WSDOT Ferries Division

Building Blocks for the Development of the Long Range Plan

David Moseley
Assistant Secretary
Ferries Division

Paula Hammond
Secretary of Transportation

Dave Dye
Deputy Secretary

Steve Reinmuth
Chief of Staff

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Washington State Department of Transportation

Public Outreach

Public meetings, workshops & hearings in ferry communities

March/April

June/July

September/October

Upcoming December 1-5, 8-12

Conversations with local community stakeholders

FAC Executive Council

Local Agency Review Team (LART)

David's meetings with community and city leadership

Online resources

View public information material

Read meeting summarie

Link to JTC and WSTC website

Provide comment: http://www.wsdot.wa.gov/ferries/planning/ESHB2358.htm

Building the Long Range Plan

Responding to ESHB 2358

- Maximize Existing Capacity
- Efficiently Use Existing Assets
- Adaptive Management Practices
- Continuous Quality Improvement

Long Range Plan Elements

- Base conditions – what it will take to maintain current program
  - Operate the “current” service plan.
  - Maintain, preserve and replace existing capital facilities.
- Identify & analyze options to address growth and operational improvements
  - Strategies
    - Reservations
    - Pricing
    - Transit enhancements
    - Other
  - Service options

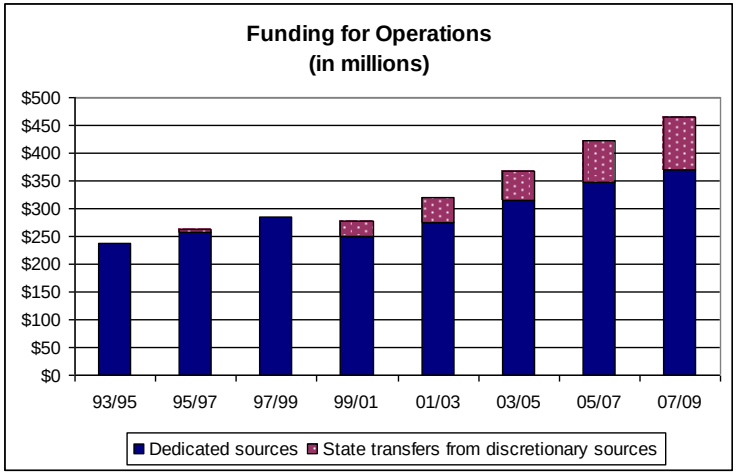
Base Conditions

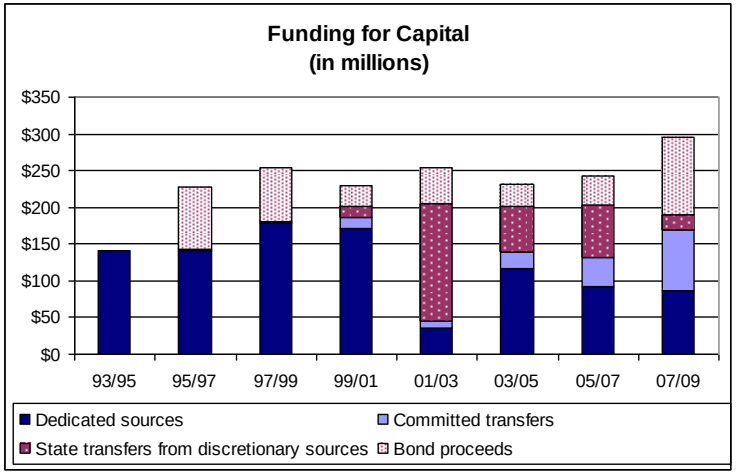
Identify the Needs of Continuing to Operate the Current Services and to Maintain, Preserve and Replace Existing Capital Assets

Current Financial Situation is not Sustainable

Since the Ferries Division lost the dedicated MVET funding in 2000, the funding gap has been mostly made up by transfers from other transportation accounts.

- Even with significant fare increases, more than $300M of discretionary transportation funds have been used to support operations since 2000.
- The capital program, which is 100% tax supported, has received more than $325M in discretionary support and $250M in bond proceeds since 2000.





Operations Outlook

What will it take to continue to operate "current" service plan?

- Integrate current vessel procurement plans, which will provide a modest system capacity improvement.
  - Two Island Home class vessels
  - Up to three 144-car vessels
- Replace future retiring vessels with in-kind vessels.

Key financial assumptions

- Labor costs will grow an average of 3.6% per year (historic 10-year per FTE average rate of growth for Ferries Division).
- Fuel cost escalation based on Global Insight's pessimistic fuel forecast (June 2008).
- Other costs to grow at the rate of inflation (implicit price deflator – IPD).
- Fare revenues based on ridership growth and 2.5% annual fare increases (Legislative planning assumption).

Operating Sources and Uses of Funds

Providing the planned service level is estimated to require an additional $486M over the 22-Year LRP planning horizon.

- Ridership growth and fare increases result in an average farebox recovery rate of 80%.
- The greatest financial risk in the operating program is related to future fuel costs estimates.
- The 22-year need is 60% more than the additional operating subsidy since the loss of MVET.
- Beyond direct costs, there are an additional $329M in ferry-related costs funded through other sources.

Long-term Operating Needs
(planned services, in YOE$ millions)

	Long-Range Plan 22-Year	16-Year
Operating Revenue:		
Farebox Revenue	$5,199	$3,402
Miscellaneous Revenue (Concessions, etc)	$123	$81
Total Revenue from Operations	$5,322	$3,483
Operating Program:		
Labor	$4,351	$2,811
Fuel	$1,371	$929
Other (Non-Labor, Non-Fuel)	$658	$450
Security	$15	$10
Allowance for future regulatory requirements	$105	$50
Program C - Information Technology	$128	$87
Marine Employees Commission	$6	$4
Program S - WSDOT Executive Management & Support	$18	$13
Total operating program	$6,652	$4,354
Operating revenue as % of Ferries Division costs	*80%*	*80%*
Net operating income/(subsidy required)	**($1,330)**	**($871)**
Dedicated Ferry Taxes (Operating Account)		
State Taxes (Gas Tax) + Capron Act	$636	$439
Licenses, Permit and Fees	$209	$145
Total Dedicated Taxes for Ferries	$845	$584
Net after dedicated taxes/(additional subsidy required)	**($486)**	**($287)**
Average per biennium	($44)	($36)
Other Ferries-related Costs:		
Program U - Insurance	$121	$83
SHP - Traffic Management	$208	$142
Total Ferries-Related Costs Funded Separately	$329	$225

Note: *Analysis does not yet factor in the effects of recent Coast Guard crew endurance rule change*

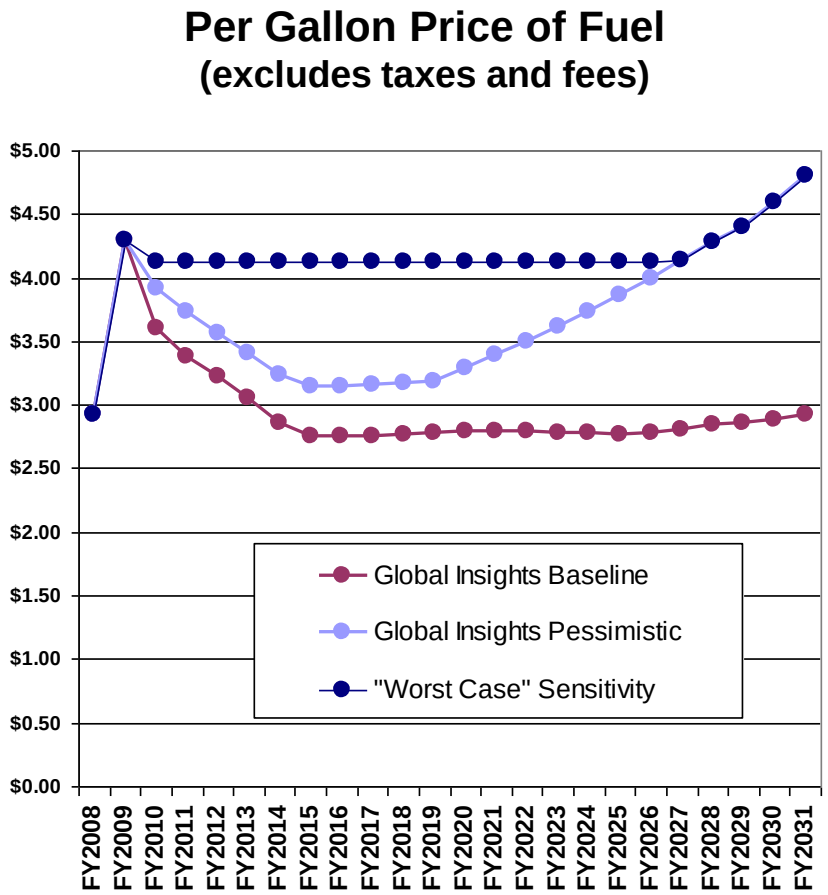
Opportunities and Risks in Operating Program

Potential to increase operating revenues over the life of the plan

- Fare increases are assumed to be limited to 2.5% per year (which is less than the 3.6% increase in labor costs).
- Growth in other operating income assumed to be 3.1% per year.
- There is risk in the assumption of a 37% increase in ridership by 2030

There is considerable risk in the assumed growth in fuel costs

- Global Insights pessimistic forecast results in an average per year increase in fuel costs of 1%.
- Fuel consumption includes programmed savings.
- “Worst Case” would add $184M.



