Finance and Capital Committee

Information Item III-A

July 29, 2021

Fare Policy
**Washington Metropolitan Area Transit Authority**

**Board Action/Information Summary**

- **Action**
- **Information**

**MEAD Number:** 202286

**Resolution:**
- **Yes**
- **No**

**TITLE:**

Fare Policy Overview

**PRESENTATION SUMMARY:**

Staff will present an overview of Metro’s current fare policy principles and fare structure.

**PURPOSE:**

Review existing fare policy and structure and outline potential updates to the fare policy principles and fare concepts for future consideration.

**DESCRIPTION:**

There are no interested parties for purposes of conflicts of interest in this information item.

**Key Highlights:**

Metro will review existing fare policy principles and fare structure and discuss potential future updates.

**Background and History:**

Customer surveys and observed behavior have found that service is a greater influence on ridership than fares. Fare revenue helps to fund transit service; and fare structures and levels affect rider behavior. Historically, Metro fare changes have affected revenue more than ridership, however, ridership impacts from service and fare changes build over time beyond the early days of implementation. Fare changes also affect ridership differently based on mode and trip length, with bus riders typically more price sensitive than rail riders, and rail riders more price sensitive for shorter, off-peak trips. Future ridership and revenue remain uncertain as Metro and the region recover from the pandemic. The Board’s current fare policy principles were adopted in November 2010.

The Washington area is rapidly reopening with pandemic-related capacity restrictions lifted by June and school systems fully reopening by Fall 2021. Federal relief enabled Metro to avoid severe service cuts and layoffs and is
projected to support the base operating budget through FY2023 and contribute to closing an anticipated FY2024 funding gap. In June 2021, the Board amended the Fiscal Year 2022 operating budget and authorized fare and service changes beginning in September 2021. Fare changes include free bus-rail transfers, a decrease in the 7-day Regional Bus Pass price from $15 to $12, a weekend flat fare of $2 on Metrorail, integration of regional bus providers in rail-bus combination passes, and 30-day promotional pass pricing. These changes address a top customer priority and improve service for existing riders, increase rail and bus ridership above the levels expected if no service adjustments are made, especially benefit low income and minority riders who are more likely to ride during off-peak periods and weekends, and support regional recovery as more riders return to school, work, and other activities in Fall 2021.

**Discussion:**

Fare policy principles guide the development and evaluation of potential fare policy changes. Draft potential fare policy principles for consideration include:

- **Customer Focused.** Adopt customer-focused fare policies and systems to position Metro as an attractive choice in a competitive transit market.
- **Simple and Convenient.** Make it simple, intuitive, and convenient for customers to purchase fares and take transit.
- **Equitable.** Maintain equitable fares and practices that promote broad access to regional mobility.
- **Seamless.** Create a seamless customer experience across modes and operators to promote regional mobility.
- **Built to Drive Ridership.** Maximize ridership while ensuring adequate revenue and cost efficiency to sustain service.

**FUNDING IMPACT:**

Information item – no financial impact.

**TIMELINE:**

<table>
<thead>
<tr>
<th>Previous Actions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2010 – Fare Policy Principles</td>
<td></td>
</tr>
<tr>
<td>June 2021 - Authorization of Temporary Fare and Service Changes, Approval of 30-Day Promotional Pass Schedule, and Amendment of FY2022 Operating Budget</td>
<td></td>
</tr>
<tr>
<td>July 2021 – Amendment of Resolution 2021-22 to Change Start Date of 30-day Promotional Pass Schedule</td>
<td></td>
</tr>
<tr>
<td>Anticipated actions after presentation</td>
<td>Fall 2021 – Work Session on Potential Fare Concepts</td>
</tr>
</tbody>
</table>
Fare Policy Overview

Finance and Capital Committee
July 29, 2021
Purpose

Review current fare structure and fare policy principles and discuss potential updates to fare policy principles
Fare Policy Context
Customer-friendly fare changes approved for September

