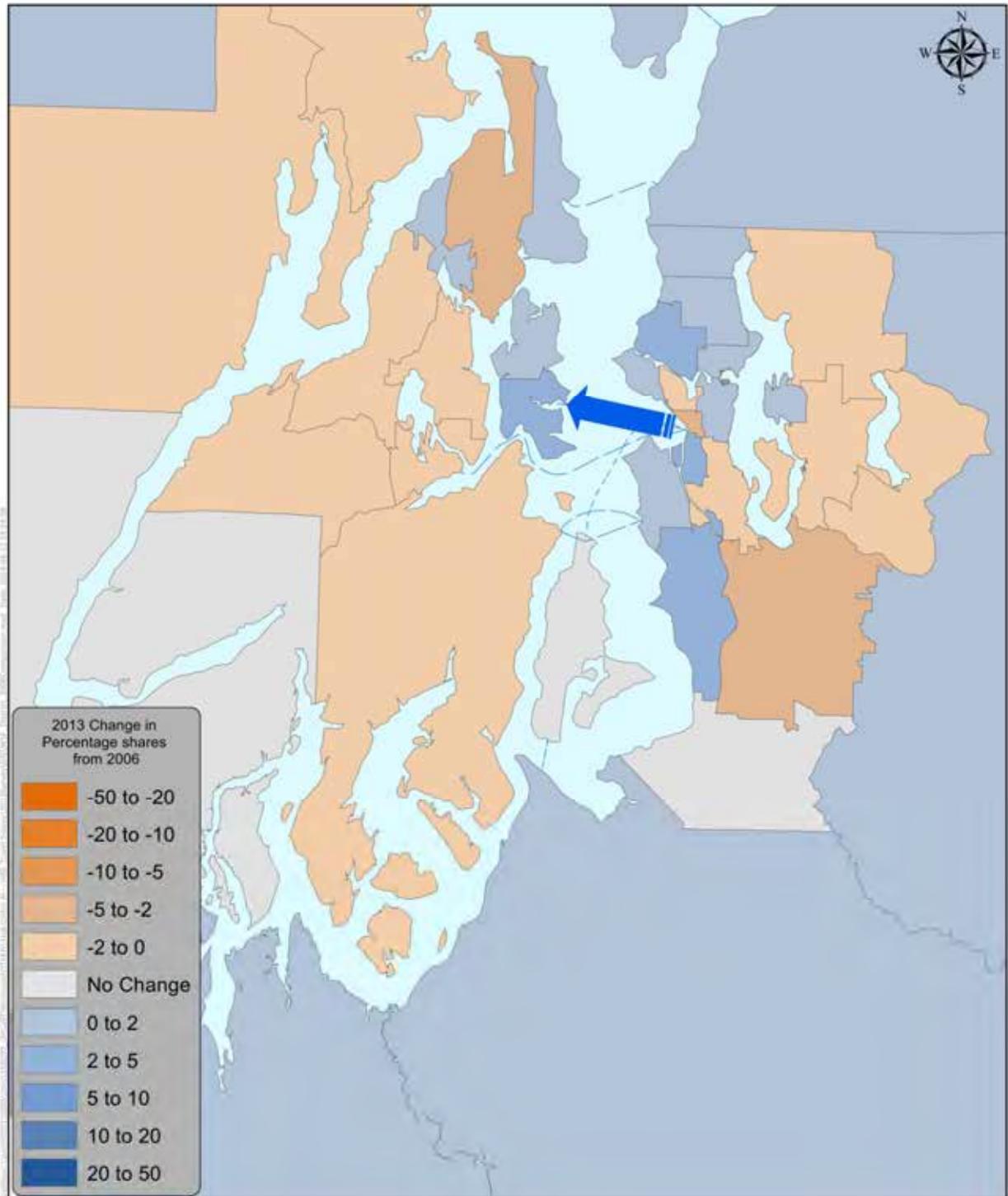


Figure 6-23. Seattle–Bainbridge Island change in westbound travel patterns from 2006, weekday PM peak period



**Table 6-16. Seattle–Bainbridge Island westbound total boardings by origin and destination district, weekday PM peak period**

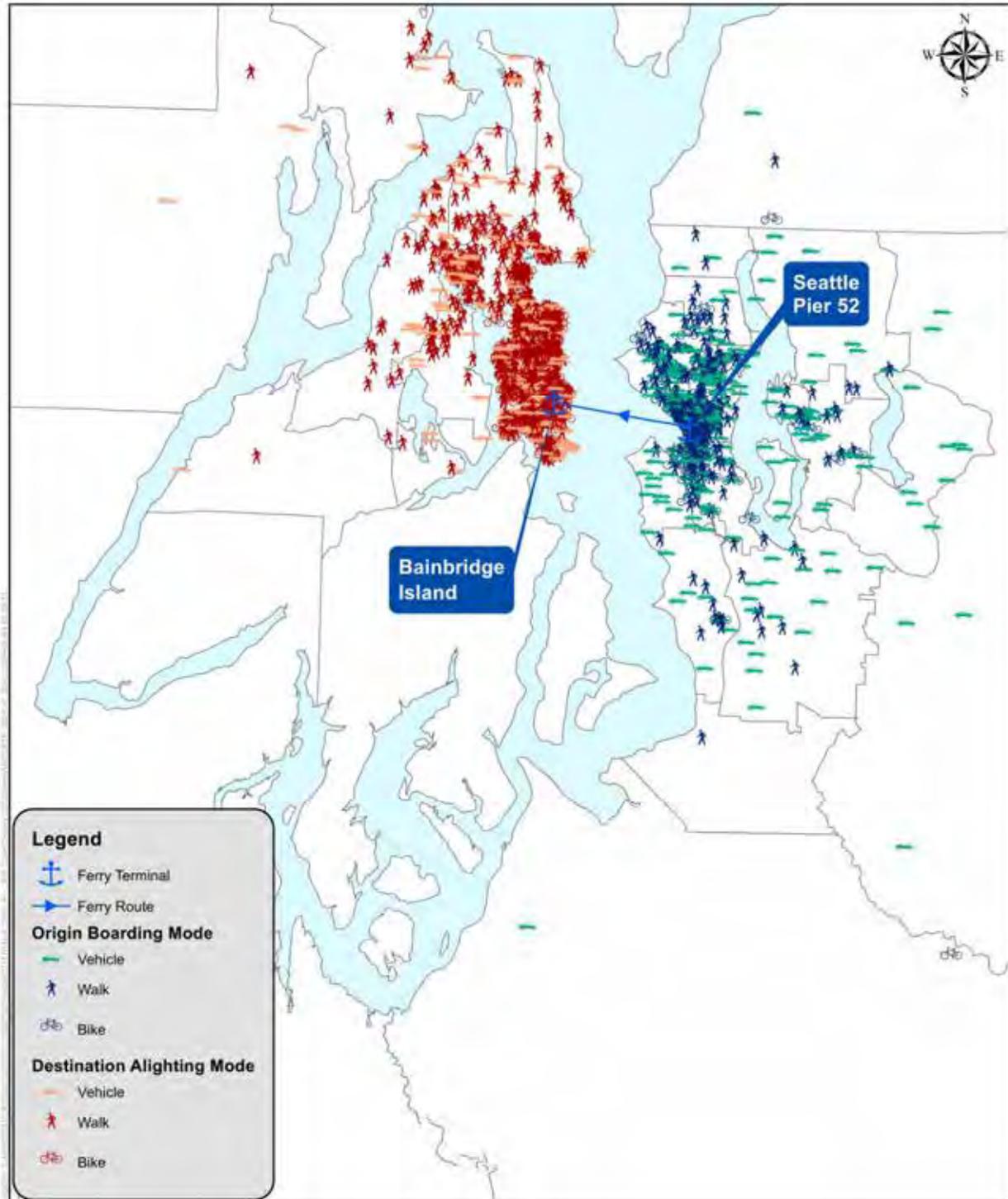
Origin District ▼	Destination District ▶	Destination District															Origin Total	Origin Percent Share
		S Bainbridge Island	N Bainbridge Island	Poulsbo	Kingston	Other N Kitsap Co.	Greater Silverdale	N Central Kitsap Co.	Port Townsend	Other NE Jefferson Co.	SE Jefferson Co.	Port Angeles	Sequim/Other E Clallam Co.	W Olympic Peninsula	Greater Bremerton	S Central Kitsap Co.		
		20	21	22	23	24	25	26	29	30	31	32	33	34	35	36		
Seattle CBD	1	835	452	161	87	228	58	30	5	33		16	13		3	3	1,925	45.5%
Seattle Industrial Area	2	126	83	19	16	34	11			3	4						296	7.0%
S Seattle/Boeing Field	3	41	24	14		13	5										96	2.3%
W Seattle	4	17	33	10		7											67	1.6%
Capitol Hill	5	113	37	26	5	30	4	3		5			10	9			243	5.7%
Queen Anne-Lake Union	6	120	69	22	24	25		3	7	9		17					296	7.0%
Magnolia	7	29	22	12	3		3		13	8							91	2.1%
University District/Sand Point	8	106	100	7		7	7	3	13								242	5.7%
Ballard-Green Lake	9	74	62	10	14	14	3	5	5				5				192	4.5%
N Seattle/Ngate	10	34	7	7		21											68	1.6%
Shoreline-Lake Forest Park	11	8	5							3							17	0.4%
Bothell-Kirkland/Redmond	12	28	14		3	3			3								51	1.2%
NW Bellevue/CBD	13	53	25		3	8											90	2.1%
Other Bellevue/Mercer Is.	14	32	30	10		18	4			5							100	2.4%
SeaTac	15	103	49	5		31		3		11	5	17	22	13			259	6.1%
Other SW King County	16		3														3	0.1%
Renton/Kent	17	10	18	15		17									5		66	1.6%
Issaquah	18	9				9											18	0.4%
Other W King County	19	4	5														9	0.2%
All Other Places	37	29	45			8		5	14								102	2.4%
Destination Total		1,771	1,082	317	157	473	95	54	60	78	9	49	51	22	8	3	4,231	100%
Destination Percent Share		41.9%	25.6%	7.5%	3.7%	11.2%	2.3%	1.3%	1.4%	1.8%	0.2%	1.2%	1.2%	0.5%	0.2%	0.1%	100%	

Bicycle boardings by origin and destination district are shown for westbound trips during the weekday PM peak period in Table 6-17. Most bicycle boardings originate in the Seattle CBD and end on Bainbridge Island.

**Table 6-17. Seattle–Bainbridge Island westbound bicycle boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►		Destination District					Origin Total	Origin Percent Share
				South Bainbridge Island	North Bainbridge Island	Poulsbo	Kingston	Other North Kitsap County		
Seattle CBD	1	64	64	10		13	151	43.7%		
Seattle Industrial Area	2	37	13		3	3	57	16.5%		
South Seattle/Boeing Field	3	7	7				13	3.9%		
West Seattle	4	3	3				7	1.9%		
Capitol Hill	5	3	3				7	1.9%		
Queen Anne-Lake Union	6	20	17	3			40	11.7%		
Magnolia	7	13	3				17	4.9%		
University District/Sand Point	8	7	7				13	3.9%		
Ballard-Green Lake	9	13					13	3.9%		
North Seattle/Northgate	10	7					7	1.9%		
Other Bellevue/Mercer Island	14	7					7	1.9%		
SeaTac	15	3	3				7	1.9%		
All Other Places	37	3	3				7	1.9%		
Destination Total		188	124	13	3	17	345	100%		
Destination Percent Share		54.4%	35.9%	3.9%	1.0%	4.9%	100%			

Figure 6-24. Seattle–Bainbridge Island westbound origin and destination locations by boarding mode, weekday 8-hour survey period

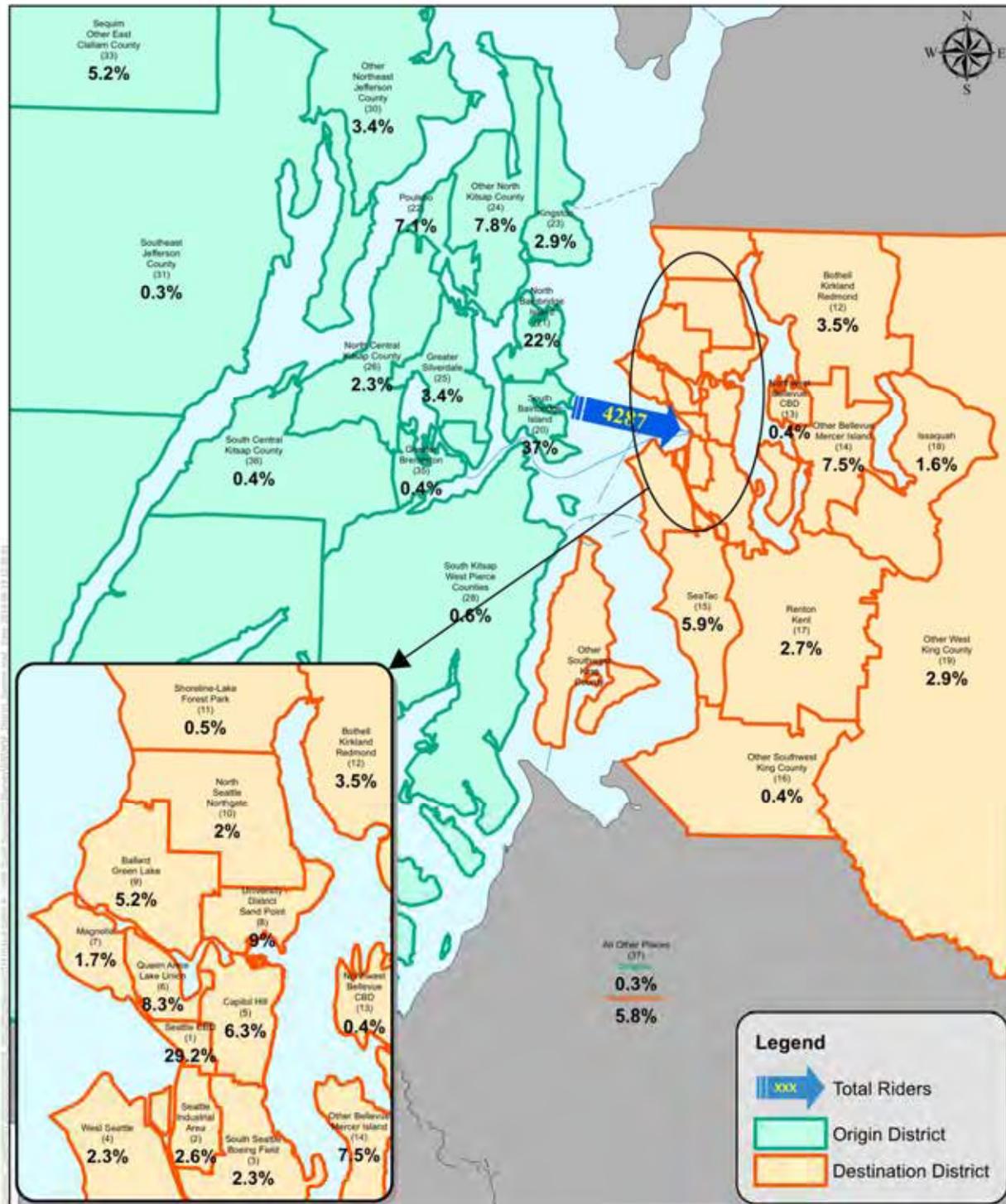


### 6.2.10 Saturday Travel Patterns—Eastbound

Figure 6-25 presents the origin and destination districts for Saturday eastbound trips. Corresponding information in tabular format is shown in Table 6-18. Bainbridge Island serves as the primary origin district, while destinations are more dispersed across the greater Seattle area compared to weekday trips.

Origin and destination locations by boarding mode are shown in Figure 6-26. Walk-on boardings originate farther from the ferry terminal than the distance traveled to destination locations.

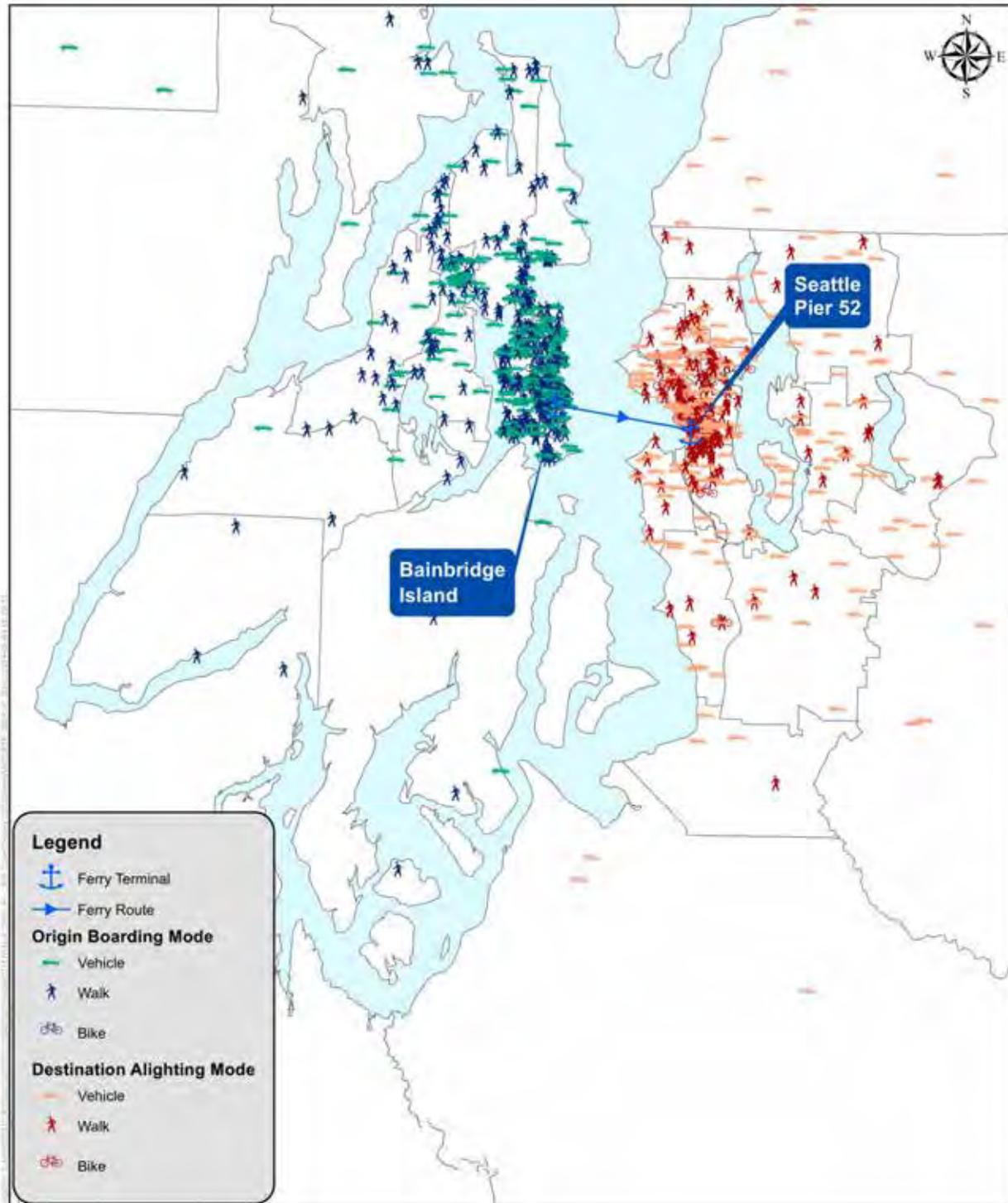
Figure 6-25. Seattle–Bainbridge Island eastbound origin and destination Districts, Saturday survey period



**Table 6-18. Seattle–Bainbridge Island eastbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼	Destination District ►	Seattle CBD	Seattle Industrial Area	S Seattle/Boeing Field	W Seattle	Capitol Hill	Queen Anne-Lake Union	Magnolia	University District/Sand Point	Ballard-Green Lake	N Seattle/Ngate	Shoreline-Lake Forest Park	Bothell/Kirkland/Redmond	NW Bellevue/CBD	Other Bellevue/Mercer Island	SeaTac	Other SW King Co.	Renton/Kent	Issaquah	Other W King Co.	All Other Places	Origin Total	Origin Percent Share	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	37			
S Bainbridge Island	20	446	43	21	30	110	90		130	88	36	7	74	7	116	101	10	71	44	38	123	1,585	37.0%	
N Bainbridge Island	21	233	24	19	9	73	45	18	105	84	26	11	36	9	40	74	3	34	23	33	41	942	22.0%	
Poulsbo	22	82		16	7	20	22	21	25	11	6	4	14		33	16				17	9	303	7.1%	
Kingston	23	26			13		33	16	7	3	4					15					10	126	2.9%	
Other N Kitsap Co.	24	87	10	11	4	18	36	4	23	3	4		15		70	20	3	4	3	6	12	334	7.8%	
Greater Silverdale	25	49	3				26	6	18	15			9								11	6	144	3.4%
N Central Kitsap Co	26	45	7				23		14		4					4					3	100	2.3%	
Mason Co.	27				6				11													17	0.4%	
South Kitsap/West Pierce Counties	28	4		7			7			6												24	0.6%	
Port Townsend	29	62		3	6	9	24	4	3	3					7	6		6			4	138	3.2%	
Other NE Jefferson Co.	30	50	7	3		4	7		19	3			3		4	7				6	30	144	3.4%	
SE Jefferson Co.	31		4					6	3													13	0.3%	
Port Angeles	32	34	6				16								6					6		67	1.6%	
Sequim/Other E Clallam Co.	33	101	4	7	22	24	27		14						9	9				6		223	5.2%	
W Olympic Peninsula	34	23		3					6	4	4				33						6	79	1.8%	
Greater Bremerton	35	7	4																		6	17	0.4%	
South Central Kitsap Co.	36	4		6					7													17	0.4%	
All Other Places	38					11					3											15	0.3%	
Destination Total		1,252	111	98	97	270	355	74	387	221	85	22	151	16	320	251	17	115	71	123	251	4,287	100%	
Destination Percent Share		29.2%	2.6%	2.3%	2.3%	6.3%	8.3%	1.7%	9.0%	5.2%	2.0%	0.5%	3.5%	0.4%	7.5%	5.9%	0.4%	2.7%	1.6%	2.9%	5.8%	100%		

Figure 6-26. Seattle–Bainbridge Island eastbound origin and destination locations by boarding mode, Saturday survey period

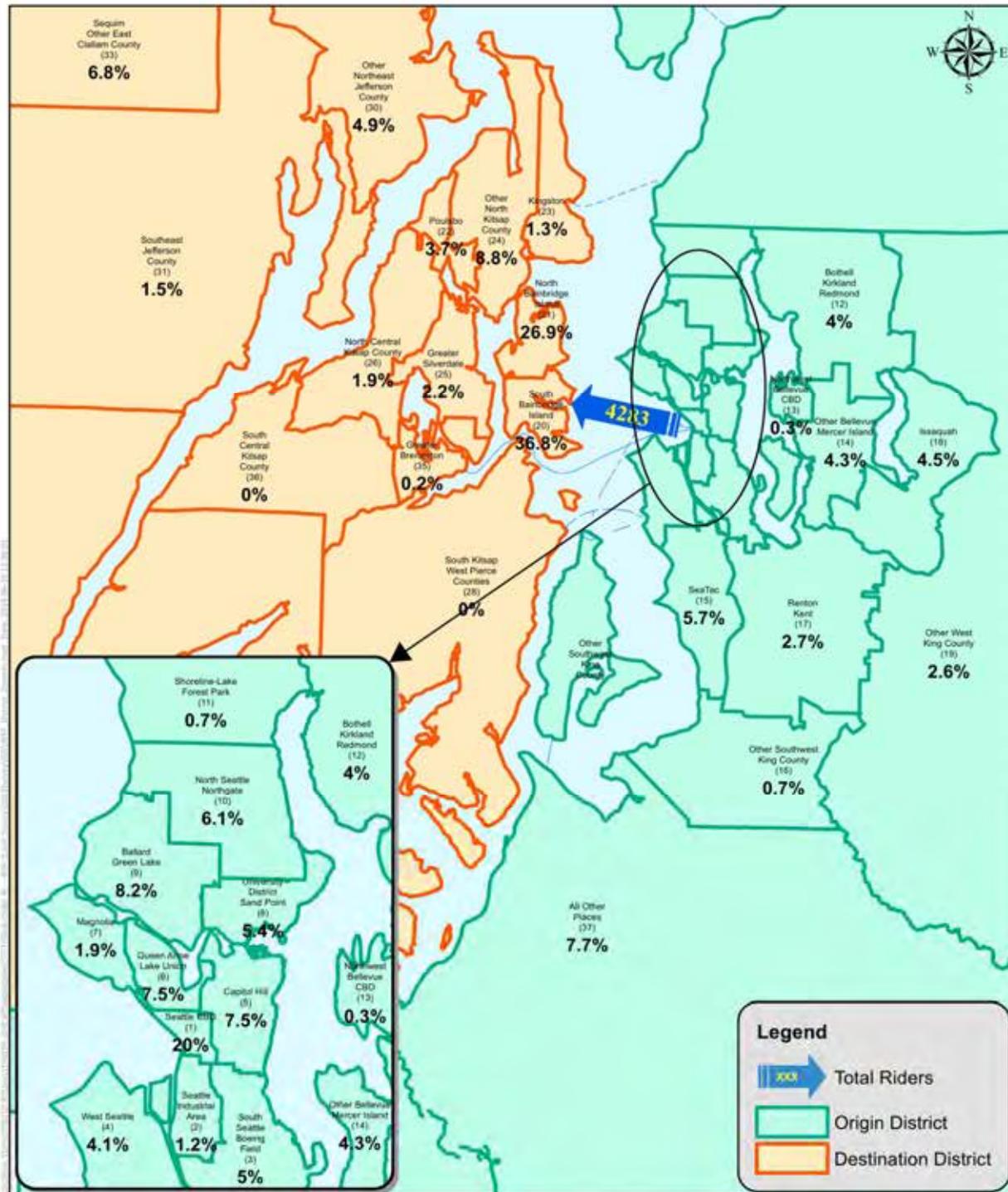


### 6.2.11 Saturday Travel Patterns—Westbound

Figure 6-27 presents the origin and destination districts for Saturday westbound trips. Corresponding information in tabular format is provided in Table 6-19. Unlike weekday PM peak-period trips, origins are more dispersed across Seattle’s surrounding neighborhoods. Bainbridge Island serves as the primary destination for Saturday westbound trips on this route.

Origin and destination locations by boarding mode are show in Figure 6-28. Vehicle boardings originate farther from the ferry terminal compared to weekday trips.

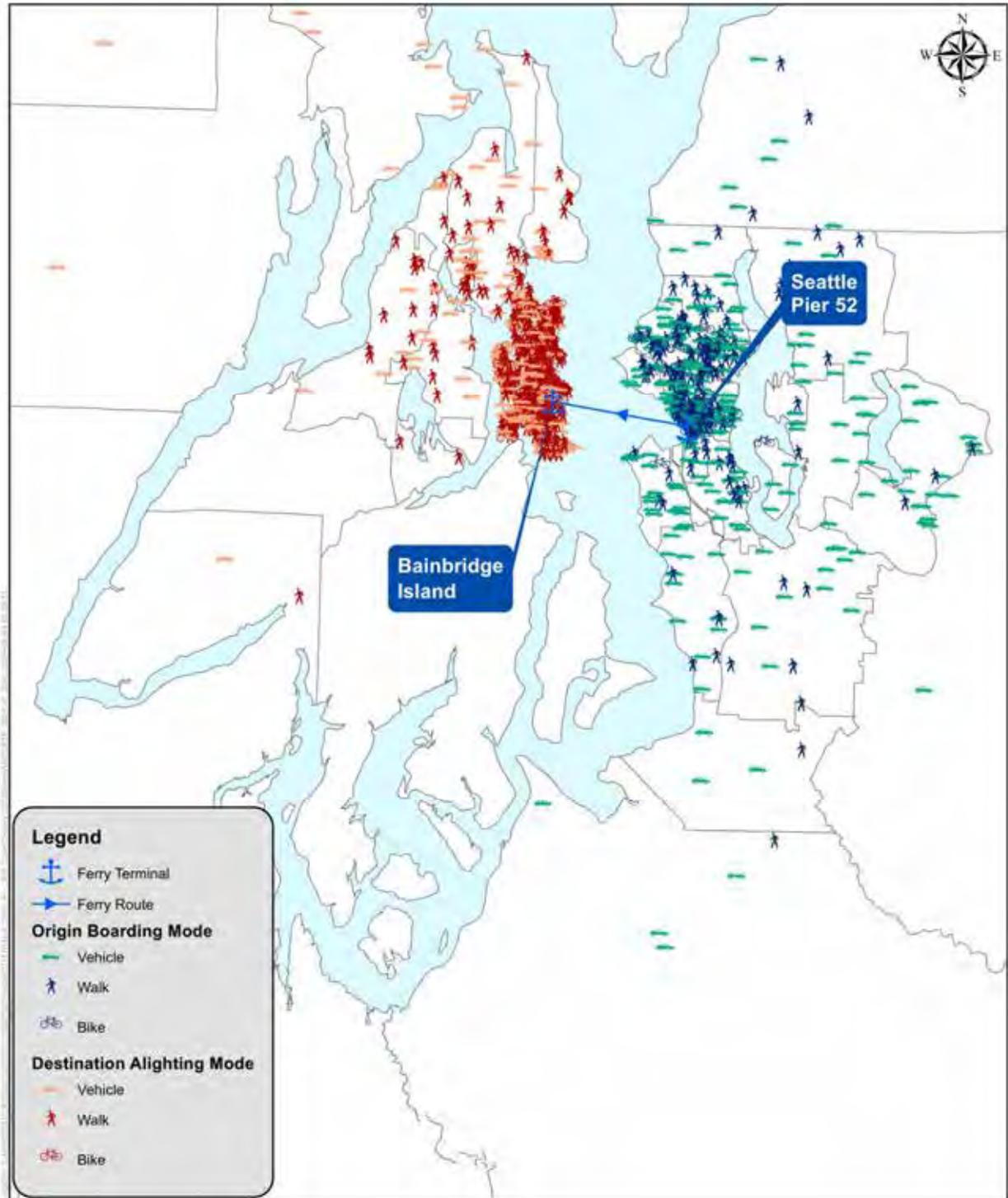
Figure 6-27. Seattle–Bainbridge Island westbound origin and destination districts, Saturday survey period



**Table 6-19. Seattle–Bainbridge Island westbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►														Origin Total	Origin Percent Share
		South Bainbridge Island	N Bainbridge Island	Poulsbo	Kingston	Other N Kitsap Co.	Greater Silverdale	N Central Kitsap County	Mason County	Port Townsend	Other East Jefferson Co.	SE Jefferson County	Port Angeles	Sequim/Other E Clallam Co.	Greater Bremerton		
		20	21	22	23	24	25	26	27	29	30	31	32	33	35		
Seattle CBD	1	339	277	21	6	46	44	20		17	23		8	49	6	856	20.0%
Seattle Industrial Area	2	18	7		4	18	4									51	1.2%
S Seattle/Boeing Field	3	67	52	4		33		18			8	19		11		213	5.0%
W Seattle	4	84	17	3		27			4				16	26		177	4.1%
Capitol Hill	5	105	50	7	10	32	3	3		23	58		8	23		321	7.5%
Queen Anne-Lake Union	6	138	85	7		9	11	17		11	10		18	11	3	321	7.5%
Magnolia	7	29	21		4							8		19		82	1.9%
University District/Sand Point	8	73	35	6	6	78	14						15	4		230	5.4%
Ballard-Green Lake	9	112	163	11		7	11	17			3			26		350	8.2%
N Seattle/Ngate	10	59	86	22		42		8				37		8		260	6.1%
Shoreline-Lake Forest Park	11		22			8										30	0.7%
Bothell-Kirkland/Redmond	12	95	48		3	14			3		8					170	4.0%
NW Bellevue/CBD	13	3		8												11	0.3%
Other Bellevue/Mercer Island	14	67	34				4	8			12		16	43		185	4.3%
SeaTac	15	52	65	12		28	3	3		3	39		11	27		243	5.7%
Other SW King County	16	30														30	0.7%
Renton/Kent	17	21	81		4	4								4		115	2.7%
Issaquah	18	64	12	31		34			8	15		11	19			194	4.5%
Other W King County	19	64	18					4			27					113	2.6%
All Other Places	37	157	79	26	19				11	6			12	20		331	7.7%
Destination Total		1,575	1,152	158	57	379	94	80	21	78	209	64	115	292	9	4,283	100%
Destination Percent Share		36.8%	26.9%	3.7%	1.3%	8.8%	2.2%	1.9%	0.5%	1.8%	4.9%	1.5%	2.7%	6.8%	0.2%	100%	

Figure 6-28. Seattle–Bainbridge Island westbound origin and destination locations by boarding mode, Saturday survey period



## 6.3 Seattle–Bremerton

### 6.3.1 Route Description

The Seattle–Bremerton route is the longest of all the central cross-Sound routes with a crossing time of approximately 60 minutes. The crossing is approximately 13.5 nautical miles. The route is in service seven days a week. Total annual ridership for 2013 was 1.7 million passengers plus 600,000 vehicles and drivers, for a total of about 2.3 million riders, or approximately 6,300 riders per day. This compares to 2.4 million passengers annually, or about 6,800 riders per day in 2006.

Seattle–Bremerton currently operates 15 sailings per day in each direction. This is a one-trip increase from 14 sailings per day per direction in 2006. The current passenger fare is \$7.85, an increase from \$6.50 in 2006, and vehicle base fare is \$13.55 for vehicles 14 to 22 feet in length, which has increased from the \$11.25 base fare for vehicles in 2006.

The following subsections provide key trip-making characteristics for 2013 surveyed travelers on the Seattle–Bremerton route and a comparison to 2006 survey data to identify trends.

### 6.3.2 Trips by Purpose

The trip purposes of ferry riders for the Seattle–Bremerton route were cross-tabulated against the direction of the trip for weekday and Saturday and for different years. Table 6-20 shows three trip purposes (work/school, personal business/other, and recreation/shopping) for 2013 weekday and Saturday trips, and compares the percentage share of the three trip purposes to 2006. The two directions used are eastbound and westbound as the Seattle–Bremerton ferry route is an east-west route.

The majority of weekday trips continue to be for work/school in 2013, although the percentage share of all trips has decreased from 2006. Roughly 10 percent of Saturday trips in 2013 shifted from personal business/other purposes to recreation/shopping trips in comparison to 2006.

**Table 6-20. Seattle–Bremerton trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	539	162	468	1,168	37.3%	50.7%
Westbound	1,443	274	245	1,961	62.7%	49.3%
Total	1,982	435	712	3,129	100%	100%
2013 Distribution	63.3%	13.9%	22.8%	100%		
2006 Distribution	70.6%	13.9%	15.5%	100%		
<b>Saturday</b>						
Eastbound	171	398	1,831	2,400	64.4%	52.9%
Westbound	218	410	696	1,325	35.6%	47.1%
Total	390	808	2,528	3,725	100%	100%
2013 Distribution	10.5%	21.7%	67.9%	100%		
2006 Distribution	11.2%	32.1%	56.4%	100%		



### 6.3.3 Frequency of Travel

The total number of trips by purpose is shown in Table 6-21 for weekday and Saturday trips. The majority of weekday respondents take five or more trips per week (58 percent), which increased from 2006 weekday travelers (47 percent). The amount of weekday riders in 2013 taking only one trip per week doubled since 2006. As expected, Saturday riders are infrequent users, with about two-thirds of travelers taking a maximum of two trips per week.

**Table 6-21. Seattle–Bremerton one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	147	143	252	543	20.9%	9.7%	8.1%	3.6%
2	85	65	91	241	9.2%	21.0%	4.7%	6.9%
3 to 4	164	94	73	331	12.7%	9.2%	9.0%	6.9%
5 to 6	368	16	18	402	15.5%	7.2%	20.3%	9.4%
7 to 8	235	21	5	261	10.0%	7.4%	13.0%	10.2%
9 to 10	595	0	5	601	23.1%	34.2%	32.9%	47.5%
11+	215	3	6	224	8.6%	11.4%	11.9%	15.6%
Total	1,809	343	450	2,602	100%	100%	100%	100%
2013 Distribution	69.5%	13.2%	17.3%	100%				
2006 Distribution	70.9%	13.8%	15.3%	100%				
<b>Saturday</b>								
1	36	179	585	800	34.0%	53.6%		
2	42	207	478	727	30.9%	18.4%		
3 to 4	60	76	285	421	17.9%	17.0%		
5 to 6	50	44	74	168	7.1%	4.4%		
7 to 8	17	14	24	55	2.3%	4.0%		
9 to 10	52	6	34	92	3.9%	0.5%		
11+	48	17	28	93	3.9%	2.1%		
Total	304	544	1,508	2,356	100%	100%		
2013 Distribution	12.9%	23.1%	64.0%	100%				
2006 Distribution	10.9%	32.5%	56.6%	100%				

### 6.3.4 Round-Trip Patterns

Figure 6-29 shows the percentage of survey respondents who indicated that their return trip was on the same day or some other day. An increasing number of weekday riders are departing and returning on the same day (91 percent) compared to 2006 (78 percent). However, fewer Saturday travelers are returning on the same day in 2013 compared to 2006.

The percentage of people taking the same ferry route on the return trip versus driving around or returning on another ferry route is shown in Figure 6-30. Fewer travelers are returning on the same ferry route and more travelers are driving around for both weekday and Saturday trips.

**Figure 6-29. Seattle–Bremerton round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**

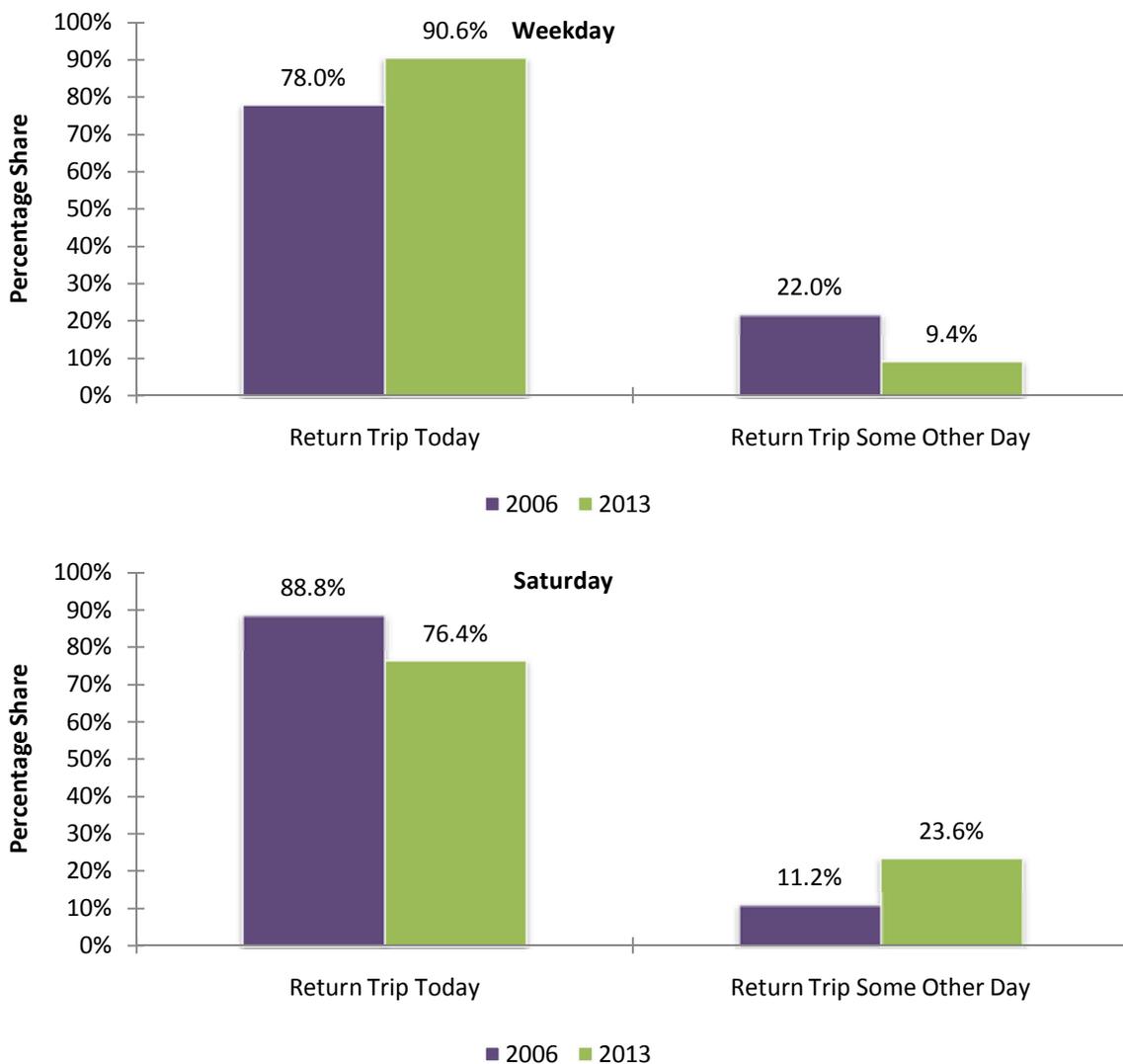
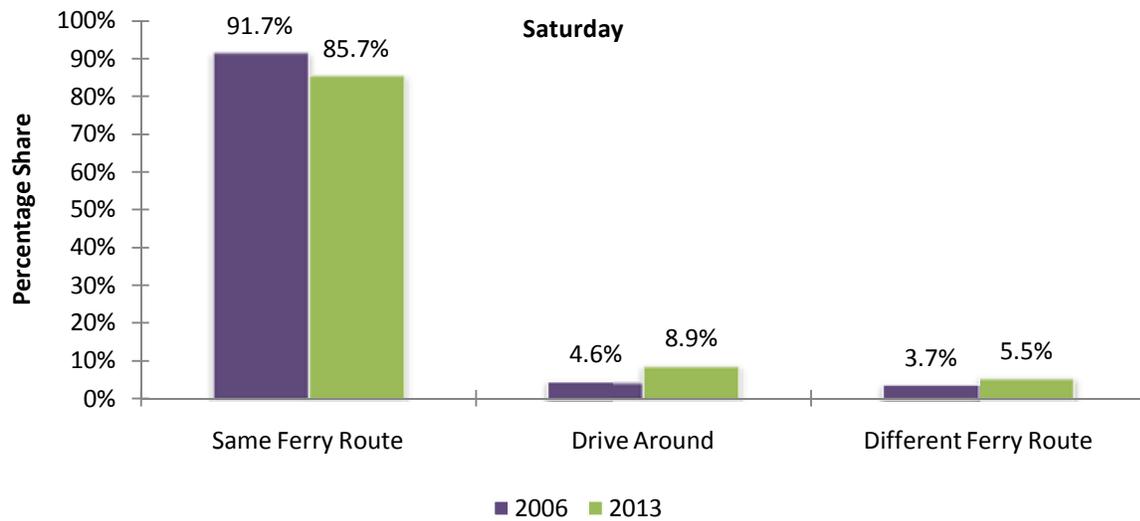
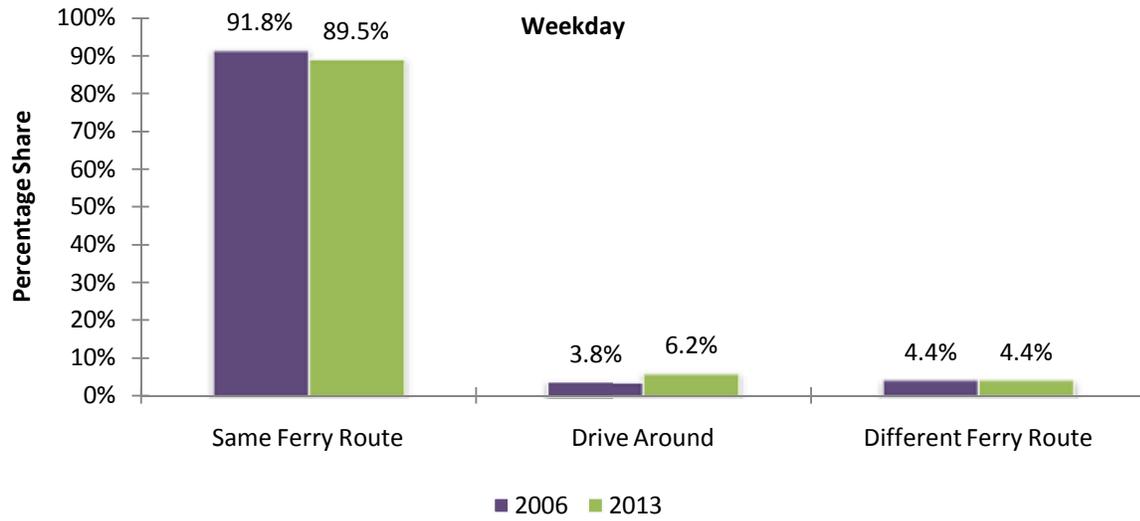




Figure 6-30. Seattle–Bremerton round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)



### 6.3.5 Access, Egress, and Boarding Modes

Access and egress modes for weekday and Saturday riders are represented in Figure 6-31 for westbound trips and Figure 6-32 for eastbound trips. A larger percentage of weekday ferry riders are accessing the ferry terminal on foot for westbound trips. Conversely, a higher percentage of weekday ferry riders are egressing from the terminal on foot after eastbound trips. Results are consistent with the Seattle–Bainbridge Island access and egress characteristics of eastbound and westbound trips. More ferry riders access and egress from the ferry by vehicle on Saturdays compared to weekdays in both directions.

**Figure 6-31. Seattle–Bremerton westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

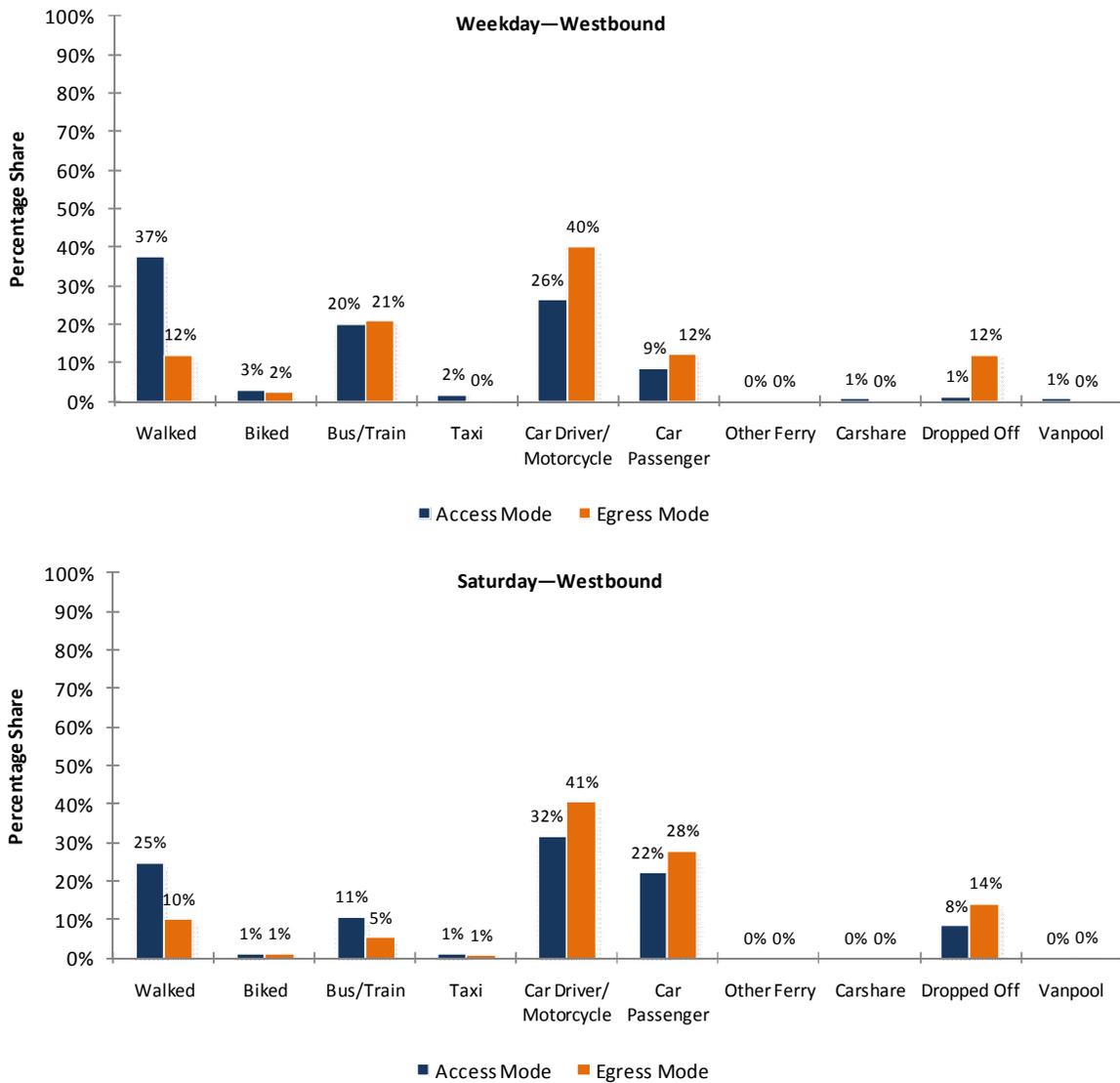




Figure 6-32. Seattle–Bremerton eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)

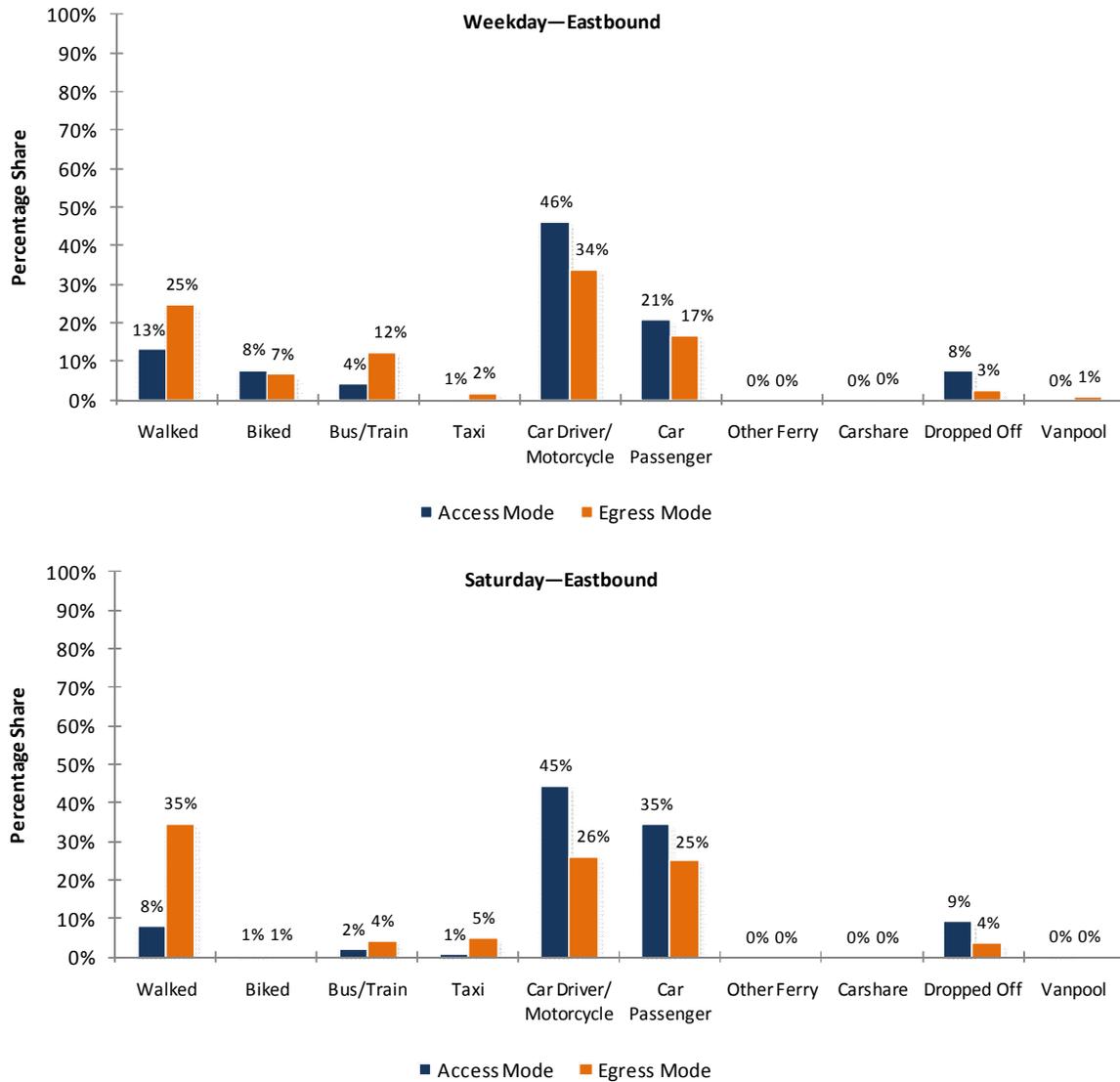


Table 6-22 shows the boarding mode and the corresponding access modes to the ferry terminal for weekday and Saturday, and Table 6-23 shows boarding and egress mode from the ferry terminal for weekday and Saturday.

Table 6-24, Table 6-25, and Table 6-26 present information on access mode to the ferry, boarding mode, and egress mode from the ferry for the weekday PM peak period, the weekday non-PM peak period, and Saturday trips. For weekday trips, a greater number of walk-on boardings access the ferry on foot during the weekday PM peak period, in contrast with a greater number of walk-on boardings egressing from the ferry terminal on foot during the weekday non-PM peak period.

Fewer passengers access the ferry terminal by foot for Saturday trips (29 percent); however, over half of walk-on boardings egress from the ferry on foot (52 percent). This is higher than the percentage of riders egressing by foot for both weekday PM peak period and weekday non-PM peak-period trips (23 and 40 percent, respectively).

**Table 6-22. Seattle–Bremerton access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	887	0	887	28.3%	32.1%
Biked	4	15	132	151	4.8%	1.6%
Bus/Train	6	432	5	443	14.2%	9.3%
Taxi	0	39	2	41	1.3%	1.0%
Car Driver/Motorcycle	864	194	0	1,059	33.8%	43.6%
Car Passenger	348	63	0	411	13.1%	12.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	11	0	11	0.4%	
Dropped Off	0	114	0	114	3.6%	
Vanpool	0	12	0	12	0.4%	
<b>Total</b>	<b>1,222</b>	<b>1,767</b>	<b>140</b>	<b>3,129</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	39.1%	56.5%	4.5%	100%		
2006 Distribution	48.0%	50.6%	1.4%	100%		
<b>Saturday</b>						
Walked	0	519	3	521	14.0%	13.0%
Biked	0	4	25	29	0.8%	1.8%
Bus/Train	3	183	2	188	5.1%	7.3%
Taxi	0	35	0	35	1.0%	0.2%
Car Driver/Motorcycle	1,033	451	4	1,488	40.0%	44.8%
Car Passenger	853	268	0	1,122	30.1%	32.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	332	3	335	9.0%	
Vanpool	0	6	0	6	0.2%	
<b>Total</b>	<b>1,889</b>	<b>1,799</b>	<b>37</b>	<b>3,725</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	50.7%	48.3%	1.0%	100%		
2006 Distribution	62.5%	35.9%	1.6%	100%		



**Table 6-23. Seattle–Bremerton egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	5	520	0	525	16.8%	22.5%
Biked	0	20	105	125	4.0%	1.8%
Bus/Train	3	528	21	552	17.6%	16.8%
Taxi	0	28	0	28	0.9%	0.9%
Car Driver/Motorcycle	859	316	9	1,184	37.9%	44.7%
Car Passenger	355	81	0	436	13.9%	13.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	3	0	3	0.1%	
Dropped Off	0	261	5	265	8.5%	
Vanpool	0	11	0	11	0.4%	
<b>Total</b>	<b>1,222</b>	<b>1,767</b>	<b>140</b>	<b>3,129</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	39.1%	56.5%	4.5%	100%		
2006 Distribution	48.1%	50.5%	1.4%	100%		
<b>Saturday</b>						
Walked	6	962	0	968	26.0%	23.2%
Biked	0	2	24	26	0.7%	1.6%
Bus/Train	0	170	5	175	4.7%	3.1%
Taxi	0	128	2	130	3.5%	3.0%
Car Driver/Motorcycle	1,005	158	3	1,166	31.3%	34.8%
Car Passenger	872	103	0	975	26.2%	34.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	6	267	3	276	7.4%	
Vanpool	0	9	0	9	0.2%	
<b>Total</b>	<b>1,889</b>	<b>1,799</b>	<b>37</b>	<b>3,725</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	50.7%	48.3%	1.0%	100%		
2006 Distribution	60.9%	37.3%	1.7%	100%		

**Table 6-24. Seattle–Bremerton trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (63.3% of total boardings)</b>					
Pedestrian	47.2%	Pedestrian	91.0%	Pedestrian	23.1%
Bicycle	9.3%	Pedestrian w/ Bicycle	9.0%	Bicycle	7.7%
By Bus/Transit	22.8%			By Bus/Transit	31.7%
By Vehicle	19.4%			By Vehicle	36.7%
Vanpool	0.8%			Vanpool	0.8%
Carshare	0.5%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (36.7% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	77.0%	In-Vehicle	100.0%
		Vehicle Passengers	23.0%		

*Note: Average vehicle occupancy (AVO) was 1.30 for the weekday PM peak period.*

**Table 6-25. Seattle–Bremerton trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (54.7% of total boardings)</b>					
Pedestrian	44.4%	Pedestrian	97.9%	Pedestrian	40.1%
Bicycle	2.8%	Pedestrian w/ Bicycle	2.1%	Bicycle	3.0%
By Bus/Transit	23.3%			By Bus/Transit	19.8%
By Vehicle	28.6%			By Vehicle	36.5%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.9%			Carshare	0.7%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (45.3% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	58.8%	In-Vehicle	100.0%
		Vehicle Passengers	41.2%		

*Note: Average vehicle occupancy (AVO) was 1.70 for the weekday non-PM peak period.*



**Table 6-26. Seattle–Bremerton trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
Walk-On Boardings (49.3% of total boardings)					
Pedestrian	28.4%	Pedestrian	98.0%	Pedestrian	52.4%
Bicycle	1.6%	Pedestrian w/ Bicycle	2.0%	Bicycle	1.4%
By Bus/Transit	10.1%			By Bus/Transit	9.5%
By Vehicle	59.6%			By Vehicle	36.2%
Vanpool	0.3%			Vanpool	0.5%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (50.7% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	54.8%	In-Vehicle	100.0%
		Vehicle Passengers	45.2%		

*Note: Average vehicle occupancy (AVO) was 1.82 for the Saturday survey period.*

### Characteristics of Riders who Accessed or Egressed by Bicycle

Figure Figure 6-33, Figure 6-34 and Figure 6-35 present comparisons of characteristics of users who accessed and/or egressed the Seattle–Bremerton ferry route by bicycle with users of all modes. Weekday and Saturday ferry riders who biked to access or egress the ferry terminal on the Seattle–Bremerton route account for 5% and 1% of survey period ridership, respectively. Bicycle boardings by origin and destination district are shown for weekday westbound trips on page 6-71.

Figure 6-36 presents the distribution of bike access/egress by age compared to all modes. For weekday trips, bike access/egress ferry riders tend to be younger than the overall ferry rider population, with a large percentage between 25 and 30 years of age (43 percent). In contrast, two-thirds of Saturday bike access/egress ferry riders are between 15 and 24 years (37 percent) or 51 and 64 years (33 percent). There are few riders who access/egress the ferry by bike over the age of 65 for both weekday and Saturday trips.

**Figure 6-33. Seattle–Bremerton distribution of bike access by age compared to all survey period respondents, weekday and Saturday survey periods (2013)**

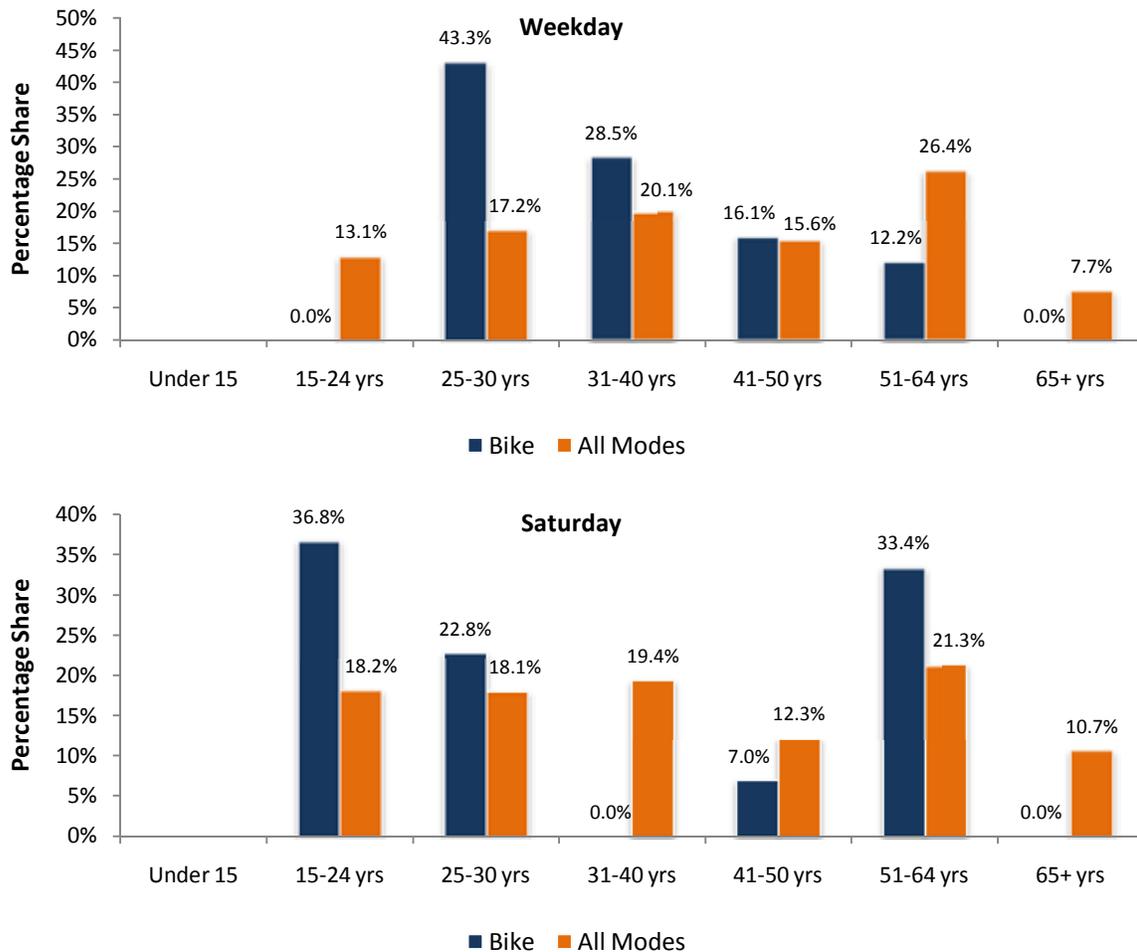




Figure 6-37 shows the distribution of bike access/egress by income compared to all modes. Weekday riders who access or egress by bike tend to be wealthier than the average rider (larger shares in the higher income ranges), while Saturday trends show a larger share of bike access/egress in the lowest income ranges.

