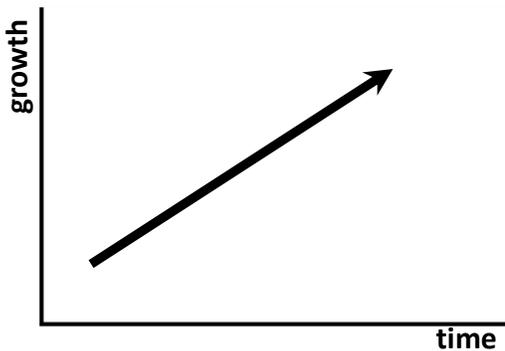
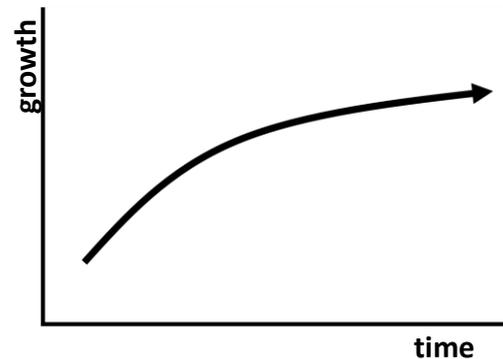


Future demand may be influenced by how the County addresses capacity issues:

Adding capacity in response to overloads may encourage more development.



Managing demand and/or mitigating its impacts may limit the type and scale of future development.



Growth and development is guided by the Comprehensive Plan.

This growth and development will impact service demand.

Comprehensive Plan Guidance:

- **Land Use and Development:** Allow a variety of rural residential land uses and densities that are consistent with the rural lifestyle and within the carrying capacity of the natural environment (GOAL LU-61)
- **Ferry Level of Service:** capacity to meet 100% peak winter weekday demand

Vehicle capacity on the ferry is the biggest constraint on the County’s ability to meet higher demand. There are several strategies for managing vehicle capacity:

Option 1: Manage demand.

Use operational and/or pricing strategies to shift demand to sailings where there is available capacity (space on the ferry).

Option 2: Add vehicle capacity.

Add ferry service as demand reaches certain thresholds.

Option 3: Accept greater delay.

The greater delay will cap demand as riders travel less or move away. This strategy could impact traffic and parking near terminals.

How should the County respond if growth on Anderson Island increases demand?

Ridership Growth is Uncertain.

Historic and Future Ferry Vehicle Demand



Key factors that will influence future demand:

- Growth policies
- Demographics of Island population
- How much service is provided
- Pricing of ferry services

Using reservations and communications strategies can manage ferry demand to reduce impacts of over-capacity.

OPTION 1: Reservations



- Spread demand over the day and week
- Reduce congestion at terminals during peak times

Key issues:

- How much of the boat to reserve?
- Do you charge a premium for reservations?
- How far in advance to you offer reservations?
- How to balance access between regular Island ferry users and infrequent users

OPTION 2: Enhanced Communications



- Better and more timely information so customers can make informed travel decisions
- Can help spread demand over the day and week
- Better real time communications will help mitigate congestion impacts at terminals during peak times

Key issues:

- Less effective at managing demand than reservations
- More effective in combination with other strategies, like pricing

What investments can be made to improve the Ferry experience within the current level of service?

There are two ways to add service capacity with the existing fleet:

1 Extend crew shifts



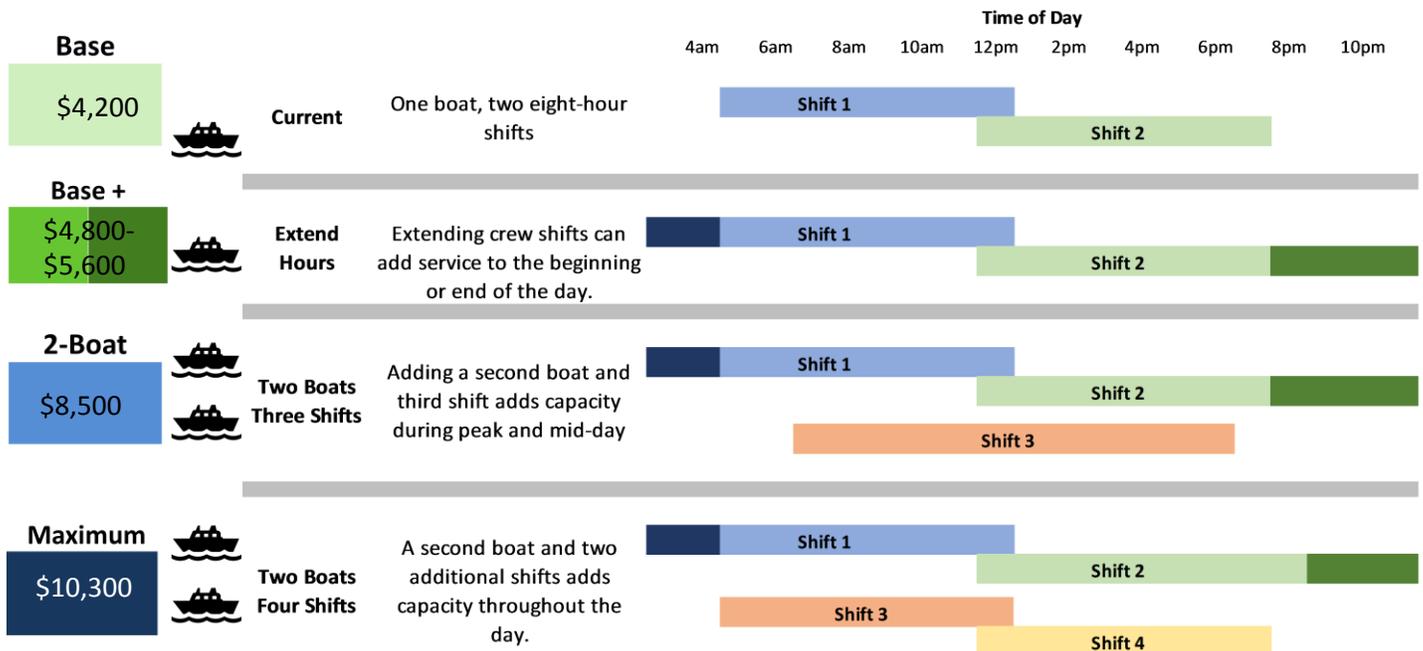
2 Add a second boat and additional crew shifts



Note: Regular 2-boat service could lead to schedule reliability issues unless a second operational slip is added at Steilacoom.

Adding capacity with shifts and vessels:

The diagram below shows four scenarios of worker shifts and number of vessels.



*Estimated cost per day based on fuel and labor only.

How should the Ferry balance levels of service with demand and cost of providing service?



SERVICE OPTIONS: SHORT TERM

Adding Service: Weekly and Seasonal Service Configurations

Using service building blocks (crew hours and number of vessels), we can build weekly and seasonal service plans.

Current Service

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
All Year		12 trips/day		13 trips/day	14 trips/day		12 trips/day

OPTION 1: Extend Hours

Add one trip/day Mon-Wed and 2 trips Sunday.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
All Year	13 trips/day	13 trips/day	13 trips/day			14 trips/day	16 trips/day

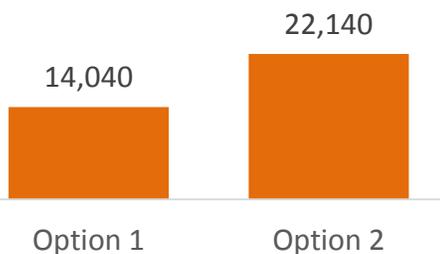
OPTION 2: Extend Hours (Option 1) Plus Add Summer Peak Service

In addition to Option 1, add a second boat on Fridays and Sundays during peak Summer season.

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Sept-June:	13 trips/day	13 trips/day	13 trips/day			14 trips/day	16 trips/day
Summer Peak:	13 trips/day	13 trips/day	13 trips/day	14 trips/day	20-22 trips/day	14 trips/day	22 trips/day

How much service?

Estimated Additional Passenger Vehicles Carried



What would it cost?

Estimated Additional Annual Operating Cost*

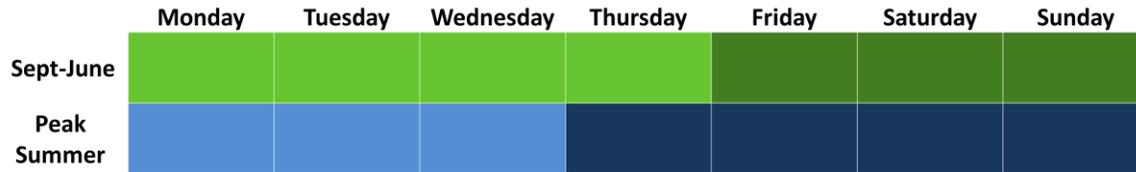


What level of service "fits" the community's short-term needs?

*Estimated costs do not include maintenance, overhead, and depreciation costs. All figures in 2015 dollars.

