



**Finance & Administration Committee**

**Information Item III-A**

**October 13, 2011**

# **Metrorail and Metrobus Fare Structure Model**

Washington Metropolitan Area Transit Authority  
**Board Action/Information Summary**

<input type="radio"/> Action <input checked="" type="radio"/> Information	MEAD Number:	Resolution: <input type="radio"/> Yes <input checked="" type="radio"/> No
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**TITLE:**

Budget Policy Development - Rail and Bus Fares

**PURPOSE:**

Inform Board of development and availability of a tool for evaluating Metro fare structures and fare products, and discuss impacts of potential changes to fare structures and products on revenue, ridership and other criteria.

**DESCRIPTION:**

During Metro customer focus groups held in October of 2010, customers expressed concern that Metrorail fares are complex, not easy to determine and difficult to explain to others. In November of 2010, Metro adopted "fare policy principles" with the goal of codifying and updating the goals for future fare policy development. Metro is currently in the beginning stages of developing a New Electronic Payments Program (NEPP), with the goal of enabling Metro to accept "open payments" wherever farecards and SmarTrip® cards are currently used to access transit services in the region.

As part of the NEPP development process, it was deemed necessary to evaluate what possible fare structures would need to be supported by the new open payment system. To assist in this process, Metro began the process of developing a model that would assess the impacts of new fare levels, fare structures and fare products on not only ridership and revenue, but also criteria that embody the Board-approved fare policy principles.

This information item describes the fare model under development, highlighting how input from customers, the Metro Board and "internal stakeholders" (Metro staff and JCC members) is incorporated into the model results and evaluation process. The current fare options under evaluation are described, including fare simplification, encouragement of off-peak/reverse commutes and encouraging more efficient use of the system. For each fare concept presented, an preliminary assessment of the impacts on ridership and revenue are listed, including how well the concept aligns with the Board-approved fare policy principles. A schedule for the remainder of the model development process is provided.

This project supports Metro's goals of delivering quality service, using every resource wisely and enhancing Metro's image. Quality service can be enhanced by rolling out new fare structures and fare products that increase customer satisfaction and therefore increase

ridership. The goal of using every resource wisely is supported by this project in that new fare structures could better balance the supply and demand of transit in the region by sending customers price signals to inform them of the most efficient use of the existing system. Finally, the project supports the goal of enhancing Metro's image, as greater customer satisfaction raises the image of Metro in the public eye. Additionally, by supporting NEPP, this project will help Metro implement innovative payment systems that will illustrate that Metro continues to be a leader in adopting customer-friendly payment technologies, a reputation that began with magnetic stripe farecards and bolstered by SmarTrip® .

This project is linked to the existing New Electronic Payments Program.

**FUNDING IMPACT:**

This presentation is for information purposes only and has no funding impact.

Project Manager: Michael Eichler

Project Department/Office: PLJD/PLAN

**RECOMMENDATION:**

Feedback and direction on the development of and preliminary findings from the ridership and revenue fare model.



# Washington Metropolitan Area Transit Authority

## Fare Policy Development Metrorail and Metrobus Fare Structures

Finance and Administration Committee

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## Purpose

- Review existing fare structure
- Describe new model developed to inform future fare policy conversation
  - Estimate ridership and revenue impacts
  - Assess implications of policy concepts
- Describe possible future fare structure concepts under evaluation