**Figure 6-34. Seattle–Bremerton distribution of bike access by income compared to all survey period respondents, weekday and Saturday survey periods (2013)**

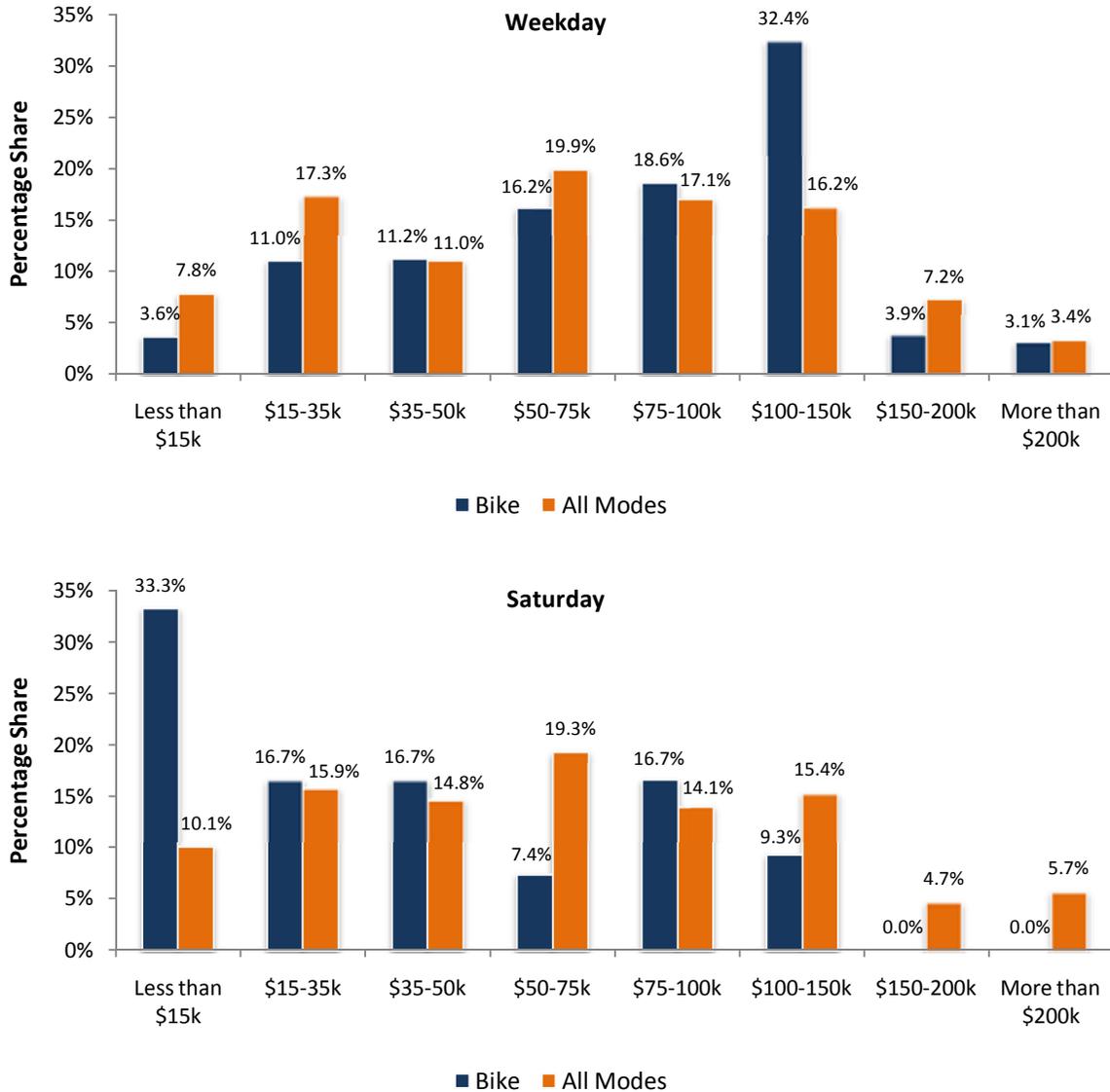
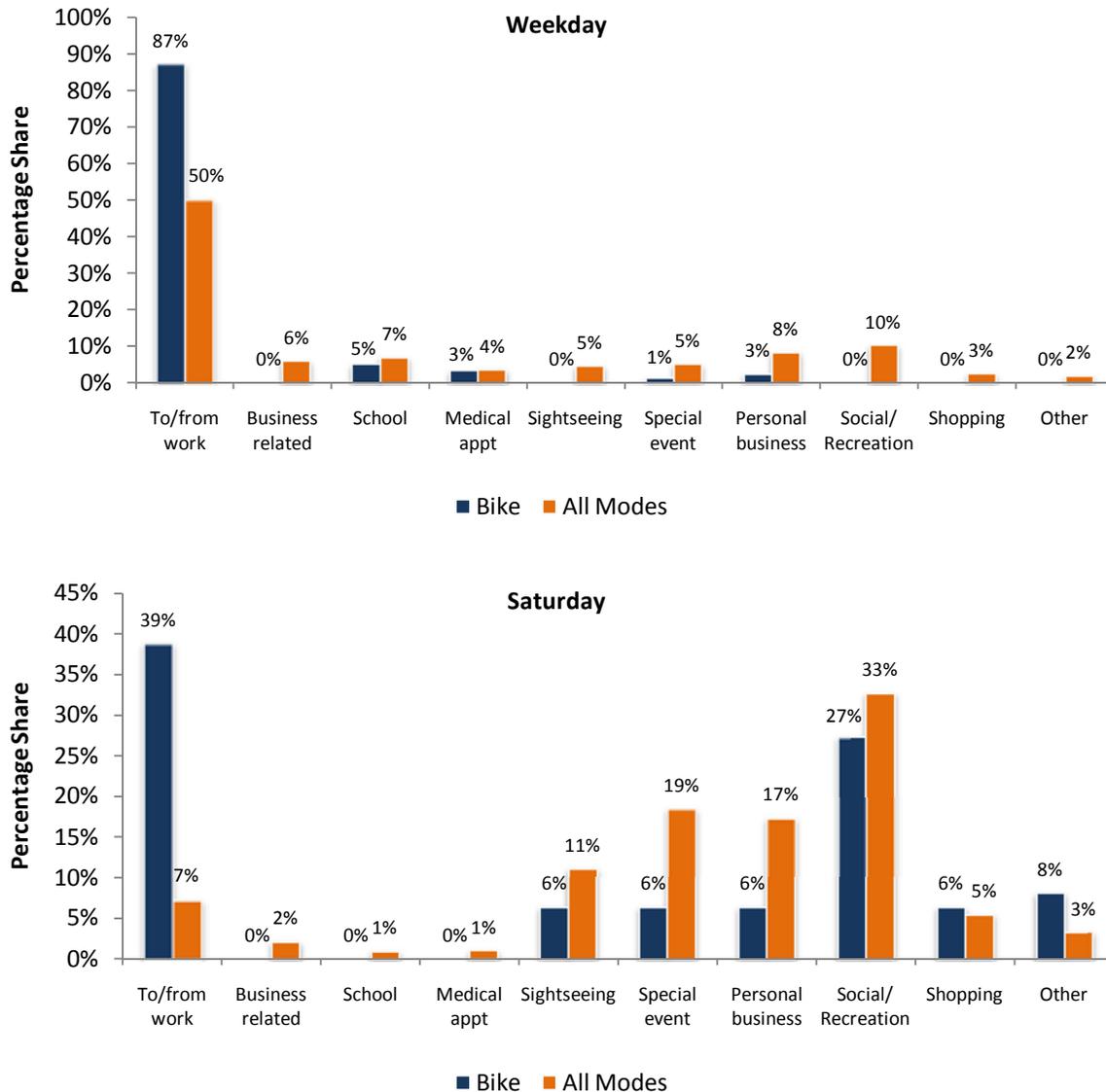


Figure 6-38 presents the distribution of bike access/egress by trip purpose compared to all modes. The vast majority of weekday ferry trips accessed or egressed by bike are for work (87 percent). Saturday trips accessed/egressed by bike are primarily for work (39 percent), with a large share of trips also for social/recreational purposes (27 percent). There are more bike access/egress trips for personal business, special events, sightseeing, shopping and other purposes on Saturdays than weekdays.

**Figure 6-35. Seattle–Bremerton distribution of bike access by trip purpose compared to all survey period respondents, weekday and Saturday survey periods (2013)**

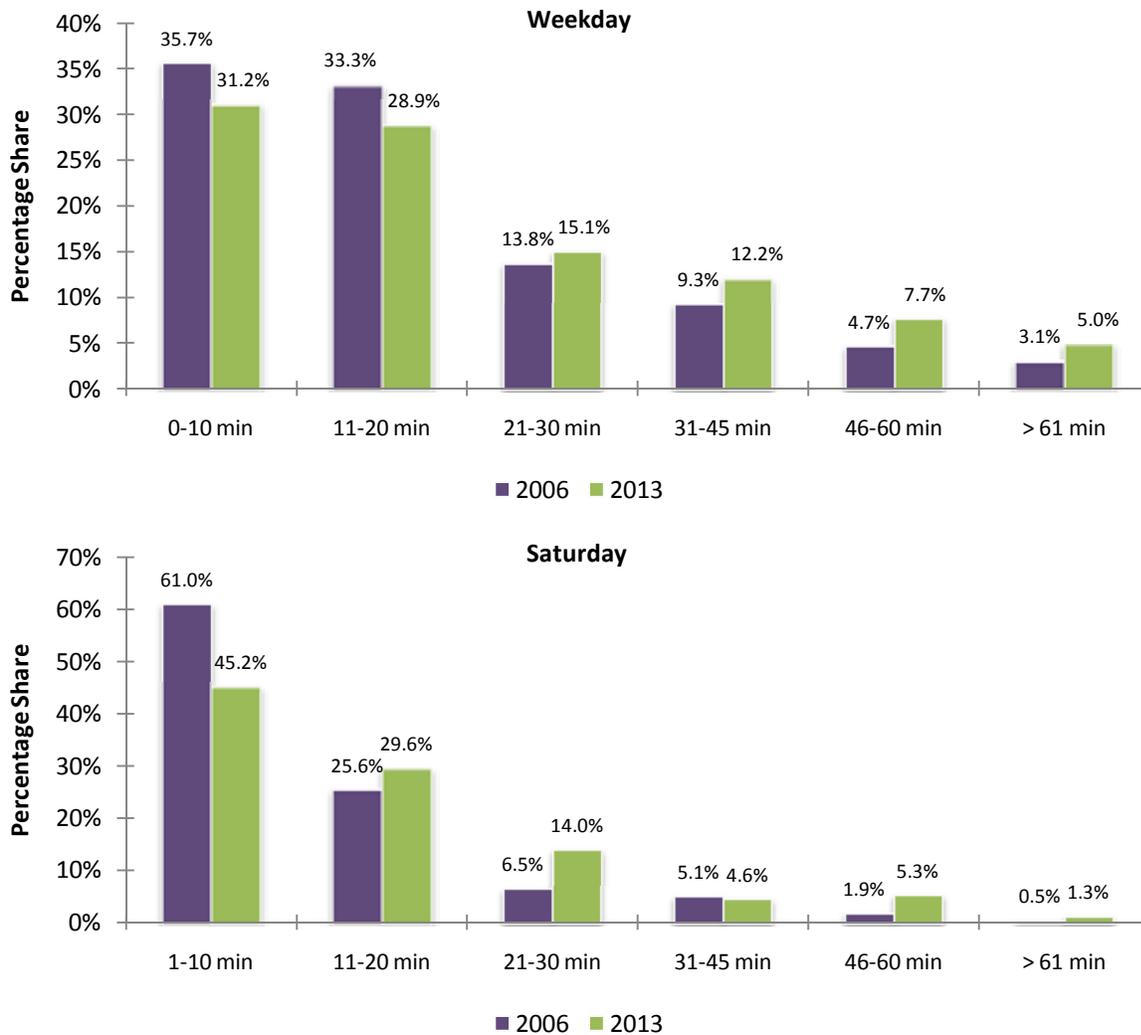




### 6.3.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 6-36 displays the frequency of distribution of perceived wait time (in minutes) for 2006 and 2013. The percentage of weekday travelers who waited for more than 30 minutes increased from 17 percent in 2006 to 25 percent in 2013. On Saturdays, the percentage of those who waited for 10 minutes or less dropped from 60 percent to 45 percent.

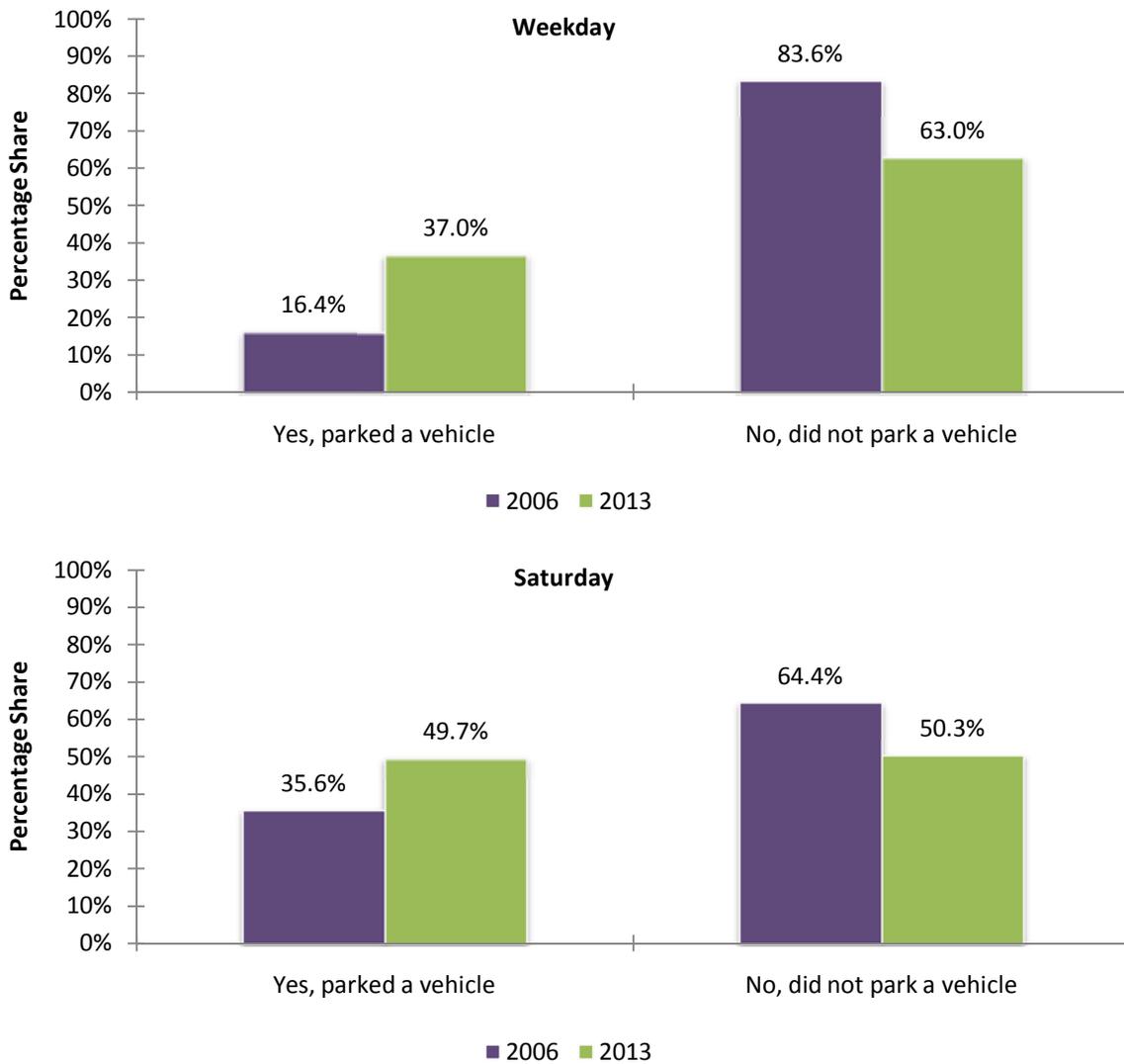
**Figure 6-36. Seattle–Bremerton trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 6.3.7 Parking

Figure 6-37 represents the percentage of walk-on riders who parked a vehicle prior to boarding the ferry. The percentage of weekday walk-on riders who parked a vehicle more than doubled in 2013 (37 percent) from 2006 (16 percent); however, this accounts for only one-third of walk-on riders. The majority of weekday riders continue to not park a vehicle before boarding. Similar trends are observed with Saturday travelers, with more passengers parking a vehicle in 2013 compared to 2006.

**Figure 6-37. Seattle–Bremerton non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**

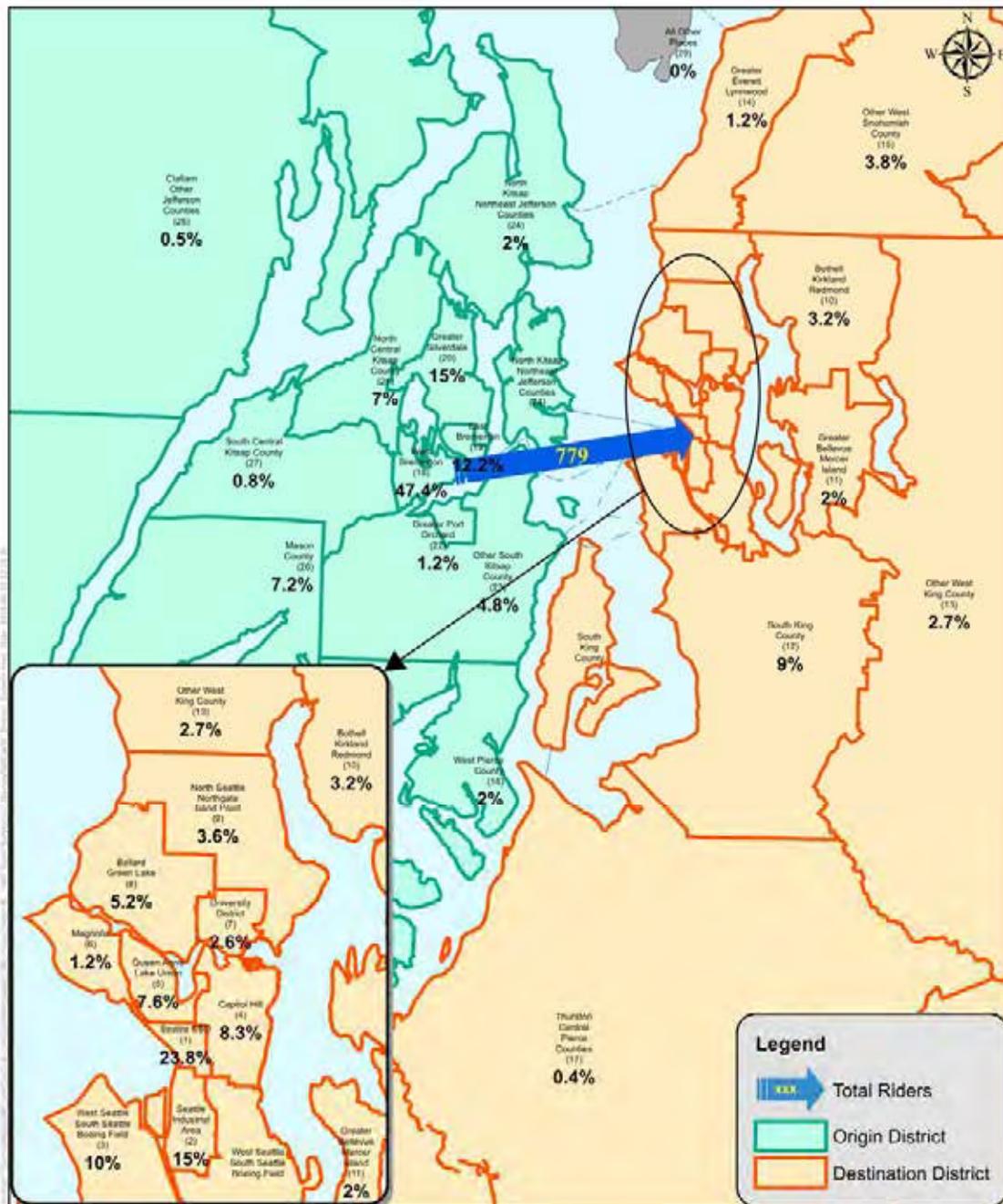




### 6.3.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 6-38 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 6-27. The majority of origins were located in West Bremerton, East Bremerton, and Greater Silverdale, while the major destinations were the Seattle CBD, the Seattle Industrial Area, and West Seattle/South Seattle/Boeing Field. Origin and destination locations by boarding mode are shown in Figure 6-39. Walk boarding origins and destinations were concentrated near the Bremerton and Colman Dock ferry terminals.

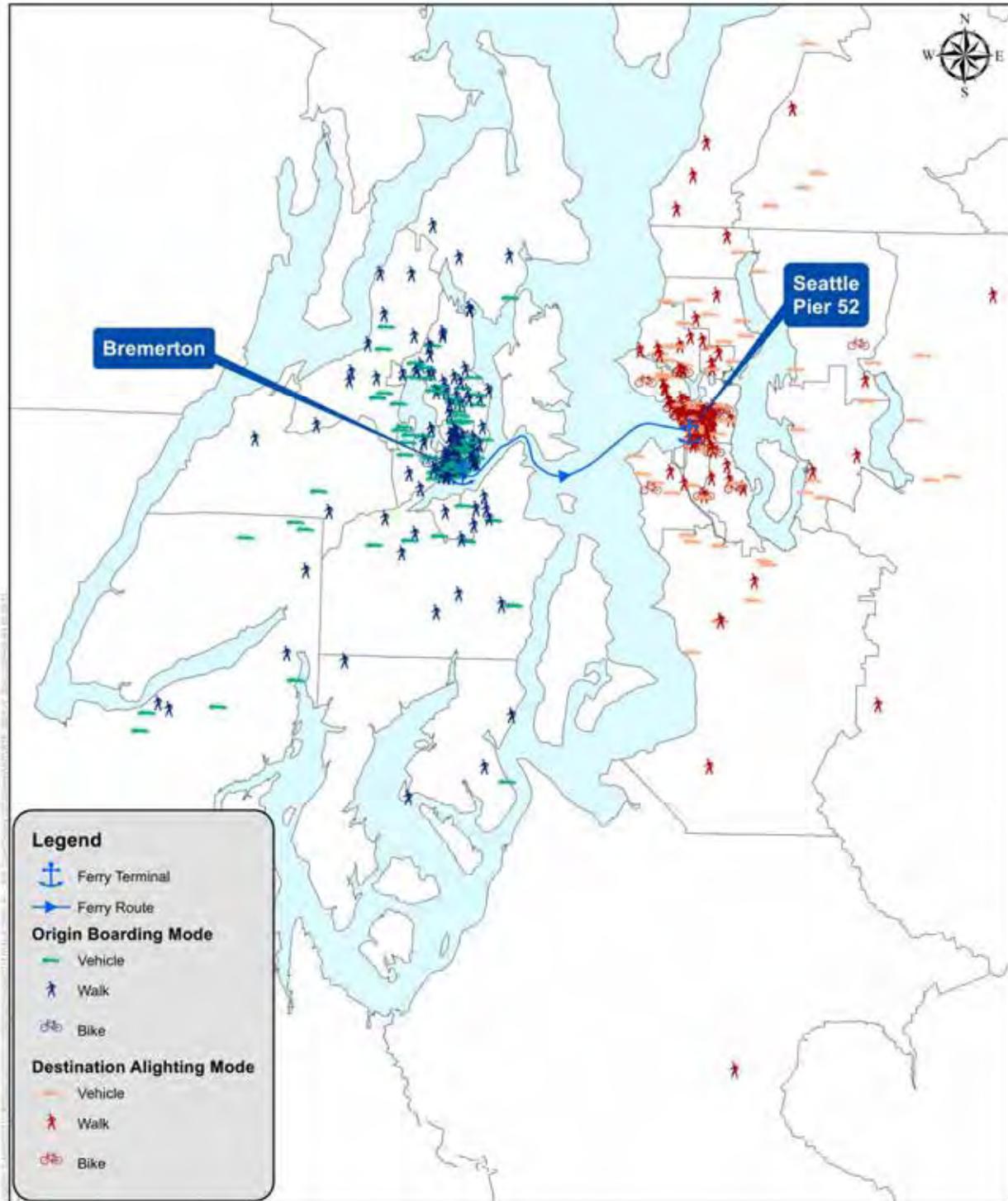
Figure 6-38. Seattle–Bremerton eastbound origin and destination districts, weekday PM Peak Period



**Table 6-27. Seattle–Bremerton eastbound total boardings by origin and destination district, weekday PM Peak Period**

Origin District ▼		Destination District ►																	Origin Total	Origin Percent Share
		Seattle CBD	Seattle Industrial Area	W Seattle / S Seattle / Boeing Field	Capitol Hill	Queen Anne / Lake Union	Magnolia	University District	Ballard-Green Lake	N Seattle / Ngate/Sand Point	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Is.	S King Co.	Other W King Co.	Greater Everett / Lynnwood	Other W Snohomish Co.	Thurston / Central Pierce Co.	All Other Places		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	28		
W Pierce Co.	16	3	9			4													16	2.0%
W Bremerton	18	87	45	47	44	34	10	3	22	13	10	7	19	10	9	7		3	369	47.4%
E Bremerton	19	22	9	3	7	6		7	9				3	7	4		14	3	95	12.2%
Greater Silverdale	20	15	21	19	7	4			3	7	7	6	27						117	15.0%
N Central Kitsap Co.	21	15	12			3		7	6		4		4	4					54	7.0%
Greater Port Orchard	22	3	6																9	1.2%
Other S Kitsap Co.	23	3	15		3	9				4	4								37	4.8%
N Kitsap / NE Jefferson Co.	24	3		3				3					6						15	2.0%
Clallam/Other Jefferson Co	25													4					4	0.5%
Mason Co.	26	31		3	4					4			6				9		56	7.2%
S Central Kitsap Co.	27	3		3															6	0.8%
Destination Total		185	117	78	65	59	10	20	41	28	25	16	70	21	9	30	3	3	779	100%
Destination Percent Share		23.8%	15.0%	10.0%	8.3%	7.6%	1.2%	2.6%	5.2%	3.6%	3.2%	2.0%	9.0%	2.7%	1.2%	3.8%	0.4%	0.4%	100%	

Figure 6-39. Seattle–Bremerton eastbound origin and destination locations by boarding mode, weekday 8-hour survey period



### 6.3.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 6-40 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 6-28. The major origins were the Seattle CBD, Queen Anne/Lake Union, and the Seattle Industrial Area, while the major destinations were West Bremerton, East Bremerton, and Greater Silverdale. Figure 6-41 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, travel patterns are similar to 2006, although there was a slight decrease in the percentage of trips originating in the Seattle CBD and a slight increase in the percentage of trips ending in West Bremerton, as well as a decrease in the percentage of trips ending in Silverdale.

Origin and destination locations by boarding mode are shown in Figure 6-42. Walk boarding origins and destinations were concentrated around the ferry terminals, similar to eastbound travel.

As shown in Table 6-29, the majority of bicycle boardings (69 percent) on this route originate in Seattle's central business district and industrial area, and half (50 percent) of trips end in West Bremerton.



Figure 6-40. Seattle–Bremerton westbound origin and destination districts, weekday PM peak period

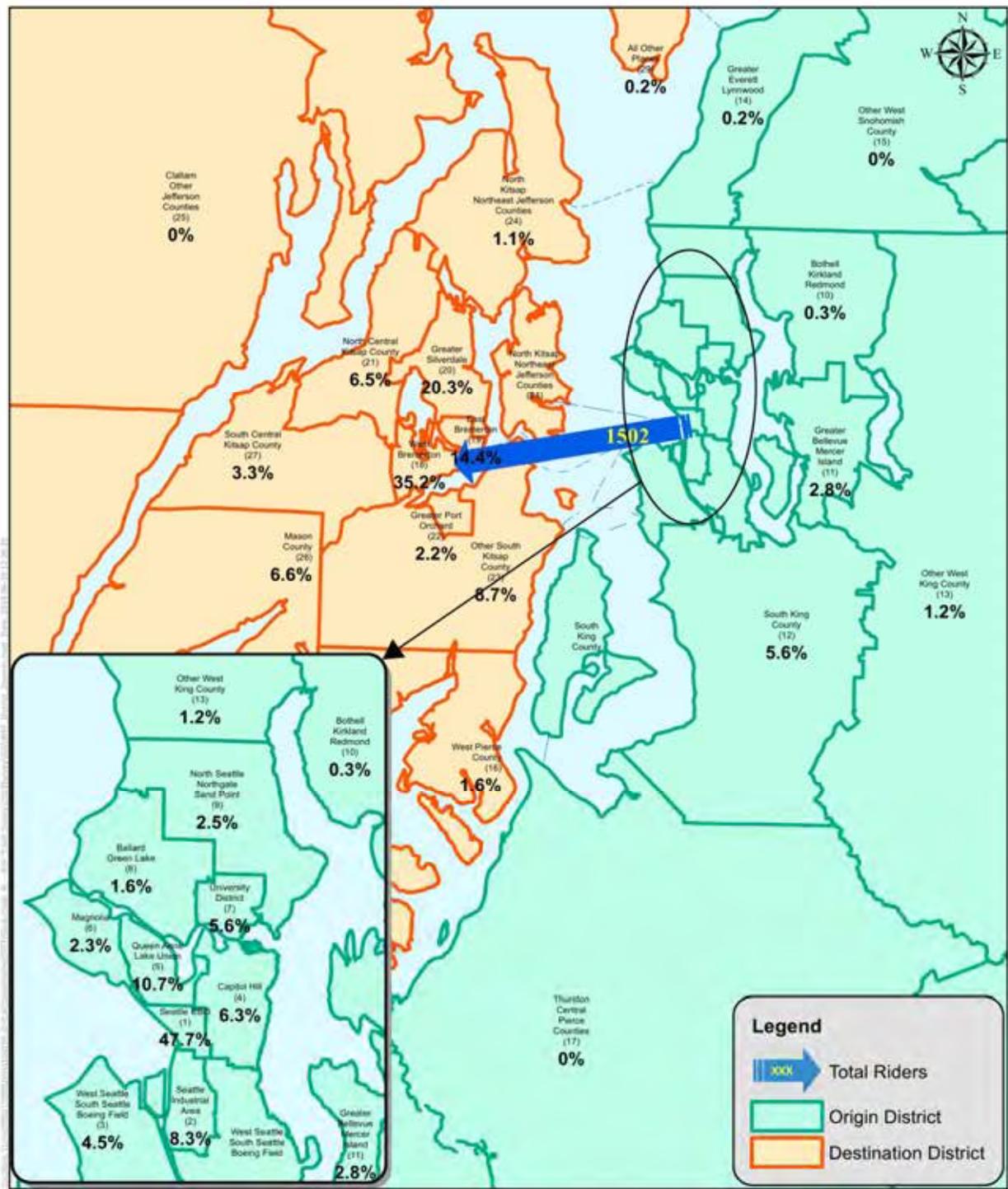
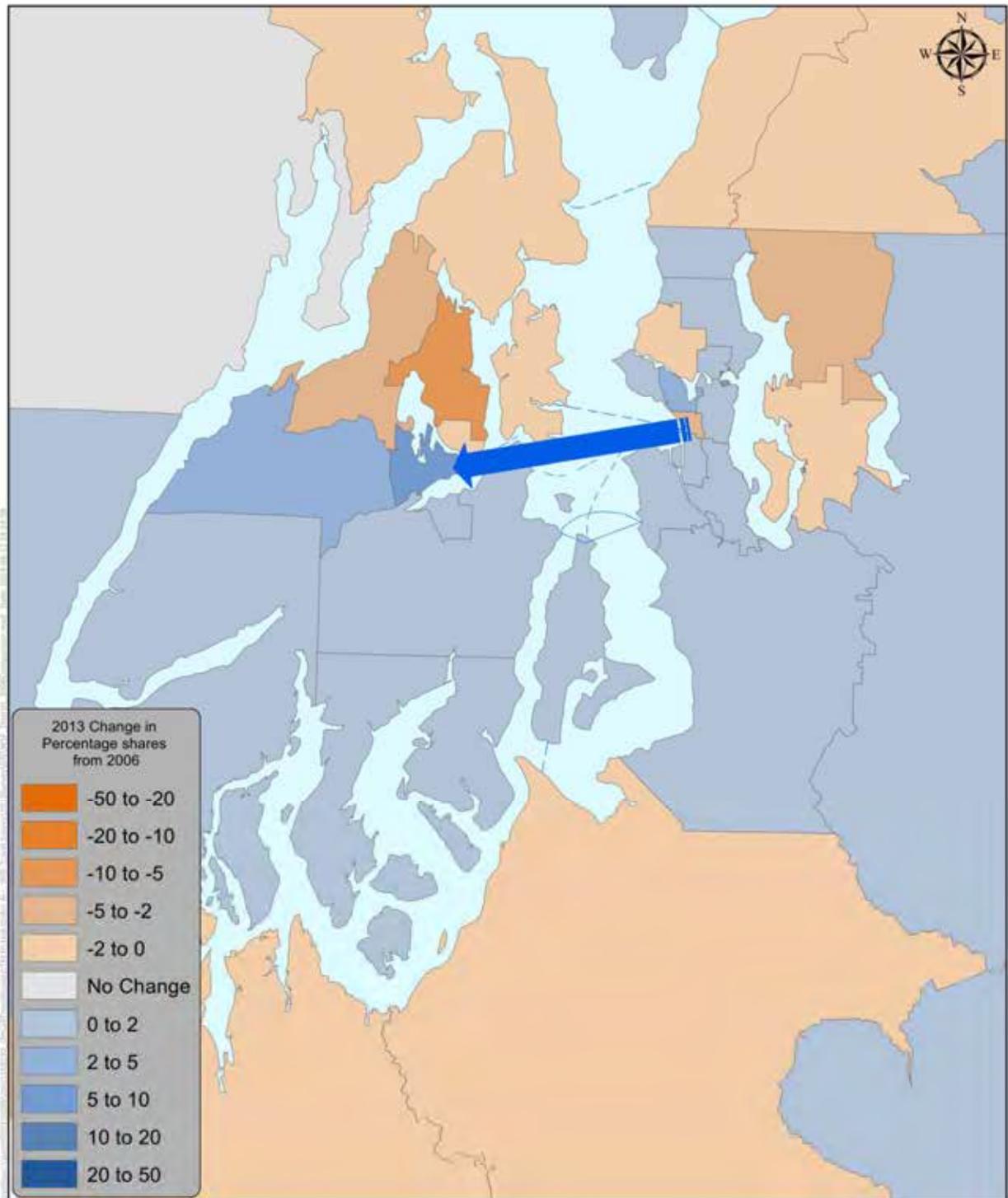


Figure 6-41. Seattle–Bremerton change in westbound travel patterns from 2006, weekday PM peak period





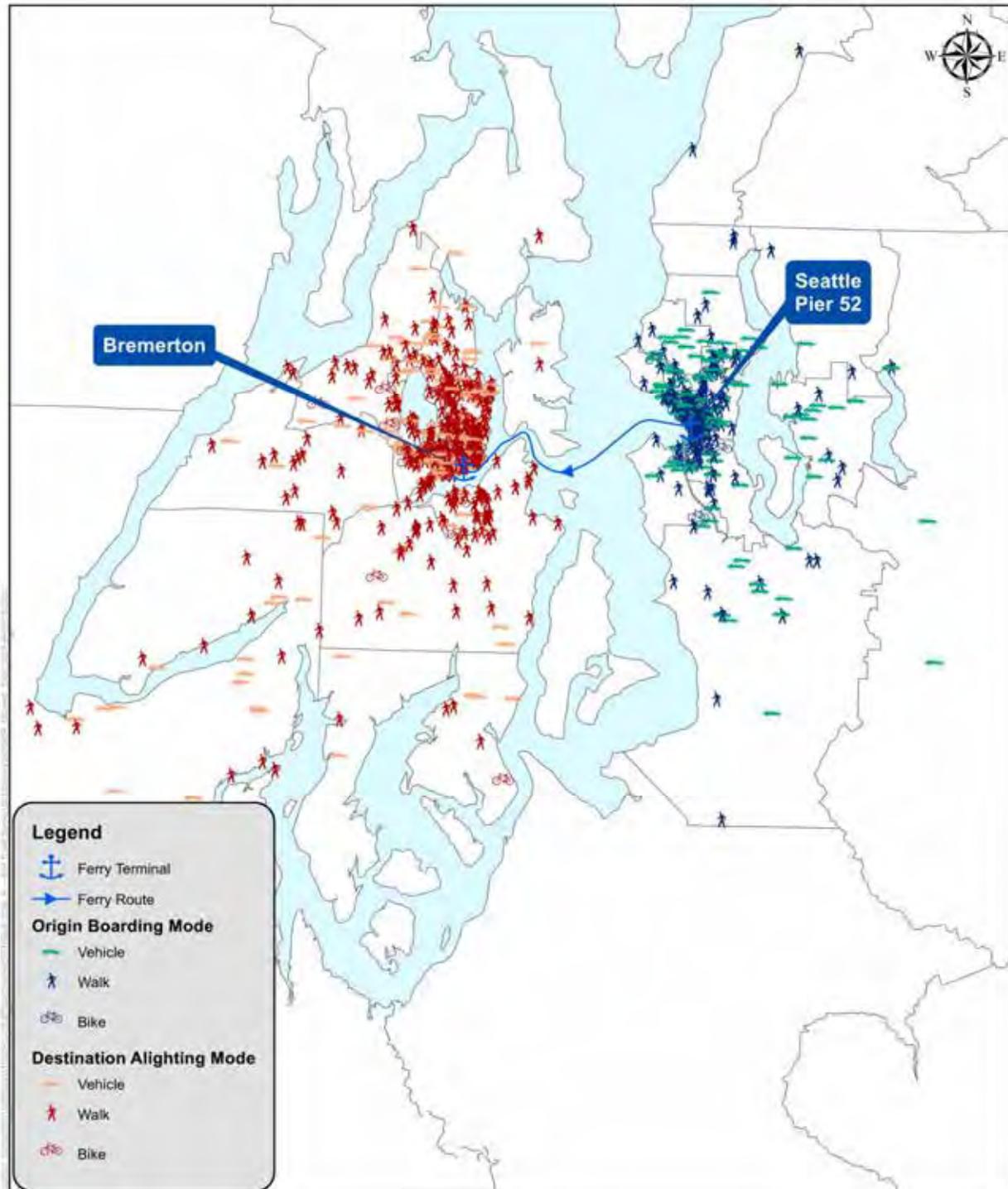
**Table 6-28. Seattle–Bremerton westbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼	Destination District ▶	W Pierce Co.	W Bremerton	E Bremerton	Greater Silverdale	N Central Kitsap Co.	Greater Port Orchard	Other S Kitsap Co.	N Kitsap / NE Jefferson Co.	Mason Co.	S Central Kitsap Co.	All Other Places	Origin Total	Origin Percent Share
		16	18	19	20	21	22	23	24	26	27	29		
Seattle CBD	1	15	246	110	159	31	17	74	2	38	20	3	716	47.7%
Seattle Industrial Area	2	3	46	22	22	15		2	3	8	2		124	8.3%
W Seattle / S Seattle / Boeing Field	3		33	5	10		2	2		12	2		67	4.5%
Capitol Hill	4		22	13	22	9	5	15	2	5			94	6.3%
Queen Anne / Lake Union	5	2	70	13	31	12	6	12	5	8	3		161	10.7%
Magnolia	6		16	8	5				2	3			34	2.3%
University District	7		28	17	17	9		12			2		85	5.6%
Ballard-Green Lake	8		10		6					3	5		24	1.6%
N Seattle / Ngate/Sand Point	9		14	6	5	5					7		37	2.5%
Bothell-Kirkland / Redmond	10					2				3			5	0.3%
Greater Bellevue / Mercer Island	11		11	3	14	6		8					42	2.8%
S King Co.	12	3	22	10	11	6	2	5		20	5		84	5.6%
Other W King Co.	13		8	2	2	3					3		18	1.2%
Greater Everett / Lynnwood	14		2										2	0.2%
All Other Places	28			6					2				8	0.5%
Destination Total		23	529	216	304	98	33	130	17	98	50	3	1,502	100%
Destination Percent Share		1.6%	35.2%	14.4%	20.3%	6.5%	2.2%	8.7%	1.1%	6.6%	3.3%	0.2%	100%	

**Table 6-29. Seattle–Bremerton westbound bicycle boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ▶		Destination District							Origin Total Origin Percent Share	
				West Pierce County	West Bremerton	East Bremerton	Greater Silverdale	North Central Kitsap County	Greater Port Orchard	Other South Kitsap County		
				16	18	19	20	21	22	23		
Seattle CBD	1		9	5				5	5		24	38.5%
Seattle Industrial Area	2		17					2			19	30.8%
West Seattle / South Seattle / Boeing Field	3			2						2	5	7.7%
Capitol Hill	4		2								2	3.8%
Queen Anne / Lake Union	5	2			2						5	7.7%
Magnolia	6			2							2	3.8%
University District	7		2	2							5	7.7%
Destination Total		2	31	12	2	7	5	2			62	100%
Destination Percent Share		3.8%	50.0%	19.2%	3.8%	11.5%	7.7%	3.8%			100%	

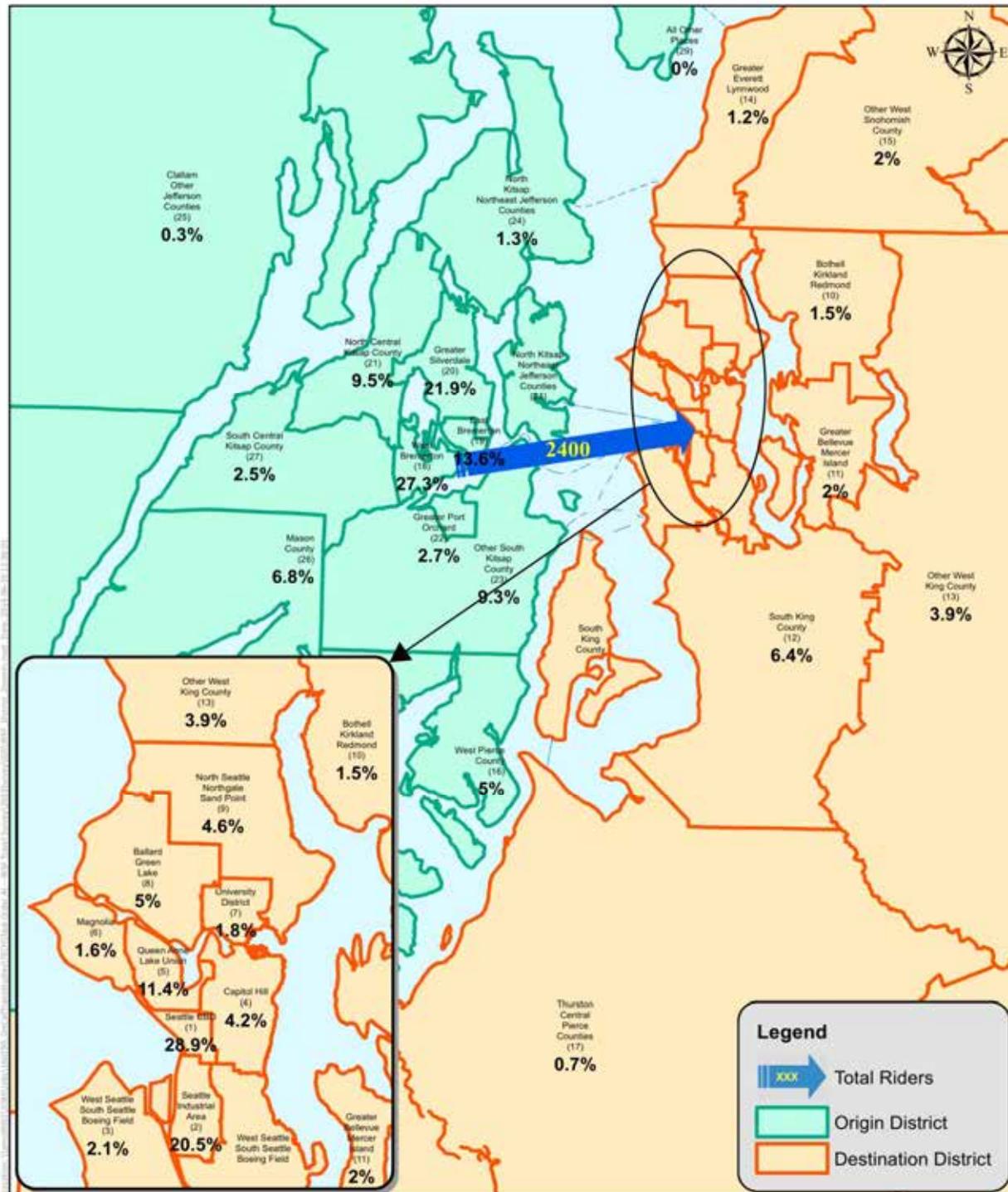
Figure 6-42. Seattle–Bremerton westbound origin and destination locations by boarding mode, weekday 8-hour survey period



### 6.3.10 Saturday Travel Patterns—Eastbound

Figure 6-43 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 6-30. The majority of origins were West Bremerton, East Bremerton, and Greater Silverdale, while the major destinations were the Seattle CBD, the Seattle Industrial Area, and Queen Anne/Lake Union. Origin and destination locations by boarding mode are shown in Figure 6-44. Origin and destination locations were concentrated near the ferry terminals similar to weekday travel, with some additional locations located farther away.

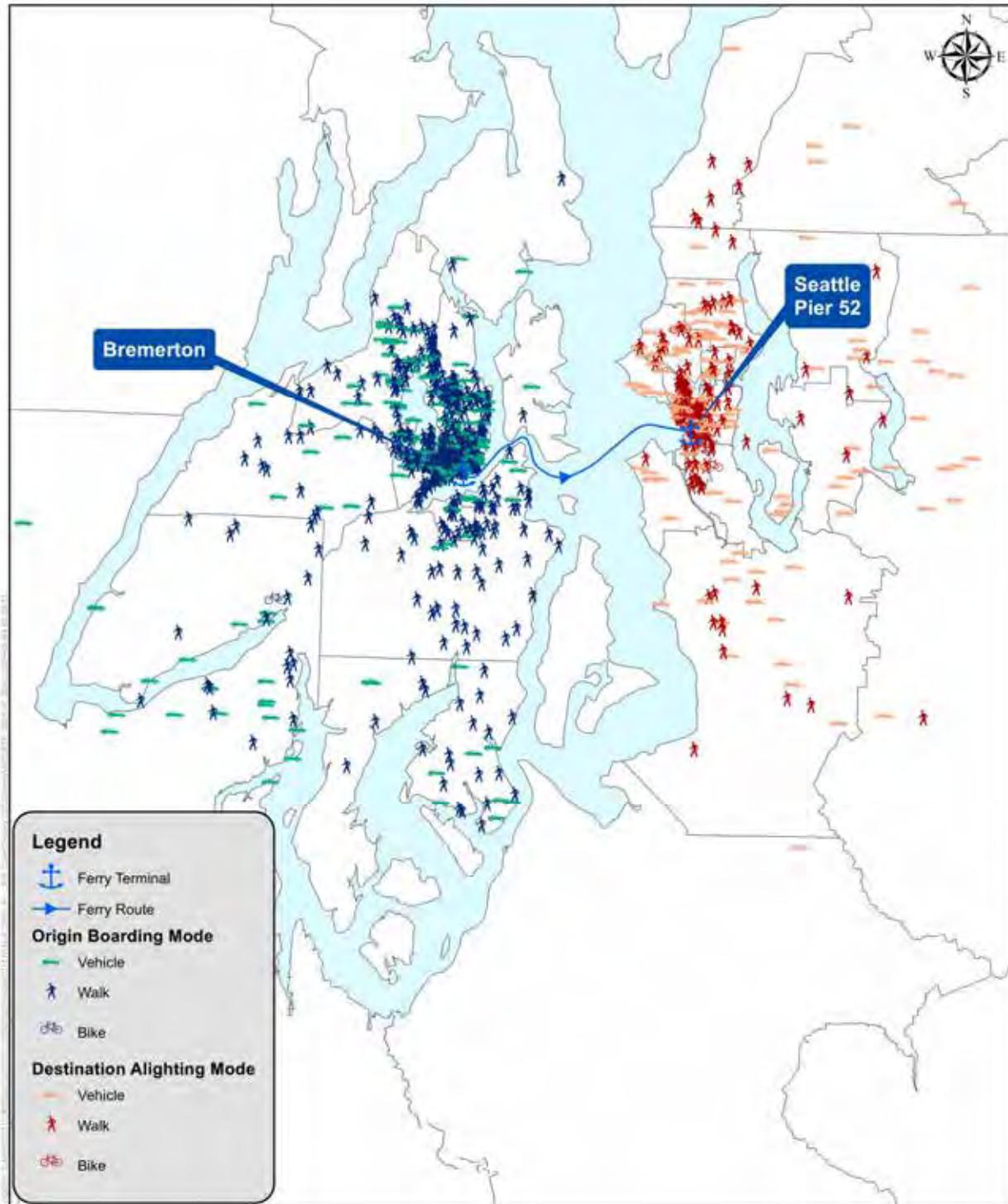
Figure 6-43. Seattle–Bremerton eastbound origin and destination districts, Saturday survey period



**Table 6-30. Seattle–Bremerton eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►																	Origin Total	Origin Percent Share
		Seattle CBD	Seattle Industrial Area	W Seattle / S Seattle / Boeing Field	Capitol Hill	Queen Anne / Lake Union	Magnolia	University District	Ballard-Green Lake	N Seattle / Ngate/Sand Point	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Is.	S King Co.	Other W King Co.	Greater Everett / Lynnwood	Other W Snohomish Co.	Thurston / Central Pierce Co.	All Other Places		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	17	28		
W Pierce Co.	16	46	19			16			3		3		12			5	16		120	5.0%
W Bremerton	18	231	117	9	27	67	16	2	7	49	20	5	40	16	7	15		25	655	27.3%
E Bremerton	19	83	38	5	16	49	2	5	25	24	4	2	50	16	4			2	327	13.6%
Greater Silverdale	20	148	88	9	22	46	3	26	33	18	3	19	15	47	14	25		9	525	21.9%
N Central Kitsap Co.	21	54	62	6	9	45		2	15	6		16	12						228	9.5%
Greater Port Orchard	22	17	24		5	14			5										65	2.7%
Other S Kitsap Co.	23	44	99		9	12		6	17	2	2		18	2	2			9	223	9.3%
N Kitsap / NE Jefferson Co.	24		2	12		2		2					3	8					30	1.3%
Clallam/Other Jefferson Co.	25		2															5	7	0.3%
Mason Co.	26	52	24		6	21	17		7	10	3	6	4	5	2	3			162	6.8%
S Central Kitsap Co.	27	19	15	7	5	3			7									2	59	2.5%
Destination Total		694	491	50	100	275	38	44	120	110	35	48	154	95	30	48	16	54	2,400	100%
Destination Percent Share		28.9%	20.5%	2.1%	4.2%	11.4%	1.6%	1.8%	5.0%	4.6%	1.5%	2.0%	6.4%	3.9%	1.2%	2.0%	0.7%	2.2%	100%	

Figure 6-44. Seattle–Bremerton eastbound origin and destination locations by boarding mode, Saturday survey period

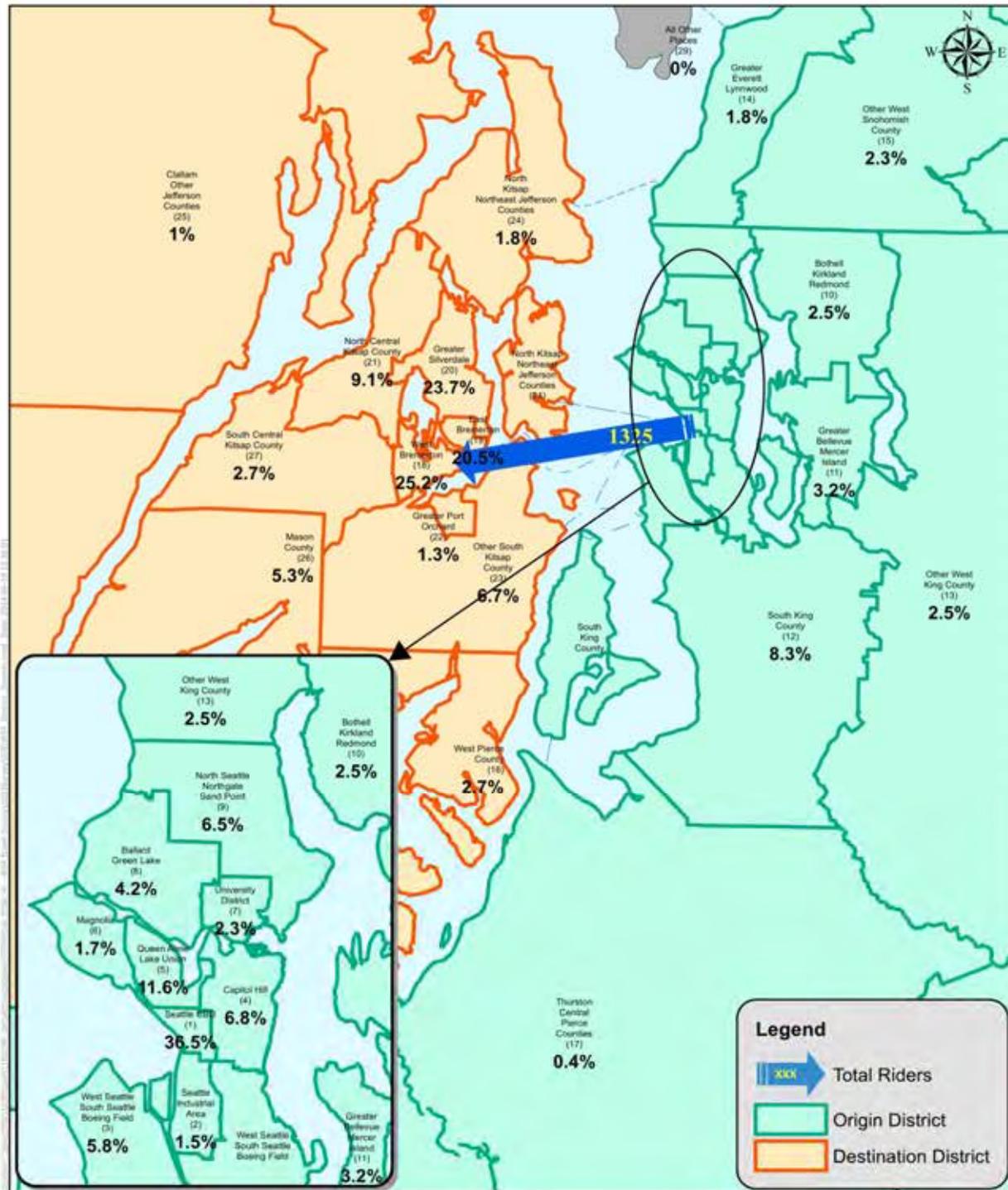


### 6.3.11 Saturday Travel Patterns—Westbound

Figure 6-45 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 6-31. The major origins were the Seattle CBD and Queen Anne/Lake Union, while the major destinations were West Bremerton, East Bremerton, and Greater Silverdale. Origin and destination locations by boarding mode are shown in Figure 6-46. Boarding origins and modes were less dispersed than eastbound travel.



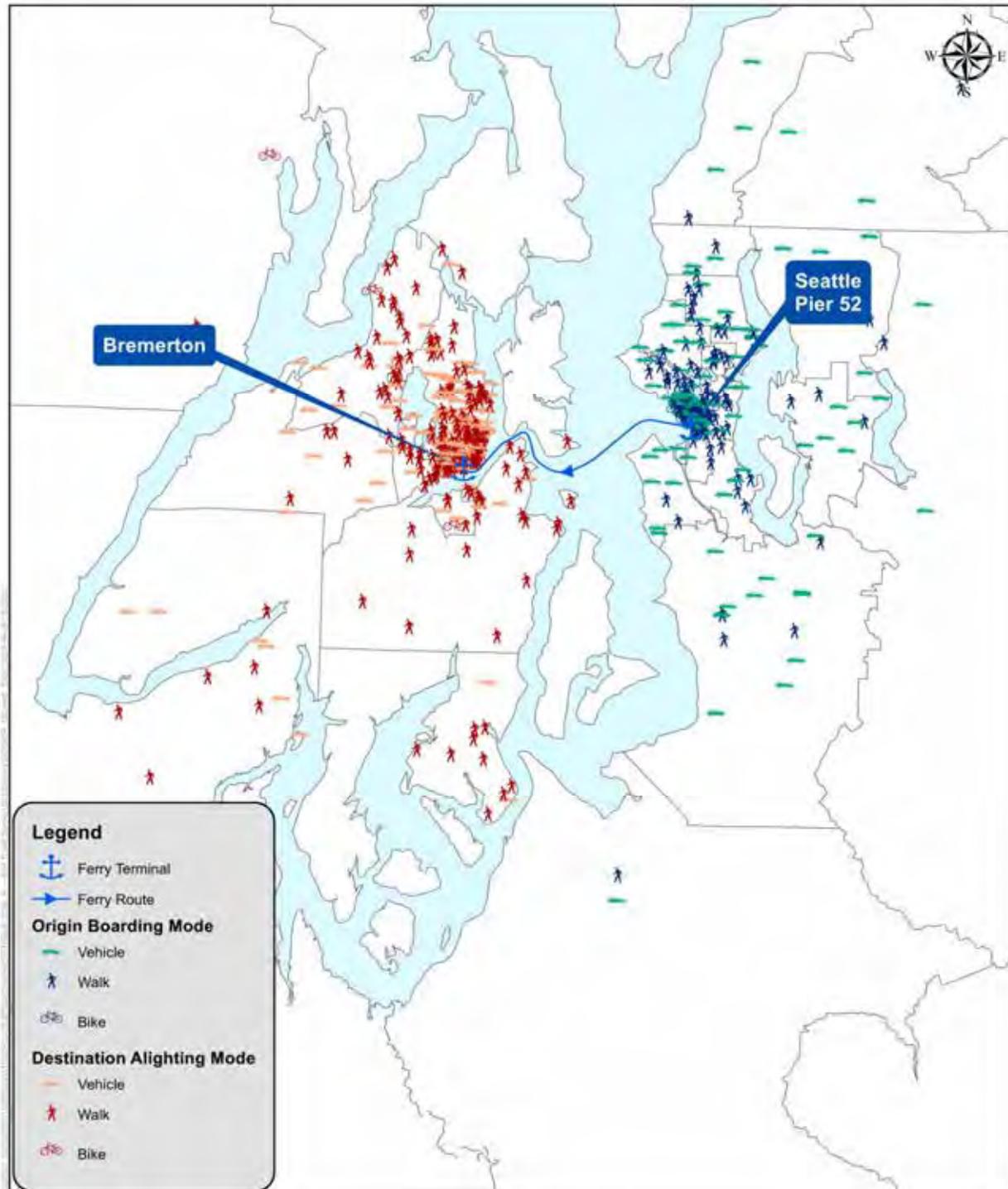
Figure 6-45. Seattle–Bremerton westbound origin and destination districts, Saturday survey period



**Table 6-31. Seattle–Bremerton westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼	Destination District ►												Origin Total	Origin Percent Share
		W Pierce Co.	W Bremerton	E Bremerton	Greater Silverdale	N Central Kitsap Co.	Greater Port Orchard	Other S Kitsap Co.	N Kitsap / NE Jefferson Co.	Mason Co.	S Central Kitsap Co.	All Other Places		
		16	18	19	20	21	22	23	24	26	27	29		
Seattle CBD	1	22	134	88	88	50	11	49	6	5	21	9	483	36.5%
Seattle Industrial Area	2		3	5	3		3	3				3	20	1.5%
W Seattle / S Seattle / Boeing Field	3	3	32	27	15								77	5.8%
Capitol Hill	4	5	17		23	11		3	12	3	17		91	6.8%
Queen Anne / Lake Union	5		40	32	41	11	3	9			9	9	154	11.6%
Magnolia	6		3	8		12							23	1.7%
University District	7		8	5	8	6		3					30	2.3%
Ballard-Green Lake	8		18		21				3		12	3	56	4.2%
N Seattle / Ngate/Sand Point	9	3	15	6	30	15		12	3		3		86	6.5%
Bothell-Kirkland / Redmond	10		6	6	15							6	33	2.5%
Greater Bellevue / Mercer Island	11		9	21	9			3					42	3.2%
S King Co.	12		20	36	33	15				5			110	8.3%
Other W King Co.	13	3	18		9							3	33	2.5%
Greater Everett / Lynnwood	14		3	15	3							3	24	1.8%
Other W Snohomish Co.	15		3	6	12						9		30	2.3%
Thurston / Central Pierce Co.	17			3	3								6	0.4%
All Other Places	28		6	12				9					26	2.0%
Destination Total		36	334	271	315	120	17	89	23	13	71	35	1,325	100%
Destination Percent Share		2.7%	25.2%	20.5%	23.7%	9.1%	1.3%	6.7%	1.8%	1.0%	5.3%	2.7%	100%	

Figure 6-46. Seattle–Bremerton westbound origin and destination locations by boarding mode, Saturday survey period



## 6.4 Edmonds–Kingston

### 6.4.1 Route Description

The Edmonds–Kingston route connects Edmonds and Kingston in the Central Sound corridor located north of Seattle and Bainbridge. It takes 30 minutes to ride this ferry across approximately 4.5 nautical miles. The route is in service all days of the week, but with a reduced early morning schedule on Sunday. Total annual ridership for 2013 was 1.8 million passengers plus 2 million vehicles and drivers for a total of 3.8 million riders, or about 10,400 riders per day. This compares to 4.3 million passengers annually, or about 12,200 riders per day in 2006.

