

Agenda Item No.	Board Meeting Date	Open/Closed Session	Information/Action Item	Issue Date
20	10/24/11	Open	Information	10/18/11

Subject: Guiding Principles, Performance Measures, and Performance Monitoring

ISSUE

Discussion on Guiding Principles, Performance Measures, and Performance Monitoring for TransitRenewal.

RECOMMENDED ACTION

None. Information only.

FISCAL IMPACT

None.

DISCUSSION

The next phase of TransitRenewal is the design of the new route network. RT staff would like Board direction on the guiding principles, performance measures and monitoring strategy being used to develop and maintain the new route network.

During the last four months, RT has held three rounds of discussions with internal RT stakeholders, community stakeholders, and local experts to discuss TransitRenewal progress, observations, and recommendations for developing a more-productive and cost-effective TransitRenewal route network. Similar reviews have been held with the RT Board of Directors over the past few months.

Outreach activities have included over 24 presentations to neighborhood and community organizations, “open houses” at 8 light rail stations, and information distributed at 20 other community events. Over 2,700 responses to the on-line survey have been received.

The stakeholder meetings and outreach activities have focused on market characteristics, route performance, and the role of performance measures in decision-making. During these discussions, a number of guiding principles reflecting transit investment priorities have emerged.

Guiding Principles

Guiding Principles reflect the long-term vision of service provision for RT. The principles being considered for transit network re-design as part of TransitRenewal are:

- Invest in frequent, high-quality service in appropriate market areas
- Develop a seamless RT network
- Match service levels and market demand

Approved:

Presented:

Final 10/18/11

General Manager/CEO

AGM of Planning and Transit System Development

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- Manage resources to improve productivity and maintain financial sustainability

Performance Measures

Performance measures establish baselines for service performance; create a basis for short and long-term decision making; and improve productivity and financial effectiveness, leading to a more sustainable RT system.

In the context of TransitRenewal, Performance Measures have three goals:

- Establish a baseline for service performance;
- Create a basis for short and long term decision-making; and
- Maintain long term financial stability

Performance measures are intended to provide a decision-making basis for providing effective transit services in terms of cost-effectiveness and the overall financial sustainability of RT's operating system. The measures discussed in this paper are to provide a general overview of a route's performance and to flag those routes which may need special attention. Other measures may be determined as necessary to describe a route's performance in more detail. The TransitRenewal performance measures, will be presented for Board consideration with the final recommendations of TransitRenewal in January 2012.

The performance measures discussed in this paper are an extension of RT's current process for evaluating the transit network. RT's current performance measures (called *Productivity Standards*) were established in 2001 to identify low performing routes within a peer group (e.g., express, local, or community bus) in order to identify routes as candidates for modification or elimination. Because the standards did not evaluate the effects of the low performing routes on the entire system, some very low performing routes were allowed to continue. As the financial crisis of the past few years continued to accelerate, it became clear that allowing these poorly performing routes to continue operation was having a negative effect on the productivity of the entire system and additional or modified performance measures needed to be considered to maintain the long term financial stability of RT.

New measures will be presented with the TransitRenewal Plan. *Productivity Measures* are intended to provide a basis for determining those routes which are or are not meeting or exceeding a baseline level of passenger usage on a per hour basis. *Financial Effectiveness* measures are intended to identify a basis for maintaining (and improving) the financial viability of the system through the comparison of a "cost per boarding" of a route.

As an example, the measures set out below detail the existing budget goals for bus routes by service type.

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Existing Performance Measures: Productivity

Full Size Bus – 28.5 passengers per hour
 Community Bus – 11 passengers per hour

Existing Performance Measure: Financial Effectiveness

Weekday Full Size Bus -- \$6.82 per boarding
 Weekend Full Size Bus -- \$9.09 per boarding
 Weekday Community Bus -- \$14.48 per boarding

Any external funds that RT receives to operate a particular service (e.g., an external subsidy from a development or a specific community) will be deducted from a route’s cost and the adjusted cost will be compared to the *Financial Effectiveness* performance measure shown above. *Financial Effectiveness* performance measures for Express Bus is still to be determined.

Performance measures, as defined for the TransitRenewal process are designed to track progress toward attaining and maintaining the guiding principals, while determining opportunities for service improvements.

Service Warrants

Service warrants are the metrics which justify continuation of a new service.

- Goal: Managing the introduction of new services.

In order to establish the warrants for new service, a review of market characteristics of the area proposed for new service along with the performance of similar services operated by RT, will be calculated to estimate the *potential* productivity and financial effectiveness for the new service being proposed.

If the *potential* performance and financial effectiveness for the new service are anticipated to meet established warrants, implementation may take place. The proposed new service would be reviewed with the Board for concurrence. A two-year sunset date by which the service must meet established warrants will be established. If the new service is not meeting warrants, RT will make an effort to communicate this fact to riders and the community being served several months to a year prior to the elimination of service so that alternative options can be explored and possibly implemented prior to service elimination.

