MAY 2021

Island County

Transportation Data Book

FEHR & PEERS

Island County
Transportation Data Book

MAY 2021

PROJECT MANAGEMENT
Susan Driver, IRTPO Transportation Planner

TECHNICAL ADVISORY COMMITTEE MEMBERS
Alex Warner, City of Oak Harbor Public Works
Brian Tyhuis, NAS Whidbey Island
Todd Morrow, Island Transit
Donna Keeler, Town of Coupeville
Kelly Ojala, Island County Public Work
 Stan Berryman, City of Langley
Stan Reeves, Port of South Whidbey

Bob Monize, District 3 Citizen Rep
Sharon Sappington, EDC
Don Meehan, District 1 Citizen Rep
John Shambaugh, WSDOT
Kelly Ripema, Town of Coupeville
Mehrdad Moini, WSDOT Planning

CONSULTANT TEAM
Marissa Milam, Fehr & Peers
Kendra Breiland, Fehr & Peers

Island Regional Transportation Planning Organization (IRTPO) partnered with Fehr & Peers to explore innovative data sources that could help explain how transportation systems in Island County are used and support long-range planning processes, including the upcoming Regional Transportation Plan Update.
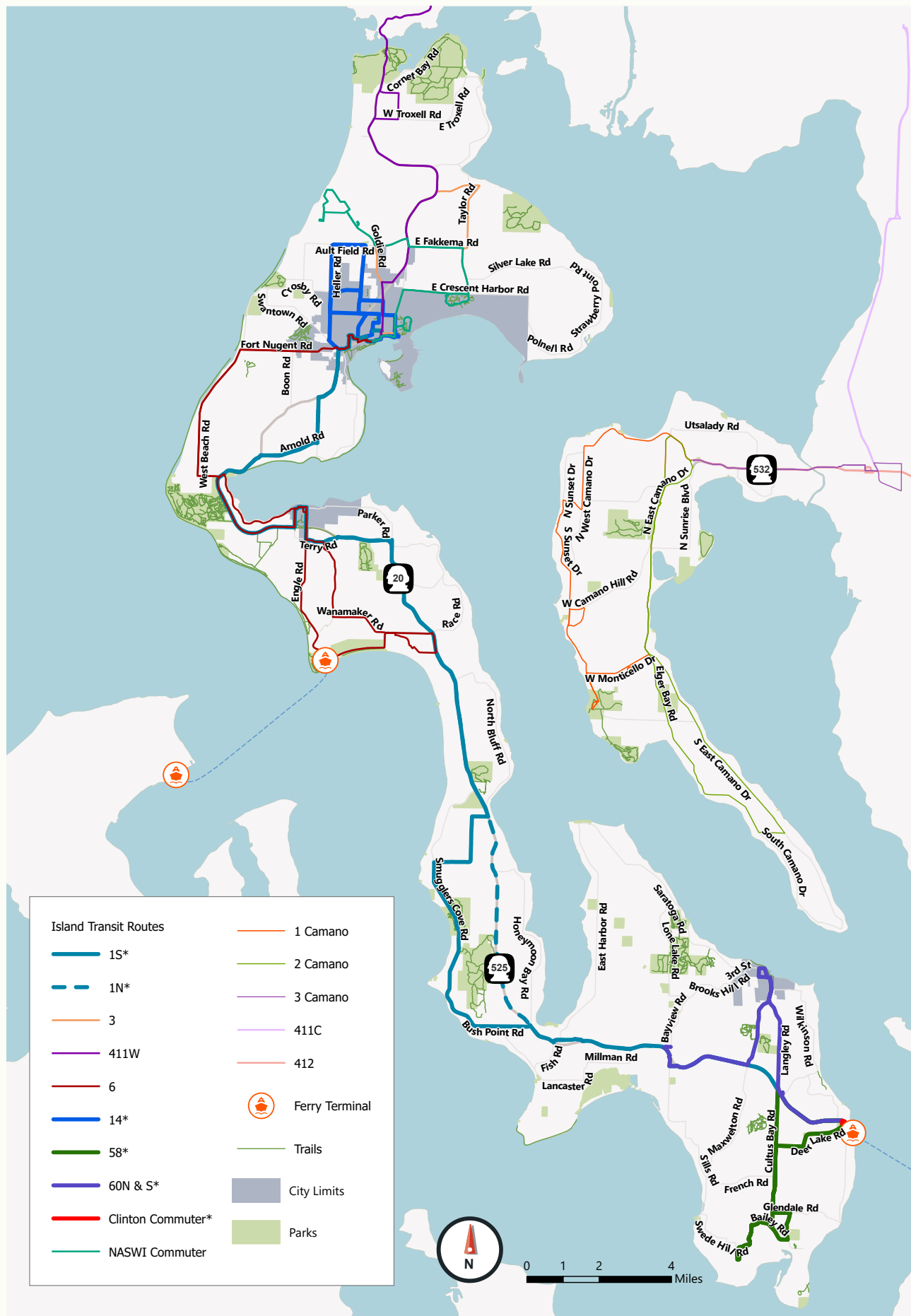
INTRODUCTION

This data book summarizes key findings from the data collected throughout this effort and implications for those providing transportation services in Island County. Findings are presented in a series of questions and answers, with supporting visuals.

This project benefited from guidance of Susan Driver, IRTPO, and the insights of a Technical Advisory Committee that included representatives from Island County, Island Transit, the Washington State Department of Transportation (WSDOT), Washington State Ferries (WSF), the cities of Langley and Oak Harbor, the Town of Coupeville, and Naval Air Station Whidbey (NAS Whidbey).

TRANSPORTATION CONTEXT

Comprised entirely of islands at the intersection of the Puget Sound and the Strait of Juan de Fuca, Island County is a quiet, picturesque escape for the nearly 80,000 residents that call Island County home. As a rural county spread primarily over two large islands (Camano and Whidbey), Island County's population and services are dispersed, although denser urban clusters exist in Oak Harbor, Coupeville, Langley, and North Camano Island. The County's transportation network includes a series of highways (SR 20, SR 525, and SR 532), county roads, trails, and even ferry services that connect Whidbey Island with Mukilteo and Port Townsend. Island Transit provides free fixed route and on-demand paratransit service on both Camano and Whidbey Island.

Page II

FEHR✦PEERS

Island Transit Routes

Legend:

- 1S*
- 1N*
- 3
- 411W
- 6
- 14*
- 58*
- 60N & S*
- Clinton Commuter*
- NASWI Commuter
- 1 Camano
- 2 Camano
- 3 Camano
- 411C
- 412
- Ferry Terminal
- Trails
- City Limits
- Parks

Road and place labels:

Corner Bay Rd, W Troxell Rd, E Troxell Rd, Taylor Rd, Ault Field Rd, Goldie Rd, Heller Rd, E Fakkema Rd, Silver Lake Rd, Strawberry Point Rd, E Crescent Harbor Rd, Crosby Rd, Swantown Rd, Polnell Rd, Fort Nugent Rd, Boon Rd, West Beach Rd, Arnold Rd, Parker Rd, Terry Rd, Engle Rd, Wanamaker Rd, Race Rd, North Bluff Rd, Smugglers Cove Rd, Honeymoon Bay Rd, Bush Point Rd, Fish Rd, Millman Rd, Lancaster Rd, Utsalady Rd, N Sunset Dr, S N Sunset Dr, N West Camano Dr, W Camano Hill Rd, N East Camano Dr, N Sunrise Blvd, Elger Bay Rd, W Monticello Dr, S East Camano Dr, South Camano Dr, East Harbor Rd, Saratoga Rd, Lone Lake Rd, Brooks Hill Rd, 3rd St, Bayview Rd, Langley Rd, Wilkinson Rd, Maxwelton Rd, Sills Rd, Cultus Bay Rd, Deer Lake Rd, French Rd, Glendale Rd, Swede Hill Rd, Bailey Rd

Route markers: 532, 20, 525

Scale: 0 1 2 4 Miles

N

DATA COLLECTION
Existing Data Sources Provided by IRTPO Member Agencies

Fehr & Peers met with IRTPO members to understand what data sources are currently maintained across the county, and how these already available sources could be leveraged to help answer key questions about travel in Island County. Through this inventory process, the project team met with each of the agencies in Table 1 and received a variety of data.

The data received from IRTPO members has been shared with Island County; some of the new GIS data files may be incorporated into the existing Island County Open Data Portal. Phase 2 of this project may include further analysis into these existing data sources.

FEHR ＋ PEERS

AGENCY	DATA RECEIVED	
Island County	**Open data portal GIS shapefiles:** • Boundaries • Parcels • Planning data • Zoning • Wetlands • Water Systems • Contours • Parks • Trails and bicycle tour routes • Drainage • Roadway centerline • Average Daily Traffic (ADT) volumes	**Map packages from Transportation Element:** • Concurrency • Functional classification • Existing peak hour traffic volumes • Truck routes • Inventory of non-motorized facilities
Island Transit	• General Transit Feed Specification (GTFS) for Fall 2019 and Fall 2020 • Ridership reports at the route and stop level	
WSDOT	• Freight and Goods Transportation System (FGTS) classification for roadways in Island County • ADT traffic count data on state highways • Sharpes Corner peak hour traffic counts • 2010-2019 collisions for every road in Island County	
WSF	• Quarterly ferry boarding reports by vehicle classification • 2013 passenger survey with Origin-Destination data • Electronic sales records for 2018-2020	
NAS Whidbey	Average daily vehicle volumes at each gate	
City of Stanwood	Map of proposed StreetLight Data segments for SR 532 analysis	
City of Oak Harbor	Historical intersection turning movement counts	

PURCHASED AND ACQUIRED DATA

StreetLight Data

StreetLight Data combines Location-Based Services (LBS) data with machine learning algorithms to understand travel behavior across the country. Each month, StreetLight Data processes approximately 40 billion anonymized location records from smart phones and navigation devices in connected cars and trucks and uses machine learning to transform these records into aggregated and normalized route-based travel patterns. Trips are created from the location records by starting a trip once a device is traveling at a reasonable speed, snapping records to road network data to estimate the trip route, and establishing a trip end once the device has not moved 100 meters within 5 minutes. Data is validated using permanent traffic counters and embedded sensors, and normalized with multiple data sources, including parcel data, digital road network data, and census information to calculate vehicle volume estimates.

For this project, two types of analyses were used: Origin-Destination (OD) and Zone Activity Analysis. Origin-Destination analysis identifies the vehicle volumes between locations, such as between NAS Whidbey and downtown

Oak Harbor, for a designated time period. The Zone Activity Analysis output focuses on individual zones, not OD pairs, and the output for each time period is the total vehicle volume, average trip length, and average speed. Some of the Zone Activity Analyses use an add-on metric that identifies the home and work locations for travelers who are seen in each zone (aggregated to 1-kilometer grids). StreetLight identifies the home location of the observed device records by tagging the census block group the device spends the majority of nighttime hours at, while work locations are tagged by the census block group the device spends the majority of daytime hours at during a given month.[1]

One important caveat of the data is that the provided data is for individual trips, not trip tours. Because StreetLight's algorithm creates a trip end once the device has stopped moving for 5 minutes, the full origin-destination pair of a longer trip may not be captured. For example, if someone leaves their house to head to work, but stops at a coffee shop along the way and stays for 10 minutes, the observed origin-destination pairs would be home-to-coffee shop, and then coffee shop-to-work.

1. This is an imperfect metric, as it may exclude people who work non-traditional hours, such as night shifts.

FEHR ⚘ PEERS

PURCHASED AND ACQUIRED DATA

Accessibility Data

Fehr & Peers created a series of travel accessibility tools that analyze how multi-modal transportation networks provide access to opportunities such as employment, grocery stores, medical services, and education. Using Network Analyst in ArcGIS, which is available for purchase, and a mix of publicly available sources, including OpenStreetMap, General Transit Feed Specification (GTFS) data, and historical traffic data, we were able to analyze and visualize how well each mode connects people with key destinations based on estimated travel times. By incorporating census data, this tool can also be used to understand how access varies among different demographic groups and where gaps may exist for priority populations.

Thirty-minute drive sheds were developed for the AM (8-9AM) and midday (12-1PM) peak hours using a historical traffic data routing engine developed by ArcGIS. The routing software provides average travel times by time of day using three years of historic data. Auto travel times represent typical, pre-COVID, Wednesday traffic conditions and the sheds were calculated assuming vehicles are traveling towards destinations for each peak period.

