Freight Survey

Summary Report

Part of the Washington State Transportation Commission 2010 Ferry Research Initiative

Conducted by
Market Decisions Corporation
April-May 2010
Preface

- In 2010, the Washington State Transportation Commission (WSTC) changed the process for how research is conducted regarding Washington State Ferries (WSF). In the past, stand-alone research projects were executed, but some of the issues facing ferry operations are of a longitudinal nature. The decision was therefore made to create the Ferry Riders’ Opinion Group (FROG). FROG is an online community where ferry travelers will have an ongoing opportunity to weigh in on ferry issues through surveys and quick polls (single questions).

- The research initiative in 2010 consists of the following main phases:
  - Spring Customer Survey (target audience: consumers)
  - Mode Shift and Elasticity of Demand Research (target audience: consumers)
  - Freight Survey (target audience: freight customers)
  - General Market Assessment Survey (target audience: consumers)
  - Summer customer Survey (target audience: consumers)

- The focus of this report is the Freight survey.
  - A comprehensive report of all phases will be available fall 2010.

- All research was conducted by Market Decisions Corporation with input from the WSTC Research Team. For questions about this research, please contact Reema Griffith at WSTC (360) 705-7070.
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The following report presents the findings to the freight research. The main objective of this research is to understand from the freight schedulers’ prospective their opinions, attitudes and motivators for using the WSFs to move their freight shipments.

- This overall objective resulted in the following areas of exploration:
  - Profiling freight customers - number of trucks, line of business, customer delivering to, etc.
  - Freight activity - which routes and when is freight transported, what flexibility do freight customers have when choosing crossings?
  - Wait time - is wait time an issue and if so, how prevalent and to what degree?
  - Reservations - what is the utilization of the commercial reservation system currently in place and what would be the interest in expanding the coverage under different payment options?
  - Congestion pricing - how likely would freight customers be to change their travel patterns if there was a peak surcharge or a late night off-peak discount?

A total of 101 telephone interviews were conducted with a random sample of WSF freight customers between 04/27/2010 and 05/04/2010.

- A sample of 101 yields a maximum sampling variability of +/- 9.8% at the 95% confidence level.
- The interviews were conducted by Market Decisions Corporation between 7 a.m. and 5 p.m. PDT.

Respondents were screened to meet the following criteria:

- Be the person responsible for scheduling freight trips on ferries for the trucks in their fleet.
- Use WSF to transport goods and services by truck.
Executive Summary

- **Fleet Profile**
  - Freight customers represent a wide variety of industries; construction is most frequently mentioned out of any industry (19%).
  - Two in five (39%) locations most frequently delivered to when traveling on WSF are retail or commercial businesses.
  - Half of freight customers have less than 7 trucks in their fleet (average 34) and half of the trucks in the fleet are under 40 feet in length.

- **Ferry Usage**
  - Half of freight customers use WSF at least several times a week.
    - On average, freight customers take 14-18 trips per month during October - March and during spring and summer, the average is 28 crossings per month.
  - The route most utilized by freight customers is Edmonds/Kingston (26%) followed by Mukilteo/Clinton (11%) and Seattle/Bainbridge (11%).
  - There are differences in the time of day when routes are utilized by freight customers:
    - The following routes have a significantly higher freight travel volume during **peak** hours:
      - Seattle / Bainbridge
      - Mukilteo / Clinton
      - Keystone / Port Townsend
      - Anacortes / San Juans
    - Two routes have a significantly higher **midday** freight travel volume than other times of the day:
      - Edmonds / Kingston
      - Vashon / Southworth
Ferry Usage - Continued
- A quarter (22%) of freight customers have increased their utilization of WSF and 52% have kept their usage steady.
- The main reasons for taking fewer ferry trips are: 54% change in delivery schedule, 25% cost of fare too high, 16% too much time between sailings and 16% drive around.
- It should be noted that 18% of freight customers think that WSF is a very good value and an additional 58% perceive it to be a good value.
  - Only one in six (16%) perceive the value to be poor (13% poor and 3% very poor).

Travel Flexibility
- When asked what factors influence freight customers’ usage of WSF, the common thread in the answers is being able to meet the need of their customers - being able to deliver the freight when and where their customers want it.
- Two in five (39%) freight customers report having some flexibility in time of day/day of week that trips are scheduled.
  - However, 28% have no flexibility when it comes to time of day and 40% have no flexibility for day of week.

Wait Times
- Approximately half (49%) of freight customers report that wait time during peak travel periods is either a major (16%) or moderate (33%) issue.
  - Among customers using WSF during peak hours, 52% experience excessively long waits; average 77 minutes/mean 60 minutes.
Reservations
- Approximately half (45%) *always* (34%) or *often* (11%) use the commercial reservation system. However, 45% never use the reservation system.
- Most (88%) freight customers do not use the ferries less often as a result of not having a commercial reservation system.
  - However, 26% would use the ferries more often if there was a commercial reservation system in place.

Potential Commercial Reservation System
- Freight customers were asked how likely they would be to use a commercial reservation system with the following features if the reservation deposit was 100%/75%/50%/25%:
  - Some space would be available for reservations up to a month ahead of the travel date and some would be held back for reservations made one day ahead of travel;
  - There would be a deposit made at the time a reservation was made that could range from 25% to 100% of the fare. Refunds could be made under certain circumstances or if a reservation is changed within a specified time period ahead of the sailing.
  - If a truck was not on time for boarding, space would be released for general boarding and the company would forfeit their reserved space and reservation deposit; and
  - The reservation system would inform freight customers on how much capacity is reserved, how much is available for reservation, and how much is open on a first come, first-served basis.
- The lower the deposit the higher the likely utilization - 100% deposit - 44% likely; 75% deposit - 43% likely; 50% deposit - 46% likely and 25% deposit - 52% likely to use the system.
Executive Summary (cont.)