Capital Outlook

What will it take to meet core capital needs of the system?

- Estimate the capital requirements that would maintain, preserve and replace existing capital assets
  - Capital replacement is in-kind – no substantial improvements related to addressing current or future operating needs.
  - Include vessel replacements per retirement schedule.

Approach to base capital program requirements

- Start with Life Cycle Cost Model (LCCM).
- Apply asset management principles to “right-size” LCCM preservation needs based on risk assessment.
- Identify any required regulatory improvements.
- Identify targeted improvements, limited to:
  - Near-term capital commitments, such as Anacortes building.
  - Utility investments in first 6 years to address stormwater runoff.

Core Capital Sources and Uses of Funds

The Core capital program is estimated to be $4.5B over the full Long-Range Plan horizon

- Vessel needs account for 66% of the core needs.
- Over the plan period, retirements require acquisition of 12 vessels.
- In the past 20 years, Ferries has added 3 auto-passenger vessels.

To fund the Core program will require $3.4B more than current dedicated funding

- Excludes assumed transfers from the Motor Vehicle or Multimodal Accounts in 16-yr Plan.

Sources and Uses of Funds
(in YOE$ millions)

	LRP (22-Yr)	16-Year
USES OF FUNDS		
Terminal preservation	$1,088	$806
Targeted improvements	$52	$52
Regulatory requirements	$32	$20
Utility improvements	$37	$37
Security improvements	$1	$1
Program support & OH	$245	$175
Sub-total, terminals	**$1,454**	**$1,090**
Preservation -- existing fleet	$1,330	$840
Preservation -- new vessels	$129	$28
Acquisition of new vessels	$1,287	$536
Targeted improvements	$41	$28
Regulatory requirements	$44	$28
Program support & OH	$175	$113
Sub-total, vessels	**$3,006**	**$1,574**
Emergency repairs	$124	$79
Total core capital program	**$4,584**	**$2,743**
SOURCES OF FUNDS		
Dedicated tax distributions to Ferries	$498	$345
State Revenue from 2003 Transportation Account	$116	$116
State Revenue from Transportation Partnership Account	$185	$185
Bond Proceeds (R-49, Nickel & Multimodal GO)	$236	$236
Federal Funds	$392	$285
Total Dedicated Taxes for Ferries	**$1,427**	**$1,167**
Laws of 1977 -- ferry bonds	$5	$5
Laws of 1992 -- ferry bonds	$208	$208
Total WSF Debt Service (Capital Account)	**$212**	**$212**
Net Sources, after debt service	**$1,215**	**$955**
Total Discretionary or New Funding for core capital	**$3,369**	**$1,788**

Funding Sustainability Challenge

Even before addressing any needs associated with growth or current deficiencies, there is a funding gap of $3.9B over the next 22 years

- Core capital needs $3.37B
- Operating needs $0.49B

Beyond the Core needs, the Long-Range Plan must identify how Ferries might address:

- The current deficiencies in facilities.
- Current operational and service challenges.
- The needs in each route/corridor related to future growth.

Combined Operating and Capital Needs
(in YOE$ millions)

	LRP (22-Yr)	16-Year
CAPITAL		
Terminals	$1,454	$1,090
Vessels	$3,006	$1,574
Emergency needs	$124	$79
Debt service paid by PS Capital Account	$212	$212
Total capital needs	**$4,796**	**$2,955**
Dedicated capital funds	$1,427	$1,167
Net capital surplus/(shortfall)	($3,369)	($1,788)
OPERATING		
Operating revenues	$5,322	$3,483
Operating expenses	$6,652	$4,354
Net operating income/(subsidy)	**($1,330)**	**($871)**
Dedicated operating taxes	$845	$584
Net operating surplus/(shortfall)	($486)	($287)
Total Funding Needs for Core Program	**$3,855**	**$2,075**
Average per biennium	*$350*	*$259*

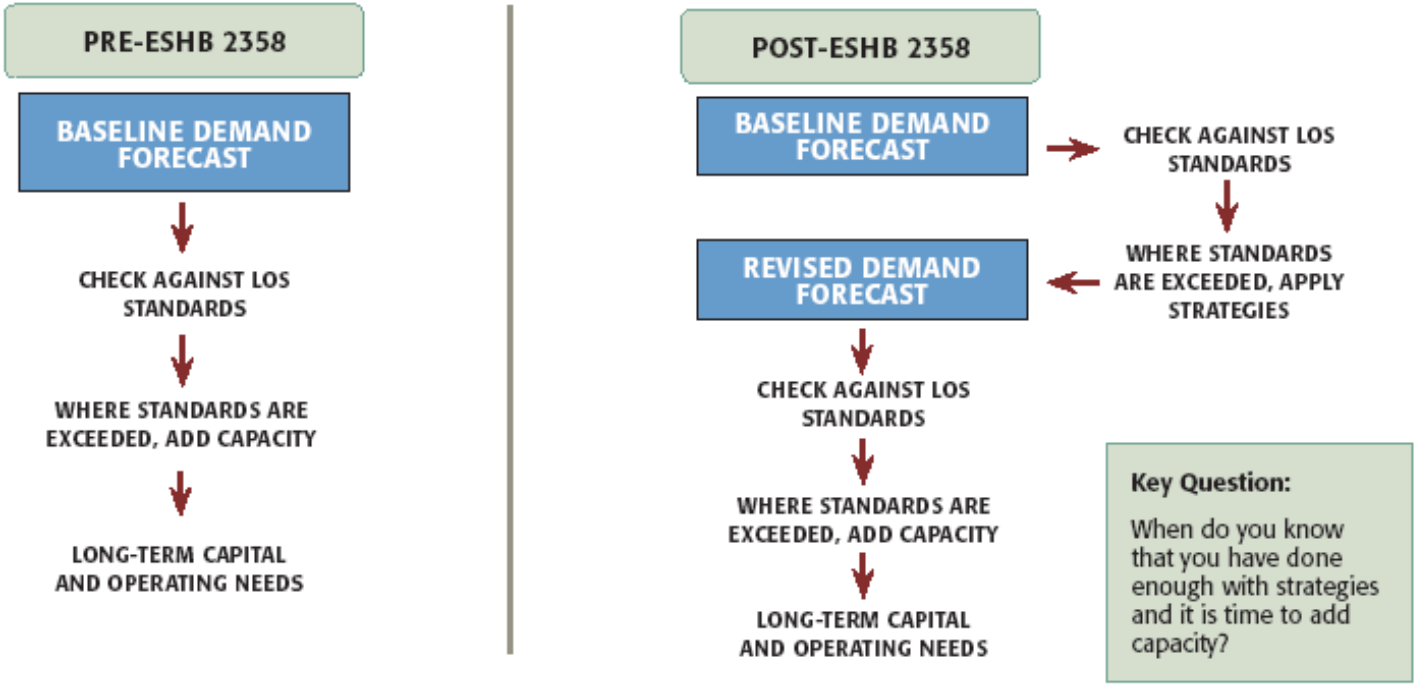
Addressing System Improvements & Growth

Developing Packages of Strategies, Services and Investments to Meet the Long-Term Needs of the Ferry System

Conceptual Framework

ESHB 2358 changed the way WSDOT/WSF must plan for future ferry needs.

- The focus is on increasing the utilization of current assets before increasing capacity



Where are the Key Operational Challenges?

Using, as a starting point, the current LOS standards for vehicle congestion, the following are the key future service challenges.