If a new service proposal is not anticipated to meet the service warrants, a cost-sharing arrangement will be encouraged with interested/affected parties (developments, communities, TMAs, etc.). If external funding is supplied to operate a service for a given period of time, and

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service does not meet productivity standards, the service may continue to operate only as long as external funding is in place to allow the service to meet the warrants.

Service Monitoring and Evaluation

Overall RT service monitoring and regularly-scheduled service evaluations and reviews with the Board will assist in achieving a key goal of TransitRenewal:

- Goal: Managing the system to achieve optimum financial sustainability and meet market demand.

In order to ensure that the guiding principals are maintained, a process of continuous monitoring and evaluation is recommended.

RT staff recommends that three levels of reporting be instituted:

General Manager’s Report: A monthly review of system level performance measures is currently being provided and is recommended to continue with no change.

Quarterly Route Performance Analysis: On a quarterly schedule, a discussion of the trends at a route level, including productivity and financial performance measures, will be prepared and reviewed with the Board. This report will provide information to allow for immediate actions that can be made with the next quarterly operator sign-up to modify a route service (improve headways, decrease headways, make route changes, or eliminate route service altogether).

Annual Route System Analysis: A yearly comprehensive system-level financial and performance analysis of individual routes and route segments. This report will also analyze market trends affecting route performance including service and fare changes, seasonal differences, operational issues, employment trends, and gas prices. Title VI implications, as well as the route network implications relative to ADA service provisions, will also be considered with recommendations for route modifications as necessary to achieve or maintain the *Productivity and Financial Effectiveness* measures adopted by the Board.

The Annual Route System Analysis will flag routes not meeting performance measures for alignment modifications, scheduling adjustments, and/or additional marketing. New service(s) may also be proposed along with proposals for elimination of non-productive service.

Also as part of the Annual Route System Analysis, new performance measures may be proposed and existing measures modified or removed.

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Next Steps

RT staff anticipates completing the TransitRenewal planning process with the following steps and timeline:

- Discuss complete service plan with internal/external stakeholders: late November/early December
- Present TransitRenewal plan to RT Board of Directors: December 12th
- Public outreach for the draft TransitRenewal plan: early January 2012
- Board Approval of TransitRenewal plan: January 23rd

TransitRenewal

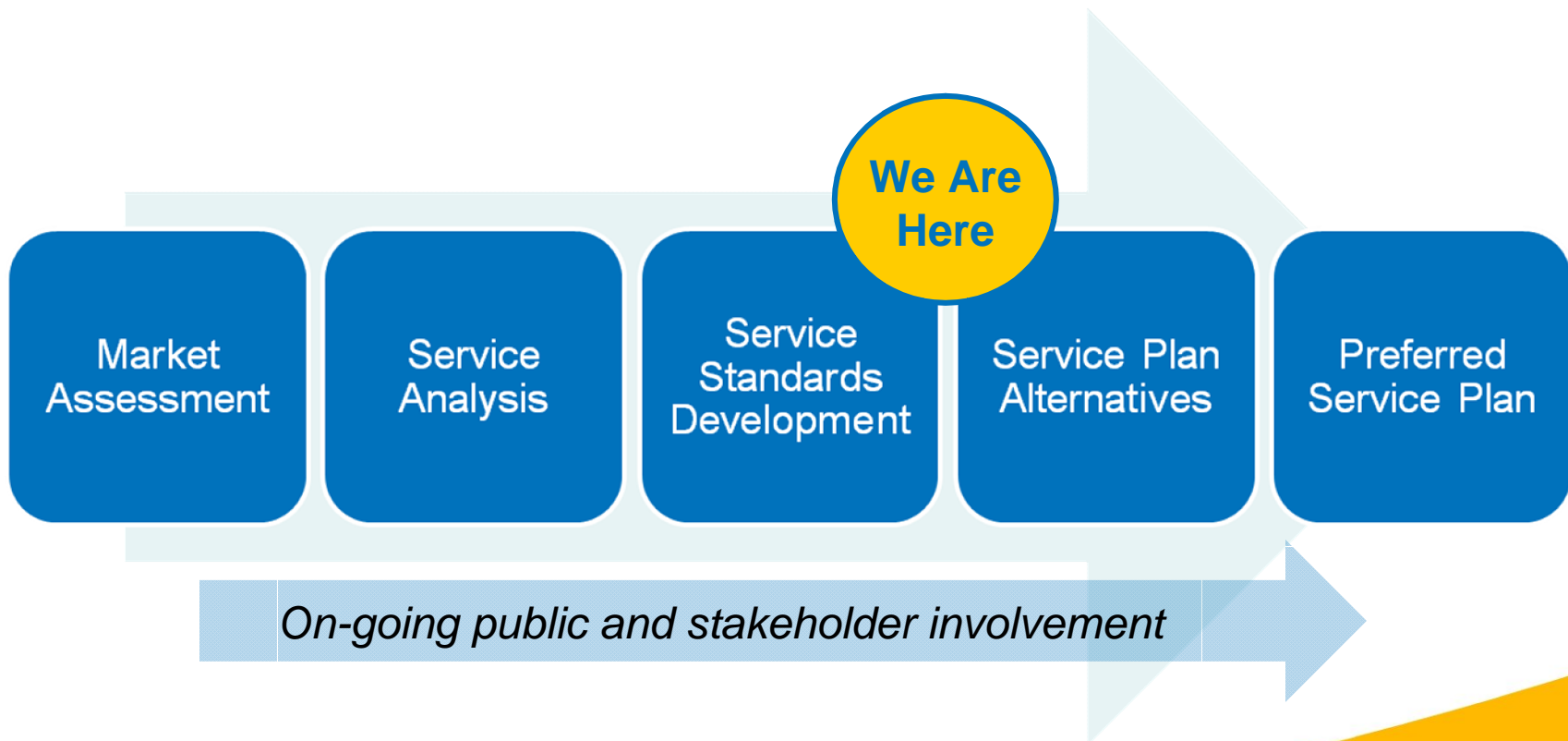
Guiding Principles and
Performance Measures