In the long-term, depending on actual growth, service options could include:

OPTION 1. Year Round Weekday Expansion with Peak Summer Two Boat Service



OPTION 2. Option plus Added Service in Shoulder Season (May, June, Sept)

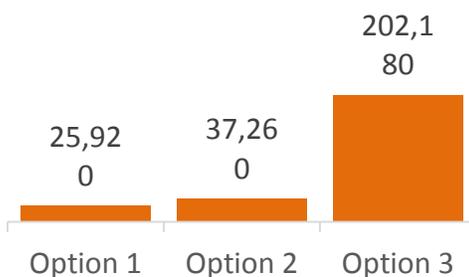


OPTION 3. Maximum Capacity: Two Boats, Four Shifts, Year Round)



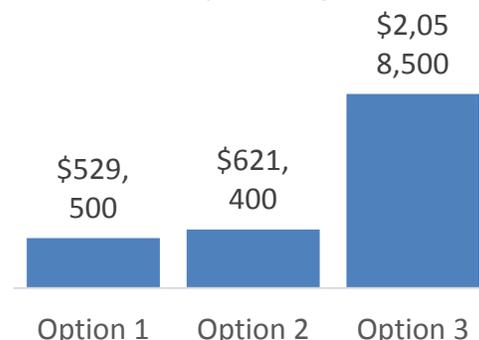
How much service?

Estimated Additional Passenger Vehicles Carried



What would it cost?

Estimated Additional Annual Operating Cost*



What level of service “fits” the community’s long-term needs?

*Estimated costs do not include maintenance, overhead, and depreciation costs. All figures in 2015 dollars.



How is ferry service funded?

Principal Sources of Pierce County Ferry Revenues = Ferry Fares + Deficit Reimbursement + Motor Vehicle Fuel Tax (MVFT) “for ferries” + County Road Fund + Federal Transit Administration (FTA) Funds

Ferry Fares	Revenue from ferry fares determined as part of the Pierce County Ferry Budget process.	47%
Deficit Reimbursement	Deficit Reimbursement is a State funded program that distributes State gas tax to County-operated ferries. Available funding was increased in 2015 legislative session. The program is administered by the Local Programs Division of WSDOT.	6%
Motor Vehicle Fuel Tax (MVFT) "for ferries"	The MVFT "for ferries" is a portion of the County's distribution of State gas tax. The State-derived formula "attributes" a share of the County's gas tax to ferry operations based on the ferry's share of all County roads.	2%
County Road Fund	The Road Fund is the County's source of funds for transportation services and improvements. The principal sources of funding include the road levy, private harvest timber tax, leasehold excise tax, and the County's allocation of State MVFT revenues.	11%
Federal Transit Administration (FTA) Funding	Unique among its peer ferry operators, Pierce County benefits from federal operating support.	20%

These sources accounted for 87% of the revenues needed to cover costs in 2013. The County Road Fund contribution will fluctuate based on need, particularly for capital funding which can vary widely year-to-year.

Ferry funding risks and concerns

- **Property tax and motor fuel tax revenues are not keeping up with inflation**
- **Federal funding is not a secure long-term source of funding**
- **Road Fund must support countywide needs and is becoming an increasingly scarce resource**

Financial Sustainability Objective

A key objective for the Waterborne Transportation Study is to develop a policy framework for funding ferry operations indefinitely. The benefit of having such a framework is:

- To ensure a reasonable level of predictability for ferry customers, island residents and property owners, and Pierce County policy makers
- Establish clear funding responsibility policies that will provide guidance for:
 - Setting fare revenue targets
 - Considering service expansion options
 - Mitigating financial risks associated with changes in costs and/or revenues

Key Policy Questions:

- What is a fair share of costs to be paid by customers through fares?
- What is the fair of costs to be paid by the County Road fund that all Pierce County residents contribute to?
- What happens if Federal operating grants go away?
- Should funding responsibility be different for capital and operating costs?



CUSTOMER FUNDING RESPONSIBILITY

Option 1: Establish a Farebox Recovery Rate

County establishes a *policy-level recovery rate* and determines the fare revenue target based on the operating budget. County would be responsible to fund all capital and the balance of the operating needs for other available sources.

Options	Recovery Rate	Implications
1. Maintain current level.	<ul style="list-style-type: none"> No change 	<ul style="list-style-type: none"> Maintain current ratio of customer responsibility
2. Based on peers. Use peer group to establish a target farebox recovery.	<ul style="list-style-type: none"> 55% to 65% 	<ul style="list-style-type: none"> Consistency with similar operations Need to determine cost basis Revenue offsets?
3. Based on County goal. Choose an “equitable” share of costs to be recovered from customers	<ul style="list-style-type: none"> TBD 	<ul style="list-style-type: none"> Targeted to Pierce County funding context Need to determine cost basis Revenue offsets?