Route	Challenge
Fauntleroy-Vashon-Southworth	Southworth traffic currently exceeds standard, substantial growth expected
San Juan Domestic	Summer traffic currently at the standard, substantial growth expected
Edmonds-Kingston	Standard exceeded by 2015, both summer and May
Mukilteo-Clinton	Standard exceeded in summer by 2013 and 2026 in May
Seattle-Bainbridge	Standard exceeded in 2018 for summer and 2023 in May
Seattle-Bremerton	Standard exceeded year-round 2025
Port Townsend-Keystone	Standard exceeded in summer in 2028

Plan will be a Balance of Strategies and Services

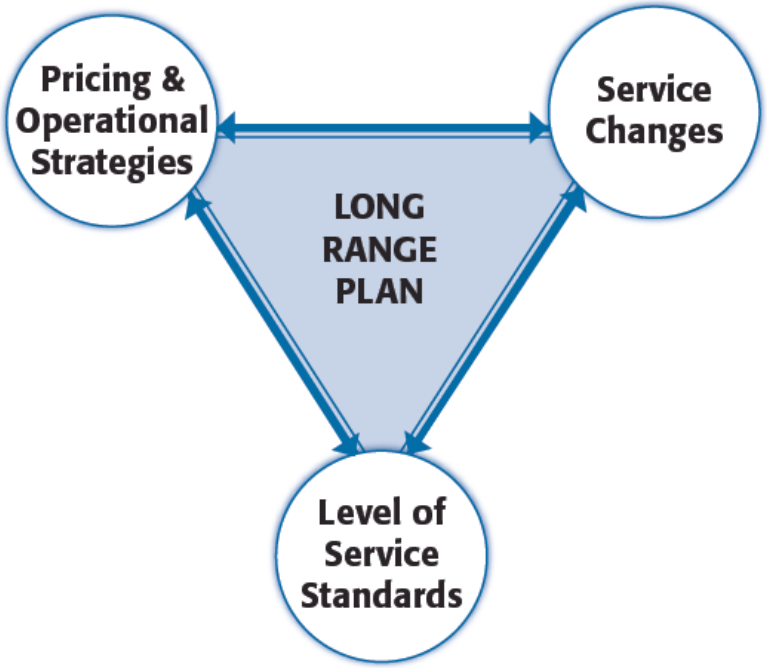
The 2006 Long-Range Plan was developed based on ridership growth and meeting adopted LOS standards.

The 2008 Revised Plan must meet the needs of the system by balancing three key variables:

- Operational and pricing strategies
- Service changes
- LOS Standards

There is tension among these variables, changes in one impact the others.

Each combination will have different costs, impacts and benefits.



Operating and Pricing Strategies

ESHB 2358 requires that Ferries pursue operational and pricing strategies as a way to manage demand before adding capacity to meet future system needs.

In June, Ferries shared over 90 individual operating and pricing strategy concepts with stakeholders and the public at FAC meetings.

After incorporating feedback and conducting further analysis, the following strategies present the greatest potential:

- Reservations for vehicles
- Pricing strategies
- Transit enhancements

The other second tier strategies, many of which may become part of the Plan, are less likely to have an significant impact on demand or efficiency.

Vehicle Reservation System:

Why would vehicle reservations be a key strategy?

A reservation system would allow Ferries to operate with the smallest possible terminal facilities and maintain a high level-of-service.

- Vehicles arrive in waves equal to or smaller than the capacity of the vessel.
- Minimal queuing impacts in terminal communities.
- High degree of customer predictability.
- Already successfully implemented on two WSF routes and most ferry systems in the world currently have extensive reservation systems.
- System can be flexible to match demand and supply in a targeted manner – i.e. can focus capacity on certain sailings to particular markets:
  - Visitors can be offered reservations far in advance, but early reservations could be limited to certain sailings.
  - Local residents can be given priority at other times and for “commute-heavy” sailing.

Vehicle Reservation System:

What would a reservation system look like?

The system would be fit to conditions at the route level, however, there are several key characteristics necessary to minimize terminal facility needs and community traffic impacts:

- Vast majority of vessel vehicle capacity is reserved during peak periods (up to 90%).
- Policies that recognize and balance the unique travel characteristics and ridership mix at the route-level – portions of each sailing can be targeted to particular customer types (i.e. commuters, recreational users, etc…).
- Fare policies and collection will need to be integrated with a reservation system, though there will not be an additional charge for making a reservation.
- Limited number of standby spaces – once standby space is full, no more traffic accepted at the terminal.
- A portion of each sailing is unreserved to deal with emergency situations.
- Likely offer opportunities to leverage WSDOT investments in transponder technology (Tacoma Narrows, SR167, future toll facilities).

Vehicle Reservation System:

Preliminary Policy Framework for Reservations

General policy parameters:

- Reservations would require some form of pre-payment, likely all or part of the vehicle fare.
- Pre-payment may be forfeited if customer does not complete trip.
- Amount of reserved space and type of space will vary by route, time of day, day of year.
- 10-15 minute advanced arrival required for most routes, 20-30 minutes for the San Juan Islands and International routes.
- Reservations available on an availability basis up to 30 minutes before sailing.
- Customer can cancel or change reservation up to 30 minutes before a sailing -- late cancellation or no-show would result in loss of some or all pre-payment amount.

Vehicle Reservation System:

Preliminary Policy Framework for Reservations

What happens when a customer misses a sailing/reservation?

- If there was advance notice (30 minutes or more), the customer may transfer the reservation to another sailing, have a credit for a future sailing, or receive refund, or arrive for next sailing with priority status in standby lane.
- Without notice (or miss arrival time cutoff) customer moved to standby and can travel on next available sailing with no cost penalty.
- No notice and trip not completed within same day would result in a loss of some or all pre-payment.

What happens when Ferries cancels a sailing?

- All reservations are cancelled for the duration of the service disruption.
- Where possible, customers are diverted to alternate routes.
- Where reservations cannot be completed, refunds or credit would apply.
- When service is restored, boarding will be based on order of reservations with earliest having priority over reservations for later sailings.

Vehicle Reservation System:

Preliminary Policy Framework for Reservations

How will reservations work for commuters and regular users?

- It will be possible to have a resident and/or frequent user program to give priority for high demand and commute sailings.
- A share of each sailing could be set aside for the regular user program.
- If enrolled in a resident/frequent user program, can make multiple reservations at a time.
- Pre-payment and no-show/cancellation policies would apply.

How could commercial vehicles participate?

- Commercial vehicle reservations already exist in the San Juan Islands and Port Townsend-Keystone.
- Would extend the Ferry System's ability to work directly with commercial carriers to match trips with sailings and offer guaranteed passage.
- Could focus the commercial vehicles at times that work for the customer and minimize the impacts of large vehicles during peak periods.

Vehicle Reservation System:

Preliminary Implementation

To be successful and provide the terminal and community impact benefits, implementation of a large-scale reservation system should follow some key guidelines:

- Implemented once the “right” technology has been identified.
- Facility improvements to accommodate reservations must be made first.
- Soonest possible implementation would be 2010 on one or two routes, in addition to Port Townsend-Keystone and the International route.
- Routes will be added gradually as the system is deployed and operational issues are identified and resolved.
- Once a route begins a reservations system it will only be for specific sailings, with reservations added to sailings gradually over time.
- Full system roll out, including ramping up the percent of peak sailings that would be available for reservation, would likely take several years.
- Before proceeding with phased implementation, there needs to be firm funding commitment to adequately fund the full program.

Pricing Strategies:

Why would pricing strategies be proposed?

Pricing strategies offer the best opportunity to influence demand and shift travel in ways that allow Ferries to make best use of its facilities and existing capacity

The assessment of pricing strategies concluded that the following could be included in the Long Range Plan:

- Peak period congestion pricing for vehicles, higher prices during high demand periods (exempt registered carpools and vanpools).
- Change frequent user vehicle discount policy to incorporate peak period pricing.
- Off-peak vehicle discounts to encourage travel during low demand periods.
- Small vehicle incentive pricing to encourage customers to shift from larger vehicles to smaller ones, effectively increasing the vessel capacity.
- Lower fares for passengers to encourage walk-ons, carpools.