The drive time sheds are separated out into 5-minute bins, with each shed representing how far a vehicle can travel from each destination within that time frame.
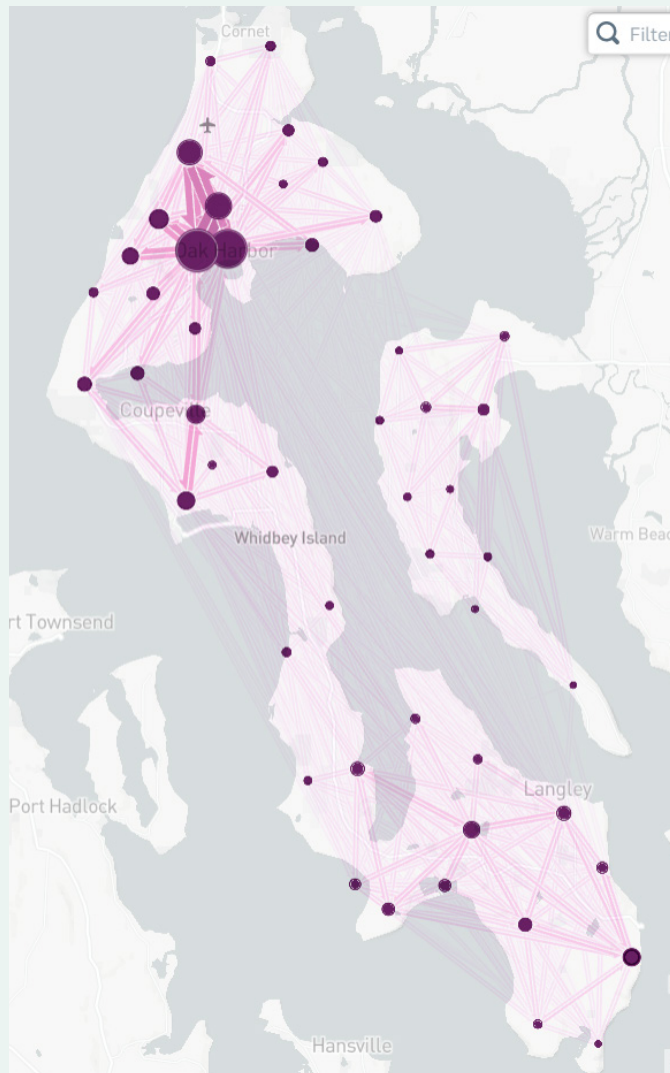
Forty-five-minute transit sheds were developed for the AM (8-9AM) and midday (12-1PM) peak hours using OpenStreetMap (OSM) data, GTFS data from Island Transit, and ArcGIS network analyst. OSM is an open source dataset of transportation networks that contain detailed information, like network type (arterial, residential street, bike lane, sidewalk), number of lanes, and speed limit. Transit routes, stops, schedule, and typical travel times between stops are joined to the OSM network using GTFS data. Transit travel times represent typical 2019 transit service and schedules, and the sheds were calculated assuming transit users were heading towards destinations for each peak period. The transit travel sheds are separated out into 5-minute bins, with each shed representing how far a typical rider can travel from each destination within that time frame. Transit sheds incorporate pedestrian infrastructure and walking into the final output, since riders must travel along sidewalks to get to transit stops.
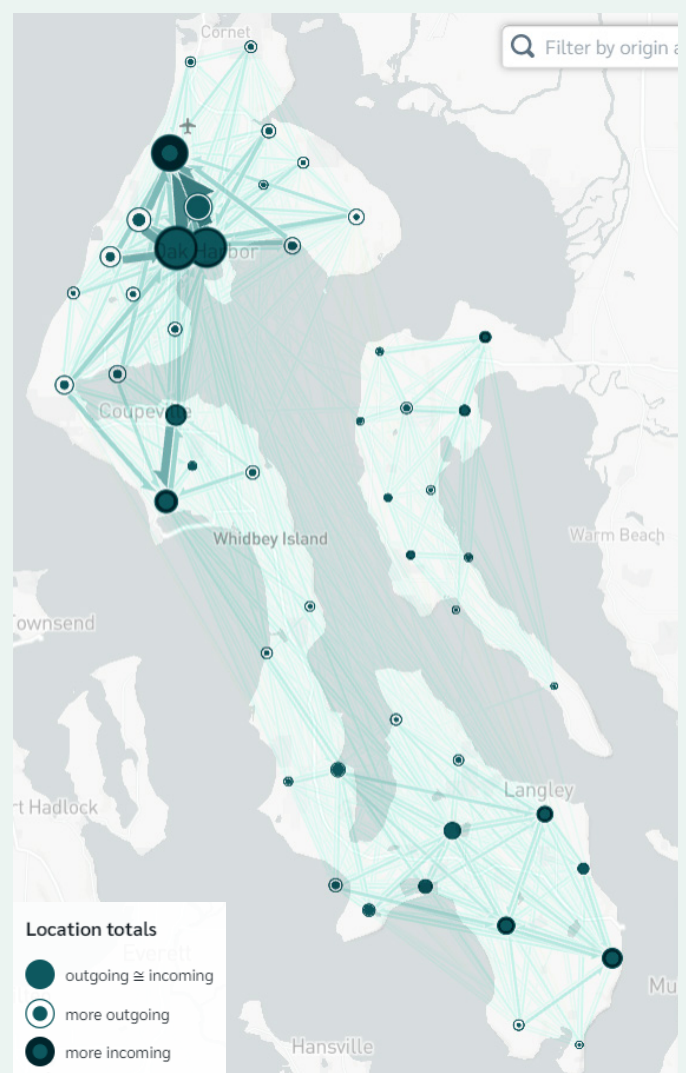
Where do people travel in Island County?

The maps below represent the origin-destination pairs for trips that both start and end within Island County. Both maps use StreetLight Data for September – October 2019 to represent typical pre-COVID travel patterns. Map 1 shows the top origin-destination pairs across the county for a typical day (12am-12am), while Map 2 shows only the AM peak period travel (6am-10am).

INTERNAL TRIPS (ALL DAY WEEKDAY)

INTERNAL TRIPS (AM PEAK PERIOD TRIPS WEEKDAY)

Location totals
- outgoing ≅ incoming
- more outgoing
- more incoming

NAS Whidbey and Oak Harbor have the greatest amount of trip origins and destinations within Island County across an average day, and these areas attract trips from across Whidbey Island, including Coupeville, Keystone, and South Whidbey. It is notable that most trips remain in a tight geographic area. For example, there is less travel between the north and south ends of Whidbey Island than one might expect.
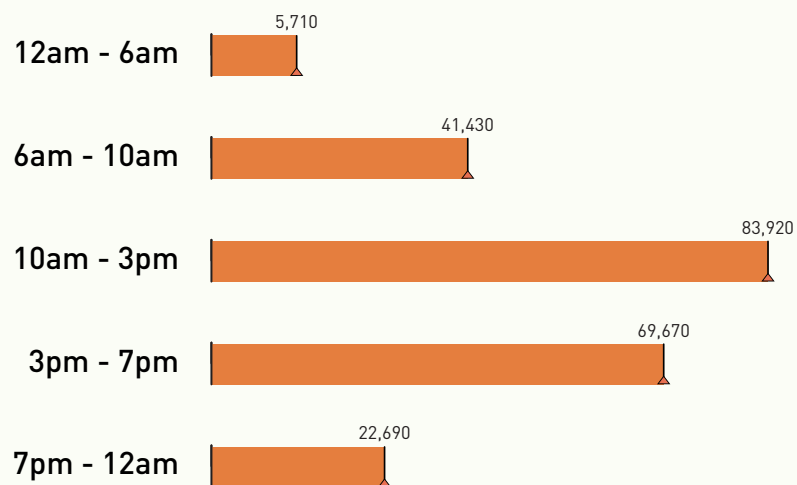
Trip patterns during the AM peak period are similar to the all-day patterns, but the commute trips tend to stand out more, as the map highlights which locations have more incoming versus outgoing trips. NAS Whidbey and Oak Harbor again stand out as top destinations within the county, with a large portion of trips coming from Coupeville.

FEHR✦PEERS

Places
- Bayview
- Clinton
- Freeland
- Langley

N

0 1 2   4
Miles
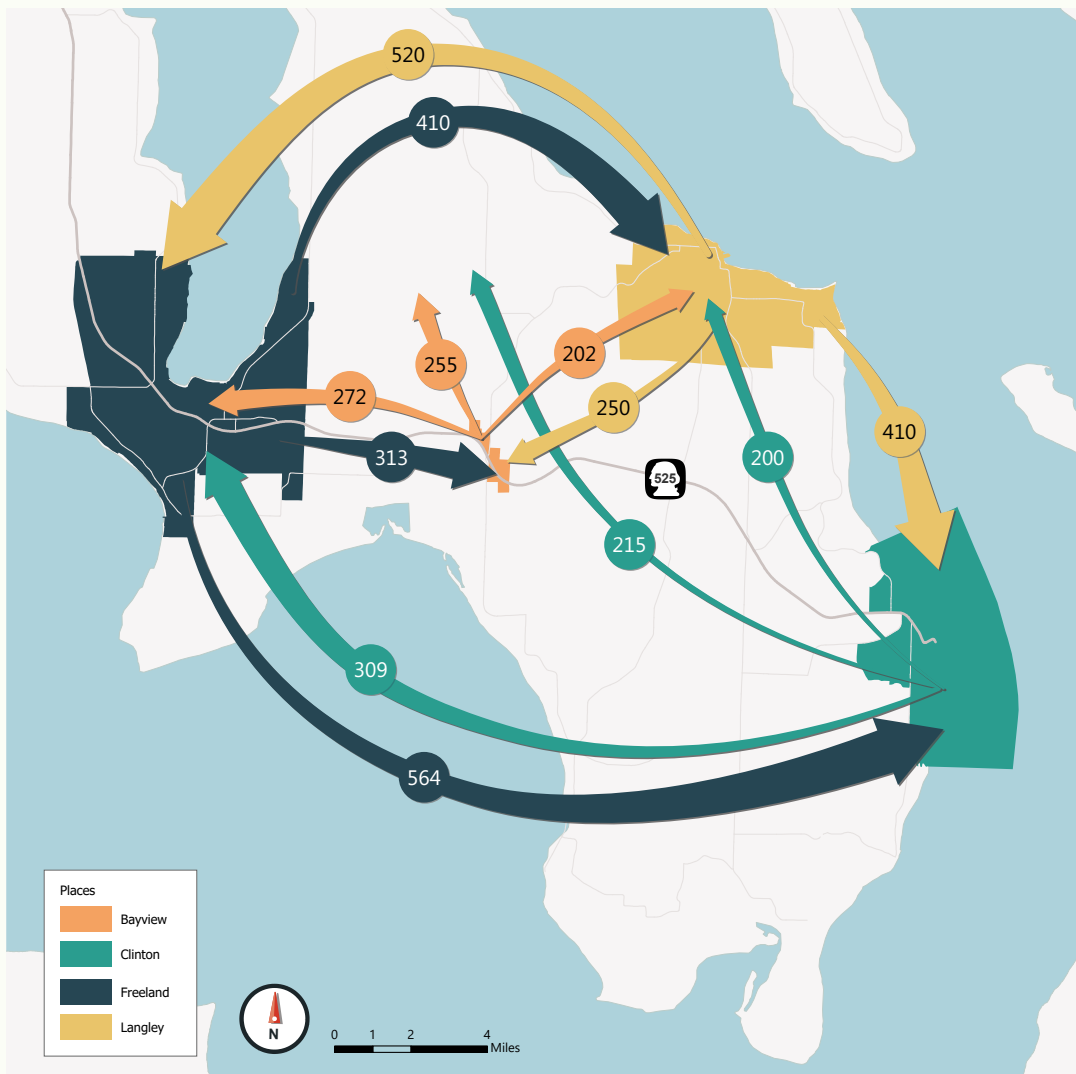
TOTAL TRIPS BY TIME OF DAY (FOR ALL TRIPS WITHIN ISLAND COUNTY)

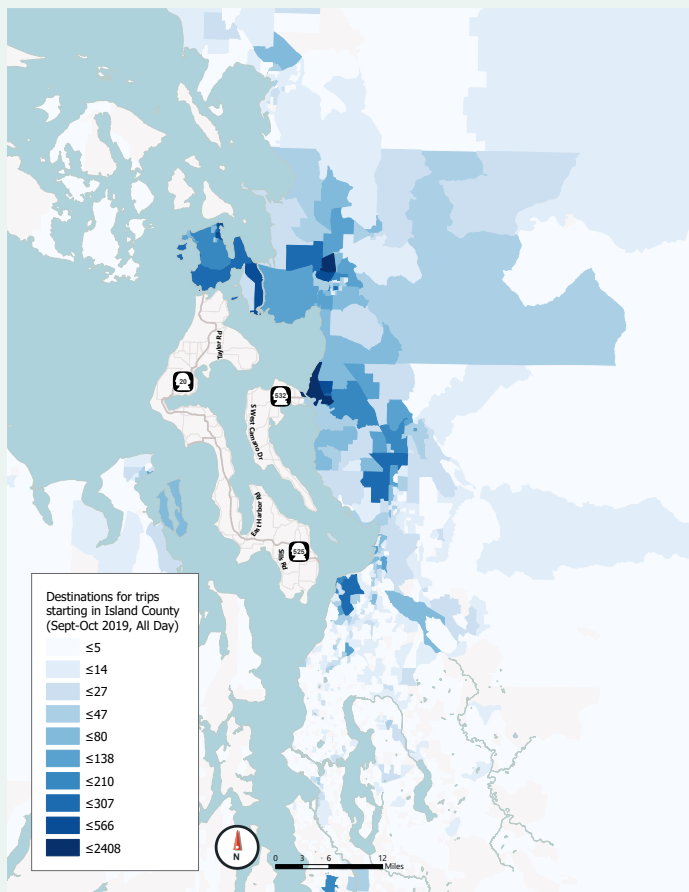| Time of Day	Trips
12am - 6am	5,710
6am - 10am	41,430
10am - 3pm	83,920
3pm - 7pm	69,670
7pm - 12am	22,690

When people leave Island County, where do they go? Similarly, where are visitors coming from?

The maps below represent the origin-destination pairs for trips that either start or end within Island County. The maps use StreetLight Data for September – October 2019 to represent typical pre-COVID travel patterns. The first series of maps show the destinations of trips that start within the county, but end elsewhere, while the second series shows the destination of trips that start outside the county, and end within. The map series are again separated into travel across an average day (12am-12am), and AM peak period travel (6am-10am) to help glean typical commute patterns.

TRIPS FROM ISLAND COUNTY TO OTHER PLACES (ALL DAY)

Destinations for trips starting in Island County (Sept-Oct 2019, All Day)

≤5
≤14
≤27
≤47
≤80
≤138
≤210
≤307
≤566
≤2408

TRIPS FROM ISLAND COUNTY TO OTHER PLACES (AM PERIOD)

Destinations for trips starting in Island County (Sept-Oct 2019, AM Period)

≤4
≤10
≤18
≤30
≤42
≤53
≤83
≤130
≤360
≤1489

Top Destinations include

- Stanwood
- Marysville/Everett
- Mount Vernon
- Mukilteo
- Anacortes
- Bellingham
- North Seattle/Bellevue