- **Congestion Pricing**
  - Just over half (54%) strongly disagree that freight customers should pay a premium to travel during peak hours.
    - Only 11% strongly agree.
  - The higher the surcharge/premium for peak hour travel, the more truck trips would be shifted to off-peak hours.
    - If the premium was 3 times the current fare, freight customers report that, on average, 39% of their truck trips would be shifted to off-peak hours.
      - It should be noted that more than half of freight customers would/could not move their truck trips (52%-58% depending on surcharge).
  - A discount for traveling during the evening/early morning is somewhat appealing to freight customers. They are willing to move 25% of their freight trips to the 9 p.m. - 5 a.m. time frame for a 50% fare discount.
    - However, it should be noted that 63% of freight customers couldn’t or wouldn’t change their travel behavior.
  - A secure parking area on the arrival side would make 18% of freight customers more likely to take advantage of the late night discount.
    - It should be noted that only 4 freight customers who had previously said that they wouldn’t use the late night crossing times would be more likely to do so if a secure parking area was provided on the arrival side.
Key Findings

- The freight customers surveyed represent a random sample of all WSF freight customers. These customers represent a variety of industries, but their purpose for using the ferries to transport their freight is the same - meet the needs of their customers.

- Although a peak-travel surcharge and a daily off-peak discount would impact travel behavior, it is unknown, based on this research, if the surcharge/discount would have a significant secondary negative effect of making shippers drive around rather than take the ferry.
  - More than 50% of freight customers have very limited to no flexibility in their travel schedule and would have to pay the surcharge without being able to benefit from the late night discount.

- The alternatives to alter travel behavior that were tested in this research do not take the key driver for the shipper into account. Freight customers want to be able to serve their customers to the best of their ability - deliver the freight/product when and where their customer wants it.
  - When creating a program to shift travel from on to off-peak, the key driver for the shippers should be kept in mind. The more the program infringes on the shippers’ ability to meet the needs of their clients, the less likely the program will succeed.
Detailed Study Findings
Fleet Profile

- The average fleet size is 34 trucks and 58% of the trucks use the Washington State Ferries.
  - Half of the trucks traveling on WSF are under 40 feet in length.
- Most (79%) drivers are paid by the hour only, 4% by the mile only, 8% by both miles and hours and 9% don’t know how drivers are paid.

**Size of Truck Fleet**

- 11 or more trucks: 35%
- 1-5 trucks: 40%
- 6-10 trucks: 25%

**Mean = 34; Median = 7**

**Size of Trucks Traveling on WSF**

- 0-20 feet: 26%
- 21-30 feet: 22%
- 31-40 feet: 15%
- 41-50 feet: 13%
- 51-60 feet: 4%
- 61+ feet: 22%

**58% of trucks use WSF**

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S2 Approximately how many trucks are in your fleet in total?
S2a How many of those trucks use the Washington State Ferries?
S6 Thinking only of those trucks that use the Washington State Ferries, how many are in each of the following size categories?
Q31 Do you pay your drivers by the mile, by the hour, or a mix of the two?
Fleet Profile

- One in five (19%) of the companies included in this research come from construction.

- Most (72%) deliveries are made to retail or commercial business locations.

### Industries Represented

<table>
<thead>
<tr>
<th>Industry</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>19%</td>
</tr>
<tr>
<td>Timber or wood products</td>
<td>11%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>11%</td>
</tr>
<tr>
<td>City delivery trucking</td>
<td>9%</td>
</tr>
<tr>
<td>Truck load trucking</td>
<td>8%</td>
</tr>
<tr>
<td>Agribusiness or fishing</td>
<td>6%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5%</td>
</tr>
<tr>
<td>LTL trucking</td>
<td>4%</td>
</tr>
<tr>
<td>Long-haul trucking</td>
<td>4%</td>
</tr>
<tr>
<td>Waste management</td>
<td>2%</td>
</tr>
<tr>
<td>Parcel trucking</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>15%</td>
</tr>
</tbody>
</table>

### Locations Delivered To

<table>
<thead>
<tr>
<th>Location</th>
<th>Total (%)</th>
<th>Most (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail or commercial businesses</td>
<td>72%</td>
<td>41%</td>
</tr>
<tr>
<td>Construction sites</td>
<td>50%</td>
<td>26%</td>
</tr>
<tr>
<td>Residential locations</td>
<td>42%</td>
<td>19%</td>
</tr>
<tr>
<td>Warehouses</td>
<td>35%</td>
<td>8%</td>
</tr>
<tr>
<td>Some other type of location</td>
<td>9%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Q3 Which of the following categories best describes your company’s line of business?
Q4a Using the ferries, do you deliver freight to ...?
Q4b Which do you deliver the most freight to using the ferries?
Ferry Usage

- Three in five (60%) transport goods or services using WSF weekly.
- Traffic is significantly higher during spring/summer with an average of 28 trips per month.