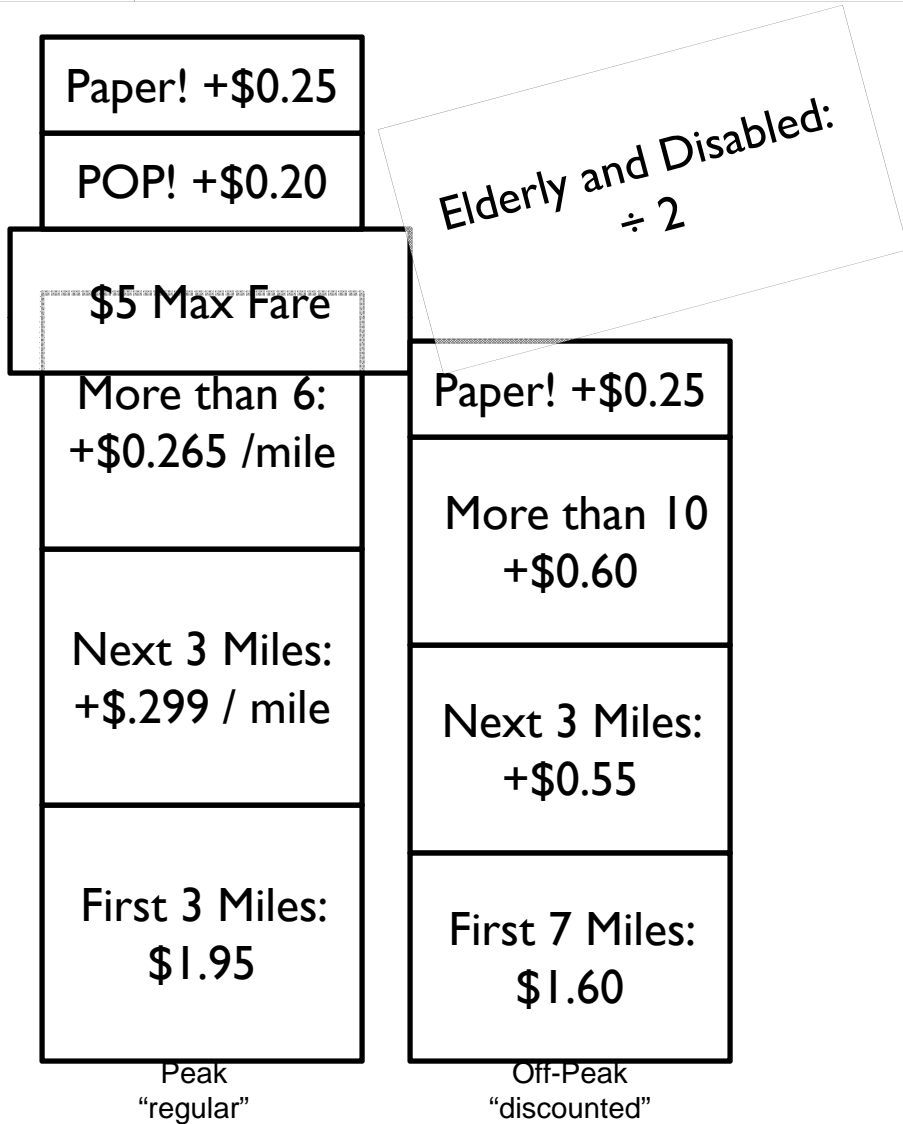


## Timing: Supports Current Initiatives

- Address customer feedback from October 2010 focus groups
  - A more simple time- and distance-based system
- Prepare for New Electronic Payment Program (NEPP) currently underway
  - Open payment systems expensive to develop for complex fare structures
- Maximize adherence of fare structure to Board's fare policy principles adopted November 2010
- Develop the upcoming FY13 budget



