Prepared for:

Washington State Transportation Commission

2008 Ferry Customer Survey

Technical Paper #4: Attitudes Surrounding Fares

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Preface

The 2007 Legislation specifically asked that the WSTC explore rider attitudes toward fares and possible changes to fares and fare policies.

To answer these issues, questions were designed to explore riders' sensitivity to different fare levels as well as looking at what they would consider to be reasonable fares. To explore this in more detail, questions were included in the March on-board survey to look at rider attitudes toward several possible changes to fare policies as well as their attitudes toward charging different fares at different times of the day. Participants in the March on-board survey were also asked to participate in additional follow-up research that specifically looked at fare sensitivity. For that follow-up research, participants were given a choice-based conjoint exercise designed to see how their travel behavior might change when faced with different fare structures.

Each major section begins with a brief summary of the key findings. Detailed analysis then follows. All key findings are analyzed for the following key segments:

1. Season of travel (when questions were asked in both survey waves);
2. Boarding mode for sampled trip;
3. Route used for sampled trip; and
4. Day of week and time of travel for sampled trip (overall and when appropriate by boarding mode).

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Key Findings – Fare Payment

Summary – Fare Payment

Fare Payment Method

Riders are almost equally likely to pay the price for a single-ride (full fare) or a discounted fare – 47 percent compared to 50 percent, respectively.

- Among those paying a discounted fare, two-thirds (66%) use a multi-ride card, 22 percent use a monthly pass, and 12 percent use another discounted (youth, senior, or disabled) fare.

Reflecting the higher rate of recreational travel during the summer months, significantly more riders in the summer than in the winter use single-ride tickets – 51 percent compared with 40 percent, respectively.

Walk-on passengers and vehicle drivers are almost equally likely to use pre-paid fare media – 48 percent and 47 percent, respectively.

- All vehicle drivers using pre-paid fare media use a multi-ride card; monthly passes are not available to vehicle drivers. Among walk-on passengers who use pre-paid fare media, more use monthly passes (54%) than commuter cards (46%).

Fare payment method is clearly related to the number of trips a rider takes each month.

- More than three out of four (77%) riders who take less than seven one-way trips per month pay with a single-ride ticket. This drops to 33 percent among those taking 7 to 24 one-way trips monthly and to 7 percent or less for those taking more than 25 monthly trips.
- On the other hand, only 13 percent of those who take six or fewer one-way trips per month use a commuter card or monthly pass. This increases to 58 percent for those taking 7 to 24 trips and to 84 percent or more for those taking more than 24 trips.
- The point at which more riders use pre-paid fare media than a single-ride ticket is between 18 and 19 one-way trips per month.

Consistent with expectations and reflecting the frequency with which they ride, the majority (62%) of peak weekday riders uses pre-paid fare media for their trips. On the other hand, the majority (47%) of off-peak weekday riders pays with a single-ride ticket.

- The use of pre-paid fare media among off-peak weekday riders increases as their frequency of riding increases. Seventy-six percent (76%) of off-peak weekday riders who take fewer than seven one-way rides monthly use single-ride tickets. For those who take 7 to 24 trips, only 34 percent uses a single-ride ticket and 57 percent use a commuter card or monthly pass. Use of pre-paid fare media increases to 81 percent for those riders taking 25 or more trips per month.

What is somewhat unexpected is the high use of pre-paid fare media by weekend riders, suggesting that many of those traveling on weekends are also regular weekday riders.

Fare Payment Options

WSF passengers have multiple means by which to pay their fares ranging from a single ticket to a monthly pass. Brief descriptions of the different fare media and corresponding policies are shown below:

Fare Medium	Description
Single-Ride Ticket	Single-ride tickets are good for one trip on WSF. The price of a single-ride ticket is the full, non-discounted price for the ride. They may be purchased at the terminal or on-line. Expiration dates on full-fare, single-ride tickets have been extended from 7 to 90 days from date of purchase for all routes.
Multi-ride Card	Multi-ride cards are good for 20 one-way trips for autos, or ten round trips for passengers, with one exception – the San Juan Islands multi-ride cards are good for five (5) round trips. These cards are discounted for frequent use of the system and are good for 90 days from the date of purchase. These are also non-refundable and non-exchangeable.
Monthly Pass	Ferry-only monthly passenger passes are good from the first day to the last day of the month. They are available only to walk-on and vehicle passengers. They are not available to vehicle drivers. Monthly pass users save at least 20 percent when they take 16 or more round trips per month. A monthly pass is not transferable and may not be used on the San Juan Island routes. More expensive passes are good on less expensive ferry routes. The hierarchy is as follows: Passenger-only; Central Sound; Fauntleroy / Southworth & Port Townsend / Keystone; Vashon Island; and Mukilteo/Clinton.
Other Discounted Fares	Those 65 years of age or older, or persons with disabilities can purchase a single-ride ticket or a convenience card worth five (5) round-trips and save 50 percent off the full fare price. Proof of age or eligibility for disabled fare may be requested at the toll booth or turnstile. Youth, ages 6 to 18, may purchase a single-ride ticket and save approximately 20 percent off the full fare price.

Detailed Findings – Fare Payment Method

All Riders: Fare Payment

Respondents were asked to indicate how they pay their fare. In the winter, they were asked how they paid their fare for their sampled trip. However, on most routes some passenger segments only pay fares one-way (on the westbound crossing). As a result, some riders put as their response that they did not pay a fare. As a result, actual fare payment data for some respondents was not available and could not be imputed from any other response. Therefore, the question was changed for the summer and respondents were asked to indicate how they typically pay their fare.

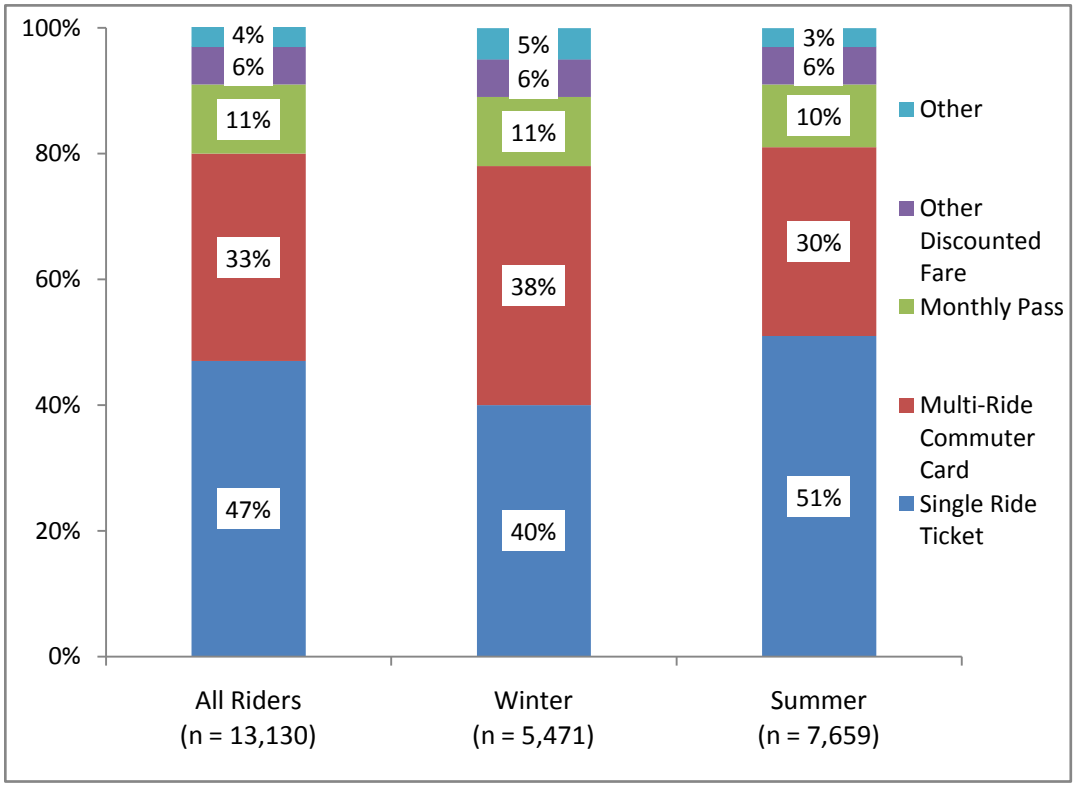
Nearly half (47%) of all riders pay their fares using a single-ride ticket.

- Reflecting the recreational travel and the lower frequency of riding, summer riders are significantly more likely than winter riders to use a single-ride ticket – 51 percent compared to 40 percent, respectively.

Half (50%) of all riders pay a fare amount that is discounted from the single-ride ticket fare. One out of three (33%) riders uses a multi-ride card; 11 percent uses a monthly pass; and 6 percent pays a senior, youth, or disabled fare.

- The summer increase in the use of single-ride tickets corresponds with a decrease in multi-ride card usage. Thirty-eight percent (38%) of winter riders use a multi-ride card compared with 30 percent of summer riders.
- There are no seasonal differences in the use of a monthly pass or payment with another discounted fare.

Figure 1: Fare Payment Method



Question (winter): How did you pay your fare for your trip today?
Question (summer): How do you typically pay your fare?
** Other Discounted Fare includes Senior / Disabled and Youth Fares*

As the adjacent table shows, there are some significant differences in the characteristics of rides using different fare payment methods.

- **Single-Ride Ticket Purchasers**: Riders who purchase single-ride tickets are more likely to be women (55%) than men (45%). They are younger on average – 26 percent are between the ages of 16 and 34. They are the least likely segment to be employed full-time. A significant number are in the other category – many are homemakers or not currently employed.
- **Multi-Ride Care Users:** This segment is almost equally likely to be male (51%) as female (49%). They are the oldest segment (outside of those using senior passes) – 61 percent is between 45 and 64. This segment is relatively affluent – suggesting that it is more economically feasible to pre-pay fares.
- **Monthly Passes Holders:** This segment skews somewhat toward men (54%) over women (46%). This segment is somewhat younger than those purchasing multi-ride cards – two-thirds (67%) are between the ages of 25 and 54. Nearly all (92%) monthly pass holders are employed full-time – making it realistic that they can achieve the number of rides to justify the price of a pass. Finally, this is the most affluent segment – again suggesting that they more able to afford to pre-pay the cost of a pass.

Table 1: Demographics of WSF Customers based on Fare Payment

	All Riders (n = 13,130)	Single-Ride Ticket (n = 5,322)	Multi-Ride Card (n = 3,924)	Monthly Pass (n =1,933)
Gender				
Male	48%	45%	51%	**54%**
Female	52%	55%	49%	46%
Age				
16 – 24	7%	**10%**	3%	5%
25 – 34	11%	**16%**	7%	**13%**
35 – 44	17%	17%	17%	**21%**
45 – 54	25%	24%	**28%**	**33%**
55 – 64	26%	23%	**33%**	27%
65 and over	14%	11%	12%	12%
Median	51.0	48.3	52.9	48.5
Employment				
Full-Time	61%	57%	64%	**92%**
Part-Time / Student	16%	19%	16%	6%
Retired	16%	16%	14%	1%
Other	7%	9%	6%	1%
Household Income				
< $15,000	4%	**6%**	1%	2%
$15,000 - $35,000	10	**11%**	6	3
$35,000 - $50,000	11	**11**	10	8
$50,000 - $75,000	21	20	22	24
$75,000 - $100,000	19	18	18**%**	20
$100,000 - $150,000	20	18	**23%**	**26%**
$150,000 Plus	15	15	**18%**	**16%**
Median	$80,703	$77,473	$87,594	$90,168

Boarding Mode Results: Fare Payment

Vehicle passengers are the most likely to pay their fare using a single-ride ticket. In addition, the shift toward higher use of single-ride tickets in the summer is greatest among vehicle passengers.

- Nearly three out of five (58%) vehicle passengers pay their fare using a single-ride ticket.
- This increases to 63 percent in the summer and drops to 51 percent in the winter.

Walk-on passengers and vehicle drivers are almost equally likely to use pre-paid fare media.

- Forty-eight percent (48%) of walk-on passengers use pre-paid fare media and tend to lean slightly toward the use of a monthly pass – 26 percent monthly pass and 22 percent multi-ride card.
  - Fifty-three percent (53%) of winter walk-on passengers use a multi-ride ticket or monthly pass; in the summer, this drops to 45 percent.
- Forty-seven percent (47%) of vehicle drivers use a multi-ride card. (Monthly passes are not available to vehicle drivers.)
  - Fifty-one percent (51%) of winter vehicle drivers use a multi-ride ticket; in the summer, this drops to 43 percent.

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Table 2: Fare Payment by Boarding Mode

	All Riders (n = 13,130)	Vehicle Drivers (n = 5,241)	Vehicle Passengers (n = 2,155)	Walk-On Passengers (n = 5,734)
Single-Ride Ticket	47%	46%	**58%**	40%
Winter	40%	42%	51%	33%
Summer	51%	50%	63%	45%
Multi-Ride Card	33%	47%	25%	22%
Winter	38%	51%	27%	25%
Summer	30%	43%	23%	20%
Monthly Pass	11%	n.a.	6%	26%
Winter	11%	n.a.	9%	28%
Summer	10%	n.a.	4%	25%
Other Discounted	6%	5%	8%	6%
Winter	6%	5%	8%	6%
Summer	6%	5%	8%	5%
Other	4%	2%	3%	7%
Winter	5%	3%	5%	9%
Summer	3%	1%	2%	5%

Question (winter): How did you pay your fare for your trip today?
Question (summer): How do you typically pay your fare?
** Other Discounted Fare includes Senior / Disabled and Youth Fares*

Route Level Results: Fare Payment

Those on the primarily recreational routes – Port Townsend / Keystone, Anacortes / San Juans, and Anacortes / Sidney – are the most likely to pay with a single-ride ticket – 76 percent, 70 percent, and 86 percent, respectively.

- While the majority (70%) of Anacortes / San Juans riders pays with a single-ride ticket, riders on this route are more than twice as likely as those on the Port Townsend / Keystone route to use a multi-ride card – 24 percent compared to 11 percent, respectively.

Among the remaining routes, a higher than average percentage of riders on the Edmonds / Kingston route (58%) pay with a single-ride ticket.

- Higher use of single-ride tickets on the Edmonds / Kingston route is driven primarily by vehicle drivers and vehicle passengers on this route. Fifty-six percent (56%) of vehicle drivers and 67 percent of vehicle passengers on this route pay with a single-ride ticket. Just over half (51%) of walk-on passengers on this route pay with a single-ride ticket.
- While a relatively small number of riders, an above-average percentage of riders on the Edmonds / Kingston route (8%) pay with a discounted (youth or senior) fare. This is consistent with the demographics of riders on this route. Edmonds / Kingston riders are older than riders on other routes; 18 percent are 65 and older and hence would be eligible for the senior fare.

Riders on the Fauntleroy / Vashon and Point Defiance / Tahlequah routes are the most likely to use a pre-paid fare media. Notably, riders on these routes are the most likely to use a commuter card as opposed to a monthly pass – 64 percent and 62 percent, respectively.

- The high use of multi-ride card on the Fauntleroy / Vashon route reflects in large part the high percentage (55%) of vehicle drivers on this route. Seventy-eight percent (78%) of vehicle drivers on this route use a multi-ride card. Thirty-nine percent (39%) of Fauntleroy / Vashon walk-on passengers use a multi-ride card and 20 percent uses a monthly pass.
- Note that use of single-ride tickets triples on the Fauntleroy / Vashon route between the winter and summer travel periods – increasing from 9 to 27 percent, respectively. This route experiences a significant increase in recreational travelers in the summer.

Riders on three other routes – Mukilteo / Clinton, Seattle / Bainbridge, and Seattle / Bremerton – also evidence a higher than average use of pre-paid fare media – 49 percent, 48 percent, and 42 percent, respectively. Within these routes, however, there are significant differences in which fare media are used.

- Forty-three percent (43%) of Mukilteo / Clinton riders pay their fare with a multi-ride card. Among vehicle drivers, this figure is 51 percent; among walk-on passengers this figure is 32 percent. Eighteen percent (18%) of Mukilteo / Clinton walk-on passengers use a monthly pass.
- Thirty percent (30%) of Seattle / Bainbridge riders use a multi-ride card; 18 percent uses a monthly pass.
  - Forty-seven percent (47%) of vehicle drivers on Seattle / Bainbridge use a commuter card.
  - Among walk-on passengers, 22 percent uses a multi-ride card and 34 percent uses a monthly pass.

- Despite the somewhat lower overall use of pre-paid fare media on the Seattle / Bremerton route (42%), pass use is highest on this route (22%). An additional 20 percent of Seattle / Bremerton riders use a multi-ride card.
  - Thirty-nine percent (39%) of Seattle / Bremerton vehicle drivers use a multi-ride card.
  - Thirty-five percent (35%) of Seattle / Bremerton walk-on passengers use a monthly pass; 13 percent uses a commuter card.

Table 3: Fare Payment Method by Route

	All Riders (n=13,130)	SEA/ BAIN (n=4,600)	SEA/ BRE (n=1,567)	EDM/ KIN (n=2,413)	MUK/ CLI (n=1,789)	FAU/ VAS (n=503)	FAU/ SOU (n=547)	PTD/ TAH (n=147)	KEY/ PTT (n=432)	ANA/ SAN (n=923)	ANA/ SID (n=209)
Single-ride Ticket	47%	42%	47%	**58%**	43%	19%	45%	18%	**76%**	**70%**	**86%**
Winter	40%	37%	44%	**51%**	36%	9%	46%	21%	68%	63%	n.a.
Summer	51%	46%	49%	**62%**	48%	27%	44%	16%	81%	73%	86%
Multi-Ride Card	33%	30%	20%	26%	43%	**64%**	35%	**62%**	11%	24%	4%
Winter	38%	32%	22%	30%	49%	72%	38%	66%	10%	32%	n.a.
Summer	30%	28%	18%	23%	38%	59%	34%	59%	11%	21%	4%
Monthly Pass	11%	**18%**	**22%**	6%	6%	7%	9%	11%	2%	<1%	0%
Winter	11%	19%	22%	7%	6%	6%	7%	7%	6%	0%	n.a.
Summer	10%	17%	22%	5%	6%	8%	10%	14%	0%	<1%	0%
Discounted Fare	6%	6%	6%	8%	5%	2%	5%	6%	9%	4%	7%
Winter	6%	6%	5%	7%	5%	3%	4%	5%	12%	3%	n.a.
Summer	6%	6%	6%	8%	6%	2%	6%	6%	7%	5%	7%
Other	4%	4%	6%	3%	3%	7%	5%	3%	2%	1%	3%
Winter	5%	5%	7%	4%	5%	9%	5%	1%	4%	2%	n.a.
Summer	3%	3%	5%	2%	2%	5%	5%	4%	1%	1%	3%

Question (winter): How did you pay your fare for your trip today? Question (summer): How do you typically pay your fare?
** Other Discounted Fare includes Senior / Disabled and Youth Fares*

Time of Day / Week Travel Results: Fare Payment

As would be expected, **the majority (62%) of peak weekday riders uses pre-paid fare media for their trips**.

- More than two-thirds (68%) of winter peak weekday riders use pre-paid fare media.
- This percentage drops to 58 percent in the summer, suggesting that a significant number of recreational travelers ride during peak weekday travel periods during the summer. In fact, 20 percent of those traveling during the summer peak weekday travel periods are traveling for recreation purposes compared to only 7 percent in the winter. One out of five (20%) summer recreation vehicle drivers drive on during peak weekday travel periods. This could represent a significant potential to shift peak hour vehicle traffic.

Off-peak weekday riders are somewhat more likely to pay with a single-ride ticket (47%) than pre-paid fare media (43%). This is largely a function of the frequency with which they ride.

- Seventy-six percent (76%) of off-peak weekday riders who take fewer than seven one-way rides monthly use single-ride tickets. For those who take 7 to 24 trips, only 34 percent uses a single-ride ticket and 57 percent uses a commuter card or monthly pass. Use of pre-paid far media increases to 81 percent for those taking 25 or more trips monthly.

Two out of three (67%) weekend riders pay with a single-ride ticket.

- While the majority (58%) of winter riders pays with a single-ride ticket, the use of pre-paid media is higher in the winter – 30 percent in winter compared with 21 percent. This would suggest that in the winter months more regular riders on the ferries who travel during the week also use the ferries on the weekends.
- Eight-two percent (82%) of weekend riders taking fewer than seven one-way trips monthly use a single-ride ticket. Among those weekend riders who take 7 to 24 one-way rides per month, this figure drops to 42 percent. Nearly half (48%) of weekend riders who take 7 to 24 one-way trips per month use a commuter card and 1 percent uses a pass.
- Among the most frequent riders who were sampled on a weekend, 72 percent of those taking 25 to 44 rides per month and 57 percent of those taking 45 or more trips per month use a commuter card. Ten percent (10%) of those taking 25 to 44 rides per month and 20 percent of those taking 45 or more trips per month use a monthly pass.

Table 4: Fare Payment by Time of Day / Week Travel and Boarding Mode

	All Riders			Peak Weekday Riders			Off-Peak Weekday			Weekend		
	All (n=13,130)	Winter (n=5,471)	Summer (n=7,659)	All (n=6,192)	Winter (n=2,987)	Summer (n=3,205)	All (n=3,278)	Winter (n=1,297)	Summer (n=1,981)	All (n=3,660)	Winter (n=1,187)	Summer (n=2,473)
Single-ride Ticket	47%	40%	51%	28%	22%	32%	**47%**	43%	50%	**67%**	58%	72%
Multi-Ride Card	33%	38%	30%	**39%**	44%	36%	36%	39%	34%	**22%**	28%	19%
Monthly Pass	11%	11%	10%	**23%**	24%	22%	7%	6%	7%	2%	2%	2%
Discounted Fare	6%	6%	6%	5%	4%	5%	7%	6%	7%	7%	8%	6%
Other	4%	5%	3%	5%	6%	5%	4%	5%	3%	2%	4%	1%

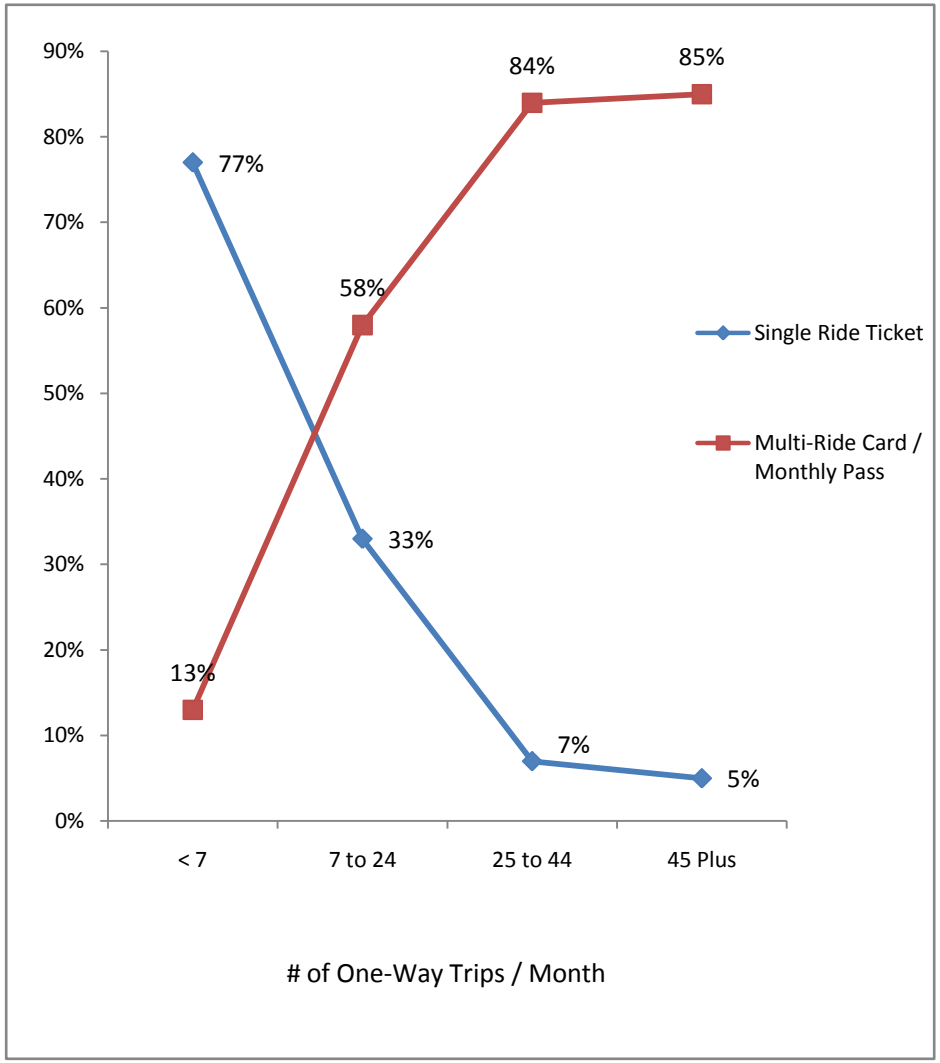
Question (Winter): How did you pay your fare for your trip today?; Question (summer): How do you typically pay your fare?
** Other Discounted Fare includes Senior / Disabled and Youth Fares*

Other Significant Findings: Fare Payment by Frequency of Riding

Fare payment method is clearly related to the number of trips a rider takes each month.

- **More than three out of four (77%) riders who take less than seven one-way trips per month pay with a single-ride ticket**. This drops to 33 percent among those taking 7 to 24 one-way trips monthly.
- On the other hand, only 13 percent of those taking less than seven one-way trips per month use a commuter card or monthly pass. This figure more than quadruples to 58 percent among those taking 7 to 24 one-way trips per month. **The vast majority (84% to 85%) of those taking 25 or more trips monthly use pre-paid fare media**.
- The point at which more riders use pre-paid fare media rather than a single-ride ticket is between 18 and 19 one-way trips per month.

Figure 2: Fare Payment Method by Frequency of Riding



Question (winter): How did you pay your fare for your trip today?
Question (summer): How do you typically pay your fare?

Additional analysis provides further insight into riders' choice of fare media as the frequency with which they ride increases.

- As already noted, more than three out of four (77%) riders who take less than seven one-way trips per month pay with a single-ride ticket.
- Among those taking between 7 and 24 one-way trips, the figure for a single-ride ticket drops to 33%. The use of pre-paid fare media increases to 58 percent, with most (52%) using a multi-ride card.
  - More vehicle drivers than walk-on passengers taking between 7 and 24 one-way trips monthly use pre-paid fare media – 63 percent compared to 51 percent, respectively. This is due somewhat to a higher use of other discounted fare media (senior, youth, and disabled) among this segment. However, 36 percent of walk-on passengers taking 7 to 24 one-way trips monthly use a single-ride ticket compared to 32 percent of vehicle drivers. Note also that on most routes walk-on passengers pay one-way only; in some instances they marked that they did not pay a fare (included in other).
- More than four out of five (85%) riders who take 25 or more one way rides per month use pre-paid fare media. While use of multi-ride cards is higher than monthly pass use among all frequent riders, this is to large extent due to the fact that monthly passes are not available to vehicle drivers.
  - **Eighty-seven percent (87%) of vehicle drivers taking 25 to 44 one-way rides and 90 percent of those taking 45 or more rides use commuter cards**. Among vehicle drivers, the point at which more riders use pre-paid fare media than single-ride tickets is between 22 and 23 one-way trips.
  - **Frequent vehicle passenger riders are more likely than walk-on passengers to use a commuter card than a monthly pass**. Forty-eight percent (48%) of those taking 25 to 44 one-way trips monthly and 45 percent of those taking 45 or more trips use a commuter card. Monthly pass use does increase between these two segments – from 33 percent for those taking 25 to 44 one-way trips to 37 percent among those taking 45 or more trips – monthly pass use is lower than commuter card use. The point at which the majority of vehicle passengers use a commuter card rather than a single-ride ticket is between six and seven one-way trips per month.
  - **The reverse is true for walk-on passengers**. More than half of all walk-on passengers taking 25 or more one-way trips per month use a monthly pass – 51 percent for those taking 25 to 44 one-way trips and 58 percent for those taking 45 or more trips. The point at which more walk-on riders use a commuter card rather than pay with a single-ride ticket is between 9 and 10 one-way trips per month. The majority begins to move from a single-ride ticket to a monthly pass as the number of monthly one-way trips they take crosses 20 per month. The majority shifts from using a commuter card to a monthly pass when the frequency with which they ride crosses 38 to 39 one-way trips per month.

Table 5: Fare Payment Method by Passenger Type and Frequency of Riding

	Type of Passenger	Frequency of Riding			
	All	**Less Than 7**	**7 to 24**	**25 to 44**	**45 Plus**
Single-Ride Ticket	47%	**77%**	**33%**	7%	5%
Multi-ride card	33%	12%	**52%**	**55%**	**48%**
Monthly Pass	11%	1%	6%	**29%**	**37%**
Other Discounted Fare *	6%	8%	6%	2%	2%
Other	4%	2%	3%	7%	8%
	All Vehicle Drivers	**Less Than 7**	**7 to 24**	**25 to 44**	**45 Plus**
Single-Ride Ticket	46%	**77%**	**32%**	9%	7%
Multi-ride card	47%	15%	**63%**	**88%**	**90%**
Other Discounted Fare *	5%	7%	4%	1%	1%
Other	2%	1%	2%	3%	2%
	All Vehicle Passengers	**Less Than 7**	**7 to 24**	**25 to 44**	**45 Plus**
Single-Ride Ticket	58%	**76%**	**32%**	9%	4%
Multi-ride card	25%	11%	**53%**	**48%**	**45%**
Monthly Pass	6%	1%	5%	**33%**	**37%**
Other Discounted Fare *	8%	9%	7%	6%	2%
Other	3%	2%	3%	5%	12%
	All Walk-On Passengers	**Less Than 7**	**7 to 24**	**25 to 44**	**45 Plus**
Single-Ride Ticket	40%	**78%**	**36%**	5%	5%
Multi-ride card	22%	8%	**34%**	**31%**	**25%**
Monthly Pass	26%	3%	17%	**51%**	**58%**
Other Discounted Fare *	6%	7%	8%	2%	3%
Other	7%	3%	6%	11%	10%

Question (winter): How did you pay your fare for your trip today? Question (summer): How do you typically pay your fare?

** Other Discounted Fare includes Senior / Disabled and Youth Fares.*

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Key Findings – Attitudes toward What are Reasonable / Not Expensive Fares

Overview of Approach

To provide a measure of WSF riders' sensitivity to alternative fares levels above and below the current, non-discounted fare, the survey contained four simple questions. These questions use van Westendorp's Price Sensitivity Meter, developed in the 1970s by Dutch economist Peter H. van Westendorp to examine attitudes toward prices. Rather than using a direct question approach, such as asking "How much would you pay for this product?" (a technique which has been shown to be quite unreliable), the van Westendorp approach surrounds "the reasonable / not expensive price" by asking four price-value relational questions as follows:

The following questions are based upon the **Posted (Non-Discounted) Ticket Prices for Your Route**. The following fares were chosen to simplify the survey and to ensure that everyone bases their responses on the same base fare. While walk-on and vehicle passengers on most routes pay fares in one direction (westbound), the fares shown assume that you pay each way. Vehicle and driver fares are also the one-way fare and are charged in each direction.

	Walk-On Adult	Vehicle & Driver
Compared to your route's posted (non-discounted) ticket price, what do you think is a **Fair Or Reasonable** ticket price for this route? **[REASONABLE]**	_____	_____
What ticket price is **High** but the average passenger like you **Would Continue** to make the same number of trips? **[HIGH]**	_____	_____
What ticket price is **So High or So Unreasonable** that the average passenger like you would **Make Fewer Trips**? **[TOO HIGH]**	_____	_____
What ticket price is **So Low** that **You Would Question** whether the system could **Maintain Current Levels** and **Quality of Service**? **[TOO LOW]**	_____	_____

Respondents gave an amount for each type of fare – "adult walk-on" and "vehicle and driver" – regardless of their actual boarding mode. ***For this analysis we look only at the responses given by walk-on passengers for walk-on fares and by vehicle drivers for vehicle fares.***

Analysis of the data resulting from these questions includes a key measure of what riders feel to be a "reasonable" or "not expensive" fare: the target fare increase / decrease. This is a weighted average of respondents' answers to the four questions listed above and is computed for each respondent. **It represents the percentage fare increase or decrease** over the current, non-discounted one-way fare that **riders feel is "not expensive"** and at which **resistance to a fare increase would be low**.

Summary – Attitudes toward What Are Reasonable / Not Expensive Fares

Overall

Half (50%) of all walk-on passengers feel that a **reasonable walk-on fare** would range from an amount that is **25 percent** less than the posted, non-discounted fare up to the amount that is the current posted, non-discounted fare (the price of a single-ride ticket).

- Walk-on passengers suggest that walk-on fares **could increase** as much as 6.8 percent over the current non-discounted fare and still be considered "not expensive."

Half (50%) of all vehicle drivers feels that a **reasonable vehicle fare** would range from an amount that is **31 percent less** than the current, non-discounted fare to **the current, posted, non-discounted fare.**

- Vehicle drivers suggest fares **could not increase** over the current non-discounted fare and would actually **need to decrease by 1.3 percent** to be considered "not expensive."