October 2011

Presentation Overview

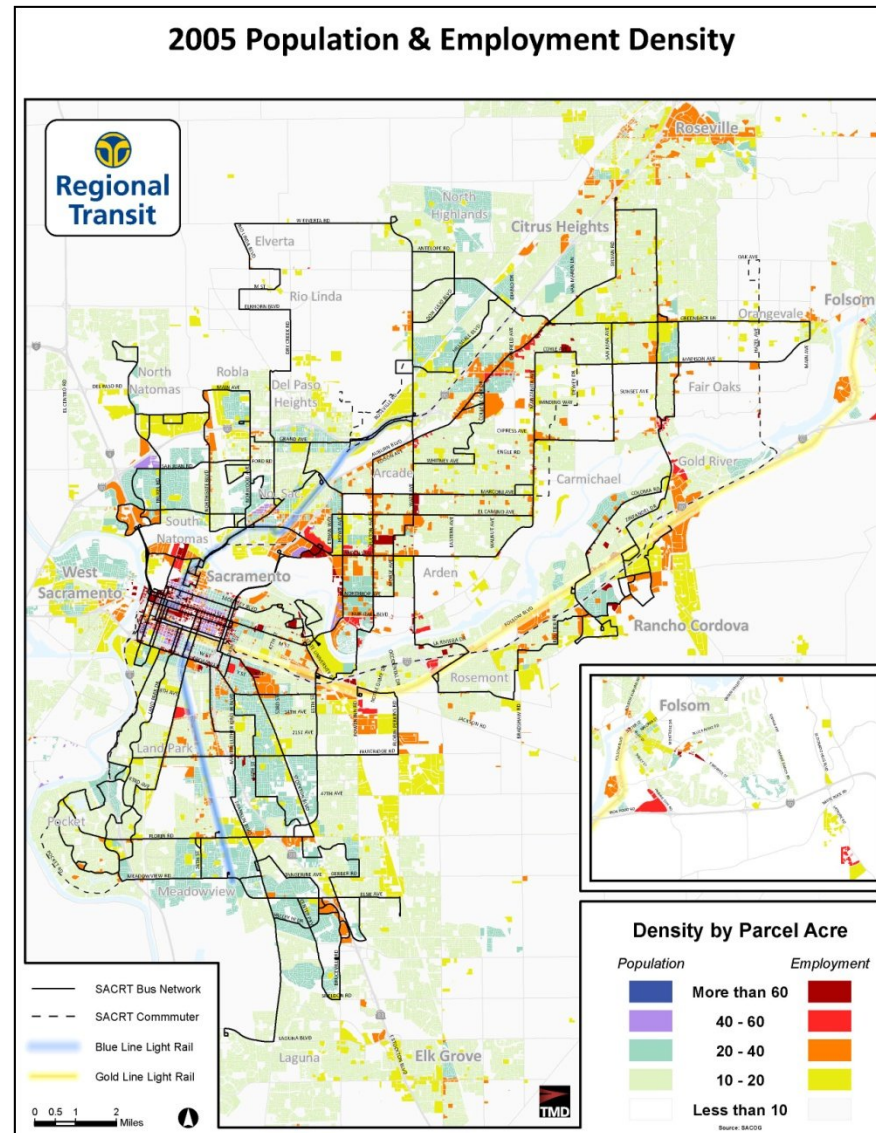
- TransitRenewal Progress
- Key Findings/Stakeholder Input
- Guiding Principles
- Performance Measures