- Free rail-bus transfers ($2 transfer discount)
- Lower 7-Day Regional Bus Pass Price ($12 from $15)
- Regional providers in Metro passes
- Rail weekend $2 flat fares
- 30-day promotion:
  - 50% discount on short-term combination rail-bus passes
  - Approximately 40% discount on monthly passes (reducing the multiplier from 36 trips to 22 trips)

Promotes ridership, equity, and seamless experience
- Improved integration between rail and bus and across operators
- Improved affordability for riders
- Especially benefits low-income and minority riders

Fare Policy Context

Promotes ridership, equity, and seamless experience
- Improved integration between rail and bus and across operators
- Improved affordability for riders
- Especially benefits low-income and minority riders
Fare Policy Principles
Adopted by Board of Directors, November 2010

<table>
<thead>
<tr>
<th>Metro Fare Policy Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure and enhance customer satisfaction</td>
</tr>
<tr>
<td>Establish a mechanism to allow customers to determine their fares easily</td>
</tr>
<tr>
<td>Optimize the use of existing capacity</td>
</tr>
<tr>
<td>Establish equitable fares and ensure compliance with federal regulations</td>
</tr>
<tr>
<td>Facilitate movement between modes and operators throughout the region</td>
</tr>
<tr>
<td>Encourage the use of cost-effective media</td>
</tr>
<tr>
<td>Generate adequate revenue while maximizing ridership</td>
</tr>
</tbody>
</table>
Policy Questions and Tradeoffs

- Purpose and role of fares:
  - Fare revenue supports service and reduces operating subsidy
    - Increased revenue from ridership growth can support service improvements
  - Fare structures and levels affect rider behavior
    - how much, where, and when people take trips

- Tradeoffs: How to balance objectives of ridership, revenue, and equity?

- Other considerations:
  - Uncertainty on ridership recovery post-pandemic
  - Implications of fare evasion
  - Coordination with other transit operators
Rail and Bus Fare Structures

Rail fare structure
- Distanced-based fares
  - First 3 miles at flat rate
  - Per-mile fee after first 3 miles
  - Max peak fare of $6.00
  - $2 weekend flat fare approved
- Rates higher during peak periods

<table>
<thead>
<tr>
<th></th>
<th>Peak</th>
<th>Off-Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td>First 3 miles</td>
<td>$2.25</td>
<td>$2.00</td>
</tr>
<tr>
<td>Each additional mile</td>
<td>$0.326</td>
<td>$0.244</td>
</tr>
<tr>
<td>(&lt;=6 miles)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Each additional mile</td>
<td>$0.288</td>
<td>$0.216</td>
</tr>
<tr>
<td>&gt;6 miles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max peak fare</td>
<td>$6.00</td>
<td>$3.85</td>
</tr>
</tbody>
</table>

Note: Senior and Disabled Fares are 50% of the Peak Fare Charged

Bus fare structure
- Metrobus fares flat throughout the system, $2 per trip
- Higher prices charged for express bus routes, airport lines

<table>
<thead>
<tr>
<th>Bus Type</th>
<th>Fare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Metrobus, MetroExtra,</td>
<td>$2.00</td>
</tr>
<tr>
<td>Metroway, REX</td>
<td></td>
</tr>
<tr>
<td>Commuter bus routes (11Y, 17B,</td>
<td>$4.25</td>
</tr>
<tr>
<td>17G, 17H, 17K, 17L, 17M, 18G,</td>
<td></td>
</tr>
<tr>
<td>18H, 18P, 29W)</td>
<td></td>
</tr>
<tr>
<td>Airport routes (B30, 5A)</td>
<td>$7.50</td>
</tr>
</tbody>
</table>

Note: Free rail-bus transfers (discount up to $2) will take effect in September 2021. The table does not reflect student or jurisdictional special programs.
Fare Policy Context

Rail and Bus Fare History

1976 Fares:
- Metrorail (peak): $0.55
- Metrorail (off-peak): $0.40
- Metrobus: $0.40
What influences ridership?

Relative importance of service versus fares is similar across customer surveys and observed behavior.