Current County Fare Recovery Ferry Policies

	Pierce County	Whatcom County	Skagit County
Target	None specified	55% of selected costs	65% of selected costs
Formal policy	No formal policy	Adopted County Ordinance	Adopted County Resolution
Basis for target	<ul style="list-style-type: none"> N/A 	<ul style="list-style-type: none"> Annual operating and maintenance costs Revenue in excess of target carried over 	<ul style="list-style-type: none"> 5-yr avg of operating and maintenance costs less state ferry funding
Other	Currently fares targeted to inflation	<ul style="list-style-type: none"> Excludes any capital related costs including depreciation 	<ul style="list-style-type: none"> Excludes any capital related costs including depreciation



CUSTOMER FUNDING RESPONSIBILITY

Option 2: Establish a Fare Revenue Formula

County establishes a policy-level formula that assigns certain costs to the customer base, which would become the fare revenue target. County would be responsible to fund all capital and the balance of the operating needs for other available sources.

Illustrative Example

Conceptual Model:

Bridge Analogy

- Ferry operates in lieu of a bridge.
- Assign costs based on similar to functions to supporting other County bridges.
- Customers pay for costs that are unique or proportionally different to ferry operations.

COST ELEMENT		ALLOCATION	
		Customer	County
"NON-BRIDGE" COSTS			
Eligible Costs for	HMS Contract	100%	0%
Fare Revenue Target	Insurance	100%	0%
Revenue Sources:	Fuel	100%	0%
Fares, MVFT, Deficit Reimbursement	Other Supplies	100%	0%
"BRIDGE COSTS"			
County	Maintenance	0%	100%
Responsibility	Capital improvements (including depreciation)	0%	100%
Revenue Sources:	Management and support functions	0%	100%
County Taxes			

Implications

The primary advantage of using a formula-based policy for cost sharing is that the revenue target will reflect differential changes in costs and revenues.

Costs that would fall disproportionately to customers:

- Operating costs associated with service expansion
- Structural changes in ferry cost drivers, such as fuel cost increases beyond inflation or changes in ferry contract costs

Costs that would fall disproportionately to the County:

- Capital costs, including those associated with service expansion

Option 1: Broaden non-fare local revenues

Island residents and property owners are the greatest beneficiaries of reliable ferry service. These beneficiaries contribute to ferry funding by:

- Paying fares when they use the ferry
- Pay the road levy (property tax) which support ferry needs as well as general County road needs on the Islands

Island road levy contributions are a small share of overall Road Fund revenues

- The current model puts most of the burden on customers and very little on property owners
- Property values benefit significantly from presence of ferry service

POSSIBLE APPROACH

Should Pierce County consider opportunities to increase the relative contribution from property owners to support ferry services?

For example, creating a local ferry district (would require changes to the authorizing statutes).

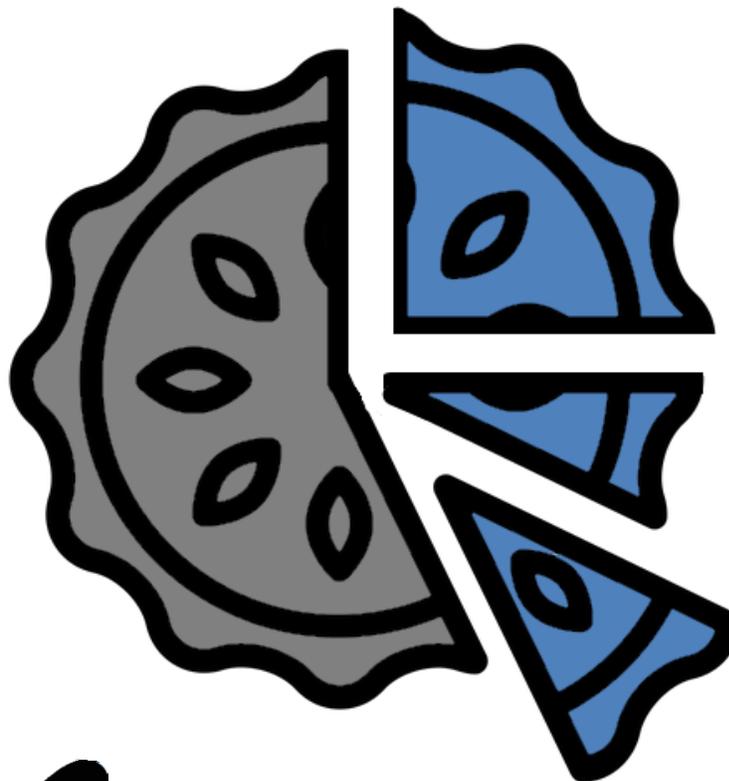
Option 2: Expand non-fare operating revenues