TransitRenewal Progress



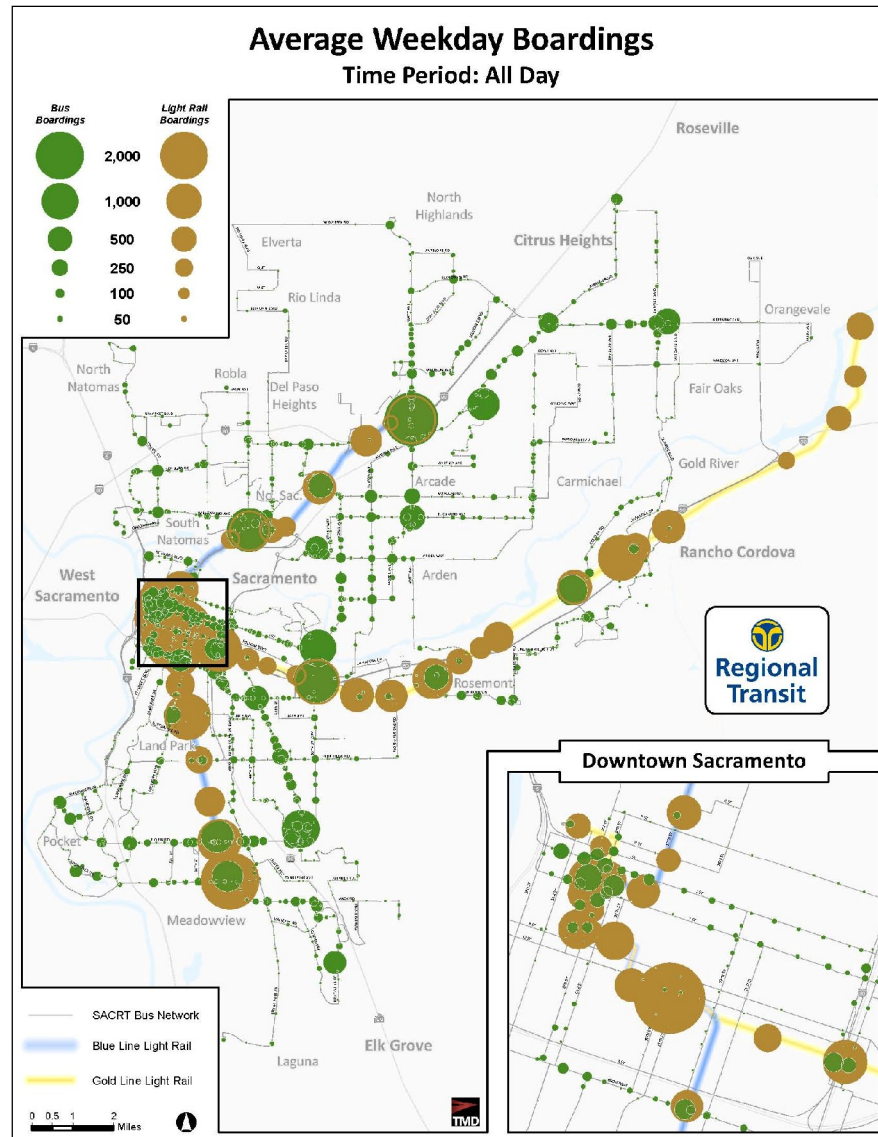
Key Findings: Market

- Auto-centric development patterns have made automobile travel the prime transit competitor
- Coverage responds well to current development patterns
- Regional growth is planned outside the urban core, creating a challenge to provide cost-effective transit service



Key Findings: Service

- Two-thirds of weekday ridership is on LRT and top 7 bus corridors – “core” of the RT system
- Recent service reductions led to 16% decrease in ridership and 3% increase in productivity
- Very few services operate at “spontaneous use” frequency levels



Stakeholder Input

- RT has few frequent services as a result of focusing resources on coverage
- Improve night and weekend service to facilitate “all-day, all-week” travel
- Develop system as a network rather than a series of routes

Guiding Principles

1. Invest in frequent, high-quality service in appropriate market areas
2. Develop a seamless RT network
3. Match service levels and market demand
4. Manage resources to improve productivity and maintain financial sustainability

Why Performance Measures?

- Establish baselines for service performance
- Create a basis for short and long-term decision making
- Improve productivity and financial effectiveness, leading to a more sustainable RT system

Improve Financial Effectiveness

Existing annual BUS farebox revenues = \$15.1 million
or 22% of costs

25% System Average
Generates Additional

\$1.0 million
Annually (+13%)

30% System Average
Generates Additional

\$5.3 million
Annually (+35%)

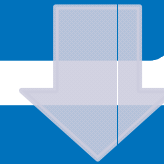
- Reinvesting bus resources where appropriate is the key to success

Current RT Performance Measures

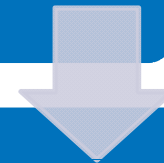
- **Service Monitoring Process:**
 - Monitor productivity and financial effectiveness metrics by service type
 - Review market characteristics (trip generators, demographics) by route
 - Services falling below 70% of service class average are candidates for restructuring