The Edmonds–Kingston route currently operates 24 sailings per day in each direction, which is a one-trip increase from 2006. The current passenger fare is \$7.85, an increase from \$6.50 in 2006, and vehicle base fare is \$13.55 for vehicles 14 to 22 feet in length, which has increased from the \$11.25 base fare for vehicles in 2006.

The following subsections provide key trip-making characteristics for 2013 surveyed travelers on the Edmonds–Kingston route and a comparison to 2006 survey data to identify trends.

### 6.4.2 Trips by Purpose

As shown in Table 6-32, the most frequent weekday trip purpose was work/school (54 percent), which is similar to 2006. Recreation/shopping remains the predominant trip purpose for Saturday trips.

**Table 6-32. Edmonds–Kingston trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	780	422	569	1,772	40.0%	50.7%
Westbound	1,490	603	561	2,654	60.0%	49.3%
Total	2,271	1,025	1,130	4,426	100%	100%
2013 Distribution	51.3%	23.2%	25.5%	100%		
2006 Distribution	53.6%	21.2%	25.2%	100%		
<b>Saturday</b>						
Eastbound	237	947	2,752	3,936	52.4%	50.9%
Westbound	270	984	2,315	3,569	47.6%	49.1%
Total	506	1,931	5,067	7,505	100%	100%
2013 Distribution	6.7%	25.7%	67.5%	100%		
2006 Distribution	10.5%	28.1%	61.5%	100%		



### 6.4.3 Frequency of Travel

Table 6-33 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The highest percentage of weekday travelers traveled on the ferry only once in the past week (25 percent), an increase from 2006, when 19 percent of travelers reported one trip in the past week. On Saturdays, those reporting one trip in the past week was also the highest percentage by far at 68 percent.

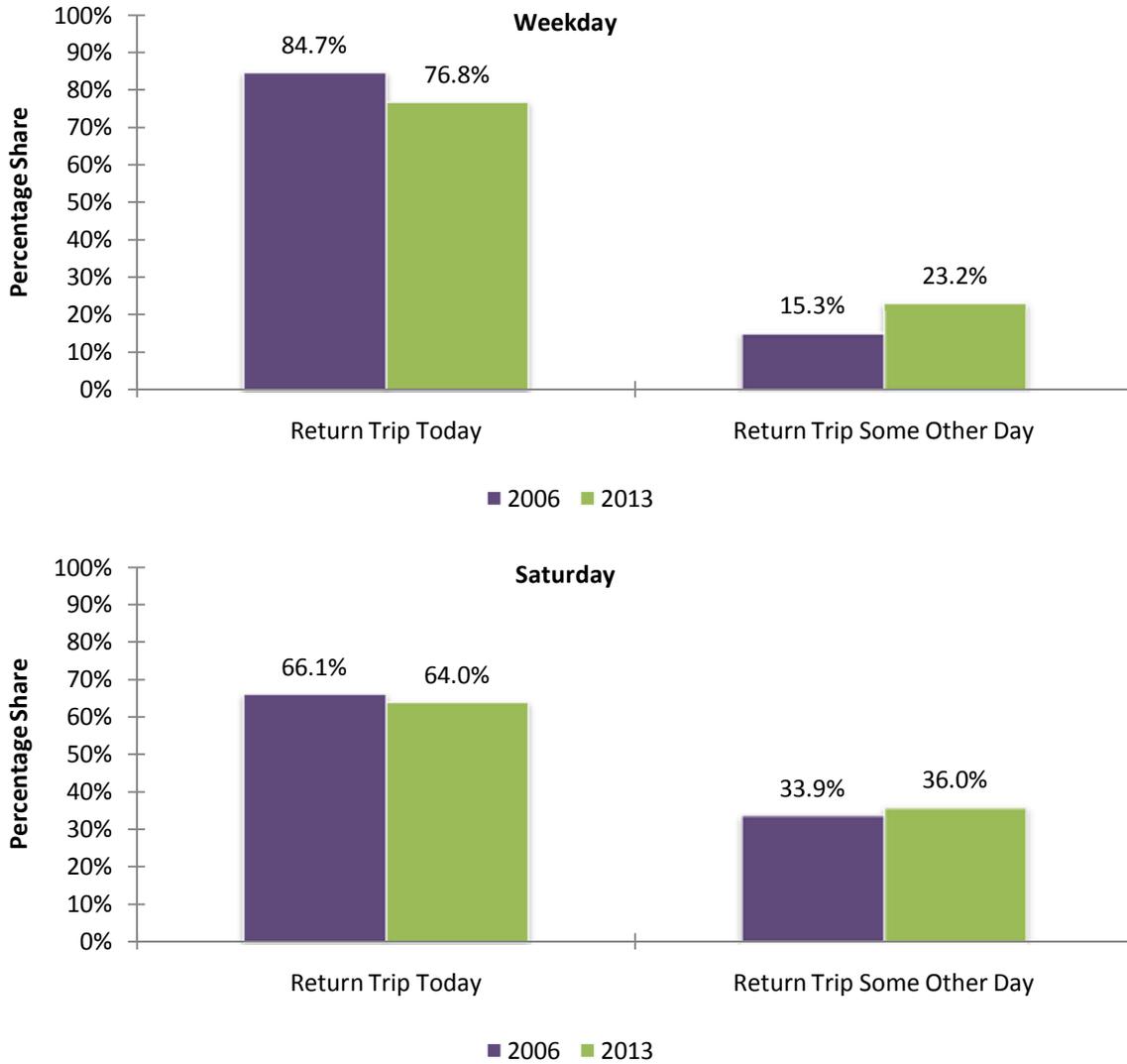
**Table 6-33. Edmonds–Kingston one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	276	291	372	940	25.7%	18.9%	14.2%	10.9%
2	193	216	269	678	18.5%	25.8%	9.9%	13.0%
3 to 4	320	189	185	693	18.9%	16.0%	16.4%	11.0%
5 to 6	304	63	50	417	11.4%	8.9%	15.6%	8.1%
7 to 8	148	27	13	187	5.1%	9.9%	7.6%	6.9%
9 to 10	499	9	11	519	14.2%	16.3%	25.6%	33.7%
11+	208	7	8	223	6.1%	4.1%	10.7%	16.4%
Total	1,947	801	908	3,657	100%	100%	100%	100%
2013 Distribution	53.2%	21.9%	24.8%	100%				
2006 Distribution	54.2%	20.2%	25.6%	100%				
<b>Saturday</b>								
1	167	1,145	3,409	4,721	67.6%	62.8%		
2	94	310	678	1,083	15.5%	16.0%		
3 to 4	65	213	461	738	10.6%	12.5%		
5 to 6	17	52	90	160	2.3%	3.4%		
7 to 8	22	21	41	85	1.2%	1.0%		
9 to 10	18	18	63	100	1.4%	0.7%		
11+	43	18	39	100	1.4%	3.4%		
Total	427	1,778	4,781	6,986	100%	100%		
2013 Distribution	6.1%	25.5%	68.4%	100%				
2006 Distribution	10.6%	28.5%	60.8%	100%				

### 6.4.4 Round-Trip Patterns

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day decreased from 85 percent in 2006 to 77 percent in 2013, as shown in Figure 6-47. The percentage of those returning on the same day on Saturdays remained relatively stable, at 64 percent in 2013, a slight decrease from 66 percent in 2006.

**Figure 6-47. Edmonds–Kingston round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**





As shown in Figure 6-48, the majority (86 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers, and the results are relatively unchanged from 2006.

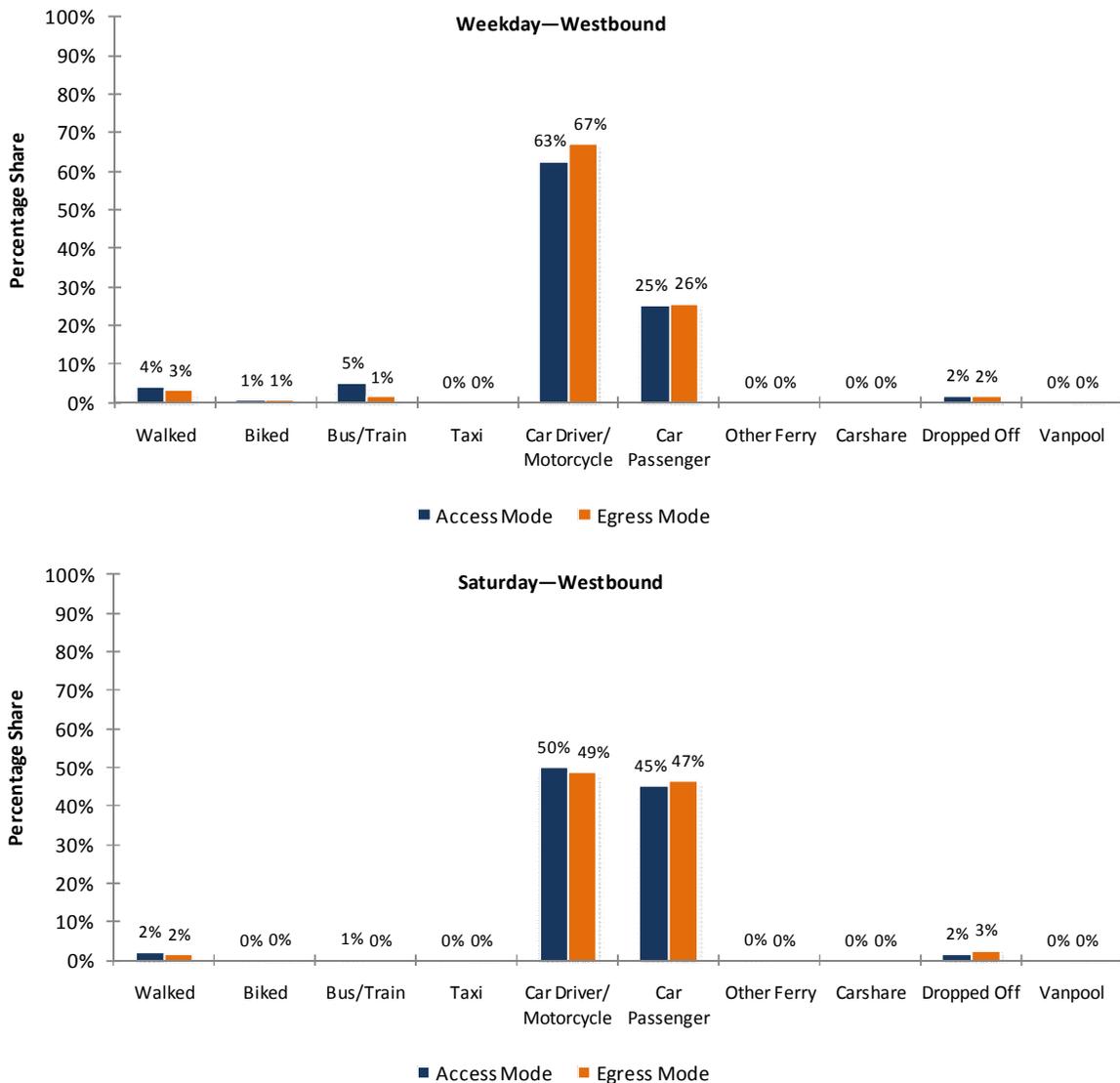
**Figure 6-48. Edmonds–Kingston round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 6.4.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant westbound mode of access and egress in 2013, as shown in Figure 6-49. On weekdays, 67 percent of ferry travelers drove to the ferry, and an additional 26 percent were passengers in a private vehicle. Egress percentages were similar to access. Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays, likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays.

**Figure 6-49. Edmonds–Kingston westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**





Similar to westbound travel, travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 6-50. On weekdays, 62 percent of ferry travelers drove to the ferry, and an additional 31 percent were passengers in a private vehicle. Egress percentages were similar to access. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 6-50. Edmonds–Kingston eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

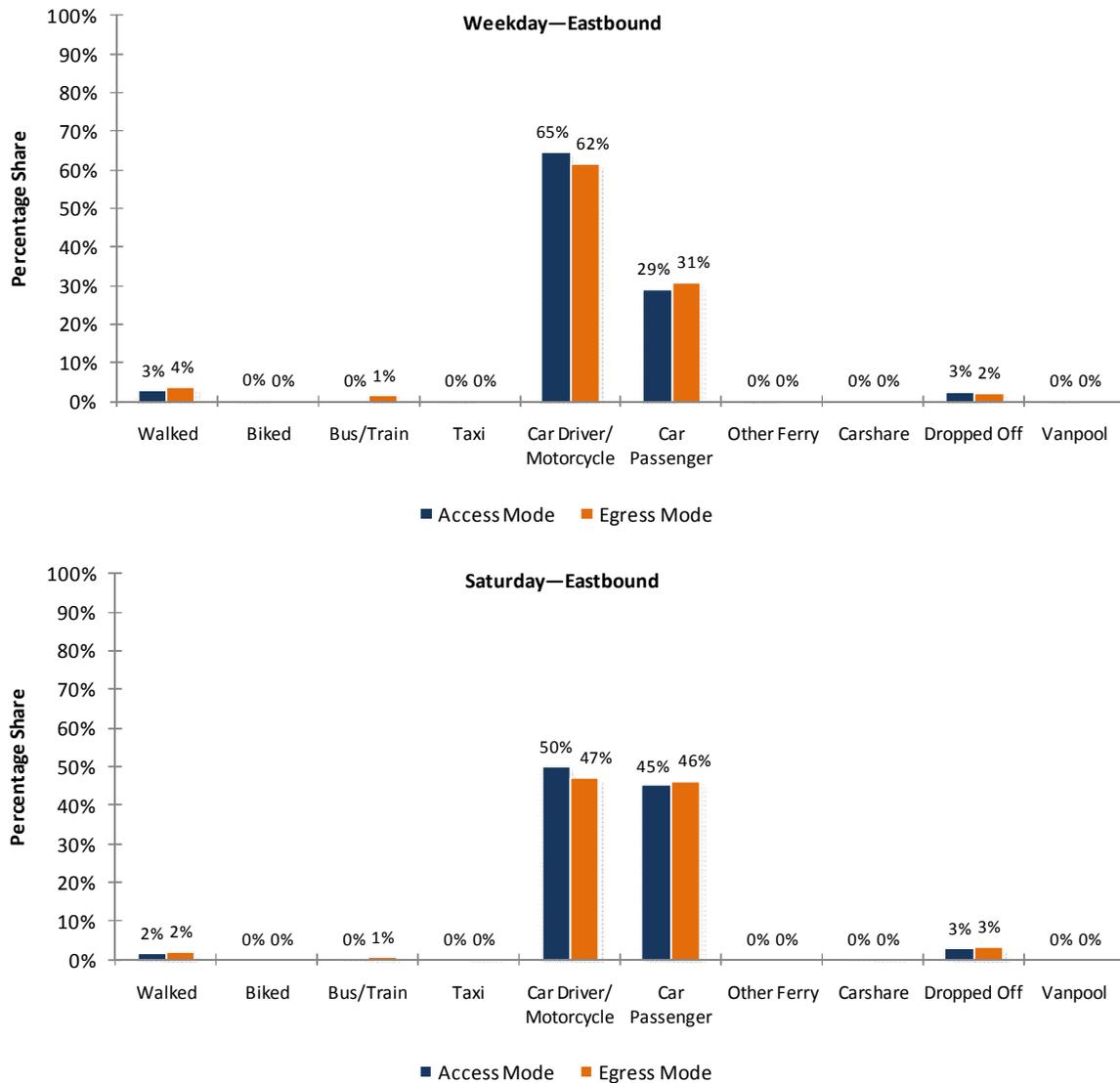


Table 6-34 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 87 percent and 90 percent of boardings on weekdays and Saturdays, respectively. On weekdays, the walk-on share of boardings increased between 2006 and 2013, while it decreased slightly on Saturdays.

**Table 6-34. Edmonds–Kingston access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	160	0	160	3.6%	5.4%
Biked	0	3	20	23	0.5%	0.3%
Bus/Train	6	128	3	137	3.1%	0.9%
Taxi	0	6	0	6	0.1%	0.0%
Car Driver/Motorcycle	2,589	217	0	2,806	63.4%	65.8%
Car Passenger	1,131	56	0	1,187	26.8%	27.5%
Other Ferry	0	3	0	3	0.1%	
Carshare	0	0	0	0	0.0%	
Dropped Off	5	89	0	94	2.1%	
Vanpool	0	6	3	10	0.2%	
<b>Total</b>	<b>3,731</b>	<b>668</b>	<b>27</b>	<b>4,426</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	84.3%	15.1%	0.6%	100%		
2006 Distribution	86.7%	13.2%	0.0%	100%		
<b>Saturday</b>						
Walked	5	134	0	139	1.9%	1.2%
Biked	0	0	3	3	0.0%	0.1%
Bus/Train	0	27	0	27	0.4%	0.3%
Taxi	0	3	0	3	0.0%	0.0%
Car Driver/Motorcycle	3,521	225	6	3,752	50.0%	59.8%
Car Passenger	3,290	106	0	3,396	45.2%	38.5%
Other Ferry	0	6	0	6	0.1%	
Carshare	5	0	0	5	0.1%	
Dropped Off	4	169	0	173	2.3%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>6,825</b>	<b>670</b>	<b>10</b>	<b>7,505</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	90.9%	8.9%	0.1%	100%		
2006 Distribution	89.6%	10.4%	0.1%	100%		



Table 6-35 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Egress modes are similar to access modes.

**Table 6-35. Edmonds–Kingston egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	8	144	0	152	3.4%	6.3%
Biked	4	3	11	18	0.4%	0.6%
Bus/Train	6	61	0	66	1.5%	0.6%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	2,562	298	13	2,873	64.9%	68.2%
Car Passenger	1,143	90	0	1,233	27.9%	24.3%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	4	72	3	79	1.8%	
Vanpool	4	0	0	4	0.1%	
<b>Total</b>	<b>3,731</b>	<b>668</b>	<b>27</b>	<b>4,426</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	84.3%	15.1%	0.6%	100%		
2006 Distribution	86.6%	13.4%	0.0%	100%		
<b>Saturday</b>						
Walked	0	135	3	139	1.8%	2.5%
Biked	0	0	6	6	0.1%	0.2%
Bus/Train	0	27	0	27	0.4%	0.0%
Taxi	0	11	0	11	0.1%	0.0%
Car Driver/Motorcycle	3,469	133	0	3,602	48.0%	62.4%
Car Passenger	3,346	139	0	3,484	46.4%	34.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	5	4	0	9	0.1%	
Dropped Off	5	218	0	223	3.0%	
Vanpool	0	3	0	3	0.0%	
<b>Total</b>	<b>6,825</b>	<b>670</b>	<b>10</b>	<b>7,505</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	90.9%	8.9%	0.1%	100%		
2006 Distribution	89.4%	10.5%	0.1%	100%		

Table 6-36, Table 6-37, and Table 6-38 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For walk-on boardings during the non-PM peak period, the percentage of travelers leaving the destination terminal on foot was significantly higher than the percentage arriving at the origin terminal on foot (30 percent versus 21 percent).

**Table 6-36. Edmonds–Kingston trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
Walk-On Boardings (18.0% of total boardings)					
Pedestrian	24.0%	Pedestrian	95.5%	Pedestrian	16.5%
Bicycle	3.2%	Pedestrian w/ Bicycle	4.5%	Bicycle	2.0%
By Bus/Transit	22.5%			By Bus/Transit	9.3%
By Vehicle	48.4%			By Vehicle	72.2%
Vanpool	1.3%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.6%			Other Ferry	0.0%
In-Vehicle Boardings (82.0% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	69.6%	In-Vehicle	100.0%
		Vehicle Passengers	30.4%		

Note: Average vehicle occupancy (AVO) was 1.44 for the weekday PM peak period.

**Table 6-37. Edmonds–Kingston trips by access mode to ferry—boarding method—egress mode from ferry, weekday non-PM peak period (2013)**

Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
Walk-On Boardings (11.9% of total boardings)					
Pedestrian	20.9%	Pedestrian	98.0%	Pedestrian	31.2%
Bicycle	3.6%	Pedestrian w/ Bicycle	2.0%	Bicycle	2.0%
By Bus/Transit	10.1%			By Bus/Transit	7.2%
By Vehicle	63.9%			By Vehicle	59.6%
Vanpool	1.6%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (88.1% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	69.4%	In-Vehicle	100.0%
		Vehicle Passengers	30.6%		

Note: Average vehicle occupancy (AVO) was 1.44 for the weekday non-PM peak period.



**Table 6-38. Edmonds–Kingston trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

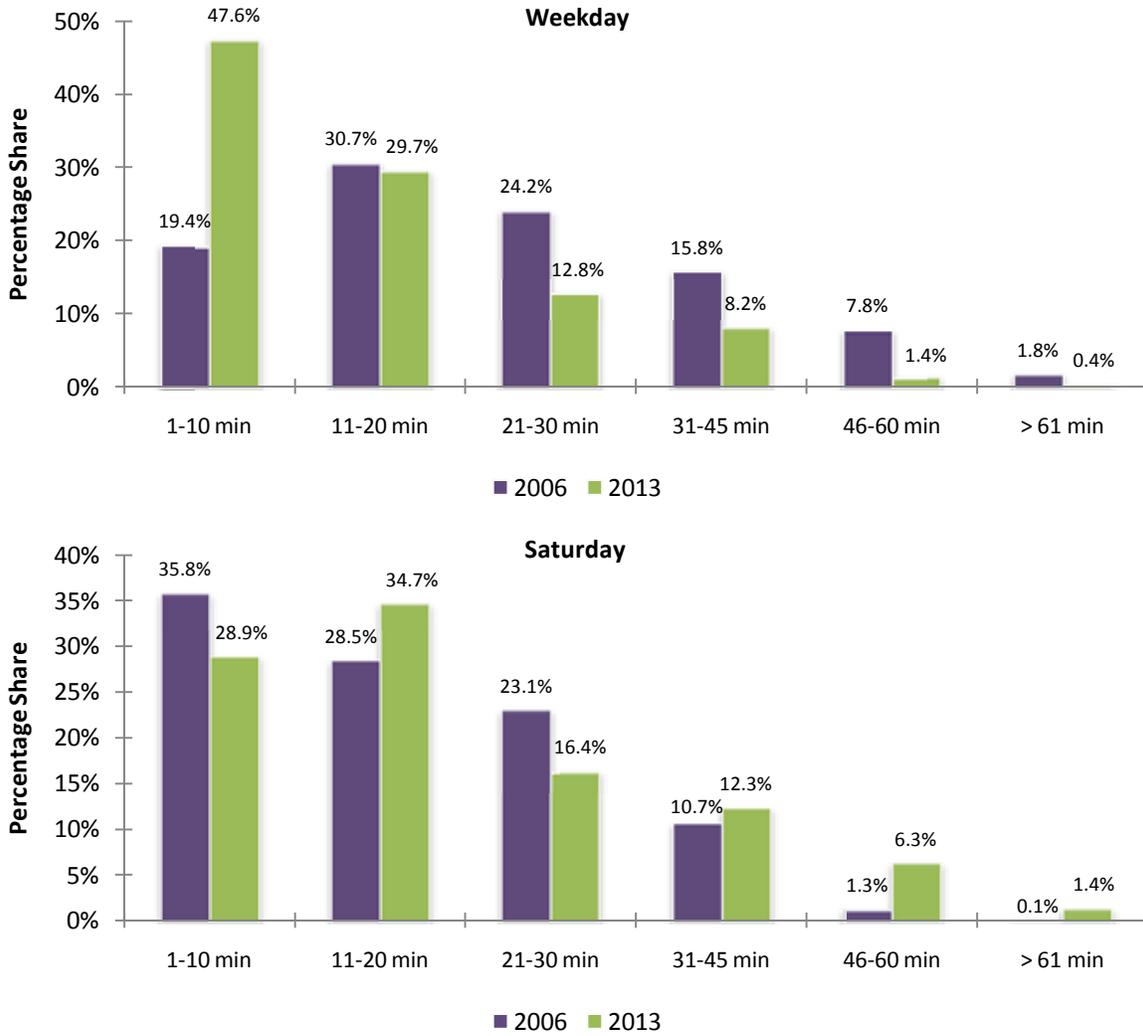
Access Mode to Ferry Terminal	Percent Distribution	Boarding Method	Percent Distribution	Egress Mode from Ferry Terminal	Percent Distribution
<b>Walk-On Boardings (9.1% of total boardings)</b>					
Pedestrian	19.7%	Pedestrian	98.6%	Pedestrian	20.4%
Bicycle	0.5%	Pedestrian w/ Bicycle	1.4%	Bicycle	0.9%
By Bus/Transit	3.9%			By Bus/Transit	3.9%
By Vehicle	74.9%			By Vehicle	73.7%
Vanpool	0.0%			Vanpool	0.5%
Carshare	0.0%			Carshare	0.6%
Other Ferry	0.9%			Other Ferry	0.0%
<b>In-Vehicle Boardings (90.9% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	51.8%	In-Vehicle	100.0%
		Vehicle Passengers	48.2%		

*Note: Average vehicle occupancy (AVO) was 1.93 for the Saturday survey period.*

### 6.4.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 6-51 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 48 percent of weekday ferry passengers waited for 10 or fewer minutes, which was a significant increase from 20 percent in 2006. On Saturdays, wait times were more similar to those in 2006.

**Figure 6-51. Edmonds–Kingston trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**

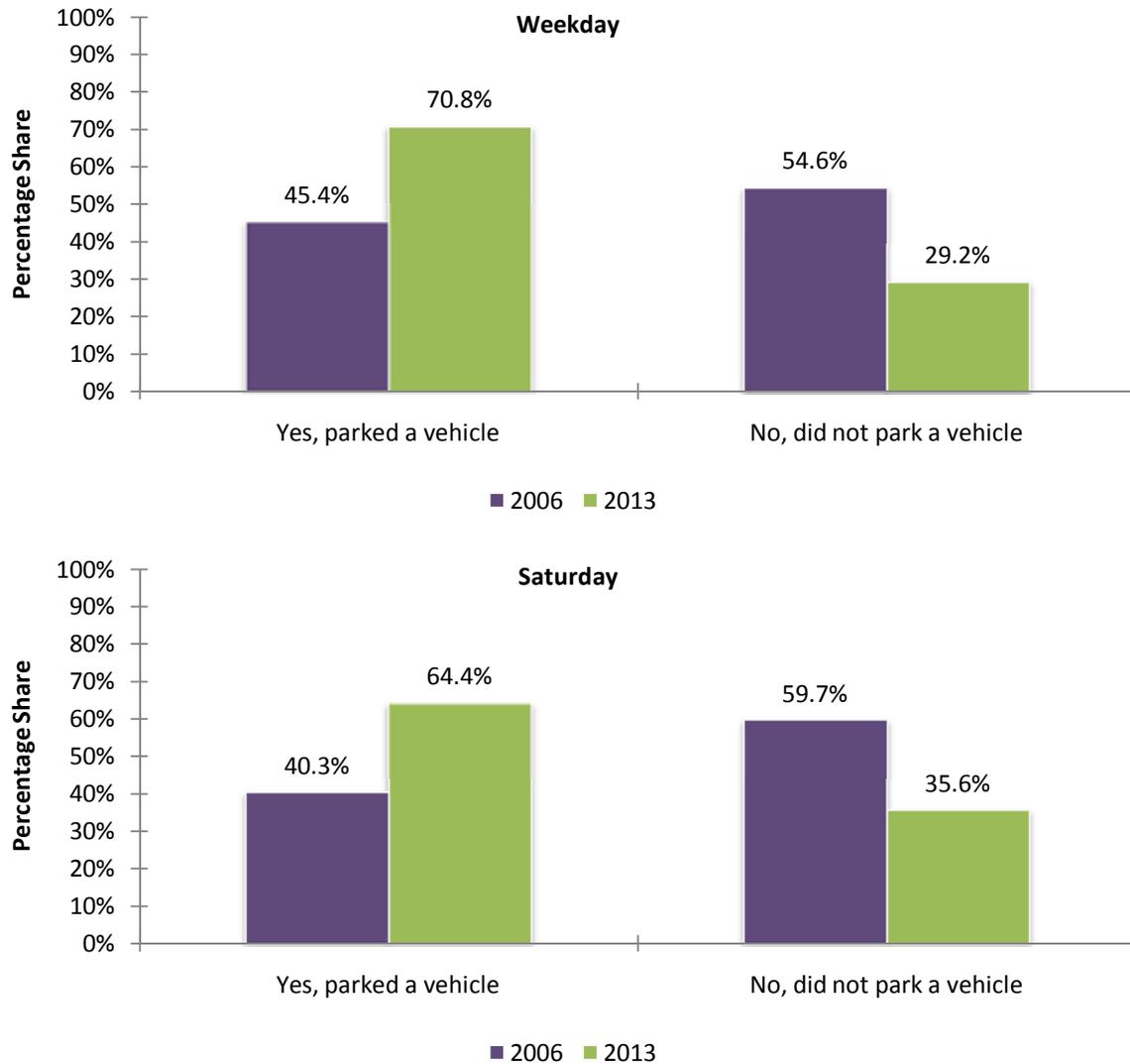




### 6.4.7 Parking

Figure 6-52 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 71 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, a significant increase from 45 percent in 2006. On Saturdays, those who parked a vehicle increased from 40 percent to 64 percent.

**Figure 6-52. Edmonds–Kingston non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



#### 6.4.8 Weekday PM Peak-Period Travel Patterns—Eastbound

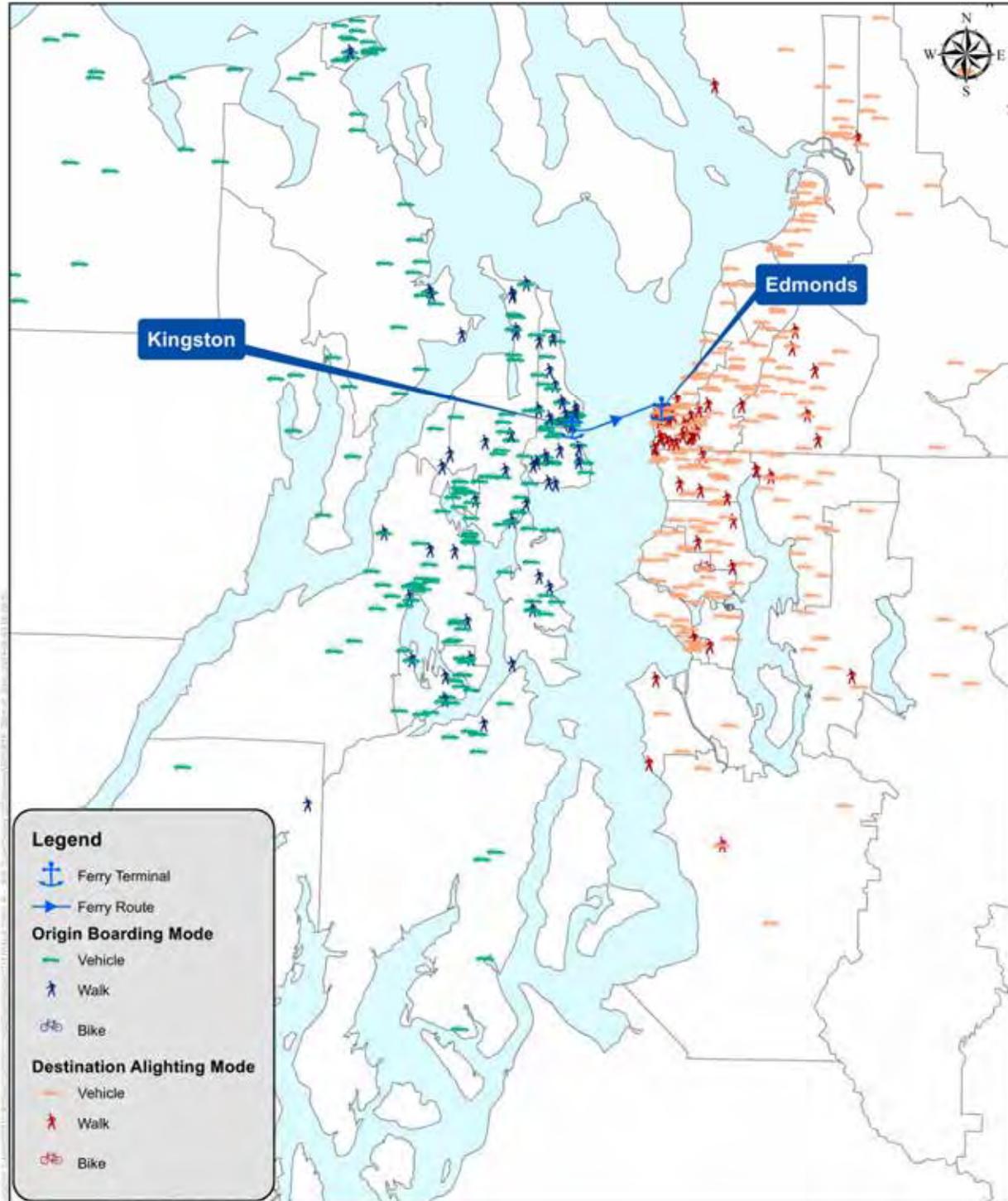
Figure 6-53 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 6-39. The major origins were Kingston, Central Kitsap County, and North Kitsap County, while the major destinations were Edmonds, Greater Everett, and Mountlake Terrace. Origin and destination locations by boarding mode are shown in Figure 6-54. Walk boarding origins were somewhat dispersed, while the walk-off destinations were generally concentrated near the Edmonds ferry terminal.



**Table 6-39. Edmonds–Kingston eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼	Destination District ►	Edmonds	Lynnwood	Mountlake Terrace	Mukilteo/Paine Field	Greater Everett	Other W Snohomish Co.	Seattle CBD	Greater S Seattle	Capitol Hill / Queen Anne / Magnolia	Ballard-Green Lake / University District	N Seattle / Sand Point	Shoreline-Lake Forest Park	Bothell-Kirkland	Greater Bellevue / Redmond / Issaquah	SW King Co.	Other W King Co.	All Other Places_E	Origin Total	Origin Percent Share
		1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	33		
S Kitsap / W Pierce Co.	18		4	12		21	4						7	4					52	4.8%
Kingston	20	48	7	21		8	16	4			24	11	20	7	3			23	191	17.9%
Poulsbo	21	11	12			4	11	4						4	4				66	6.2%
Bainbridge Island	22	40		4		13						4	8				4		72	6.8%
Other N Kitsap Co.	23	15	25	11	8	12	8		3	4	4		8	8	4	13		4	126	11.8%
Greater Bremerton	24	18	12	4		4	15	8					4					12	77	7.2%
Other Central Kitsap Co	25	17	8	33		37	4				12	11	11	8				20	161	15.1%
Mason Co.	26	4				4							8						16	1.5%
Port Townsend	27	3					4		8		8	8			4		4		39	3.6%
Other NE Jefferson Co.	28	6		16		4								4	4	3	8	8	53	4.9%
SE Jefferson Co.	29	16				8				16						17		4	62	5.8%
Port Angeles	30					4				8	4				4			20	41	3.8%
Sequim / Other E Clallam Co.	31	12	4	4		8	8		4	20	12			8	8				88	8.2%
W Olympic Peninsula	32	8											4						12	1.1%
All Other Places_W	34													13					13	1.2%
Destination Total		199	72	104	8	127	69	16	15	49	64	34	70	55	30	32	16	108	1,069	100%
Destination Percent Share		18.6%	6.7%	9.8%	0.8%	11.9%	6.5%	1.5%	1.4%	4.6%	6.0%	3.1%	6.6%	5.2%	2.8%	3.0%	1.5%	10.1%	100%	

Figure 6-54. Edmonds–Kingston eastbound origin and destination locations by boarding mode, weekday 8-hour survey period



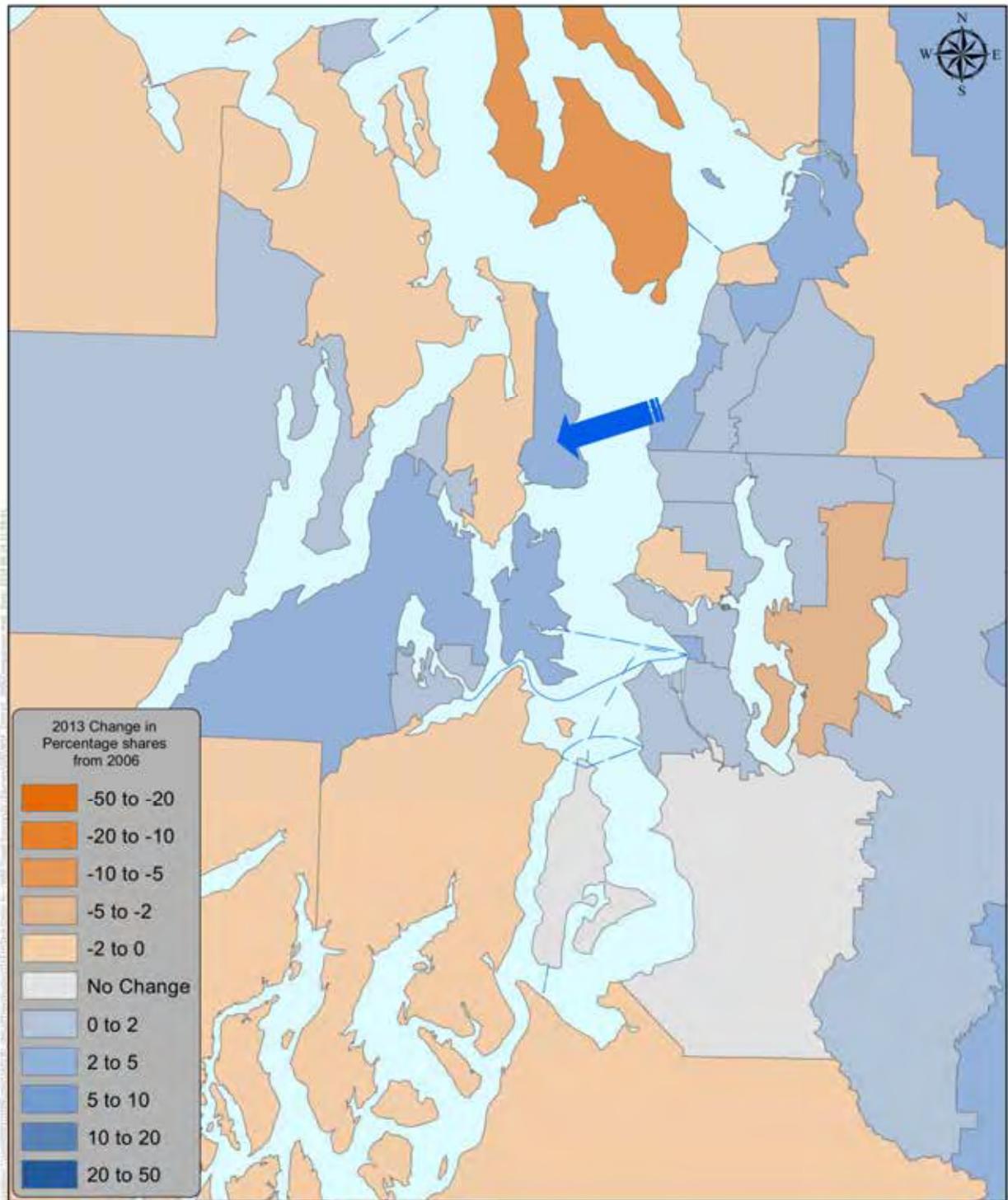
#### 6.4.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 6-55 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 6-40. The major origins were Greater Everett, Lynnwood, and Edmonds, while the major destinations were Kingston, North Kitsap County, and Central Kitsap County. Figure 6-56 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, travel patterns are similar, although a slightly larger percentage of trips originate in Edmonds and Greater Everett and end in Kingston and Central Kitsap County.

Origin and destination locations by boarding mode are shown in Figure 6-57. Compared with eastbound travel, trip origins and destinations (particularly walk boardings) are more concentrated near the Edmonds and Kingston ferry terminals.



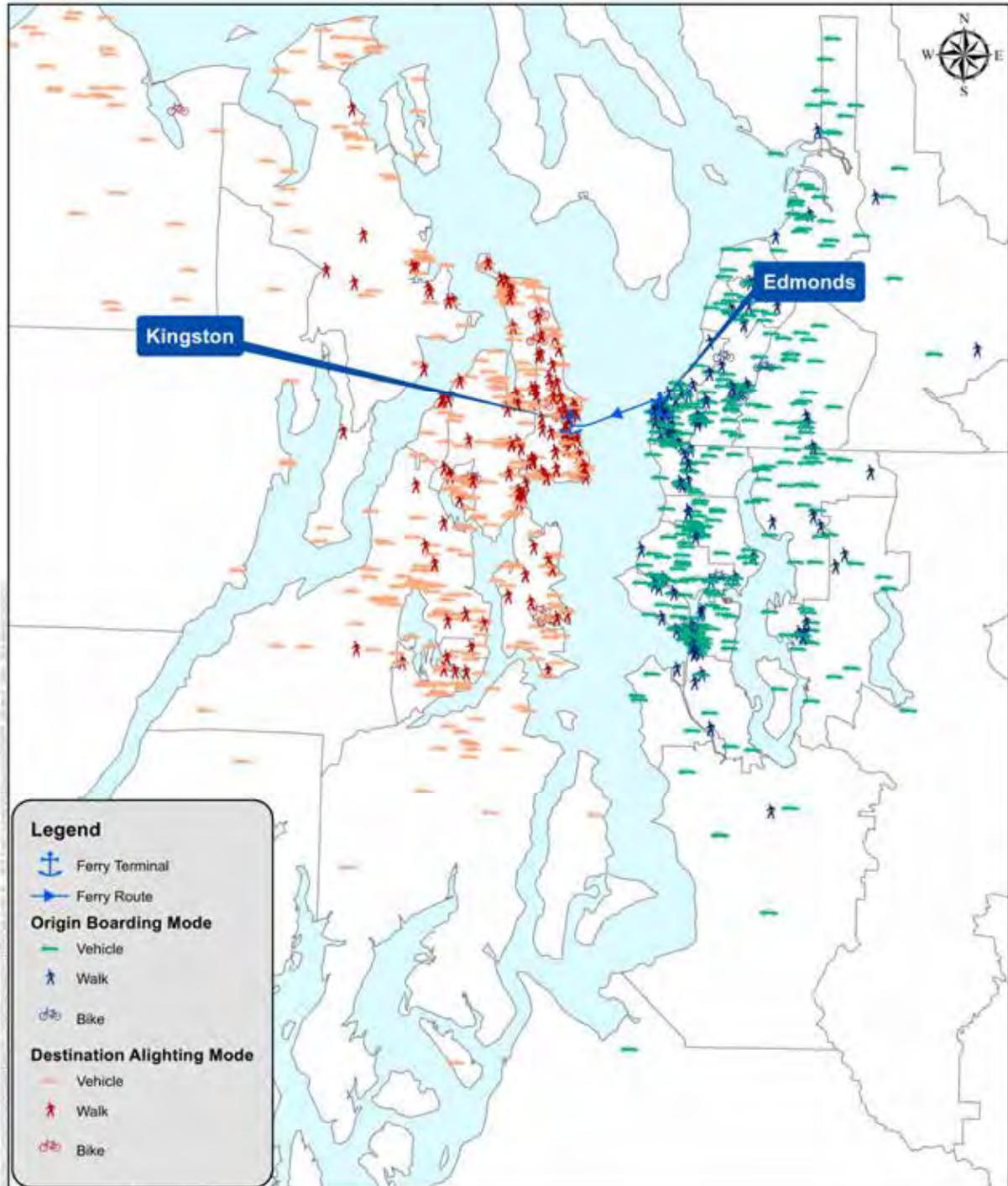
Figure 6-56. Edmonds–Kingston change in westbound travel patterns from 2006, weekday PM peak period



**Table 6-40. Edmonds–Kingston westbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►																
		Southwest King County	S Kitsap / W Pierce Co.	Kingston	Poulsbo	Bainbridge Island	Other N Kitsap Co.	Greater Bremerton	Other Central Kitsap Co.	Mason Co.	Port Townsend	Other NE Jefferson Co.	SE Jefferson Co.	Port Angeles	Sequim / Other E Clallam Co.	W Olympic Peninsula	Origin Total	Origin Percent Share
		16	18	20	21	22	23	24	25	26	27	28	29	30	31	32		
Edmonds	1	11	54	10	20	30	15	10		16	32			4	8	209	12.5%	
Lynnwood	2	4	49	4	31	33	26	26	7	8	11		4	8		208	12.5%	
Mountlake Terrace	3	4	22	7		18		22			4					75	4.5%	
Mukilteo/Paine Field	4					4	4	4								11	0.6%	
Greater Everett	5	15	47	43	22	33	14	38			10	4	15	4	8	253	15.1%	
Other W Snohomish Co.	6		3	7		4		11			8				4	37	2.2%	
Seattle CBD	8		41			28		4			15	4		8	8	108	6.5%	
Greater S Seattle	9		23	4	4	19										49	2.9%	
Capitol Hill / Queen Anne / Magnolia	10		46	3		10					4		4	35		101	6.1%	
Ballard-Green Lake / University District	11	4		10		22		16			31			15	8	107	6.4%	
N Seattle / Sand Point	12		25	8	11	26	4	14			11	4		11		114	6.8%	
Shoreline-Lake Forest Park	13		4	18	7	7	14	4	18		7					78	4.7%	
Bothell-Kirkland	14		15	25	7	7	11	4	11		4	11	3			98	5.8%	
Greater Bellevue / Redmond / Issaquah	15			42			15		4		15					76	4.5%	
SW King Co.	16			17			11								12	40	2.4%	
Other W King Co.	17			4												4	0.2%	
All Other Places	33		4	8	11	7	26	15	11	4		4	8		8	104	6.2%	
Destination Total		4	56	433	110	109	305	84	187	11	43	147	22	23	103	34	1,671	100%
Destination Percent Share		0.2%	3.3%	25.9%	6.6%	6.5%	18.3%	5.0%	11.2%	0.6%	2.6%	8.8%	1.3%	1.4%	6.2%	2.1%	100%	

**Figure 6-57. Edmonds–Kingston westbound origin and destination locations by boarding mode, weekday 8-hour survey period**



**6.4.10 Saturday Travel Patterns—Eastbound**

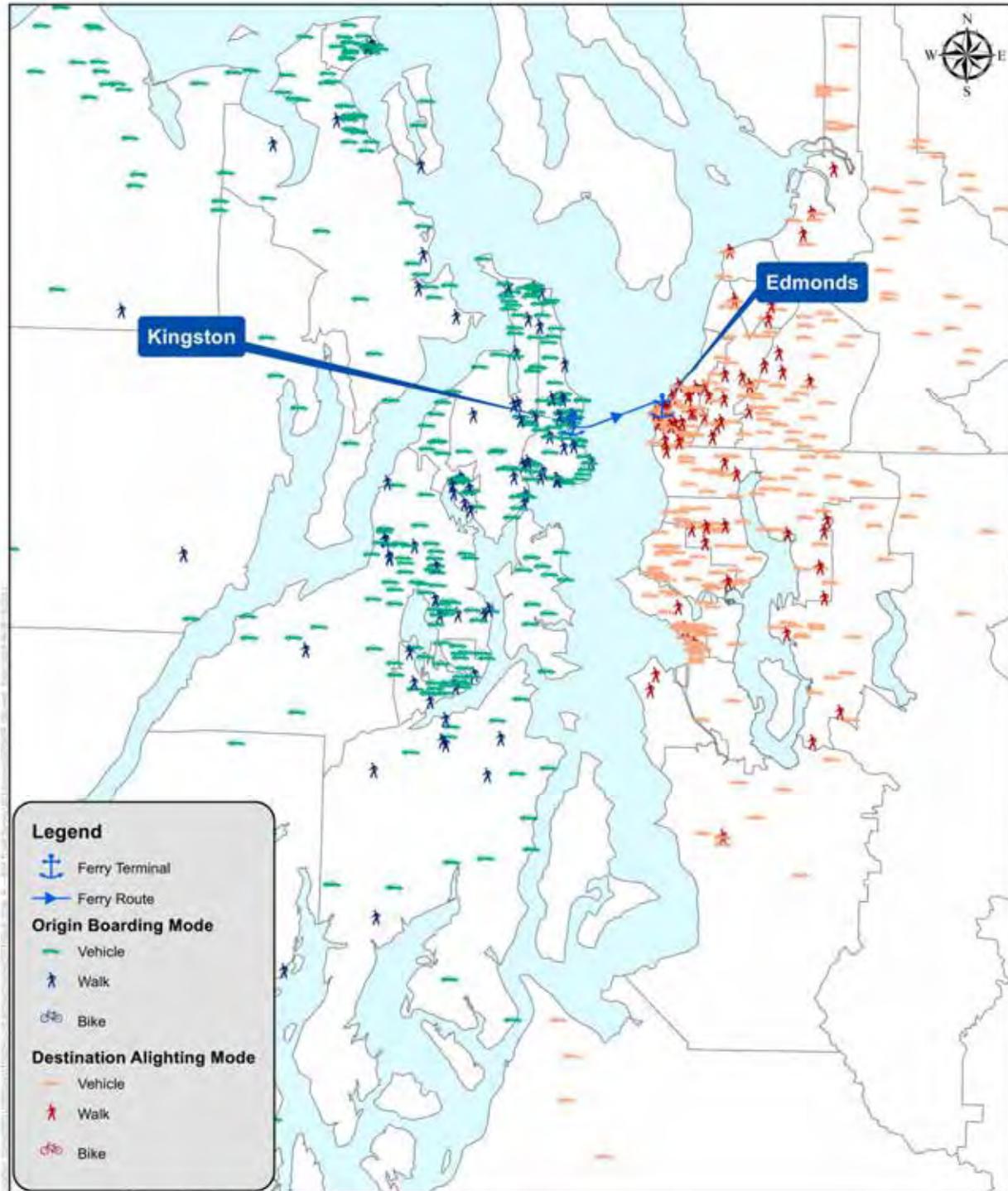
Figure 6-58 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 6-41. The major origins were Kingston, North



**Table 6-41. Edmonds–Kingston eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼	Destination District ▶	Edmonds	Lynnwood	Mountlake Terrace	Mukilteo/Paine Field	Greater Everett	Other W Snohomish Co.	Seattle CBD	Greater S Seattle	Capitol Hill / Queen Anne / Magnolia	Ballard-Green Lake / University District	N Seattle / Sand Point	Shoreline-Lake Forest Park	Bothell-Kirkland	Greater Bellevue / Redmond / Issaquah	SW King Co.	Other W King Co.	Central Pierce / Thurston Co.	All Other Places_E	Origin Total	Origin Percent Share	
		1	2	3	4	5	6	8	9	10	11	12	13	14	15	16	17	19	33			
S Kitsap / W Pierce Co.	18	18	4	5		8	47		4				15	10		5			48	163	4.1%	
Kingston	20	98	32	38	4	17	34	34	19	28	66	38	9	46	14	14	29	5	37	561	14.3%	
Poulsbo	21	21	14	24		10	5	4			29	15	24	33	4		10		20	211	5.4%	
Bainbridge Island	22	33		71			34	24			10	10							39	220	5.6%	
Other N Kitsap Co.	23	58	43	25		28	10		5	29	87	24	32	19	28	14	5	5	54	468	11.9%	
Greater Bremerton	24	23	9	34		19	54	19			5			4	5				29	200	5.1%	
Other Central Kitsap Co	25	90	36	57	10	58	105			14	28	15	34	19	33			5	91	595	15.1%	
Mason Co.	26	19	5	4		15	19						4						10	76	1.9%	
Port Townsend	27	10	10					10		54	20	5	5	27	29					168	4.3%	
Other NE Jefferson Co.	28	42	38	14			30	15	4	24	69	24		43	10	5		4	15	336	8.5%	
SE Jefferson Co.	29	8									48			19	14	14				104	2.6%	
Port Angeles	30	29	10	15		10		19		5	4	33	10		19	39	5	19	19	235	6.0%	
Sequim / Other E Clallam Co.	31	10	38	80		14	34	10	29	24	34	13		19	15	19			66	406	10.3%	
W Olympic Peninsula	32	15		33	5				19	10		14		15	10		47	5		173	4.4%	
All Other Places_W	34							5					10						5	20	0.5%	
Destination Total		472	239	400	19	178	370	139	80	188	400	191	142	255	180	111	95	43	433	3,936	100%	
Destination Percent Share		12.0%	6.1%	10.2%	0.5%	4.5%	9.4%	3.5%	2.0%	4.8%	10.2%	4.9%	3.6%	6.5%	4.6%	2.8%	2.4%	1.1%	11.0%	100%		

Figure 6-59. Edmonds–Kingston eastbound origin and destination locations by boarding mode, Saturday survey period



#### 6.4.11 Saturday Travel Patterns—Westbound

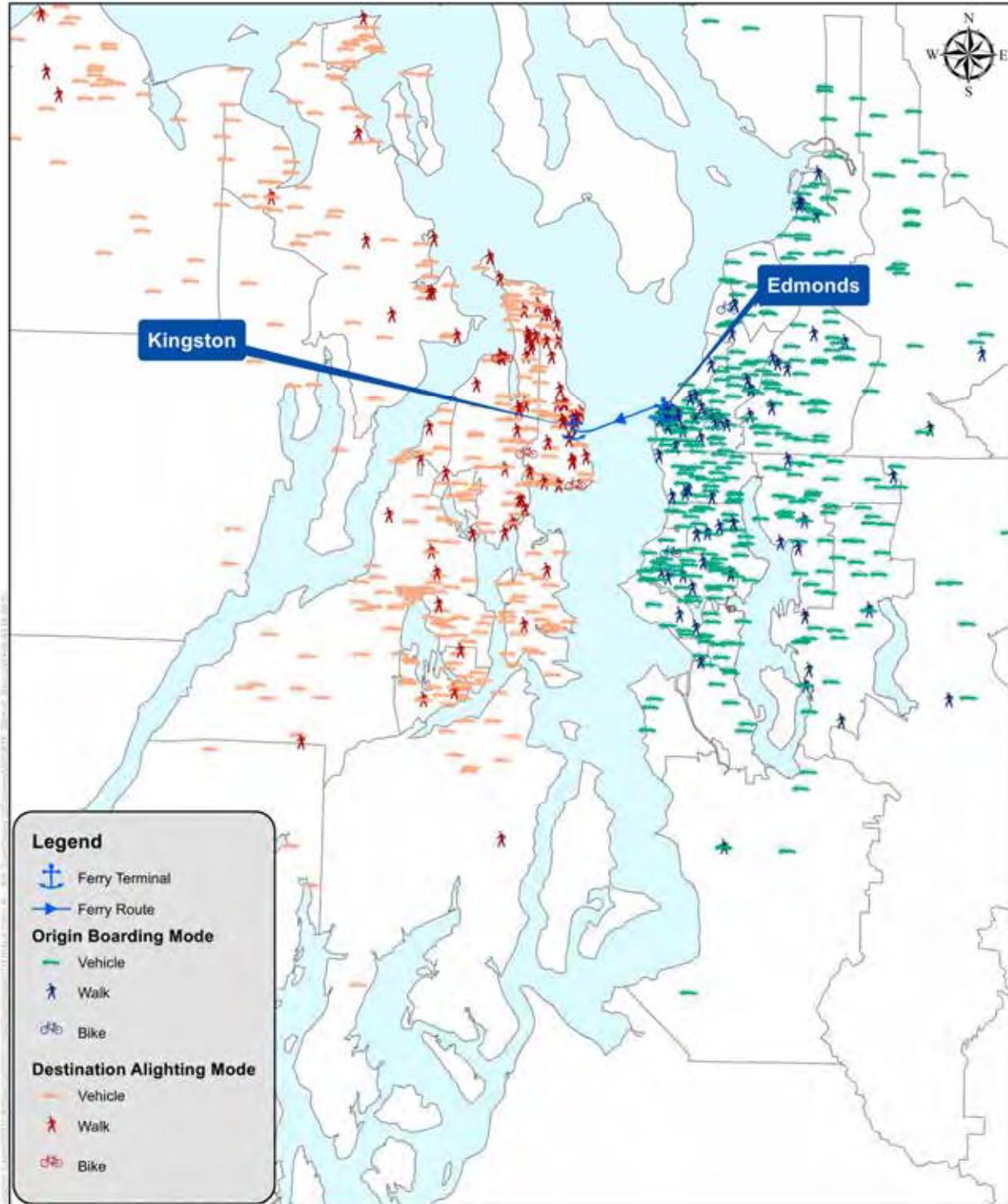
Figure 6-60 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 6-42. The major origins were Edmonds, Mountlake Terrace, and Lynnwood, while the major destinations were Sequim/Other East Clallam County, North Kitsap County, Central Kitsap County, Northeast Jefferson County, and Kingston. Origin and destination locations by boarding mode are shown in Figure 6-61. Origin and destination locations were dispersed, similar to eastbound travel.



**Table 6-42. Edmonds–Kingston westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►																Origin Total	Origin Percent Share
		S Kitsap / W Pierce Co.	Kingston	Poulsbo	Bainbridge Island	Other N Kitsap Co.	Greater Bremerton	Other Central Kitsap Co.	Mason Co.	Port Townsend	Other NE Jefferson Co.	SE Jefferson Co.	Port Angeles	Sequim / Other E Clallam Co.	W Olympic Peninsula	All Other Places			
		18	20	21	22	23	24	25	26	27	28	29	30	31	32	34			
Edmonds	1		100		37	96		63		15	32	7	17	25			392	11.0%	
Lynnwood	2	3	54	22	19	44	28	57		49	28			15	14		332	9.3%	
Mountlake Terrace	3	12	6	18	4	45	24	50		18	42	7	3	145	17		392	11.0%	
Mukilteo/Paine Field	4				15	4								15			33	0.9%	
Greater Everett	5		43	18	4	20	27	63	15		43	7	4	38	11		292	8.2%	
Other W Snohomish Co.	6	7	21	21	42	42	15	37			37			58			280	7.8%	
Seattle CBD	8									4		17			11		32	0.9%	
Greater S Seattle	9			4		7		4		3	18	11	18				65	1.8%	
Capitol Hill / Queen Anne / Magnolia	10		19			14		4			4	15	7	55			118	3.3%	
Ballard-Green Lake / University District	11		33		15	61				30	50	7	11	18			226	6.3%	
N Seattle / Sand Point	12	11	7	25	4	59		3	4	7	37	15		22			194	5.4%	
Shoreline-Lake Forest Park	13	8	21	20	11	36	15	51	11	4		7		7			191	5.4%	
Bothell-Kirkland	14		4	4	15	21	25	47			29	31		101	36		313	8.8%	
Greater Bellevue / Redmond / Issaquah	15		28			46		14		11	63		18	7	7		194	5.4%	
SW King Co.	16		11				3	7		15	4		7	15			63	1.8%	
Other W King Co.	17										23	4		28			55	1.6%	
All Other Places	33	19	36	27	64	26	36	111	4		7			33	28	4	395	11.1%	
Destination Total		60	385	159	228	520	172	512	33	156	418	129	86	584	123	4	3,569	100%	
Destination Percent Share		1.7%	10.8%	4.5%	6.4%	14.6%	4.8%	14.3%	0.9%	4.4%	11.7%	3.6%	2.4%	16.4%	3.4%	0.1%	100%		

Figure 6-61. Edmonds–Kingston westbound origin and destination locations by boarding mode, Saturday survey period



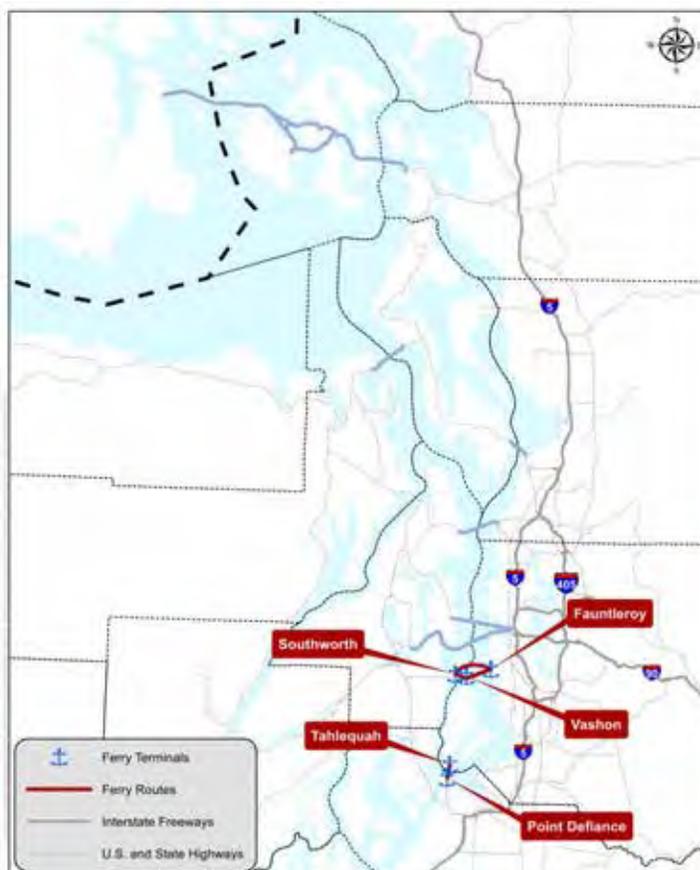
## 7 SOUTH SOUND CORRIDOR

### 7.1 Description

The routes in the South Sound Corridor include Fauntleroy–Vashon, Fauntleroy–Southworth, Southworth–Vashon, and Point Defiance–Tahlequah, as shown in Figure 7-1. The corridor provides connectivity between Fauntleroy in West Seattle, the north end of Vashon Island, and Southworth in Kitsap County. This corridor also connects the south end of Vashon Island with Tacoma. This corridor is the third-highest traveled corridor in the Washington State Ferries (WSF) system, with 3.6 million riders per year, or 9,900 riders per day. This is a decrease from 11,000 riders per day in 2006 and a high of 13,000 riders per day in 1999. It should be noted that both the 2006 and 1999 report included passenger-only ferry service between Downtown Seattle and Vashon Island, facilitating transfers to Southworth at Vashon. Historically, WSF operated this route; however, King County officially took over operation of this service in 2008. Since the transition to King County as the operator, fares have increased and schedule frequency increased. For 2013, ridership on the King County-operated passenger-only route was approximately 500 riders per day.