Providing a level of service that is perceived as a good value can minimize the impact of a fare increase. This is notable for walk-on fares.

- Walk-on passengers who feel the current value of service provided by WSF is good feel that walk-on fares could increase by nearly 15 percent and still be considered "not expensive." On the other hand, walk-on passengers who feel the current value of service is poor feel that walk-on fares would need to decrease by more than 11 percent to be considered "not expensive."
- Vehicle drivers who feel the current value of service is good suggest that vehicle fare could increase by 6 to 7 percent in both the winter and summer periods and still be considered "not expensive." On the other hand, those that feel the current value of service is poor feel fares would need to decrease by 15 percent in the winter and nearly 20 percent in the summer to be considered "not expensive." Note that the summer decrease is equivalent to the amount of the current summer surcharge.

Vehicle Fares

Reflecting the summer surcharge, summer vehicle drivers are somewhat more sensitive to a vehicle fare increase. However, the difference in vehicle fare sensitivity between summer and winter vehicle drivers is relatively small compared to the difference in walk-on fare sensitivity.

- Winter vehicle drivers feel that vehicle fares would need to decrease slightly – by 0.9 percent – to be "not expensive." Summer vehicle drivers feel vehicle fares would need to decrease by 1.8 percent to be considered "not expensive."

Vehicle drivers on the **high recreational travel routes** are the **least sensitive** to an overall vehicle fare increase.

- Winter vehicle drivers suggest that vehicle fares on the Port Townsend / Keystone route could increase by 6 percent; Anacortes / San Juans vehicle drivers suggest an increase of more than 14 percent.
- During the summer, vehicle drivers on these routes suggest that vehicle fares could increase by 13 to 14 percent and still be considered "not expensive." On the Anacortes / Sidney route, vehicle fares could increase by nearly 23 percent.

On the other major routes:

- Winter vehicle drivers on the three South Sound routes are by far the most likely to feel that a discount is required to bring vehicle fares to a "not expensive" level, suggesting vehicle fare discounts of 14 to 18 percent. Summer vehicle drivers on the Fauntleroy / Southworth routes continue to be relatively fare sensitive suggesting a 4 percent discount over current fares. Summer vehicle drivers on the Fauntleroy / Vashon and Point Defiance / Tahlequah route suggest that vehicle fares could increase 8.7 and 5.7 percent, respectively.
- Seattle / Bainbridge, Edmonds / Kingston, and Mukilteo / Clinton vehicle drivers are the **least sensitive** to an increase in vehicle fares. This holds true in both winter and summer months.

Walk-On Fares

Winter walk-on passengers are more sensitive to a walk-on fare increase than are summer riders, suggesting that it could be possible to institute a summer surcharge for walk-on passengers on all routes similar to that charged for vehicles.

- Winter walk-on passengers suggest that walk-on fares would need to decrease by 7.2% to be considered "not expensive." On the other hand, summer walk-on passengers suggest that walk-on fares could increase by as much as 17.2% and still be considered "not expensive."

Like vehicle drivers, walk-on passengers on the **high recreational travel routes** are the **least sensitive** to an overall walk-on fare increase, suggesting that summer walk-on fares on these routes could increase by 26 to 27 percent and still be considered "not expensive." Walk-on fares on the Anacortes / Sidney route could increase by more than 39 percent.

- With the exception of Fauntleroy / Vashon and Point Defiance / Tahlequah, winter walk-on passengers on all of the other major routes suggest a discount of 7 to 10 percent for the walk-on fare to be considered "not expensive." Fauntleroy / Vashon and Point Defiance / Tahlequah walk-on passengers are less fare sensitive, suggesting discounts of 3.9 and 1.5 percent, respectively.
- Summer walk-on passengers on Mukilteo / Clinton, Fauntleroy / Vashon, and Fauntleroy / Southworth routes are less sensitive to an increase in walk-on fares than are those on the Seattle / Bainbridge, Seattle / Bremerton, and Edmonds / Kingston routes. The Mukilteo / Clinton, Fauntleroy / Vashon, and Fauntleroy / Southworth routes experience significant increases in recreational travelers in the summer months.

Walk-on passengers who currently receive a discount by purchasing pre-paid fare media (multi-ride card or monthly pass) are more price sensitive than are those paying with a single-ride (full fare) ticket. However, all are willing to pay an increase over the current walk-on fares.

- Walk-on passengers paying with a single-ride ticket suggest that winter walk-on fares would only need to decrease slightly (by 2.1%) to be considered "not expensive" and could increase by more than 24 percent in the summer and still be considered "not expensive."

Detailed Findings – Attitudes toward What Are Reasonable / Not Expensive Fares

Overall Range of van Westendorp Increases / Decreases

The first step in this analysis looks at the range of responses to each of the four questions. This analysis gives a clear sense of how the perception of value plays out **across the entire sample**. Because this analysis is based across a wide range of values (from -100 percent to +100 percent), this analysis is useful for understanding how the range of responses to the four questions look compared to each other, but should not be used outside that context or frame.

Vehicle Fares

Half (50%) of all vehicle drivers feel that a **reasonable vehicle fare** would be somewhere between the current posted, non-discounted fare and a 31 percent discount over the single-ride fare. The current discount level for those using commuter cards is 20 percent; monthly passes are not available for vehicles. While the high end of this range is the same amount as that given by walk-on passengers for walk-on fares, the discount amount deemed reasonable by vehicle drivers for vehicle fares is greater. This could in part be due to the fact that for the July survey the summer surcharges for vehicles were in effect. Additional analysis explores the differences in these distributions between winter and summer vehicle drivers.

- One out of four (25%) vehicle drivers suggest a **reasonable** fare higher than the posted, non-discounted fare. This ranges from 1 percent higher to as much as double the current fare.
- The median amount – a discount of 13 percent under the current fare – is that point where half of the respondents gave a higher amount and half gave a lower amount.

The range of fares that would be considered **"high," but not so high that it would affect an individual's ridership**, starts at the current fare and ranges to as much as a 25 percent increase.

- It is interesting to note that the bottom of the "high" range is identical to the top of the range for the "reasonable" increase / decrease in fares. Moreover, a 4 percent increase in vehicle fares would not affect 50 percent of vehicle drivers' current behaviors. This would suggest that vehicle fares could increase by 4 percent and have little effect on ridership.
- The range around the "high" amount is relatively small (26%). It is less than the range for "reasonable" and is significantly smaller than the range around the "high" amount given by walk-on passengers for walk-on fares (50%), suggesting that vehicle drivers have a greater sensitivity to increases in vehicle fares.

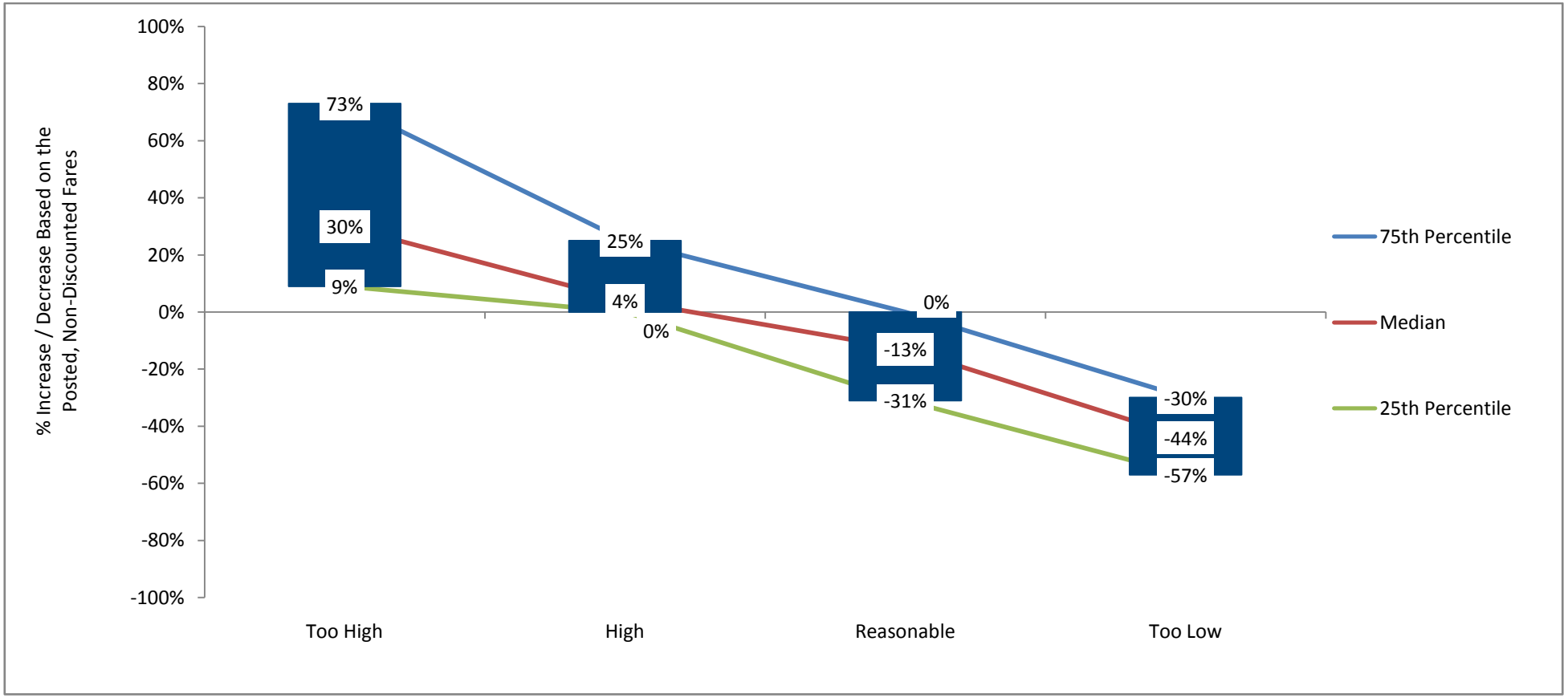
Most vehicle drivers believe that quality of service would begin to suffer if fares were discounted 30 percent or more off of their current levels.

- The top of the "too low" range is identical to the bottom of the range for the "reasonable" range for a fare increase / decrease. The range around the "too low" range is also relatively tight (28%) and is significantly smaller than the range around the "expensive" amount evidenced for walk-on fares (46%). The tightness of these ranges for vehicle fares compared with walk-on fares suggests greater price sensitivity surrounding vehicle fares.

Finally, the lower end of the range at which vehicle drivers feel fares become "too high" and they would begin to change how often they ride (9%) overlaps with the range that is considered to be "high" but would not change their ridership, and is only somewhat higher than the median amount that is considered "high" (4%).

- Moreover, the median value for "too high" (31%) is only slightly higher than the top of the "high" value (25%). This would suggest that if vehicle fares increased to a level greater than 27 to 30 percent over the current, non-discounted fares, WSF could expect a significant impact on ridership behaviors – that is vehicle drivers would drive on less often and/or choose to walk-on instead.

Figure 3: Overall Range of van Westendorp Vehicle Fare Increases / Decreases (Base: Vehicle Drivers)



Too High: *What ticket price is **so high** or **so unreasonable** that the average passenger like you would **make fewer trips**?*
High: *What ticket price is **high** but the average passenger like you **would continue** to make the same number of trips?*
Reasonable: *Compared to your route's posted (non-discounted) ticket price, what do you think is a **fair** or **reasonable** ticket price for this route?*
Too Low: *What ticket price is **so low** that **you would question** whether the system could **maintain current levels** and **quality of service**?*

Walk-On Fares

Half (50%) of all walk-on passengers feel that a **"reasonable" walk-on fare** would range from an amount that is 25 percent less than the posted, non-discounted fare up to the amount that is the current posted, non-discounted fare (the price of a single-ride ticket). The current discount level for those using commuter cards is 20 percent. Those using a monthly pass receive a slightly higher discount based on the frequency with which they ride.

- As with the amount given by vehicle drivers, one out of four (25%) walk-on passengers feel that a "**reasonable"** fare would be an amount higher than the posted, non-discounted fare. The amount ranges from 1 percent higher to as much as double the current fare. On the other hand, one out of four (25%) feels that a reasonable fare would be an amount ranging from a 100 percent discount below the posted, non-discounted fare – in essence "free" – to a 26 percent discount – which is greater than the 20 percent discount that those using commuter cards or monthly passes currently receive.
- The median amount – a discount of 10 percent over the current fare – is the point where half of walk-on riders give a higher amount and half give a lower amount.

The range of fares that would be considered **"high,"** but not so high that it would affect an individual's ridership, starts at the posted, non-discounted fare and ranges as high as a 49 percent increase.

- The bottom of the "high" range equals the top of the range for the "reasonable" price. Moreover, a 16 percent increase in the walk-on fares would not affect 50 percent of walk-on passengers' current behaviors. This would suggest some degree of elasticity.
- Moreover, the range around the "expensive" amount (50%) is nearly twice the size of the range around the "reasonable" amount, further supporting some degree of elasticity.

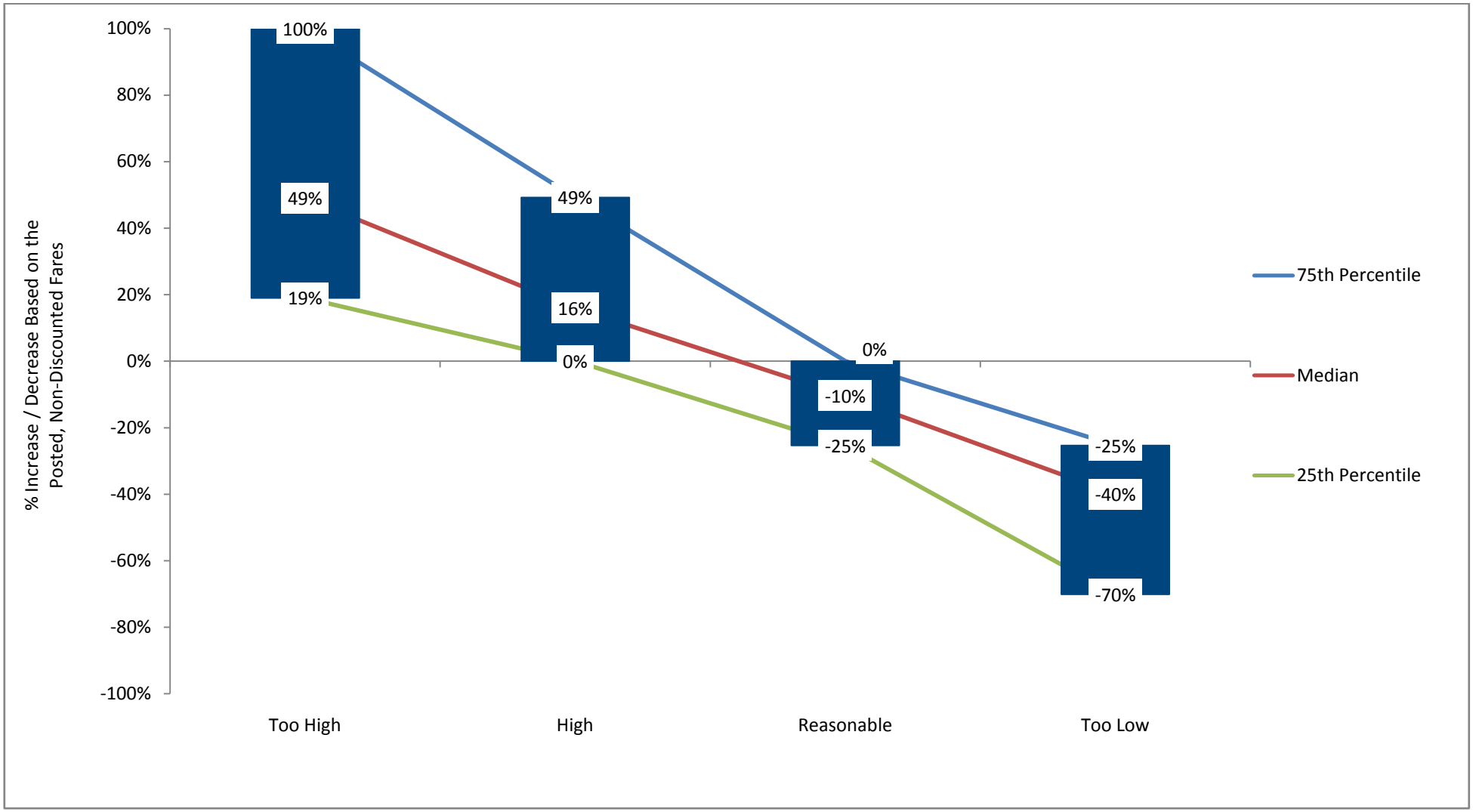
Finally, the lower end of the range at which walk-on passengers feel walk-on fares become **"too high"** and they would begin to change the frequency with which they ride overlaps with the range that is considered to be "high" but they would not change their ridership behavior.

- The median amount for "too high" is the same as the high end of "high" (49%). This would suggest that walk-on fares could increase by as much as 19 percent before it would begin to affect ridership and by as much as 49 percent before it might begin to have a significant effect.

Walk-on passengers concur that quality of service would begin to suffer if walk-on fares were discounted to 25 to 70 percent of their current levels.

- The top of the range for what is considered "too low" is identical to the bottom of the range for the reasonable price. This would suggest that walk-on passengers recognize that existing levels of service would be affected if fares are cut.

Figure 4: Overall Range of van Westendorp *Walk-On* Fare Increases / Decreases (Base: Walk-On Passengers)



Too High: *What ticket price is **so high** or **so unreasonable** that the average passenger like you would **make fewer trips**?*
High: *What ticket price is **high** but the average passenger like you **would continue** to make the same number of trips?*
Reasonable: *Compared to your route's posted (non-discounted) ticket price, what do you think is a **fair** or **reasonable** ticket price for this route?*
Too Low: *What ticket price is **so low** that **you would question** whether the system could **maintain current levels** and **quality of service**?*

Seasonal Differences: Overall Range of van Westendorp Fare Increases / Decreases

Vehicle Fares

Summer vehicle drivers are more price sensitive toward the vehicle fares than are winter drivers. This higher sensitivity clearly reflects the impact of the summer surcharge for vehicles – 20 percent or more over the winter fares. However, it is not as great as one might expect given the surcharge. This would suggest that vehicle drivers recognize the need for the surcharge.

- Looking at what would be considered to be a "**reasonable"** fare increase, winter vehicle drivers feel that fares should be at their current levels or discounted by as much as 27 percent.
- For summer vehicle drivers, this discount amount increases to 31 percent.

Table 6: Overall Range of van Westendorp *Vehicle* Fare Increases / Decreases by Season (Base: Vehicle Drivers)

		All Vehicle Drivers (n = 5,241)	Winter Vehicle Drivers (n = 2,358)	Summer Vehicle Drivers (n = 2,883)
		% Increase / Decrease Based on the Posted, Non-Discounted Fares		
Too High	75th Percentile	73%	73%	73%
	Median	30%	30%	35%
	25th Percentile	9%	12%	8%
High	75th Percentile	25%	29%	25%
	Median	4%	4%	4%
	25th Percentile	0%	0%	0%
Reasonable	75th Percentile	0%	0%	0%
	Median	-13%	-13%	-17%
	25th Percentile	-31%	-27%	-31%
Too Low	75th Percentile	-30%	-27%	-31%
	Median	-44%	-42%	-45%
	25th Percentile	-57%	-57%	-65%

Too High: *What ticket price is **so high** or **so unreasonable** that the average passenger like you would **make fewer trips**?*

High: *What ticket price is **high** but the average passenger like you **would continue** to make the same number of trips?*

Reasonable: *Compared to your route's posted (non-discounted) ticket price, what do you think is a **fair** or **reasonable** ticket price for this route?*

Too Low: *What ticket price is **so low** that **you would question** whether the system could **maintain current levels** and **quality of service**?*

Walk-On Fares

Clearly **winter walk-on passengers are more price sensitive toward walk-on fares than are summer walk-on passengers**. This sensitivity most likely reflects the greater influence of the frequent riders on the system. The influence of frequent riders on these figures is less in the summer due to the large number of recreational travelers who travel less often.

- Looking at what would be considered to be a **"reasonable"** fare increase, winter walk-on passengers feel that fares should be at their current levels or discounted by as much as 30 percent. On the other hand, summer walk-on passengers suggest that fares could increase by as much as 12 percent and still be reasonable. For summer walk-on passengers wanting a decrease over the current fare, the discount is only 10 percent.
- The **median value** of what walk-on passengers would consider a **"high"** percentage increase in fares is more than six times higher for the summer than winter riders – 22 percent compared with 4 percent, respectively.

Table 7: Overall Range of van Westendorp *Walk-On* Fare Increases / Decreases by Season (Base: Walk-On Passengers)

		All Walk-On Passengers (n = 5,734)	Winter Walk-On Passengers (n = 2,495)	Summer Walk-On Passengers (n = 3,239)
		% Increase / Decrease Based on the Posted, Non-Discounted Fares		
Too High	75th Percentile	100%	49%	100%
	Median	49%	34%	79%
	25th Percentile	19%	12%	49%
High	75th Percentile	49%	19%	52%
	Median	16%	4%	22%
	25th Percentile	0%	0%	4%
Reasonable	75th Percentile	0%	-6%	12%
	Median	-10%	-25%	0%
	25th Percentile	-25%	-30%	-10%
Too Low	75th Percentile	-25%	-37%	-18%
	Median	-40%	-55%	-40%
	25th Percentile	-70%	-70%	-55%

Too High: *What ticket price is **so high** or **so unreasonable** that the average passenger like you would **make fewer trips**?*

High: *What ticket price is **high** but the average passenger like you **would continue** to make the same number of trips?*

Reasonable: *Compared to your route's posted (non-discounted) ticket price, what do you think is a **fair** or **reasonable** ticket price for this route?*

Too Low: *What ticket price is **so low** that **you would question** whether the system could **maintain current levels** and **quality of service**?*

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All Riders: Target Fare Increase / Decrease

Definition

The second step in this analysis calculates a value for the **Target Increase / Decrease**: This is a weighted average of the four questions and is computed for each respondent, using the following formula:

$$\text{Target Fare Increase / Decrease (TF)} = \frac{[(\text{Reasonable} + \text{High No Change})/2] + [(\text{Too High} + \text{Too Low})/2]}{2}$$

This calculation replaces the traditional van Westendorp estimates for an Indifference and Optimal Price Point. This calculation is more appropriate for this analysis for two reasons. First, the van Westendorp method is typically used for pricing a new product. The traditional van Westendorp estimates for Indifference Price Point assumes that Indifference Price Point is the average price for the market leader's product or service. In this case, there is no market leader. Rather, WSF is the equivalent of a "monopoly" – to the extent that there are few reasonable alternatives for taking a trip. In addition, other research has suggested that this traditional method for establishing specific prices is unreliable in some settings. Second, the calculations for the traditional van Westendorp estimates are identified at the aggregate level and are based on an estimate of the actual intersection point of two lines. This procedure limits the capabilities to do individual level analysis and compare results across key rider segments. This weighted average of the four questions creates a value unique to each respondent and significantly increases the value of this analysis.

The target fare increase / decrease represents the percentage increase / decrease over current fare levels where riders would consider the increase "not expensive" and resistance to the increase would be low.

Results: Target Fare Increase / Decrease

WSF riders overall are clearly more willing to accept an increase in walk-on fares than an increase in vehicle fares.

- Looking at all riders (winter and summer combined), WSF riders suggest that an increase of 5.3 percent over the posted, non-discounted walk-on fares would be "not expensive" and a point where resistance to the fare increase would be low.
- On the other hand, riders feel that any increase in vehicle fares would be "expensive." In fact, WSF riders suggest that a decrease in vehicle fares equivalent to 1.1% under the posted, non-discounted fares would bring the fare to the point where it would be "not expensive."

Contrary to what might be expected, walk-on passengers appear to be less sensitive to an increase in walk-on fares than vehicle passengers (who pay the same amount) and vehicle drivers.

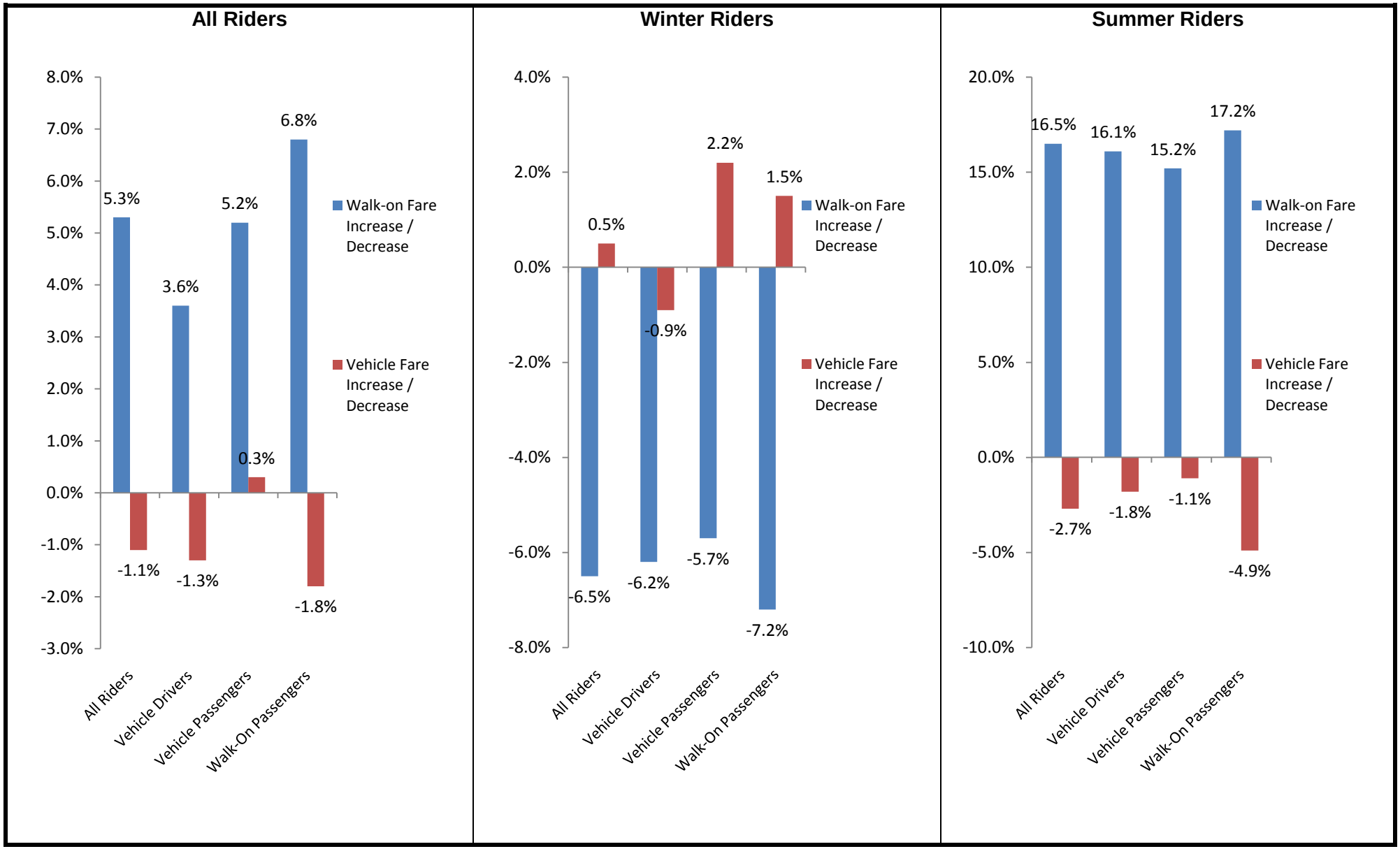
- Walk-on passengers suggest that an increase over the current, non-discounted walk-on passenger fare equivalent to 6.8 percent would still be considered "not expensive" and resistance to the increase could be minimal.
- This, however, is driven primarily by summer walk-on riders who suggest that a 17.2 percent increase in walk-on fares would be considered "not expensive." Winter walk-on riders feel that a 7.2 percent decrease in walk-on fares would bring the fare to a "not expensive" level. This finding would suggest, therefore, that it would be possible to institute a summer surcharge on walk-on passenger rates similar to that imposed for vehicles.

Similarly, vehicle drivers appear to be somewhat less sensitive to an increase or decrease in vehicle fares than walk-on and vehicle passengers.

- While vehicle drivers overall suggest that a 1.3 percent decrease in the non-discounted vehicle fare would bring the fare to a "not expensive" level, walk-on passengers suggest a 1.8 percent decrease.
- Vehicle passengers are the least sensitive to a change in vehicle fares and suggest that a slight increase (0.3%) in vehicles fares would not be expensive. This may reflect the fact that they are less likely to be paying the vehicle fare.
- Both winter and summer vehicle drivers suggest a discount. Further, the difference in expectations between the periods is relatively small – a decrease of 0.9% for winter and 1.8% for summer. Given the summer surcharge, this would suggest that despite complaints, vehicle drivers do not see the increase as completely unreasonable.

For the balance of this analysis, results focus on the fare increases / decreases that would be considered "not expensive" for each segment – walk-on passengers versus vehicle passengers –given to the respective fares that they pay.

Figure 5: % Increase / Decrease over Posted, Non-Discounted Fares that are "Not Expensive"



Route Level Analysis

Vehicle Fares

Vehicle drivers on the **high recreational travel routes** are the **least sensitive** to an overall vehicle fare increase.

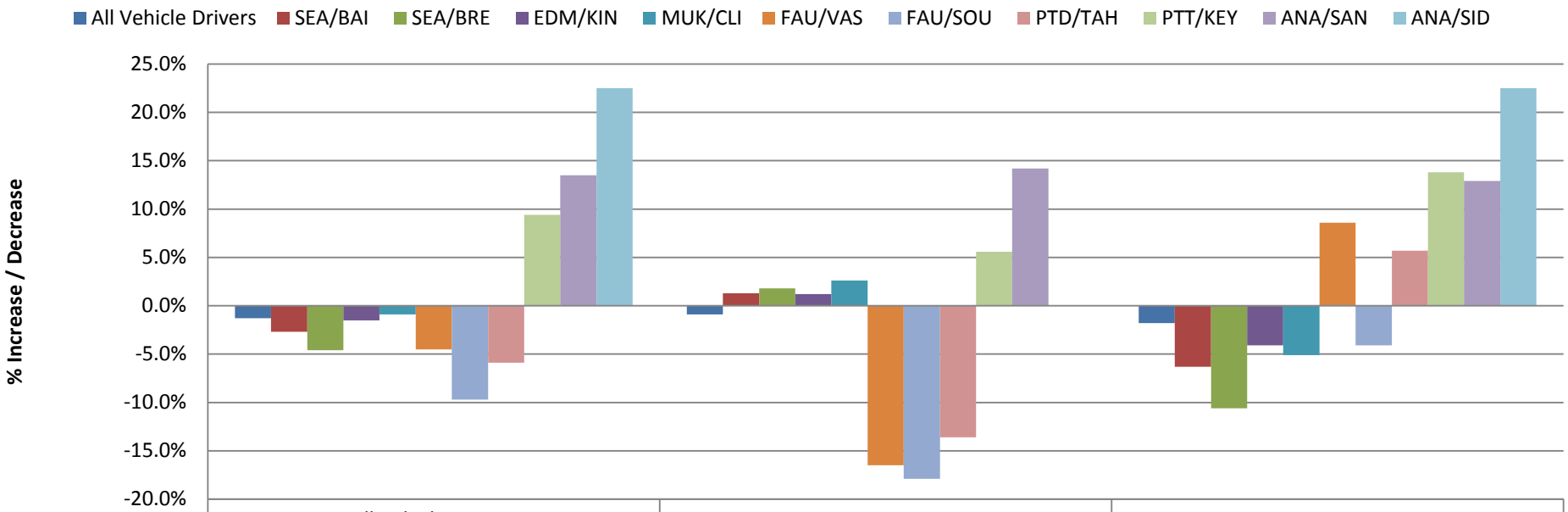
- During the winter months, vehicle drivers on the Port Townsend / Keystone route suggest that vehicle fares could increase by nearly 6 percent. On Anacortes / San Juans, vehicle fares could increase by more than 14 percent and still be considered "not expensive."
- During the summer months, vehicle drivers suggest that vehicle fares could increase by 13 to 14 percent on the Port Townsend / Keystone and Anacortes / San Juan routes and still be considered "not expensive." This is notable given the summer surcharge for vehicle fares. On the Anacortes / Sidney route, vehicle fares could increase by nearly 23 percent over the current levels and be considered "not expensive."

On the other major routes:

- Winter vehicle drivers on the three South Sound routes are by far the most likely to feel that a discount is required to bring vehicle fares to a "not expensive" level, suggesting vehicle fare discounts of 14 to 18 percent.
- Summer vehicle drivers on the Fauntleroy / Southworth routes continue to be relatively fare sensitive suggesting a 4 percent discount over current fares. Summer vehicle drivers on the Fauntleroy / Vashon and Point Defiance / Tahlequah route suggest that vehicle fares could increase 8.6 and 5.7 percent, respectively.
- Seattle / Bainbridge, Edmonds / Kingston, and Mukilteo / Clinton vehicle drivers are the **least sensitive** to an increase in vehicle fares. This holds true in both winter and summer months.