**Frequency of Ferry Trips**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td>11%</td>
</tr>
<tr>
<td>Several times a week</td>
<td>49%</td>
</tr>
<tr>
<td>At least once a month</td>
<td>19%</td>
</tr>
<tr>
<td>At least once a quarter</td>
<td>15%</td>
</tr>
<tr>
<td>At least once a year</td>
<td>4%</td>
</tr>
<tr>
<td>Less than once a year</td>
<td>3%</td>
</tr>
</tbody>
</table>

**Ferry Travel Behavior**

- **33% Consistent travel frequency**
  - 14 average monthly one-way crossings

- **67% Seasonal travel frequency**
  - 18 average monthly one way crossings October through March
  - 28 average monthly one way crossings April through September

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**Questions**

S3 How frequently do you use the Washington State Ferries to transport goods and services by truck?

S4 Is the average number of crossings made by your trucks that use the Washington State Ferries different in October through March than it is in April through September?

S4A/S5A/S5B Approximately how many one-way crossings are made by your trucks that use the Washington State Ferries in a typical month/from October through March/from April through September?
The most frequently used route for transporting freight is Edmonds/Kingston (41%).
- It is also the single most used route (26%).

<table>
<thead>
<tr>
<th>Routes Travelled (n=101)</th>
<th>Total</th>
<th>Most</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmonds / Kingston</td>
<td>41%</td>
<td>26%</td>
</tr>
<tr>
<td>Anacortes / San Juans</td>
<td>39%</td>
<td>9%</td>
</tr>
<tr>
<td>Mukilteo / Clinton</td>
<td>36%</td>
<td>11%</td>
</tr>
<tr>
<td>Seattle / Bainbridge</td>
<td>21%</td>
<td>11%</td>
</tr>
<tr>
<td>Fauntleroy / Vashon</td>
<td>14%</td>
<td>9%</td>
</tr>
<tr>
<td>Seattle / Bremerton</td>
<td>10%</td>
<td>4%</td>
</tr>
<tr>
<td>Vashon / Southworth</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Keystone / Port Townsend</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Interisland San Juans</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Fauntleroy / Southworth</td>
<td>2%</td>
<td>--</td>
</tr>
<tr>
<td>Point Defiance / Tahlequah</td>
<td>1%</td>
<td>--</td>
</tr>
<tr>
<td>Use all routes equally</td>
<td></td>
<td>19%</td>
</tr>
</tbody>
</table>

Q1 What ferry routes do you use for moving freight?
Q2 Which ferry route do you use most often?
Travel Behavior - Overall

- System wide the majority of freight trips take place during peak hours and midday.

- The following routes have a significantly higher freight travel volume during peak hours:
  - Seattle / Bainbridge
  - Mukilteo / Clinton
  - Keystone / Port Townsend
  - Anacortes / San Juans

- Two routes have a significantly higher midday freight travel volume than other times of the day:
  - Edmonds / Kingston
  - Vashon / Southworth

### Average Trips taken by Time Slice

<table>
<thead>
<tr>
<th></th>
<th>Peak</th>
<th>Midday</th>
<th>Night</th>
</tr>
</thead>
<tbody>
<tr>
<td>System wide</td>
<td>8.2</td>
<td>9.0</td>
<td>1.4</td>
</tr>
<tr>
<td>Seattle / Bainbridge</td>
<td>17.4</td>
<td>11.3</td>
<td>1.0</td>
</tr>
<tr>
<td>Seattle / Bremerton</td>
<td>2.4</td>
<td>2.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Edmonds / Kingston</td>
<td>10.7</td>
<td>23.7</td>
<td>0.4</td>
</tr>
<tr>
<td>Mukilteo / Clinton</td>
<td>6.8</td>
<td>4.3</td>
<td>1.8</td>
</tr>
<tr>
<td>Fauntleroy / Vashon</td>
<td>3.5</td>
<td>3.5</td>
<td>0.0</td>
</tr>
<tr>
<td>Fauntleroy / Southworth</td>
<td>1.7</td>
<td>1.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Point Defiance / Tahlequah</td>
<td>1.0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Keystone / Port Townsend</td>
<td>3.0</td>
<td>1.2</td>
<td>1.3</td>
</tr>
<tr>
<td>Anacortes / San Juans</td>
<td>9.2</td>
<td>1.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Interisland San Juans</td>
<td>0.5</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Vashon / Southworth</td>
<td>0.8</td>
<td>14.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>
### Average Trips taken by Time Slice*

<table>
<thead>
<tr>
<th>Route</th>
<th>Year Long</th>
<th>April - September</th>
<th>October - March</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Peak</td>
<td>Midday</td>
<td>Night</td>
</tr>
<tr>
<td>Seattle / Bainbridge</td>
<td>9.8</td>
<td>4.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Seattle / Bremerton</td>
<td>2.7</td>
<td>2.7</td>
<td>0.0</td>
</tr>
<tr>
<td>Edmonds / Kingston</td>
<td>5.8</td>
<td>1.0</td>
<td>0.2</td>
</tr>
<tr>
<td>Mukilteo / Clinton</td>
<td>7.4</td>
<td>3.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Fauntleroy / Vashon</td>
<td>7.0</td>
<td>6.8</td>
<td>0.0</td>
</tr>
<tr>
<td>Fauntleroy / Southworth</td>
<td>2.0</td>
<td>2.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Point Defiance / Tahlequah</td>
<td>1.0</td>
<td>1.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Keystone / Port Townsend</td>
<td>4.5</td>
<td>0.8</td>
<td>2.0</td>
</tr>
<tr>
<td>Anacortes / San Juans</td>
<td>12.1</td>
<td>3.2</td>
<td>5.4</td>
</tr>
<tr>
<td>Interisland San Juans</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Vashon / Southworth</td>
<td>2.2</td>
<td>2.2</td>
<td>0.0</td>
</tr>
</tbody>
</table>

* The sample sizes vary by time slice and route and they are generally too small to be statistically valid.