The tabulations and percentage share distributions of results herein represent the survey responses as expanded to the survey period ridership. More information regarding expansion methods can be found in Chapter 8.

**Figure 7-1. South Sound Corridor Routes**



### 7.1.1 Frequency of Travel

Table 7-1 and Figure 7-2 show the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. On weekdays in 2013, the corridor was heavily commuter-oriented, with 61 percent of trips made for work/school. This is similar to 2006, when 62 percent of weekday trips were for work/school. In contrast, Saturday trips are primarily for recreation/ shopping, with 62 percent of trips. This is an increase from 59 percent in 2006.

The distribution of trip frequency on weekdays is relatively evenly distributed, with the highest percentage of riders making one trip per week, followed closely by three to four trips per week. This is a change from 2006, when a higher percentage of trips were made more frequently; for example, those reporting that they made a trip nine to ten times per week decreased from 23 percent in 2006 to 16 percent in 2013. When comparing Saturday trips for 2006 and 2013, a similar overall percentage of riders (72 percent) traveled between one and four times per week; however, in 2013 a higher percentage of riders (35 percent) only took one trip per week compared with 2006 (26 percent).

**Table 7-1. South Sound Corridor one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	293	213	291	797	17.5%	8.6%	10.4%	2.7%
2	142	207	172	521	11.4%	13.7%	5.0%	7.2%
3 to 4	318	235	188	741	16.3%	16.2%	11.3%	12.1%
5 to 6	453	140	65	658	14.4%	14.2%	16.0%	13.4%
7 to 8	594	65	18	677	14.9%	10.2%	21.0%	12.0%
9 to 10	634	36	51	721	15.9%	23.4%	22.4%	34.1%
11+	393	23	20	435	9.6%	13.8%	13.9%	18.4%
Total	2,828	918	805	4,551	100%	100%	100%	100%
2013 Distribution	62.1%	20.2%	17.7%	100%				
2006 Distribution	63.5%	15.2%	21.3%	100%				
<b>Saturday</b>								
1	131	316	1,150	1,597	35.3%	26.4%		
2	76	210	500	786	17.4%	28.9%		
3 to 4	105	296	503	904	20.0%	17.3%		
5 to 6	116	134	288	538	11.9%	6.9%		
7 to 8	70	32	136	238	5.3%	7.2%		
9 to 10	58	43	74	176	3.9%	3.2%		
11+	71	49	163	283	6.2%	10.1%		
Total	627	1,080	2,814	4,522	100%	100%		
2013 Distribution	13.9%	23.9%	62.2%	100%				
2006 Distribution	13.0%	28.2%	58.7%	100%				

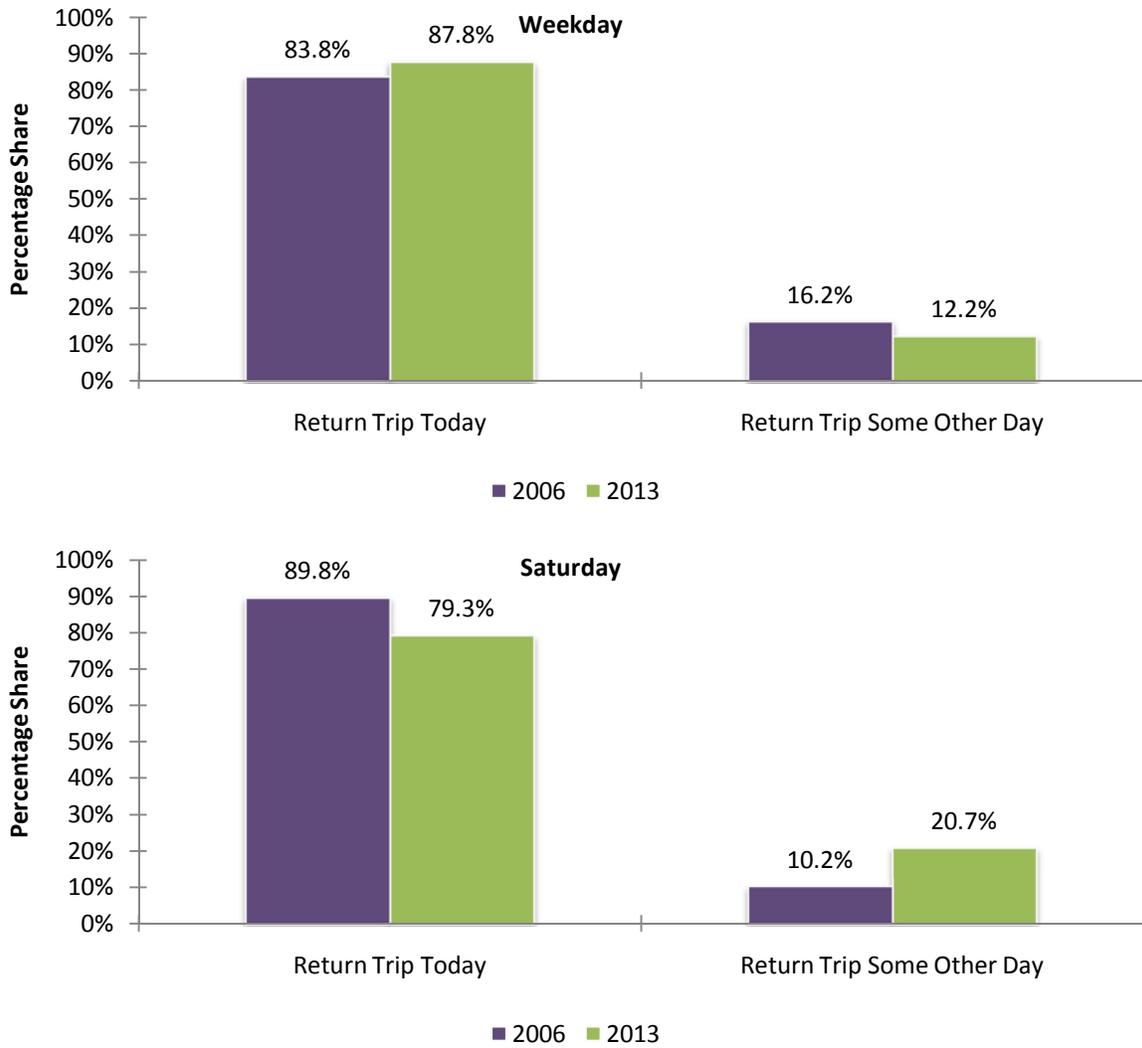
Figure 7-2. South Sound Corridor trip purpose, weekday 8-hour and Saturday survey periods (2006 and 2013)



### 7.1.2 Round-Trip Patterns

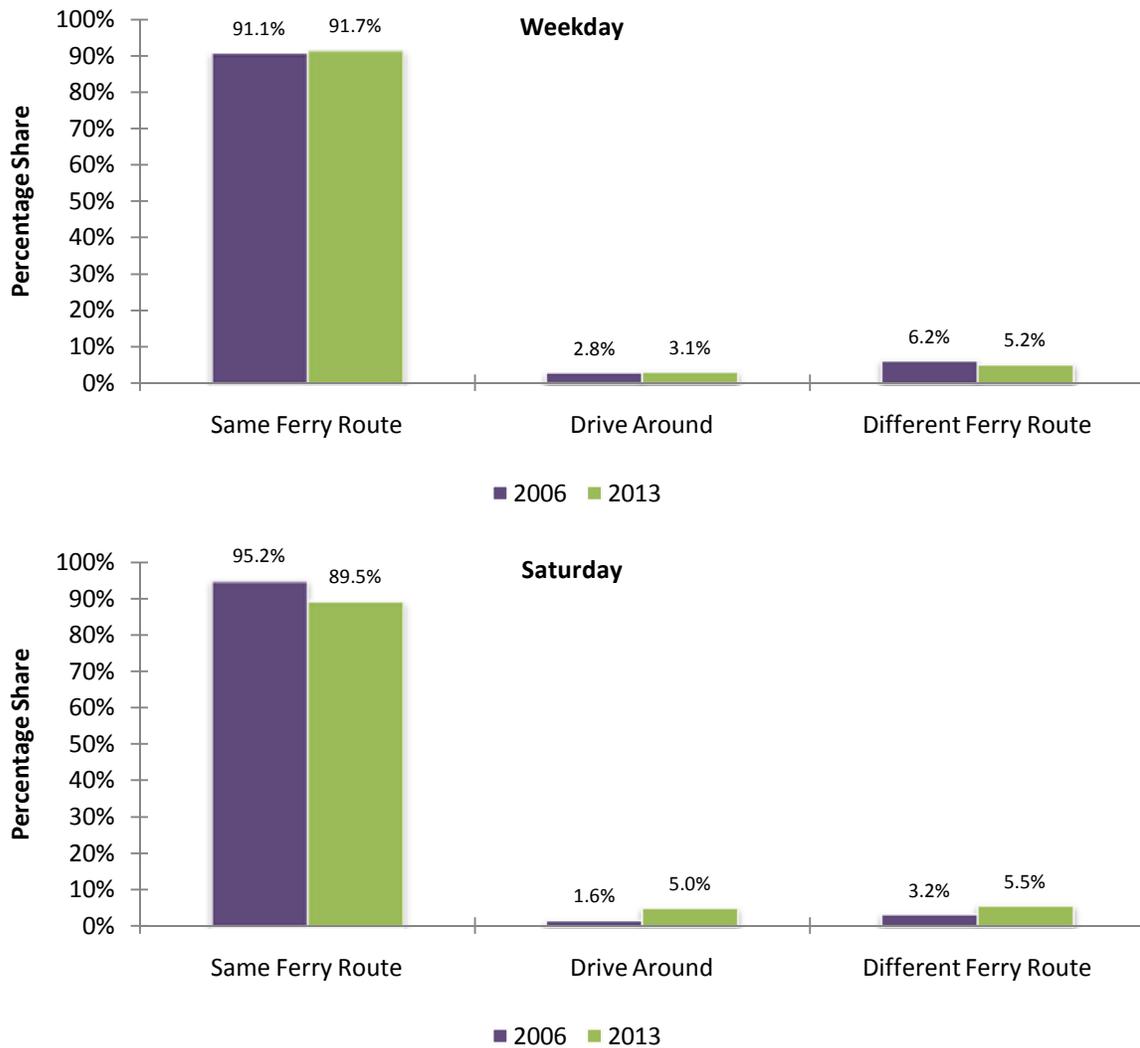
The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew from 84 percent in 2006 to 88 percent in 2013, as shown in Figure 7-3. Conversely, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 90 percent in 2006 to 80 percent in 2013.

**Figure 7-3. South Sound Corridor round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**



As shown in Figure 7-4, the vast majority (92 percent) of round-trip ferry travelers used the same route for both legs of the trip. A similar percentage of Saturday travelers (90 percent) reported the same. The results are relatively unchanged from 2006 for both weekday and Saturday, although the Saturday percentage decreased from 95 percent in 2006.

**Figure 7-4. South Sound Corridor round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**

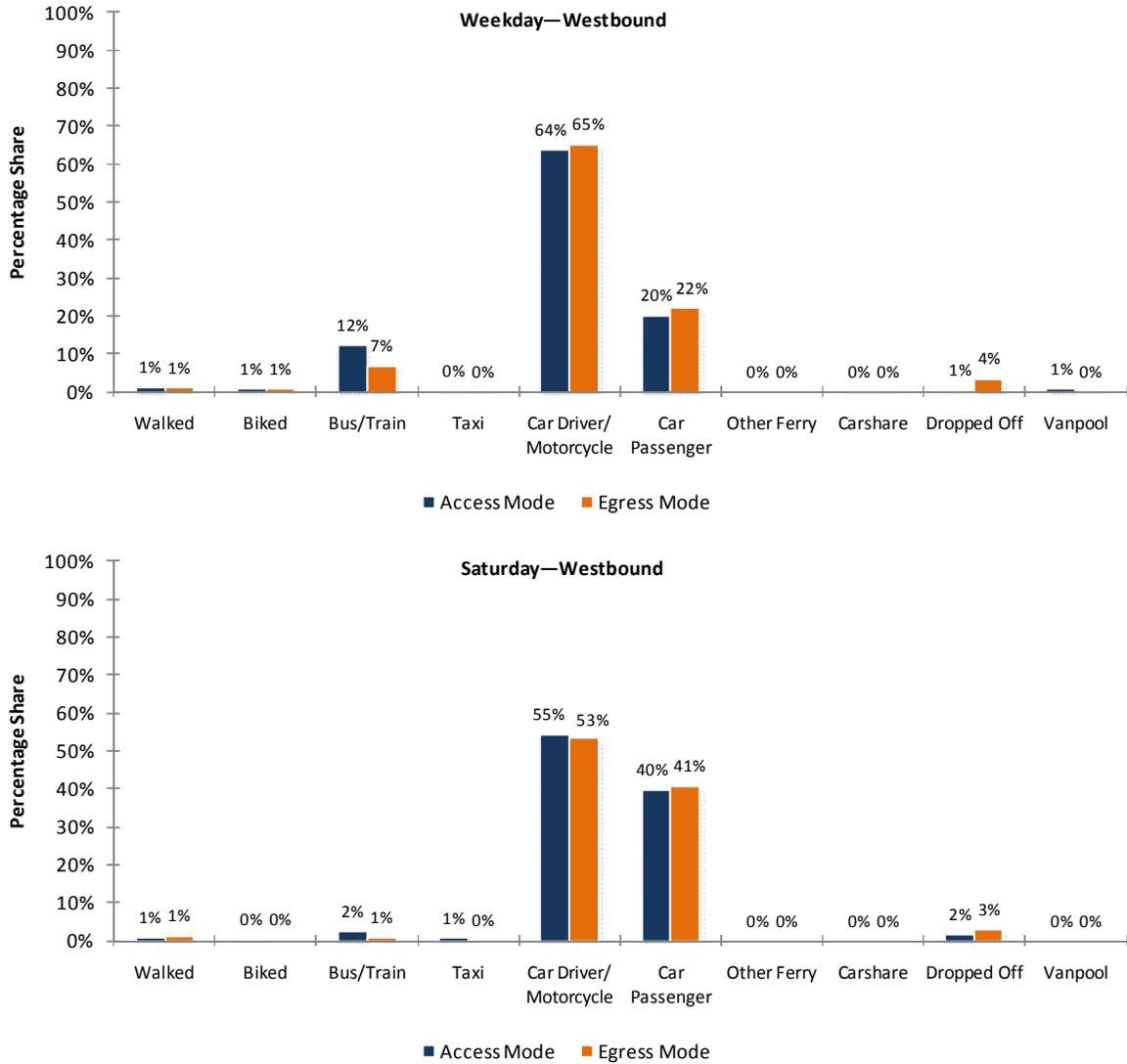


### 7.1.3 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant mode of access and egress for westbound trips in 2013, as shown in Figure 7-5. On weekdays, 65 percent of ferry travelers drove to the ferry, and an additional 22 percent were passengers in a private vehicle. Egress patterns were similar. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.



**Figure 7-5. South Sound Corridor westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



Similar to the westbound direction, travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant mode of access and egress for eastbound trips in 2013, as shown in Figure 7-6. On weekdays, 63 percent of ferry travelers drove to the ferry, and an additional 25 percent were passengers in a private vehicle. Saturday access and egress modes for eastbound are similar to westbound, with a significantly higher percentage of car passengers compared with weekday travel.

**Figure 7-6. South Sound Corridor eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

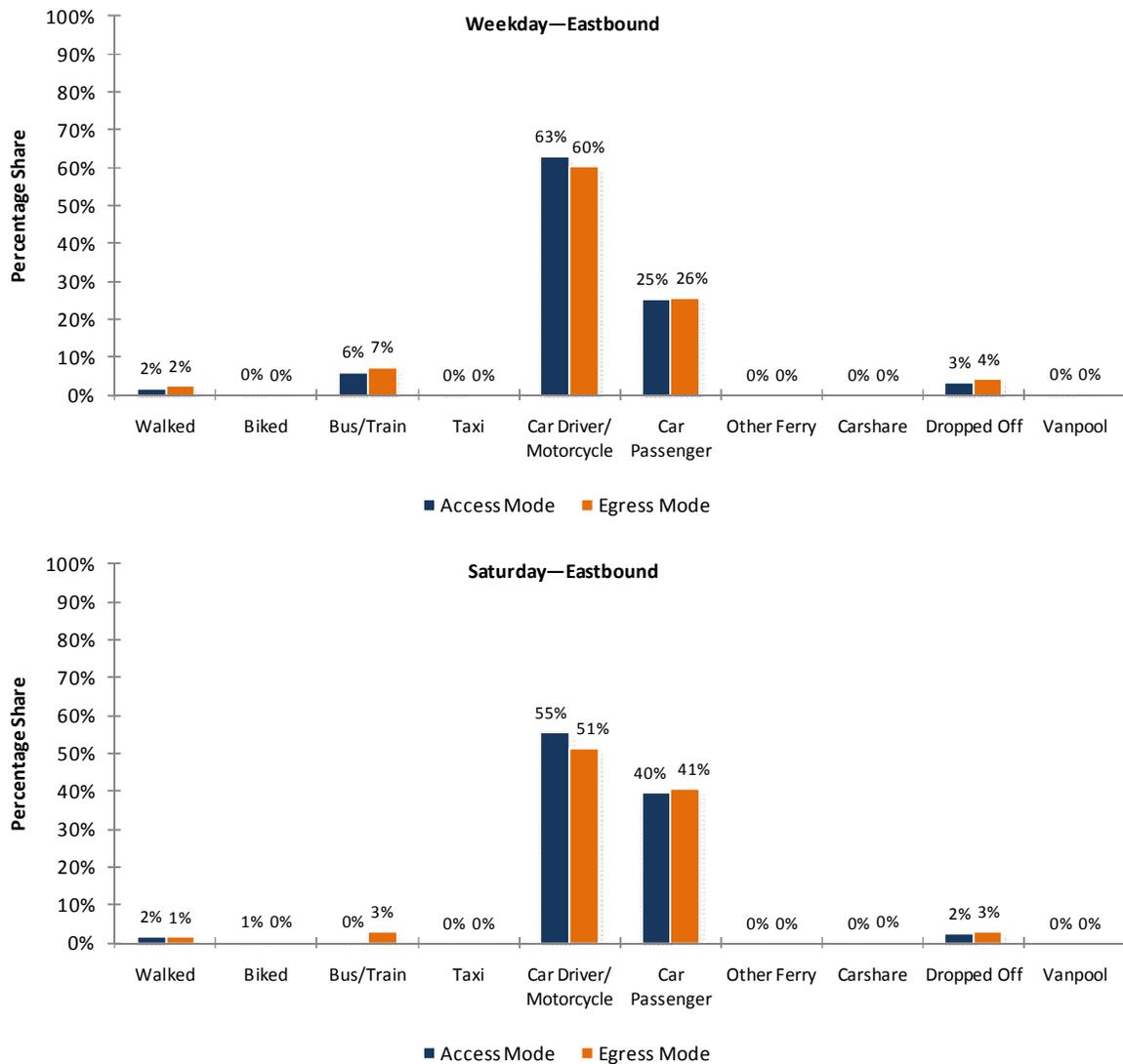


Table 7-2 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 82 percent and 90 percent of boardings on weekdays and Saturdays, respectively. On weekdays, the walk-on share of boardings decreased between 2006 and 2013, while it remained similar on Saturdays.

**Table 7-2. South Sound Corridor access mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	70	0	70	1.4%	7.9%
Biked	0	0	28	28	0.6%	2.0%
Bus/Train	20	470	2	492	10.0%	7.8%
Taxi	0	8	0	8	0.2%	0.1%
Car Driver/Motorcycle	2,971	137	3	3,111	63.5%	60.2%
Car Passenger	1,011	70	0	1,081	22.1%	22.1%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	5	0	5	0.1%	
Dropped Off	0	76	0	76	1.5%	
Vanpool	0	31	0	31	0.6%	
<b>Total</b>	<b>4,002</b>	<b>866</b>	<b>33</b>	<b>4,901</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	81.7%	17.7%	0.7%	100%		
2006 Distribution	78.6%	19.9%	1.5%	100%		
<b>Saturday</b>						
Walked	0	69	0	69	1.2%	1.3%
Biked	0	4	22	26	0.5%	1.6%
Bus/Train	0	71	4	75	1.3%	0.9%
Taxi	0	18	0	18	0.3%	0.2%
Car Driver/Motorcycle	2,955	184	3	3,142	55.0%	64.0%
Car Passenger	2,172	93	0	2,265	39.7%	32.0%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	117	0	117	2.0%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>5,127</b>	<b>555</b>	<b>29</b>	<b>5,711</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.8%	9.7%	0.5%	100%		
2006 Distribution	88.6%	9.8%	1.5%	100%		

Table 7-3 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Similar to the access method, the walk-off share of boardings for weekdays decreased between 2006 and 2013, while it remained similar for Saturdays.

**Table 7-3. South Sound Corridor egress mode and boarding method, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	79	0	79	1.6%	5.4%
Biked	5	0	20	24	0.5%	1.9%
Bus/Train	2	340	6	348	7.1%	7.8%
Taxi	0	3	0	3	0.1%	0.0%
Car Driver/Motorcycle	2,916	187	6	3,109	63.4%	64.5%
Car Passenger	1,062	81	0	1,142	23.3%	20.5%
Other Ferry	0	0	0	0	0.0%	
Carshare	3	2	0	5	0.1%	
Dropped Off	12	169	1	183	3.7%	
Vanpool	3	5	0	8	0.2%	
<b>Total</b>	<b>4,002</b>	<b>866</b>	<b>33</b>	<b>4,901</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	81.7%	17.7%	0.7%	100%		
2006 Distribution	78.5%	20.0%	1.5%	100%		
<b>Saturday</b>						
Walked	2	78	0	80	1.4%	4.2%
Biked	2	0	21	23	0.4%	1.7%
Bus/Train	0	112	4	116	2.0%	1.5%
Taxi	0	3	0	3	0.1%	0.0%
Car Driver/Motorcycle	2,894	96	4	2,994	52.4%	64.8%
Car Passenger	2,222	98	0	2,320	40.6%	27.8%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	3	0	7	0.1%	
Dropped Off	3	165	0	168	2.9%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>5,127</b>	<b>555</b>	<b>29</b>	<b>5,711</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.8%	9.7%	0.5%	100%		
2006 Distribution	88.6%	9.8%	1.6%	100%		

Table 7-4, Table 7-5, and Table 7-6 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For walk-on boardings during the weekday PM peak period, the percentage of travelers leaving the destination terminal on foot was lower than the percentage arriving at the origin terminal on foot. This was also true for travelers using bus or other transit modes to/from the terminal. However, for weekday non-PM peak period and Saturday travel, the percentage of travelers leaving the destination terminal on foot was higher than the percentage arriving on foot.

**Table 7-4. South Sound Corridor access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (21.0% of total boardings)					
Pedestrian	7.2%	Pedestrian	96.2%	Pedestrian	5.6%
Bicycle	3.3%	Pedestrian w/ Bicycle	3.8%	Bicycle	1.9%
By Bus/Transit	56.4%			By Bus/Transit	40.7%
By Vehicle	28.1%			By Vehicle	50.9%
Vanpool	4.3%			Vanpool	0.7%
Carshare	0.7%			Carshare	0.3%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (79.0% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	74.1%	In-Vehicle	100.0%
		Vehicle Passengers	25.9%		

Note: Average vehicle occupancy (AVO) was 1.35 for the weekday PM peak period.

**Table 7-5. South Sound Corridor trips by access mode to ferry—boarding method—egress mode from ferry, Weekday Non-PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (12.2% of total boardings)					
Pedestrian	10.2%	Pedestrian	96.8%	Pedestrian	21.5%
Bicycle	2.2%	Pedestrian w/ Bicycle	3.3%	Bicycle	3.3%
By Bus/Transit	36.6%			By Bus/Transit	29.7%
By Vehicle	51.0%			By Vehicle	45.6%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (87.8% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	75.1%	In-Vehicle	100.0%
		Vehicle Passengers	24.9%		

Note: Average vehicle occupancy (AVO) was 1.33 for the weekday non-PM peak period.

**Table 7-6. South Sound Corridor trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
<b>Walk-On Boardings (10.2% of total boardings)</b>					
Pedestrian	11.7%	Pedestrian	95.0%	Pedestrian	13.3%
Bicycle	4.5%	Pedestrian w/ Bicycle	5.0%	Bicycle	3.6%
By Bus/Transit	12.9%			By Bus/Transit	19.9%
By Vehicle	70.9%			By Vehicle	62.6%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.5%
Other Ferry	0.0%			Other Ferry	0.0%
<b>In-Vehicle Boardings (89.8% of total boardings)</b>					
In-Vehicle	100.0%	Vehicle Drivers	57.6%	In-Vehicle	100.0%
		Vehicle Passengers	42.4%		

Note: Average vehicle occupancy (AVO) was 1.74 for the Saturday survey period.

As shown in Figure 7-7, the majority of drive-on travelers indicated that the reason they took a vehicle was because they needed it at their destination (54 percent on weekdays, 69 percent on Saturdays). The second-most prevalent response was that their final destination was too far from the ferry terminal to allow for walking (37 percent on weekdays, 34 percent on Saturdays). Other common responses included transit not being convenient or not going to the destination, carrying baggage or heavy loads, and the need for a vehicle for business.

**Figure 7-7. South Sound Corridor reasons for taking a vehicle, weekday 8-hour and Saturday survey periods (2013)**

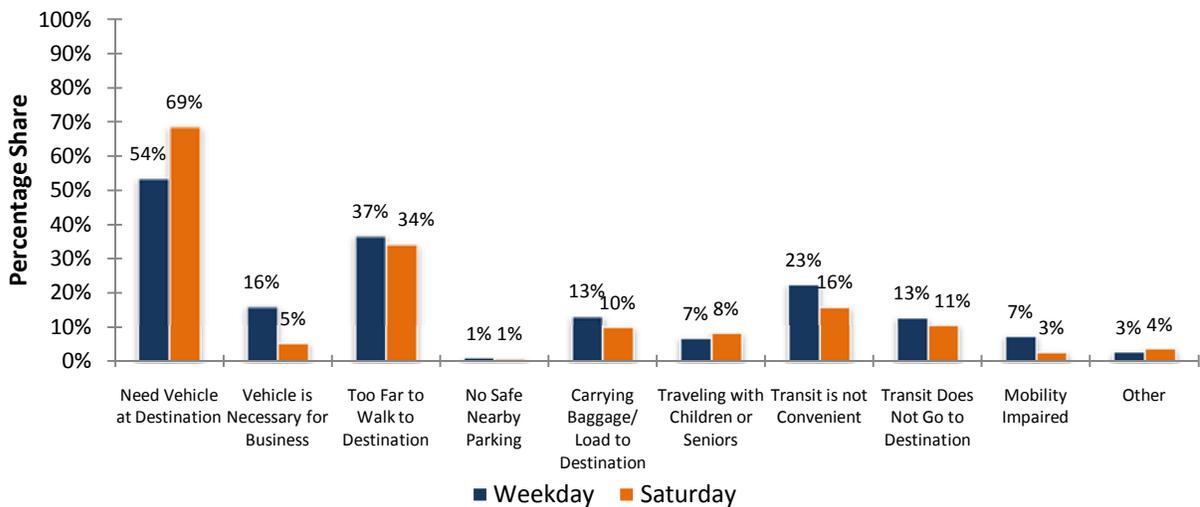
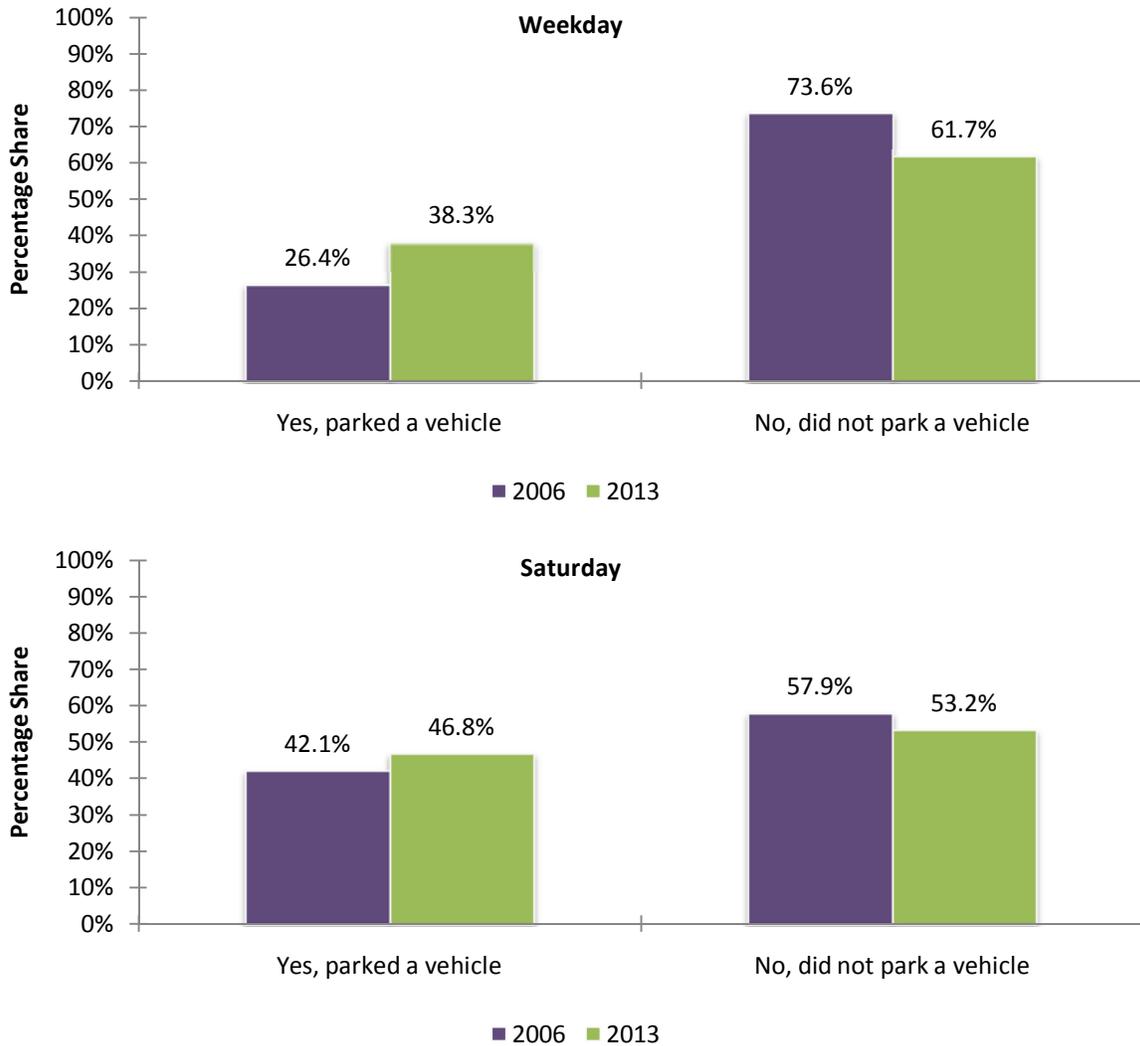


Figure 7-8 illustrates the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 39 percent of weekday ferry passengers parked a vehicle in the 2013 survey, compared with only 26 percent in 2006. On Saturdays, those who parked a vehicle increased moderately from 42 percent to 47 percent.

**Figure 7-8. South Sound Corridor non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



#### 7.1.4 Other Travel Characteristics

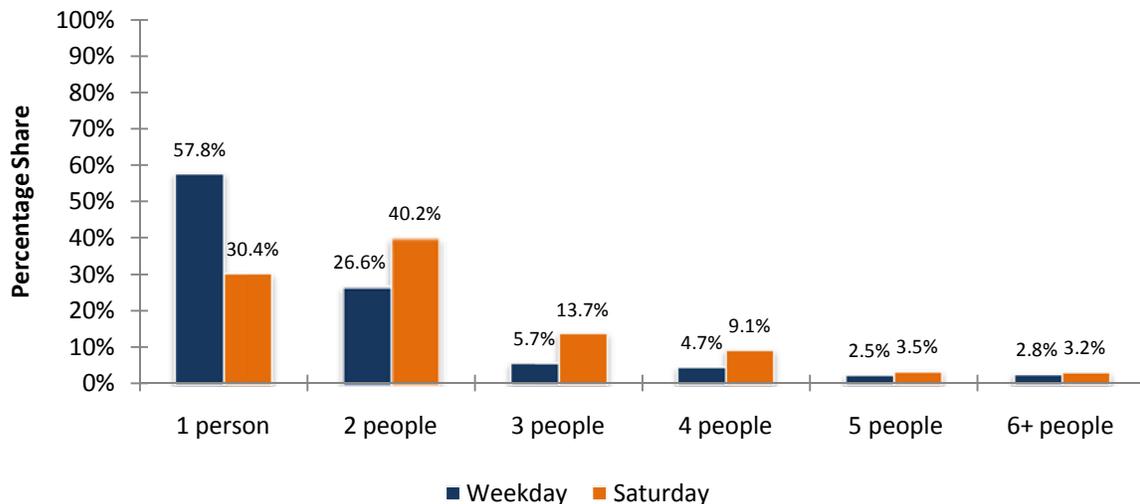
As shown on Table 7-7, the percentage of travelers who were on their preferred sailing increased between 2006 and 2013. On weekdays, the percentage increased from 73 percent to 90 percent, while on Saturdays the percentage increased from 81 percent to 96 percent.

**Table 7-7. South Sound Corridor trips preferred sailing, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Preferred Sailing	Drive	Walk/Bike	Total	All Boardings	
				2013	2006
<b>Weekday</b>					
Yes	3,599	829	4,428	90.4%	73.2%
No, different departure time	399	63	462	9.4%	21.4%
No, different route	2	7	9	0.2%	5.5%
Total	4,000	899	4,899	100%	100%
2013 Distribution	81.7%	18.3%	100%		
2006 Distribution	78.4%	21.6%	100%		
<b>Saturday</b>					
Yes	4,892	569	5,462	95.6%	80.6%
No, different departure time	219	15	234	4.1%	16.9%
No, different route	15	0	15	0.3%	2.5%
Total	5,127	584	5,711	100%	100%
2013 Distribution	89.8%	10.2%	100%		
2006 Distribution	88.8%	11.2%	100%		

As described in Figure 7-9, most travelers were either alone or with one other person. On weekdays, likely for work or school purposes, more people traveled alone than on Saturdays. Larger parties were more common on Saturdays, when recreation travel was higher.

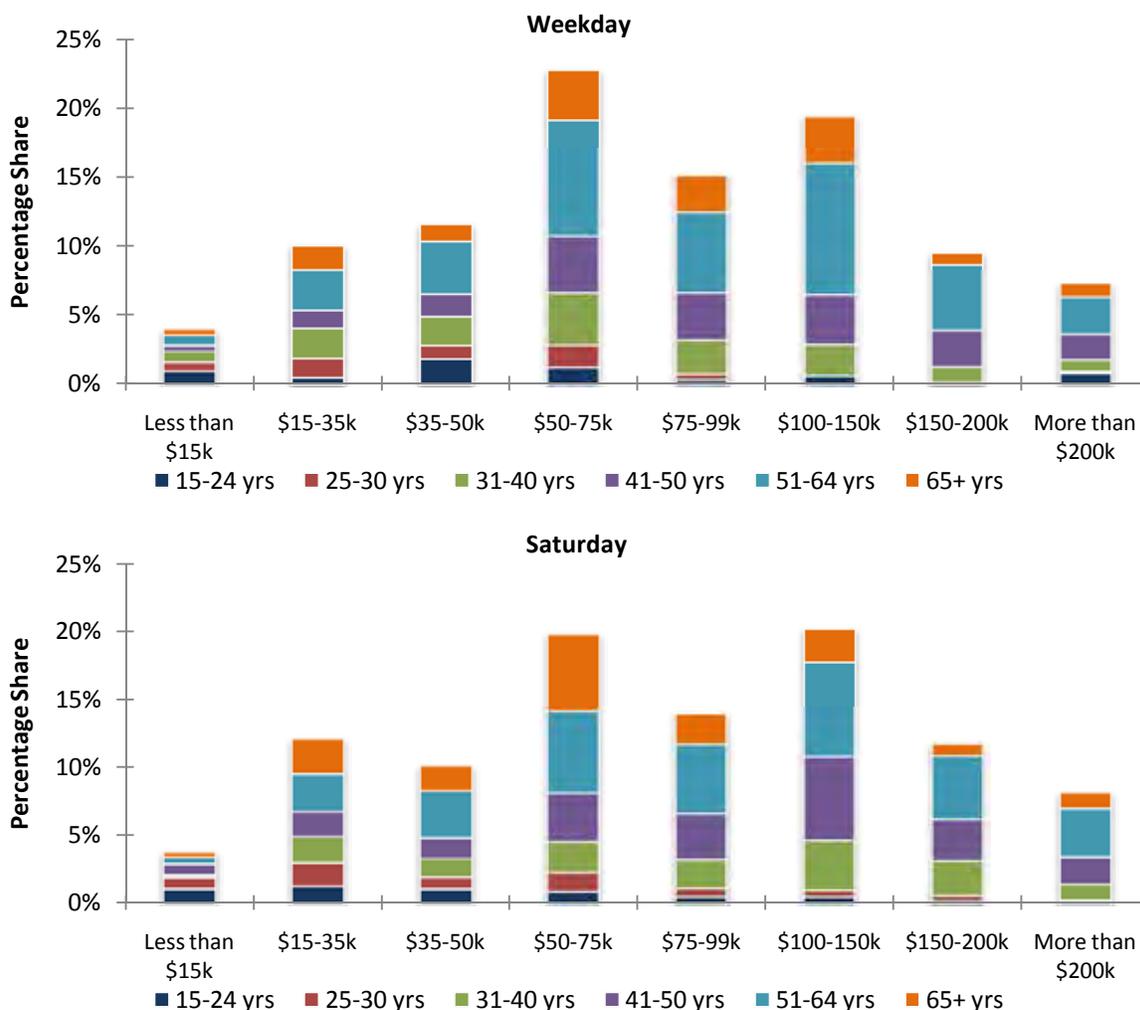
**Figure 7-9. South Sound Corridor party size, weekday 8-hour and Saturday survey periods (2013)**



### 7.1.5 Demographic Characteristics

The average age of travelers in the Central Sound Corridor is 52 years old, and the average self-reported household income range is \$75,000 to \$100,000 annually. Figure 7-10 presents the age and self-reported income of survey respondents for weekday and Saturday trips. Traveler age for weekday travel generally decreases as income increases up to \$150,000, after which age ranges remain more stable. A similar trend is seen for Saturday travel, except the decrease in age only occurs up to \$75,000.

**Figure 7-10. South Sound Corridor traveler age and income, weekday 8-hour and Saturday survey periods (2013)**



## 7.2 Fauntleroy–Vashon

### 7.2.1 Route Description

The Fauntleroy–Vashon route connects Fauntleroy and Vashon on the southern tip of Vashon Island south of Seattle. It takes about 20 minutes to ride this ferry route one way. The crossing is approximately 2.8 nautical miles. It runs seven days per week. For 2013, the annual total ridership was 820,000 passengers plus 1.1 million vehicles and drivers for a total of 1.9 million people, or about 5,200 riders per day. This compares to 5,600 riders per day in 2006 and 5,700 riders per day in 1999. The Fauntleroy–Vashon route has 33 weekday sailings per day each direction. The one-way fare in 2013 for a vehicle 14 to 22 feet was \$17.25 for vehicles and \$5.10 for passengers.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 7.2.2 Trips by Purpose

As shown in Table 7-8, the most frequent weekday trip purpose was work/school (57 percent), which is similar to 2006. Recreation/shopping remains the predominant trip purpose for Saturday trips.

**Table 7-8. Fauntleroy–Vashon trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	418	233	204	856	37.1%	49.7%
Westbound	901	318	231	1,450	62.9%	50.3%
Total	1,320	551	435	2,306	100%	100%
2013 Distribution	57.2%	23.9%	18.9%	100%		
2006 Distribution	58.3%	16.7%	25.1%	100%		
<b>Saturday</b>						
Eastbound	173	429	797	1,399	52.4%	50.1%
Westbound	170	274	827	1,270	47.6%	49.9%
Total	343	703	1,624	2,669	100%	100%
2013 Distribution	12.8%	26.3%	60.8%	100%		
2006 Distribution	11.2%	29.8%	58.9%	100%		

### 7.2.3 Frequency of Travel

Table 7-9 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The highest percentage of weekday travelers traveled on the ferry only once in the past week (19 percent), a significant increase from 2006 when only 9 percent of travelers reported one trip in the past week. On Saturdays, those reporting one trip in the past week was also the highest percentage at 31 percent.

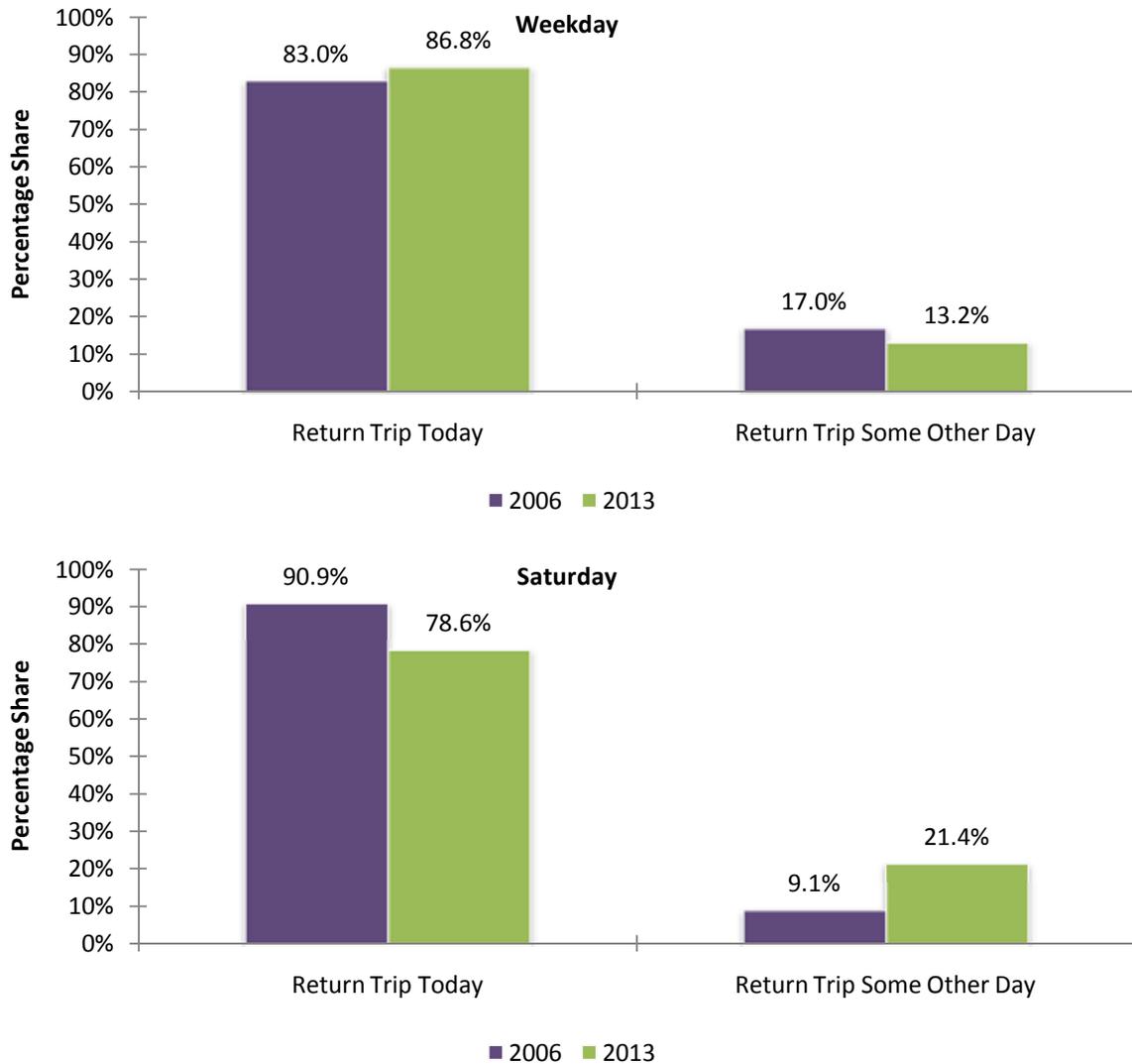
**Table 7-9. Fauntleroy–Vashon one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	136	118	157	411	19.1%	8.8%	10.9%	2.8%
2	79	108	97	283	13.1%	17.2%	6.3%	8.7%
3 to 4	145	110	77	332	15.4%	15.7%	11.6%	13.0%
5 to 6	218	106	19	342	15.9%	11.8%	17.4%	10.0%
7 to 8	214	32	11	256	11.9%	12.1%	17.1%	14.6%
9 to 10	248	18	17	283	13.2%	19.0%	19.9%	28.8%
11+	209	18	20	247	11.5%	15.6%	16.8%	22.1%
Total	1,249	509	397	2,155	100%	100%	100%	100%
2013 Distribution	58.0%	23.6%	18.4%	100%				
2006 Distribution	58.8%	16.6%	24.7%	100%				
<b>Saturday</b>								
1	50	163	464	677	30.6%	21.8%		
2	42	112	260	415	18.7%	38.9%		
3 to 4	66	137	265	468	21.1%	13.3%		
5 to 6	45	99	143	287	13.0%	5.9%		
7 to 8	33	19	83	135	6.1%	7.8%		
9 to 10	38	29	49	116	5.2%	3.3%		
11+	27	38	50	115	5.2%	8.9%		
Total	300	599	1,314	2,213	100%	100%		
2013 Distribution	13.6%	27.1%	59.4%	100%				
2006 Distribution	10.8%	30.0%	59.1%	100%				

### 7.2.4 Round-Trip Patterns

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew moderately from 83 percent in 2006 to 87 percent in 2013, as shown in Figure 7-11. Conversely, the shift in the Saturday round-trip pattern resulted in a decrease of same-day round-trips from 91 percent in 2006 to 79 percent in 2013.

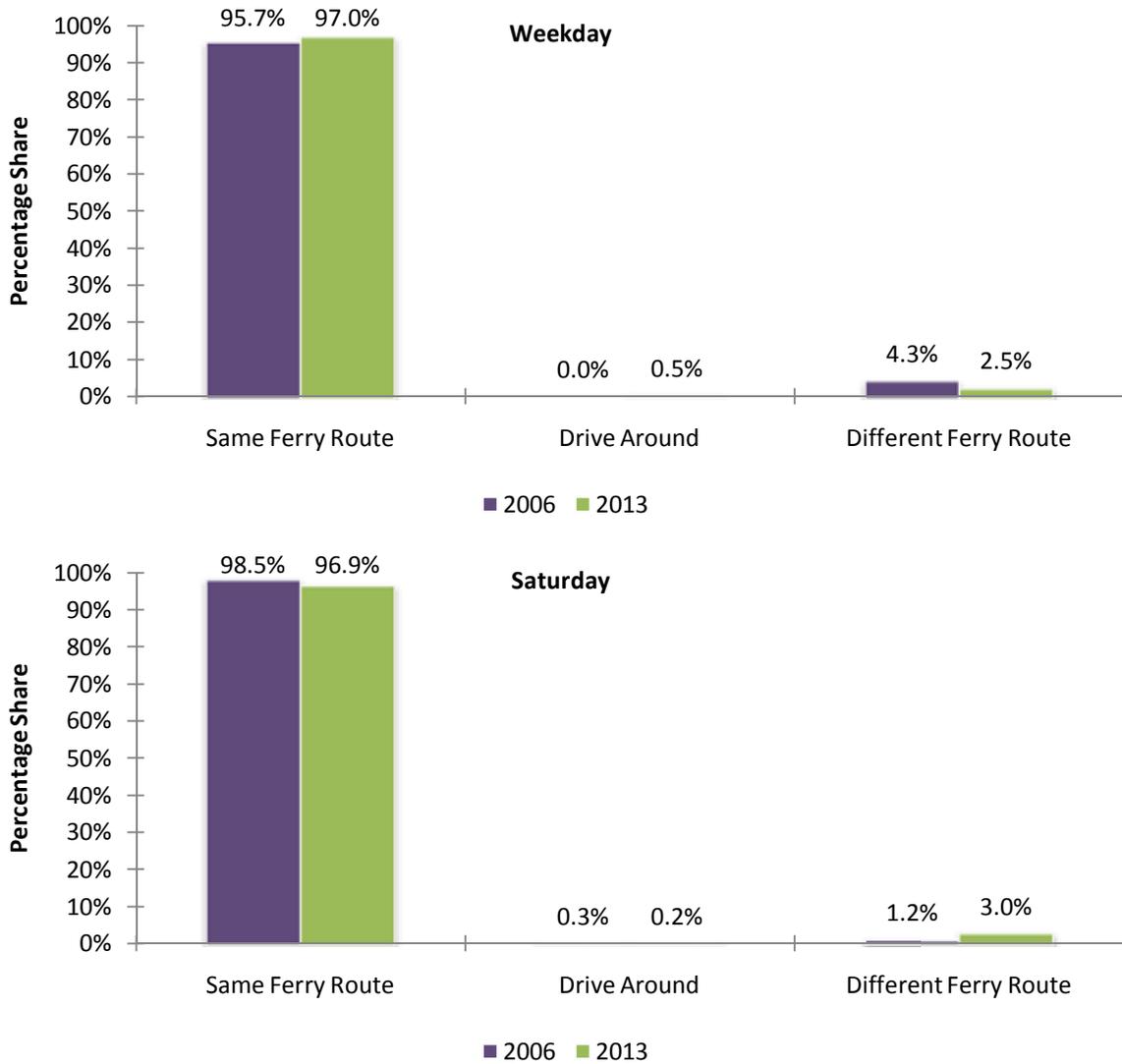
**Figure 7-11. Fauntleroy–Vashon round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**





As shown in Figure 7-12, the vast majority (over 95 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers, and the results are relatively unchanged from 2006.

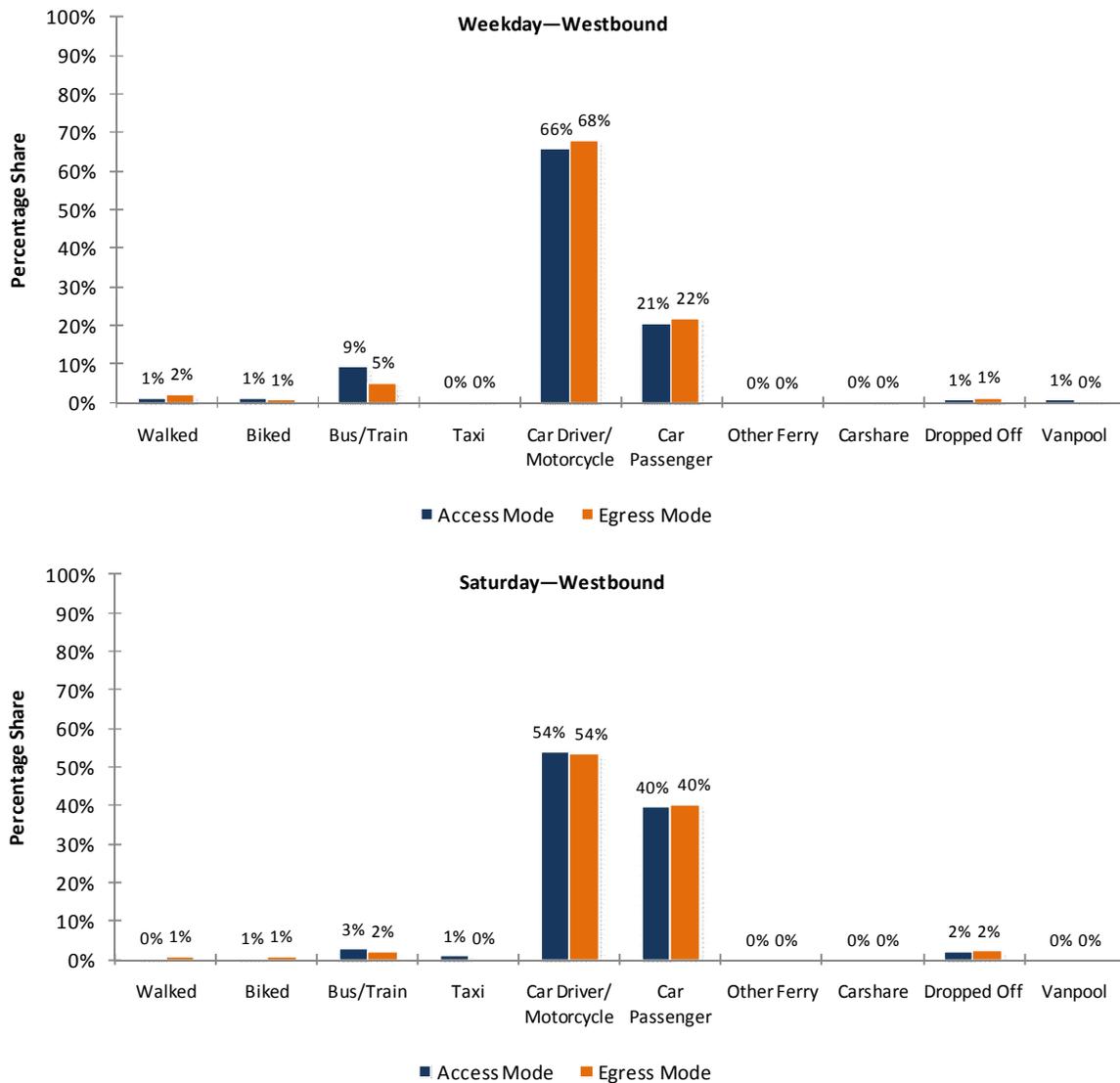
**Figure 7-12. Fauntleroy–Vashon round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.2.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant westbound mode of access and egress in 2013, as shown in Figure 7-13. On weekdays, 66 percent of ferry travelers drove to the ferry, and an additional 22 percent were passengers in a private vehicle. Egress percentages were similar to access. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-13. Fauntleroy–Vashon Westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 7-14. On weekdays, 60 percent of ferry travelers drove to the ferry, and an additional 21 percent were passengers in a private vehicle. Egress percentages were similar to access. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-14. Fauntleroy–Vashon eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

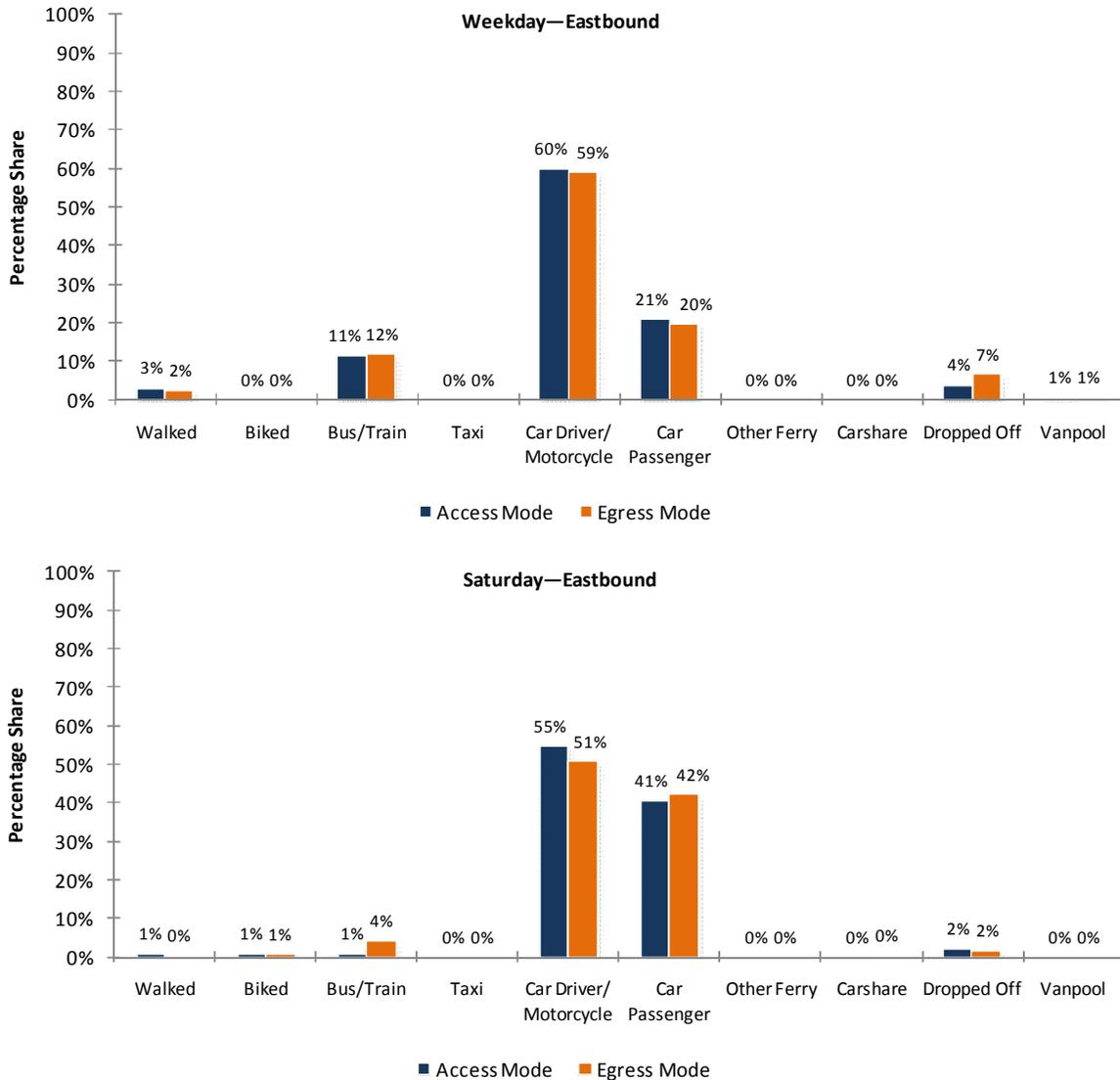


Table 7-10 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 80 percent and 90 percent of boardings on weekdays and Saturdays, respectively. On both weekdays and Saturdays, the walk-on share of boardings increased between 2006 and 2013.

**Table 7-10. Fauntleroy–Vashon access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	43	0	43	1.9%	9.1%
Biked	0	0	19	19	0.8%	1.3%
Bus/Train	11	223	0	234	10.2%	8.5%
Taxi	0	5	0	5	0.2%	0.1%
Car Driver/Motorcycle	1,402	62	2	1,466	63.6%	60.1%
Car Passenger	417	61	0	478	20.7%	20.9%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	3	0	3	0.1%	
Dropped Off	0	44	0	44	1.9%	
Vanpool	0	13	0	13	0.6%	
<b>Total</b>	<b>1,831</b>	<b>454</b>	<b>21</b>	<b>2,306</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	79.4%	19.7%	0.9%	100%		
2006 Distribution	81.9%	16.7%	1.4%	100%		
<b>Saturday</b>						
Walked	0	16	0	16	0.6%	1.1%
Biked	0	4	15	19	0.7%	3.0%
Bus/Train	0	44	4	48	1.8%	0.5%
Taxi	0	13	0	13	0.5%	0.0%
Car Driver/Motorcycle	1,371	74	3	1,448	54.3%	61.2%
Car Passenger	1,029	42	0	1,071	40.1%	34.2%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	55	0	55	2.1%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>2,400</b>	<b>247</b>	<b>22</b>	<b>2,669</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.9%	9.3%	0.8%	100%		
2006 Distribution	88.8%	8.2%	3.0%	100%		

Table 7-11 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Similar to the access mode, on both weekdays and Saturdays, the walk-off share of boardings increased between 2006 and 2013.

