Air Rail Link
Customer Experience and Business Strategy & Plan

High-Level Discrete Choice Results

June 2012
Table of Contents

I. Executive Summary

II. Understanding the Discrete Choice (DC) Analysis

III. Total Sample Observations and Insights

IV. Informing the ARL Customer Experience Strategy

V. Customer Profile Specific Observations and Insights

VI. Appendices
   – ARL DC Study Background
   – DC and Previous ARL Studies Comparison Highlights
   – Ipsos DC Final Report (to be provided as a separate document)
I. Executive Summary
I. Executive Summary (1/4)

Executive Summary

Understanding the Discrete Choice Analysis

- In May 2012, ARL conducted a Discrete Choice (DC) market research study, the purpose of which was to test the value proposition of seven key service offering attributes and the price sensitivity of potential ARL customers.

- In order to inform customer experience and broader strategic decisions, the data has been analyzed and weighted to be consistent with the official ridership forecasts. The contents of this report represent a summary of the findings.

- The Discrete Choice study is one of many inputs that will inform the ARL Customer Experience Strategy.

Total Sample Observations and Insights

- There is a strong appetite for the ARL service and most findings were in line with previous studies conducted at Metrolinx / ARL.

- While price is the single most important attribute influencing the decision-making of potential ARL customers, non-price attributes account for 21% of importance and also influence customer choice in choosing to take the ARL.

- The analysis indicates the highest potential for fare revenue maximization appears to occur between the $30 and $35 price points (single one-way Union/Pearson fare).
Executive Summary

Total Sample Observations and Insights (cont.)

- Fare revenue can be increased by adding valued added services and features as it appears customers would be willing to ‘pay’ for these extras. That said, the profitability impacts of providing these additional services will need to be further defined as it appears the costs to deliver will likely exceed the revenues gained.

- Data suggests that customers are more price sensitive at Bloor and Weston and hence, ARL should consider the case for price differentiation by station.

Informing the Customer Experience Strategy

- Discrete Choice tested a number strategic decisions within the CE projects across the Customer Lifecycle and also provided insights for other ARL Program projects.

- Study findings support the ACT recommended key CE ‘must have’ strategic elements for 2015, and also align with the post-2015 ARL vision:
  - Price is the most important decision-making factor, with non-price attributes having relatively lower importance and influence on potential customers.
  - Strategic elements such the pick-up / drop-off area, baggage tag printing capabilities, and advance ticket purchasing are moderately valued.
I. Executive Summary (3/4)

Informing the Customer Experience Strategy (cont.)

- Respondents placed relatively low importance and value on free food and beverage and entertainment and travel information services.

- In terms of marketing the ARL service, emphasis should be placed on promoting the speed and cost advantage of the service over current slower and high cost modes of transportation (e.g., taxis / limos) because respondents are least satisfied with these elements of their current airport travel experience.

- With a low number of respondents traveling to the airport late in the evening (and more in very early mornings), ARL should conduct further analysis with the GTAA and Rail Operations on the cost-benefit of modifying the service (train frequency and operating hours) to respond to both inbound and outbound service.

- Post launch, ARL will be required to understand the customer appetite for additional 'want to have' services such as short-term parking and baggage storage as respondents placed relatively low value on these amenities.

- In addition, the Discrete Choice findings and simulator tool should be used to help in the prioritization of strategic elements within the ARL Business Strategy and Plan.
I. Executive Summary (4/4)

Executive Summary

Customer Profile Specific Observations and Insights

- General sample observations and insights mostly hold true across all four customer profiles:
  - Potential GTA Leisure customers are the most price sensitive, with a third preferring to use the lowest cost modes of transportation to the airport and the majority travelling with companions.
  - Despite price being an important decision-making factor for GTA Business customers, they still use the highest cost modes of airport transportation.
  - Non-GTA Leisure customers are less price sensitive than GTA customers, but they still prefer low cost modes of transportation like Drop-Off and TTC, possibly due to their travelling in groups.
  - Non-GTA Business customers are the least price sensitive and possibly use high cost modes of transportation to the airport as employers cover their travel expenses.
II. Understanding the Discrete Choice Analysis

Note 1: The Discrete Choice results should be used to test the value proposition and price sensitivity of customers. The Share of Preference or Take Rate values generated based on the Discrete Choice analysis should not be used in conjunction with other studies (e.g., SDG Ridership Study) to conduct analysis (e.g., forecast ridership). The calibration of data and choice of base case configuration/bundle are specific to this study alone.

Note 2: The Discrete Choice study is one of many inputs that will inform the ARL Customer Experience Strategy.
The Discrete Choice study tested seven key service offering attributes to help inform ARL’s Customer Experience strategy

<table>
<thead>
<tr>
<th>Attributes and Levels Tested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Getting to the Station</strong></td>
</tr>
<tr>
<td>- Parking</td>
</tr>
<tr>
<td>- Valet parking</td>
</tr>
<tr>
<td>- Drop-off / pick-up area</td>
</tr>
<tr>
<td>- Door-to-door service</td>
</tr>
<tr>
<td>- Shuttle bus service</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Food and Beverage</strong></td>
</tr>
<tr>
<td>- Fruits / cheeses / crackers</td>
</tr>
<tr>
<td>- Chips / pretzels / peanuts / cookies</td>
</tr>
<tr>
<td>- Juice / soda / coffee / water</td>
</tr>
<tr>
<td>- Local beer / wine</td>
</tr>
<tr>
<td><strong>On-Train Experience</strong></td>
</tr>
<tr>
<td>- Flight info screens</td>
</tr>
<tr>
<td>- Free newspapers / magazines</td>
</tr>
<tr>
<td>- News / sports / weather TV</td>
</tr>
</tbody>
</table>

*Note: The Food and Beverage attribute was positioned as complimentary to those surveyed.*

<table>
<thead>
<tr>
<th>Loyalty and Partnerships</th>
<th>Price (1-way fare)</th>
<th>Group Discount</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Airline loyalty points</td>
<td>- $15 - $50 (with $5 increments)</td>
<td>- 50%</td>
</tr>
<tr>
<td>- Airport premium lounge</td>
<td></td>
<td>- 25%</td>
</tr>
<tr>
<td>- Frequent traveller discount</td>
<td></td>
<td>- 10%</td>
</tr>
<tr>
<td>- Tourist / restaurant discount</td>
<td></td>
<td>- No discount</td>
</tr>
<tr>
<td>- Transit discount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Concierge services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
More specifically, the study tested the value proposition of service offering attributes and the price sensitivity of potential ARL customers.

**Purpose of Discrete Choice Analysis**

- **Discrete Choice**: Designed to understand the impact of price (i.e., price sensitivity) and service offering attributes (i.e., value proposition) for a customer's decision to use ARL.

- **SDG Ridership Study**: Unlike Discrete Choice, this study was designed to project ridership based on a defined catchment area that represents the potential ARL market.

**Scope of Discrete Choice Analysis**

**Overview of Markets**

- **Total Market**: Represents the total market of individuals travelling to Pearson airport.

- **Potential ARL Market**: Represents portion of the Total Market that would potentially use the ARL service. Market is based on the catchment area defined in the SDG Ridership Study (refer next slide).

- **Target Market**: Represents the portion of the Potential ARL Market that will be most likely to use the ARL. Market is based on *weighting the customer profiles* and catchment areas in the Potential ARL Market (refer next slide).

**Insights from Market**

- **Public awareness and marketing**

- **Share of market relative to other competitive transportation modes and ridership**

- **Value proposition and price sensitivity of high potential customers**

---

The results of the Discrete Choice analysis will be used to validate and update ARL’s business strategy.