Seattle / Bremerton winter vehicle drivers are also less sensitive to a fare increase. Summer vehicle drivers, however, are very sensitive, suggesting that vehicle fares would need to decrease by nearly 11 percent to be considered "not expensive."

Figure 6: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Route



	All Vehicle Drivers	Winter	Summer
All Vehicle Drivers	-1.3%	-0.9%	-1.8%
SEA/BAI	-2.7%	1.3%	-6.3%
SEA/BRE	-4.6%	1.8%	-10.6%
EDM/KIN	-1.5%	1.2%	-4.1%
MUK/CLI	-0.9%	2.6%	-5.1%
FAU/VAS	-4.5%	-16.5%	8.6%
FAU/SOU	-9.7%	-17.9%	-4.1%
PTD/TAH	-5.9%	-13.6%	5.7%
PTT/KEY	9.4%	5.6%	13.8%
ANA/SAN	13.5%	14.2%	12.9%
ANA/SID	22.5%	0.0%	22.5%

Walk-On Fares

Similar to their vehicle driver counterparts, walk-on passengers on the **high recreational travel routes** are the **least sensitive** to an overall walk-on fare increase.

- Both winter and summer walk-on passengers on the Port Townsend / Keystone route are relatively insensitive to a walk-on fare increase, suggesting that walk-on fares could increase by 25 to 26 percent over the posted, non-discounted rate and still be considered “not expensive.”
- Only summer walk-on passengers on the Anacortes / San Juan routes are insensitive to a walk-on fare increase, suggesting that fares could increase by as much as 27 percent over the non-discounted fare and still be considered “not expensive.” Winter walk-on passengers are sensitive to an increase in walk-on fares, saying that if fares increased by as little as 1 percent over the non-discounted fares, the fare would begin to be expensive.
- Walk-on passengers on the Anacortes / Sidney route are the least sensitive to a fare increase saying the non-discounted fare could increase by more than 39 percent and not be expensive.

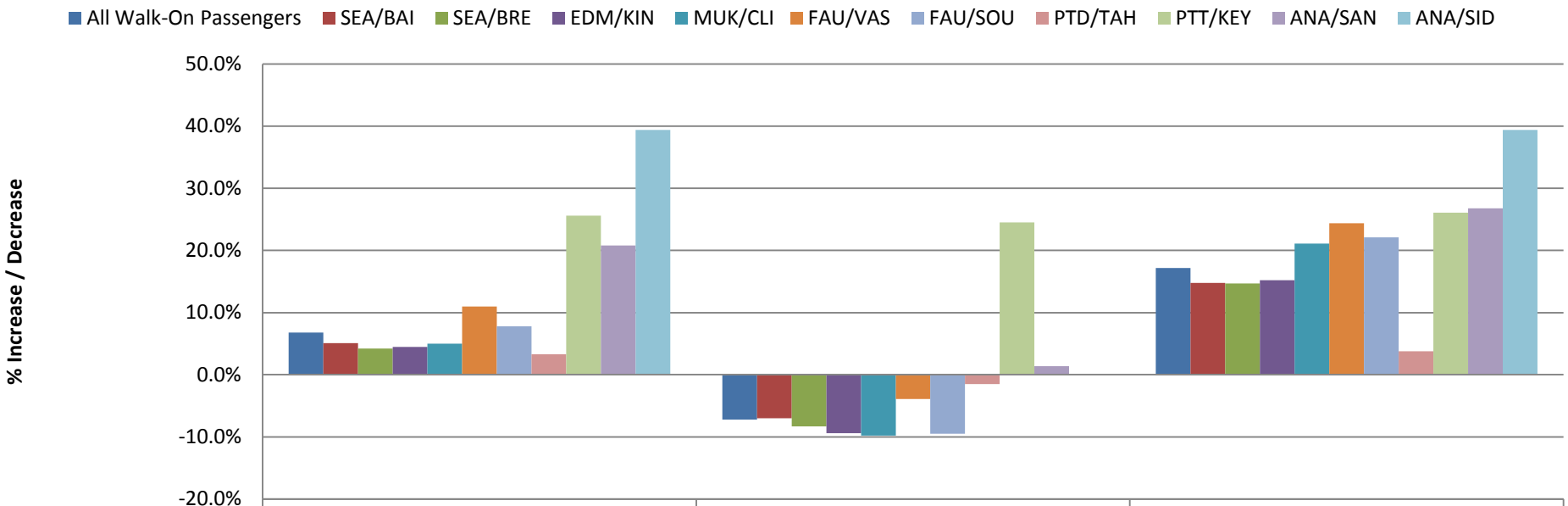
During the winter months, there are relatively few differences in fare sensitivity between walk-on passengers on the primarily non-recreation routes.

- With the exception of Fauntleroy / Vashon and Point Defiance / Tahlequah, winter walk-on passengers on all of the other major routes suggest a discount of 7 to 10 percent for the walk-on fare to be considered “not expensive.”
- Fauntleroy / Vashon and Point Defiance / Tahlequah walk-on passengers are less fare sensitive, suggesting discounts of 2 and 4 percent, respectively. Note that these routes have relatively low numbers of walk-on passengers compared to vehicle drivers and passengers.

There are significant differences during the summer.

- Reflecting the increase in recreational travel on these routes, walk-on passengers on the Mukilteo / Clinton, Fauntleroy / Vashon, and Fauntleroy / Southworth routes are less sensitive to an increase in walk-on fares than are those on the Seattle / Bainbridge, Seattle / Bremerton, and Edmonds / Kingston routes.

Figure 7: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Route



	All Walk-On Passengers	Winter	Summer
All Walk-On Passengers	6.8%	-7.2%	17.2%
SEA/BAI	5.1%	-7.0%	14.8%
SEA/BRE	4.2%	-8.3%	14.7%
EDM/KIN	4.5%	-9.4%	15.2%
MUK/CLI	5.0%	-9.8%	21.1%
FAU/VAS	11.0%	-3.9%	24.4%
FAU/SOU	7.8%	-9.5%	22.1%
PTD/TAH	3.3%	-1.5%	3.8%
PTT/KEY	25.6%	24.5%	26.1%
ANA/SAN	20.8%	1.4%	26.8%
ANA/SID	39.4%		39.4%

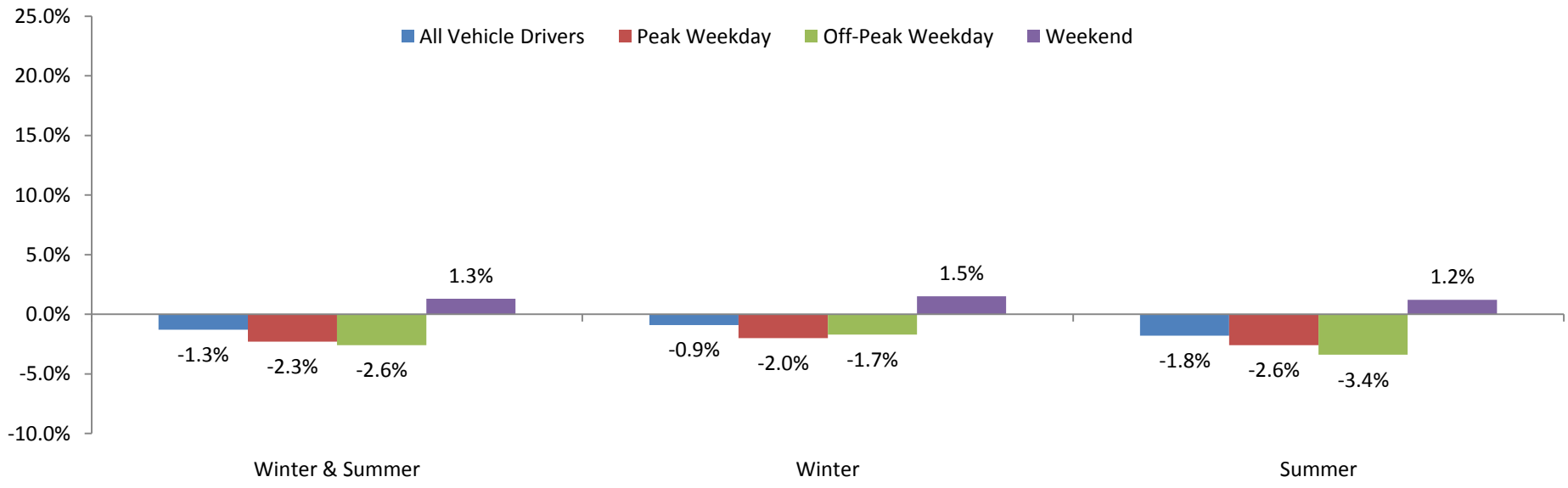
Time of Day / Week Travel Analysis

Vehicle Fares

Among vehicle drivers, both peak weekday and off-peak weekday vehicle drivers are more sensitive to an increase in vehicle fares than are weekend drivers. However, the differences are very small compared to the range evident for walk-on fares.

- Overall, weekday vehicle drivers suggest that a discount below the posted, non-discounted vehicle fare of 2 to 3 percent would be required to reach the "not expensive" price. On the other hand, weekend drivers suggest that vehicle fares could increase slightly (1.3%) and still be considered "not expensive."

Figure 8: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Time of Day / Week Travel



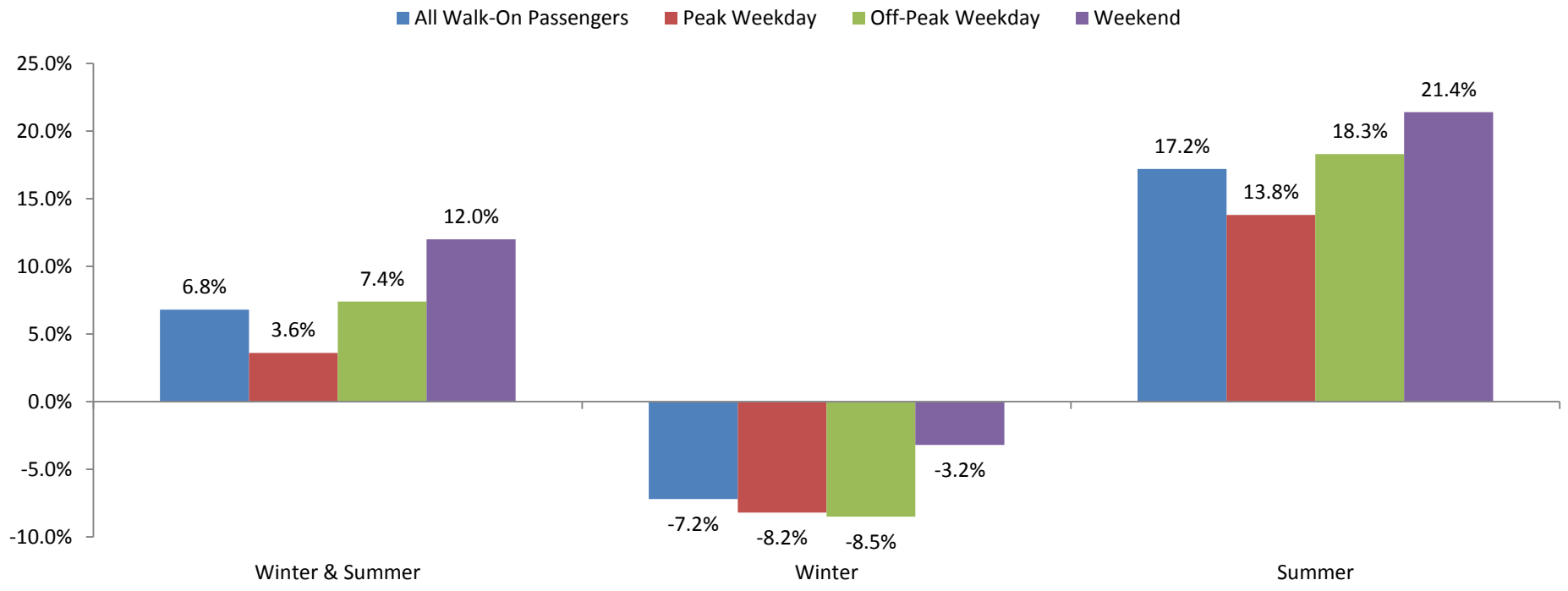
Walk-On Fares

Peak weekday walk-on passengers are the **most sensitive** to a walk-on fare increase, saying that an increase in walk-on fares of 3.6 percent would be considered "not expensive." Conversely, weekend walk-on passengers are the least sensitive, saying that walk-on fares could increase by as much as 12 percent and still be considered "not expensive." This most likely reflects their frequency of travel as much as the days on which they travel.

- There are no differences in sensitivity between peak and off-peak weekday winter walk-on passengers, with both segments suggesting that fares would need to be discounted at least 8 percent over the non-discounted rate to be considered "not expensive."

While all walk-on passengers suggest that walk-on fares could increase during the summer travel period and still be considered "not expensive," peak weekday walk-ons suggest a smaller percentage increase (13.8%) than both off-peak weekday (18.3%) and weekend riders (21.4%).

Figure 9: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Time of Day / Week Travel



Other Significant Results: Fare Payment

Vehicle Fares

Vehicle drivers who pay their fare with a multi-ride card are more sensitive to a fare increase than are those paying with a single-ride ticket.

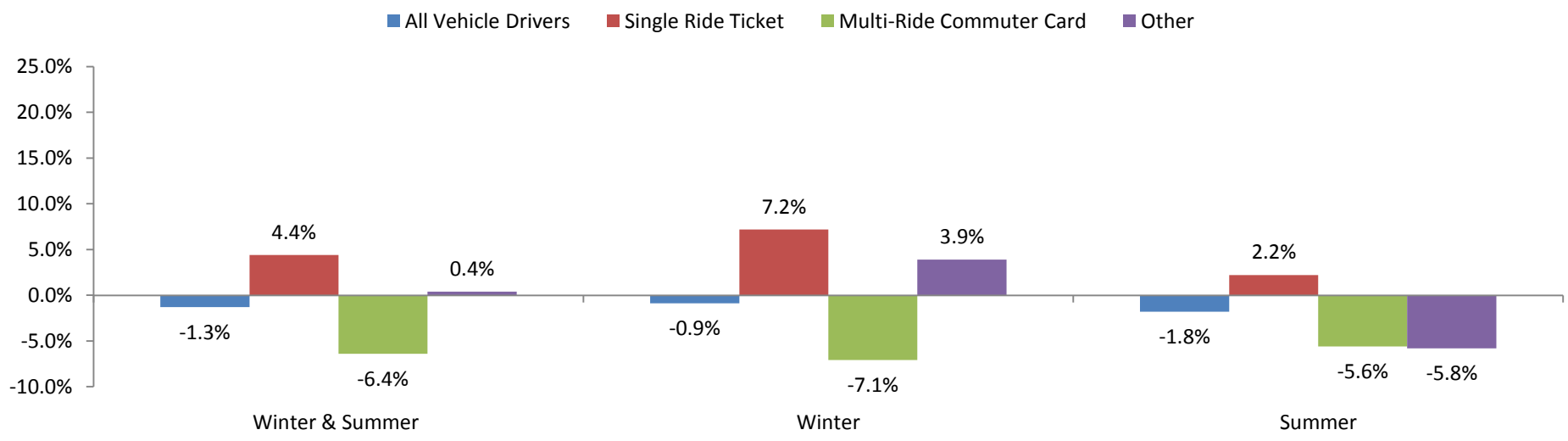
- Vehicle drivers who pay with a single-ride ticket suggest that the vehicle fare could increase by slightly more than 4 percent and still be considered "not expensive." Those paying with a commuter card suggest that it would have to decrease by more than 6 percent.

This relationship is more evident among winter vehicle drivers than among summer vehicle drivers.

- Those purchasing a single-ride ticket suggest that vehicle fares could increase by slightly more than 7 percent while those purchasing multi-ride cards suggest that it would have to decrease by an equivalent amount.

It is interesting to note that winter vehicle drivers who pay with something other than a single-ride ticket or multi-ride card are more likely than those paying with a commuter card to suggest that vehicle fares could increase. This segment contains vehicle drivers who receive a discounted, senior fare.

Figure 10: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Fare Payment Method



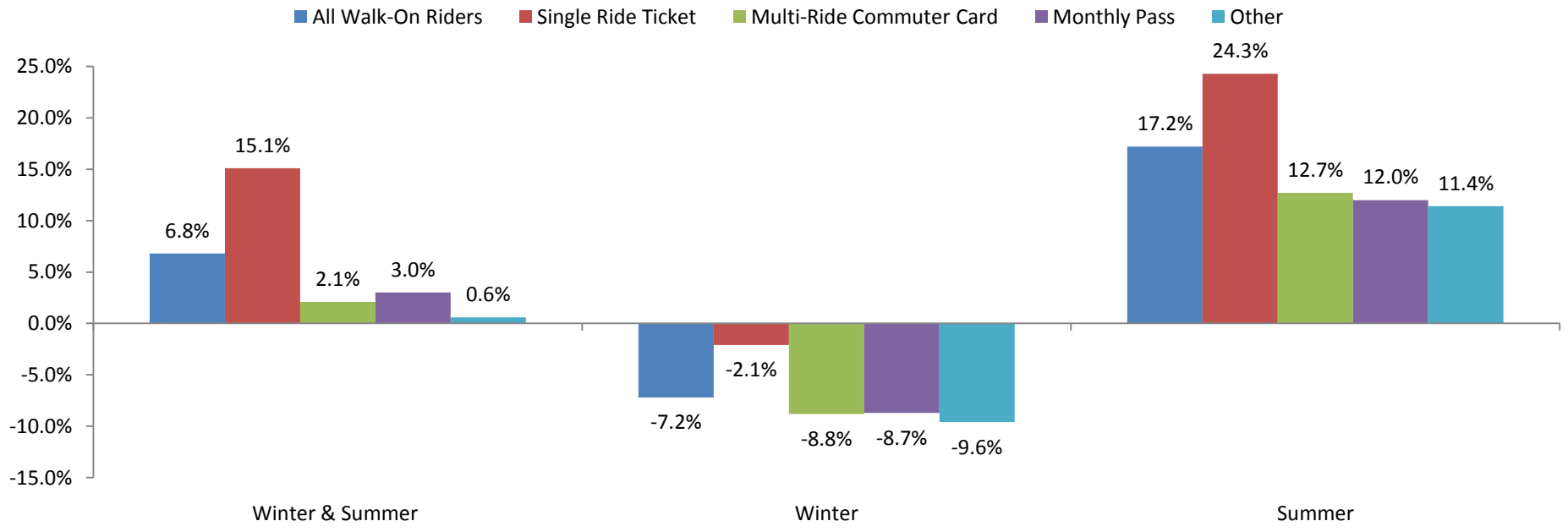
Walk-On Fares

Walk-on passengers who currently receive a discount by purchasing pre-paid fare media (a multi-ride card or monthly pass) are less likely to suggest an increase in walk-on fares than are those paying with a single-ride (full fare) ticket.

- Walk-on passengers paying with a multi-ride card or monthly pass say that overall an increase in walk-on fares of 2 to 3 percent would be considered "not expensive." In the winter, however, walk-on passengers would expect a decrease of nearly 9 percent to still consider walk-on fares "not expensive." Note that this decrease is approximately half of the current discount walk-on passengers receive.
- Walk-on passengers paying with a multi-ride card or monthly pass say that non-discounted summer walk-on fares could increase by 12 to 13 percent and still be considered "not expensive."

Walk-on passengers paying with a single-ride ticket suggest that winter fares would need to decrease slightly (by 2.1%) to be considered not expensive; summer fares could increase by as much as 24 percent.

Figure 11: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Fare Payment Method



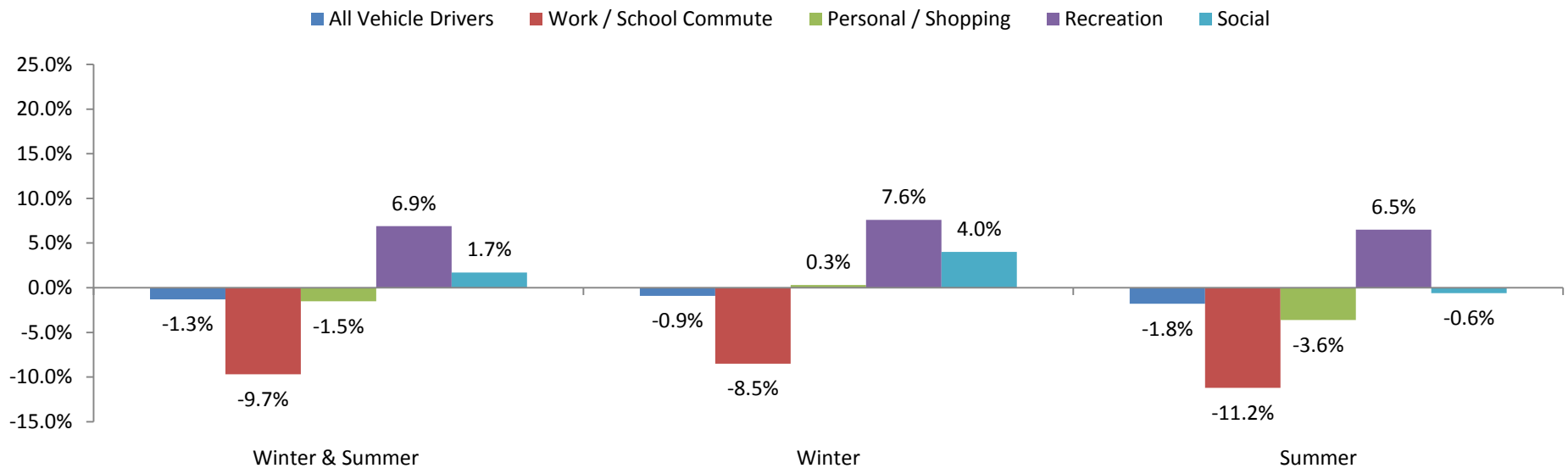
Other Significant Results: Trip Purpose

Vehicle Fares

Similar to walk-on passengers, vehicle drivers traveling for different types of trips are more or less sensitive to a fare increase or decrease.

- Overall, vehicle drivers who are commuting are the most sensitive to a change over the posted fare. At all times of the year, this segment suggests that fares would need to be discounted by 9 to 11 percent to be perceived as "not expensive."
- Recreational travelers suggest that vehicle fares could increase by 7 to 8 percent and still be perceived as "not expensive."

Figure 12: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Trip Purpose

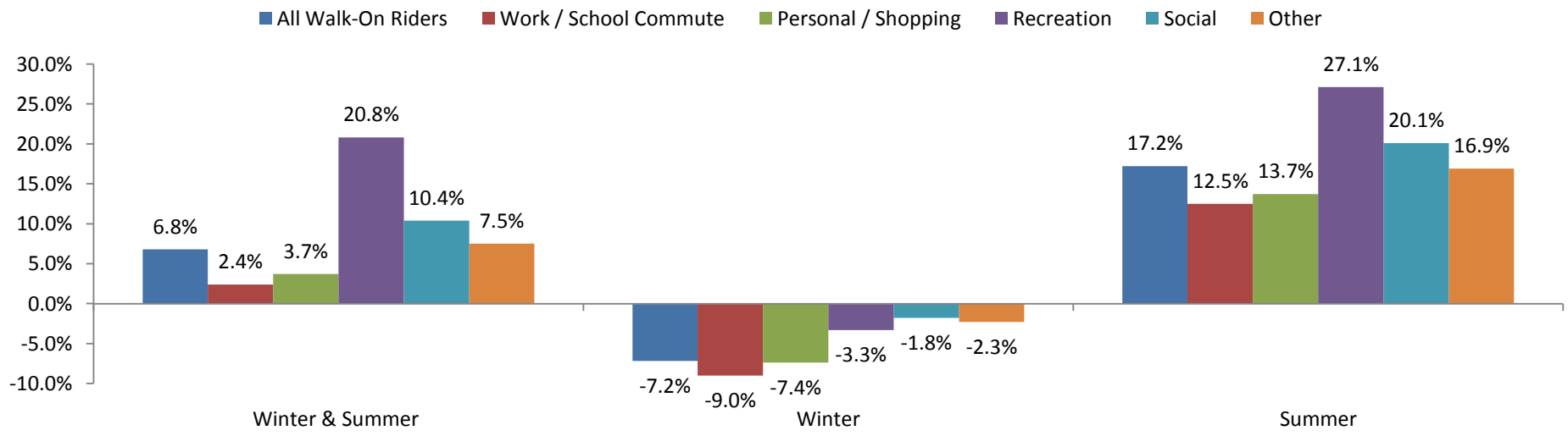


Walk-On Fares

As suggested in the route level analysis, walk-on passengers traveling for recreation and, to a lesser extent, trips to visit friends and family (social) are less sensitive to a walk-on fare increase than are commuters.

- Overall, walk-on passengers who commute feel that fares could increase by no more than 2.4 percent before they would begin to feel expensive. To compare, recreational travelers feel fares could increase by eight to nine times that level to 20.8%. Those traveling for social trips feel fares could increase by more than four times that amount – by 10.5 percent – before they would begin to feel the fare is no longer "not expensive." This most likely reflects both the nature of the trip itself as well as the frequency with which walk-on passengers take these types of trips.

Figure 13: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Trip Purpose



Other Significant Results: Perceived Value of Service

Vehicle Fares

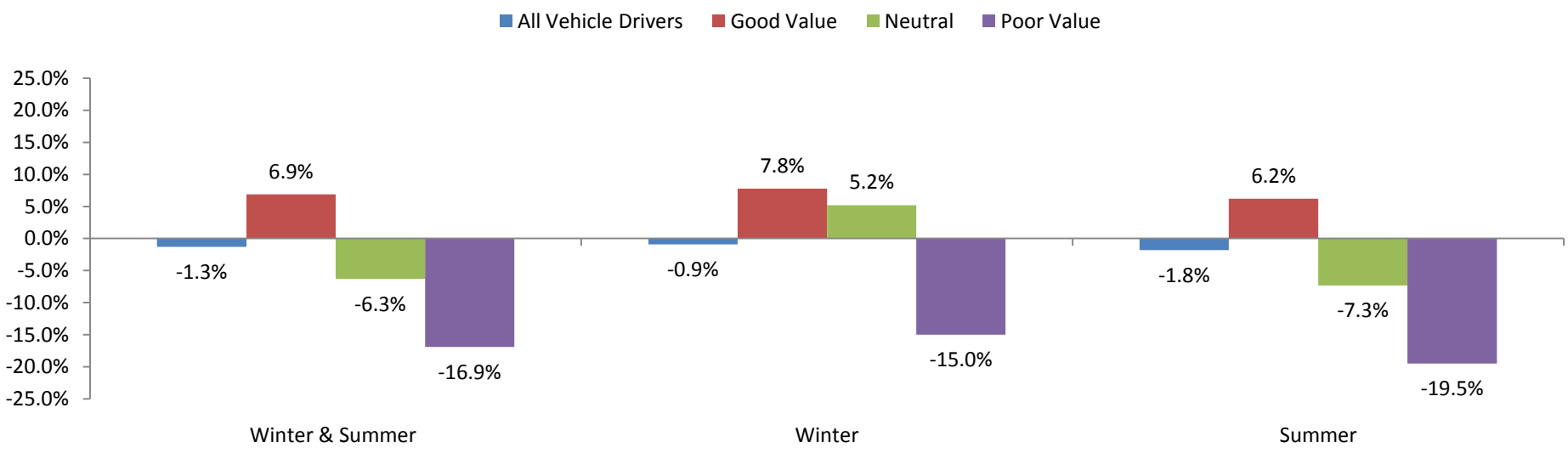
The relationship between willingness to pay a higher fare and perceived value of service is also evident among vehicle drivers for vehicle fares. The overall range between those who feel that current service is a good versus poor value is 25 percent.

- While vehicle drivers overall give a target fare increase / decrease value that represents a small discount over the current fare paid, those that feel the value of service received is a good value are willing to pay more (6.9%) than the current fare.

Those that feel the value of service is neither good nor poor and those that feel the value of service is poor feel that the current vehicle fare should be significantly lower (17%) than the existing fare.

- In the summer months, vehicle drivers who feel that value of service is poor suggest a discount of nearly 20 percent (the equivalent of the summer surcharge) for the fare to be considered "not expensive."

Figure 14: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Perceived Value of Service



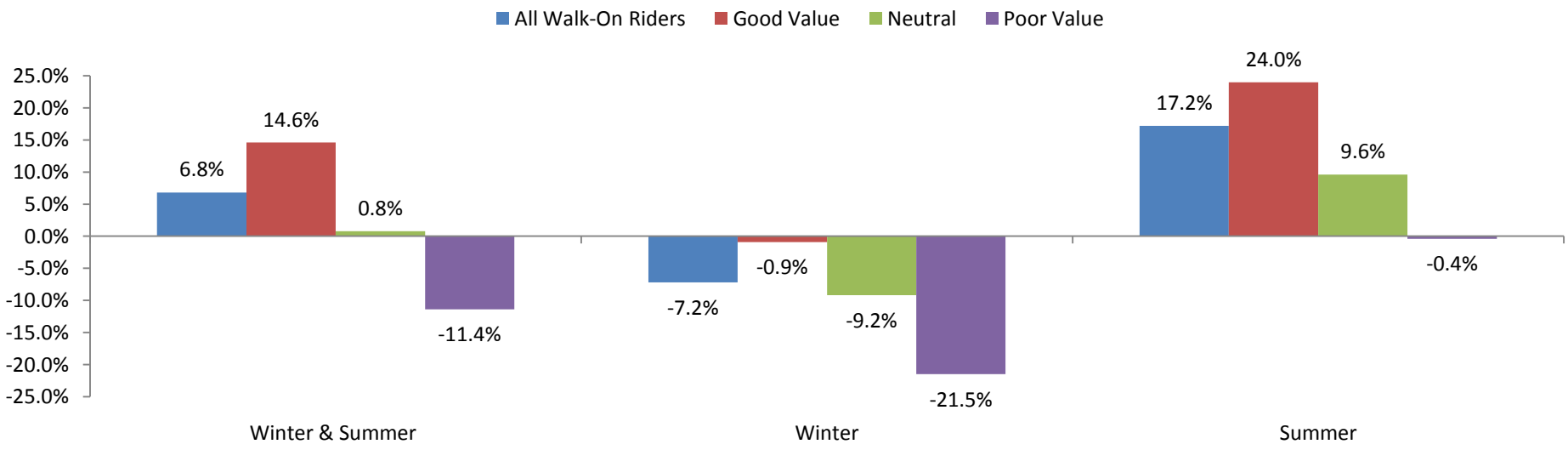
Walk-On Fares

As might be expected, there is a relationship between walk-on passengers' willingness to accept a higher fare increase and their perceptions of the current value of service they receive for what they currently pay. The overall range between those who feel that current service is a good versus poor value is 27 percent.

- Those that feel the value of service is good suggest that walk-on fares could increase by 14.6 percent and still be considered "not expensive." In the summer this value goes as high as 24 percent. On the other hand, those that feel value of service provided is poor suggest a decrease over current fares. Winter riders go so far as suggesting that the non-discounted fare should be discounted to the level of what is currently given as a discount to those purchasing pre-paid fares.

Those that feel the value of service is neither good nor poor say that there is little support for a fare increase.

Figure 15: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Perceived Value of Service

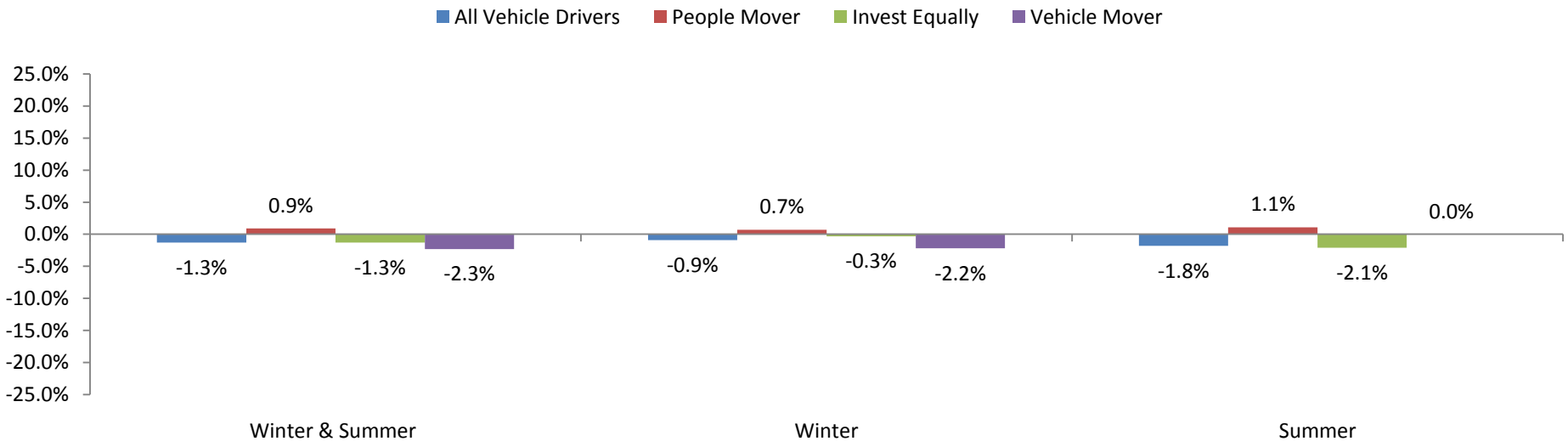


Other Significant Results: Attitudes toward WSF Investment

Vehicle Fares

As the graph below shows, there are no significant differences in vehicle drivers' feelings toward what would be considered a "not expensive" vehicle fare based on how they feel WSF should invest its improvement efforts.