Survey Example: Bus Customer Priorities

- More Frequent Service: 23%
- More Reliable and Faster Service: 20%
- More Direct Buses and Fewer Transfers: 16%
- Longer Hours of Operation: 10%
- Affordable Fares: 10%
- Safer, More Secure Buses and Stops: 8%
- Better App for Information or Payment: 7%
- Less Confusing system: 5%

Source: Bus Transformation Project Customer Outreach

Ridership Analysis Example: Metrorail Elasticities

- Elasticity vs. Travel Times: -0.7 to -0.9
- Elasticity vs. Fares: -0.35 to -0.5

Source: “Origin-Destination Land Use Ridership Model for Fare Policy Analysis,” National Center for Smart Growth Research and Education, University of Maryland, College Park
Typical impacts of fare changes on ridership

- **Fare changes affect revenue more than ridership** – Lower fares typically increase ridership but decrease revenue; higher fares typically decrease ridership but increase revenue.

- **Ridership impacts from fare or service changes build over time** – Only about half of impact occurs within the first year.

- **Bus riders are typically more price sensitive than rail riders**.

- **Rail riders are more price sensitive for shorter, off-peak trips** – Less price sensitive for longer, peak period trips.
Riders benefit from subsidized fares

Discounts offered based on age, disability, or participation in school or employer-based programs

Approximate Share of Riders with Subsidized Fares by Age Group

Note: Pre-pandemic estimates; data not to scale
Comparison to Other Transit Agencies

- Metrorail distance-based fare structure aligns with about half of international systems.
- Metro has higher rail cost recovery and lower bus cost recovery than many domestic agencies.

**Average Farebox Recovery Ratio - Heavy Rail and International Transit Systems**

<table>
<thead>
<tr>
<th>System</th>
<th>Recovery Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMATA Metrorail</td>
<td>53%</td>
</tr>
<tr>
<td>U.S. Heavy Rail Average</td>
<td>41%</td>
</tr>
<tr>
<td>U.S. Commuter Rail Average</td>
<td>40%</td>
</tr>
<tr>
<td>Int’l Transit System Average</td>
<td>63%</td>
</tr>
</tbody>
</table>

**Average Farebox Recovery Ratio - US Bus Systems**

<table>
<thead>
<tr>
<th>System</th>
<th>Recovery Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>WMATA Metrobus</td>
<td>20%</td>
</tr>
<tr>
<td>National Bus Average</td>
<td>24%</td>
</tr>
</tbody>
</table>

Comparison of Fare Structures of International Metros in Community of Metros (CoMET)

- **54% Flat Fare**
  - 32% Per Kilometer
  - 14% per Zone

- **46% Distance-Based Fare**

Pre-Pandemic: 2017 FTA National Transit Database
Transit operates in a competitive environment

- Customers have multiple travel options; time and cost of trips influence customers’ decision-making
- Transit is often cost competitive and usually a less expensive option, especially for individual trips
- Transit is most time-competitive for long rail trips and less competitive for trips that require transfers with long wait times
Fare Policy Context

Example: 16th St/Spring to M Street

One-Way Travel Time and Cost by Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Walk Time (Mins)</th>
<th>Wait Time (Mins)</th>
<th>Time on Main Mode (Mins)</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bike</td>
<td>3</td>
<td>17</td>
<td>17</td>
<td>$0.00</td>
</tr>
<tr>
<td>Ride-Hail</td>
<td>4</td>
<td>19</td>
<td>1</td>
<td>$13.61</td>
</tr>
<tr>
<td>Drive</td>
<td>21</td>
<td>4</td>
<td></td>
<td>$12.00</td>
</tr>
<tr>
<td>Metrobus</td>
<td>6</td>
<td>7</td>
<td>17</td>
<td>$2.00</td>
</tr>
<tr>
<td>Shared Ride-Hail</td>
<td>8</td>
<td>29</td>
<td>1</td>
<td>$6.51</td>
</tr>
<tr>
<td>Metrorail</td>
<td>12</td>
<td>8</td>
<td>24</td>
<td>$2.00</td>
</tr>
</tbody>
</table>