- Charter and tour operation using the 2nd boat when it is not needed for service
- Enhanced services to existing customers for additional charges:
 - **Assured loading products:** multi-ride ticket book that offers guaranteed loading for a premium price (BC Ferries model)
 - **Reservations:** offer reservations in exchange for a reservations fee
- Sell advertising space on the vessel, terminals and PC Ferries website
- Share and/or lease 2nd boat to other County operators for use during drydocking or other maintenance periods

Pierce County Ferry operates on revenue from several funding sources. Fare revenue from customers is just one of these sources.

- Fare policy is focused on how to set prices for different types of customers based on various policy and/or market considerations.
- Fare policy options would change the structure of ferry fares without changing the total amount of fare revenue that should be raised from customers.

TOTAL FERRY REVENUE “PIE”



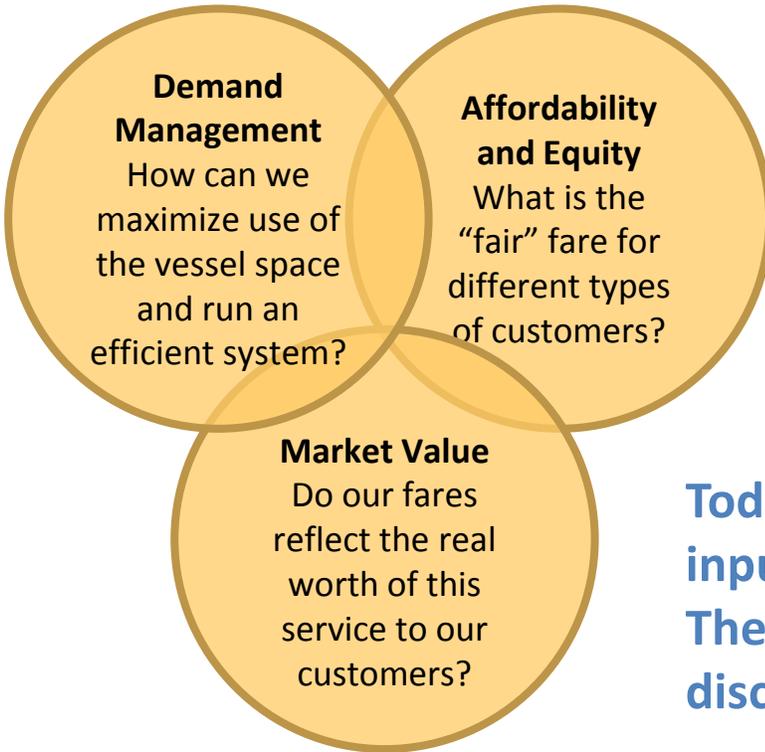
Revenue Required
from Fares
= about \$175,000 a
month



How much of the fare target should different types of customers pay according to:

- Whether they travel as a passenger or drive-on?
- How old they are?
- How much room the vehicle takes up?
- How often they use the ferry?
- The time of year, week, or day they travel?
- Other criteria?

What does Pierce County care about when setting fare policy?



Today, we are asking for your input on six fare policy issues. They are each important to discuss for different reasons:

		Demand Management	Affordability & Equity	Market Value
B1	Vehicle to Passenger Fare Ratio	✓		✓
B2	Types of Passenger Fares		✓	
B3	Vehicle Size Fares	✓	✓	✓
B4	Frequent Rider Discount	✓	✓	
B5	Congestion/ Peak Pricing	✓		✓
B6	Monthly Pass	✓	✓	

The full vehicle fare is 3.4 times a full passenger fare and has been that way for a long time. Given that vehicle space is scarce and cars cost more to move than passengers, this is time to ask...

... “What is the ‘fair’ ratio”?

Vehicle:Passenger Fare Ratio (2010-2015)



Note: The same ratio for Washington State Ferry Ratio (Point Defiance-Tahlequah) is 3.40

- OPTION 1.** No change: Increase vehicle and passenger fares by the same rate so the ratio remains 3.4
- OPTION 2.** Do not increase passenger fares, and meet revenue goals with vehicle fare increases.
- OPTION 3.** Increase passenger fares at a lower rate than vehicle fares over time to meet revenue goals.
- OPTION 4.** No charge for passengers: Only charge for vehicles (toll-bridge model)



FARE POLICY: PASSENGER TYPES

The current passenger discounts are for youth and senior disabled passengers.