TransitRenewal will establish:

Thresholds for service productivity



Guidelines for improving service



Process/standards for introduction
of new services

Performance Metrics

- Productivity

- Passengers per Revenue Hour
- Passenger Miles per Revenue Hour
- Passengers per One-Way Trip

- Financial Effectiveness

- Cost per Passenger Boarding
- Subsidy per Passenger Boarding
- Farebox Recovery Ratio

All metrics tell a unique story and are important to monitor

Performance Metrics: Productivity

Passengers Boardings per Revenue Hour

- Measure of total passenger boardings per unit of investment
- Widely-used industry standard for service productivity (less applicable for express services)

Passengers Boardings per One-Way Trip

- Measure of capacity utilization for point-to-point services with less turnover

Performance Standards: Productivity

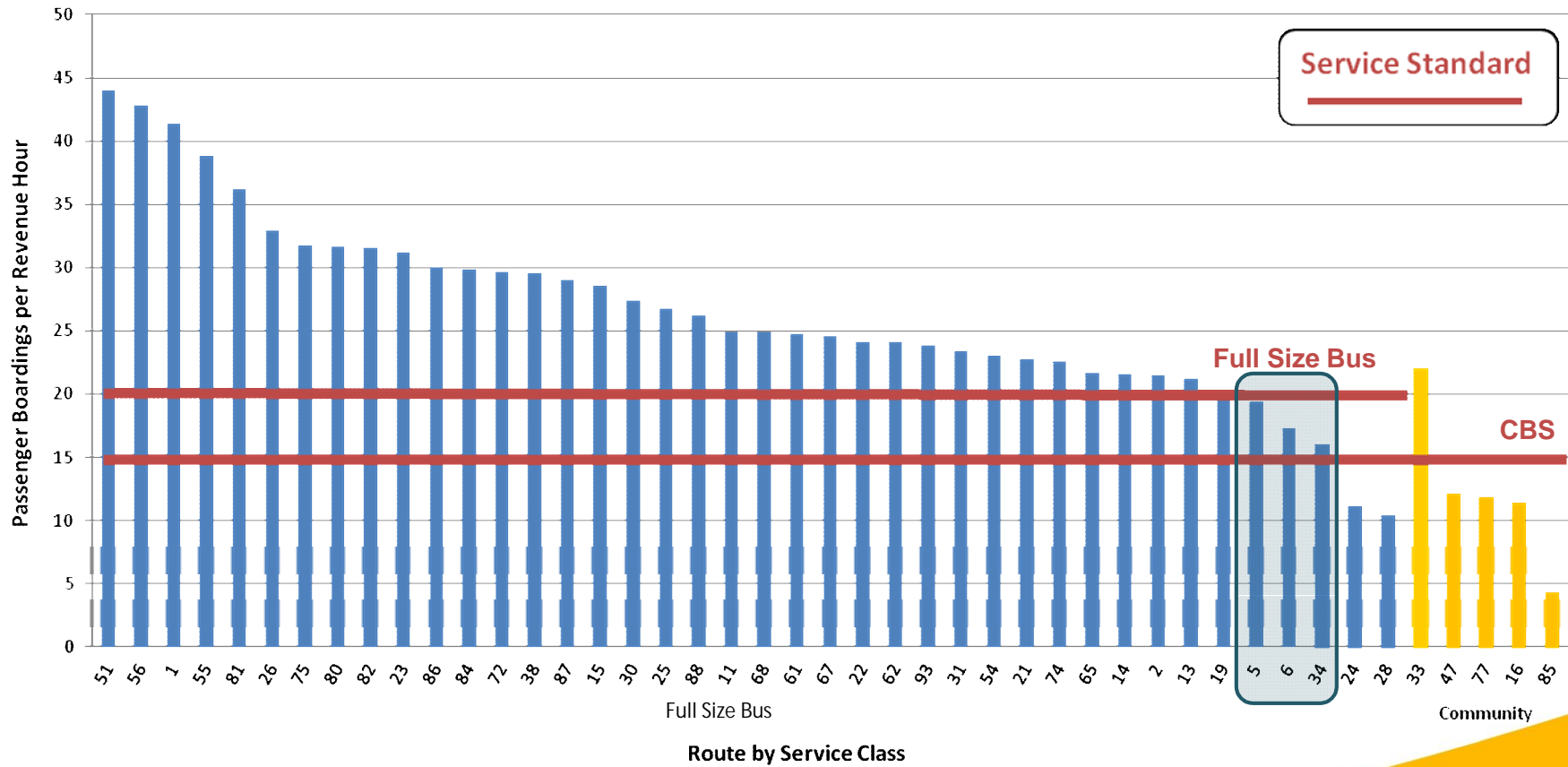
Passengers per Revenue Hour	Full Size Bus		Community Bus
	Weekday	Weekend	Weekday
	20	15	15