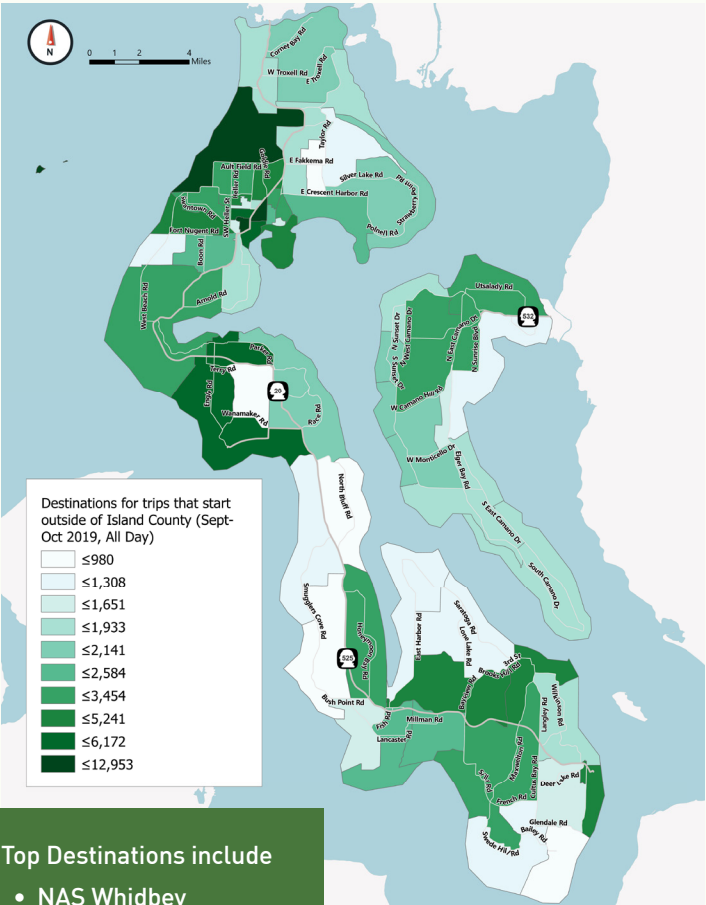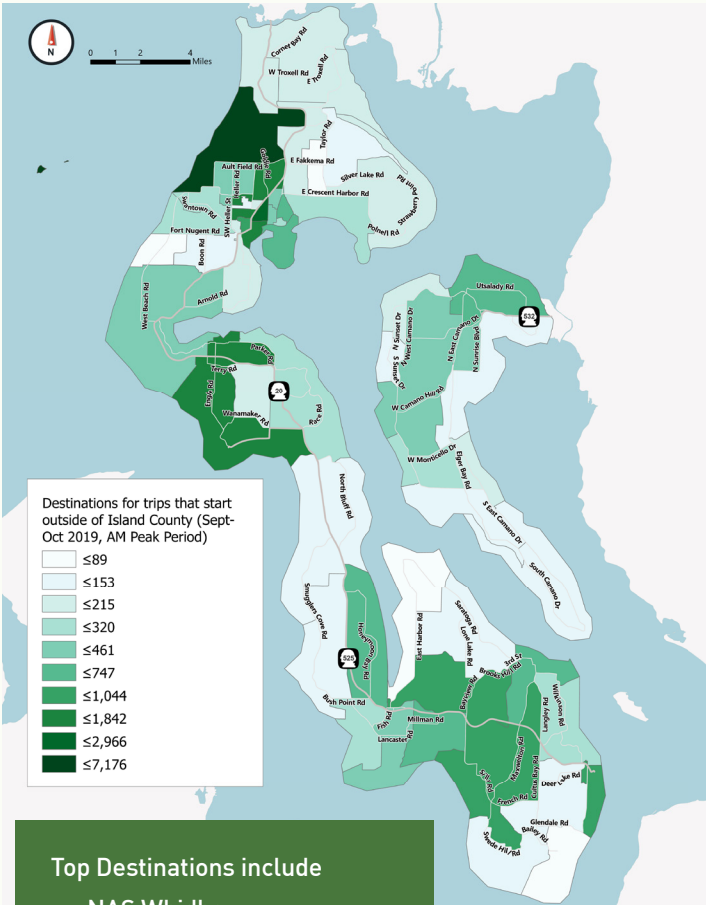**Top Destinations include**
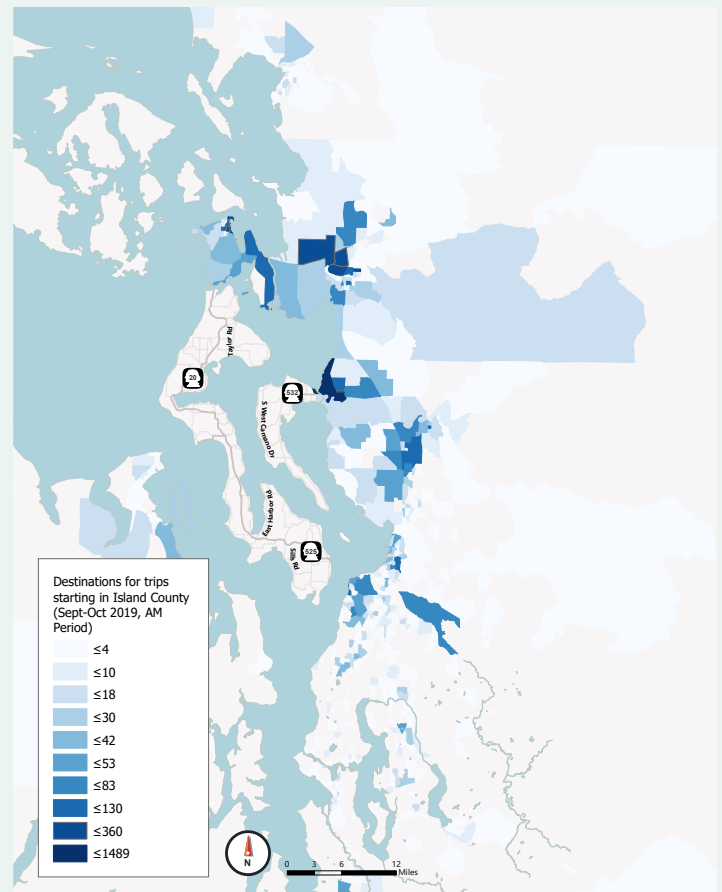
- Stanwood
- Marysville
- Mount Vernon
- Bellingham
- Port Townsend
- Marysville/Everett
- Port Angeles
- North Seattle/Bellevue

FEHR ‡ PEERS

TRIPS INTO ISLAND COUNTY FROM OTHER PLACES (ALL DAY)

Destinations for trips that start outside of Island County (Sept-Oct 2019, All Day)

≤980
≤1,308
≤1,651
≤1,933
≤2,141
≤2,584
≤3,454
≤5,241
≤6,172
≤12,953

Top Destinations include
- NAS Whidbey
- Oak Harbor
- Coupeville
- Fort Casey
- Clinton
- Langley

TRIPS INTO ISLAND COUNTY FROM OTHER PLACES (AM PERIOD)

Destinations for trips that start outside of Island County (Sept-Oct 2019, AM Peak Period)

≤89
≤153
≤215
≤320
≤461
≤747
≤1,044
≤1,842
≤2,966
≤7,176

Top Destinations include
- NAS Whidbey
- Downtown Oak Harbor
- Coupeville
- Fort Casey
- Terry's Corner

Trips Into the County
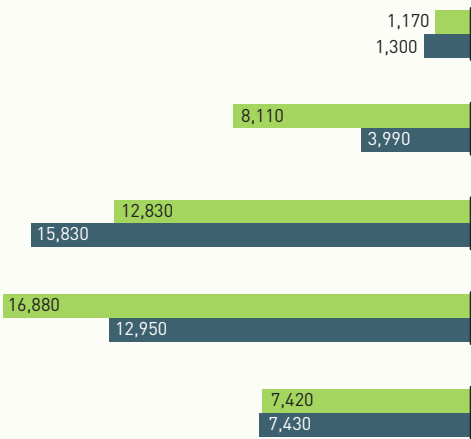
Time	Weekday	Weekend
12am – 6am	1,170	1,300
6am – 10am	8,110	3,990
10am – 3pm	12,830	15,830
3pm – 7pm	16,880	12,950
7pm – 12am	7,420	7,430

Trips into the County (Weekday)
Trips into the County (Weekend)

Trips Out of the County

Time	Weekday	Weekend
12am – 6am	3,260	1,300
6am – 10am	13,230	8,010
10am – 3pm	15,660	19,830
3pm – 7pm	14,220	12,460
7pm – 12am	4,060	4,950
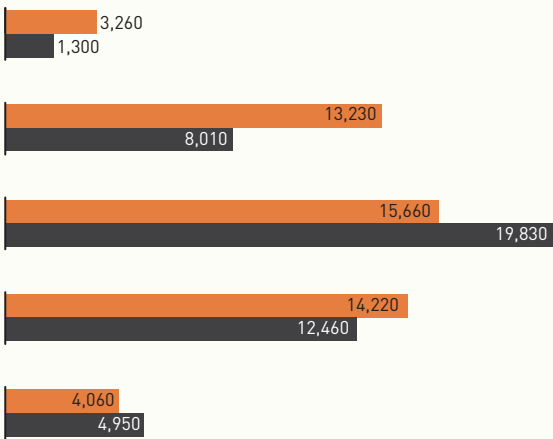
Trips out of the County (Weekday)
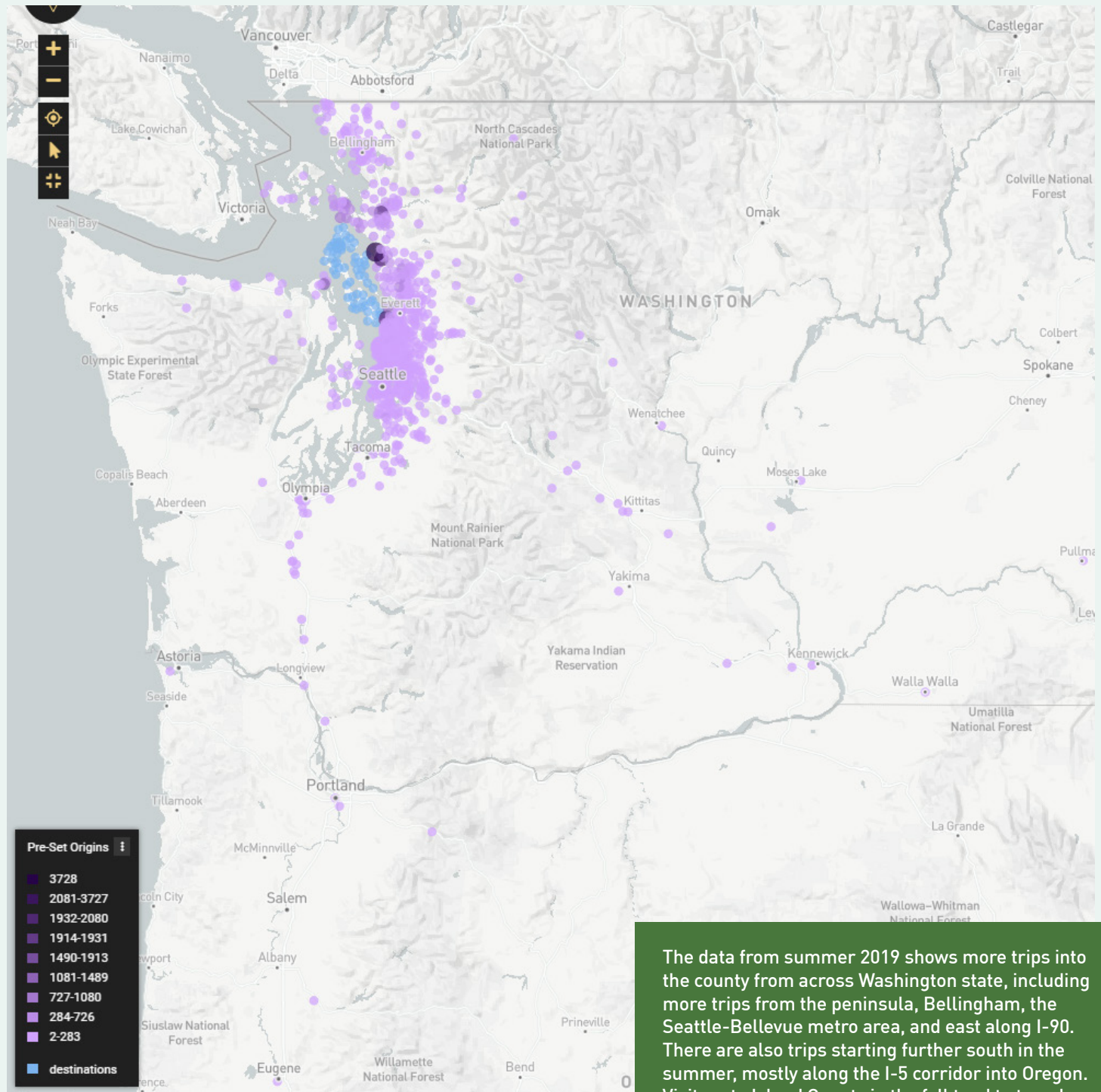Trips out of the County (Weekend)
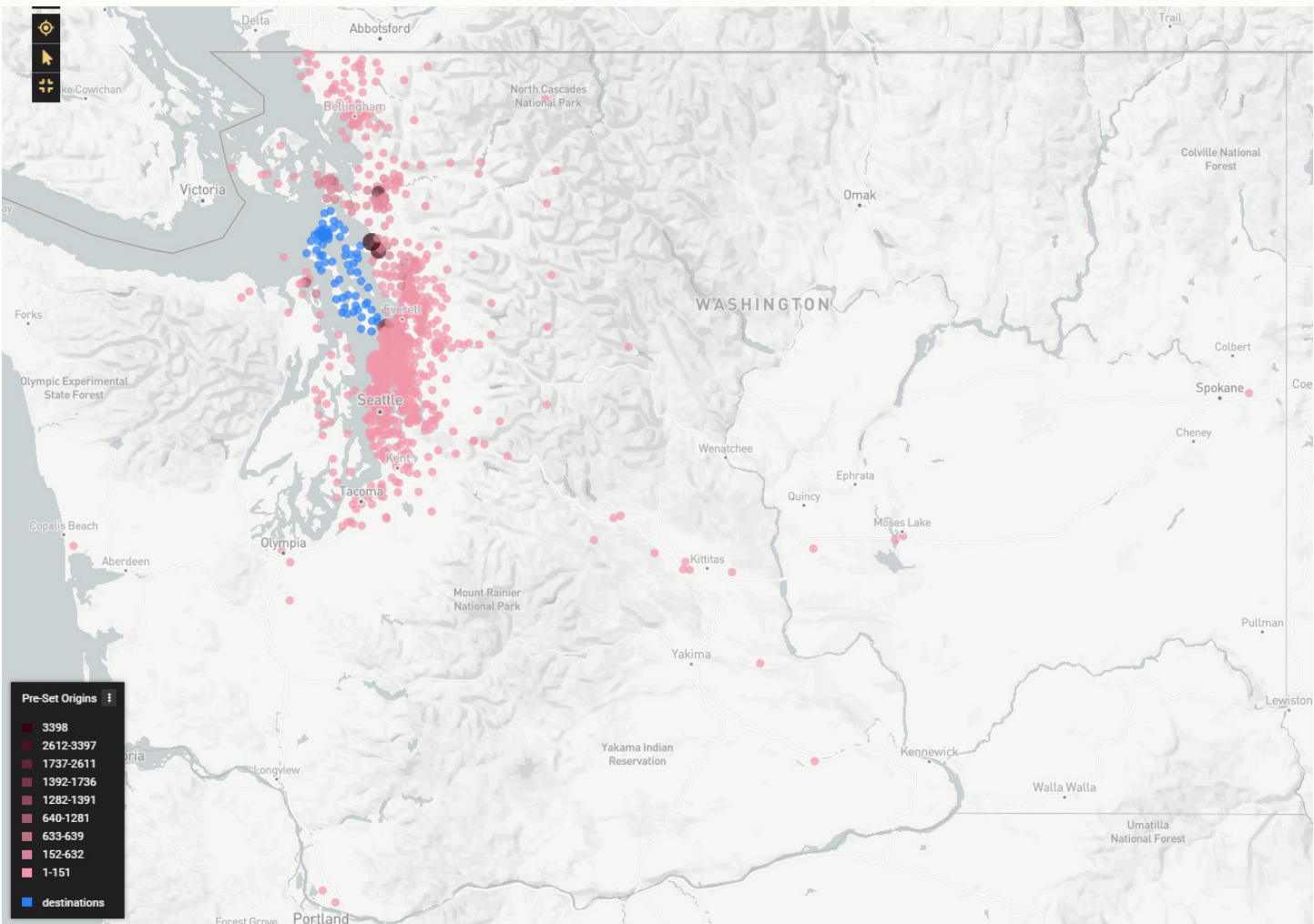
How do these patterns vary by season?