The County is required to have a senior/disabled discount of at least 50% in exchange for receiving federal transit grants.

2015 Passenger Fares	
Adult Passenger	100%
Youth (5-18) Passenger	64%
Frequent Rider Passenger Fare (per ride)	80%
Senior/Disabled Passenger	50%

Should any changes be made to the passenger fare structure?

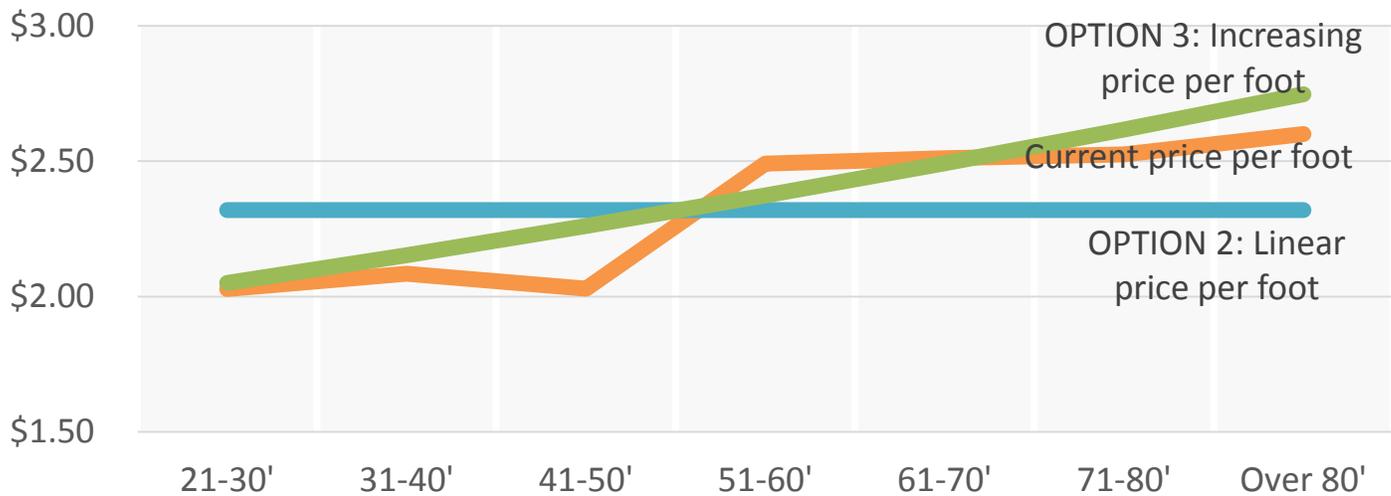
Options	Individual Fare Implications	System Implications
OPTION 1. No change. Apply a blanket fare increase.	<ul style="list-style-type: none"> All passenger fares increase by same % 	<ul style="list-style-type: none"> Existing structural issues continue
OPTION 2. Increase youth discount. Change the youth discount from 36% to 50%.	<ul style="list-style-type: none"> Youth fare changes from \$3.40 to \$2.65 May increase family affordability 	<ul style="list-style-type: none"> Youth fares comprise about 3.4% of total fare revenue Potential fare revenue decrease of approximately \$16,000 Aligns with other systems
OPTION 3. Increase senior and disabled fare discount. A deeper passenger discount will also affect the relationship between the senior & disabled driver fare and the value pass.	<ul style="list-style-type: none"> Senior fare changes from \$2.65 to \$1.85 May increase senior affordability 	<ul style="list-style-type: none"> Senior fares comprise about 8% of total fare revenue. Potential fare revenue decrease of approximately \$16,000 Rebalances the senior vehicle & driver and value pass fares

OVERSIZE VEHICLES

Oversize vehicle fare ratios do not currently follow a systematic relationship according to space occupied.

Price per foot over 21'

- **OPTION 1. No change.** Apply a blanket fare increase.
- **OPTION 2. Set oversize vehicle relationships linearly according to length** (set price per foot).
- **OPTION 3. Set oversize vehicle relationships non-linearly** (increasing price per foot).
- **OPTION 4. Use smaller length categories.** 5-foot increments, for example



Note: Average cost per foot for standard vehicle ranges from \$0.85-\$1.26 depending on length.