The results of the Discrete Choice analysis only considers the impact of different service feature bundles (i.e., attribute bundles) on fare revenue. The costs associated with attribute bundles will need to be analyzed to determine profitability.
To better understand the behavior of high potential customers, DC data was weighted based on SDG Ridership Study projections.

Data Adjustments / Weights

1. Business : Non-Business Traveller
   - Results have been weighted to ensure representation between business and non-business travellers is in-line with the SDG Ridership Study 2020 projections (i.e., 39% Business, 61% Non-Business)

2. Catchment Area Representation
   - Results have been weighted to ensure catchment area representation is aligned with the SDG Ridership Study catchment area ridership breakdown.

---

1. For Northstar, GTHA segment includes York Region and Halton/Hamilton which are additional areas that were not included in the Ipsos survey results.
Finally, three key assumptions were made in order to analyze the results.

### Data Analysis Assumptions

<table>
<thead>
<tr>
<th>Base Case Bundle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discrete choice analysis presented in this document is based on a base case bundle of attributes (listed below)</td>
</tr>
<tr>
<td>The attributes within this base case bundle have the lowest provisioning costs, relative to the other attributes tested</td>
</tr>
<tr>
<td>Sensitivity analysis was conducted on other attribute bundles to test that the findings for the base case hold for other attributes as well</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Attribute Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case Bundle</td>
</tr>
<tr>
<td>Drop-off / Pick-up area</td>
</tr>
<tr>
<td>Load and unload own luggage</td>
</tr>
<tr>
<td>No food or beverage</td>
</tr>
<tr>
<td>News, sports, and weather television</td>
</tr>
<tr>
<td>Collect airline loyalty points</td>
</tr>
<tr>
<td>No group discount</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Take Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of Preference represents the percentage of respondents surveyed that selected a travel option, while Take Rate represents the estimated percentage of respondents that would actually use the option in a real life purchasing decision</td>
</tr>
<tr>
<td>Take Rate accounts for the fact that survey respondents often over-state their likelihood to use an option. The Take Rate value is generated by applying a weighting or correction factor to the Share of Preference value. Take Rates are not ridership projections</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1-way Fare Price and 2012$s</th>
</tr>
</thead>
<tbody>
<tr>
<td>The fare price used in the analysis is the 1-way fare price (not average fare price) and prices are in 2012$s</td>
</tr>
</tbody>
</table>
III. Total Sample Observations and Insights
The profile of survey respondents varied by age, gender type, level of education, marital status...

### Age

<table>
<thead>
<tr>
<th>Customer Age</th>
<th>% of Total Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18-34</td>
<td>25%</td>
</tr>
<tr>
<td>35-54</td>
<td>45%</td>
</tr>
<tr>
<td>55+</td>
<td>30%</td>
</tr>
</tbody>
</table>

### Gender

- Male: 52%
- Female: 48%

### Highest Level of Education\(^1\)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>% of Total Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School or Lower</td>
<td>8%</td>
</tr>
<tr>
<td>College</td>
<td>28%</td>
</tr>
<tr>
<td>University Undergraduate</td>
<td>43%</td>
</tr>
<tr>
<td>University Graduate</td>
<td>20%</td>
</tr>
<tr>
<td>Prefer Not to Say</td>
<td>1%</td>
</tr>
</tbody>
</table>

### Marital Status

- Married: 54%
- Single: 23%
- Separated/Divorced/Widowed: 13%
- Common Law: 8%
- Prefer not to say: 2%

---

1. High School or Lower includes Graduated High School (7%), Some High School (1%) and Primary School or Less (1%); College includes Graduate from College/CEGEP (19%) and Some College/CEGEP (9%); University Undergraduate includes University Undergraduate Degree (34%) and Some University (9%)

**Note:** Analysis based on unweighted, total sample data (n = 3137).
…employment status, income levels, place of residence, and family sizes

### Employment Status

- **Full time**: 58%
- **Part time**: 7%
- **Self-Employed**: 10%
- **Retired**: 15%
- **Unemployed**: 3%
- **Other**: 7%

Other includes Homemaker (2%), Full-Time Student (3%), Prefer not to say (1.5%), and Other (0.6%)

### Household Income

- **Prefer not to say**: 15%
- **>$150,000**: 14%
- **$100,000-$149,999**: 21%
- **$50,000-$99,999**: 35%
- **<=$50,000**: 16%

### Place of Residence

- **GTA**: 60%
- **Domestic**: 21%
- **US**: 17%
- **International**: 2%

### Family Size

- **One**: 19%
- **Two**: 38%
- **Three**: 18%
- **Four or more**: 22%
- **Prefer not to say**: 3%

1. 3.4% preferred not to indicate the size of their family

Note: Analysis based on unweighted, total sample data (n = 3137).
Over 70% of those surveyed indicated that they would be likely to switch from their current mode of airport transportation to ARL.

**Observations**

- Even with only a basic knowledge of the ARL service, a large majority of respondents indicated that they were willing to switch their current mode of airport transportation.
- With an appropriately priced service offering, ARL has the potential to gain significant share from existing modes of transportation to the airport.

**Data Interpretation**

- Respondents were provided with a basic description of the ARL service prior to responding to this question (train every 15 minutes, 25 minutes from Union to Pearson).

**Note:** Analysis based on weighted, total sample data (n = 3137).
The majority of respondents indicated a preference for using Union station, initiating travel from home, checking baggage, and self-funding their travel.

### Preferred ARL Station

<table>
<thead>
<tr>
<th>Station</th>
<th>Preference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union</td>
<td>61%</td>
</tr>
<tr>
<td>Bloor</td>
<td>19%</td>
</tr>
<tr>
<td>Weston</td>
<td>5%</td>
</tr>
<tr>
<td>Don't Know/Not Sure</td>
<td>15%</td>
</tr>
</tbody>
</table>

*For the purposes of analysis (i.e., DC simulator), the Don't Know / Not Sure respondents were included in the Union station numbers.

### Place of Departure

<table>
<thead>
<tr>
<th>Departure</th>
<th>Preference (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>61%</td>
</tr>
<tr>
<td>Hotel</td>
<td>23%</td>
</tr>
<tr>
<td>Work</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>9%</td>
</tr>
</tbody>
</table>

*Other includes school, home of friend/relative, and other.

### Number of Checked Bags

<table>
<thead>
<tr>
<th>Bags</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>18%</td>
</tr>
<tr>
<td>One</td>
<td>61%</td>
</tr>
<tr>
<td>Two</td>
<td>17%</td>
</tr>
<tr>
<td>Three or More</td>
<td>4%</td>
</tr>
</tbody>
</table>

*Over 80% of respondents check at least one bag.*

### Source of Airport Transportation Payment

<table>
<thead>
<tr>
<th>Source</th>
<th>Proportion (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myself</td>
<td>62%</td>
</tr>
<tr>
<td>Employer</td>
<td>23%</td>
</tr>
<tr>
<td>Friend/Family</td>
<td>8%</td>
</tr>
<tr>
<td>Shared/Other</td>
<td>7%</td>
</tr>
</tbody>
</table>

*Most respondents fund their own travel to the airport.*

*Largely due to Leisure customers. However, the survey results also indicated that a large number of GTA Business customers also self-fund their travel.

---

1. Q18: Assuming you were to use the Air Rail Link in the future, where would you be most likely to board the service, if all other circumstances were similar to today?
2. Q9: Which of the following best describes where you started your journey to the airport during your most recent trip to Pearson?
3. Q10: During this most recent trip, how many checked bags did you travel with?
4. Q6: Who paid for your travel to the airport?