The maps below represent the origins of trips headed into Island County for an average day in summer versus fall 2019. This comparison highlights differences in seasonal travel patterns. For example, summer 2019 saw 34% more trips into the county (compared to fall) and many of these trips came from a longer distance, suggesting more recreational travel.,
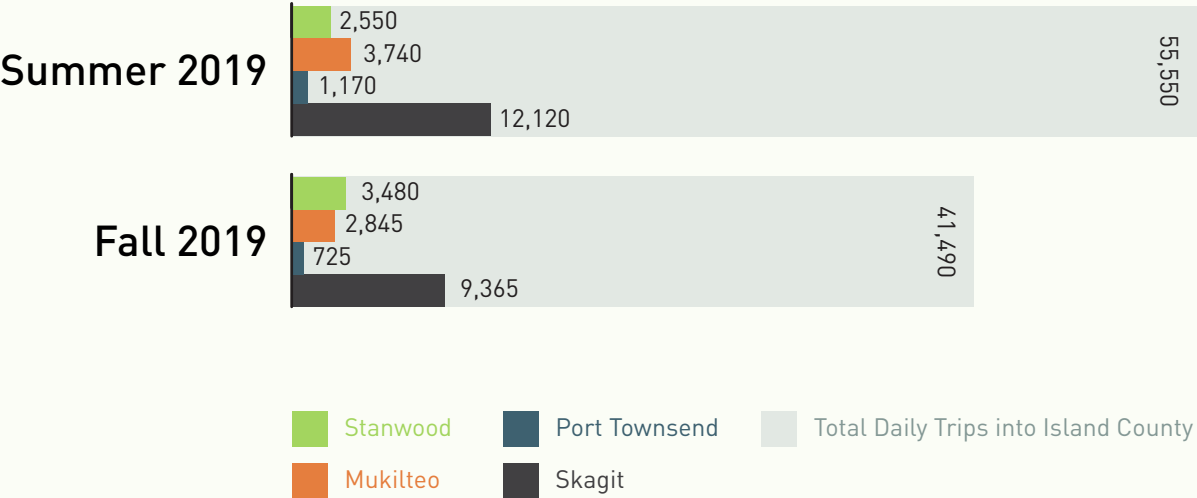
TRIPS INTO ISLAND COUNTY FROM OTHER PLACES JULY

Pre-Set Origins

- 3728
- 2081-3727
- 1932-2080
- 1914-1931
- 1490-1913
- 1081-1489
- 727-1080
- 284-726
- 2-283
- destinations

The data from summer 2019 shows more trips into the county from across Washington state, including more trips from the peninsula, Bellingham, the Seattle-Bellevue metro area, and east along I-90. There are also trips starting further south in the summer, mostly along the I-5 corridor into Oregon. Visitors to Island County in the fall tend to travel shorter distances than summer visitors.

FEHR PEERS

TRIPS INTO ISLAND COUNTY FROM OTHER PLACES OCTOBER

TOP ORIGINS FOR TRIPS INTO ISLAND COUNTY (AVERAGE
DAY, 12AM-12AM)

Summer 2019
- 2,550
- 3,740
- 1,170
- 12,120
- 55,550

Fall 2019
- 3,480
- 2,845
- 725
- 9,365
- 41,490

- Stanwood
- Mukilteo
- Port Townsend
- Skagit
- Total Daily Trips into Island County

How have these patterns changed since COVID?

The COVID-19 pandemic drastically changed travel patterns across the country, with large decreases in vehicle trips during spring 2020, and a gradual uptick in volumes in summer and fall 2020. In Island County, trips that start within the county decreased about 50% in early spring 2020 compared to January-February 2020. By late summer/ early fall 2020, trips within the county had begun to rebound, but were still down 20% compared to fall 2019.

TRIPS WITHIN THE COUNTY PRE-COVID AM
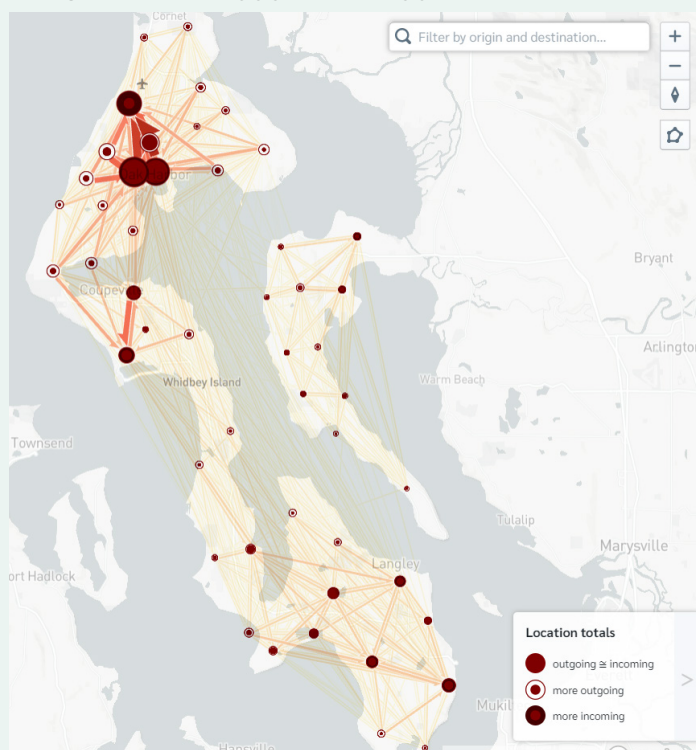
TRIPS WITHIN THE COUNTY DURING COVID AM
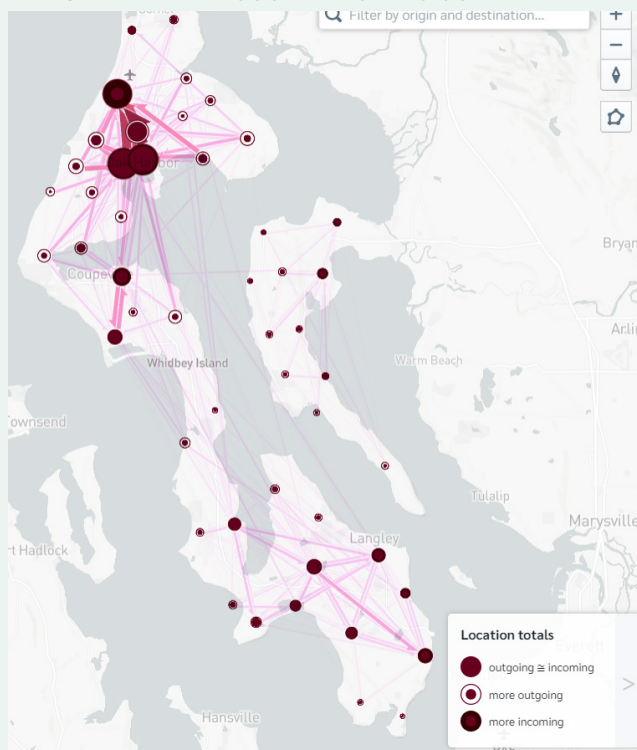
These maps show that despite the decrease in travel within the county due to COVID-19, overall trip patterns have remained similar to 2019 conditions. North Whidbey Island continues to have the most inbound and outbound trips, likely due to the greater population and employment density. NAS Whidbey is one of the top destinations for both fall 2019 and 2020 because of the large number of essential workers employed there. During the AM peak period, there are fewer trips that stay within south Whidbey Island, and fewer trips that travel between north and south Whidbey Island.

FEHR ✦ PEERS

However, StreetLight Data shows that while trips that stay within the county have decreased, trips into Island County have increased between fall 2019 and fall 2020. Across the country, demand for state parks and other outdoor activities has skyrocketed over the past year; Island County may be experiencing the same demand surge given its accessibility to Western Washington and the Seattle metro area.
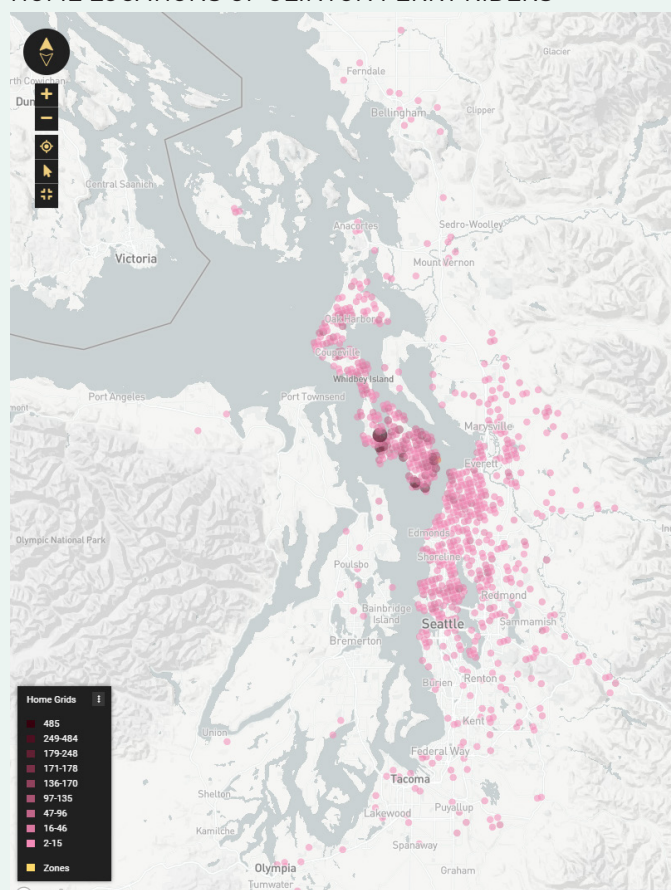
Trips Into the County

Time	Weekday	Weekend
12am - 6am	830	770
6am - 10am	5,670	2,540
10am - 3pm	9,950	13,470
3pm - 7pm	12,660	11,430
7pm - 12am	5,110	4,840

Trips Out of the County

Time	Weekday	Weekend
12am - 6am	3,310	1,300
6am - 10am	10,570	7,340
10am - 3pm	17,660	21,030
3pm - 7pm	13,890	13,340
7pm - 12am	4,230	5,320

Trips into the County (Weekday)
Trips into the County (Weekend)

Trips out of the County (Weekday)
Trips out of the County (Weekend)

TOTAL TRIPS (WITH TRIP END IN ISLAND COUNTY) ALL DAYS

Time	Pre Covid Fall 2019	During Covid Fall 2020
12am - 6am	4,920	4,110
6am - 10am	35,310	28,570
10am - 3pm	75,410	73,125
3pm - 7pm	72,320	67,090
7pm - 12am	28,665	24,260

Pre Covid Fall 2019
During Covid Fall 2020
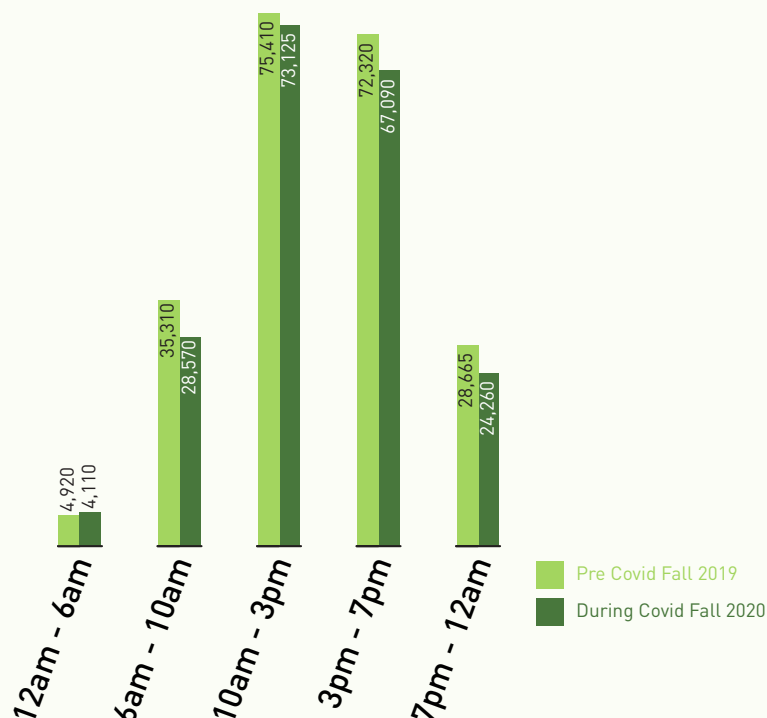
Who do the ferries serve?

Island County is served by two ferry routes: the Keystone Ferry (Coupeville to Port Townsend) and the Clinton Ferry (Clinton to Mukilteo). In 2019, the Clinton-Mukilteo route carried over 4,130,000 passengers, and the Coupeville-Port Townsend route carried approximately 840,000 passengers. In 2020, the Clinton-Mukilteo route lost over 25% of its annual ridership, and the Coupeville-Port Townsend annual ridership decreased over 35%. However, Quarter 1 ridership statistics show that in 2021, ferry ridership in Island County is almost back to Quarter 1 2020 pre-pandemic levels. The first map series below uses StreetLight Data to visualize the home locations of ferry riders in fall 2019.