Q5 In a typical month, how many of your freight trips on (ROUTE) are taken during each of the following travel periods?

Q6A/B In a typical month from October through March/ April through September, how many of your freight trips on ( ROUTES) are taken during each of the following travel periods?
Travel Behavior (cont.)

- Three in five (74%) freight customers have either increased or kept their usage of the ferries the same.
- One quarter (24%) have decreased their usage and the main reason has been *a change in their delivery schedule* followed by *cost of fare too high*.

**Changes in Travel Behavior**

- Decreased significantly: 11%
- Increased significantly: 7%
- Increased somewhat: 15%
- Decreased somewhat: 13%
- Not changed: 52%

**Reason for Decreased Travel**

<table>
<thead>
<tr>
<th>Reason</th>
<th>Primary</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in delivery schedule</td>
<td>50%</td>
<td>4%</td>
</tr>
<tr>
<td>Cost of fare too high</td>
<td>8%</td>
<td>17%</td>
</tr>
<tr>
<td>Too much time between sailings</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Drive around</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Ferries are unreliable</td>
<td>24%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>21%</td>
<td>12%</td>
</tr>
</tbody>
</table>

Q33 Since you/your company started using the ferries for transporting freight, has the frequency with which you transport freight via the ferries...
Q34 What is the primary reason for the decrease?
Q35 What other reasons are there?
Freight – Summary Report

Travel Behavior (cont.)

- Slightly more than three-quarters (76%) state that the Washington State Ferries provide *very good* (18%) or *good* value (58%).
  - Only one in six (16%) perceive the value to be poor (13% poor and 3% very poor.)

- Beside lowering price, the most frequently mentioned suggestions for how WSF could help freight customers are:
  - Have more crossings
  - Provide a reservation system
  - Less wait time
  - Availability for commercial runs

**Value Perceptions**

- **Very good value**: 18%
- **Good value**: 58%
- **Poor value**: 13%
- **Very poor value**: 3%
- **Don’t know**: 8%

*(n=101)*

Q36. Considering your firm’s experience with the ferries, which of the following phrases best describes the value to your company of using Washington State Ferries to move freight to your destination?

Q37. Other than lowering the price, what else could Washington State Ferries do to help you move freight more efficiently on the ferries?
Influence Travel Behavior

- The overall theme of the answers to the question is being able to meet customers’ needs/wants - have the freight there when the customer wants it.

- The factor most frequently mentioned that influences freight customers’ decision on which specific sailing to take is *closest/convenient route* (30%).

- Other frequently mentioned factors are *meet customer needs/demands* (18%), *time of sailing* (13%) and *delivery schedule* (12%).

**Factors Influencing Sailing Decision**

- Closest/convenient route: 30%
- Meet customer needs/demands: 18%
- Time of sailing: 13%
- Delivery schedule: 12%
- When customer is open to receive shipment: 9%
- Availability: 5%
- Traffic congestion: 4%
- Other: 29%

**Q7** What factors influence your decision as to which specific ferry sailing to take? 

*(n=101)*
Travel Flexibility

- Less than one in twelve (8%) has complete flexibility regarding when trips are scheduled.
  - However, 31% are somewhat flexible regarding day and time.
  - More than half of freight customers report having little to no flexibility in when they schedule their trips.

- Key factors that influence travel flexibility are:
  - 50% Customers needs/demands
  - 23% Delivery schedule
  - 13% Availability
  - 20% Other (each other mention accounts for less than 2% of total mentions)

Q8 What degree of flexibility do you have when selecting travel on the ferry in terms of the time of day you schedule your trips? Would you say you are...

Q9 What degree of flexibility do you have when selecting travel on the ferry in terms of the day of the week you schedule your drivers? Would you say you are...

Q10 What factors affect your flexibility in terms of time of day and/or day of the week you schedule freight truck trips on the ferries?
Just under half (49%) freight customers report that wait time during peak travel periods is either a major (16%) or moderate (33%) issue.

Impact of Wait Time During Peak Hours

- Not an issue or problem: 15%
- A minor issue or problem: 33%
- A major issue or problem: 16%
- Don’t know: 3%
- Not an issue or problem: 15%

Q11 One problem that commercial vehicle drivers have reported during peak vehicle commute travel periods is how long they have to wait before they can drive on the ferry. Overall, how big of an issue or problem would you say the wait time is for you or your drivers?
Among the freight customers using the ferries during peak hours (88%) just under half (48%) don’t report experiencing excessively long wait times.

The routes most likely to be perceived to have excessively long waits are Anacortes (43%), Edmond/Kingston (17%) and Seattle/Bainbridge (15%).

- The average wait time is 77 minutes (mean 60 minutes).

### Excessively Long Waits by Route

<table>
<thead>
<tr>
<th>Route</th>
<th>Average Wait</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anacortes/San Juans</td>
<td>101 min. (n=20)</td>
</tr>
<tr>
<td>Edmonds/Kingston</td>
<td>77 min. (n=8)</td>
</tr>
<tr>
<td>Seattle/Bainbridge</td>
<td>33 min. (n=7)</td>
</tr>
<tr>
<td>Mukilteo/Clinton</td>
<td>68 min. (n=3)</td>
</tr>
<tr>
<td>Keystone/Port Townsend</td>
<td>68 min. (n=3)</td>
</tr>
<tr>
<td>Fauntleroy/Vashon</td>
<td>30 min. (n=2)</td>
</tr>
<tr>
<td>Seattle/Bremerton</td>
<td>53 min. (n=2)</td>
</tr>
<tr>
<td>Vashon/Southworth</td>
<td>30 min. (n=1)</td>
</tr>
</tbody>
</table>

Q12 On what route or routes do your drivers experience what you or they consider to be excessively long wait times?