Passengers per Trip	Express Bus
	25

- Standards should be adjusted periodically to allow for continued improvement
- While standards are applied to the route, segment-level analysis encouraged

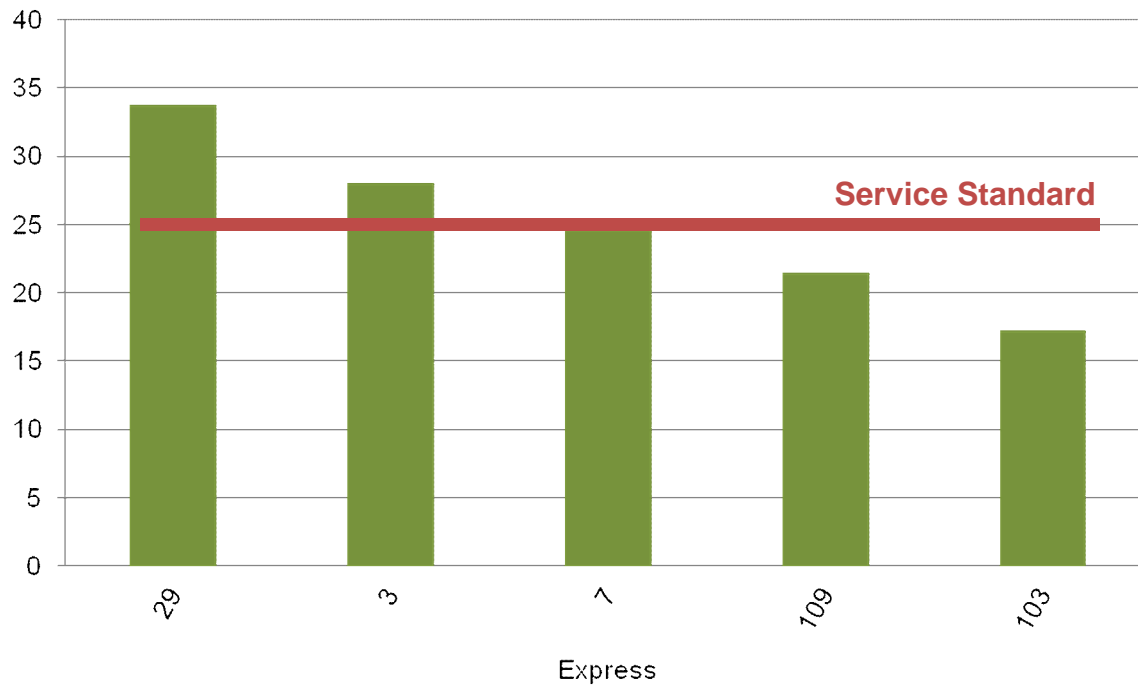
Full Size/Community Bus Productivity

Weekday Passenger Boardings per Revenue Hour



Express Bus Productivity

Weekday Passenger Boardings per Trip



Full Size Bus to Community Bus Service (CBS)

- **Current full size bus routes are candidates for CBS operations if:**
 - Productivity falls between 15 and 20 passengers per hour
 - Passenger loads are compatible with smaller vehicles
 - Service does not duplicate other travel options

Light Rail Performance Measures

- LRT is less flexible than bus in terms of service changes
- Current service evaluated based on ridership/productivity
- As network improves, use capacity utilization/productivity information to inform service and infrastructure improvements

Performance Metrics: Financial Effectiveness

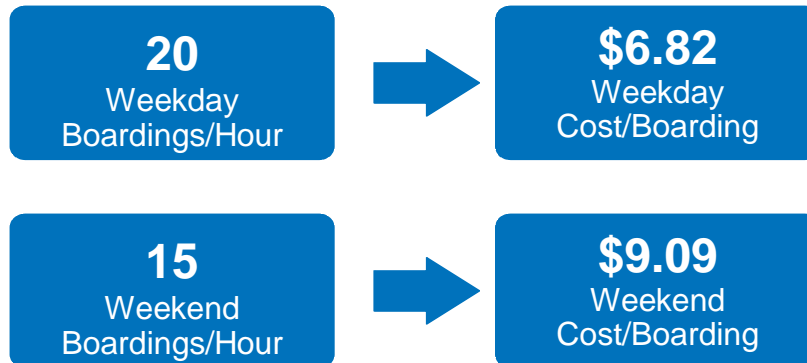
Cost per Passenger Boarding

- Measure of the cost to provide service to passengers, regardless of fare revenue
- Can account for external subsidy
- Based on fully allocated bus costs for full size and community bus service

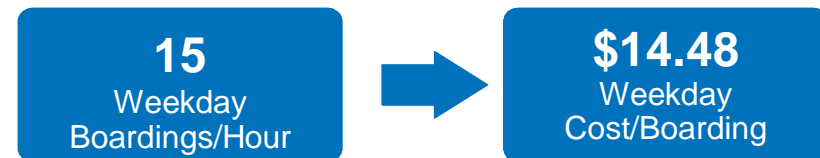
Performance Standards: Financial Effectiveness