Figure 16: % Increase / Decrease over Posted, Non-Discounted *Vehicle* Fares that is "Not Expensive" by Attitudes toward WSF Investment

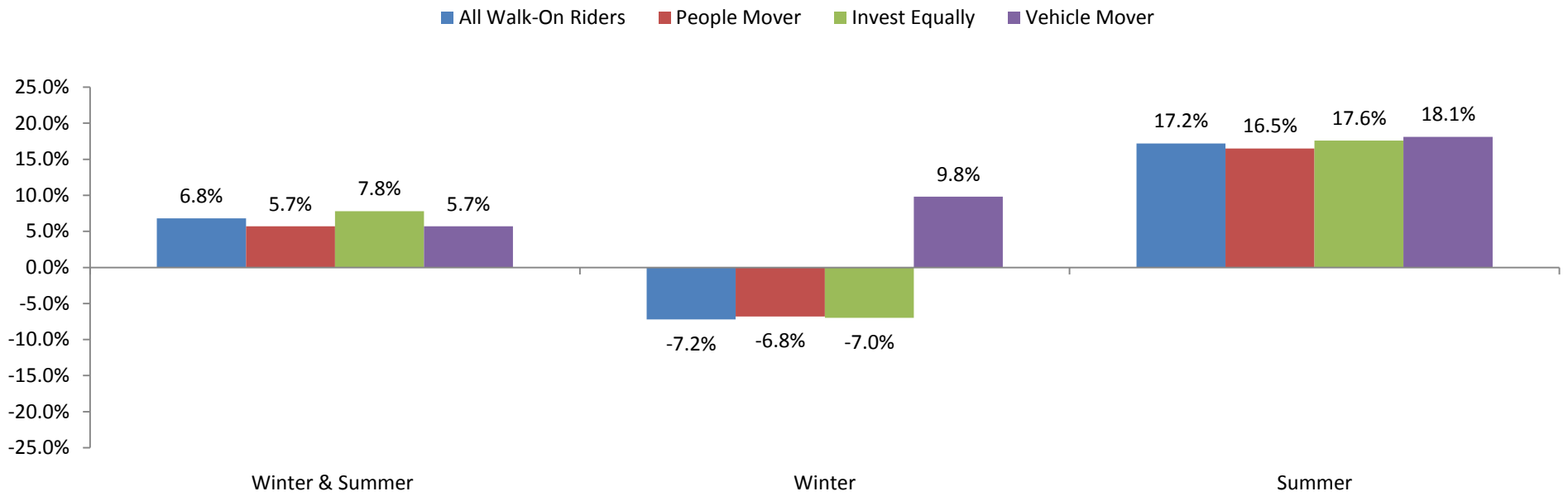


Walk-On Fares

Walk-on riders who feel that WSF should invest equally in moving people and vehicles are somewhat more likely to suggest a higher increase in walk-on fares than those who feel the system should move people and those that should move vehicles.

- Overall, walk-on passengers who feel the system should move people versus those who feel the system should move vehicles suggest that the same percentage increase in fares (5.7%) would be considered to be "not expensive."
- In the winter, walk-on passengers who feel the system should invest in moving people are less sensitive than those that feel the system should focus its investments on moving vehicles – suggesting a 6.8 percent discount versus a 9.8 percent discount, respectively.
- During the summer months, this is reversed. Summer walk-on passengers who feel the system should invest in moving people suggest a somewhat smaller increase (16.5%) than those who feel the system should move vehicles (18.1%). This could suggest that, at least in the summer months, those who feel that WSF should invest in moving vehicles also recognize that there would be a cost associated with this investment.

Figure 17: % Increase / Decrease over Posted, Non-Discounted *Walk-On* Fares that is "Not Expensive" by Attitudes Toward WSF Investment



Fare Elasticity

Summary – Fare Elasticity

Overview of Approach

A choice-based conjoint (CBC) study was administered in order to predict how riders would react to different fare levels. Choice-based conjoint is both a data collection and analytical method that allows researchers to present consumers with different alternatives and observe their decision process. Specifically, this research looked at the trade-offs that ferry riders are likely to make when deciding what mode to use (walk or drive on) and when to travel (peak or off-peak periods) under different fare situations. The structure of the choice-based conjoint exercise was developed collaboratively between ORC, the Transportation Commission, Washington State Ferries and other consultants working for those entities.

A total of 688 study participants in the study provided data on a total of 838 trips. This was sufficient to obtain reliable estimates of overall fare elasticity as well as indications among key subgroups (such as by route, time of day, and trip purpose).

Participants in this research generally match the profile of WSF riders, with some exceptions.

- Participants are more likely than riders generally to be men (61%) than women (39%). Winter riders are more evenly split – 49 percent men and 51 percent women.
- More affluent than riders generally – median self-reported household income of $90,442 for participants in the Price Sensitivity Study compared to $80,663 for winter riders overall.
- Participants are more frequent riders – 78 percent of those completing this study take 25 or more one-way trips per month compared to 35 percent of all winter riders and 27 percent of winter riders who drive on at least half of the time

This is deemed not to be a problem for this research as this segment of riders is often the most difficult to get to change behaviors. The significant difference in frequency of riding is also not a problem as the focus of some of the proposed price strategies is on changing travel behaviors of regular or very frequent riders.

Key Findings

Participants were asked to indicate which types of trips they considered to be non-discretionary – i.e., they feel they have little control over when they can travel – versus discretionary – i.e., they feel they have some control over when they can travel.

- Peak vehicle drivers clearly feel that commute trips and those activities that are related to work (e.g., business appointments) are non-discretionary in nature – that is, they feel that they have **little or no control** over when they must take it. Sixty-nine percent (69%) of respondents said they have little control over the time they take their commute trip; 61 percent feels they have little control over the timing of trips related to other business or work-related activities.
- Some peak vehicle drivers also feel that that they have limited control over when they travel for medical appointments (31%) and/or special events (34%).

The results of the conjoint analysis for both non-discretionary and discretionary trips clearly shows that for vehicle drivers who drive onto the ferries during peak travel periods, demand is inelastic at and above the current price points. In an elastic demand situation, if fares increase, ridership would go down at a similar rate – that is, if fares increase by 10 percent, ridership would drop by 10 percent or more. In an elastic demand situation, if fares increase, ridership may stay the same or decrease at a lower rate.

- Stated drive-on rates begin to drop at a higher rate when the fare increase crosses the 60 percent mark.

Since demand is inelastic, revenue increases when fares are increased as the revenues gains from increased fares more than offsets any drop in vehicle ridership resulting from the increased fares. In fact, vehicle fares could increase by as much as 62 percent for all trips before declines in ridership offset the gains in revenue resulting from the increased fares.

- Vehicle fares could increase by as much as 45 percent for discretionary travel before declines in ridership offset the gains in revenue resulting from the increased fares.
- Vehicle fares could increase by as much as 70 percent for non-discretionary travel before declines in ridership offset the gains in revenue.

While no one is anticipating a fare increase at these levels, it is clear that more modest across-the-board increases will not have an adverse effect on total revenue, and in fact will increase total system revenue.

Overview of Approach

Following is a brief description of the methodology used for this phase of the research. A more detailed explanation of the approach as well as the questionnaire can be found in the Appendix.

This study uses choice-based conjoint (CBC). Choice-based conjoint is both a data collection and analytical method that simulates the actual consumer decision process when presented with different alternatives. This research looks at the trade-offs that ferry riders are likely to make when deciding what mode to use and when to travel under different situations.

The structure of the choice-based conjoint exercise was developed collaboratively between ORC, the Transportation Commission, Washington State Ferries and other consultants working for those entities. It was designed to follow the approach commonly used for transportation choice modeling, also known as a stated preference (SP) survey. In this approach, respondents are asked to describe their most recent trip using the mode of interest (in this case driving on the ferry). They are then presented with realistic alternatives for making that trip and asked to select the one that they would most likely choose under those circumstances. The use of a specific past trip as a point of reference is important in these surveys because travel decisions are commonly quite context specific – travelers have specific needs and constraints that vary considerably from day-to-day and from trip to trip and an average or typical trip does not reflect those real needs and constraints

Transportation research suggests that the trade-off between the amount of time it takes to make the trip and the cost of the trip are the two primary drivers of the mode choice decision. For example, people may be willing to pay more if the trip takes less time. Other factors may also affect mode choice and/or their willingness to pay more for a trip. For example, people making trips where they have little / or no discretion as to the time they have to arrive at their destination – e.g., a work trip, a scheduled flight at an airport, or a medical appointment – may be less sensitive to a fare increase than those whose trip purpose is seen as more flexible.

Respondents were asked to describe two of their most recent trips – one which they indicated was a non-discretionary trip – that is, a trip that riders feel they have little or no control over when they take it – and one which they indicated was non-discretionary – that is, a trip that riders have some degree of control over when they take it. Moreover, they were asked to describe those trips for which they drove onto the ferry during peak travel times. If they didn't drive on during peak time, they were asked to describe their most recent discretionary and/or non-discretionary trip in a vehicle during off-peak travel periods. Respondents were asked to consider up to 16 different trips representing the amount of time they would have to arrive in advance in order to drive onto the boat for their desired sailing time (represented by the departure time given for their current trip), the fare for the trip, and options for driving on an earlier or later ferry than their desired sailing time.

They were then asked to choose among five options for taking the trip under these different conditions:

1. Drive-on the sailing chosen for the most recent trip,
2. Drive-on an earlier sailing,
3. Drive-on a later sailing,
4. Walk-on the sailing chosen for the most recent trip, or
5. Make the trip some other way or not at all

Following is an example of how the question appeared on the screen:

Imagine that WSF came up with a new pricing schedule. Thinking about your recent **NON-discretionary** trip (*[Purpose from Screen 22]*), if these were your only options, which would you choose?

I would Walk on the Current ferry that departs at 4:00pm where I need to be at the terminal 5 min before departure and where the one-way fare is $1.60	I would Drive on the Current ferry that departs at 4:00pm where I need to be at the terminal 60 min before departure and where the one-way fare is $14.55	I would Drive on the earlier ferry that departs at 2:30pm where I need to be at the terminal 5 min before departure and where the one-way fare is $16.65	I would Drive on the later ferry that departs at 4:45pm where I need to be at the terminal 5 min before departure and where the one-way fare is $14.55	NONE: I would NOT make this NON-discretionary trip Given these drive-on and walk-on options/fares , I would just not use the ferries and find some other way to accomplish my trip purpose (either on-island or combined with another trip or not at all such as changing jobs)
○	○	○	○	○

Choose by clicking one of the buttons above.

Participants in this study were drawn from respondents to the March On-Board Survey who agreed to participate in additional research. A total of 688 study participants who drive onto the ferries at least some of the time provided potential mode/time shift data on a total of 838 trips. Two hundred seventy one (271) respondents (or 39%) only took what they consider to be non-discretionary trips and 267 respondents (or 39%) only took what they consider to be discretionary trips. These respondents provided data only for the respective trip they took. Finally, 150 respondents (or 22%) took both discretionary and non-discretionary trips. These respondents provided data on both types of trips. Details on the characteristics of these respondents are provided on the next page.

Respondent Characteristics

The focus of this research was on peak vehicle drivers. The following analysis illustrates how panel participants compare to the characteristics of the riders in the winter on-board survey. In addition, the analysis shows how peak period vehicle drivers who completed the Price Sensitivity Research are similar or dissimilar to WSF riders in general and the overall panel.

Demographic Characteristics

With one exception, riders who completed the winter on-board survey and agreed to participate in the additional research generally match the demographic characteristics of all winter riders.

- Specifically, those who agreed to participate in the additional research are more likely to be men (55%) than women (45%). Winter riders are more evenly split – 49 percent men and 51 percent women.

This additional research specifically targeted respondents who drive onto the ferry at least some of the time during peak travel periods. Therefore, we also compared the characteristics of the panel members to peak weekday vehicle winter drivers.

- Panel members closely mirror peak weekday vehicle drivers in terms of their demographic characteristics.

Those who completed the conjoint exercise are also somewhat different from riders generally and all panel members. Notably, study participants are:

- Even more likely than panel members to be men (61%) than women (39%).
- More affluent than riders generally and all panel members.

This is deemed not to be a problem for this research as this segment of riders is often the most difficult to get to change behaviors.

Table 8: Comparison of Respondent Demographic Characteristics

	All Winter On-Board Survey Respondents (n=5,471)	Winter Peak Weekday Vehicle Drivers (n=1,156)	Winter Respondents Agreeing to Participate in Research (n=2,026)	Pricing Shift Conjoint Exercises Respondents (n=688)
Gender				
Male	49%	56%	**55%**	**61%**
Female	51%	44%	45%	39%
Age				
16 – 17	1%	<1%	1%	<1%
18 – 24	4%	1%	3%	2%
25 – 34	10%	9%	9%	7%
35 – 44	16%	16%	17%	20%
45 – 54	26%	31%	26%	33%
55 – 64	28%	29%	29%	30%
65 +	15%	14%	14%	9%
Median	52.2	52.4	52.3	52.0
Employment				
Full-Time	63%	68%	65%	81%
Part-Time / Student	15%	13%	14%	7%
Self-Employed	1%	1%	1%	2%
Retired	16%	12%	15%	6%
Other	5%	6%	5%	3%
Income				
< $15,000	3%	1%	3%	1%
$15,000 - $35,000	9%	8%	9%	5%
$35,000 - $50,000	11%	13%	11%	10%
$50,000 - $75,000	23%	22%	23%	22%
$75,000 - $100,000	19%	23%	18%	20%
$100,000 - $150,000	21%	19%	22%	**24%**
$150,000 Plus	14%	14%	15%	**19%**
Median	$80,663	$81,265	$81,723	$90,442

Travel Characteristics

Riders who completed the winter on-board survey and agreed to participate in the additional research are significantly different in terms of their frequency of travel.

Notably, panel members are . . .

- More frequent riders – 45 percent of those who agreed to participate in the additional research take 25 or more one-way trips per month compared to 35 percent of all winter riders.
- However, panel members closely mirror winter drivers who drive on the ferry during peak hours who are focus of the research.

Those that completed the conjoint study are primarily frequent riders – 78 percent takes 25 or more one-way trips per month – or, on average, 38.3 one-way trips.

Table 9: Comparison of Respondent Travel Characteristics

	All Winter On-Board Survey Respondents (n=5,471)	Winter Peak Weekday Vehicle Drivers (n=1,156)	Winter Respondents Agreeing to Participate in Research (n=2,026)	Pricing Shift Conjoint Exercises Respondents (n=688)
Trip Frequency*				
Less than 7	35%	24%	23%	5%
7 to 24	30%	30%	32%	17%
25 to 44	22%	28%	**27%**	42%
More than 45	13%	18%	**18%**	36%
Mean	20.5	25.2	**25.2**	38.3

** Number of one-way trips / month*

Perceptions of What Trips are Discretionary versus Non-Discretionary

Peak vehicle drivers clearly feel that commute trips and those activities that are related to work (e.g., business appointments) are non-discretionary in nature – that is, they feel that they have **little or no control** over when they must take it.

- Some peak vehicle drivers also feel that that they have limited control over when they travel for medical appointments (31%) and/or special events (34%).

Table 10: Perceptions of What Trips are Discretionary versus Non-Discretionary

	% of Respondents Who Perceive that Trip Type is		
Trip Type	**Non-Discretionary**	**Discretionary**	**Never Take**
Commute	70%	18%	13%
Work-Related Business Activity	61%	25%	13%
Personal Business	8%	87%	5%
Medical Appointments	31%	45%	24%
Everyday Shopping	1%	44%	55%
Major Shopping	1%	71%	28%
Recreation	4%	88%	8%
Special Events	34%	59%	7%
Visit Friends / Family	6%	85%	8%
Airport	52%	31%	17%

Sums across the rows. May sum to more or less than 100 percent due to rounding.

Overview of Trip They Described as Their Most Recent Trip

Respondents described their most recent non-discretionary and/or discretionary trips for which they drove on the ferry by answering a series of questions. If they drove on during peak travel times for either their non-discretionary or discretionary trip, they were asked to describe that trip. Following is a brief overview of the types of trips respondents to this research described. This information is meant to provide background to the types of trips they were thinking about when evaluating the impact of different fares on their travel behavior. This data should not be used as insights into overall travel behavior and ridership characteristics. More detailed and reliable data about WSF riders' overall travel behavior is included in Technical Paper #2 – WSF Customer Characteristics, which contains data from a larger and more representative sample of riders, encompassing two travel periods.

The majority (58%) who had taken non-discretionary trips described a commute trip. An additional 17 percent described a trip for work-related business.

- Consistent with the majority of the types of trip being described (commuting/work related), the majority of trips (94%) vehicle drivers described were peak weekday trips.

Those who provided data on their most recent discretionary trip provided information on a more diverse range of trips types. This is consistent with data from the on-board surveys that shows WSF serving a broad base of riders traveling for many different types of trips.

- The primary discretionary trips described are personal business / medical trips (32%) and social trips to visit friends and family or social trips (23%).
- While the majority (68%) of these trips also occurred during peak weekday travel periods, nearly one-third (32%) of the trips described were weekend trips.

Table 11: Description of Most Recent Trip(s)

	Non-Discretionary	Discretionary
Trip Purpose		
Commute to Work / School	58%	11%
Work-Related Business Activity	17%	6%
Recreation / Special Events	<1%	14%
Personal Business / Medical Appointments	9%	32%
Shopping	0%	8%
Social	0%	23%
Travel to / From Airport	7%	3%
Other	9%	3%
Direction / Time of Travel		
Eastbound Weekday Peak	48%	37%
Westbound Weekday Peak	46%	31%
Westbound Saturday Peak	2%	17%
Eastbound Sunday Peak	4%	15%

Overall Price Sensitivity

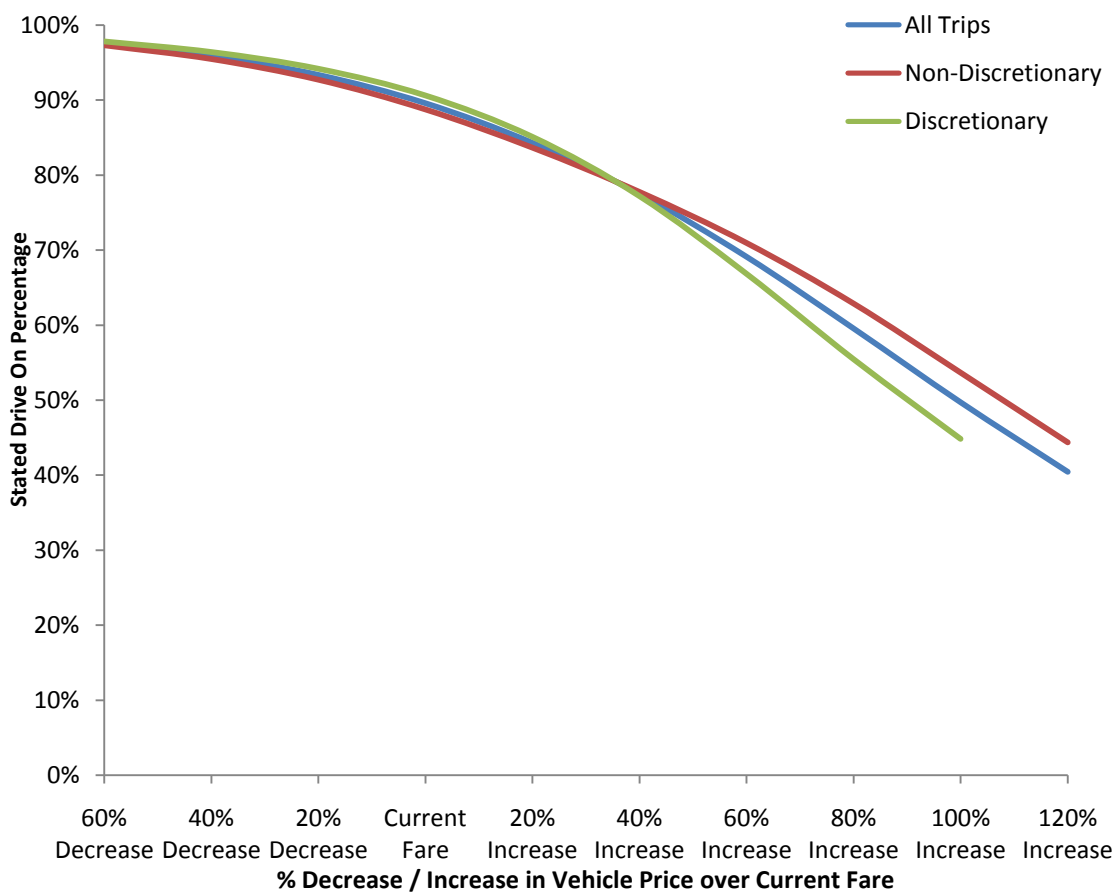
All Riders: Price Sensitivity for Drive-on Peak Weekday Travel by Journey Type

The results of the conjoint analysis for both non-discretionary and discretionary trips clearly shows that for vehicle drivers who drive on during peak travel periods, demand is inelastic below, at and above the current price points. In other words, a 10% increase in fares does not create a corresponding 10% decrease in peak drive on ridership.

- The rates at which respondents say they will stop driving onto the ferry begin to drop at a higher rate (the slope of the line gets steeper) when the fare increase crosses the 60 percent mark over current fare.

As would be expected, sensitivity to price increases for "drive-on peak" riders is higher for Discretionary than Non-Discretionary journeys.

Figure 18: Price Sensitivity for Drive-on Peak Weekday Travel by Journey Type

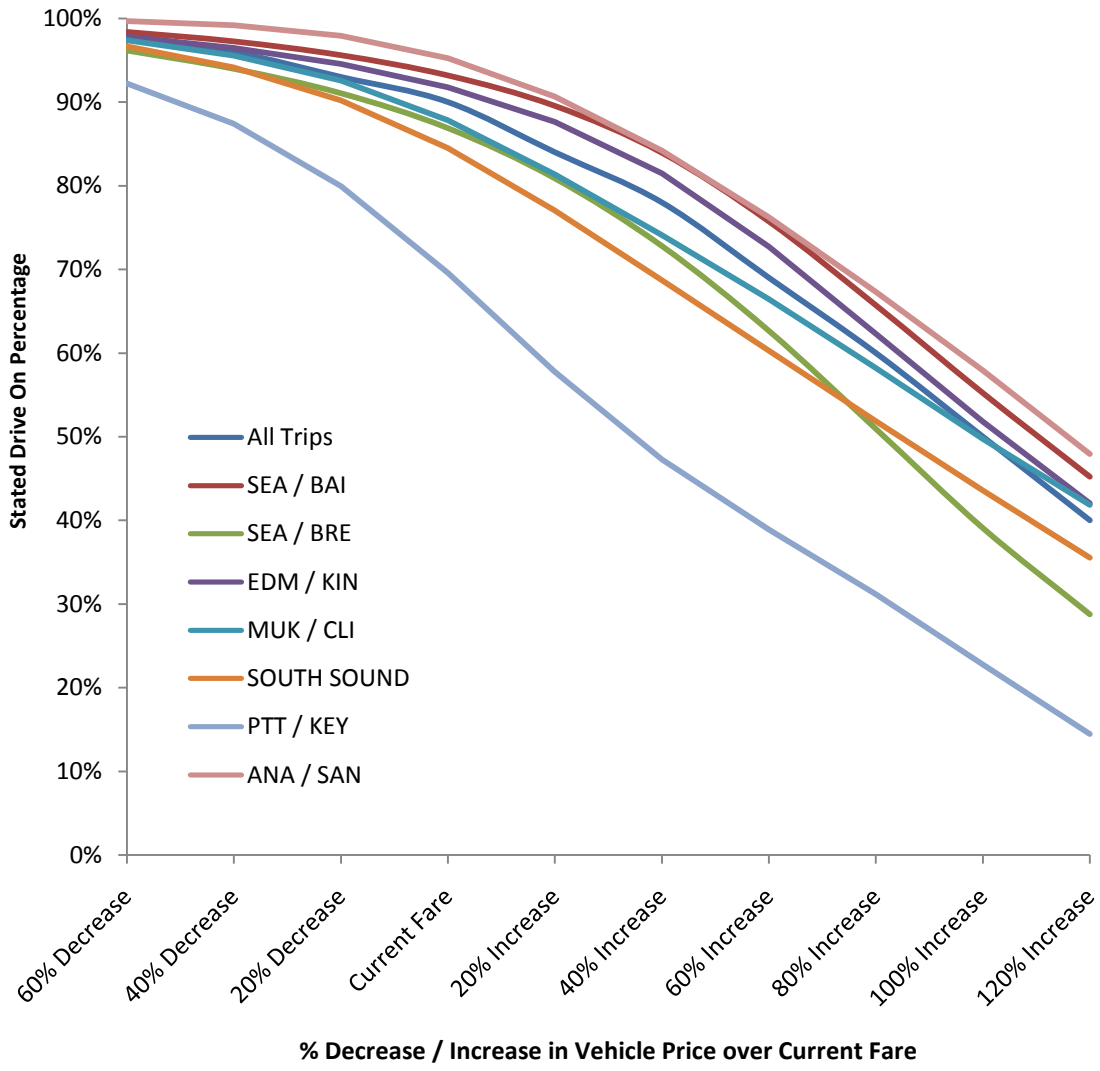


Route Level Analysis: Price Sensitivity for Drive-on Peak Weekday Travel

In general there are few differences in price sensitivity by route. There are, however, two exceptions.

- The Port Townsend / Keystone route appears to have a high level of price sensitivity. This may be a function of the low number of panel members on this route (n = 7). However, these results could also reflect the changes in service that happened in the months immediately preceding data collection. The Steel Electrics were retired early in 2008. Service was resumed utilizing vessels with less vehicle capacity. This higher price sensitivity for this route could suggest that the current level of service may not support any kind of fare increase.
- Seattle / Bremerton riders also appear to be somewhat more price sensitive. This is consistent with the van Westendorp analysis that shows that Seattle / Bremerton riders are somewhat more sensitive to vehicle fare increases overall, but notably when faced with the 20 percent summer surcharge (see page 26). This finding may also reflect the demographics of Bremerton riders and their relative affluence compared to riders generally – Bremerton riders have a median household income of $68,235 compared to $80,703 for WSF riders overall.

Figure 19: Price Sensitivity for Drive-on Peak Weekday Travel by Route



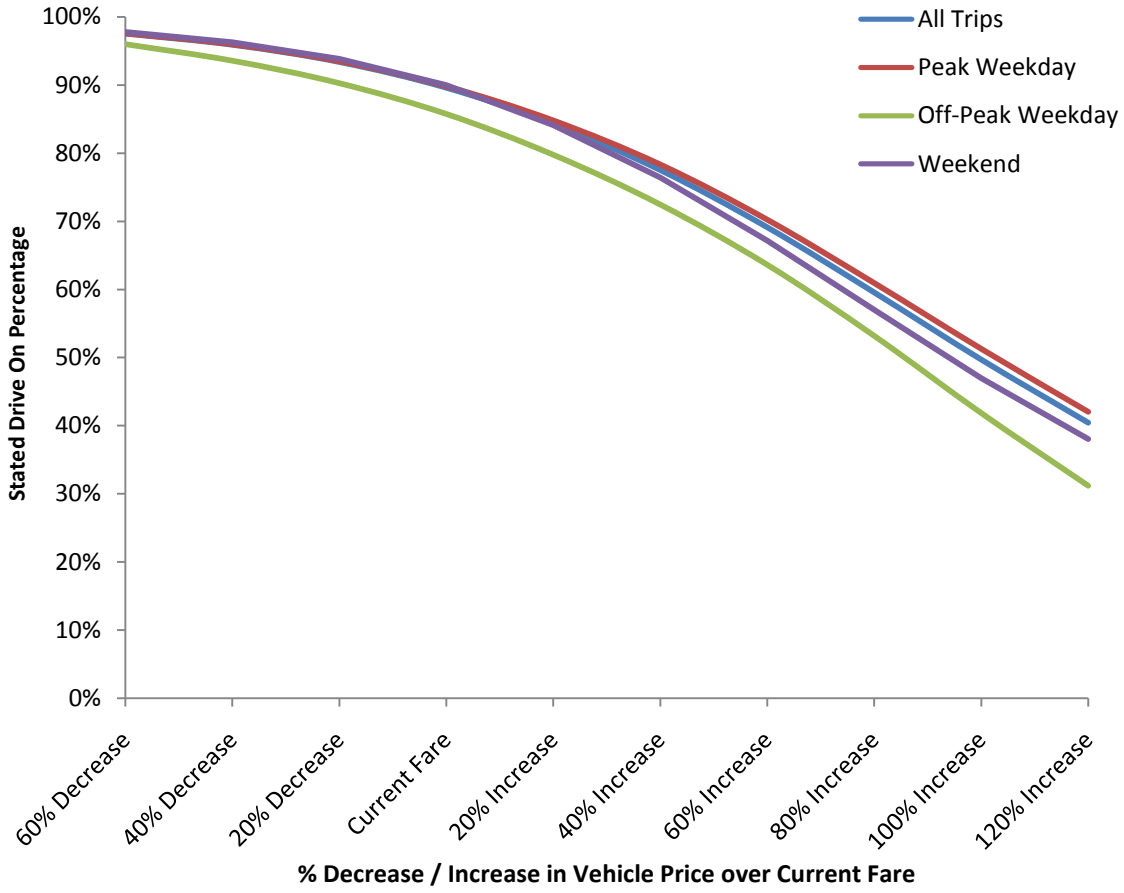
Other Significant Findings: Price Sensitivity for Drive-on Peak Weekday Travel by Time of Day / Week Travel

As would be expected, peak weekday riders are less sensitive to increases in fares than are off-peak weekday and weekend riders. This reflects the other findings that suggest that those traveling during peak weekday periods have little choice of travel time or mode.

While weekend riders are more sensitive to increases in fares than peak weekday riders, the differences are small and generally follow the same curve.

What is noteworthy is the higher sensitivity to fare increases evidenced by off-peak weekday riders.

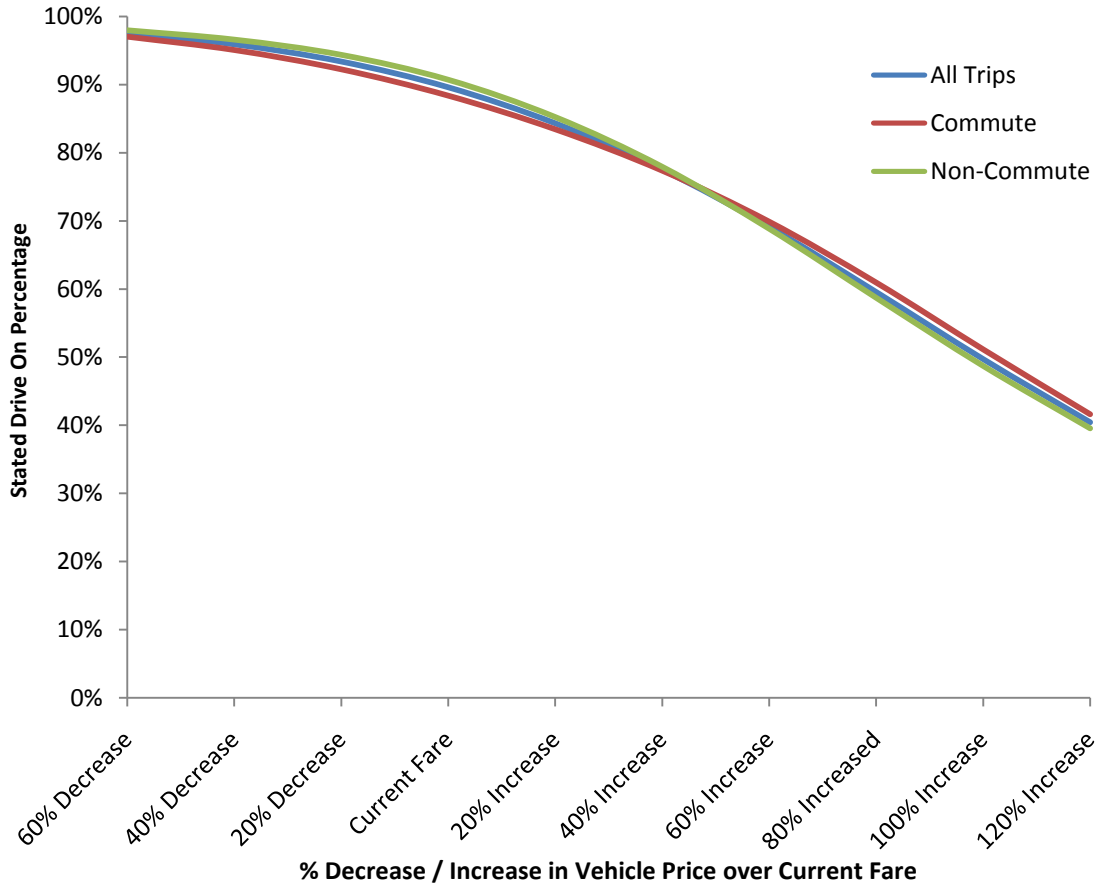
Figure 20: Price Sensitivity for Drive-on Peak Weekday Travel by Time of Day / Week Travel



Other Significant Findings: Price Sensitivity for Drive-on Peak Weekday Travel by Trip Purpose

While there are slight differences in price sensitivity for peak weekday drive-on travel for the different journey types (i.e., discretionary versus non-discretionary), there are no differences in price sensitivity for peak weekday drive-on travel commute versus non-commute trips.