**Table 7-11. Fauntleroy–Vashon egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	51	0	51	2.2%	5.4%
Biked	0	0	12	12	0.5%	1.3%
Bus/Train	0	169	6	175	7.6%	7.4%
Taxi	0	3	0	3	0.1%	0.0%
Car Driver/Motorcycle	1,378	111	3	1,492	64.7%	64.1%
Car Passenger	444	43	0	487	21.1%	21.7%
Other Ferry	0	0	0	0	0.0%	
Carshare	3	0	0	3	0.1%	
Dropped Off	3	74	0	76	3.3%	
Vanpool	3	5	0	8	0.3%	
<b>Total</b>	<b>1,831</b>	<b>454</b>	<b>21</b>	<b>2,306</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	79.4%	19.7%	0.9%	100%		
2006 Distribution	81.4%	17.0%	1.5%	100%		
<b>Saturday</b>						
Walked	0	14	0	14	0.5%	4.9%
Biked	0	0	18	18	0.7%	3.1%
Bus/Train	0	80	4	84	3.1%	1.9%
Taxi	0	3	0	3	0.1%	0.0%
Car Driver/Motorcycle	1,336	54	0	1,390	52.1%	62.5%
Car Passenger	1,060	43	0	1,103	41.3%	27.7%
Other Ferry	0	0	0	0	0.0%	
Carshare	4	0	0	4	0.2%	
Dropped Off	0	54	0	54	2.0%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>2,400</b>	<b>247</b>	<b>22</b>	<b>2,669</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	89.9%	9.3%	0.8%	100%		
2006 Distribution	88.9%	8.1%	3.1%	100%		

Table 7-12, Table 7-13, and Table 7-14 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For walk-on boardings during the non-PM peak period, the percentage of travelers leaving the destination terminal on foot was significantly higher than the percentage arriving at the origin terminal on foot (19 percent versus 8 percent). This was also true for travelers using bus or other transit modes to/from the terminal.

**Table 7-12. Fauntleroy–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (20.7% of total boardings)					
Pedestrian	9.0%	Pedestrian	96.0%	Pedestrian	8.2%
Bicycle	4.0%	Pedestrian w/ Bicycle	4.0%	Bicycle	1.6%
By Bus/Transit	46.4%			By Bus/Transit	37.3%
By Vehicle	36.2%			By Vehicle	51.7%
Vanpool	3.6%			Vanpool	1.3%
Carshare	0.8%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (79.3% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	74.8%	In-Vehicle	100.0%
		Vehicle Passengers	25.2%		

Note: Average vehicle occupancy (AVO) was 1.34 for the weekday PM peak period.

**Table 7-13. Fauntleroy–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, Weekday Non-PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (14.7% of total boardings)					
Pedestrian	9.4%	Pedestrian	94.4%	Pedestrian	19.4%
Bicycle	3.8%	Pedestrian w/ Bicycle	5.6%	Bicycle	5.6%
By Bus/Transit	48.8%			By Bus/Transit	35.0%
By Vehicle	38.1%			By Vehicle	40.0%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (85.3% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	80.8%	In-Vehicle	100.0%
		Vehicle Passengers	19.2%		

Note: Average vehicle occupancy was 1.24 for the weekday non-PM peak period.



**Table 7-14. Fauntleroy–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

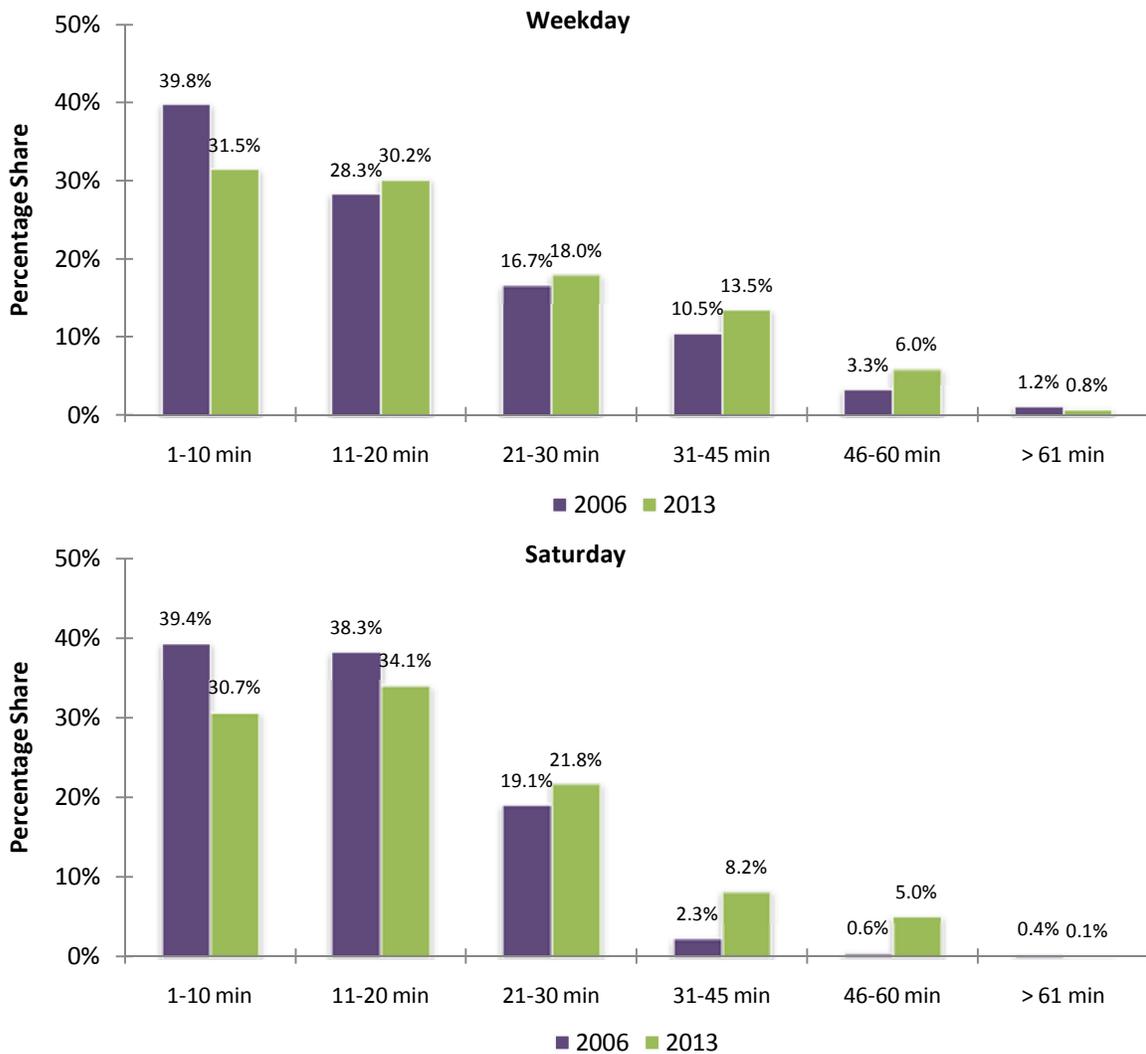
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (10.1% of total boardings)					
Pedestrian	5.8%	Pedestrian	91.8%	Pedestrian	5.1%
Bicycle	7.0%	Pedestrian w/ Bicycle	8.2%	Bicycle	6.7%
By Bus/Transit	17.8%			By Bus/Transit	31.1%
By Vehicle	69.4%			By Vehicle	57.1%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (89.9% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	57.1%	In-Vehicle	100.0%
		Vehicle Passengers	42.9%		

*Note: Average vehicle occupancy (AVO) was 1.75 for the Saturday survey period.*

### 7.2.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 7-15 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 20 percent of weekday ferry passengers waited for more than 30 minutes, which was an increase from 2006, when 15 percent of weekday riders waited for more than 30 minutes. A similar trend was seen on Saturdays, with 5 percent of ferry passengers waiting for more than 45 minutes in 2013 compared with only 1 percent in 2006.

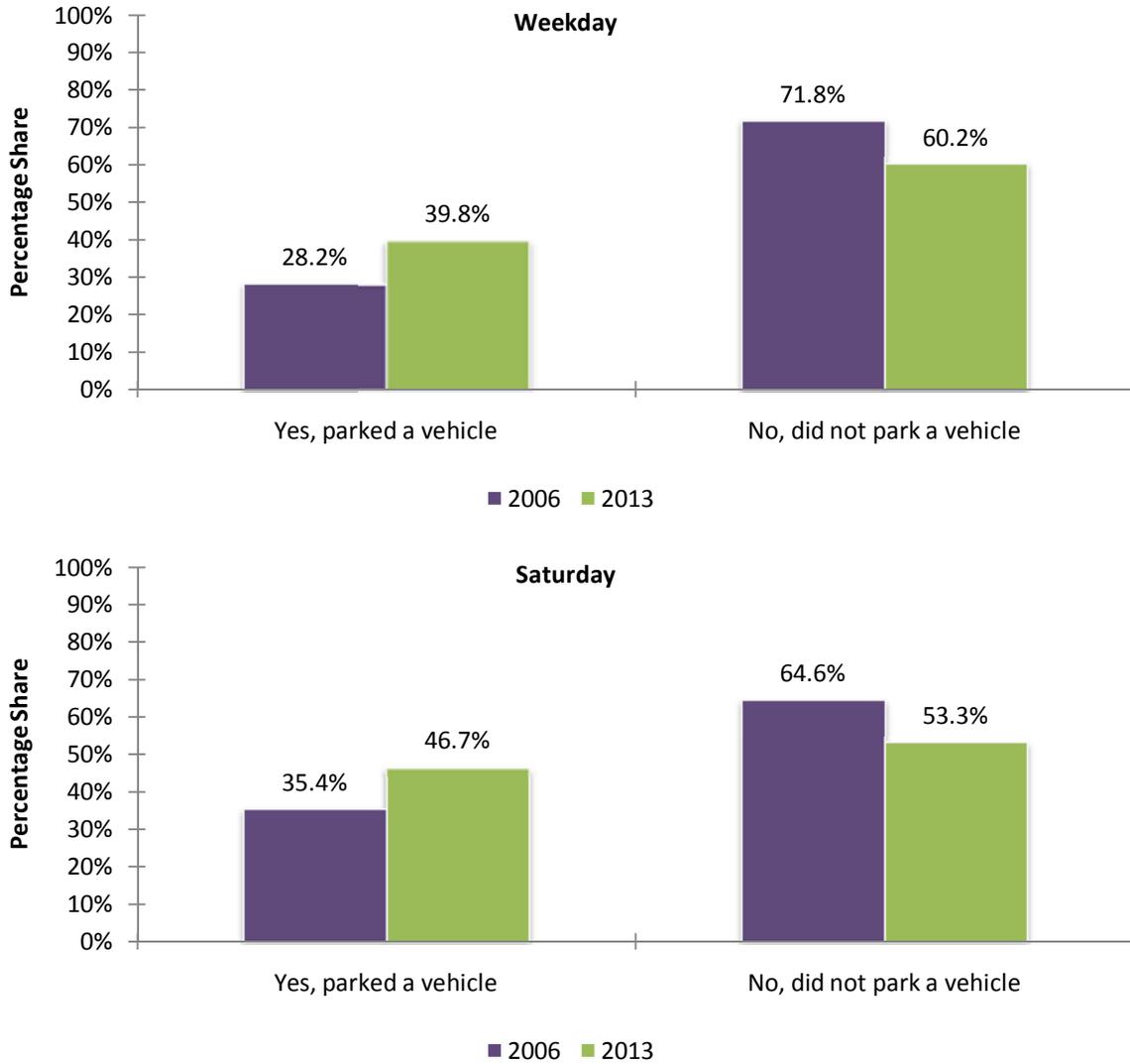
**Figure 7-15. Fauntleroy–Vashon trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.2.7 Parking

Figure 7-16 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 40 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 28 percent in 2006. On Saturdays, those who parked a vehicle increased from 35 percent to 47 percent.

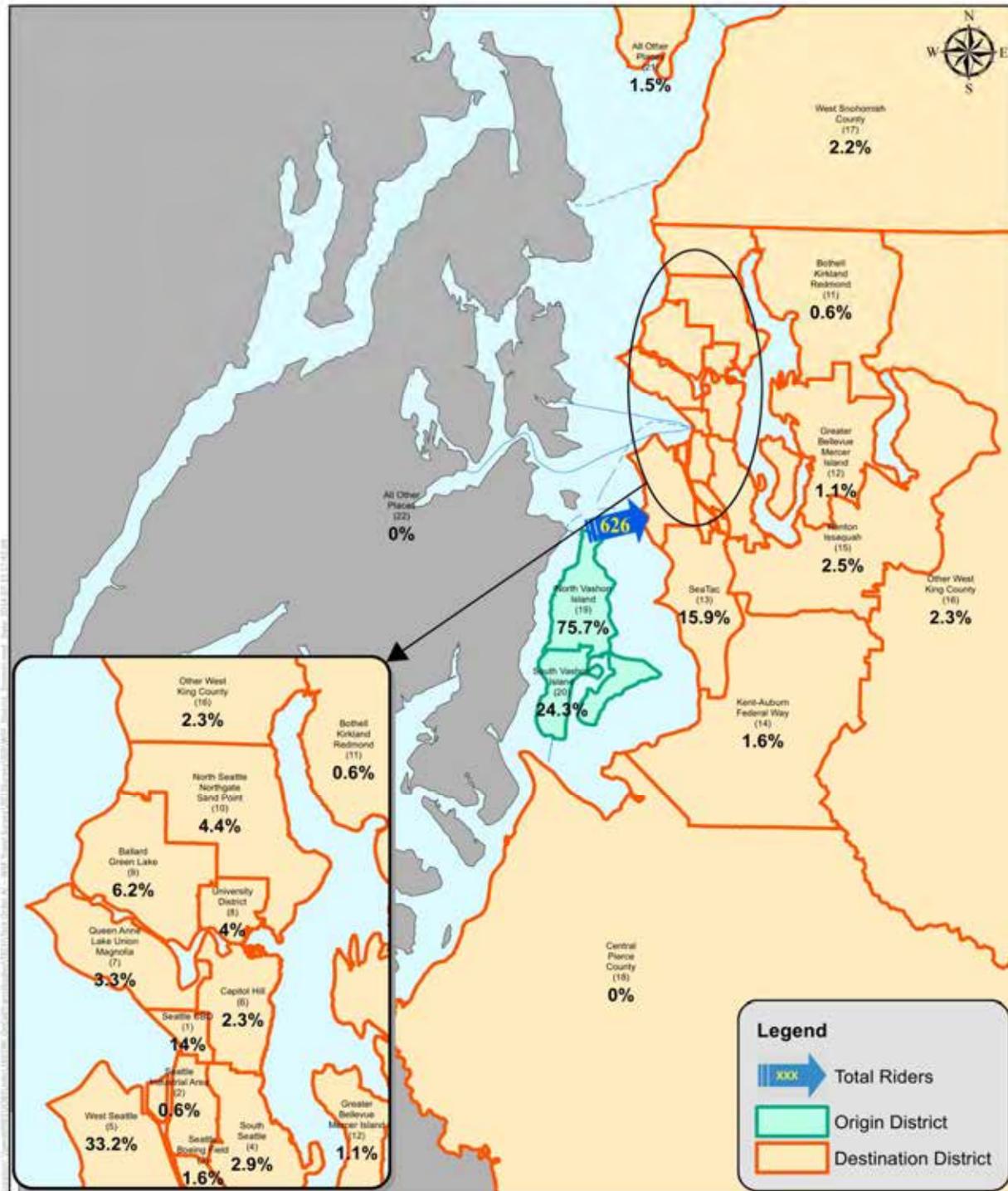
**Figure 7-16. Fauntleroy–Vashon non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.2.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 7-17 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 7-15. The majority of origins were located in North Vashon Island, while the major destinations were West Seattle, Sea-Tac, and the Seattle Central Business District (CBD). Origin and destination locations by boarding mode are shown in Figure 7-18. Walk boarding origins were somewhat spread out across Vashon Island, while the walk-off destinations were generally concentrated near the Fauntleroy ferry terminal.

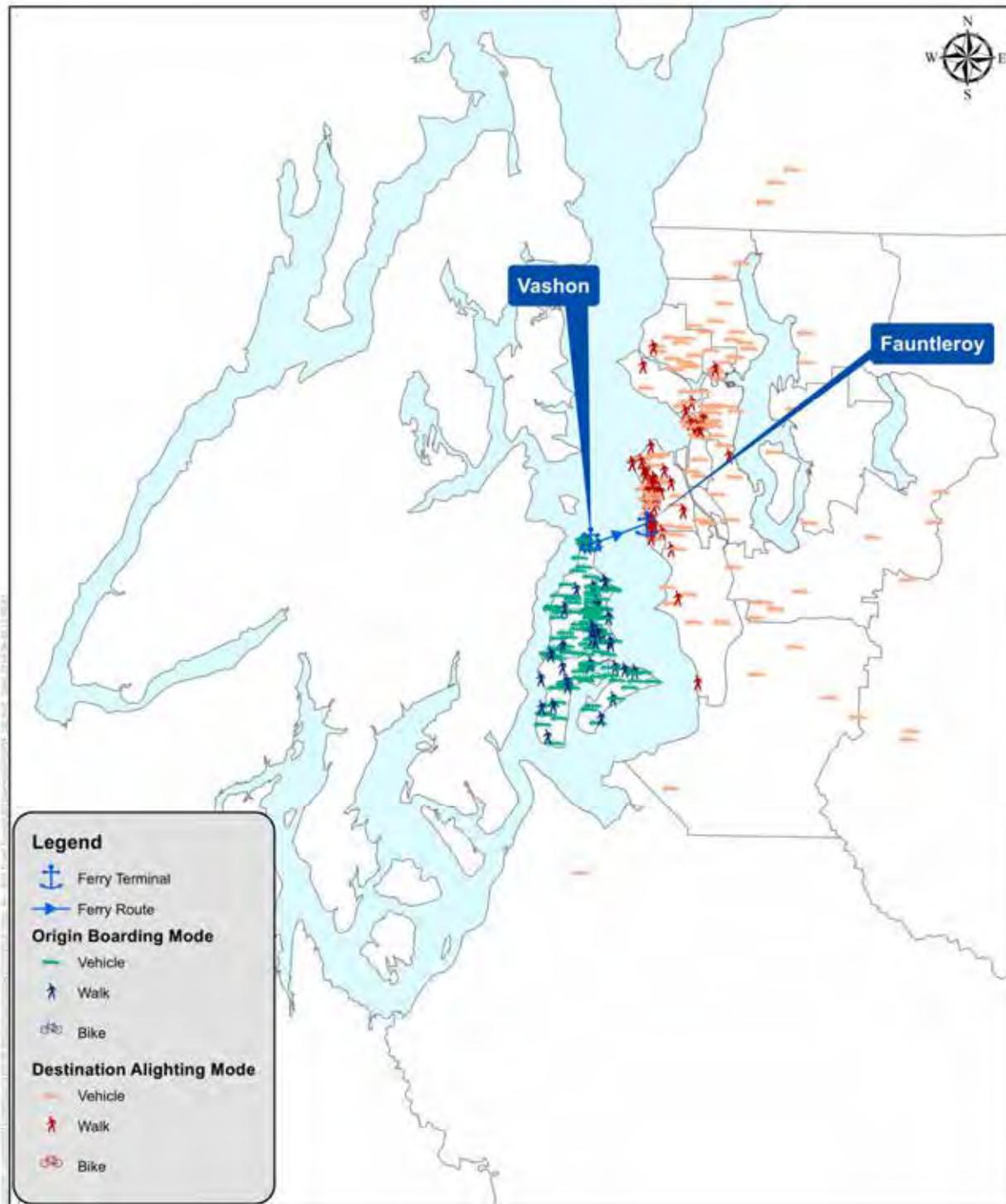
Figure 7-17. Fauntleroy–Vashon eastbound origin and destination districts, weekday PM peak period



**Table 7-15. Fauntleroy–Vashon eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►																			Origin Total	Origin Percent Share
		Seattle CBD	Seattle Industrial Area	Seattle Boeing Field	S Seattle	W Seattle	Capitol Hill	Queen Anne-Lake Union / Magnolia	University District	Ballard-Green Lake	N Seattle / Ngate / Sand Point	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Island	Sea Tac	Kent-Auburn / Federal Way	Renton / Issaquah	Other W King Co.	W Snohomish Co.	All Other Places			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	21			
N Vashon Island	19	70		6	14	168	14	17	22	27	14	4	7	76		10	11	14		474	75.7%	
S Vashon Island	20	18	4	4	4	39		4	4	12	13			23	10	6	4		9	152	24.3%	
Destination Total		87	4	10	18	208	14	21	25	39	28	4	7	99	10	16	14	14	9	626	100%	
Destination Percent Share		14.0%	0.6%	1.6%	2.9%	33.2%	2.3%	3.3%	4.0%	6.2%	4.4%	0.6%	1.1%	15.9%	1.6%	2.5%	2.3%	2.2%	1.5%	100%		

Figure 7-18. Fauntleroy–Vashon eastbound origin and destination locations by boarding mode, weekday 8-hour survey period



### 7.2.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 7-19 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 7-16. The major origins were the Seattle CBD, West Seattle, Sea-Tac, and the Seattle Industrial Area, while the majority of destinations were located in North Vashon Island. Figure 7-20 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, a larger percentage of trips originate in West Seattle and end in North Vashon Island compared with 2006.

Origin and destination locations by boarding mode are shown in Figure 7-21. Walk boarding origins were less concentrated compared with eastbound trips.

Figure 7-19. Fauntleroy–Vashon westbound origin and destination districts, weekday PM peak period

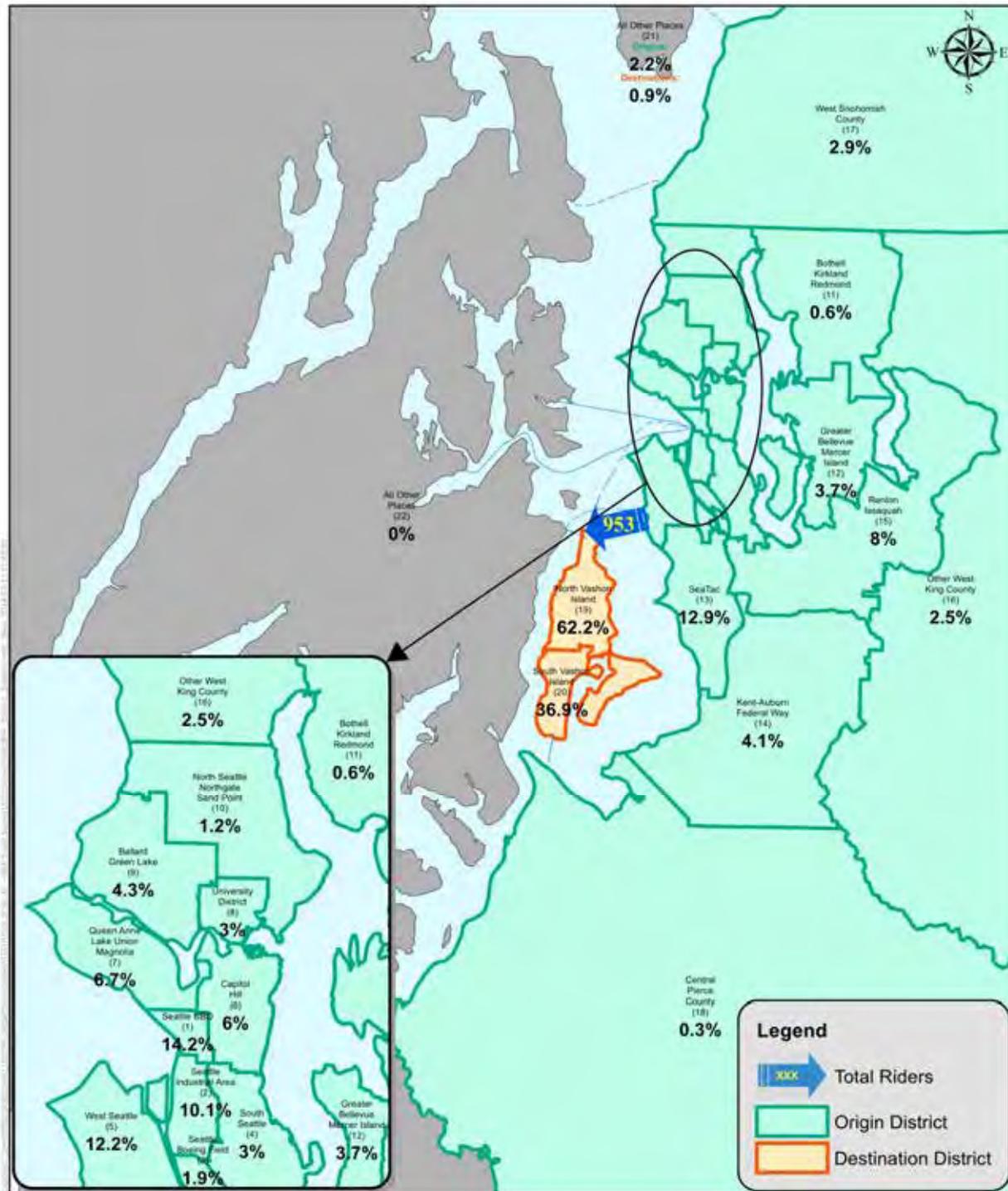
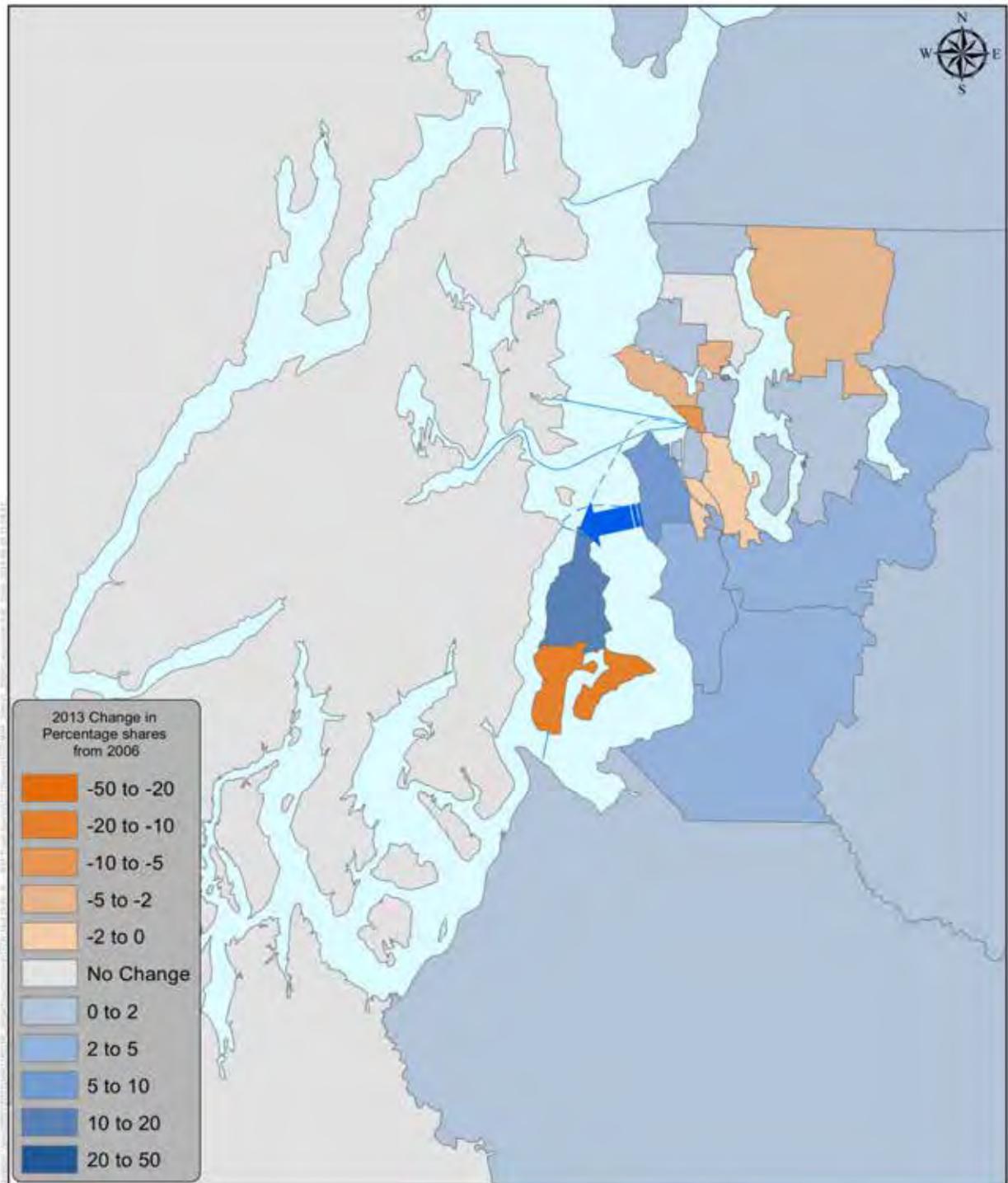


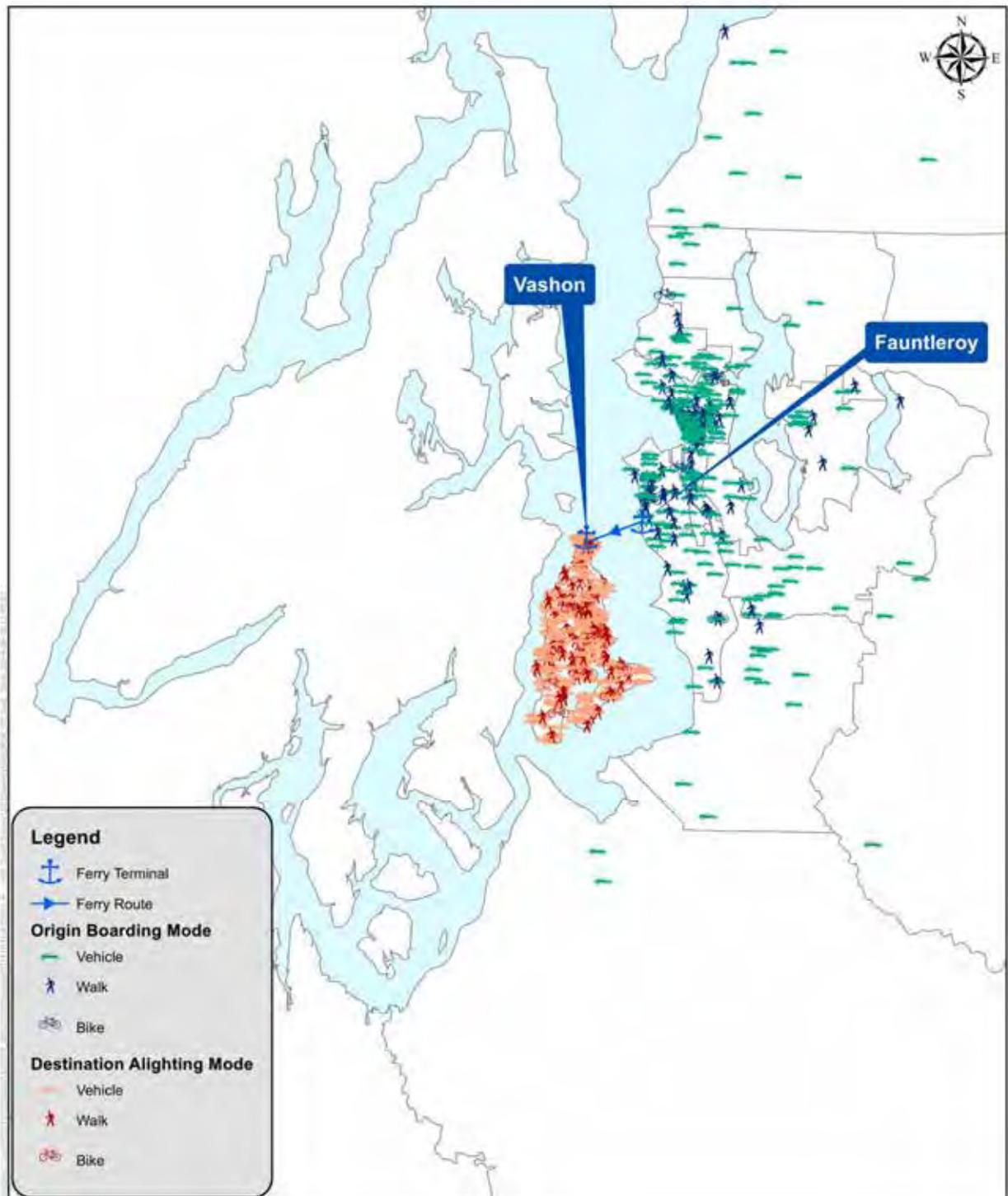
Figure 7-20. Fauntleroy–Vashon change in westbound travel patterns from 2006, weekday PM peak period



**Table 7-16. Fauntleroy–Vashon westbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►		N Vashon Island	S Vashon Island	All Other Places	Origin Total	Origin Percent Share
		19	20					
Seattle CBD	1	89	43	3	136	14.2%		
Seattle Industrial Area	2	76	20		96	10.1%		
Seattle Boeing Field	3	9	9		18	1.9%		
S Seattle	4	9	20		29	3.0%		
W Seattle	5	71	45		116	12.2%		
Capitol Hill	6	33	24		57	6.0%		
Queen Anne-Lake Union / Magnolia	7	36	28		63	6.7%		
University District	8		29		29	3.0%		
Ballard-Green Lake	9	33	9		41	4.3%		
N Seattle / Ngate / Sand Point	10	3	9		12	1.2%		
Bothell-Kirkland / Redmond	11	3	3		6	0.6%		
Greater Bellevue / Mercer Island	12	29	6		35	3.7%		
SeaTac	13	74	49		123	12.9%		
Kent-Auburn / Federal Way	14	28	6	6	39	4.1%		
Renton / Issaquah	15	43	33		76	8.0%		
Other W King County	16	15	9		24	2.5%		
W Snohomish County	17	21	6		27	2.9%		
Central Pierce County	18	3			3	0.3%		
All Other Places	21	18	3		21	2.2%		
Destination Total		593	351	9	953	100.0%		
Destination Percent Share		62.2%	36.9%	0.9%	100%			

**Figure 7-21. Fauntleroy–Vashon westbound origin and destination locations by boarding mode, weekday 8-hour survey period**

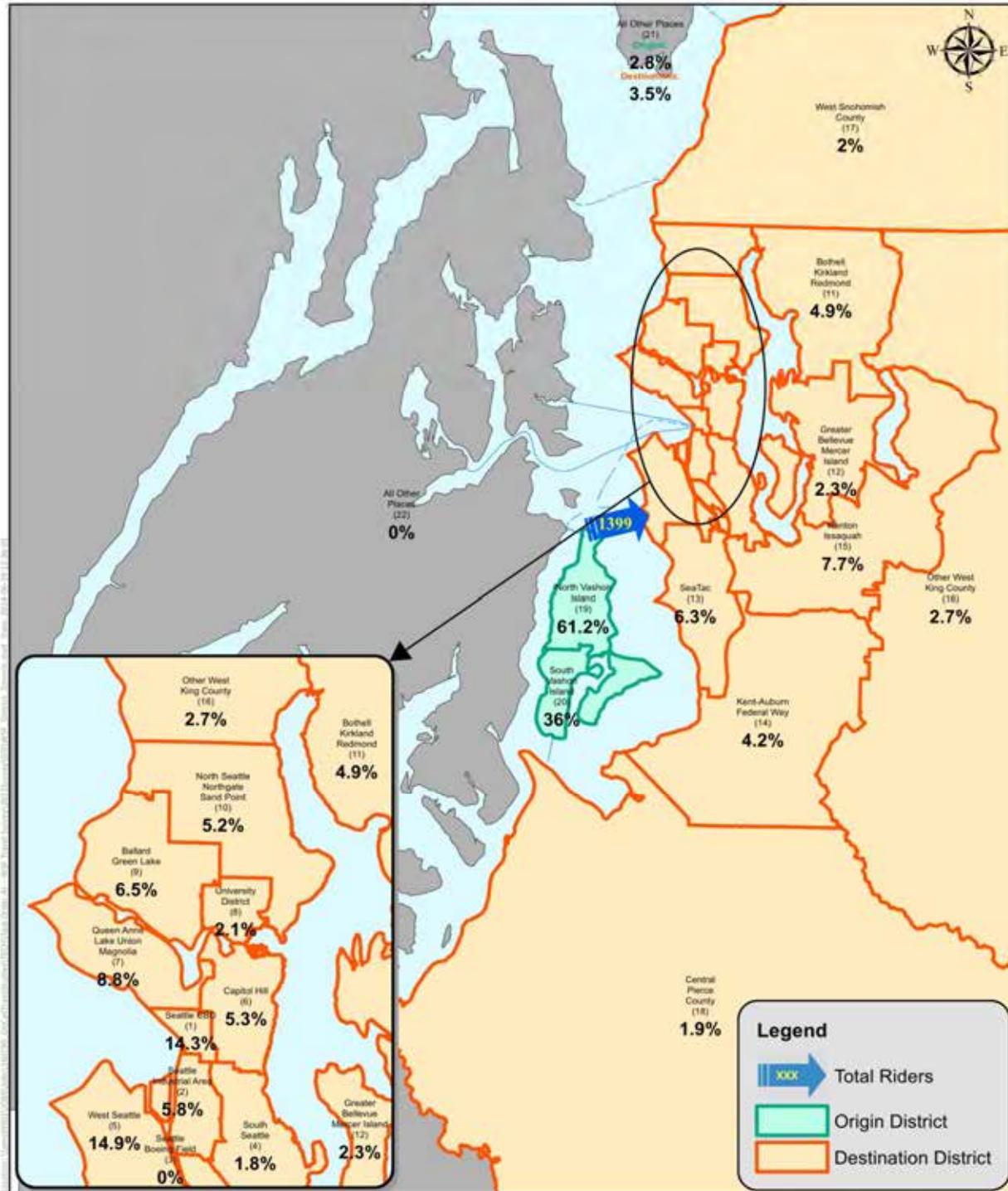


**7.2.10 Saturday Travel Patterns—Eastbound**

Figure 7-22 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 7-17. The majority of origins were in North

Vashon Island, while the major destinations were West Seattle and the Seattle CBD. Origin and destination locations by boarding mode are shown in Figure 7-23. Boarding origins and modes were dispersed.

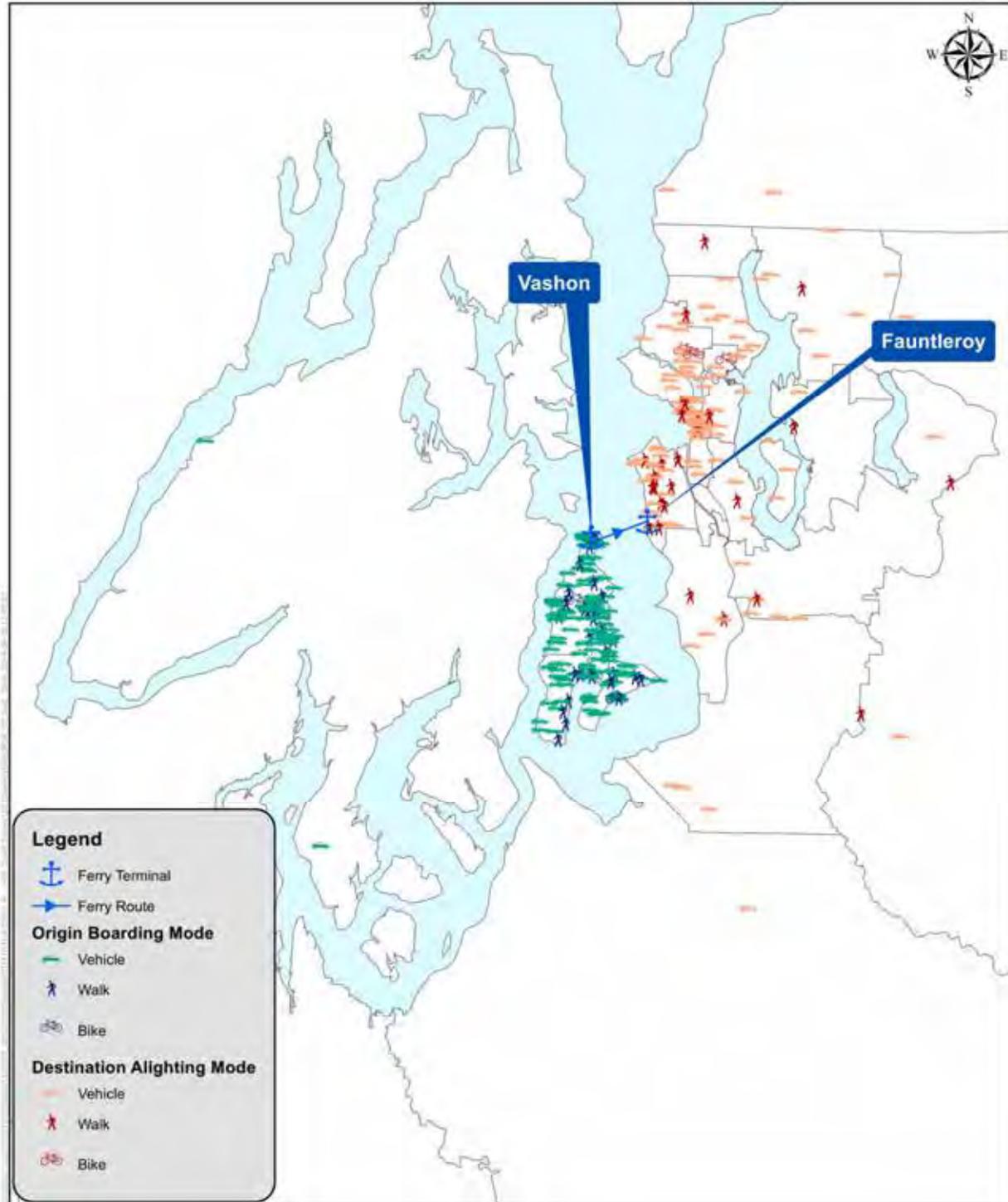
**Figure 7-22. Fauntleroy–Vashon eastbound origin and destination districts, Saturday survey period**



**Table 7-17. Fauntleroy–Vashon eastbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►																		Origin Total	Origin Percent Share
		Seattle CBD	Seattle Industrial Area	South Seattle	West Seattle	Capitol Hill	Queen Anne-Lake Union / Magnolia	University District	Ballard-Green Lake	North Seattle / Northgate / Sand Point	Bothell-Kirkland / Redmond	Greater Bellevue / Mercer Island	SeaTac	Kent-Auburn / Federal Way	Renton / Issaquah	Other West King County	West Snohomish County	Central Pierce County	All Other Places_East		
		1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	21		
N Vashon Island	19	107	56	25	156	53	45	17	75	25	37	9	41	46	73	17	20	26	29	856	61.2%
S Vashon Island	20	74	17		53	21	78	12	17	47	31	24	47	12	35	17	8		12	504	36.0%
All Other Places	21	19	8													4			8	39	2.8%
Destination Total		200	81	25	208	74	123	30	91	72	68	33	88	58	108	38	28	26	49	1,399	100%
Destination Percent Share		14.3%	5.8%	1.8%	14.9%	5.3%	8.8%	2.1%	6.5%	5.2%	4.9%	2.3%	6.3%	4.2%	7.7%	2.7%	2.0%	1.9%	3.5%	100%	

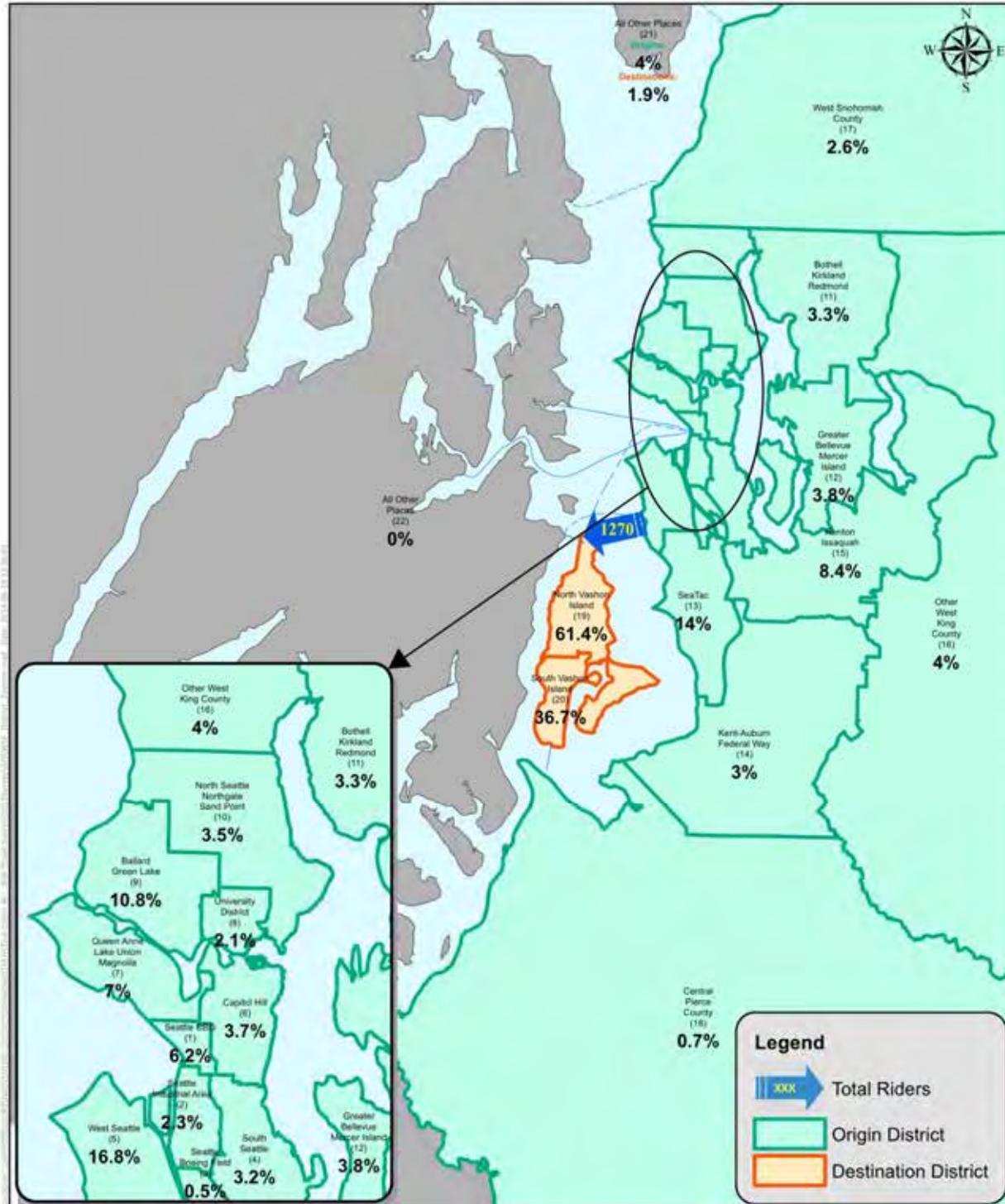
Figure 7-23. Fauntleroy–Vashon eastbound origin and destination locations by boarding mode, Saturday survey period



### 7.2.11 Saturday Travel Patterns—Westbound

Figure 7-24 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 7-18. The major origins were West Seattle, Sea-Tac, and Ballard–Green Lake, while the majority of destinations were in North Vashon Island. Origin and destination locations by boarding mode are shown in Figure 7-25. Boarding origins and modes were dispersed.

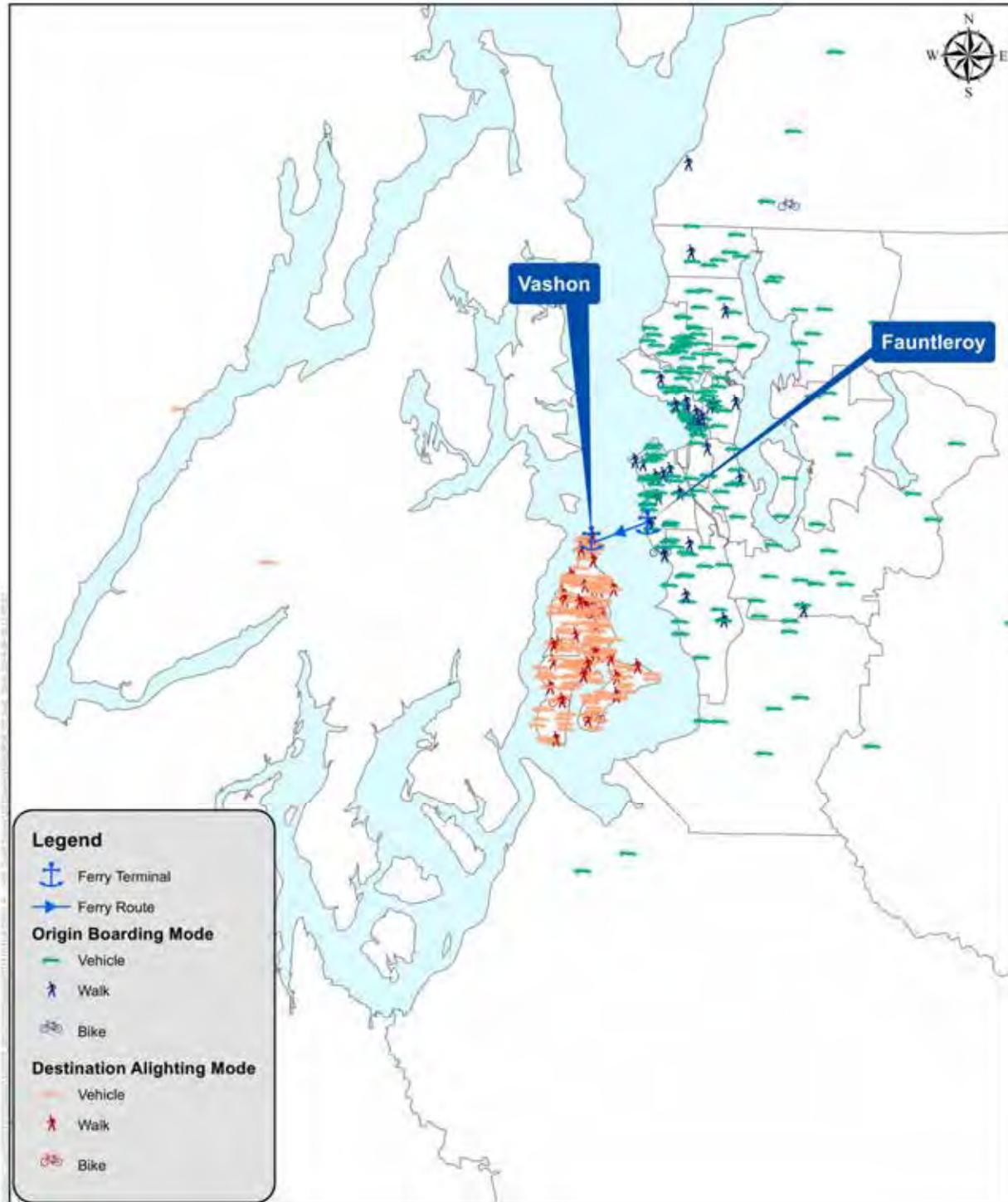
Figure 7-24. Fauntleroy–Vashon westbound origin and destination districts, Saturday survey period



**Table 7-18. Fauntleroy–Vashon westbound total boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ▶	N Vashon Island	S Vashon Island	All Other Places	Origin Total	Origin Percent Share
			19	20	21		
Seattle CBD	1		63	17		79	6.2%
Seattle Industrial Area	2		26	3		29	2.3%
Seattle Boeing Field	3		3	3		7	0.5%
S Seattle	4		35	6		41	3.2%
W Seattle	5		123	85	6	214	16.8%
Capitol Hill	6		32	12	3	47	3.7%
Queen Anne-Lake Union / Magnolia	7		60	29		89	7.0%
University District	8		6	20		26	2.1%
Ballard-Green Lake	9		80	57		137	10.8%
N Seattle / Ngate / Sand Point	10		22	22		44	3.5%
Bothell-Kirkland / Redmond	11		3	39		42	3.3%
Greater Bellevue / Mercer Island	12		23	22	3	48	3.8%
SeaTac	13		98	74	6	177	14.0%
Kent-Auburn / Federal Way	14		29	9		38	3.0%
Renton / Issaquah	15		77	29		106	8.4%
Other W King County	16		39	13		51	4.0%
W Snohomish County	17		21	6	6	33	2.6%
Central Pierce County	18		9			9	0.7%
All Other Places	21		33	18		50	4.0%
Destination Total			780	466	24	1,270	100.0%
Destination Percent Share			61.4%	36.7%	1.9%	100%	

Figure 7-25. Fauntleroy–Vashon westbound origin and destination locations by boarding mode, Saturday survey period



## 7.3 Fauntleroy–Southworth

### 7.3.1 Route Description

The Fauntleroy–Southworth route connects Fauntleroy (West Seattle) and Southworth, located south of Seattle, and crosses Puget Sound just north of Vashon Island. It takes about 40 minutes to ride this ferry route one way when the ferry stops at Vashon along the way, and 30 minutes for a direct crossing with no stop at Vashon. The crossing is approximately 4.1 nautical miles. It runs seven days a week. For 2013, the annual total ridership was 320,000 passengers plus 480,000 vehicles and drivers for a total of 800,000 riders, or about 2,200 riders per day. This compares to 2,700 riders per day in 2006 and 2,600 riders per day in 1999. The Fauntleroy–Southworth route has 26 weekday sailings per day for each direction. The fare in October 2013 for a vehicle 14 to 22 feet including driver was \$10.50. The full fare for passengers was \$6.05.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 7.3.2 Trips by Purpose

As shown in Table 7-19, the most frequent weekday trip purpose was work/school (69 percent), which is unchanged from 2006. More than half (60 percent) of Saturday trips were for recreation/shopping in 2013, an increase from 49 percent in 2006.

**Table 7-19. Fauntleroy–Southworth trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	179	101	99	379	32.5%	51.5%
Westbound	620	95	70	785	67.5%	48.5%
Total	799	197	168	1,164	100%	100%
2013 Distribution	68.7%	16.9%	14.4%	100%		
2006 Distribution	68.6%	15.6%	15.8%	100%		
<b>Saturday</b>						
Eastbound	90	176	484	750	57.3%	54.0%
Westbound	84	180	295	559	42.7%	46.0%
Total	174	357	779	1,309	100%	100%
2013 Distribution	13.3%	27.2%	59.5%	100%		
2006 Distribution	15.2%	35.8%	49.0%	100%		

### 7.3.3 Frequency of Travel

Table 7-20 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The highest percentage of weekday users (22 percent) in 2013 made nine to ten trips per week, a decrease from 28 percent in 2006. The percentage of travelers using ferries once per week increased from 22 percent to 55 percent, while those using the ferry twice per week decreased from 39 percent to 17 percent.

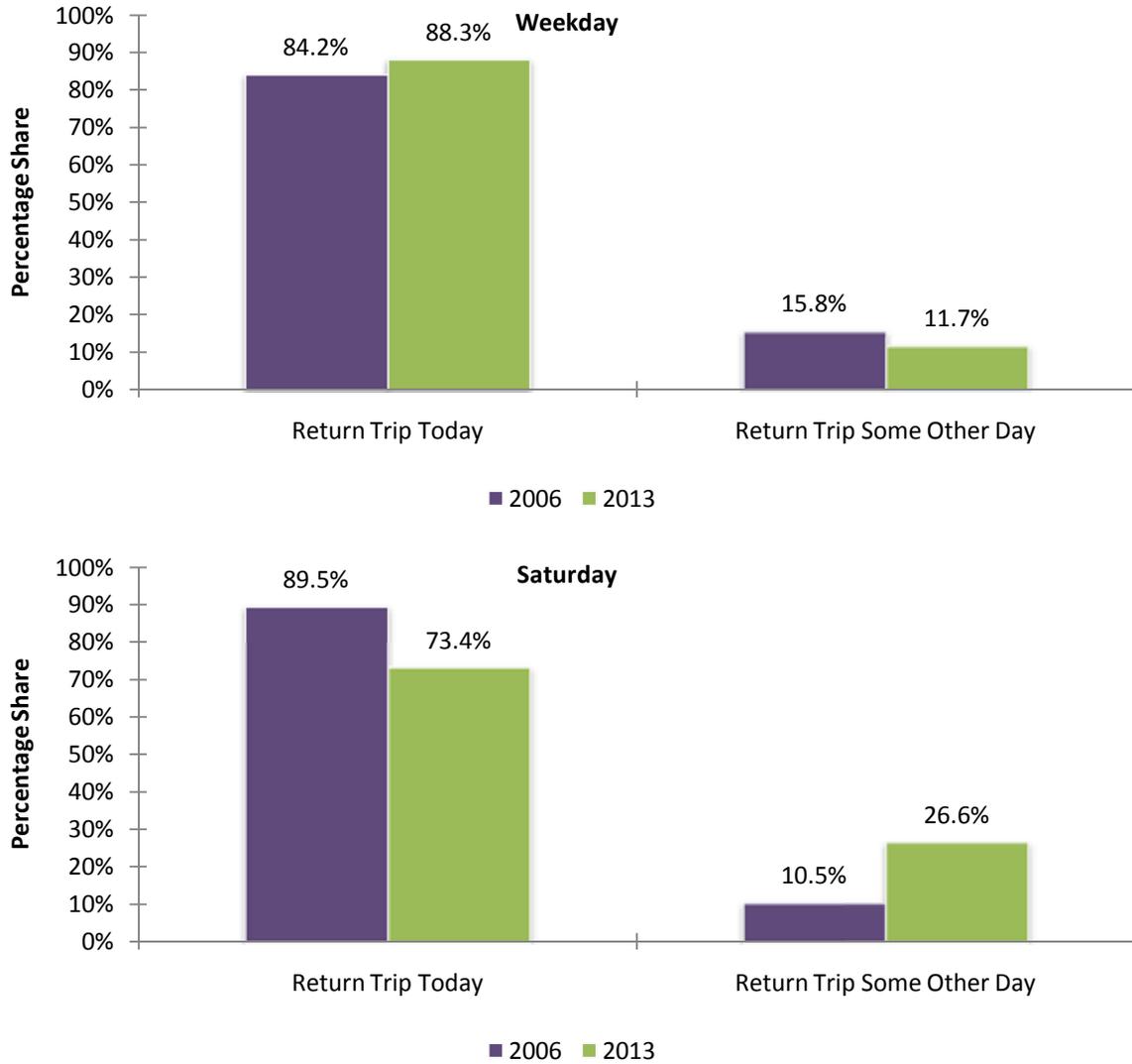
**Table 7-20. Fautleroy–Southworth one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	71	48	58	177	16.9%	10.6%	9.8%	3.7%
2	47	68	44	159	15.2%	12.1%	6.6%	7.8%
3 to 4	50	53	27	131	12.5%	17.1%	7.0%	12.7%
5 to 6	106	7	10	123	11.7%	14.5%	14.7%	14.6%
7 to 8	152	10	3	165	15.7%	8.4%	21.1%	10.4%
9 to 10	232	1	0	234	22.3%	28.2%	32.3%	39.5%
11+	60	0	0	60	5.7%	9.1%	8.4%	11.3%
Total	719	188	141	1,048	100%	100%	100%	100%
2013 Distribution	68.5%	18.0%	13.5%	100%				
2006 Distribution	70.0%	14.0%	16.0%	100%				
<b>Saturday</b>								
1	49	128	399	576	55.0%	21.8%		
2	29	40	106	174	16.6%	38.9%		
3 to 4	9	62	63	133	12.7%	13.3%		
5 to 6	14	21	16	51	4.9%	5.9%		
7 to 8	28	2	9	39	3.7%	7.8%		
9 to 10	5	2	14	21	2.0%	3.3%		
11+	23	4	24	52	5.0%	8.9%		
Total	156	260	630	1,046	100%	100%		
2013 Distribution	14.9%	24.8%	60.3%	100%				
2006 Distribution	15.7%	35.5%	48.8%	100%				

### 7.3.4 Round-Trip Patterns

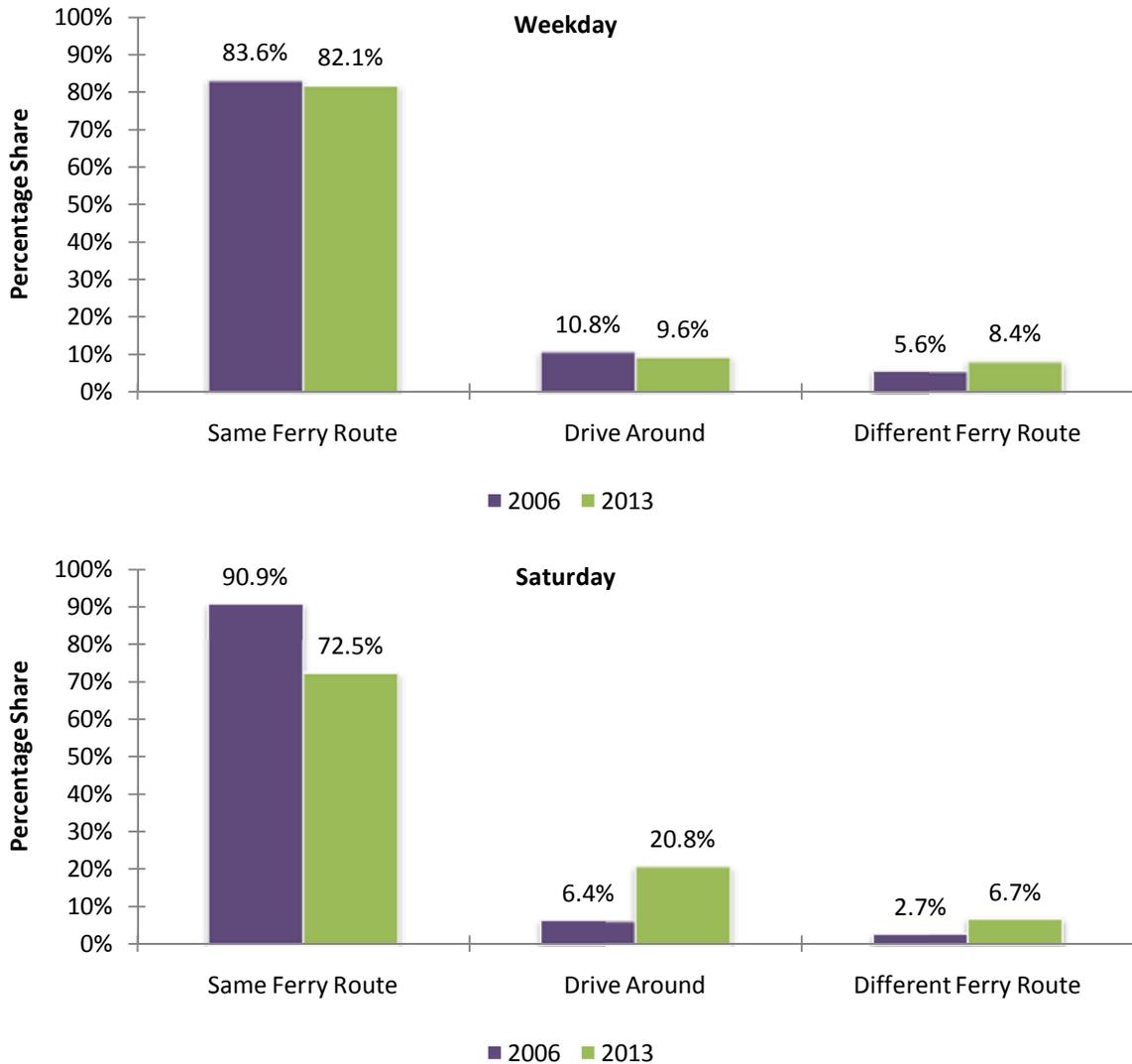
The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew slightly from 84 percent in 2006 to 88 percent in 2013, as shown in Figure 7-26. Conversely, those making a round-trip on the same day on Saturdays decreased sharply from 90 percent in 2006 to 73 percent in 2013.