# Current Rail Fare Structure



## Number of Fare Options:

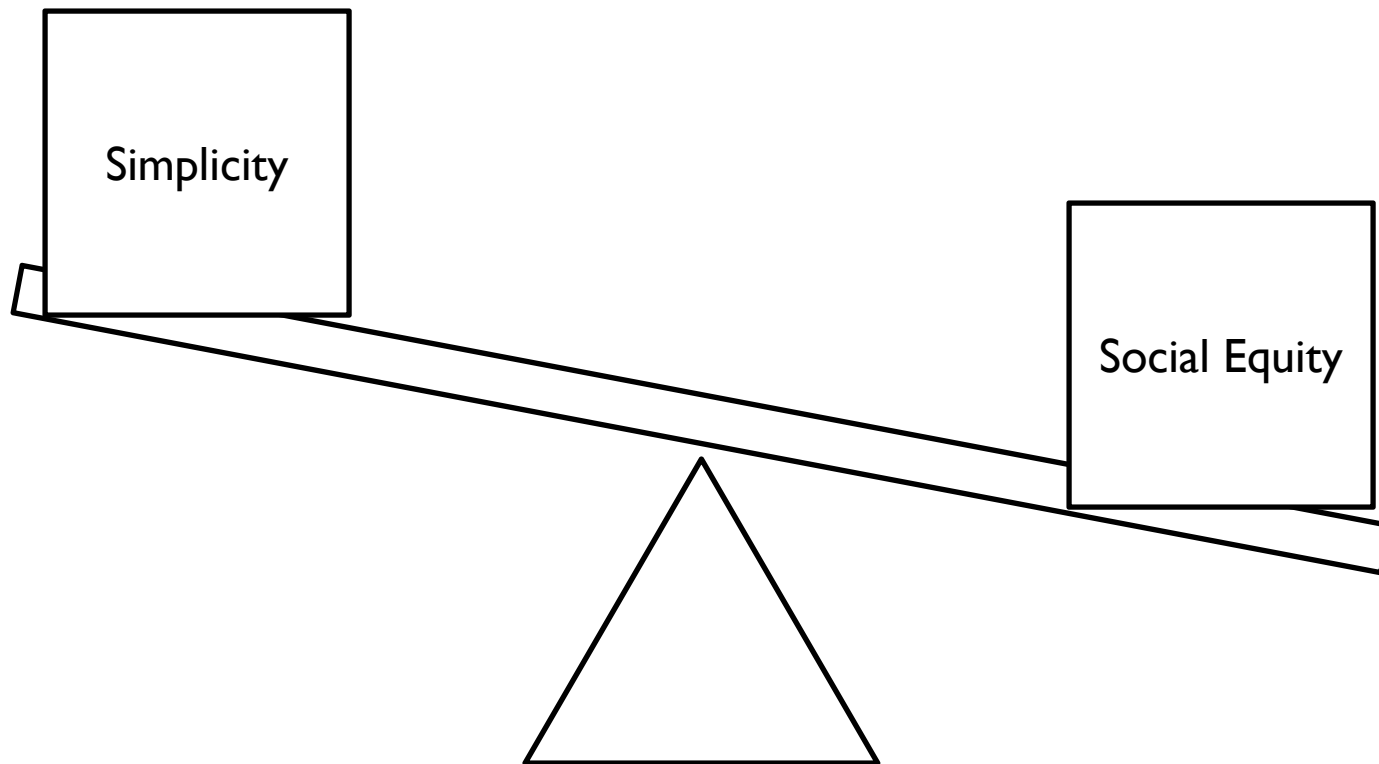
Distance	86x86
Time of Day	x3
Paper/ST	x2
Full Fare/E&D	x2

# 44,376 Fare Combinations



## Current Rail Fare Structure

- A complex fare structure provides the opportunity for high social equity
- Metro Board has historically favored equity over simplicity