HOME LOCATIONS OF COUPEVILLE FERRY RIDERS
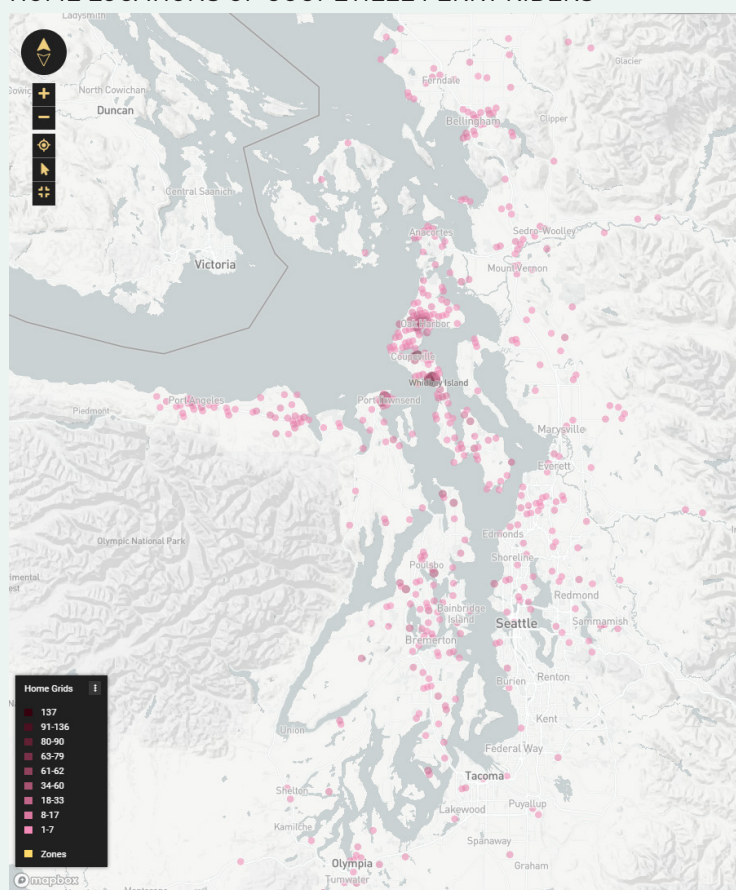
HOME LOCATIONS OF CLINTON FERRY RIDERS

Both ferries serve the residents of Island County, with the Clinton ferry serving a much greater proportion of south Whidbey Island residents. The Keystone ferry serves residents and business trips (including logging trucks) from the peninsula, including Port Angeles, Port Townsend, Poulsbo, and Bremerton. This route also carries more travelers from northern Washington, such as Bellingham and Ferndale. The Clinton ferry route carries more passengers from the Seattle metro area, including Everett, Marysville, Edmonds, and northern Seattle. This ferry also carries riders coming from communities along I-90, such as Sammamish and Issaquah.

This second map series displays the origins of trips headed to both ferry docks in Island County, and the destinations of trips leaving those ferry docks, respectively, for an average day in fall 2019.

Origin flows to the ferry docks align well with the home locations of the ferry riders, with the Coupeville ferry carrying passengers from the peninsula and Northern Washington, and the Clinton ferry carrying riders from the Seattle-Bellevue metro area. Travelers leaving the Clinton ferry tend to stay on Whidbey Island after getting off the ferry in Island County, and after departing in Mukilteo, tend to travel back towards the northern Seattle-Bellevue metro area. Riders on the Coupeville ferry departing in Island County have the top destinations of Oak Harbor, south Whidbey, Anacortes, and northern Washington, such as Mount Vernon and Bellingham.

ORIGINS OF TRIPS HEADED FOR FERRIES
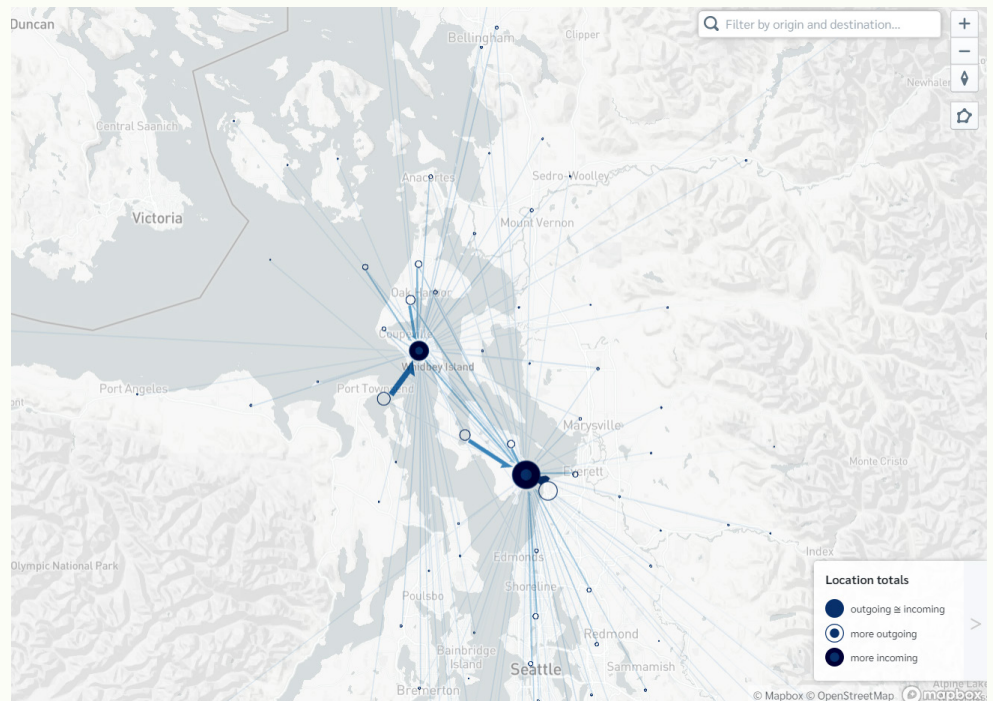
DESTINATIONS OF TRIPS LEAVING FERRIES
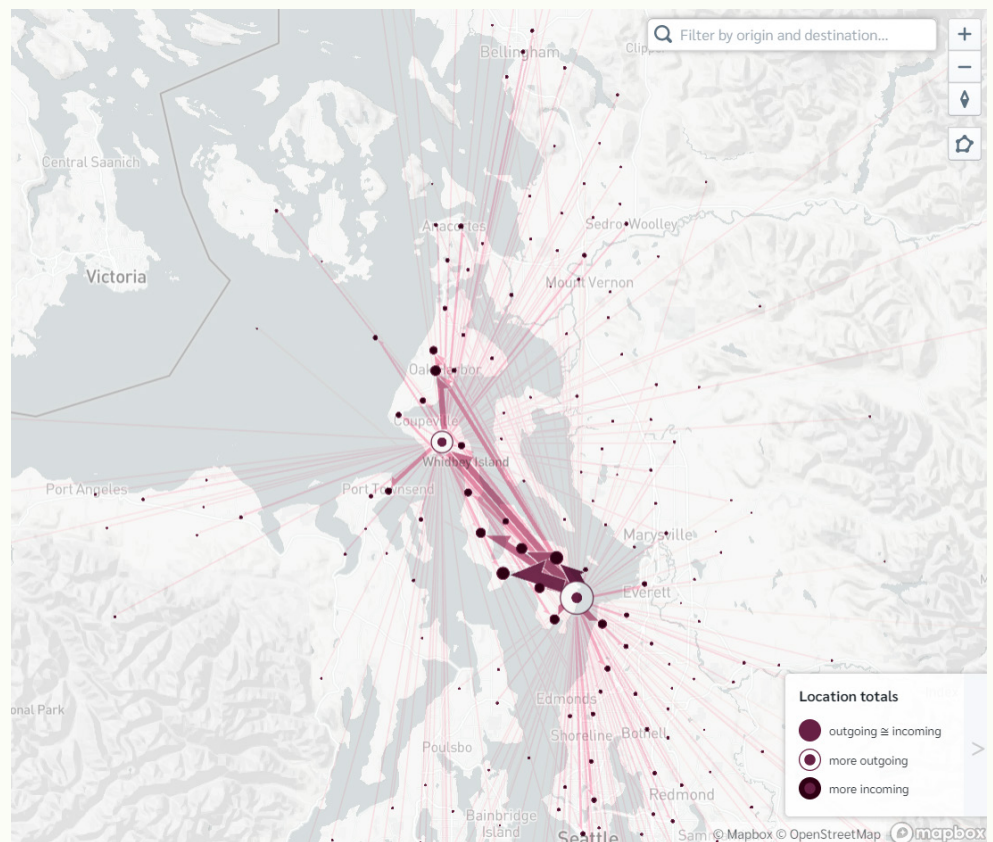
As a part of the accessibility analysis presented in later chapters, this infographic displays the number of jobs accessible from the ferry docks in Island County, by both driving and using transit during the AM peak hour.

The employment accessibility for driving also includes jobs outside of Island County that can be accessed within the select travel time sheds.

NUMBER OF JOBS ACCESSIBLE FROM FERRY DOCKS

10 minutes
142
40,645

20 minutes
1,310
153,890

30 minutes
2,310
410,730

■ Auto　　■ Transit
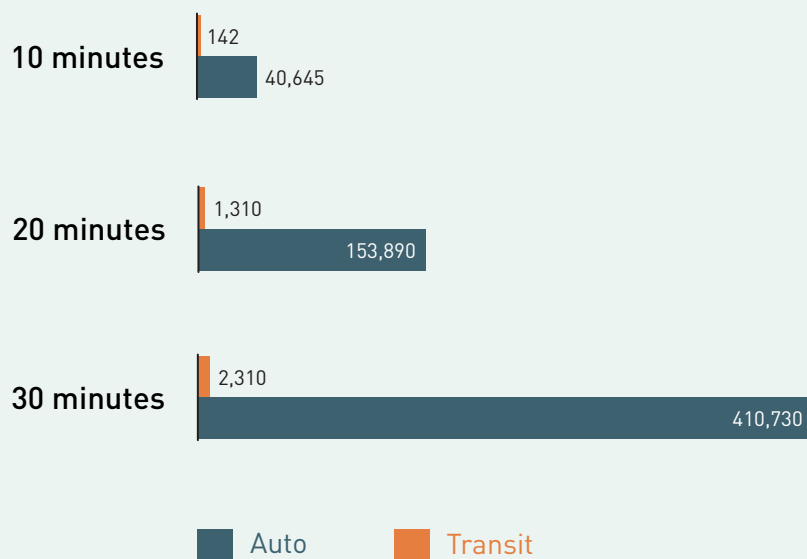
Who uses SR 20 and other key roadway zones?

The following series of maps shows the origin-destination flows for select roadway locations to identify where roadway users are traveling from. The data is based on a typical day in fall 2019.

TOP ORIGINS TO DECEPTION PASS – SR 20

TOP ORIGINS TO SR 20 – DOWNTOWN OAK HARBOR
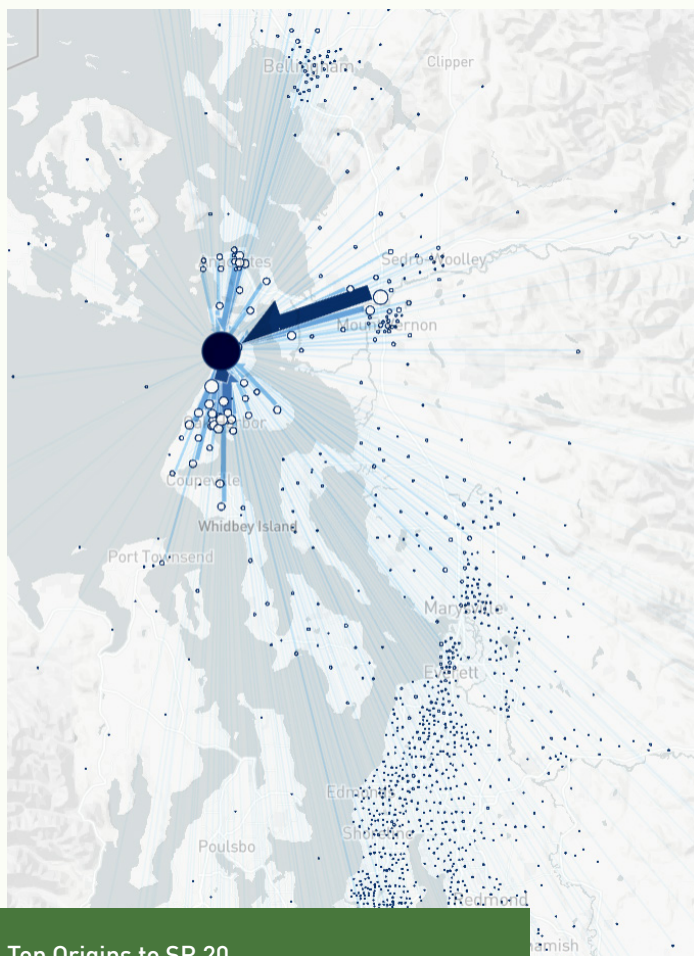
Top Origins to SR 20 Deception Pass