**Note:** Analysis based on weighted, total sample data (n = 3137).
As price increases, ARL loses most of its Potential ARL Market Share to two competitive transportation modes – Drop-Off and Taxis / Limos

Observations

- With the introduction of the ARL service, ARL appears to gain the majority of its ridership from individuals currently using Taxis and Limos.
- Within this attribute bundle, ARL maintains the largest market share until the $25 price point, when Drop-Off becomes the preferred mode of transportation.
- Between $30 and $35, the ARL respondents start to prefer taking a Taxi / Limo over the ARL.

Data Interpretation

- Base case bundle was used for this analysis.
- The data in the graph is based on the unweighted total sample data, which is representative of the Potential ARL Market (refer slide 10).
- The % difference in Take Rate between SDG and Discrete Choice for the different modes of transportation varied between 3 to 7%. Take Rate values differ from SDG Ridership Study forecasts as TTC was excluded as a competitive mode in the SDG Ridership Study. In addition, the SDG Ridership Study included rental cars within its set of competitive modes of transportation.

Note: Analysis based on unweighted, total sample data (n = 3137).
In addition, almost half the customers surveyed currently spend more than $40 and greater than 30 minutes of their time on getting to Pearson airport.

**Observations**

- Almost half of respondents spent more than $40 on their most recent trip to Pearson.
- Furthermore, almost half of respondents took more than 30 minutes to get to the airport during their most recent trip.

**Note:** Analysis based on weighted, total sample data (n = 3137).

**Data Interpretation**

- The respondents’ cost of most recent trip to Pearson was determined using their response to Question 5: *Approximately, how much did it cost for you to get to or from Toronto's Pearson International Airport?*
- The respondents’ cost of most recent trip to Pearson was determined using their response to Question 8: *Approximately how long did it take for you to get from your starting location to the airport, or from the airport to your final destination?*

**Current Cost and Time Duration of Travel to Airport**

**Cost of Most Recent Trip to Pearson**

- **Average:** $46.10
- **Percentage of Respondents (%):**
  - > $0 - $20: 16%
  - $21 - $40: 13%
  - $41 - $60: 31%
  - $61 - $200: 14%

**Time Duration of Most Recent Trip to Pearson**

- **Average:** 43.6 min
- **Percentage of Respondents (%):**
  - ≤ 15: 8%
  - 16 - 30: 35%
  - 31 - 45: 25%
  - 46 - 60: 13%
  - > 60: 10%

*Remaining ~26% is accounted for by respondents that did not know or were unsure (15%), had no costs (7%), or submitted extraneous responses (4%). In addition, parking costs for those respondents that drove and parked may not be included, so actual costs may be higher.

*Remaining ~9% of respondents did not know or were unsure of their travel time.*
Price is the most important attribute influencing the decision-making of potential ARL customers

**Attribute Importance**

- **Price**: 73%
- **Getting to the Station**: 9%
- **Baggage**: 6%
- **Group Discount**: 5%
- **Other**: 3%
- **Loyalty and Partnerships**: 2%
- **Food and Beverage**: 2%
- **On-Train Experience**: 2%

*Price related attributes (i.e. Price and Group Discounts) account for 79% of total attribute importance*

**Observations**

- Price is the most important attribute influencing potential ARL customers
- With the inclusion of group discounts, which is also a price related attribute, the relative importance of price increases
- The relative importance of these attributes is consistent across all customer profiles

**Data Interpretation**

- The sum of all importance scores add up to 100% and in essence each attribute represents the “weight” in the respondent’s decision making evaluation

*Note: Analysis based on weighted, total sample data (n = 3137).*
Non-price attributes account for 21% of importance and influence customer decision-making.

Attribute Importance

- Non-price attributes (21%)
- The value differentiation between $25 and $30 is smaller than adjacent price increments (i.e. $20 to $25 and $30 to $35)

Observations

- After Price, Getting to the Station, Group Discount, and Baggage carry the greatest share of importance relative to other attributes tested
- The relative importance of these attributes is consistent across all customer profiles

Data Interpretation

- Each isotherm (i.e., vertical line) represents an attribute in the survey and each bubble represents a level within an attribute. The higher the position of the bubble the more it is valued
- The narrower the distance between bubbles, the less differentiation between the value of levels and the wider the range the more significant the differentiation in value between levels

Note: Analysis based on weighted, total sample data (n = 3137).
Customers value attributes that lower price (group discounts) and increase convenience (getting to the station, baggage).

**Attribute Importance**

- More Value
  - Getting to the Station
  - Group Discount
  - Baggage
  - Food and Beverage
  - On-Train Experience
  - Loyalty and Partnerships
  - Other Attributes

- Less Value
  - Price
  - Convenience

**Drop-off / pick-up area** is valued highest of all ‘Getting to the Station’ attributes.

**Baggage drop** is highly valued, but the overall importance of the Baggage attribute is low.

**Other Attributes**

- As expected, customers prefer higher discounts.

**Importance**

- Getting to the Station: 9%
- Group Discount: 6%
- Loyalty and Partnerships: 3%
- Food and Beverage: 2%
- On-Train Experience: 2%
- Convenience: 5%
- OtherAttributes: 21%

**Note:** Analysis based on weighted, total sample data (n = 3137).
Discrete Choice analysis indicates the highest potential for fare revenue maximization appears to occur between the $30 and $35 single fare price point between Union/Pearson.

**Illustrative Fare Revenue Maximization**

Maximized fare revenue

**Observations**

- As the fare revenue curve for the base case bundle (green line) illustrates, fare revenue is maximized between the $30 to $35 price range.
- The shape of the fare revenue curve, and fare revenue maximization price range, remains consistent across other attribute bundles (grey lines).
- In addition, the fare revenue maximization price range ($30 - $35) remains the same across each of the different stations.

**Data Interpretation**

- The fare revenue curve does not display actual projected fare revenue based on ridership forecast. It is based on the weighted respondent data and was generated to illustrate the price range that has the highest potential for fare revenue maximization.
- The other attribute bundles displayed (grey lines) contain relatively higher value attributes provided to customers for a higher provision cost compared to the base case bundle. Some of the higher value and cost services include baggage services (e.g., baggage drop and boarding pass), free food and beverage, and group discounts.

**Note:** Analysis based on weighted, total sample data (n = 3137).
It appears that customers are willing to pay for added service attributes; fare revenue can be increased marginally but profitability implications of providing these services need to be considered.

Implications of Adding High Value Services on Profitability

Illustrative Analysis

Add value services can help increase ridership (i.e., revenue uplift), but the associated delivery cost may make the service offering unprofitable.

Illustrative Profitability

<table>
<thead>
<tr>
<th>Revenue Uplift</th>
<th>Cost of Services</th>
<th>Profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>~$11.5M</td>
<td>~12.5M+</td>
<td>~1M*</td>
</tr>
</tbody>
</table>

*Additional unknown cost estimates will further decrease profitability

Data Interpretation

Revenue Uplift (Illustrative)

Additional fare revenue generated at $35 price point due to the addition of high value services

Cost of Service Provision (Illustrative)

Additional operating costs associated with providing additional value added services at $35 price point

Assumptions

<table>
<thead>
<tr>
<th>Total Revenue @ $30</th>
<th>~$66M</th>
<th>Ridership number based on SDG Ridership Study for 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Revenue @ $35</td>
<td>~$77.5M</td>
<td>Same number of riders as $30 price point given similar Take Rate value (after adding value services)</td>
</tr>
<tr>
<td>Revenue Uplift</td>
<td>~$11.5M</td>
<td></td>
</tr>
</tbody>
</table>
Given that customers are more price sensitive at Bloor and Weston, ARL should consider different price points at ARL stations

**Change in Take Rate at Different Price Points (by ARL Station)**

1. Differentiated pricing by station should be considered because Take Rates vary by station (i.e., differing price sensitivities).
2. Price sensitivity price points differ at each station:
   - **Union**: Most price sensitive between $35 - $40; pricing at or below $35 should be considered.
   - **Bloor and Weston**: Most price sensitive between $15 - $25; pricing at or below $25 should be considered.
3. Even with incremental pricing (i.e., additional $5) at further stations, Take Rate remains the same or greater than the Take Rate of the closest station (i.e., Weston).