SMALL VEHICLES

A small vehicle fare can help maximize the use of the ferry deck space and efficiency of the operation, but would likely result in a small decrease in fare revenue.

Small vehicle models available (2015)

Vehicle Length (ft)	Count of Car Models Available
10'	1
11'	2
12'	4
13'	11
14'	43
15'	109

- **OPTION 1. No change.** Do not introduce a small car fare
- **OPTION 2. Introduce a small car fare.** The new category may require fare collection and operating changes

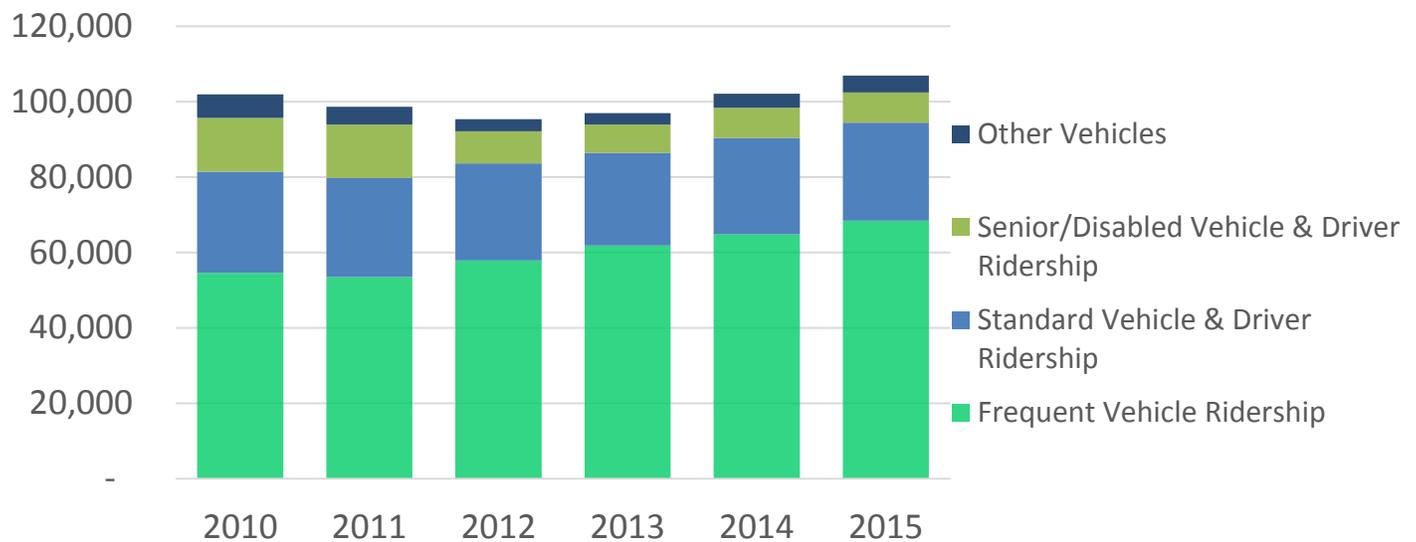
FREQUENT RIDER DISCOUNT

Ridership on the value pass as a share of total vehicle ridership has grown from 54% in 2010 to 64% in 2015.

- The current value pass rewards someone who takes 5 trips within 40 days just as much as someone who takes 20.
- Ridership on the value pass now makes up 64% of total vehicle travel.

Should the Ferry reward its most frequent users?

Vehicle Ridership (2010-2015)



- OPTION 1. No change.** Leave the value pass at 5 trips within 40 days at a 20% discount.
- OPTION 2. Modify the pass rules** to reflect frequent rider patterns. A typical commuter will make 21 trips within 30 days. This could also be a new product with a deeper discount than the 5-trip value pass.
- OPTION 3. Vary the passenger and vehicle value pass discount:** On the extreme, a free passenger policy may be considered.

Congestion/peak pricing can be thought of in three layers:

- **Seasonal (Month of Year)** – the County currently assesses a 25% summer surcharge on individual vehicle fares.
- **Day-of-Week** – the County does not currently price fares according to day of week.
- **Time-of-Day** – the County does not currently price fares according to time of day.