- Mount Vernon
- Oak Harbor
- Coupeville
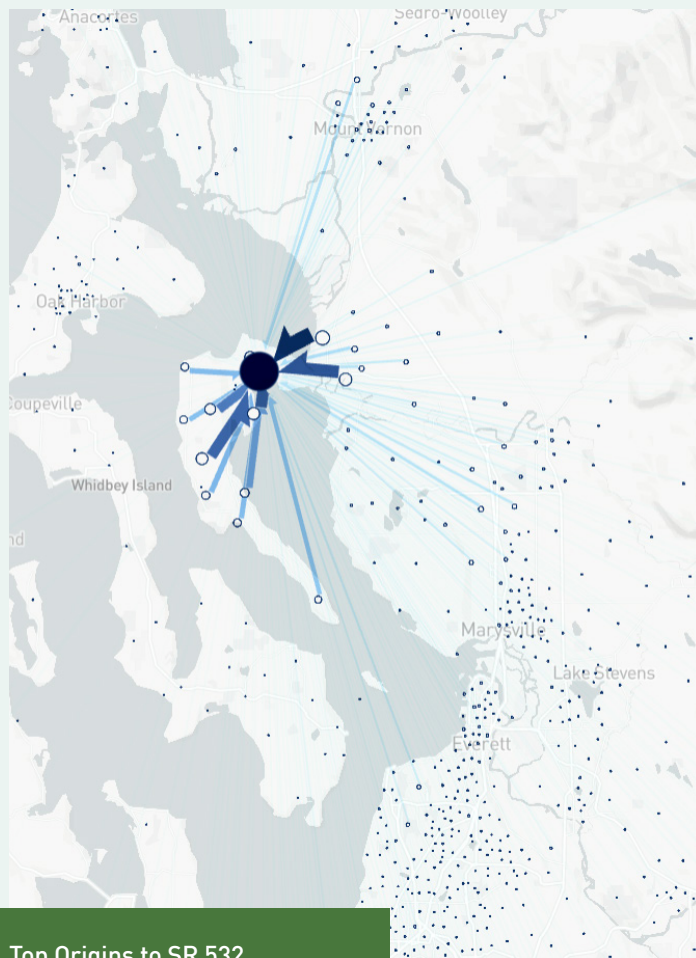- Anacortes
- Bellingham
- North Seattle-Bellevue metro area
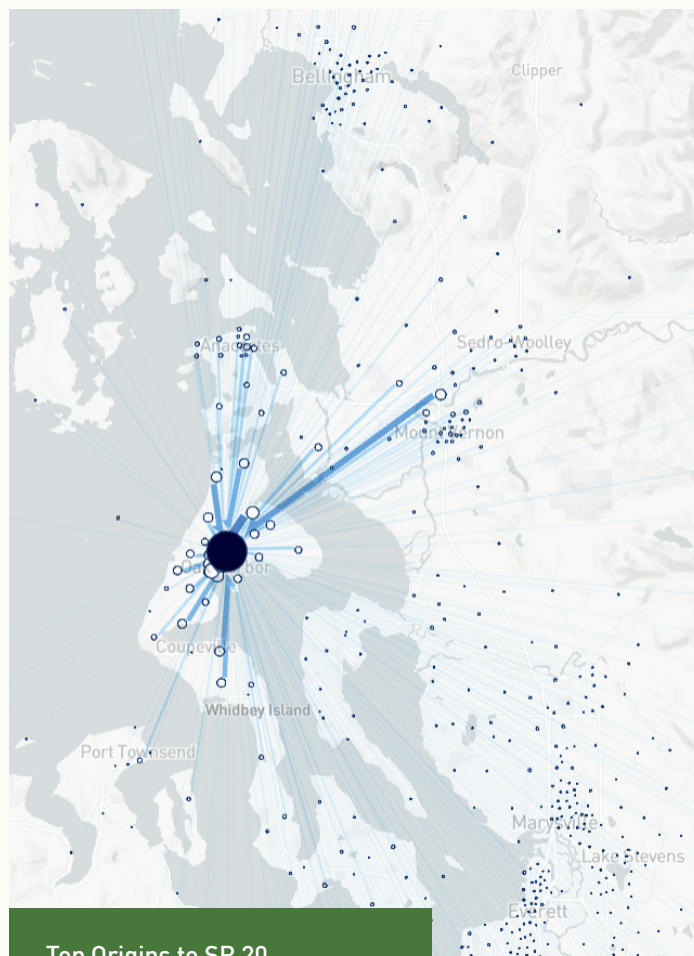
Top Origins to SR 20 Downtown Oak Harbor

- Mount Vernon
- Coupeville
- Port Townsend
- Anacortes
- Bellingham

TOP ORIGINS TO SR 532 EAST OF TERRY'S CORNER

TOP ORIGINS TO SR 20 NORTH OF COUPEVILLE FERRY

Top Origins to SR 532
- Stanwood
- South Camano Island
- Mount Vernon
- Marysville

Top Origins to SR 20
north of Keystone Ferry
- Oak Harbor
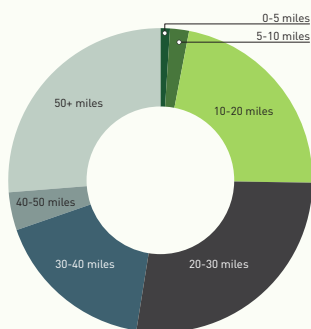- NAS Whidbey
- Coupeville
- Langley
- Clinton
- Mukilteo

FEHR ✦ PEERS

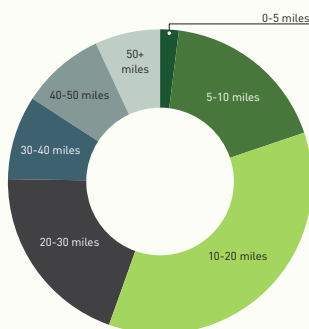# How long are trips using key roads and how does this vary by location?

At different locations in the county, trip lengths on major roadways can vary dramatically. The distribution of trip lengths is a good indicator about the number of local trips versus longer distance trips. The following infographics show the distribution of trip lengths at the locations shown on the map below, for the AM peak hour (8-9am) in fall 2019.
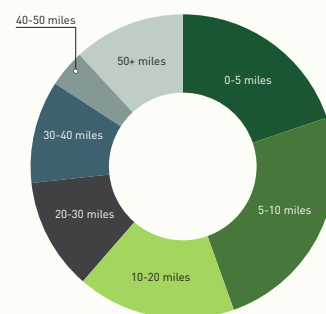
LENGTH OF TRIPS PASSING THROUGH THE FOLLOWING LOCATIONS DURING THE AM PEAK HOUR:
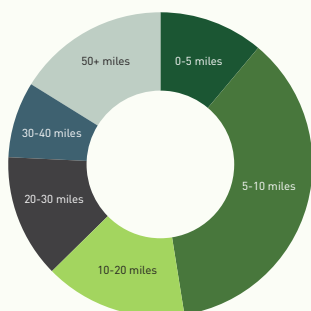
DECEPTION PASS (SR 20)

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles

532 EAST OF TERRY'S CORNER (CAMANO)

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles

DOWNTOWN OAK HARBOR (SR 20)

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles

AULT FIELD EAST OF GOLDIE ROAD

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 50+ miles

SR 525 WEST OF CLINTON

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles
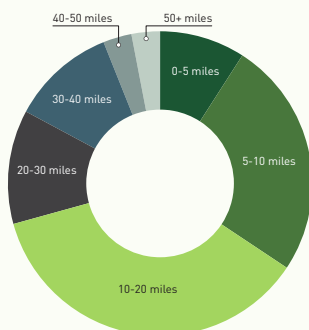
CROSS ISLAND ROAD AT EAST CAMANO ROAD

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles

SR 20 NORTH OF RACE ROAD

- 0-5 miles
- 5-10 miles
- 10-20 miles
- 20-30 miles
- 30-40 miles
- 40-50 miles
- 50+ miles
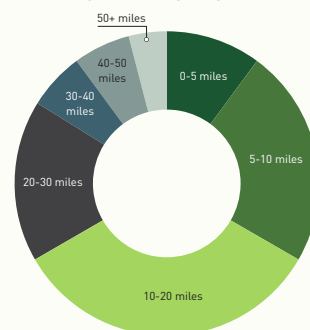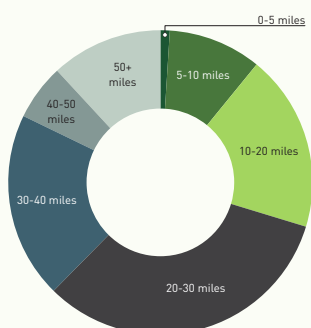
How do people access NAS Whidbey?

NAS Whidbey is Island County's largest employer and is the Navy's premier naval aviation installation in the Pacific Northwest. The Naval base serves over 8,400 military personnel, 28,500 family members and retirees, and over 2,000 civilian employees. A 2004 Washington study measured the direct economic impact of the air station on Whidbey Island as 88% of all economic activity, and almost 70% of all county jobs.

Because it is the largest employer in the county, commutes to NAS Whidbey impact the local transportation network. The map below shows origin flows to NAS Whidbey from select roadway zones on: SR 20, Ault Field Road, Regatta Dr, N Oak Harbor St, Pioneer Way, and Swantown Ave.

ORIGIN FLOWS TO NAS WHIDBEY (ALL DAY)

About 14% of trips that travel to NAS Whidbey come from outside of the county and head south on SR 20 past Deception Pass. About 7% of trips travel north on Swantown Road, and likely use Heller Street to access the air station. The map shows that the majority of trip origins are from the southeast Oak Harbor neighborhoods, and these motorists tend to take Regatta Drive to SR 20, and then turn left to take Ault Field Road to NAS Whidbey.

Fehr ⚘ Peers
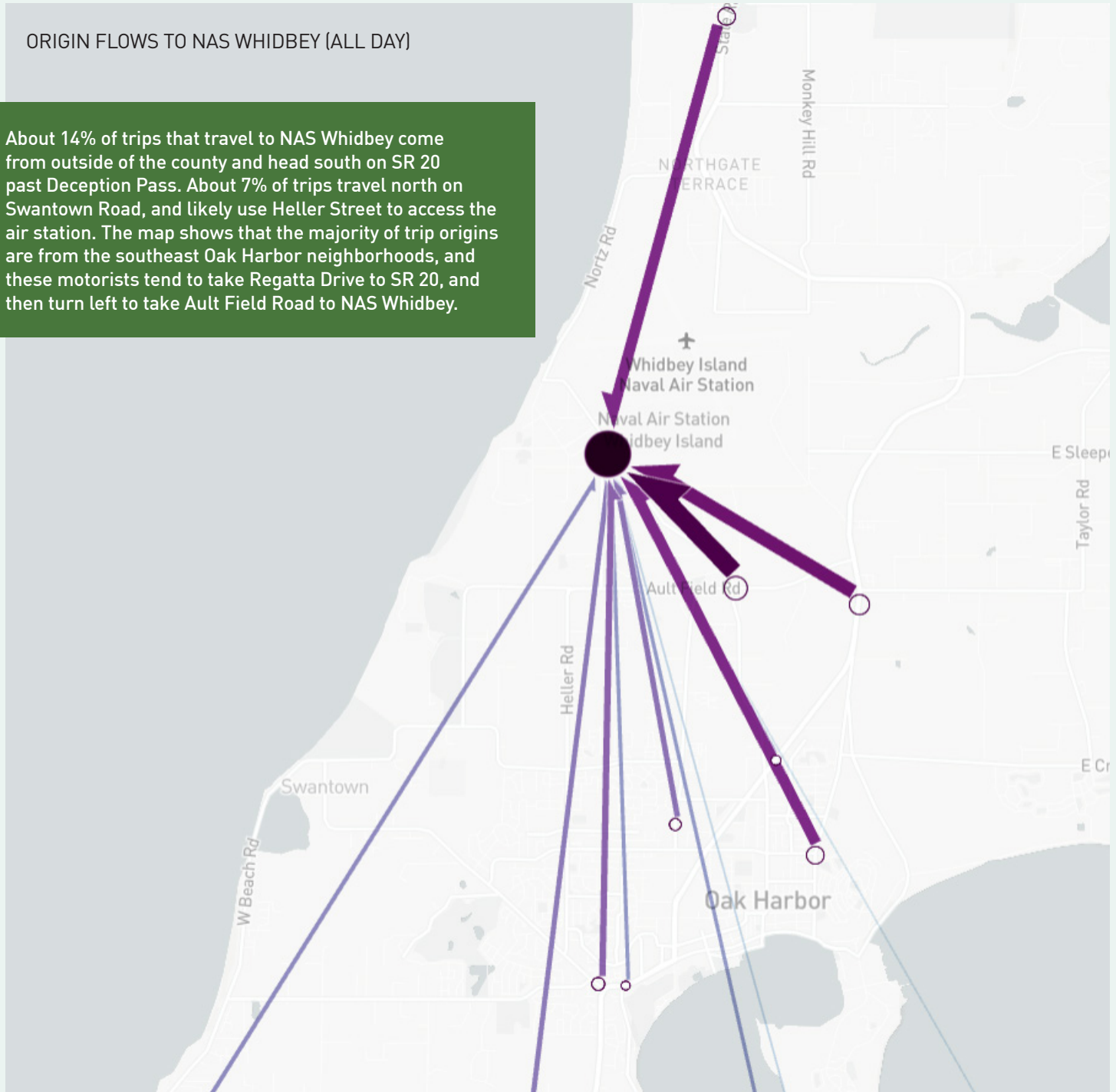
Where is accessibility most limited in Island County?

Travel access (or accessibility) refers to the ability to physically access destinations where goods, services, and social interactions can be obtained or experienced. Travel access can be measured based on the time it takes to reach destinations of interest, such as transit stations, employment hubs, medical services, schools, etc. and will vary based on the speed associated with the travel mode.

People's available travel options have a direct impact on the ability to engage in society and the economy, and a lack of access may limit individual opportunities for employment, education, healthcare, obtaining healthy food, and community or social engagement. For these reasons, analyzing travel accessibility is a critical tool in understanding current accessibility, measuring equity effects of multimodal land use and transportation decisions, and evaluating technology to fill mobility gaps.
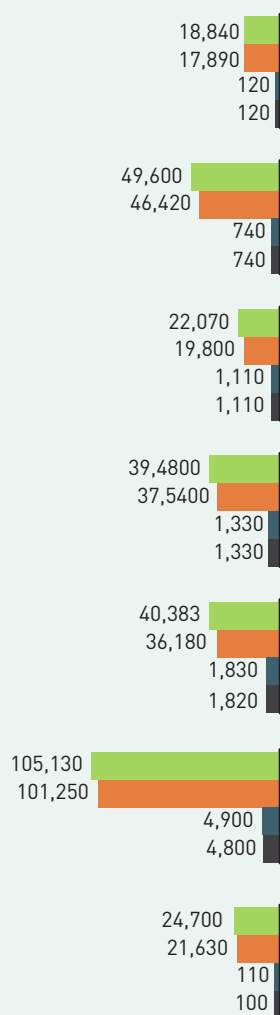
Travel accessibility to grocery stores and medical buildings in Island County was measured by creating travel time sheds for both driving and transit modes to show distance traveled. Each shed represents the distance traveled within 5-minute bins, for both the AM (8-9am) and midday (12-1pm) hours.