**Observations**
- The fact that Take Rate differs at each station for the same attribute bundle illustrates that customers using the different stations have different price sensitivities.
- Furthermore, each station appears to have a price point range at which customers become more price sensitive:
  - For Union, up to $35 there is a relatively constant sensitivity to price (i.e., steady decrease in Take Rate), but then customers appear to become more price sensitive (i.e., large Take Rate decrease between $35 and $40).
  - For Bloor and Weston, customers appear to be the most price sensitive between the $15 to $25 price range (i.e., largest decreases in Take Rate).

**Data Interpretation**
- The respondents’ preferred station was determined using their response to Question 18: Assuming you were to use the Air Rail Link in the future, where would you be most likely to board the service, if all other circumstances were similar to today?
- The base case bundle is illustrated on the graph, but similar results were observed with other attribute bundles.

**Note:** Analysis based on weighted, total sample data (n = 3137).
Customer perception and strategic business considerations add to the case for price differentiation by station

<table>
<thead>
<tr>
<th>Key Considerations for Differentiating Price by Station</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image_url" alt="Image" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost of Current Competitive Modes (1-way)</th>
<th>Union</th>
<th>Bloor</th>
<th>Weston</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport Exp.</td>
<td>$26.95 - $29.95</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Drive</td>
<td>$15 - $28 (park/day)</td>
<td>$15 - $28 (park/day)</td>
<td>$15 - $28 (park/day)</td>
</tr>
<tr>
<td>Drop-Off</td>
<td>$3 (park/20 min)</td>
<td>$3 (park/20 min)</td>
<td>$3 (park/20 min)</td>
</tr>
<tr>
<td>Taxi</td>
<td>~$53 + tip</td>
<td>~$40 + tip</td>
<td>~$30 + tip</td>
</tr>
<tr>
<td>Limo</td>
<td>~$60 + tip</td>
<td>~$45 + tip</td>
<td>~$35 + tip</td>
</tr>
<tr>
<td>TTC</td>
<td>$3/person</td>
<td>$3/person</td>
<td>$3/person</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Travel Time Associated with Competitive Modes</th>
<th>Airport Exp.</th>
<th>Drive</th>
<th>Drop-Off</th>
<th>Taxi / Limo</th>
<th>TTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Union</td>
<td>40 – 60 min</td>
<td>N/A</td>
<td>30 – 60 min</td>
<td>30 – 60 min</td>
<td>75 – 90 min</td>
</tr>
<tr>
<td>Bloor</td>
<td>N/A</td>
<td>25 – 45 min</td>
<td>25 – 45 min</td>
<td>45 – 65 min</td>
<td></td>
</tr>
<tr>
<td>Weston</td>
<td>15 – 25 min</td>
<td>15 – 25 min</td>
<td>15 – 25 min</td>
<td>40 – 60 min</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>- ARL’s major competitive modes, Taxis / Limos, provide customers with differentiated fare based on the zone / distance travelled to the airport</td>
</tr>
<tr>
<td>- Although there is a potential to maximize fare revenue by offering the same price across stations (refer slide 23), there may be negative customer perceptions associated with having a single fare given the differentiated travel time from each station to the airport</td>
</tr>
</tbody>
</table>

| Source: Cost estimates based on primary research with Toronto based taxi and limo services, Airport Express Bus Service (including Airport Express Connect) as at Summer’12; Time estimates based on secondary research on Go Transit Google Trip Planner for peak and off-peak traffic times in Toronto as at Summer’12. |

<table>
<thead>
<tr>
<th>Business Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Given the large number of fixed costs associated with ARL operations, maximizing the number of riders at each station through differentiated fares will help lower the overall cost per rider thereby improving overall profitability</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Public / Political Scrutiny</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Given that ARL is a public entity, the pricing of the ARL service at the different stations will be open to public and political discussion and scrutiny</td>
</tr>
</tbody>
</table>
IV. Informing the ARL Customer Experience Strategy
Discrete Choice tested a number of strategic decisions across the four CE projects across the Customer Lifecycle and also provided insights for other ARL Program projects.

### Customer Lifecycle Touchpoints Tested by Discrete Choice

**Touchpoint**

- **Information & Planning**
  - Uses the website, mobile app, and other pre-departure information to plan trip

- **Getting to / from the Station**
  - Goes to the desired station through various access options

- **Getting to the Lounge / Platform**
  - Proceeds from the arrival point at the station to the ARL lounge or platform

- **Ticket Purchase**
  - Purchases a ticket using one of the many available channels in advance, in the station / lounge, or onboard

- **Airport / Airline Services**
  - Checks in for a flight at the ARL station / lounge and uses other airport / airline services available

- **Waiting for the Train**
  - Waits for the train in the ARL station / lounge, and enjoys amenities, retail options, and services available

- **Boarding the Train**
  - Boards the train and loads baggage onto appropriate storage area

- **Onboard the Train**
  - Rides the train to Terminal 1 at Toronto Pearson, while using services such as Wi-Fi and enjoying on-board entertainment

- **De-boarding the Train at T1**
  - Collects baggage and de-boards the train at T1 Pearson

- **Getting to / from the Terminal**
  - Takes LINK Train to Terminal 3 (if required) and navigates to check-in area / ARL platform in T1

- **End-to-End Experience**
  - Customer experience that reaches across the entire lifecycle

### Projects

- **Multi-Channel Customer Service**
  - Station Experience
  - Fare Strategy & Policy

- **Getting to the Station**
  - Fare Purchase
  - Baggage
  - Fare Structure

- **Station Experience**
  - Food and Beverage

- **Onboard Experience**
  - Enter. & Travel Info.

- **Station Experience**
  - Food and Beverage

- **Other Projects**
  - Marketing Strategy
  - Operations Strategy
Study findings not only support the ACT recommended key CE strategic elements for 2015, but also mostly align with the post-2015 ARL vision

**Summary and Implications of Discrete Choice Findings on CE Strategy**

- In general, Discrete Choice findings **align with the proposed Customer Experience strategy** for ARL.

- **Price is the most important decision-making factor**, with non-price attributes having relatively lower importance and influence on potential customers.

- Strategic elements such the **pick-up / drop-off area, baggage tag printing capabilities, and advance ticket purchasing** are moderately valued.

- Respondents placed relatively **low importance and value on free food and beverage and entertainment and travel information services**.

- In terms of marketing the ARL service, **emphasis should be placed on promoting the speed and cost advantage of the service** over current slower and high cost modes of transportation (e.g., taxis / limos) because respondents are least satisfied with these elements of their current airport travel experience.

- With a low number of respondents traveling to the airport late in the evening (and more in very early mornings), ARL should **conduct further analysis with the GTAA and Rail Operations on the cost-benefit of modifying the service** (train frequency and operating hours) to respond to both inbound and outbound service.

- **Post launch, ARL will be required to understand the customer appetite for additional 'want to have' services** such as short-term parking and baggage storage as respondents placed relatively low value on these amenities.