Cost per Passenger Boarding

Full Size Bus



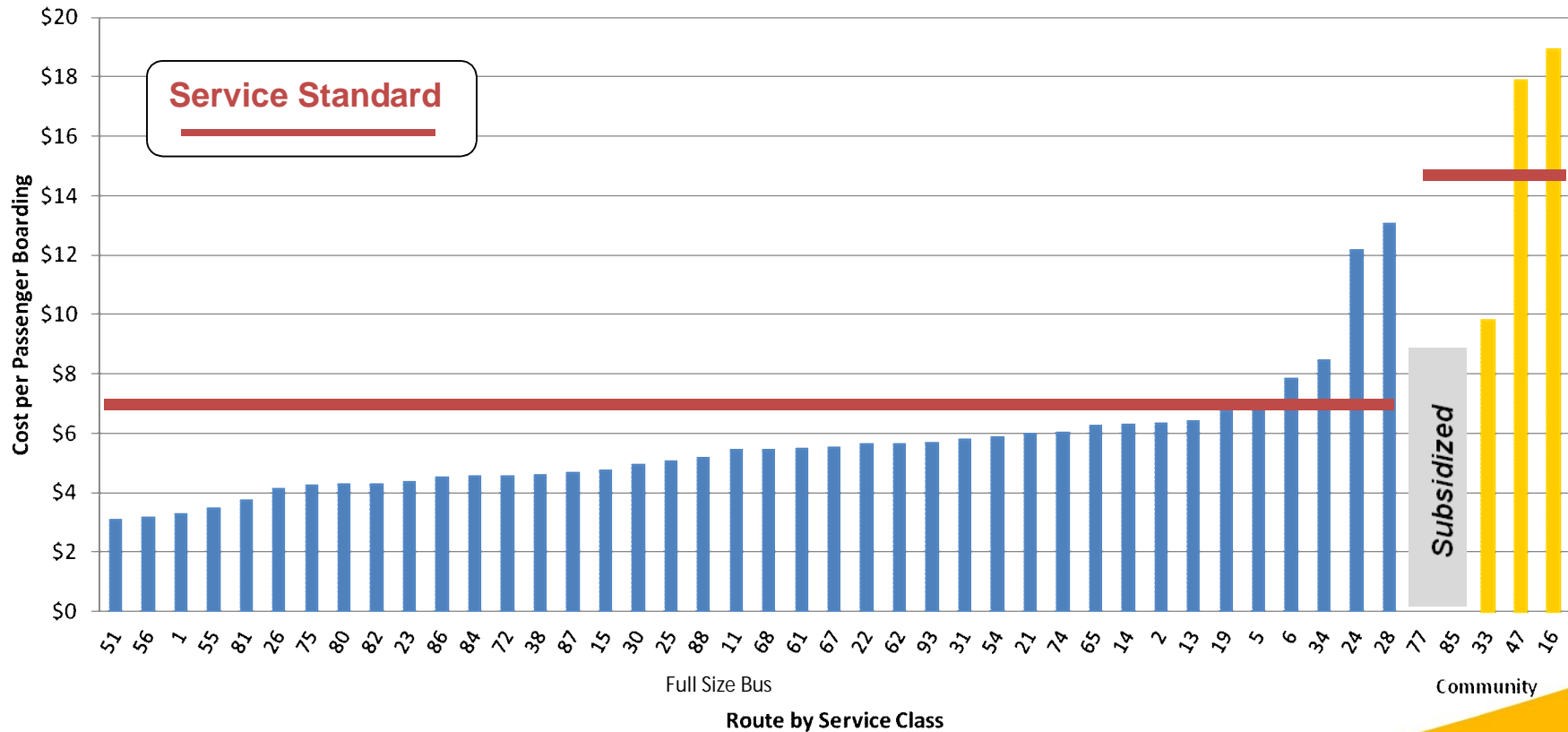
Community Bus



- External subsidy deducted from route's cost
- Different cost structure for express services requires separate monitoring