As with reservations, pricing strategies would be phased in over time through the process of regular fare changes

Pricing Strategies:

Peak Period Congestion Pricing

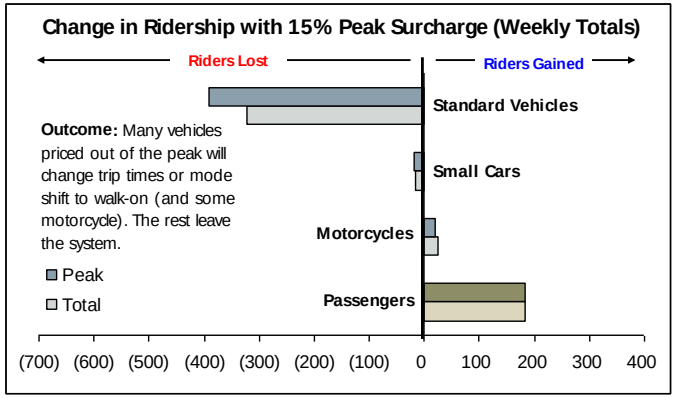
The single most effective demand management strategy is to implement a more targeted vehicle congestion pricing strategy:

- Charge variable vehicle prices based on time-of-day and increase fares during high demand periods.
- Consider refinements to the peak season structure that might increase the summer surcharge and/or add a new shoulder season price.

Analysis suggests peak period vehicle congestion pricing alone would:

- Shift customers from vehicles to other times and modes.
- Total vehicle travel would decline.
- Result in higher revenues.

Preliminary Effectiveness Analysis



Note: *Effectiveness analysis is based on projected 2030 May ridership for Edmonds-Kingston. The analysis will be updated when WSTC survey results are complete.*

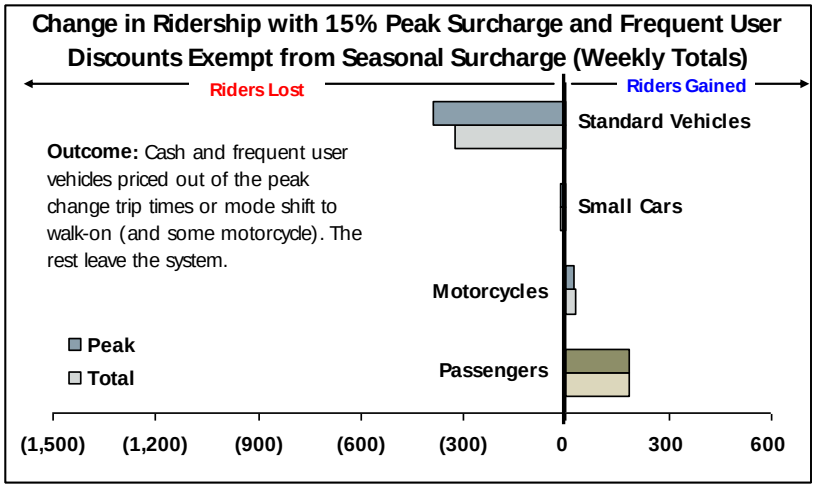
Pricing Strategies:

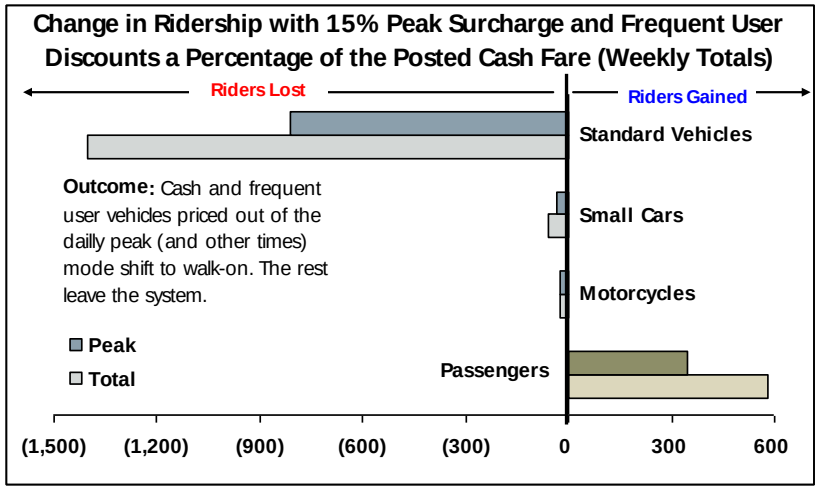
Adjust Vehicle Frequent User Policies

To maximize the TDM benefits of congestion pricing there will need to be changes to the vehicle frequent user policies.

- Modifications could include:
  - Discount based off of time-of-day pricing but not seasonal pricing; or
  - Discount based off of time-of-day pricing and seasonal pricing

Preliminary Effectiveness Analysis





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Pricing Strategies:

Off-Peak Discount Vehicle Pricing

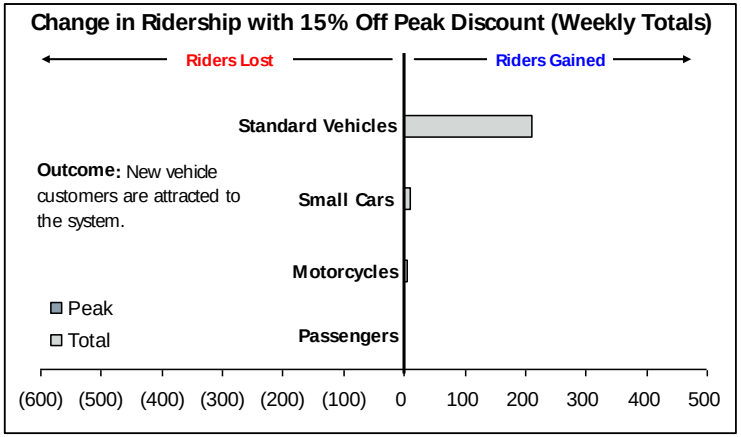
Off-peak discount vehicle pricing would be designed to:

- Encourage existing vehicle travelers to use lower demand sailings and take pressure off peak periods.
- Grow ridership among certain markets, such as commercial vehicle traffic, which can make use of lower demand periods but may be priced out of the system today.

Analysis suggests off-peak vehicle discounts alone would:

- Have a minimal impact on time-of-day shifts.
- Grow total ridership in off-peak periods.
- Result in lower revenues.

Preliminary Effectiveness Analysis



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Pricing Strategies:

Small Vehicle Pricing

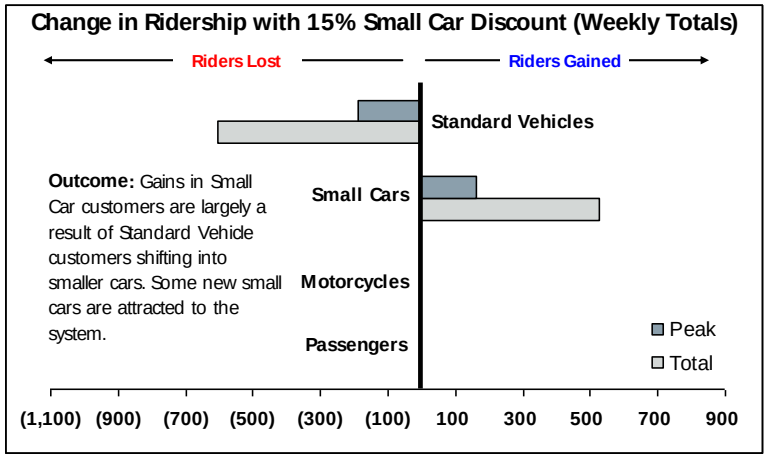
Ferries already charges based on size of vehicle, though with this small vehicle strategy there would be particular focus on:

- Increase the effective vessel capacity by reducing the average vehicle size – could be coupled with higher fares for larger vehicles.
- Provide a lower cost option that still offers a demand management benefit for regular vehicle commuters.

Analysis suggests small vehicle discounts alone would:

- Shift vehicle mix toward smaller cars.
- Shift would be both during the peak and throughout the day.
- Result in lower revenues.

Preliminary Effectiveness Analysis



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Pricing Strategies:

Passenger Fare Discounts

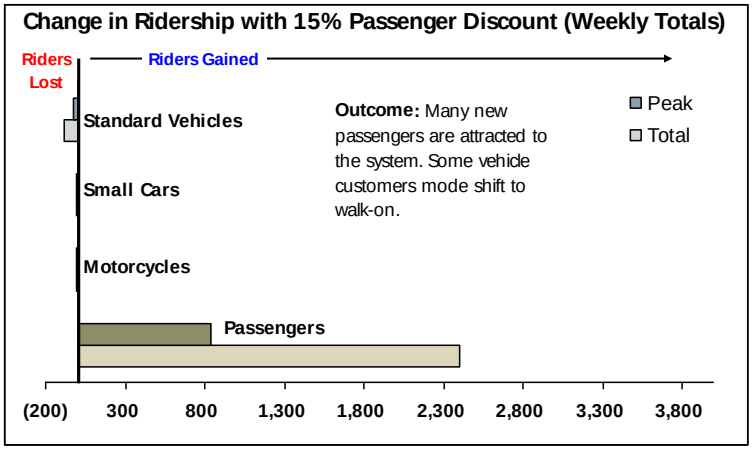
Passenger fare discounts would be designed to achieve two principal objectives:

- Attract more passengers to the system – from other modes during the peak, and more generally throughout the day.
- Provide some cost relief for ferry-dependent customers who might be negatively affected by congestion pricing.