- In addition, the Discrete Choice **findings and simulator tool should be used to help in the prioritization of strategic elements within the ARL Business Strategy and Plan**.
ARL should assess the cost-benefit of implementing short-term parking post launch as it is not a service that is highly valued by respondents.

### Validation of ACT Decisions based on Discrete Choice Findings

<table>
<thead>
<tr>
<th>CE Strategy Element</th>
<th>ACT Decision (14 – May)</th>
<th>DC Validation</th>
<th>DC Findings / Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pick–up / Drop-off area</td>
<td>Must Have a Kiss &amp; Ride area at Union, Bloor, and Weston stations</td>
<td></td>
<td>Highest valued Getting to the Station option&lt;br&gt;~37% of respondents would take a taxi / limo or get dropped off at the station</td>
</tr>
<tr>
<td>Door-to-Door Service</td>
<td>Want to Have a convenient / cost effective door-to-door service (e.g., taxi, Uber, etc.)</td>
<td></td>
<td>Highest valued Getting to the Station option (comparable to pick-up / drop area)&lt;br&gt;~25% of respondents would take a taxi / limo</td>
</tr>
<tr>
<td>Shuttle Bus</td>
<td>Discard shuttle bus service at Union Station</td>
<td></td>
<td>Low value when compared to pick-up / drop-off area and door-to-door service&lt;br&gt;&lt; 5% of respondents would use a shuttle bus to get to the station</td>
</tr>
<tr>
<td>Parking</td>
<td>Want to Have short-term parking at Union, Bloor, and Weston stations</td>
<td></td>
<td>Low valued option; &lt; 5% of respondents would drive and park at the station&lt;br&gt;Assess cost-benefit of service provision post launch</td>
</tr>
<tr>
<td>Valet Parking</td>
<td>Valet parking was not considered</td>
<td>N/A</td>
<td>Lowest valued option of all Getting to the Station options considered</td>
</tr>
</tbody>
</table>

### Isotherm: Getting to the Station

- **Importance**: 9%
- **Price is the most important attribute**

**Relative Importance within Attribute**
1. Drop-off and pick-up area
2. Door-to-door personal pick-up and drop-off service from home / office ($)
3. Shuttle bus service serving major hotels and office buildings ($)
4. Parking ($)
5. Valet Parking ($)

**Relative Ranking of CE Strategy Elements**:
1. Drop-off and pick-up area
2. Door-to-door personal pick-up and drop-off service from home / office ($)
3. Shuttle bus service serving major hotels and office buildings ($)
4. Parking ($)
5. Valet Parking ($)

- **Total**
  - U: 1<br>  - B: 2<br>  - W: 1

- **Importance**
  - U: 1<br>  - B: 2<br>  - W: 1

- **Value**
  - U: 3<br>  - B: 3<br>  - W: 2

- **Less**
  - U: 4<br>  - B: 4<br>  - W: 4

- **More**
  - U: 5<br>  - B: 5<br>  - W: 5

Note: Price is the most important attribute.
Baggage services that are an extension of the air travel experience are highly valued

### Station Experience: Baggage*

<table>
<thead>
<tr>
<th>CE Strategy Element</th>
<th>ACT Decision (14 – May)</th>
<th>DC Validation</th>
<th>DC Findings / Implications</th>
</tr>
</thead>
</table>
| Check-in flight / bags | **Want to Have** Full Service Check-in with Baggage Drop at Union station |  | Highest valued Baggage option, however Baggage only has an overall relative importance of 5%  
> 80% of respondents checked at least one bag |
| Print baggage tags | **Must Have** self-service check-in kiosks with baggage tag printing capabilities at Union, Bloor and Weston stations |  | 2nd most valued Baggage option. Relatively higher in value than other options (except for check-in flight / bag) |
| Print boarding pass | Check-in kiosks with no baggage tag printing capabilities was not considered | N/A | Relatively low value  
Value of option seems to increase if baggage tag printing capabilities exist |
| Baggage porter | **Discard** option to have baggage porter service at all stations |  | Relatively low value  
Option is comparable in value to loading / unloading own luggage |
| Baggage storage | **Want to Have** a shared baggage storage with VIA Rail at Union station. Feasibility analysis required. |  | Lowest valued option of all Baggage options considered  
Assess cost-benefit of service provision post launch |

### Validation of ACT Decisions based on Discrete Choice Findings

#### Isotherm: Baggage

- Check into flight and check bags at the ARL station
- Print baggage tags at ARL station
- Load and unload own luggage onto train
- Baggage porter service
- Baggage storage service at Union station

**Importance**: 5%

*Note: Price is the most important attribute

*Onboard Host and GSRs will help with this service
Respondents placed little importance on Food and Beverage and did not differentiate the value they placed on unique offerings.

### Station and Onboard Experience: Food and Beverage

<table>
<thead>
<tr>
<th>CE Strategy Element</th>
<th>ACT Decision (14 – May)</th>
<th>DC Validation</th>
<th>DC Findings / Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Free food and beverage offerings</td>
<td>Station Experience:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Must Have food and beverage offerings at Union station</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Want to Have food and beverage offerings at Bloor, Weston, and T1 stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Retail Strategy project is needed in order to define the specific retail / food &amp; beverage offerings for all stations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• The decision regarding whether to offer free food is still outstanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Onboard Experience:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Discard onboard food &amp; beverage sales unless Discrete Choice research suggests otherwise</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Only offer food / beverage / alcohol as promotional samples through partnerships and sponsorships</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Even with the option to receive complimentary food, respondents only gave Food and Beverage a relative importance of 2% when compared to the other attributes tested.
- Within the Food and Beverage attribute, there is relatively little differentiation in the value of the different food and beverage options.
- As part of the Retail Strategy project assess whether extensive food and beverage offerings are required, as well as whether food and beverage offerings are required at all stations post launch.

### Validation of ACT Decisions based on Discrete Choice Findings

- Even with the option to receive complimentary food, respondents only gave Food and Beverage a relative importance of 2% when compared to the other attributes tested.
- Within the Food and Beverage attribute, there is relatively little differentiation in the value of the different food and beverage options.
- As part of the Retail Strategy project assess whether extensive food and beverage offerings are required, as well as whether food and beverage offerings are required at all stations post launch.

### Isotherm: Food and Beverage

- Free fruits, cheeses, and crackers
- Free juice, soda, coffee, and water
- Free potato chips, pretzels, peanuts, and cookies
- Free local beer and wine
- No food or beverage offered

**Note:** Price is the most important attribute.
ARL should keep in mind the low importance of onboard entertainment and travel information options when defining its screen display strategy.

### Validation of ACT Decisions based on Discrete Choice Findings

<table>
<thead>
<tr>
<th>CE Strategy Element</th>
<th>ACT Decision (14 – May)</th>
<th>DC Validation</th>
<th>DC Findings / Implications</th>
</tr>
</thead>
</table>
| Free newspapers and magazines | **Discard** option to provide free newspapers and magazines onboard | ![Green Circle](attachment:discrete_choice_icon.png) | - The relative importance of the On-Train Experience attribute is only 2%
- Even though free newspapers and magazines is the highest valued On-Train Experience attribute option, the other options are relatively close in value
- Although DC findings indicate that entertainment and travel information services have relatively low importance, it would still be valuable to include some of these services because they will help reduce the stress of the overall travel experience and many leading ARLs provide some of these services onboard. In addition, some of these services will also drive non-fare revenue (e.g., advertising). |
| Flight information screens | **Must Have** flight information on LCDs onboard the train | ![Green Circle](attachment:discrete_choice_icon.png) |
| News, sports, and weather television | **Must Have** TV programming onboard that includes: ARL information, tourism information, advertising, news and weather | ![Green Circle](attachment:discrete_choice_icon.png) |
| Train speed & time to destination displays | **Must Have** next stop annunciation and the number of minutes to final destination at each stop | ![Green Circle](attachment:discrete_choice_icon.png) |

Note: Price is the most important attribute.