Financial Effectiveness

Weekday Cost per Passenger Boardings

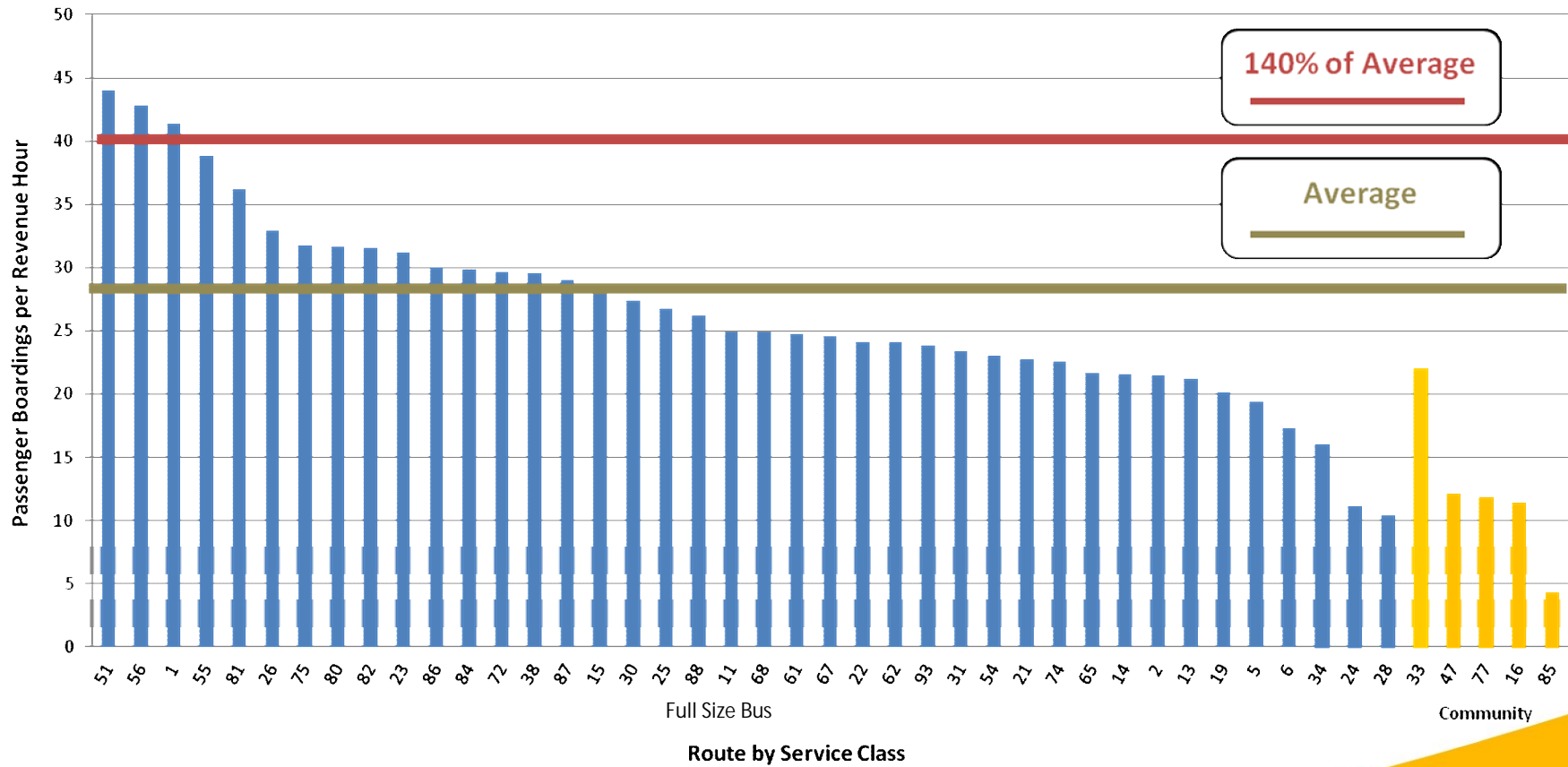


Service Improvement Guidelines

- Intended to encourage greater investment in service frequency and quality
- Routes/corridors reaching 140% of service class average for productivity recommended as first priority for investment
- Investment can include frequency, speed improvement, upgraded service products

Service Improvements

Weekday Passenger Boardings per Revenue Hour



Service Reinvestment: Example



- 1,500 additional weekday boardings
- \$1,660 additional weekday revenue*
(\$425,000 annually)

**Based on current average fare of \$1.11*

New Service Warrants

- **How should RT respond to requests for new service?**
 - Planning evaluates new market area and compares proposed service to similar existing service to estimate route cost and performance
 - Cost-sharing encouraged if service is not expected to meet standards

New Service Warrants

- **Sunset Clause:**

- New service subject to two year introductory period (or if grant-funded, length of grant)
- If service does not meet standards after introductory period, service is discontinued if no action is taken

Performance Measures Summary

- Performance Thresholds

Passengers per Revenue Hour	Full Size Bus		Community Bus	Express Bus
	Weekday	Weekend	Weekday	Weekday
	20	15	15	
Passengers per Trip				25
Cost per Passenger Boarding*	\$6.82	\$9.09	\$14.48	

**To be updated periodically to match productivity threshold*

Performance Measures Summary

- **Service Monitoring:**
 - Services reaching 140% of average for productivity recommended for improvement
 - New services subject to introduction procedure and sunset clause

Service Monitoring Program

Route productivity reviewed quarterly

Improvement options for low-performing services

Service restructuring recommendations delivered based on productivity standards

Next Steps

October
2011

- Finalized guiding principles and service standards
- Develop initial Service Plan recommendations

November/
December
2011

- Discuss preliminary Service Plan recommendations

January
2012

- Outreach for final Service Plan recommendations