Q12A Currently, what is the average length of time, in minutes, you or your drivers have to wait during the peak vehicle commute travel periods on **(INSERT ROUTE)**
The freight customers who have a strategy on how to reduce wait time mainly work with/around the ferry schedule.

- One-third (30%) get there earlier, 21% schedule deliveries around ferry schedule and 14% pick sailings that are less busy.

One in four (25%) freight customers do not have a strategy and just get there and wait.

Q13 What strategies do you use to minimize the amount of time you or your drivers spend waiting for a ferry at the dock?
Reservations

- Just under half (45%) always (34%) or often (11%) use the commercial reservation system.
  - However, 45% never use the reservation system.

- Most (88%) freight customers do not use the ferries less often as a result of not having a commercial reservation system.
  - However, 26% would use the ferries more often if there was a commercial reservation system in place.

- Roughly half (47%) would use a commercial reservation system on routes other than Anacortes and Port Townsend.

Q14 On the San Juan Islands and Port Townsend-Keystone routes there is a commercial vehicle reservation system that allows freight hauling customers to call ahead or go on-line to make a reservation for a specific trip. How often does your organization use the commercial vehicle reservation system - always, often, sometimes, rarely, or never?

Q15 For the ferry routes you use, do you use the ferries less often as result of not having a reservation system for commercial vehicles?

Q16 Would your organization use the ferries more often if there was a reservation system for commercial vehicles on the route(s) you use most?

Q23 Would you use a commercial vehicle reservation system on routes other than the Anacortes and Port Townsend routes?
**Reservations (cont.)**

- Freight customers were asked to rate their likelihood of using a commercial reservation system as described to the right.
- The lower the deposit, the more people are willing to use the system (100% deposit 44% likely vs. 52% at 25% deposit.)

<table>
<thead>
<tr>
<th>Deposit</th>
<th>Definitely Will Not</th>
<th>Somewhat Unlikely</th>
<th>Somewhat Likely</th>
<th>Definitely Would</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% Deposit</td>
<td>31%</td>
<td>11%</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>75% Deposit</td>
<td>29%</td>
<td>10%</td>
<td>12%</td>
<td>14%</td>
</tr>
<tr>
<td>50% Deposit</td>
<td>30%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
</tr>
<tr>
<td>25% Deposit</td>
<td>30%</td>
<td>8%</td>
<td>6%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Q17-20 If a commercial vehicle reservation system had the following features:

- Some space would be available for reservations up to a month ahead of the travel date and some would be held back for reservations made one day ahead of travel;
- There would be a deposit made at the time a reservation was made that could range from 25% to 100% of the fare. Refunds could be made under certain circumstances or if a reservation is changed within a specified time period ahead of the sailing.
- If a truck was not on time for boarding, space would be released for general boarding and the company would forfeit their reserved space and reservation deposit; and
- The reservation system would inform freight customers on how much capacity is reserved, how much is available for reservation, and how much is open on a first come, first-served basis.

...how likely would your company be to use this commercial vehicle reservation system if the reservation deposit were 100%/75%/50%/25% of the fare for that trip? Would you say you...
Reservations (cont.)

- Main reasons for not being willing to pay at least a 25% deposit to use a commercial reservation system are: (n=44)
  - 36% We don’t need it
  - 30% Too many variables/too high a risk that we will miss the sailing
  - 14% Our customers decide when and where
  - 7% Don’t use the ferries often enough
  - 5% Customer cancellations (last minute cancellations)
  - 5% Penalty charge
  - 5% Cost is too high
  - 11% Other reasons (other reasons account for less than 2% of total mentions)

- Just over one in three (37%) agree that only routes with high freight traffic should have a freight reservation system.
- A quarter (24%) agree that reservations should only be available during peak travel hours.

Q21 Why would you be unwilling to pay a deposit for using a commercial vehicle reservation system that guaranteed you a spot on a specific boat?

Q22 Please rate the extent to which you agree or disagree with each of the following statements about a commercial vehicle reservation system, using a 5-point scale where 1 means “strongly disagree” and 5 means “strongly agree.”
  - Only routes and/or sailings with high freight traffic should have a freight reservation system.
  - Reservations should be available only during peak travel periods.
More than half (54%) strongly disagree that freight customers should pay a premium to travel during peak hours and receive a discount for traveling during off-peak hours.

Q24 Please rate the extent to which you agree or disagree with the following statement about travel during the peak travel periods when the ferries are most congested. Using a 5-point scale where 1 means “strongly disagree” and 5 means “strongly agree,” to what extent do you agree or disagree that to reduce peak travel period congestion, freight customers should be charged a premium over the regular freight fares but receive a discount from the regular freight fares if they are traveling during off-peak periods.
The higher the surcharge/premium for peak hour travel, the more truck trips would be shifted to off-peak hours.

It the premium was 3 times the current fare, freight customers report that, on average, 39% of their truck trips would be shifted to off-peak hours.

- It should be noted that more than half of freight customers would/could not move their truck trips.