---

1. Heathrow Express, Rhonexpress, Narita Express, and Arlanda Express provide flight information. Heathrow Express also provides onboard TV programming.
Respondents indicate a strong preference for advanced fare purchasing, but a low interest in purchasing multi-ride fares

---

### Fare Strategy & Policy: Purchase Channel and Fare Products

#### Validation of ACT Decisions based on Discrete Choice Findings

<table>
<thead>
<tr>
<th>CE Strategy Element</th>
<th>ACT Decision (14 – May)</th>
<th>DC Validation</th>
<th>DC Findings / Implications</th>
</tr>
</thead>
</table>
| **Purchase Channel**|                          |               | ▪ Large number of customers prefer purchasing fare online in advance of travel, through a self-service kiosk, and onboard the train  
▪ Note: 1) Study did not test all purchase channel options considered by ARL. 2) Survey did not consider future channels and technologies (e.g., Open Payment and mobile NFC). 3) Differentiated pricing across the different channels was not considered in study (e.g., convenience fee for onboard purchase) |
| ▪ Must Have the ability to purchase fare through online channel, mobile channels, partner channels, ticket vending machines, open payment validators, and onboard channel | | |
| **Fare Structure** |                          |               | ▪ There is little interest in multi-ride fares (aside from the return fares), even amongst business respondents who travel frequently  
▪ When defining fare products, reconsider whether multi-ride fares, other than return fares, are required |
| ▪ Must Have single & multi-ride fares | | |

#### Preferred Fare Purchase Method

<table>
<thead>
<tr>
<th>Method</th>
<th>% of Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>65%</td>
</tr>
<tr>
<td>Kiosk</td>
<td>52%</td>
</tr>
<tr>
<td>Onboard</td>
<td>46%</td>
</tr>
<tr>
<td>Mobile</td>
<td>23%</td>
</tr>
<tr>
<td>Ticket Counter</td>
<td>22%</td>
</tr>
<tr>
<td>Airline Ticket Bundle</td>
<td>20%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>4%</td>
</tr>
<tr>
<td>On Flight</td>
<td>6%</td>
</tr>
</tbody>
</table>

1. Q22. How would you prefer to purchase your ARL ticket?
Note: Respondents selected multiple methods and did not consider price when responding.

#### Preferred Ticket Type

<table>
<thead>
<tr>
<th>Ticket Type</th>
<th>% of Respondents (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Ride Ticket</td>
<td>35%</td>
</tr>
<tr>
<td>Return Ticket</td>
<td>54%</td>
</tr>
<tr>
<td>Multi-ride Card</td>
<td>7%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
</tr>
<tr>
<td>Don't Know</td>
<td>3%</td>
</tr>
</tbody>
</table>

2. Q23. What type of ticket would you prefer?

---

Note: Analysis based on weighted, total sample data (n = 3137).
ARL should focus on delivering on and promoting the speed and cost advantage of the service.

**Other Project: Marketing Strategy**

- **Perception of Current Travel Experience to Airport**
  - Your overall experience: 48% (8-10), 45% (4-7), 6% (1-3), 1% (N/A), 1% (Don't Know)
  - Ease of getting to the airport: 55% (8-10), 38% (4-7), 7% (1-3), 2% (N/A), 1% (Don't Know)
  - Availability of the transportation option: 53% (8-10), 33% (4-7), 11% (1-3), 1% (N/A), 1% (Don't Know)
  - The time it takes getting to the airport: 44% (8-10), 44% (4-7), 11% (1-3), 3% (N/A), 1% (Don't Know)
  - Cost of getting to the airport: 33% (8-10), 42% (4-7), 22% (1-3), 1% (N/A), 1% (Don't Know)
  - Ease of parking: 21% (8-10), 18% (4-7), 6% (1-3), 49% (N/A), 5% (Don't Know)

**Observations**

- Almost of half of respondents had a positive overall travel experience during their most recent trip to Pearson.
- With a large number of respondents satisfied with their current travel experience, ARL will need develop a value proposition that targets specific aspects of the current travel experience that are current lacking.
- Two potential areas that ARL can target are the time it takes to get to the airport (almost half of respondents took more than 30 min. to get to the airport) and cost of getting to the airport (almost half of respondents paid more than $40 to get to the airport).

**Other Project: Operations Strategy**

- **Time of Departure to Airport**
  - 10pm - 12am: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 7pm - 9pm: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 4pm - 6pm: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 1pm - 3pm: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 10am - 12pm: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 7am - 9am: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 4am - 6am: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)
  - 1am - 3am: 1% (8-10), 3% (4-7), 12% (1-3), 18% (N/A), 1% (Don't Know)

**Observations**

- The current working assumption for hours of operations for ARL are 5:30am – 1:00am. This is similar to the hours of operation for Airport Express.
- Based on survey responses, most respondents began their journey to the airport between the hours of 4am to 6pm.
- Respondents leaving from the airport were not surveyed, so departure time from the airport was not captured in the survey results.
- ARL will need to consider the cost-benefit of maintaining the same frequency of ARL service late at night if there is low ridership.

1. Q17. Think about your most recent trip to Pearson, how would you rate the following aspects of this experience? (‘10’ means excellent and a ‘1’ very poor)
2. Q7. Approximately what time of the day did you begin your journey to the airport today? during your most recent trip to Pearson?

**Note:** Analysis based on weighted, total sample data (n = 3137).
V. Customer Profile Specific Observations and Insights

1. GTA Leisure
2. GTA Business
3. Non-GTA Leisure
4. Non-GTA Business

Note:
- GTA includes respondents that identified themselves as living in the Greater Toronto Area. Non-GTA includes respondents who identified themselves as living in Canada but outside of the GTA, in the United States, or outside of Canada and the United States.
- Key observations and insights on Canadians as well as non-Canadians have also been captured in this section.
General sample observations and insights mostly hold true across all four customer profiles.

### Attribute Importance

<table>
<thead>
<tr>
<th></th>
<th>Price</th>
<th>Getting to the Station</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA-Leisure</td>
<td>77%</td>
<td>7%</td>
<td>16%</td>
</tr>
<tr>
<td>GTA Business</td>
<td>73%</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>Non-GTA Leisure</td>
<td>70%</td>
<td>11%</td>
<td>19%</td>
</tr>
<tr>
<td>Non-GTA Business</td>
<td>68%</td>
<td>12%</td>
<td>20%</td>
</tr>
<tr>
<td>Total Sample</td>
<td>73%</td>
<td>9%</td>
<td>18%</td>
</tr>
</tbody>
</table>

**Price is a key attribute across all customer profiles; GTA Business Customers are more price sensitive than non-GTA customers**

**Note:** Other includes Baggage, Food and Beverage, On-Train Experience, Loyalty and Partnerships, and Group Discount. Also, Non-Canadians are less price sensitive than Canadian customers.