Figure 21: Price Sensitivity for Drive-on Peak Weekday Travel by Trip Purpose



Revenue Analysis

In addition to the overall price sensitivity analysis described above, additional analysis looks at the potential effect on revenue given increases in fares. Specifically, this analysis explores the points where the increases in revenue resulting from a fare increase offset any decrease in ridership as well as identifying the point where any loss in ridership begins to outweigh the gains in revenue.

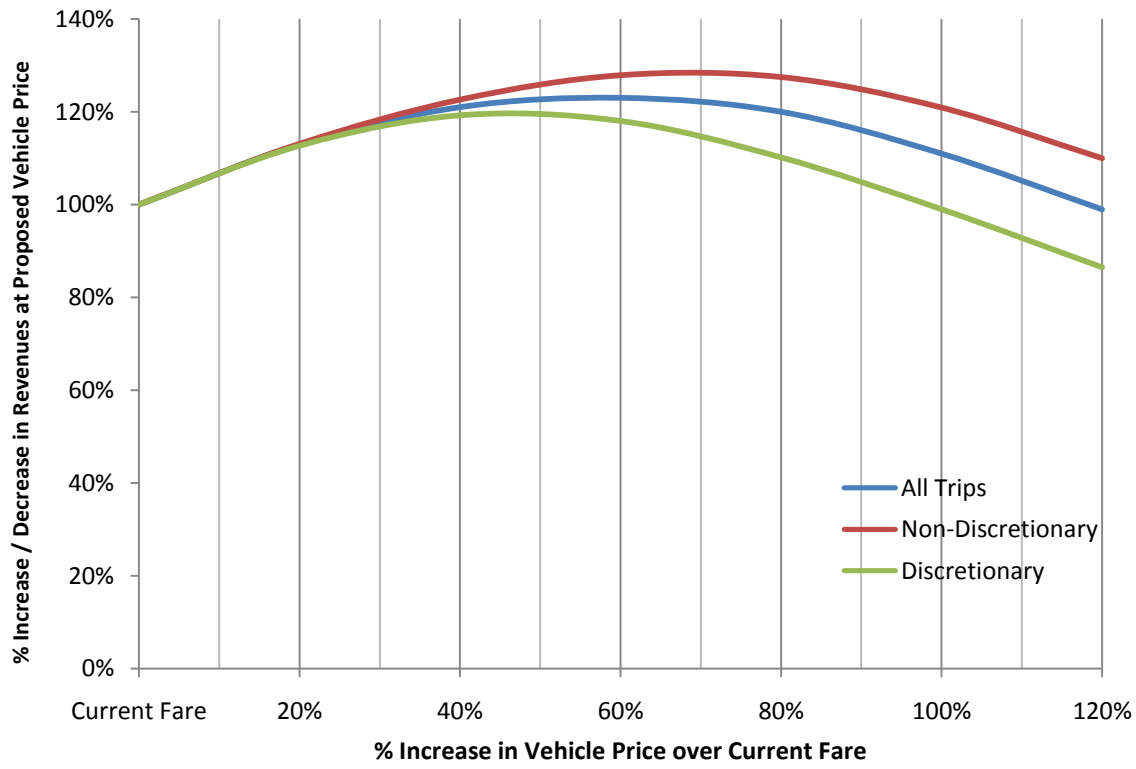
All Riders: Revenue Analysis for Drive-On Peak Weekday Travel

Since demand is inelastic, total revenue increases as fares are increased, as the revenues gains from increased fares more than offsets any drop in vehicle ridership resulting from the increased fares. In fact, vehicle fares could increase by as much as 62 percent for all trips before declines in ridership offset the gains in revenue resulting from the increased fares (top of the blue curve).

- Vehicle fares could increase by as much as 45 percent for discretionary travel before declines in ridership offset the gains in revenue resulting from the increased fares (top of the green curve).
- Vehicle fares could increase by as much as 70 percent for non-discretionary travel before declines in ridership offset the gains in revenue (top of the red curve).

While no one is anticipating a fare increase at these levels, it is clear that more modest across-the-board increases will not have an adverse effect on total revenue, and in fact will increase total system revenue.

Figure 22: Revenue Analysis for Drive-On Peak Weekday Travel by Journey Type



Route Level Analysis: Revenue Analysis for Drive-On Peak Weekday Travel

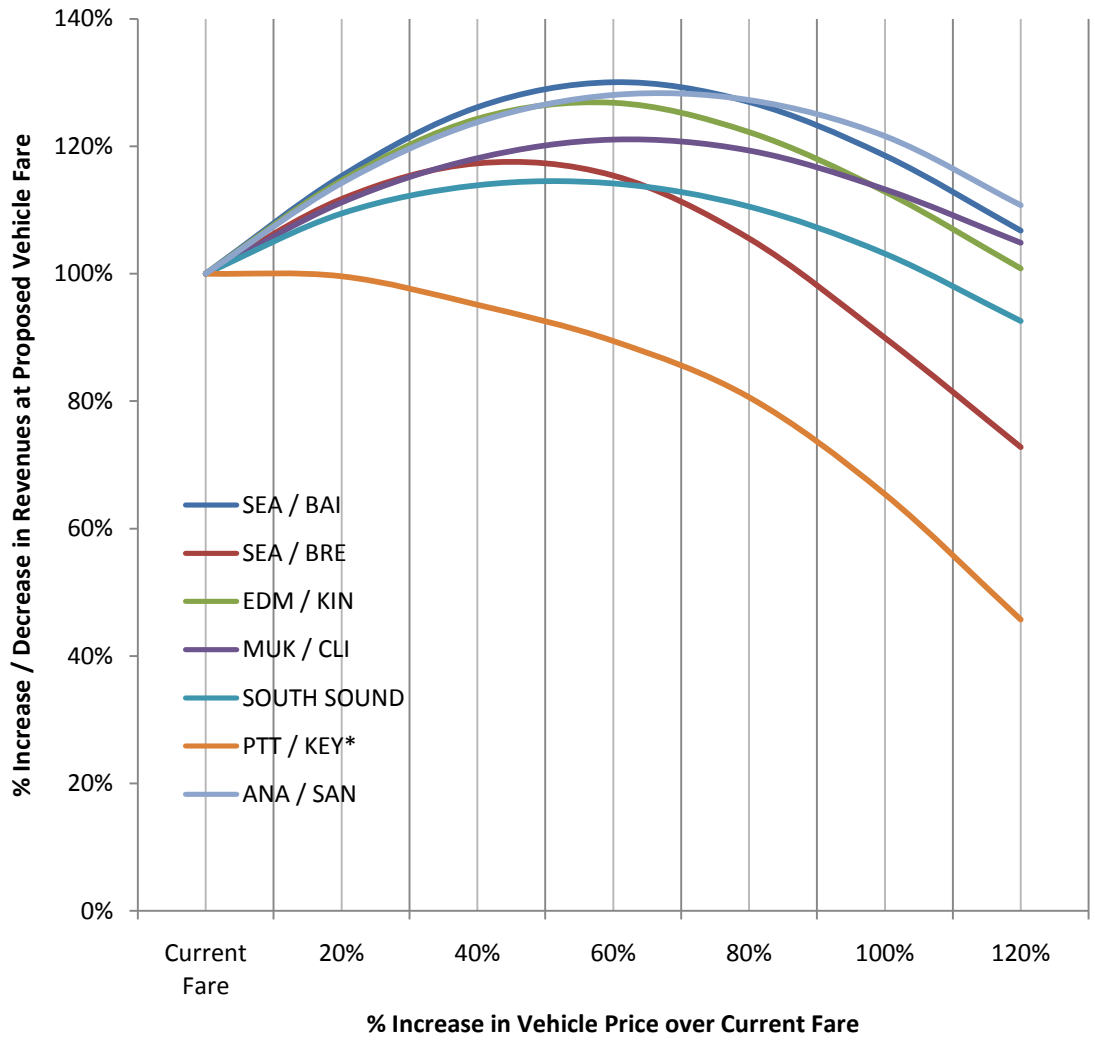
With the exception of the Port Townsend / Keystone routes, the increase in revenues achieved through a fare increase will offset any losses in revenues on all routes.

- For all but the Seattle / Bremerton route – vehicle fares could increase by as much as 60 to 80 percent before declines in ridership outpace revenue gains.
- Seattle / Bremerton riders are more price sensitive. The curve here suggests that on this route, vehicle fares could increase to somewhere between 40 and 60 percent before declines in ridership are greater than gains in revenue.

As noted in the price elasticity section, the sample size for Port Townsend / Keystone is very small (n = 7). Results if they were to hold true for a larger sample could suggest that any increase in vehicle fares on this route would potentially have a significant impact on revenues and ridership.

- Panel members from the Port Townsend / Keystone route were drawn from March on-board survey wave. This wave of surveying was completed soon after the retirement of the Steel Electrics. While boats were back in service, vehicle capacity on these replacement boats was limited and schedules had been changed.

Figure 23: Revenue Analysis for Drive-on Peak Weekday Travel by Route



Time of Day / Week Travel Analysis: Revenue Analysis for Drive-On Peak Weekday Travel

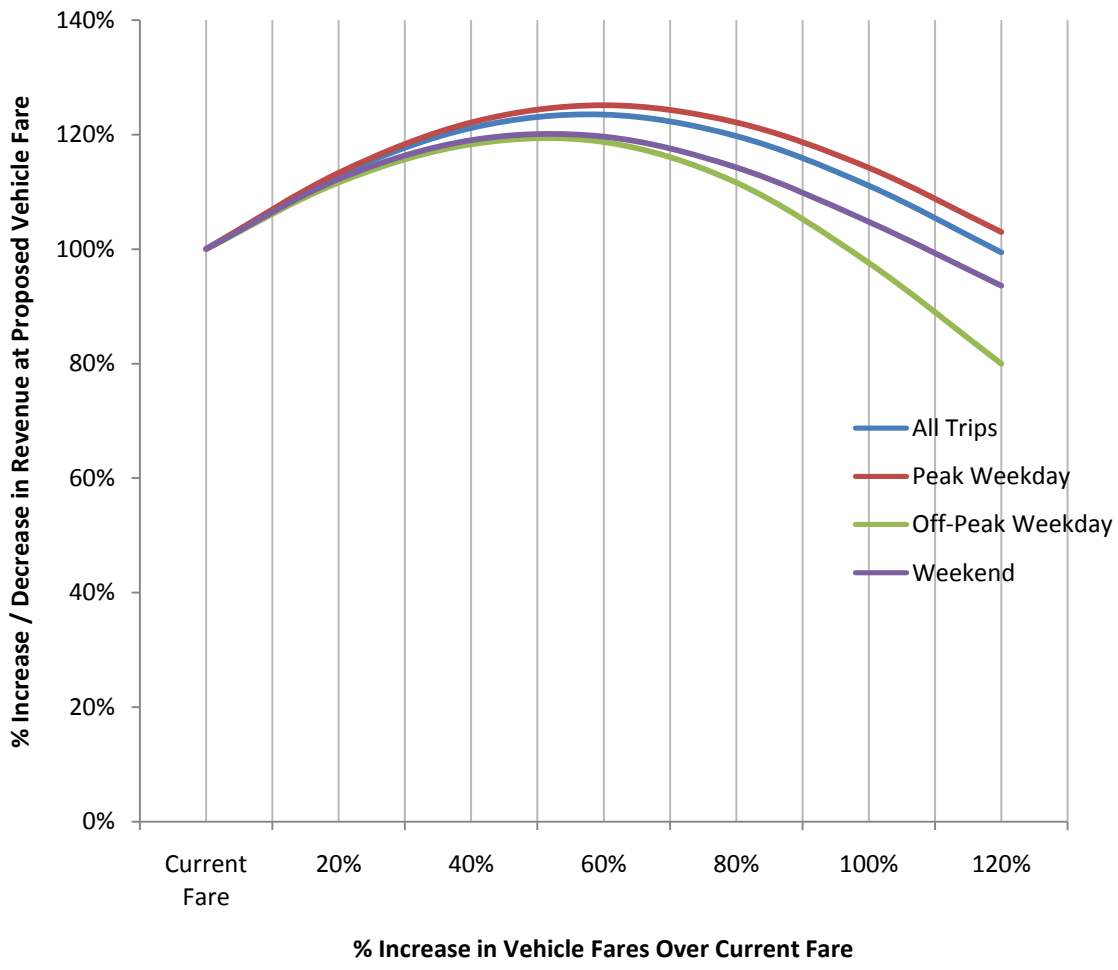
An across-the-board fare increase is more likely to have the potential to cause a decrease in off-peak weekday ridership than for peak weekday and, to a lesser extent, weekend riders.

Revenue gains from an across-the-board fare increase clearly peak at approximately 55 percent for off-peak weekday riders.

- For weekend riders this figure is slightly higher at 60 percent.
- For peak weekday riders, this figure is higher yet at approximately 65 percent.

This finding does provide some support for a tiered or congestion pricing program where higher fares are charged during peak travel periods and current fares are maintained or even lowered during off-peak periods. This sort of tiered or congestion program would serve to maximize revenue gains.

Figure 24: Revenue Analysis for Drive-on Peak Weekday Travel by Time of Day / Week Travel

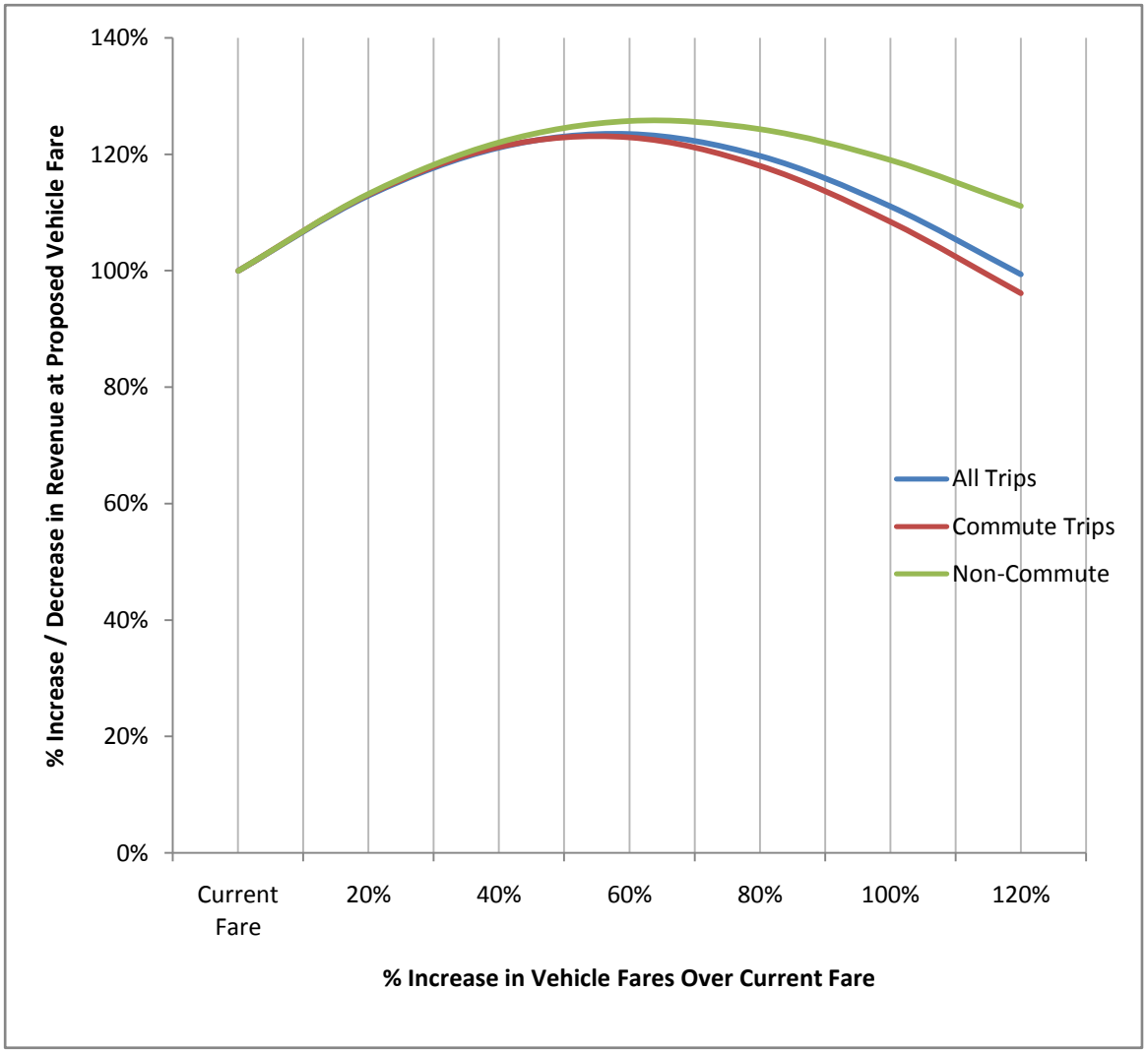


Other Significant Findings: Revenue Analysis for Drive-On Peak Weekday Travel by Trip Purpose

As you would expect, commuters, who take more trips per month, are clearly more sensitive to a fare increase than non-commuters.

- Revenue gains from a fare increase clearly peak at 55 to 60 percent for commute trips.
- For non-commute trips, this figure is closer to 70 percent.

Figure 25: Price Sensitivity for Drive-On Peak Weekday Travel by Trip Purpose



Key Findings – Attitudes toward Proposed Tariff Policies to Manage Vehicle Demand

In the March On-Board Survey, respondents were asked to indicate the extent to which they agreed or disagreed with four tariff options that could be used to potentially manage vehicle demand. These options include:

1. Having vehicle drivers who drive on during peak travel hours pay a higher fare than those driving on during off-peak hours.
2. Having vehicle drivers who drive on during off-peak travel hours receive a discount.
3. Making those who ride occasionally pay a higher fare than regular riders with a pass.
4. Making vehicle drivers who drive larger vehicles (e.g., full-size SUV, van, or truck) pay a higher fare than those driving small cars.

In addition to these four questions, a separate measure was created to reflect rider attitudes toward a congestion pricing program in which there could be two prices: (1) a peak fare, where vehicle drivers pay more to drive on during peak travel periods, and (2) an off-peak fare, where vehicle drivers receive a discount to drive on during off-peak travel periods.

Summary – Attitudes toward Proposed Tariff Policies

Winter riders have clearly negative feelings about the proposal to have vehicle drivers who drive onto the ferries during peak travel times pay a higher fare. Overall, 58 percent of all winter riders disagree with this proposal. Forty-five percent (45%) "strongly disagrees."

- Among winter riders who drive a vehicle onto the ferry during peak weekday hours, total disagreement jumps to 75 percent; 62 percent of winter peak weekday vehicle drivers "strongly disagree."

Winter riders' opinions are also clearly divided as to whether vehicle drivers should receive a discount if they drive on during off-peak hours.

- While 43 percent of all winter riders agree that vehicle drivers should receive a discount if they drive on during off-peak travel times, 38 percent disagrees. Moreover, a greater percentage of winter riders "strongly disagree" (28%) than "strongly agree" (21%). Those most likely to agree with this proposal are weekend vehicle drivers – 49 percent agrees.

Just over one out of five (21%) winter riders agree with both proposals – that is, vehicle drivers who drive on during peak hours should pay a higher fare while those driving on during off-peak hours should receive a discount – which together form a congestion pricing strategy. An additional 16 percent agrees with the proposal that drivers during off-peak hours should receive a discount, but disagrees with charging those driving on during peak hours a premium.

- Combined 37 percent of winter riders agree with one or both statements regarding a congestion pricing program. Nearly the same percentage (35%) of winter riders disagrees with the program (both proposals) entirely.

Overall, winter riders **disagree** that occasional riders should pay a higher fare than regular riders who pay with a pass. Current fare policies provide those paying with pre-paid fare media (a multi-ride card or monthly pass) with a discount of 20 percent or more off the single-ride ticket price.

Over half (52%) of all winter riders disagree with the idea of having occasional riders pay a higher fare. Moreover, the strength of this disagreement is high. More than three times as many winter riders "strongly disagree" with this proposal than "somewhat disagree" – 40 percent "strongly disagrees" compared to 12 percent who "somewhat disagrees."

- Frequent riders (those taking 25 or more one-way trips per month) are significantly more likely than those taking fewer than seven trips per month to agree with this proposal – 47 percent compared with 23 percent, respectively. More frequent riders are more likely to purchase multi-ride cards or monthly passes and hence currently receive a discount. This is noteworthy in that these riders receive a 20 percent or greater discount over the cost of a single-ride ticket.

Winter riders lean toward the positive regarding the proposal to have people who drive larger cars on board pay a higher fare than those driving smaller vehicles – 48 percent agree and 37 percent disagree.

- However, much of this overall level of agreement with this proposal is driven by walk-on passengers. More than half (56%) of walk-on riders agree that people driving larger cars should pay a higher fare compared with 44 percent of vehicle drivers.

Table 12: Attitudes toward Proposed Tariff Policies to Manage Vehicle Demand by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
	Passengers driving a vehicle onto ferry during off-peak travel hours receive a discount									
Net Agree	43%	45%	41%	45%	44%	35%	41%	33%	35%	50%
Net Disagree	38%	35%	37%	38%	41%	**46%**	34%	**51%**	41%	29%
	Passengers driving a vehicle onto ferry during peak travel hours pay a higher fare									
Net Agree	26%	30%	26%	26%	24%	15%	24%	17%	23%	29%
Net Disagree	59%	54%	57%	59%	62%	72%	55%	72%	59%	54%
	Passengers who ride occasionally should pay a higher fare than regular users with a pass									
Net Agree	32%	**34%**	29%	27%	31%	**40%**	32%	34%	16%	34%
Net Disagree	52%	51%	53%	**58%**	53%	47%	51%	48%	**61%**	44%
	People driving larger cars (full-size SUV, van, or truck) pay a higher fare than those driving smaller cars									
Net Agree	48%	**54%**	47%	41%	45%	53%	50%	49%	37%	51%
Net Disagree	37%	33%	36%	**41%**	**43%**	35%	30%	42%	39%	31%

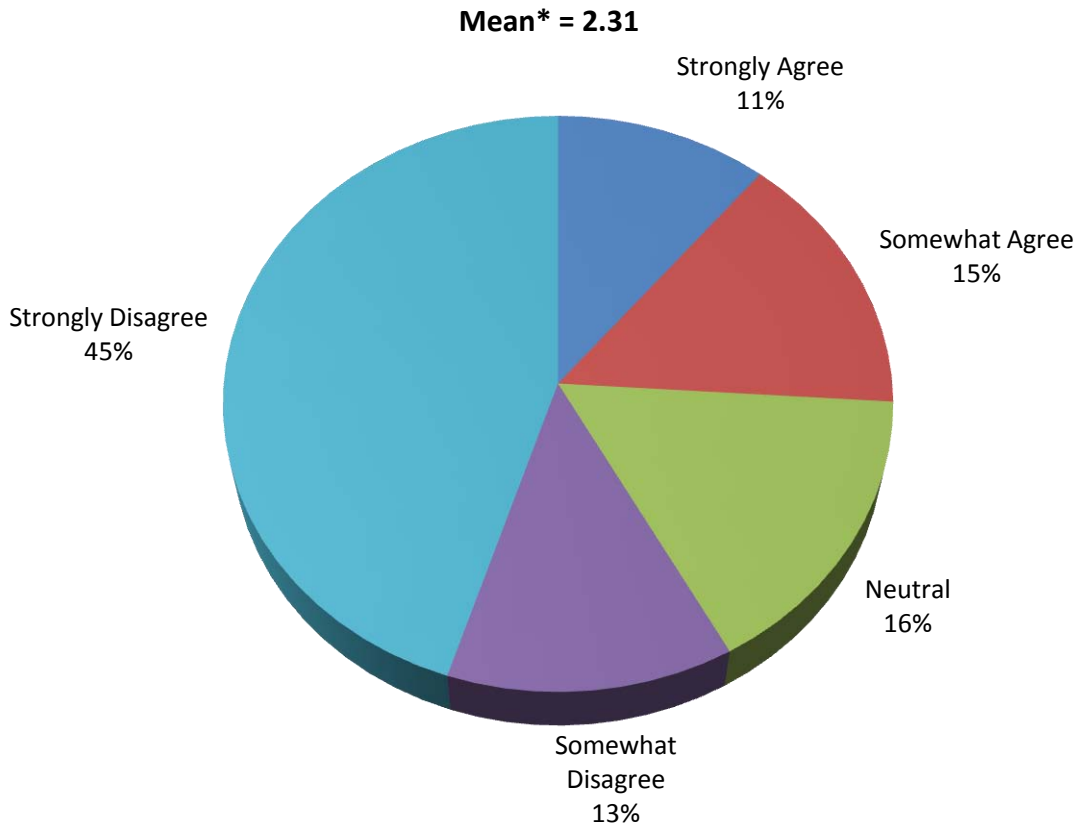
Vehicles Should Pay Higher Fare during Peak Travel Times

All Winter Riders: Vehicles Should Pay Higher Fare during Peak Travel Times

WSF winter riders have strong negative feelings about the proposal to have vehicle drivers who drive onto the ferry during peak travel times pay a higher fare.

- The majority of winter riders (58%) disagrees with the proposal to make those driving a vehicle onto the ferry during peak periods pay a higher fare – 45 percent "strongly disagrees."
- It is noteworthy that the number of riders who "strongly disagrees" (45%) is four times greater than the number of riders who "strongly agrees" (11%), clearly indicating the strength of their sentiments against this proposal.

Figure 26: Vehicles Should Pay Higher Fare during Peak Travel Times



Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

Base: All Winter Riders (n = 5,471)

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Boarding Mode Analysis: Vehicles Should Pay Higher Fare during Peak Travel Times

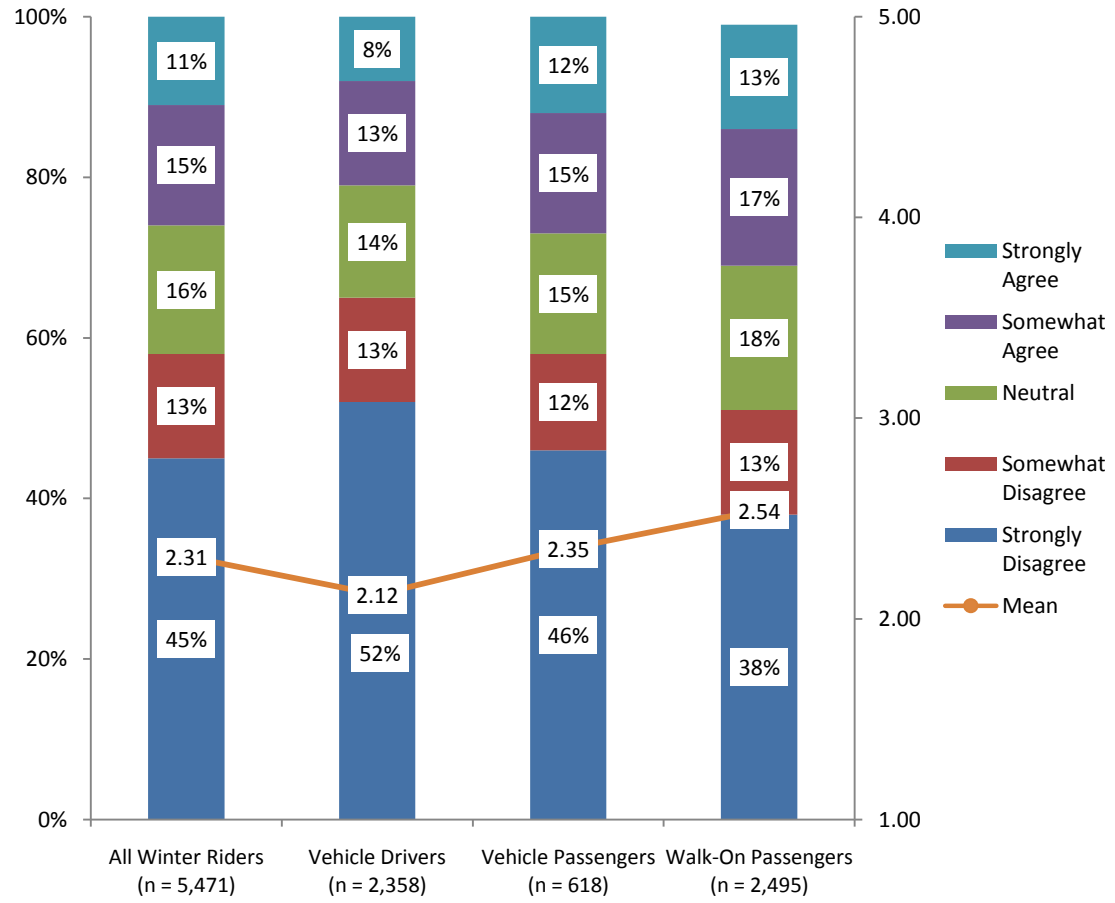
Not surprisingly, winter vehicle drivers and, to a lesser extent, winter vehicle passengers are more likely than winter walk-on passengers to "strongly disagree" with the proposal to have vehicles pay a higher fare during peak travel periods.

- Fifty-two percent (52%) of vehicle drivers and 46 percent of vehicle passengers "strongly disagree" that they should pay a higher fare during peak travel periods compared with 38 percent of walk-on passengers.
- On the other hand, 30 percent of winter walk-on passengers agree that vehicles should pay a higher fare during peak hours compared to just 21 percent of vehicle drivers.

Reflecting the generally negative attitudes toward the proposal to have vehicles pay a higher fare during peak travel times, the overall means are well below "3," the mid-point on this scale.

- Consistent with percentage of vehicle drivers who disagree with this proposal, the mean rating for this proposal among vehicle drivers is 2.12, significantly below that for both vehicle passengers and walk-on passengers.
- The overall mean for vehicle passengers is also significantly lower than that for walk-on passengers.

Figure 27: Vehicles Should Pay Higher Fare during Peak Travel Times by Boarding Mode



Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Route Level Analysis: Vehicles Should Pay Higher Fare during Peak Travel Times

Winter riders on the **Seattle / Bainbridge** and Anacortes / San Juan routes are the most likely to agree that vehicles should pay a higher fare during peak travel times.

- While the majority (54%) of winter riders on these routes disagrees with this proposal, 30 percent of Seattle / Bainbridge and 29 percent Anacortes / San Juan riders agree that vehicles should pay a higher fare when traveling during peak travel times.

On the other hand, winter riders on the Fauntleroy / Vashon and Point Defiance / Tahlequah evidence strong opposition to this proposal.

- Seventy-two percent (72%) of Fauntleroy / Vashon and Point Defiance / Tahlequah winter riders disagree with the proposal to have vehicles pay a higher fare during peak travel times.

Table 13: Vehicles Should Pay Higher Fare during Peak Travel Times by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
Net Agree	*26%*	***30%***	*26%*	*26%*	*24%*	*15%*	*24%*	*17%*	*23%*	*29%*
Strongly Agree	11%	13%	13%	11%	7%	7%	11%	8%	12%	12%
Somewhat Agree	15%	**17%**	13%	15%	17%	8%	13%	9%	11%	17%
Neutral	15%	16%	17%	15%	15%	12%	**21%**	10%	17%	17%
Somewhat Disagree	13%	13%	12%	14%	13%	10%	8%	10%	14%	15%
Strongly Disagree	46%	41%	46%	44%	48%	**62%**	47%	**62%**	45%	39%
Net Disagree	*59%*	*54%*	*58%*	*58%*	*61%*	***72%***	*55%*	***72%***	*59%*	*54%*
Mean	2.31	**2.48**	2.36	2.34	2.20	1.88	2.33	1.92	2.31	**2.48**

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Time of Day / Week Travel Analysis: Vehicles Should Pay Higher Fare during Peak Travel Times

More than three out of five (64%) peak weekday winter passengers disagree with this proposal to have vehicles pay a higher fare during peak travel periods.

- This is notable among peak weekday winter vehicle drivers – 75 percent disagree. Moreover, the level of disagreement is very high with 62 percent "strongly disagreeing."