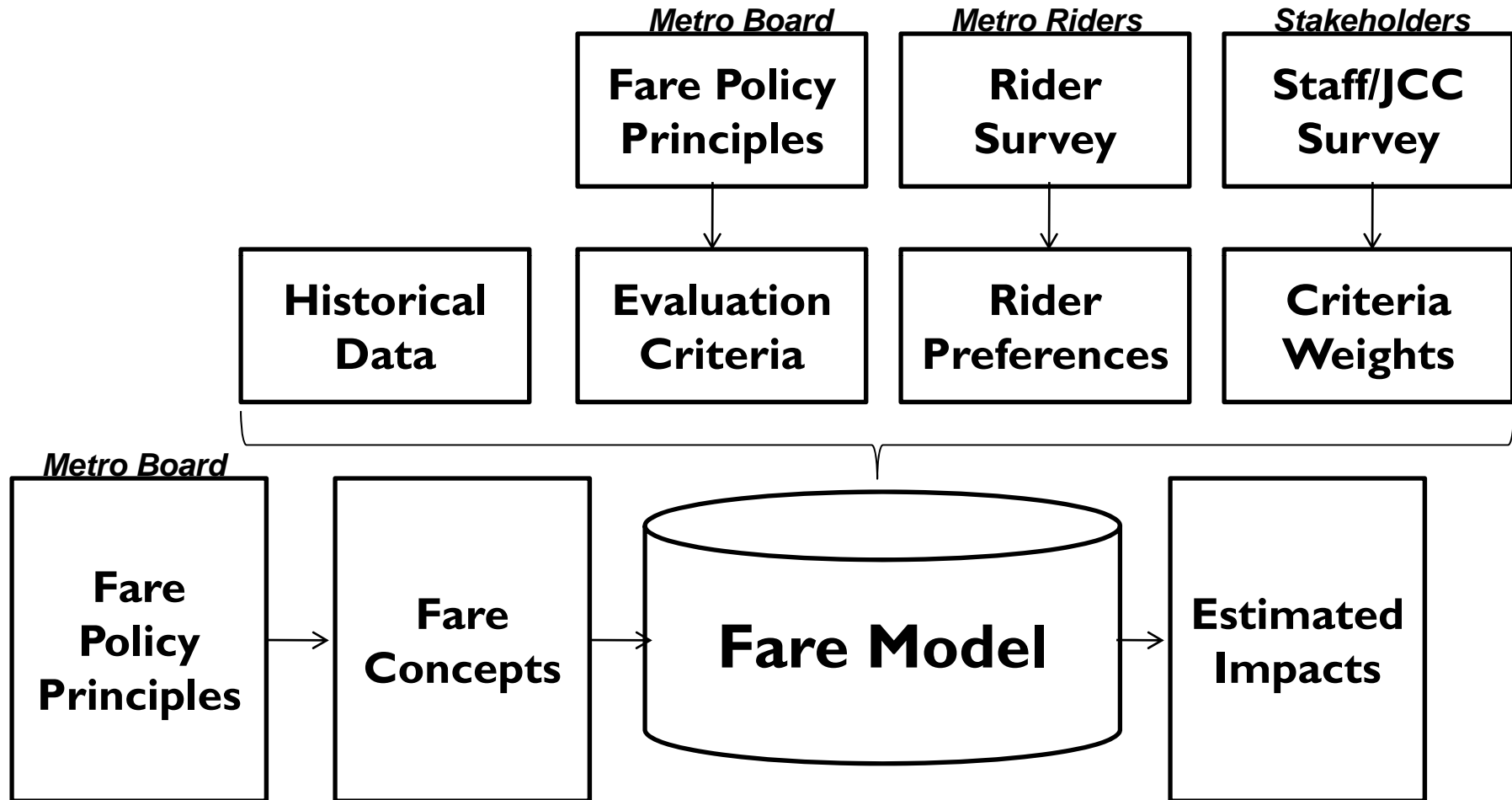


# Fare Policy Principles

1. Ensure and enhance customer satisfaction
2. Establish a mechanism to allow customers to determine their fares easily
3. Optimize the use of existing capacity
4. Establish equitable fares and ensure compliance with federal regulations
5. Facilitate movement between modes and operators throughout the region
6. Encourage the use of cost-effective media
7. Generate adequate revenue while maximizing ridership



# Fare Model & Evaluation Process





# Fare Structure Concept: **Higher Fare on Premium Bus**

## Details

- Higher fare for Priority Corridor Network “Metro Express” limited stop routes
- No changes to rail



## Implications

- Riders willing to pay more for faster trips
- Would reduce crowding on popular new services while raising revenue
- Increases complexity instead of reducing it

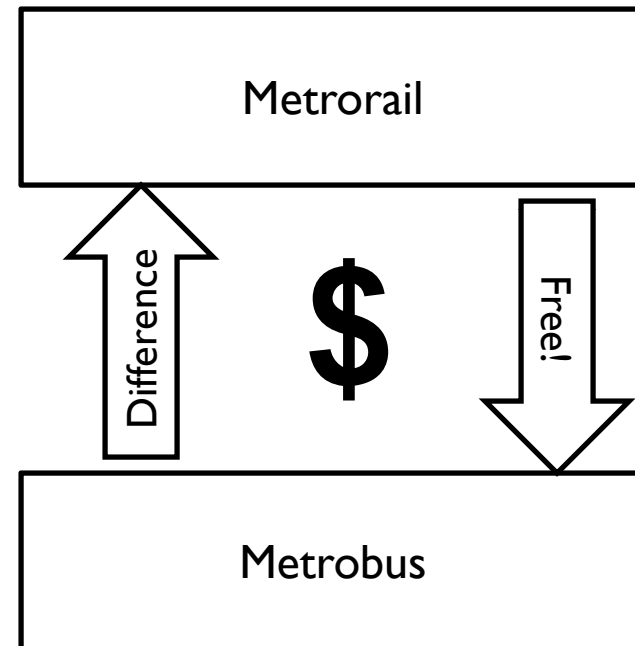
*Concept under evaluation, not a proposal*