Analysis suggests passenger discounts <u>alone</u> would:

- Have a modest impact on mode shift.
- Attract new riders to the system.
- Have a significant negative impact on revenues.

Preliminary Effectiveness Analysis



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Pricing Strategies:

Route-level Pricing Packages

The five major pricing strategies are combined into pricing packages which are designed to:

- Maximize positive shifts in travel patterns
  - Shift vehicles to off-peak.
  - Shift to walk-ons.
  - Encourage more small vehicle usage during the peak.
- Achieve at least revenue neutrality
  - Focus at this time is on the transportation demand management effects and not raising revenue.
- Minimize the negative cost impacts on certain customer groups
  - Balance of higher fares at certain times with lower fares for passengers and off-peak travel.
  - Small vehicle pricing offers peak drivers a lower price option.

Transit Enhancements:

Why would transit enhancements be a key strategy?

Most frequently cited factors in why customers would be more willing to shift from driving to walking on the ferry during commute periods

- Focusing on improving the walk-on customer experience will be necessary to achieve meaningful shifts away from driving during the peak.
- Improvements will need to focus on both ends of the trip and on the connections at ferry terminals.

There are several challenges that Ferries will need to address to pursue these strategies

- Ferries does not control the transit side of the trip. In fact, on many trips there will be at least three public transportation providers – transit operator on the west side, Ferries and transit operator on the east side.
- Ferries will likely need invest in its own facilities to support this strategy.
- Source of funding for expanded transit services is unknown.

Transit Enhancements:

Gaps in Transit Services and Supporting Facilities

Extensive review of transit connections at all ferry terminals identified gaps in levels of service necessary to support walk-on shifts. Needs were identified in the following areas:

Transit Service	Facility Needs	Non-Motorized Facilities
• Better park & ride connectors • More frequent service during peak • More night and midday service • New routes and better connections • Better timing with vessel arrivals and departures • Hold buses until boat arrives	• Overhead loading, new or improved • Covered walkways • Sheltered bus stops • Improved pedestrian crossings • Preferential access for buses • More park & ride locations away from terminal • Improved wayfinding through terminal	• Covered and secure bike storage at terminal • Car sharing locations at ferry terminals • Trails and dedicated pedestrian and bike paths to connect with terminals

Other Operating Strategies:

Continue to Evaluate All Major Strategies

There were several other operating strategies that were determined to be potentially effective, however they would be more targeted and likely have smaller potential benefits.

The Long-Range Plan would likely include a proposal to continue to look for opportunities to cost effectively implement strategies among the following:

- Technologies for improved fare collection.
- Enhanced user information.
- Marketing and promotion of non-SOV modes.
- Non-motorized access enhancements.
- Traffic and dock space management.
- Parking and holding.

Ferry Service Changes:

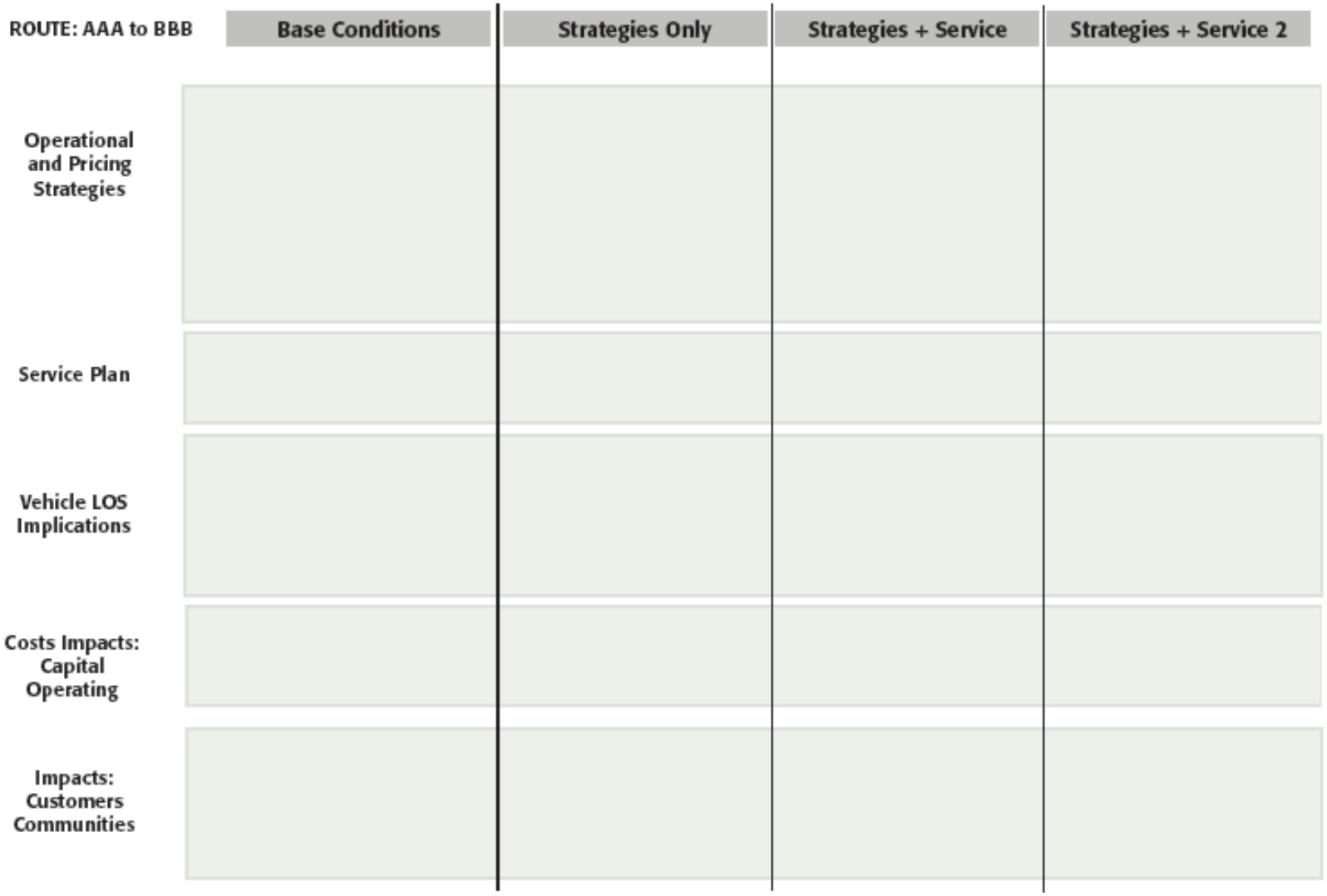
What if strategies are not enough to address 2030 growth?

A range of potential service changes are identified and analyzed for each route/corridor:

Route	Level I	Level II
Fauntleroy-Vashon-Southworth	Break up triangle, direct services out of Fauntleroy	Break up triangle, take Southworth to Colman Dock
San Juan Domestic	5-boat schedule summer only Plus extend service hours	6-boat schedule summer only 5-boat schedule Fall/Spring
Edmonds-Kingston	Add 3rd boat in summer only	Add 3rd boat year round
Mukilteo-Clinton	Substitute larger boat in summer	Add 3rd boat summer only
Seattle-Bainbridge	No change	No change
Seattle-Bremerton	Add hours to fill in schedule	Add 3rd boat year round
Port Townsend-Keystone	Extend hours in summer	Maximum hours in summer
Pt Defiance-Tahlequah	Operate a 64-car vessel	Operate 87-car with more hrs
International	(No change)	(No change)

Combine Elements into Route Level Packages:

Packages designed to meet route needs



Next Steps:

Develop the Draft Long-Range Plan

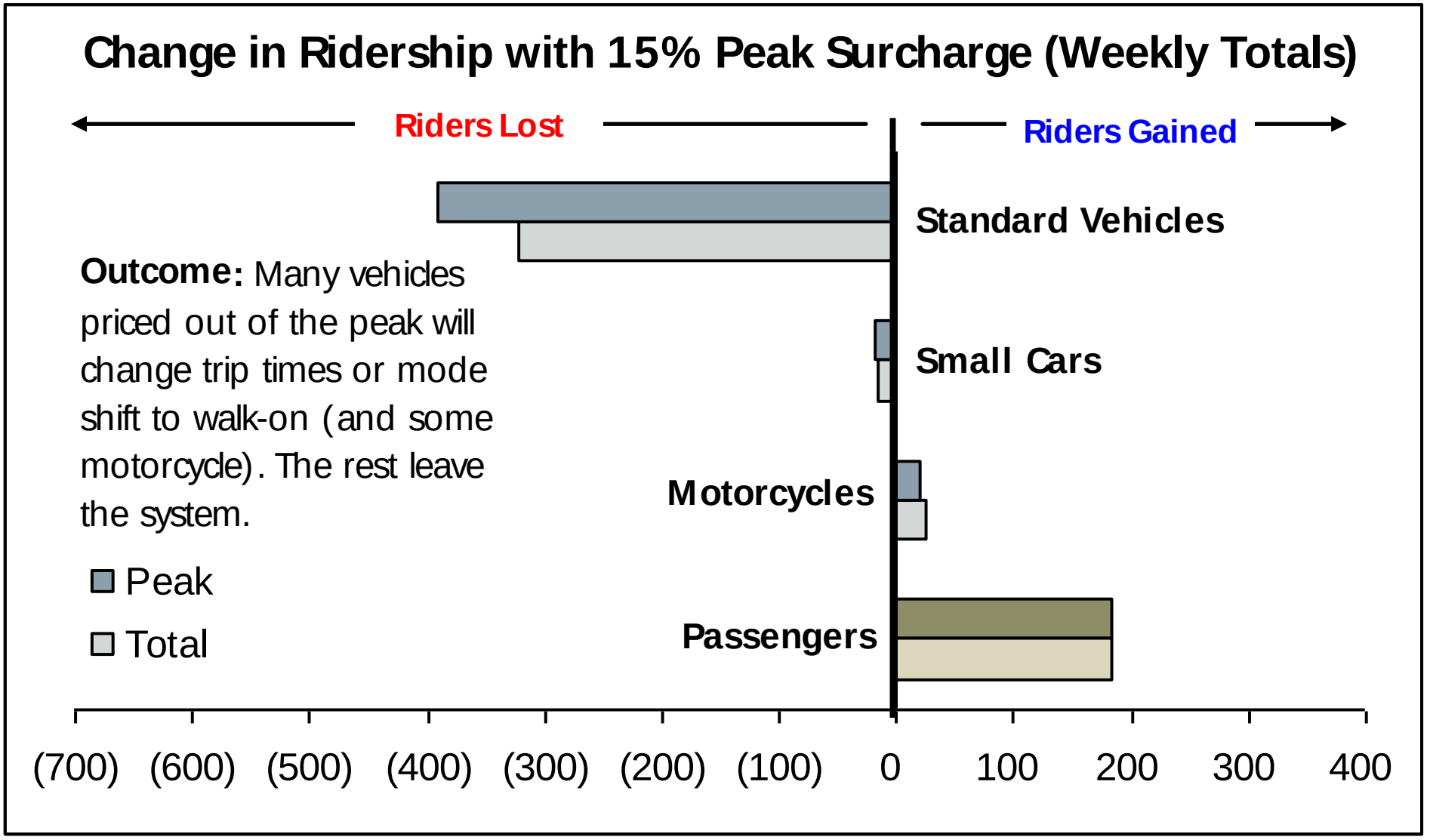
Review route-level package options with FAC's later in September and early October:

- Feedback: (1) strategy proposals; (2) tradeoffs among and within packages; and (3) costs, impacts to customers/communities and benefits of each package.

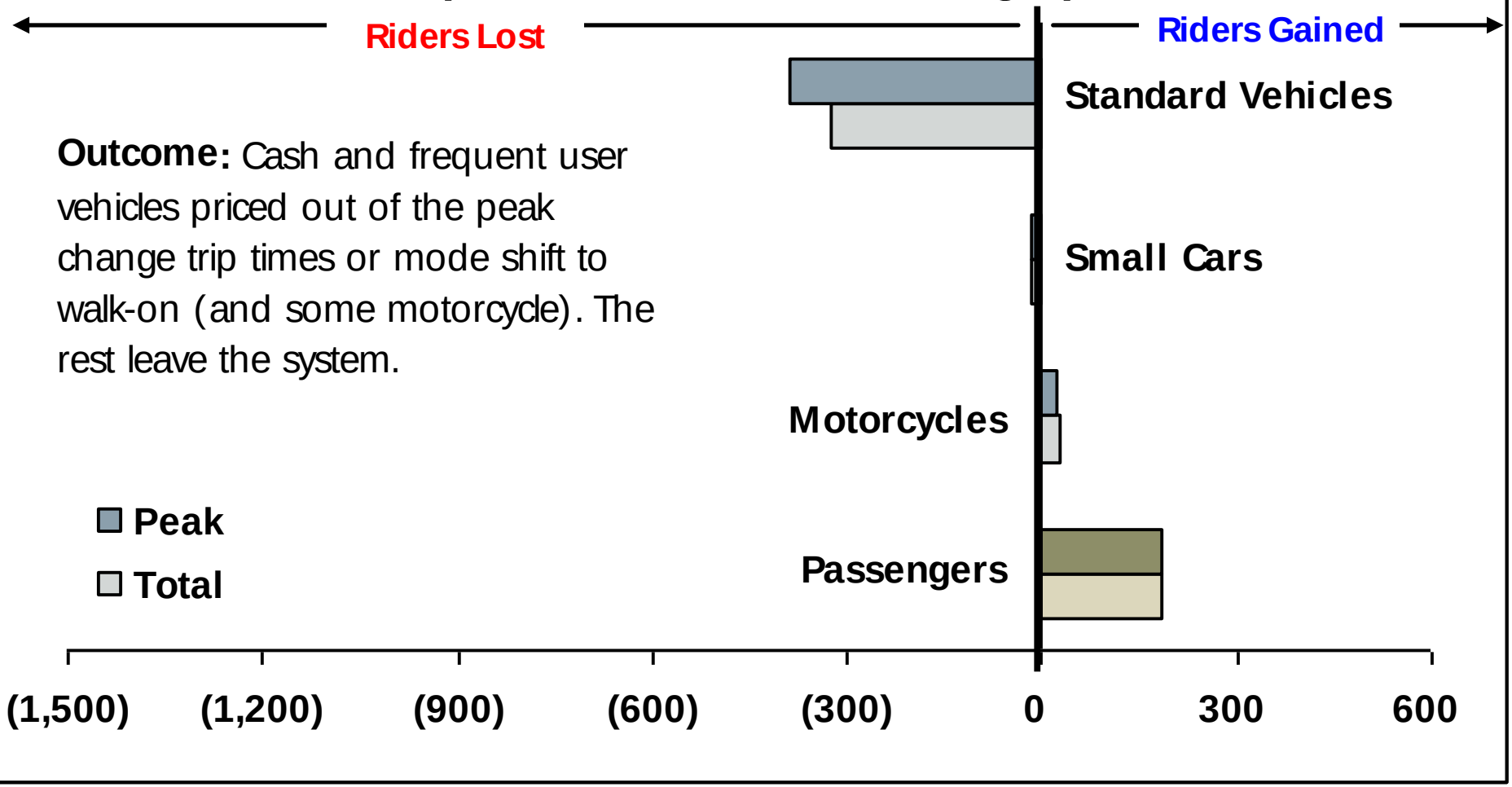
Integrate the route-level efforts into systemwide Plan options

- Evaluate and prioritize among route-level packages to develop systemwide packages of strategies, services and investments.
- Systemwide packages will be developed as a series of funding levels (similar to decision packages)
  - Begin with the minimum proposed needs to operate, maintain, and preserve the Ferry System.
  - Incrementally add improvements to show how additional funding would be prioritized and what benefits are gained.

