



Metropolitan Council

Program Evaluation and Audit

Metro Transit

Bus/Rail (Modal) Allocations

December 15, 2009

INTRODUCTION

Background

Metro Transit receives revenue and incurs expenses for operating its bus and rail systems. Some of those revenues and expenses can be easily identified as belonging to either bus or rail, i.e., special event rail ticket revenues and salaries and benefits associated with those employees that work only for one or the other mode. However, many revenues and expenses cannot be identified as belonging entirely to either rail or bus operations. These amounts must be allocated between the two transit modes. Each year, Metro Transit Finance Department (Finance) personnel accumulate such revenues and expenses and allocate them to both bus and rail operations.

Several methods were considered before selecting the ones currently used. Now that the rail line has been in operation for four years, Metro Transit requested that Program Evaluation and Audit review the modal allocation methodology to ensure that the method is fair and reasonable and that the allocations have been done accurately. At their request, this audit was included in the 2009 Audit Plan.

Assurances

This audit was conducted in accordance with the Institute of Internal Auditors' *International Standards for the Professional Practice of Internal Auditing* and the U. S. Government Accountability Office's *Government Auditing Standards*.

Purpose

This review was conducted to provide assurance that revenue and expense allocations made by Finance personnel between bus and rail operations are accurate, fair and reasonable.

Scope

The review included calendar year 2008 revenue and expense allocations for both bus and rail operations.

Methodology

To gain an understanding of Metro Transit modal allocations, the following methods of inquiry were used:

- Allocation assumptions and bases were evaluated.
- Allocated expense and revenue data were verified.
- Finance personnel were interviewed.
- Transit agencies were surveyed and allocation methods identified.

OBSERVATIONS

Program Evaluation and Audit (Audit) reviewed Metro Transit revenues and expenses, and the bases for allocating such between bus and rail operations. Some revenues and expenses can be fully ascribed to either bus or rail operations; others must be allocated between the two. Those expenses that are allocated are identified in Exhibit I and further described in the following observations.

Revenue Allocations

After specific bus and rail revenues are identified (express bus, special event rail only passes, and zero fare airport shuttle rail rides), the remaining revenues are allocated based upon the percentage of rides taken on the individual modes (Ridership). When rail was beginning operations in 2005, Finance obtained information from five other transit agencies regarding the methods used at those agencies. Four allocated common revenue using Ridership and one agency was just in the process of identifying an allocation base.

Audit sampled five transit agencies of similar size throughout the United States that conducted both bus and rail operations to determine the basis used for allocating revenue between the two modes. Two of the five allocated revenue based upon Ridership, one conducted a comprehensive modeling study and the other two agencies did not allocate revenue. Considering that revenue is directly related to trips taken by transit customers and that Ridership is a common basis of allocation among transit agencies, ridership is a reasonable and appropriate basis for allocating revenues.

Expense Allocations

Metro Transit Police

For the Metro Transit Police Department (MTPD), expenses are allocated between bus and rail based upon the actual service calls received in 2008 after adjusting for bus ride surveillance and the following specifically identified services for the Hiawatha Light Rail Train (HLRT):

- On board fare inspection
- Special event crowd control and fare inspection
- Saturation patrols (for fare enforcement)
- Lake Street station after school detail

Audit verified MTPD wage, benefit and overhead expense calculations and identified a few minor calculation errors. As a result, Audit calculated a rail allocation rate of 32.50% compared to 31.91% used by Finance in allocating these expenses to 2008 operations, which would require a fairly small adjustment.

General Services

The following departments were identified as General Services for the purposes of allocating expenses to rail.

- Executive
- Service Analysis
- Police Administration
- Service Scheduling
- Police Training
- Data Collection
- Facility & Asset Security
- Transit Information
- Route & System Planning

General Services expenses are allocated to bus and rail based on revenue miles. Prior to choosing revenue miles as the allocation method, Finance reviewed the following six methods of allocating the above expenses between rail and bus operations.

<u>Allocation Base</u>	<u>Rail Allocation %</u>	<u>Bus Allocation %</u>
Total Expenses	7.3%	92.7%
Direct Expenses	7.2%	92.8%
<i>Revenue Miles</i>	4.2%	95.8%
Revenue hours	3.4%	96.6%
Platform Miles	3.5%	96.5%
Platform hours	3.2%	96.8%

Total and direct expense allocation bases are biased toward the higher cost of operating rail versus bus transit. The general services expenses that are being pooled to be allocated do not have a causal or beneficial relationship to operating expenses that would result in a fair allocation. Transit information, route and system planning, data collection, service scheduling, service analysis and the other general expenses are much more aligned with the delivery (i.e. miles traveled) of transit service than with the cost of that delivery. Therefore, neither total nor direct expenses were viewed as appropriate bases over which to allocate general services.