### Current Preferred Mode of Transportation

<table>
<thead>
<tr>
<th>Mode of Transportation</th>
<th>Public Transit</th>
<th>Taxi</th>
<th>Limo</th>
<th>Drop-Off</th>
<th>Drive</th>
<th>Airport Express</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA Leisure</td>
<td>13%</td>
<td>28%</td>
<td>21%</td>
<td>20%</td>
<td>10%</td>
<td>7%</td>
<td>2%</td>
</tr>
<tr>
<td>GTA Business</td>
<td>6%</td>
<td>45%</td>
<td>21%</td>
<td>9%</td>
<td>13%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Non-GTA Leisure</td>
<td>9%</td>
<td>33%</td>
<td>5%</td>
<td>23%</td>
<td>8%</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Non-GTA Business</td>
<td>6%</td>
<td>55%</td>
<td>8%</td>
<td>6%</td>
<td>16%</td>
<td>5%</td>
<td>5%</td>
</tr>
<tr>
<td>Total Sample</td>
<td>9%</td>
<td>39%</td>
<td>14%</td>
<td>15%</td>
<td>9%</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

**Taxi / Limo are the preferred modes of transportation across all customer profiles**

**Note:** Other includes Rental Car, Shuttle Bus, and Don't Know. Public Transit includes TTC, GO Bus, Brampton Transit, and Mississauga Transit.

### Preferred Station

<table>
<thead>
<tr>
<th>Station</th>
<th>Union</th>
<th>Bloor</th>
<th>Weston</th>
<th>Don't Know/Not Sure</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA Leisure</td>
<td>61%</td>
<td>19%</td>
<td>7%</td>
<td>14%</td>
</tr>
<tr>
<td>GTA Business</td>
<td>69%</td>
<td>18%</td>
<td>5%</td>
<td>8%</td>
</tr>
<tr>
<td>Non-GTA Leisure</td>
<td>48%</td>
<td>25%</td>
<td>4%</td>
<td>23%</td>
</tr>
<tr>
<td>Non-GTA Business</td>
<td>68%</td>
<td>15%</td>
<td>2%</td>
<td>15%</td>
</tr>
<tr>
<td>Total Sample</td>
<td>61%</td>
<td>19%</td>
<td>5%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Union station is the most preferred among all customer profiles, especially business customers**

**Note:** For the purposes of analysis (i.e., simulator), the Don't Know / Not Sure respondents were included in the Union station numbers.

**Note:** Analysis based on weighted, total sample data (n = 3137).

### Source of Airport Transportation Payment

<table>
<thead>
<tr>
<th>Source of Payment</th>
<th>Myself</th>
<th>Employer</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA Leisure</td>
<td>82%</td>
<td>17%</td>
<td>1%</td>
</tr>
<tr>
<td>GTA Business</td>
<td>52%</td>
<td>45%</td>
<td>3%</td>
</tr>
<tr>
<td>Non-GTA Leisure</td>
<td>71%</td>
<td>4%</td>
<td>25%</td>
</tr>
<tr>
<td>Non-GTA Business</td>
<td>29%</td>
<td>60%</td>
<td>11%</td>
</tr>
<tr>
<td>Total Sample</td>
<td>62%</td>
<td>23%</td>
<td>16%</td>
</tr>
</tbody>
</table>

**Customers largely pay for their own airport transportation, with the exception of Non-GTA Business customers**

**Note:** Other includes Friend/Family and Shared/Other.
Potential GTA Leisure customers are the most price sensitive, with a third preferring to use the lowest cost modes of transportation to the airport and the majority travelling with companions.

Observations (n = 1215)

- Relative to other customer profiles, GTA Leisure customers are the most price sensitive.
- The importance of price to GTA Leisure customers is demonstrated by their use of low cost modes of airport transportation (i.e., Drop-Off or TTC).
- The price sensitivity of GTA Leisure customers may be influenced by the fact that > 70% these customers typically travel with one or more individuals, which increases the overall cost of airport transportation.

Note: Other includes shuttle buses (0.9%), rental cars (0.1%), and don’t know (0.5%). Public Transit includes TTC (11.8%), GO Bus (0.6%), and Brampton Transit (0.1%).

Note: Analysis based on weighted, total sample data (n = 3137). GTA includes respondents that identified themselves as living in the Greater Toronto Area.
Despite price being an important decision-making factor for GTA Business customers, they still use the highest cost modes of airport transportation.

**Attribute Importance**

- Price, 73%
- Getting to the Station, 8%
- Food and Beverage, 3%
- Baggage, 5%
- On-Train Experience, 2%
- Loyalty and Partnerships, 3%
- Group Discount, 7%

~70% of respondents travel alone.

**Current Preferred Mode of Transportation**

- Public Transit: 6%
- Taxi: 45%
- Limo: 21%
- Drop-Off: 9%
- Drive: 13%
- Airport Express: 3%
- Other: 3%

> 60% use high cost modes of transportation.

**Current Modes of Transportation**

Note: Other includes shuttle buses (2.1%), rental cars (0.3%), and don’t know (0.4%). Public Transit includes TTC (5.5%) and GO Bus (0.5%)

**Observations (n = 383)**

- After GTA Leisure customers, GTA Business customers are the most price sensitive.
- The importance of price may be driven by the fact that GTA Business customers make frequent trips to the airport (close to 50% made 4+ trips over the past 12 months), often using the most expensive modes of airport transportation (i.e., Taxi or Limo).
- Furthermore, more than half of all GTA Business customers indicated that they pay for their own travel to the airport, which can make travelling to the airport a significant personal expense for these frequent travellers.

**Source of Airport Transportation Payment**

- Myself: 52%
- Employer: 45%
- Friend/Family: 1%
- Shared/Other: 2%

>50% of respondents pay for their own transportation.

**Source of Payment**

Note: Analysis based on weighted, total sample data (n = 3137). GTA includes respondents that identified themselves as living in the Greater Toronto Area.
Non-GTA Leisure customers are less price sensitive than GTA customers, but they still prefer low cost modes of transportation like Drop-Off and TTC, possibly due to their travelling in groups.

### Attribute Importance

- Price, 70%
- Group Discount, 7%
- On-Train Experience, 2%
- Loyalty and Partnerships, 3%
- Food and Beverage, 3%
- Baggage, 5%
- Getting to the Station, 11%

### Current Preferred Mode of Transportation

- **Public Transit**: 33%
- **Taxi**: 23%
- **Limo**: 9%
- **Drop-Off**: 8%
- **Drive**: 6%
- **Airport Express**: 5%
- **Other**: 0%

- ~1/3 use low cost modes of transportation

### Current Modes of Transportation

*Note: Other includes shuttle buses (9.5%), rental cars (5.6%), and don’t know (0.8%). Public Transit includes TTC (8.2%), GO Bus (0.9%), Mississauga Transit (0.1%)

### Observations (n = 699)

- **Non-GTA Leisure** customers, relative to other customer profiles, are the second least price sensitive
- Despite being less price sensitive than GTA customers, a large number of Non-GTA Leisure customers still use low cost modes of airport transportation (i.e., Drop-Off or TTC)
- The price sensitivity of Non-GTA Leisure customers may be influenced by the fact that ~68% of these customers typically travel with one or more individuals, which increases the overall cost of airport transportation
- Within the Non-GTA Leisure profile, Canadian (non-GTA) and Non-Canadian Leisure customers exhibit similar behavior and preferences

### Travel Companions

- ~68% of respondents have at least 1 travel companion

### Note:

Analysis based on weighted, total sample data (n = 3137). Non-GTA includes respondents who identified themselves as living in Canada but outside of the GTA, in the United States, or outside of Canada and the United States.
Non-GTA Business customers are the least price sensitive and possibly use high cost modes of transportation to the airport as employers cover their travel expenses.