# Fare Structure Concept: Integrated Transfer System

## Details

- Rail to bus transfer is free
- Bus to rail transfer upgrade
  - Upon exit of rail system, pay rail fare minus bus fare



## Implications

- Improves customer convenience
- Promotes intermodal travel
- Would require fare increase to be revenue neutral

*Concept under evaluation, not a proposal*



# Fare Structure Concept: **Integrated Monthly Passes**

## Details

- Unlimited-ride pass program (rail and bus)
- Pass cost = 40x cost of an individual rider's "usual" linked trip

*Buy a monthly pass for your regular commute trip, get **“free nights and weekends!”***

## Implications

- Improves customer convenience
- Encourages off-peak travel
- High level of interest
- Possible revenue loss but increased guaranteed revenue

*Concept under evaluation, not a proposal*



# Fare Structure Concept: **Eliminate POP Rail Surcharge**

## Details

- Remove Peak of the Peak (POP) surcharge on rail
- No changes to bus

## Implications

- POP highly unpopular among riders
- Simpler for riders
- Lower development cost for NEPP
- Reduction in revenue



*Concept under evaluation, not a proposal*



# Fare Structure Concept: Zone-Based Rail Fares

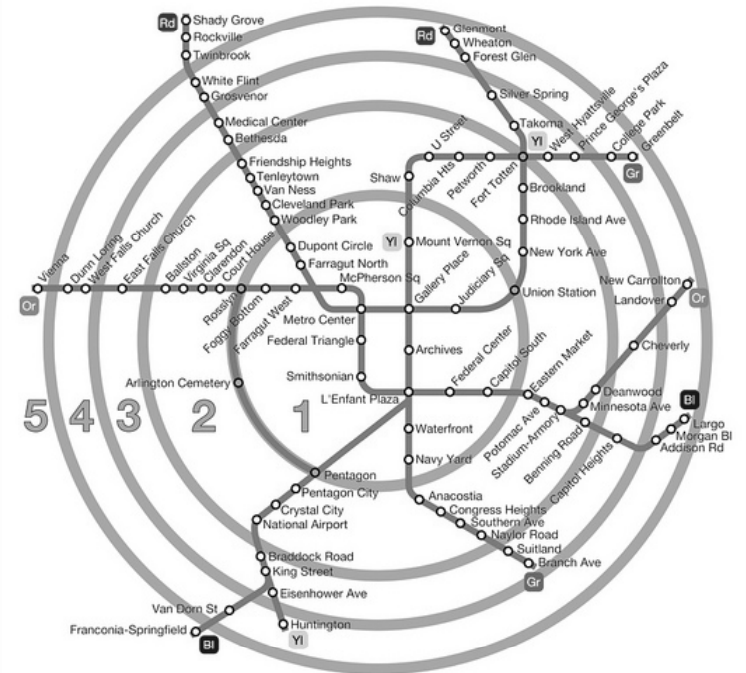
## Details

- 5 concentric zones
- Peak/off-peak differential
- Based on blogger proposal
- No changes to bus

## Implications

- May be simpler for riders
- Could raise equity concerns
- May result in lower development costs for NEPP

Potential Metro Zone Map



<b>peak fares:*</b>	<b>off-peak fares:*</b>	
\$ 2.00 for the first zone	\$ 1.50 for first 2 zones	\$ 2.15 for 4 zones
\$ 0.75 for each additional zone	\$ 1.75 for 3 zones	\$ 2.50 for 5 zones

\*use of a paper farecard will result in a \$ 0.25 surcharge

Map by Matt Johnson for Greater Greater Washington.

