

Summary of Metrobus Service Planning Policies and Service Plan Development March 8, 2011

Metrobus Service Guidelines

Metrobus service planning processes and procedures were developed subsequent to recommendations from the Regional Mobility Panel, in consultation with the local jurisdictions, and are memorialized in two documents adopted by the Board and one supporting report.

- Rules and Regulation for Metrobus Operations
Adopted October 1996, revised February 10, 2000
- Service Guidelines for Regional Metrobus Services
Adopted February 10, 2000.
- Metrobus Regional Bus Service Performance Assessment Report
January 2000

Metrobus Service Assessment

Analysis of Metrobus services utilizes the following criteria:

1. Daily Weekday Passenger Boardings
 - a. Threshold of $1/8^{\text{th}}$ of system average.
 - b. The FY 2011 system average is 2,522.
 - c. The purpose is to provide a “worth it” test to justify time and attention to maintain a line as part of the Metrobus network.
 - d. Current threshold is 315 DWPB.
2. Cost Recovery
 - a. Threshold of $1/2$ of system average.
 - b. The FY 2011 system average is 29.75%.
 - c. The purpose is to provide a test of the ‘equity’ of the passenger contribution to covering the cost of the service.
 - d. Current threshold is 14.85%.
3. Average Subsidy per Passenger
 - a. Threshold of twice the system average.
 - b. The FY 2011 system average is \$3.20.
 - c. This a direct unit measure of the cost the jurisdictions are paying to sustain a service.
 - d. Current threshold is \$6.40.

4. Passengers per Revenue Trip
 - a. Threshold of 1/3rd system average.
 - b. The FY 2011 system average is 26.52.
 - c. The purpose is to test utilization of buses within the service plan.
 - d. Current threshold is 8.84 PPRT.

5. Passengers per Revenue Mile
 - a. Threshold of 1/3rd of system average.
 - b. The FY 2011 system average is 3.42.
 - c. The purpose is to measure the effectiveness of the service plan.
 - d. Current threshold is 1.14 average PPRM.

Additional performance measures used by planners to evaluate services include:

- Cost per passenger
- Passengers per Revenue Hour
- Load Factor
- Cost per Revenue Mile or Hour
- On-Time Performance

Additional Decision Criteria

Three performance measures are used to give an overall representation of a line's performance. Line classifications are used to group like services together to assist with comparative evaluation of service characteristics.

1. Cost Recovery
2. Passengers per Revenue Hour
3. Load Factor

Justification to add or reduce regional services are based on three guideline measures:

- Load factor (by service type)
- Running time
- Non-peak productivity standard
- Regional equity (optional at the Board's discretion)

Alternatives to reducing services typically used by staff include:

- Integrate headways along a corridor
- Adjust headways
- Adjust trips
- Replace larger buses with smaller or vice versa
- Short turn trips
- Public information to encourage additional utilization

Metrobus Regional Network Planning Concepts

Planning and management of the Metrobus network is a multi-step collaborative process inclusive of Metrobus and jurisdictional staff intended to achieve approved policy objectives and outcomes such as:

1. Maintain bus operations safety and effectiveness;
2. Support connectivity, access and mobility across the region critical to fulfilling regional, state and local transportation policies, plans and objectives;
3. Operate Metrobus services tailored to individual corridor requirements for span, coverage and frequency in accord with guidelines and performance standards;
4. Manage the Metrobus service network for efficiency and productivity to sustain as much service as possible within available resources;
5. Achieve service capacity and performance on major corridors in accord with appropriate factors for load and reliability;
6. Provide for equitable distribution of Metrobus services, costs and resources among the region's stakeholders, riders and communities of interest.
7. Nurture and grow Metrobus ridership and Priority Corridor Network plans

Service Plan Characteristics

Regional transportation planning objectives are achieved by providing a meaningful network of Metrobus services to meet resident mobility and access needs. These services are defined by the following service characteristics:

- Market area and purpose
- Route pathway(s)
- Stop locations
- Service days
- Service time span
- Frequency
- Service type
- Vehicle type
- Load factors
- Reliability factors

Cost Reduction Strategies/System Efficiency Actions

The following actions are part of the service planner toolbox to reduce costs and improve efficiency of the regional Metrobus network:

1. Headway change or trip elimination (frequency) due to low ridership
2. Route/segment elimination (pathway/coverage) due to low ridership
3. Time adjustment (span) due to low ridership late night weekend services
4. Line elimination (performance) due to low ridership or productivity

5. Restructure service (design) to reduce costs or be more productive
6. Eliminate duplication/overlap (alternatives) with other transit
7. Apply "Special" schedule to low ridership weekdays (seasonal)
8. Change operations to reduce cost (productivity)
9. Implement Service Efficiency Projects (travel speed)
10. Enhance system revenue (funding)

Investments in System Performance and Safety

The following represent planning process and operational requirements that require investments in Metrobus service to accomplish performance and safety objectives:

1. Priority Corridor Network plans and recommendations
2. Service Evaluation Study plans and recommendations
3. Quarterly Safety, Run-Time and Crowding Adjustments
4. Annual Work Plan Concepts
5. Planned and ad hoc detours
6. Special Projects/Requests
7. Facility, Event and Construction
8. Customer Communications Requirements

**Regional Mobility Panel
Regional Service Criteria
Final Report September 1997**

Based on principles established by the Regional Mobility Panel, criteria were developed that recognize the distinction between regional and non-regional bus routes and various service markets. Regional bus routes generally provide transportation between jurisdictions. Regional bus routes also may include bus routes that serve major activity centers, that operate on major arterial streets and carry high volumes of ridership within one or in multiple jurisdictions.

Existing Metrobus service was evaluated to determine which bus routes meet these criteria: bus routes currently operated by local jurisdictions were "grandfathered" into the non-regional category. WMATA will have responsibility for operating regional bus routes. Local jurisdictions will have responsibility for determining how non-regional bus routes will be provided. WMATA intends to work aggressively with the local jurisdictions to provide service on non-regional bus routes.

The following are the specific criteria used by the Regional Mobility Panel to disaggregate current Metrobus routes into regional and non-regional categories. The criteria will also be used to determine appropriate future bus route assignments for the regional, and may result in a different distribution of service between regional and non-regional categories.

Regional Service Plan Criteria

Interjurisdictional: A route is automatically a regional route if it:

- Crosses a jurisdictional (independent city, county, state) boundary; and
- Penetrates at least two jurisdictions by more than one-half mile in each; and
- Operates open door (allows boarding and alighting) over at least a portion of the line in two or more jurisdictions.

If a route does not qualify under the interjurisdictional definition, then it must meet at least two of the following three criteria to be regional:

Arterial Streets: operates for a considerable distance on an arterial street and a substantial portion (usually a majority) of riders use stops on the arterial street. Routes which operate for a short distance on an arterial incidental to their service areas are not included.

Regional Activity Center: services one or more regional activity centers. A conservative definition of regional activity centers was used, including only those where there is virtually universal agreement as to their regional character (Routes which feed Metrorail stations but which do not directly serve any regional activity center were not considered to be regional).

Cost Effectiveness: annual boardings per annual platform hour greater than 30 applied consistently in all jurisdictions.