Impact of Peak Fare Increase

- 1.5 times more
- 2 times more
- 3 times more

<table>
<thead>
<tr>
<th>Impact Level</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5 times more</td>
<td>28%</td>
</tr>
<tr>
<td>2 times more</td>
<td>38%</td>
</tr>
<tr>
<td>3 times more</td>
<td>39%</td>
</tr>
</tbody>
</table>

**Q25-27** If freight customers who use the ferry during peak travel periods were charged *one and a half times/double/three times* the fare currently charged for trucks, what percent of your truck trips would you move to off-peak times?
If a 50% discount was offered on freight fares from 9 p.m. to 5 a.m., an average of 25% of the trips would be moved to that time period.

- As seen with the surcharge, a significant amount of freight customer would not change their travel schedule (63%).
- Main reasons cited for not being willing to move freight trips to the 9 p.m. - 5 a.m. time period are: 38% customers are not available to accept the shipment during those hours and 34% customers decide when we deliver. Other reasons include: 11% too late, 11% other factors would not make it cost effective, 8% don’t travel that much and 3% not our business hours.

A secure parking area on the arrival side would make 18% of freight customers more likely to take advantage of the late night discount.

- It should be noted that only 4 freight customers who had previously said that they wouldn’t use the late night crossing times would be more likely to do so if a secure parking area was provided on the arrival side.

Q28 If freight customers on sailings between 9:00 p.m. and 5:00 a.m. each day were charged just half of the fare currently charged for freight vehicles, what percent of your truck trips would you schedule for the 9:00 p.m. - 5:00 a.m. time period?

Q29 If the ferry system were to offer half-price fare for trucks between 9:00 p.m. and 5:00 a.m., what reasons might you have to continue using the ferries during the peak periods at those higher fares?

Q30 Would a free secure parking area on the arrival side for late night truck drivers make you more likely to schedule a truck for the half-price late night ferry?
The two most frequently mentioned issues/challenges facing WSF are the need for more ferries and reducing wait times/delays. It is noteworthy that 30% think WSF is doing a good job.

**Primary Problems/Issues Facing WSF**

- Doing a good job: 30%
- Need more ferries: 17%
- Reducing wait/delays: 11%
- Space available: 9%
- High fees: 8%
- Need to cover more areas: 5%
- Other: 15%
- Don't know: 21%

Q32 What do you feel are the primary problems/issues facing the Ferry system with regards to its ability to transport freight and serve their freight customers like yourself better?
Appendix - Questionnaire

- The survey was designed by Market Decisions Corporation with input from WSTC’s research team and WSF.
Questionnaire

Washington State Transportation Commission
-- 2010 Freight Survey Draft --
April 21, 2010

INTRODUCTION

My name is [NAME], I’m calling on behalf of the Washington State Transportation Commission from MDC Research. We are conducting a research study with freight customers who regularly use the ferry to help improve the ferry’s freight handling systems.

If name available: May I please speak to (name)?
If no name: May I please speak to the person in your company most responsible for scheduling freight trips on ferries?

SCREENING

S1 Are you the person in your company who is responsible for scheduling freight trips on ferries for the trucks in your fleet?
   1 Yes
   2 Do not have our own trucks \textbf{Terminate}
   3 No \textbf{Terminate if refused.} If company does not use the ferries go to Q96.

S2 Approximately how many trucks are in your fleet in total? \textbf{RECRUIT A MIX}

\textbf{RECORD:}
9997 = Don’t know \textbf{Read:} An estimate is fine.

S2a How many of those trucks use the Washington State Ferries? \textbf{[CANNOT EQUAL MORE THAN 52A]}

\textbf{RECORD:} \textbf{Go to Q96.}
9997 = Don’t know \textbf{Read:} An estimate is fine.

S3 How frequent do you use the Washington State Ferries to transport goods and services by truck? \textbf{Read list}

   1 Daily
   2 Several times a week,
   3 At least once a month,
   4 At least once a quarter,
   5 At least once a year,
   6 Less than once a year
   7 \textbf{(Don’t Read) NEVER Go to Q96 BEFORE TERMINATING}

S4 Is the average number of crossings made by your trucks that use the Washington State Ferries different in October through March than it is in April through September?
   1 Yes \textbf{Go to S5A}
   2 No

\begin{tabular}{|c|c|c|c|c|c|}
\hline
\textbf{S4A} & \textbf{S5A} & \textbf{S5B} & \textbf{S6} \\
\hline
Approximately how many one-way crossings are made by your trucks that use the Washington State Ferries in a typical month? Please base your answer on a crossing being a one-way trip, so count a round trip as two crossings. \textbf{Go to S6} & \textbf{May I please speak to the person in your company most responsible for scheduling freight trips on ferries?} \textbf{Probe} & \textbf{Thinking only of those trucks that use the Washington State Ferries, how many are in each of the following size categories? Overall truck length/Total length of truck & trailer} \textbf{[PROGRAMMER NOTE: TOTAL SHOULD NOT BE MORE THAN 52A]} & \textbf{What ferry routes do you use for moving freight?} \textbf{If more than one mentioned: Which ferry route do you use most often?} \\
\hline
0 - 20 feet & 41 - 50 feet & 21 - 30 feet & 51 - 60 feet & 31 - 40 feet & 61 or greater feet \\
0 = Less than once a month & 9997 = Don’t know, but we do use WSF \textbf{Read:} An estimate is fine. & 0 = Less than once a month & 9997 = Don’t know, but we do use WSF \textbf{Read:} An estimate is fine. & All routes used equally & Don’t know \textbf{[RECRUIT A MIX]} \\
\hline
\end{tabular}
Q3 Which of the following categories best describes your company’s line of business?