Table 14: Vehicles Should Pay Higher Fare during Peak Travel Times by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Weekend			
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)	Total Weekend (n = 1,187)	Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
Net Agree	*26%*	*24%*	*15%*	***25%***	***30%***	*25%*	*22%*	*29%*	***29%***	***29%***	*28%*	*28%*	*32%*
Strongly Agree	11%	10%	6%	10%	**13%**	10%	7%	**15%**	**13%**	12%	12%	11%	15%
Somewhat Agree	15%	14%	9%	15%	**17%**	15%	15%	14%	16%	**17%**	16%	17%	17%
Neutral	15%	12%	10%	10%	**15%**	**17%**	14%	14%	**23%**	**18%**	16%	18%	20%
Somewhat Disagree	13%	13%	13%	10%	14%	12%	12%	8%	13%	14%	14%	15%	13%
Strongly Disagree	46%	**51%**	**62%**	**55%**	41%	**46%**	**51%**	**49%**	35%	40%	42%	40%	35%
Net Disagree	*59%*	***64%***	***75%***	***65%***	*55%*	***58%***	***63%***	*57%*	*48%*	*54%*	*56%*	*55%*	*48%*
Mean	2.31	2.18	1.83	**2.15**	**2.48**	**2.31**	2.14	2.39	**2.58**	**2.48**	2.41	2.44	2.63

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Other Significant Results: Vehicles Should Pay Higher Fare during Peak Travel Times

Support for the proposal to have vehicles pay a higher fare during peak travel times decreases as frequency of winter travel increases.

- Two out of three (67%) winter riders who take 45 or more one-way trips per month disagree with this proposal compared to 50 percent of those taking less than seven one-way trips monthly. Sixty-four percent (64%) of those taking 25 to 44 one-way trips also disagree with this proposal.

This in part reflects the fact that frequent winter riders are more likely than occasional riders to travel during peak periods.

Table 15: Vehicles Should Pay Higher Fare during Peak Travel Times by Frequency of Travel

	All Winter Riders (n = 5,471)	Number of One-Way Trips / Month			
		< 7 (n = 1,593)	7 to 24 (n = 1,412)	25 to 44 (n = 1,490)	45+ (n = 932)
Net Agree	26%	**31%**	24%	23%	20%
Net Disagree	59%	50%	61%	**64%**	**67%**
Mean	2.31	2.57	2.24	2.16	2.04

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Columns do not sum to 100 percent; neutral category excluded.

Winter riders who pay their fare with a multi-ride card are more likely than those paying with a single-ride card to disagree with this proposal.

- Sixty-eight percent (68%) of those paying with a multi-ride card disagree with requiring vehicles to pay a higher fare during peak travel periods compared to 51 percent of those paying with a single-ride ticket.

Note that winter users paying with multi-ride cards are more likely to be frequent riders – taking an average of 28.4 trips per month. In addition, they are more likely to be frequent vehicle drivers – driving on an average of 17.4 times per month. Monthly passes are not available to vehicle drivers.

Table 16: Vehicles Should Pay Higher Fare during Peak Travel Times by Fare Payment Method

	All Winter Riders (n = 5,471)	Fare Payment Method			
		Single Ride (n =1,805)	Multi-ride card (n = 1,917)	Monthly Pass (n = 930)	Other (n = 558)
Net Agree	26%	**31%**	20%	29%	25%
Net Disagree	59%	51%	**68%**	56%	59%
Mean	2.31	**2.54**	2.05	**2.41**	**2.35**

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Columns do not sum to 100 percent; neutral category excluded.

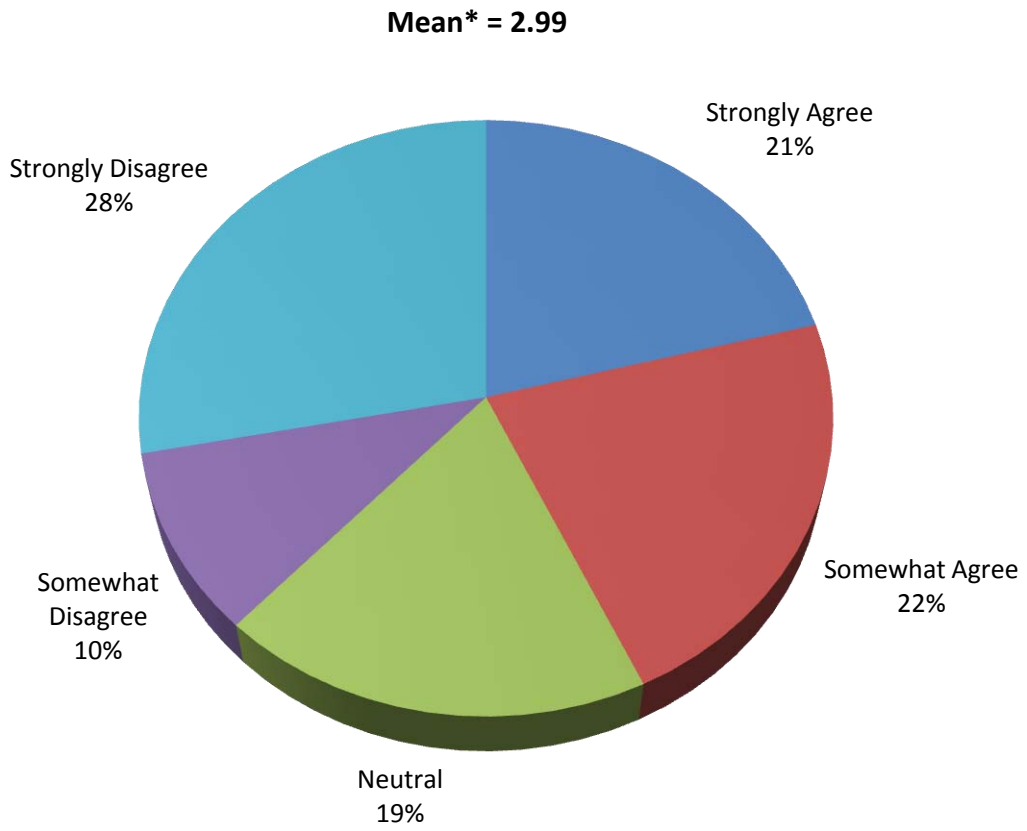
Vehicles Should Receive a Discount during Off-Peak Travel Times

All Winter Riders: Vehicles Should Receive a Discount during Off-Peak Travel Times

Opinions are clearly divided as to whether vehicle drivers should receive a discount if they drive on during off-peak hours.

- While 43 percent of all winter riders agree that vehicle drivers should receive a discount if they drive on during off-peak travel times, 38 percent disagrees.
- Moreover, those that disagree are more likely to "strongly disagree" – 28 percent "strongly disagrees" and 10 percent "somewhat disagrees." On the other hand, 21 percent "strongly agrees" and 22 percent "somewhat agrees."

Figure 28: Vehicles Should Receive a Discount during Off-Peak Travel Times



Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

Base: All Winter Riders (n = 5,471)

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

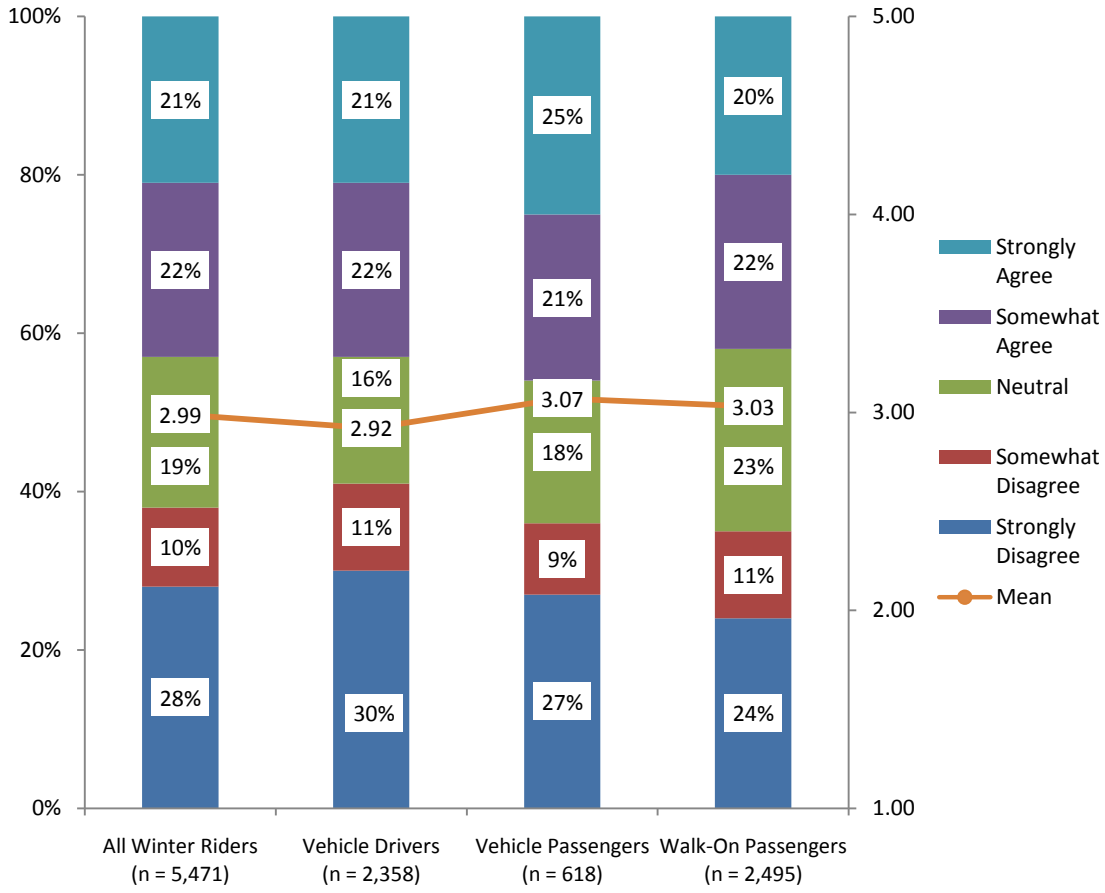
Boarding Mode Analysis: Vehicles Should Receive a Discount during Off-Peak Travel Times

Surprisingly, there are no significant differences in the extent to which vehicle drivers, vehicle passengers, and walk-on passengers **agree** with this concept.

There are significant differences in the extent to which they **disagree** with this proposal. Notably, vehicle drivers are significantly more likely than walk-on passengers to **disagree** with this strategy.

- More than two out of five (41%) vehicle drivers disagree with this strategy – 30 percent "strongly disagrees."
- On the other hand, 34 percent of walk-on passengers disagree with this strategy – 24 percent "strongly disagrees."

Figure 29: Vehicles Should Receive Discount during Off-Peak Travel Times by Boarding Mode



Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Route Level Analysis: Vehicles Should Receive a Discount during Off-Peak Travel Times

There are some significant differences in attitudes toward this strategy among winter riders on the different routes.

- **Anacortes / San Juans**: Winter riders on the Anacortes / San Juan Islands routes are the most likely to agree that vehicle drivers should receive a discount during off-peak travel periods. Half (50%) agrees; 26 percent "strongly agrees."

- **Seattle / Bainbridge and Edmonds / Kingston**: Winter riders on these two routes also show a higher level of agreement with this proposal – 45 percent agrees.

Winter riders on the **Fauntleroy / Vashon** route are the most likely to disagree with this proposal.

- Nearly half (47%) of Fauntleroy / Vashon winter riders disagree with giving vehicles a discount for driving on during off-peak travel times. Moreover, the strength of their disagreement is high – 38 percent of Fauntleroy / Vashon winter riders "strongly disagree."

Attitudes among winter riders on the **Mukilteo / Clinton** route are decidedly mixed.

- While 44 percent of winter riders on the Mukilteo / Clinton route agree that drivers should receive a discount during off-peak travel periods, 40 percent disagrees. Moreover, more riders "strongly disagree" (27%) than "strongly agree" (23%).

Table 17: Vehicles Should Receive a Discount during Off-Peak Travel Times by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
Net Agree	*43%*	***45%***	*41%*	***45%***	*44%*	*35%*	*41%*	*32%*	*35%*	***50%***
Strongly Agree	21%	21%	21%	22%	23%	17%	20%	22%	15%	**26%**
Somewhat Agree	22%	24%	20%	23%	21%	18%	21%	10%	20%	24%
Neutral	19%	20%	**22%**	17%	16%	19%	**26%**	16%	24%	21%
Somewhat Disagree	10%	10%	10%	10%	**13%**	9%	8%	12%	10%	7%
Strongly Disagree	28%	26%	27%	27%	27%	**38%**	26%	**40%**	31%	22%
Net Disagree	*38%*	*36%*	*37%*	*37%*	*40%*	*47%*	*34%*	*52%*	*41%*	*29%*
Mean	2.99	**3.05**	2.98	**3.03**	2.98	2.68	3.00	2.64	2.79	**3.26**

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Time of Day / Week Travel Analysis: Vehicles Should Receive a Discount during Off-Peak Travel Times

It is not surprising that peak weekday riders, notably those who drive onto the ferry, are the most likely to disagree that vehicles driving on during off-peak travel times should receive a discount.

- Forty-five percent (45%) of peak weekday riders disagree that vehicles should receive a discount if they drive on during off-peak travel times. One out of three (33%) peak weekday riders "strongly disagree."
- Among peak weekday vehicle drivers, overall disagreement with this strategy increases to 48 percent; 37 percent "strongly disagrees."

On the other hand, weekend riders are the most likely to agree that those driving on during off-peak travel times should receive a discount.

- Nearly half (49%) of weekend riders agree that vehicle drivers should receive a discount. This holds true regardless of boarding mode, suggesting that riders may wish to have the discount in order to travel more often on weekends and have the flexibility of choosing whether to walk or drive.

Table 18: Vehicles Should Receive a Discount during Off-Peak Travel Times by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Total Weekend (n = 1,187)	Weekend		
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)		Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
Net Agree	*43%*	*37%*	*35%*	*37%*	*40%*	***42%***	*45%*	*41%*	*41%*	***49%***	*48%*	*54%*	*48%*
Strongly Agree	21%	19%	19%	22%	18%	20%	20%	22%	21%	**25%**	23%	29%	25%
Somewhat Agree	22%	18%	16%	15%	**22%**	**22%**	25%	19%	20%	**24%**	25%	25%	23%
Neutral	19%	18%	16%	17%	19%	**21%**	16%	19%	**31%**	18%	16%	19%	19%
Somewhat Disagree	10%	**12%**	11%	11%	13%	9%	10%	7%	7%	10%	10%	8%	11%
Strongly Disagree	28%	**33%**	**37%**	35%	28%	**27%**	**29%**	**33%**	20%	23%	25%	19%	22%
Net Disagree	*38%*	***45%***	***48%***	*46%*	*41%*	*36%*	***39%***	***40%***	*27%*	*33%*	***35%***	*27%*	*33%*
Mean	2.99	2.79	2.69	2.79	**2.87**	**3.00**	2.96	2.89	3.15	**3.20**	3.10	3.36	3.19

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Other Significant Results: Vehicles Should Receive a Discount during Off-Peak Travel Times

Consistent with the higher levels of agreement among weekend winter riders, those traveling for recreation and social purposes are the most likely to agree that vehicles traveling during off-peak travel times should receive a discount.

- Over half (51%) of those traveling for recreation and 47 percent of those traveling for social (to visit friends and family) purposes agree that off-peak drivers should receive a discount.

Those traveling primarily for commute purposes are the least likely to agree.

- Forty-five percent (45%) of those traveling for commute trips disagree that those traveling during off-peak travel periods should receive a discount. Moreover, commuters' level of disagreement is high – 34 percent "strongly disagrees."

Table 19: Vehicles Should Receive a Discount during Off-Peak Travel Times by Trip Purpose

	All Winter Riders (n = 5,471)	Trip Purpose				
		Commute (n =2,547)	Personal (n = 942)	Recreation (n = 656)	Social (n = 693)	Other (n = 505)
Net Agree	43%	37%	43%	**51%**	47%	45%
Net Disagree	38%	**45%**	**39%**	29%	32%	36%
Mean	2.99	2.76	**2.99**	3.29	3.15	3.02

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Congestion Pricing

A true congestion pricing program is one in which those traveling during peak hours pay a higher fare while those traveling during off-peak hours receive a discount. Therefore, a measure was created to gauge respondents' attitudes toward an overall congestion pricing program which would include these two components: (1) those that drive on the ferry during peak travel periods would pay a higher fare than the posted rate while (2) those driving on during off-peak hours would receive a discount from the posted rate.

Just over one out of five (21%) winter riders support a congestion pricing program.

- That is, just over one out of five (21%) agrees with both the idea that passengers driving a vehicle on during peak periods should pay a higher fare **and** that those driving on during off-peak hours should receive a discount.

More than one out of three (35%) winter riders oppose the concept in its entirety.

- That is, 35 percent of winter riders disagree with both the idea that passengers driving a vehicle on during peak periods should pay a higher fare **and** that those driving on during off-peak hours should receive a discount.

Finally, it is noteworthy that 16 percent of WSF passengers favor offering passengers who drive a vehicle on during off-peak periods a discount. However, they disagree that those driving on during peak periods should have to pay a higher fare.

Table 20: Support for Congestion Pricing

Passengers driving vehicle onto ferry during peak travel hours pay a higher fare	Passengers driving a vehicle onto ferry during off-peak travel hours receive a discount		
	Agree	Neutral	Disagree
Agree	21%	2%	2%
Neutral	5%	9%	1%
Disagree	16%	7%	35%

Percents sum to 100 percent across all cells.

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

Base: All Winter Riders (n = 5,471)

All Winter Riders: Attitudes toward Congestion Pricing

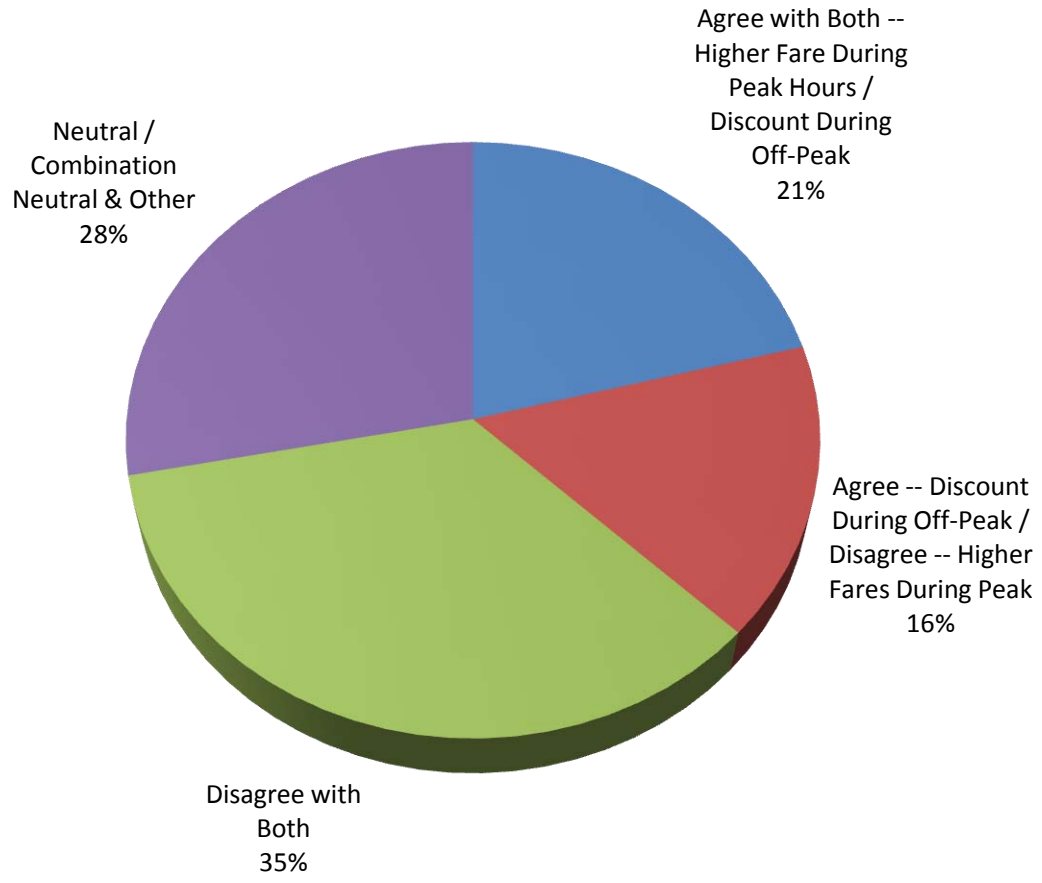
Nearly two out of five (37%) winter riders agree with one or both components of a congestion pricing program.

- Twenty-one percent (21%) of all winter riders agree with both components – that is a higher fare should be charged during peak periods while those driving on the ferry during off-peak hours receive a discount. This proposal would suggest a three-tier pricing policy based on three travel periods.

- Sixteen percent (16%) of winter riders agree that there should be a discount for those riding during off-peak hours but that there should not be a higher fare charged during peak hours.

Nearly the same percentage (35%) of winter riders disagrees with the overall concept of congestion pricing – disagreeing with both statements.

Figure 30: Attitudes toward Congestion Pricing



Created variable based on two questions:
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?
Base: All Winter Riders (n = 5,471)

Boarding Mode Analysis: Attitudes toward Congestion Pricing

While vehicle and walk-on passengers are equally likely to agree with both statements regarding a congestion pricing program, vehicle drivers clearly oppose the "total" concept.

- Only one out of five (19%) vehicle drivers agree with both statements comprising a "total" congestion pricing program compared with 24 percent of vehicle and walk-on passengers.

Vehicle drivers do show some support for a partial program – in which drivers receive a discount during off-peak hours but there is no increase during peak hours.

- Nearly one out of five (18%) vehicle drivers support offering a discount during off-peak hours while maintaining current fares during peak hours.

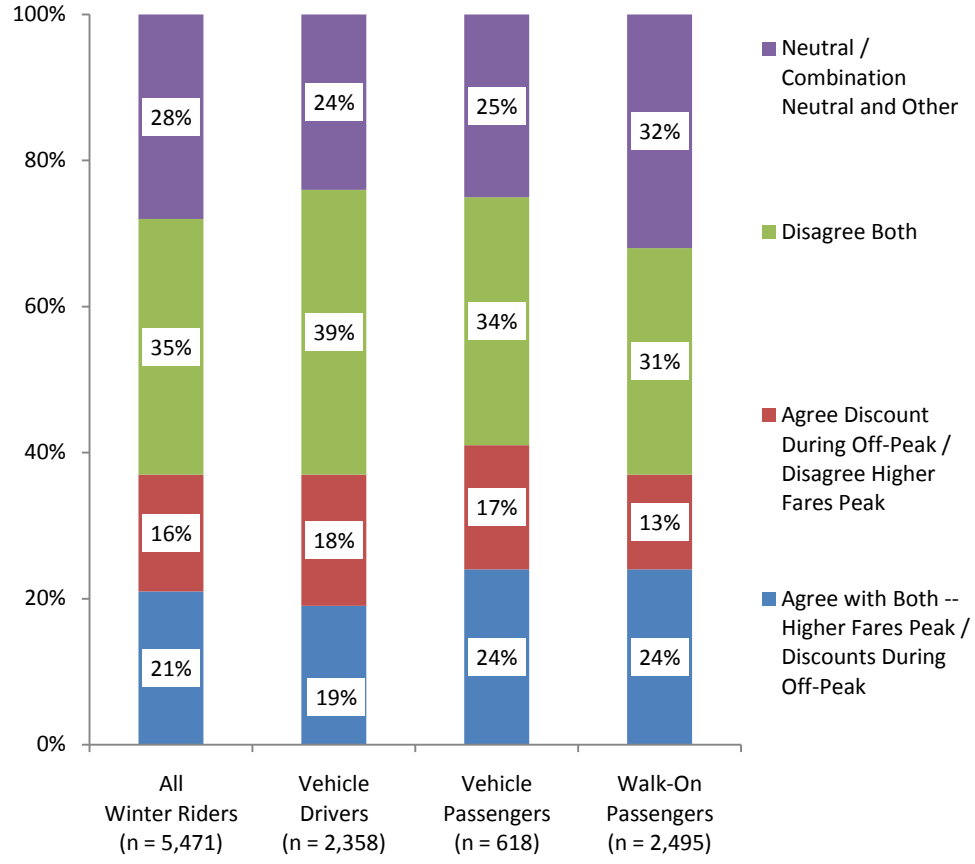
Combined, 37 percent of vehicle drivers support some or all aspects of a congestion pricing program compared with 41 percent of vehicle passengers and 37 percent of walk-on passengers. Thus, there are no significant differences in overall levels of support for this proposal.

On the other hand, vehicle drivers and, to a lesser extent, vehicle passengers are more likely to oppose the concept in its entirety.

- Nearly two out of five (39%) vehicle drivers oppose the concept compared to 31 percent of walk-on and 34 percent of vehicle passengers.

Reflecting the fact that they are not affected by this proposal, an above-average percentage (32%) of walk-on passengers has no opinion.

Figure 31: Attitudes Toward Congestion Pricing by Boarding Mode



Created variable based on two questions:

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?

Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

Route Level Analysis: Attitudes toward Congestion Pricing

Winter riders on **Anacortes / San Juans** are the most likely to agree with one or both of the statements regarding a congestion pricing program.

- Twenty-six percent (26%) of Anacortes / San Juans riders agree with both statements – i.e., those traveling during peak periods should pay a higher fare and those traveling during off-peak should receive a discount. In addition, an above-average number (20%) agrees that those traveling during off-peak periods should receive a discount but disagree with requiring vehicles traveling during peak periods to pay a higher fare. Therefore, combined nearly half (46%) of Anacortes / San Juan riders agree with some form of a congestion pricing program.

An above-average percentage (26%) of **Seattle / Bainbridge** riders also agree with both statements.

On the other hand, winter riders on two of the South Sound routes – Fauntleroy / Vashon and Point Defiance / Tahlequah – oppose a congestion pricing program, disagreeing with both statements.

- Nearly half of Fauntleroy / Vashon (44%) and Point Defiance / Tahlequah (49%) winter riders disagree with a congestion pricing strategy. These routes have a relatively high percentage of vehicle drivers – Fauntleroy / Vashon (62%) and Point Defiance / Tahlequah (65%). Twenty-four percent (24%) of Fauntleroy / Vashon and 19 percent of Point Defiance / Tahlequah riders are peak weekday vehicle drivers.

Table 21: Attitudes toward Congestion Pricing by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
Agree Both – Higher Fares During Peak Hours / Discount During Off-Peak	21%	**26%**	19%	23%	19%	12%	20%	15%	19%	**26%**
Agree Discount During Off-Peak / Disagree Higher Fares during Peak	16%	14%	16%	16%	19%	17%	14%	16%	13%	20%
Disagree Both Statements	35%	33%	33%	36%	37%	**44%**	31%	**49%**	38%	27%
Neutral / Other	28%	27%	32%	25%	25%	27%	35%	20%	30%	27%

Created variable based on two questions:
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

Time of Day / Week Travel Analysis: Attitudes toward Congestion Pricing

Peak weekday winter riders are the most likely to disagree with both statements regarding congestion pricing. This is notable among peak weekday vehicle drivers and, to a somewhat lesser extent, vehicle passengers.

- More than two out of five (42%) peak weekday winter riders disagree with both of the proposed components of a congestion pricing program.
- Among peak weekday vehicle winter drivers, this figure jumps to 46 percent.

Table 22: Attitudes toward Congestion Pricing by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Total Weekend (n = 1,187)	Weekend		
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)		Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
Agree Both – Higher Fares During Peak Hours / Discount During Off-Peak	21%	19%	12%	**22%**	**24%**	21%	19%	25%	23%	**25%**	25%	24%	25%
Agree Discount During Off-Peak / Disagree Higher Fares during Peak	16%	15%	**19%**	14%	11%	16%	**19%**	12%	12%	18%	15%	22%	18%
Disagree Both Statements	35%	**42%**	**46%**	45%	37%	**34%**	**37%**	**38%**	25%	29%	**34%**	25%	26%
Neutral / Other	28%	28%	28%	28%	**28%**	28%	28%	28%	**28%**	28%	28%	28%	28%

Created variable based on two questions:
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during peak travel hours should pay a higher fare than those driving on during off-peak hours?
Question: To what extent do you agree or disagree that passengers driving a vehicle onto the ferry during off-peak travel hours should receive a discount?

Occasional Riders Should Pay a Higher Fare

All Winter Riders: Occasional Riders Should Pay a Higher Fare

Overall, winter riders **disagree** that occasional riders should pay a higher fare than regular riders who pay with a pass. This is noteworthy in that riders who currently pay with a pass or multi-ride card receive a 20 percent or greater discount over the cost of a single-ride ticket. Therefore, this could suggest that the discount be lower than it currently is or it could be eliminated entirely.

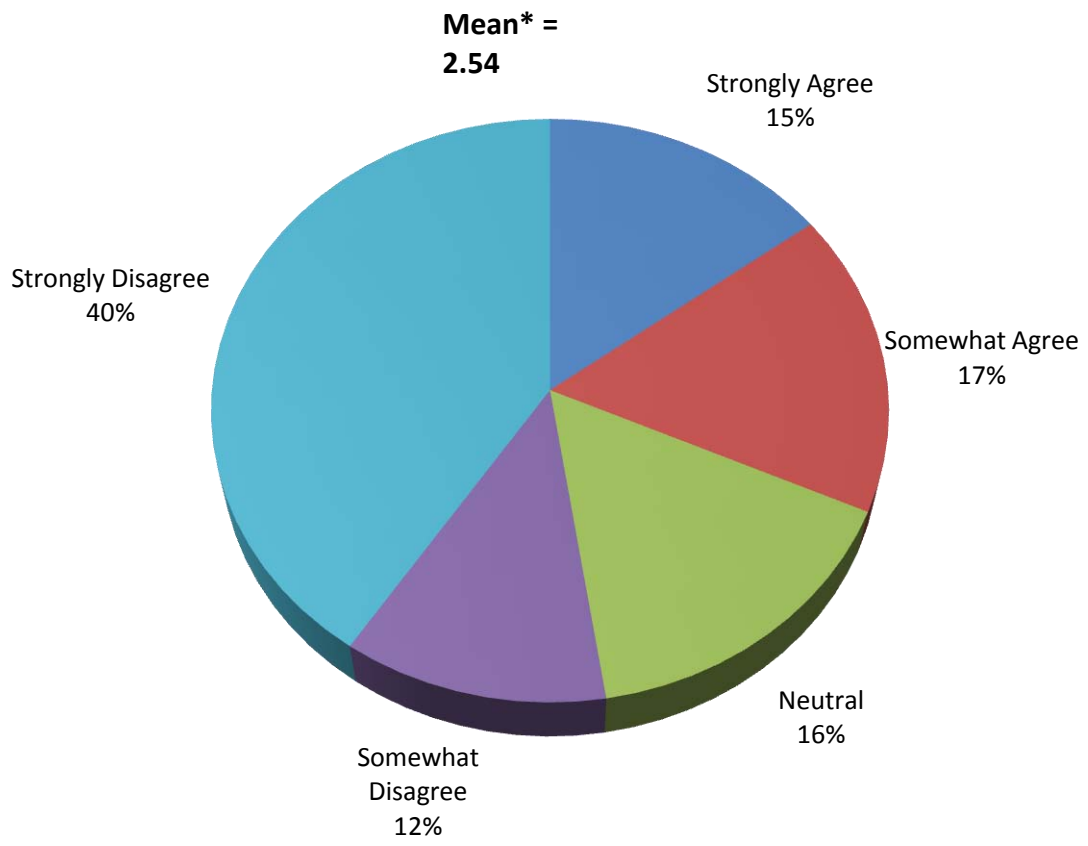
- Over half (52%) of all winter riders disagree with the idea of having occasional riders pay a higher fare.
- Moreover, the strength of this disagreement is high. More than three times as many winter riders "strongly disagree" with this proposal than "somewhat disagree" – 40 percent "strongly disagrees" compared to 12 percent "somewhat disagrees."

On the other hand, one out of three (32%) winter riders agree that occasional riders should pay a higher fare than those paying with a pass or multi-ride card.

- The extent to which winter riders agree with this proposal are more mixed – with a nearly equal percentage agreeing strongly (15%) versus agreeing somewhat (17%).

The results are found to vary by boarding mode and route as well as by frequency of riding and current fare payment method. These differences described on the following pages and explain in part some of the reasons for these differences of opinions.

Figure 32: Occasional Riders Should Pay a Higher Fare



Question: To what extent do you agree or disagree that occasional riders should paya higher fare than regular riders with a pass?

Base: All Winter Riders (n = 5,471)

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Boarding Mode Analysis: Occasional Riders Should Pay a Higher Fare

Vehicle passengers are the most likely to disagree with this proposal to have occasional riders pay a higher fare.

- Three out of five (60%) vehicle passengers disagree – 47 percent "strongly disagrees."
- Only 27 percent of vehicle passengers agree.