Travel Options Map

16th Street
Spring Pl to K Street

- Metrorail
- Metrobus
- Drive or TNC
- Bicycle

Walk Time | Wait Time | Time on Main Mode | Cost
---|---|---|---
Red | Orange | Blue | Gray

WASHING​TON METROPOLITAN AREA TRANSIT AUTHORITY
## Example: Southern Ave to Gallery Place

### One-Way Travel Time and Cost by Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Drive &amp; Metro</th>
<th>Ride-Hail &amp; Metro</th>
<th>Ride-Hail</th>
<th>Drive</th>
<th>Metrorail</th>
<th>Shared Ride-Hail</th>
<th>Metrobus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk Time</td>
<td>6 4 12 2</td>
<td>2 7 4 12 2</td>
<td>2</td>
<td>29</td>
<td>21 4 12 2</td>
<td>7 44 3</td>
<td>12 15</td>
</tr>
<tr>
<td>Wait Time</td>
<td>4 12 2</td>
<td>7 4 12 2</td>
<td>28</td>
<td>4</td>
<td>3</td>
<td>44</td>
<td>15</td>
</tr>
<tr>
<td>Time on Main Mode</td>
<td>12 2</td>
<td>12 2</td>
<td>28</td>
<td>4</td>
<td>12 2</td>
<td>44</td>
<td>15</td>
</tr>
<tr>
<td>Cost</td>
<td>$8.20</td>
<td>$10.27</td>
<td>$15.49</td>
<td>$13.40</td>
<td>$3.00</td>
<td>$9.45</td>
<td>$2.00</td>
</tr>
</tbody>
</table>

### Travel Options Map

The map shows the travel options from Southern Avenue to Gallery Place, highlighting the routes for walk, drive, Metrorail, and shared ride-hail. The map also indicates the travel time and cost for each mode.
Example: New Carrollton to Foggy Bottom

One-Way Travel Time and Cost by Mode

<table>
<thead>
<tr>
<th>Mode</th>
<th>Walk Time</th>
<th>Wait Time</th>
<th>Time on Main Mode</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drive</td>
<td>4</td>
<td></td>
<td></td>
<td>$11.85</td>
</tr>
<tr>
<td>Drive &amp; Metro</td>
<td>2</td>
<td></td>
<td></td>
<td>$10.00</td>
</tr>
<tr>
<td>Ride-Hail &amp; Metro</td>
<td>2</td>
<td></td>
<td></td>
<td>$16.57</td>
</tr>
<tr>
<td>Ride-Hail</td>
<td>1</td>
<td></td>
<td></td>
<td>$33.08</td>
</tr>
<tr>
<td>Shared Ride-Hail</td>
<td>3</td>
<td></td>
<td></td>
<td>$29.40</td>
</tr>
<tr>
<td>Bus &amp; Metro</td>
<td>2</td>
<td></td>
<td></td>
<td>$6.30</td>
</tr>
</tbody>
</table>

Travel Options Map

Fare Policy Context
Example: Shady Grove to Farragut North

**One-Way Travel Time and Cost by Mode**

- **Drive & Metro**:
  - Time: 17 minutes
  - Wait Time: 5 minutes
  - Time on Main Mode: 40 minutes
  - Cost: $11.20

- **Ride-Hail & Metro**:
  - Time: 3 minutes
  - Wait Time: 20 minutes
  - Time on Main Mode: 5 minutes
  - Cost: $20.95

- **Ride-Hail**:
  - Time: 5 minutes
  - Wait Time: 65 minutes
  - Time on Main Mode: 1 minute
  - Cost: $51.05

- **Drive**:
  - Time: 72 minutes
  - Wait Time: 4 minutes
  - Time on Main Mode: 76 minutes
  - Cost: $12.00