Phase 2 of this project could dive deeper into access for priority populations, and map travel time sheds for other key destinations in Island County, including: Skagit College, state parks, libraries, and ferry docks. Other next steps could include rerunning the transit travel time sheds with Island County's updated GTFS data.
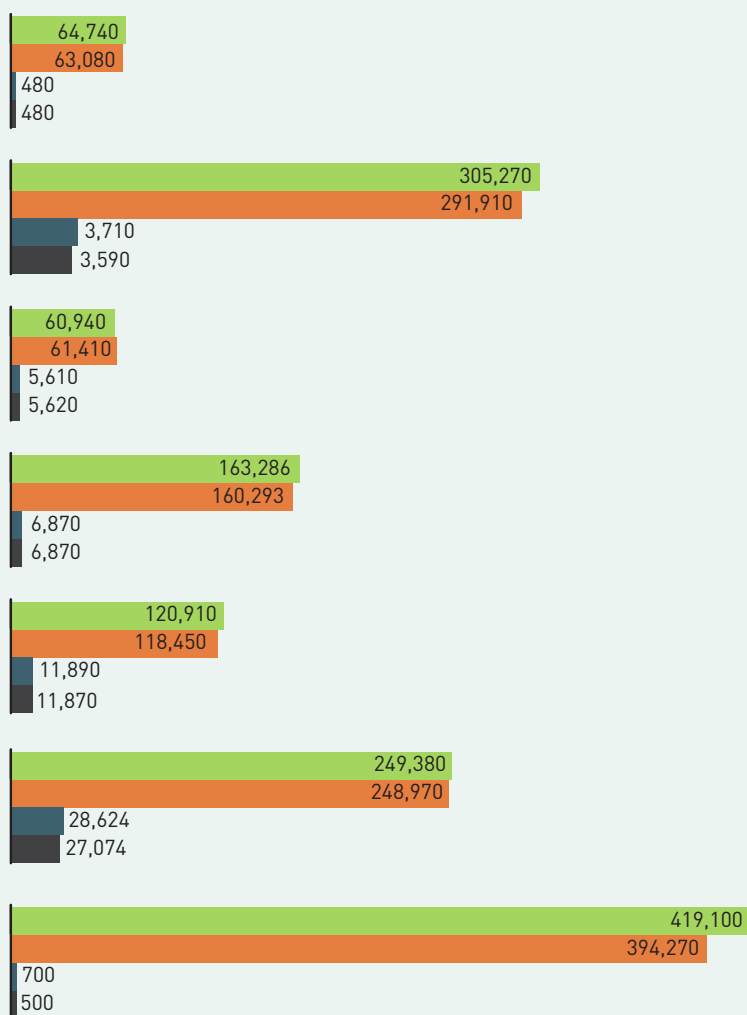
POPULATION WITHIN TRAVEL TIME SHEDS TO KEY DESTINATIONS

Population - 10 minutes

Destination	Values
NAS Whidbey	18,840 / 17,890 / 120 / 120
State Park	49,600 / 46,420 / 740 / 740
Skagit College	22,070 / 19,800 / 1,110 / 1,110
Library	39,4800 / 37,5400 / 1,330 / 1,330
Medical Building	40,383 / 36,180 / 1,830 / 1,820
Grocery Store	105,130 / 101,250 / 4,900 / 4,800
Ferry Dock	24,700 / 21,630 / 110 / 100

Population - 20 minutes

Destination	Values
NAS Whidbey	64,740 / 63,080 / 480 / 480
State Park	305,270 / 291,910 / 3,710 / 3,590
Skagit College	60,940 / 61,410 / 5,610 / 5,620
Library	163,286 / 160,293 / 6,870 / 6,870
Medical Building	120,910 / 118,450 / 11,890 / 11,870
Grocery Store	249,380 / 248,970 / 28,624 / 27,074
Ferry Dock	419,100 / 394,270 / 700 / 500

Drive AM Peak Hour

Drive Midday

Total population values include areas outside of Island County for the larger auto sheds.

Transit AM Peak Hour
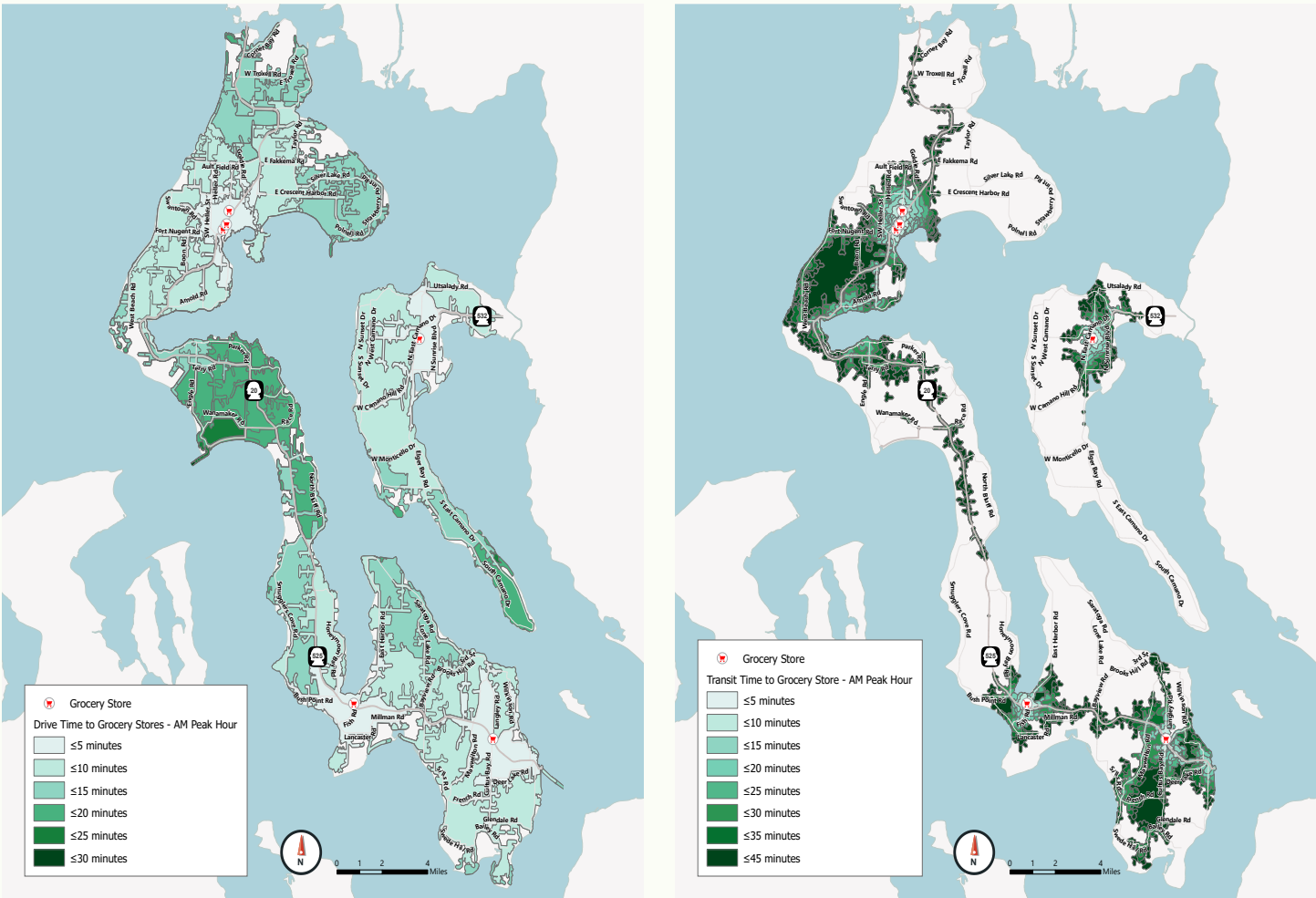
Transit Midday

Reference Page 15 for the number of jobs accessible from the Island County ferry docks.

FEHR ✦ PEERS

ACCESSIBILITY TO GROCERY STORES BY DRIVING AND TRANSIT (AM PEAK HOUR)

Grocery stores and medical buildings are accessible within a thirty-minute drive from all locations in the county in the AM and midday peak periods. Grocery stores and medical buildings are accessible within a forty-five-minute transit trip from key population and employment centers like Oak Harbor, Freeland, and the Clinton Ferry terminal in the AM and midday peak periods. The transit travel sheds extend further along SR 525 and SR 20 in the AM peak period because transit is more frequent during commuting hours.

ACCESSIBILITY TO GROCERY STORES BY DRIVING AND TRANSIT (MIDDAY PEAK HOUR)
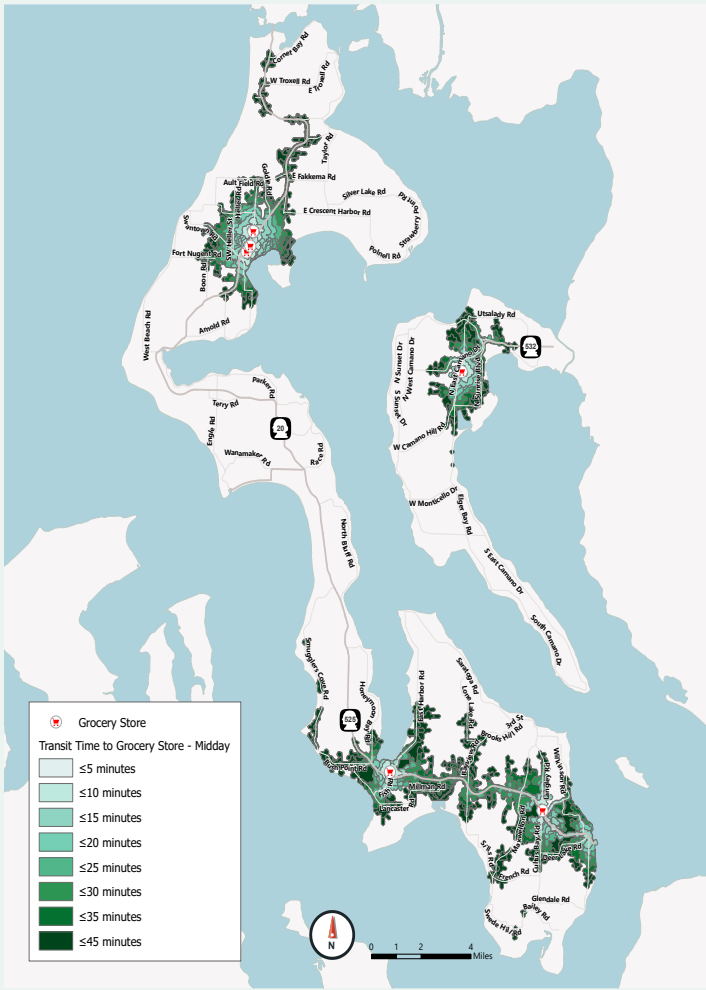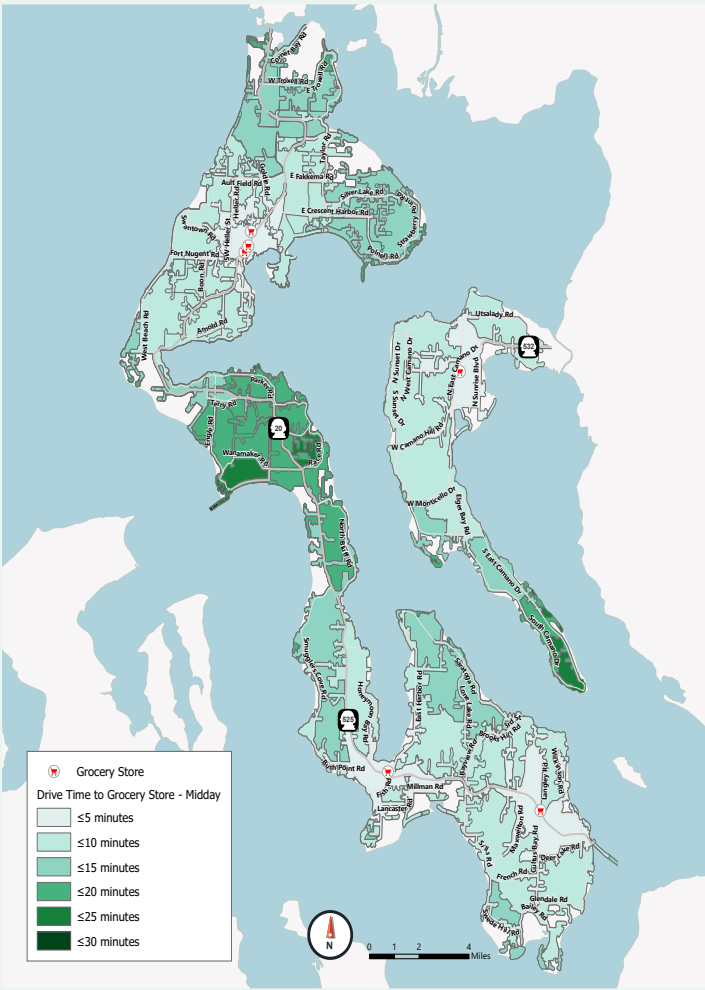
FEHR ✦ PEERS

ACCESSIBILITY TO MEDICAL BUILDINGS BY DRIVING AND TRANSIT (AM PEAK HOUR)

Medical Building

Drive Time to Medical Building - AM Peak Hour
- ≤5 minutes
- ≤10 minutes
- ≤15 minutes
- ≤20 minutes
- ≤25 minutes
- ≤30 minutes

Medical Building

Transit Time to Medical Building - AM Peak Hour
- ≤5 minutes
- ≤10 minutes
- ≤15 minutes
- ≤20 minutes
- ≤25 minutes
- ≤30 minutes
- ≤35 minutes
- ≤45 minutes

ACCESSIBILITY TO MEDICAL BUILDINGS BY DRIVING AND TRANSIT (MIDDAY PEAK HOUR)

Legend (left map):
Medical Building
Drive Time to Medical Building - Midday
- ≤5 minutes
- ≤10 minutes
- ≤15 minutes
- ≤20 minutes
- ≤25 minutes
- ≤30 minutes

Legend (right map):
Medical Building
Transit Time to Medical Building - Midday
- ≤5 minutes
- ≤10 minutes
- ≤15 minutes
- ≤20 minutes
- ≤25 minutes
- ≤30 minutes
- ≤35 minutes
- ≤45 minutes