*Concept under evaluation, not a proposal*



# Fare Structure Concept: **Flat Rail Fares**

## Details

- Rail Fare = \$2.70
- Calculated for revenue neutrality
- No time of day differential
- Maintain Paper Surcharge and ADA Fares
- No changes to bus

~~44,376~~  
**4 Different  
Fares!**

## Implications

- Unpopular yet simplest for riders
- Raises rider and jurisdictional equity considerations
- Lowest development cost for NEPP

*Concept under evaluation, not a proposal*



## Other Concepts Being Evaluated

- Stored value bonus & minimum on-board loads
- New passes
  - 1-day, 7-day, monthly
  - Bus, rail, combo
- Rail reverse-commute discounts
- High/flat fare for paper farecards
- Round rail fares to \$0.25
- Fixed rail charge per station
- Additional zone configurations
- Flat fare with off-peak differential



## Next Steps

- Develop Equity Modules
  - Title VI
  - Subsidy Allocation
- Refine and test fare structure scenarios
  - Fare levels
  - Passes and other payment options
  - Underlying Metrorail and Metrobus fare structures
- Staff recommendation: January 2012



## Appendix

- Current Fare Structure assessed for alignment with Fare Policy Principles



# Fare Policy vs. Current Fare Structure

Fare Policy Principles	Applicable Fare Structure	Alignment
1. Ensure and enhance customer satisfaction	<ul style="list-style-type: none"> <li>• Discounted transfers between modes</li> <li>• Customer savings from using SmarTrip®</li> </ul>	<ul style="list-style-type: none"> <li>+ Customers appreciate SmarTrip®</li> <li>- POP disliked by riders</li> <li>- Distance-based fares deemed complicated</li> <li>Customers prefer simple fare structure</li> </ul>
2. Establish a mechanism to allow customers to determine their fares easily	<ul style="list-style-type: none"> <li>• Fare tables posted at rail stations</li> <li>• On-line trip planner</li> <li>• Passes available for rail and bus</li> <li>• Flat-fee bus boarding charge</li> </ul>	<ul style="list-style-type: none"> <li>+ Customers appreciate passes</li> <li>+ One-day rail pass use increased over previous year</li> <li>- Riders find station fare charts difficult to understand</li> <li>- Customers want to be able to explain fare structure to non-frequent riders</li> </ul>
3. Optimize the use of existing capacity	<ul style="list-style-type: none"> <li>• Regular fares vs discounted fares</li> <li>• Peak-of-the-peak (POP)</li> </ul>	<ul style="list-style-type: none"> <li>+ Discounted fare encourages off-peak and weekend ridership</li> <li>- POP surcharge not resulting in expected time-of-day shifts</li> </ul>
4. Establish equitable fares and ensure compliance with federal regulations	<ul style="list-style-type: none"> <li>• Rail fares are based on distance traveled</li> <li>• Seniors and persons with disabilities (ADA) discounts</li> <li>• Student SmartPass &amp; DC student farecard</li> <li>• MetroAccess fares equal twice the equivalent fixed route</li> </ul>	<ul style="list-style-type: none"> <li>+ New fare structure successfully underwent Title VI analysis</li> <li>+ Increase in ADA ridership over previous year</li> </ul>



# Fare Policy vs. Current Fare Structure

Fare Policy Principles	Applicable Fare Structure	Alignment
5. Facilitate movement between modes and operators throughout the region	<ul style="list-style-type: none"> <li>• Regional use of SmarTrip® Card</li> <li>• Bus-to-bus transfer with free 2 hour window</li> <li>• Rail-to-bus and bus-to-rail transfer discount</li> <li>• Bus pass revenue sharing</li> </ul>	Unable to assess due to Nextfare3 data storage format, subsequent analyses will evaluate how fare changes impact transfer behavior
6. Encourage the use of cost-effective media	<ul style="list-style-type: none"> <li>• Paper fare media surcharge (rail)</li> <li>• Cash surcharge on bus</li> <li>• New bus passes on SmarTrip® card</li> <li>• All transfers require SmarTrip® card</li> </ul>	+ Surcharges resulted in significant increase of SmarTrip® use
7. Generate adequate revenue while maximizing ridership	<ul style="list-style-type: none"> <li>• Distance-based regular fare (rail)</li> <li>• Discounted fares during mid-day, evening, and weekends (rail)</li> <li>• Regular fare charge from midnight to close (rail)</li> <li>• New provision allows for special fares for special events</li> </ul>	<ul style="list-style-type: none"> <li>+ Fare increase resulted in negligible change in rail ridership</li> <li>+ Average rail trip length unchanged despite increases in distance-based fare</li> <li>+ Large fare increases for special rail and bus service (after-midnight rail, airport bus) raised revenue without significant decrease in ridership</li> </ul>