- **Bus & Metro**:
  - Time: 2 minutes
  - Wait Time: 15 minutes
  - Time on Main Mode: 14 minutes
  - Cost: $7.50

**Travel Options Map**

- Shady Grove to Farragut North
  - Options: Bus and Metrorail, Drive and Metrorail, Drive or TNC

**Fare Policy Context**
Example: Wiehle to Farragut West

**One-Way Travel Time and Cost by Mode**

- **Ride-Hail**
  - Walk Time: 3 mins
  - Wait Time: 47 mins
  - Time on Main Mode: 4 mins
  - Cost: $37.26

- **Drive**
  - Walk Time: 10 mins
  - Wait Time: 4 mins
  - Time on Main Mode: 52 mins
  - Cost: $23.25

- **Shared Ride-Hail**
  - Walk Time: 6 mins
  - Wait Time: 54 mins
  - Time on Main Mode: 4 mins
  - Cost: $10.95

- **Ride-Hail & Metro**
  - Walk Time: 3 mins
  - Wait Time: 27 mins
  - Time on Main Mode: 4 mins
  - Cost: $20.21

- **Drive & Metro**
  - Walk Time: 4 mins
  - Wait Time: 4 mins
  - Time on Main Mode: 10 mins
  - Cost: $0

- **Bus & Metro**
  - Walk Time: 9 mins
  - Wait Time: 14 mins
  - Time on Main Mode: 4 mins
  - Cost: $7.50

**Travel Options Map**

-Washington Metropolitan Area Transit Authority

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Fare System Modernization Capital Investments
Restoring State-of-Good-Repair and Improving Customer Experience

- Mobile payment launched during FY2021 – Apple and Google
- Metrorail faregate replacement underway
- Metrobus farebox replacement design underway – implementation begins in CY2022
- Pilot test of Metrobus rear-door payment targets also planned to begin CY2022
- Initiated market research on back-office systems modernization; will improve flexibility to support future fare policy
Fare Policy Context

Regional Fare Collection Ecosystem

Fare Media
- Fare Media
- Edge Devices
- Central System
- Credit / Debit Payment Processor

- Rail Faregates
- Mobile Pay
- Mobile Back Office
- Bank
- Metro Nextfare
- Regional Nextfare
- Data Network Concentrator
- Mobile Pay

- Metro & Regional Bus Fareboxes
- Retail Sales

- Sales Office
- Fare Vendors
Draft Fare Policy Principles for Consideration

- **Customer Focused**
  Adopt customer-focused fare policies and systems to position Metro as an attractive choice in a competitive transit market.

- **Simple and Convenient**
  Make it simple, intuitive, and convenient for customers to purchase fares and take transit.

- **Equitable**
  Maintain equitable fares and practices that promote broad access to regional mobility.

- **Seamless**
  Create a seamless customer experience across modes and operators to promote regional mobility.

- **Built to Drive Ridership**
  Maximize ridership while ensuring adequate revenue and cost efficiency to sustain service.
## Potential concepts to develop for consideration

<table>
<thead>
<tr>
<th>Pricing</th>
<th>Targeted Discounts</th>
<th>Fare Structure</th>
<th>Passes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to fare levels</td>
<td>Fare discounts by qualification or to encourage certain ridership patterns</td>
<td>Changes to the structure of fares</td>
<td>Updates to short-term and monthly pass products</td>
</tr>
<tr>
<td>Parking fees</td>
<td>• Low income</td>
<td>• Distance-based tiers</td>
<td></td>
</tr>
<tr>
<td>MetroAccess</td>
<td>• Available capacity</td>
<td>• Zones</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Flat rates</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Fare capping</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Parking</td>
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<tr>
<td></td>
<td></td>
<td><strong>Technology</strong></td>
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<tr>
<td></td>
<td></td>
<td><strong>Regional Coordination</strong></td>
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</tbody>
</table>
Next Steps

- Work session on fare concepts – Fall 2021