**Figure 7-26. Fauntleroy–Southworth round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**



As shown in Figure 7-27, the majority of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers. While the results are relatively unchanged from 2006 for weekdays, there was a significant decrease on Saturdays from 91 percent in 2006 to 73 percent in 2013.

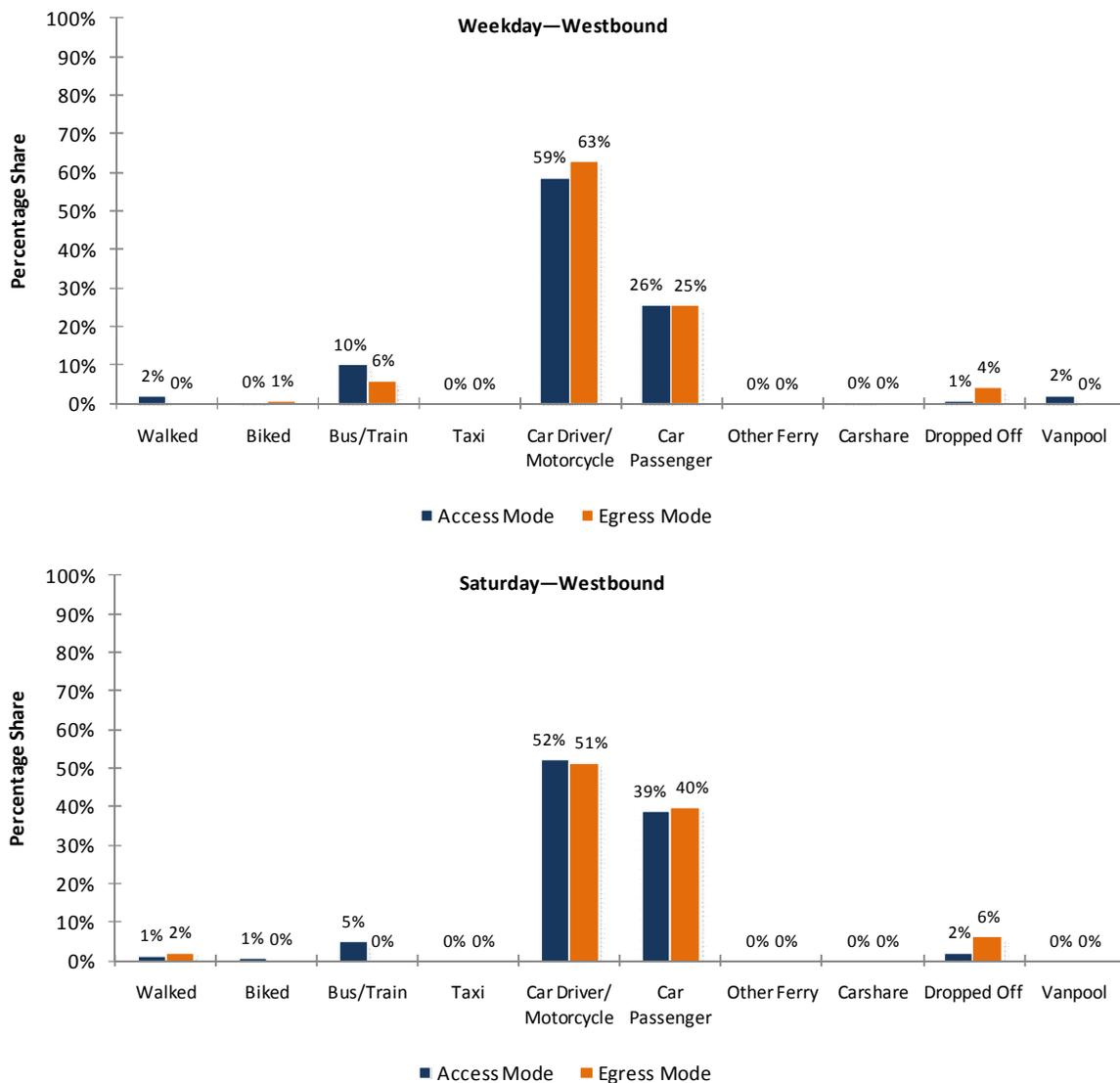
**Figure 7-27. Fauntleroy–Southworth round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.3.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant westbound mode of access and egress in 2013, as shown in Figure 7-28. On weekdays, 59 percent of ferry travelers drove to the ferry, and an additional 26 percent were passengers in a private vehicle. Leaving the ferry, 63 percent were drivers while 25 percent were passengers. Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-28. Fautleroy–Southworth westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**





Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 7-29. On weekdays, 71 percent of ferry travelers drove to the ferry, and an additional 23 percent were passengers in a private vehicle. Leaving the ferry, 65 percent were drivers while 24 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-29. Fauntleroy–Southworth eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

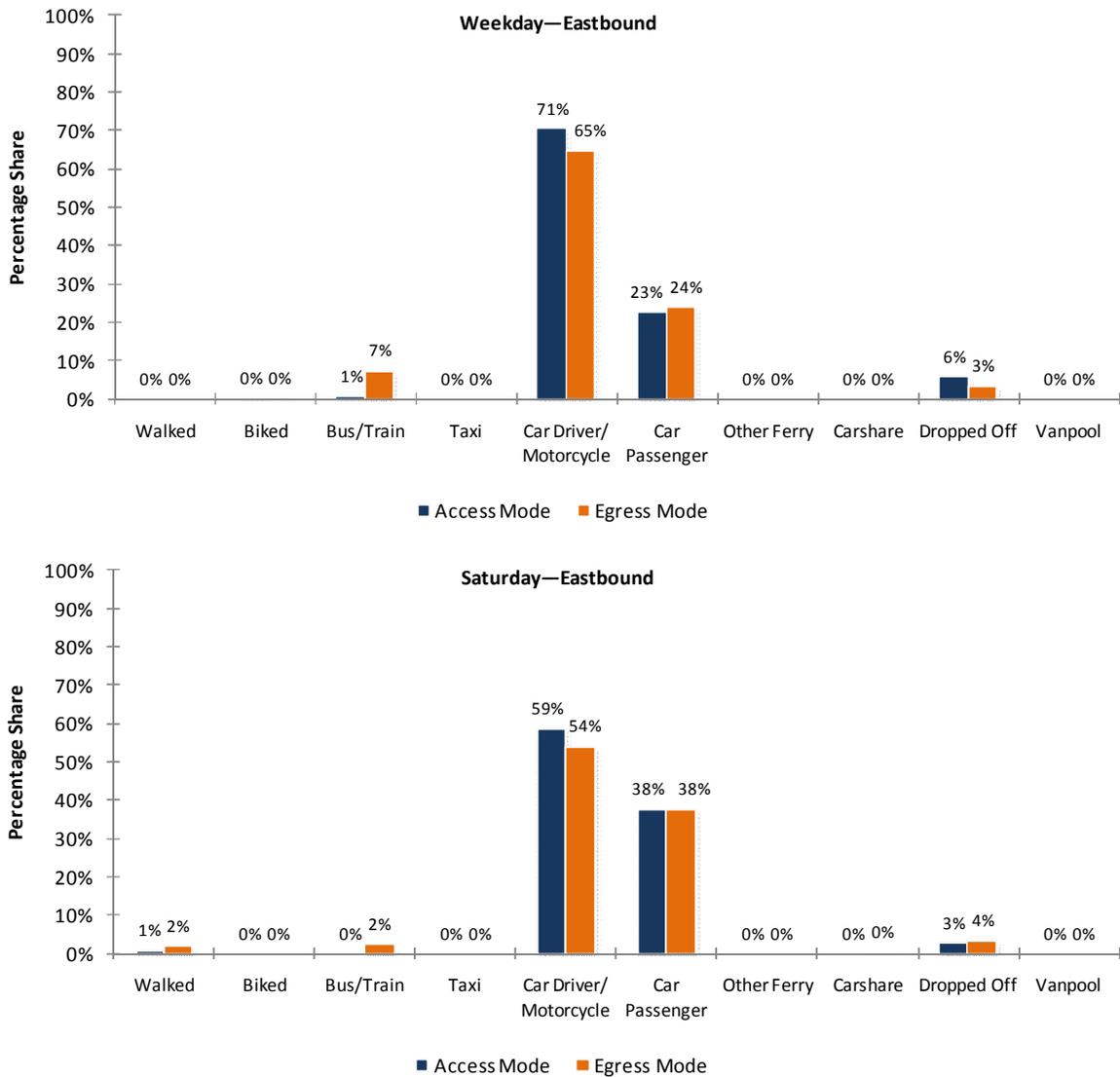


Table 7-21 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 81 percent and 89 percent of boardings on weekdays and Saturdays, respectively. On weekdays, the walk-on share of boardings increased between 2006 and 2013, while it remained similar on Saturdays.

**Table 7-21. Fauntleroy–Southworth access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	15	0	15	1.3%	3.6%
Biked	0	0	5	5	0.5%	2.2%
Bus/Train	5	77	0	82	7.0%	6.6%
Taxi	0	0	0	0	0.0%	0.2%
Car Driver/Motorcycle	703	24	1	729	62.6%	61.1%
Car Passenger	283	4	0	287	24.7%	26.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	2	0	2	0.2%	
Dropped Off	0	27	0	27	2.3%	
Vanpool	0	18	0	18	1.5%	
<b>Total</b>	<b>991</b>	<b>166</b>	<b>7</b>	<b>1,164</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	85.1%	14.3%	0.6%	100%		
2006 Distribution	80.5%	17.8%	1.7%	100%		
<b>Saturday</b>						
Walked	0	14	0	14	1.0%	1.5%
Biked	0	0	4	4	0.3%	0.0%
Bus/Train	0	27	0	27	2.1%	1.8%
Taxi	0	0	0	0	0.0%	0.2%
Car Driver/Motorcycle	689	44	0	733	56.0%	68.6%
Car Passenger	471	28	0	499	38.1%	27.8%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	32	0	32	2.5%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>1,160</b>	<b>145</b>	<b>4</b>	<b>1,309</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	88.6%	11.1%	0.3%	100%		
2006 Distribution	89.1%	10.9%	0.0%	100%		

Table 7-22 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Egress mode shares are similar to the access mode shares.

**Table 7-22. Fauntleroy–Southworth egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	2	0	2	0.2%	4.6%
Biked	5	0	3	8	0.7%	2.3%
Bus/Train	2	74	0	76	6.5%	6.4%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	698	39	2	739	63.5%	65.6%
Car Passenger	277	13	0	291	25.0%	21.1%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	2	0	2	0.2%	
Dropped Off	9	36	1	47	4.0%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>991</b>	<b>166</b>	<b>7</b>	<b>1,164</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	85.1%	14.3%	0.6%	100%		
2006 Distribution	80.7%	17.5%	1.8%	100%		
<b>Saturday</b>						
Walked	0	26	0	26	2.0%	2.4%
Biked	2	0	0	2	0.1%	0.0%
Bus/Train	0	18	0	18	1.3%	1.2%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	681	8	4	693	52.9%	70.1%
Car Passenger	474	32	0	506	38.7%	26.3%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	3	0	3	0.2%	
Dropped Off	3	58	0	61	4.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>1,160</b>	<b>145</b>	<b>4</b>	<b>1,309</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	88.6%	11.1%	0.3%	100%		
2006 Distribution	89.3%	10.7%	0.0%	100%		

Table 7-23, Table 7-24, and Table 7-25 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For walk-on boardings on the weekday, the percentage of travelers leaving the destination terminal on foot was lower than the percentage arriving at the origin terminal on foot. The reverse was true on Saturdays.

**Table 7-23. Fauntleroy–Southworth trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (15.9% of total boardings)					
Pedestrian	7.1%	Pedestrian	95.1%	Pedestrian	1.4%
Bicycle	3.9%	Pedestrian w/ Bicycle	4.9%	Bicycle	2.5%
By Bus/Transit	49.0%			By Bus/Transit	41.6%
By Vehicle	25.8%			By Vehicle	53.1%
Vanpool	12.8%			Vanpool	0.0%
Carshare	1.4%			Carshare	1.4%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (84.1% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	67.1%	In-Vehicle	100.0%
		Vehicle Passengers	32.9%		

Note: Average vehicle occupancy (AVO) was 1.49 for the weekday PM peak period.

**Table 7-24. Fauntleroy–Southworth trips by access mode to ferry—boarding method—egress mode from ferry, Weekday Non-PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (11.8% of total boardings)					
Pedestrian	13.9%	Pedestrian	100.0%	Pedestrian	0.0%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	27.8%			By Bus/Transit	47.2%
By Vehicle	58.3%			By Vehicle	52.8%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (88.2% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	81.3%	In-Vehicle	100.0%
		Vehicle Passengers	18.7%		

Note: Average vehicle occupancy (AVO) was 1.23 for the weekday non-PM peak period.

**Table 7-25. Fauntleroy–Southworth trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

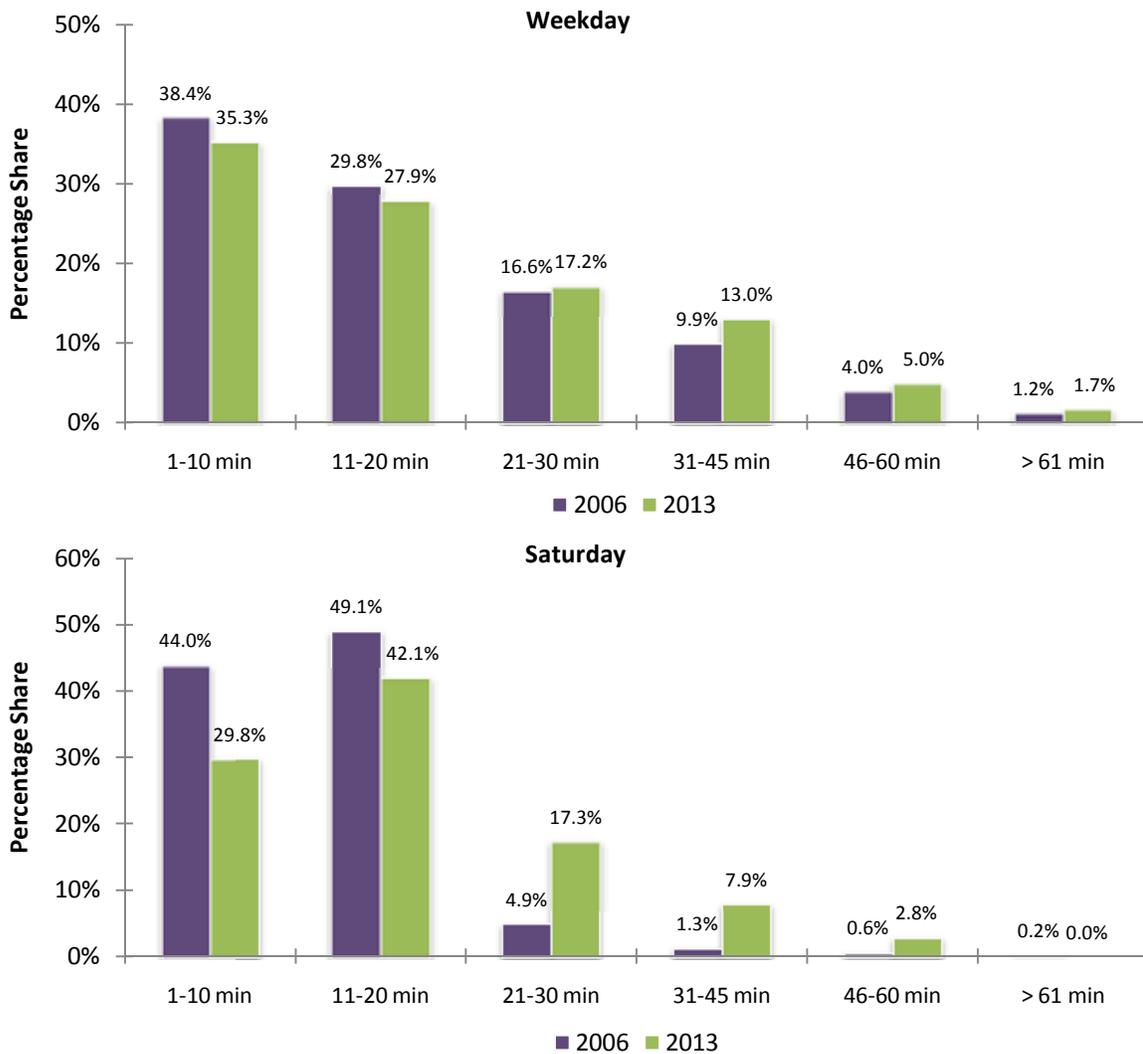
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (11.4% of total boardings)					
Pedestrian	9.1%	Pedestrian	97.4%	Pedestrian	17.6%
Bicycle	2.6%	Pedestrian w/ Bicycle	2.6%	Bicycle	0.0%
By Bus/Transit	18.3%			By Bus/Transit	11.8%
By Vehicle	70.0%			By Vehicle	68.6%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	2.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (88.6% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	59.4%	In-Vehicle	100.0%
		Vehicle Passengers	40.6%		

*Note: Average vehicle occupancy (AVO) was 1.68 for the Saturday survey period.*

### 7.3.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 7-30 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 20 percent of weekday ferry passengers waited for more than 30 minutes, which was an increase from 2006 when 15 percent of weekday riders waited for more than 30 minutes. A similar trend was seen on Saturdays, with 11 percent of ferry passengers waiting for more than 30 minutes in 2013 compared with 2 percent in 2006.

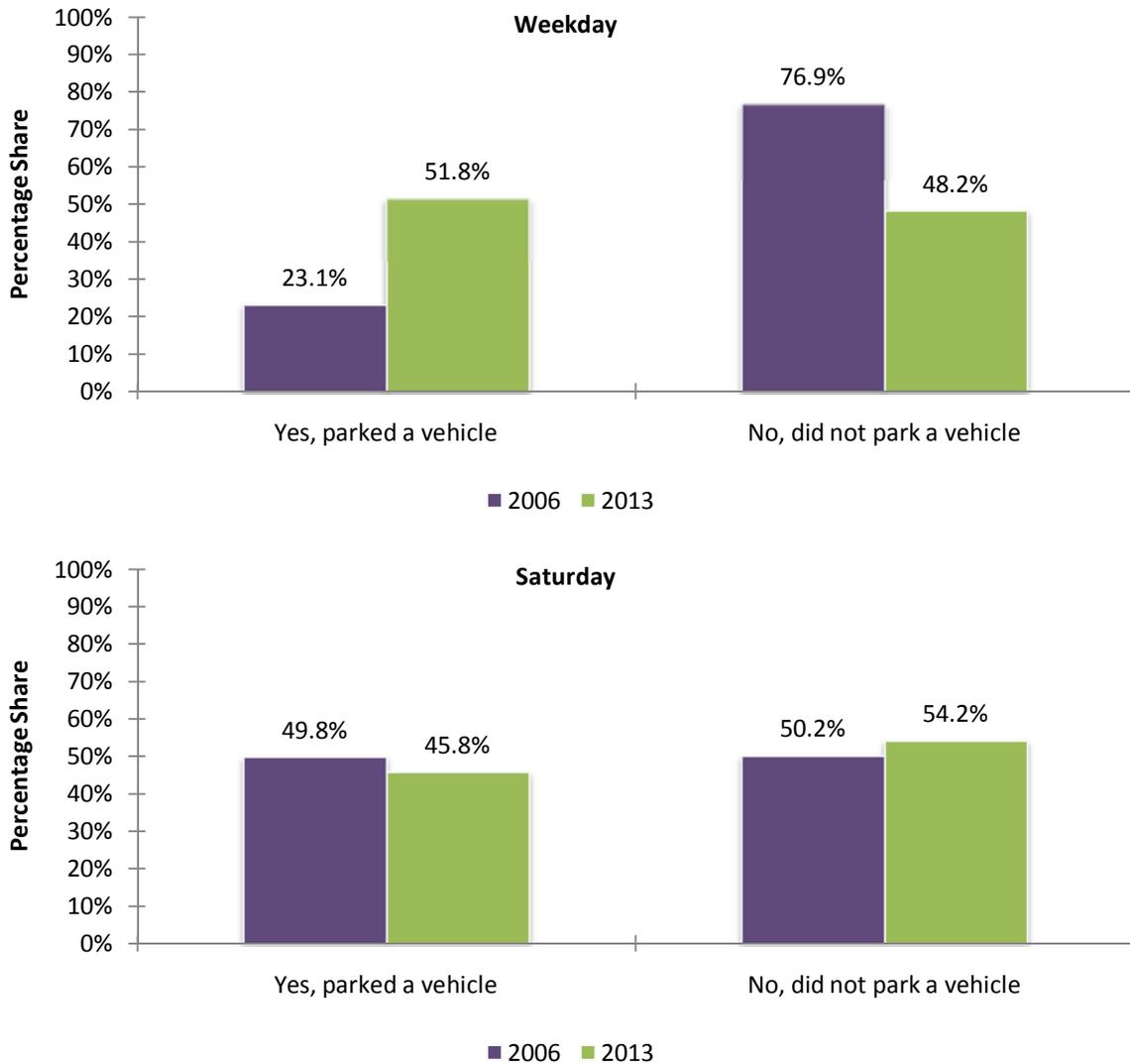
**Figure 7-30. Fauntleroy–Southworth trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.3.7 Parking

Figure 7-31 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 52 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with only 23 percent in 2006. On Saturdays, those who parked a vehicle decreased slightly from 50 percent to 46 percent.

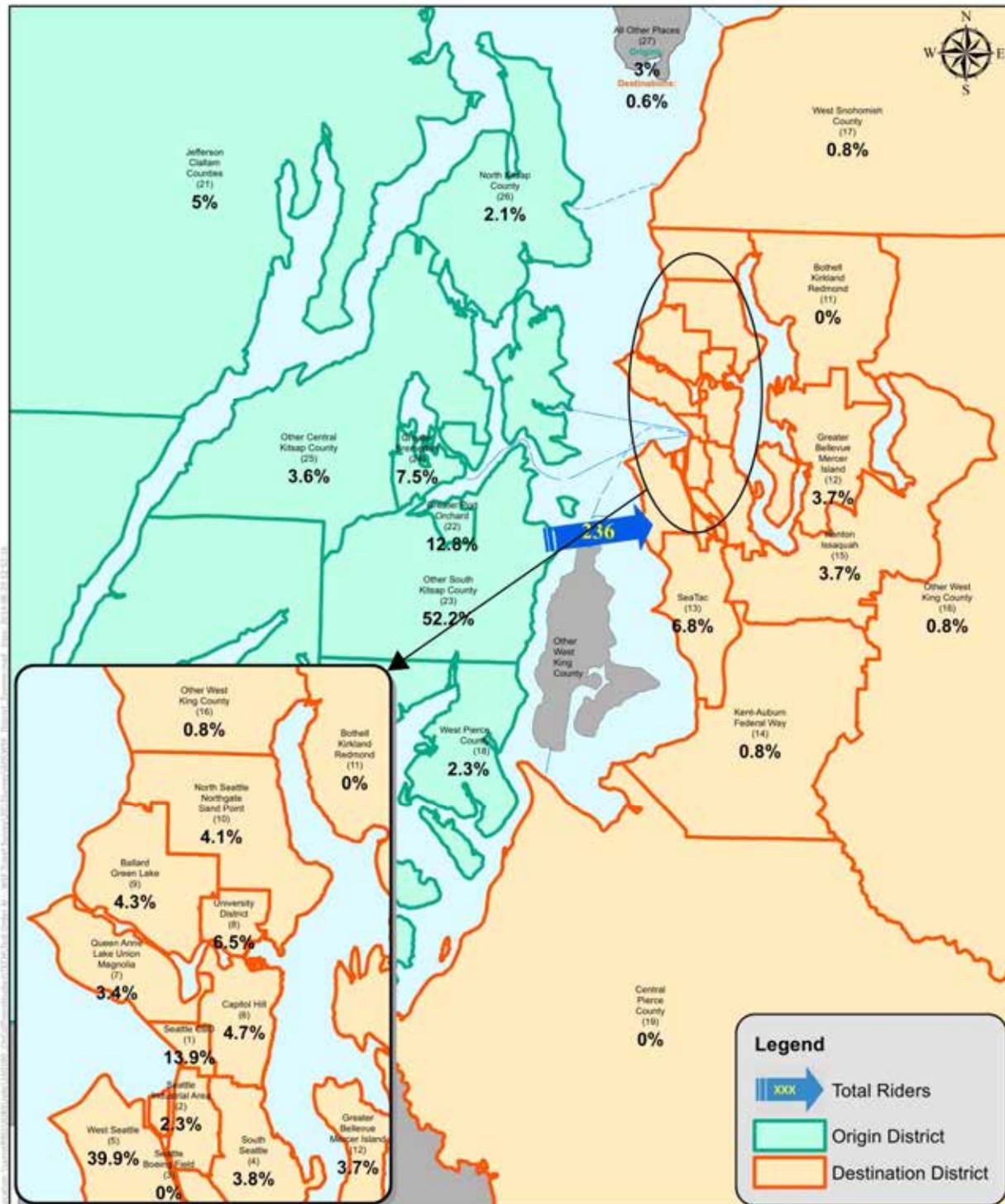
**Figure 7-31. Fauntleroy–Southworth non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.3.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 7-32 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 7-26. The major origins were South Kitsap County, Greater Port Orchard, and Mason County, while the major destinations were West Seattle and the Seattle CBD. Origin and destination locations by boarding mode are shown in Figure 7-33. Origin and destination locations were dispersed.

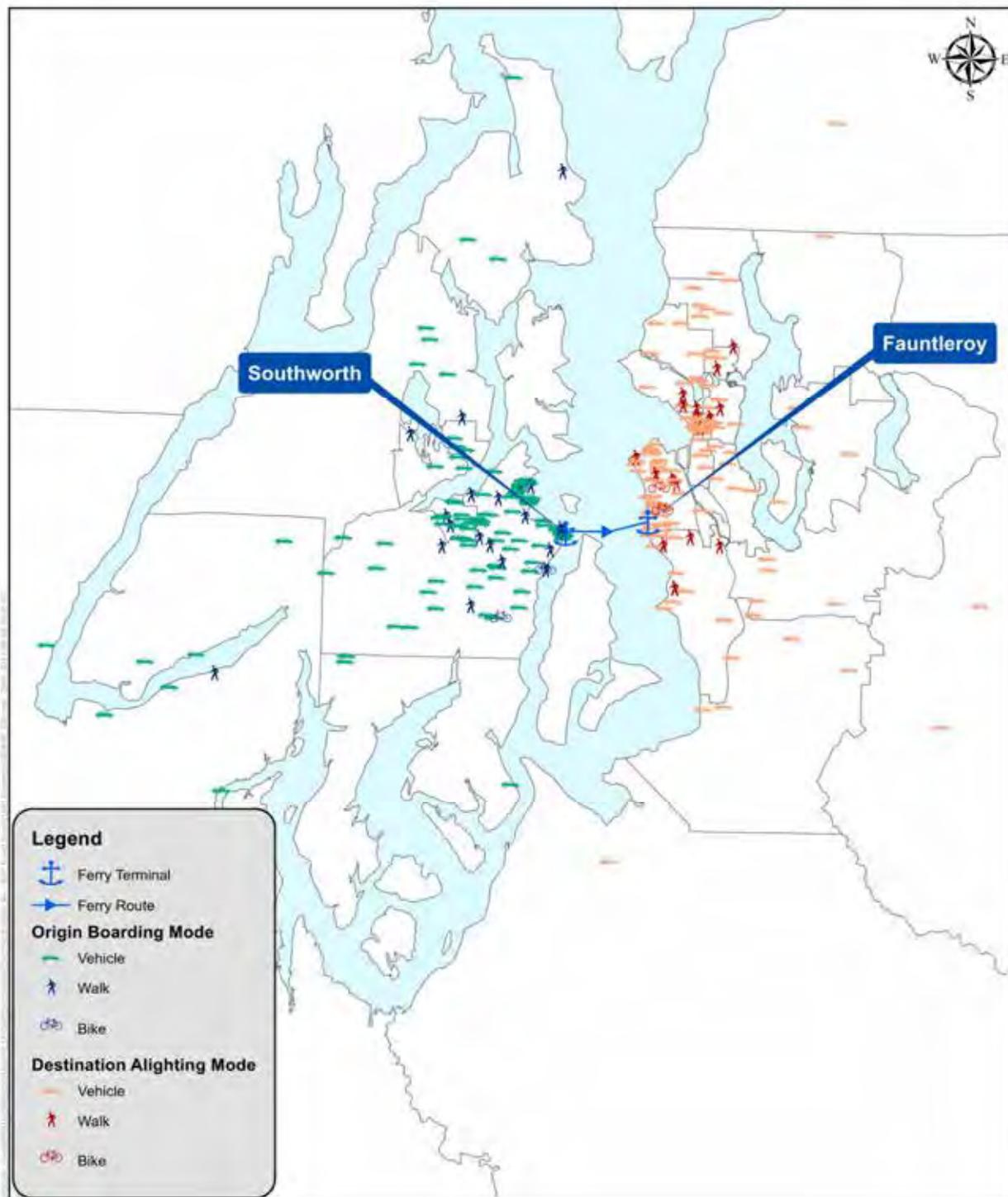
Figure 7-32. Fauntleroy–Southworth eastbound origin and destination districts, weekday PM peak period



**Table 7-26. Fauntleroy–Southworth eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►															Origin Total	Origin Percent Share	
		Seattle CBD	Seattle Industrial Area	S Seattle	W Seattle	Capitol Hill	Queen Anne-Lake Union / Magnolia	University District	Ballard-Green Lake	N Seattle / Ngate / Sand Point	Greater Bellevue / Mercer Island	SeaTac	Kent-Auburn / Federal Way	Renton / Issaquah	Other W King Co.	W Snohomish Co.			All Other Places_E
		1	2	4	5	6	7	8	9	10	12	13	14	15	16	17	27		
W Pierce Co.	18	2			4													5	2.3%
Mason Co.	20			5	2		2	14	2	1		1						27	11.5%
Jefferson/Clallam Counties	21				7							5						12	5.0%
Greater Port Orchard	22	4	2		11	4	1		4			2		2		2		30	12.8%
Other S Kitsap Co.	23	27	4	4	49	5		1	5	9	9	6	2	2			1	123	52.2%
Greater Bremerton	24				10	3	5											18	7.5%
Other Central Kitsap Co.	25				7							1						9	3.6%
N Kitsap Co.	26				5													5	2.1%
All Other Places_E	27													5	2			7	3.0%
Destination Total		33	5	9	94	11	8	15	10	10	9	16	2	9	2	2	1	236	100%
Destination Percent Share		13.9%	2.3%	3.8%	39.9%	4.7%	3.4%	6.5%	4.3%	4.1%	3.7%	6.8%	0.8%	3.7%	0.8%	0.8%	0.6%	100%	

Figure 7-33. Fauntleroy–Southworth eastbound origin and destination locations by boarding mode, Weekday 8-hour Survey Period



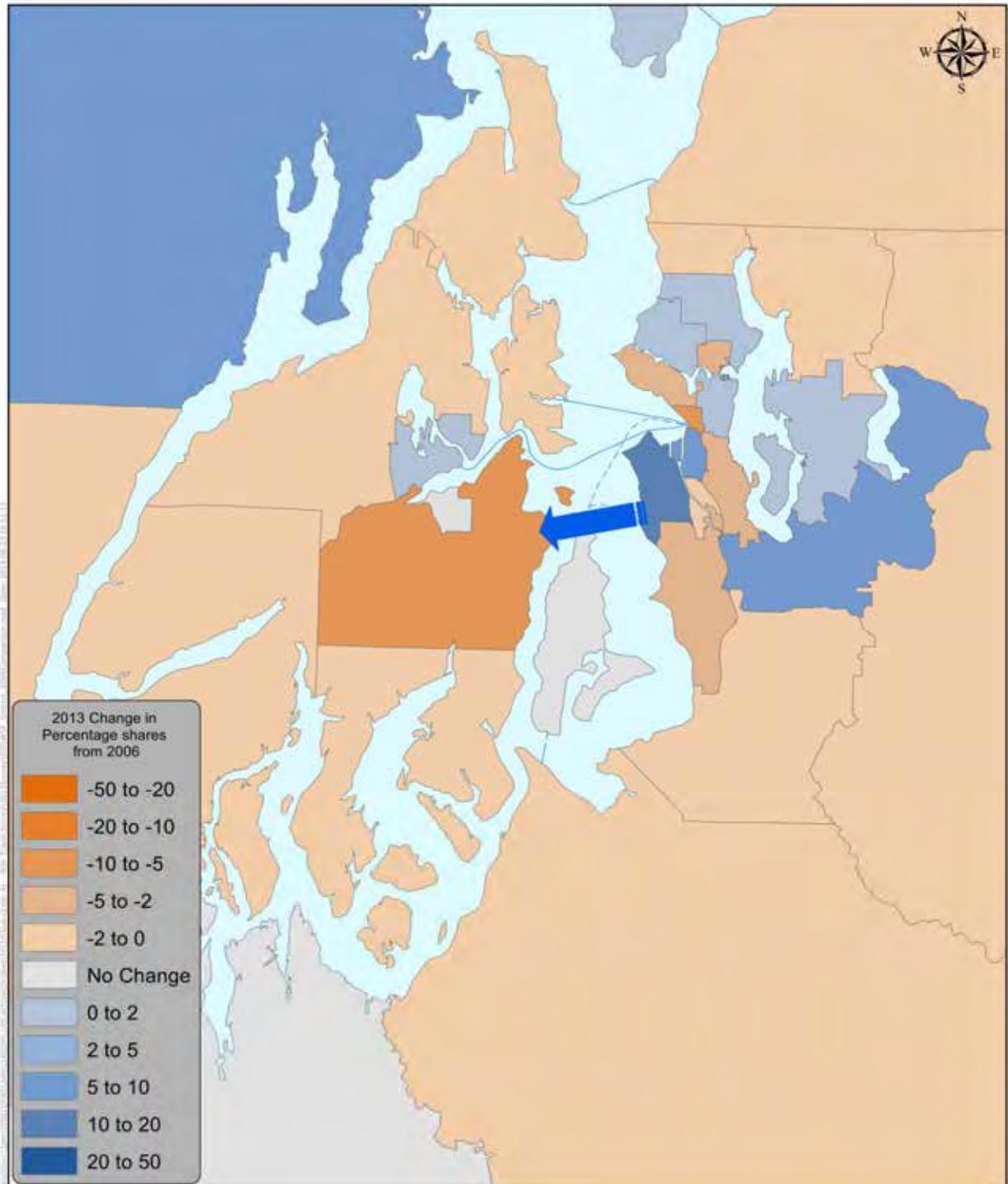
### 7.3.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 7-34 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 7-27. The major origins were the Seattle CBD, West Seattle, and the Seattle Industrial Area, while primary destinations were South Kitsap County and Jefferson/Clallam Counties. Figure 7-35 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, a larger percentage of trips originate in West Seattle and Renton/Issaquah compared with 2006, while a smaller percentage of trips end in South Kitsap County.

Origin and destination locations by boarding mode are shown in Figure 7-36. Walk boarding origins were concentrated in the Seattle CBD, while the walk-off destinations were fairly dispersed.



Figure 7-35. Fauntleroy–Southworth change in westbound travel patterns from 2006, weekday PM peak period

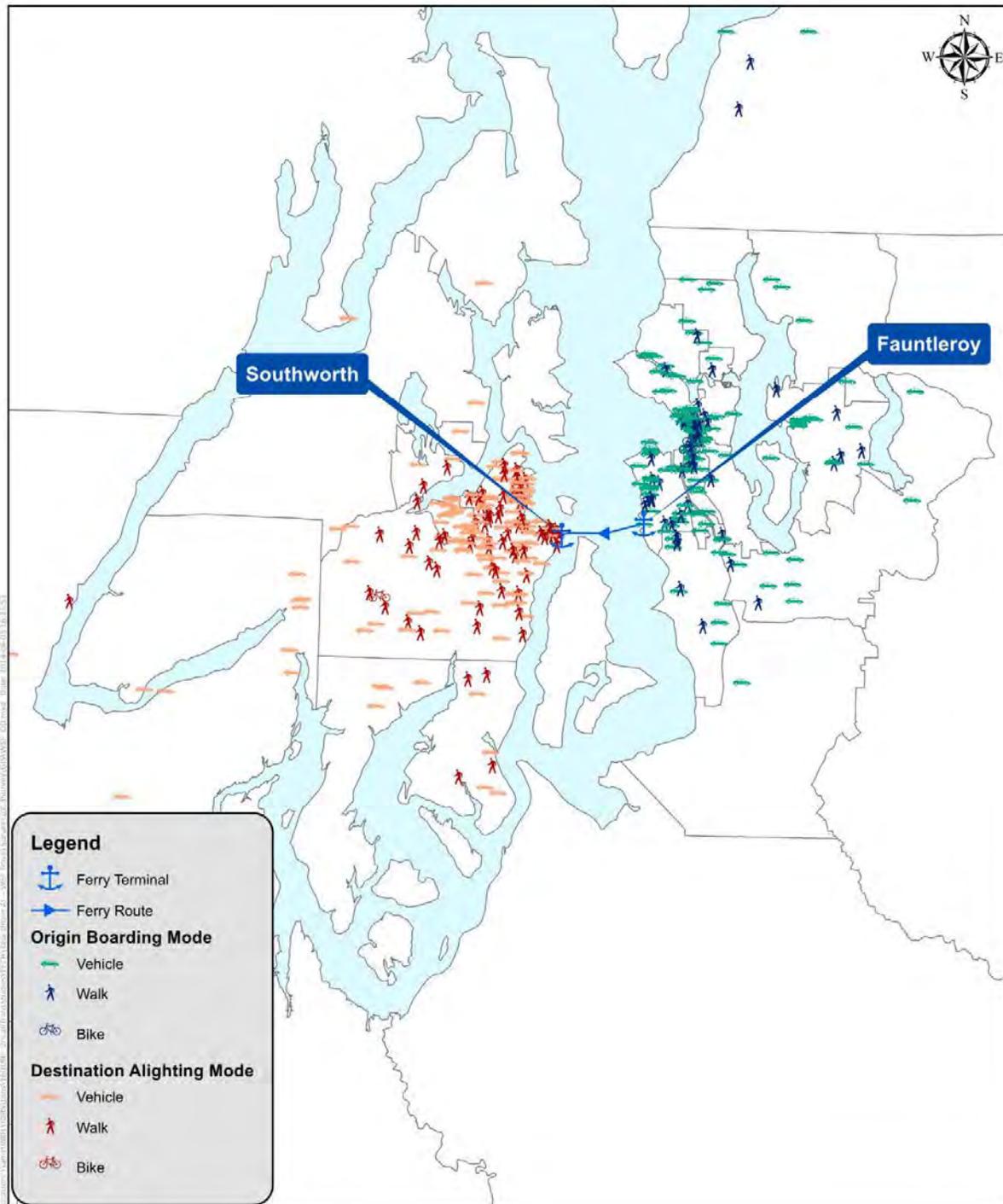




**Table 7-27. Fauntleroy–Southworth westbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ▶		W Pierce Co.	Mason Co.	Jefferson / Clallam Counties	Greater Port Orchard	Other S Kitsap Co.	Greater Bremerton	Other Central Kitsap Co.	Origin Total	Origin Percent Share
				18	20	21	22	23	24	25		
Seattle CBD	1	9	4					111	5		128	20.5%
Seattle Industrial Area	2		7				11	78			97	15.5%
Seattle Boeing Field	3							18			18	2.9%
S Seattle	4						4	10			14	2.2%
W Seattle	5	4		39			4	69	2		117	18.8%
Capitol Hill	6			17			8	6			31	5.0%
Queen Anne-Lake Union / Magnolia	7	4		8			4	18			34	5.5%
University District	8							2			2	0.3%
Ballard-Green Lake	9		12				4	7	4		27	4.2%
N Seattle / Ngate / Sand Point	10							7		5	12	1.9%
Bothell-Kirkland / Redmond	11		4					4			7	1.2%
Greater Bellevue / Mercer Island	12	2					4	35			41	6.6%
SeaTac	13		4					19			22	3.6%
Kent-Auburn / Federal Way	14							4			4	0.6%
Renton / Issaquah	15	7					8	43			59	9.4%
W Snohomish Co.	17							8			8	1.2%
All Other Places	27							4			4	0.6%
Destination Total		26	30	64	46	443	10	5			624	100.0%
Destination Percent Share		4.1%	4.8%	10.3%	7.3%	71.0%	1.6%	0.7%			100%	

**Figure 7-36. Fauntleroy–Southworth westbound origin and destination locations by boarding mode, Weekday 8-hour Survey Period**

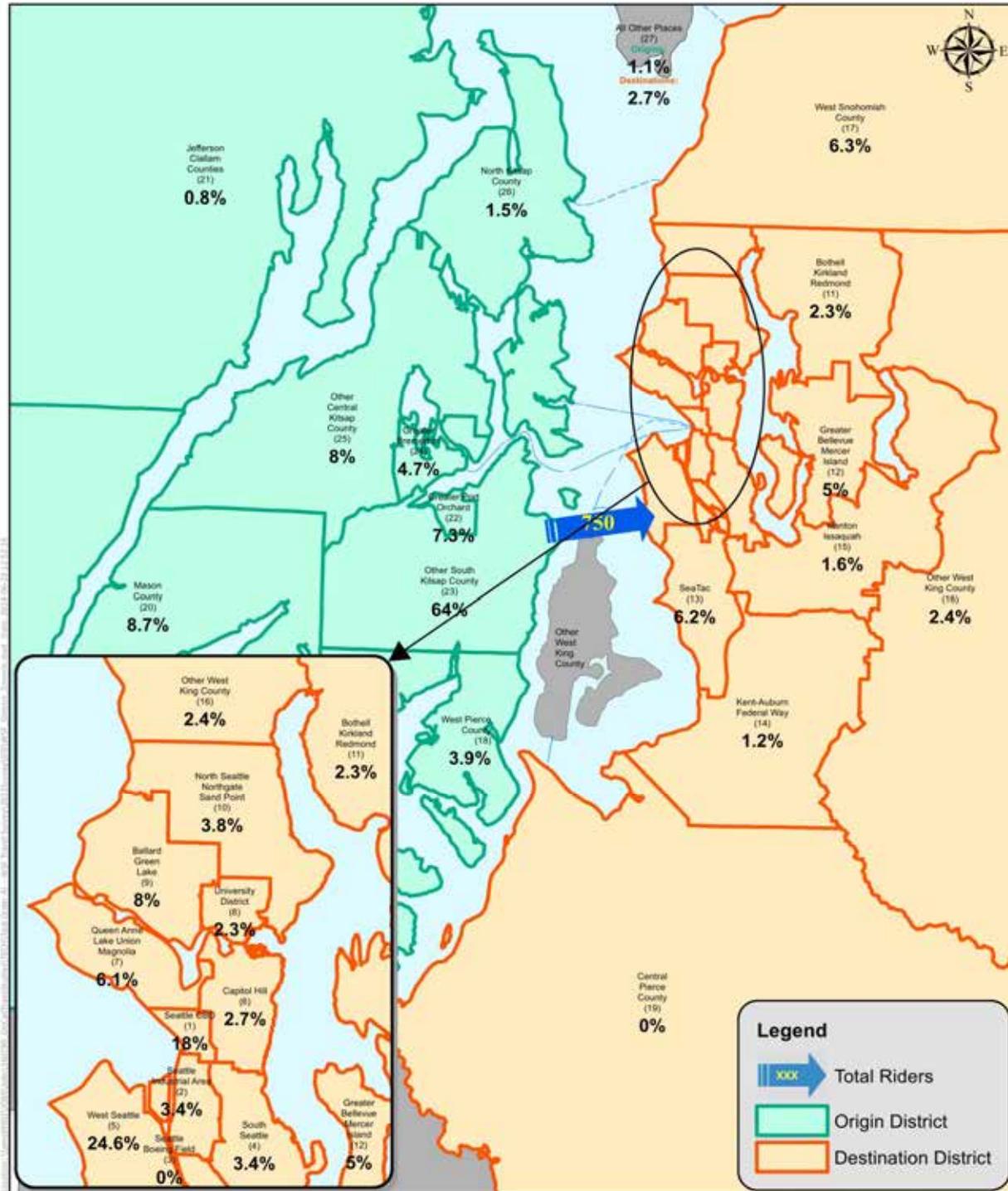


**7.3.10 Saturday Travel Patterns—Eastbound**

Figure 7-37 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 7-28. The major origins were South Kitsap County,

Mason County, and Central Kitsap County, while the major destinations were West Seattle, the Seattle CBD, and Ballard–Green Lake. Origin and destination locations by boarding mode are shown in Figure 7-38. Origin and destination locations were dispersed.

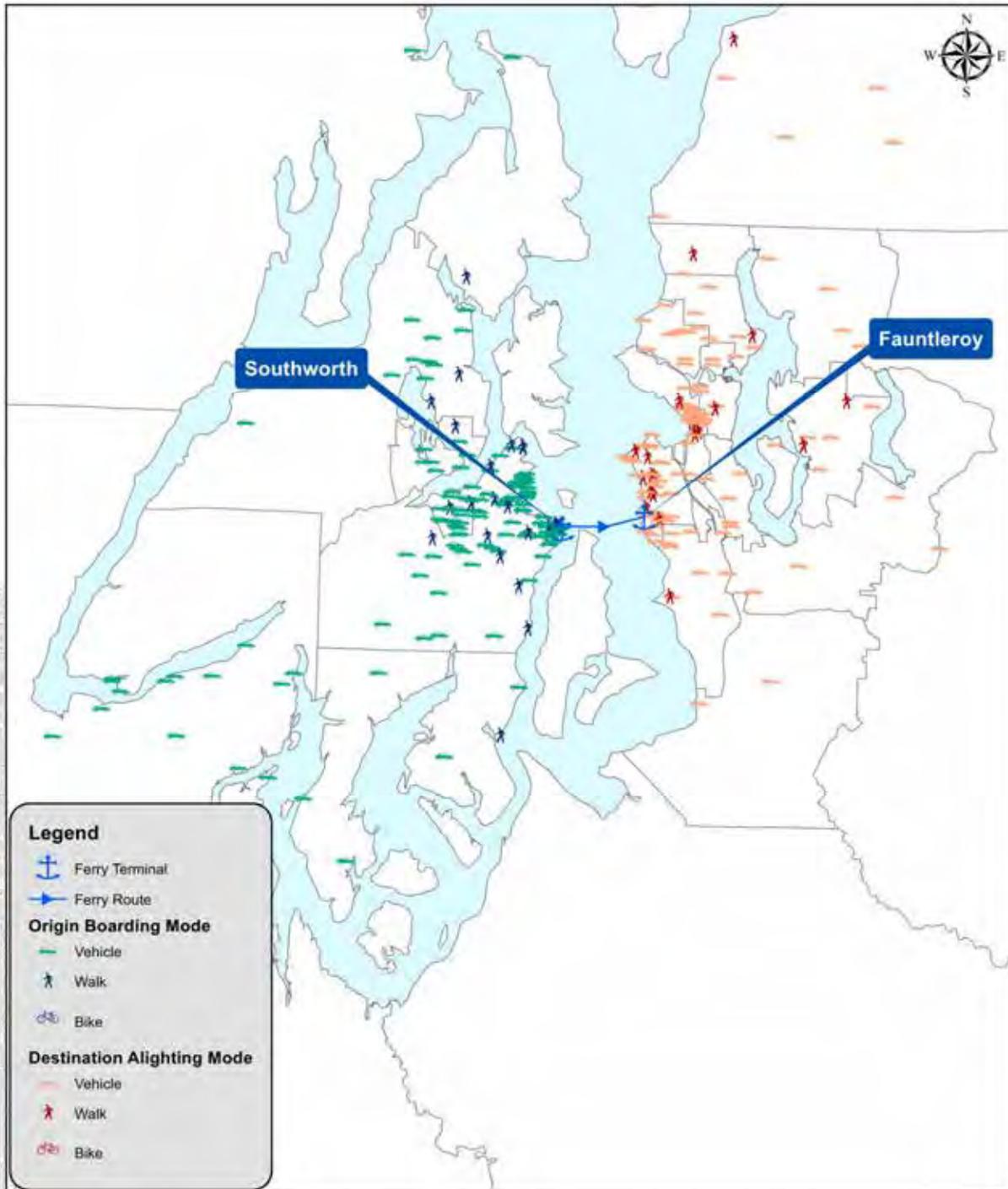
**Figure 7-37. Fauntleroy–Southworth eastbound origin and destination districts, Saturday survey period**



**Table 7-28. Fauntleroy–Southworth eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ▶		Destination District																	Origin Total	Origin Percent Share
				Seattle CBD	Seattle Industrial Area	S Seattle	W Seattle	Capitol Hill	Queen Anne-Lake Union / Magnolia	University District	Ballard-Green Lake	N Seattle / Ngate / Sand Point	Bothell / Kirkland / Redmond	Greater Bellevue / Mercer Island	SeaTac	Kent-Auburn / Federal Way	Renton / Issaquah	Other W King Co.	W Snohomish Co.	All Other Places_E		
		1	2	4	5	6	7	8	9	10	11	12	13	14	15	16	17	27				
W Pierce Co.	18				3		11	3					3	9					29	3.9%		
Mason Co.	20	11		9	21		3		3	3	11		3						65	8.7%		
Jefferson / Clallam Counties	21				6														6	0.8%		
Greater Port Orchard	22	12			12		6	3	3	3		6		3		6			55	7.3%		
Other S Kitsap Co.	23	97	25	11	76	20	26	11	48	11	6	23	28	6	12	12	48	20	480	64.0%		
Greater Bremerton	24	3			15				6	3		6	3						35	4.7%		
Other Central Kitsap Co.	25	11			37				8				3						60	8.0%		
N Kitsap Co.	26			6	6														12	1.5%		
All Other Places_E	27				8														8	1.1%		
Destination Total		135	25	26	184	20	46	17	60	29	18	38	46	9	12	18	48	20	750	100%		
Destination Percent Share		18.0%	3.4%	3.4%	24.6%	2.7%	6.1%	2.3%	8.0%	3.8%	2.3%	5.0%	6.2%	1.2%	1.6%	2.4%	6.3%	2.7%	100%			

Figure 7-38. Fauntleroy–Southworth eastbound origin and destination locations by boarding mode, Saturday survey period



### 7.3.11 Saturday Travel Patterns—Westbound

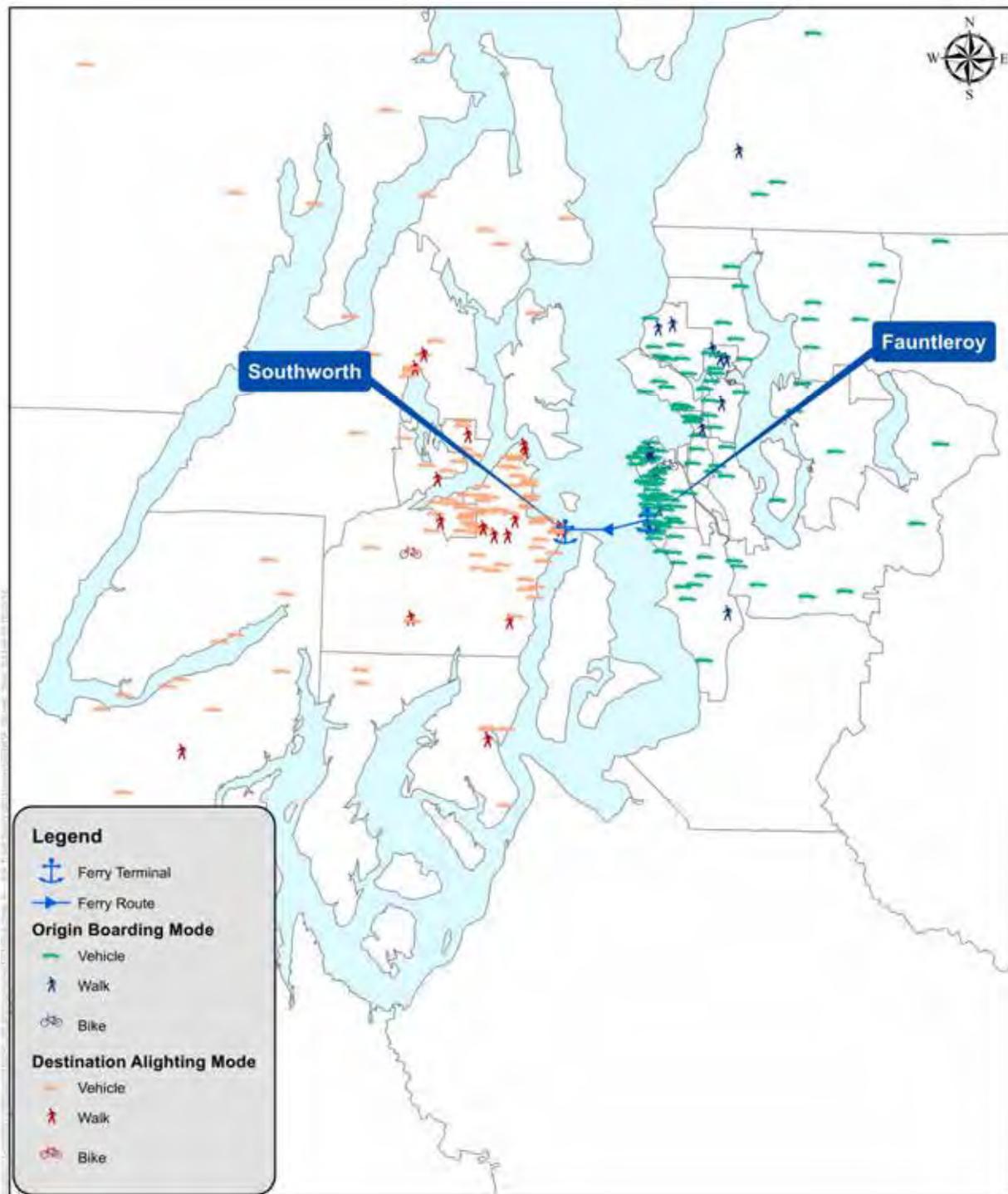
Figure 7-39 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 7-29. The major origin with more than 40 percent of trips was West Seattle, while primary destinations were South Kitsap County, Mason County, Greater Port Orchard, and Central Kitsap County. Origin and destination locations by boarding mode are shown in Figure 7-40. Origin and destination locations were dispersed.



**Table 7-29. Fauntleroy–Southworth westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►		Origin District							Origin Total Origin Percent Share			
				W Pierce Co.	Mason Co.	Jefferson / Clallam Counties	Greater Port Orchard	Other S Kitsap Co.	Greater Bremerton	Other Central Kitsap Co.			N Kitsap Co.	All Other Places_W
				18	20	21	22	23	24	25	26	28		
Seattle CBD	1	4			8	6						4	22	3.9%
Seattle Industrial Area	2						6			2			8	1.5%
S Seattle	4						11	2					13	2.4%
W Seattle	5	16	39	49	2	46	18	41	22				235	42.0%
Capitol Hill	6		2	2		14							18	3.3%
Queen Anne-Lake Union/Magnolia	7					35							35	6.3%
University District	8	4	2		12	10							28	4.9%
Ballard-Green Lake	9		6		4	18							28	5.1%
N Seattle / Ngate / Sand Point	10		4		4	10							18	3.2%
Bothell-Kirkland / Redmond	11		4		8	16							28	5.0%
Greater Bellevue / Mercer Island	12					10							10	1.8%
SeaTac	13		2			16	7	9					34	6.1%
Renton / Issaquah	15			4	8	12	8						31	5.6%
Other W King Co.	16		4		4								8	1.4%
W Snohomish Co.	17		6			8							14	2.5%
All Other Places	27				8	14	6						28	5.0%
Destination Total		24	70	56	57	234	40	53	22	4			559	100.0%
Destination Percent Share		4.3%	12.5%	9.9%	10.2%	41.8%	7.2%	9.5%	3.9%	0.7%			100%	

Figure 7-40. Fauntleroy–Southworth westbound origin and destination locations by boarding mode, Saturday survey period



## 7.4 Southworth–Vashon

### 7.4.1 Route Description

The Southworth–Vashon route connects Southworth on the Kitsap Peninsula and the northern tip of Vashon Island. It takes 10 minutes to ride this ferry route one way. The crossing is approximately 1.6 nautical miles. For 2013, the annual total ridership was about 80,000 passengers plus 100,000 vehicles and drivers for a total of 180,000 people, or about 500 riders per day. This compares to 500 riders per day in 2006 and 900 riders per day in 1999. The route is served by 22 sailings per day in each direction. The fare in October 2013 for a vehicle 14 to 22 feet including driver was \$17.25. The full fare for passengers was \$5.10.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 7.4.2 Trips by Purpose

As shown in Table 7-30, the most frequent weekday trip purpose is work/school with a slight decrease from 81 percent in 2006 to 78 percent in 2013. Recreation/shopping is the predominant trip purpose for Saturday trips. There was a significant difference between westbound (83 percent) and eastbound (17 percent) trips on weekdays; this is a big change from 2006 when they were well balanced. Saturday directional trips are distributed rather evenly.

**Table 7-30. Southworth–Vashon trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	39	14	23	75	16.7%	50.1%
Westbound	310	32	31	373	83.3%	49.9%
Total	348	46	54	448	100%	100%
2013 Distribution	77.8%	10.2%	12.0%	100%		
2006 Distribution	80.7%	10.1%	9.3%	100%		
<b>Saturday</b>						
Eastbound	40	32	69	141	57.6%	N/A
Westbound	40	25	40	104	42.4%	N/A
Total	80	57	108	245	100%	
2013 Distribution	32.5%	23.3%	44.2%	100%		
2006 Distribution	N/A	N/A	N/A			

### 7.4.3 Frequency of Travel

Table 7-31 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. The highest percentage category for weekday riders was those who use the ferry fairly frequently (seven to eight times per week), at 29 percent. This represents a shift from the category of nine to ten times per week, which had the highest percentage in 2006.