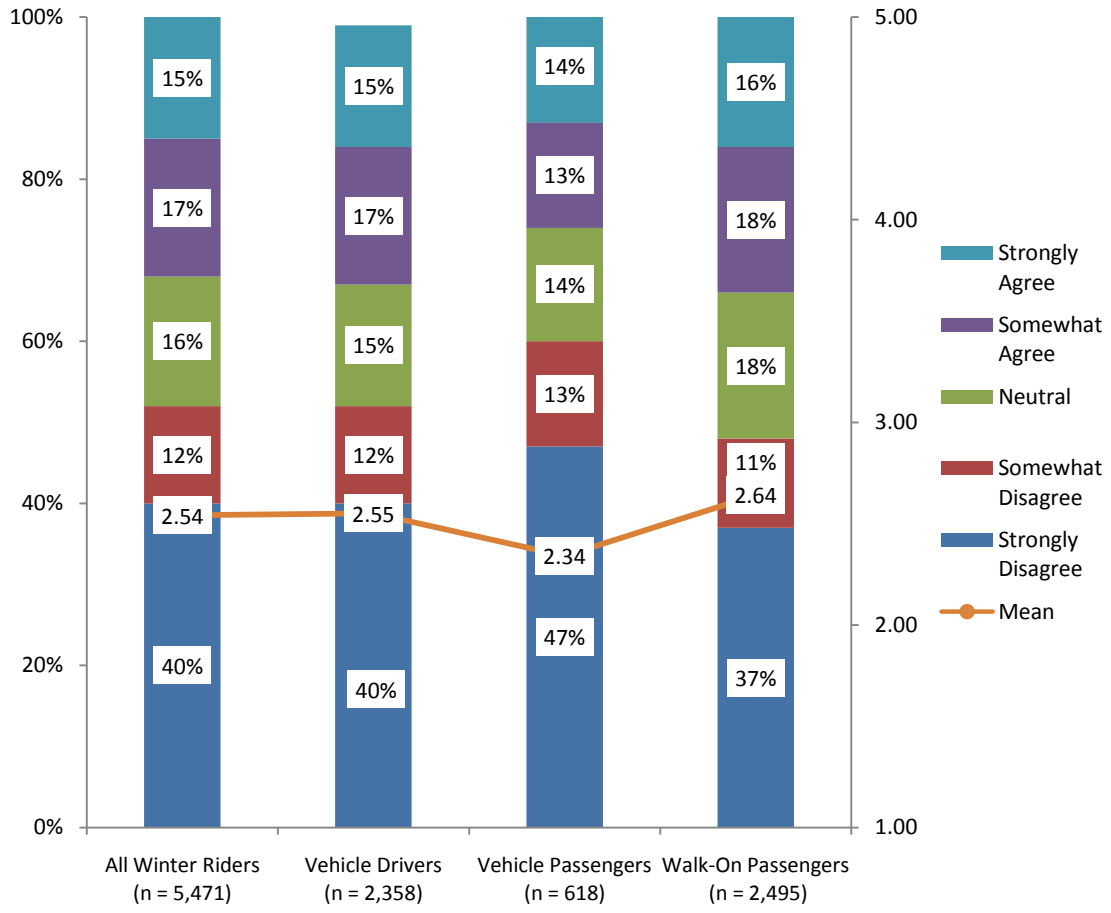
Vehicle drivers are more likely than walk-on passengers to disagree with this proposal. However, the extent of their disagreement is not as strong as that evidenced by vehicle passengers.

- While just over half (52%) of vehicle drivers disagree with having occasional riders pay a higher fare when boarding, about one-third (32%) agree.

Walk-on passengers and vehicle drivers are equally likely to agree with this proposal – 34 percent compared with 32 percent, respectively.

- Walk-on passengers are the least likely to disagree (48%).

Figure 33: Occasional Riders Should Pay a Higher Fare by Boarding Mode



Question: To what extent do you agree or disagree that occasional riders should pay a higher fare than regular riders with a pass?

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Route Level Analysis: Occasional Riders Should Pay a Higher Fare

Winter riders on the Fauntleroy / Vashon route are the most likely to agree that occasional riders should pay a higher fare than regular riders.

- Two out of five (40%) winter Fauntleroy / Vashon riders agree that occasional riders should pay a higher fare – 22 percent "strongly agrees," the highest of all the routes.

Winter riders on Seattle / Bainbridge and Anacortes / San Juans also show a higher than average level of agreement – 34 percent.

On the other hand, winter riders on the Keystone / Port Townsend route are the most likely to disagree with this proposal.

- More than three out of five (61%) winter riders on the Keystone / Port Townsend route disagree with having occasional riders pay a higher fee; nearly half (49%) "strongly disagrees." This most likely reflects the above-average number of occasional riders on this route during the winter – 63 percent of riders on this route take fewer than seven one-way trips per month.

Winter riders on the Edmonds / Kingston route are also more likely to disagree with this proposal – 58 percent disagrees; 45 percent "strongly disagrees."

Table 23: Occasional Riders Should Pay a Higher Fare by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
Net Agree	*32%*	***34%***	*29%*	*27%*	*31%*	***40%***	*32%*	*34%*	*16%*	*34%*
Strongly Agree	15%	15%	14%	13%	13%	**22%**	17%	19%	7%	17%
Somewhat Agree	17%	**19%**	15%	14%	18%	18%	15%	15%	9%	17%
Neutral	16%	15%	18%	16%	15%	13%	16%	19%	23%	21%
Somewhat Disagree	12%	13%	11%	13%	12%	11%	10%	8%	12%	7%
Strongly Disagree	40%	38%	42%	45%	41%	36%	41%	40%	**49%**	37%
Net Disagree	*52%*	*51%*	*53%*	***58%***	*53%*	*47%*	*51%*	*48%*	***61%***	*44%*
Mean	2.54	2.60	2.49	2.38	2.50	**2.80**	2.57	2.65	2.13	2.71

Question: To what extent do you agree or disagree that occasional riders should pay a higher fare than regular riders with a pass?
** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Time of Day / Week Travel Analysis: Occasional Riders Should Pay a Higher Fare

Peak weekday winter riders are more likely than both off-peak weekday and weekend riders to agree that occasional riders should pay a higher fare than regular riders paying with a pass or multi-ride card.

- Two out of five (40%) peak weekday winter riders agree that occasional riders should pay a higher fare compared to 29 percent of off-peak weekday and 25 percent of weekend riders. This most likely reflects the fact that peak weekday riders are more likely to pay their fares with a pass or multi-ride card (62%) than off-peak weekday and weekend riders (43% and 24%), respectively.

- The differences in attitudes between peak weekday vehicle drivers, walk-on passengers, and vehicle passengers are not statistically significant.

Table 24: Occasional Riders Should Pay a Higher Fare by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Total Weekend (n = 1,187)	Weekend		
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)		Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
Net Agree	*32%*	***40%***	*40%*	*34%*	*41%*	*29%*	*32%*	*24%*	*29%*	*25%*	*25%*	*23%*	*24%*
Strongly Agree	15%	**20%**	21%	19%	18%	13%	14%	10%	14%	12%	11%	13%	12%
Somewhat Agree	17%	**20%**	19%	15%	23%	16%	18%	14%	15%	13%	14%	10%	12%
Neutral	16%	16%	14%	16%	17%	16%	16%	14%	20%	16%	17%	13%	18%
Somewhat Disagree	12%	10%	9%	8%	11%	11%	10%	13%	9%	**15%**	16%	15%	15%
Strongly Disagree	40%	35%	36%	43%	31%	43%	43%	49%	42%	44%	42%	48%	43%
Net Disagree	*52%*	*45%*	*45%*	*51%*	*42%*	*54%*	*53%*	*62%*	*51%*	***59%***	*58%*	*63%*	*58%*
Mean	2.54	2.80	2.80	2.60	2.86	2.46	2.50	2.24	2.51	2.33	2.37	2.24	2.35

Question: To what extent do you agree or disagree that occasional riders should pay a higher fare than regular riders with a pass?
** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Other Significant Results: Occasional Riders Should Pay a Higher Fare by Frequency of Riding

As would be expected, support for this proposal is related to frequency of riding.

- More than three out of five (63%) winter riders who take fewer than seven one-way trips monthly oppose the idea of having occasional riders pay a higher fare. Somewhat fewer, but still a significant number (58%), winter riders who take between 7 and 24 one-way trips per month disagree with this proposal.
- On the other hand, nearly half of those who take 25 or more one-way rides per month agree with the proposal to have occasional riders pay a higher fare – 45 percent of those taking 25 to 44 one-way trips and 49 percent of those taking 45 or more trips.

Table 25: Occasional Riders Should Pay a Higher Fare by Frequency of Riding

	All Winter Riders (n = 5,471)	Number of One-Way Trips / Month			
		< 7 (n = 1,593)	7 to 24 (n = 1,412)	25 to 44 (n = 1,490)	45+ (n = 932)
Net Agree	32%	21%	27%	**45%**	**49%**
Net Disagree	52%	**63%**	**58%**	39%	35%
Mean	2.54	2.17	2.35	3.00	3.13

*Question: To what extent do you agree or disagree that occasional riders should pay a higher fare than regular riders with a pass? * Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Similarly, winter riders who currently receive a discount (i.e., pay with a multi-ride card or monthly pass) are more than twice as likely as those paying with a single-ride ticket to agree that occasional riders should pay a higher fare than regular riders using some form of pre-paid fare media. This is consistent with the observations from the qualitative research.

- Forty-two percent (42%) of those paying with multi-ride cards and 45 percent of those paying with a monthly pass agree with the policy to have occasional riders pay a higher fare.

Note that while not stated this is by default the current policy. Because of the expiration policies for the multi-ride card, there is a disincentive for occasional riders to pre-pay fares.

Table 26: Occasional Riders Should Pay a Higher Fare by Fare Payment Method

	All Winter Riders (n = 5,471)	Fare Payment Method			
		Single Ride (n =1,805)	Multi-ride card (n = 1,917)	Monthly Pass (n = 930)	Other (n = 558)
Net Agree	32%	21%	**42%**	**45%**	26%
Net Disagree	52%	**63%**	42%	40%	61%
Mean	2.54	2.15	**2.90**	**2.98**	2.31

Question: To what extent do you agree or disagree that occasional riders should pay a higher fare than regular riders with a pass?

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means strongly agrees;" "3" is the mid-point.*

People Driving Larger Cars Should Pay a Higher Fare

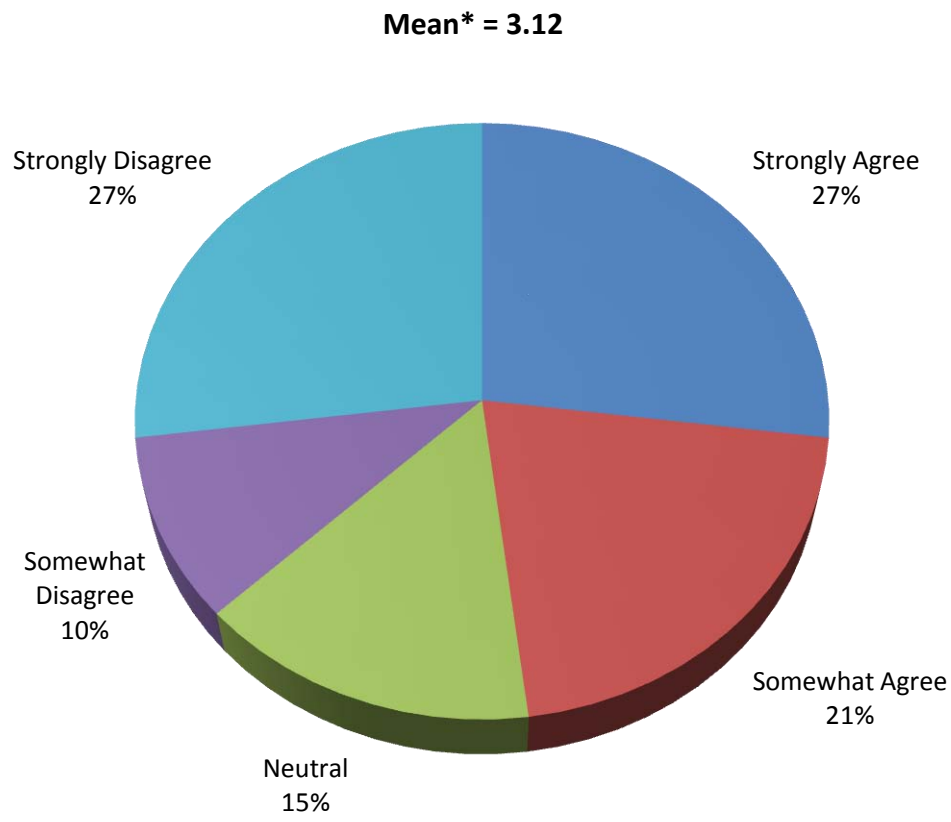
All Winter Riders: People Driving Larger Cars Should Pay a Higher Fare

Winter riders lean toward the positive regarding the proposal to have people driving larger cars pay a higher fare than those driving smaller vehicles – 48 percent agrees compared with 37 percent disagrees.

- However, an equal percentage "strongly agrees" (27%) versus "strongly disagrees" (27%).

The results are found to vary by boarding mode and route as noted below and explain in part some of the reasons for these differences of opinions.

Figure 34: People Driving Larger Cars Should Pay a Higher Fare



Question: *To what extent do you agree or disagree that people driving larger cars pay a higher fare than those driving smaller cars?*

Base: All Winter Riders (n = 5,471)

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Boarding Mode Analysis: People Driving Larger Cars Should Pay a Higher Fare

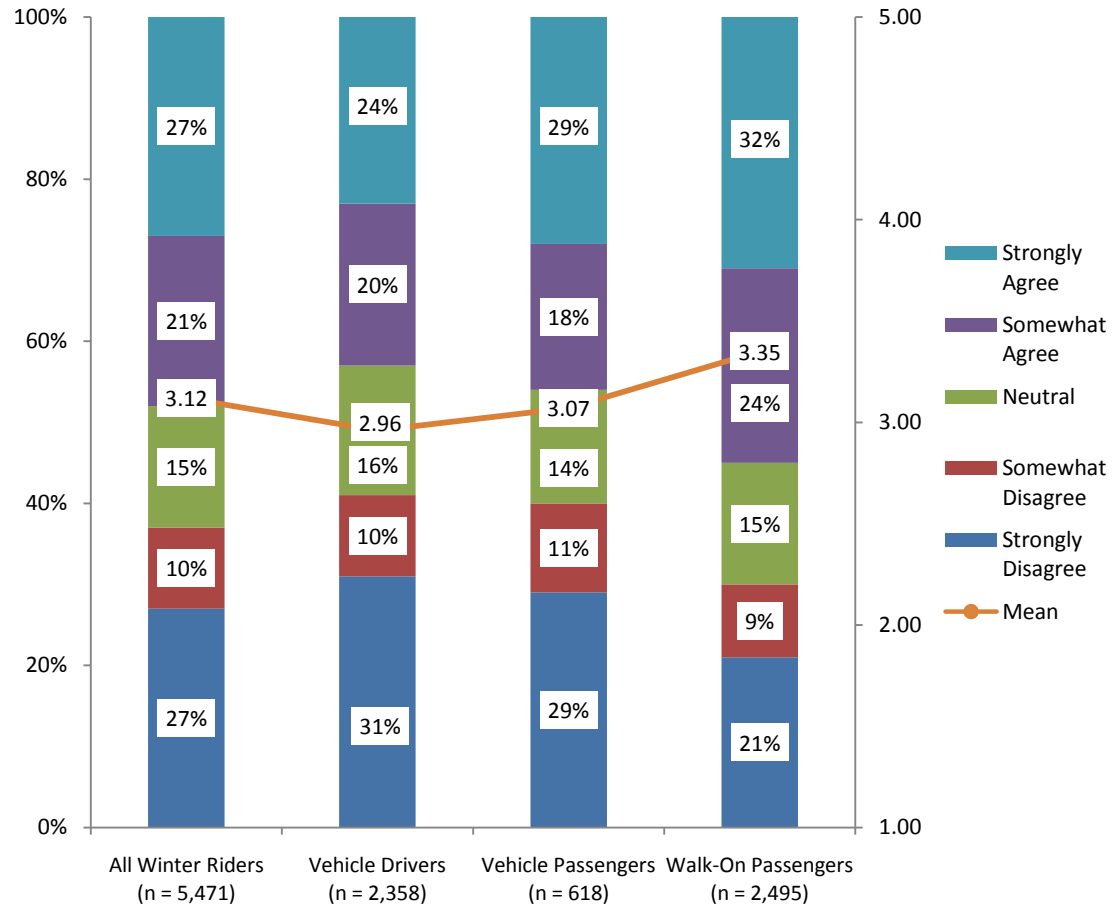
It is clear that much of the overall level of agreement with this proposal is driven by walk-on passengers.

- More than half (56%) of walk-on riders agree that people driving larger cars should pay a higher fare.
- Moreover, more (32%) walk-on passengers "strongly agree" with this proposal than somewhat agree" (24%).

Among vehicle drivers and vehicle passengers, opinions are almost equally divided.

- Forty-four percent (44%) of vehicle drivers agree that people driving larger cars should pay a higher fare; 41 percent disagrees.
- Forty-seven percent (47%) of vehicle passengers agree that people driving larger cars should pay a higher fare; 40 percent disagrees.

Figure 35: People Driving Larger Cars Should Pay a Higher Fare by Boarding Mode



Question: *To what extent do you agree or disagree that people driving larger cars should pay a higher fare?*

** Mean based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" "3" is the mid-point.*

Route Level Analysis: People Driving Larger Cars Should Pay a Higher Fare

Winter riders on Seattle / Bainbridge are the most likely to agree that people driving larger cars paying a higher fare – 54 percent agrees.

- Winter riders on the Anacortes / San Juans route and those on Fauntleroy / Vashon and Fauntleroy / Southworth are also more likely to agree with this proposal – Anacortes / San Juans (51%), Fauntleroy / Vashon (53%), and Fauntleroy / Southworth (50%).

On the other hand, winter riders on the Point Defiance / Tahlequah route are most negative. Forty-two percent (42%) of winter riders on this route disagree. What is notable is the strength of this opinion – 36 percent "strongly disagrees."

- Winter riders on the Mukilteo / Clinton and, to a somewhat lesser extent, those on Edmonds / Kingston also evidence an above average level of disagreement with this proposal – 43 percent and 41 percent, respectively.

Table 27: People Driving Larger Cars Should Pay a Higher Fare by Route

	Winter Riders (n=5,471)	SEA/ BAIN (n=2,060)	SEA/ BRE (n=758)	EDM/ KIN (n=996)	MUK/ CLI (n=646)	FAU/ VAS (n=251)	FAU/ SOU (n=268)	PTD/ TAH (n=93)	KEY/ PTT (n=128)	ANA/ SAN (n=271)
Net Agree	*48%*	***54%***	*47%*	*41%*	*45%*	*53%*	*50%*	*49%*	*37%*	*51%*
Strongly Agree	27%	**31%**	25%	22%	28%	33%	29%	26%	16%	28%
Somewhat Agree	21%	23%	22%	19%	17%	20%	21%	23%	21%	23%
Neutral	15%	14%	**18%**	17%	12%	13%	**20%**	9%	**23%**	17%
Somewhat Disagree	10%	10%	8%	9%	**13%**	7%	6%	6%	**16%**	10%
Strongly Disagree	27%	23%	28%	**32%**	30%	28%	24%	**36%**	23%	21%
Net Disagree	*37%*	*33%*	*36%*	***41%***	***43%***	*35%*	*30%*	*42%*	*39%*	*31%*
Mean	3.12	3.28	3.09	2.90	3.01	3.24	3.25	2.97	2.90	3.28

Question: To what extent do you agree or disagree that people driving larger cars should pay a higher fare?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Time of Day / Week Travel Analysis: People Driving Larger Cars Should Pay a Higher Fare

Weekend winter riders are more likely than those riding during off-peak weekday travel periods to agree that larger vehicles should pay a higher fare – 50 percent compared with 47 percent, respectively. This would suggest that larger vehicles, which could include recreational vehicles, are a greater problem on weekends than general off-peak periods and that this strategy could be fine-tuned to address vehicle loads rather than act as an across-the-board strategy.

- As established earlier, walk-on riders are more likely to agree with this proposal than vehicle drivers – 56 percent compared with 44 percent, respectively.

Table 28: People Driving Larger Cars Should Pay a Higher Fare by Time of Day / Week Travel and Boarding Mode

	All Winter Riders (n = 5,471)	Total Peak Weekday (n = 2,987)	Peak Weekday			Total Off-Peak Weekday (n = 1,297)	Off-Peak Weekday			Total Weekend (n = 1,187)	Weekend		
			Vehicle Driver (n = 1,156)	Vehicle Passenger (n = 239)	Walk-On (n = 1,592)		Vehicle Driver (n = 619)	Vehicle Passenger (n = 157)	Walk-On (n = 521)		Vehicle Driver (n = 583)	Vehicle Passenger (n = 222)	Walk-On (n = 382)
Net Agree	*48%*	*49%*	*44%*	*47%*	*54%*	*47%*	*40%*	*46%*	*58%*	*50%*	*48%*	*47%*	*54%*
Strongly Agree	27%	27%	23%	26%	30%	28%	23%	29%	35%	29%	27%	30%	30%
Somewhat Agree	21%	22%	21%	21%	24%	19%	17%	17%	23%	21%	21%	17%	24%
Neutral	15%	14%	15%	13%	15%	16%	17%	13%	16%	15%	16%	14%	14%
Somewhat Disagree	10%	10%	9%	11%	11%	10%	11%	12%	6%	9%	9%	10%	7%
Strongly Disagree	27%	27%	33%	29%	21%	28%	32%	29%	19%	27%	28%	29%	25%
Net Disagree	*37%*	*37%*	*42%*	*40%*	*32%*	*38%*	*43%*	*41%*	*25%*	*36%*	*37%*	*39%*	*32%*
Mean	3.12	3.12	2.91	3.05	3.31	3.09	2.89	3.05	3.49	3.15	3.11	3.09	3.26

Question: To what extent do you agree or disagree that people driving larger cars should pay a higher fare?
Mean: Based on 5-point scale where "1" means "strongly disagrees" and "5" means "strongly agrees;" the mid-point is "3."

Appendix

On-Board Survey Background / Objectives / Methodology / Relevant Questions

Background / Objectives

While Washington State Ferries (WSF) has routinely conducted Origin & Destination Surveys (1993, 1999, and 2006) as well as a Customer Survey on Amenities and Customer Satisfaction (2002), this research represents the first comprehensive survey of WSF customers – both their travel behaviors and attitudes. The key objectives for this on-board survey effort were in large part driven by the legislation that required this research and were further refined as follows:

- Develop and implement a quantitative research methodology that yields reliable and statistically valid baseline results. The legislation calls for an ongoing biennial survey effort. As such, the research needed to be designed with the following sub-objectives in mind:
  - The methodology must be replicable in future years.
  - The methodology must provide reliable data at an aggregate level and allow for reliable analysis among key customer segments, notably at the route level and by different types of passengers (boarding mode, trip purpose, frequency of travel, etc.).
- Provide a comprehensive demographic and travel behavior profile of WSF customers.
- Test customer attitudes toward possible changes in fare policies and/or operations.

Methodology

Sampling

The overall objective in designing the sample plan was to obtain a representative sample of all ferry customers on all routes operated by WSF. The most effective and efficient means to accomplish this objective is through the use of a cluster sample. Cluster sampling is a technique used when "natural" groupings are evident in a statistical population – in this case a ferry trip. In this technique, the total population (all ferry customers), is divided into these groups (or clusters) and a sample of the trips is selected randomly. The survey is then administered to all riders on each selected trip.

The sample was stratified by route and the number of trips selected for each route was set to achieve a final number of surveys that is roughly proportionate to ridership on that route. The sample was further stratified by time of day. Since the focus of the study is on peak travel behavior and because the majority of ferry customers travels during peak travel periods, stratification will result in a roughly proportionate sample of peak and off-peak travelers (relative to their actual percent of the population). Sampling is at a rate of 75 percent peak / 25 percent off-peak trips, as illustrated in the following table.

Table 29: Number of Sampled Trips

Route	Total Number of Yoked Trips Sampled	# of Peak Weekday	# of Peak Weekend	# of Off-Peak (Weekday & Weekend)
		March 2008		
Seattle / Bainbridge	18	10	3	5
Seattle / Bremerton	6	4	1	1
Edmonds / Kingston	16	10	3	3
Mukilteo / Clinton	15	9	3	3
Fauntleroy / Vashon / Southworth	13	8	1	4
Point Defiance / Tahlequah	4	2	1	1
Keystone / Port Townsend	3	2	1	0
Anacortes / San Juans	2	1	1	0
Total	77	46	14	17
		July / August 2008		
Seattle / Bainbridge	18	10	3	5
Seattle / Bremerton	6	4	1	1
Edmonds / Kingston	16	10	3	3
Mukilteo / Clinton	15	9	3	3
Fauntleroy / Vashon / Southworth	13	8	1	4
Point Defiance / Tahlequah	4	2	1	1
Keystone / Port Townsend	4	2	2	0
Anacortes / San Juans	4	2	2	0
Anacortes / Sidney	1	No winter service	1	
Total	81	47	17	17

Definitions for peak and off-peak travel times were provided by Washington State Ferries as follows:

1. **Morning Peak**: Eastbound trips that depart from the west side terminal between 5:30 and 9:00 a.m. Exception being Keystone / Port Townsend which are westbound trips departing from Keystone between 5:30 and 9:00 a.m.
2. **Afternoon Peak**: Westbound trips that depart from the east side terminal between 3:00 and 7:00 p.m. Again Keystone / Port Townsend are eastbound trips (departing from Port Townsend) during these times.
3. **Weekend Peak**: Westbound trips originating between 8:00 a.m. and Noon on Saturdays and eastbound trips originating between Noon and 8:00 p.m. on Sundays.
4. **Off-Peak**: All other weekday trips between 9:05 a.m. and 3:00 p.m. and from 7:05 p.m. to the last sailing.

Sampled trips were "yoked" or paired with a return trip departing approximately 30 to 60 minutes after the sampled trip was completed. This allowed the survey personnel to return to their origin. With this pairing, surveys were scheduled to be distributed on 316 one-way trips. In actuality, surveys were distributed on 325 trips. The table below provides the breakdown of the final sampled trips.

Table 30: Total Number of One-Way Trips Surveyed

	Winter 2008		Summer 2008	
Route	# of One-Way Trips (Planned)	# of One-Way Trips Actual	# of One-Way Trips (Planned)	# of One-Way Trips Actual
Seattle / Bainbridge	36	35	36	36
Seattle / Bremerton	12	10	12	10
Edmonds / Kingston	32	37	32	45
Mukilteo / Clinton	30	36	30	30
Fauntleroy / Vashon / Southworth	26	26	26	34
Point Defiance / Tahlequah	8	10	8	8
Keystone / Port Townsend	6	6	8	8
Anacortes / San Juans	4	4	8	8
Anacortes / Sidney	No winter service		2	2
Total	154	164	162	181

Data Collection and Interviewing Outcomes

Data collection occurred over a four week period during each survey wave. Each route or route group was surveyed over the course of a one-way week period. Trained survey personnel, accompanied by a supervisor, distributed surveys in advance of and during the scheduled trip. This ensured distribution only to passengers on the sampled trip. Survey personnel continued to distribute and pick-up surveys on both the passenger and vehicle decks throughout the trip. In addition, respondents were given the option to return the survey by mail (postage pre-paid) or on-line. In total more than 63,000 passengers were approached and more than 13,000 surveys returned. Returns by route are shown in the table below.

Table 31: Number of Completed Surveys – Overall and by Route

Route	Total	Winter 2008	Summer 2008
Seattle / Bainbridge	4,600	2,060	2,540
Seattle / Bremerton	1,567	758	809
Edmonds / Kingston	2,413	996	1,417
Mukilteo / Clinton	1,789	646	1,143
Fauntleroy / Vashon	503	251	252
Fauntleroy / Southworth	547	268	279
Point Defiance / Tahlequah	147	93	54
Keystone / Port Townsend	432	128	304
Anacortes / San Juans	923	271	652
Anacortes / Sidney	209	No winter service	209
Total	13,130	5,471	7,659

Questionnaire

The questionnaire was developed with input from members of the WSTC, WSF planning staff, the Ferry Advisory Executive Council, and a volunteer consultant advising WSTC on the survey process. The questionnaire also included a request for passengers to complete the additional pricing and strategy research. This research was conducted on-line. Just over 4,000 or 37 percent of those completing the on-board survey agreed to participate in this additional research and provided contact information.

Weighting

The data was weighted based on the sampling to ensure that the results of the survey represented the actual number of boardings during the sampled travel periods within each route. Data is weighted by boarding mode for the sampled trip and time boarded within route. Ridership data for weighting was provided by WSF for each survey way to correspond to the exact week during which a specific route was surveyed. The number of passengers surveyed on each route by key strata and the final weighted cell sizes are shown in the table below.

Table 32: Sample Sizes – Weighted and Unweighted

Route	Final Sample Size	% of Sample	Weighted Sample Size	% of Sample	Expanded Sample Size	% of Weekly Trips
			Winter 2008			
Seattle / Bainbridge	2,060	38%	1,511	28%	113,582	28%
Seattle / Bremerton	758	14%	612	11%	46,043	11%
Edmonds / Kingston	996	18%	1,046	19%	78,663	19%
Mukilteo / Clinton	646	12%	973	18%	73,128	18%
Fauntleroy / Vashon	251	5%	495	9%	37,232	9%
Fauntleroy / Southworth	268	5%	207	4%	15,582	4%
Point Defiance / Tahlequah	93	2%	152	3%	11,448	3%
Keystone / Port Townsend	128	2%	129	2%	9,664	2%
Anacortes / San Juans	271	5%	346	6%	26,036	6%
Total	5,471		5,471		411,377	
			Summer 2008			
Seattle / Bainbridge	2,540	33%	2,029	26%	149,428	26%
Seattle / Bremerton	809	11%	859	11%	63,244	11%
Edmonds / Kingston	1,417	19%	1,335	17%	98,335	17%
Mukilteo / Clinton	1,143	15%	1,247	16%	91,838	16%
Fauntleroy / Vashon	252	3%	617	8%	45,439	8%
Fauntleroy / Southworth	279	4%	301	4%	22,148	4%
Point Defiance / Tahlequah	54	1%	200	3%	14,726	3%
Keystone / Port Townsend	304	4%	209	3%	15,383	3%
Anacortes / San Juans	652	9%	737	10%	54,294	10%
Anacortes / Sidney	209	3%	126	2%	9,265	2%
Total	7,659		7,659		564,099	

On-Board Survey Questionnaire – Relevant Questions

Color Codes:

Q# Winter and Summer Question Q# Winter Question Q# Summer Question

Fare Payment

Q19) How did you **Pay** your fare for your trip **Today**? Did you use...? *(Check one)*

- ☐ 1 **Single Ride** Ticket
- ☐ 2 Multi-ride card
- ☐ 3 Monthly **Pass**
- ☐ 4 **Senior / Disabled** Convenience Card
- ☐ 5 **Youth** Fare
- ☐ 6 **Puget Pass**
- ☐ 7 Other: Please describe _____

Q28) How do you typically pay your fare? Do you use...? *(Check one)*

- ☐ 1 **Single Ride** Ticket
- ☐ 2 Multi-ride card **(available to all passengers & vehicles under 20 feet)**
- ☐ 3 Monthly **Pass (not available to vehicle drivers)**
- ☐ 4 **Senior / Disabled** Convenience Card
- ☐ 5 **Youth** Fare
- ☐ 6 **Puget Pass**
- ☐ 7 Other: Please describe _____

Van Westendorp Questions

Note the questions following illustrate how the questions were presented.

Q) The following questions are based upon the **Posted (Non-Discounted) Ticket Prices for Your Route**. The following fares were chosen to simplify the survey and to ensure that everyone bases their responses on the same base fare. While walk-on and vehicle passengers on most routes pay fares in one direction (westbound), the walk-on vehicle passenger fares shown assume that they pay each way. Vehicle and driver fares are also the one-way fare and are charged in each direction.

Reference Point: **Posted (Non-Discounted) Ticket Price For This Route Based on a One-Way Trip**	**Walk-On Adult**	**Vehicle & Driver**
Bainbridge / Seattle	$3.35	$14.45
Bremerton / Seattle	$3.35	$14.45
Edmonds / Kingston	$3.35	$14.45
Compared to your route's posted (non-discounted) ticket price, what do you think is a **Fair Or Reasonable** ticket price for this route?	$_____	$_____
What ticket price is **High** but the average passenger like you **Would Continue** to make the same number of trips?	$_____	$_____
What ticket price is **So High or So Unreasonable** that the average passenger like you would **Make Fewer Trips**?	$_____	$_____
What ticket price is **So Low** that **You Would Question** whether the system could **Maintain Current Levels** and **Quality of Service**?	$_____	$_____

The reference point price was changed for each route group to reflect the actual fares paid on that route / group of routes as follows. All fares were converted to represent the fare if paying for each one-way trip. The following table illustrates the reference fares that were shown in the summer survey. For analysis purposes, the amounts are converted to percentage increases or decreases over the reference points provided for each route.