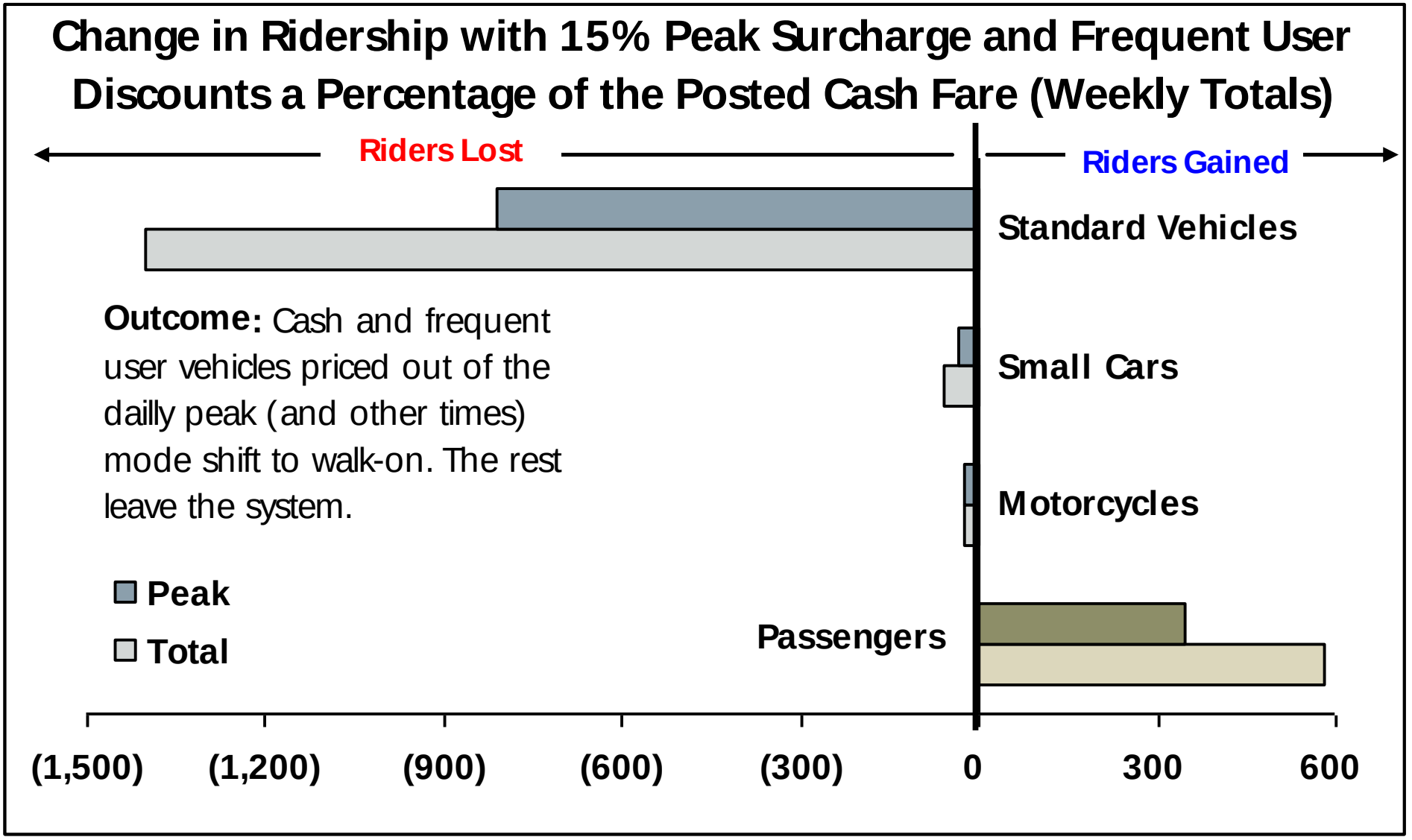
Release Draft Long-Range Plan in Mid-November for JTC, FAC, stakeholder and public review

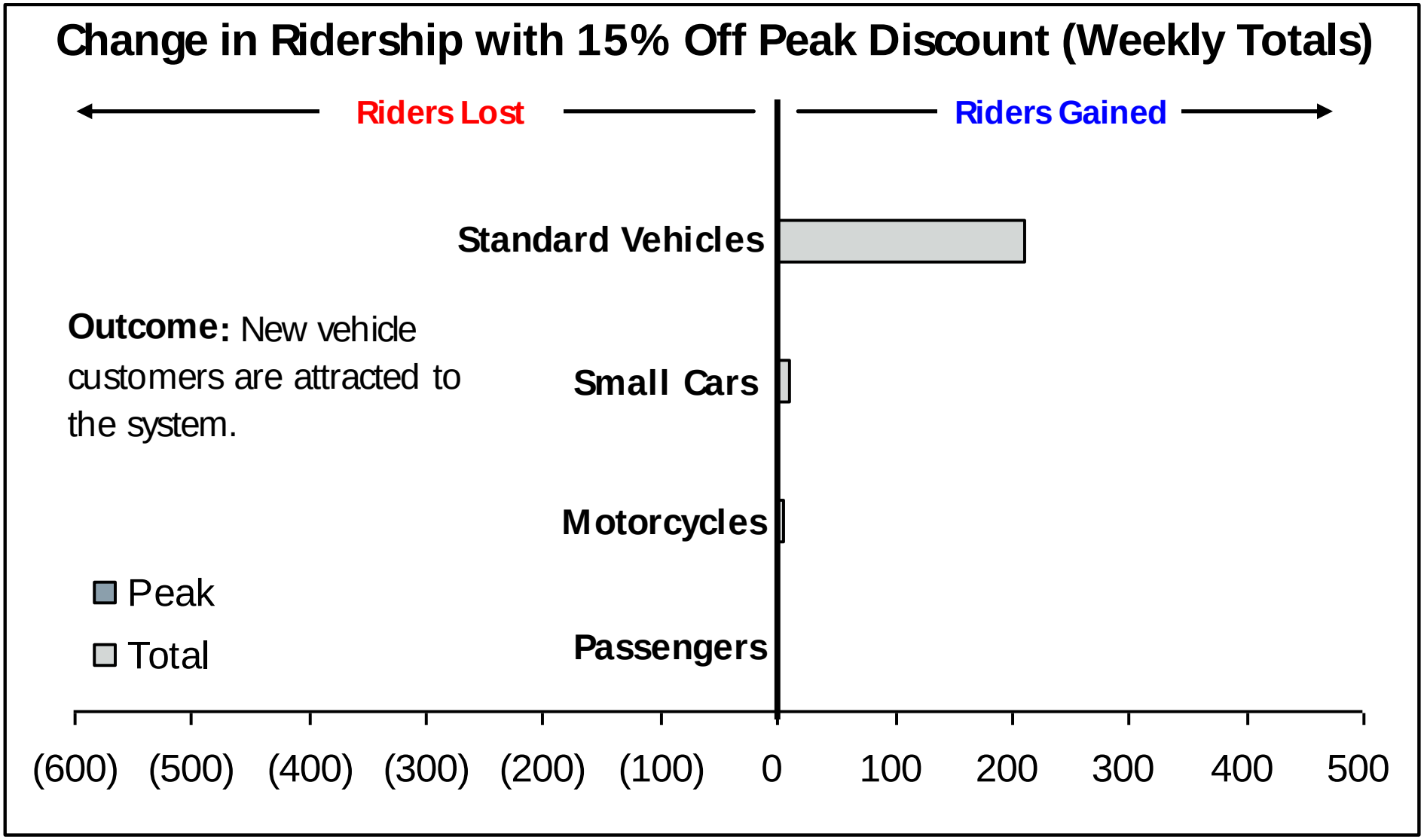

Change in Ridership with 15% Peak Surcharge (Weekly Totals)
Riders Lost
Riders Gained
Standard Vehicles
Small Cars
Motorcycles
Passengers
Outcome: Many vehicles priced out of the peak will change trip times or mode shift to walk-on (and some motorcycle). The rest leave the system.
Peak
Total
(700)
(600)
(500)
(400)
(300)
(200)
(100)
0
100
200
300
400