- Read list

11 Long-haul trucking
12 City delivery trucking
13 Truck load trucking
14 LTL trucking
15 Parcel trucking
16 Retail trade
17 Wholesale trade
18 Logistics, warehousing, or third party logistics (3PL)
19 Manufacturing
20 Agribusiness or fishing
21 Timber or wood products
22 Mining
23 Waste management
24 Construction
99 Other → Specify

Q4a Using the ferries, do you deliver freight to (READ LIST)? → Probe

Q4b If more than one mentioned: Which do you deliver the most freight to using the ferries?

Q5a Q4b
11 11 Residential locations, or
12 12 Retail or commercial businesses, or
13 13 Warehouses, or
14 14 Construction sites, or
99 99 Some other type of place or location? → Specify

SCHEDULING

pre Q5. Ask if S4 = “No”. If “Yes” go to Q6A

Q5 In a typical month, how many of your freight trips (INSERT ROUTES FROM Q1) are taken during each of the following travel periods?

Trips taken

PEAK HOURS - generally between 6:00 and 9:00 AM and 3:00 to 7:00 PM
MIDDAY: - 9:00 AM to 3:00 PM
NIGHT - 7:00 PM to 6:00 AM → Go to Q7

Q6A In a typical month from October through March, how many of your freight trips on (INSERT ROUTES FROM Q1) are taken during each of the following travel periods?

Trips taken

PEAK HOURS - generally between 6:00 and 9:00 AM and 3:00 to 7:00 PM
MIDDAY: - 9:00 AM to 3:00 PM
NIGHT - 7:00 PM to 6:00 AM

Wait Times

Q11 One problem that commercial vehicle drivers have reported during peak vehicle commute travel periods is how long they have to wait before they can drive on the ferry.

Overall, how big of an issue or problem would you say the wait time is for you or your drivers?

→ Read list

4 A major issue or problem
3 A moderate issue or problem
2 A minor issue or problem
1 Not an issue or problem
7 Don’t know

IF NEEDED: Peak Travel Periods are generally between 6:00 and 9:00 AM and 3:00 to 7:00 PM
Questionnaire (cont.)

PreQ12. If don't travel during peak times in Q5 OR (Q6A AND Q6B), go to Q13  
Q12. On what route or routes do your drivers experience what you or they consider to be excessively long wait times?  (SHOW ONLY ROUTES MENTIONED IN Q1)  
11 Seattle / Bainbridge  
12 Seattle / Bremerton  
13 Edmonds / Kingston  
14 Mukilteo / Clinton  
15 Fauntleroy / Vashon  
16 Fauntleroy / Southworth  
17 Point Defiance / Tahlequah  
18 Keystone / Port Townsend  
19 Anacortes / San Juans Includes Shaw, Orcas, Lopez, and Friday Harbor  
20 Interisland San Juans Includes Shaw, Orcas, Lopez, and Friday Harbor  
21 Vashon / Southworth  
22 Anacortes / Sidney  
23 All are too long  
98 NONE  Go to Q13  
97 Don't know  Go to Q13  

Q12A  For each route mentioned in Q12: Currently, what is the average length of time, in minutes, you or your drivers have to wait during the peak vehicle commute travel periods on (INSERT ROUTE)?  

RECORD MINUTES:  
97 = Don't know  Read: An estimate is fine.  

(REPEAT PEAK HOURS IF NEEDED:) Peak Travel Periods are generally between 6:00 and 9:00 AM and 3:00 to 7:00 PM  

Q13. What strategies do you use to minimize the amount of time you or your drivers spend waiting for a ferry at the dock?  Prove and clarify  

Reservations  

preQ14. Ask if Q1 = 18, 19, 20, or 22. If not, go to Q15  
Q14. On the San Juan Islands and Port Townsend/Keystone routes there is a commercial vehicle reservation system that allows freighting customers to call ahead or go on-line to make a reservation for a specific trip. How often does your organization use the commercial vehicle reservation system - always, often, sometimes, rarely, or never?  
5 Always  
4 Often  
3 Sometimes  
2 Rarely  
1 Never  
7 Don't know  

Q15. For the ferry routes you use, do you use the ferries less often as result of not having a reservation system for commercial vehicles?  
1 Yes, we use the ferries less often  
2 No  
7 Don't know  

Q16. Would your organization use the ferries more often if there was a reservation system for commercial vehicles on the route(s) you use most?  
1 Yes  
2 No  
7 Don't know  

Q17. If a commercial vehicle reservation system had the following features (READ LIST):  
- Some space would be available for reservations up to a month ahead of the travel date and some would be held back for reservations made one day ahead of travel;  
- There would be a deposit made at the time a reservation was made that could range from 25% to 100% of the fare. Refunds could be made under certain circumstances or if a reservation is changed within a specified time period ahead of the sailing.  
- If a truck was not on time for boarding, space would be released for general boarding and the company would forfeit their reserved space and reservation deposit; and  
- The reservation system would inform freight customers on how much capacity is reserved, how much is available for reservation, and how much is open on a first come, first-served basis.  