Route	Walk-On Adult Fare	Vehicle and Driver Fare
Bainbridge / Seattle	$3.35	$14.45
Bremerton / Seattle	$3.35	$14.45
Edmonds / Kingston	$3.35	$14.45
Mukilteo / Clinton	$1.98	$8.60
Fauntleroy / Vashon, Vashon / Southworth	$2.15	$9.25
Point Defiance / Tahlequah	$2.15	$9.25
Fauntleroy / Southworth	$2.60	$11.15
Port Townsend / Keystone	$2.60	$11.15
Anacortes / Lopez Island	$6.58	$17.98
Anacortes / Shaw / Orcas Islands	$6.58	$21.55
Anacortes / Friday Harbor	$6.58	$25.60
Anacortes / Sidney, BC	$16.00	$53.70

Attitudes toward Proposed Tariff Policies to Manage Vehicle Demand

Q21) WSF is considering some **Policies** to **Improve The Flow Of People And Vehicles** onto the boats. To what extent do you **Agree** or **Disagree** WSF should **Do** each of the following?

Passengers **Driving A Vehicle** onto the ferry during **Peak** travel hours should **Pay A Higher Fare Than Those Driving On During Off-Peak Hours**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Passengers **Driving A Vehicle** onto the ferry during **Off-Peak** travel hours should **Receive A Discount**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
Passengers who **Ride Occasionally Should Pay A Higher Fare** than regular riders with a pass	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5
People driving **Larger Cars** (full-size SUV, van, or truck) **Pay A Higher Fare** than those driving **Small Cars**	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5

Price Sensitivity Study Background / Objectives / Methodology / Questionnaire

Study Background / Objectives / Methodology

Overview

Opinion Research Northwest (ORC-NW) conducted an online survey with Washington State Ferry winter customers. The purpose of this study was to measure sensitivity to an across-the-board fare increases as well as changes in behavior that could result from different pricing strategies. This study uses choice-based conjoint (CBC). Choice-based conjoint is both a data collection and analytical method that simulates the actual consumer decision process when presented with different alternatives. This research looks at the trade-offs that ferry riders are likely to make when deciding what mode to use and when to travel under different situations.

The structure of the choice-based conjoint exercise was developed collaboratively between ORC, the Transportation Commission, Washington State Ferries and other consultants working for those entities. It was designed to follow the approach commonly used for transportation choice modeling, also known as a stated preference (SP) survey. In this approach, respondents are asked to describe their most recent trip using the mode of interest (in this case driving on the ferry). They are then presented with realistic alternatives for making that trip and asked to select the one that they would most likely choose under those circumstances. The use of a specific past trip as a point of reference is important in these surveys because travel decisions are commonly quite context specific – travelers have specific needs and constraints that vary considerably from day-to-day and from trip to trip and an average or typical trip does not reflect those real needs and constraints

Transportation research suggests that the trade-off between the amount of time it takes to make the trip and the cost of the trip are the two primary drivers of the mode choice decision. For example, people may be willing to pay more if the trip takes less time. Other factors may also affect mode choice and/or their willingness to pay more for a trip. For example, people making trips where they have little / or no discretion as to the time they have to arrive at their destination – e.g., a work trip, to make a scheduled flight at an airport, to arrive on time for a medical appointment – may be less sensitive to a fare increase than those whose trip purpose is seen as more flexible.

Respondents were asked to describe two of their most recent trips – one which they indicated was a non-discretionary trip – that is, a trip that riders feel they have little or no control over when they take it – and one which they indicated was non-discretionary – that is, a trip that riders have some degree of control over when they take it. Moreover, they were asked to describe those trips for which they drove onto the ferry during peak travel times. If they didn't drive on during peak time, they were asked to describe their most recent discretionary and/or non-discretionary trip in a vehicle during off-peak travel periods. Respondents were asked to consider a series of different trips representing the amount of time they would have to arrive in advance in order to drive onto the boat for their desired sailing time (represented by the departure time given for their current trip), the fare for the trip, and options for driving on an earlier or later ferry than their desired sailing time.

They were then asked to choose among five options for taking the trip under these different conditions:

1. Drive-on the sailing chosen for the most recent trip,
2. Drive-on an earlier sailing,
3. Drive-on a later sailing,
4. Walk-on the sailing chosen for the most recent trip, or
5. Make the trip some other way or not at all.

Following is an example of how the question appeared on the screen:

Imagine that WSF came up with a new pricing schedule. Thinking about your recent **NON-discretionary** trip (*[Purpose from Screen 22]*), if these were your only options, which would you choose?

I would Walk on the Current ferry that departs at 4:00pm where I need to be at the terminal 5 min before departure and where the one-way fare is $1.60	I would Drive on the Current ferry that departs at 4:00pm where I need to be at the terminal 60 min before departure and where the one-way fare is $14.55	I would Drive on the earlier ferry that departs at 2:30pm where I need to be at the terminal 5 min before departure and where the one-way fare is $16.65	I would Drive on the later ferry that departs at 4:45pm where I need to be at the terminal 5 min before departure and where the one-way fare is $14.55	NONE: I would NOT make this NON-discretionary trip Given these drive-on and walk-on options/fares , I would just not use the ferries and find some other way to accomplish my trip purpose (either on-island or combined with another trip or not at all such as changing jobs)

Choose by clicking one of the buttons above.

Methodology

The sample was drawn from the Winter 2008 Onboard customers that agreed to be re-contacted – a total of 2,026 respondents provided either email or telephone contact information. Those that had a phone number, but didn't provide an email address were called to collect an email address if the respondent had one available. A total of 126 respondents were either unable to be contacted or didn't have an email address, leaving 1,900 working records for this study.

The following steps outline the process for surveying customers on this list:

1. Pre-notification emails were sent to the entire list of 1,900 on June 9, 2008. Three hundred (300) undeliverable email addresses were followed-up and all but 106 respondents re-contacted and corrected, leaving 1,794 usable records.

2. Pretest: a random sample of 60 customers was drawn – 2 records ended up being unusable (e.g. husband/wife with same email of which we only used one of them and the other was an undeliverable email address). The pretest data collection was conducted June 11 – 16, 2008 with three reminders sent several days apart during this period to respondents who had not yet completed at each point in time. For the pretest we achieved 26 completes out of 58 customers – so a 45 percent response.

3. Data Collection: All respondents were sent an e-mail with a link to the survey on June 27, 2008. To increase the potential overall and route level sample size, the programming was changed on July 2, 2008 to also capture vehicle drivers who only drive on during off-peak travel periods.

4. Three reminder emails were sent to those who did not complete the survey, followed by several telephone reminders.

Online respondents were asked a mix of quantitative and qualitative questions. Several series of questions were asked to gauge customers' travel habits including the route(s) used most often, number of trips by trip purpose, mode of transportation, and discretionary vs. non-discretionary trips. Customers were also asked about their most recent discretionary and/or non-discretionary trips including scheduled departure time, desired departure time if it were available, trip purpose, and direction / time slot. There were two conjoint series – one set for discretionary trips and one set for non-discretionary trips – to determine elasticity of fare pricing relating to peak travel times. Respondents completed conjoint series for each of the types of trips they described.

At the conclusion of the study on July 18, 2008, a total of 987 of the 1,794 customers had completed the survey – 688 completed at least one of the conjoint sections (267 discretionary only, 271 non-discretionary only, 150 both). Therefore, 55 percent of the total panel completed some or all of the survey. One hundred thirteen (113) customers clicked on the link but did not finish the survey, 43 refused participation, and 638 had not started the survey.

The following table provides details on the characteristics of panel members and those who ultimately completed the Price Sensitivity Study as compared to the respondents to the winter on-board survey overall and to respondents in the winter on-board survey who drove onto the ferry at least half of the time.

With one exception, riders who completed the winter on-board survey and agreed to participate in the additional research generally match the demographic characteristics of all winter riders.

- Specifically, those who agreed to participate in the additional research are more likely to be men (55%) than women (45%). Winter riders are more evenly split – 49 percent men and 51 percent women.

This additional research specifically targeted respondents who drive onto the ferry at least some of the time. Therefore, we also compared the characteristics of the panel members to winter riders who indicated they drive onto the ferry at least half of the time.

- Again, panel members are more likely than winter drivers to be men than women.
- In addition, panel members are more likely than the winter survey drivers to be employed full-time – 65 percent compared to 58 percent, respectively.

Those who completed the conjoint exercise are also somewhat different from riders generally and all panel members. Notably, respondents to the price sensitivity are:

- Even more likely than panel members to be men (61%) than women (39%).
- More affluent than riders generally and all panel members.

This is deemed not to be a problem for this research as this segment of riders is often the most difficult to get to change behaviors.

Table 33: Comparison of Respondent Demographic Characteristics

	All Winter On-Board Survey Respondents (n=5,471)	Winter Respondents Who Drive On at Least 50% of Time (n=2,815)	Winter Respondents Agreeing to Participate in Research (n=2,026)	Pricing Shift Conjoint Exercises Respondents (n=688)
Gender				
Male	49%	49%	**55%**	**61%**
Female	51%	51%	45%	39%
Age				
16 – 17	1%	1%	1%	<1%
18 – 24	4%	3%	3%	2%
25 – 34	10%	9%	9%	7%
35 – 44	16%	15%	17%	20%
45 – 54	26%	25%	26%	33%
55 – 64	28%	29%	29%	30%
65 +	15%	19%	14%	9%
Median	52.2	54.1	52.3	52.0
Employment				
Full-Time	63%	58%	65%	81%
Part-Time / Student	15%	14%	14%	7%
Self-Employed	1%	2%	1%	2%
Retired	16%	20%	15%	6%
Other	5%	6%	5%	3%
Income				
< $15,000	3%	2%	3%	1%
$15,000 - $35,000	9%	9%	9%	5%
$35,000 - $50,000	11%	13%	11%	10%
$50,000 - $75,000	23%	24%	23%	22%
$75,000 - $100,000	19%	19%	18%	20%
$100,000 - $150,000	21%	20%	22%	**24%**
$150,000 Plus	14%	15%	15%	**19%**
Median	$80,663	$79,115	$81,723	$90,442

Questionnaire

Screen 4

To get started, we need to ask you some general questions on your ridership. Some questions may seem similar to the on-board survey. However, we need your responses here as they will be used in subsequent sections of this survey. The first question is:

Which **WSF route do you ride most often**?

- ○ Seattle / Bainbridge
- ○ Seattle / Bremerton
- ○ Fauntleroy / Vashon
- ○ Fauntleroy / Southworth
- ○ Vashon / Southworth
- ○ Point Defiance / Tahlequah
- ○ Edmonds / Kingston
- ○ Mukilteo / Clinton
- ○ Port Townsend / Keystone
- ○ Anacortes / San Juans

Please select one and press NEXT.

Screen 4A

When boarding in Anacortes, which island / destination are you traveling to most often?

- ○ Friday Harbor
- ○ Shaw Island
- ○ Orcas Island
- ○ Lopez Island

Screen 5

People take trips for all types of purposes on the Washington State Ferries. Some trips are discretionary and some are not. Please indicate which types of trip purposes you have taken on a WSF and if the trip generally fell into the non-discretionary or discretionary category by clicking the buttons below.

Note: A **non-discretionary** trip is one that you have **little or no control** over when you must take it.

A **discretionary trip** is one that you have **some degree** of control over when you take it.

Please select the trip purposes you do on WSF and whether you feel they generally are the Non-discretionary or Discretionary below.

	Non-Discretionary (I have little or no control over when I go)	**Discretionary** (I have some or more control over when I go)
Commuting to / from Work / School		
Work Related Activity / Business		
Personal Business / Activity		
Medical Appointments		
Everyday Shopping		
Major Shopping		
Tourism / Recreation		
Travel to / from Special Events		
Travel to / from to See Family / Friends		
Getting to / from Airport for Flight		

Please select a category for each item in the list and press NEXT.

Screen 6

During a typical month, approximately how many **One-Way** trips do you take on **any / all Washington State Ferry routes** using each of the following modes of transportation to get on the ferry?

Remember to count a round trip as 2 one-way trips when you make your estimate.

	Number of **One-Way** Trips per month
Drive vehicle on -- As a driver	
Drive on -- As a passenger	
Walk-on (dropped off or bus/van or parked, etc & walked)	
Motorcycle / Scooter	
Bicycle -- Ride bike onto the ferry	
Vanpool -- Ride vanpool onto the ferry	
Some Other Mode [Please describe]	
Total One-Way Trips per Month	

Please enter the number of trips in each box and press NEXT. If you do not use a mode at all, enter "0" in the box.

Screen 7

To confirm, you said you take **[*Screen 6 Total*] one-way trips** in a typical month?

- Yes
- No

Please select one and press NEXT

Screen 8 (only asked if 0 for driver in screen 6)

To confirm you **DO NOT** take **any one-way trips as the driver in a vehicle** in a typical month.

- ○ Yes
- ○ No

Please select one and press NEXT

Screen 11

You said you make **[*Screen 6 row 1, or row 2 if row 1=0*] one-way vehicle trips** in a typical month as a driver. Approximately how many of those one-way trips were taken for each of these purposes?

- [ ] Commuting to / from **Work**
- [ ] Commuting to / from **School**
- [ ] **Work-Related** Activity / Business
- [ ] **Personal Business** / Activity
- [ ] **Medical** Appointments
- [ ] **Everyday** Shopping
- [ ] **Major** Shopping
- [ ] **Tourism / Recreation**
- [ ] Travel to / from **Special Events**
- [ ] Travel to / from to see **Family / Friends**
- [ ] Going to / from the **Airport**
- [ ] **Other** general purpose not listed above
- [ ] **Don't recall** purpose (Please take your best guess for as many as you can)
- [ ] Total

Please allocate your trips and press NEXT to continue

Screen 12

For each time period shown below please tell us how many of your **[*Screen 6 row 1, or row 2 if row 1=0*]trips as a driver** in the last month were for a non-discretionary purpose, and how many were for a discretionary purpose.

You defined **non-discretionary** trips as: [*List non-discretionary items chosen in Screen 5*]

You defined **discretionary** trips as: [*List discretionary items chosen in Screen 5*]

	[Sum non-discretionary trips from Screen 11] **Non-Discretionary Trips**	***[Sum discretionary trips from Screen 11]*** **Discretionary Trips**
Eastbound during **Weekdays** between ***[Route-specific time range]***		
Westbound during **Weekdays** between ***[Route-specific time range]***		
Westbound on **Saturday** between ***[Route-specific time range]***		
Eastbound on **Sunday** between ***[Route-specific time range]***		
Other times during the week		

Please allocate your trips and press NEXT to continue

Screen 19 (If 0 non-discretionary trips, skip screens 19-22 and the non-discretionary conjoint; if only off-peak times, skip to screen 20a instead of screens 19 and 20)

Of your **non-discretionary peak time trips as a driver**, in which direction / time slot was your **most recent non-discretionary trip** taken?

Remember you said non-discretionary trips are: [*List non-discretionary items chosen in Screen 5*]

My **most recent non-discretionary trip** was:

- ○ **Eastbound** during **Weekdays** between 5:00 AM to 9:00 AM
- ○ **Westbound** during **Weekdays** between 3:00 PM to 7:00 PM
- ○ **Westbound** on **Saturday** between 12:00 PM to 6:00 PM
- ○ **Eastbound** on **Sunday** between 11:00 AM to 5:00 PM
- ○ I did not travel during peak times in the last month

Please select one and press NEXT to continue

Screen 20 (Peak non-discretionary time - verify time is in correct period)

What was the approximate scheduled departure time for your **most recent non-discretionary trip?** If you don't recall the exact departure time, please give us your best guess.

Departure Time: [ ] : [ ] ○ AM ◉ PM

Please put in the [hour]:[minute] and check either AM or PM for this trip's desired departure time then push NEXT to continue

Screen 20a (Off-peak non-discretionary times only)

What was the approximate scheduled departure time for your **most recent non-discretionary trip?** If you don't recall the exact departure time, please give us your best guess.

Departure Time: ☐ : ☐ ○ AM ◉ PM

○ Weekday ◉ Weekend

Direction: ○ Eastbound ◉ Westbound

Please put in the [hour]:[minute], check either AM or PM for this trip's desired departure time, specify the direction for the trip, then push NEXT to continue

Screen 21

If you could have selected a more desirable departure time, what time would it have been? If your desired departure time is the same as the scheduled departure time just insert that time below:

Departure Time: ☐ : ☐ ○ AM ○ PM

Please put in the [hour]:[minute] and check either AM or PM for this trip's desired departure time then push NEXT to continue

Screen 22 (Show only those non-discretionary responses that they said were non-discretionary in Screen 5)

Which of the following best describes the purpose of our most recent non-discretionary trip?

- Commuting to / from Work
- Commuting to / from School
- Work-Related Activity / Business
- Personal Business / Activity
- Medical Appointments
- Everyday Shopping
- Major Shopping
- Tourism / Recreation
- Travel to / from Special Events
- Travel to / from to see Family / Friends
- Going to / from the airport
- Other general purpose not listed above
- Don't recall purpose

Please check one of the categories and press NEXT to continue

Screen 14 (If 0 discretionary trips, skip screens 14-18 and the discretionary conjoint; if only off-peak times, skip to screen 20a instead of screens 19 and 20)

In which direction / time slot was your **most recent discretionary trip taken**?

My **most recent discretionary trip** was taken:

- ○ **Eastbound** during **Weekdays** between 5:00 AM to 9:00 AM
- ○ **Westbound** during **Weekdays** between 3:00 PM to 7:00 PM
- ○ **Westbound** on **Saturday** between 12:00 PM to 6:00 PM
- ○ **Eastbound** on **Sunday** between 11:00 AM to 5:00 PM
- ○ I did not travel during peak times in the last month

Please select one and press NEXT to continue

Screen 16 (Peak discretionary time - verify time is in correct period)

What was the approximate scheduled departure time for your **most recent discretionary trip?** If you don't recall the exact departure time, please give us your best guess.

Departure Time: [ ] : [ ] ○ AM ○ PM

Please put in the [hour]:[minute] and check either AM or PM for this trip's desired departure time then push NEXT to continue

Screen 16a (Off-peak discretionary times only)

What was the approximate scheduled departure time for your **most recent discretionary trip?** If you don't recall the exact departure time, please give us your best guess.

Departure Time: ☐ : ☐ ○ AM ○ PM

○ Weekday ○ Weekend

Direction: ○ Eastbound ○ Westbound

Please put in the [hour]:[minute] and check either AM or PM for this trip's desired departure time then push NEXT to continue

Screen 17

If you could have selected a more desirable departure time, what time would it have been? If your desired departure time is the same as the scheduled departure time just insert that time below:

Departure Time: ☐ : ☐ ○ AM ○ PM

Please put in the [hour]:[minute] and check either AM or PM for this trip's desired departure time then push NEXT to continue

Screen 18 (Show only those discretionary responses that they said were discretionary in Screen 5)

Which of the following best describes the purpose of your most recent discretionary trip?

- Commuting to / from Work
- Commuting to / from School
- Work-Related Activity / Business
- Personal Business / Activity
- Medical Appointments
- Everyday Shopping
- Major Shopping
- Tourism / Recreation
- Travel to / from Special Events
- Travel to / from to see Family / Friends
- Going to / from the airport
- Other general purpose not listed above
- Don't recall purpose (Please take your best guess for as many as you can)

Please check one of the categories and press NEXT to continue

Screen 23

How do you typically pay your fare when you **drive on** the ferry?

- ○ Regular Fare -- Vehicle & Driver
- ○ Regular Fare -- Motorcycle & Driver
- ○ Senior / Disabled Fare - Vehicle & Driver
- ○ Senior / Disabled Fare -- Motorcycle & Driver
- ○ Wave2Go Multi-Ride Card -- Vehicle & Driver
- ○ Wave2Go Multi-Ride Card -- Motorcycle & Driver

- ○ Something Else [ ]

Please select one and press NEXT

Screen 24

How do you typically pay your fare when you **walk on** the ferry?

- ○ Single Ride Ticket Price
- ○ Wave2Go Multi-Ride Ticket
- ○ Monthly Ferry Pass
- ○ Senior / Disabled Convenience Card
- ○ Youth Fare
- ○ Something Else (Please describe) [ ]
- ○ I never walk on the ferry

Please select one and press NEXT

Screen 37

Please think about your most **recent NON-discretionary trip** (*[Purpose from Screen 22]*) and tell us what you would do if the WSF pricing schedule were to change as shown on the following screens. Please look carefully at each set of options/fares and choose appropriately.

Don't worry, this won't take too long!

Remember:
1) You defined a **non-discretionary trip purpose** as: [*List non-discretionary items chosen in Screen 5*], and

2) Your **current price** for the [*Screen 4*] route any time of the day to **drive-on is [*Average Drive-on Price for Route*]** and **[*Average Walk-on Price for Route*] if you walk on**.

Non-Discretionary Conjoint Design

There are 3 attributes, “Mode”, “Shift” and “Price”.

Mode:

“Walk-on”	“Drive-on Peak”	“Drive-on Earlier Off-Peak”	“Drive-on Later Off-Peak”

Shift is 4 levels, conditionally displayed based on Mode:

Walk-on: 5, 5, 5, 5 -- Have to arrive this many minutes before boat sails (no shift for sailing time)	Drive-on Peak: 5, 30, 60, 90 -- Have to arrive this many minutes before boat sails (no shift for sailing time)	Drive-on Earlier Off-Peak: 45, 90, 135, 180 -- Amount of time earlier that off-peak sailing time is (and have to arrive 5 minutes before that time)	Drive-on Later Off-Peak: 45, 90, 135, 180 -- Amount of time later that off-peak sailing time is (and have to arrive 5 minutes before that time)

Price is a 7 level attribute, conditionally displayed based on Mode:

- Walk-on: 40% of current walk-on fare, 60%, 80%, 100%, 120%, 140%, 160%
- Drive-on Peak: 100% of current drive-on fare, 120%, 140%, 160%, 180%, 200%, 220%
- Drive-on Earlier Off-Peak: 40% of current drive-on fare, 60%, 80%, 100%, 120%, 140%, 160%
- Drive-on Later Off-Peak: 40% of current drive-on fare, 60%, 80%, 100%, 120%, 140%, 160%

The actual values for prices shown on the screen varied by route. Following are the price tables used in for this study:

Pricing Tables: Walk-on	**Current Walk-on Fare**	**WP1**	**WP2**	**WP3**	**WP4**	**WP5**	**WP6**	**WP7**
Route		**40%**	**60%**	**80%**	**100%**	**120%**	**140%**	**160%**
S / BA; S / BR; E / K	$2.66	$1.05	$1.60	$2.15	$2.65	$3.20	$3.70	$4.25
Muk / Clinton	$1.57	$0.65	$0.95	$1.25	$1.55	$1.90	$2.20	$2.50
F/V; V/S; PTD/T	$1.71	$0.70	$1.00	$1.35	$1.70	$2.05	$2.40	$2.75
F/S; PTT/KEY	$2.06	$0.85	$1.25	$1.65	$2.05	$2.50	$2.90	$3.30
San Juans - Lopez	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00
San Juans - Shaw/Orcas	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00
San Juans - Friday Harbor	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00

Pricing Tables: Peak Drive-on	Current Drive-on Fare	PP1	PP2	PP3	PP4	PP5	PP6	PP7
Route		**100%**	**120%**	**140%**	**160%**	**180%**	**200%**	**220%**
S / BA; S / BR; E / K	$10.40	$10.40	$12.45	$14.55	$16.65	$18.70	$20.80	$22.85
Muk / Clinton	$6.17	$6.15	$7.40	$8.65	$9.85	$11.10	$12.35	$13.55
F/V; V/S; PTD/T	$13.32	$13.30	$16.00	$18.65	$21.30	$24.00	$26.65	$29.30
F/S; PTT/KEY	$8.01	$8.00	$9.60	$11.20	$12.80	$14.40	$16.00	$17.60
San Juans – Lopez	$22.61	$22.60	$27.15	$31.65	$36.20	$40.70	$45.20	$49.75
San Juans - Shaw/Orcas	$27.13	$27.15	$32.55	$38.00	$43.40	$48.85	$54.25	$59.70
San Juans - Friday Harbor	$32.23	$32.25	$38.65	$45.10	$51.55	$58.00	$64.45	$70.90

Pricing Tables: Off-Peak Drive-on	Current Drive-on Fare	OP1	OP2	OP3	OP4	OP5	OP6	OP7
Route		**40%**	**60%**	**80%**	**100%**	**120%**	**140%**	**160%**
S / BA; S / BR; E / K	$10.40	$4.15	$6.25	$8.30	$10.40	$12.45	$14.55	$16.65
Muk / Clinton	$6.17	$2.45	$3.70	$4.95	$6.15	$7.40	$8.65	$9.85
F/V; V/S; PTD/T	$13.32	$5.35	$8.00	$10.65	$13.30	$16.00	$18.65	$21.30
F/S; PTT/KEY	$8.01	$3.20	$4.80	$6.40	$8.00	$9.60	$11.20	$12.80
San Juans - Lopez	$22.61	$9.05	$13.55	$18.10	$22.60	$27.15	$31.65	$36.20
San Juans - Shaw/Orcas	$27.13	$10.85	$16.30	$21.70	$27.15	$32.55	$38.00	$43.40
San Juans - Friday Harbor	$32.23	$12.90	$19.35	$25.80	$32.25	$38.65	$45.10	$51.55

There were 6 random choice tasks and no fixed tasks for the non-discretionary conjoint section. An example screenshot is on the next page.

Screen 38-43 Non-Discretionary Conjoint Screens (Sample below) -- Skip if no non-discretionary drive-on trips in past month

Imagine that WSF came up with a new pricing schedule. Thinking about your recent **NON-discretionary** trip (*[Purpose from Screen 22]*), if these were your only options, which would you choose?

I would Walk on the Current ferry that departs at 4:00pm where I need to be at the terminal 5 min before departure and where the one-way fare is $1.60	I would Drive on the Current ferry that departs at 4:00pm where I need to be at the terminal 60 min before departure and where the one-way fare is $14.55	I would Drive on the earlier ferry that departs at 2:30pm where I need to be at the terminal 5 min before departure and where the one-way fare is $16.65	I would Drive on the later ferry that departs at 4:45pm where I need to be at the terminal 5 min before departure and where the one-way fare is $14.55	NONE: I would NOT make this NON-discretionary trip Given these drive-on and walk-on options/fares , I would just not use the ferries and find some other way to accomplish my trip purpose (either on-island or combined with another trip or not at all such as changing jobs)
○	○	○	○	○

Choose by clicking one of the buttons above.

Note that we are showing you several screens of questions like this. They may look very similar, but they are all different in some way. Please look carefully at the options and choose appropriately.

Next

Screen 25

The next set of questions will be about your discretionary travel.

Please think about your **most recent discretionary trip** (*[Purpose from Screen 18]*) and tell us what you would do if the WSF pricing schedule were to change as shown on the following screens. Please look carefully at each set of *options/fares and choose appropriately.*

Remember:

1) You defined a **discretionary trip purpose** as: [*List non-discretionary items chosen in Screen 5*]

2) Your **current price** for the [*Screen 4*] route any time of the day to **drive-on is [*Average Drive-on Price for Route*]** and **[*Average Walk-on Price for Route*] if you walk on**.

Press NEXT to continue

Discretionary Conjoint Design

There are 3 attributes, "Mode", "Shift" and "Price".

Mode:

"Walk-on"	"Drive-on Peak"	"Drive-on Earlier Off-Peak"	"Drive-on Later Off-Peak"

Shift is 4 levels, conditionally displayed based on Mode:

Walk-on: 5, 5, 5, 5 -- Have to arrive this many minutes before boat sails (no shift for sailing time)	Drive-on Peak: 5, 30, 60, 90 -- Have to arrive this many minutes before boat sails (no shift for sailing time)	Drive-on Earlier Off-Peak: 45, 90, 135, 180 -- Amount of time earlier that off-peak sailing time is (and have to arrive 5 minutes before that time)	Drive-on Later Off-Peak: 45, 90, 135, 180 -- Amount of time later that off-peak sailing time is (and have to arrive 5 minutes before that time)

Price is a 7 level attribute, conditionally displayed based on Mode:

- Walk-on: 40% of current walk-on fare, 60%, 80%, 100%, 120%, 140%, 160%
- Drive-on Peak: 100% of current drive-on fare, 120%, 140%, 160%, 180%, 200%, 220%
- Drive-on Earlier Off-Peak: 40% of current drive-on fare, 60%, 80%, 100%, 120%, 140%, 160%*
- Drive-on Later Off-Peak: 40% of current drive-on fare, 60%, 80%, 100%, 120%, 140%, 160%

* Note: A typo in the programming implementation displayed Drive-on Off-Peak Early Price 1 (60%) instead of Off-Peak Price 7 (160%)

The actual values for prices shown on the screen varied by route. Below are the price tables used in for this study:

Pricing Tables: Walk-on	Current Walk-on Fare	WP1	WP2	WP3	WP4	WP5	WP6	WP7
Route		**40%**	**60%**	**80%**	**100%**	**120%**	**140%**	**160%**
S / BA; S / BR; E / K	$2.66	$1.05	$1.60	$2.15	$2.65	$3.20	$3.70	$4.25
Muk / Clinton	$1.57	$0.65	$0.95	$1.25	$1.55	$1.90	$2.20	$2.50
F/V; V/S; PTD/T	$1.71	$0.70	$1.00	$1.35	$1.70	$2.05	$2.40	$2.75
F/S; PTT/KEY	$2.06	$0.85	$1.25	$1.65	$2.05	$2.50	$2.90	$3.30
San Juans - Lopez	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00
San Juans - Shaw/Orcas	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00
San Juans - Friday Harbor	$8.76	$3.50	$5.25	$7.00	$8.75	$10.50	$12.25	$14.00

Pricing Tables: Peak Drive-on		PP1	PP2	PP3	PP4	PP5	PP6	PP7
Route	**Current Drive-on Fare**	**100%**	**120%**	**140%**	**160%**	**180%**	**200%**	**220%**
S / BA; S / BR; E / K	$10.40	$10.40	$12.45	$14.55	$16.65	$18.70	$20.80	$22.85
Muk / Clinton	$6.17	$6.15	$7.40	$8.65	$9.85	$11.10	$12.35	$13.55
F/V; V/S; PTD/T	$13.32	$13.30	$16.00	$18.65	$21.30	$24.00	$26.65	$29.30
F/S; PTT/KEY	$8.01	$8.00	$9.60	$11.20	$12.80	$14.40	$16.00	$17.60
San Juans – Lopez	$22.61	$22.60	$27.15	$31.65	$36.20	$40.70	$45.20	$49.75
San Juans - Shaw/Orcas	$27.13	$27.15	$32.55	$38.00	$43.40	$48.85	$54.25	$59.70
San Juans - Friday Harbor	$32.23	$32.25	$38.65	$45.10	$51.55	$58.00	$64.45	$70.90

Pricing Tables: Off-Peak Drive-on		OP1	OP2	OP3	OP4	OP5	OP6	OP7
Route	**Current Drive-on Fare**	**40%**	**60%**	**80%**	**100%**	**120%**	**140%**	**160%**
S / BA; S / BR; E / K	$10.40	$4.15	$6.25	$8.30	$10.40	$12.45	$14.55	$16.65
Muk / Clinton	$6.17	$2.45	$3.70	$4.95	$6.15	$7.40	$8.65	$9.85
F/V; V/S; PTD/T	$13.32	$5.35	$8.00	$10.65	$13.30	$16.00	$18.65	$21.30
F/S; PTT/KEY	$8.01	$3.20	$4.80	$6.40	$8.00	$9.60	$11.20	$12.80
San Juans - Lopez	$22.61	$9.05	$13.55	$18.10	$22.60	$27.15	$31.65	$36.20
San Juans - Shaw/Orcas	$27.13	$10.85	$16.30	$21.70	$27.15	$32.55	$38.00	$43.40
San Juans - Friday Harbor	$32.23	$12.90	$19.35	$25.80	$32.25	$38.65	$45.10	$51.55

There were 8 random choice tasks and 2 fixed tasks for the non-discretionary conjoint section. Both fixed tasks showed the four Mode levels, with Shift held at level one for all modes. The first fixed task held Price at the 2nd level for all four modes, and the second fixed task held Price at the 6th level. An example screenshot for the choice tasks is on the next page.

Screen 26-35 Discretionary Conjoint Screens (Sample below) -- Skip if no discretionary drive-on trips in past month

Imagine that WSF came up with a new pricing schedule. Thinking about your **most recent discretionary trip**, if these were your only options, which would you choose?

I would Walk on the Current ferry that departs at 8:00 am where I need to be at the terminal 5 min before departure and where the one-way fare is $4.25	I would Drive on the Current ferry that departs at 8:00 am where I need to be at the terminal 60 min before departure and where the one-way fare is $20.80	I would Drive on the earlier ferry that departs at 6:30 am where I need to be at the terminal 5 min before departure and where the one-way fare is $12.45	I would Drive on the later ferry that departs at 8:45 am where I need to be at the terminal 5 min before departure and where the one-way fare is $6.25	NONE: I would NOT make this discretionary trip Given these drive-on and walk-on options/fares , I would just not use the ferries and find some other way to accomplish my trip purpose (either on-island or combined with another trip or not at all)
○	○	○	○	○

Choose by clicking one of the buttons above.

Note that we are showing you several screens of questions like this. They may look very similar, but they are all different in some way. Please look carefully at the options and choose appropriately.

Next