Revenue Service (miles and hours) includes that time when a vehicle is available to the general public and there is an expectation of carrying passengers. It includes layover/recovery time but excludes deadhead time. Deadhead time includes leaving or returning to the garage or yard facility, changing routes, or when there is no expectation of carrying revenue passengers. Revenue hour calculations are affected by the carrying capacity of each mode of service. It requires about three to four buses to carry the same number of passengers that a single HLRT vehicle can carry. A standard 40 foot bus can carry about 45 passengers and a 60 foot articulated bus can carry about 65 passengers; however, a HLRT vehicle can carry about 180 passengers. Due to this difference in

carrying capacity revenue hours were also determined to be an inadequate measure for allocating general expenses.

Platform Service (miles and hours) includes both actual scheduled revenue service and deadhead time. Metro Transit bus operations incur much more deadhead time than its rail service. For example, the buses servicing Maple Grove must travel from the Ruter garage to Maple Grove to begin revenue service, a distance of about 15 miles, and back again when revenue service has ended. Conversely, HLRT vehicles need only move from the Maintenance Facility to the Franklin Avenue station, a distance of about one block, to begin revenue service, and at the end of daily service the HLRT vehicle must run from the Target Field Station to the Maintenance Facility, a distance of about two miles. Due to these inherent differences between bus and rail transit, neither platform miles nor platform hours was seen as an appropriate basis for allocating general services expenses.

Finance also obtained information from five other transit agencies regarding the methods used at those agencies. Three allocated common expenses using direct expenses, one allowed individual allocations by department managers while allocating overhead by direct expenses and one agency was just in the process of identifying an allocation base. However, based upon the above information, Finance chose to use revenue miles as its allocation base believing that it more accurately identified a causal, beneficial relationship between pooled expenses and transit mode.

Audit verified that the revenue miles used in Finance's calculations were those reported to NTD, that the individual expense pools reconciled to Metro Transit's financial records and that the appropriate expense was allocated to bus and rail operations.

The Office of the Chief Operating Officer

Expenses are allocated half to bus and half to rail. This seems to be a reasonable basis for allocation since the COO reportedly divides his time and activities between the modes. In addition, Finance personnel stated that this allocation method had previously been agreed to between Metro Transit and the HLRT county contributors.

The Marketing, Graphics and Sales Department and the Customer Relations Department

Expenses were allocated between bus and rail operations based upon Ridership. Audit conducted an extensive review of rail ridership calculations in 2008 and found that the current process of calculating ridership provides a materially accurate result. Considering that the expenses incurred in these departments are customer specific, ridership data is a reasonable basis for allocation of marketing, sales and customer relations expenses.

Metropolitan Council (Council) overhead expenses (A-87 Expenses)

The Metropolitan Council incurs expenses for the benefit of all its departments. Those expenses that are allowable in accordance with the requirements of OMB Circular A-87,

Cost Principles for State and Local Governments are allocated based upon the A-87 *Indirect Cost Allocation Plan* developed for the Council by an independent consultant.

Audit was provided an overview of the process through which the consultant arrived at the Council overhead rate and conducted a general review of the consultant's detailed 133 page report. Based upon this review and the expertise and experience of the A-87 consultants, the overhead rate used by Finance in allocating Council expenses to bus and rail operations is fair and reasonable, and compliant with federal requirements where applicable.

CONCLUSION

Metro Transit allocates revenues and expenses that cannot be specifically identified as relating to either bus or rail operations in a fair and reasonable manner between the two modes of operation. Based on our review, the methodology is sound and their calculations are materially accurate.

**Metropolitan Council
Program Evaluation & Audit
Metro Transit Modal Allocations**

Exhibit I: 2008 Allocated Rail Expenses

	<u>Total Expenses</u>	<u>Allocation %</u>	<u>Allocation \$</u>
Based on Service Reports			
Patrol Services	\$8,126,571	31.91%	\$2,593,189
Based on NTD Reported Revenue Miles - 2007			
Bus	<u>23,066,454</u>		
Rail	1,018,388	4.23%	
<u>Allocated Departments</u>			
Executive	\$3,480,659	4.23%	147,232
Police Admin	1,087,533	4.23%	46,003
Police Training	64,766	4.23%	2,740
Facility & Asset Security	458,273	4.23%	19,385
Route & System Planning	1,188,980	4.23%	50,294
Service Analysis	682,328	4.23%	28,862
Service Scheduling	622,165	4.23%	26,318
Data Collection	313,475	4.23%	13,260
Transit Info	3,560,043	4.23%	150,590
Based on Agreement with Counties			
Office of COO	481,839	50.00%	240,920
Based on Ridership - 2008			
Bus	<u>71,614,057</u>		
Rail	10,221,682	12.49%	
<u>Allocated Departments</u>			
Marketing, Graphics and Sales	\$5,257,948	12.49%	656,718
Customer Relations	797,078	12.49%	99,555
			<u>\$4,075,064</u>