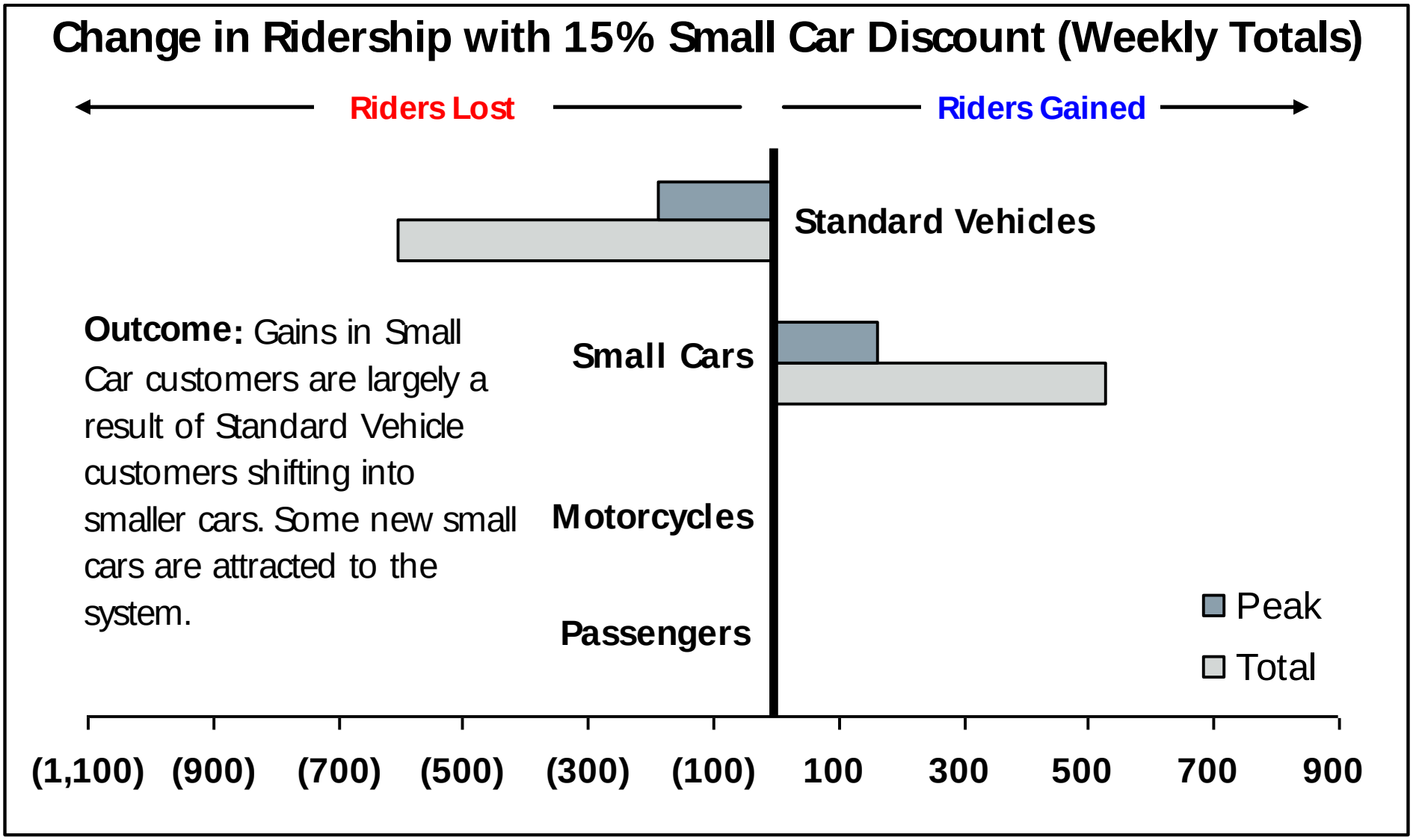
Change in Ridership with 15% Peak Surcharge and Frequent User Discounts Exempt from Seasonal Surcharge (Weekly Totals)

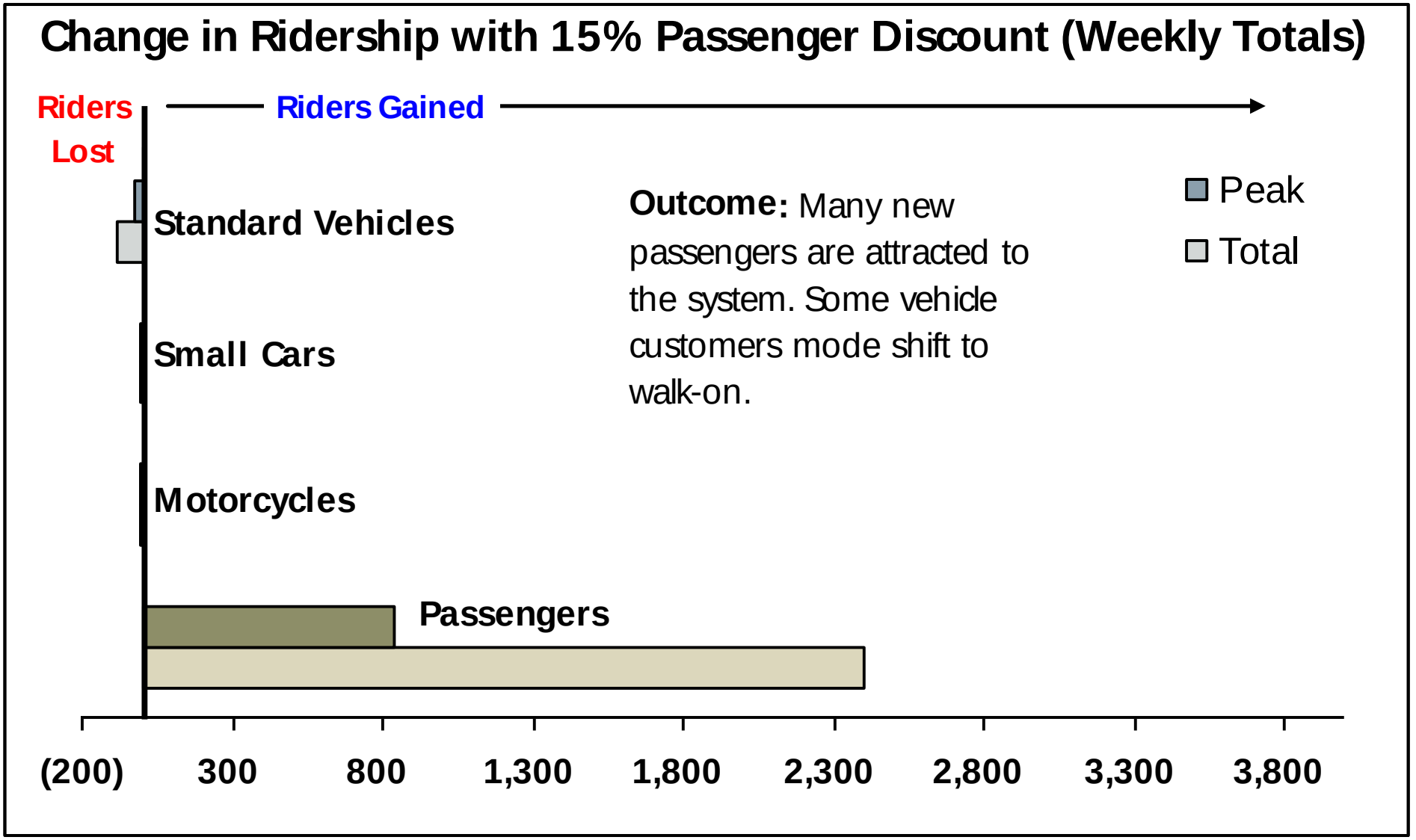


Outcome: Cash and frequent user vehicles priced out of the peak change trip times or mode shift to walk-on (and some motorcycle). The rest leave the system.


Change in Ridership with 15% Peak Surcharge and Frequent User Discounts a Percentage of the Posted Cash Fare (Weekly Totals)
Riders Lost
Riders Gained
Standard Vehicles
Outcome: Cash and frequent user vehicles priced out of the dailly peak (and other times) mode shift to walk-on. The rest leave the system.
Small Cars
Motorcycles
Peak
Total
Passengers
(1,500)
(1,200)
(900)
(600)
(300)
0
300
600


Change in Ridership with 15% Off Peak Discount (Weekly Totals)
Riders Lost
Riders Gained
Standard Vehicles
Small Cars
Motorcycles
Passengers
Outcome: New vehicle customers are attracted to the system.
Peak
Total
(600)
(500)
(400)
(300)
(200)
(100)
0
100
200
300
400
500


Change in Ridership with 15% Small Car Discount (Weekly Totals)
Riders Lost
Riders Gained
Standard Vehicles
Small Cars
Motorcycles
Passengers
Outcome: Gains in Small Car customers are largely a result of Standard Vehicle customers shifting into smaller cars. Some new small cars are attracted to the system.
Peak
Total
(1,100)
(900)
(700)
(500)
(300)
(100)
100
300
500
700
900


Change in Ridership with 15% Passenger Discount (Weekly Totals)
Riders Lost
Riders Gained
Standard Vehicles
Small Cars
Motorcycles
Passengers
Outcome: Many new passengers are attracted to the system. Some vehicle customers mode shift to walk-on.
Peak
Total
(200)
300
800
1,300
1,800
2,300
2,800
3,300
3,800