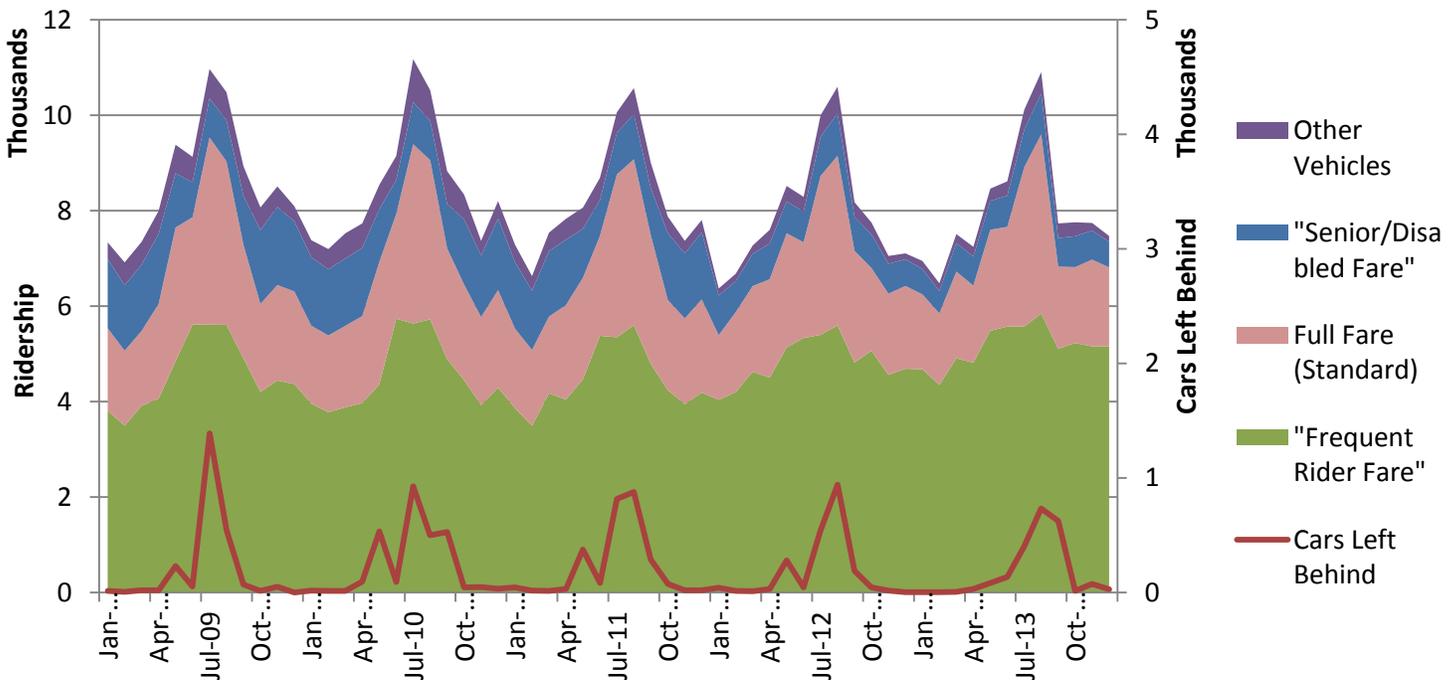
Day-of-week or Time-of-day pricing would not be as effective unless fare collection happened in both directions.

Targeting select trips, such as offering discounts for oversize travel during non-peak periods might be a limited way to implement this.

Most of Pierce County's opportunities for congestion pricing are in Seasonal pricing:

- **OPTION 1. No change. Leave the peak surcharge at 25%.**
- **OPTION 2. Increase the peak surcharge.**
- **OPTION 3. Create a three-tier surcharge schedule.** In 2009-2013, July and August represented a 48-62% increase over the winter average ridership while May, June, and September saw a 9-29% increase.

Monthly Vehicle Ridership (2009-2013)



Monthly passes would be a product specifically designed for full-time residents. A monthly pass product can be priced and structured in many ways. Depending on fare collection capabilities, Pierce County could issue passes linked with identification or mail-out vehicle stickers to limit abuse of unlimited rides.

Options	Individual Fare Implications	System Implications
OPTION 1. No change	<ul style="list-style-type: none"> No change 	<ul style="list-style-type: none"> No change
OPTION 2. Passenger-only Monthly pass	<ul style="list-style-type: none"> New product Passenger value pass may be modified or replaced 	<ul style="list-style-type: none"> Revenue impacts depend on pricing Could support mode shift May be operational ticketing and identification issues Pricing needs to be aligned with other fare policies
OPTION 3. Vehicle Monthly pass	<ul style="list-style-type: none"> New product Current vehicle value pass may be modified or replaced 	<ul style="list-style-type: none"> Revenue impacts depend on pricing May be operational ticketing and identification issues Pricing needs to be aligned with other fare policies

Passenger Monthly Pass



Vehicle Monthly Pass



Should the Ferry consider a monthly pass? How should it be structured?