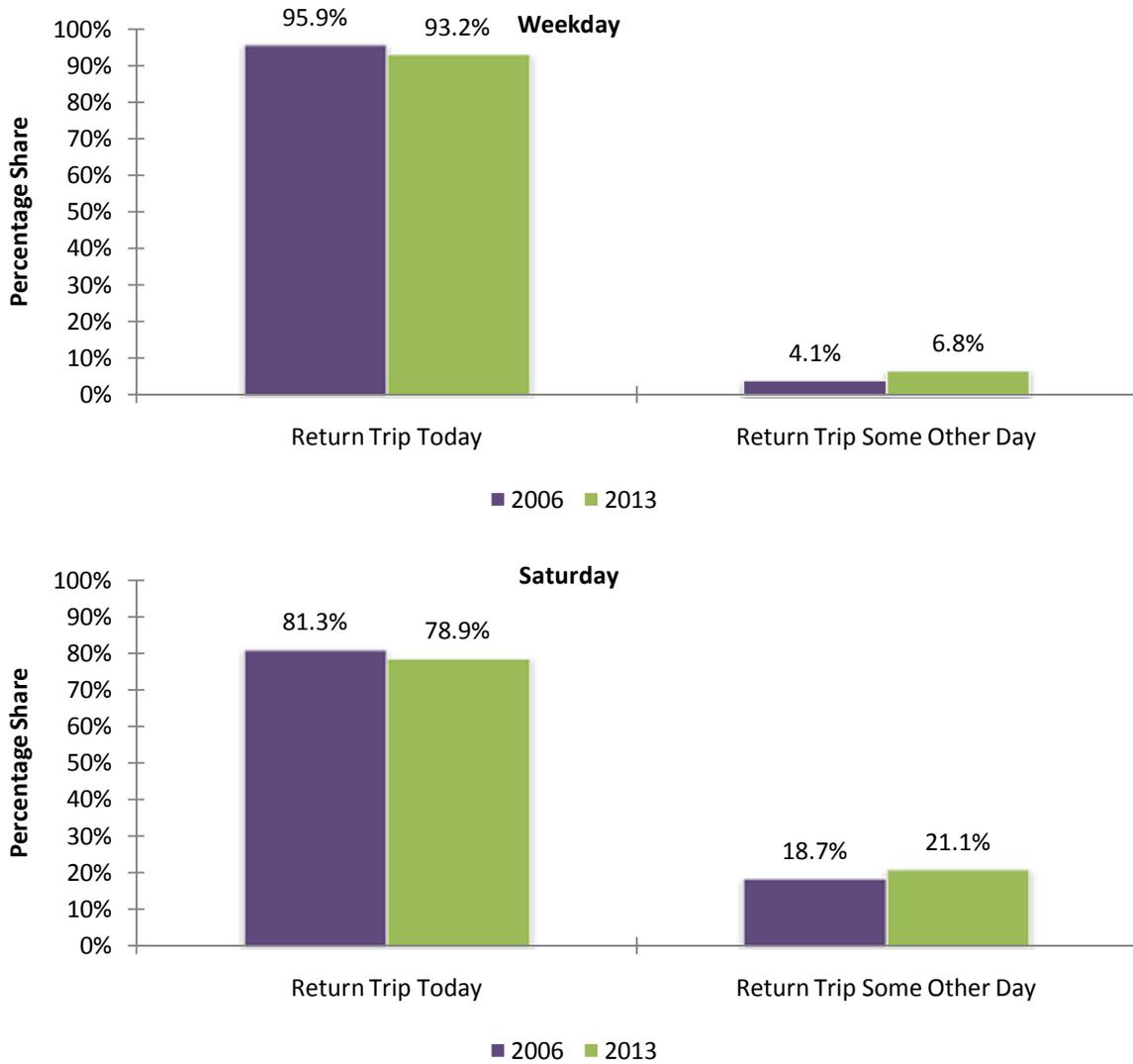
**Table 7-31. Southworth–Vashon one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	0	0	23	23	5.4%	0.2%	0.0%	0.3%
2	8	0	24	31	7.4%	0.5%	2.3%	0.6%
3 to 4	17	25	4	45	10.7%	11.9%	5.2%	1.7%
5 to 6	48	4	0	52	12.3%	28.8%	14.8%	23.3%
7 to 8	120	2	0	122	28.9%	4.3%	37.2%	5.5%
9 to 10	64	15	4	83	19.7%	36.5%	19.8%	46.3%
11+	67	0	0	67	15.8%	17.8%	20.7%	22.4%
Total	322	46	54	422	100%	100%	100%	100%
2013 Distribution	76.4%	10.9%	12.8%	100%				
2006 Distribution	78.4%	11.3%	10.4%	100%				
<b>Saturday</b>								
1	22	6	37	65	30.2%	N/A		
2	0	4	25	29	13.5%	N/A		
3 to 4	6	26	12	44	20.4%	N/A		
5 to 6	23	4	18	45	20.9%	N/A		
7 to 8	10	0	0	10	4.6%	N/A		
9 to 10	6	2	6	14	6.6%	N/A		
11+	2	6	0	8	3.8%	N/A		
Total	70	47	98	215	100%			
2013 Distribution	32.4%	21.9%	45.7%	100%				
2006 Distribution	N/A	N/A	N/A					

### 7.4.4 Round-Trip Patterns

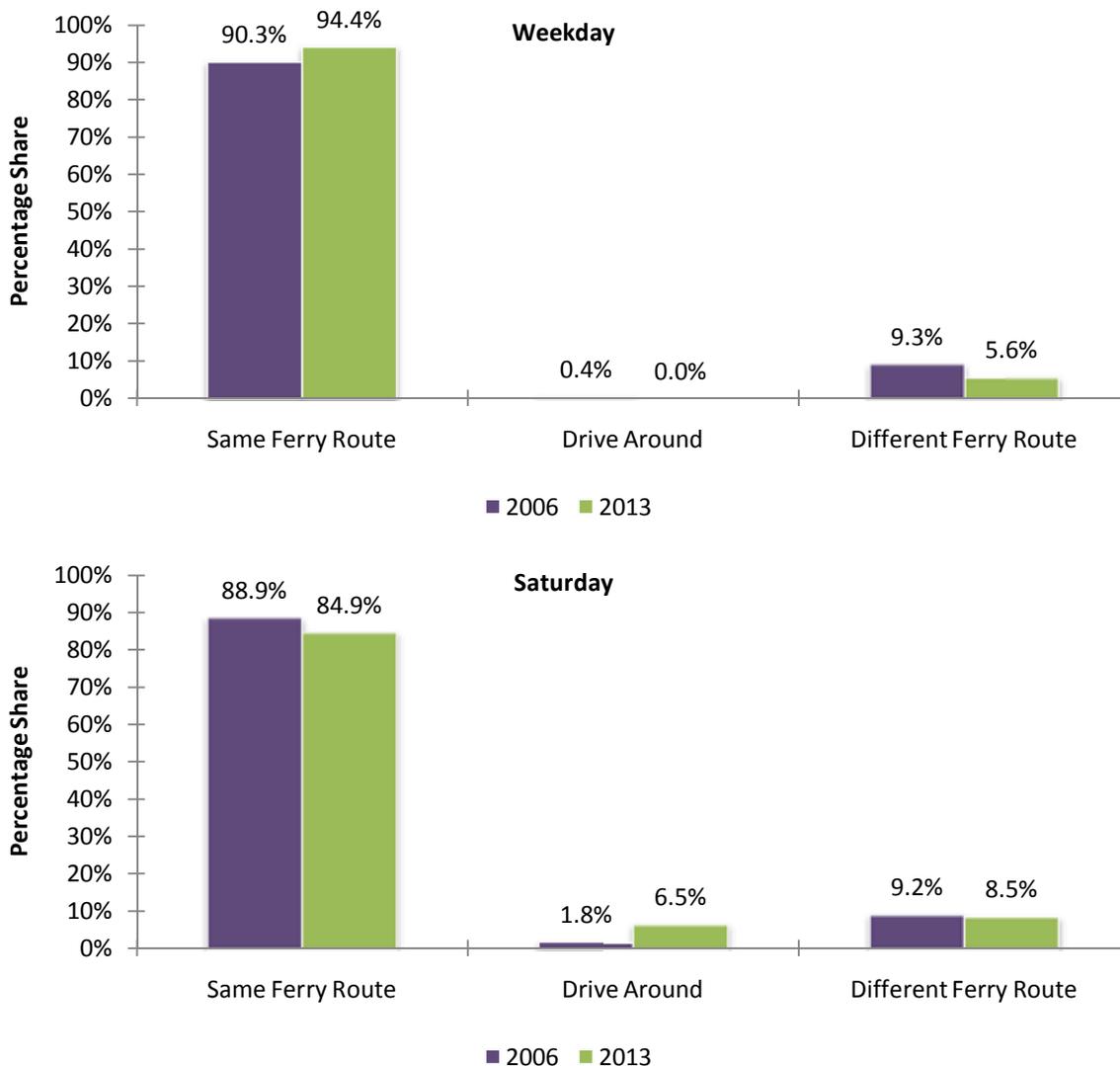
As shown in Figure 7-41, the percentage of weekday ferry travelers making a round-trip on the same day versus some other day was similar to 2006, with a slight decrease from 96 percent in 2006 to 93 percent in 2013. A similar trend on Saturdays shows a slight decrease in same-day round-trips from 81 percent in 2006 to 79 percent in 2013.

**Figure 7-41. Southworth–Vashon round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**



As shown in Figure 7-42, the vast majority (over 94 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers, although there are inverse trends from 2006 to 2013, with an increase on the weekday and a decrease on Saturdays.

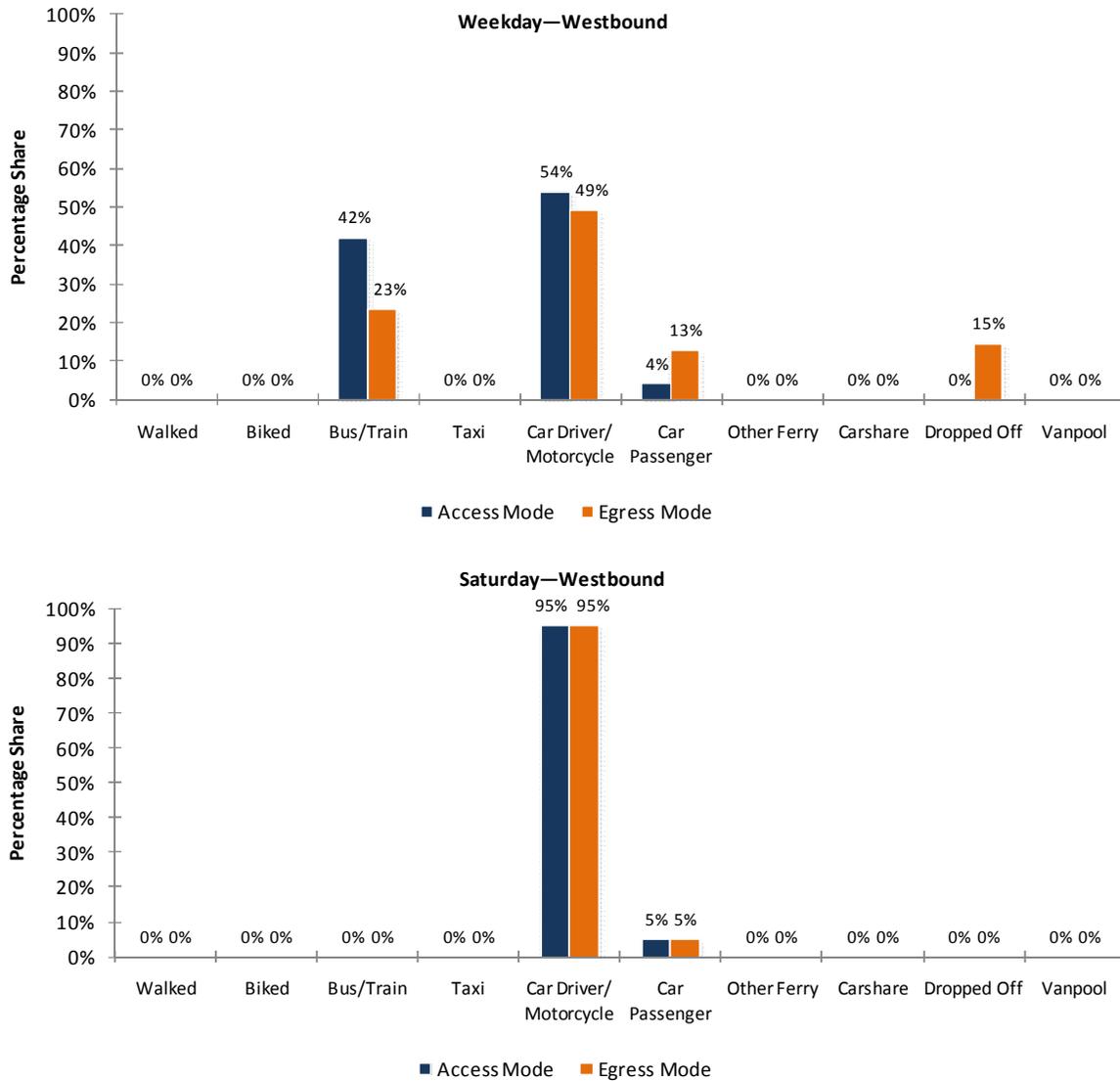
**Figure 7-42. Southworth–Vashon round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.4.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the primary mode of access and egress for the majority of westbound travelers, as shown in Figure 7-43. On weekdays, 54 percent of ferry travelers drove to the ferry, and an additional 4 percent were passengers in a private vehicle. However, in contrast with many of the other routes in the system, a relatively high percentage of riders also used transit to access and egress the terminal (42 percent and 23 percent, respectively). On Saturdays, an extremely high percentage of riders (95 percent) drove a car to access and egress the terminal

**Figure 7-43. Southworth–Vashon westbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant eastbound mode of access and egress in 2013, as shown in Figure 7-44. On weekdays, 81 percent of ferry travelers drove to the ferry, and an additional 8 percent were passengers in a private vehicle. Leaving the ferry, 85 percent were drivers while 8 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays. Walk access on Saturdays was higher than the weekday walk access, at 16 percent.

**Figure 7-44. Southworth–Vashon eastbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

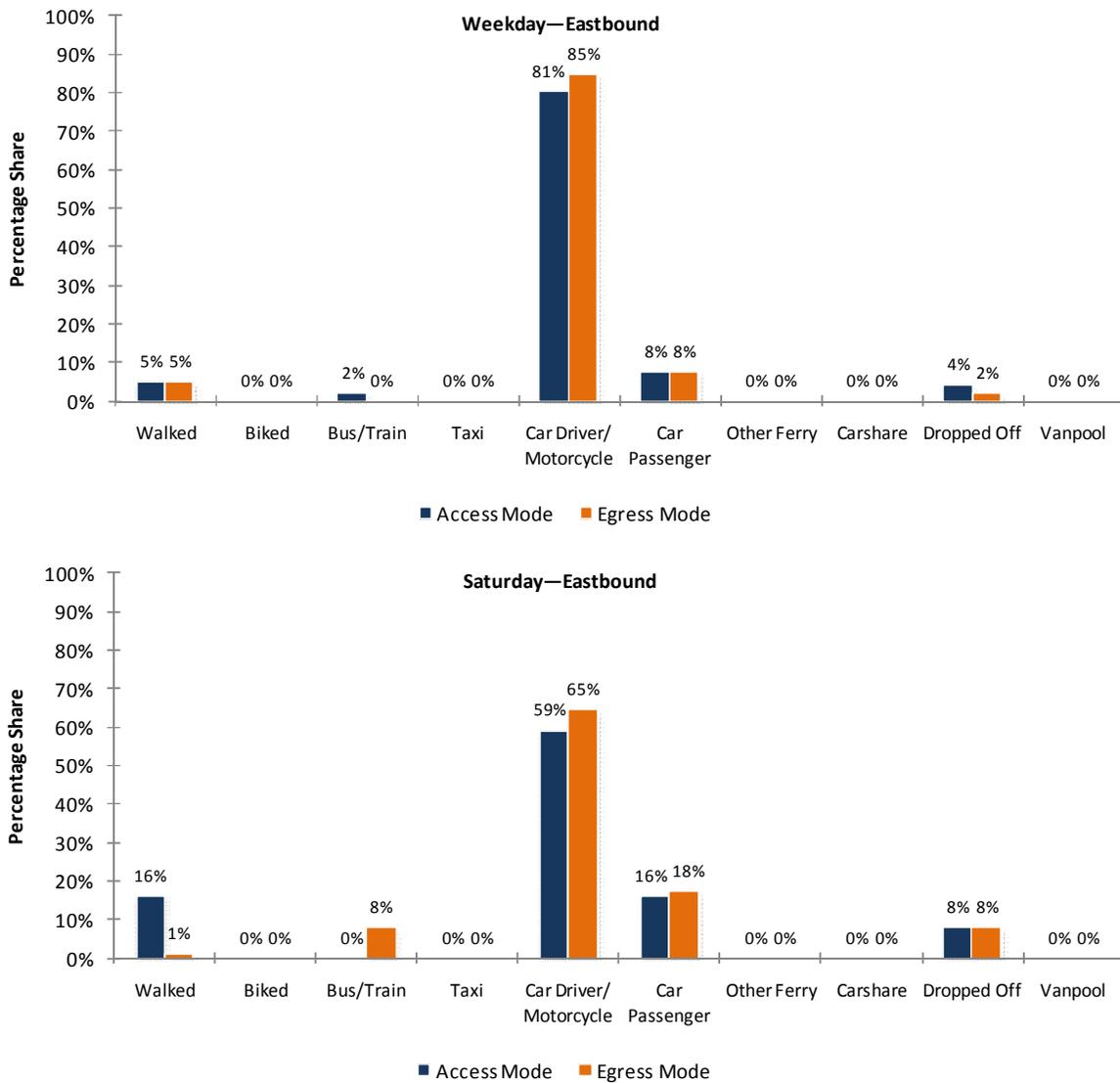


Table 7-32 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 62 percent and 81 percent of boardings on weekdays and Saturdays, respectively. On weekdays, the walk-on share of boardings increased from 21 percent to 38 percent between 2006 and 2013.

**Table 7-32. Southworth–Vashon access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	4	0	4	0.9%	1.2%
Biked	0	0	0	0	0.0%	0.0%
Bus/Train	0	159	0	159	35.3%	0.0%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	257	6	0	263	58.4%	81.4%
Car Passenger	21	0	0	21	4.7%	17.3%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	3	0	3	0.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>278</b>	<b>172</b>	<b>0</b>	<b>450</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	61.8%	38.2%	0.0%	100%		
2006 Distribution	77.7%	20.6%	1.7%	100%		
<b>Saturday</b>						
Walked	0	23	0	23	9.4%	0.0%
Biked	0	0	0	0	0.0%	0.0%
Bus/Train	0	0	0	0	0.0%	0.0%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	171	12	0	183	74.5%	59.5%
Car Passenger	28	0	0	28	11.4%	40.5%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	12	0	12	4.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>199</b>	<b>46</b>	<b>0</b>	<b>245</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	81.2%	18.8%	0.0%	100%		
2006 Distribution	79.5%	20.5%	0.0%	100%		

Table 7-33 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Egress modes are similar to the access modes.

**Table 7-33. Southworth–Vashon egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	4	0	4	0.9%	4.6%
Biked	0	0	0	0	0.0%	1.8%
Bus/Train	0	87	0	87	19.4%	4.6%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	242	7	0	249	55.4%	73.5%
Car Passenger	36	17	0	54	11.9%	15.5%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	56	0	56	12.4%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>278</b>	<b>172</b>	<b>0</b>	<b>450</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	61.8%	38.2%	0.0%	100%		
2006 Distribution	78.3%	19.9%	1.8%	100%		
<b>Saturday</b>						
Walked	2	0	0	2	0.8%	5.7%
Biked	0	0	0	0	0.0%	0.0%
Bus/Train	0	12	0	12	4.7%	0.0%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	167	23	0	190	77.6%	64.9%
Car Passenger	30	0	0	30	12.2%	29.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	12	0	12	4.7%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>199</b>	<b>46</b>	<b>0</b>	<b>245</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	81.2%	18.8%	0.0%	100%		
2006 Distribution	78.6%	21.4%	0.0%	100%		

Table 7-34, Table 7-35, and Table 7-36 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For weekday PM peak period walk-on boardings, the percentage of travelers arriving at the origin terminal by bus/transit was much higher than the percentage of travelers leaving the destination terminal by bus/transit.

**Table 7-34. Southworth–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (40.2% of total boardings)					
Pedestrian	2.4%	Pedestrian	100.0%	Pedestrian	2.4%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	95.2%			By Bus/Transit	52.9%
By Vehicle	2.4%			By Vehicle	44.7%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (59.8% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	92.2%	In-Vehicle	100.0%
		Vehicle Passengers	7.8%		

Note: Average vehicle occupancy (AVO) was 1.08 for the weekday PM peak period.

**Table 7-35. Southworth–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, Weekday Non-PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (17.5% of total boardings)					
Pedestrian	0.0%	Pedestrian	100.0%	Pedestrian	0.0%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	23.8%			By Bus/Transit	0.0%
By Vehicle	76.2%			By Vehicle	100.0%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (82.5% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	93.9%	In-Vehicle	100.0%
		Vehicle Passengers	6.1%		

Note: Average vehicle occupancy (AVO) was 1.07 for the weekday non-PM peak period.



**Table 7-36. Southworth–Vashon trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

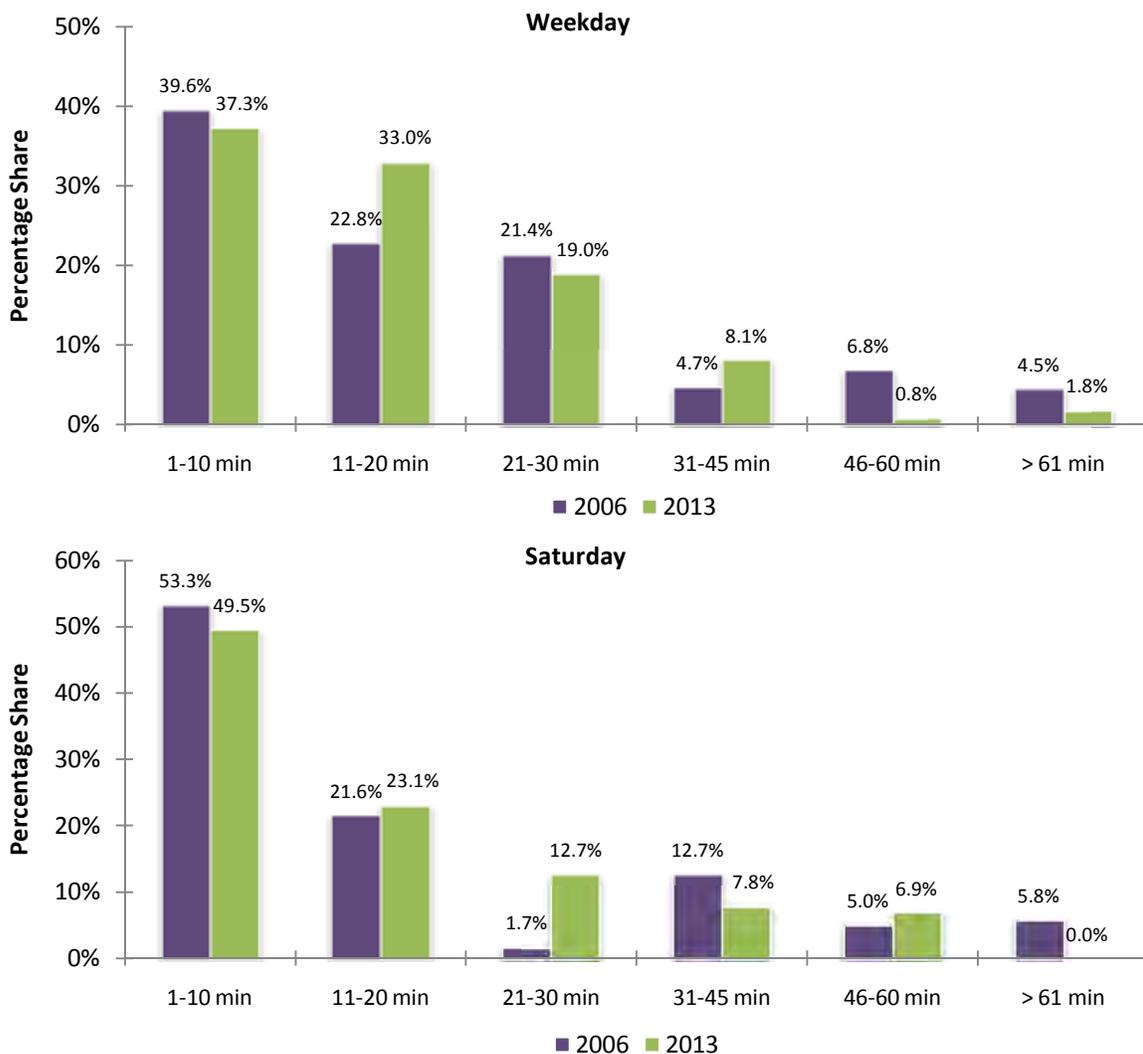
Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (18.8% of total boardings)					
Pedestrian	50.0%	Pedestrian	100.0%	Pedestrian	0.0%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	0.0%			By Bus/Transit	25.0%
By Vehicle	50.0%			By Vehicle	75.0%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (81.2% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	85.9%	In-Vehicle	100.0%
		Vehicle Passengers	14.1%		

*Note: Average vehicle occupancy (AVO) was 1.16 for the Saturday survey period.*

### 7.4.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 7-45 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 11 percent of weekday ferry passengers waited for more than 30 minutes, which was a decrease from 2006, when 16 percent of weekday riders waited for more than 30 minutes. A similar trend was seen on Saturdays, with 23 and 15 percent of ferry passengers waiting for more than 30 minutes in 2006 and 2013, respectively.

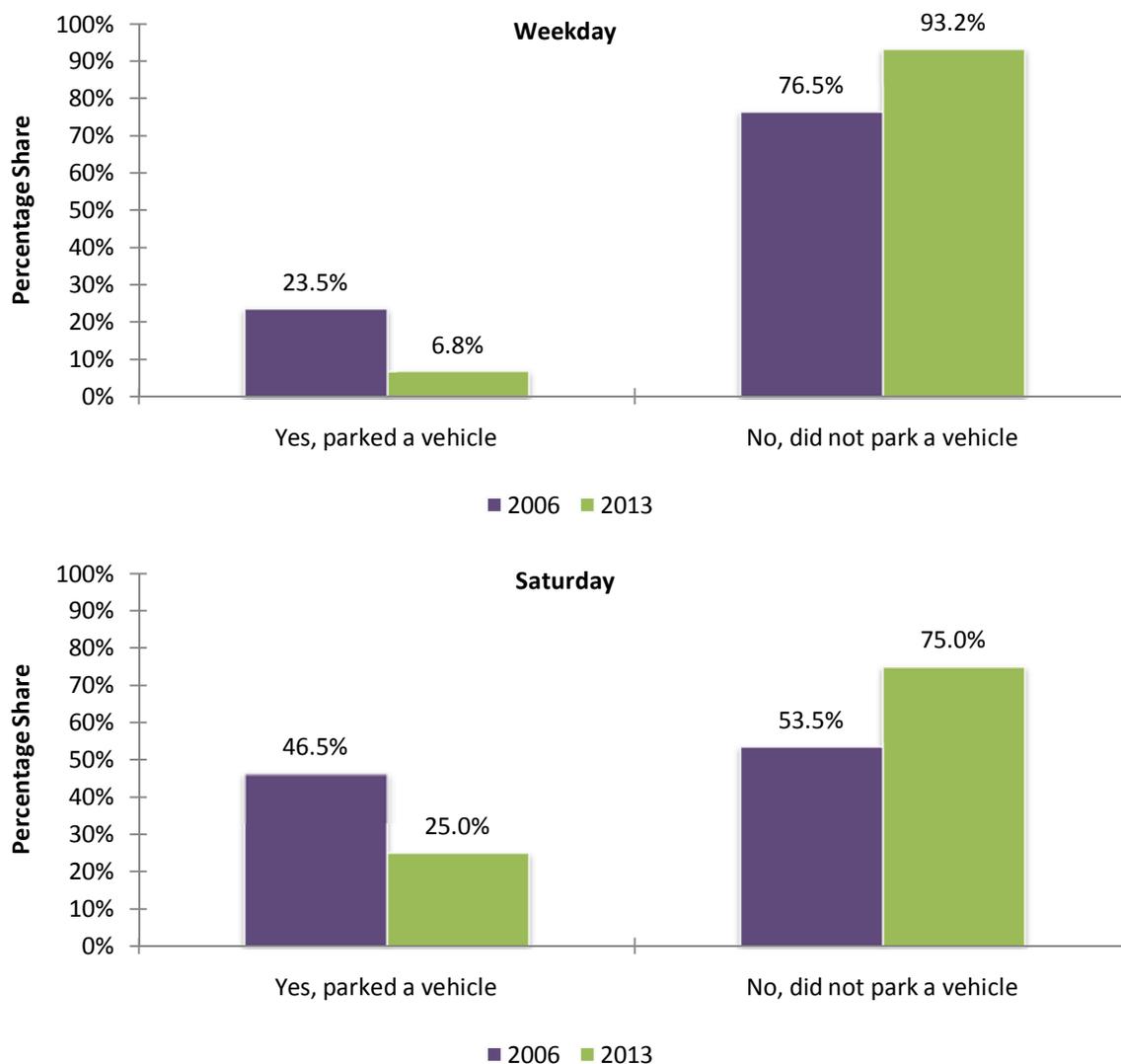
**Figure 7-45. Southworth–Vashon trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.4.7 Parking

Figure 7-46 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. Only 7 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 24 percent in 2006. On Saturdays, those who parked a vehicle decreased from 46 percent to 25 percent from 2006 to 2013.

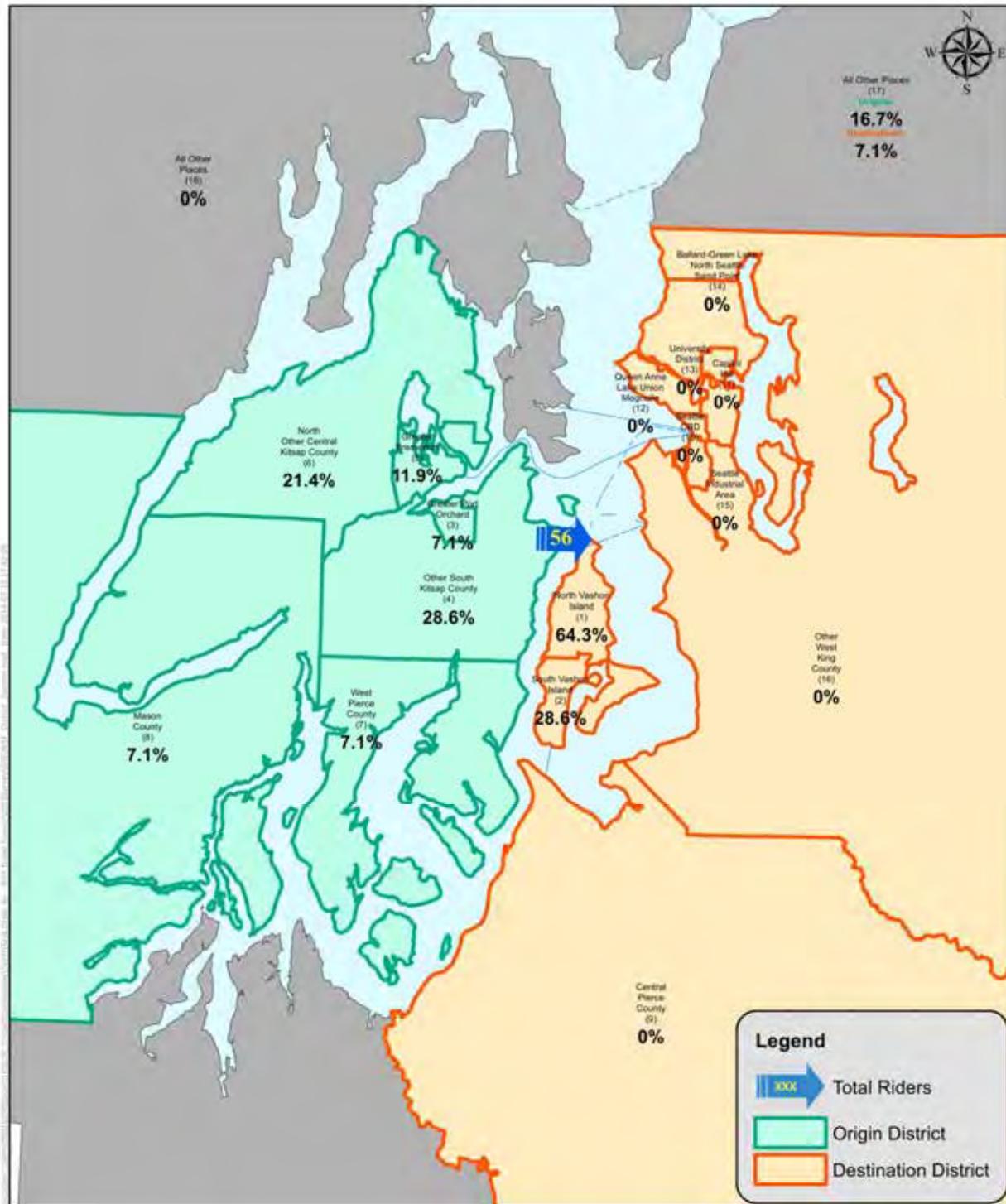
**Figure 7-46. Southworth–Vashon non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



#### 7.4.8 Weekday PM Peak-Period Travel Patterns—Eastbound

Figure 7-47 presents the origins and destinations of weekday PM peak-period eastbound trips by district. This information is presented in tabular format in Table 7-37. The major origins were North, Central, and South Kitsap County and Greater Bremerton, while the majority of destinations were in North Vashon Island. Origin and destination locations by boarding mode are shown in Figure 7-48. Origin and destination locations were dispersed.

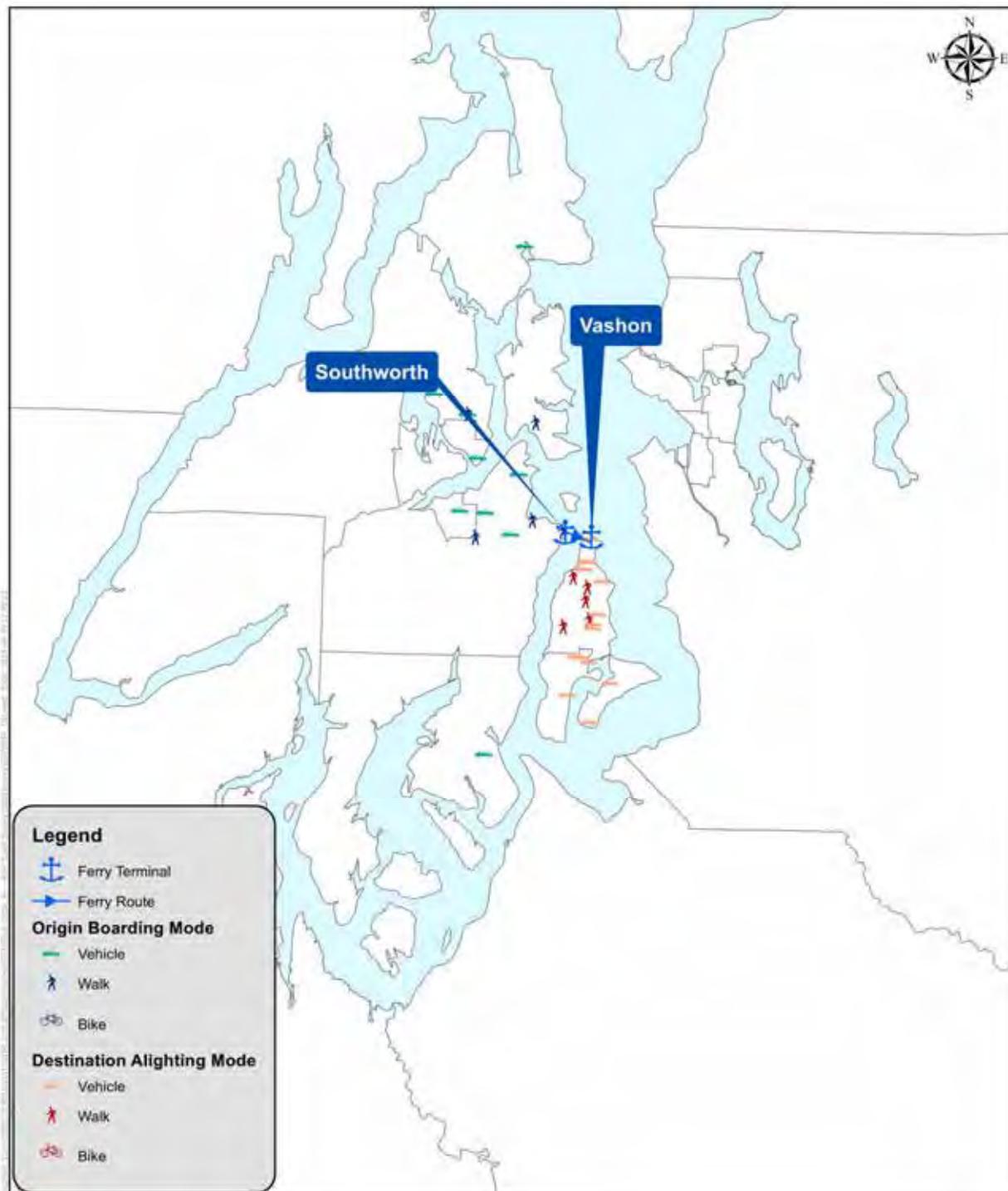
Figure 7-47. Southworth–Vashon eastbound origin and destination districts, weekday PM peak period



**Table 7-37. Southworth–Vashon eastbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►		N Vashon Island 1	S Vashon Island 2	All Other Places 17	Origin Total	Origin Percent Share
Greater Port Orchard	3		4				4	7.1%
Other S Kitsap County	4	12	4				16	28.6%
Greater Bremerton	5	7					7	11.9%
N / Other Central Kitsap Co.	6	8	4				12	21.4%
West Pierce Co.	7	4					4	7.1%
Mason Co.	8					4	4	7.1%
All Other Places	17	5	4				9	16.7%
Destination Total		36	16	4			56	100%
Destination Percent Share		64.3%	28.6%	7.1%			100%	

Figure 7-48. Southworth–Vashon eastbound origin and destination locations by boarding mode, Weekday 8-hour Survey Period



#### 7.4.9 Weekday PM Peak-Period Travel Patterns—Westbound

Figure 7-49 presents the origins and destinations of weekday PM peak-period westbound trips by district. This information is presented in tabular format in Table 7-38. The majority of origins were in North Vashon Island, while the major destinations were South Kitsap County and Greater Bremerton. Figure 7-50 shows the change in travel patterns for westbound trips between 2006 and 2013. As shown in the figure, a larger percentage of trips originated in North Vashon Island compared with 2006.

Origin and destination locations by boarding mode are shown in Figure 7-51. Origin and destination locations were dispersed.

Figure 7-49. Southworth–Vashon westbound origin and destination districts, weekday PM peak period

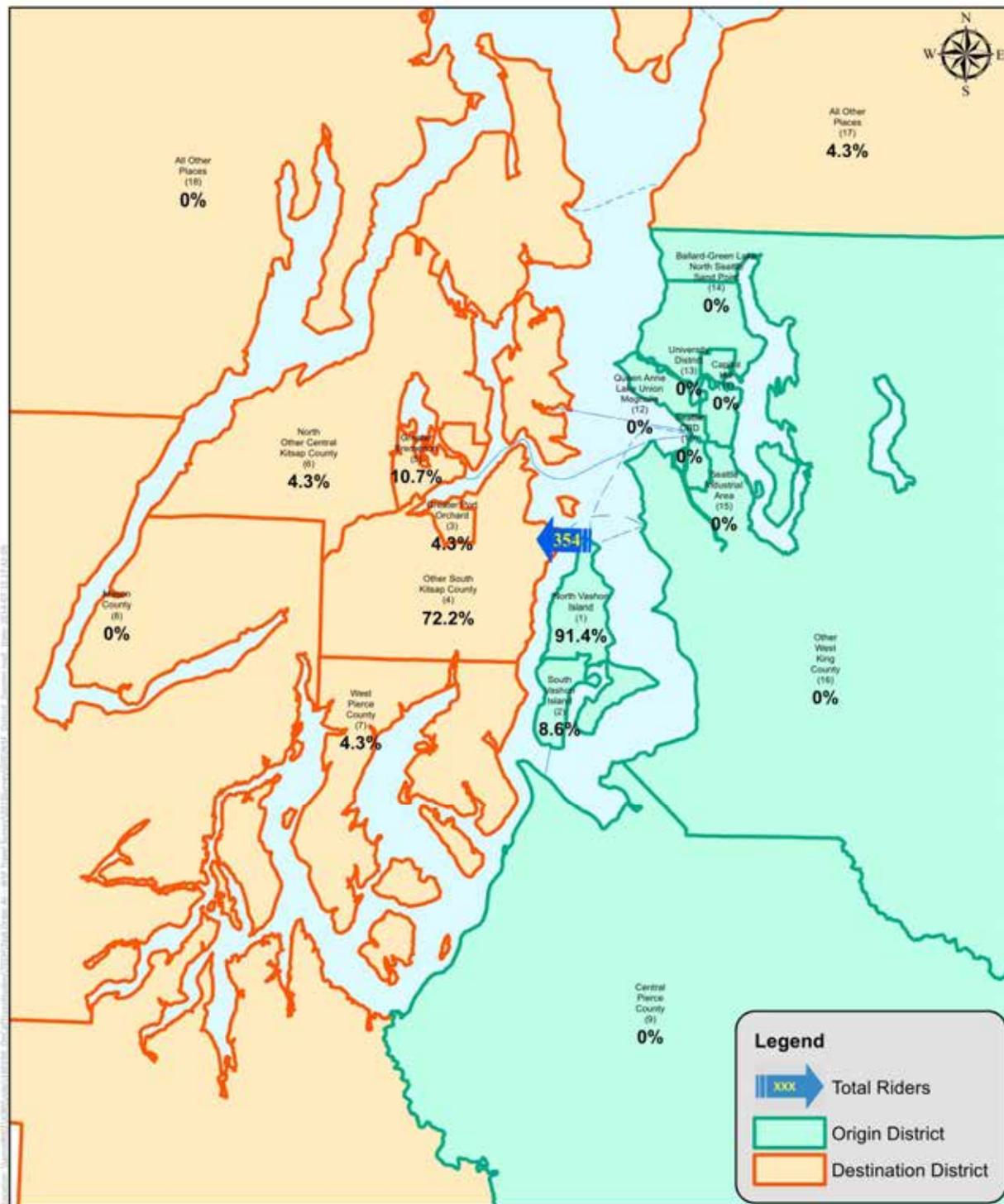
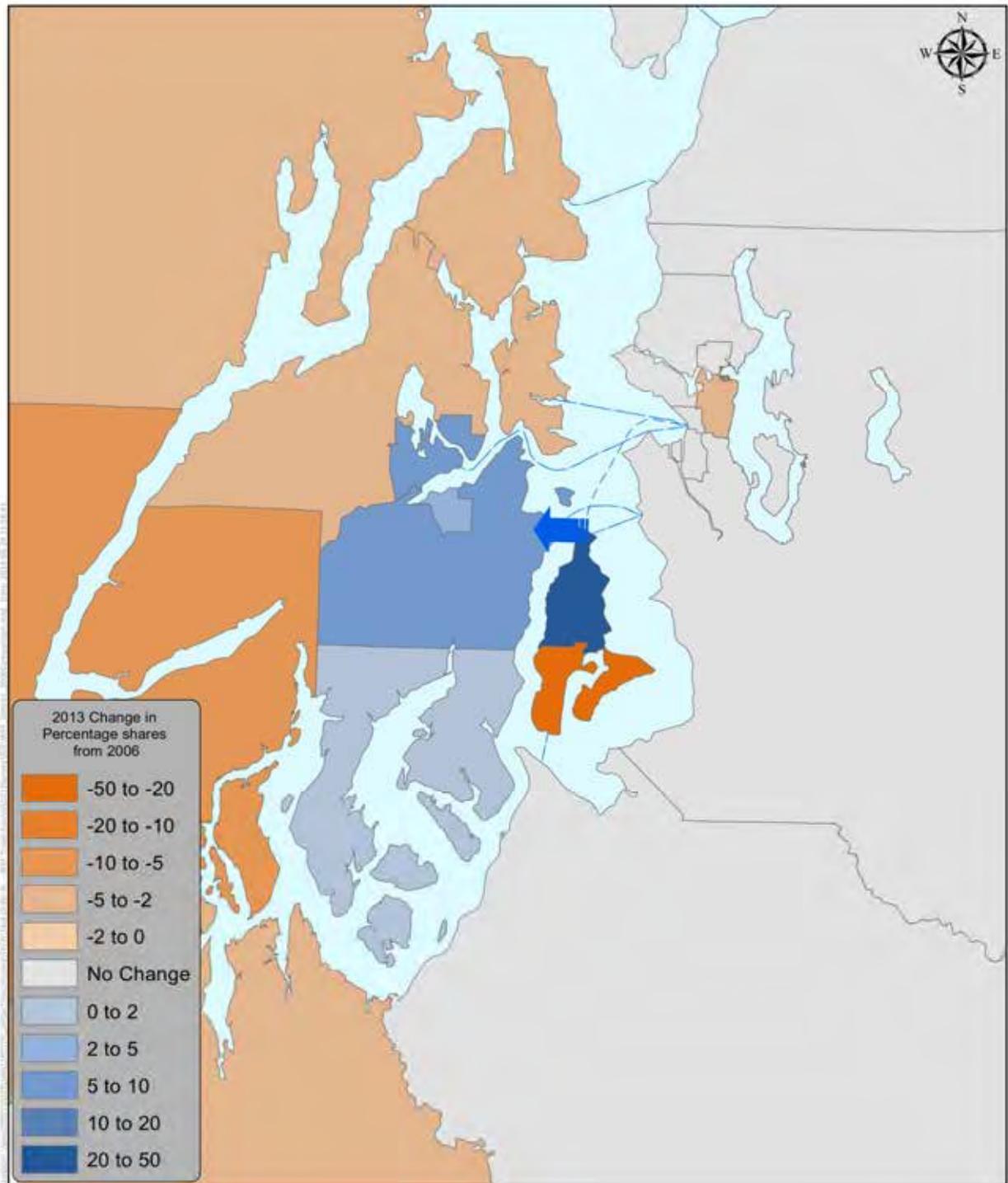


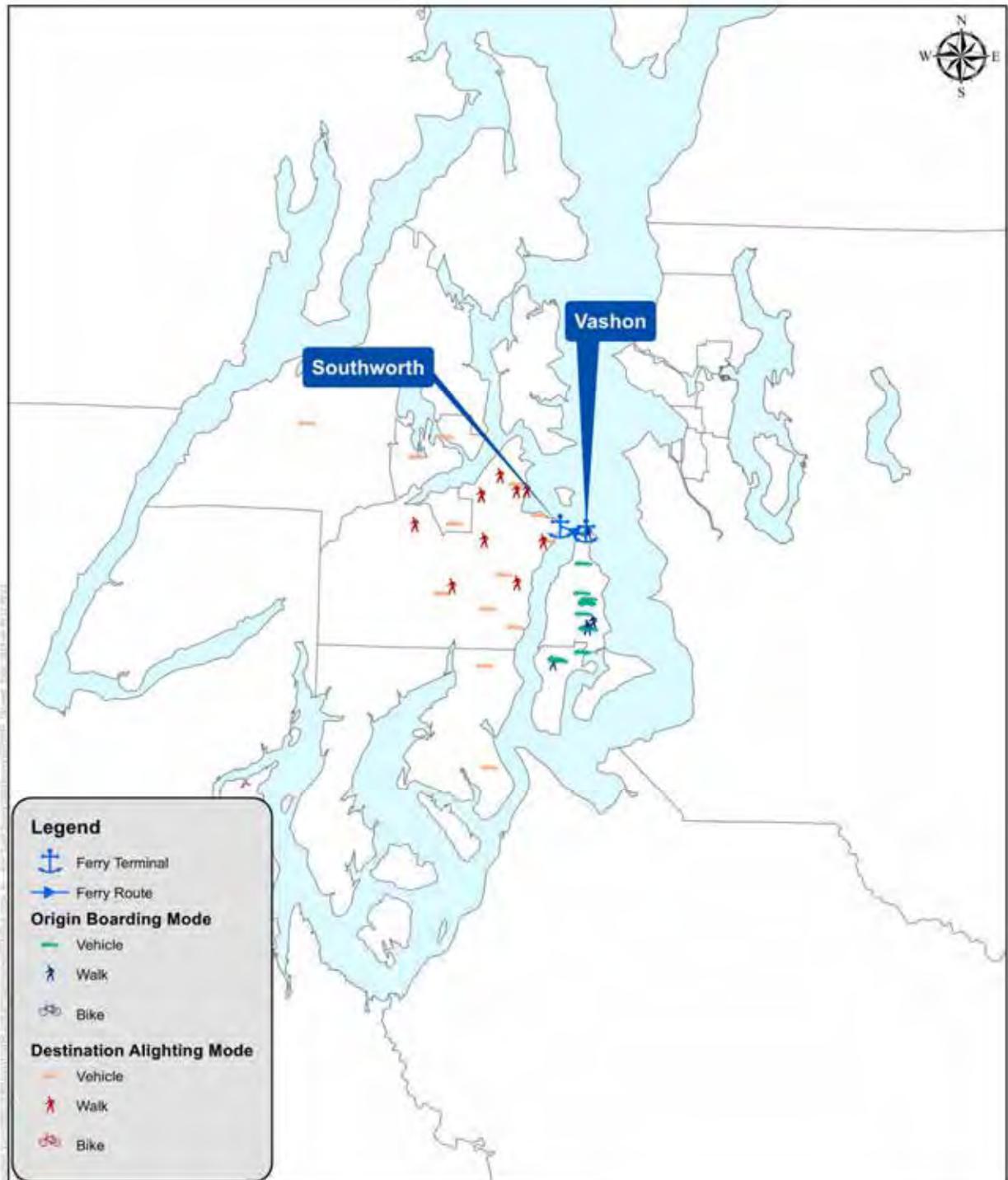
Figure 7-50. Southworth–Vashon change in westbound travel patterns from 2006, weekday PM peak period



**Table 7-38. Southworth–Vashon westbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►		Origin District						Origin Total	Origin Percent Share
				Greater Port Orchard	Other S Kitsap County	Greater Bremerton	N / Other Central Kitsap County	W Pierce County	All Other Places		
				3	4	5	6	7	17		
N Vashon Island	1	15	240	38	15				15	324	91.4%
S Vashon Island	2		15					15		30	8.6%
Destination Total		15	256	38	15			15	15	354	100%
Destination Percent Share		4.3%	72.2%	10.7%	4.3%			4.3%	4.3%	100%	

**Figure 7-51. Southworth–Vashon westbound origin and destination locations by boarding mode, Weekday 8-hour Survey Period**

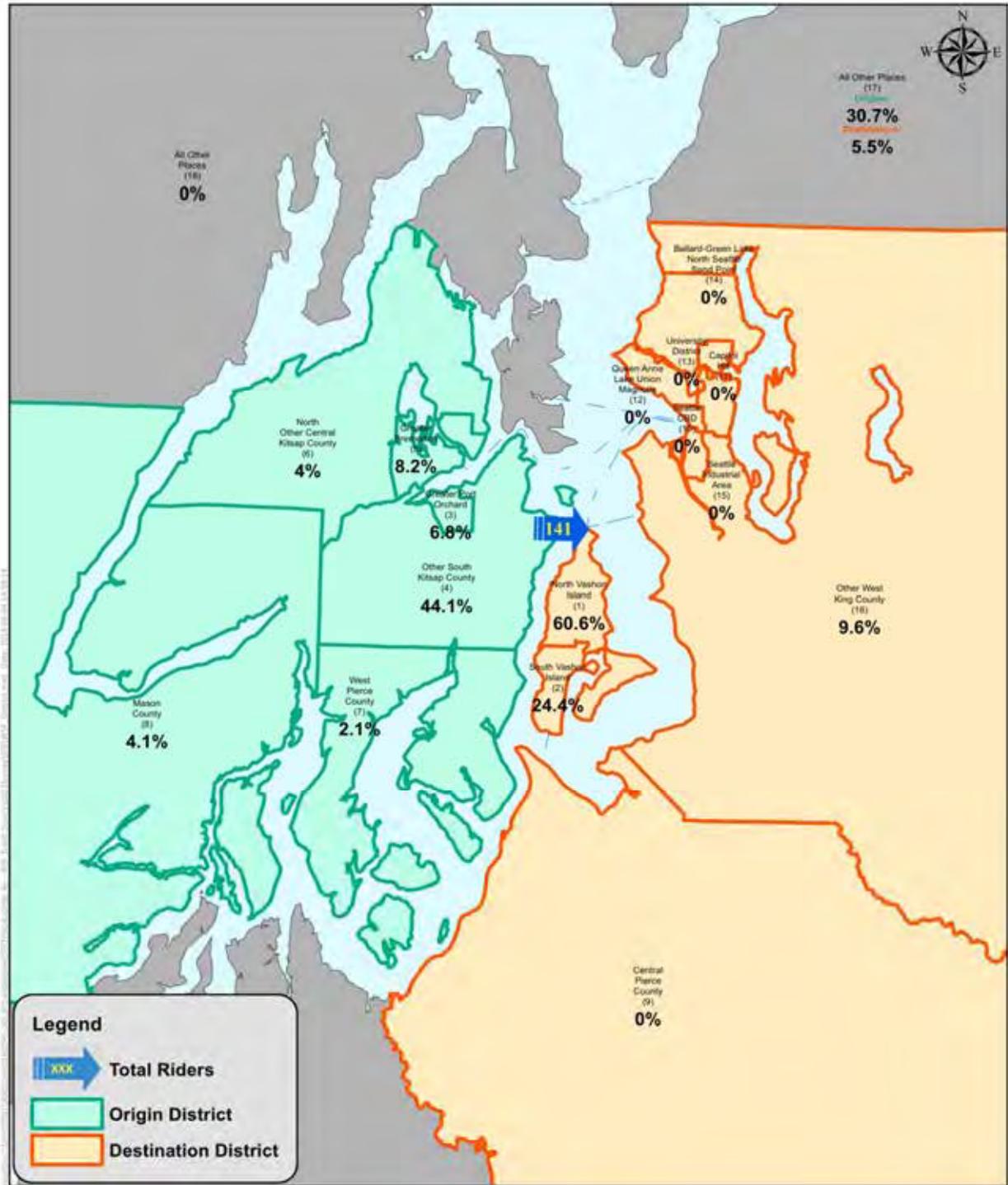


#### 7.4.10 Saturday Travel Patterns—Eastbound

Figure 7-52 presents the origins and destinations of Saturday eastbound trips by district. This information is presented in tabular format in Table 7-39. The main origin district is South Kitsap

County and the majority of destinations were in North Vashon Island. Origin and destination locations by boarding mode are shown in Figure 7-53. Origin and destination locations were dispersed.

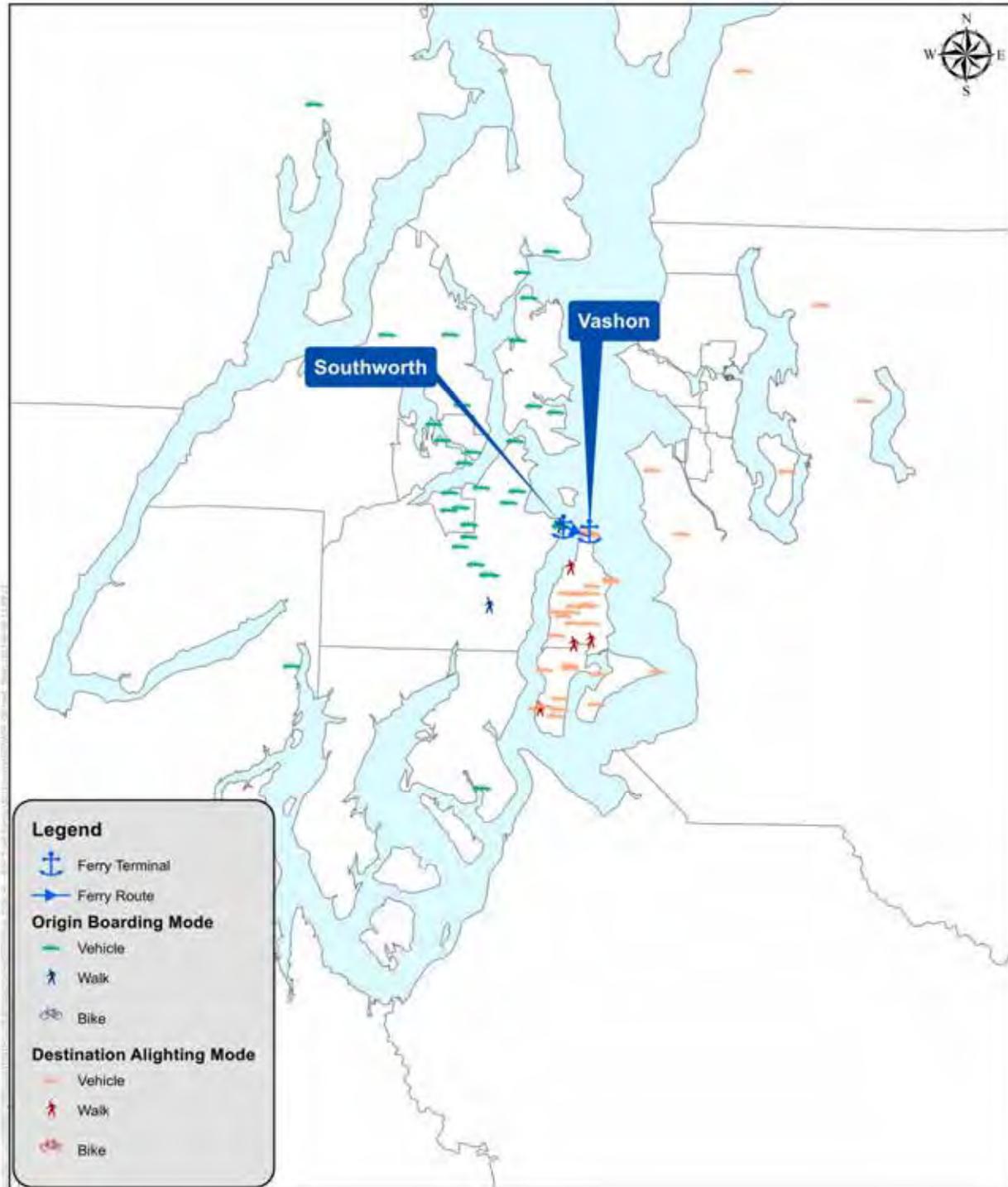
**Figure 7-52. Southworth–Vashon eastbound origin and destination districts, Saturday survey period**



**Table 7-39. Southworth–Vashon eastbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►				Origin Total	Origin Percent Share
		N Vashon Island 1	S Vashon Island 2	Other W King Co. 16	All Other Places 17		
Greater Port Orchard	3	4	3	3	10	6.8%	
Other S Kitsap County	4	39	17	6	62	44.1%	
Greater Bremerton	5	8	2	2	12	8.2%	
N / Other Central Kitsap Co.	6	4	2		6	4.0%	
West Pierce Co.	7			3	3	2.1%	
Mason Co.	8	6			6	4.1%	
All Other Places	17	25	10		43	30.7%	
Destination Total		85	34	13	8	141	100%
Destination Percent Share		60.6%	24.4%	9.6%	5.5%	100%	

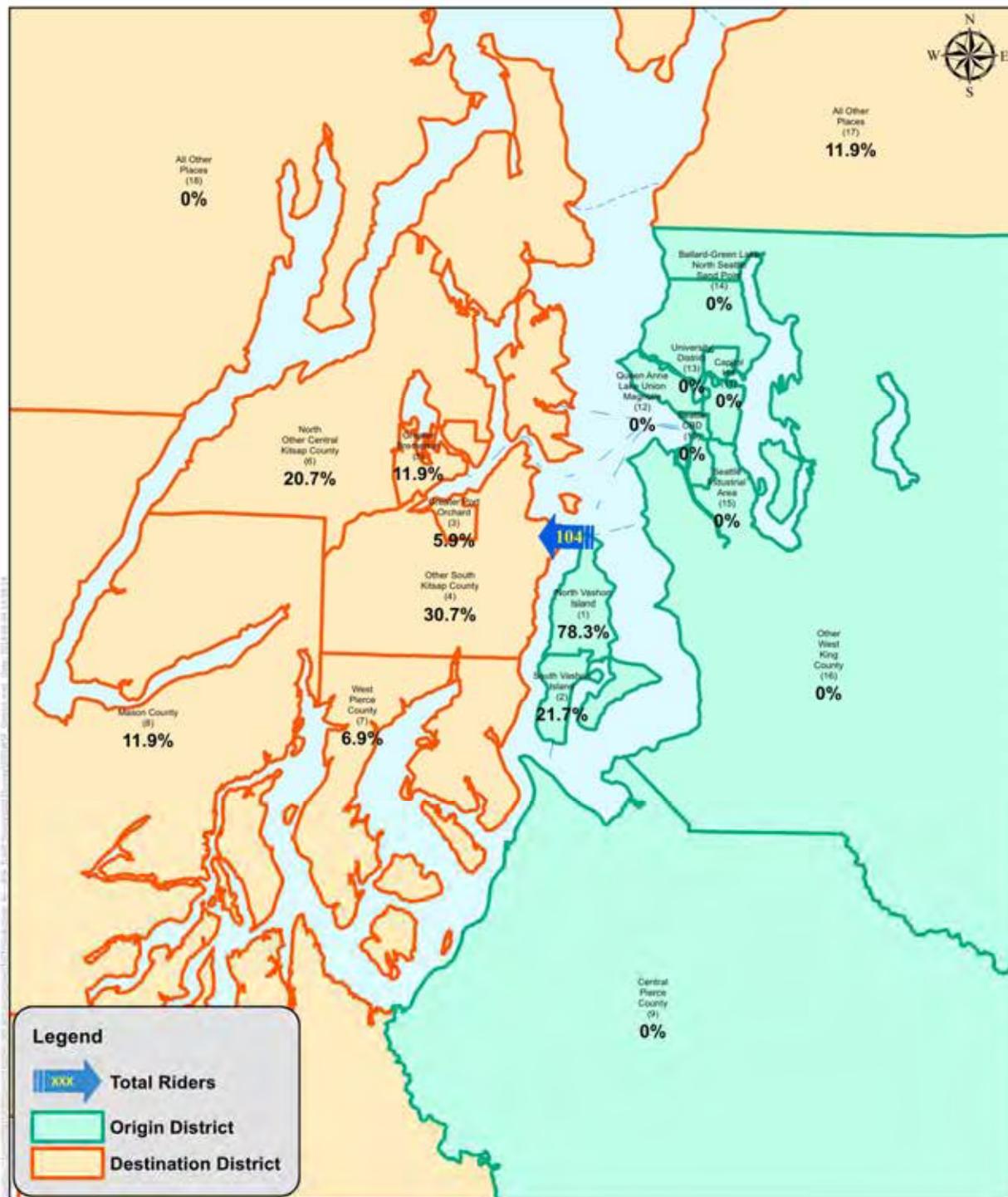
Figure 7-53. Southworth–Vashon eastbound origin and destination locations by boarding mode, Saturday survey period



#### 7.4.11 Saturday Travel Patterns—Westbound

Figure 7-54 presents the origins and destinations of Saturday westbound trips by district. This information is presented in tabular format in Table 7-40. The majority of origins were in North Vashon Island. The primary destinations were North, Central, and South Kitsap County. Origin and destination locations by boarding mode are shown in Figure 7-55. Origin and destination locations were dispersed.