### Attribute Importance

- Price, 68%
- Getting to the Station, 12%
- Food and Beverage, 2%
- Loyalty and Partnerships, 3%
- On-Train Experience, 1%
- Group Discount, 8%

~60% of respondents travel alone.

### Current Preferred Mode of Transportation

- Taxi: 60% (source: Other)
- Limo: 8% (source: Other)
- Drop-Off: 6% (source: Other)
- Drive: 4% (source: Other)
- Airport Express: 5% (source: Other)
- Other: 16% (source: Other)

> 60% use high cost modes of transportation.

### Current Modes of Transportation

- Public Transit: 6% (source: Other)
- Taxi: 55% (source: Other)
- Limo: 8% (source: Other)
- Drive: 6% (source: Other)
- Airport Express: 5% (source: Other)
- Other: 16% (source: Other)

Note: Other includes shuttle buses (5.6%), rental cars (9.4%), don't know (0.7%). Public Transit includes TTC (4.4%) and GO Bus (2%).

### Source of Payment

- Myself: 29%
- Employer: 60%
- Friend/Family: 3%
- Shared/Other: 8%

~60% of respondent’s expense their travel to their employers.

### Observations (n = 840)

- Non-GTA Business customers, relative to other customer profiles, are the least price sensitive despite using the most expensive modes of airport transportation (i.e., Taxi and Limo).
- The lower price sensitivity of Non-GTA Business customers may be due to the fact that a majority of these customers expense their airport travel to employers.
- As a result, with less concern over price, Non-GTA Business customers are able to place greater importance on non-price attributes (e.g., Getting to the Station).
- Canadian (non-GTA) and Non-Canadian Business customers exhibit the similar behaviour and preferences, with the exception that ~40% of Canadian Business customers pay for their own travel, which is more inline with GTA Business customers.

Note: Analysis based on weighted, total sample data (n = 3137). Non-GTA includes respondents who identified themselves as living in Canada but outside of the GTA, in the United States, or outside of Canada and the United States.
VI. Appendix
Table of Contents

1. Discrete Choice Background
2. Relationship between Discrete Choice and Previous Market Studies
1. Discrete Choice provides valuable insight into the customer decision-making process in order to determine ARL CE Strategy

**DC Background**

- Given the number of potential features that can impact a customer’s overall travel experience between Union, Bloor and Weston Stations and the airport, a Discrete Choice Modeling approach helps ARL to **understand the impact that specific service features will have on customer preferences and choices**

1. **Base Offer** (e.g. 15 x 25 min service)
2. **Enhanced Service Options** (e.g. Food on the train)
3. **‘Wow’ Factor** (tbd)

- **Outputs** of the survey will inform the following three key inputs:
  1. **ARL options** (the services that customers desire from the ARL)
  2. **Price elasticity** (value of services)
  3. **Ridership propensity** (likelihood to change mode of travel to take the ARL)

- These outputs then inform ARL’s decision-making:
  - The **optimal service package** for ARL that will **maximize the revenue** potential
  - The **specific features** of the ARL service that consumers feel will **most enrich their overall travel experience** between these two major transportation hubs
1. Discrete Choice Analysis can help predict which travel package options customers choose based on given attributes

Discrete choice presents respondents with a series of choices (‘packages’) between different scenarios:
- Price level A, with business services available in-lounge, with in-transit beverage service; OR
- Price level B, with news and entertainment available in-lounge, with food service in-transit; OR
- Price level C, with baggage porter service, with free in-transit entertainment

Each package contains a specific value proposition
- An attribute (e.g., Getting to the Station) has a number of associated levels (e.g., Drop-off/Pick-up area, Door-to-Door service, Shuttle Bus Service, Parking, Valet Parking) that make up the value proposition

- This exercise replicates the decisions that consumers make in the real world
1. The Discrete Choice model will deliver the relative value of each level within each attribute

- The choices respondents make determine how important that option is on the decision to ride the ARL
- The Discrete Choice model will identify the importance of each attribute in the decision

<table>
<thead>
<tr>
<th>ATTRIBUTE IMPORTANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-Train Experience</td>
</tr>
<tr>
<td>Price</td>
</tr>
<tr>
<td>Loyalty and</td>
</tr>
<tr>
<td>Partnerships</td>
</tr>
<tr>
<td>Group Discounts</td>
</tr>
<tr>
<td>40%</td>
</tr>
<tr>
<td>30%</td>
</tr>
<tr>
<td>20%</td>
</tr>
<tr>
<td>10%</td>
</tr>
</tbody>
</table>

- A chart, called an isotherm graph, is produced that shows the relative value of each attribute level
- The utility scores are plotted on an isotherm graph
  - The benefit of this type of analysis is to rank all possible packages (which have been indexed) for consumer or traveler groups of interest – providing Metrolinx with a sense of which options will be more successful
- Each indicator (circle) on an isotherm represents a level within that attribute: the position of each circle on the isotherm demonstrates its relative value (higher on the vertical axis represents more value, while a lower position on this axis represents less value)
1. The output from the data collection enables projections of up-take for specific packages of interest and price elasticity

- In addition to ranking all plausible packages from high to low, DC analysis also produces a projected take rate for select packages (e.g., number of customers or potential customers likely to choose a set transportation package).
- This information can be utilized by ARL to inform the potential uplift in ridership based on certain service offerings.
- While take rates are meant to be a guide or reference only, the variance in take rates across various packages are an insightful indicator in terms of what package combination will generate the greatest level of interest among potential passengers, as well as the magnitude of that preference over other possible packages.
1. Based on the DC results, a simulator that models respondents choices is created to provide the ability to run ‘what-if’ scenarios

- The model *shows the relative importance of transportation mode, price, amenities, and other features* that are manipulated during the exercise
- This output allows the user to run *‘what-if’ scenarios* to see how selected package offerings and price points affect customer choice or preference
- The key outputs of the ‘what-if’ scenarios include the share of preference and take rate values
2. Relationship between Discrete Choice and Previous Market Studies

<table>
<thead>
<tr>
<th>Survey Respondents</th>
<th>Discrete Choice Study</th>
<th>Northstar ARL Market Assessment¹</th>
<th>SDG Ridership Study²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Includes GTA and non-GTA residents</td>
<td>Includes GTHA residents, visitors to Toronto, and Pearson employees</td>
<td>Includes GTA and non-GTA residents</td>
</tr>
<tr>
<td></td>
<td>Does not include Pearson employees</td>
<td>Does not include Pearson employees</td>
<td>Does not include Pearson employees</td>
</tr>
<tr>
<td>Catchment Area</td>
<td>Same catchment area as SDG Ridership Study</td>
<td>Includes two additional segments which were not included in SDG Ridership Study: York and West (Halton/Hamilton, etc.)</td>
<td>SDG’s catchment area consisted of 25 zones stretching from the airport to Oshawa, based on forecasts of in-scope demand</td>
</tr>
<tr>
<td>Weighting of Results</td>
<td>Discrete Choice weighted its data by catchment area, and business vs. non-business was weighted to be 39:61</td>
<td>North Star weighted its data by catchment area, and business vs. non-business was weighted to be 30:70</td>
<td>Weights were not used</td>
</tr>
<tr>
<td></td>
<td>Weighting aligns with SDG Ridership Study data projections</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Additional Notes</td>
<td>Intercept respondents must have lived outside the GTA and Panel respondents must have lived in the GTA (and/or US), having travelled to the GTA within the past 12 months</td>
<td>GTA respondents had to have flown out of Pearson within the past 12 months or planned to within the next 12 months</td>
<td></td>
</tr>
</tbody>
</table>

1. ARL Market Assessment Draft Report, Northstar, September 26, 2011