...how likely would your company be to use this commercial vehicle reservation system if the reservation deposit were 100% of the fare for that trip?  Would you say you...  Read list  
6 Definitely would; Go to Q22  
5 Would be very likely to; Go to Q22  
4 Would be somewhat likely to;  
3 Would be somewhat unlikely to;  
2 Would be very unlikely to; or  
1 Definitely would not  
7 (DON'T READ) Don't know  

(ASK Q18 IF Q17 < 5 OR 7)  
Q18. How likely would your company be to use this commercial vehicle reservation system if the reservation deposit were 75% of the fare for that trip?  Would you say you...  Repeat Scale if needed.  
6 Definitely would; Go to Q22  
5 Would be very likely to; Go to Q22  
4 Would be somewhat likely to;  
3 Would be somewhat unlikely to;  
2 Would be very unlikely to; or  
1 Definitely would not  
7 (DON'T READ) Don't know
(ASK Q19 IF Q18 < 5 OR 7)
Q19 How likely would your company be to use the commercial vehicle reservation system if the reservation deposit were 50% of the fare for that trip? Would you say you... 
6 Definitely would; Go to Q22
5 Would be very likely to; Go to Q22
4 Would be somewhat likely to;
3 Would be somewhat unlikely to;
2 Would be very unlikely to; or
1 Definitely would not?
7 (DON’T READ) Don’t know

(ASK Q20 IF Q19 < 5 OR 7)
Q20 How likely would your company be to use the commercial vehicle reservation system if the reservation deposit were 25% of the fare for that trip? Would you say you... 
6 Definitely would; Go to Q22
5 Would be very likely to; Go to Q22
4 Would be somewhat likely to; Go to Q22
3 Would be somewhat unlikely to;
2 Would be very unlikely to; or
1 Definitely would not?
7 (DON’T READ) Don’t know Go to Q22

(ASK Q21 IF Q20 < 4)
Q21 Why would you be unwilling to pay a deposit for using a commercial vehicle reservation system that guaranteed you a spot on a specific boat? 
Probe and clarify

Q22 Please rate the extent to which you agree or disagree with each of the following statements about a commercial vehicle reservation system, using a 5-point scale where 1 means “strongly disagree” and 5 means “strongly agree.”

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

A. Only routes and/or sailings with high freight traffic should have a freight reservation system.
B. Reservations should be available only during peak travel periods.

IF NEEDED: Peak Travel Periods are generally between 6:00 and 9:00 AM and 3:00 to 7:00 PM

(ASK IF OTHER THAN ANACORTES & PORT TOWNSEND ROUTES MENTIONED IN Q1)
Q23 Would you use a commercial vehicle reservation system on routes other than the Anacortes and Port Townsend routes?

1 Yes
2 No
7 Don’t know

Congestion Pricing
Q24 Please rate the extent to which you agree or disagree with the following statement about travel during the peak travel periods when the ferries are most congested. Using a 5-point scale where 1 means “strongly disagree” and 5 means “strongly agree,” to what extent do you agree or disagree that to reduce peak travel period congestion, freight customers should be charged a premium over the regular freight fares but receive a discount from the regular freight fares if they traveling during off peak periods.

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
<th>DK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
</tbody>
</table>

IF NEEDED: 
MORNING PEAK - Eastbound, between 6:00 and 9:00 AM
EVENING PEAK - Westbound, 3:00 to 7:00 PM

Q25 If freight customers who use the ferry during peak travel periods were charged one and a half times the fare currently charged for trucks, what percent of your truck trips would you move to off-peak times?

% 997 Don’t know Go to Read: An estimate is fine.

Q26 If freight customers who use the ferry during peak travel periods were charged double the fare currently charged for trucks, what percent of your truck trips would you move to off-peak times?

% 997 Don’t know Go to Read: An estimate is fine.

Q27 If freight customers who use the ferry during peak travel periods were charged three times the fare currently charged for trucks, what percent of your truck trips would you move to off-peak times?

% 997 Don’t know Go to Read: An estimate is fine.

Q28 If freight customers on sailings between 9:00 p.m. and 5:00 a.m. each day were charged just half of the fare currently charged for freight vehicles, what percent of your truck trips would you schedule for the 9:00 p.m. - 5:00 a.m. time period?

% 997 Don’t know Go to Read: An estimate is fine.
Q30 Would a free secure parking area on the arrival side for late-night truck drivers make you more likely to schedule a truck for the half-price late-night ferry?

1. Yes
2. No
3. Don’t know

Q31 Do you pay your drivers by the mile, by the hour, or a mix of the two?

1. By the mile only
2. By the hour only
3. Both by the mile and the hour
4. Don’t know

Q32 What do you feel are the primary problems / issues facing the ferry system with regards to its ability to transport freight and serve freight customers like yourself better?

Q33 Since you / your company started using the ferries for transporting freight, has the frequency with which you transport freight via the ferries...

1. Increased significantly
2. Increased somewhat
3. Not changed
4. Decreased somewhat
5. Decreased significantly
6. (DON’T READ) Don’t know

Q34 What is the primary reason for the decrease?

Q35 What other reasons are there?

Q36 Considering your firm’s experience with the ferries, which of the following phrases best describes the value to your company of using Washington State Ferries to move freight to your destination?

- A very good value;
- A poor value;
- A very poor value;
- Other

Q37 Other than lowering the price, what could Washington State Ferries do to help you move freight more efficiently on the ferries?

Q38 What is the primary reason for your company NOT using the ferries to transport freight?

Q39 What other reasons do you have for not using them?

Thanks for your help!

TERMINATION QUESTIONS

Q36 Do you ever ship to areas on the Westside of Puget Sound where you possibly could use the ferry system to transport your freight?

1. Yes
2. No - THANK AND TERMINATE

Q37 What do you feel are the primary problems / issues facing the ferry system with regards to its ability to transport freight and serve freight customers like yourself?

Q38 What is the primary reason for your company NOT using the ferries to transport freight?

Q39 What other reasons do you have for not using them?

Thanks for your help!