FEHR ❖ PEERS
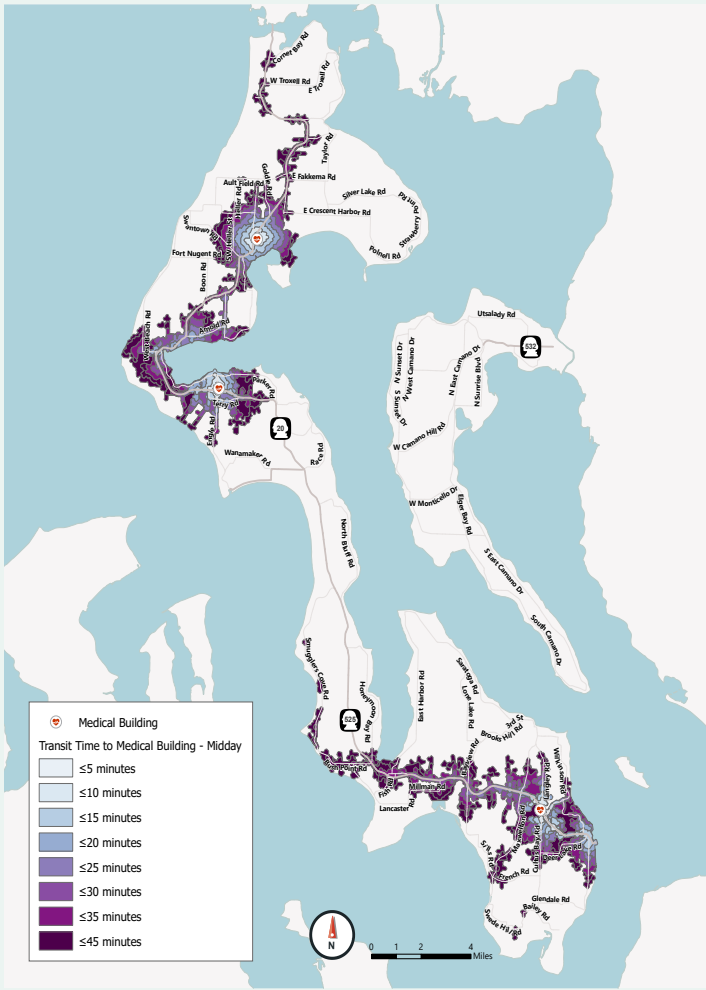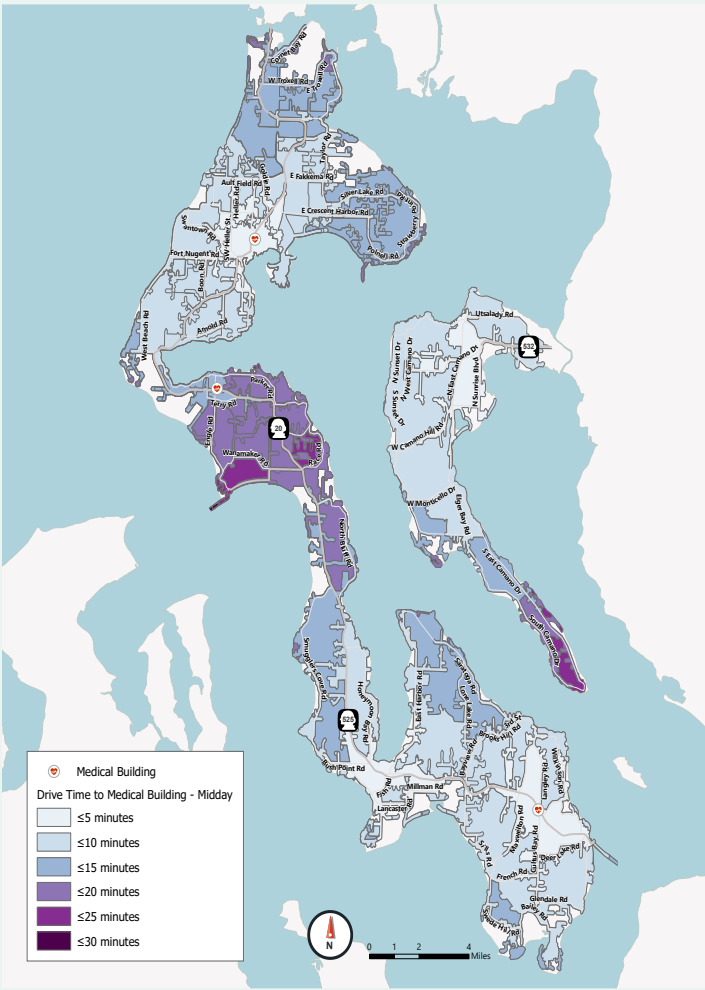
Oak Harbor and Terry's Corner are among Island County's most important destinations. How accessible are they?

Oak Harbor is the largest city in Island County. It is home to over 23,000 residents, and includes a vibrant downtown with many commercial and retail businesses. The city is located on the north end of Whidbey Island, with SR 20 running north/south through downtown.

On Camano Island, Terry's Corner is located at the crossroads of SR 532, E North Camano Dr, and NE Camano Dr; the latter two roadways provide access to the north and south communities on Camano. This important destination hosts a number of essential services, such as a bank, EV charging station, Park &

Ride, library, and the Camano Commons; a marketplace of foods, restaurants, and useful services.

The first map series shows the 45-minute transit travel time sheds and 30-minute drive time sheds for traveling to downtown Oak Harbor during the AM peak hour (8-9am).

Phase 2 of this project will dive deeper into network connectivity in Oak Harbor, add the midday and PM peak hours into the analysis, and update the transit accessibility analysis with Island Transit's updated GTFS data.

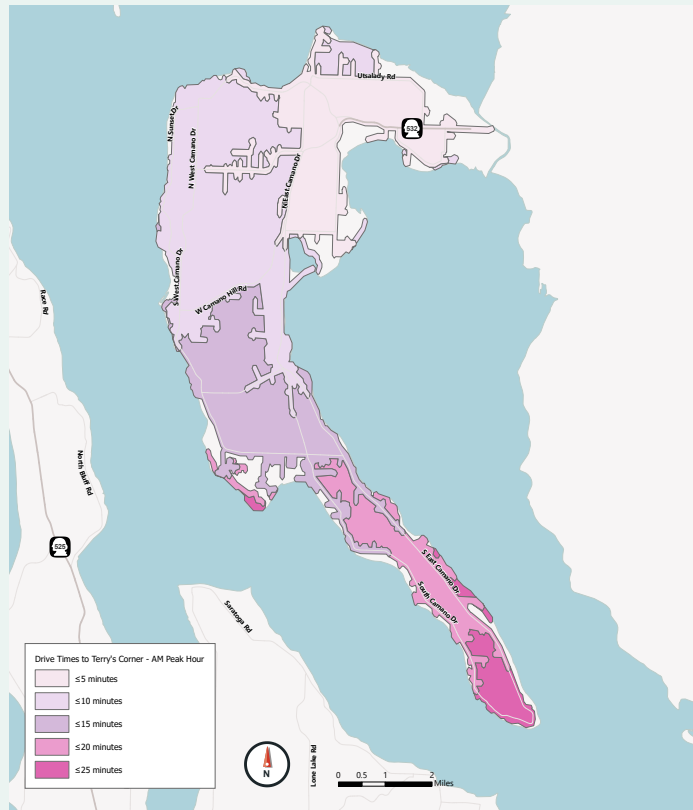ACCESS TO DOWNTOWN OAK HARBOR BY DRIVING (AM PEAK HOUR)
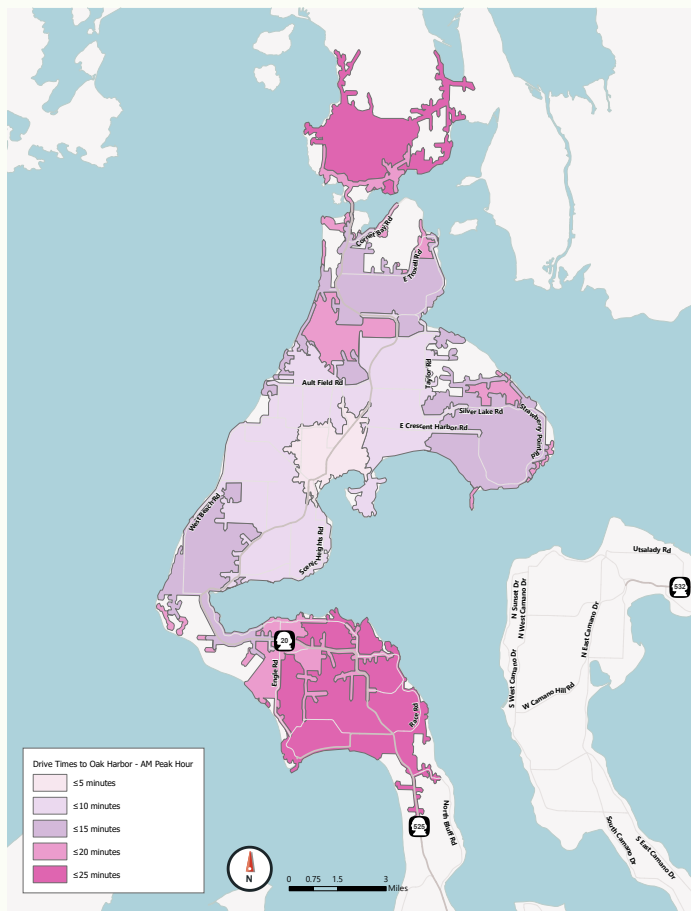
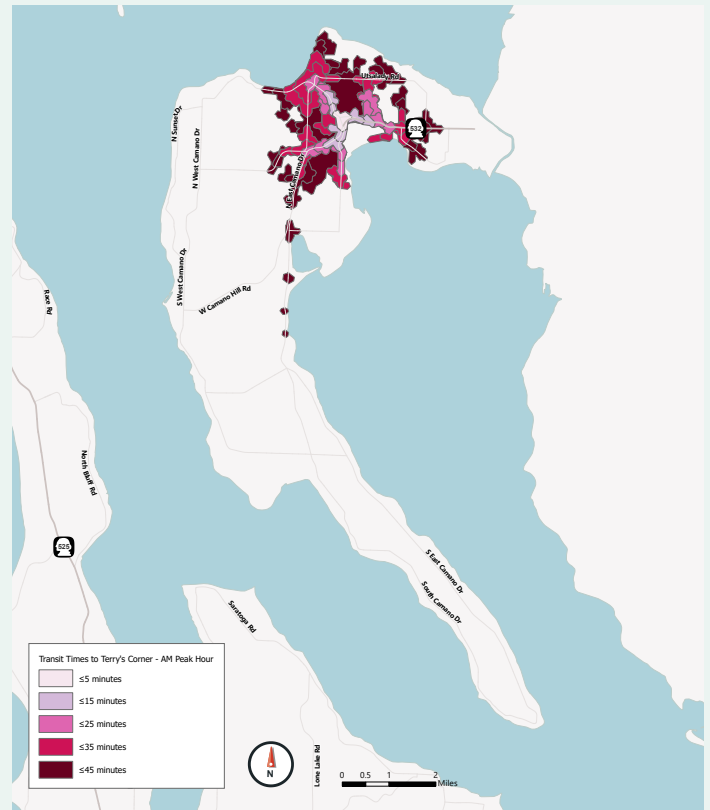ACCESS TO DOWNTOWN OAK HARBOR BY TRANSIT (AM PEAK HOUR)
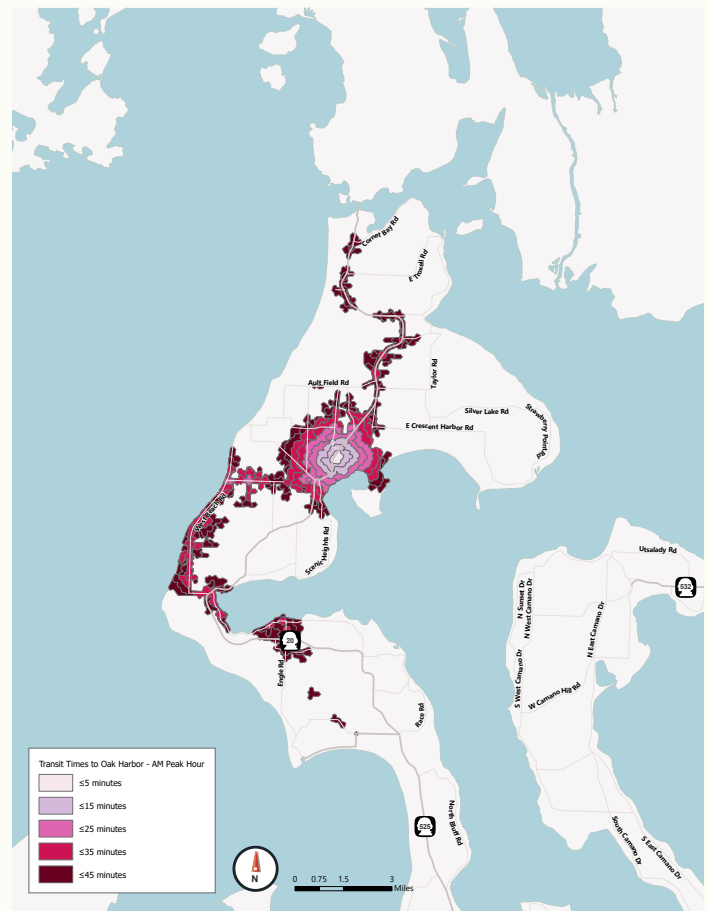
Almost all travelers from north Whidbey Island are able to access downtown Oak Harbor within a 30-minute drive during the AM peak hour. However, access by transit is much more limited; residents living within Oak Harbor, or along SR 20 and West Beach Road have the greatest access due to the location of transit routes.

ACCESS TO TERRY'S CORNER BY DRIVING (AM PEAK HOUR)

Drive Times to Terry's Corner - AM Peak Hour
- ≤5 minutes
- ≤10 minutes
- ≤15 minutes
- ≤20 minutes
- ≤25 minutes

ACCESS TO TERRY'S CORNER BY TRANSIT (AM PEAK HOUR)

Transit Times to Terry's Corner - AM Peak Hour
- ≤5 minutes
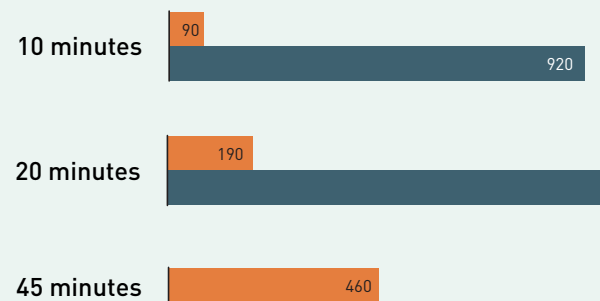- ≤15 minutes
- ≤25 minutes
- ≤35 minutes
- ≤45 minutes

All travelers on Camano Island are able to access Terry's Corner within a 30-minute drive during the AM peak hour. However, due to limited transit service on Camano Island that mostly runs along SR 532, E North Camano Dr, and NE Camano Dr, transit access to Terry's Corner is limited to residents who live on north Camano Island, and those who live close to the Route 2 stops along E Camano Dr.
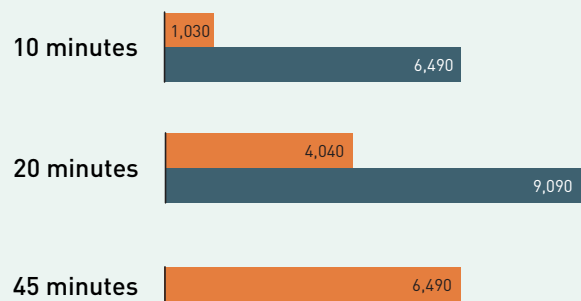
AM PEAK HOUR EMPLOYMENT WITHIN TRAVEL SHEDS

■ Auto   ■ Transit

TERRY'S CORNER

	Transit	Auto
10 minutes	90	920
20 minutes	190	
45 minutes	460	

OAK HARBOR

	Transit	Auto
10 minutes	1,030	6,490
20 minutes	4,040	9,090
45 minutes	6,490	

FEHR ᐸ PEERS

ISLAND COUNTY

Transportation Data Book

MAY 2021

FEHR PEERS