Figure 7-54. Southworth–Vashon westbound origin and destination districts, Saturday survey period



**Table 7-40. Southworth–Vashon westbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ►		Greater Port Orchard	Other S Kitsap County	Greater Bremerton	N / Other Central Kitsap County	W Pierce County	Mason Co.	All Other Places	Origin Total	Origin Percent Share
				3	4	5	6	7	8	17		
N Vashon Island	1	6	19	12	12	7	12	12			81	78.3%
S Vashon Island	2		13		9						23	21.7%
Destination Total		6	32	12	22	7	12	12			104	100%
Destination Percent Share		5.9%	30.7%	11.9%	20.7%	6.9%	11.9%	11.9%			100%	

Figure 7-55. Southworth–Vashon westbound origin and destination locations by boarding mode, Saturday survey period



## 7.5 Point Defiance–Tahlequah

### 7.5.1 Route Description

The Point Defiance–Tahlequah route connects Point Defiance in Tacoma and Tahlequah on the southern tip of Vashon Island. It takes 15 minutes to ride this ferry route one way. The crossing is approximately 1.5 nautical miles and is the shortest route in the WSF system. It runs seven days per week. For 2013, the annual total ridership was 280,000 passengers plus 400,000 vehicles and drivers for a total of 680,000 people, or about 1,900 riders per day. This compares to 1,800 riders per day in 2006 and 2,400 riders per day in 1999. The route is served by 19 sailings per day each direction. The fare in October 2013 for a vehicle 14 to 22 feet including driver was \$17.25. The full fare for passengers was \$5.10.

This section provides some key trip-making characteristics of ferry riders on this route. In addition, the 2013 survey results are compared with key characteristics from the previous 2006 survey data to identify trends in trip-making on this route.

### 7.5.2 Trips by Purpose

As shown in Table 7-41, the most frequent weekday trip purpose was work/school (59 percent), which is similar to 2006. Recreation/shopping remains the predominant trip purpose for Saturday trips.

**Table 7-41. Point Defiance–Tahlequah trips by purpose and direction, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Direction	Work/ School	Personal Business/ Other	Recreation/ Shopping	Total	All Purposes	
					2013	2006
<b>Weekday</b>						
Eastbound	248	86	107	441	44.9%	47.8%
Westbound	336	93	112	541	55.1%	52.2%
Total	583	179	220	982	100%	100%
2013 Distribution	59.4%	18.2%	22.4%	100%		
2006 Distribution	59.8%	15.8%	24.4%	100%		
<b>Saturday</b>						
Eastbound	40	150	572	762	51.2%	48.1%
Westbound	89	90	546	726	48.8%	51.9%
Total	129	241	1,118	1,488	100%	
2013 Distribution	8.7%	16.2%	75.1%	100%		
2006 Distribution	7.9%	18.5%	73.6%			

### 7.5.3 Frequency of Travel

Table 7-42 shows the frequency of travel for weekdays and Saturdays by trip purpose for 2006 and 2013. About 50 percent of travelers used this ferry more than five times per week on weekdays in 2013, a slight decrease from 64 percent in 2006. The highest percentage of weekday travelers traveled on the ferry three to four times in the past week (25 percent), an increase from 2006, when 20 percent of travelers reported three to four trips in the past week. In addition, those reporting only one trip in the past week increased from 7 percent in 2006 to 20 percent in 2013. On Saturdays, trip frequency remained more similar to 2006.

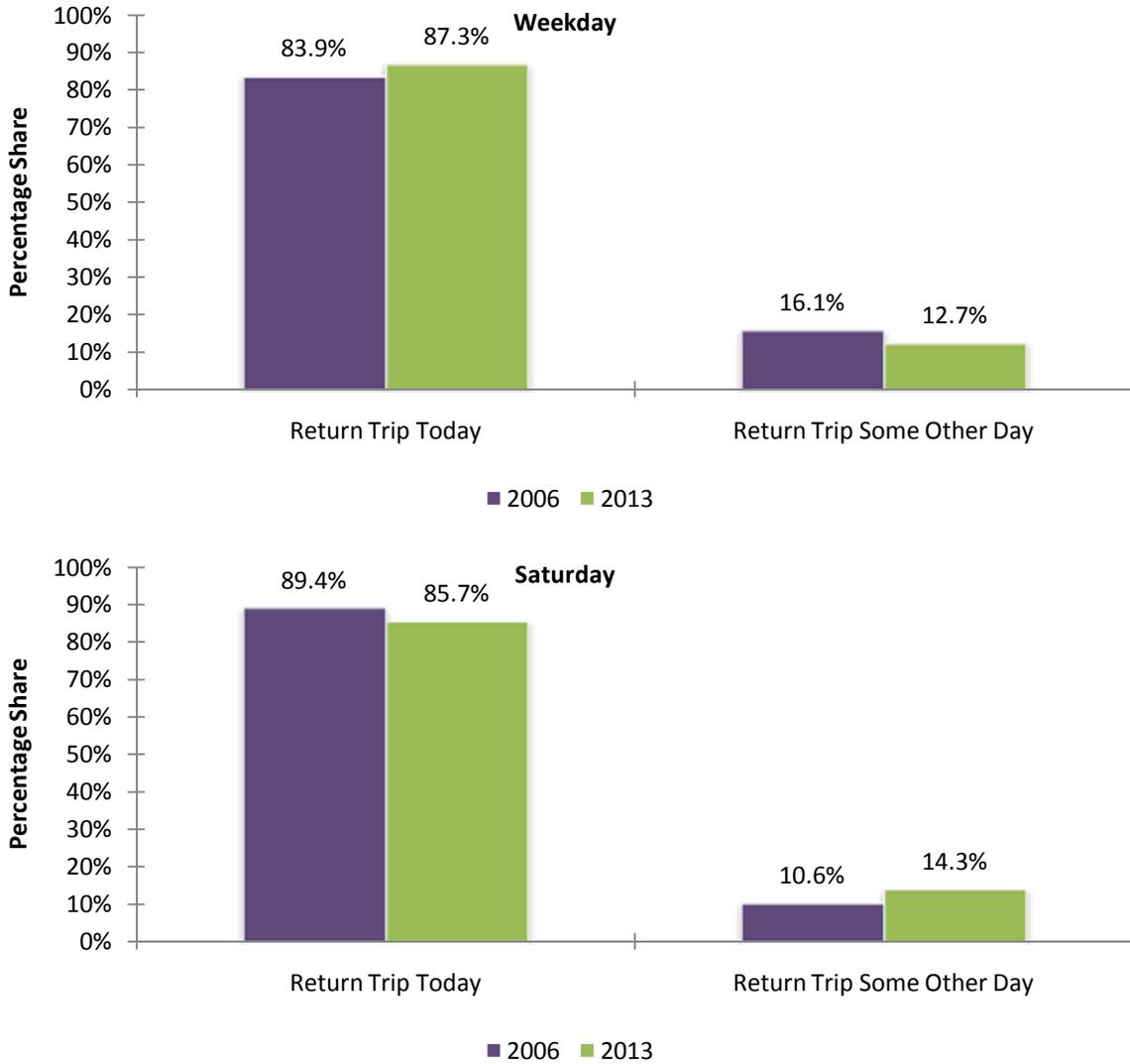
**Table 7-42. Point Defiance–Tahlequah one-way trips by purpose and frequency, weekday 8-hour and Saturday survey periods (2006 and 2013)**

One-Way Trips	Work/ School	Personal Business/ Other	Recreation / Shopping	Total	All Purposes		Work/School	
					2013	2006	2013	2006
<b>Weekday</b>								
1	87	47	53	187	20.2%	7.2%	16.1%	0.0%
2	8	31	8	48	5.2%	8.8%	1.6%	5.2%
3 to 4	106	47	80	233	25.2%	20.0%	19.7%	14.1%
5 to 6	82	23	36	141	15.2%	19.0%	15.2%	20.6%
7 to 8	109	21	4	135	14.6%	8.3%	20.2%	9.7%
9 to 10	90	1	30	121	13.1%	22.0%	16.7%	30.6%
11+	56	4	0	61	6.6%	14.6%	10.5%	19.8%
Total	538	175	212	925	100%	100%	100%	100%
2013 Distribution	58.1%	18.9%	22.9%	100%				
2006 Distribution	59.4%	15.8%	24.8%	100%				
<b>Saturday</b>								
1	10	20	250	279	26.7%	15.9%		
2	5	54	109	168	16.0%	19.5%		
3 to 4	24	71	164	259	24.7%	25.0%		
5 to 6	34	9	111	155	14.8%	13.1%		
7 to 8	0	10	44	55	5.2%	6.9%		
9 to 10	9	10	5	25	2.3%	4.8%		
11+	19	0	88	107	10.2%	14.9%		
Total	101	175	772	1,047	100%	100%		
2013 Distribution	9.6%	16.7%	73.7%	100%				
2006 Distribution	7.8%	18.7%	73.5%	100%				

### 7.5.4 Round-Trip Patterns

The percentage of weekday ferry travelers making a round-trip on the same day versus some other day grew slightly from 84 percent in 2006 to 87 percent in 2013, as shown in Figure 7-56. Conversely, the percentage of Saturday riders making a round-trip on the same day decreased from 89 percent in 2006 to 86 percent in 2013.

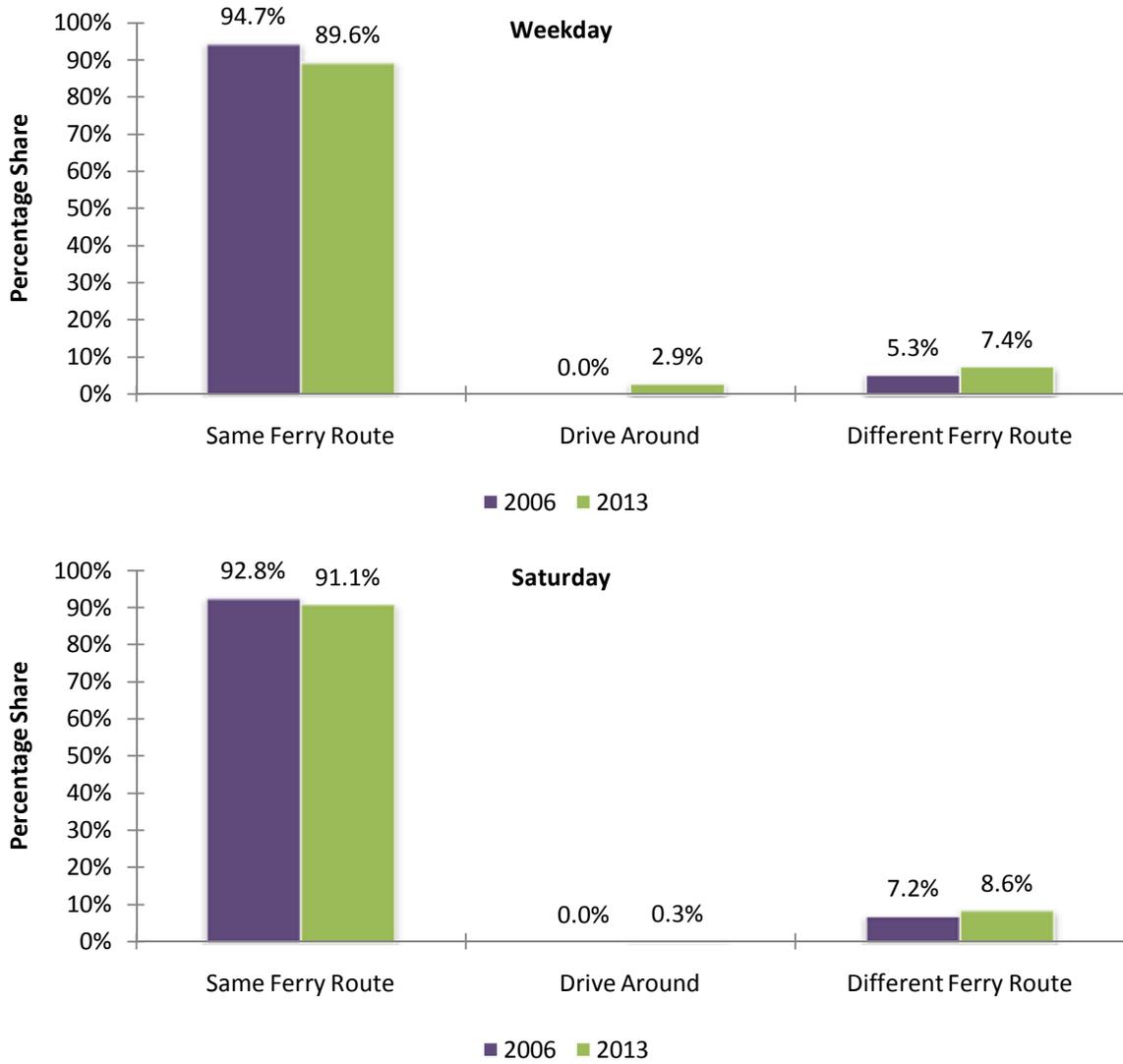
**Figure 7-56. Point Defiance–Tahlequah round-trip patterns by day, weekday 8-hour and Saturday survey periods (2006 and 2013)**





As shown in Figure 7-57, the vast majority (90 percent) of round-trip ferry travelers used the same route for both legs of the trip. This situation was true for both weekday and Saturday travelers.

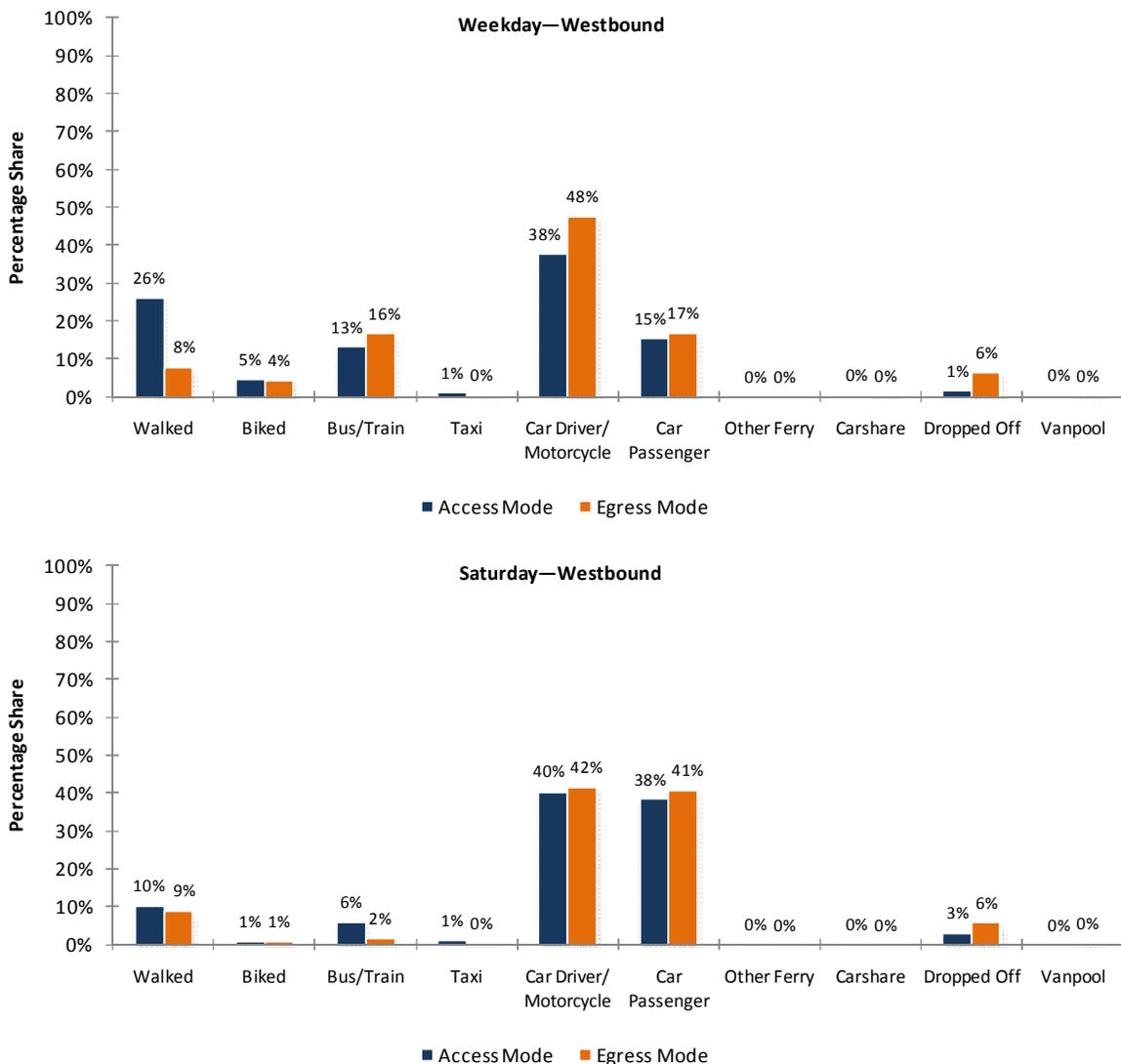
**Figure 7-57. Point Defiance–Tahlequah round-trip patterns by route, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.5.5 Access, Egress, and Boarding Modes

Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant northbound mode of access and egress in 2013, as shown in Figure 7-58. On weekdays, 73 percent of ferry travelers drove to the ferry, and an additional 23 percent were passengers in a private vehicle. Leaving the ferry, 72 percent were drivers while 24 percent were passengers. Likely due to the higher proportion of recreation and shopping trips on Saturdays versus weekdays, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-58. Point Defiance–Tahlequah northbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**



Travel by private vehicle (i.e., automobile driver and passengers and motorcycle) was the predominant southbound mode of access and egress in 2013, as shown in Figure 7-59. On weekdays,



59 percent of ferry travelers drove to the ferry, and an additional 39 percent were passengers in a private vehicle. Leaving the ferry, 54 percent were drivers while 41 percent were passengers. Consistent with northbound travel, Saturdays exhibit a higher share of automobile passengers (and higher vehicle occupancy) for access and egress than on weekdays.

**Figure 7-59. Point Defiance–Tahlequah southbound trips by access and egress modes, weekday 8-hour and Saturday survey periods (2013)**

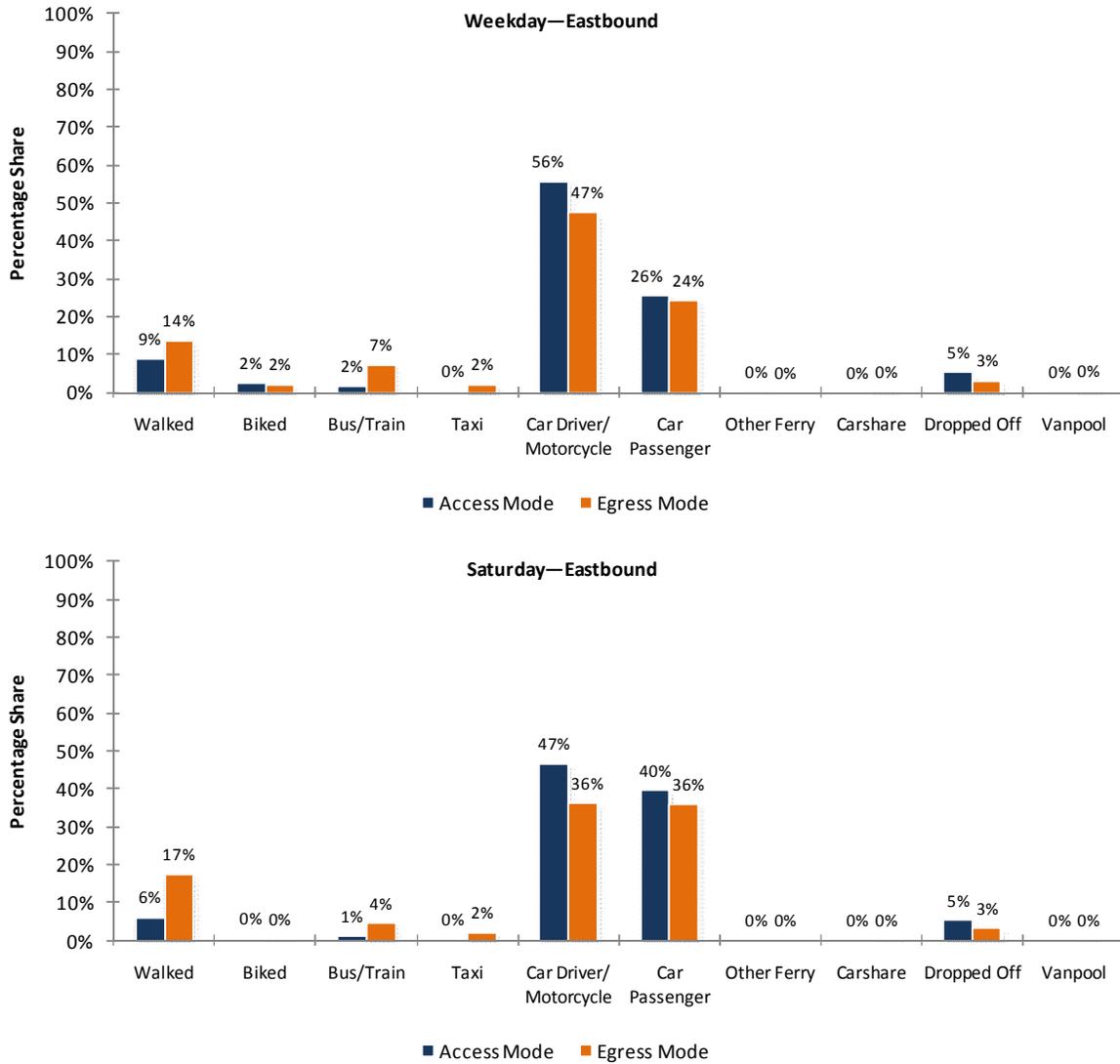


Table 7-43 shows the access mode and boarding method for weekdays and Saturdays in 2006 and 2013. As shown in the table, most travelers boarded the ferry by driving on. In 2013, this method accounted for 92 percent of boardings, both on weekdays and Saturdays.

**Table 7-43. Point Defiance–Tahlequah access mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Access Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	8	0	8	0.8%	0.9%
Biked	0	0	4	4	0.4%	0.6%
Bus/Train	4	11	2	17	1.7%	2.7%
Taxi	0	3	0	3	0.3%	0.0%
Car Driver/Motorcycle	609	44	0	653	66.5%	70.2%
Car Passenger	290	5	0	295	30.1%	25.6%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	2	0	2	0.2%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>903</b>	<b>73</b>	<b>6</b>	<b>982</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	92.0%	7.5%	0.6%	100%		
2006 Distribution	87.0%	11.5%	1.4%	100%		
<b>Saturday</b>						
Walked	0	16	0	16	1.1%	0.6%
Biked	0	0	3	3	0.2%	0.0%
Bus/Train	0	0	0	0	0.0%	0.0%
Taxi	0	5	0	5	0.3%	0.6%
Car Driver/Motorcycle	724	55	0	779	52.3%	70.2%
Car Passenger	644	23	0	667	44.8%	28.6%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	18	0	18	1.2%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>1,368</b>	<b>117</b>	<b>3</b>	<b>1,488</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	91.9%	7.8%	0.2%	100%		
2006 Distribution	89.9%	10.1%	0.0%	100%		

Table 7-44 shows the egress mode and boarding method for weekdays and Saturdays in 2006 and 2013. Results are similar to access mode.

**Table 7-44. Point Defiance–Tahlequah egress mode and boarding methods, weekday 8-hour and Saturday survey periods (2006 and 2013)**

Egress Mode	Drive	Walk	Bicycle	Total	All Boardings	
					2013	2006
<b>Weekday</b>						
Walked	0	22	0	22	2.3%	1.3%
Biked	0	0	5	5	0.5%	0.1%
Bus/Train	0	10	0	10	1.0%	0.7%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	599	30	1	630	64.2%	76.6%
Car Passenger	304	7	0	311	31.7%	21.3%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	4	0	4	0.4%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>903</b>	<b>73</b>	<b>6</b>	<b>982</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	92.0%	7.5%	0.6%	100%		
2006 Distribution	87.6%	11.5%	0.9%	100%		
<b>Saturday</b>						
Walked	0	38	0	38	2.5%	3.8%
Biked	0	0	3	3	0.2%	0.0%
Bus/Train	0	3	0	3	0.2%	1.3%
Taxi	0	0	0	0	0.0%	0.0%
Car Driver/Motorcycle	710	11	0	721	48.5%	65.5%
Car Passenger	658	23	0	681	45.8%	29.4%
Other Ferry	0	0	0	0	0.0%	
Carshare	0	0	0	0	0.0%	
Dropped Off	0	41	0	41	2.8%	
Vanpool	0	0	0	0	0.0%	
<b>Total</b>	<b>1,368</b>	<b>117</b>	<b>3</b>	<b>1,488</b>	<b>100%</b>	<b>100%</b>
2013 Distribution	91.9%	7.8%	0.2%	100%		
2006 Distribution	89.7%	10.3%	0.0%	100%		

Table 7-45, Table 7-46, and Table 7-47 show access and egress modes used across the entire ferry trip for the weekday PM peak period, the weekday non-PM peak period, and Saturdays, respectively. For walk-on boardings on the weekday non-PM peak period and on Saturdays, the percentage of travelers leaving the destination terminal on foot was higher than the percentage arriving at the origin terminal on foot.

**Table 7-45. Point Defiance–Tahlequah trips by access mode to ferry—boarding method—egress mode from ferry, weekday PM peak period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (7.9% of total boardings)					
Pedestrian	10.0%	Pedestrian	87.8%	Pedestrian	8.3%
Bicycle	8.3%	Pedestrian w/ Bicycle	12.2%	Bicycle	10.0%
By Bus/Transit	19.7%			By Bus/Transit	21.8%
By Vehicle	62.0%			By Vehicle	59.8%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (92.1% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	73.8%	In-Vehicle	100.0%
		Vehicle Passengers	26.2%		

Note: Average vehicle occupancy (AVO) was 1.36 for the Saturday survey period.

**Table 7-46. Point Defiance–Tahlequah trips by access mode to ferry—boarding method—egress mode from ferry, Weekday Non-PM Peak Period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (8.3% of total boardings)					
Pedestrian	10.9%	Pedestrian	100.0%	Pedestrian	56.4%
Bicycle	0.0%	Pedestrian w/ Bicycle	0.0%	Bicycle	0.0%
By Bus/Transit	10.9%			By Bus/Transit	0.0%
By Vehicle	78.2%			By Vehicle	43.6%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (91.7% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	59.2%	In-Vehicle	100.0%
		Vehicle Passengers	40.8%		

Note: Average vehicle occupancy (AVO) was 1.69 for the Saturday survey period.



**Table 7-47. Point Defiance–Tahlequah trips by access mode to ferry—boarding method—egress mode from ferry, Saturday survey period (2013)**

Access Mode to Ferry Terminal	Percentage Distribution	Boarding Method	Percentage Distribution	Egress Mode from Ferry Terminal	Percentage Distribution
Walk-On Boardings (8.1% of total boardings)					
Pedestrian	13.5%	Pedestrian	13.5%	Pedestrian	31.5%
Bicycle	2.8%	Pedestrian w/ Bicycle	2.8%	Bicycle	2.8%
By Bus/Transit	0.0%			By Bus/Transit	2.8%
By Vehicle	83.7%			By Vehicle	62.9%
Vanpool	0.0%			Vanpool	0.0%
Carshare	0.0%			Carshare	0.0%
Other Ferry	0.0%			Other Ferry	0.0%
In-Vehicle Boardings (91.9% of total boardings)					
In-Vehicle	100.0%	Vehicle Drivers	52.9%	In-Vehicle	100.0%
		Vehicle Passengers	47.1%		

*Note: Average vehicle occupancy (AVO) was 1.89 for the Saturday survey period.*

### 7.5.6 Wait Time

Respondents were asked the amount of time they spent waiting before boarding the ferry. Figure 7-60 shows the frequency distribution of perceived wait time (in minutes) for 2006 and 2013. In 2013, 71 percent of weekday ferry passengers waited less than 20 minutes, an increase from 59 percent in 2006.

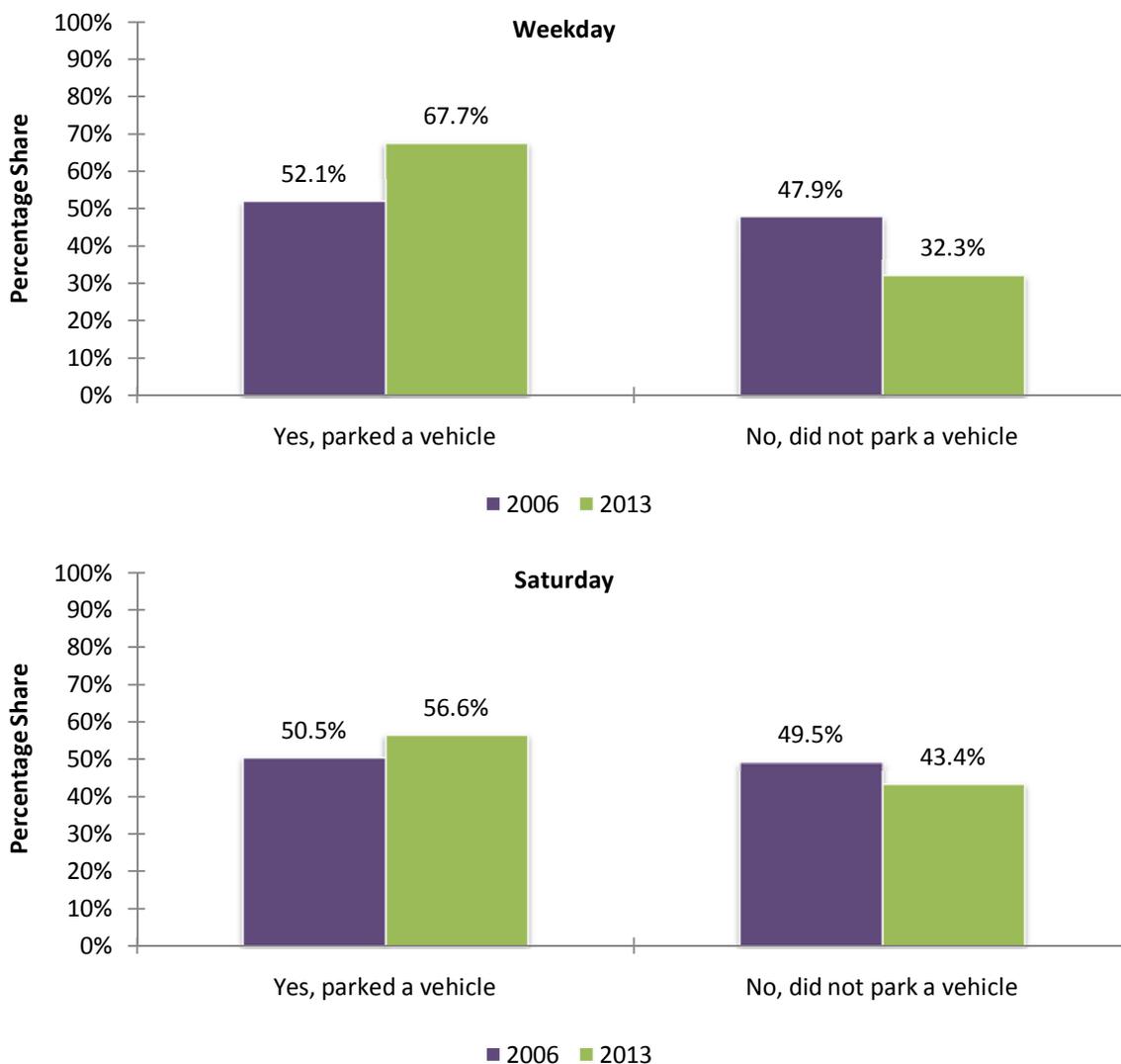
**Figure 7-60. Point Defiance–Tahlequah trips by wait time, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.5.7 Parking

Figure 7-61 presents the percentage of riders who boarded by foot or bicycle who parked or did not park a vehicle at the terminal. About 68 percent of the weekday ferry passengers parked a vehicle in the 2013 survey, compared with about 52 percent in 2006. On Saturdays, those who parked a vehicle increased from 50 percent in 2006 to 57 percent in 2013.

**Figure 7-61. Point Defiance–Tahlequah non-motorized boardings that parked a vehicle at terminal, weekday 8-hour and Saturday survey periods (2006 and 2013)**



### 7.5.8 Weekday PM Peak-Period Travel Patterns—Southbound

Figure 7-62 presents the origins and destinations of weekday PM peak-period southbound trips by district. This information is presented in tabular format in Table 7-48. The majority of origins were in South Vashon Island, while the major of destinations were North Tacoma, South Tacoma, and University Place/Fircrest. Origin and destination locations by boarding mode are shown in Figure 7-63. Origin and destination locations were dispersed.

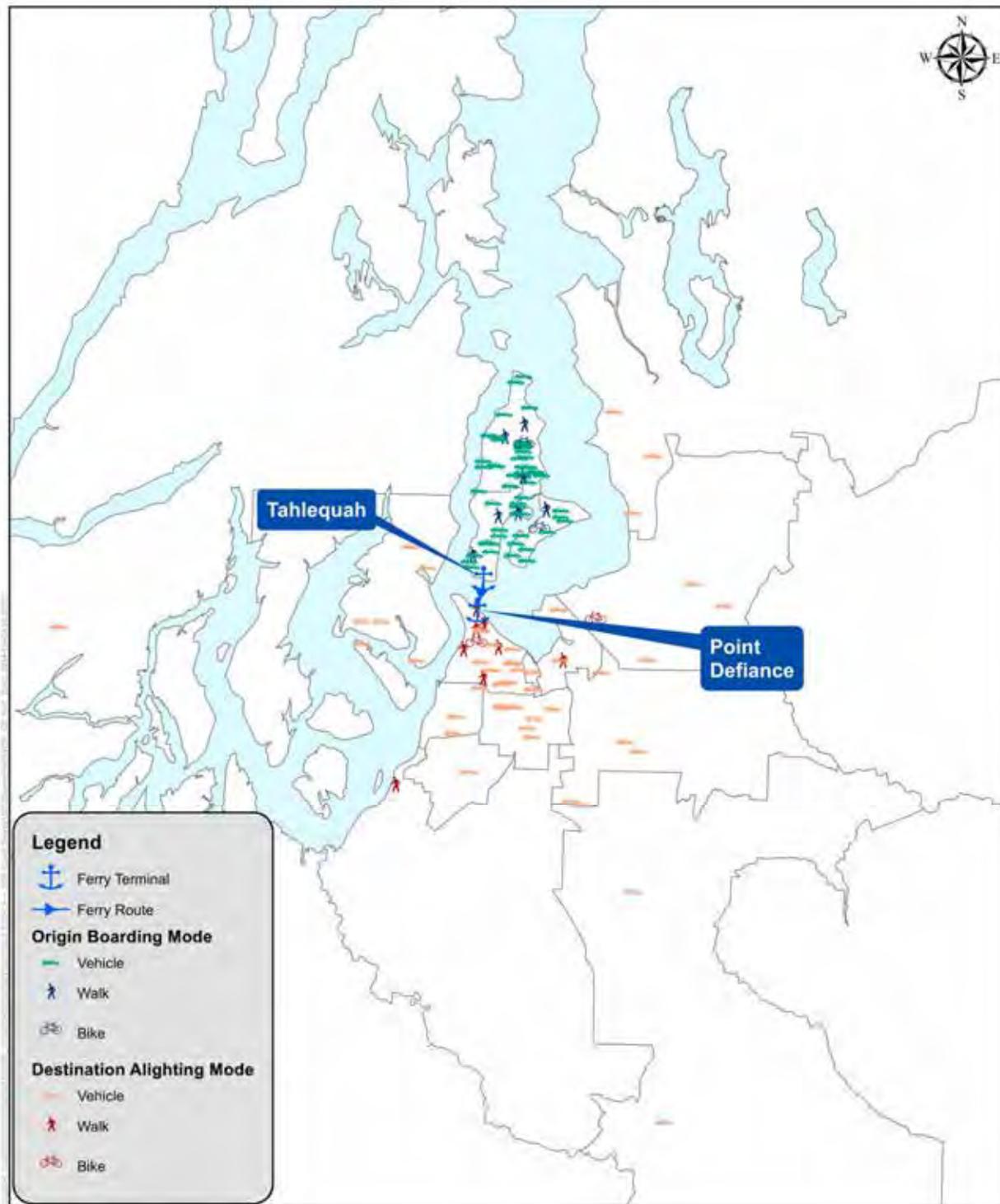
Figure 7-62. Point Defiance–Tahlequah southbound origin and destination districts, weekday PM peak period



**Table 7-48. Point Defiance–Tahlequah southbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►													Origin Total	Origin Percent Share
		N Tacoma	Tacoma CBD	Port of Tacoma	S Tacoma	University Place / Fircrest	Fife / Puyallup / Sumner	S Central Pierce Co.	SE Pierce Co.	W Pierce Co.	Kent-Auburn / Federal Way	Thurston Co.	All Other Places			
N Vashon Island	1	56		14	13	4	9				5		9	111	43.1%	
S Vashon Island	2	16	4		27	31	13	1	4	9	9	13	18	147	56.9%	
Destination Total		72	4	14	40	36	22	1	4	9	14	13	27	258	100%	
Destination Percent Share		27.9%	1.7%	5.6%	15.6%	13.8%	8.6%	0.4%	1.7%	3.5%	5.6%	5.2%	10.4%	100%		

Figure 7-63. Point Defiance–Tahlequah southbound origin and destination locations by boarding mode, Weekday 8-hour Survey Period

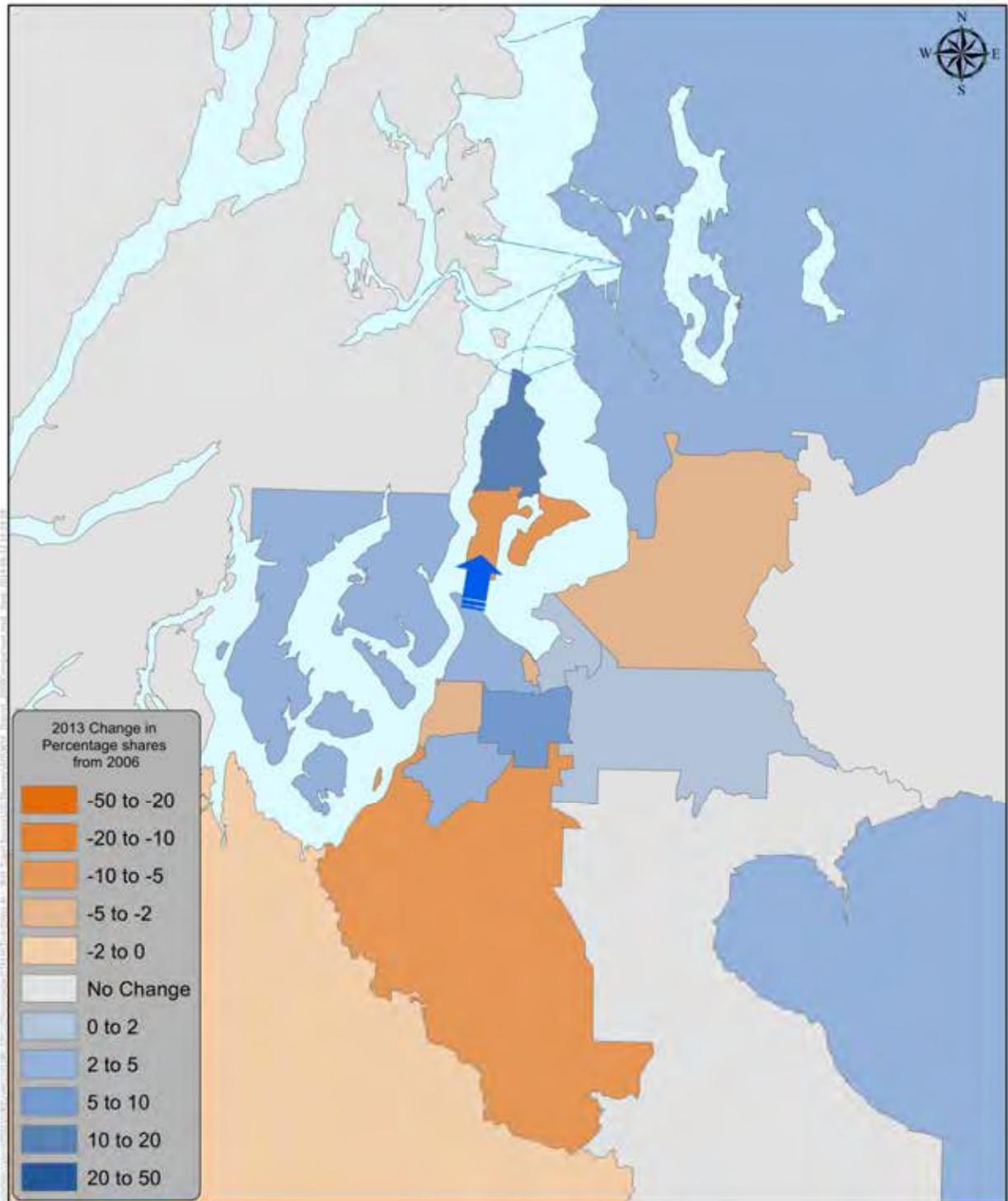


### 7.5.9 Weekday PM Peak-Period Travel Patterns—Northbound

Figure 7-64 presents the origins and destinations of weekday PM peak-period northbound trips by district. This information is presented in tabular format in Table 7-49. The major origins were North Tacoma and South Tacoma, while destinations were relatively evenly split between North and South Vashon Island. Figure 7-65 shows the change in travel patterns for northbound trips between 2006 and 2013. As shown in the figure, there was a decrease in the percentage of trips ending in South Vashon and an increase in North Vashon Island. Origin and destination locations by boarding mode are shown in Figure 7-66. Origin and destination locations were dispersed.



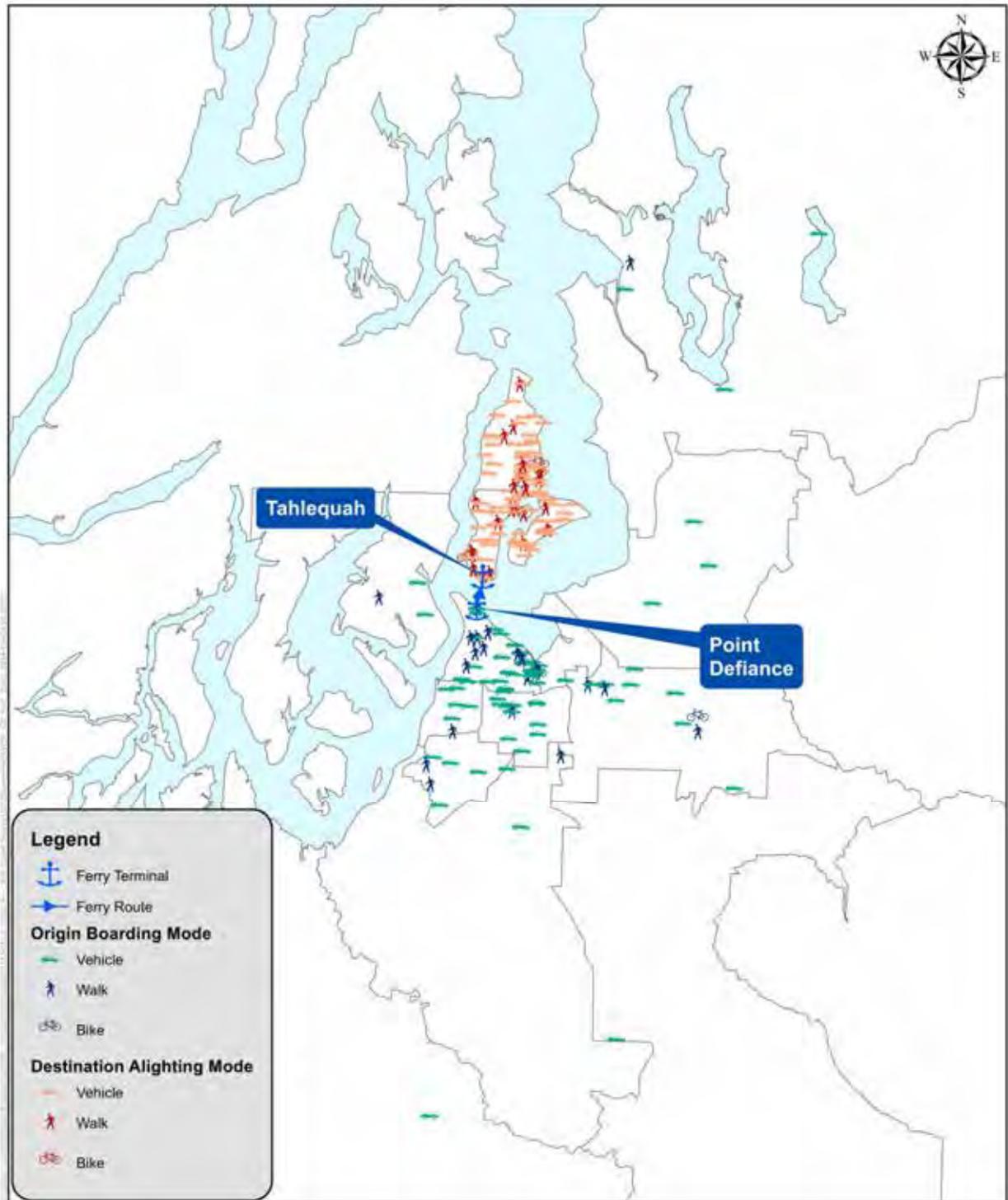
Figure 7-65. Point Defiance–Tahlequah change in northbound travel patterns from 2006, weekday PM peak period



**Table 7-49. Point Defiance–Tahlequah northbound total boardings by origin and destination district, weekday PM peak period**

Origin District ▼		Destination District ►	S Vashon Island	N Vashon Island	Origin Total	Origin Percent Share
			1	2		
N Tacoma	3		54	25	79	24.5%
Tacoma CBD	4		27	15	42	13.0%
Port of Tacoma	5		8		8	2.4%
S Tacoma	6		35	34	69	21.4%
University Place / Fircrest	7		6	4	10	3.0%
Lakewood	8		6	8	14	4.2%
Fife / Puyallup / Sumner	9		4	23	27	8.3%
W Pierce Co.	12		4	19	23	7.2%
Kent-Auburn / Federal Way	13		8	8	16	4.8%
Thurston Co.	15			12	12	3.6%
All Other Places	16		20	4	24	7.5%
Destination Total			172	152	324	100%
Destination Percent Share			52.9%	47.1%	100%	

**Figure 7-66. Point Defiance–Tahlequah northbound origin and destination locations by boarding mode, weekday 8-hour survey period**



**7.5.10 Saturday Travel Patterns—Southbound**

Figure 7-67 presents the origins and destinations of Saturday southbound trips by district. This information is presented in tabular format in Table 7-50. The origins were relatively evenly split

between North and South Vashon Island, while the major destinations were North Tacoma, South Tacoma, and Fife/Puyallup/Sumner. Origin and destination locations by boarding mode are shown in Figure 7-68. Origin and destination locations were dispersed.

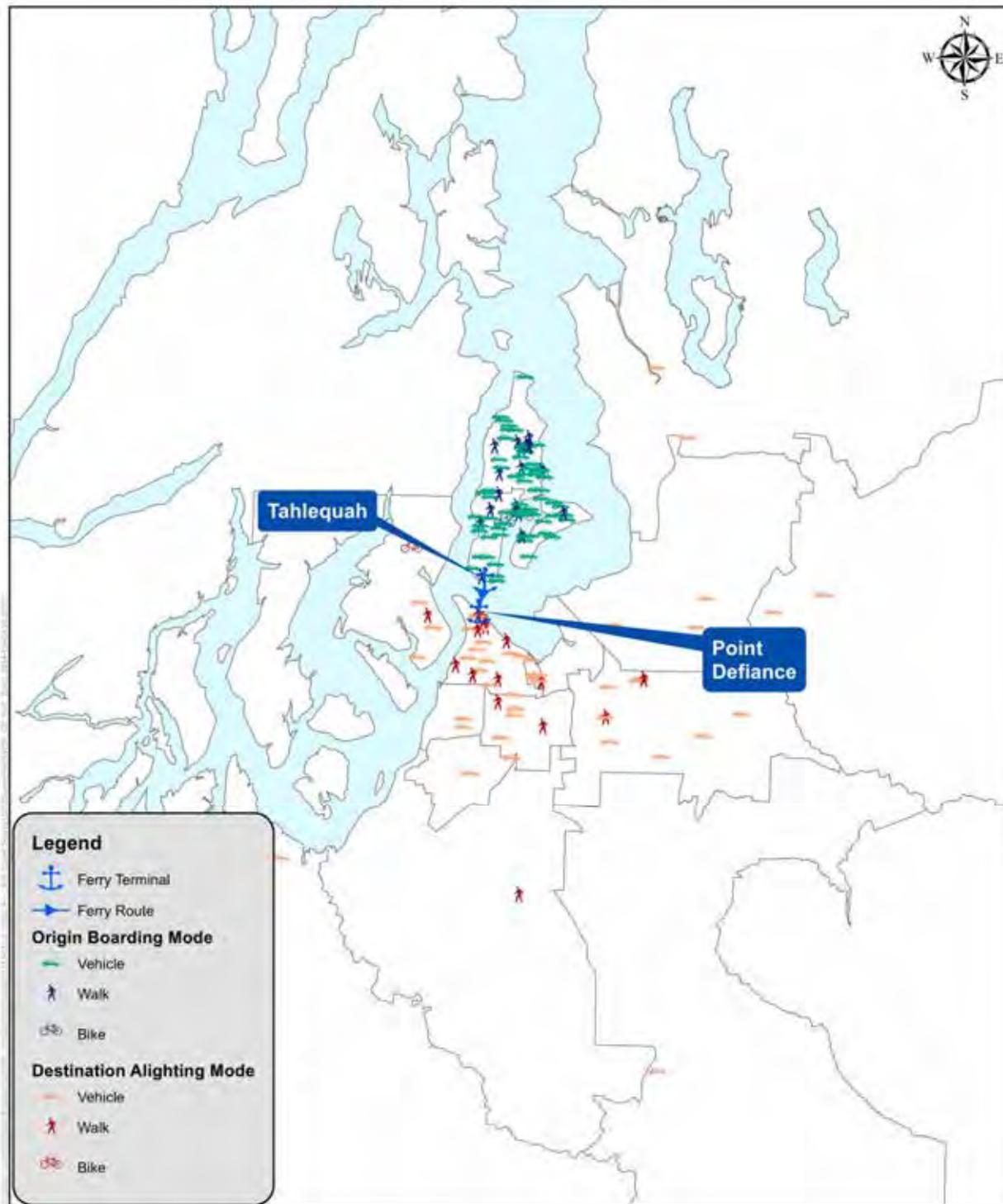
**Figure 7-67. Point Defiance–Tahlequah southbound origin and destination districts, Saturday survey period**



**Table 7-50. Point Defiance–Tahlequah southbound boardings by origin and destination district, Saturday survey period**

Origin District ▼ \ Destination District ▶		Destination District															Origin Total	Origin Percent Share
		N Tacoma	Tacoma CBD	Port of Tacoma	S Tacoma	University Place / Fircrest	Lakewood	Fife / Puyallup / Sumner	S Central Pierce Co.	SE Pierce Co.	W Pierce Co.	Kent-Auburn / Federal Way	Other S King Co.	Thurston Co.	All Other Places (E)	All Other Places (W)		
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17		
S Vashon Island	1	113	14		44		34	48		17	41	26	26	14	54	9	441	57.9%
N Vashon Island	2	65	10	16	42	18	9	52	3		8	5		35	56		321	42.1%
Destination Total		178	24	16	86	18	43	100	3	17	50	31	26	49	110	9	762	100%
Destination Percent Share		23.4%	3.2%	2.1%	11.3%	2.4%	5.6%	13.2%	0.4%	2.2%	6.5%	4.1%	3.5%	6.4%	14.5%	1.2%	100%	

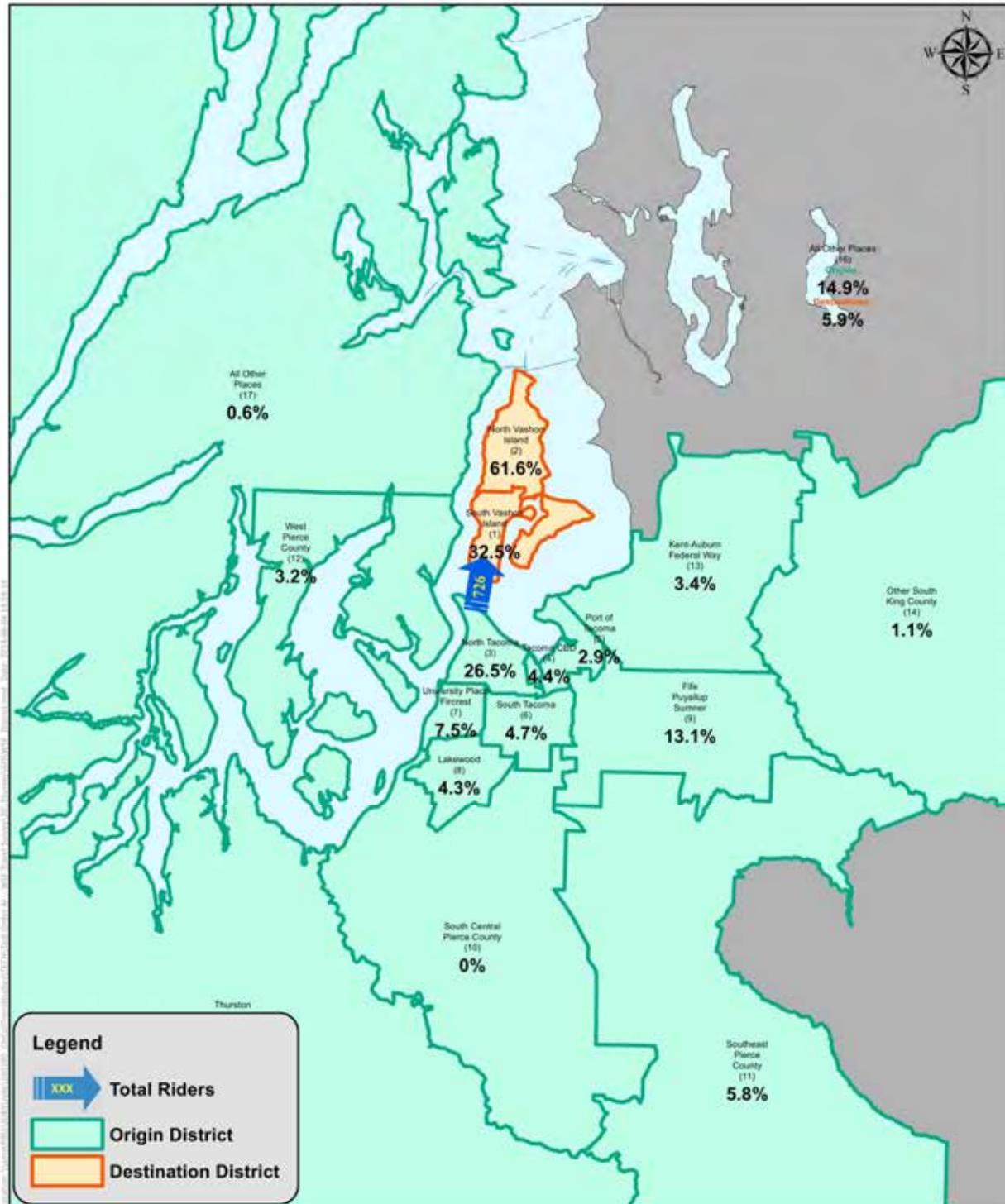
Figure 7-68. Point Defiance–Tahlequah southbound origin and destination locations by boarding mode, Saturday survey period



### 7.5.11 Saturday Travel Patterns—Northbound

Figure 7-69 presents the origins and destinations of Saturday northbound trips by district. This information is presented in tabular format in Table 7-51. The major origins were North Tacoma and Fife/Puyallup/Sumner, while the majority of destinations were in North Vashon Island. Origin and destination locations by boarding mode are shown in Figure 7-70. Origin and destination locations were dispersed.

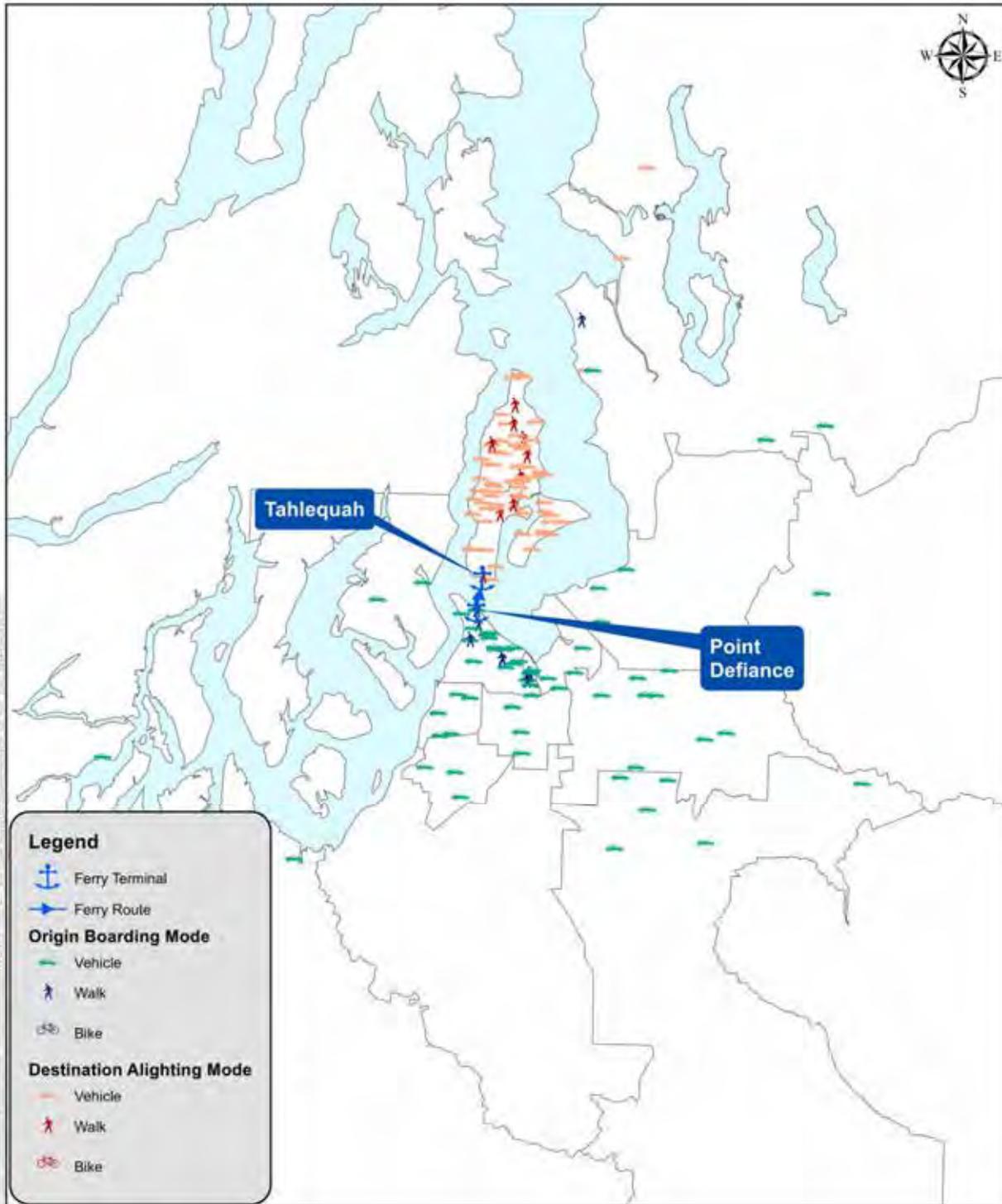
Figure 7-69. Point Defiance–Tahlequah northbound origin and destination districts, Saturday survey period



**Table 7-51. Point Defiance–Tahlequah northbound boardings by origin and destination district, Saturday survey period**

Origin District ▼		Destination District ▶	S Vashon Island	N Vashon Island	All Other Places	Origin Total	Origin Percent Share
			1	2	16		
N Tacoma	3	57	102	34	193	26.5%	
Tacoma CBD	4	8	24		32	4.4%	
Port of Tacoma	5	9	12		21	2.9%	
S Tacoma	6	21	8	5	34	4.7%	
University Place / Fircrest	7	34	21		55	7.5%	
Lakewood	8	5	27		31	4.3%	
Fife / Puyallup / Sumner	9	31	64		95	13.1%	
SE Pierce Co.	11	13	29		42	5.8%	
W Pierce Co.	12	23			23	3.2%	
Kent-Auburn / Federal Way	13		24		24	3.4%	
Other S King Co.	14		8		8	1.1%	
Thurston Co.	15		50	5	55	7.5%	
All Other Places (east)	16	34	74		108	14.9%	
All Other Places (west)	17		5		5	0.6%	
Destination Total		236	447	43	726	100%	
Destination Percent Share		32.5%	61.6%	5.9%	100%		

Figure 7-70. Point Defiance–Tahlequah northbound origin and destination locations by boarding mode, Saturday survey period





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